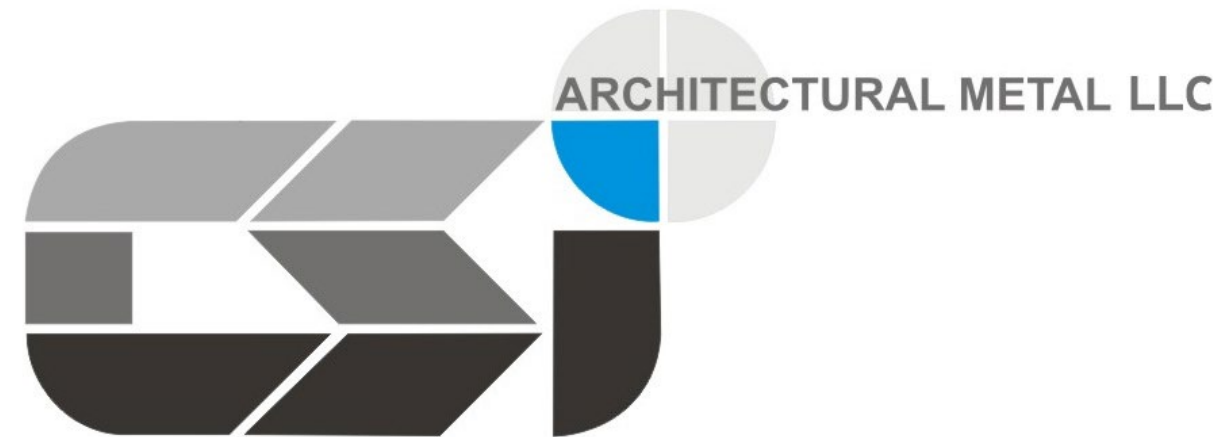




Apple Store

Product Reveal Roof Panel
Material: 1mm UGINOX MAT 316L 12mt



ARCHITECTURAL METAL LLC

Contemporary Solutions & Innovations

Manufacturer & Supplier of Engineered Architectural Metal Panel Systems made of Aluminum, Brass, Copper, Stainless Steel, Muntz, Titanium, and Zinc. Founded 2007 in Los Angeles, California. Performing in Hawaii since 2012. Est. 2025 in Odessa, Tampa Bay, Florida.

PRODUCT DATA SHEET

CSI - WAP - RRP
Welded Aluminum Plate
Reveal Roof Panel



CSI ARCHITECTURAL METAL, LLC
11548 PYRAMID DR #101,
ODESSA, FL 33556
www.csimetalinc.com



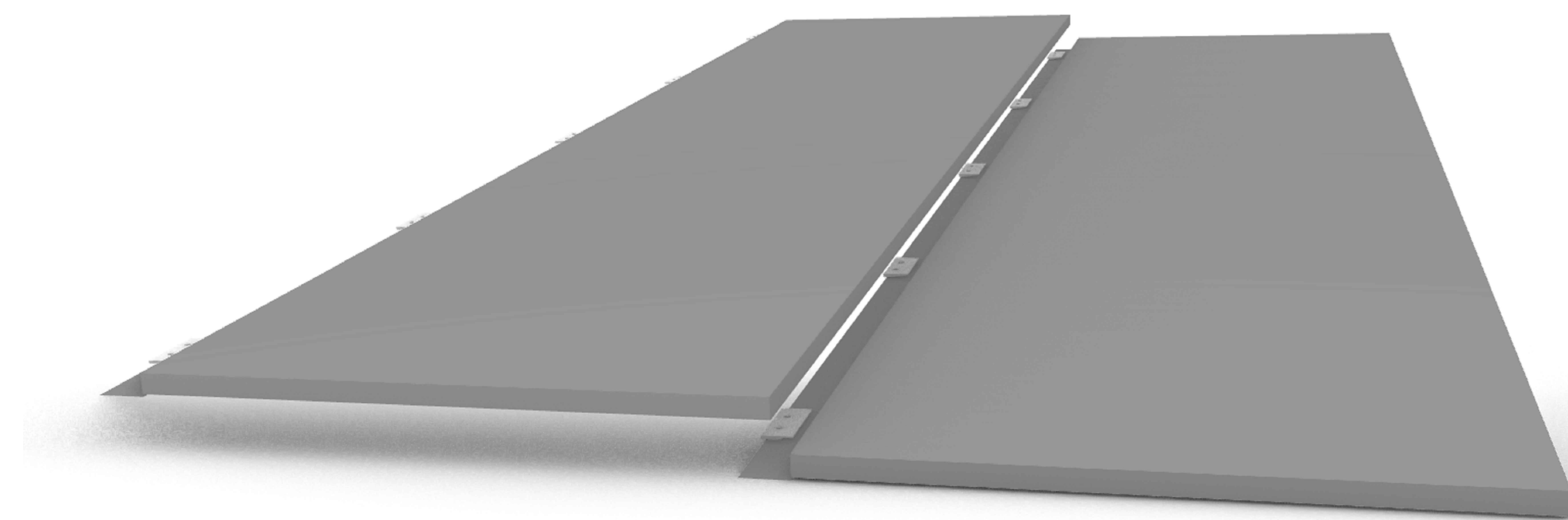
NOA No.: 24-1009.01

Panel Specification:

Heavy Gauge Premium PVDF Finishes

Post-fabrication baked enamel finishes applied to CSI-WAP components. Each part is welded, ground, and blended until seams are invisible, then finished in a multi-stage enamel process that bonds directly to the metal surface.

- Engineered Panel System
- Baked Enamel PVDF System — color fuses to the substrate during curing, creating a luminous, durable surface that responds to light and shade.
- Select any tone from the RAL Color Chart, or provide a physical sample for custom color matching.
- Samples available in matte, satin, or polished finish levels.
- Custom metallic and special effect finishes available upon request
- Panel Thickness: 0.08" (2mm, 5/64"), 0.12" (3mm, 1/8")
- Panel Width: 8" to 54"
- Panel Length: Up to 218" (18'max)
- Panel Reveal: 3/8" min.
- Panels are available in custom sizes and shapes
- Panels are available in convex and concave shapes
- Concealed Fastened Panel System



Section 07 41 13 – Metal Roof Panels

Why this is correct

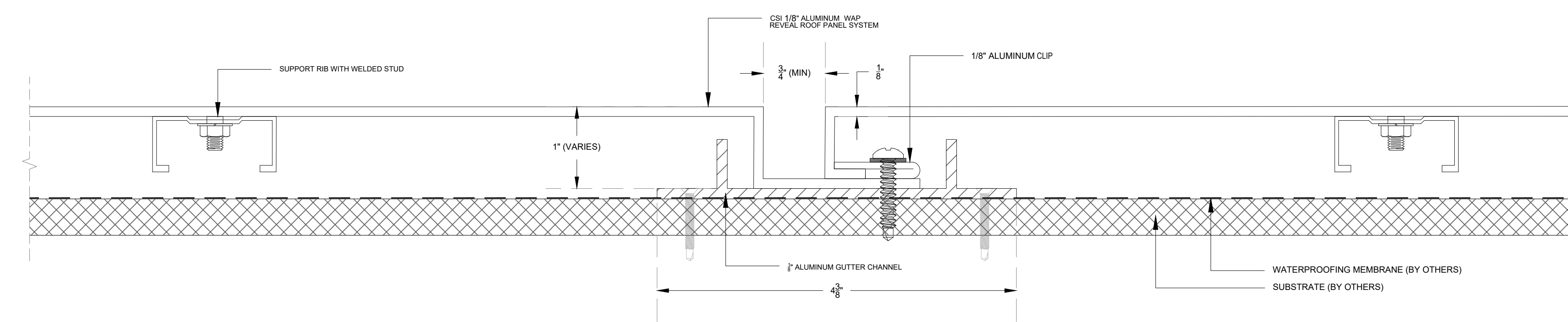
- Flat-lock panels are a primary exterior roof covering
- They are part of the weatherproof building envelope
- They are not flashing (07 62 00) and not decorative metal (05 70 00)

Common variations you may see in specs

- 07 41 13 – Metal Roof Panels (flat-seam / flat-lock) → most common and preferred
- 07 41 16 – Metal Shingle Roof Panels → sometimes used when panels are small-format
- 07 42 13 – Metal Wall Panels → only if the same flat-lock system is used vertically on walls

Best practice (spec clarity)

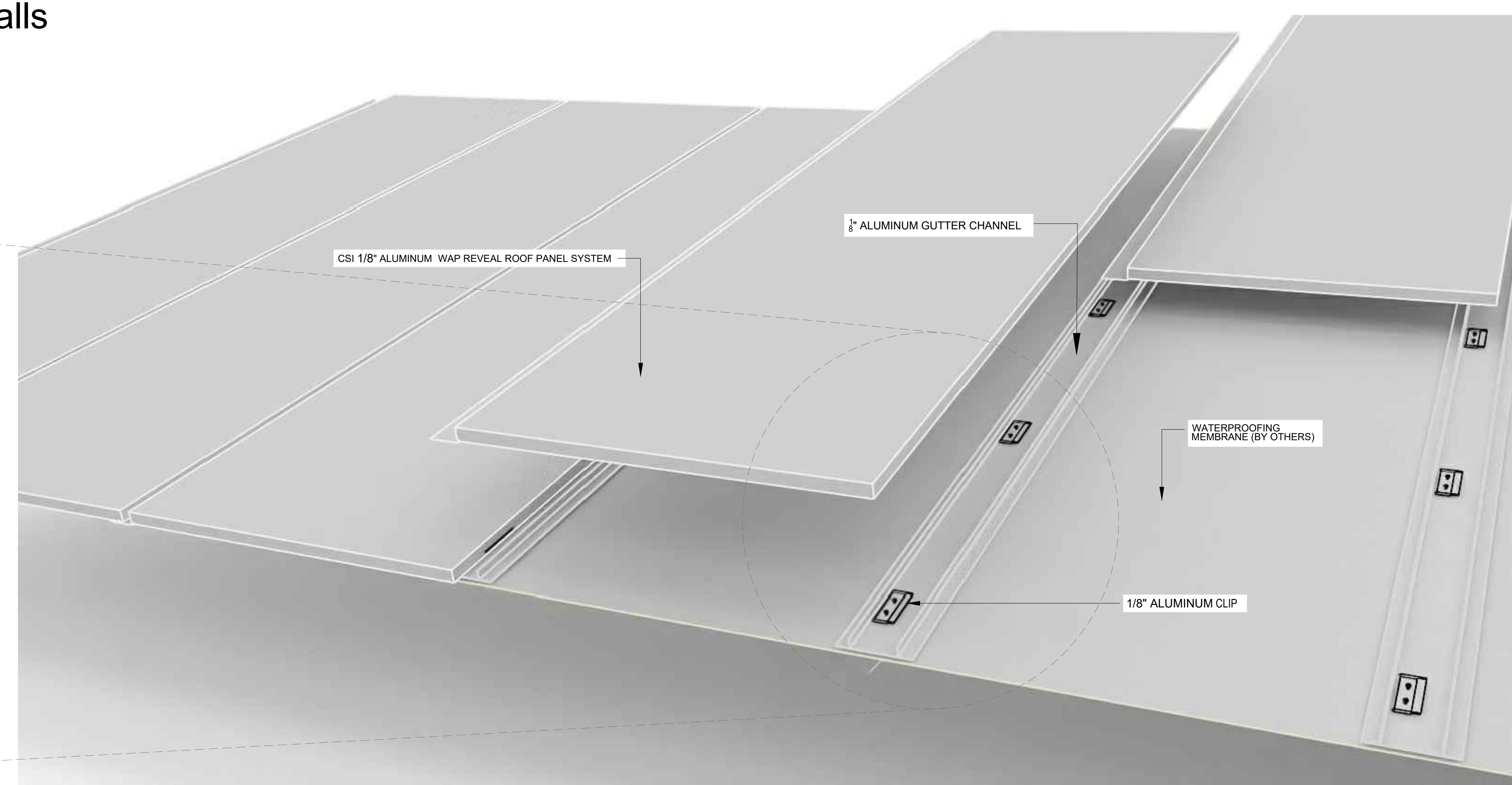
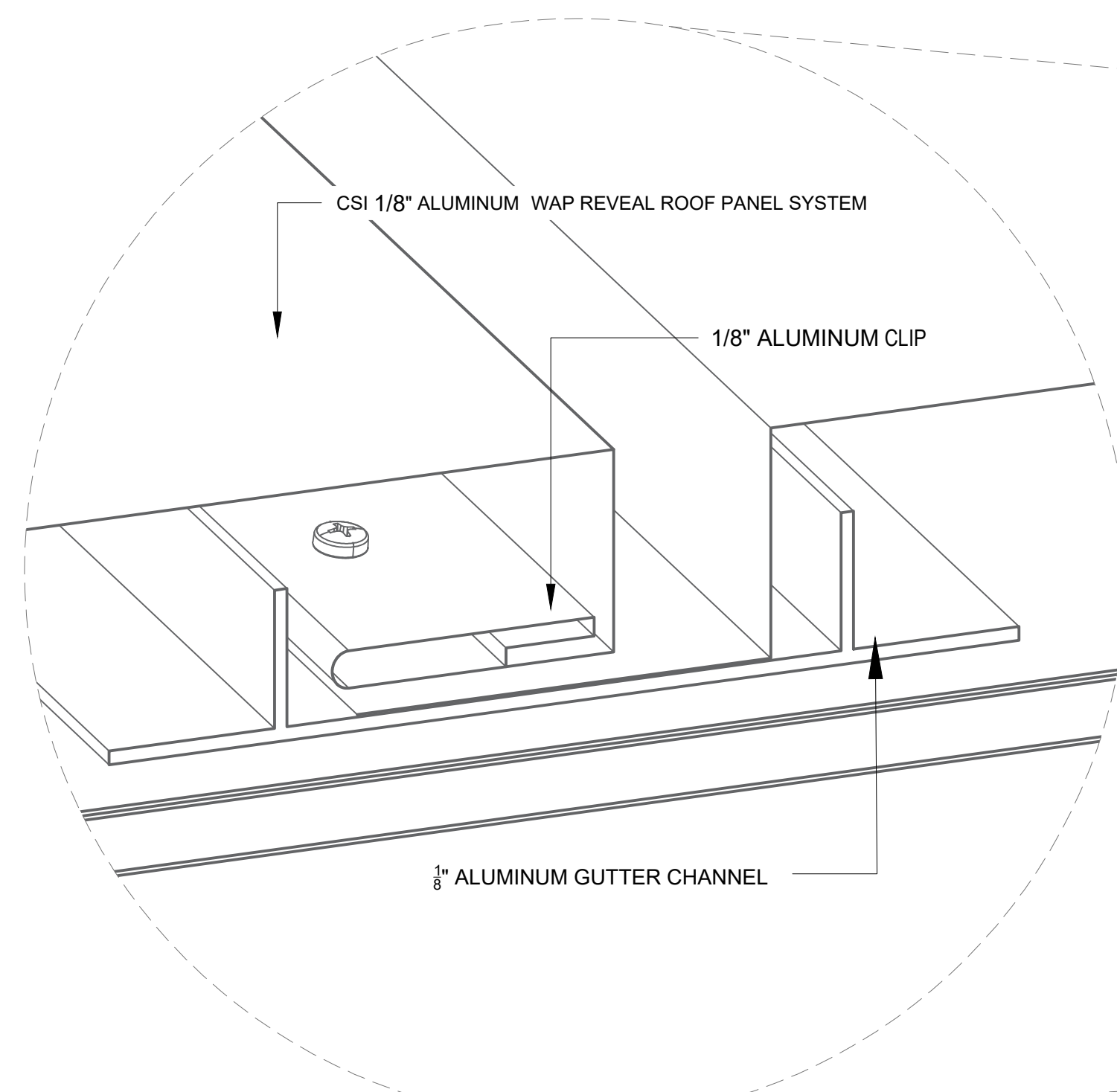
- For architectural flat-lock zinc, copper, aluminum, or stainless roofing:



GUTTER CHANNEL & ATTACHMENT SYSTEM



Backside Panel



PRODUCT DATA SHEET



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CSI WAP—Reveal Roof Panel

Welded Aluminum Plate Roof System — Tested. Proven. Unmatched.

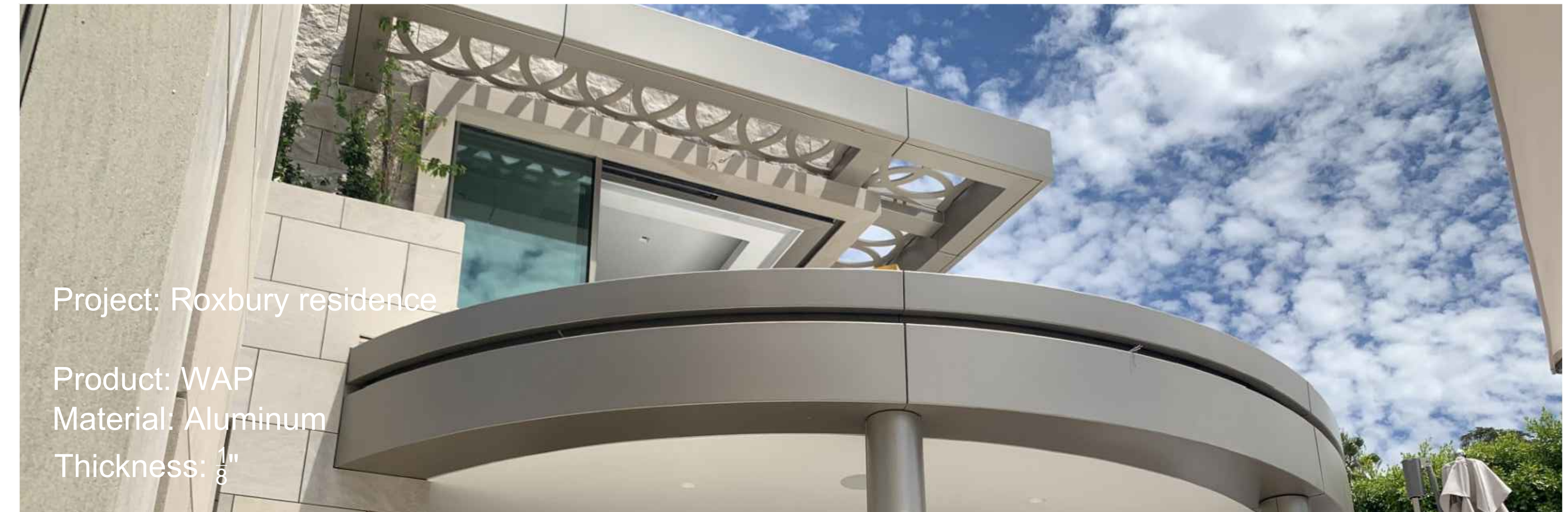
Engineered, fabricated, and tested to perform beyond industry standards, the CSI WAP—Reveal Roof Panel redefines the strength and aesthetics of architectural roofing. Manufactured from 1/8" (0.125") 1100 Series Aluminum Plate, and for marine environments 5052 aluminum, this precision-welded panel system delivers the clean, monolithic look of plate metal with the resilience of structural steel.

Performance:

Tested by Intertek B&C; per TAS 125 (Standard Requirements for Metal Roofing Systems), the CSI WAP—Reveal Roof Panel achieved ultimate uplift pressures up to -262 psf — far exceeding Class 90 performance requirements.

Each specimen passed all Class 30, 60, and 90 test phases without system damage, with failures only occurring when the substrate itself detached — proving the panel's structural superiority.

Specimen	Ultimate Load (psf)
#1	-187
#2	-217
#3	-262



Construction:

- Material: 1/8" (0.125") Aluminum 1100 Series (Custom alloys available)
- Panel Widths: up to 48" coverage (standard) × 120" lengths (oversized on request)
- Support System: Welded integral stiffeners with clip attachment at 6" O.C.
- Fasteners: Stainless steel #12 HWH head screws in staggered rows at perimeter
- Finish: High-performance baked enamel PVDF finish (from matte to high-metallic) or anodized aluminum; custom RAL and metallic finishes available.

Certification & Compliance

Miami-Dade County NOA No. 24-1009.01

Approval Date: 02/06/2025 Expiration Date: 02/06/2030

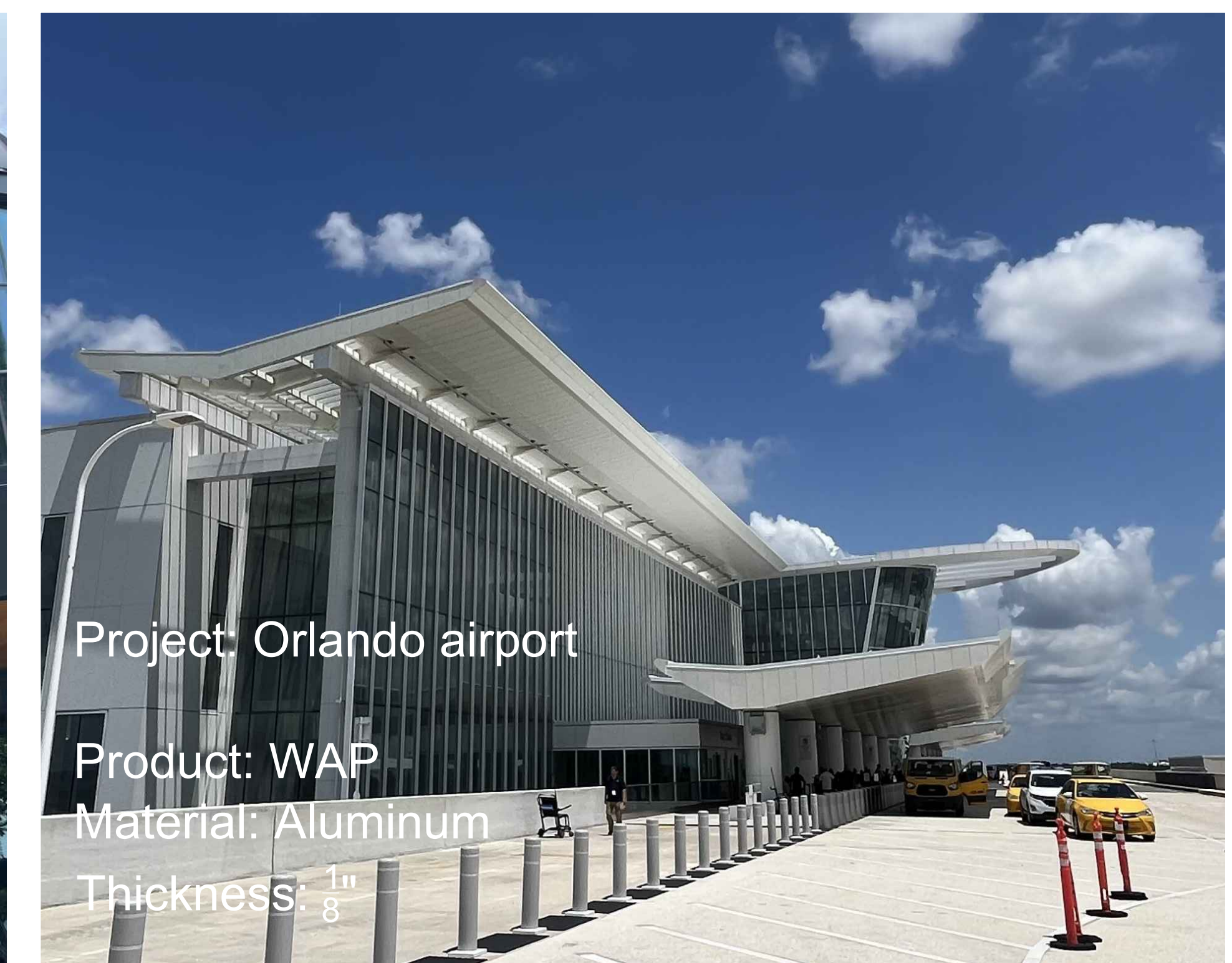
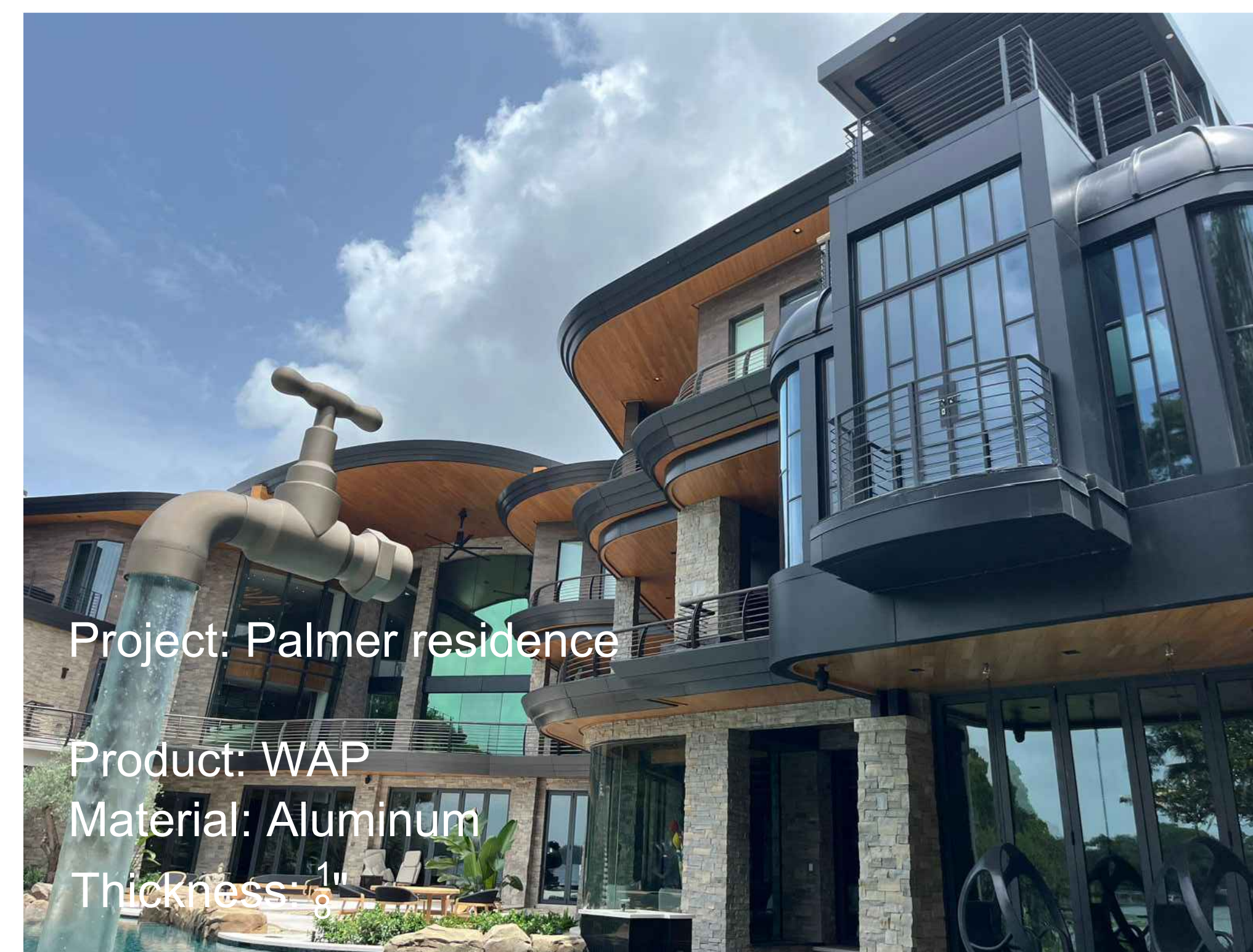
The CSI WAP – Welded Aluminum Panel System is approved for use in the High-Velocity Hurricane Zone (HVHZ) under the Florida Building Code.

Tested and accepted by the Miami-Dade County Department of Regulatory and Economic Resources, Product Control Section, this system complies with TAS 125 and is approved for maximum design pressures up to -111 psf on wood deck substrates.

Manufacturing Location: Odessa, Florida

Test Agency: Intertek B&C; (West Palm Beach, FL)

Test Report: Q6264.01-450-18 R1 (TAS 125)



Underlayment: FT Synthetics Platinum HTB (self-adhered, butyl-rubber membrane)

Each panel and clip bears a permanent label with the CSI Architectural Metal logo and the statement:

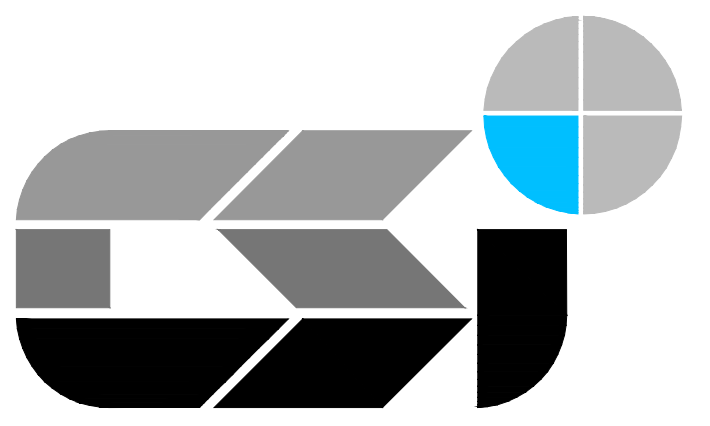
“Miami-Dade County Product Control Approved.”

Installation and waterproofing guidelines can be found at www.csiarchitecturalmetal.com

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Tested by Intertek B&C; West Palm Beach FL | Miami-Dade NOA No. 24-1009.01 | Intertek Report Q6264.01-450-18 R1

CSI ARCHITECTURAL METAL LLC - WATERPROOFING AND TEST COMPLIANCE SUMMARY



CSI ARCHITECTURAL METAL, LLC
11548 PYRAMID DR #101,
ODESSA, FL 33556
www.csimetalinc.com



Responsibility & Warranty

CSI Architectural Metal LLC is not responsible for waterproofing unless a formal CSI 20-Year Weather-Tightness Warranty is issued. This warranty is provided only when CSI's tested waterproof assemblies are used in accordance with the specifications validated by Intertek Building & Construction.

Tested and Approved Waterproof Assemblies

CSI recommends the Platinum HT-B Weather Barrier as the standard high-performance membrane for roof, wall, soffit, fascia, and custom assemblies. When field adhesion is reduced due to temperature or moisture, the Perm-A-Barrier water-based primer must be applied prior to installation.

Low-Slope Applications (< 2:12 Pitch)

For roof slopes below 2:12, CSI requires two layers of fully adhered high-temperature peel-and-stick underlayment installed over Perm-A-Barrier primer. Flashings must be sandwiched into the membrane at all perimeters and penetrations. This underlayment assembly serves as the primary waterproofing system, while the metal panels function as an architectural rainscreen and UV barrier.

Underlayment Assembly Details

System Type: High-Temperature Ice & Water Shield Assembly Membrane: Two layers of self-adhered underlayment applied over Perm-A-Barrier primer Integration: Flashings embedded between underlayment layers create a continuous waterproof envelope Limitation: Metal roof coverings must still comply with slope requirements. Underlayment redundancy cannot substitute for slope-compliant panel design. Reference: CSI has a 20-year track record of successful custom installations using GRACE ULTRA membranes and Perm-A-Barrier primer, warranted by Grace Construction Products in conjunction with CSI.

Protection Against UV Degeneration

To prevent UV degradation of waterproofing membranes in assemblies with perforated or open-joint systems--such as CSI Applied Heavy Plate (CSI-AHP) Soffit Panel Systems and CSI-AHP Wall Systems-- CSI requires the installation of a Dörken DELTA®-FASSADE S UV Barrier Layer directly over the waterproofing membrane. This protective layer shields the primary barrier from prolonged UV exposure while maintaining drainage and ventilation continuity behind the panels.

Recognized Use in Rainscreen Conditions

CSI Architectural Metal LLC recognizes use of its roof panels at low slopes (1:12 and below) where they act as rainscreen and UV barrier only, provided the above double-layer underlayment assembly is followed exactly. In these installations, CSI panels are approved for architectural use with full aesthetic and structural integrity, while waterproofing remains the responsibility of the underlayment system.

Validated Performance

According to Intertek Test Report No. Q6264.02-450-18 R0, dated 08/14/2024, CSI's 1/8" Aluminum 1100 Roof Panel assembly (with Platinum HT-B Weather Barrier) successfully passed the TAS 100-23 Wind Driven Rain Resistance Test, meeting the requirements of Florida Building Code 8th Edition (2023), Section 1523.6.5.

Test Highlights

Test Agency: Intertek Building & Construction - West Palm Beach, FL Test Method: TAS 100-23 (Wind and Wind-Driven Rain Resistance) Panel Type: 1/8" Aluminum 1100 Roof Panel, 2:12 slope Underlayment Used: Platinum HT-B Weather Barrier (single layer, 3" overlap) Observed Results: - 35 mph - No leakage -70 mph - No leakage - 90 mph - No leakage - 110 mph - No leakage Conclusion: The assembly met or exceeded FBC TAS 100 performance criteria.

Warranty Integration

CSI Architectural Metal LLC will issue a Weather-Tightness Warranty only in conjunction with the waterproofing manufacturer's warranty when the above assemblies, membranes, primers, and UV protection layers are installed according to tested and approved procedures.

Report Reference: Intertek Q6264.02-450-18 R0 | Date: 09/15/2014 | © CSI Architectural Metal LLC

INSTALLATION REQUIREMENTS



CSI ARCHITECTURAL METAL, LLC
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ODESSA, FL 33556
www.csimetalinc.com



CSI Light Gauge Panel Systems

CSI Light Gauge Panel Systems must be installed by qualified sheet metal workers with proven experience in architectural sheet metal work to ensure a successful installation. These panel systems are highly integrated and detail-sensitive, requiring traditional craftsmanship and the “old-school” tricks of the trade that come only with experience. Installers must be capable of reading and interpreting architectural drawings, verifying field dimensions, inspecting the substrate for compliance, and maintaining clear communication with the project team throughout all stages of installation.

Tools, Training, and Safety

CSI recommends that all installers undergo product-specific training to become familiar with system components, fabrication details, and approved attachment methods. Proper use of precision layout tools, hand brakes, seamers, and cutting equipment is essential for maintaining accuracy and panel integrity. All work must comply with OSHA safety standards and CSI’s installation guidelines, including the use of appropriate personal protective equipment (PPE) such as gloves, safety glasses, and fall-protection gear when working at heights. Installers should also follow best practices for material handling to prevent surface damage and preserve factory finishes.

Field Coordination and Quality Assurance

Prior to installation, a project-specific mock-up is recommended to confirm design intent, attachment methods, joint alignment, and overall aesthetics. This allows for early identification of adjustments needed to achieve optimal performance and visual consistency. Throughout installation, the contractor should ensure close coordination with other trades—especially waterproofing, framing, and glazing—to maintain system integrity at transitions, penetrations, and terminations.

Upon completion, all work should undergo a final inspection verifying proper panel alignment, fastening, seam engagement, and compliance with approved shop drawings. Any deviations must be corrected prior to project turnover.

Maintenance and Service Life

CSI Light Gauge Panel Systems are designed for long-term durability and minimal maintenance when properly installed. Routine inspections are recommended at least twice per year and after any severe weather events to check for loose fasteners, sealant degradation, or panel movement.

Cleaning should be performed with mild, non-abrasive detergents and soft brushes to preserve the integrity of factory-applied finishes. Harsh chemicals, high-pressure washing, or metallic scrubbing pads should be avoided, as these can damage protective coatings.

With proper maintenance and environmental consideration, CSI Light Gauge Panel Systems can achieve a service life of 50+ years, maintaining both structural performance and aesthetic appeal throughout their lifespan.

CSI Heavy Gauge Panel Systems

CSI Heavy Gauge Panel Systems can be installed by experienced construction professionals who can read and interpret architectural plans and installation instructions. Although these systems are delivered prefabricated and installation-ready, proper handling and alignment are essential to ensure a successful and watertight installation.

A project-specific mock-up is strongly recommended to familiarize qualified installers with the panel system, detailing, and sequencing prior to full installation. This process helps identify field conditions, coordination needs, and best practices before work begins.

All waterproofing and sheet metal flashing beneath the panel system must be performed by qualified roofers or sheet metal workers with experience in architectural metal applications to guarantee system performance and weather resistance.

Tools, Safety, and Quality Assurance

Installation of CSI Heavy Gauge Panel Systems requires the use of standard construction and precision alignment tools, including laser levels, torque-controlled fasteners, and lifting equipment designed for handling plate materials. Careful planning of lifting points and bracing is necessary to prevent deformation of panels during installation.

Installers must follow all OSHA safety requirements and CSI's installation protocols, including the use of personal protective equipment (PPE) such as gloves, helmets, safety glasses, and fall protection when working at heights or handling large-format panels.

To ensure consistency, all work should be subject to continuous quality control, verifying attachment methods, joint spacing, and alignment against approved shop drawings. Any field modifications must be reviewed and approved by CSI or the project's design authority.

Maintenance and Service Life

CSI Heavy Gauge Panel Systems are engineered for long-term structural performance and minimal maintenance. Periodic inspections--recommended twice annually and after major weather events--should include checking attachment integrity, sealant joints, and adjacent flashings for wear or displacement.

Cleaning should be performed using mild, non-abrasive cleaners and soft cloths to preserve finish integrity. Avoid high-pressure washing or chemical solvents that could compromise protective coatings or anodized surfaces.

When properly maintained and installed per CSI guidelines, Heavy Gauge Panel Systems provide an expected service life exceeding 75 years, maintaining both aesthetic precision and structural resilience even under demanding environmental conditions.



Project: Roxbury residence

Product: WAP
Material: Aluminum



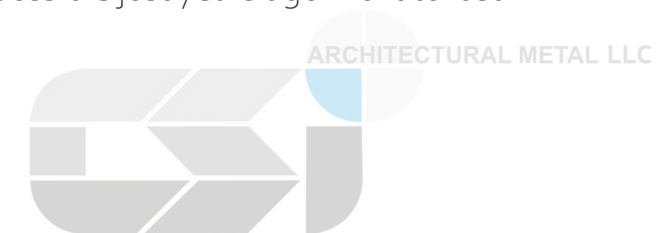
CSI-WAP™

Welded Aluminum Plate

Fully welded aluminum plate systems for custom, façade, and low-slope metal roofing applications.

Simple at its core. Elevated through advanced welding and efficient fabrication technologies.

Now capable of what wasn't possible just years ago. Built to last.



Contemporary Solutions & Innovations

Project: Residence in San Diego, CA

Product: 1" Batten Snap Panels
Material: Titanium Zinc

Metal Finish Types

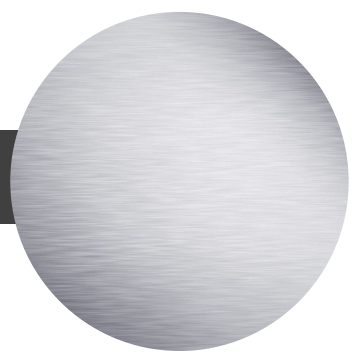
• Aluminum

• Stainless Steel 316

• Stainless Steel finishes

• WAP-PVDF finishes

Aluminum – Architectural Attributes



1. Lightweight and Strong

Aluminum offers an exceptional strength-to-weight ratio, making it ideal for large façade panels, soffits, and roof cladding systems. It reduces structural load while maintaining rigidity and durability.

2. Corrosion Resistance

Naturally resistant to corrosion through its protective oxide layer, aluminum performs well in a wide range of climates. For coastal or industrial environments, additional finishes (such as PVDF, anodizing, or baked enamel coatings) provide enhanced protection and longevity.

3. Design Flexibility

Its formability and machinability allow for custom shapes, perforations, and intricate detailing—supporting creative freedom in architectural expression. Aluminum can be welded, folded, or extruded into nearly any profile.

4. Aesthetic Versatility

Available in matte to high-metallic finishes, aluminum can be coated to emulate natural metals like zinc, copper, or stainless steel. It supports an extensive RAL and custom color range, maintaining a sleek, modern appearance.

5. Sustainability

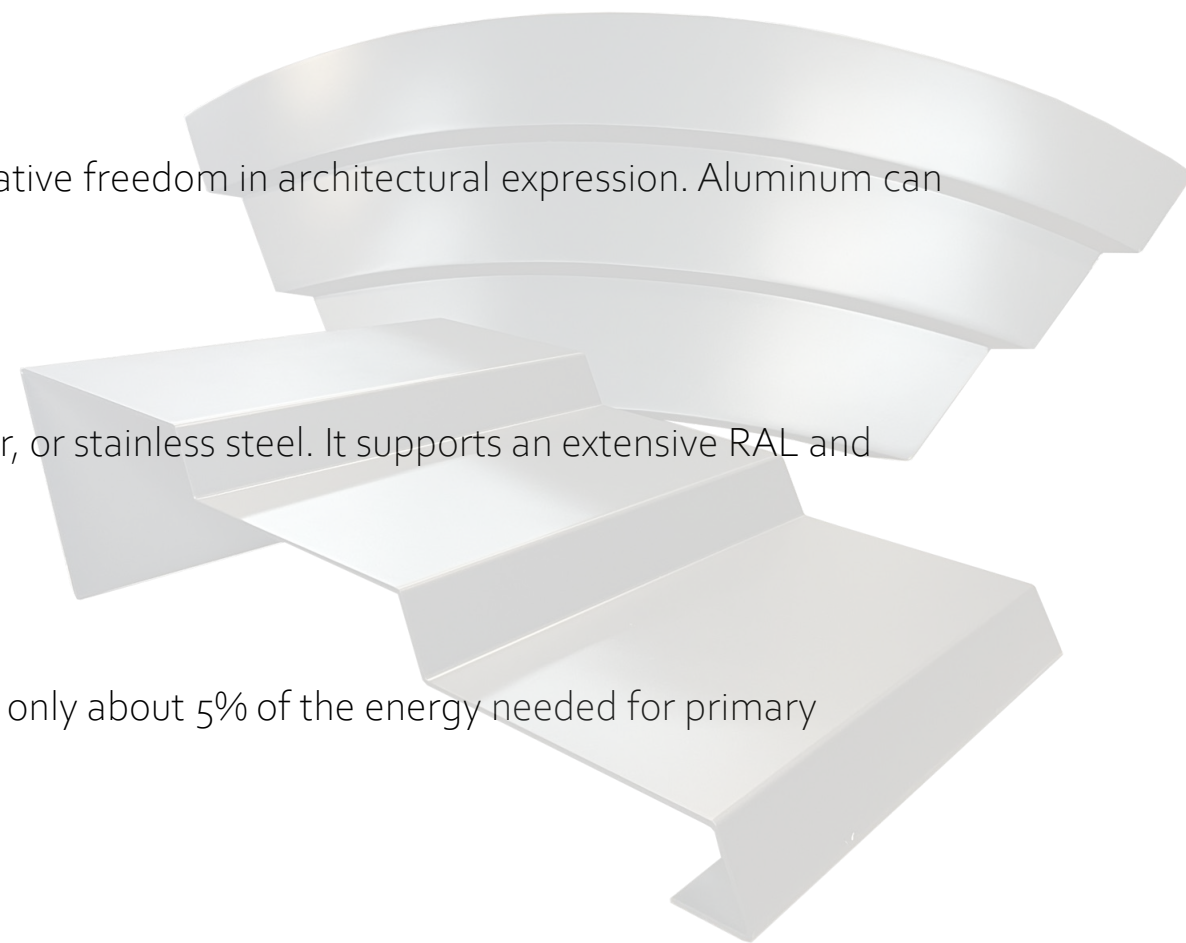
Aluminum is 100% recyclable without loss of properties. Recycled aluminum (post-consumer content) requires only about 5% of the energy needed for primary production—aligning with green building and LEED standards.

6. Thermal and Acoustic Performance

When integrated with appropriate insulation and backer systems, aluminum panels contribute to energy efficiency and sound control, ideal for rainscreen and ventilated façade assemblies.

7. Low Maintenance and Longevity

Coated or anodized aluminum surfaces are fade-resistant, non-staining, and require minimal upkeep. Expected service life exceeds 50 years, depending on finish and exposure conditions.

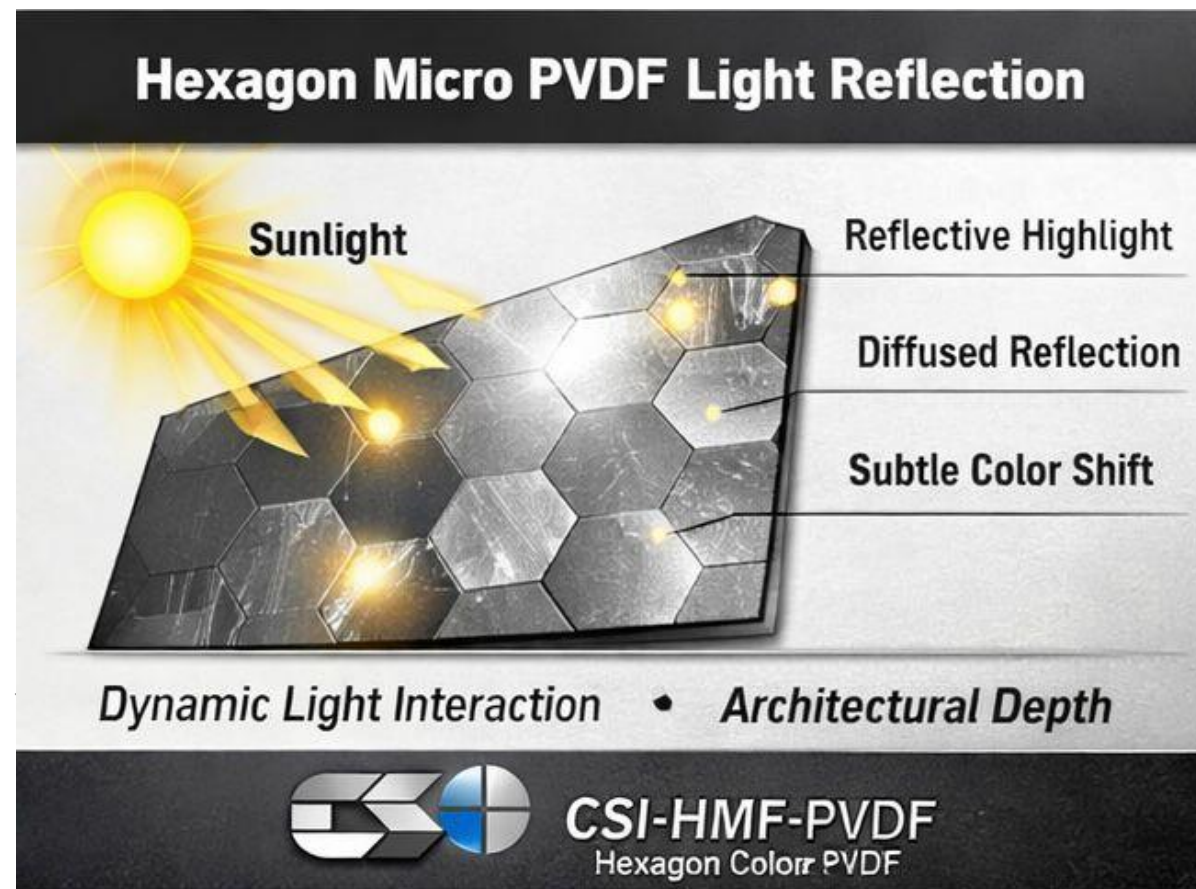


RAL 1000	RAL 1001	RAL 1002	RAL 1003	RAL 1004	RAL 1005
RAL 1006	RAL 1007	RAL 1011	RAL 1012	RAL 1013	RAL 1014
RAL 1015	RAL 1016	RAL 1017	RAL 1018	RAL 1019	RAL 1020
RAL 1021	RAL 1023	RAL 1024	RAL 1026	RAL 1027	RAL 1028
RAL 1032	RAL 1033	RAL 1034	RAL 1035	RAL 1036	RAL 1037
RAL 2000	RAL 2001	RAL 2002	RAL 2003	RAL 2004	RAL 2005
RAL 2007	RAL 2008	RAL 2009	RAL 2010	RAL 2011	RAL 2012
RAL 2013					
RAL 3000	RAL 3001	RAL 3002	RAL 3003	RAL 3004	RAL 3005
RAL 3007	RAL 3009	RAL 3011	RAL 3012	RAL 3013	RAL 3014
RAL 3015	RAL 3016	RAL 3017	RAL 3018	RAL 3020	RAL 3022
RAL 3024	RAL 3026	RAL 3027	RAL 3028	RAL 3031	RAL 3032
RAL 3033					

RAL 4001	RAL 4002	RAL 4003	RAL 4004	RAL 4005	RAL 4006
RAL 4007	RAL 4008	RAL 4009	RAL 4010	RAL 4011	RAL 4012
RAL 5000	RAL 5001	RAL 5002	RAL 5003	RAL 5004	RAL 5005
RAL 5007	RAL 5008	RAL 5009	RAL 5010	RAL 5011	RAL 5012
RAL 5013	RAL 5014	RAL 5015	RAL 5017	RAL 5018	RAL 5019
RAL 5020	RAL 5021	RAL 5022	RAL 5023	RAL 5024	RAL 5025
RAL 5026					

RAL 6000	RAL 6001	RAL 6002	RAL 6003	RAL 6004	RAL 6005
RAL 6006	RAL 6007	RAL 6008	RAL 6009	RAL 6010	RAL 6011
RAL 6012	RAL 6013	RAL 6014	RAL 6015	RAL 6016	RAL 6017
RAL 6018	RAL 6019	RAL 6020	RAL 6021	RAL 6022	RAL 6024
RAL 6025	RAL 6026	RAL 6027	RAL 6028	RAL 6029	RAL 6032
RAL 6033	RAL 6034	RAL 6035	RAL 6036	RAL 6037	RAL 6038
RAL 7000	RAL 7001	RAL 7002	RAL 7003	RAL 7004	RAL 7005
RAL 7006	RAL 7008	RAL 7009	RAL 7010	RAL 7011	RAL 7012
RAL 7013	RAL 7015	RAL 7016	RAL 7021	RAL 7022	RAL 7023
RAL 7024	RAL 7026	RAL 7030	RAL 7031	RAL 7032	RAL 7033
RAL 7034	RAL 7035	RAL 7036	RAL 7037	RAL 7038	RAL 7039
RAL 7040	RAL 7042	RAL 7043	RAL 7044	RAL 7045	RAL 7046
RAL 7047	RAL 7048				

RAL 8000	RAL 8001	RAL 8002	RAL 8003	RAL 8004	RAL 8007
RAL 8008	RAL 8011	RAL 8012	RAL 8014	RAL 8015	RAL 8016
RAL 8017	RAL 8019	RAL 8022	RAL 8023	RAL 8024	RAL 8025
RAL 8028	RAL 8029				
RAL 9001	RAL 9002	RAL 9003	RAL 9004	RAL 9005	RAL 9006
RAL 9007	RAL 9010	RAL 9011	RAL 9016	RAL 9017	RAL 9018
RAL 9022	RAL 9023				



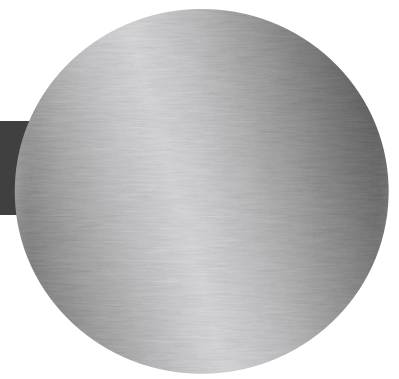
Heavy Gauge Premium PVDF Finishes

Post-fabrication baked enamel finishes applied to CSI-WAP components. Each part is welded, ground, and blended until seams are invisible, then finished in a multi-stage enamel process that bonds directly to the metal surface.

- Baked Enamel PVDF System — color fuses to the substrate during curing, creating a luminous, durable surface that responds to light and shade.
- Select any tone from the RAL Color Chart, or provide a physical sample for custom color matching.
- Samples available in matte, satin, or polished finish levels.
- Custom metallic and special effect finishes available upon request.

Notes

- All PVDF finishes meet or exceed AAMA 2605 performance standards.
- Marine-grade systems available for coastal or high-humidity environments.



1. Composition and Performance

Stainless Steel 316 is an austenitic chromium-nickel-molybdenum alloy known for its marine-grade corrosion resistance and enduring metallic beauty.

The addition of molybdenum (Mo) provides superior protection against chlorides, salt air, and industrial pollutants, making 316 the preferred stainless steel for coastal and high-humidity environments.

2. Appearance and Surface Finishes

316 Stainless Steel maintains its natural metallic tone and refined reflectivity over time. It is available in a wide range of architectural finishes, including:

MAC finish (matte architectural)

Hair-line / brushed (#4)

Polished / mirror (#8)

Custom textures or directional grains

These finishes provide varying levels of gloss, reflection, and texture, supporting both modern and classic architectural expressions.

3. Corrosion Resistance and Durability

316 Stainless Steel delivers exceptional corrosion resistance, even in marine or coastal climates exposed to salt spray.

The self-healing chromium oxide layer protects the metal from oxidation and staining. When properly detailed and maintained, 316 exhibits service lives exceeding 100 years without degradation of structural or aesthetic integrity.

4. Strength and Stability

With high tensile and yield strength, 316 Stainless Steel maintains dimensional stability and resists oil-canning when fabricated correctly. Its rigidity makes it ideal for both Light Gauge panels and Heavy Gauge plate systems, particularly in rainscreen façades, soffits, and flat-lock roofing applications.

5. Fabrication and Workability

316 can be welded, folded, roll-formed, or mechanically fastened using standard stainless steel fabrication practices.

It is compatible with PVDF-coated, anodized, or natural metals in hybrid façades when properly isolated to avoid galvanic interaction.

6. Aesthetic Versatility

The cool silver-gray tone of stainless steel complements a broad range of materials—glass, stone, wood, and dark metals. It conveys a sense of precision, permanence, and refinement that is particularly suited for high-end architectural projects such as museums, airports, hospitals, and contemporary residences.

7. Maintenance and Cleanability

Stainless Steel 316 requires minimal maintenance. Occasional washing with mild detergent and water preserves its luster and removes surface contaminants. The passive oxide layer continuously regenerates, ensuring long-term brilliance even in demanding environments.

8. Sustainability

316 Stainless Steel is 100% recyclable and typically contains 60–85% recycled content. Its long service life, low maintenance requirements, and full recyclability make it a sustainable choice for environmentally conscious architectural design.

9. Architectural Summary

Alloy Type: 316 / UNS S31600

Finish Options: MAC, #4 brushed, hair-line, #8 mirror, custom textures

Corrosion Resistance: Marine-grade (chloride and salt-resistant)

Service Life: 80–100+ years

Thickness Range: 26ga – 20ga (Light Gauge Panels)

Maintenance: Minimal; self-healing oxide surface

Sustainability: 100% recyclable, long lifecycle value

1. Mill Finish (2B / 2D)

- Appearance: Dull, gray, low reflectivity
- Typical use: Concealed conditions, substrates, non-exposed elements
- Architectural note: Not recommended for exposed façades

2. Hairline Finish (HL)

- Appearance: Very fine, tight linear grain (one direction)
- Typical Ra: ~0.4–0.6 µm
- Use cases: Façades, soffits, column covers
- Critical: Grain direction must be specified

3. Brushed / Satin Finish (No. 4)

- Appearance: Uniform directional grain, slightly coarser than hairline
- Typical Ra: ~0.6–0.8 µm
- Use cases: Panels, trims, interior/exterior architectural metal
- Spec language: Often called "No. 4 satin"

4. Directional Polish (Custom Satin)

- Appearance: Controlled sheen with consistent light reflection
- Use cases: High-end façades, retail, civic architecture
- Note: Satin ≠ mirror; reflectivity is intentionally limited

5. Bead Blasted / Shot Blasted

- Appearance: Matte, non-directional, low glare
- Use cases: Monumental façades, anti-glare applications
- Caution: Requires passivation, especially in coastal environments

6. Mirror Finish (No. 8)

- Appearance: Highly reflective, mirror-like
- Use cases: Feature panels, interior accents, art walls
- Caution: Shows oil canning, distortion, and fingerprints
- Best practice: Use thicker gauges + backing support

Important:

Edges, welds, and field cuts require coordination

*Mockups are strongly recommended

7. Micro-Embossed Stainless Steel(also called light embossed / fine textured stainless)

- Appearance: Subtle, non-directional micro texture
- Depth: Much finer than rigidized patterns
- Use cases:
 - Large façade panels
 - Low-slope roof panels
 - Areas sensitive to oil canning
- Key advantages:
 - Dramatically reduces oil canning
 - Hides handling marks
 - Maintains a refined, modern appearance
- Architect's favorite for: Flat panels and long runs

8. Rigidized / Patterned Stainless Steel

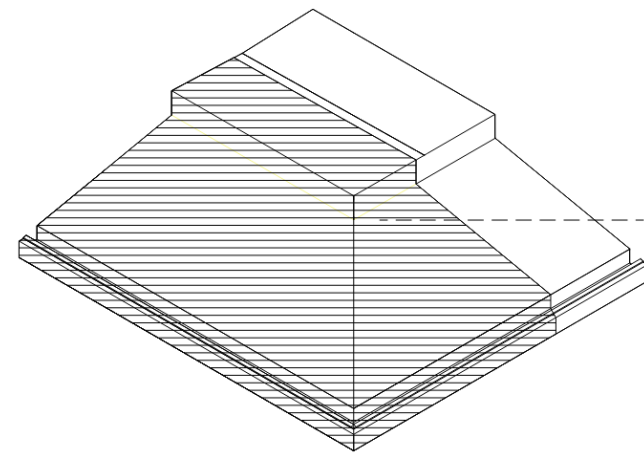
- Appearance: Deep embossed texture (linen, cube, square, diamond, etc.)
- Use cases: Feature façades, screens, impact-resistant areas
- Performance benefit:
 - Increases panel stiffness
 - Minimizes visual distortion
- Note: Pattern selection affects reflectivity and shadowing

9. Titanium (PVD) Coated Stainless Steel

- Process: Physical Vapor Deposition (PVD) on stainless substrate
- Colors available:
 - Titanium Gold
 - Champagne / Bronze
 - Black
 - Graphite
 - Rose Gold
- Finish base: Hairline, satin, bead-blasted, or embossed
- Use cases:
 - Luxury façades
 - Retail flagships
 - Hospitality & civic projects
- Performance notes:
 - Extremely thin coating (does not peel)
 - High abrasion resistance
 - UV stable (colorfast)

Step-by-step installation manual:

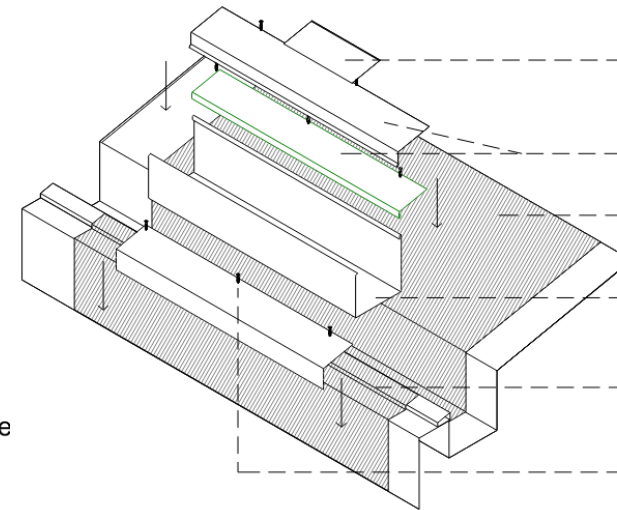
Additionally, we generate installation manuals explaining step-by-step details and renderings to help visualize not just the final product but also the specific steps necessary to install the panel system properly. These details and renderings are incredibly useful in providing a clear and comprehensive understanding of the installation process, making sure that everyone is on the same page.



1. Waterproofing membrane by others

STEP 1- Roof check

Waterproof substrate per approved specifications. Installer is responsible to check substrate and provide shimming where necessary.



4. Waterproofing membrane overlap

3. starter flashings

1. Waterproofing membrane by others

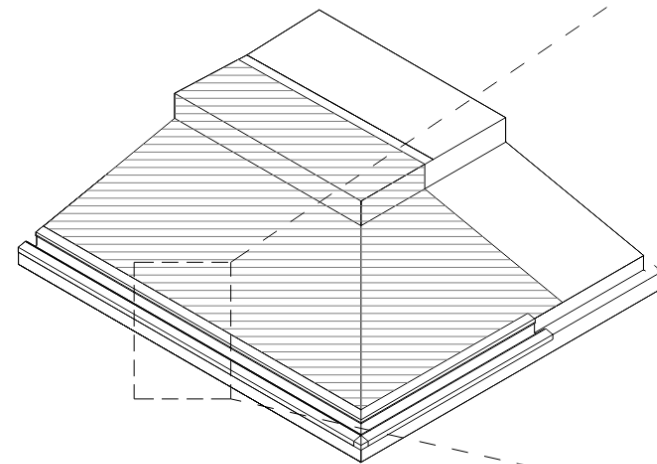
2. SS Rain Gutter - sloped to drain

5. Waterproofing membrane overlap

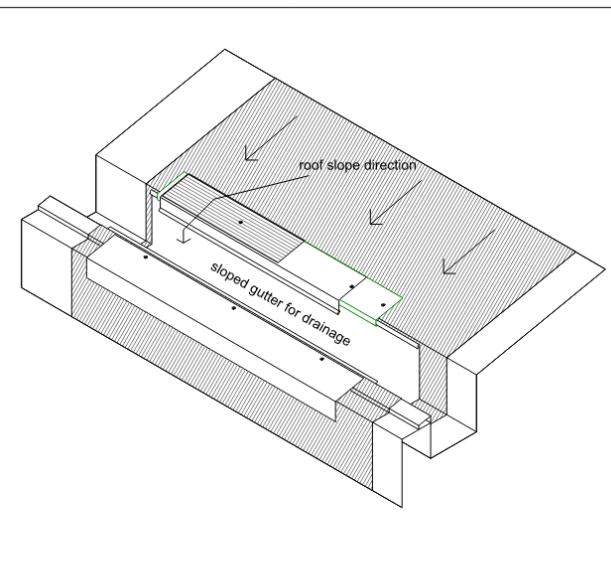
6. SS screws (must be sealed after installed)

STEP 2- Flashings installation

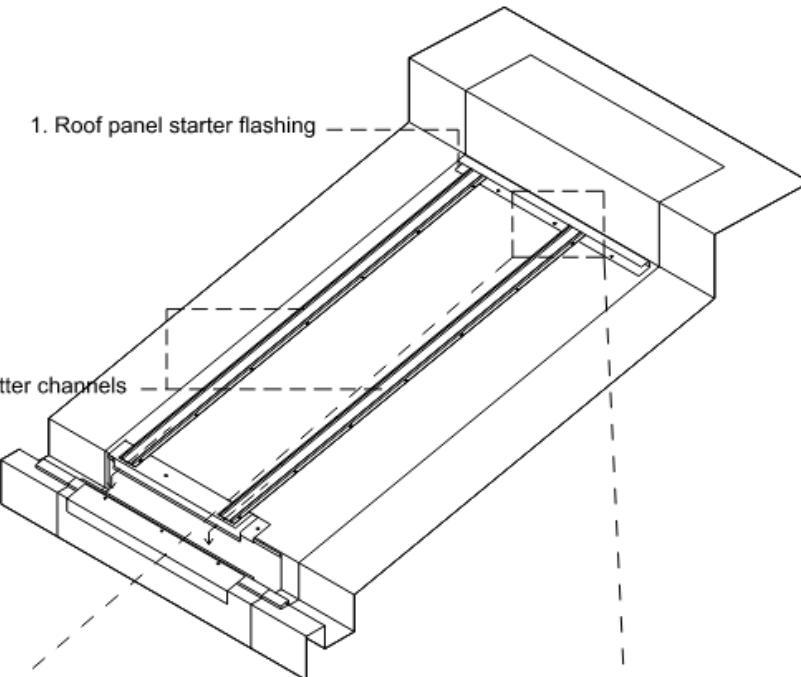
Rain gutters and flashings must be installed prior installing CSI WAP roof panels.



STEP 2- Flashings and gutter installation Process

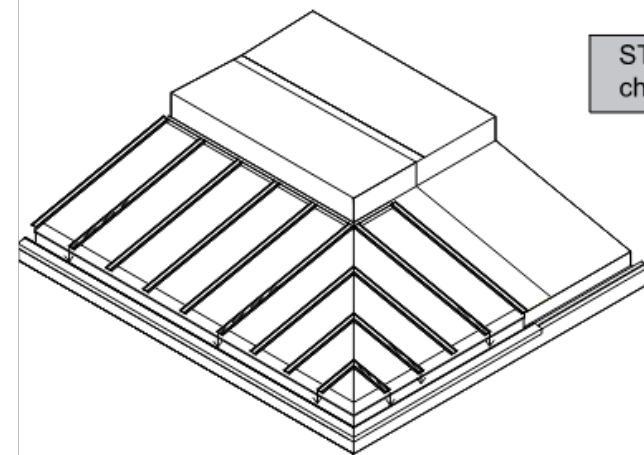


Assembly view



1. Roof panel starter flashing

2. CSI-WAP gutter channels



STEP 3- Layout, CSI-WAP gutter channels and Starter flashing installation

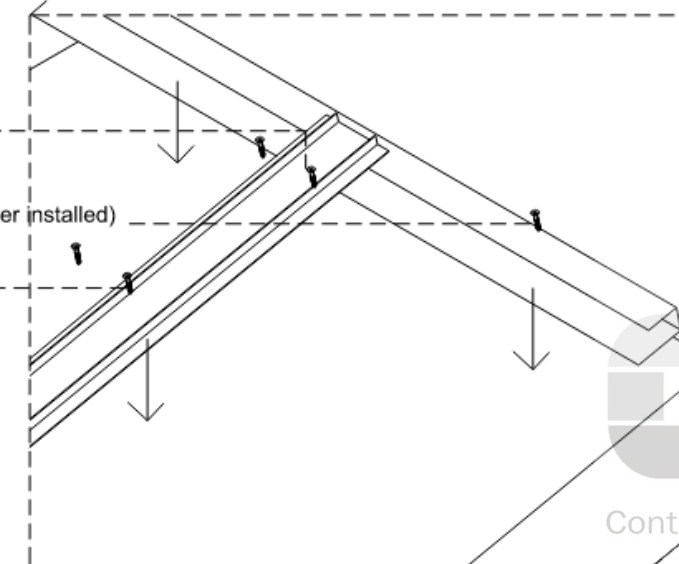
Installer must layout panels to check that all measures fits on site, also check low and high eave levels

First need to install the panel starter flashing on the high eave of the panel before the roof panel, panel gutters must be installed, this piece drain the water that gets in through the reveal joint of the panel to main gutter

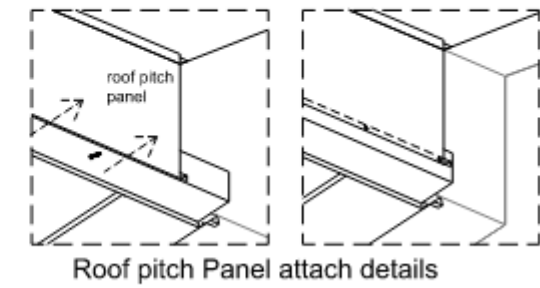
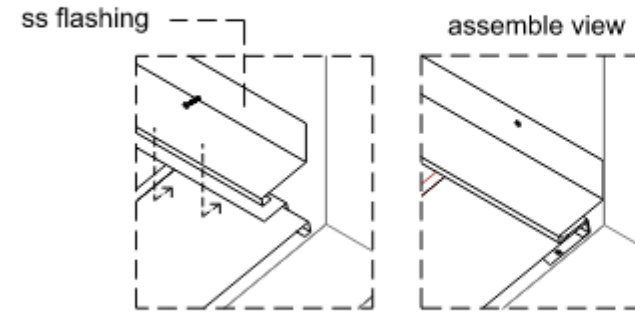
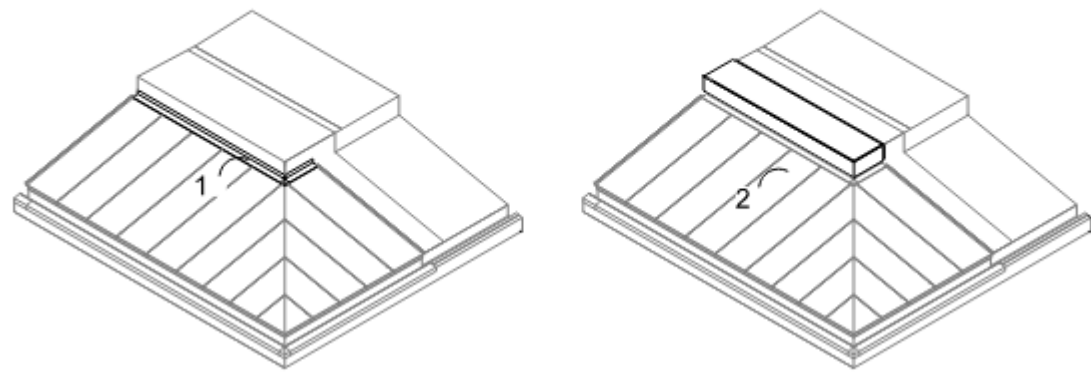
1. Roof panel starter flashing

2. SS screws (must be sealed after installed)

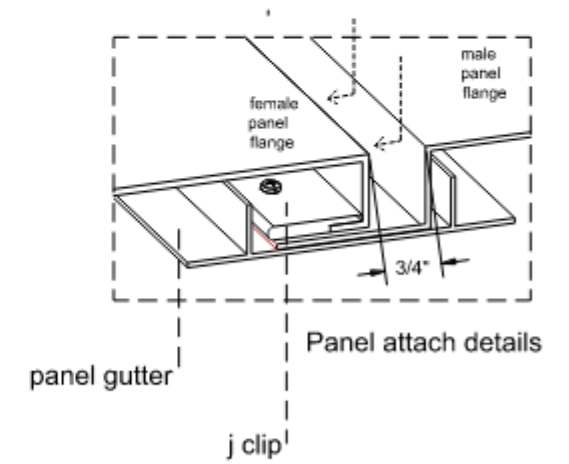
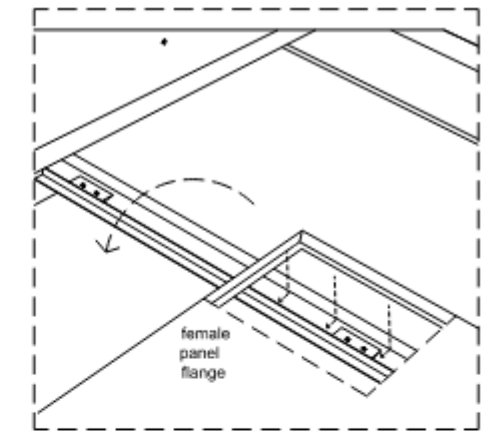
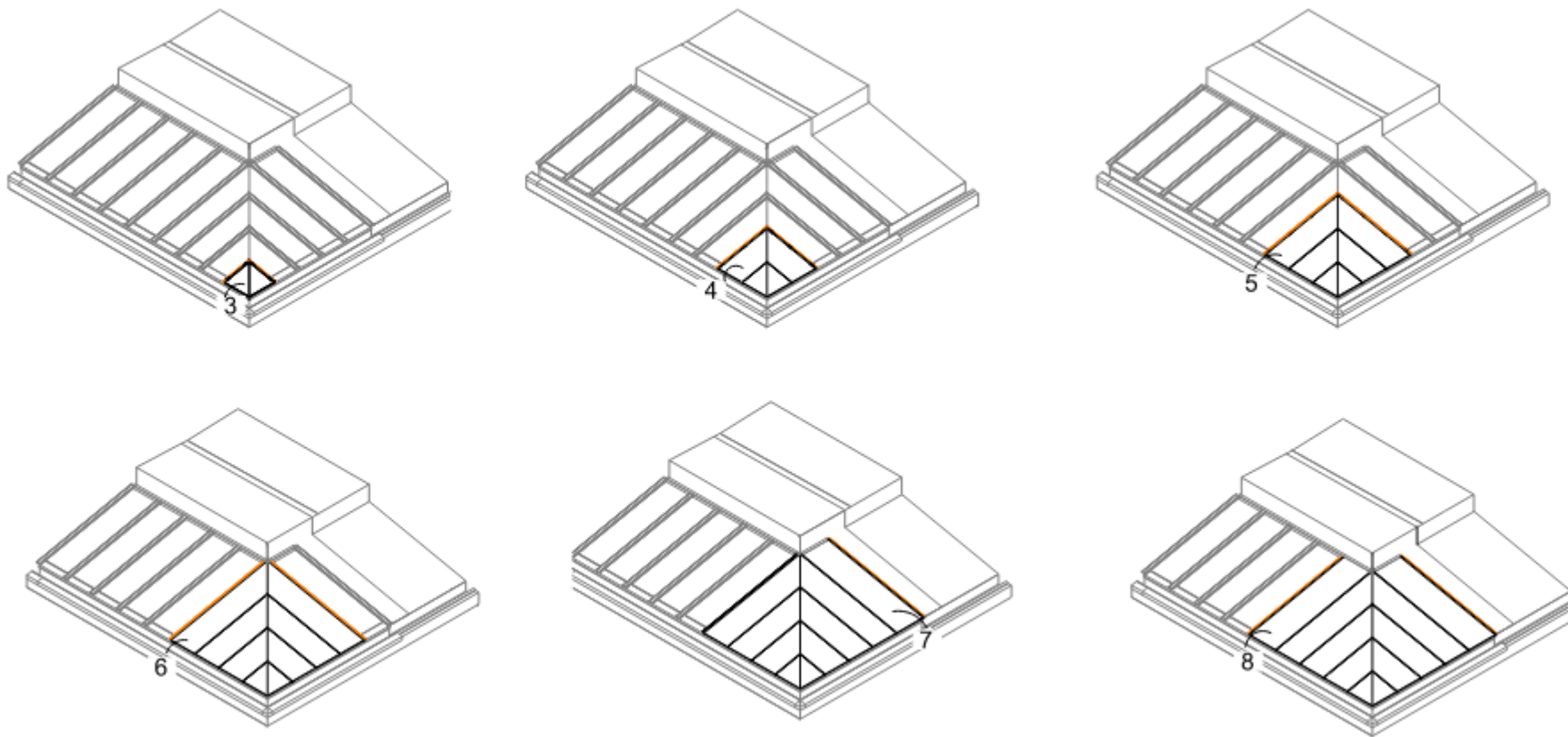
3. CSI-WAP gutter channels



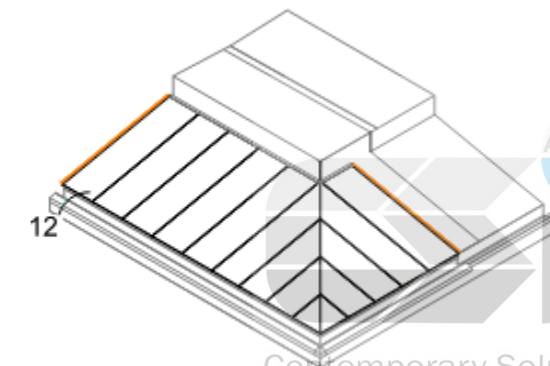
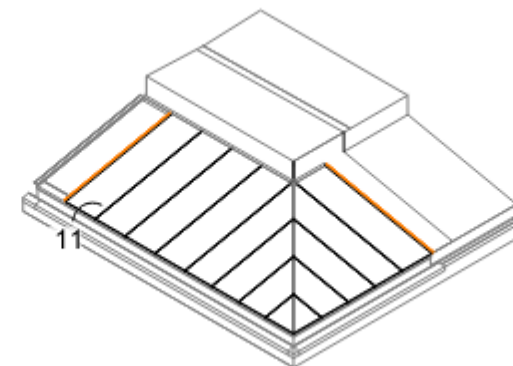
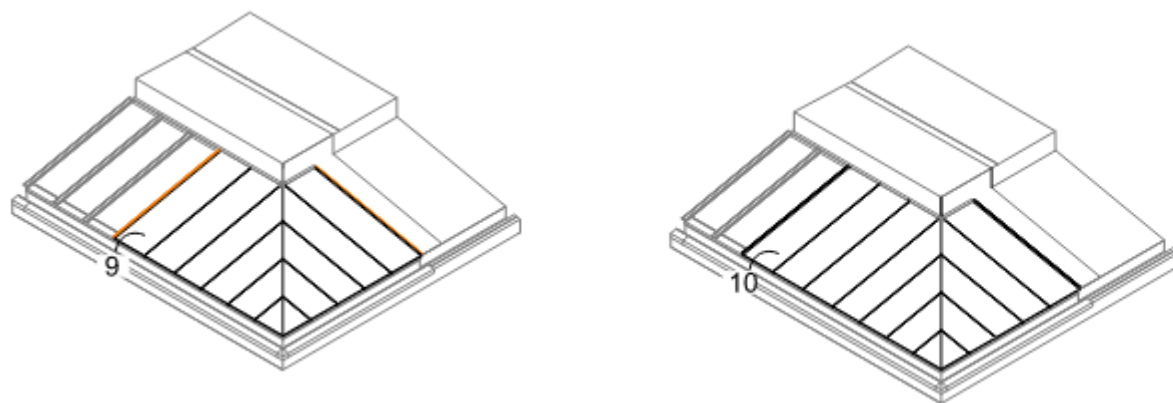
STEP 4- Roof Panel Installation Layout



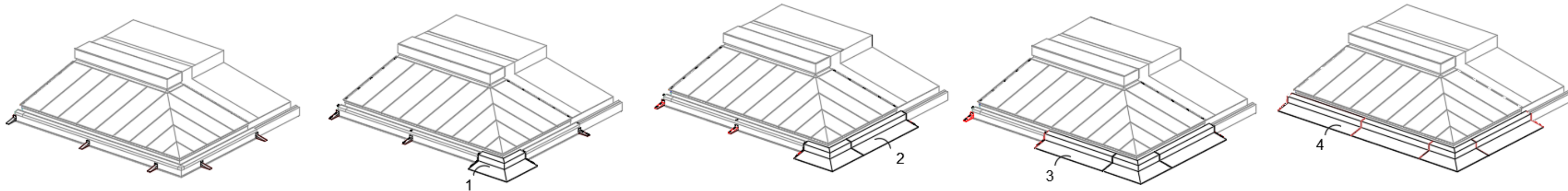
CSI WAP Roof Panels installation must start on the lower panel corner / panels attach each other with "J clips" in to male and female flanges



After finishing corner panels, installation can continue to the straight panels, first the panels towards the right and next to the left side



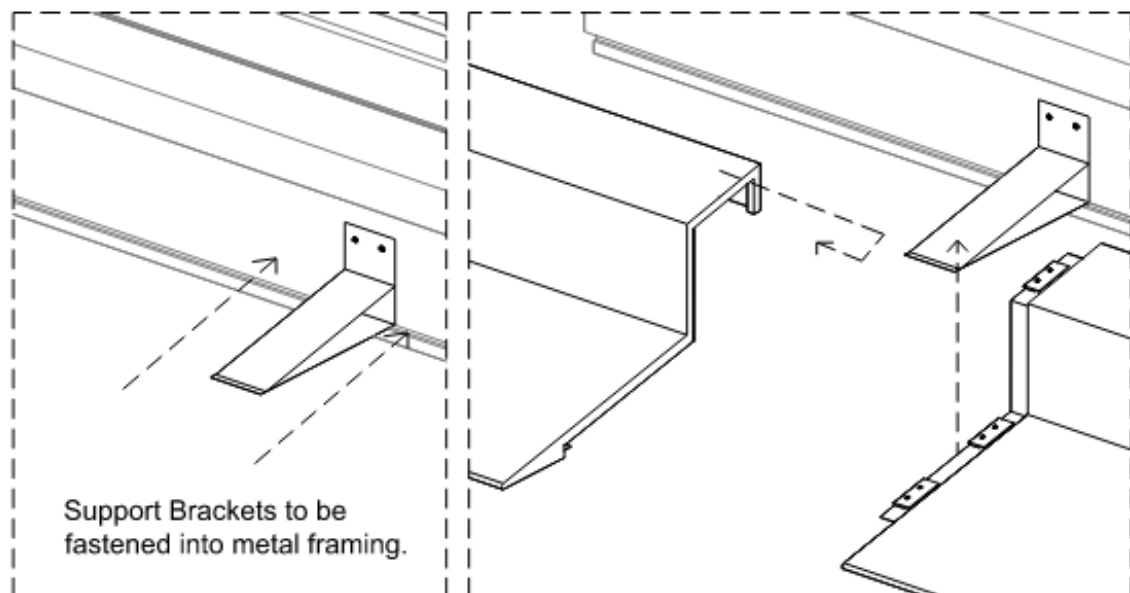
STEP 5- Roof Panel installation Layout



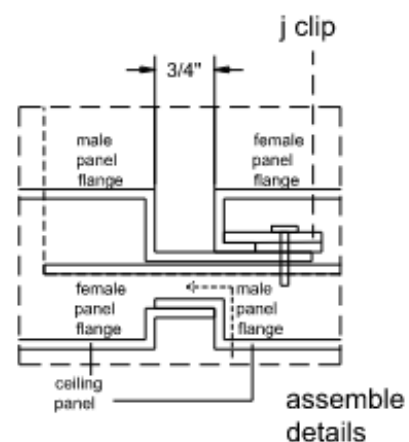
Installation of Bird Beak Fascia Support Brackets

Panel installation must start on the lower panel corner / panels attach each other with "J clips" in to male and female flanges

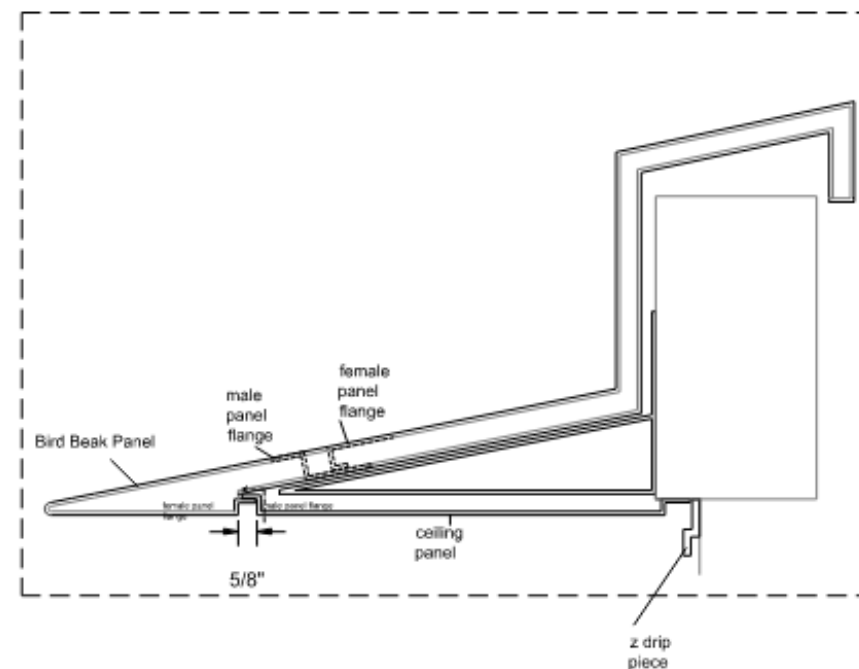
After finishing corner panels, installation can continue to the straight panels, first the panels towards the right and next to the left side



Support Brackets to be fastened into metal framing.

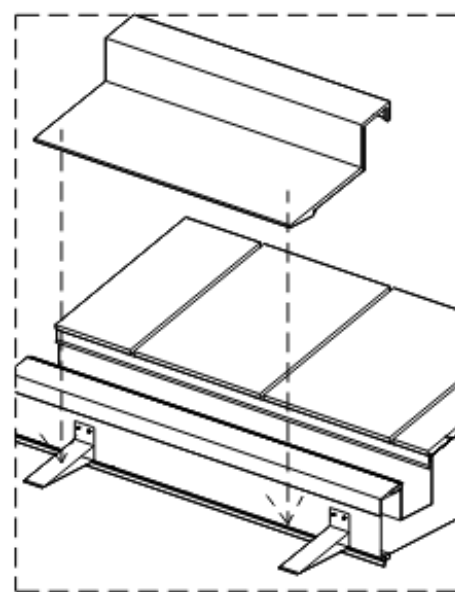


assemble details

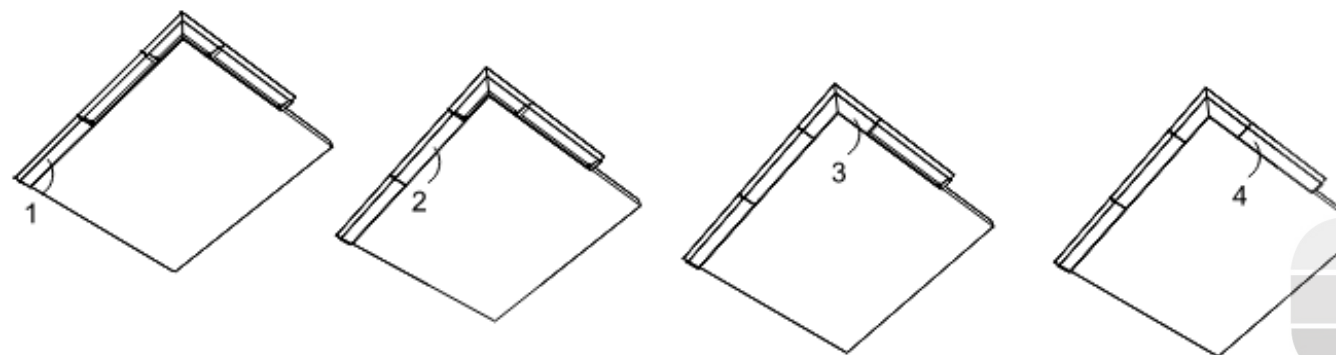


z drip piece

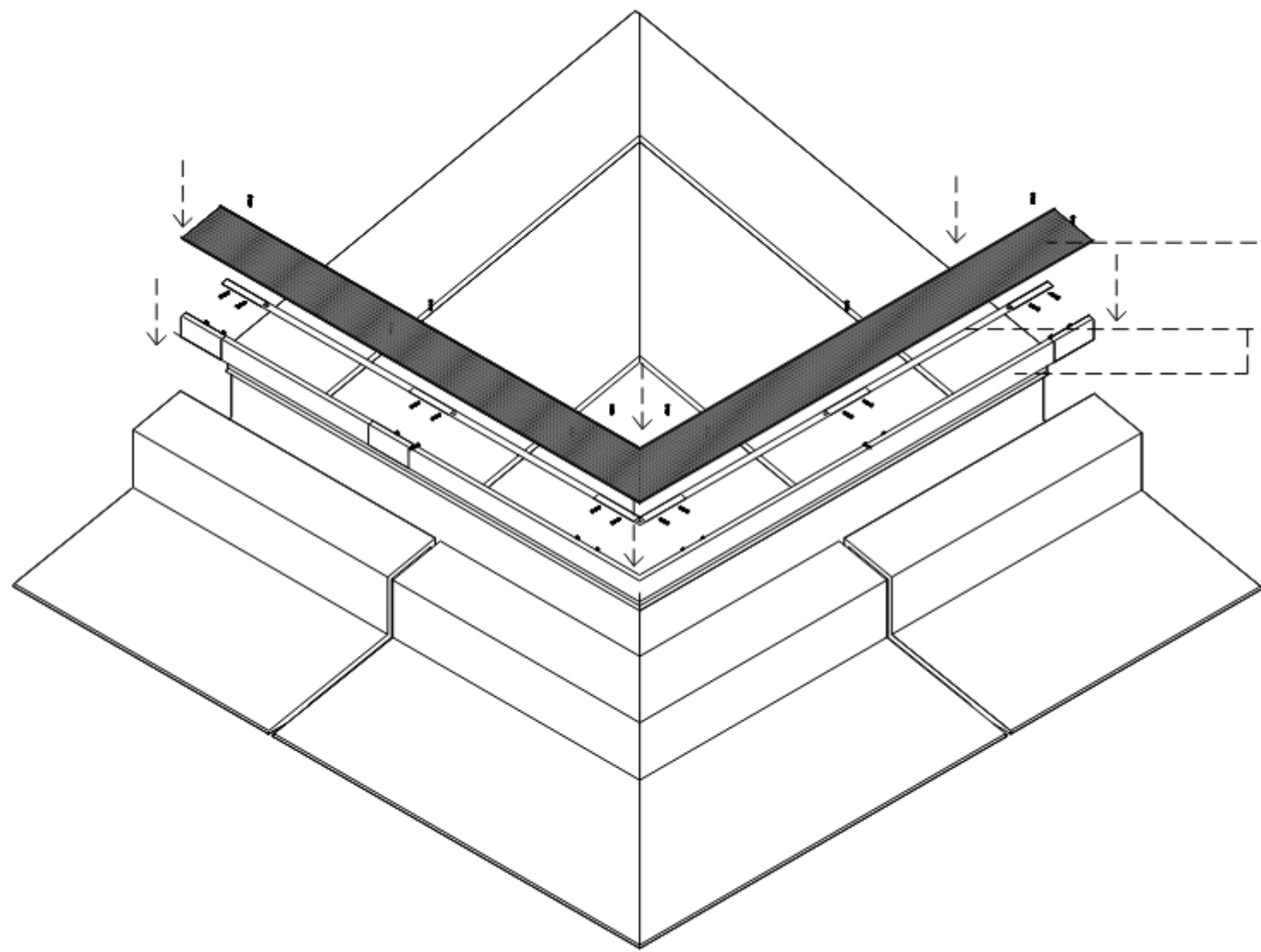
Bird Beak Panel stands and gets fastened into Support Bracket



STEP 6- Ceiling Panel Installation Layout



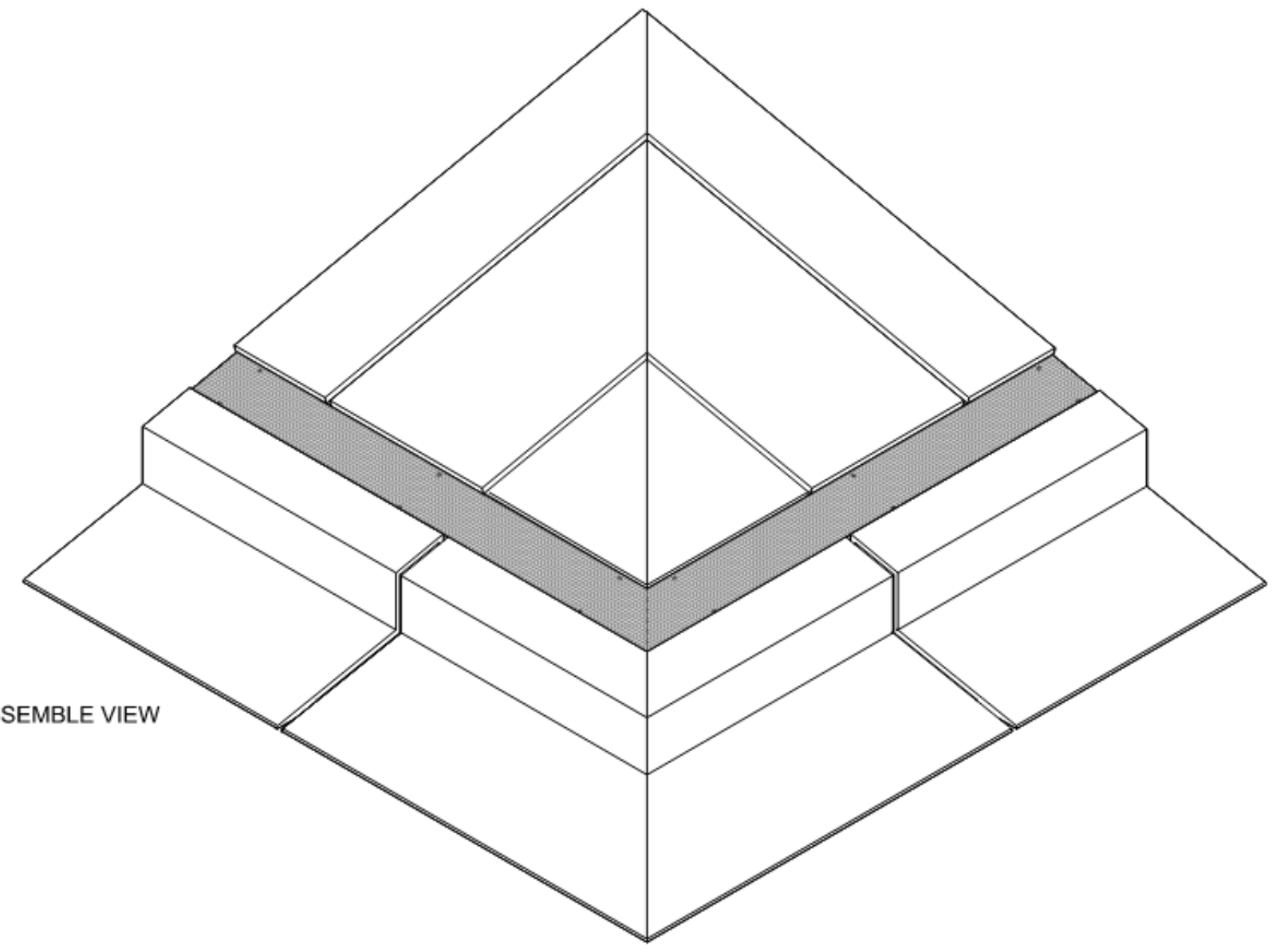
STEP 7. Perforated Leaf Guard

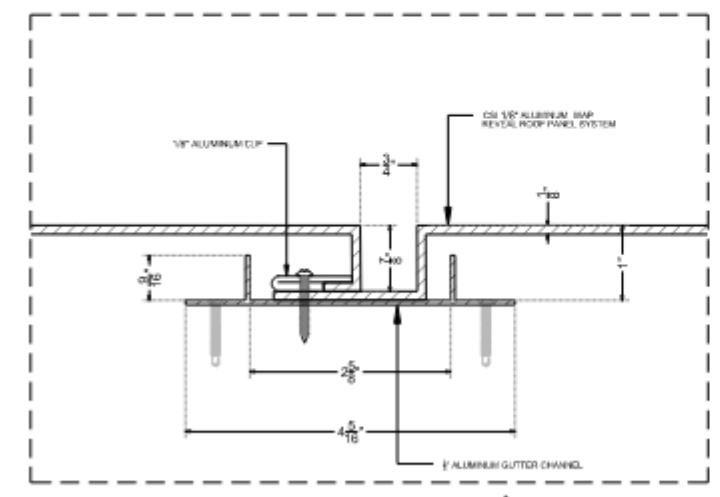


SS Perforated Leaf Guard

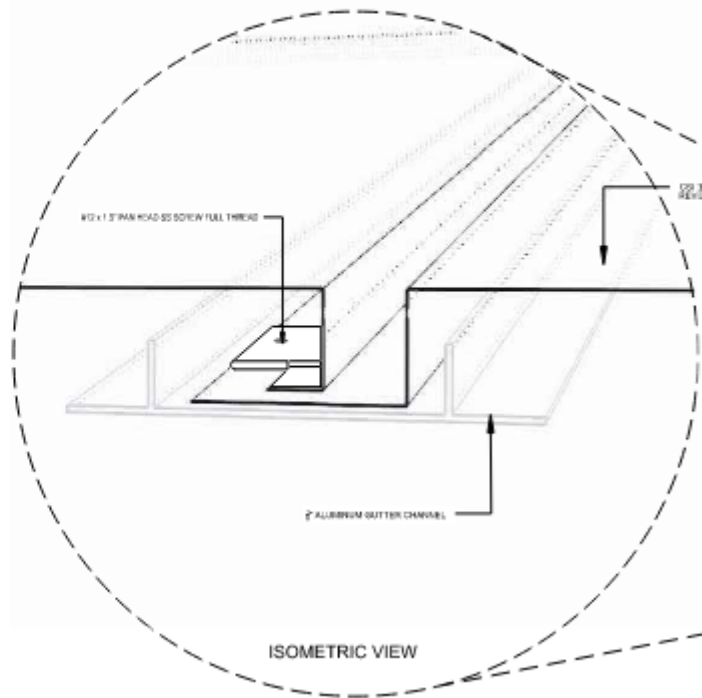
SIDE ALUMINUM CONTINUOUS SUPPORTS.

ASSEMBLE VIEW

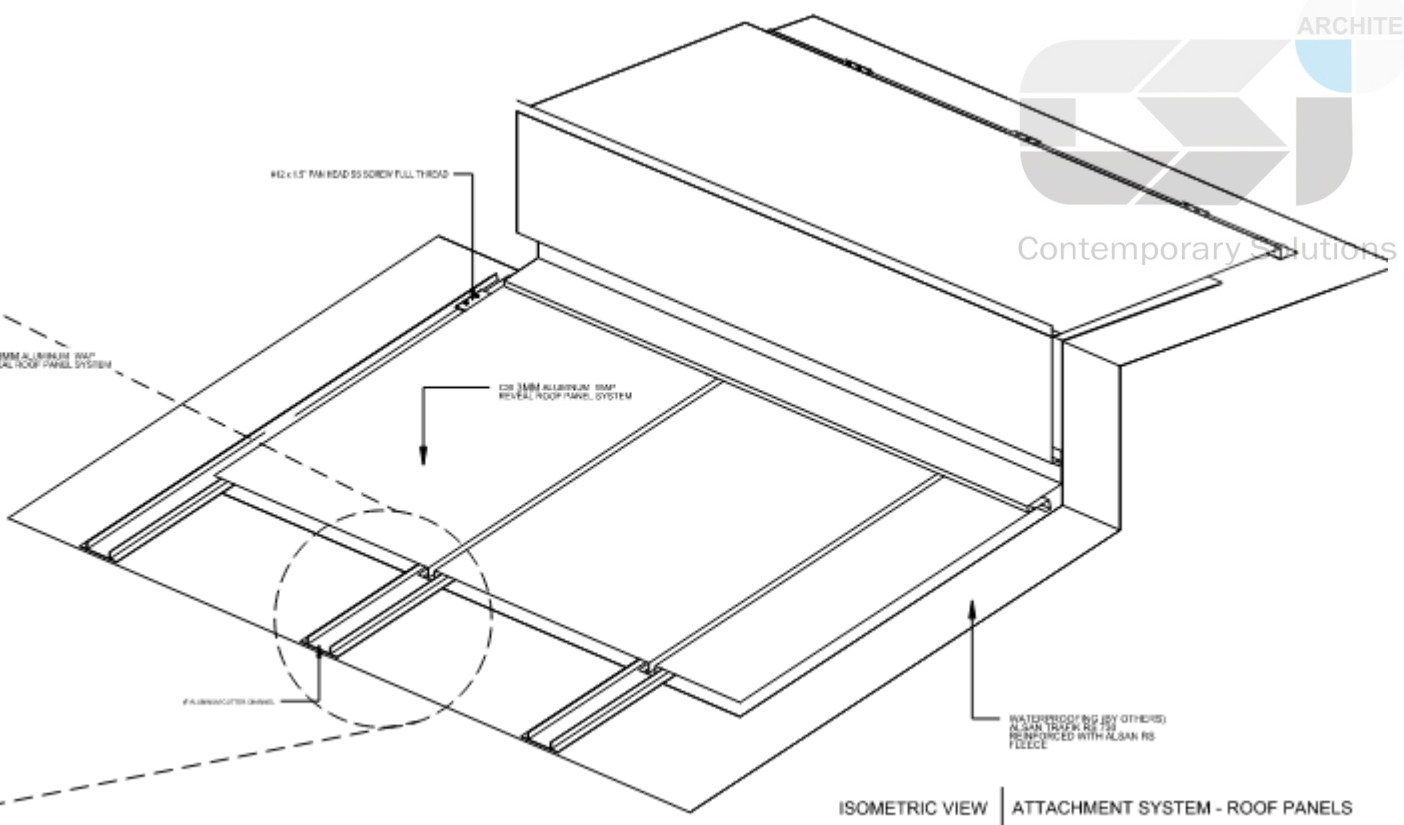




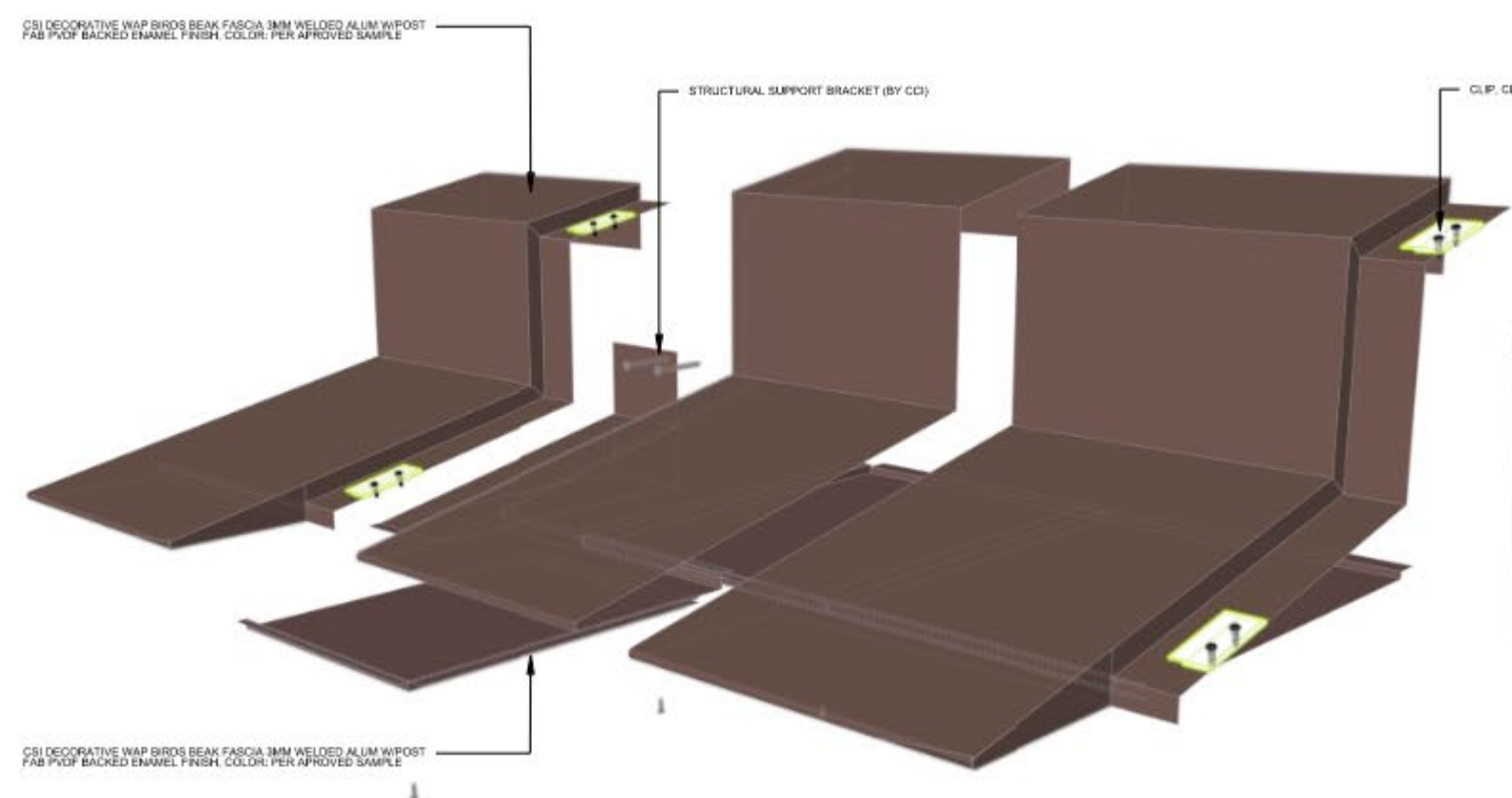
SECTION - GUTTER CHANNEL & ATTACHMENT SYSTEM | SCALE: 1'-0"=1'-0"



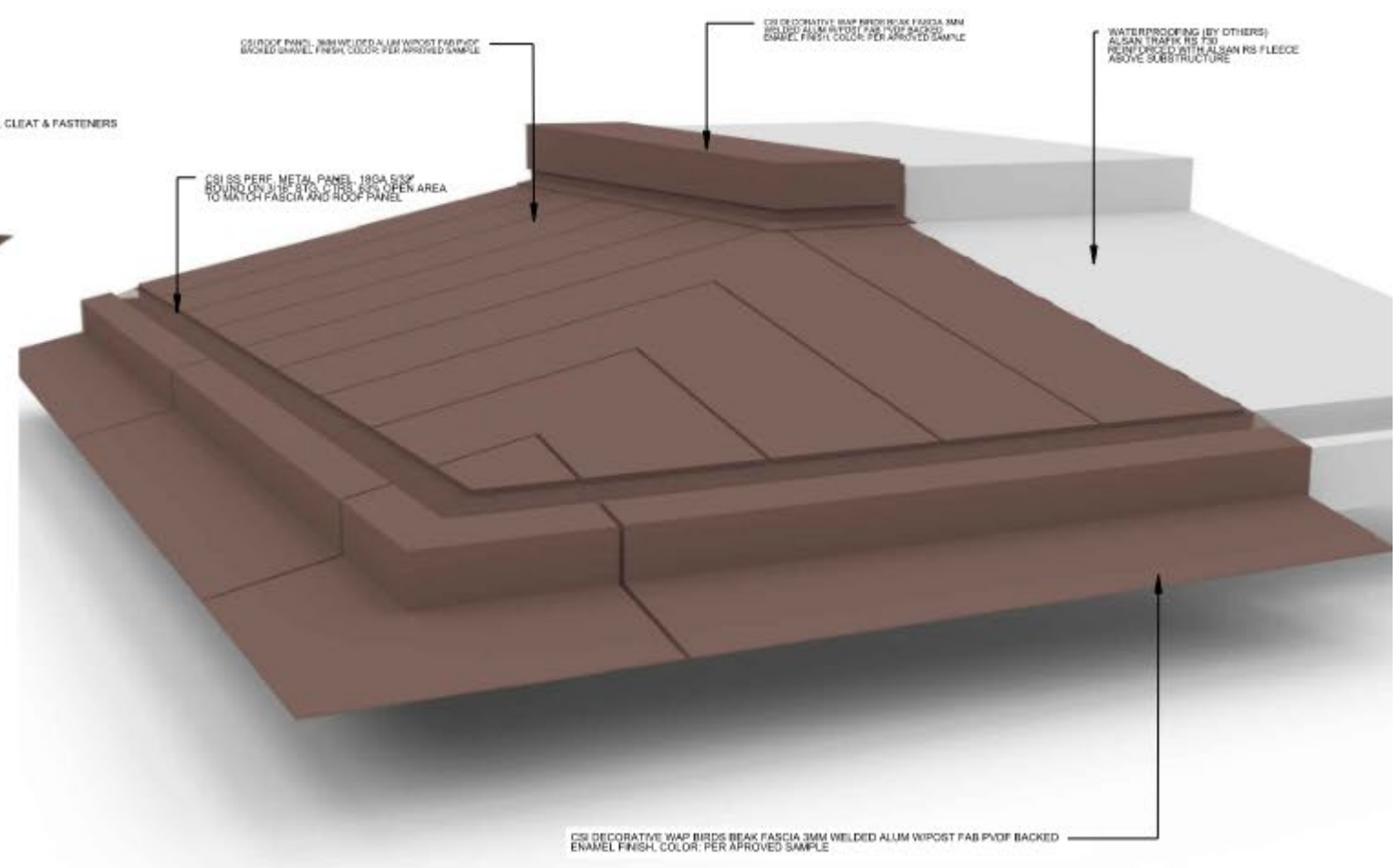
ISOMETRIC VIEW



ISOMETRIC VIEW | ATTACHMENT SYSTEM - ROOF PANELS



CSI DECORATIVE WAP BIRDS BEAK FASCIA 3MM WELDED ALUM W/POST FAB PVDF BACKED ENAMEL FINISH, COLOR: PER APPROVED SAMPLE



CSI DECORATIVE WAP BIRDS BEAK FASCIA 3MM WELDED ALUM W/POST FAB PVDF BACKED ENAMEL FINISH, COLOR: PER APPROVED SAMPLE



Architect's rendering



Project completed

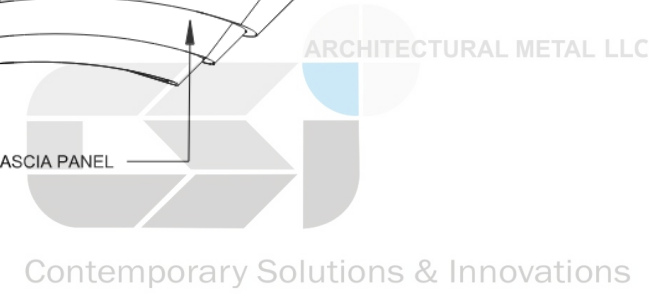
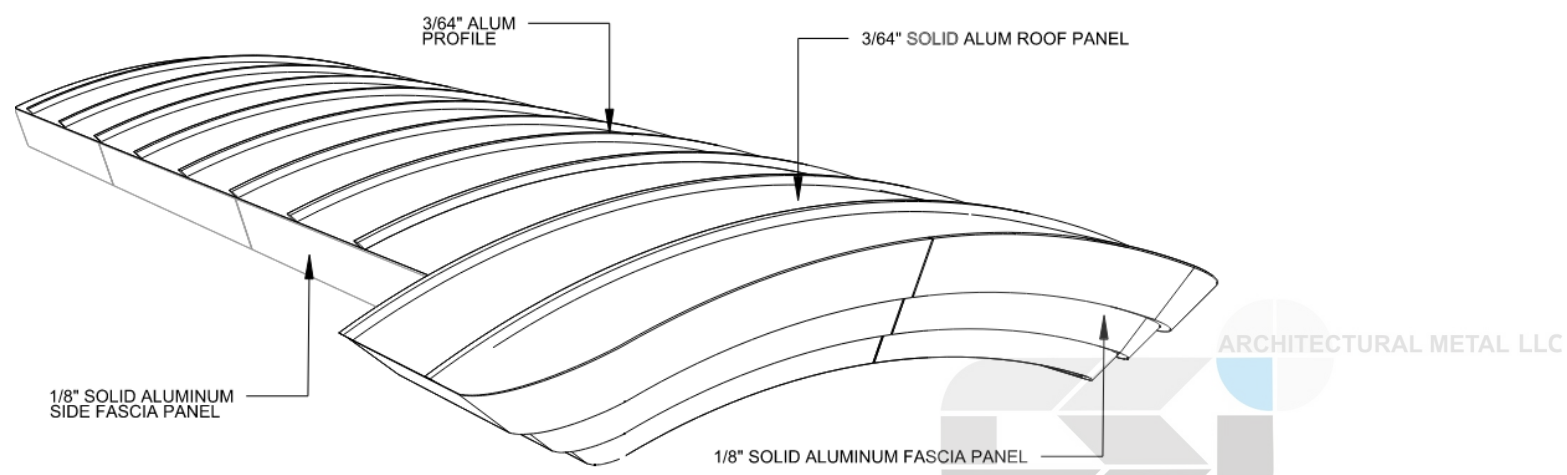
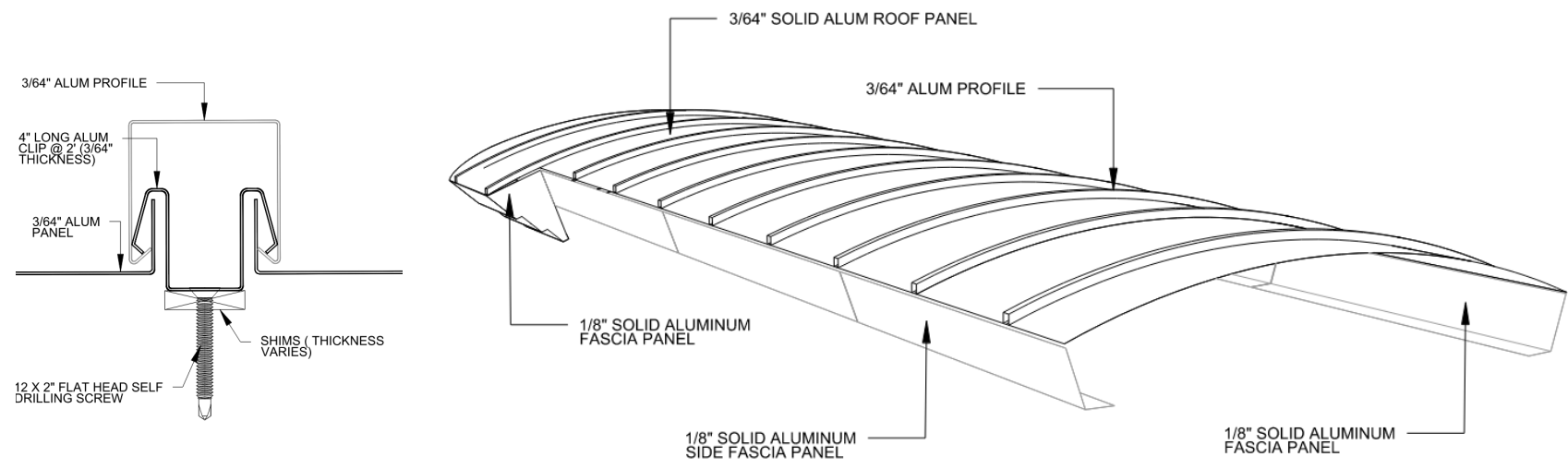
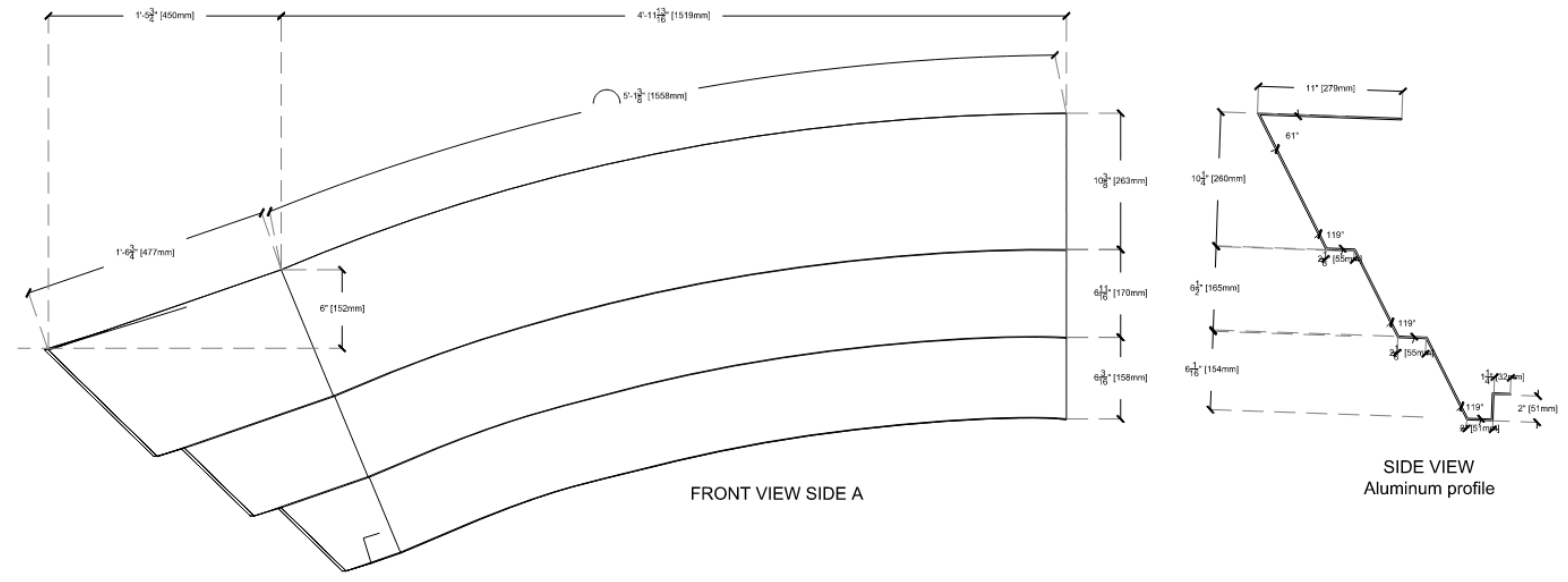
Palmer Residence

Product: WAP

Material: Solid Aluminum 1/8" Fascia & Solid Aluminum 3/64" Roof panel

CSI-WAP-CUSTOM

From Design to Built Reality.





Architect's rendering



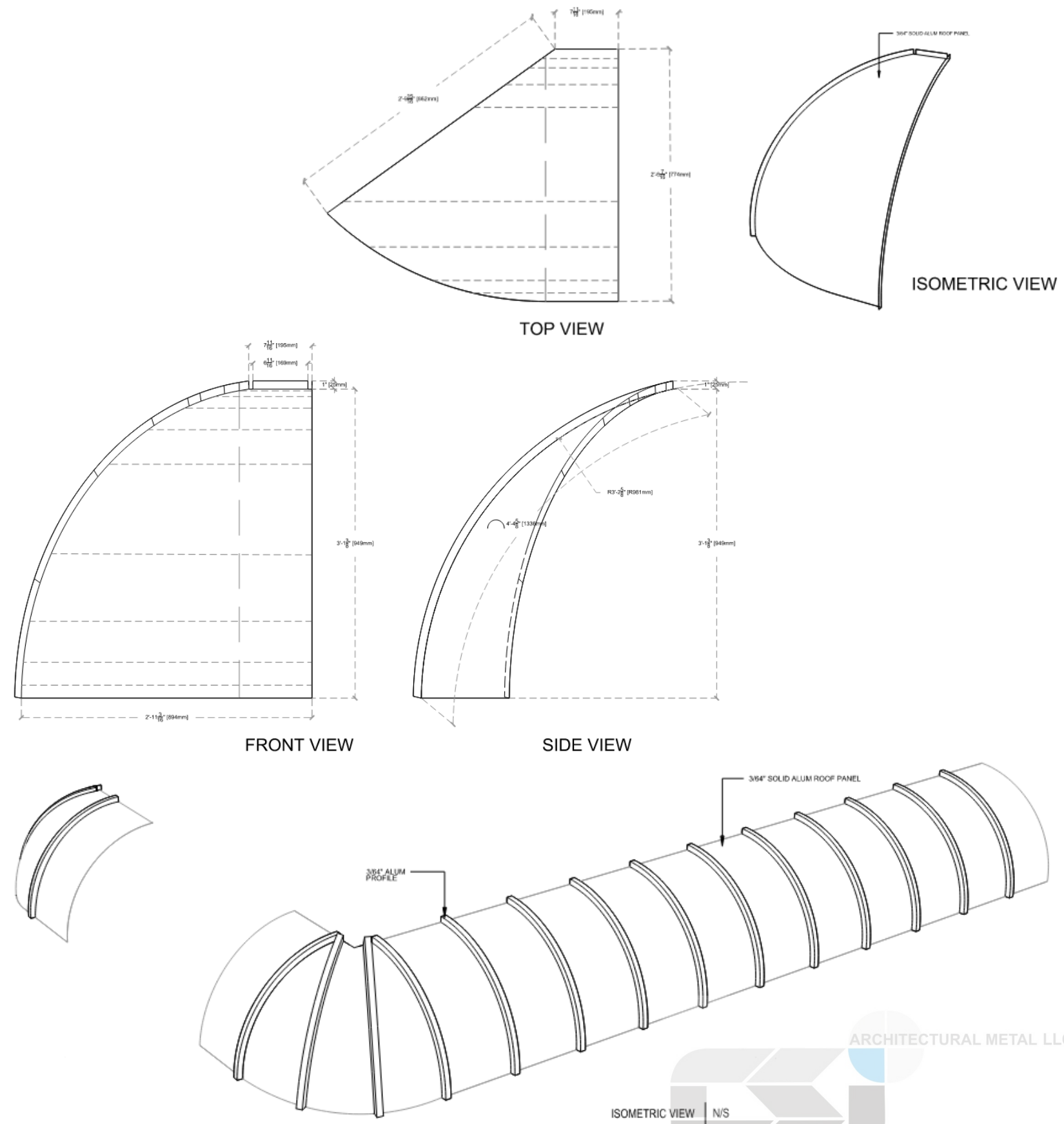
Palmer Residence

Product: WAP

Material: Solid Aluminum 1/18" Fascia

Project completed

CSI-WAP-CUSTOM
From Design to Built Reality.







Materials & Resources (MR)

MR – Environmental Product Declarations

Aluminum used in CSI Architectural Metal panel systems is available with Environmental Product Declarations (EPDs) that provide transparent lifecycle data for inclusion in project documentation.

MR – Sourcing of Raw Materials

CSI panel systems utilize aluminum with significant recycled content, supporting responsible sourcing requirements.

MR – Construction Waste Management

Factory prefabrication of panel systems reduces the need for field cutting and helps minimize construction waste.

Indoor Environmental Quality (EQ)

EQ – Low-Emitting Materials

PVDF coating systems used on CSI panels contain low VOC content and may contribute toward compliance with low-emitting material



CSI-WAP-panel series: Sustainability & LEED® Contribution

The CSI-WAP™ (Welded Aluminum Plate) Panel System represents a durable, high-performance architectural façade solution engineered for long service life and sustainable building design. Fabricated from solid aluminum plate and finished with Hexagon Micro Finish™ PVDF, CSI-WAP panels combine structural integrity, recyclable materials, and precision fabrication to support environmentally responsible building envelopes.

In contrast to composite panel systems that rely on bonded core materials, CSI-WAP utilizes solid aluminum plate construction, offering exceptional durability and long-term performance while maintaining the recyclability inherent to architectural metals.

CSI-WAP panel systems may contribute toward sustainability goals within the LEED program developed by the U.S. Green Building Council.



Materials & Resources (MR)

Environmental Product Declarations (EPD)

Aluminum used in CSI-WAP panel systems may be supplied with Environmental Product Declarations (EPDs), providing transparent lifecycle environmental impact data.

Sourcing of Raw Materials

Architectural aluminum typically contains significant recycled content, supporting responsible material sourcing and resource efficiency.

Construction Waste Management

CSI-WAP panels are precision fabricated to project dimensions in controlled manufacturing environments, reducing field cutting and helping minimize construction waste.

Indoor Environmental Quality (EQ)

Low-Emitting Materials

Hexagon Micro Finish™ PVDF coatings contain low VOC content and contribute toward indoor environmental quality considerations.

Energy & Envelope Performance

Metal panel façade systems such as CSI-WAP are compatible with ventilated rainscreen assemblies, which can enhance moisture management, thermal performance, and long-term building envelope durability.

Durability & Lifecycle Performance

Sustainable architecture is closely tied to material longevity. The solid aluminum plate construction of CSI-WAP panels combined with advanced PVDF finishes provides a façade system engineered for decades of service life. Reducing replacement cycles significantly lowers the long-term environmental impact of building materials.



Natural Architectural Metals

Copper, stainless steel, titanium, and zinc are among the most durable and sustainable materials used in architecture. Unlike painted or coated materials, the finish of these metals is not applied to the surface—it is inherent to the alloy itself. Over time, these materials naturally develop protective patinas that enhance corrosion resistance while giving buildings a distinctive architectural character.

This intrinsic durability provides a major sustainability advantage. A façade designed to last 100 years instead of 25 years dramatically reduces replacement cycles, manufacturing impacts, and construction waste.

Typical service life examples include:

- Copper roofs and cladding: commonly 100+ years
- Stainless steel: extremely durable alloy systems capable of lasting for generations with minimal maintenance
- Titanium: highly corrosion-resistant architectural metal capable of extremely long service life, 100+ year, with exceptional durability in aggressive environments
- Zinc roofs façades: often 80–120 years*
- Aluminum: CSI Architectural Metal does not recommend mill-finished aluminum for exterior architectural applications. When exposed to the elements, mill-finish aluminum can weather unevenly, often resulting in inconsistent coloration and surface appearance, commonly described as blotchiness.

In addition to longevity, natural metals are fully recyclable and frequently contain significant recycled content, making them a responsible material choice for sustainable building envelopes.

Natural architectural metals may contribute toward several credits within the LEED program developed by the U.S. Green Building Council, including:

Materials & Resources (MR)

- Environmental Product Declarations (EPD): Many metal manufacturers provide EPDs documenting lifecycle environmental impact.
- Sourcing of Raw Materials: Metals commonly contain high recycled content, supporting responsible material sourcing.
- Material Ingredients: Some manufacturers publish Health Product Declarations (HPDs) or Declare labels for transparency.
- Construction Waste Management: Prefabricated metal panel systems reduce field cutting and minimize jobsite waste.

Energy & Atmosphere (EA)

Metal roofs and façades can support building energy performance through reflective surfaces and ventilated rainscreen assemblies.

Sustainable Sites (SS)

Certain metal roofing systems may contribute to Heat Island Reduction credits when finishes meet Solar Reflectance Index (SRI) requirements.

Through longevity, recyclability, and precision prefabrication, natural architectural metals provide an environmentally responsible solution for building envelopes designed to perform for generations.

These characteristics make natural architectural metals a strong choice for projects prioritizing sustainability, durability, and lifecycle performance.




Note: LEED credits are awarded at the project level by the U.S. Green Building Council. Contribution of CSI Architectural Metal products toward specific credits depends on the overall project design and documentation.

Disclaimer: For projects where long-term visual consistency is important, CSI recommends architectural coatings such as PVDF finishes or the use of natural metals with controlled patina characteristics.

Contact Us

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Contemporary Solutions & Innovations