



Guide specification

STRUCTURAL ALUMINUM FRAMING

QwickBuild™ Aluminum Deck Framing System

Revision dated 2 September 2026 · Prepared for projects in the United States

PART 1 – GENERAL

1.1 SECTION INCLUDES

Aluminum deck framing and support system for low-height, mid-height, elevated, and rooftop deck applications, including:

- Aluminum joist and beam profiles
- Aluminum support posts
- Adjustable-height pedestals (A900 series) for floating installations over membrane, concrete, or existing hard surfaces
- Brackets and connectors
- Coated stainless steel self-drilling screws
- Stainless steel bolts
- Solid blocking
- Hurricane Tie supplemental uplift connections
- Accessories supplied as part of the framing system

1.2 RELATED SECTIONS

Coordinate with related work specified elsewhere:

- Cast-in-place concrete (foundations, footings, and supporting construction)
- Wood decking (where applicable)
- Composite decking (where applicable)
- Fluid-applied waterproofing (rooftop deck applications)
- Tiling (where applicable)

1.3 REFERENCES

The following are referenced at the editions stated (refer to Article 1.3.1):

- 2020 Aluminum Design Manual (ADM), Specification for Aluminum Structures
- ASCE/SEI 7-16, Minimum Design Loads and Associated Criteria for Buildings and Other Structures
- International Building Code (IBC), 2018 and 2021 editions, where adopted
- Florida Building Code (FBC), 8th Edition (2023)
- AAMA TIR-A9, Metal Curtain Wall Fasteners

1.3.1 CURRENCY OF REFERENCES

A. The standards and codes listed in Article 1.3 are those against which the manufacturer's published technical information and supporting structural evaluation were prepared, at the editions stated.

- B.** Code editions, adopting instruments and local amendments vary by jurisdiction and change over time. The edition in force for the project, together with any state, county or municipal amendments, is to be determined by the project design professional.

NOTE TO SPECIFIER

The Florida Building Code 9th Edition (2026) takes effect 31 December 2026. Projects permitted on or after that date are subject to the 9th Edition, which adopts a later edition of ASCE 7. Confirm the applicable edition and the currency of the manufacturer's supporting evaluation for the project.

1.4 SUBMITTALS

Provide the following as required by the project:

- Product data sheets for each component specified in Part 2.
- Manufacturer's published installation guides: QwickBuild LH (low-height decks) and QwickBuild EH (mid-height and elevated decks); and surface-specific installation guides where applicable.
- Manufacturer's span tables, as recorded in the structural evaluation report (refer to Article 1.5.D).
- Manufacturer's published standard construction details.
- Fire test report — surface-burning characteristics to ASTM E84-21a, Intertek Report No. 240628001SHF-001, dated 8 July 2024, for the aluminium framing specimen (6063-T6 joists and beams, 304 stainless brackets and screws).
- Safety data sheet(s) and product technical statement(s) for the components specified, as applicable to the project.
- Manufacturer's storage and handling requirements.
- Shop drawings sealed by a licensed professional engineer where required by the building official, showing layout of joists, beams, and posts; connection details; and supplemental uplift connection locations where required by the wind uplift design.
- Manufacturer's published limited warranty, and the Outdure Contractor Program terms.
- Structural evaluation report (refer to Article 1.5.D).

NOTE TO SPECIFIER

Design-assist resources (available from the manufacturer):

- DeckPlanr online design-and-configuration tool.
- An online span/load calculator for use by qualified persons.
- A Revit-based design, estimation and quantification service.
- A shop-drawing service.

These tools produce indicative information only (refer to Article 1.4.1.C).

Technical support resource — BART (Better Answers in Real Time):

BART, the manufacturer's technical AI agent, gives technical product, application and project answers from supplied plans. It is intended to cite the sources it draws on and to indicate where information is missing or professional review is required. BART is a design-assist and information resource, and is not a licensed engineer, an engineering certification, or a fixed quote; its outputs are not verified, engineered or code-compliance determinations, and must be verified against the sources and a licensed engineer.

Engineering services:

Project-specific structural engineering is available through a licensed professional engineer engaged for the project, subject to the licensure and authorisation requirements of the jurisdiction (in some jurisdictions, including Florida, an entity offering engineering services requires a certificate of authorisation in addition to an individual licence).

1.4.1 TECHNICAL INFORMATION AND DESIGN RESPONSIBILITY

- A. The manufacturer's published technical information — including span tables, standard details, installation guides and product data — is published for use by qualified persons and addresses the framing system as evaluated.
- B. Selection of design loads, load cases and load combinations; determination of the applicable code and its edition; and application of the manufacturer's technical information to the conditions of the project are the responsibility of the project design professional.
- C. Design-assist tools, calculators and advisory services made available by the manufacturer produce indicative information only. They do not constitute engineering design, engineering certification or a determination of code compliance, and do not replace review by a licensed professional engineer.
- D. Matters outside the scope of the manufacturer's evaluation are stated in Article 2.2 under Conditions of Use and require project-specific engineering.

1.5 QUALITY ASSURANCE

- A. **Single-source supply:** Provide the primary framing components, pedestals, brackets, fasteners and proprietary accessories from a single manufacturer. The supporting structural evaluation addresses the manufacturer's components and their connections as an assembly. Substituted or mixed components are outside the scope of that evaluation, and the manufacturer's published span tables and details do not apply to them.

NOTE TO SPECIFIER — SUBSTITUTION

This Article specifies a proprietary system. On projects subject to public-procurement requirements, address substitution through the substitution-request procedures in Division 01. Where a substitution is accepted, the manufacturer's evaluation, span tables and details do not extend to the substituted components, and the project design professional is to establish structural adequacy independently.

- B. **Contractor program:** The Outdure Contractor Program is open to licensed professional contractors installing QwickBuild. It comprises the levels Registered, Trained, Verified and Strategic Partner. Participation, requirements and any benefits are governed by the published Contractor Program terms.
- C. Code compliance and project engineering are project-specific and remain the responsibility of the project design professional. The installing contractor's programme level does not alter that responsibility and does not affect the manufacturer's materials warranty (refer to Article 1.9).

D. Structural evaluation and code acceptance

- 1. Structural performance of the framing members and their assembly connections has been evaluated by independent licensed structural engineers against the standards listed in Article 1.3, as recorded in Anchor Engineering, Inc., AEI Project Number 241068, dated 7 March 2025, evaluated by Jason Stebbins, P.E. (Florida Professional Engineer No. 85972).
- 2. An evaluation report is evidence submitted in support of code compliance. It is not a determination that the system is approved, listed or certified for use.
- 3. No product-approval instrument is held for the system.
- 4. In correspondence dated 12 December 2024, the Florida Department of Business and Professional Regulation advised that decks fall outside the scope of the State Product Approval Program, and that approval of such products is subject to review and approval by the local building official.
- 5. That advice addresses the Florida State Product Approval Program. It does not address local product-approval or acceptance requirements in any jurisdiction, including the High-Velocity Hurricane Zone, and no advice has been obtained on those requirements.

6. Acceptance of the system for the project, including any acceptance under the alternative materials, design and methods of construction provisions of the applicable code, rests with the authority having jurisdiction.
7. The specifier is to confirm, before specifying, that the manufacturer's evidence is current, is recognised in the project's jurisdiction, and covers the configuration specified.

NOTE TO SPECIFIER – FLORIDA

The State of Florida has advised that decks fall outside the State Product Approval Program, and that approval of such products rests with the local building official (refer to Article 1.5.D.4). Local acceptance requirements, including those applying in the High-Velocity Hurricane Zone, have not been addressed by that advice. Confirm the acceptance route with the authority having jurisdiction before specifying this system on a Florida project.

1.6 PRE-INSTALLATION

Conduct a pre-installation conference to review substrate conditions, the installation sequence, and coordination with related work, including waterproofing where applicable.

1.7 DELIVERY, STORAGE, AND HANDLING

Deliver, store and handle components in accordance with the manufacturer's published requirements. Store off the ground, protected from damage and from contact with dissimilar materials that may cause corrosion.

1.8 PROJECT CONDITIONS

Confirm field measurements and substrate conditions before fabrication and installation. Confirm that material selection and finish are appropriate to the exposure zone (refer to the manufacturer's maintenance guidance).

1.9 WARRANTY

- A. Provide the manufacturer's published limited warranty for the QwickBuild aluminium framing system, current at the date of purchase.
- B. The materials warranty is a limited lifetime warranty for residential applications and a 15-year limited warranty for commercial applications, and applies without regard to the identity of the installing party. As defined in the published warranty, "limited lifetime" means the useful life of the product under normal use, not exceeding 30 years from the date of original installation.
- C. Coverage is subject to the exclusions and conditions stated in the published warranty, which include installation in accordance with the manufacturer's published installation guidelines, maintenance in accordance with the manufacturer's published maintenance guidance for the applicable exposure zone, and the exposure-zone limitations stated in that document.
- D. The warranty does not cover defects or damage caused by installation that does not accord with the manufacturer's published installation guidelines, where the manufacturer demonstrates that the defect or damage was so caused.
- E. Separate workmanship undertakings may be available from contractors participating in the Outdure Contractor Program. Any such undertaking is given by the contractor under that programme, is distinct from the manufacturer's materials warranty, and neither extends nor conditions it.
- F. Refer to the published warranty for the full terms, conditions, exclusions, transfer provisions and claim procedure. In the event of any inconsistency between this Section and the published warranty, the published warranty governs.
- G. The manufacturer's conditions of sale apply to the supply of the products specified in this Section.

NOTE TO SPECIFIER

Warranty terms vary by market and are subject to the consumer legislation of the place of sale, which in some jurisdictions cannot be excluded or limited. Confirm the current published warranty for the project's market.

PART 2 — PRODUCTS

2.1 MANUFACTURER

Outdure LLC

A Delaware limited liability company
254 Chapman Road, Suite 208 #16972, Newark, Delaware 19702, USA
Technical contact: technical@outdure.com

2.2 PRODUCTS

System description

QwickBuild is a modular aluminium framing and support system for exterior decks and paved patios, installed over waterproofing membranes, concrete, existing hard surfaces or natural ground. It provides low-height capability for flush internal/external threshold transitions, and long-span capability that reduces the number of footings or support points required. The system is supplied as prefabricated panels or kit-set components with proprietary brackets, connectors and fasteners.

Performance requirements

The manufacturer's span tables and supporting structural evaluation (refer to Article 1.5.D) address the framing members and their assembly connections as follows:

- Structural evaluation to the 2020 Aluminum Design Manual and ASCE/SEI 7-16 §2.4 Allowable Stress Design load combinations, to a deflection limit of $L/360$.
- Gravity design loads addressed by the span tables from 20 psf to 120 psf, at joist spacings of 12, 16, 18 and 24 inches; wind uplift addressed from -10 psf to -30 psf. Selection of the design loads applicable to the project is the responsibility of the project design professional (refer to Article 1.4.1).
- Suitable for exterior deck framing in residential and commercial applications — low-height, mid-height, elevated and rooftop — subject to the Conditions of Use below and to project-specific engineering where noted.
- Allowable spans:** refer to the span tables recorded in the structural evaluation report (Article 1.5.D). The minimum span from the gravity and uplift tables governs.

Conditions of use

This specification and the supporting evaluation address the deck framing members and the connections required to assemble the framing. The following are outside that scope and are the responsibility of the project design professional, by project-specific engineering:

- Concentrated (point) loads, seismic loads, and lateral stability of the deck structure.
- Connection of the deck framing to the supporting structure, including pedestals (A900 series), ledger and superstructure anchorage.
- Decking and surface materials and their attachment to the framing.
- The capacity of solid blocking, its fixing, and any guard or balustrade connection it supports (refer to the following paragraph).
- The continuous uplift load path beyond the joist-to-beam connection (refer to the following paragraph).

Solid blocking is supplied as a substrate for guard and balustrade post attachment. The capacity of the blocking, its fixing, and the guard or balustrade connection are not established by the manufacturer's evaluation and are to be designed by the project design professional in accordance with the applicable code, including the concentrated and distributed loads required for guards.

The manufacturer's uplift provisions and supplemental uplift connection details address the joist-to-beam connection only. The continuous uplift load path from the framing to the supporting structure and foundation is project-specific engineering and is the responsibility of the project design professional.

Features

- **Lightweight:** aluminium framing reduces structural dead load and eases handling.
- **Corrosion behaviour:** aluminium does not form iron oxide; corrosion behaviour varies by exposure zone, per the manufacturer's maintenance guidance and warranty.
- **Recyclable:** aluminium is a recyclable material.
- **Low maintenance:** subject to the inspection and cleaning regime defined in the manufacturer's maintenance guide for the applicable exposure zone.
- **Warranty:** refer to Article 1.9 and the manufacturer's published limited warranty.

Material

- Structural profiles, beams and posts: 6063-T6 aluminium alloy.
- Brackets and connectors: 304 stainless steel with electrophoretic coating, or powder-coated aluminium, depending on component.
- Self-drilling screws: 304 stainless steel, coated.
- Bolts: 304 stainless steel.
- Adjustable pedestals (A901, A905, A910, A915): polypropylene.
- Protection / acoustic pad (A925): rubber.
- Solid blocking (A851): recycled plastic (predominantly HDPE, LDPE and polypropylene).
- No galvanised steel components are used in the system.

NOTE TO SPECIFIER – FIRE

The framing members are extruded aluminium. Support pedestals, protection pads and solid blocking are polymer components. Where the applicable code imposes requirements on the combustibility of materials in the proposed location — including rooftop applications and construction on or above roof assemblies — the project design professional is to determine the applicable requirements and confirm the suitability of the system as configured.

The aluminium framing specimen (joists and beams, stainless brackets and screws) has been tested for surface-burning characteristics to ASTM E84-21a, recording a Class A result for that specimen (refer to the fire test report in Article 1.4). The polymer components were not included in that test.

Joist and beam profiles

Code	Nominal	Section (mm)	Std length (mm)	Std length (nominal)
A100	2 × ½"	13 × 45	5800	20' (nominal)
A110	2 × 1"	28 × 45	5800	20' (nominal)
A120	2 × 2"	45 × 45	5800	20' (nominal)
A130	2 × 4"	90 × 45	5800	20' (nominal)
A140	2 × 6"	135 × 45	5800	20' (nominal)
A150	2 × 8"	180 × 45	5800	20' (nominal)

Support posts

Code	Nominal	Section (mm)	Std length (mm)	Std length (nominal)
A194	4 × 4"	90 × 90	2800	10' (nominal)
A195	6 × 6"	135 × 135	5800	20' (nominal)

Adjustable pedestals

Adjustable-height pedestals (A900 series) support bearers or joists for floating installations over membranes, concrete, pavers or natural ground, allowing the deck to be levelled without penetrating the substrate. The system covers a height range from 3 mm to 305 mm (1/8" to 12") with 1 mm stepped adjustment. Load rating: up to 1,000 kg (2,205 lb) per unit (allowable design load). Connection of the pedestals to the supporting structure is project-specific engineering (refer to Conditions of Use).

Code	Component	Height / range	Notes
A901	Deck Support Packer	3 mm (1/8")	Polypropylene; stackable to 5
A905	Deck Support, adjustable	15–35 mm (5/8–1 3/8")	Polypropylene; incl. protection pad; stackable to 5
A910	Deck Support, adjustable	35–65 mm (1 3/8–2 1/2")	Polypropylene; incl. protection pad
A915	Deck Support Extender	30 mm (1 3/16") each	Polypropylene; stack under A910, to 8
A920	Slope Corrector (optional)	up to 7% gradient	Corrects sloping substrates
A925	Protection / Acoustic Pad (optional)	10 mm (3/8")	Rubber; stacks under A910

Brackets and connectors

Code	Description
A203	QwickBuild Joist Anchor Bracket
A301	90° Bracket and Joist Anchor (for A110 profile)

Solid blocking

Code	Description	Dimensions
A851	Recycled-plastic solid blocking	135 × 135 × 1200 mm (nominal 6 × 6"; length 1200 mm ≈ 3' 11 1/4")

A851 solid blocking is manufactured from recycled plastics (predominantly HDPE, LDPE and polypropylene).

Solid blocking is supplied as a substrate for guard and balustrade post attachment. The capacity of the blocking, its fixing, and the guard or balustrade connection are not established by the manufacturer's evaluation and are to be designed by the project design professional in accordance with the applicable code, including the concentrated and distributed loads required for guards.

Fasteners

Code	Description
1/4-14	Self-drilling screw, coated stainless steel (system connections)
H30	30 mm screw configurations
H65	65 mm screw configurations

Hurricane Tie — supplemental uplift connection

Where wind uplift loading requires supplemental connection capacity beyond the standard joist-to-beam bracket detail, install the Hurricane Tie detail at the joist-to-beam connection, in accordance with the manufacturer's installation guides and the project-specific wind uplift design.

The manufacturer's uplift provisions and supplemental uplift connection details address the joist-to-beam connection only. The continuous uplift load path from the framing to the supporting structure and foundation is project-specific engineering and is the responsibility of the project design professional.

PART 3 – EXECUTION

3.1 EXAMINATION

Examine substrates and supporting construction for conditions affecting installation. Do not begin installation until unsatisfactory conditions have been corrected. Commencement of installation constitutes acceptance of substrate conditions.

3.2 PREPARATION

Do not fasten through waterproofing or roofing membranes. Provide corrosion isolation at contact between dissimilar metals, in accordance with the manufacturer's published requirements.

Where the system is installed over a roof or waterproofing membrane, before installation:

1. Confirm with the membrane manufacturer that the proposed overburden, support type and support spacing are acceptable and do not affect the membrane warranty. The framing manufacturer gives no undertaking in respect of the membrane or its warranty.
2. Verify material compatibility between the polymer supports, protection pads and the specific membrane proposed. Compatibility is not established by the framing manufacturer.
3. Confirm that the compressive capacity of the roof build-up is adequate for the concentrated support loads. This is to be verified by the project design professional.

3.3 INSTALLATION

Install the system in accordance with the manufacturer's published installation guides. Do not substitute components or fasteners.

Solid blocking is supplied as a substrate for guard and balustrade post attachment. The capacity of the blocking, its fixing, and the guard or balustrade connection are not established by the manufacturer's evaluation and are to be designed by the project design professional in accordance with the applicable code, including the concentrated and distributed loads required for guards.

Install Hurricane Tie supplemental uplift connections at locations required by the wind uplift design. The manufacturer's uplift provisions and supplemental uplift connection details address the joist-to-beam connection only. The continuous uplift load path from the framing to the supporting structure and foundation is project-specific engineering and is the responsibility of the project design professional.

Where a conflict arises, the applicable code and the project engineer's design govern; the manufacturer's guides govern the assembly of the system. Refer conflicts to the project design professional before proceeding.

3.4 FIELD QUALITY CONTROL

Verify that connections, fastener types, and supplemental uplift connection locations are installed in accordance with the manufacturer's installation guides and the project-specific design.

3.5 PROTECTION

Address surface protection in accordance with the manufacturer's requirements. Remove aluminium filings and debris from membranes and surfaces before laying surface materials.

END OF SECTION

Design professionals may reproduce and edit this Section for use in project documents specifying this system. The manufacturer gives no undertaking in respect of edited versions. This Section is prepared for projects in the United States.

NOTE TO SPECIFIER – REVISION CONTROL

Confirm this is the current revision before incorporating this Section into project documents. Superseded revisions are retained and available on request.