



Review façade design criteria and performance requirements

Review façade design criteria and performance requirements before detailed design with an interactive checklist that's commentable and can export as PDF/Excel, aligning targets and tests early.

Project:

Date:

Filled by:

Structural and Load Criteria

1	Confirm design wind pressures and zones from the wind microclimate study; method: review report and apply zone maps to elevations; acceptance: pressures assigned to each panel; evidence: annotated elevations, signed calculation summary.
2	Set serviceability deflection limits for mullions/transoms; method: preliminary frame analysis; acceptance: lateral deflection $\leq$ span/500 at service wind; evidence: analysis printout with load cases and sign-off.
3	Verify ultimate strength with connection reactions; method: load path review and connection checks; acceptance: factor of safety $\geq$ specified in project documents; evidence: connection schedule with reaction table and engineer approval.
4	Assess building movements (interstorey drift, creep, thermal); method: obtain structural report and expansion estimates; acceptance: jointing accommodates calculated movement + 20% allowance; evidence: movement matrix and interface sketches.
5	Confirm primary structure capacity at fixing points; method: check anchor edge distances and slab/beam capacity; acceptance: reactions within allowable limits; evidence: anchor layout with structural endorsement.

Thermal, Moisture, and Air Performance

6	Define target U-values and solar control (SHGC/g-value); method: align with energy model; acceptance: targets recorded per orientation/system; evidence: signed performance schedule and model extracts.
7	Set façade air permeability criteria; method: reference whole-building airtightness strategy; acceptance: rate $\leq$ specified $\text{m}^3/(\text{h}\cdot\text{m}^2)$ at 50 Pa; evidence: design note and test method statement.
8	Establish water penetration resistance levels; method: select static/dynamic test pressures; acceptance: no leakage at specified pressures and duration; evidence: laboratory test plan and acceptance table.
9	Evaluate condensation risk and thermal bridges; method: 2D/3D thermal modelling; acceptance: surface temperature factor prevents mould growth; evidence: thermal report with isotherms and reviewer sign-off.
10	Define drainage and weep strategy; method: section review for cavities and baffles; acceptance: positive drainage paths with $\geq$ 1:100 slope; evidence: annotated sections and detail references.

Fire, Acoustic, and Safety Requirements	
11	Confirm material reaction-to-fire and any required fire resistance; method: review fire strategy; acceptance: classifications meet project specifications and authority requirements; evidence: product data sheets and fire engineer confirmation.
12	Define cavity barrier and fire-stopping locations; method: interface matrix and compartment line overlays; acceptance: continuous barriers at all required lines; evidence: marked drawings and responsibility matrix.
13	Set acoustic performance targets; method: consult acoustic report; acceptance: $R_w/D_{nT,w}$ per space types documented; evidence: acoustic schedule and calculation summary.
14	Confirm impact safety and fall protection requirements; method: review glazing thickness and fixity; acceptance: line load and impact resistance satisfied; evidence: calculations and product certification.
15	Agree maintenance and cleaning strategy; method: BMU/anchor layout review; acceptance: safe access coverage with rated anchors; evidence: access plan, load checks, and O&M; outline.

Materials, Durability, and Interfaces	
16	Select materials for corrosion resistance and exposure; method: environmental category assessment; acceptance: finishes and alloys match exposure class; evidence: datasheets and draft warranties.
17	Verify sealant and gasket compatibility; method: supplier compatibility letters or lab screening; acceptance: no softening, swelling, or staining; evidence: compatibility statements and batch records.
18	Set coating and finish criteria; method: sample review and lab tests; acceptance: colour $\Delta E \leq 2.0$ and gloss as specified; evidence: test reports and approved tagged samples.
19	Define fastener/anchor types and protection; method: preliminary pull-out/torque trials; acceptance: resistance $\geq$ design load $\times$ safety factor; evidence: trial records and specification schedule.
20	Set interface tolerances and adjustability; method: tolerance stack-up analysis; acceptance: accommodate ± 10 mm floor edge variance; evidence: tolerance table and interface sketches.

Testing, Documentation, and Compliance	
21	Plan performance mock-up scope; method: mock-up matrix covering corners, spandrels, and interfaces; acceptance: all critical details included; evidence: approved ITP and signatures.
22	Agree lab and on-site test programs; method: select methods per approved project specifications and authority requirements; acceptance: air, water, structural, impact tests scheduled; evidence: test program and QA plan with dates.

Comments:

Filled by:

Signature:

Introduction	How to use this checklist
Review façade design criteria and performance requirements before detailed design is the most effective way to lock in façade performance while controlling risk and cost. This checklist supports envelope performance reviews, curtain wall specification alignment, and cladding design standardization before details are drawn. It focuses on defining measurable targets, verifying assumptions (loads, movements, tolerances), and agreeing on test plans and documentation so the detailed design flows without surprises. By clarifying wind pressures, thermal transmittance, air and water tightness, fire strategy interfaces, acoustics, drainage, and maintainability at this stage, teams avoid redesigns, missed authority expectations, and procurement delays. The outcome is a coordinated façade basis-of-design, an agreed verification pathway (mock-ups, lab and on-site tests), and a documented record traceable to approvals. Start in interactive mode to tick items, leave accountable comments, attach evidence, and export to PDF/Excel with a secure QR for authentication.	1. Preparation: Gather wind studies, structural movement data, energy model outputs, fire and acoustic reports, preliminary layouts, and product data. Ensure stakeholders (architect, structural, MEP, fire, façade) can access the platform. Wear appropriate PPE if performing site verifications. 2. Set targets: Enter project-specific performance targets (loads, deflection, U-values, air/water, fire, acoustic) in the checklist fields. Attach supporting reports and define acceptance criteria per approved project specifications and authority requirements. 3. Using the Interactive Checklist: Switch to interactive mode, tick items as you verify, add time-stamped comments, assign actions to owners with due dates, and attach photos, calcs, or model snapshots for evidence. 4. Coordinate: Mention and resolve clashes directly in comments (e.g., anchor edge distance, barrier continuity). Update items' status and reassign until acceptance evidence is complete and approved. 5. Export: Generate an export as PDF/Excel including tick status, comments, attachments, and issue log. The file is sealed with a QR code for authenticity and quick access to the live record. 6. Sign-Off: Capture digital signatures from responsible leads (architect, façade engineer, contractor). Distribute the signed export to stakeholders and archive within the project's CDE with QR-linked traceability.