

Unitized Curtain Wall Installation JHA

Worked instructional example

Work and worksite

A specialist facade crew will crane-set a factory-glazed unitized curtain-wall module at a released upper-floor position on a stabilized steel-frame building. Installers receive the module from protected floor-side positions. This fictional learning example describes planned controls; it records no actual inspection or work authorization.

- Module weight, proprietary lifting points, anchors and connection sequence are defined in approved facade/erection documents.
- The employer establishes applicable steel-erection and fall provisions, protected receiving access and rescue arrangements for this operation.
- Loose-pane glazing, field structural-silicone bonding, suspended-platform erection and using the module as fall protection are excluded.

Questions before work

- Which document verifies the complete glazed module's lifting attachment?
- How are installers protected while the module enters the facade opening?
- What confirms anchor engagement and stability before crane release?

Task Hazard Control

1 Release the facade bay

Hazard: Unready anchors or an unstable receiving structure can permit module collapse.

Control: Facade lead verifies frame/bay release, anchors and the approved setting sequence. Identify interfaces with edge protection and floors below; keep work on hold for incomplete supports.

Verification: Lead compares the bay and module marks with current facade documents.

Reasoning: A factory-glazed unit still depends on site anchor readiness.

2 Protect receiving positions

Hazard: An open facade or crane load can expose installers to falls and crushing.

Control: Establish the planned protected positions, fall system and rescue arrangements before any edge protection changes. Separate lower levels and keep installers out of the approaching module's path.

Verification: Erection/facade lead checks receiving access and protection before pickup.

Reasoning: The module's arrival changes the facade opening but does not remove fall exposure.

3 Rig the complete module

Hazard: Glass, frame or lifting attachments can fail if used outside their design.

Control: Qualified rigging personnel verify module condition, weight and the proprietary lifting arrangement. Lift through the specified points; do not assume a vacuum device rated for a loose pane can lift the entire framed module.

Verification: Rigger matches attachments and module identification with the lift instructions.

Reasoning: The framed assembly has a different load path from its glass pane.

Complete the work and hand over

4 Bring the module into position

Hazard: Wind can rotate a large module into workers or the building.

Control: Use the agreed crane signals and planned orientation controls within the specified wind limits. Keep people clear of the suspended assembly and receive it from protected positions without reaching through crush gaps.

Verification: Signal person and receiving lead monitor control and clearance throughout approach.

Reasoning: Large glazed modules present substantial wind area.

5 Engage and verify anchors

Hazard: A partially engaged bracket can release after the crane disconnects.

Control: Complete the documented bearing, anchor engagement and restraint checks while crane support remains. Verify the required hold points and obtain designated release before unrigging; do not rely on appearance or one engaged corner.

Verification: Facade lead records actual anchor checks against the approved setting criteria.

Reasoning: Connection completion must be confirmed before support transfer.

6 Secure and hand over the bay

Hazard: Unfinished joints or missing edge protection can expose later crews.

Control: Maintain required protection, identify unfinished joints and restrict loading/access under the facade stage release. Transfer module and anchor status to the weatherseal and inspection teams.

Verification: Receiving lead confirms protection and open actions at handover.

Reasoning: Module setting does not settle weatherseal or final facade acceptance.

Pause and reassess

- Module damage, lifting uncertainty or lost wind control.
- Unready anchor, unexpected fit or incomplete engagement.
- Receiving protection, crane communication or lower-level exclusion fails.

Improve the controls

Needs improvement: Work carefully and wear PPE.

More useful: Qualified rigging personnel verify module condition, weight and the proprietary lifting arrangement. Lift through the specified points; do not assume a vacuum device rated for a loose pane can lift the entire framed module.

Needs improvement: Check that everything is ready.

More useful: Facade lead verifies frame/bay release, anchors and the approved setting sequence. Identify interfaces with edge protection and floors below; keep work on hold for incomplete supports.

Decisions that change the analysis

Can a pane-rated vacuum lifter handle a complete curtain-wall module?

Only if the actual device and complete-module arrangement are specifically approved for that load and surface. This example uses the module's defined lifting points; it does not extend the ground-level loose-pane lifting example.

What must the crew record for actual use?

Identify the actual equipment and work boundaries, responsible people, applicable criteria, inspection findings and open actions. Resolve changes with affected crews and obtain required project authorization before work.

Training needs

- Module-specific erection, anchor engagement and crane-release instruction with applicable lift qualifications.
- Applicable steel-erection/fall training and facade receiving/rescue responsibilities.

Confirm applicable qualifications and actual training evidence for the people assigned. Related toolbox talks support discussion; they do not establish competence.

References and adaptation

OSHA 1926.761 Steel erection training

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.761>

OSHA 1926.760 Steel erection fall protection

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.760>

OSHA 1926.21 Safety training and education

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.21>

References reviewed October 9, 2026. Use actual equipment and product instructions, project design and site requirements. This instructional example supplies no actual inspection results, signatures or work approval.