

FACADE, GLASS AND METAL

Glass and Metal Damage Triage Guide

Identify the damage, document it before anyone touches the glass, and decide quickly whether it needs cleaning, restoration or replacement.

Identify

What kind of damage, on what kind of surface. Sections 1 and 2.

Document

Photos and a written record before any work. Section 3.

Decide

Clean, restore or replace, and what to avoid. Sections 4 to 6.

1 Identify the damage

Damage	What you see	Common causes	Usual path
Staining	Spots that sit on the surface and come off with cleaning	Irrigation overspray, runoff from precast and masonry	CLEAN Cleaning or hard-water removal, then fix the source
Etching	A haze or pitting that cleaning will not remove	Minerals and pollution bonded to the glass over time	RESTORE Glass restoration, if not too deep
Scratching	Fine or deep lines that remain after cleaning	Construction debris, scraping, vandalism	RESTORE if shallow. REPLACE if deep
Oxidation	Dull, chalky or pitted frames and mullions; streaks on the glass below	Weather and neglected metal	RESTORE Metal restoration, then clean the glass
Coating failure	Patchy reflection, or a visible change in light through the glass	Scratched or damaged exposed coatings	REPLACE Polishing cannot put a coating back
Graffiti	Painted, scratched or etched marks	Vandalism	CLEAN for paint. RESTORE for etched marks
Seal failure	Fogging or moisture between the panes of an insulated unit	A failed edge seal	REPLACE No surface work can reach it

Staining is a cleaning problem. Etching is a restoration problem. Clean a small spot first: if it comes off, it was on the glass, not in it.

2 Identify the surface

- ☐ **Heat-treated glass.** Most architectural glass is. Its surface needs extra care: scraping can drag particles across it and scratch it.
- ☐ **Exposed coatings.** Touch a pencil point to the glass. If the point meets its reflection, a coating is on that surface.
- ☐ **Tinted and reflective glass.** Do not clean or treat it in direct sun, when the surface can be too hot.
- ☐ **Spandrel glass.** Treat it like vision glass, with its own test area.
- ☐ **Architectural metals.** Note aluminum, brass, bronze or stainless, and whether it is anodized, painted or bare.
- ☐ **Insulated units.** Check whether damage is on a surface you can reach, or between the panes.

Not sure what you are looking at? Do not clean, scrape or treat it yet. Document it first (page 2), then get an assessment on the actual glass.

3 Document it before anyone touches the glass

- ☐ Photograph each elevation wide, so locations are clear
- ☐ Close-ups of every defect, with something for scale
- ☐ Shoot at an angle too: some damage only shows in raking light
- ☐ Record the location, surface, defect and photo reference
- ☐ New build: walk the glass with the general contractor before the final clean
- ☐ Restoration: agree the scope in writing and approve a test area first
- ☐ Have both parties sign or acknowledge the record
- ☐ Repeat after the work, with matching photos

Location (elevation, floor, pane)	Surface	Defect	Photo ref	Recorded by

4 Decide: restore or replace

Question	Points to restoration	Points to replacement
What kind of damage?	Staining, etching, scratches, oxidation, graffiti	Seal failure, damaged exposed coatings, cracks that affect strength
How deep?	Removable without distorting the glass or cutting through the finish	Too deep to remove without distortion
How much?	Localized, or across panes that are otherwise sound	Widespread, with replacement already planned
Is it safe?	The glass is structurally sound	Damage affects strength or safety
Time and disruption?	Typically faster and less disruptive	Lead times, permits, scaffolding acceptable
Cost?	A fraction of replacement cost	Restoration cost approaches replacement

5 Signs it means replacement

- Fogging or moisture between the panes
- A scratched or damaged exposed coating
- Scratches or etching too deep to remove without distortion
- Cracks or damage that affect strength or safety
- Restoration cost approaching replacement

6 What not to do

- Scrape glass. Scrapers, abrasives and harsh chemicals can cause irreparable damage
- Use acidic cleaners on coated glass
- Treat tinted or reflective glass in direct sun
- Skip the test area
- Start work before the damage is documented

Get an honest assessment. S&K will assess your glass and metal, tell you whether it needs cleaning, restoration or replacement, and scope the work in writing. Restoration brings scratched, stained and oxidized surfaces back at a fraction of replacement cost and downtime.