Tip Sheet

Site Condition Assessments - Exterior

A site condition assessment should allow your organization to prioritize maintenance, repairs, and replacements, and to effectively plan your capital budget. The tips below address common observations, issues to watch for, recommendations for maintenance, repair, or replacement, data capture and reporting, and best practices. Below, we address tips specific to exterior facility assets.

Inspecting and Maintaining Your Exterior Facility Assets

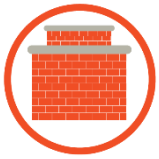
Awnings

Awnings are not only decorative but they are also a great way to reduce the impact of the sun on interior finishes and interior temperature.

- Owners should make sure that the awning design and structure are capable of withstanding snow and wind loads.
- The most overlooked cause of awning failure is snow load from a roof or balcony above the awning falling and landing on the awning. The tremendous weight of this falling snow can collapse the awning, causing personal or property damage.
- EMG recommends that if an extreme wind or snow event is predicted, the owner should consider taking the awning down or at least removing the canvas or synthetic covering from the frame until after the weather event.
- We also suggest that owners put awnings on their semi-annual inspection list to make sure they are free of rips and tears, and attachments to the building are secure.

Retaining Walls

Retaining walls typically fail as a result of one or more of the following: poor design, poor installation, or deferred maintenance. There are several conditions that can be visually observed on a routine basis to prolong the useful life of a retaining wall. Beyond observation of site conditions, proactive actions like those listed below should be taken, notated, and recorded.



- Gently power wash residual salts and microbial growth off of the surface of the retaining wall structure. This will not only make the exterior surroundings more aesthetically pleasing but also keeps the negative impact of mineral deposits and moss from deteriorating the masonry, concrete, or wood materials over time.
- Maintain and prune weeds, shrub, or tree growth at the wall and adjacent to the wall. This will alleviate the impact to the structural integrity of the wall from compromising the joints, particularly at the top several courses of the retaining wall.
- Monitor and adjust sprinkler heads and irrigation so that they are not directly impacting the wall integrity with excessive moisture or erosion.
- Monitor surface drainage from onsite and particularly offsite sources that are directing surface drainage towards the wall and potentially undermining the retained soils.
- Install or adjust vehicle wheel stops so that direct vehicle contact to the wall is reduced.
- During routine visual site inspections, look down the plane of the wall for any signs of displacement, bulging, cracking, or heaving of the wall lines. An owner or vendor can also perform a closer visual inspection of the wall surface for spalling or cracking, which may indicate structural issues, undermining of soils, drainage, or tree root impact.

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Roofing

There is no definitive way to determine the exact life of a roof. Many factors must be taken into consideration: severe weather, hail, exposure to direct sunlight, proximity to trees, maintenance practices, and more are at play.

- The expected useful life (EUL) of most modern roofing systems ranges from 15 to 25 years.
- EMG recommends replacement of asphalt shingles more often than a standing seam metal roof.
  - Asphalt shingles have an expected useful life (EUL) of 20 years.
  - Standing-seam metal roofs have a 40-year EUL.
- Ascertain the lowest roof pitch that can support asphalt shingles.
  - Generally, the lowest pitch that can support asphalt shingles is 2.5/12 pitch (11.77 degrees).
- Verify steps necessary to defer a roofing replacement for 3 or 4 years.
  - On some low-slope roofs (that allow for it), an application of a polyurethane spray foam coating topped with an elastomeric sealant could defer the roof replacement for up to five years.

Stair and Balcony Railings

Many balcony railing balusters are too far apart and create a life safety issue. Oftentimes clients want to turn to a quick fix and install horizontal rails at 6” to 8” intervals from top to bottom of the railing to correct the spacing issue. This creates several issues:

- This “remedy” creates another life safety issue - a “ladder” that a child or others can climb up and potentially over, leading to injury.
- There are ways to repair balusters that are too widely spaced (approximately 8 inches) without complete replacement.
  - A stair contractor/welder may be able to add components which would close the baluster spacing to four inches or less, as required by local safety standards.
    - EMG has seen this performed without incurring the expense of complete replacement.

Reminder: Ascertain how high a walking surface must be from grade before a safety railing is required. Industry practices typically require railings at 30 inches or greater.

Site Light Poles

Most site light poles in a parking lot are constructed of steel or aluminum. Water may find its way into the pole shaft, get trapped and possibly settling at the base, causing the interior structure to lose its structural integrity and potentially fail.

- Failure and toppling of a 20’-50’ steel structure can have impact on parked vehicles and pedestrians.
- Site condition assessments of light poles should note and document any deterioration at the metal base structure, using visual observations and diagnostic testing.
- In accordance with priority, life safety concerns, and capital planning, determine repair or replacement of deficient poles.
- Owners should address site light poles on their semi-annual inspection list to ensure they are structurally sound and interior damage is not present.

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Data Capture and Reporting Tips:

You don't need to coordinate a vendor for each asset. When it comes to collecting asset data, facility directors and managers have three options:

1. Utilize your in-house staff. First, ask yourself if you can provide nationwide coverage if needed.
2. Outsource all project details. Choose one vendor to achieve consistency in approach and data collection.
3. Augment your in-house staff. Partner with a firm that will deliver unbiased and timely insight of your assets.

When capturing and reporting data for Site Condition Assessments:

- Avoid multiple spreadsheets. There is too much room for error when more than one spreadsheet is in use, especially by multiple users. Avoid confusion and miscommunication among versions, inconsistent entries, and other updates/edits.
- Consider using a centralized web-based platform that promotes collaborative, real-time data entry that is easily accessible via computer, mobile device, and tablet.
- Rely on a reporting platform that will capture, track, and report all project milestones, including budget development and other financial details.
  - EMG's proprietary ProTrack and AssetCALC™ software tools streamline every aspect of a client's project management.
- Report data in real time to include updates to all assets for predictive analysis.

Best Practices for any Site Condition Assessment:

- Maximize the scope with the allotted budget dollars.
- Minimize the effect of an assessment on customers, especially as part of a remodel, rebranding, merger, or acquisition.
- Focus your in-house departments on core operations, rather than large-scale, time-consuming site visits.
- Outsource assessments to a partner who provides nationwide coverage.
- Capture and report data in an objective, consistent, easy-to-analyze format.
- Control your spending by proactively planning your capital budget.
- Customize the criteria and rating system for your organization.
- Utilize a robust, intuitive reporting system.

Questions? Let's Talk.

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About EMG

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