

McGill Restoration Systematically Approaches Joint Replacement on Tower

The U.S. Bank Tower is among the tallest buildings in downtown Lincoln, NE, and as such is a community landmark. Constant leaking created disruptions to tenants, ultimately forming a costly patchwork of temporary repairs. The building required a thorough approach to sealing joints with minimal tenant disturbance.

THE CHALLENGE

Implementing Multiple Types of Joint Sealants in Sequence

The bank building had several different types of joints that called for different joint sealants. This presented a challenge in terms of efficiency as each floor required alternating between different joint sealant materials.

Additionally, rigging for elevated outdoor work required swing stages with extension time and labor to secure. Everything from positioning to safety measures required precision planning and implementation.

Working on the building required minimizing tenant disruptions with considerations for noise. Working on Saturdays was not possible as the area shuts down due to local events. Despite the challenges, McGill Restoration had a plan to seal each floor in sequence while increasing the longevity and maintaining the integrity of the structure as a whole.

COMMON SCOPE OF WORK REQUIRED

The work was planned to restore four floors in 6-8 weeks. This would serve to minimize tenant disturbance and maximize impact by working through the fall when wind and rain allowed for efficient progress. The full scope of the job required:

- ⊗ Replacing joint sealants between window glass and metal framing
- ⊗ Replacing failed joint sealants between metal and concrete
- ⊗ Replacing concrete-to-concrete joint sealants
- ⊗ Inspecting building for damage and additional repairs on the fly

The biggest hurdle to many of the joint sealants was access and rigging the outdoor swing platforms. It's technical work that requires extreme caution and attention to detail while working in difficult positions. Ultimately, planning and completing the work with efficiency while minimizing disturbances presented challenges but nothing the McGill Restoration team wasn't prepared to overcome.

THE SOLUTION

Properly Seal Every Joint for a Watertight Structure

McGill Restoration was dedicated to protecting the investment by extending the lifespan of the building while also creating a watertight environment for tenants. This involved detailed planning to complete everything with the highest quality while the swing platform rigging was in place.

The team completed four floors at a time, methodically working to cover every inch of gap and joint that required sealing while making additional repairs as needed. The project was a huge success, adding long-term water protection for each floor.

SET UP SWING PLATFORMS

McGill Restoration faced a challenge with the top-level rigging swing platforms. The platforms were a major undertaking as they require significant planning for weather considerations. The work was completed during the fall season when weather events are generally milder. Low chances of major precipitation and wind events prevented delays and allowed the team to work diligently. Saturdays were the only exception as college football season takes over the town but every other weekday was



REMOVE OLD SEALANTS AND PREP EACH JOINT

New sealants are not effectively applied without complete removal of old sealants. Cleaning and prepping every joint is a time-consuming and critical step in the process. Before McGill Restoration, another contractor was hired based on a low-price offer. The previous contractor failed to remove old sealants and as a result, the joints were never actually sealed against moisture. McGill Restoration removed all old sealants and prepared the joints for true waterproofing sealant applications.

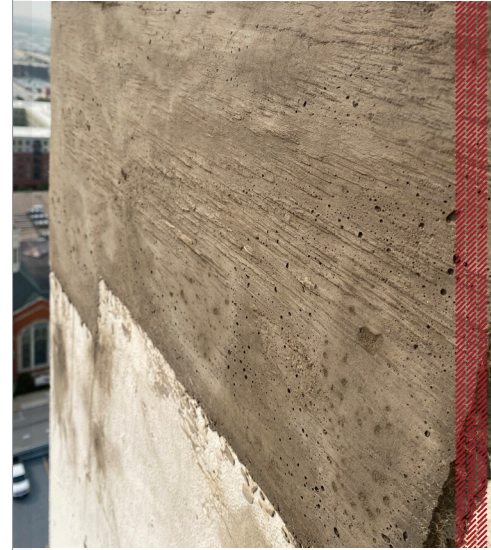
INSTALL NEW SEALANTS USING MULTIPLE MATERIALS

The varying types of joints called for multiple sealant types used on each floor. Alternating between sealants called for special attention to cleaning the application guns and to ensuring the proper material was used on each joint.

The sealants used were:

- ✓ Urethane for concrete-to-concrete joints
- ✓ Urethane for metal-to-concrete joints
- ✓ Silicone for glass-to-metal joints

Glass-to-metal window joints are also called glazing joints and urethane is not acceptable for sealing glass. Silicone was the ideal application here while urethane was the most durable bond for the concrete joints. The team diligently sealed every joint on each floor with the proper chemical bond.



USE OUTDOOR RIGGING FOR ADDITIONAL SITE REPAIRS

Exterior, above-ground repairs require extensive outdoor rigging, at major costs. While McGill Restoration was tasked with replacing joint sealants, the crew took advantage of the exterior position to inspect the building for additional damage. Damage to fins was discovered as a result of a lightning strike. The damage would have eventually caused leaking and further deterioration but the team repaired the area, saving the client \$40,000 in future rigging costs.

Although not within the planned scope of work, the additional repairs were completed because the McGill Restoration team is dedicated to the success of the structure and stakeholders.



COMMUNICATE WITH STAKEHOLDERS AND TENANTS

Throughout the project, McGill Restoration communicated with the building manager to ensure everyone was on the same page and aware of all the moving pieces. The open lines of communication helped the team work through noise considerations while moving the project toward a successful completion.



THE RESULT

U.S. Bank Building Continues Legacy in Downtown Lincoln, NE

Working through four floors at a time in an ongoing, annual process, McGill Restoration replaced failed joint sealants and gave the building a much-needed layer of protection against water damage. As a result, the building was able to continue housing banking operations while hosting tenants in additional space. The work was done methodically to deliver the highest quality joint sealants while being mindful of tenants and noise disruptions. The consistent schedule minimized disruptions to the business while helping the property manager allocate maintenance budget across the year.



The McGill Way: What We Accomplished

- ✓ Fair market price to replace joint sealants while inspecting building exterior
- ✓ Completed additional repairs from swing platforms, saving \$40k in future cost to inspect damage
- ✓ Rigged building with swing platforms to reach critical joints
- ✓ Solved pervasive water issues coming from failed joint sealants
- ✓ Repaired poor work from previous contractor

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