



# CASE STUDY: Lifting Up & In

## An Innovative Solution Conquers Material Handling Challenges

### The Problem:

**Baltimore, MD**— A customer needed to move equipment from the ground level exterior to the interior, third floor operating space of their facility. This level was accessed through an overhead, roll-up door that, per the customer's constraints, could not be modified or replaced. They required a 1-Ton capacity and equipment that had a range of motion from outside the building to an area inside the building.

### The Resolution:

To meet this unique situation, Shupper-Brickle proposed a custom-made javelin crane system paired with an ultra-low headroom hoist.

A javelin crane is a monorail made mobile with one push trolley and one hand-gear trolley attached and rolling directly beneath a structural building beam. In this case, the javelin crane moved out through the 3<sup>rd</sup> floor roll-up door to the building's exterior. The hoist, an ultra-low headroom R&M LoadMate electric chain hoist, could then move along the javelin and out the dock door. With 45 feet of lift, the hook lowered to the ground level to retrieve equipment to the third floor. When not in use, the javelin crane was retracted back inside the building.

The end-user realized many benefits from the mobility features of this system over a permanent structure built both inside and outside the building. First, the workplace was made safer since the 3<sup>rd</sup> floor loading door could be closed when not in use. Further, the customer avoided costly modifications to the building. Also, indoor storage of the system meant that standard components could be used rather than a heavier duty for outdoor use.

This system was engineered and custom-fabricated by Shupper-Brickle Equipment Company. Specialty machined components included the trolley lugs and anti-kick roller assemblies which provided a counter weight as the javelin crane cantilevered through the exterior door. This innovative and cost-effective solution provided the customer with a unique material-handling system that will last for years to come.

