Concrete Form Hook Box

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Problem The City of Golden Valley Street Maintenance Division is responsible for miscellaneous concrete work throughout the city. To improve the division’s concrete output, 200 feet of four-inch steel forms and 200 feet of six-inch plastic forms were purchased. Initially, these forms were stored in an offsite storage facility, and city staff would load what was needed into the back of a truck each day. In most circumstances, multiple trips were required to transport all of the necessary equipment and tools to the job site. In addition, staff had to climb into the back of the truck and search for tools, which wasted time.

Solution The city purchased and fabricated a concrete form hook box that uses the SwapLoader system to organize and transport tools, materials, and equipment.

Procedure Staff compiled a list of tools, equipment, and materials needed to complete most concrete projects. The city purchased a flatbed hook-box frame and the required metal to fabricate storage boxes and shelving. A 55-gallon drum of curing compound and a pump were also incorporated into the form box. Every tool and piece of equipment was assigned its own area.

Results Using the SwapLoader system enabled the division to switch between a dump body, debris box, and the form box, which saves mobilization time and allows the truck to have several uses. The Street Maintenance Division’s efficiency increased because all of the concrete forms and tools are now organized, secured, available on site, and reachable from the ground. The hook box has also improved safety by eliminating the need for employees to climb in and out of the back of the truck looking for tools.

Approximate Cost $3,400

OPERA Funding $1,000

Implementation When staff have a concrete project, they connect the concrete form box to a one-ton truck using the SwapLoader system. After driving to the project location, they lower the form box to ground level and use the necessary tools and equipment directly from the form box.

Status Complete

View the complete project report online at www.mnltap.umn.edu/opera.
Local OPERA Program partners: Minnesota Local Road Research Board (LRRB), Minnesota Department of Transportation (MnDOT), and Minnesota Local Technical Assistance Program (LTAP) at the Center for Transportation Studies, University of Minnesota.

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