Construction Elevators – No Longer a Luxury

Economic Benefits of using an Elevator on a construction site can mean a 46 percent savings

By: Paula Manning

Safety, reliability, efficiency, budget: the words we live and die by in the access industry. It is our primary objective to safely position men and their materials at the exact required location creating a secure and effective work place. Every day we strive to deliver to our customers an arena where personnel can safely operate at maximum productivity. We utilize every conceivable tool or device to help us reach this goal. The utilization of a construction hoist on a high rise commercial job site is certainly one of these tools and not a new idea. In the current economic climate every single dollar is getting a closer look and old tools are being applied in a new fashion: consider a construction elevator on a low or mid-rise structure.

It is expected that a two or three hundred foot project will have a construction elevator on site. Studies have been published showing the massive safety and economic advantages of utilizing elevators at this height; it is a clear and easy decision. The question is at what height can these same advantages be realized? Is it a three story building? Eight? Ten? If the cost would break even between an elevator and a stair tower, would the stair tower still be erected? Consider not what it costs to have an elevator on a jobsite but what it costs to *not* have an elevator on a jobsite.

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The following is an economic comparison using a construction elevator and a standard stair tower on an eight story project

Assume that a eight story structure requires an 80' stair tower or elevator and for an eight month duration, and that there are thirty skilled laborers using the stair tower or elevator daily making an average of $50 per hour with benefits. For the purpose of this study, each laborer makes five round trips from grade to height on the stair tower including lunch and scheduled breaks, each one way trip taking approximately twenty seconds per floor. The travel speed of a construction elevator is 175 fpm and wait time is applied:

Stair Tower –VS- Construction Elevator	
Cost of laborers to climb Stairs	$106,665
Stair Tower & Related Costs	$37,000
Total Job Cost with Stair Tower	$143,666
Costs of Laborers to Ride an Elevator	$28,285
Elevator & Related Costs	$48,500
Total Job Cost with Elevator	$76,785
Savings with Elevator	$66,880 or 46.55%

I have yet to meet a single general contractor who wouldn't want to save 46% on anything and this study merely represents the economic savings in simple climb time; additional benefits exist with the utilization of a construction elevator:

- Productivity increases as workers get to their work site faster and without the need for recovery time after a climb.
- Riding an elevator eliminates the basic wear and tear on a worker's body that would normally be experienced when climbing stairs while carrying heavy tools.
- More frequent inspections of the work by supervisors are possible due to easy access to the various levels on a jobsite.
- There is less need to tie up expensive crane time as trades can move material with the construction elevator.
- More efficient stocking of floors
- Improved project schedule

Rarely do we get to make decisions that so positively affect every aspect of the job: safety, productivity, employee morale, efficiency, quality of work and, of course, the almighty bottom line. The decision to utilize a construction elevator has never been easier, regardless of the height of the project. Once thought of as merely a luxury, the construction elevator has now become a viable and money saving alternative to a stair tower.

Do you know even ONE GC that wouldn't want to save 46% on moving men and materials around the jobsite?

On a jobsite nothing is more valuable than personnel and nothing can run the costs up on a job like inefficient use of personnel.

The luxury is now the money saving necessity.

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