

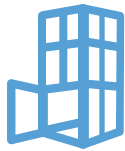


**GILLESPIE**  
corporation SINCE 1923  
Elevators ■ Material Lifts ■ Cranes

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**HOLELESS, ROPED HYDRAULIC, CANTILEVERED PLATFORM Optimizes Space Usage**  
*Material Lift Serves as Innovative Transport & Storage System at AUSTRIAN CULTURAL FORUM  
Borough of Manhattan, New York*



### CREATING SPACE OUT OF THIN AIR

Perhaps more so than anywhere else in the world, Manhattan office space is at a premium. So it's no wonder that when the Republic of Austria was expanding the interior of its cultural forum to include apartments, a library, galleries, storage areas, mechanical rooms and a theater, every effort was made to optimize all available space. Accordingly, the owner raised the possibility of being able to inconspicuously store a piano off the stage in a way that still ensured easy, quick accessibility, thereby freeing up valuable stage area when the instrument wasn't needed.

### THE CHALLENGE: Designing an "Invisible" Transport & Storage System

In a two-story-high theater measuring 23' wide x 35' long and fronted by a 7'4" wide x 19' long x 20' high stage, there was virtually no room for piano storage. Lacking any existing specifications or drawings, the engineers at Gillespie had to design a system for rapidly transporting a 1,000 lb grand piano back and forth from the stage to a hidden location.

### THE SOLUTION: A Ceiling-Routed Holeless, Roped Hydraulic, Cantilevered Platform

Realizing there was no place to go but up, Gillespie engineers identified the perfect spot for piano storage: inside the hung ceiling directly over the stage, which was 48" below the concrete slab of the floor above.

CHAIN  
HOIST

RAIL  
BRACKET

6'-4"  
SHAFTWAY  
CLEAR

6'-0"  
CLEAR

EEL

Pg. 1

PIT



## HOLELESS, ROPED HYDRAULIC, CANTILEVERED PLATFORM Optimizes Space Usage *(continued)*

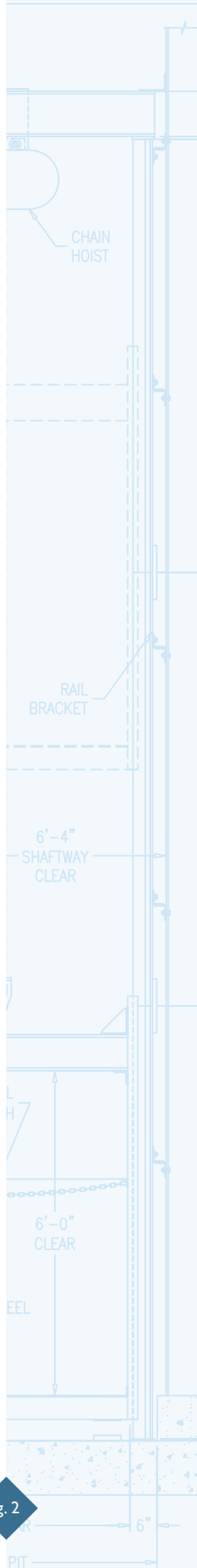
The plan was to construct a 1,000 lb capacity lift platform, the bottom of which would seamlessly blend into the ceiling by precisely matching its color and texture. Gillespie's innovative design consisted of a holeless, roped hydraulic, cantilevered platform with the rails and cylinder secured to the reinforced-concrete building wall using a permissible 6.5" clearance off the wall's face. All the equipment, including rails, cylinder, brackets, limit switches, supporting steel for the cantilevered platform, sheaves, wire rope, class A car safety, slack cable switch, hydraulic and electric piping, and two pieces of vertical 2" x 3"-tubing supporting the acoustical panel between the rails was hidden behind the wall panels.

Using removable floor panels, a pit was created in the stage surface. A retractable wire reel above the hung ceiling was used for the traveling cable. The lift platform's bottom doubled as a safety panel, whereby any pressure against it automatically halted platform travel.

In continuous operation since 2002, the lift platform has provided the Austrian Cultural Forum with years of highly versatile, optimized stage usage.

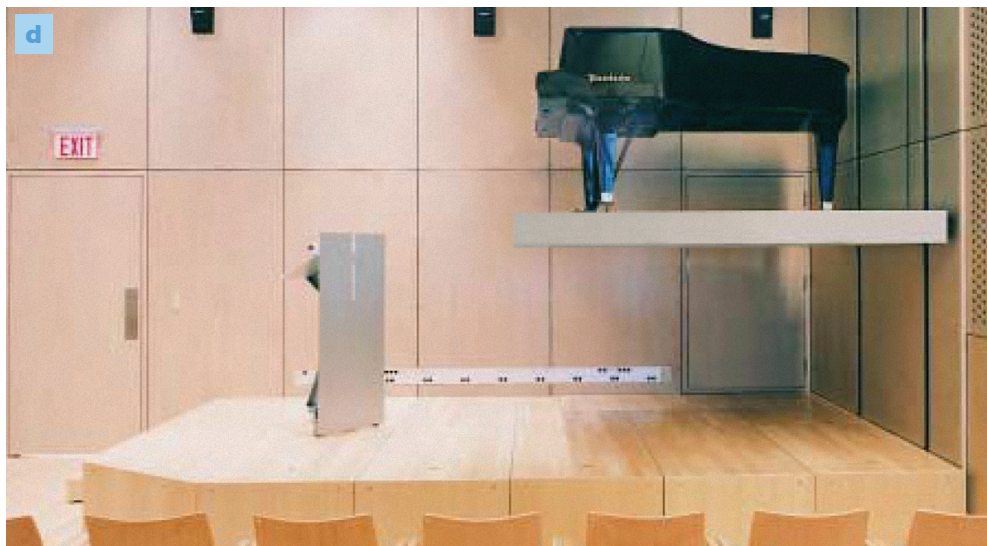
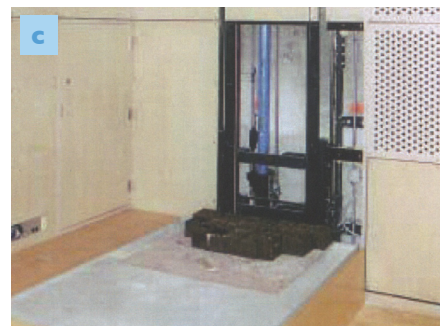
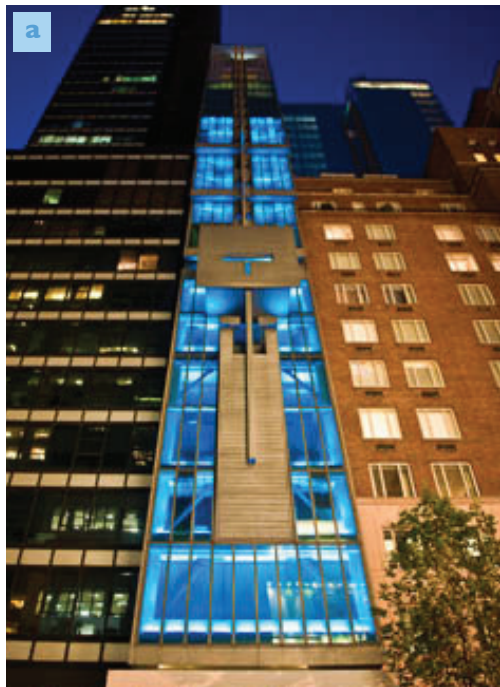
### AWARDS

ElevatorWorld 2003 Project of the Year *(1st Place)*  
(Category: Special Application Systems)





## HOLELESS, ROPED HYDRAULIC, CANTILEVERED PLATFORM Optimizes Space Usage *(continued)*



**a** The Austrian Cultural Forum **b** Piano ascending to ceiling  
**c** Platform lifting device during installation **d** Side view of the lift in operation