

DIS

re:news

At  
**DESIGN  
 INSTALLATION  
 SYSTEMS,**  
 our **REPUTATION**  
 is in our **WORK.**

#### THIS MONTH'S FEATURES:

- **PROJECT SPOTLIGHT:  
233 EAST WALTON**
- **BOB TRACY**



DESIGN INSTALLATION SYSTEMS, INC.  
 8110 River Drive, Morton Grove, IL 60053  
[www.disrestoration.com](http://www.disrestoration.com)

#### INTRODUCTION

Because we normally focus on a few specific items in each issue of these newsletters, we sometimes worry that readers may not be getting a comprehensive picture about the capabilities and operation of Design Installation Systems. Looking at all 14 of our newsletters together, one would get a good picture of what we at DIS are all about; however, in many cases a reader may have gotten only a snapshot from one or two issues. Because of this, we like to remind readers from time to time that...

"Design Installation Systems specializes in exterior restoration of all types of buildings. Our main area of work involves the repair and rebuilding of exterior facades on high-rise structures in the Chicago area. All types of general construction are completed by DIS staff: Masonry, stonework, building cleaning, coating application, caulking and flatwork are completed by our union workers. As a full-service company, we strive to provide a wide range of support services including pedestrian canopy and material supplies. Through our in-house facilities, we provide our own job-site custom fabricated structural steel as needed, sheet metal flashing, and accessory pieces and custom-cut stones. Also, we can fabricate wood forms, window elements and other replacement items from our wood shop, as well as ornate cast stone replacements from the casting facility in our warehouse."

"In short, at Design Installation Systems, we feel that any construction project can be handled best when supervision is streamlined and communication is optimized. Keeping many production and installation aspects of a project under our direct control provides for better quality and problem-free execution, and ensures completion in a timely manner."

Design Installation Systems also has a Web site that features back issues of the newsletter and contains additional information about the company. Visit DIS on the Web at [www.disrestoration.com](http://www.disrestoration.com) or call us at (847) 470-8100 for back issues.



## PROJECT SPOTLIGHT

### 233 EAST WALTON

The September 2004 issue of the DIS newsletter featured an article about bidding and multiphased projects. A theme of that piece, and a theme that runs throughout our work, was that rehabilitation work is most satisfying when we are able to rehabilitate a building's complete exterior.

At Design Installation Systems, we tend to get involved personally with our work; we take pride in the look of the project once we leave it. It is nice to finish a building face, but it is *really nice* to finish the *whole building*. Because completing this type of work is time consuming and costly, most often the work is completed over the course of years.

Back in 1997, DIS began a project in Chicago at 233 East Walton. We were challenged with the task of total removal and replacement of the face brick on two sides of the building—a fairly ambitious project for the time.

*These photographs were taken near the start of the first project DIS was involved in at 233 East Walton.*

*Note the deterioration of the face brick and window sills. The supporting steel angles also were severely corroded and required replacement as the masonry wall was removed and rebuilt.*

*At the base of the building, on the north elevation, the facade is decorative stone. Replacement pieces were precast in our shop and installed by DIS. This portion of the facade was painted with a protective architectural coating. The remaining portions of the two faces were masonry and required 100 percent rebuilding.*

*Windows were protected and left in place, so that the work could proceed with a minimum of disturbance inside the unit. The building was in use as a residence during all phases of this project.*



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The 233 East Walton Building is a 1920s vintage 14-story residential building. Like many buildings of the period, its steel-reinforced concrete and brick structure was covered by brick masonry. The face brick and steel lintels on the two street sides of the building were showing their age. A good cleaning would have made the facade look better but would not address the real problem: movement in the facade caused by the expansion of steel angles as they grow with rust. Because the deterioration of the steel lintels and shelf angles was widespread, it was decided to strip all of the brick rather than trying to stabilize and preserve the areas around the work.



*The two faces were rebuilt floor by floor, from the parapet wall to the ground. In addition to that work, the rooftop penthouse was worked on, and some structural beams on the roof needed major restoration. All work was completed by Design Installation Systems' skilled craftsmen.*

During the 1997 rehabilitation project, it was decided to clean and maintain the remaining two facades. DIS completed remedial repairs to the brick masonry and cleaned it. As the years passed, it became clear that a major building component which was not replaced in 1997 would need attention. At the 4th and 14th floors are decorative precast concrete bands, including large, sculptured panels and heavy “bull-nose” stones—all supported by steel angles. These precast pieces and angles were not rebuilt during the masonry project and were maintained only on an “as needed” basis. With time, the steel started to rust, causing shifting, which calls for rebuilding. DIS was asked to take a look at the specifications.

*Pictured here is a section of the 2004 Prototype repairs. The test project went well and in 2005 a project was launched to completely rebuild the stone bands on the 4th and the 14th floors.*



*This photograph of the west and south (fire escape) sides of the 233 East Walton Building shows one tarped area currently under construction.*

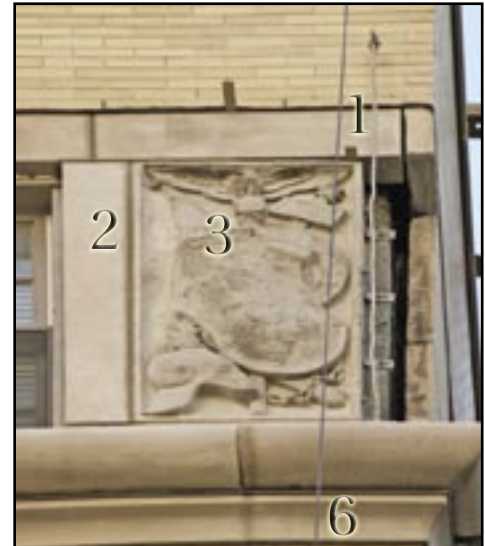
*The photo includes one side that was rebuilt in 1997 and another side that was not. The upper band being rebuilt is on the west elevation where brick was rebuilt nine years ago. Replacing the 4th- and 14th-floor decorative bands completes the rebuilding on this elevation.*



As the successful bidder, we began work on limited areas of the bands as prototype repairs. This small scope of work allowed the engineer and owner to review the work and decide whether or not the work could be done on a larger scale and within the budget. Fortunately the prototype work progressed well, and the scope of the next project included all of the remaining portions of the decorative bands.

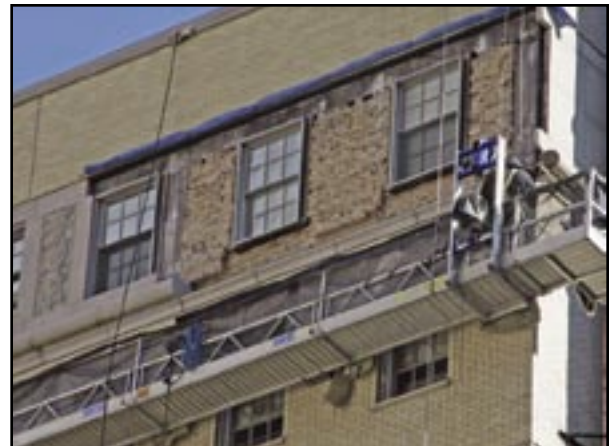
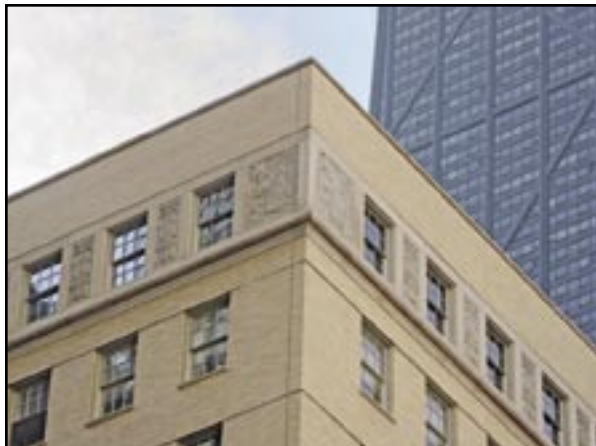
## PROJECT SPOTLIGHT

*The original pieces in these bands were made of precast concrete and were painted. In poor condition, most existing pieces would not have survived removal to be reinstalled. A decision was made to replace the existing pieces with limestone and to fabricate new "picture" pieces to emulate the old pieces. This way, the natural materials could be left uncoated, complimenting the masonry.*



*The bands consist of a number of elements:*

*1) Flat Lintel 2) Stone Mullion 3) Picture 4) Sill 5) Bull Nose 6) Cove Piece*



*The finished picture panels average about 65" x 48" x 5". They are made by DIS in our shop and transported to the site, as needed, for installation. All stone pieces are cut at the DIS stone shop specifically for this project. These hand made pieces, once assembled, match the profile of the former pieces, but have the added aesthetic value of stone. It was decided that the cast "picture" pieces matched the limestone closely and did not require paint.*

## PROJECT SPOTLIGHT



*The large picture pieces presented an unusual challenge to the DIS fabrication team—how to replicate precast pieces whose molds have not been seen for at least 80 years.*

*Our answer was to first fabricate a mold from an existing piece and then begin the recasting process.*



*A picture piece that is in fair condition is removed from the wall, refurbished in our shop and then boxed along its edges to form a mold. Then a special urethane-based mixture is poured in and cured. After curing, the hardened cast is peeled away. This cast is then boxed in and used as a mold for the concrete.*



*The new piece is fabricated using modern materials not available to the original builders. The stainless steel threaded rods are used as reinforcing and also will be used to tie the panel back to the structure. The panel itself is made of new high-strength concrete. The concrete is cast under controlled conditions inside our shop, which ensures that it will cure properly.*

*After proper curing, the box is removed and the mold is peeled off. The concrete panel is cleaned and made ready for installation.*

## FOUNDATIONS

### BOB TRACY



After serving four years in the United States Navy, Bob Tracy served Chicago's North Shore area as an assistant chief firefighter. At that time, Design Installation Systems was a start-up company finding its way in the Chicago contracting market. Bob worked part time to help out, then became more and more involved with company operations. As DIS began to grow, Bob made a decision to leave his career in public service and work for DIS full time as a construction supervisor. That was a full 25 years ago, and we are grateful for Bob's years of service. His commitment and dedication have helped to grow DIS and make it the company it is today.

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Morton Grove, IL 60053



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