



# Norfolk & Southern Railroad Rollover

## Project Description

Replacement of the 4-span, Norfolk & Southern Railway bridge over the Wabash River.

The scope of work included:

- construction of a new bridge on falsework adjacent to the existing truss bridge
- change-out using the rollover method, during a 16-hour railroad shutdown
- demolition of the existing structure upon completion, using controlled explosives
- the roll-out/roll-in was completed several hours ahead of schedule, to facilitate rail traffic



Owner – Norfolk & Southern Railway  
 Architects -- Norfolk & Southern Railway  
 Completion Date – May 1998  
 Contract Value -- \$3,300,000



## Unique Challenges

- Design and construction of a temporary false work system to roll out the old three-span structure, and roll in the new four-span structure.
- The roll-out/roll-in method was accomplished using hydraulic cylinders designed by Halverson to synchronize the pull of the different spans.
- Threaded rods with hydraulically controlled jacks were utilized to synchronize the rate of pull along the falsework, minimizing misalignment of the track.
- Construction of replacement spans was completed in their final vertical position. This allowed for alignment modifications prior to the rollover, and saved project time.
- Using well-tested construction procedures with innovative approaches, Halverson completed the rollover work in 14 hours.

## Project Details

- Constructed two river cofferdams to complete new pier work
- Furnished and erected 626 tons of structural steel for new river bridge
- 740 cubic yards of reinforced concrete for new substructure
- Removed 500 tons of existing structural steel from existing truss bridge

## Contact Information

Halverson Construction Co., Inc.  
 620 North 19<sup>th</sup> Street  
 Springfield, Illinois 62702  
 Phone: 217-753-0027 | Fax: 217-753-1904