

## TARGET RESULTS. EXPERTLY MANAGED.

*Bridge Replacement Project Completed On Time and Under Budget*

### THE SITUATION

For nearly 90 years, Flaugherty Run Bridge carried vehicular traffic over SR 3089 in Moon Township, Allegheny County. By 2008, the bridge was in serious disrepair and appraised as “functionally obsolete” by the National Bridge Inventory. This confirmed findings by the Pennsylvania Department of Transportation District 11-0 (PennDOT), which had already tagged the structure for replacement. In late 2008, PennDOT awarded the bridge replacement project to L.R. Kimball. The project was completed ahead of schedule and under budget thanks, in large part, to the effective planning and project management skills employed by the L.R. Kimball team.

### THE CHALLENGES

At the surface, the assignment appeared to be a standard bridge replacement project. However, residual waste contamination of soils near the bridge, the byproduct of an adjacent auto salvage yard, soon threatened the replacement of the Flaugherty Run Bridge. L.R. Kimball environmental experts were called in to evaluate the situation, and quickly developed and carried out a Phase I and Phase II Environmental Site Assessment. Findings from the assessment were later incorporated into a comprehensive Waste Management Mitigation Plan that helped keep the project on track.

### THE SOLUTION

To address soil contamination issues, the environmental specialists recommended that the affected materials be stockpiled on-site and returned as fill material back in the general area where they were originally excavated. The contractor followed these recommendations and successfully managed all soil contamination concerns.

As soon as these issues were resolved, the project continued without delay.

Using the most current Bridge Automated Design and Drafting (BRADD-3) software available, L.R. Kimball engineers then designed a 68-foot single-span bridge using spread, prestressed concrete box beams.



## Project Overview

### CLIENT

Pennsylvania Department of Transportation, District 11-0  
Flaugherty Run, Moon Township, Allegheny County

### GOAL

Design a single-span bridge to replace an existing deteriorating structure

### L.R. KIMBALL SERVICES

- Bridge design
- Environmental site assessments
- Waterway permitting
- Erosion and sedimentation planning
- Detour and traffic control planning



**L.R. Kimball**<sup>SM</sup>  
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In addition to bridge design, other project features included:

- Approach roadway work
- Erosion and sedimentation planning
- Traffic control planning
- Waterway permitting

The entire project was completed in one construction season.

### THE RESULTS

L.R. Kimball took a proactive team approach to the project, sharing multiple options for preliminary span lengths, skews, beam depths and other project parameters with PennDOT for their initial review. As a result of this hands-on evaluative process, only the final selections were included in the Type, Size and Location (TS&L) Report Submission.

This collaboration generated significant cost savings for PennDOT, and produced a positive working environment that enabled the team to complete the project ahead of schedule and under budget.



[www.lrkimball.com](http://www.lrkimball.com)  
866.375.6812  
[pat.kane@lrkimball.com](mailto:pat.kane@lrkimball.com)  
[kevin.oconnor@lrkimball.com](mailto:kevin.oconnor@lrkimball.com)

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