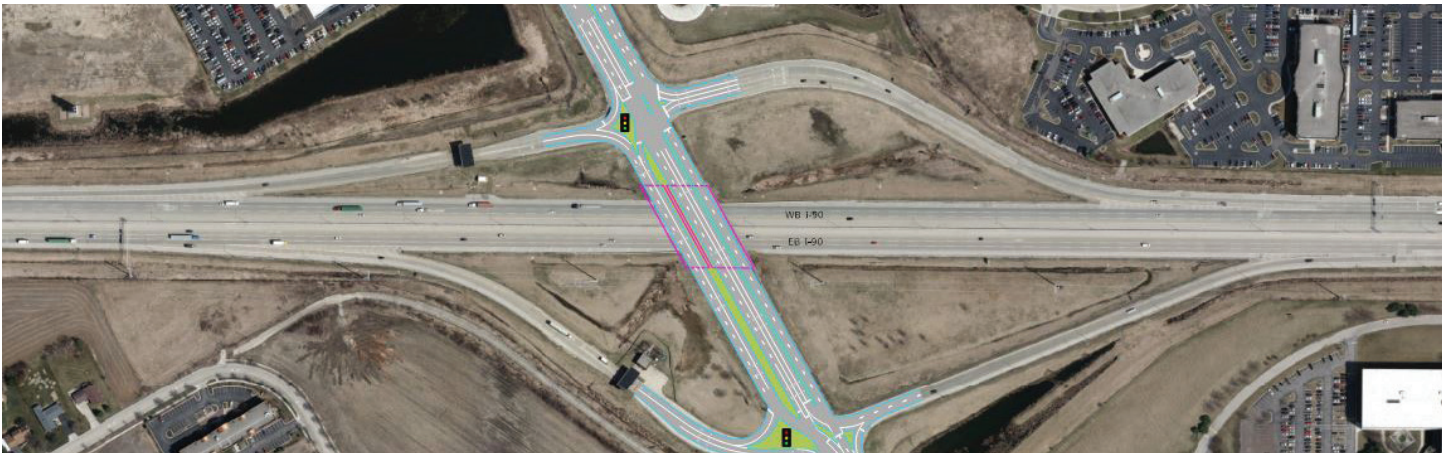


CASE STUDY

Conducting an Innovative PEL Study for a Major Road in Kane County, Illinois

To help identify and implement essential improvements to Randall Road between Big Timber Road and Illinois Route 72 in Kane County, Illinois, the Kane County Division of Transportation (KDOT) selected Burns & McDonnell to conduct a large-scale feasibility study. Roughly six months into the project, the Illinois Department of Transportation (IDOT) requested the team pivot to develop a planning and environmental linkages (PEL) study to satisfy National Environmental Policy Act (NEPA) requirements. The study focused on the Randall Road interchange with I-90, but also prioritized much-needed capacity improvements to Randall Road itself.



Challenge

The project team had performed its early studies in conformance with NEPA requirements, so Federal Highway Administration (FHWA) certification of the work to date was relatively easy to secure. From this point, the project team and the client coordinated closely with IDOT and FHWA, as all parties (including local FHWA staff) were somewhat new to the PEL concept.

One of the first in the Chicago area, the PEL study required extensive communication among a variety of interested parties. Burns & McDonnell led critical coordination activities with the Illinois Tollway, City of Elgin, FHWA and local commercial and municipal interests to develop a better understanding of the traffic, crash and development history of the corridor. Accurate traffic counts had to be identified throughout the corridor to generate conclusive solutions.

Project Stats

Client

Kane County Division of Transportation

Location

Elgin and Sleepy Hollow, Illinois

600
CRASHES ANALYZED

\$670K
STUDY

Solution

Because the PEL study was not included in the original scope of the project, the team had to quickly develop a solution to create a PEL study that satisfied NEPA standards. NEPA standards have no official approval process, but instead rely on a commenting process until the study is considered satisfactory, which can make it challenging to identify what information needs to be included. The team focused on the following deliverables to develop the PEL study:

- Crash analysis
- Development of project criteria
- Geometric alternatives
- Public involvement
- Scoring rubric
- Traffic analysis

In coordination with producing these deliverables, the Burns & McDonnell project team prepared a crash analysis technical memorandum to analyze over 750 crashes reported in the corridor in the most recent five years available. Investigations into noise, bridge conditions, environmental conditions and drainage characteristics were performed as well. Two public meetings — including one which was entirely

virtual due to the pandemic — were conducted to share the results of the investigations. This approach helped interested parties and local officials better understand critical elements of the findings and offer additional input.

Results

When the project deliverables received a Finding of No Additional Comments from FHWA and IDOT in August 2021, the project became the first highway PEL study in the Chicago metropolitan area to reach completion. With the successful completion of an approved PEL study, Kane County can now conduct preliminary engineering activities for projects that will be eligible for federal funding in the future.

About Burns & McDonnell



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