



Virtual Public Involvement Practices in NEPA

Iowa Department of Transportation Black Hawk Bridge

This case study discusses virtual public involvement (VPI) strategies implemented by the Iowa Department of Transportation (DOT) to help meet National Environmental Policy Act (NEPA) public hearing requirements for the Black Hawk Bridge project. The Federal Highway Administration (FHWA) typically requires that agencies hold in-person public hearings, in accordance with 23 U.S. Code (U.S.C.) § 128. Iowa DOT hosted a live, virtual public hearing for the project on June 15, 2021, and an “at your own pace” public hearing accessible online between June 15 and June 30, 2021. Iowa DOT leveraged its proprietary Public Involvement Management Application (PIMA) to track public involvement activities, public meeting and public hearing participants, and comments on the Black Hawk Bridge project.

Black Hawk Bridge Project Background



Built in 1931, the Black Hawk Bridge spans the Mississippi River and connects Iowa and Wisconsin. In 2004, a bridge feasibility study identified three build alternatives for a replacement. These were incorporated into an environmental assessment (EA) that the Iowa and Wisconsin DOTs initiated and published. See **Figure 1** for a map of the study area.

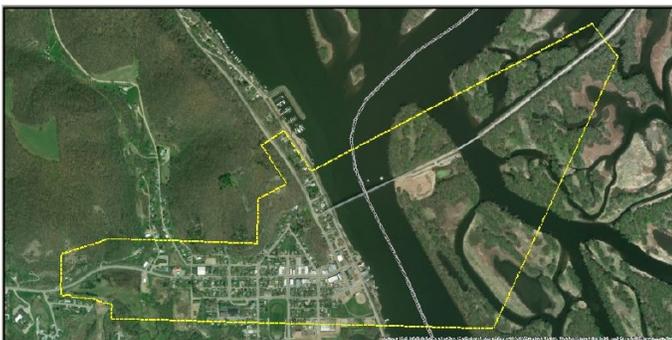
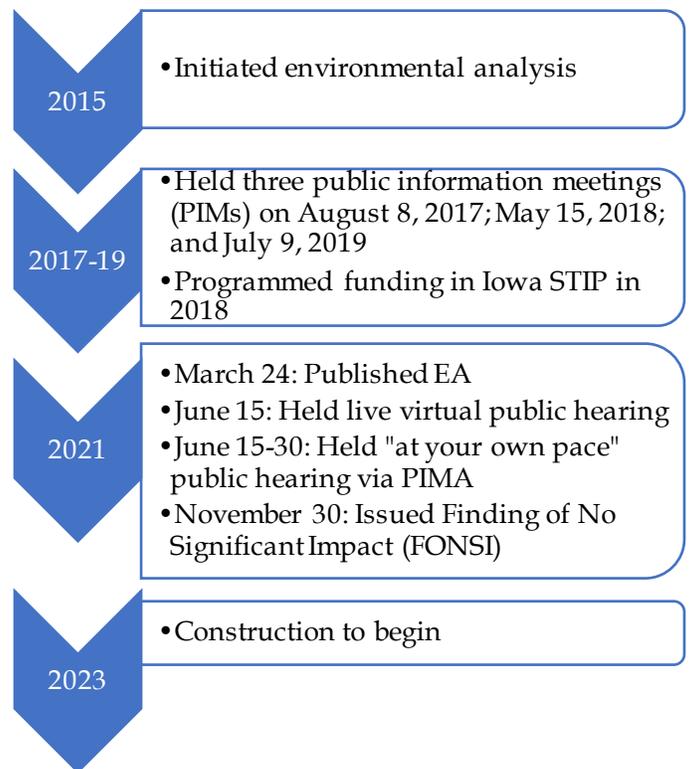


Figure 1. Map of Black Hawk Bridge study area. Source: Iowa DOT.



VPI Approach

Iowa DOT hosted the planned EA public hearing as a live virtual forum utilizing its PIMA software.



Iowa DOT staff has used PIMA since 2013 and has continued to add new functionalities to the tool. For the Black Hawk Bridge project, Iowa DOT staff used PIMA to register meeting participants, collect electronically submitted comments, track the favorability index, share prerecorded PowerPoint

presentations, and, for the first time, livestream a virtual public meeting or hearing. PIMA also hosted an “at your own pace” virtual public hearing, which allowed stakeholders to view the same content presented at the virtual public hearing at a time of their choosing.

The project team hosted a live virtual public hearing for the project on June 15, 2021, using PIMA, during which Iowa DOT staff played a prerecorded video providing an overview of the project, the four project alternatives, general project background, and recent updates. The project team then held a question and answer and comment session where stakeholders could submit a written or verbal question or comment. A panel of speakers from the project team answered the submitted questions. Prior to the public hearing, the project team compiled a list of anticipated questions for the panel to assist their preparation.

Iowa DOT held three practice runs for the virtual public hearing attended by technical staff, the panel participants, and moderator to ensure a polished event, to review roles of staff involved, and to have an opportunity to address any technical issues related to the use of PIMA.

PIMA includes many features to maximize transparency and minimize the potential of technological challenges. For example, PIMA’s transparency features include a countdown clock leading up to the event; a live tally of total attendees (“stakeholders”) who log into the meeting; and verbal and written instructions via chat explaining how to submit comments to Iowa DOT via PIMA, phone, or email (see **Figure 2** for a breakdown of comments received). PIMA’s technological assistance features include an icon indicating connection status to inform an attendee they are successfully connected to a meeting; two buttons for “help” and “having trouble seeing the video?”; and a message in the chat that attendee videos and microphones were disabled during the presentation. After the presentation, moderators provided instructions for how to join a queue to provide verbal feedback.

After the virtual public hearing, Iowa DOT hosted an “at your own pace” virtual public hearing via PIMA for 15 days, where individuals could watch the [public hearing recording](#), review project materials, and submit comments. The PIMA page included additional interactive features, such as a link to project documents and a comment submission box. When an attendee submitted a

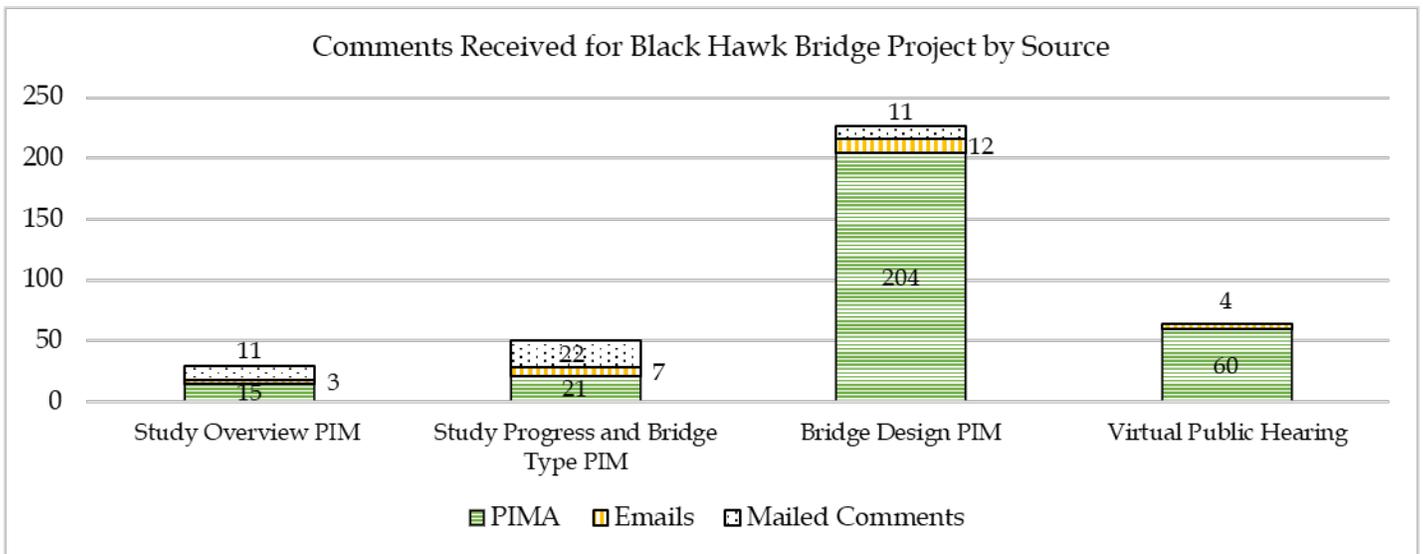


Figure 2. Bar chart showing the number of comments received via PIMA, email, and mail for the three public information meetings (PIMs) and the virtual public hearing (both live and “at your own pace”) for the Black Hawk Bridge project.

comment through PIMA, they could identify the topic(s) pertaining to the comment and whether a response from the Iowa DOT team was desired; indicate a specific location related to the comment using an interactive map of the project area; move a sliding scale to indicate the level of support for the project; and answer a multiple-choice question about how they heard about the project and the public hearing. A total of 161 participants registered and attended the virtual public hearing, with 112 attending the live virtual public hearing on June 15 and 49 participating in the “at your own pace” virtual public hearing (see **Figure 3** for an example screenshot). Others attended without registering individually, including a group of senior citizens

within the most affected region of the project’s study area.



Reaching Underserved Populations

Iowa DOT considers its outreach approach to underserved populations on a project-by-project basis. For the Black Hawk Bridge project, there were no underserved populations (including environmental justice or limited English proficiency communities) in the study area. Because of the location of the project and the demographics of communities in the study area, Iowa DOT was confident in the public’s access to broadband internet and PIMA’s functionality on mobile phones. Iowa DOT did provide a phone number, an email and mailing address of the district Transportation Planner, as alternative ways for the public to request information or send comments if they chose. Project staff made a paper copy of the EA available at the local public library, Lansing City Hall, and the Iowa DOT District 2 office in Mason City, Iowa.



Benefits of VPI

Iowa DOT found it was able to reach different audiences, including younger populations, through its use of VPI strategies, as well as individuals who could not or preferred not to attend in-person meetings. Using social media, including paid social media marketing, helped the agency target the local community beyond property owners who would receive a mailed letter. Further, Iowa DOT reported its use of VPI strategies resulted in more public comments than expected if the agency had only used traditional outreach methods. Iowa DOT also noted that the comments received for the Black Hawk Bridge project tended to be more specific than comments provided on previous projects. The Black Hawk Bridge is the first project where Iowa DOT saw the favorability of a project change significantly by tracking the favorability index in PIMA. It started out unfavorable and with more



Figure 3. Screenshot of “at your own pace” virtual public hearing in PIMA. This includes the same prerecorded video presented at the Black Hawk Bridge virtual public hearing held in June 2021. Source: Iowa DOT.

who watched together in a meeting room.

Leading up to the virtual public hearing and comment period, Iowa DOT leveraged virtual and non-virtual forms of outreach to share project information. The primary source of virtual outreach was the [project website](#), which included a link to PIMA. Iowa DOT also used paid, geotargeted social media advertisements to reach people in the project area. The project team used email to distribute information directly to community groups and previous meeting attendees that expressed interest in the project. Iowa DOT also provided public hearing and comment period information through paid newspaper advertisements, distribution of flyers in public places, and direct mailings to people

outreach and public meetings over three years, the favorability improved.

Moreover, Iowa DOT believes use of PIMA as a VPI tool has increased transparency between the agency and the public. PIMA offers an accessible forum to share up-to-date information on all current projects. The public can view all stakeholder comments submitted to PIMA across different stages of any project through the [Public Portal](#). PIMA also helps keep agency staff accountable by tracking how long staff takes to respond to public comments and sending reminders if they do not respond within two weeks.



Challenges

Iowa DOT faced challenges in securing funding to develop all the desired components of PIMA, so it developed PIMA incrementally. PIMA is a free, proprietary, open-source software that only requires other State DOT adopters to sign a memorandum of agreement (MOA) to share any new developments to the software with Iowa DOT.

Additionally, Iowa DOT found it challenging to balance between a need to protect the privacy of commenters with the agency's commitment to make all comments transparent. To address this, Iowa DOT reviewed all comments and removed personal information from them before posting the comments to the public portal. If an individual preferred to submit an anonymous comment, they had the opportunity to print a PDF comment form from PIMA and mail the completed form to Iowa DOT.



Lessons Learned

Sharing proprietary software in an open-source format is a cost-effective, efficient, and mutually beneficial strategy for developing new features. Iowa DOT shares PIMA with other State DOTs via MOAs that require those States to share any new technical developments with Iowa DOT. For example, the Massachusetts DOT developed

REACH (Real-Time Engagement and Communications Hub), a mobile application for PIMA. The application allows users to follow projects, register for public meetings, and comment on projects. Iowa DOT piloted REACH in October of 2021. All notifications for new public involvement events provide the option to use REACH to access available information.

The PIMA Consortium, which, as of November 2022, includes Massachusetts, Maine, Texas, and Wisconsin, meets monthly to discuss what is new in VPI in their States and enhancements to PIMA that would benefit all States. The Consortium is currently discussing demographic questions and an equity dashboard as of November 2022.

Combining various aspects of public involvement into one platform can support more effective coordination and project development. Using PIMA, Iowa DOT can track stakeholders' comments by project, monitor comment submissions for specific projects more carefully throughout the project's lifecycle, and better assess the success of the agency's public engagement efforts to adjust activities according to stakeholders' feedback. Iowa DOT staff have observed that the application promotes more coordinated collaboration between the agency's public involvement and district office staff.

Allow time and resources for a "learning curve" in adopting new technologies, such as electronic registration and virtual meetings, and ensure both the project team and the public have adequate opportunities to become familiar with these technologies. The Black Hawk Bridge project team noted some members of the public required additional time to become familiar with how to electronically register for the public information meetings (PIM); at each subsequent PIM, staff noted fewer technical assistance requests as attendees increased their comfort level in the electronic registration feature. Iowa DOT staff heard feedback from attendees that they found it convenient and efficient to register for PIMs electronically on their own devices.



Additionally, each additional functionality added to the PIMA platform provided an opportunity for Iowa DOT public involvement staff to practice using a newer technology or platform feature.



Next Steps

On June 30, 2021, Iowa DOT concluded the “at your own pace” virtual public hearing and issued a Finding of No Significant Impact (FONSI) on November 30, 2021.

Iowa DOT held another PIM to discuss right-of-way impacts to property owners and share the preferred alignment of the bridge in person, with a virtual “at your own pace” meeting on PIMA from September 27 to October 11, 2021. Iowa DOT has begun right-of-way negotiations, and construction is expected to start in fall 2023.

When planning for future public meetings and hearings, Iowa DOT aims to:

- Incorporate VPI strategies on all projects requiring EAs and Environmental Impact Statements.
- Hold in-person meetings, when possible, but have a pre-recorded PowerPoint available for those stakeholders who are not comfortable or for whom the time is not convenient to attend an in-person meeting.
- Provide opportunities for the public to submit comments electronically via REACH, PIMA, or their personal computers, and at in-person meetings using iPads or their personal devices.
- Continue to look for ways to develop PIMA’s capabilities, including through MOAs with other State DOTs using PIMA.

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For more information on virtual public involvement (VPI) refer to the following website:

https://www.fhwa.dot.gov/planning/public_involvement/vpi/

For more information on NEPA public hearing requirements refer to the following website:

https://www.environment.fhwa.dot.gov/nepa/trans_decisionmaking.aspx

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