Maryland Bridges in Black & White

Sharing Archival Photos with the Public Using GIS
Introductions

Laurie Goudy  
Maryland State Highway Administration  
Assistant Division Chief, Data Services Engineering Division  
lgoudy@sha.state.md.us  
(410) 545-5681

Jon Schmidt  
Maryland State Highway Administration  
Consultant Senior Architectural Historian  
jschmidt3@sha.state.md.us  
(410) 545-2899

Niki Miller, PMP, GISP  
JMT Technology Group  
Project Manager  
nmiller2@jmt.com  
(443) 662-4260
Historic Preservation in transportation
Origins of project
SHA’s Enterprise GIS
Application demonstration
Q&A
SHA Cultural Resources

- National Historic Preservation Act
  - Section 106: 36 CFR § 800
  - Standing Structures, Archaeology, Bridges

- Responsibilities
  - Review plans
  - Identify historic properties
  - Determine project impacts
  - Mitigate, consult and resolve

Four Mile House on US 40 in La Vale (NRHP Listed 12/22/1976)

Archaeologist Julie Schablitsky at a dig site.
Historic Bridges in Maryland

- Programmatic Agreement
  - Federal Highway Administration
  - Advisory Council on Historic Preservation
  - Maryland Historical Trust

- Benefits
  - Standardized treatment plans
  - Uniform coordination process

- 166 historic bridges in 3 categories
  - Preservation Priority – 17 bridges
  - Eligible – 90 bridges
  - Non-Priority – 59 bridges
Sample Project

Keedeysville Streetscape, Rehab of SHA Bridge 2100400
Sample Project
Hughes Photography Co.

- Baltimore-based studio
- Founded in 1877
- Work at MD Historical Society
- SHA collection
  - 2,295 photographs of 367 bridges
  - Dates from 1929 to c. 1945
  - Documents construction methods and equipment from the time period
  - Provides detailed visual information about the bridges and surrounding areas
  - Offers rare glimpses of 19th century bridges demolished decades ago
Archival Bridge Photos

- Stored in 2nd story closet
- Indexed in early 2000s

Disadvantages
- Unorganized
- No archival controls
- No tracking procedures
- Few knew of existence
- Serving no public good

Advantages
- Rarely circulated or handled
- Restricted access
### Summary of Accomplishments

#### FY 2013
- Indexed, categorized, and labeled
- Scanned images to MHT standards
- Matched bridge location with photos
  - Extant and demolished

#### FY 2014
- Developed concept and refined scope
- Worked with GIS staff to ID relevant attributes and search parameters
- Project divided into geographic regions
  - Completed dataset and captions for 11 Preservation Priority bridges (94 photos)
  - Added data for 61 bridges on Eastern Shore (450 photos)
Summary of Accomplishments

- **FY 2015**
  - Project faced budgetary constraints
  - Data/Captions for 69 bridges (300 photos) in Western and Southern MD
  - Data for 130 bridges is complete

- **FY 2016**
  - Public eGIS launched in Q2
  - Working on dataset and captions for 505 photos in Central Maryland
  - Will add 131 bridges to existing data
SHA’s Enterprise GIS

- Allows non-GIS users to utilize GIS data to make data-driven decisions
- Facilitates dissemination of GIS datasets (raster and vector) to a large GIS customer base
- Encourages collaboration with other offices for cross enterprise development
- Data owners maintain their own data and control access to their applications
- Productivity increases as more users have access to geospatial information
- Provides a platform for integration with other enterprise applications
SHA’s Enterprise GIS

- **Internal eGIS**
  - “eGIS Portal”
  - Flex-based application
  - Established in 2011
  - 2,318 users
  - 58 data themes
  - 311 custom data themes
  - 66 tools

- **Public Facing eGIS**
  - “Public eGIS”
  - JavaScript HTML 5 app
  - First content released October 2014
Archival Bridge Photos in eGIS

- **Process**
  - Gather requirements
  - Create mockups and use cases
  - Development
  - Testing
  - Deployment to SHA development environment
  - User Acceptance Testing (UAT)
  - Bug Fixes and Enhancements
  - Deployment to SHA production environment
During the 1930s, the State Roads Commission (SRC) hired Hughes Photography Company to document bridge construction projects throughout the state of Maryland. SHA's collection consists of approximately 2,300 photographs of 367 bridge locations throughout the state. Collectively, the images provide a documentary record of construction methods and equipment between 1929 and 1940. Primarily taken with a medium format camera, each photo contains detailed visual information about the subject bridge and the surrounding community at a specific moment in time. Many offer rare glimpses of nineteenth century bridges that were demolished shortly after the photos were taken. Others convey the appearance of bridges prior to more recent construction projects.

Captions provide additional information about the photos.

Additional information available includes other documents and maps.

**Maryland Bridges (4)**

- MD 213 over Sassafras River
- MD 299 over Sassafras River near Sommerset
- MD 301 (now MD 313) over Chester River at Millington
- US 301 over Chester River at Millington

**Disclaimer:** This application is intended to serve as a public resource for general reference. The data is preliminary and subject to change. SHA provides this information without any warranty of any kind either expressed or implied.

**http://maps.roads.maryland.gov/pegis**

**Demonstration**
Way Ahead

- Continue to populate application with archival photographs of bridges
  - Approx. 105 bridges and 900 photos remain (mostly around Baltimore)
- Incorporate re-photography
- Develop additional context material
  - Construction equipment
  - Transportation history
- Potential for audio/video content
Q & A

Laurie Goudy
Maryland State Highway Administration
Assistant Division Chief, Data Services Engineering Division
lgoudy@sha.state.md.us
(410) 545-5681

Jon Schmidt
Maryland State Highway Administration
Consultant Senior Architectural Historian
jschmidt3@sha.state.md.us
(410) 545-2899

Niki Miller, PMP, GISP
JMT Technology Group
Project Manager
nmiller2@jmt.com
(443) 662-4260