FHWA Tribal Transportation Program Bridge Program and the Navajo DOT's Path to Success

Old N9402 Steel Military Bridge in Lupton, AZ

New N9402 5-Span Concrete Bridge in Lupton, AZ

2025 National Transportation in Indian Country Conference
September 24, 2025

Introductions

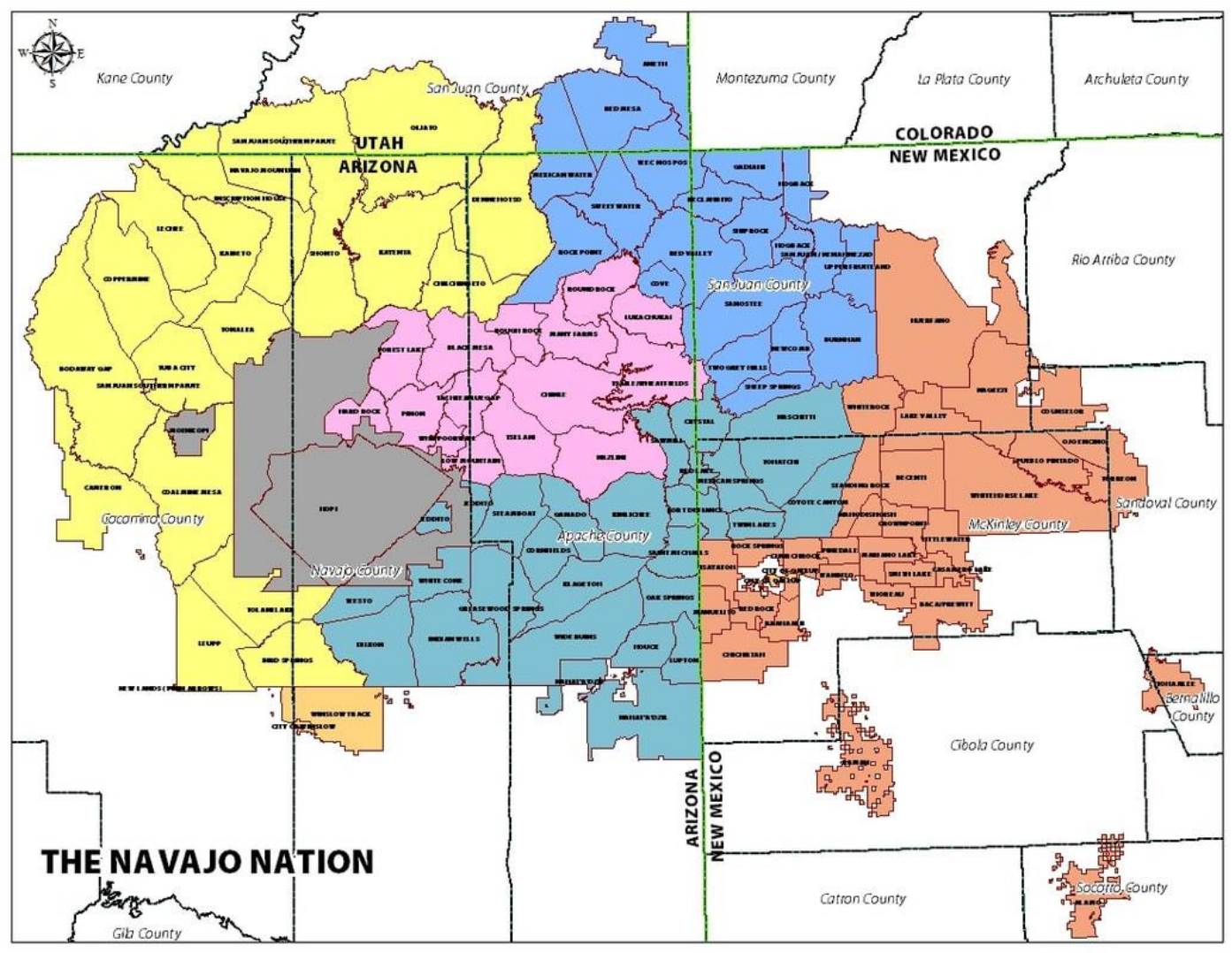
Navajo DOT

- Darryl Bradley, PE – Principal Civil Engineer

Wilson & Company (Consultant)

- Thaddeus Yazzie, PE – Co-Project Manager/Roadway Lead

The Navajo Nation



- One of the largest Native American nations in the United States with over 400,000 enrolled members
- Encompasses over 27,000 square miles
- Situated within three states (Arizona, New Mexico, and Utah) and eleven counties
- Divided into Five Agencies: Western, Central, Fort Defiance, Northern, and Eastern
- Comprised of 110 local government Chapters

Source: navajofamilies.org

Navajo Nation Transportation System

Bridge N314 – Tsegi, AZ

N35 Walker Creek Bridge – Sweetwater, AZ

- Miles of roadway – 14,510
  - BIA – 42%
  - Navajo Nation – 36%
  - State – 12%
  - Counties – 10%
- Over 9,400 miles of unimproved earth roads (83%)
- 1,700 miles of paved highways (17%)
- 179 Bridges
- 6 Airports: Tuba City, Kayenta, Chinle, Window Rock, Shiprock, and Crownpoint
- Partnerships Agreements with 3 States and several Counties for planning, design, construction, and maintenance activities

FHWA TTP Bridge Program Overview

What is the TTP Bridge Program?

Provides funds to Federally recognized Indian tribes in order to improve the condition of eligible Bureau of Indian Affairs (BIA)/tribally owned and non-BIA/tribally owned bridges.

Federally recognized Indian tribes may submit an application at any time for eligible tribal transportation bridges for funding for various activities including planning, design, engineering, preconstruction, construction, and inspection.

TTP Bridge website: https://highways.dot.gov/federal-lands/programs-tribal/bridge

FHWA TTP Bridge Program Overview

What kinds of bridges are eligible for this funding?

For bridge replacement or rehabilitation, eligible bridges are required to:

(a) have an opening of 20 feet or more;

(b) be classified as a Tribal transportation facility;

(c) be classified as in poor condition, have low load capacity, or need geometric improvements; and

(d) be recorded in the National Bridge Inventory (NBI) maintained by the FHWA.

FHWA TTP Bridge Program Overview

What kinds of bridges are eligible for this funding?

For new bridge construction, eligible bridges are required to be:

(a) classified as a Tribal transportation facility;

(b) a public bridge with opening of 20 feet or more; and

(c) recorded in the NBI after project completion.

These eligibilities are provided for in 23 U.S.C. 202(d)(3) as modified by Section 11524(c) of the Bipartisan Infrastructure Law (BIL) and 23 CFR 661.17.

FHWA TTP Bridge Program Overview

What are the eligible activities for TTP Bridge Program funds?

(a) To carry out any planning, design, engineering, preconstruction construction, and inspection of new or replacement tribal transportation facility bridges;

(b) to replace, rehabilitate, seismically retrofit, paint, apply calcium magnesium acetate, sodium acetate/formate, or other environmentally acceptable, minimally corrosive anti-icing and deicing composition; or

(c) to implement any countermeasure for tribal transportation facility bridges classified as in poor condition, having a low load capacity, or needing highway geometric improvements, including multiple-pipe culverts.

These eligibilities are provided for in 23 U.S.C. 202(d)(2).

Navajo DOT's Approach to Funding

What steps did the Navajo DOT take to pursue TTP Bridge Program funds?

- Worked with BIA and FHWA to identify 14 BIA bridges rated in Poor Condition based on latest bridge inspection reports.
- Utilized consultants to assist in preparing TTP Bridge Program Applications to request Preliminary Engineering funds to completed design, environmental clearances, and right-of-way acquisition.
- Submitted 14 TTP Bridge Program fund applications to FHWA on August 19, 2022 requesting $4.4 million for Preliminary Engineering.
- Awarded TTP Program funds by FHWA for Preliminary Engineering activities on August 23, 2023.

Navajo DOT's Approach to Funding

What does a complete application for preliminary engineering (PE) consists of?

- TTP Bridge Program Application Checklist;
- TTP Bridge Program Certification Checklist;
- FHWA-approved TTIP with the bridge project identified;
- Description of the Project Scope of Work;
- Detailed Cost for PE;
- NBI Data Sheet (N/A for new bridge); and

Navajo DOT's Approach to Funding

Critical items need, critical coordination steps, and strategies used:

- Identify bridges that are in Poor Condition and coordinate with the Agency Owner on maintenance history;
- Verify that road and bridge are on the National Tribal Transportation Facility Inventory (NTTFI);
- Obtain latest bridge inspection report to determine bridge condition;
- Bridge project listed on FHWA-approved TTIP; and
- Utilize consultant with bridge design experience to assist you in identifying and prioritizing bridge projects, including preparing the TTP Bridge Program fund applications.

Navajo DOT's Approach to Funding

What does a complete application for construction consists of?

- TTP Bridge Program Application Checklist;
- Copy of approved Plans, Specifications, and Estimate (PS&E);
- TTP Bridge Program Certification Checklist;
- NBI Data Sheet (N/A for new bridge)
- FHWA-approved TTIP with the bridge project identified;
- Environmental and archaeological clearances; and
- Complete grants of public rights-of-way.

Navajo DOT's Approach to Funding

Once the funding is received, what's next?

Accept the award and set up budgets in your financial system

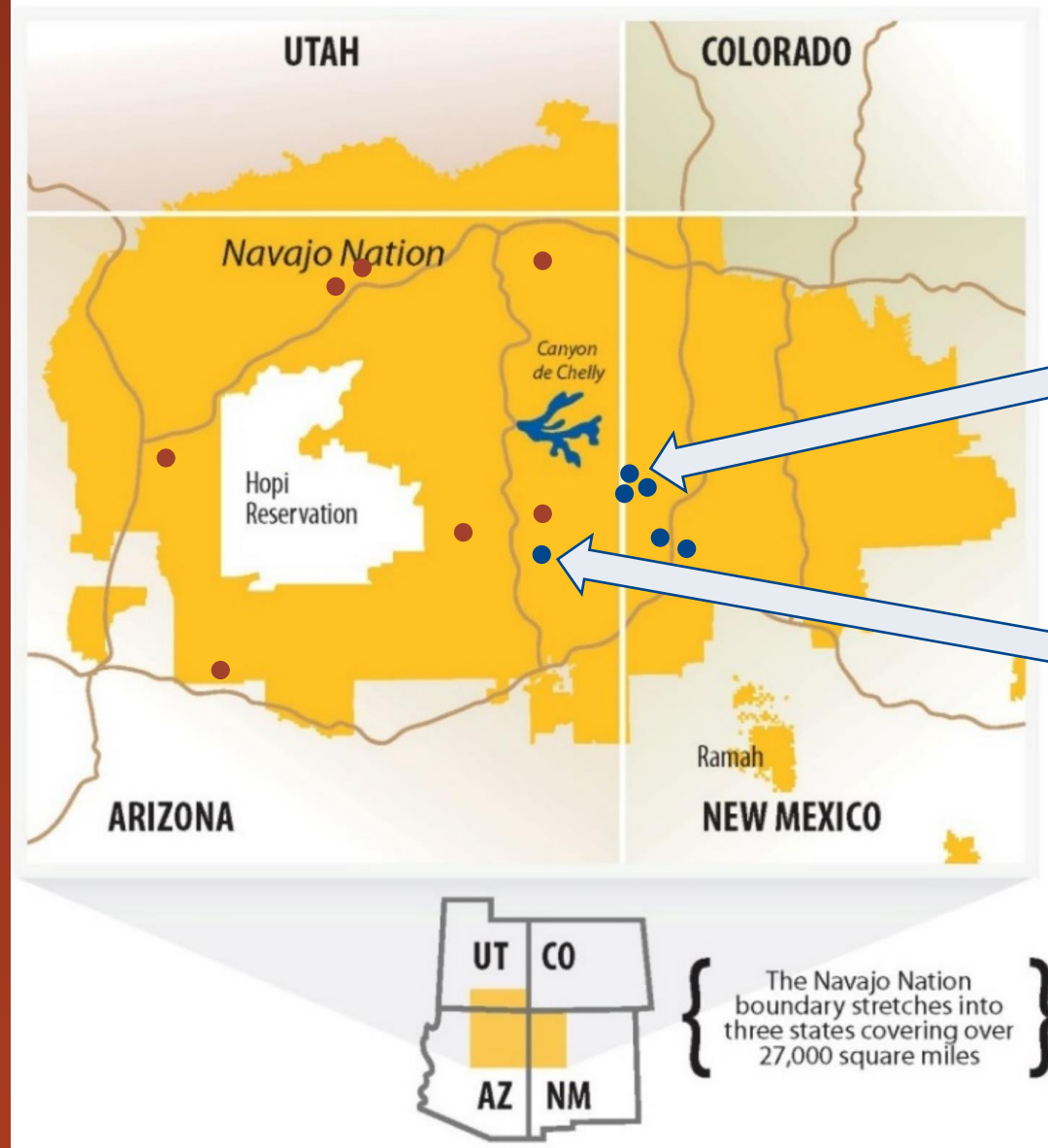
Solicit for consultant services to complete the design, environmental clearances, and right-of-way acquisition for bridge projects through your procurement process

Conduct Design Kick-off Meeting with all stakeholders

Complete Design Phases (30%, 60% & 100%), Environmental Clearance, and Right-of-Way acquisition to complete "Construction-Ready" documents

Prepare TTP Bridge Program fund application and submit to FHWA to request Construction funds to construct your bridge replacement or rehabilitation project.

Bridge Design Overview



- Bridge N616, N617, & N667 Crystal Chapter, NM
- Bridge N629 Kin Dah Lichi'i Chapter, AZ
- Bridge N636 Lupton Chapter, AZ
- Bridge N660 Mexican Springs Chapter, NM
- Bridge N649 Twin Lakes Chapter, NM
- Bridge N308 Kayenta Chapter, AZ
- Bridge N314 Kayenta Chapter, AZ
- Bridge N248 Sweetwater Chapter, AZ
- Bridge N307 Coalmine Mesa Chapter, AZ
- Bridge N521 Nazlini Chapter, AZ
- Bridge N645 Steamboat Chapter, AZ
- Bridge N645 Leupp Chapter, AZ

What is the design phase?

Bridge Type Selection Report	• Comparison of bridge types (concrete, steel, etc.) to select the best option
Drainage Report	• Comprehensive analysis of the drainage, flood control, and erosion control constraints
Preliminary and Final Design Plans	• Drawings and specifications required to build the bridge
Environmental Document	• Biological Resources Clearance Form (BRCF) • Cultural Resources Compliance Form (CRCF) • 404/401 permitting
Tribal Access Authorization (TAA) Application	• Chapter Support Resolution • Grazing Permittee Consents • ROW Maps

Existing Bridge Conditions

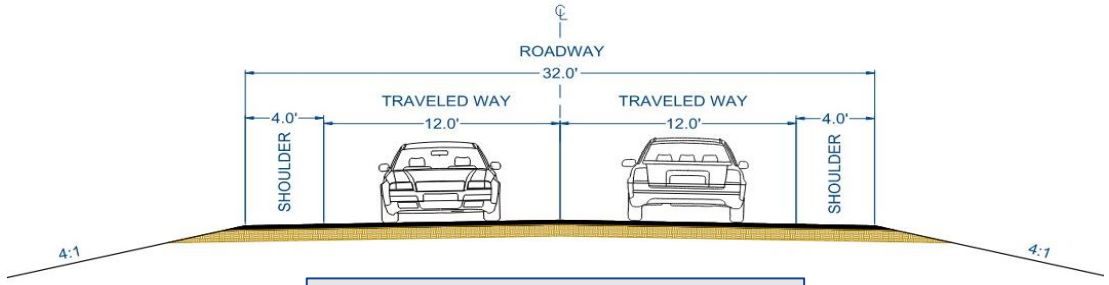
Bridge N617, Crystal Chapter, New Mexico

Constructed in 1936

Bridge N629, Kin Dah Lichi'i Chapter, Arizona

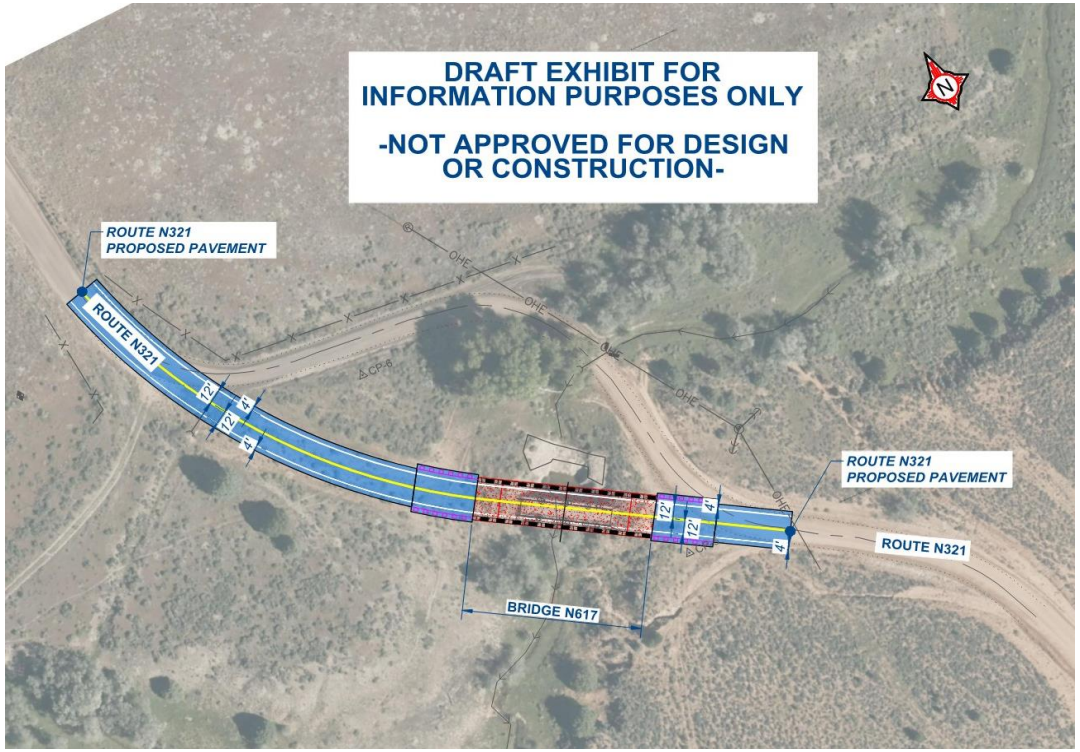
Constructed in 1960

Proposed Roadway Alignment

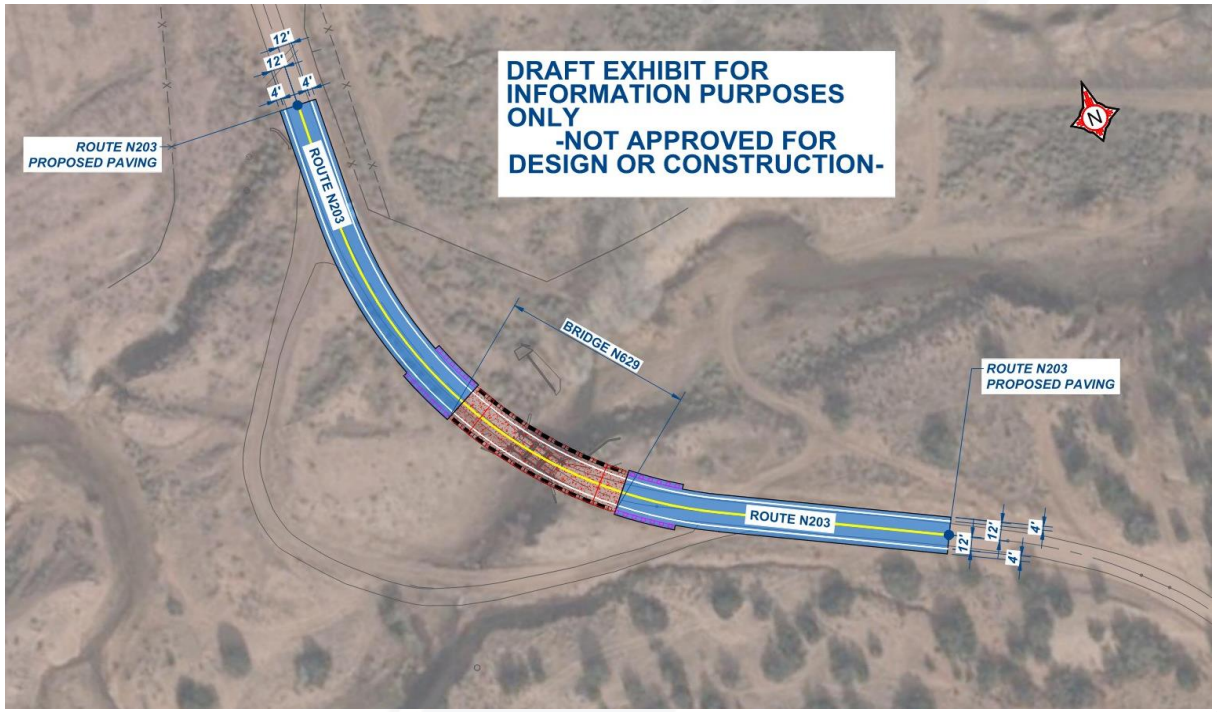


Typical Section

Bridge N617, Crystal Chapter, New Mexico

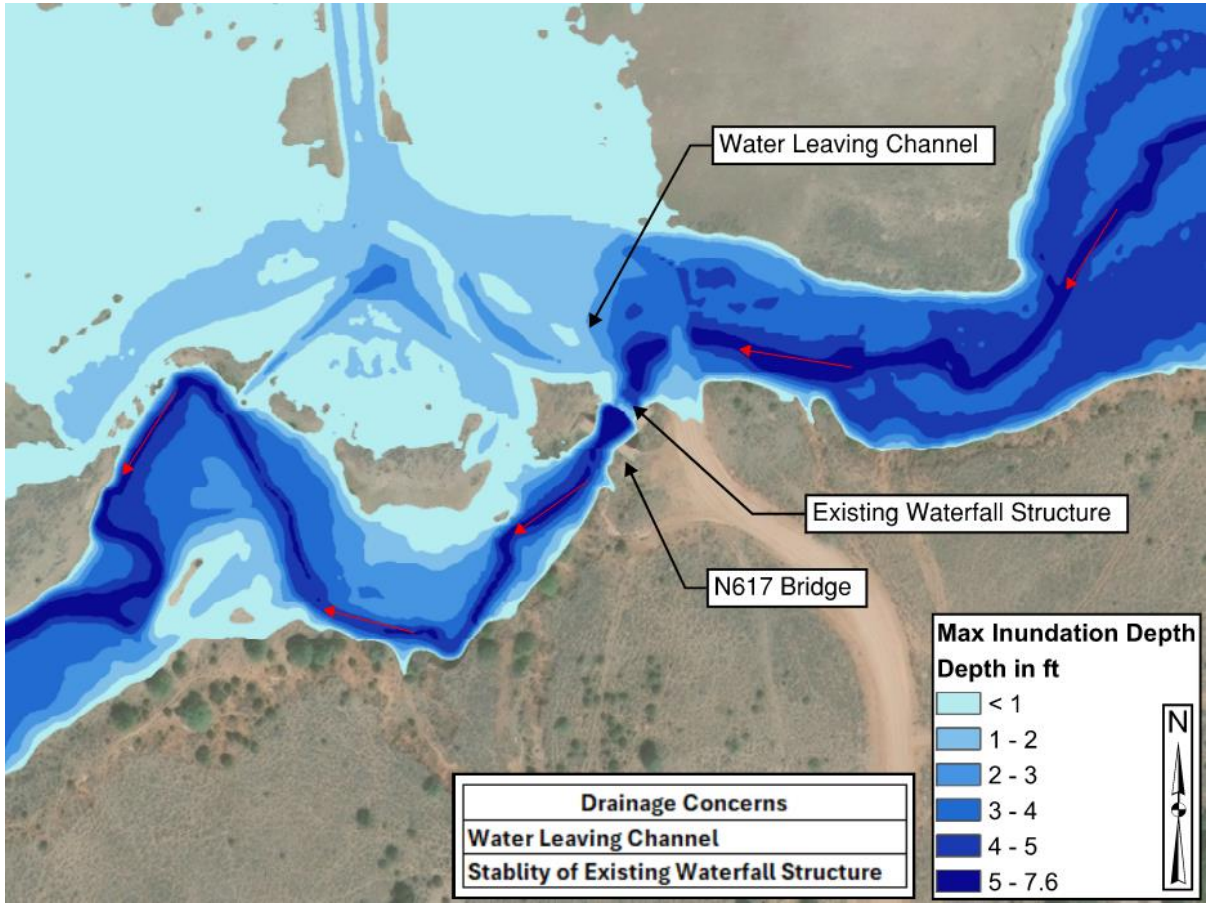


Bridge N629, Kin Dah Lichi'i Chapter, Arizona

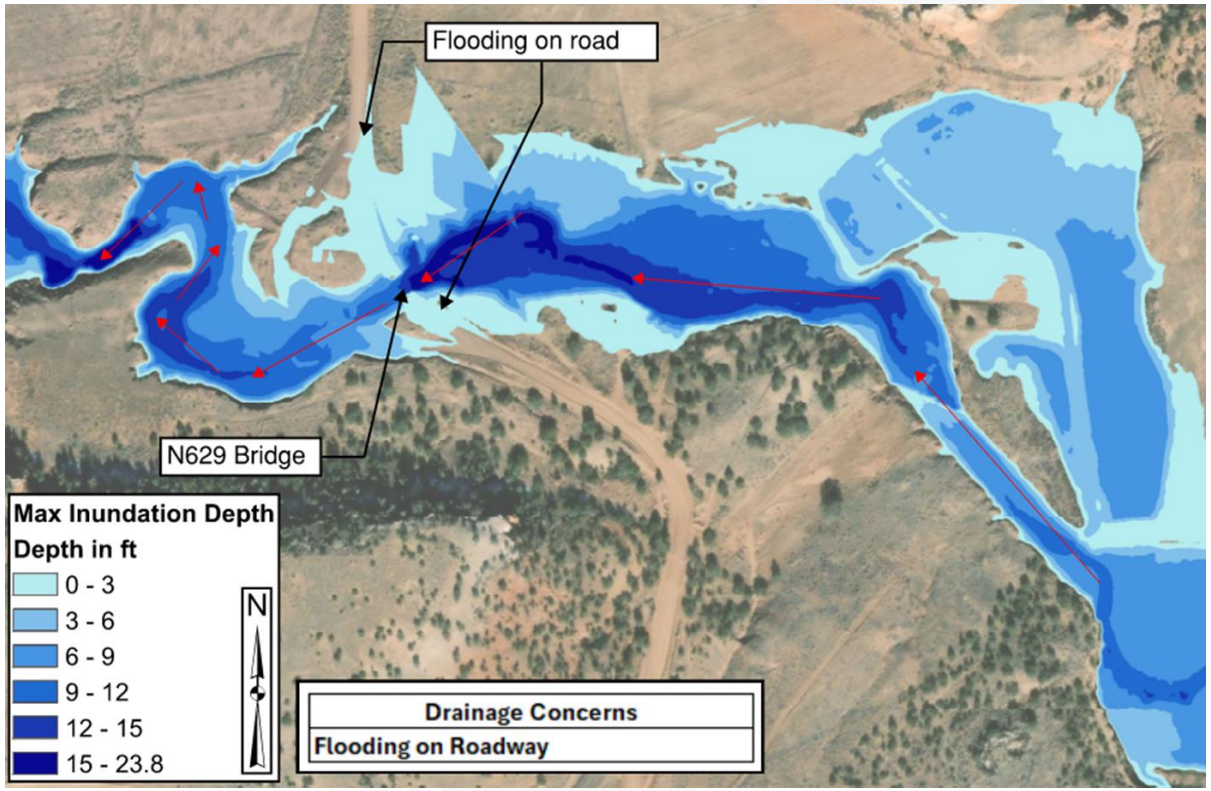


Drainage – Existing Conditions

Bridge N617, Crystal Chapter, New Mexico

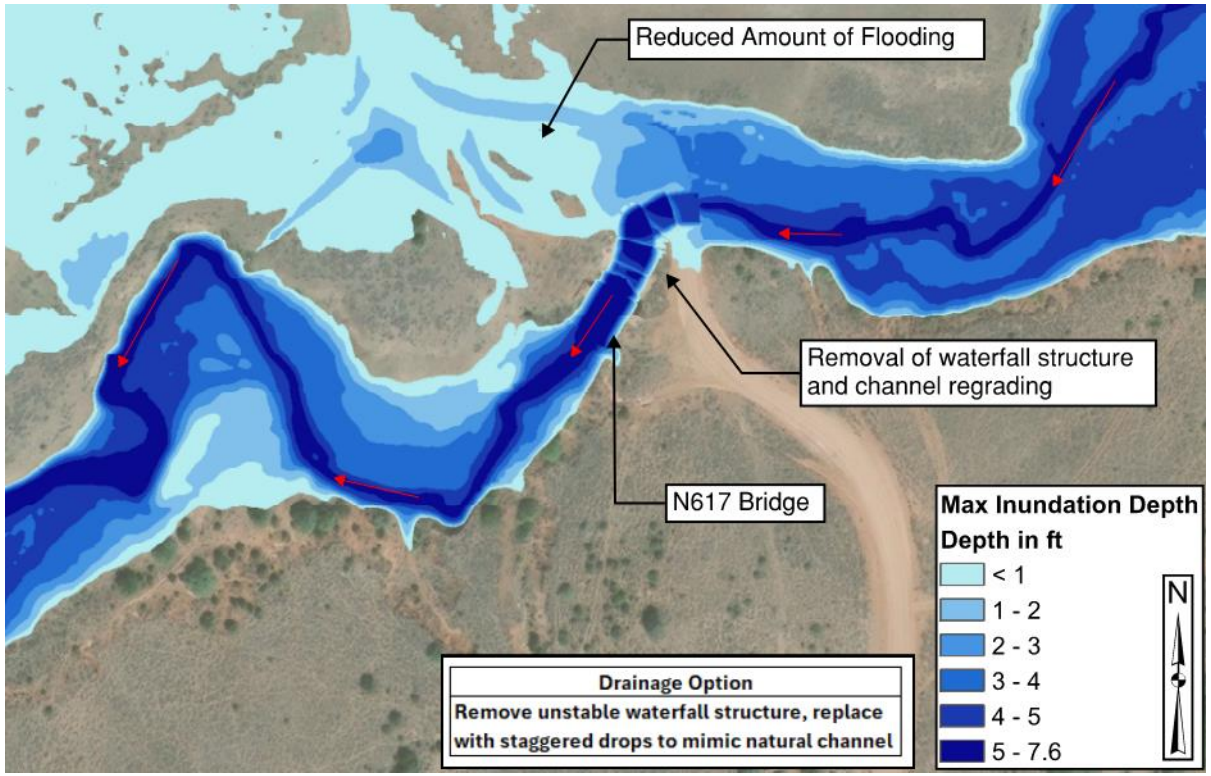


Bridge N629, Kin Dah Lichi'i Chapter, Arizona

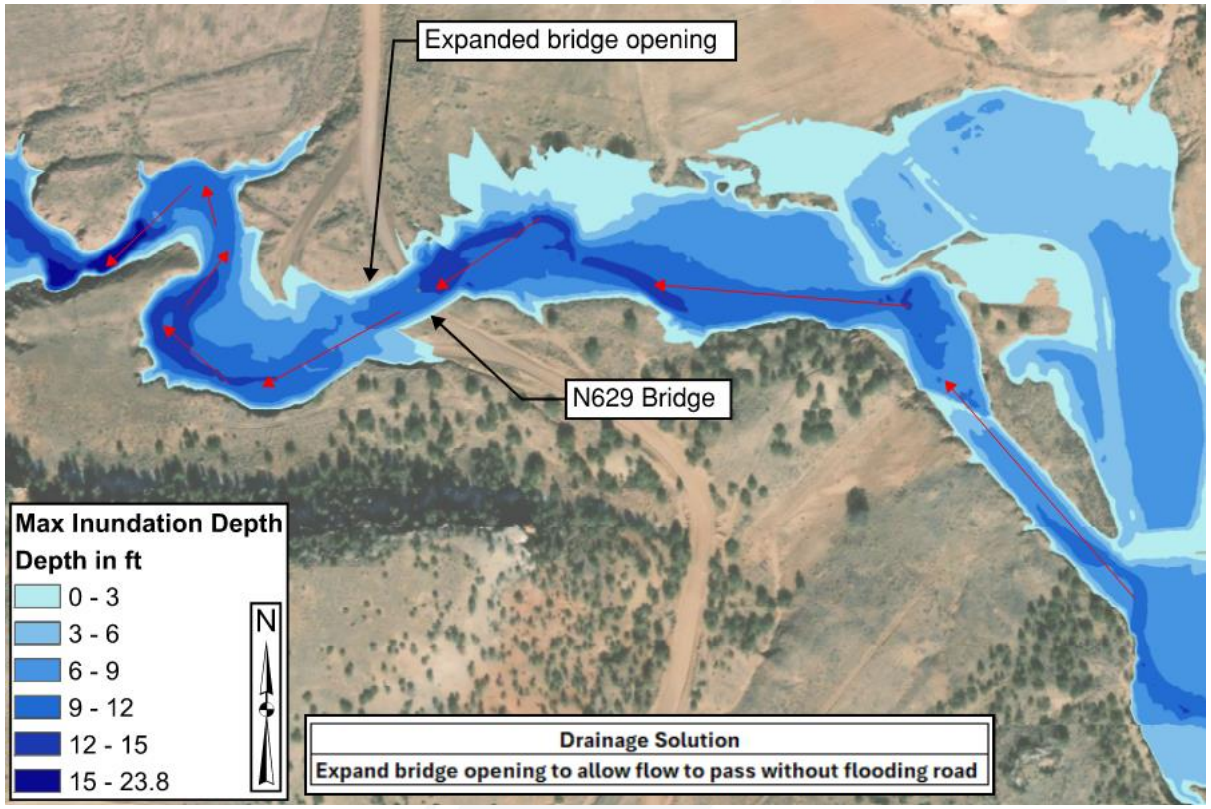


Drainage – Proposed Conditions

Bridge N617, Crystal Chapter, New Mexico

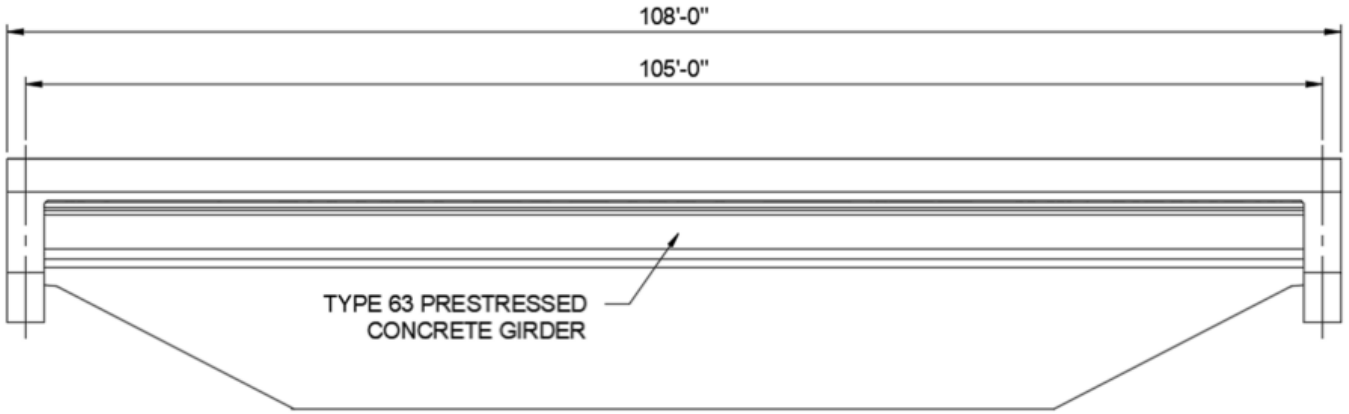


Bridge N629, Kin Dah Lichi'i Chapter, Arizona



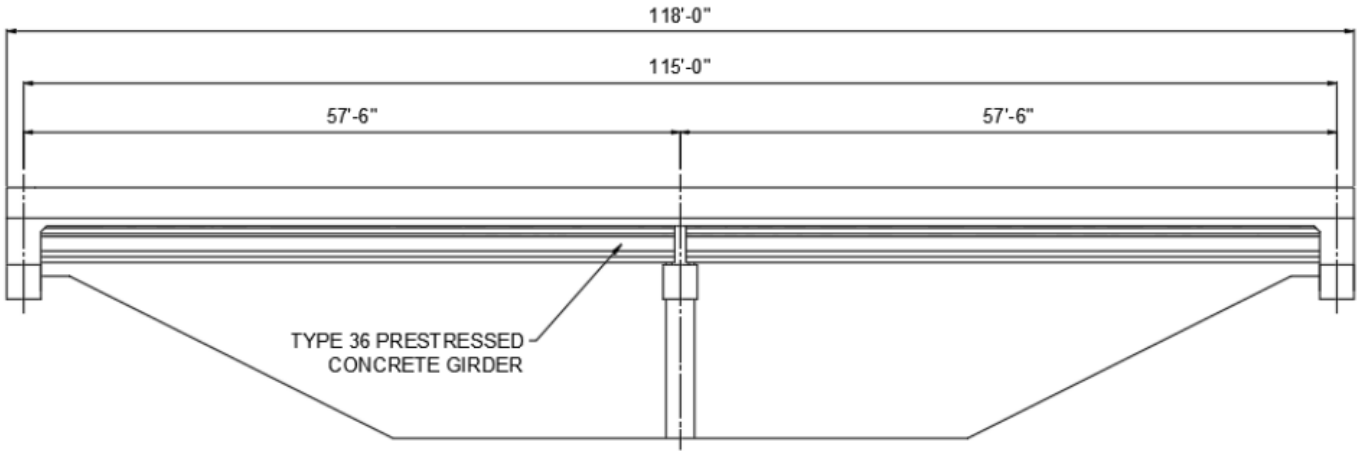
Preliminary Bridge Design

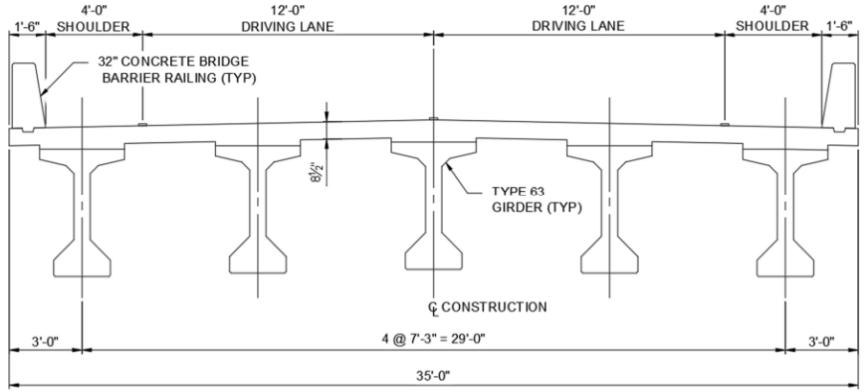
Bridge N617, Crystal Chapter, New Mexico



- HL-93 Design Load
  - 72,000 lbs. truck with 640 lb/ft design lane load
  - > 1.0 LRFR load rating
- Prestressed concrete girders with 8.5 in. concrete deck
- Reinforced concrete abutments and shafts

Bridge N629, Kin Dah Lichi'i Chapter, Arizona





Public Meeting Tips

Input/Comments

- Solicited comments via comment forms and email

Outreach

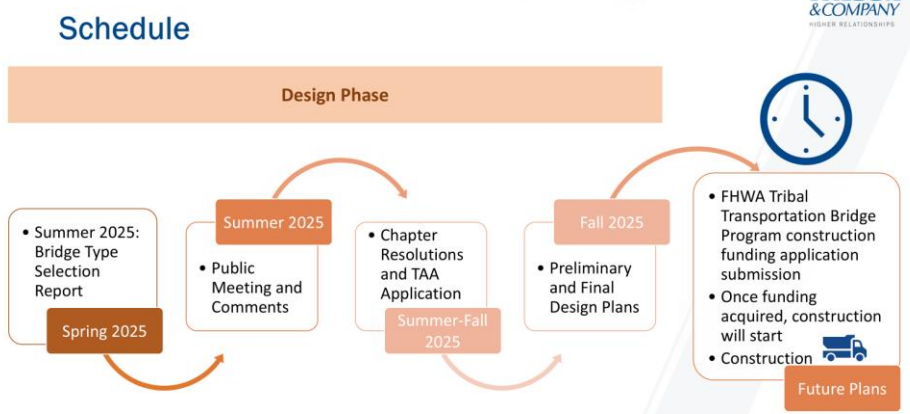
- Newspapers ads, distributing flyers to the Chapters, and

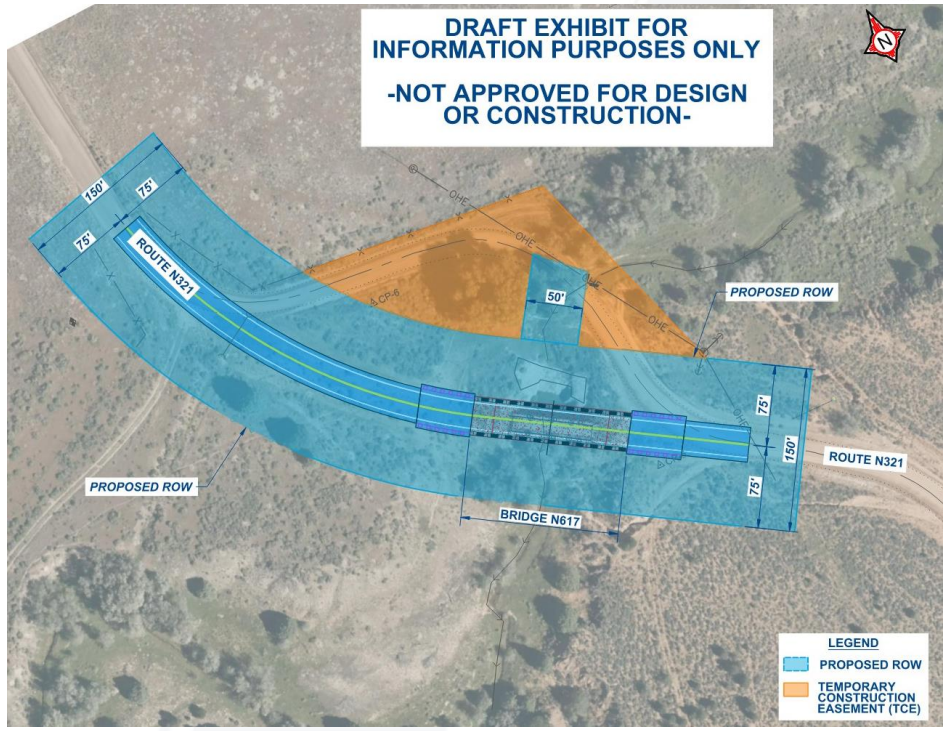
Preliminary ROW

- Exhibit presented should be “realistic”

Design Schedule

- Ensure a realistic schedule is presented





Challenges? Lesson Learned?

ROW

Navajo Nation Right-of-Way Process

- Tribal Access Authorization (TAA)
- Walk through the process to community


Bridge 617


Bridge 667

Chapter Support is critical

- Gaining the Chapter's and communities support early in the project helps ensure a successful project

Completed Construction Projects:

N9402(2)1,2&3 Bridge N656 Replacement – Lupton, AZ

- 0.24 miles of grade, drain, aggregate base course with stabilization, five-span concrete bridge, wire-enclosed riprap abutment and channel protection, existing bridge removal, and miscellaneous construction
- Cost – $5.5 million (Funding provided by FHWA TTP Bridge Program Funds)
- Design by BIA Navajo Region and Construction Management by Wilson & Company, Inc.
- Contractor – FNF Construction, Inc.
- Contractor finished 8 months ahead of schedule

Before Construction


Completed Construction

Completed Construction Projects:

N9402(2)1,2&3 Bridge N656 Replacement – Lupton, , AZ

Early Morning Concrete Deck Pour

Upstream Wire-tied Riprap Protection

Downstream side of Bridge

Ribbon Cutting Ceremony

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Questions & Answers

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Contact Information

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