

**Federal Highway Administration
Office of Federal Lands Highway**

2021

The Year in Review



U.S. Department of Transportation
Federal Highway Administration

From the desk of the Associate Administrator

This report celebrates another year of accomplishments by the Federal Highway Administration, Office of Federal Lands Highway (FLH). During 2021, FLH administered a \$1.2B program for our Federal Land Management Agency (FLMA) partners, Native American Tribal partners, and other federal, state and local agencies. Projects accomplished last year ranged from highways and bridges in our National Parks, Forests, Wildlife Refuges, and other federal lands, as well as projects for states and local communities on roads accessing federal lands.

During 2021, our project delivery program focused primarily on the delivery of core programs for our FLMA partners while still providing design and construction assistance to State Departments of Transportation, local transportation agencies, and non-Title 23 programs for our FLMA partners. The signing into law of the Great American Outdoors Act (GAOA) resulted in a new source of funding for FLMAs and will allow several FLMAs, especially the National Park Service (NPS) to make significant progress in addressing deferred maintenance projects. The NPS asked FLH for assistance in designing and constructing over \$500M in GAOA projects shortly after GAOA was implemented. During 2021, FLH completed projects for all our partner agencies that improved 1,048 lane-miles of road and 115 bridges. In addition, we assisted our Tribal partners as they delivered almost \$500M in vital transportation improvements for tribal communities.

Two years ago, our nation was just entering a global pandemic. During 2021, FLH made adjustments as needed and continued to deliver and administer projects for partner agencies and tribal communities. I am especially proud of the energy, creativity, and dedication of FLH employees during this time. FLH continued our operations by adjusting where possible to full-time telework and where not possible, our construction, laboratory, and site investigations team members continued our operations on site. As we look ahead to 2022, the biggest challenge facing FLH is delivering the projects made possible by the Bipartisan Infrastructure Law, a once-in-a-generation investment in our nation's infrastructure. As always FLH stands ready to meet this challenge!

This year's report again focuses on People, Partners, and Projects as our mission in FLH continues to be a mission of taking care of our People, so we can meet our Partner's needs, and deliver great Projects. This year's Accomplishments Report is again about all three. The next several pages showcase our people, our partners, and our projects. Please take a few minutes to see what we accomplished!



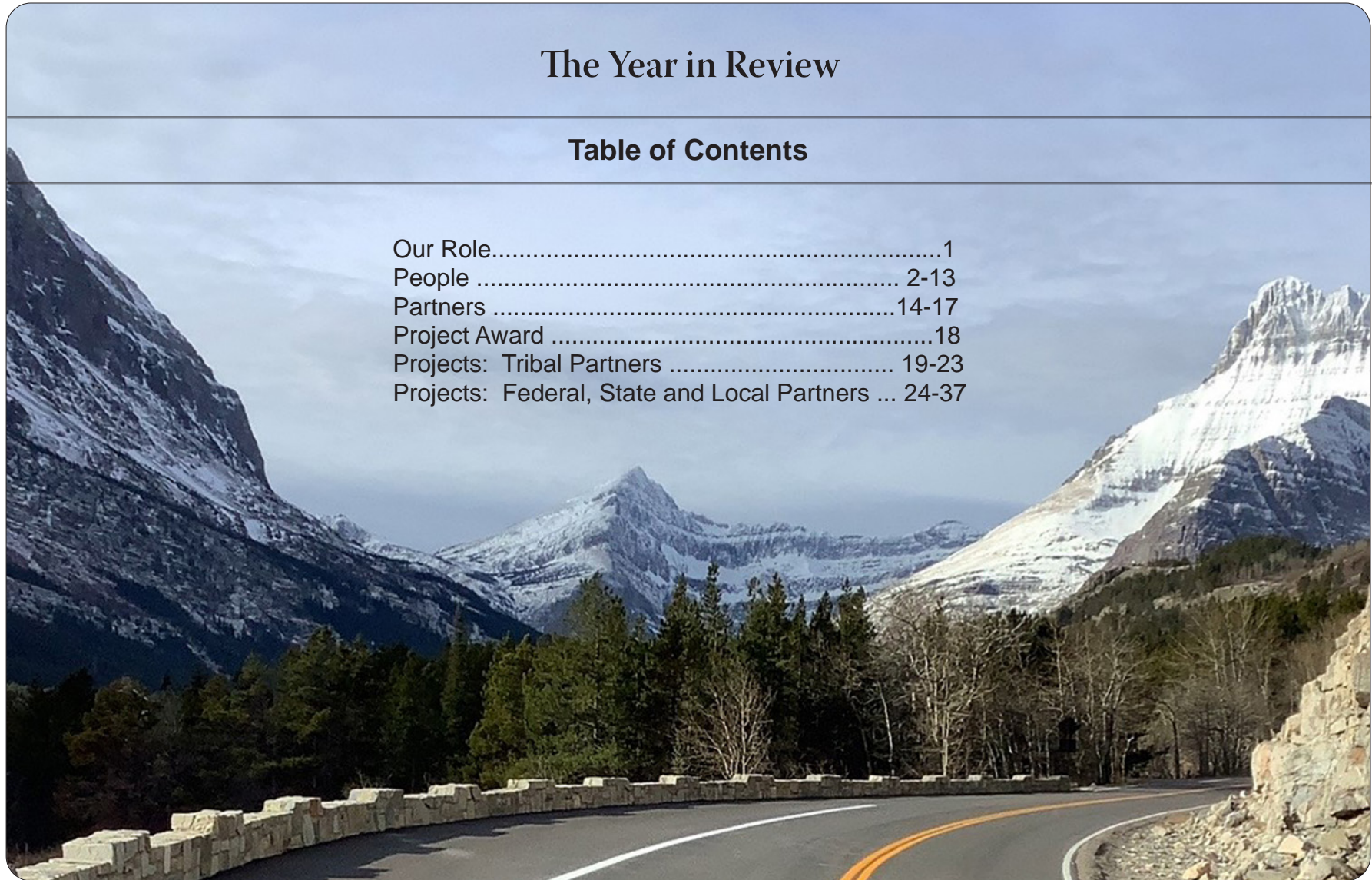
Office of Federal Lands Highway (FLH) Leadership Team, left to right; Corey Bobba, FLH Strategic and Legislative Coordinator; Amy Fox, Central Federal Lands Highway Division (CFLHD) Director (Acting); Tim Hess, FLH Associate Administrator; Monique Evans, Eastern Federal Lands Highway Division (EFLHD) Director; Kevin McLaury, Western Federal Lands Highway Division (WFLHD) Director, during a face to face meeting at the new EFLHD Division offices in Ashburn, Virginia.

***Timothy G. Hess, P.E.
Associate Administrator for Federal Lands
Federal Highway Administration***

The Year in Review

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Above: Many Glacier Road, New Masonry Guard Wall at Sheep's Curve, Swiftcurrent Mountain in the Background (see pg. 31) — Glacier National Park, Montana

Front Cover: Arlington Memorial Bridge (see pg. 16) — Washington, DC

Back Cover: Sunrise on Arlington Memorial Bridge, Placing Concrete for Replacement Span Wall (see pg. 18) — Washington, DC

Images throughout this report unless otherwise noted were taken by FHWA employees. Special thanks to all contributors.

VISION: To be the partner of choice to Federal Lands Management Agencies and Tribes. We will implement innovative transportation solutions that provide access to and through public lands.

MISSION: Improving transportation to and within Federal and Tribal Lands by providing technical services to the highway/transportation community, as well as building accessible and scenic roads that ensure the many national treasures, within our Federal Lands, can be enjoyed by all.



Glenn Highway, Alaska (see pgs. 26-27)

Our Role

The Federal Highway Administration (FHWA) Federal Lands Highway Program (FLHP) was established in 1982 to promote effective, efficient, and reliable administration for a coordinated program of public roads and bridges; to protect and enhance our Nation's natural and cultural resources; and to provide needed transportation access for Native Americans. The Federal Government, through various Federal Land Management Agencies (FLMAs): the **National Park Service (NPS)**; **USDA Forest Service (FS)**; **U.S. Fish and Wildlife Service (FWS)**; **Bureau of Indian Affairs (BIA) and Tribal Governments**; **Bureau of Land Management (BLM)**; **Department of Defense (DOD)**; **U.S. Army Corps of Engineers (USACE)**; **Bureau of Reclamation (USBR)**; and **Presidio Trust**, have ownership responsibilities for more than 30% of the Nation's land. This responsibility covers more than 500,000 miles of public and administrative roads on federal land across the U.S. and its island territories.

The Office of Federal Lands Highway (FLH) is relied upon by these partners to solve and manage unique transportation challenges that are wide-ranging in environment, geography and complexity, through engineering solutions that are sensitive to the context of the land. We are often confronted by unique terrain, work restrictions, and challenging deadlines. Whether it is building highly visible and political projects, reconstructing roads that are national landmarks, or providing critical access on low-volume transportation facilities, FLH is at the forefront of consistently delivering distinct and sound engineering projects.

Federal Lands consists of a Program Office in Washington, DC, and three field division offices (Eastern, Central, and Western) located in Ashburn, VA; Lakewood, CO; and Vancouver, WA; respectively. In addition, we are staffing thirteen new Regional Project Offices (RPOs) in the following locations: Sevierville, TN; Tupelo, MS; Hato Ray, PR; Grand Junction, CO; Albuquerque, NM; Carson City, NV; Clovis, CA; Henderson, NV; Kalispell, MT; Great Falls, MT; Idaho Falls, ID; Eugene, OR; and Wasilla, AK.

Federal Lands' role is categorized into two areas: Business Operations and Engineering. Business Operations addresses stewardship and oversight for our resources, as well as management and oversight of the program, totaling over \$1 billion per year. Engineering is the development of projects from scoping and preliminary design through the construction of a project.

FLH is uniquely enabled and entrusted to administer many different types of funds to facilitate transportation improvements for our Partners.

The Program and our role continue to expand to include more federal partners and road networks. FLH expertise and credibility has grown to deliver a wider variety of transportation projects and improvements nationwide.

Our engineering and technical expertise includes:

- Construction Supervision and Inspection
- Consultant and Construction Contract Acquisition
- Contract Administration
- Design Visualization
- Environmental Compliance
- Funds Management
- Geotechnical Design
- Highway and Bridge Design
- Hydraulics and Hydrology
- Intelligent Transportation Systems
- Materials Sampling & Testing
- Plans, Specifications and Estimates
- Project Management
- Program Administration
- Road and Bridge Inventory and Inspection
- Safety
- Survey and Mapping
- Technical Assistance
- Technology Deployment
- Traffic
- Transportation Asset Management
- Transportation Planning

FLH employs the practices and techniques of the FHWA Every Day Counts Innovations (EDC), designed to shorten project delivery, enhance durability and safety, improve environmental sustainability, and increase efficiency through technology and collaboration in our daily business.

People

Our most valued asset is our people; they are the key component to our continued success. Employees are encouraged to build diverse skill sets and technical expertise to remain in step with the increasing diversity of the Federal Lands Highway Program and our partner's needs.

Many of our employees were recognized with the following distinctions and awards in 2021. Kudos to all!

Superior Achievement Awards

The highest honor award given by the FHWA Administrator. It is granted to individuals based on contributions that far exceed normal job requirements and significantly advance FHWA's initiatives and strategic goals:

Andrew Coit, Supervisory Civil Engineer
For being an exemplary Construction Operations Engineer for Central Federal Lands Highway Division.

Daniel Christianson, Civil Engineer Highway
For successfully leading the construction of the \$44 million, 3-year Yellowstone Fishing Bridge to Indian Pond reconstruction project.

Colleen Fletcher, Transportation Specialist
For a history of outstanding performance and achievements across a range of disciplines within FHWA.

Elizabeth Garrido, Program Manager
For providing leadership to the Finance, Professional Development, Administration, and Information Technology teams.

Ronalynn Hertz, Program Analyst
For exemplary leadership and noteworthy achievements in the Finance and Construction disciplines.

John Knowles, Civil Engineer
For outstanding work in the role of Project Management Functional Lead and Project Manager for Central Federal Lands Highway Division.

Christopher Longley, Program Manager
For excellent contributions as the Planning and Program Branch Chief for Central Federal Lands Highway Division.

Rajashree Mooney, Transportation Specialist
For expertise as a top-performing program manager serving as the Federal Lands Access Program Manager.

Samantha Shields, Federal Lands Program Manager

For leading the Alaska Federal Lands Access Program, State Department of Transportation-funded projects, and the Federal Lands Transportation programs for the Forest Service and Bureau of Land Management.

Jane Traffalis, Civil Engineer
For leadership in advancing the Office of Federal Lands Highway's use of the Open Roads Designer software.

Isis Rosado-Vazquez, Civil Engineer
For performing an extensive array of hydrologic and hydraulic analyses, including updating critical instructional material to achieve the Agency's mission.

FHWA Leadership Award

Laurin Lineman, Supervisory Civil Engineer, Office of Federal Lands Highway
For initiative implementing process improvements, identifying opportunities to innovate, facilitating employee development, and planning for succession.

Engineering Excellence Award

This award recognizes the tremendous contributions our Engineers make to the safe and efficient movement of people and goods in this Country. It is granted to individuals based primarily on the engineering achievements made over the past 3 years: Marilyn Dodson, Lead Civil Engineer, Office of Federal Lands Highway was recognized for subject matter expertise in geotechnical consultation and innovations in the Office of Federal Lands Highway.

Richard D. Morgan Leadership Development Award

This award presented to Monique Evans, is named for a former Executive Director of FHWA. Dick Morgan was passionate about transportation excellence and about the people of this Agency. He mentored numerous colleagues, who have since become leaders in FHWA. The award named for him honors individuals who demonstrate a deep commitment to developing our workforce for the future.

Diversity and Inclusion Award

This award was presented to the Eastern Federal Lands Highway Division Diversity Management Committee (DMC), Office of Federal Lands Highway. This award recognizes the following individuals who have been actively engaged in developing or implementing specific initiatives to promote a culture of diversity and inclusion within FHWA. EFLHD DMC was recognized for advancing long-standing FHWA values of diversity and inclusion by implementing innovative strategies to address current issues

People

related to race and equity affecting Federal Lands staff. The EFLHD DMC includes: Monique Evans, Charlie Costello, Jennifer Aponte-Rivera, Byron Betts, Maria Colby, Vivian Gutierrez, Abhi Kapoor, Ramesh Kotadia, Kassondra Kruckeberg, Johnnie Ordonez, Anmaris Rodriguez, Jacinda Russell, Darlisa Thomas, John Wilson, Mezi Yigezu

Organizational Excellence Awards

Office of Federal Lands Highway, Central Federal Lands Highway Division was awarded the highest FHWA organization honor. The award recognizes organizations that can be held up as models for others because they have implemented business practice changes which improved performance or results in one or more of these areas:

- Effective leadership and strategic planning.
- Focus on their partners, customers, and stakeholders;
- Use of metrics and data to make decisions;
- Developing their workforce; and
- Improving their processes and/or program delivery.

Excellence in Teamwork Awards

This award is for teams whose membership includes individuals from across multiple organizational units in FHWA or whose members worked on a distinct project or program of national significance.

2020 Western United States Wildfire Response Team: Timothy Hess, Paul Aguilar, Juan Aguirre, Matthew Ambroziak, Steven Belcher, Robert Bell, Jeffrey Bellen, Christine Black, Luis Calderon, Richard Cernousek, Jared Cogswell, Michael Daigler, Devin Dixon, Daniel Donovan, Lorell Duteil, Karl Eikermann, Martin Fey, Colleen Fletcher, Rolando Flores, Danielle Germani, Sebastian Guzman, Jordan Hensley, Justin Henwood, Mario Hernandez, Steven Hinz, Michael Jelen, Scott Johnson, Joshua Kaplan, Jake Keithley, Sara Loftus, Nathan Marshall, Kevin McLaury, David Michhimer, Trevor Moulton, Robert Norick, Leslie Perry, Henry Rettinger, Angel Rivera, Burnnie Robinson, Adam Rosener, Kalynn Scott, Steven Short, Thomas Sohn, Deidra Stogsdill, David Strahl, Lotse Townsend, Richard Vanderbeek, and Kelly Wade

The Advanced Geotechnical Methods in Exploration (A-GaME) Team was awarded for their efforts enhancing subsurface site characterization methods for many local and state DOTs. Team members: Marilyn Dodson, Mohammed Elias, and Dustin Robbins

The Complete Streets Coordinating Committee was awarded for compiling an inventory of capacity building resources, ultimately providing complete streets outreach to state, regional, and local agencies. Team members: Corey Bobba and Aung Gye

The Federal Lands Procurement Team was awarded for ensuring the continuation of planning and procurement actions during maximum-telework. Team members: Falvasha Alghussain, Elizabeth Firestone, Jack Gilbert, Milton Hsieh, David Sett, Melvin Sloan, Rayann Speakman, and Joseph Wilson

The Program of Projects Database Team was awarded for the outstanding collaboration and contributions to developing and maintaining a single system that provides Office of Federal Lands Highway units with a one-stop-shop system for program management information. Team members: Holly Bell, David Cartwright, Matthew Dawkins, Colleen Fletcher, Gladys Gallardo, Brian Harrison, Christopher Longley, Rajashree Mooney, Frances Ramirez, and Patrick Scott

The Research and Innovation Delivery Team was awarded for their outstanding contributions leading the delivery of research topics approved by the FHWA Research, Development and Technology Council. Team members: Amit Armstrong, Roxanne Bash, Namrata Battan, Christine Black, Genise Dance, Aziza Djoumanov, Seth English-Young, Monique Evans, Nicholas Grisham, Aung Gye, Matthew Hinshaw, Scott Johnson, Angy Liljedahl, James Pol, Yanira Rivera, Renee Sigel, and Karyn Vandervoort

The Tribal Crash Reporting Toolkit Development Team was awarded for publishing a resource to help Tribes in all phases of safety data improvement. Team members: Adam Larsen and Tom Bragan (NHTSA)

Advancing the Safe System Approach Team: Darlisa Thomas

America's Byways Nominations Development and Review Team: Aung Gye and Erin Kenley

Virtual Leadership Development Academy Micro-Course: Tammy Ratliff

Emergency Relief and Ferry Boat Program Assessment Enterprise Assessment Team: Colleen Fletcher, Jeff Mann

Discretionary Grant FLEx Initiative: Jeff Mann

People

Laboratory Information Management System Team: Megan Chatfield, Michael Dallaire, Christopher Garcia, Edward Garcia, Noah Hughes, Jerrad Isch, Drew Johnson, Eric Johnson, Peter Kowing, Rob Lange, Kevin Martinez, Charles Miller, Jason Moore, Joseph Rivera, Calvin Robinson, Don Rowe, Daniel Ruiz, Walt Stong, Michael Voth, Eric Wilson.

Manual for Assessing Safety Hardware Implementation Roundtable Team: Christine Black, Matthew Hinshaw

Manual on Uniform Traffic Control Devices for Streets and Highways Notice of Proposed Amendment Team: Richard Albin

Mental Health Awareness Month: Kevin McLaury, Holly Weiss-Racine

Office of Federal Lands Highway Construction Task Force: Timothy Hess, Rich Barrows, Tim Brown, Patrick Culhane, Chris Longley, Jim Rathke, Tom Scott, Shawn Wills, Timothy Zinka.

The Council on Environmental Quality Rule Implementation Team: Shane Belcher, Kevin Rose.

Federal Lands Highway Contracting Expertise

The Federal Acquisition Certification (FAC) Program is for contracting professionals in the Federal Government performing contracting and procurement activities and functions. The purpose of this program is to establish general education, training, and experience requirements for those contracting professionals. We are proud to say that we have over 400 contracting professionals in our ranks who hold certifications in all three certification categories, with some professionals holding certifications in more than one category!



RIP Project Managers (Ricardo Garcia-Rosario, Megan Mills, and Nam Le) finish the last Cycle 6 collection for NPS in the Lower 48 at Camp Nelson National Monument, Kentucky



Northern California Area Office data collection trip for Bureau of Reclamation

Road Inventory Program (RIP) Team

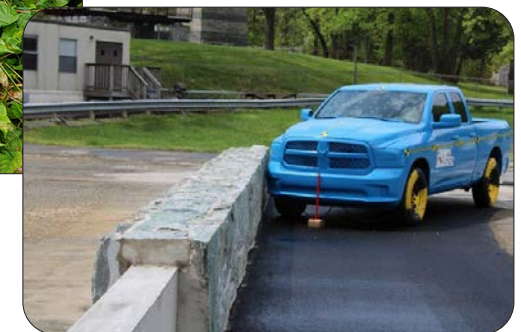
The RIP team completed NPS Cycle 6 data collection and retired the Data Collection Vehicle (purchased in 2009, shown below during its final trip) and delivered 2,930 miles of condition data to the Pavement Management System (3 times more than average). The team also accomplished their frequent travel during the COVID Pandemic safely and without incident with a total of 178 site visits for FWS and 176 site visits for NPS.



RIP Data Collection Vehicle collects its last site before retirement — Wichita Mountains Wildlife Refuge, Oklahoma



GWMP scoping trip (above & left) — Alexandria, Virginia



GWMP Stone Faced Median Barrier Crash Test completed as a joint effort between Turner-Fairbank Highway Research Center (TFHRC), and EFLHD in preparation for the upcoming GWMP North mega project — TFHRC, Virginia

EFLHD collaborated with NPS to enhance safety and mobility along George Washington Memorial Parkway (GWMP) and the Mount Vernon Trail while protecting sensitive environmental, cultural, and historic resources. Further collaboration is in process to implement safety improvements to include “road diet” elements, additional delineation of deceleration lanes, safety barriers and Mount Vernon Trail crossing signing and striping improvements. — Alexandria, Virginia

People



Todd Hansen CFLHD Geotechnical Engineer — Yosemite National Park, California



WFLHD Assistant Project Engineer, Renee Newman checks staking — Denali National Park, Alaska

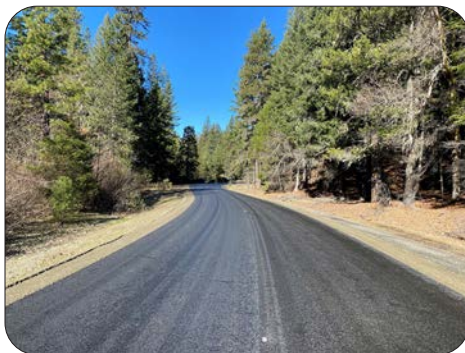
People



Erin Baker (left), CFLHD Construction Operations Engineer & Amanda Peters (right), Career Development Program Participant, pose in front of the work trailer, onsite at Ruth-Zenia Road and Van Duzen Road FLAP Project in California. The project crosses through United States Forest Service and private land, providing access to the Six Rivers National Forest. The route is categorized as a rural minor access road in mountainous terrain and is maintained by Trinity County. This project includes reconstruction and resurfacing (depending on the segment), widening, profile adjustments, drainage improvements, retaining walls, and guardrail of 5.01 miles of roadway on Ruth-Zenia Road and Van Duzen Road. — California



EFLHD Construction team onsite — Adjuntas, Puerto Rico



Views of the project and nearby Van Duzen river — Ruth-Zenia and Van Duzen Roads, California

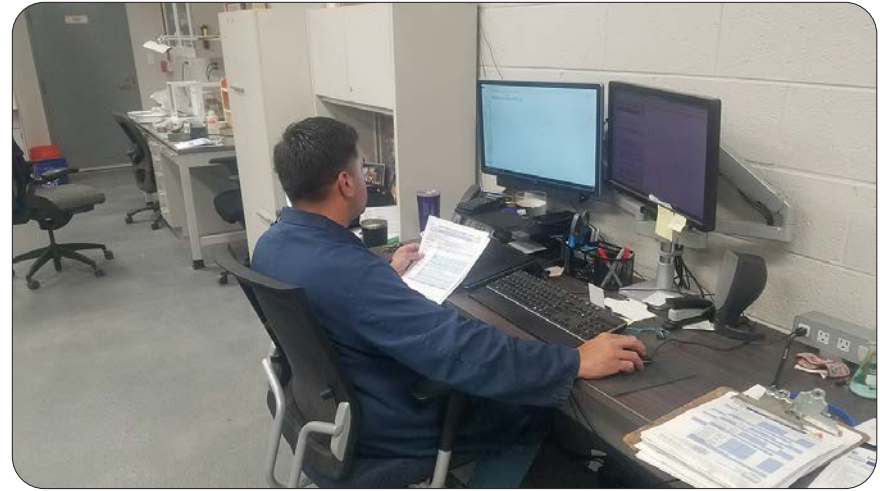


Matt Fletcher (left) CFLHD Construction Operations Engineer, Henry Castillo, Career Development Program Participant (right) onsite at Fremont Pass Trail, a new 3.2-mile long paved multi-modal recreational trail that will bypass a dangerous and narrow section of State Highway 91. The project is in cooperation with Summit County, the FS, and White River National Forest — Colorado

People



Chris Garcia, CFLHD Materials Engineering Technician breaking a concrete cylinder on a new 400,000 lb. press. — Lakewood, Colorado



Mark Espinoza, CFLHD Materials Engineering Technician fills out worksheets for cylinder breaks in preparation for drafting a report. — Lakewood, Colorado



Daniel Ruiz, CFLHD Materials Engineering Technician preparing to perform compaction on a Hveem stabilometer specimen for a mix design. — Lakewood, Colorado

People



Left: Brendan McGarity, & Dominic Monarco, both Geotechnical Engineers onsite at the US50 Little Blue Creek Canyon Project — Colorado DOT, FHWA and CFLHD, in cooperation with the FS, Grand Mesa Uncompahgre and Gunnison National Forests, BLM, and NPS, are improving 3.8 miles of U.S. Highway 50. The route provides access to various federal lands, including The Black Canyon of the Gunnison National Park, Curecanti National Recreational Area, BLM and FS land. — Colorado



Rex Hall and Jenna Bergstrom of CFLHD Construction, on the job in the field trailer at Crystal Dam East Portal Access Road, a FLTP Bureau of Reclamation (USBR) project. The USBR maintains the road for access to its Crystal Dam and Power Plant and to the recreational facilities along the Gunnison River. — Colorado.

People



Dumont Dunes Road rehabilitation project during 70% Field Review. In this location of the project we are shifting the proposed roadway improvements slightly toward the inside of the horizontal curve and adding curve widening. Michael Daigler, Project Manager (left) assisted by the contractor Project Manager (right) are measuring across the roadway to determine the best fit for the proposed improvements while taking into account how to minimize impacts to the environment. Slightly out of the shot to the right there is an OHV (Off-highway Vehicle) trail that must not be impacted by the project. — Dumont Dunes Road, Mojave Desert, California

People

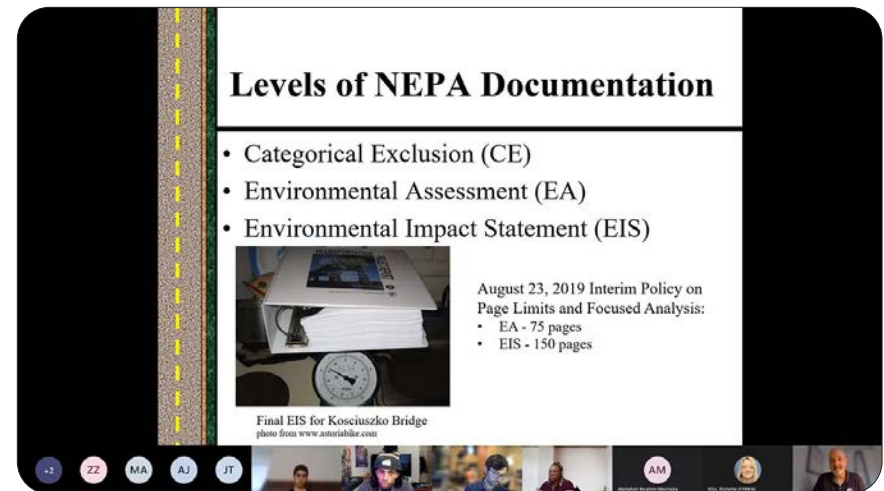
George Mason University Design and Construction Course

In conjunction with George Mason University (GMU), EFLHD has delivered the CEIE 402 - Highway Design and Construction course. EFLHD initiated this effort in 2009 to provide an opportunity for students to get an improved understanding of the transportation decision-making process. This course targets aspiring civil and structural engineers in their senior year and provides a comprehensive survey of the tools, techniques, and methods used by the various civil engineering disciplines to design and construct highways. We provide them with the opportunity to engage in current projects where they gain an appreciation for how the various disciplines contribute to delivering our program. Each topic is presented by a subject expert who can explain and illustrate the challenges and opportunities in working on linear projects.

All facets of a project are covered including planning, project management, survey and mapping, preliminary design, geotechnical, pavements, environmental, hydraulics, bridge design, PS&E design, materials, and construction. Attention is directed on the environmental compliance requirements (NEPA, Public Involvement and Permitting) at every step from project inception to construction evaluation. The course has been a valuable tool to inform students of the key components of our project delivery process and to convey fundamental understanding of how environmental compliance touches every part of program delivery from project inception to construction evaluation.

The FLH Division offices in general serve as the training ground for FHWA. This course extends the reach of our instruction beyond our current FTE's and reaches out to aspiring civil engineers in a collegiate setting. This course is a unique collaboration between a local University and a FHWA Field Office. Each student leaves with a firm understanding of project development and program delivery. The course effectively conveys FLH's primary goal, to design environmentally sound highways and roads to serve our nation's federal lands.

As of 2021, 108 students have participated in this course. Twelve of these undergraduates have gone on to join EFLHD as permanent employees serving in the Bridge, Design and Hydraulics Teams. Additionally, 27 EFLHD employees have been provided the opportunity to develop instructional modules based on their real world experience and deliver them in a classroom environment. As tribute to the EFLHD employee's adaptability, the course was smoothly transitioned from in-person class sessions to a remote format in 2020 and 2021.



Images (above & below) of the virtual 2021 Highway Design and Construction Course — EFLHD



People



Natchez Trace Parkway Scoping Field Review, John Coffee Memorial Bridge over the Tennessee River — Alabama



Scoping Field Review, Timber Guardrail at Natchez Trace Parkway Underpass Animal Crossing — Tennessee

Partners

Program Overview

Federal Lands and Tribal Transportation Program (FLTTP)

The FLTTP was established under the Moving Ahead for Progress in the 21st Century Act (MAP-21) and continued under the Fixing America's Surface Transportation Act (FAST Act). It authorizes annual funding for three primary programs: the Federal Lands Access Program (FLAP), the Federal Lands Transportation Program (FLTP), and the Tribal Transportation Program (TTP). Through these programs, the Office of Federal Lands Highway (FLH) collaborates in coordination with several Federal agencies and Indian Tribes, as well as State and Territorial partners, to deliver projects.

Federal Lands Access Program (FLAP)

The FLAP, authorized at \$270 million in FY 2021, provides flexibility for a wide range of transportation projects in the 50 States, the District of Columbia, and Puerto Rico. The FLAP was established to improve Federal lands access transportation facilities (FLATF) located on or adjacent to, or that provide access to Federal land. A FLATF is defined as "a public highway, road, bridge, trail, or transit system that is located on, is adjacent to, or provides access to Federal lands, for which title or maintenance responsibility is vested in a State, county, town, township, tribal, municipal, or local government. In making programming decisions the FLAP Programming Decisions Committee gives preference to projects that provide access to or are located within high-use Federal recreation sites and Federal economic generators.

Federal Lands Transportation Program (FLTP)

The FLTP, authorized at \$375 million for FY 2020 under the FAST Act and extended under the Continuing Appropriations Act in 2021, provides funding for the management and upkeep of more than 130,000 miles of federal public roads and other assets that compose the Federal lands transportation facility inventory. The Program provides funding to the NPS, FS, FWS, BLM, BOR, USACE, and eligible independent federal agencies (IFAs) such as the Presidio Trust. Of the three programs that make up the FLTTP, the FLTP incorporates performance-based management principles outlined in MAP-21 and reinforced under the FAST Act. The FLTP places emphasis on performance goals defined by the Secretary of Transportation and the Federal Land Management Agencies (FLMAs). It is intended to target funds toward multi-modal transportation facilities that access high-use recreation destinations and federal economic generators within the federal estate.

Tribal Transportation Program (TTP)

The TTP, authorized at \$505 million in FY 2021, provides funds to 574 federally recognized Tribes to improve the transportation systems located

within, or that provide access to, Indian country. These roads, bridges, trails and transit systems most often provide basic access to community services and help to enhance the quality of life of Tribal members. Federal Lands co-administers the TTP with the BIA and is responsible for the primary stewardship and oversight of Program funds. Approximately 134 of the Tribal governments operate their TTP directly through Program Funding Agreements with FHWA.

TTP Bridge Program

The TTP Bridge Program is a nationwide priority program for improving TTP bridges in poor condition, having low load capacity, or needing geometric improvements. TTP bridges are funded by a set-aside of up to 3 percent of the TTP funds. In accordance with 23 CFR Part 661, set-aside bridge funds can be used to carry out any planning, design, engineering, preconstruction, construction, and inspection of a project for replacement, rehabilitation, and protection (including scour countermeasures, seismic retrofits, impact protection measures, security countermeasures, and protection against extreme events) of TTP bridges in poor condition, low load capacity, or need highway geometric improvements. To be eligible, a bridge must have an opening of at least 20 feet, be classified as a tribal transportation facility, be classified as a poor condition bridge, have low load capacity, or need highway geometric improvements, and be recorded on the FHWA National Bridge Inventory (NBI).

In FY2021, \$13.4 million was made available for the TTP Bridge Program. There were 31 bridge applications received with total funding request of approximately \$43 million. The program funded 13 bridge applications for a total of approximately \$13.4 million

Nationally Significant Federal Lands and Tribal Transportation Projects (NSFLTTP)

The NSFLTTP, created under the FAST Act and extended under the Continuing Appropriations Act, 2021 and Other Extensions Act, is intended to provide a reliable source of funding for major, high-cost projects that typically cannot be funded with FLTTP resources due to the scope and expense of the project. This program is funded through the General Fund at a maximum of \$100 million per year. It didn't receive an appropriation for FY 2016 or FY 2017 but did receive appropriations of \$300 million, \$25 million, \$70 million, and \$100 million in FY 2018, FY 2019, FY 2020, and FY 2021 respectively. The program is currently reviewing applications of need submitted for the FY 2021 funding.

Defense Access Roads Program (DAR)

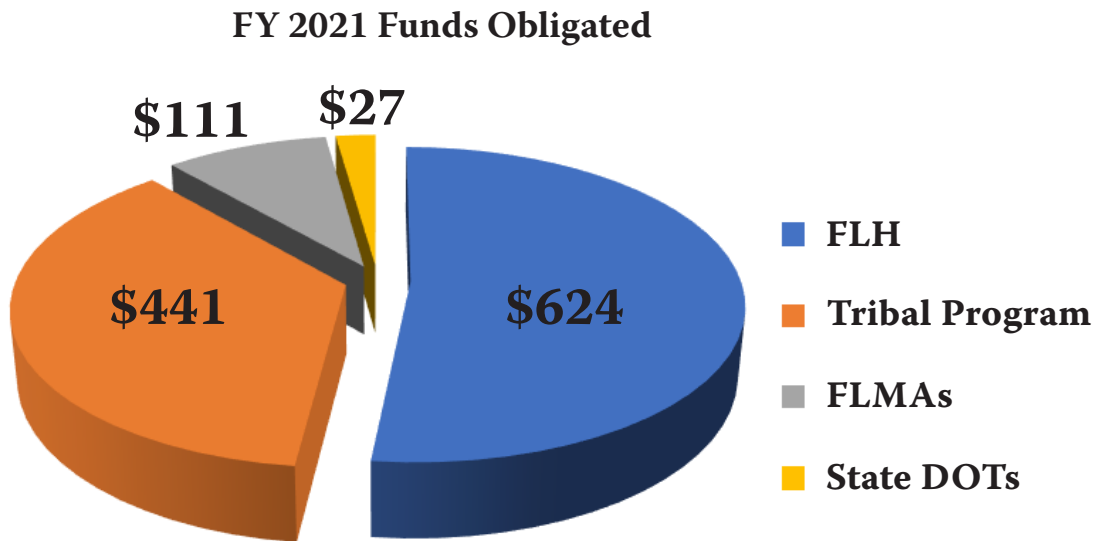
The DAR Program is a jointly administered program that provides a means for the military to pay their share of the cost of public highway improvements

Partners

necessary to mitigate an unusual impact of a defense activity. An unusual impact could be a significant increase in personnel at a military installation, relocation of an access gate, or the deployment of an oversized or overweight military vehicle or transporter unit.

Emergency Relief for Federally Owned Roads (ERFO)

The ERFO Program, assists federal agencies with the repair or reconstruction of Tribal transportation facilities, federal lands transportation facilities, and other federally owned roads that are open to public travel, which are found to have suffered serious damage by a natural disaster over a wide area or by a catastrophic failure. The ERFO program is not intended to cover all repair costs but rather supplement Federal Land Management Agency (FLMA) repair programs. The program is administered under the Emergency Relief program by FHWA's Office of Infrastructure. For more information, please visit <https://www.fhwa.dot.gov/programadmin/erelief.cfm>.



**Funds On The Ground: A measure of efficiency, denotes the percentage of funds expended on construction. In 2021, 73 cents on the dollar went to the construction or improvement of roads, bridges, trails, etc. on public land.*

FAST ACT FY 2021 PROGRAM FUNDING

\$375 million FLTP

\$270 million FLAP

\$505 million TTP

PROJECT DELIVERY SUCCESS

1,048 Lane Miles Improved

115 Bridges Improved

766,838 Square Feet of Bridge Deck Improved

PROGRAM DELIVERY SUCCESS

73%

*Funds On The Ground

93%

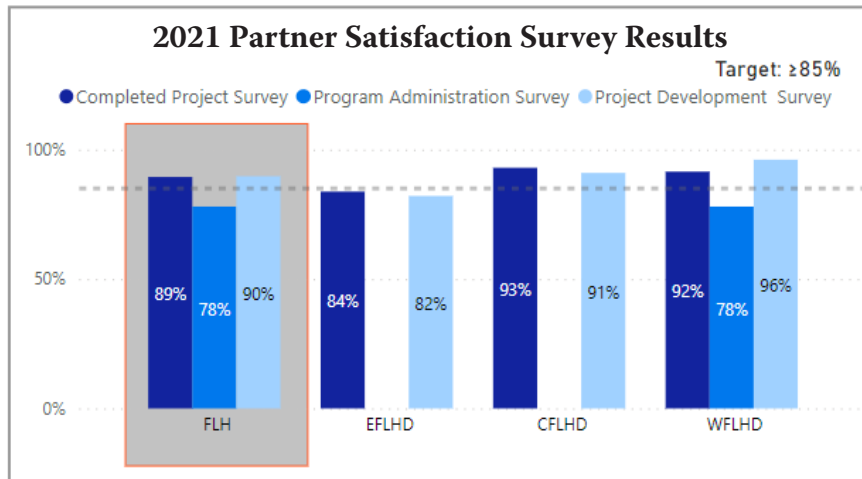
Obligation Rate for FLTP and FLAP

Partners

Our definition of partner is diverse, ranging from state and territorial governments, traditional Federal Agency partners with strong resource protection missions, to our Tribal partners, focused on building self sufficiency and providing basic access to community services and improved quality of life for their people.

Partner Satisfaction Survey

The questions in our yearly survey touch on all aspects of program administration from policy and communication to day-to-day program management. Completed project results exceeded the 85% target for the fourth year in a row. This highlights the overall satisfaction of our partners with the final product, the constructed project.



Collaboration and Partnership

The Arlington Memorial Bridge project exemplifies the outstanding partnership between FHWA and NPS. The working relationships between FHWA, NPS, stakeholders and the Contractor fostered excellent communication and decision making to keep one of the largest transportation projects in NPS history on schedule and within budget. FHWA and NPS were committed to balancing the dual priorities of preserving as much of the structure's unique design elements as possible while incorporating engineering and construction materials and methods that would extend the life of the bridge. Arlington Memorial Bridge is not only a vital transportation link for our nation's capital, but it is also a memorial to the sacrifices of our nation's veterans and a symbol of the reconciliation between the north and south following the Civil War. Federal agencies, contractors and stakeholders collaborated on this successful project to rehabilitate the bridge while

preserving its architectural and historic character. Approximately 68,000 vehicles travel across Arlington Memorial Bridge each day. The project team coordinated with local agencies and concurrent projects to mitigate traffic impacts and keep stakeholders and the public informed of changes to the work zone. Working with NPS, FHWA tackled a complicated infrastructure challenge head-on and succeeded in rehabilitating the national Capital's ceremonial entrance and preserving its historic character. The two agencies worked together to restore the historic bridge to its original grandeur with the most comprehensive set of repairs to the 89 year old bridge, since its original construction, extending its useful life for another 75 years.



Back, left to right: Katie Liming, Public Affairs Specialist, NPS National Capital Area; Joseph Fabis, Construction Operations Engineer FHWA Eastern Federal Lands Highway Division; Jonathan Shafer, Public Affairs Specialist, NPS National Capital Area; Aaron LaRocca, Chief of Staff, George Washington Memorial Parkway; Timothy Hess, FHWA Associate Administrator for Federal Lands; Benjamin Dixon, Project Engineer, FHWA Eastern Federal Lands Highway Division.

Front, left to right: Laura Macklin, Materials Handler, NPS Museum Resource Center; Lisa Mendelson, Deputy Regional Director, NPS National Capital Area; Charles Cuvelier, Superintendent, George Washington Memorial Parkway; Susan Wong, Chief of Professional Services Division, George Washington Memorial Parkway. — Washington, DC

Partners



Department of Interior (DOI) Secretary Deb Haaland and Department of Transportation (DOT) Secretary Pete Buttigieg sign a new Memorandum of Understanding (MOU) witnessed by FHWA Deputy Administrator, Stephanie Pollack and NPS officials. The goal of this MOU is to strengthen the mutually beneficial relationship between the DOI and the DOT to improve transportation within and access to NPS facilities through the following activities: Providing technical assistance to assess, plan, deploy, and evaluate innovative technologies; Leveraging inter-departmental expertise across a range of disciplines for technical assistance; Analyzing novel and emerging data sets; Establishing temporary inter-agency or inter-departmental personnel exchanges; Developing information exchanges regarding technological change, funding, and policy; Facilitating partnerships with other Federal agencies, State and local governments, and the private sector. Picture taken by DOI



EFLHD staff (Daniel Camacho, Victor Carreras, Saul Sandoval, and Jose Pabon) pose with Puerto Rico (PR) Department of Transportation (DTOP) Secretary and Puerto Rico Department of Transportation and Public Works (PRHTA) Executive Director, USDOT's Transportation Recovery Representative for PR and USVI, PR Mayor Federation's President at the Puerto Rico Governors Mansion for the commencement of the Puerto Rico Permanent Emergency Repairs Projects addressing damages from Hurricanes Irma and Maria. Picture taken by DTOP



EFLHD receives a FLTP Partners in Excellence Arrowhead from NPS in recognition of the Arlington Memorial Bridge Rehabilitation Project, left to right Benjamin Dixon, Project Engineer; Monique Evans, Division Director; Ramaniklal Satasiya, Project Manager; George Choubah, Bridge Design Team Leader

Projects

Project Award

The Rehabilitation of the Arlington Memorial Bridge project earned the American Council of Engineering Companies of Metropolitan Washington, Engineering Excellence Grand Award in Design. This Design-Build project included the design and construction for the rehabilitation of the concrete approach spans, removal and replacement of the concrete deck, replacement of the bascule span at the center of the bridge, concrete repairs to the existing structure, rehabilitation of the bridge substructure, removal and resetting granite curb and railing, repairing and cleaning the bridge's stone masonry and other miscellaneous work.



Arlington Memorial Bridge (above) looking toward the Lincoln Memorial; ACEC award (left)



Arlington Memorial Bridge (above & below) looking west toward Virginia



Projects

Tribal Partner Delivered Projects



The Green Bridge, an historic pony truss bridge built in 1938, was rehabilitated by the Pawnee Nation and the City of Pawnee. Since the reopening the Pawnee Nation has received the Oklahoma ACEC Engineering Excellence Honor Award for this CM/GC Safety and Enhancement Project and are slated to receive the ACEC 2022 Engineering Excellence National Recognition Award in May 2022 as well. — Oklahoma

Projects



(Left) Aerial view of the Green Bridge Rehabilitation Project under construction.

(Below) Ribbon Cutting Ceremony, Green Bridge Rehabilitation Project — Pawnee Nation, City of Pawnee, Oklahoma



Pawnee Nation Transportation Manager, Chris McCray stated, *“The Green Bridge Rehabilitation Project is the culmination of the Pawnee Nation CM/GC Safety and Enhancement Projects suite of projects. The Pawnee Nation was fortunate enough to obtain \$1 million of funding through the FHWA of this almost \$2 million project. The “Green Bridge” is the main gateway into the Pawnee Nation Reserve Complex, and the goal of the project was to rehabilitate this bridge while maintaining the historic aesthetics and increase the structural integrity. All of these projects have focused on the safety, sustainability and livability of the Pawnee Nation and Pawnee communities. Any given day there are numerous individuals and families utilizing these new facilities. These projects could not have taken place without the confidence and support from the Pawnee Nation Business Council, the technical support from FHWA and collaborative effort of the Project team.”*



The Project team included the Pawnee Nation, City of Pawnee, Builder’s Unlimited, Inc., BridgeCo Contractors, Inc. and CONSOR Engineers, LLC. Pictured left to right: Gregg A. Hostetler, PE Executive Vice President, Structural Assessment CONSOR Engineers, LLC; Chris McCray, Transportation Manager, Pawnee Nation; Rhonda James, Assistant Transportation Manager, Pawnee Nation; Branson Cole, PE Project Engineer CONSOR Engineers, LLC



Dungeness River Audubon Center parking lot under construction and equipped with electric vehicle charging stations. TTP funds were utilized by the Jamestown S’Klallam Tribe to construct the parking lot and driveway access. — Clallam County, Washington

Projects



Bell School South Bridge replacement project completed (above), Images to the left show the original bridge and roadway. School buses and staff use the bridge to travel back and forth between area schools. The original bridge was prone to washout and presented other safety concerns. — Cherokee Nation, Oklahoma

Projects

Maintaining Ice Roads

2021 brought unusually stormy/windy weather to Bethel, Alaska. The Native Village of Napaimute Kuskokwim Ice Road Crew plowed the 17 mile section from the halfway point to Napaskiak to the Kwethluk/Akiachak eight times, much more than normally required.

Cost for the first plow run was \$220 per mile for a total of \$3,740. The 7 additional plows were priced at the reduced cost of \$110 per mile for a total of \$13,090. Total expense for this section of the Kuskokwim Ice Road was \$16,830 as of February 2021.

The following pictures not only depict the work performed but demonstrate the value of keeping this section of the ice road open and safe for use.



A first for the Kuskokwim Ice Road – standardized markers provided by Alaska DOT, amber reflectors face downstream, silver reflectors face upstream — Alaska



Continuous Monitoring & Maintenance is essential, here a section of the road is closed after warm weather to allow the soft surface to harden. — Alaska



With no planes flying, the road must be kept open during stormy weather for medical emergencies. — Alaska



The Yukon-Kuskokwim Health Corporation Vaccination team were escorted to four villages to administer several hundred COVID 19 vaccines — Alaska



10,000 gallons of heating fuel being delivered to a village near Bethel that was running dangerously low on fuel — Alaska

Projects



Public access is kept open to important subsistence use areas. — Alaska



The body of a respected Elder and long-time dog musher is transported home via the ice road. — Alaska



(Above) Additional equipment is needed to keep the road open. (Left) Grader leased from the Napaskiak Tribe — Alaska



"An endless battle with endless expenses during the past several weeks of stormy windy weather" — Mark Leary, Director of Development and Operations, Native Village of Napaimute Kuskokwim 2/18/21

Projects

Federal, State and Local Partner Projects

Generals Highway and access facilities between Sequoia and Kings Canyon in California were not designed or constructed for travel by the larger vehicles that are in use today. Work is ongoing to reconstruct the road to widen narrow sections, construct new, or rehabilitate existing retaining walls, improve drainage, construct new pullouts, and make other improvements.



Kings Canyon Overlook, Before (above) and After (right) — Sequoia and Kings Canyon, California



Sequoia National Park Boundary Sign, Before (left) and After (below) — Sequoia and Kings Canyon, California

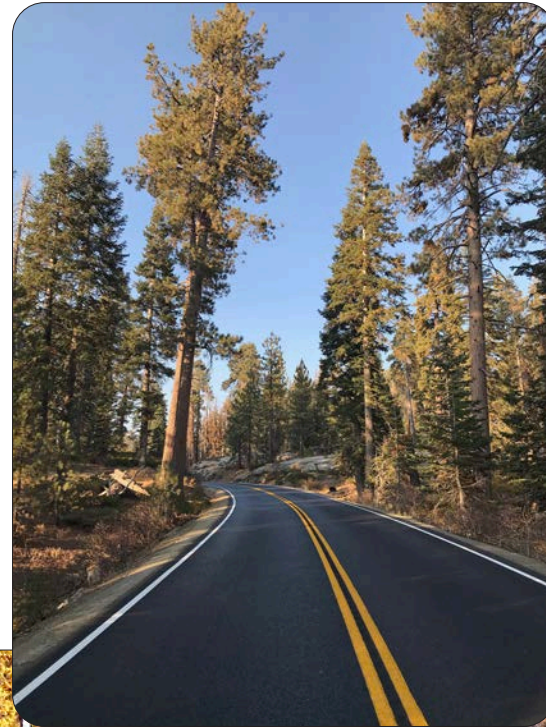


Before (left) and After (right) — Lost Grove, Sequoia and Kings Canyon, California

Projects



*Completed
Projects —
Sequoia and
Kings Canyon,
California*



Projects



Local traffic near the Hoover Dam. This image was captured by CFLHD Project Engineer Barbara Quintana, while inspecting an application of Fog Seal on the Lower Portal Access Road on the Nevada side of the Hoover Dam. Mike O'Callaghan-Pat Tillman Memorial Bridge is visible in the background. — Hoover Dam, Nevada

Projects



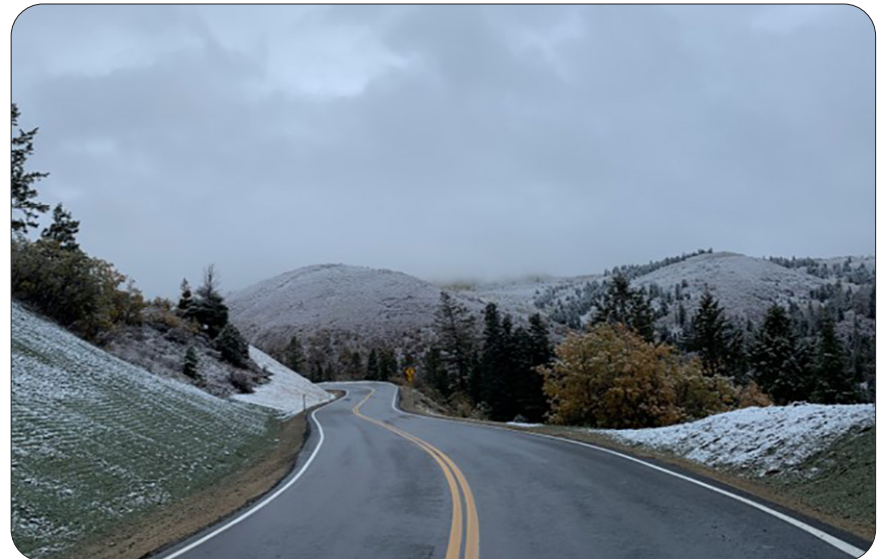
Ridgefield National Wildlife Refuge bridge replacement project removed an existing single lane timber trestle bridge and an at grade railroad crossing, replacing it with a new concrete bridge over Lake River and the railroad, providing safe and reliable crossing via rail and river — River S Bridge over Lake River, Ridgefield, Washington.



The Strawberry Sheep Creek project consisted of widening, reconstruction, and paving of the unpaved portion (12.3 miles) of Forest Routes 70131, 70042, and 70051, known as the Strawberry Sheep Creek Connector. Work also included drainage and safety improvements. — Uinta-Wasatch-Cache National Forest, Utah

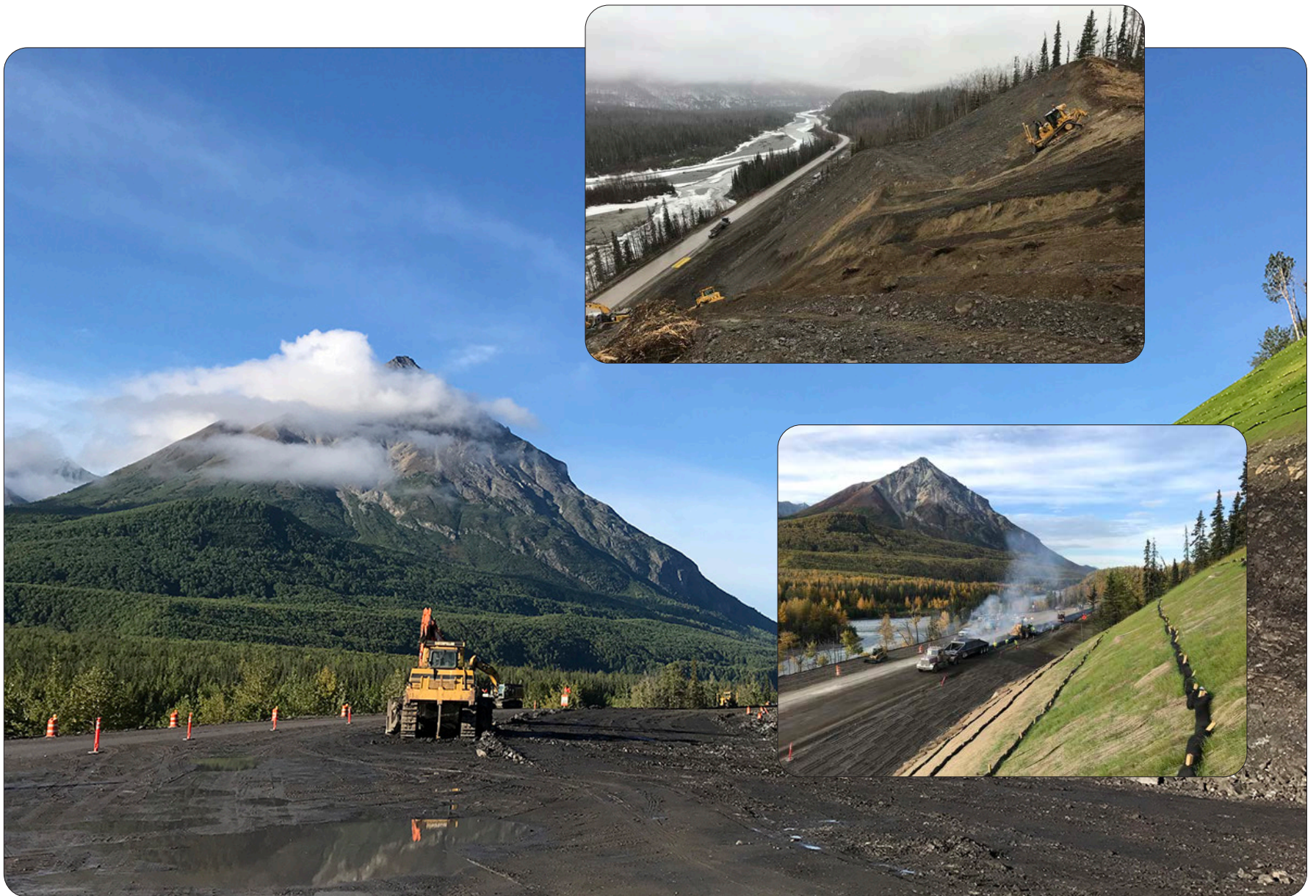


Road Safety Audit — Cumberland Pass, Colorado



Strawberry Sheep Creek Connector — Uinta-Wasatch-Cache National Forest, Utah

Projects



Glenn Highway Rehabilitation West Chickaloon Grade Section Project straightens the alignment of the Glenn Highway at the South approach to the Chickaloon Bridge. — Matanuska Susitna Borough, Alaska

Projects



Glenn Highway area — Matanuska Susitna Borough, Alaska

Projects



Chisos Basin Road Rehabilitation — Big Bend National Park, Texas



N 17° 59' 30", W 66° 38' 2"
PR, Ponce
PR ST ER PRMNT RPR PR-52
Guard Rail KM107.59

Guardrail installation (above) and (below), Jose Pabon-Rivera, EFLHD Construction Engineer inspects guardrail — Safety and signage projects, Puerto Rico



Impromptu ribbon cutting ceremony — EFLHD staff members Daniel Camacho, Victor Carreras, & Alex Correa, along with FS and FAA partners celebrate completion of permanent repairs addressing damage caused by Hurricane Maria. — Puerto Rico



lunes, 14 de junio de 2021
N 18° 12' 47", W 66° 2' 53"
PR, Caguas, Villa del Rey 2
PR ST ER PRMNT RPR PR-52
Guard Rail KM-21.7

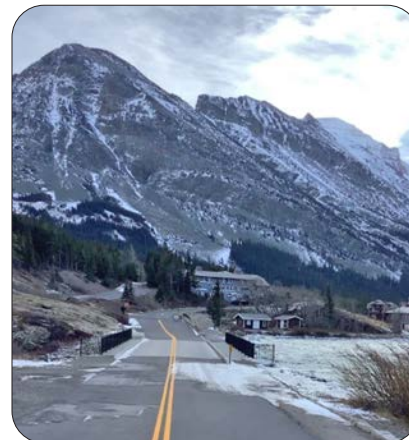
Projects



Rio Mora National Wildlife Refuge Entrance Road and Visitor Center project (above & below) includes rehabilitation of the existing main entrance road from New Mexico 161, to include access to all parking areas servicing the administration, lodge, bunkhouse, and environmental education buildings. — Rio Mora National Wildlife Refuge, New Mexico



The Many Glacier Road project (above & below) rehabilitates approximately 12 miles of Many Glacier Road from Many Glacier Hotel Parking Area to the intersection in Babb, Montana on the Blackfeet Indian Reservation. In general, the project closely follows existing horizontal and vertical alignments, while providing consistent 22 foot-wide paved surfaces. The project includes improved base material beneath the roadway, new asphalt concrete pavement surfacing, replacement of failed, undersized, or otherwise deficient culverts, masonry and minor bridge work, as well as turnout and parking area reconstruction throughout project limits. — Glacier National Park, Montana



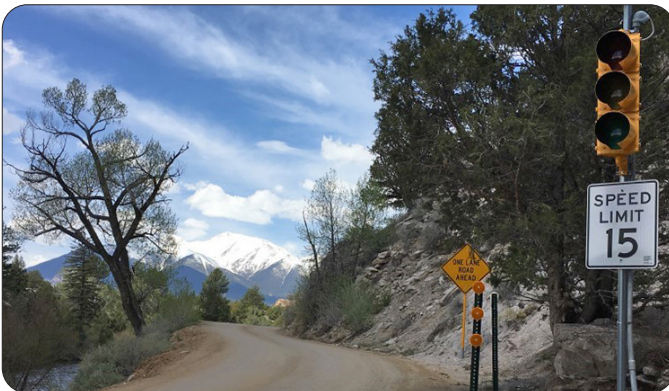
Projects



Fremont Pass Trail, Fremont Pass Recreational Pathway FLAP Project — White River National Forest, Colorado



Kapaa Stream Bridge and Mailihuna Road intersection rehab and safety improvements projects (above & below) addressed bridge width, load capacity, bridge railing and transitions, and bridge approaches. The highway intersection at Mailihuna Road was also improved with lighting, signing, pavement marking, drainage, traffic signal installation, roadway widening and other improvements. — Island of Kauai, Hawaii



Browns Canyon National Monument Access Road, a BLM and FS project accommodates a mix of traffic including school buses, trucks with trailers, RVs, passenger vehicles, ATVs, and motorcycles. This 0.25-mile section of CR 300 is gravel surfaced with a typical width of 19-22 feet, with the exception of a short narrow 12-foot section (the Narrows) located at the crest of a vertical curve in the middle of a horizontal curve. This section is bordered by a rock cut on the north and the Arkansas River on the south, making it difficult for traffic to pass safely. A traffic signal was installed by Chaffee County to facilitate one-way traffic through this section, but it continues to be vandalized and is currently inoperable. The project will improve drainage and safety, widening the roadway to a consistent 24-feet, adding guardrail where necessary. — Brown Canyon, Colorado



Projects

US50 Little Blue Creek Canyon Safety Improvements Project provided for the following improvements: wider shoulders, better roadway alignment and sight lines, slope stabilization with the installation of a rockfall catchment fence and other methods. Guardrail replacement, and general safety improvements were made throughout the canyon corridor. The route provides access to The Black Canyon of the Gunnison National Park, Curecanti National Recreational Area, and Grand Mesa Uncompahgre and Gunnison National Forests. Funds were provided by Colorado DOT and the FLAP in partnership with NPS, BLM and FS.



Birds Eye view of the project — Little Blue Creek Canyon, Colorado



Rock Cut — Little Blue Creek Canyon, Colorado



Culvert installation — Little Blue Creek Canyon, Colorado



Rock Scaling — Little Blue Creek Canyon, Colorado

Projects

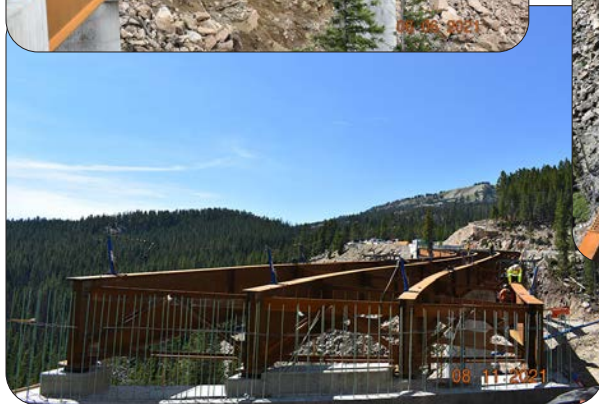


This FLAP Bridge Replacement Project addressed structural, functional inadequacies as well as the restrictive width and height limitations of two existing bridges on NM 152. The completed project provides safer and more reliable vehicular travel along NM 152, a major collector joining Interstate 25 to US 180. All photos — Gila National Forest, New Mexico.

Projects



All photos — Shoshone National Forest, Wyoming



Beartooth Highway reconstruction project addressed approximately 2.32 miles of US 212, and improved roadway alignment and grade. The project also included removal and replacement of an existing bridge, and construction of a new 36 foot wide bridge. In addition, this project covered improvements to the West Summit Site on the highway east of the roadway improvement project at Beartooth Pass, to include grading and installation of aggregate base to the entrance road and parking area. — Shoshone National Forest, Wyoming

Projects



Veterans Drive Panoramics (left & above right) Source: USVI DPW

Veterans Drive Improvements Project exemplifies successful ongoing cooperation between the US Virgin Islands (USVI) Department of Public Works, Puerto Rico and USVI Division Offices and EFLHD. Veterans Drive provides access to the major economic, governmental, and cultural facilities on St. Thomas. The project provides improved connectivity for locals and millions of visitors alike to the airport, downtown, 2 cruise ship docks, shopping centers, etc. Phase 1a of the project from the Lovers Lane intersection to Hospital Gade is complete and features increased roadway from a 2 lane undivided, to a 4 lane divided highway; with designated pull-offs, ample sidewalk space for pedestrians and cyclists, 3 spacious lookout points with architectural finishes, a docking area for boats, and a seawall.

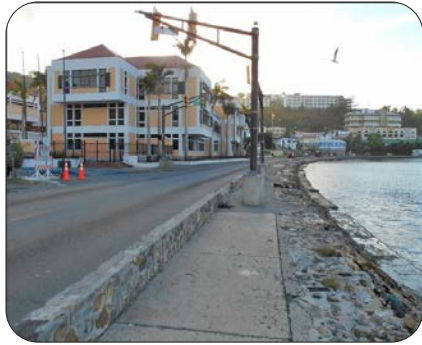


(Left) shows the above location before construction. — Veterans Drive, USVI



(Left) Aerial view showing project limits and work phases — Veterans Drive, USVI

Projects



Before (above left) and After (above right) Phase 1a Veterans Drive and Hospital Gade Intersection — Veterans Drive Phase 1a, USVI



Promenade — Veterans Drive Phase 1a, USVI

Overall Project Benefits:

Restores the roadway and updates it to meet current design standards.

Increases automobile, pedestrian, and cyclist capability

Improves pedestrian experience by improving aesthetics and safety with updated well separated facilities

Reduces congestion and eliminates potential illegal parking on the waterfront

Streetscape enhances the corridor's aesthetic appeal and promotes economic development with a continuous pedestrian connection

Increases resiliency of transportation system from future storm events



Vehicle Pull-off area — Veterans Drive Phase 1a, USVI



Lookout Point 2 and Dock Area — Veterans Drive Phase 1a, USVI



Lookout Point 1 — Veterans Drive Phase 1a, USVI



Seawall — Veterans Drive Phase 1a, USVI



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