



# Federal Lands Highway

*Improving transportation to and within federal and tribal lands*



**U.S. Department of Transportation  
Federal Highway Administration  
Office of Federal Lands Highway**



**US Army Corps of Engineers®**



# Celebrating

# 25 years of the

# Federal Lands Highway Program

## Accessing America's Treasures



### ***Project Example: Heartland Corridor Project***

The Heartland Corridor project is among the largest and most innovative public private partnerships administered by the Office of Federal Lands Highway. The project makes the most direct rail route between the Port of Virginia in Norfolk to the major Midwest markets of Columbus, Ohio and Chicago, Illinois, accessible to double stack container trains. The new route will shorten the trip from Norfolk to Chicago by over 200 miles. This is the first time that the private freight rail industry has worked together with U.S. DOT to develop and finance a rail improvement project.



## Office of Federal Lands Highway

The Federal Highway Administration's (FHWA) Office of Federal Lands Highway (FLH) provides program stewardship and transportation engineering services for planning, design, construction, and rehabilitation of the highways and bridges that provide access to and through federally owned lands.

FLH administers and delivers several programs, including the Federal Lands Highway Program (FLHP). Through these programs and in coordination with its partners and customers, FLH provides financial resources, technical assistance, and context sensitive solutions to Federal, State, Tribal, and local partners in all 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and Pacific Islands.

FLH has been and continues to be the *“transportation service provider of choice to our partner agencies.”*

Approximately 30 percent of the land in the United States is under the jurisdiction of the Federal Government. These lands are administered by Federal Land Management Agencies (FLMAs), including the National Park Service, U.S. Forest Service, U.S. Fish and Wildlife Service, Bureau of Indian Affairs, Bureau of Land Management, U.S. Army, U.S. Navy, Surface Deployment Distribution Command, U.S. Army Corps of Engineers, Tennessee Valley Authority, and the Bureau of Reclamation.

## Vision

Creating the best transportation system in balance with the values of Federal and Tribal lands.

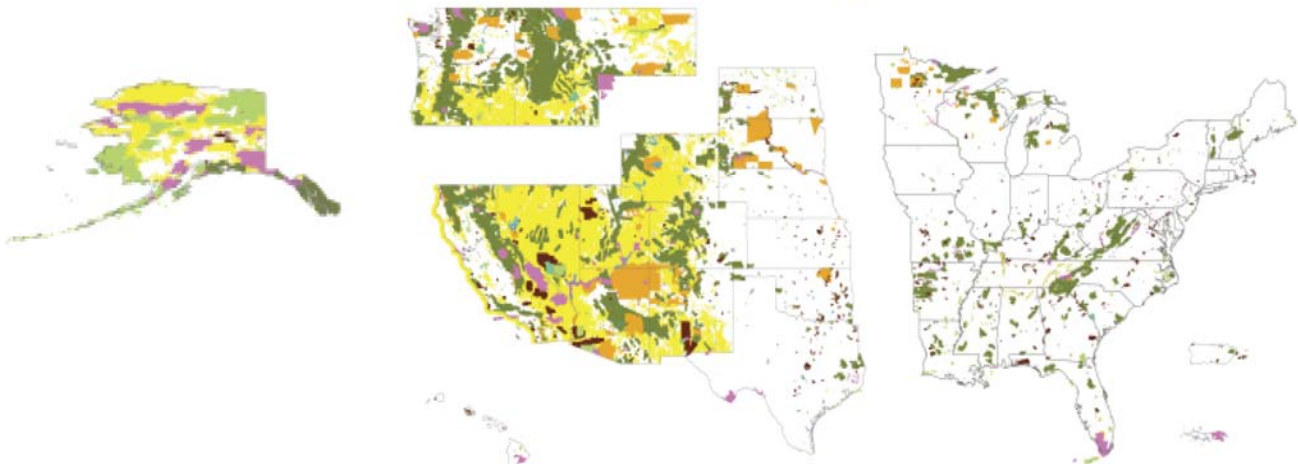
## Mission

We continually improve transportation access to and through Federal and Tribal lands through stewardship of FLH programs by providing balanced, safe, and innovative roadways that blend into or enhance the existing environment, and also by providing technical services to the transportation community.

There are also more than 300,000 miles of federally owned public roads. Many are not eligible for FLHP funding.

The federal government has title to about 650 million acres—roughly 30% of the total area of the United States.

- Bureau of Indian Affairs/Tribal Governments
- Bureau of Land Management
- Bureau of Reclamation
- Department of Defense
- U.S. Forest Service
- U.S. Fish and Wildlife Service
- National Park Service
- Tennessee Valley Authority



## Benefits

Whether you are speeding down a freshly groomed ski slope, bicycling past fall foliage along a scenic highway, fishing in a pristine mountain lake or stream, or helping your children spot wildlife from the car, you have probably spent time on our public lands. Context sensitive solutions have helped FLH and its partners maintain the environmental, cultural, and historic integrity of the national parks, national forests, national wildlife refuges, and Indian reservation lands they manage.

The roads supported by FLH not only sustain recreational travel, they also maintain resource extraction, protect and enhance natural resources, uphold sustained economic development in rural areas, and provide transportation access for Native Americans. Recreational spending is a significant portion of the \$730 billion in travel and tourism dollars that are contributed to the US economy every year. It is one of the fastest growing sectors of our economy – and more than 20 percent of Americans’ recreational activities take place on Federal lands. These activities create thousands of jobs for local communities surrounding Federal lands.



*Future Hoover Dam Bypass*

## Partnerships

FLH works closely with its FLMA partners, including dozens of states and tribes, on transportation projects throughout U.S. states and territories to improve the transportation system serving Federal and Indian lands. FLH works with partners to promote the highest standards of road safety, contextual sensitivity, and economic growth for local residents.

Each park, refuge, forest, Indian reservation or public facility—and every partner FLH works with—has a unique heritage, resource, value and need. FLH's value and strength lies in understanding that uniqueness and working with each agency to meet their needs and achieve a common goal of providing safe and scenic transportation.

### FLH Core Partners and Programs

FLH Core Partners	FLH Programs*	Land (Acres)	Roads (Miles)	Number of Bridges
U.S. Fish and Wildlife Service	Refuge Roads	104 Million	4,900	265
National Park Service	Park Roads and Parkways	89 Million	9,550	1,414
U.S. Forest Service	Forest Highways	192 Million	29,000	4,526**
Bureau of Indian Affairs	Indian Reservation Roads and Bridges	107 Million	94,400	8,082
<b>Total</b>		<b>492 Million</b>	<b>137,850</b>	<b>14,287</b>

\* Public Lands Highways Discretionary Program is not linked to a core partner and therefore is not included here.

\*\* Including bridges on National Forest System Roads.

***“Much like people, every road, every highway, has its own personality... its own character. Understanding that character... connecting with it... respecting it... that is at the heart of the work of Federal Lands Highway.”***

FLH’s primary purpose is to manage delivery of the Federal Lands Highway Program and ensure that taxpayer dollars are expended on the right things and in the right manner. Two primary mission areas represent FLH's everyday business in accomplishing our purpose:

**Program Administration** represents a diverse set of activities that support the delivery of projects and the overall FLH program. These activities include:

- Promote and provide stewardship and oversight of FLH programs;
- Develop legislative recommendations and interpret statutory provisions related to FLH programs;
- Provide advocacy for and technical assistance to FLMAs and Tribal Governments;
- Promote and provide technical assistance on Management Systems, Asset Management, and Transportation Planning;
- Conduct engineering and related technical studies;
- Promote and provide technical assistance on context sensitive designs and solutions, safety and congestion relief, and environmental streamlining;
- Document condition of roads and bridges.

**Program Delivery** represents the core activities that support the planning, design, and construction of transportation options. These activities include:

- Plan, design and construct FLMA roads;
- Improve roadway geometrics and consistency;
- Improve signs and traffic operations;
- Improve roadway and roadside safety;
- Build scenic and context sensitive roads;
- Provide seamless transportation facilities;
- Minimize impact to and, where appropriate, improve natural environment;
- Provide support for, during and after natural disasters;
- Provide quality education and training for transportation specialists; and promote and implement new and emerging technologies.

***Project example: Going-to-the-Sun Road***

This 50-mile, two-lane highway winds through the heart of Glacier National Park. Motorists can experience glacier-carved peaks, deep blue lakes, and lush forests. Seventy years of rockslides and avalanches, severe weather, heavy traffic, and inadequate maintenance left the road in urgent need of repair. FLH is leading rehabilitation efforts to improve retaining walls, arches, and tunnels; add avalanche resistant guard walls; repair the drainage system; and repave or resurface damaged pavement.



## Federal Lands Highway Program

Congress established the Federal Lands Highway Program (FLHP) to accomplish the following:

- Promote effective, efficient, and reliable administration for a coordinated program of public roads and bridges;
- Protect and enhance our Nation’s natural resources;
- Provide needed transportation access for Native Americans.

The FLHP was created in the 1982 Surface Transportation Assistance Act, which recognized the need for all Federal public roads to be treated under uniform policies. FLHP funds may be used for purposes that include, but are not limited to, planning, design, construction and rehabilitation of the highways and bridges that provide access to and within Federally owned lands.

## Core Programs

The Federal Lands Highway Program (FLHP) is subdivided into five core areas:

- **Refuge Roads Program**
- **Park Roads and Parkways Program**
- **Indian Reservations Roads and Bridges Programs**
- **Public Lands Highways** *which includes:*
  - **Forest Highways Program**
  - **Public Lands Highways Discretionary Program**

The FLHP also provides funding for integrated transportation planning, bridge inspections and other technical assistance activities.



*Sentinel Bridge, Yosemite National Park*

### FLHP Core Programs: FY 2005-2009 Authorizations (In Millions) in SAFETEA-LU

Program	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Totals
<i>Refuge Roads</i>	\$29.0	\$29.0	\$29.0	\$29.0	\$29.0	<b>\$145.0</b>
<i>Indian Reservation Roads</i>	\$300.0	\$330.0	\$370.0	\$410.0	\$450.0	<b>\$1,860.0</b>
<i>Indian Reservation Bridges</i>	\$14.0	\$14.0	\$14.0	\$14.0	\$14.0	<b>\$70.0</b>
<i>Forest Highways</i>	\$173.3	\$186.7	\$186.7	\$193.3	\$200.0	<b>\$940.0</b>
<i>Public Lands Highways Discretionary</i>	\$86.7	\$93.3	\$93.3	\$96.7	\$100.0	<b>\$470.0</b>
<i>Park Roads and Parkways</i>	\$180.0	\$195.0	\$210.0	\$225.0	\$240.0	<b>\$1,050.0</b>
<b>Totals</b>	<b>\$783.0</b>	<b>\$848.0</b>	<b>\$903.0</b>	<b>\$968.0</b>	<b>\$1,033.0</b>	<b>\$4,535.0</b>





***Marshlands Roads,  
Don Edwards National Wildlife Refuge***

### **Refuge Roads Program**

FLH and the U.S. Fish and Wildlife Service (FWS) jointly administer the Refuge Roads (RR) Program, which provides funding for the design, reconstruction, maintenance or improvement of refuge roads, and interpretive signage and trails.



Refuge roads provide access to and within the National Wildlife Refuge System, which is administered by FWS. There are approximately 4,900 miles of public roads within the NWRS, in addition to 265 bridges, 5,153 parking lots, six transit systems, and over 680 miles of foot trails and boardwalks. The NWRS includes nearly 550 wildlife refuges in all 50 states, Puerto Rico, Guam and the Virgin Islands.

### **Park Roads and Parkways Program**

FLH and the National Park Service (NPS) jointly administer the Park Roads and Parkways (PRP) Program. This program includes approximately 9,550 miles of park roads and parkways, bridges, tunnels, and trails under jurisdiction of NPS, which provide access to over 270 million visitors to hundreds of NPS sites every year. PRP projects include restoration, resurfacing, rehabilitation, and reconstruction for road, bridge and safety projects; completion of congressionally mandated projects, such as the Natchez Trace Parkway; and alternative-transportation projects.



***Foothills Parkway,  
Great Smoky Mountains National Park***

#### ***Project example: Shiloh Marsh Road***

Merritt Island National Wildlife Refuge in Florida overlays the John F. Kennedy Space Center and consists of over 140,000 acres of mixed coastal habitats. Shiloh Marsh Road, a dike road in the refuge, was being rehabilitated by FLH when the storm surge from Hurricane Charley caused the water level to rise more than 5 feet, washing away whole sections of the dike and much of the new road. With the use of Emergency Relief for Federally Owned Roads (ERFO) Program funds, the road was repaired and reopened.

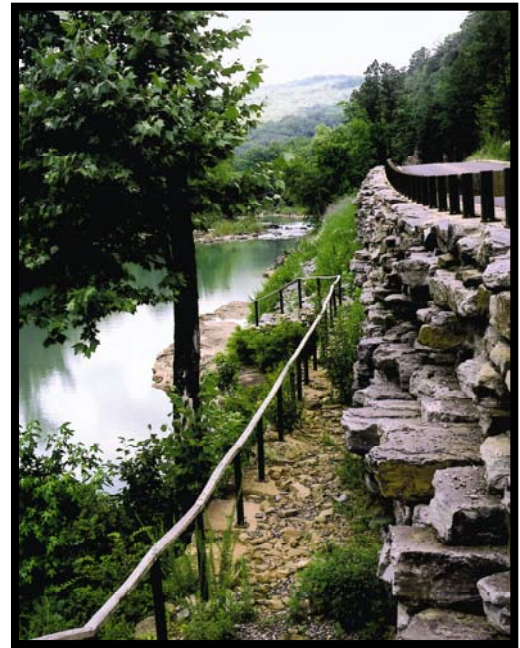


## Public Lands Highways Discretionary Program

The Public Lands Highway Discretionary Program (PLHD) was created in 1930 and incorporated into the FLHP Public Lands Highways Program (PLH) in 1983. PLHD receives 33% of PLH funds, and provides funding for the planning, design, construction, reconstruction or improvement of roads and bridges that are within or adjacent to, or provide access to, public lands and Indian reservations. PLHD funding has been used for the design and construction of, and improvements to, public roads, bridges, transit facilities, parking lots, roadside rest areas, bicycle trails, walkways, and transportation planning activities. Preference is given to those projects that are significantly impacted by federal land and resource management activities.



*Boston Harbor Islands National Park*



*Arkansas Forest Highway 65,  
Ozark National Forest*

## Forest Highways Program

FLH and the U.S. Forest Service (USFS) administer the Forest Highways (FH) Program in partnership. FH is a component of the PLHD Program, and receives 66% of authorized funds. There are approximately 29,200 miles of forest highways, nearly all of which are state and locally owned public roads that provide access to and within the National Forest System (NFS). USFS has jurisdiction over the NFS, which includes 155 national forests and 22 national grasslands in 42 states and Puerto Rico.



### ***Project Example: General Hitchcock Highway***

General Hitchcock Highway is a Scenic Byway that travels through the Coronado National Forest. Federal Lands Highway in partnership with the U.S. Forest Service and Pima County completed the final Forest Highway Program funded segment in 2007. The environmental impact of the road was mitigated through careful selection of alignment and design alternatives that minimize new visual impacts; special sculpting of new cut-and-fill slopes; and, intensive landscaping and revegetation of disturbed areas. The roadway won the prestigious 2005 Arizona Engineering Excellence Grand Award for Context Sensitive Design.







*Road to Standing Rock Indian Reservation*

## Indian Reservation Roads and Bridges



The Indian Reservation Roads (IRR) Program addresses the transportation needs of over 560 Indian Tribes and Alaska Native Villages by providing funds for planning, designing, construction, and maintenance activities. The program is jointly administered by FLH and the Bureau of Indian Affairs (BIA) in accordance with an interagency agreement. Indian Reservation Roads are public roads which provide access to and within Indian reservations, Indian trust land, restricted Indian land, and Alaska native villages. Approximately 33,000 miles are under the jurisdiction of BIA and tribes and the rest are under State and local ownership.

## Other Programs and Services

In addition to FLHP funding, FLH administers funding for the Emergency Relief for Federally Owned Roads Program (ERFO), the Defense Access Road Program (DAR), and much of the Federal-aid funding for the District of Columbia Department of Transportation and the Virgin Islands Government; bridge inspection and skid testing funding for various agencies; and other miscellaneous funding.

### Emergency Relief for Federally Owned Roads (ERFO) Program

The ERFO Program is a component of the \$100 million of the annual authorization for the Federal-Aid Highway Emergency Relief Program. The mission of the ERFO Program is to provide funding and engineering services to restore access to public lands after a disaster. The ERFO Program supports the repair and reconstruction of Federal roads damaged by a natural disaster or by a catastrophic failure from any external cause.

### Defense Access Road (DAR) Program

The DAR Program provides a means for the military to pay their share of the cost of public highway improvements necessary to mitigate the impact of defense activities on public roads in exceptional cases, such as, an increase in personnel at a military installation, relocation of an access gate, or the deployment of an overweight military vehicle or transporter unit.

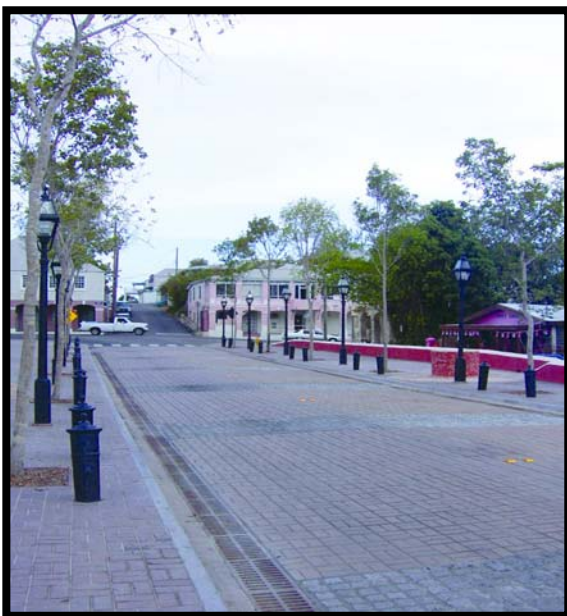
### ***Project Example: Saddle Road***

In 1991 planning began for the reconstruction of the Ala Mauna Saddle Road, which connects Hilo to Waimea on the Big Island of Hawaii. Saddle Road is the most direct route across the island, but it had one of the highest accident rates of any road of its classification in Hawaii. Federal Lands Highway in cooperation with the Hawaii DOT is administering the improvement project, which will make the road safer and easier to use by eliminating narrow lanes, improving lines of sight, and eliminating numerous roadside hazards.



## Road Inventory and Inspection Program

With the use of state-of-the-art equipment and engineering expertise, the Road Inventory Program (RIP) documents the condition of pavements, geometrics, and drainages of existing park roads and parkways. The data collected includes a video log that can be used by the appropriate FLMA and FLH managers to define and support decisions for improvement projects.



*Sunday Market Square, U.S. Virgin Islands*



*Belton Bridge, Glacier National Park*

## Bridge Inspection and Management Program

The Bridge Inspection Team is responsible for the safety inspection and structural rating of 2,100 structures owned by the NPS as well as other federal agencies. The Bridge Management Team is responsible for the management of the NPS's structures inventory and evaluation of data contained to provide FLH and NPS planners with an annual list of structure rehabilitation and repair priorities. Both teams provide technical leadership and support to their partners through technology advancement, data management, bridge inspection technical assistance, system preservation technology advancement, and bridge program policy and guidance.

### ***Project example: Parker River National Wildlife Refuge***

Located on the Atlantic coast in Northeastern Massachusetts, the 4,662 acre refuge is made up of sandy beaches and dunes, thickets of shrubs, bogs, and fresh and saltwater marshes. Through the Innovative Bridge Research & Construction Program, Federal Lands Highway constructed a crossing over wetlands to the new visitor center. The crossing used High Performance Concrete for the concrete deck and utilized prefabricated bridge elements to improve the quality of the project, reduce its costs, and minimize its environmental impact on the surrounding wetlands.





## Transportation Asset Management

Transportation Asset Management (TAM) is a system to manage and optimize the preservation of transportation infrastructures. TAM is a strategic and systematic process of operating, maintaining, upgrading, and expanding physical assets effectively through their life cycle that supports the advancement of state-of-the-art technology, practices, procedures, and programs. It focuses on business and engineering practices for resource allocation and utilization, with the objective of better decision making based upon quality information and well defined objectives.

## Technology Deployment

FLH promotes deployment of new, emerging, and underutilized technologies applicable to transportation serving Federal lands. It provides technology delivery, training, technical assistance and knowledge sharing to Federal agencies, Tribal governments, and other FHWA offices. FLH plays an active role in the evaluation and implementation of highway technologies through field testing, showcasing, engineering assistance, and documenting and sharing results with the transportation community.

FLH's technology program has seven focus areas: Design Visualization, Aesthetic Pavement Treatments, Geotechnical, Safety, Pavements, Structures, Survey and Mapping.

## Integrated Transportation Planning

FLH provides technical assistance to support comprehensive and coordinated transportation planning that involves Federal land managing agencies, Native Americans, and State and local transportation agencies. For example, FLH has coordinated public involvement with numerous stakeholders as part of the Kilauea Point National Wildlife Refuge Alternative Transportation Systems Study. The planning effort seeks to identify integrated multimodal options for providing improved access to Kilauea Point, which is on the North Shore of the Island of Kauai. Kilauea Point is among the most heavily visited refuges in the United States.



*Kilauea Point, Island of Kauai, Hawaii*

### ***Project example: Natchez Trace Parkway***

On May 21, 2005 in Natchez, Mississippi, over 1,000 people attended ceremonies to celebrate the completion of the Natchez Trace Parkway. The Parkway is a testament to the partnership between NPS and FLH. "Park road" aesthetic values guided the design and construction of the Parkway. The combination of teamwork, planning, landscape and engineering design skills, and innovative construction techniques were the beginning of "context sensitive design." The result is a 444-mile Parkway that meanders through the rural South – a National Park where the roadway is the park itself.



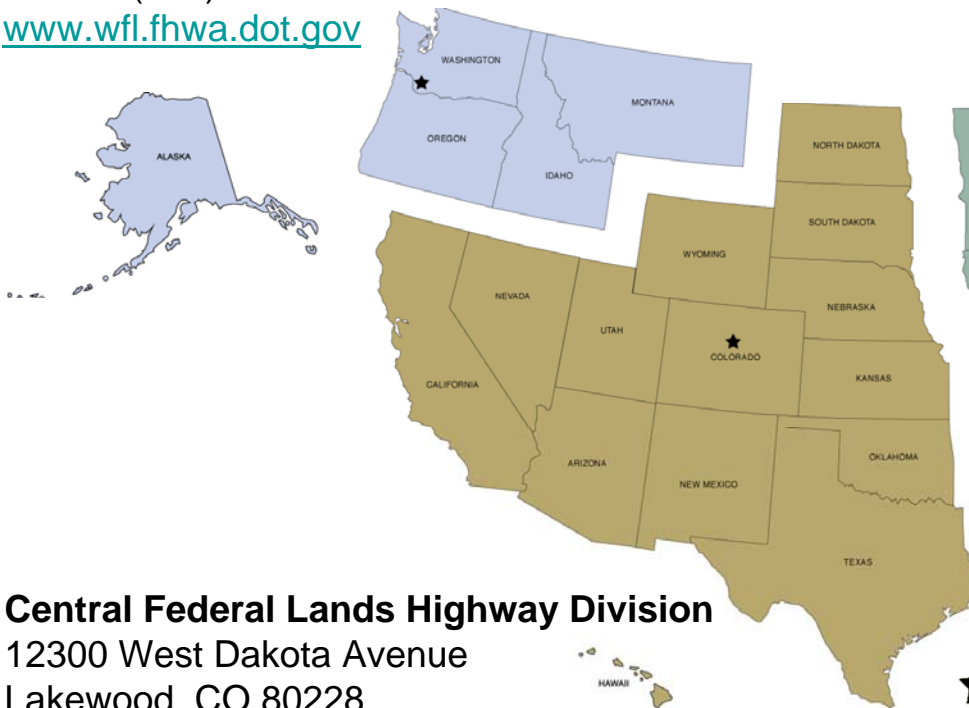
## Our Organization

The FLH organization consists of a headquarters office and three field divisions. Headquarters is responsible for program development and administration, policy, program review, and outreach.

The three field divisions are responsible for program development, transportation planning, environmental analysis, project coordination, road and bridge design, construction supervision, program and project management, condition assessments, technical assistance and various other transportation-related activities.

### Western Federal Lands Highway Division

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### Eastern Federal Lands Highway Division

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★ FLH office

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