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All charts and images are source: FHWA
Introduction

The Federal Highway Administration (FHWA), Eastern Federal Lands Highway Division (EFLHD), is committed to serving the needs of our Partners and we have been engaged in an ongoing evaluation and improvement process since 1993. As part of that process, we have collected survey information from our Partner Agencies and used their responses to improve our products and services. This Report has been developed to provide a summary of the feedback we received in relation to our program and project delivery, including identification of proposed improvement actions, and to report on some of our significant accomplishments.

In Fiscal Year (FY) 2020, Survey Review & Enhancement efforts were completed on all customers surveys to identify areas of improvement. One of the recommended improvements was to discontinue the Environmental Collaboration Survey and include key environmental items within the Project Development and Completed Project Surveys.

Please note that The Planning and Programming Survey (previously Program Administration Survey) was not administered in 2019 and 2020 due to on-going coordinating efforts with FLH Division Offices.

In FY 2020, we distributed the following web-based surveys:

- Roadway Inventory Program (RIP)
- Completed Projects (Construction Process)
- Project Development (Design Process)

The results from those surveys have been reviewed and actions have been implemented to correct and/or improve upon our FY 2020 scores. We appreciate our many Partners; and value the feedback you provide. The adjustments and adaptations we implement intended efforts to better meet your needs in the delivery of your program of projects.

In FY 2020, we awarded 38 projects at over $114 million in construction contracts from which survey solicitations were requested. We received comments from the following Agencies:

- National Park Service (NPS)
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- State Departments of Transportation
- US Army Corps of Engineers
- Other Agencies

Comments are evaluated in consideration of the Program activity addressed and the partner representative from whom they were received. Our Staff often contacts the representatives to clarify individual comments.

We continue to reach out to our partner agencies through site visits, feedback sessions, program status updates and teleconferences for the continual improvement of our program and project delivery services. In FY 2020, we had partner satisfaction scores at or above target for Completed Projects, Road Inventory Program, and Project Development. The overall satisfaction score for combining all surveys for FY 2020 comes in at 93%, putting the overall score above our target of ≥ 85%.

We would like to take this opportunity to extend our thanks for your participation and support of our efforts toward continued improvement. Your feedback is vital in the successful delivery of the Federal Lands Highway Program (FLHP) and is greatly appreciated. If you have any questions, or additional comments, please contact Ms. Aide Romero, Division Program Management Analyst and System Manager, at 703-404-6235 or by email Aide.Romero@dot.gov.
Survey Approach

We measure the satisfaction of our Partner Agencies at the major milestones of the program and project delivery processes. The surveys are sent throughout the calendar year at the completion of the environmental assessment, project design and construction phase, to gauge overall administrative support. Survey respondents include representatives of our Partners and other Agencies directly involved with delivery of the Program.

Survey scores have slightly increased the last several years. EFLHD’s value of 93% in 2020 continued this trend. We are at our goal of ≥ 85%. Each of the three components that comprise this overall score is addressed in detail on subsequent pages of this report.

The average value for all partner surveys is composed of the Road Inventory Program Survey at 98.5% with a response rate of 21%; the Project Development (Design) survey at 87.2% with a response rate of 34%; and the final component is the Completed Projects (Construction) Survey at 93.3% and with a response rate at 26%.

Our target value aligns with the Federal Lands Highway and FHWA goals which strive for an 85% or greater for all external Partner Satisfaction surveys.

The combined rate of return for all three survey areas in FY 2020 was only at 28.4%; this was higher than the prior year value of 24.8%. Our percentage returned is still below statistically desirable numbers so efforts to improve will continue. As with all surveys, the number of responses received is critical to the validity of the feedback. In 2021 branch office personnel will be contacting respondents to improve response rate over 2020 values. We continue to ask for your valued input to this improvement effort at EFLHD and welcome feedback that can assist us in increasing our customer satisfaction.
# of Survey Invitations

<table>
<thead>
<tr>
<th>Year</th>
<th>Program Administration</th>
<th>Environmental Collaboration</th>
<th>Road Inventory Program</th>
<th>Project Development (Design)</th>
<th>Completed Projects (Construction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>138</td>
<td>25</td>
<td>38</td>
<td>137</td>
<td>124</td>
</tr>
<tr>
<td>2017</td>
<td>124</td>
<td>32</td>
<td>38</td>
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<td>2018</td>
<td>38</td>
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<td>62</td>
<td>87</td>
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<td>2019</td>
<td>126</td>
<td>94</td>
<td>111</td>
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</tr>
<tr>
<td>2020</td>
<td>34</td>
<td>53</td>
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<td>53</td>
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</table>

# of Survey Responses

<table>
<thead>
<tr>
<th>Year</th>
<th>Program Administration</th>
<th>Environmental Collaboration</th>
<th>Road Inventory Program</th>
<th>Project Development (Design)</th>
<th>Completed Projects (Construction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>71</td>
<td>52</td>
<td>44</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>2017</td>
<td>6</td>
<td>7</td>
<td>5</td>
<td>18</td>
<td>18</td>
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<tr>
<td>2018</td>
<td>45</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
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<tr>
<td>2019</td>
<td>44</td>
<td>44</td>
<td>13</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>2020</td>
<td>20</td>
<td>27</td>
<td>5</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>

Survey Respondents by Partner Agency in 2020

- National Park Service
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- State Dept. of Transportation
- Other Agencies

<table>
<thead>
<tr>
<th>Total Responses</th>
<th>Program Administration</th>
<th>Road Inventory Program</th>
<th>Project Development (Design)</th>
<th>Completed Projects (Construction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>16</td>
<td>13</td>
<td>16</td>
<td>33</td>
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<tr>
<td>16</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>13</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
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<td>1</td>
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<td>0</td>
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</tr>
<tr>
<td>33</td>
<td>3</td>
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<td>3</td>
<td>33</td>
</tr>
</tbody>
</table>

Road Inventory Program Survey

The purpose of the Road Inventory Program Survey is to evaluate the degree to which our work provides the information necessary to support our partner’s asset management and program development processes.

EFLHD Overall Satisfaction Index Target ≥ 85%

Road Inventory Program Survey Score

Road Inventory Program Component Scores (%)

Route ID  Manual Collection  Vehicle Collection  Data Delivery / Training

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>90.7%</td>
<td>90.3%</td>
<td>90.3%</td>
<td>98.5%</td>
</tr>
</tbody>
</table>

Score breakdown:

- Route ID: 94.8, 90.0, 90.4, 87.5
- Manual Collection: 92.0, 88.0, 93.0, 91.0
- Vehicle Collection: 100, 92.0, 89.0, 88.0
- Data Delivery / Training: 89.0, 88.0, 88.0, 88.0

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>90.7%</td>
<td>90.3%</td>
<td>90.3%</td>
<td>98.5%</td>
</tr>
</tbody>
</table>

Road Inventory Program Survey Score

Road Inventory Program Component Scores (%)
Survey Results: This is the fourth year that the Road Inventory Program Survey is included in the Partner Feedback report. The Overall Satisfaction scores for the Road Inventory Program Survey improved to 98.5%. The current score continues to meet our target level of 85%. An analysis of the survey’s results by category yielded the following:

<table>
<thead>
<tr>
<th>Category</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route ID</td>
<td>94.8</td>
<td>89.0</td>
<td>92.0</td>
<td>100</td>
<td>8.0</td>
</tr>
<tr>
<td>Manual Collection</td>
<td>90.0</td>
<td>88.0</td>
<td>92.0</td>
<td>97.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Vehicle Collection</td>
<td>90.4</td>
<td>93.0</td>
<td>89.0</td>
<td>97.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Data Delivery / Training</td>
<td>87.5</td>
<td>91.0</td>
<td>88.0</td>
<td>97.0</td>
<td>5.0</td>
</tr>
<tr>
<td><strong>Overall Score</strong></td>
<td><strong>90.7</strong></td>
<td><strong>90.3</strong></td>
<td><strong>90.3</strong></td>
<td><strong>98.5</strong></td>
<td><strong>8.3</strong></td>
</tr>
</tbody>
</table>

Survey scores remain very high for all park units (see graph above). No parks provided scores below the target score of 85%, so all park interactions with RIP were very satisfactory.

A low response rate continues to be the biggest challenge with these surveys. EFL performed a comprehensive review of the format, questions, survey sections, and method of distribution that should foster an improved response rate. Additionally, a new survey was created for FWS. The updated surveys will be implemented in FY 2021. A sampling of the written comments associated with this survey were:

- The RIP project manager was engaging, professional, and clear. They explained this in language even I could understand. They often asked if clarification was necessary. At the end of each section they invited questions. I felt fully at ease, appreciated, and an important part of the process.
- This was a series of very productive meetings that has been long needed. The RIP project managers were very thorough and patient in working through the many locations our park has and the many new ones we identified in these calls.
- Only recommendation is that the lead project manager introduce their coworker who was also on the call.

Action to Improve: We have initiated the following actions to improve and maintain partner satisfaction this year:

- We will be reviewing the RIP communication plan as we prepare for cycle 7 and work to reduce unnecessary letters and emails.
- We will be reviewing the format of Route ID meetings and will determine the best ways to introduce the RIP team to our Partners.

Actions Taken: We implemented the following actions for improvement last year:

- We identified opportunities to streamline Route ID meetings in Cycle 6 and in the upcoming Cycle 7. NPS started providing a monthly export of the FMSS dataset for roads and parking. This spreadsheet is uploaded into the RIP database system so that QC checks can be automatically run to produce a discrepancy report that is reviewed during the Route ID calls. The monthly FMSS report saves time because the RIP team no longer needs to ask park personnel to generate and share a report that the RIP Project Managers (PMs) then use to compare against RIP line by line. Additionally, the NPS Roads Work Group is trying to improve data alignment between RIP and Facility Management Software System (FMSS) by having the RIP team work directly with Regional FMSS Coordinators. These coordinators are more experienced with dealing with repetitive issues and can help parks resolve them in a timely manner. The RIP team has provided comments and suggested actions for the NPS to take for the Southeast and Northeast regions. RIP team will continue working on the other Regions to clean up the data at the end of Cycle 6, which will get Cycle 7 off to a better start having fewer discrepancies.
• We continued with the standard training format delivered on a reduced schedule of every 3-4 months. The reduction was mostly due to focusing our time on other areas, so the issue has not been fully addressed yet. We will continue to review the training format and method of delivery as we review the overall RIP process for the next Cycle 7. One idea is to offer a RIP reference page on the NPS Navigator site where procedures, quick start guides, or even video recording can be offered to explain RIP data to our users. Live training may not be needed if people can access the procedures and get answers to their questions at their convenience.

• The RIP team has started a comprehensive review of the database system to make it uniform across all agencies collected by the RIP.
Project Development (Design) Survey

The purpose of the Project Development Survey is to assess the quality of all project design elements and FLH management practices that lead to final design.

EFLHD Overall Satisfaction Index Target ≥ 85%
**Survey Results:** The overall Project Development Survey score for FY 2020 is 87.2%. The target of 85% or higher was achieved for this year. An analysis of the survey’s results by the category area yielded the following results:

<table>
<thead>
<tr>
<th>Category</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Management Practices</td>
<td>84.6</td>
<td>85.3</td>
<td>82.4</td>
<td>84.8</td>
<td>84.4</td>
<td>-0.40</td>
</tr>
<tr>
<td>Roadway and Safety Design Elements</td>
<td>83.0</td>
<td>82.3</td>
<td>82.6</td>
<td>89.8</td>
<td>89.1</td>
<td>-0.70</td>
</tr>
<tr>
<td>Hydraulic and Environmental Design Elements</td>
<td>85.3</td>
<td>81.6</td>
<td>80.6</td>
<td>86.3</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Hydraulic Design Elements</td>
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<td>---</td>
<td>---</td>
<td>88.8</td>
<td>---</td>
</tr>
<tr>
<td>Environmental Design Elements</td>
<td>84.2</td>
<td>81.6</td>
<td>83.0</td>
<td>86.4</td>
<td>91.8</td>
<td>5.4</td>
</tr>
<tr>
<td>Structural Design Elements</td>
<td>85.0</td>
<td>85.5</td>
<td>82.5</td>
<td>87.9</td>
<td>86.9</td>
<td>-1.00</td>
</tr>
<tr>
<td>Advertisement and Award of Contracts</td>
<td>79.0</td>
<td>82.9</td>
<td>71.9</td>
<td>78.7</td>
<td>79.4</td>
<td>0.70</td>
</tr>
<tr>
<td><strong>Overall Score</strong></td>
<td>83.7</td>
<td>83.4</td>
<td>81.1</td>
<td>86.0</td>
<td>87.2</td>
<td>1.20</td>
</tr>
</tbody>
</table>

Questions resulting in the lowest scores for this survey period were:
- **Advertisement and Award of Contract:** 76.9%
  Timeliness of Advertisement and Award.
- **Project Management Practices:** 79.4%
  Management of project schedule (within program and cost constraints).
- **Roadway and Safety Design Elements:** 81.7%
  Right-of-Way and Utility coordination.
- **Project Management Practices:** 81.9%
  Management of project budget (within program and schedule constraints).

Question with the highest scores for the current survey period were:
- **Structural Design Elements (new/rehabilitation):** 95.3%
  Structural aesthetics.
- **Roadway and Safety Design Elements:** 94.7%
  Cut and fill slope design.
- **Roadway and Safety Design Elements:** 92.5%
  Roadway geometrics (curves, intersections, alignment, etc.).
- **Structural Design Elements (new/rehabilitation):** 92.0%
  Structural type and size is appropriate for the site location.

Our satisfaction score continues to show an upward trend and above the target value. Our response rate for this year was 34% and is up from last year’s value of 18.3%. Structural Design Elements Discipline area showed improvement from last year. The areas needing more attention are Advertisement and Award of Contract, Project Management Practices, and the Roadway and Safety Design Elements, although Advertisement and Award of Contracts did increase in score from last year.

**Actions to Improve:** We will implement the following in FY 2021:
- Advertisement and Award of Contracts (Timeliness) – Advertisement and Award of Contracts – At the end of FY 2020, EFLHD awarded 5 regional Construction Indefinite Delivery, Indefinite Quantity (IDIQ) contracts providing highway and/or bridge construction for the smaller (generally less than $2M) and less complex projects. These IDIQ contractors have experience working with EFLHD and will help streamline procurement over time, and we anticipate that these contractors will enable us to respond more quickly to emergency projects. In addition, EFL conducted an internal review of the
Contract Advertisement and Award Process to identify opportunities to streamline. Specific changes related to completion of the acquisition plans, obtaining permits, internal communication, bid analysis and award recommendations, and processing the award documents including the final Purchase Request (PR) were clarified and reinforced to improve the existing process.

- Project Management (Budgets) – EFLHD will continue to focus on the appropriate design and delivery method for all projects during the scoping phase. Projects with lower construction costs tend to have much higher preliminary engineering cost ratios than those with higher construction costs. EFLHD will first consider utilizing in-house staff for low risk and/or construction dollar value projects and optimize the use of the regional construction IDIQCs. When utilizing the construction IDIQCs, EFLHD will evaluate the design level necessary to support National Environmental Policy Act (NEPA) and determine whether it is appropriate for the construction IDIQCs contractors to finish the design necessary to construct and obtain permits as means to reduce design costs. EFLHD will optimize opportunities during the scoping stage to streamline the overall design effort and simplify delivery and engage our Construction Branch staff to ensure the appropriate level of design is incorporated into the Plans, Specifications, and Estimates (PS&E) to minimize overdesign and control design costs. To help control overall budget costs, EFLHD updated guidance and the process for preparing and executing Project Agreements and Project Management Plans. These recommendations include a fully signed project agreement or plan before beginning preliminary design and environment activities, to help control expenditures. Finally, it is critical project managers will communicate with the partner and other maintaining entities in a timely manner on any scope changes resulting in schedule and budget impacts.

- Project Management (Schedules) – EFLHD is focused on developing realistic schedules that considers design and permitting requirements, optimum construction season and any restrictions, and partner requested delivery timelines. This effort starts during the scoping phase with effective due diligence and open discussion with Partners to clearly understand goals and objectives, environmental coordination, permitting, and stakeholder outreach. To improve our ability to develop more realistic schedules, EFLHD is engaged in more detailed analyses of scheduling by evaluating resources during internal project kickoff meetings and collaboratively determine approaches to optimize delivery. Similar to the above outlined actions on budgets and advertisement and award of contracts, utilization of regional construction IDIQs for smaller construction contracts, simplified delivery, and streamlining design are tools that can be used to reduce delivery timeframes.

**Actions Taken:** We implemented the following actions last year:

- Hydraulic and Environmental Design Elements – EFLHD separated Hydraulic and Environmental Design Elements section, this action was identified as an area of improvement during Survey Review & Enhancement efforts.

- Contract Procurement Type & Contractor Selection – We awarded 5 regional IDIQCs for delivering smaller less complex projects with pre-qualified contractors to streamline procurement on these projects. In addition, we evaluate the need for Best Value procurement on more complex projects and developing evaluation criteria with partner input.

- Schedules and Budget – EFLHD has taken several actions to improve setting and maintaining budgets and schedules on projects. Utilization of regional construction IDIQs for smaller projects, simplified delivery, and streamlining design are tools our staff are encouraged to implement to reduce delivery costs and timeframes. Simplified delivery is a formal process that eliminates unnecessary PS&E review distributions on low risk projects. Streamlined design on low-risk, simple projects is an approach that provides the basic concept for repairs and enough quantities without detailed subsurface field investigations, and design staff consult with our Construction office to determine minimum information that must be conveyed in the plans and specifications. Both simplified delivery and streamlined design are process that are evaluated during the scoping phase and incorporated into the delivery process when applicable.

- Final Design – EFLHD updated our formal evaluation of PS&E quality including verifying the plans and specifications are clear, accurate, and constructible. This also includes receiving feedback from
our Partners and all internal reviewers on the quality of the plans, incorporation of scope, and the incorporation of comments at each distribution. This new process adds emphasis and a tracking measure to ensure comments from previous reviews are appropriately addressed and the latest versions of the documents are included, prior to distribution. The design teams continue to meet with our Construction branch to incorporate lessons learned from construction issues on past similar projects.

- **Structural Design Elements** – Innovative materials and construction have been used on several projects to minimize construction durations and extend service life. Usage of “Prefabricated Elements” on bridges has advanced and used on many projects. Additionally, use of new technology materials are considered on all projects to further extend design life well beyond 75 years. Implementation of Ultra-High Performance Concrete (UHPC) has been integrated on a number of projects which is a key technology that will prolong design life. Projects in planning stage will include use of Polyester Polymer Concrete (PPC) Overlays which will also prolong design life.

- **Life Cycle Costs** for entire inventory has been completed and is further being developed to identify bridge needs using deterioration modeling. This is a new development which will be used as an aid for planning.
Completed Projects (Construction) Survey

The purpose of the Completed Project Survey is to assess the quality of all completed construction projects and overall FLH management practices.

EFLHD Overall Satisfaction Index Target ≥ 85%
Survey Results: Overall the Completed Projects Survey score came in above our target value at 93.3%. A concerted effort by the construction office personnel to contact partner agencies to improve survey feedback response rate was continued for 2020. The results of this work continue improving rates from a low of 39% in 2012 to today’s value of 51%. An analysis of the survey’s results by the category area yielded the following results.

<table>
<thead>
<tr>
<th>Category</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Practices</td>
<td>86.22</td>
<td>84.80</td>
<td>88.60</td>
<td>86.90</td>
<td>93.3</td>
<td>6.40</td>
</tr>
<tr>
<td>Completed Project Elements</td>
<td>82.12</td>
<td>80.80</td>
<td>90.20</td>
<td>90.00</td>
<td>93.1</td>
<td>3.10</td>
</tr>
<tr>
<td>Completed Project Aesthetics</td>
<td>83.91</td>
<td>82.70</td>
<td>90.10</td>
<td>89.00</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Conditions During Construction</td>
<td>86.14</td>
<td>83.70</td>
<td>87.70</td>
<td>91.80</td>
<td>94.4</td>
<td>2.60</td>
</tr>
<tr>
<td>Environmental Sensitivity</td>
<td>84.27</td>
<td>84.00</td>
<td>89.10</td>
<td>81.10</td>
<td>89.00</td>
<td>12.00</td>
</tr>
<tr>
<td>Overall Rating</td>
<td>89.00</td>
<td>86.30</td>
<td>88.10</td>
<td>91.10</td>
<td>91.1</td>
<td>7.10</td>
</tr>
</tbody>
</table>

Overall Score 84.98 83.70 89.0 87.70 93.30 5.60

Questions resulting in the lowest scores for this survey period were:
- Completed Project Elements: Drainage structures (culverts, channels, and ditches). 86.7%
- Completed Project Elements: Pavement and/or bridge surface (texture and ride). 88.6%
- Management Practices: Issue resolution (FLH and Construction Contractor). 91.1%
- Conditions During Construction: Overall public reaction during construction. 91.1%
- Environmental Sensitivity: Protection and preservation of natural, historical, and cultural resources. 91.1%
- Overall Rating: Overall level of satisfaction with this Completed Project. 91.1%

Questions with the highest scores for the current survey period were:
- Conditions During Construction: Accommodations and access of landowners, businesses and adjacent property. 97.1%
- Completed Project Elements: Stability of cut and fill slopes and road shoulders. 96.0%
- Completed Project Elements: Alignment of guardrail, walls, and roadside appurtenances. 96.0%
- Completed Project Aesthetics: Major structures (bridges, walls, etc.) 95.6%
- Management Practices: Timeliness of response to requests by your organization. 95.6%

A sampling of the written comments associated with this survey were:
- “Project was expertly handled. Completed project was exactly what we expected and completed in excellent fashion. Road was adequately mark as being under construction. Project was completed with cooperation and expertise. All issues were addressed.”
- “Top notch communication, geotechnical, engineering, construction & project management services from EFL. thank you! FHWA's contractor did an excellent job during construction. USFS line officers were surprised by the efficiency.”
- “This was a sidewalk and drainage project; the result was more than satisfactory. The project was adjacent to and crossed a heavily used commuter route. The detours and signage did not create any backups or other confusion for traffic flow. The staff was very pleasant and productive. There were numerous agencies to connect with during the process and the Federal Highways project manager connected the shareholders well.”

Actions Taken: We implemented the following actions last year:
- We provided technical training to identify and potential solutions for dealing with various problems of specifications, materials acceptance, changes, delays, claims, payment problems, and any other
We provided asphalt pavement related trainings including best practices and common issues to project staff. This training would enhance the skill of project staff during the inspection of bridge work.

We expanded the Construction Winter Conference project issue education amongst our entire staff. All issues of controversy or problems were discussed in order to promote awareness of common problems and hopefully improve our ability to address issues in the field.
Accomplishments for Fiscal Year 2020

Project Delivery

**Rock Creek Park Beach Drive Reconstruction** completed by the Eastern Federal Lands Highway Division in 2019 was awarded the 2020 Excellence in Construction by the Associated Builders and Contractors Virginia Chapter competition representing the Metro Washington and Virginia Chapters of Associated Builders and Contractors.

*Bioretention pond and trail — Smithsonian National Zoological Park Gate, Washington, DC*

*Beach Drive and trail — Rock Creek, Washington, DC*

The historic **Arlington Memorial Bridge** over the Potomac River in Washington, DC, is a concrete deck arch structure with a steel bascule (movable) span, constructed in 1932. The National Park Service owns the bridge which is inspected by EFLHD. Multiple emergency repair contracts were performed to keep the bridge operational prior to the recently completed rehabilitation project. 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. The below images provide a skyline view of the bridge along with before and after shots of the bascule span. — Washington, DC/Virginia
The Mashantucket Pequot Tribal Nation Project, Joseph Williams Drive is a short, roughly 1,000-foot, dead end road. The cul-de-sac ends with a one-way ‘eye-loop.’ This roadway is the only area within Mashantucket zoned for multi-family dwellings. Currently, there are four two-family townhouse units with plans for an additional two units. The units are serviced by a full complement of utilities that are installed below ground.

Joseph Williams Drive was constructed with a curb-to-curb width of only eighteen feet, two feet narrower than typically specified to accommodate emergency vehicle access. Driveways of townhomes barely accommodate off-road parking for two cars per unit, so the narrow passage is exacerbated by occasional street parking. This situation makes it common to encounter on-road parking within the area. In addition to posing a general inconvenience, these conditions could prove a significant hazard by obstructing emergency vehicle response. It was this specific reason that Joseph Williams Drive was identified by two of the Tribe’s Constitutional Standing Committees (Housing & Community Planning) as a safety concern.
In 2018, the **Pawnee Nation** adopted the Construction Management/ General Contractor (CM/GC) method a pilot process through FHWA at the time. The Pawnee Nation had internal meetings and developed a vision, projects and goals. The vision was to provide safety improvements, quality of life and cultural enhancements around the Pawnee Nation complex. Thirteen projects with differing funding sources were selected. The following are some that have been completed:

- **1st Street Safety Project** consisting of Roadway reconstruction, School Bus Safety, sidewalks, LED lights, drainage, and intersection improvement. This was a main project for the Nation and it provided them their biggest achievement and innovation using CM/GC. by having the sub-contractors involved in the production they were able to reduce the pavement design by $300,000, through an innovation never used before in Oklahoma.

- **Morris Road Project** consisting of sidewalks and lighting along Morris Road. Used existing terrain to eliminate the need for curb & gutter, a $150,000 cost savings.

- **Morris Rd. to Hwy 16/18** is a project using savings from other projects for road maintenance and entrance signs.

- **Fog Seal Project** consisting of road maintenance and re-striping on the roads within the Pawnee Nation Tribal Complex; **Lights on Catlett Road Project** consisting of lights from the War Mothers Bridge up to the Elders Center.

- **Directional Signage Project** consisting of (4) Four signs place around the Pawnee Nation tribal Complex guiding visitors to their destinations.

- **Meet Me at the Park Project** consisting of an expansion of Pirau Park funded through a Walt Disney grant.

- **ICDBG Campgrounds and Fit Trail Project** which included ADA restrooms, a redesigned arbor, electrical upgrades, and a fitness trail.

- **Building 1 Roof** consisting of Remove and Replace roof.

- **Building 1 Addition Demo** consisting of Demolition of a 348 sqft non-original add-on.

- **Removal and replacement of the Trading Post Roof**

- **Green Bridge project** consists of rehabilitation of a fracture critical bridge on the main route into the Pawnee Nation Tribal Complex. The project was delayed due to the current health crises, the preliminary bridge design is complete. Pawnee Nation submitted an application for Tribal Transportation Bridge Program funding and was awarded $500,000. They are currently working on finalizing the plans and will begin work Spring 2021.

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*Pawnee Nation ICDBG Ceremonial Campgrounds and Nature Fit Trail Project was the 2nd to use a “Fast Cast Bridge “system and the 1st to use a “Fast Cast Bridge” system for a Pedestrian Bridge. — Pawnee, Oklahoma*
The I-564 Intermodal Connector Project extends from the International Terminal Boulevard near I-64 to Hampton Boulevard at the Entrance to the Norfolk Naval Air Station. The Eastern Division signed a Memorandum of Agreement with Virginia DOT, and the U.S. Navy outlining the roles and responsibilities of each party. The project consisted of planning, preliminary engineering, preparation of environmental documentation, permits and other clearances, acquisition of right-of-way, relocation of utilities, and construction and contract administration. EFLHD was responsible for design and construction, stewardship and oversight of the Navy administered improvements, as well as coordination and facilitation of the overall schedule. This project included 2.82 miles of new four-lane limited access highway, and a reconfigured commercial vehicle inspection station for Naval Station Norfolk.

Improvements included construction of the I-564 interchange, bridges and local connectors, stormwater management areas and other infrastructure associated with the I-564 Intermodal Connector. The project ends just short of the future Patriot’s Tunnel Crossing under the Elizabeth River. In addition, the project includes improvements on Naval Station Norfolk, Naval Support Activity Hampton Roads, and Norfolk International Terminals. Adjustments and tie-ins will also be required at the interface with Norfolk International Terminal at the location of the recently approved Virginia Port Authority North Gate TIGER Grant project and Norfolk Southern Railroad. — Norfolk, Virginia
**Technical Assistance**

**FLH Bridge Team**

Bridge Design: FLH Bridge currently has 197 active structural projects: 76 (EFLHD), 56 (CFLHD), and 65 (WFLHD) in various stages.

Bridge Inspection: Budgeted $4,500,000.00 and spent all of it. This will include purchase of the new Snooper (partial payment) Money may be used to inspect non-NBI Bridges and removal of falsework from identified post tension box girder structures pending approvals.

Performed 1,099 NBI/NTI structure inspections, including inspections for NPS (688), USAF (204), BIA (172), USVI (26), National Zoo (3), GSA (3), NASA (1) and Tribal Transportation Program (2); transmitted approximately 922 inspection reports. Evaluated numerous overload permit requests for bridges at Yellowstone NP and Denali NP. Performed deck and substructure studies for several bridges in SER. Performed deck studies for bridges at Colonial NHP and National Mall, and load ratings for Linn Cove Viaduct at Blue Ridge Parkway and several segmental concrete bridges at Foothills Parkway. Awarded task order for inspection and load rating of Tribal Transportation Bridges. Completed inspections for Blue Ridge Parkway (81), Great Smoky Mountains NP (82), Hubbell Trading Post NHS (1), Tuzigoot NM (1), Petrified Forest NP (5), Chickasaw NRA (3), Fort Pulaski NM (1), Russell Cave NM (1), Wilsons Creek NB (6). Buffalo NR (1), Big South Fork NRA, Ozark NSR, Yellowstone NP, and Cuyahoga NP.

Bridge Management: Element level data collection is in progress.

Final Regional Structure Priority and Preservation Lists were delivered to NPS regions - Southeast Region (SER), Midwest Region (MWR), Alaska Region (AKR), National Capital Region (NCR), Northeast Region (NER), Intermountain (IMR), and Pacific West Region (PWR).

Life Cycle Record: Date records on file associated with the latest rehabilitation/replacement work done on Joints, Bearings, Paint, Deck, and Pavement for all NPS structures are complete.

**FLH NBIS Review Update:**

NBIS Compliance Review Final Reports for scheduled agencies:

**US Air Force:**
- Load Rating: 60% Structures completed
- Fracture Critical Plans: 100% complete
- Scour Evaluation: 95% scour screening completed

**Washington Airport Authority (MWAA):**
- Load Rating: 100% Structures completed
- Fracture Critical Plans: 100% Structures completed
- Scour Evaluation: 100% scour screening completed

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*EFLHD Bridge Design Team Leader, George Choubah and FLH Bridge Branch Chief, Rich Pakhchanian on a project visit.*

— Arlington Memorial Bridge, DC/Virginia

*Bridge Design & Inspection Team*

— Linn Cove Viaduct, Blue Ridge Parkway, North Carolina
The Bridge Inspection team performs a pier inspection and has been monitoring a wind meter to help the NPS gauge the safety of Laurel Fork Bridge. With wind being a critical loading factor on this aging bridge, a wind meter was mounted on the bridge to monitor the wind speeds. A crucial tool in determining when the bridge would need to be closed for safety pending its replacement with a new segmental concrete bridge in Fall 2021.

— Laurel Fork Bridge, Blue Ridge Parkway, North Carolina

EFLHD Bridge Inspection Team perform core sampling and structural review (above) — Laurel Fork Bridge, Blue Ridge Parkway, North Carolina

Members of the EFLHD Bridge Team onsite at the NC Route 18 Bridge — Blue Ridge Parkway, North Carolina
**Road Inventory Program (RIP) Team**

The RIP Team completed final reporting of data for the Alaska Region in early 2020. In Alaska, the RIP team collected 277 USFS miles, 165 NPS miles, 76 FWS miles, 37 USACE miles, 17 BLM miles, and numerous parking lot data at each Federal Land Management Agency (FLMA) location. While initially travel delays impeded the RIP team’s data collection efforts, the overall impact throughout 2020 was minimal. Cycle 5 data collection for FWS, Cycle 6 data collection for NPS, and Cycle 1 data collection for Bureau of Reclamation (BOR) safely continued in Department of Interior (DOI) Regions 1, 3, 5, 7, and 9. Data collection for NPS Cycle 6 is expected to conclude in the first half of 2021.

RIP data collection vehicle and team members collecting data.

*Hopewell Furnace National Historic Site, Pennsylvania*

The RIP team's gravel road assessments are a major component of the Alaska Long Range Transportation Plan, here are a few images from their travels.

*Denali Park Road, Denali National Park & Preserve, Alaska*

*Nome Creek Road — West, White Mountains National Recreation Area, Alaska*

*Frosty Peak Road, Izembek National Wildlife Refuge, Alaska*

*Birch Hill Road, Lake Clark National Park & Preserve, Alaska*
Chesapeake and Ohio Canal National Historical Park Project, Little Tonoloway Bridge is located in Washington County, Maryland. Rehabilitation of Little Tonoloway bridge and bridge approaches. The work includes the replacement of bridge deck, bridge rail, steel beams, bearings and curbs, reconstruction of bridge approaches, and other miscellaneous work. The existing bridge was closed in November of 2019 due to deteriorated steel beams making it unsafe to drive on the bridge. The existing bridge provides access to a boat ramp, making it a popular destination throughout the year. Also, the bridge is used by bicyclists and pedestrians. The existing bridge is 12’ wide and 40’ long. A new 42” bicyclist rail was installed on the bridge due to history of bicyclist trashes. Bridge and Highway design completed the design in 1 month. All photos were taken during a 99% field review at the end of February 2020, just before the shutdown.
Planning Team
In cooperation with FLH Headquarters staff, members of the EFLHD Planning Team have been heavily involved in the conduct of a national scale project in support of the Department of Defense (DOD) Surface Deployment and Distribution Command Transportation Engineering Agency (SDDCTEA) for an examination of the ability of a group of 18 Power Projection Platform (PPP) routes to accommodate major military equipment movements during periods of conflict.

Project Scoping meeting at State Highway (SH)-21, the project in development includes construction of a wildlife over-crossing and big game fence paralleling SH-21. SH-21 corridor lies within a critical habitat linkage area for deer, elk, antelope and other wildlife and stands between the historic home range of these animals, from summer range to winter range and vice versa primarily within adjacent public lands. The fence will include access and maintenance gates as needed and tie into existing fencing to the south. Wildlife jump-outs will also be installed to allow animals trapped between fence lines adequate escape routes from the highway corridor. Cameras will be installed on and around the over-crossing to capture and observe animal usage. — Wildlife Overpass at Cervidae Peak, Boise County, Idaho

Thank You for Your Feedback