Arlington Memorial Bridge Rehabilitation at George Washington Memorial Parkway

Arlington Memorial Bridge has served as a monument to the sacrifices and valor of our nation’s military since 1932. At its dedication in 1932, the bridge was the longest, heaviest, and fastest drawbridge in the world.

Major construction started Summer 2018 with a $227 million budget, from funding provided by the Department of Transportation, the District of Columbia, the Commonwealth of Virginia, and the National Park Service. During construction, the National Park Service maintained access for 68,000 daily vehicles, with historic temporary closures and shifts in traffic patterns. More than 450 precast concrete panels were placed to completely rehabilitate the bridge deck. The Department of Interior held a formal bridge reopening ceremony on December 4, 2020.

Arlington Memorial Bridge now has a fixed span while maintaining the aesthetics and some features of the existing drawbridge. In addition to rehabilitating the bridge’s structural elements, the project rehabilitated historic elements, including thousands of granite balustrades and benches. Additional safety improvements near the Memorial Circle side of the bridge were included in the final construction via a contract modification.

The National Park Service and the Federal Highway Administration rehabilitated the bridge to prepare it to stand strong for another century. As one of the largest transportation projects in NPS history, the rehabilitation of this bridge gave new life to the ceremonial entrance to the United States capital while respecting its character, history, and national significance.

Cover Photo: Arlington Memorial Bridge pictured in the early morning with dawn breaking behind the Lincoln Memorial. Photo credit: FHWA/Ben Dixon
Left: Commemorative poster of Arlington Memorial Bridge.
Letter from the Director

Dear Denver Service Center Colleagues and Friends,

It is with a great sense of pride that I present this report highlighting the projects and accomplishments of the Denver Service Center (DSC) for fiscal year (FY) 2020. It was an extraordinarily challenging year with the pandemic and associated impacts to the way we do business, but our employees, volunteers, and partners handled the challenges with determination, focus, and grit. I am extremely grateful to be part of this mission-oriented organization.

The Denver Service Center has continued to provide cradle-to-grave project management through our planning, design and construction, contracting services, transportation, and information management divisions. In this report you’ll find the accomplishments of each division, along with an accounting of the total DSC budget and expenditures.

Our projects this year have helped to maintain national treasures such as Glacier National Park, Ellis Island, the Jefferson Memorial, and essential infrastructure such as the Arlington Memorial Bridge. Maintaining the infrastructure, historic buildings, trails, and campgrounds that make parks incredible places to visit is an enormous task. In FY 2020, DSC’s portfolio included more than 1,100 projects across the country valued at more than $2.2 billion. The Denver Service Center continues to oversee major projects such as the $104 million Transcanyon Waterline Replacement project in Grand Canyon National Park, supporting hurricane and natural disaster recovery projects and the restoration of the Everglades ecosystem. The Denver Service Center also continues to support small businesses, fueling job creation this year by awarding more than $176 million to small businesses, including small disadvantaged, service-disabled veteran, women-owned, and HUBZone businesses.

We remain committed to sustainable projects, fiscal responsibility, and transparent accountability as we deliver products and services to the national park system. My thanks to our friends and partners who help us carry out the mission of the National Park Service.

Ray Todd
Director, Denver Service Center
National Park Service
Mission of the National Park Service

The National Park Service preserves unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. The Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world.

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Two Student Conservation Association volunteers work on tree restoration at Joshua Tree National Park.
The Denver Service Center awarded a $3.9 million contract in FY 2020 to rehabilitate the Elk Creek Visitor Center at Curecanti National Recreation Area. The project will upgrade the mechanical and electrical systems, lighting and plumbing fixtures, and upgrade the bathrooms and entrance to meet Architectural Barriers Act Accessibility Standards (ABAAS) standards.
The primary mission of the Contracting Services Division is to deliver efficient, innovative acquisition solutions and sound business advice. The division does that through optimizing resources, managing risk, and promoting project success.

The Contracting Services Division is a leader in strategic sourcing efforts for architect/engineering (A/E) services with numerous indefinite delivery / indefinite quantity contracts. These contracts provide for an indefinite quantity of A/E services during a fixed period of time, allowing agencies to use their funds more efficiently. In fiscal year (FY) 2020, the Denver Service Center (DSC) awarded approximately $367 million in construction and services from all funding sources, including new award and contract modifications. Table 1 shows the dollars awarded from all contract actions and all fund sources for FY 2017 through FY 2020.

Figure 1 illustrates the number of contract actions handled by the division from FY 2017 through FY 2020. Transactions included design and construction services as well as other supplies and services, including simplified acquisition.

The Denver Service Center actively supports the socioeconomic program goals of the National Park Service (NPS) and the United States (US) Department of the Interior. Small business is big business in the United States. It is a critical component of and major contributor to the strength of local economies. The Denver Service Center recognizes this and has a dedicated small business specialist who assists teams with identifying qualified small, disadvantaged, HUBZone, women-owned, and veteran-owned firms.

Table 2 illustrates the Denver Service Center’s small business goals and accomplishments in FY 2020. In many instances, a small business award is credited to more than one subcategory within the socioeconomic program.

Table 1. Contract Dollars Awarded from All Fund Sources, FY 2017–2020

<table>
<thead>
<tr>
<th></th>
<th>FY 2017</th>
<th>FY 2018</th>
<th>FY 2019</th>
<th>FY 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/E Services &amp; Professional Services**</td>
<td>$45.74</td>
<td>$42.97</td>
<td>$67.35</td>
<td>$71.62</td>
</tr>
<tr>
<td>Construction</td>
<td>$173.20</td>
<td>$267.32</td>
<td>$176.80</td>
<td>$281.00</td>
</tr>
<tr>
<td>*Simplified Acquisition + Other</td>
<td>$24.21</td>
<td>$14.49</td>
<td>$15.44</td>
<td>$14.70</td>
</tr>
<tr>
<td>Totals (millions of dollars)</td>
<td>$243.15</td>
<td>$324.78</td>
<td>$259.59</td>
<td>$367.32</td>
</tr>
</tbody>
</table>

Figure 1. Number of Transactions by Year, FY 2017–2020

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2017</td>
</tr>
<tr>
<td>1,527</td>
</tr>
<tr>
<td>FY 2018</td>
</tr>
<tr>
<td>1,351</td>
</tr>
<tr>
<td>FY 2019</td>
</tr>
<tr>
<td>1,202</td>
</tr>
<tr>
<td>FY 2020</td>
</tr>
<tr>
<td>1,287</td>
</tr>
</tbody>
</table>
Above: The Denver Service Center collaborated with the Procurement Technical Assistance Center and the Small Business Administration to organize and lead a National Park Service industry day focusing on contracting opportunities for hurricane recovery projects. The two-day event was held in Orlando, Florida, in February 2020 and featured multiple speakers providing various project opportunities and needs that are result of Hurricanes Harvey, Irma, and Maria. The event successfully drew approximately 175 interested contractors looking to do business with the federal government.

**Figure 2. Contract Actions by Dollar Amount, FY 2020 Small Business Contracting**

- **Small Business**: Goal $176.74 M
- **Small Disadvantaged Business Program**: Goal $129.29 M
- ***8(a) Program**: Goal $69.80 M
- **HUBZone**: Goal $40.38 M
- **Women-Owned**: Goal $48.48 M
- **Service Disabled Veteran**: Goal $7.90 M

*The 8(a) Program goals are part of the Small Disadvantaged Business Program.*
The Denver Service Center awarded a $30.8 million construction contract to repair the historic Ellis Island seawall at the Statue of Liberty National Monument. The historic 6,736-linear-foot-long seawall surrounding Ellis Island was built using several construction systems between 1913 and 1934. The repair will fix the poor condition of the seawall and address some structural needs, including erosion at joints, work to the ferry slip, and replacing and restoring displaced granite basic blocks and grout throughout the island seawall.

Tide levels, sea level rise projections, extreme wind conditions (e.g., hurricanes), extreme wave modeling, hydrodynamic modeling, and ice are all considerations incorporated into the design of the seawall and ferry berthing system. This is a significant engineering upgrade to the existing system of seawalls that also preserves the historic character that the seawall and its granite masonry contribute to Ellis Island. The result is a seawall with a cohesive appearance that protects the island from storm surge into the future.

The project is expected to be completed in early 2023.
The Denver Service Center has awarded two contracts to renovate the exterior and replace the stage rigging at the Filene Center, an outdoor amphitheater that hosts more than 80 performances each summer at Wolf Trap National Park for the Performing Arts.
The Design and Construction Division is responsible for the management of large-scale projects identified within the NPS line-item construction (LIC) program, which are projects funded by Congress. The division also manages park-funded, partnership, and disaster recovery projects as an office of choice to the parks. The division provides project management of design, construction, and post-construction activities for a wide range of park asset types, including new and existing facilities, historic structures, and a variety of infrastructure systems. The division has a technical staff of project managers and project specialists with expertise in engineering, architecture, and landscape architecture.

The Design and Construction Technical Branch consists of senior design professionals and compliance specialists who provide quality assurance reviews and compliance oversight. They also offer a wide range of design and construction consulting services to parks, regions, and program offices. The branch maintains the Denver Service Center Workflows website, https://www.nps.gov/dscw/design.htm, which provides guidance for architectural/engineering and construction firms to access clear and timely guidance for project completion.

In FY 2020, the division managed 332 projects worth more than $2.20 billion of gross construction costs. This included 139 LIC projects as well as 193 park-funded, partnership, and hurricane recovery projects. Reflected within those figures, the Denver Service Center continues to support Hurricanes Harvey, Irma, Maria, and Sandy as well as the 2018 disaster program projects, with 42 projects being managed in varying stages of the project life cycle. Table 2 shows the overall design and construction program in both the number of projects and gross dollars for FY 2020.

Table 2. Design and Construction Program, FY 2017–2020

<table>
<thead>
<tr>
<th>Project Phase</th>
<th>FY 2017</th>
<th>FY 2018</th>
<th>FY 2019</th>
<th>FY 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Projects</td>
<td>Gross Construction Dollars</td>
<td>Gross Construction Dollars</td>
<td>Projects</td>
</tr>
<tr>
<td>Design</td>
<td>134</td>
<td>$1,039,578,505</td>
<td>141</td>
<td>$929,890,316</td>
</tr>
<tr>
<td>Construction</td>
<td>47</td>
<td>$266,756,698</td>
<td>51</td>
<td>$412,331,440</td>
</tr>
<tr>
<td>Warranty</td>
<td>41</td>
<td>$197,744,709</td>
<td>22</td>
<td>$106,235,998</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>18</td>
<td>$63,450,379</td>
<td>27</td>
<td>$233,982,521</td>
</tr>
<tr>
<td>Hurricane Sandy Recovery</td>
<td>41</td>
<td>$148,259,936</td>
<td>34</td>
<td>$102,364,242</td>
</tr>
<tr>
<td>Hurricanes Harvey, Irma, and Maria</td>
<td>-</td>
<td>-</td>
<td>51</td>
<td>$110,905,316</td>
</tr>
<tr>
<td><strong>Total Program</strong></td>
<td><strong>281</strong></td>
<td><strong>$1.72</strong> (billion)</td>
<td><strong>326</strong></td>
<td><strong>$1.89</strong> (billion)</td>
</tr>
</tbody>
</table>
Sustainability

The Denver Service Center is dedicated to the protection of natural and cultural resources across the vast NPS landscape (figures 3-5). That can include structures such as historic buildings and museums across more than four million acres of maintained landscapes (such as campgrounds and battlefields), 17,000 miles of trails, and more than 3,000 utility systems. The Denver Service Center is designing new facilities and renovating existing buildings, with the overall goal to make all national park units more sustainable and resilient to the impacts of climate change. All DSC-managed building construction and building renovations meet federal sustainability requirements and all new buildings larger than 5,000 square feet are designed and constructed to meet US Green Building Council Leadership in Energy and Environmental Design standards for certification. The Denver Service Center plays a significant role in complying and exceeding federally mandated sustainability requirements.
Accessibility

The Denver Service Center manages all projects to be universally designed and constructed for people of varying abilities. Providing physical, program, electronic, and information technology access for persons with disabilities to our national parks is critical to making parks accessible to all. The division strives to be a beacon of equality, where everyone is encouraged to share and enjoy park services, activities, and programs.

The Denver Service Center is managing an $8.9 million project to replace the paver system, rehabilitate the visitor center, and improve accessibility at Mount Rushmore National Memorial (pictured at left). The Grand View Terrace and Avenue of Flags were widened and redesigned to improve access and seating, reduce maintenance of the walking surfaces, and widen the avenue for safe egress from the amphitheater. The redesigned state plaques and flag arrangement allows better viewing of each state and territory. The interior renovation of the visitor center includes upgrading the energy efficiency of the heating, ventilation, and air conditioning system; replacing the outdated elevators; and bringing public restrooms up to current accessible codes. One of the sets of restrooms had been closed for years because of water intrusions from the leaking roof, which will be replaced. These critical improvements will greatly enhance the overall visitor experience at the park.

Working With Partners

The Denver Service Center is proud to use its professional and technical expertise to support the public-private partnership efforts of the National Park Service. The Denver Service Center works with partners ranging from friends groups and private donors to state and local governments and other federal agencies to support the projects of the national park system. These partnerships leverage federal dollars, contribute expertise, and connect parks and communities.

The Denver Service Center is working on two public-private partnerships projects at the National Mall and Memorial Parks in Washington D.C. The first is an expansion of the undercroft of the Lincoln Memorial and the second is the rehabilitation of the Jefferson Memorial’s lower level. These projects are currently in the design phase and ultimately will enhance the overall visitor experience and interpretation while providing added security. These projects were made possible through private donations from philanthropist David M. Rubenstein. He donated $18.5 million to the Lincoln Memorial project and $12 million to the Jefferson Memorial project.
Vicksburg National Military Park and National Cemetery Slope Stabilization

Vicksburg National Military Park and National Cemetery experienced heavy rains in February 2020 that led to a landslide below the Indian Mound and disrupted numerous graves on the hillside. An interagency team jumped into action to protect the graves and other archeological items at the site. The Denver Service Center is providing project management to provide stabilization of the disturbed terrace and slope and rebuild the damaged access road. The project is being completed through a partnership between the National Park Service and the U.S. Army Corp of Engineers.

The proposed project design will provide a retaining wall at the base of the Indian Mound berm to stabilize the terrace and to allow for replacement of the damaged road. A soil berm/buttress at the toe of the landslide slope is currently being evaluated to stabilize the actual landslide to mitigate future movement. Construction is tentatively scheduled to begin early January 2022. Extra care is being given to protect the integrity and dignity of these important cultural resources.
Scotts Bluff National Monument, which was established in 1919, preserves and interprets the history of the Great Platte River Road. This road was a major overland travel corridor shared by emigrant trails, including the Oregon, California, Mormon Pioneer, and Pony Express National Historic Trails.

Scotts Bluff National Monument Visitor Center

The Denver Service Center contracted and managed the $3.5 million renovation of the historic Scotts Bluff National Monument Visitor Center. The visitor center was expanded to include a multipurpose room, interior restrooms, a lobby, an archival room, and offices for interpretation and retail staff. The project also included adding new mechanical, electrical, and fire protection systems.

The park holds the largest single collection of paintings by photographer/artist William Henry Jackson, one of the great chroniclers of the westward migration. Before the renovation, the art collections could not be displayed because the conditions within the building lacked proper systems to protect the exhibit. The new visitor center can now safely house the exhibits, and accessibility has been upgraded to allow all to view the historic collections.
Flight 93 National Memorial Tower of Voices

The Denver Service Center has been involved with the Flight 93 National Memorial since its inception. Flight 93 National Memorial is a story of hope, courage, and unity, and the Denver Service Center is proud to be a part of such an important American story.

The Denver Service Center has been involved with various projects at the memorial over the years, including the most recent one, the Tower of Voices. The Tower of Voices is a 93-foot-tall concrete memorial that serves both as a visual and audible reminder of the heroism of the 40 passengers and crew members of United Flight 93. The chimes create tones that use harmony and discord to convey both the serenity of the site and the tragic event on September 11, 2001.

On September 9, 2018, the National Park Service, along with the Families of Flight 93, Friends of Flight 93 National Memorial, and the National Park Foundation, hosted a dedication ceremony for the Tower of Voices. At the time of the dedication, eight of the intended 40 chimes were installed and sounded ceremoniously to remember and honor each of the 40 passengers and crew members aboard Flight 93.

The chimes as developed at the time of the tower dedication weren’t operating in accordance with design expectations; however, the team was committed to providing a chime system that appropriately honored each of the passengers and crew members, and as such, it required additional research and development. This is a one-of-a-kind project that took a great deal of creativity and patience to find a solution.

In early September 2020, the eight original tower chimes were removed and 40 new chimes were placed in the tower. A design team comprised of engineers, wind experts, and architects worked with the chime manufacturer to ensure that all 40 chimes are of the highest quality and integrate mechanical design principles to optimize performance.

Until you have the opportunity to see this memorial in person, and specifically the Tower of Voices, you can see and listen to the chimes via EarthCam, https://www.flight93friends.org/plan-your-visit/webcams.
Denver Service Center

in Figures

Our professionals make a substantial contribution to the stewardship and operations of our national parks. The projects we support not only aid the parks, but they often provide an economic benefit that reaches beyond park boundaries.

- **$367 million**
  - Amount awarded in construction and services from all funding sources, including new award and contract modifications.

- **1,167** active DSC projects

- **$176 million** awarded to small business

- **332 projects**
  - totaling more than $2.2 billion in gross construction costs

- **$39.2 million**
  - approximate operational budget

- **200 projects+**
  - managed by Planning Services across a portfolio of products

- **40 parks**
  - with construction-disturbed lands restored to their natural habitat through the revegetation program.

- **260 projects**
  - managed by Transportation Division
  - and supports the

- **$300 million**
  - NPS Federal Lands Transportation Program

- **Technical Information Center**
  - 1,200 library actions with loans to libraries in 37 states and 2 foreign countries.

- **50,000** records available in public Technical Information Center website.
The Denver Service Center completed a Resource Stewardship Strategy for Joshua Tree National Park in 2020.
The Denver Service Center Planning Division provides servicewide planning expertise for parks, regions, and program offices across the national park system. In FY 2020, the Planning Division managed more than 200 planning projects across a diverse portfolio of products and provided leadership in the advancement of high-priority national planning initiatives, including strategic facility investment strategies, visitor use management, accessibility planning, resource stewardship strategies, and special resource studies. The division also advanced the integration of justice, equity, diversity, and inclusion principles into its community of practice in delivering relevant planning services to the National Park Service.

Visitor Use Management

The Planning Division continued to help advance visitor use management, including supporting many visitor use-related plans in FY 2020 that directly support enhancing access, improving opportunities for diverse and inclusive visitor experiences, and protecting resources. The division continued to provide leadership and technical support to the Interagency Visitor Use Management Council that includes collaborations among six federal agencies. Planning hosted a successful four-day national visitor use management training for 120 NPS participants. The division continued to support the sharing of best practices for visitor use management inside and outside of the National Park Service, including consultations and information sharing with several US state park agencies, Parks Canada, Palau, and the Country of Georgia.

Accessibility

The Planning Division remained committed to accessibility planning services. To date, planning teams have completed 37 self-evaluation and transition plans at parks servicewide, with accessibility training for park staff and guidance on implementation. The division assisted the Washington Accessibility Support Office with accessibility planning consultation and compliance, including design review and improvements to project development processes that integrates with facility planning. With a focus on universal accessibility, the division also works with parks to explore and expand access to programs and continues to be a leader at producing 508-compliant planning documents.
Facility Planning

The Planning Division helped establish a servicewide Facility Planning Working Group to develop agency consensus on best practices, tools, and processes for strategic facility investment planning. The facility planning working group represents a first of its kind coalition consisting of more than 100 park facility managers, superintendents, Facility Management Software System specialists, and regional and WASO staff focused on developing the principles and tools for facility planning. As part of this effort, the division initiated the development of a Strategic Facility Planning “Toolkit” designed to help parks establish a more defensible five-year facility investment plan. Following passage of the Great American Outdoors Act in August 2020, the division also was called upon to help position parks for targeted facility improvement funding to help meet priority investment needs (figure 6).

Figure 6. DSC Planning Funding by Fund Source, FY 2020 (in millions)

- $8.10M
- $4.90M Unit Management Plans and Special Resource Studies
- $3.00M Parks and Programs
- $0.20M Other Funding Sources
Publications

The Publications Team continued to offer editing and graphic design services for digital and printed materials for a wide variety of projects, including reports for executive orders and logo development for a community trail. The Publications Team continued to lead the way in leading a culture change in ensuring digital documents are not only compliant with Section 508 standards but are more accessible to all, regardless of abilities.

Left: The Denver Service Center Publications branch designed the Historic Virginia and Truckee Trail logo, left, and the National Park Service Campground Design Guidelines publication.

Right: In 2019 the John D. Dingell, Jr. Conservation, Management, and Recreation Act was signed into law. The legislation directed the completion of many several studies, including Denver Service Center’s ongoing Special Resource Study of Ocmulgee River corridor in central Georgia.

Special Resource Studies

The Planning Division managed a broad portfolio of congressionally authorized special resource studies. These include the Mississippi Civil Rights Sites Special Resource Study, Amache Special Resource Study, Finger Lakes National Heritage Area Feasibility Study, Ocmulgee River Corridor Special Resource Study, Thurgood Marshall Special Resource Study, George W. Bush Childhood Home Special Resource Study, and the Fort San Geronimo Special Resource Study. Many of these study efforts provided extensive, virtual stakeholder engagement during the COVID-19 pandemic. Several of the studies are exploring highly sensitive, significant events that occurred during our nation’s history, underscoring the Planning Division’s role in providing opportunities for public discourse during a time of national reckoning on racism and equality.
The Denver Service Center GIS program creates ArcGIS StoryMaps for planning products.

**Geographic Information Systems**

The Planning Division delivered an extensive portfolio of geographic information system (GIS) products and service to NPS parks, regions, and national programs, as well as DSC-led planning, design and construction, and transportation projects. The division led the agency in developing a new platform for the Park Atlas that improved functionality for park managers and efficiencies for maintaining the system. The division also led the way in applied emerging GIS technology to deliver innovative StoryMaps to expand the scope of public input to include location specific comments. StoryMaps were also adapted as a virtual facilitation tool for NPS workgroups and workshops.
Saguaro National Park Resource Stewardship Strategy

The Denver Service Center Planning Division recently completed the Saguaro National Park Resource Stewardship Strategy. A large, interdisciplinary team contributed to the strategy, including park staff and subject-matter experts from regional offices and the Natural Resource Stewardship and Science Directorate.

Located in southern Arizona, Saguaro National Park comprises two districts that are separated by the rapidly growing City of Tucson—the Rincon Mountain District in the east and the Tucson Mountain District to the west. Together, these two areas protect a superb example of the Sonoran Desert ecosystem. The park is best known for extensive stands of saguaro cactus—the park’s signature species. In addition to providing food and shelter for numerous desert animals, the saguaro plays a vital role in the culture of the Tohono O’odham people. The park is also part of the Sky Islands region, which extends into northwestern Mexico. These “islands,” forested mountain ranges separated by vast expanses of desert and plains, are among the most diverse ecosystems in the world. About 77 percent of park lands are designated wilderness.

In addition, the park protects significant cultural resources, including historic structures, archeological resources, and places that are important to American Indian cultural traditions.

A resource stewardship strategy is a strategic planning effort that helps park managers achieve and maintain desired conditions for natural and cultural resources. A resource stewardship strategy offers practical direction by establishing long- and short-term goals for stewardship and by identifying stewardship activities that are high priorities for the next three to five years. Stewardship activities are aimed at improving or maintaining resource conditions, addressing identified issues and threats, increasing knowledge of park resources, enhancing collaboration with park partners, and expanding interpretation.

The Planning Division completed its fifth year coordinating the Resource Stewardship Strategy (RSS) National Working Group. Two-hundred-five parks have requested a resource stewardship strategy as part of the Foundation Document Assessment of Planning and Data Needs analysis, and 42 strategies have been completed to date.
Second Century Campground Strategy

The Denver Service Center Planning Division has been involved the past two years with the development of a campground modernization strategy to increase recreational opportunities on lands and waters managed by the National Park Service. Last year, the division completed two campground industry trends reports, initiated six pilot park studies, and continued work on campground design standards.

A collaborative, cross-directorate work group is now identifying how campground information can be shared, validated, and improved throughout the National Park Service and across federal land managing agencies. The Planning Division is working with others on a standardized design guide to consolidate best practices and standard processes on campground design for park managers and improve the accessibility and universal design necessary to welcome all visitors regardless of age, disability, or other factors. Both the DSC Design and Construction and Transportation Divisions provided technical expertise in support of developing the design guidelines. This design guide should be completed in spring 2021.
The Denver Service Center in partnership with Pea Ridge National Military Park, Arkansas Department of Transportation, and Eastern Federal Lands is completing a jointly managed project to update the access to this historic landscape. The project will provide transportation access to several areas in the park and improve the visitor experience.
Asphalt density testing on the Headquarters Maintenance Access Road at Shenandoah National Park.

Millions of visitors tour America’s national parks, all using transportation facilities of some kind. These facilities have a direct impact on the visitor experience and on the park resources.

The NPS Federal Lands Transportation Program system includes approximately:

- 5,500 miles of paved roads with 6,100 paved parking areas
- 1,400 bridges
- 60 tunnels
- 100 transit systems
- 4,600 miles of frontcountry transportation trails

Working directly for the parks and regions and in partnership with the Federal Highway Administration, the DSC Transportation Division helps plan, design, and construct those facilities while ensuring that the transportation experience aligns with the NPS mission.

Division staff consist of a variety of professional disciplines, including landscape architects, civil engineers, transportation planners, biologists, archeologists, and ecologists who provide project management services and technical expertise in landscape architecture, engineering, natural and cultural resources, transportation planning, and revegetation planning and implementation. The division is primarily funded through the NPS Federal Lands Transportation Program, which receives an annual appropriation from the transportation bill, currently named the Fixing America’s Surface Transportation (FAST) Act. The funding is designated to support repair and replacement of existing transportation assets such as roads, bridges, and transit systems and construction of new assets where needed. In FY 2020, the FAST Act provided $300 million to the National Park Service.

Over the past year, division staff worked on 260 projects in various stages of development. Approximately $44.3 million was contracted and delivered directly by the Denver Service Center (figure 7). The transportation bill provides authority for funds to be obligated when construction packages are approved for advertisement. This allows the project funds to be obligated in one fiscal year but advertised and awarded the following year. The Denver Service Center piloted use of this authority within the National Park Service in FY 2020. Approximately half ($22.4M) of the DSC delivered work was obligated
using this authority and will be awarded for construction in FY 2021. A significant amount of work, comprising 181 projects, was accomplished in partnership with the Federal Highway Administration. The types of projects range from pavement preservation to road and bridge rehabilitation to resource preservation.

In keeping with the mission, the National Park Service addresses resource impacts associated with any ground disturbing projects. In FY 2020, the division’s revegetation team provided support to 40 national park units to assist in the revegetation and restoration of disturbed lands. The team managed 32 contracts totaling more than $6 million for restoration of disturbed lands, wetland mitigation, and exotic species control. These efforts included seed collection of 40 native plant species and resulted in more than 3,000 pounds of bulk wildland harvested seed and more than 2,500 pounds of seed from plant production contracts. This native, genetically appropriate seed is used to revegetate and restore disturbed park lands in 14 states and four NPS regions.

Figure 7. Transportation Division Contract Obligations by Funding Type, FY 2020 (in millions)

$44.37 M

$44.30 M All FLTP (Federal Lands Transportation Program)

$0.07 M Interagency Agreement Projects

Installation of additional piles and a new fendering system are part of the rehabilitation of the dock at Fort Sumter and Fort Moultrie National Historical Park in Charleston, South Carolina.
Shenandoah National Park Roads

Over the past 12 years, Shenandoah National Park has benefited from a multiyear pavement preservation program. During this time, the DSC Transportation Division delivered 15 contracts worth $69 million funded through various sources, including the Federal Lands Transportation Program and American Recovery and Reinvestment Act of 2009. The work has addressed many deferred maintenance needs, using various surface treatments and repairs on the entire 105-mile length of Skyline Drive as well as adjacent pull-offs and overlooks, two campgrounds, maintenance areas, Big Meadows and Skyland developed areas, waysides, trailheads, most of the parking and access roads within the Central District, and improvements to the existing drainage systems. Several new contracts funded by the Great American Outdoors Act and the Federal Lands Transportation Program are planned. Total modification costs to date have been $1.5 million or only two percent of the original contract award amounts.
An original blueprint of the Trading Post at Desert View, Grand Canyon National Park.
Technical Information Center

Seventeen years after the original eTIC web site was launched, the Technical Information Center (TIC) released a beta version of the new eTIC2 in March 2020 (figure 8). The beta site grew to 430 users during the year as numerous new features and time-saving functions were added to the site. An eTIC Teams site was created to provide real-time service with 230 NPS members. This provides additional support to our users. TIC staff worked with the archives and records staff at Grand Canyon National Park and Xanterra to digitize engineering and architectural drawings. Public eTIC was used by researchers in the United States and in 12 foreign countries. New park-related records available to the public are added when processed.

Information Services

The Information Services branch led the way as the Denver Service Center turned to technology to respond to some of the year’s key challenges and realize the benefits of a move to modern cloud-based applications. Microsoft Teams became the “go to” tool for communication with audio and video capabilities. Information Services conducted daily and then monthly training for DSC staff to learn the new tool. Microsoft Teams has been integral to Denver Service Center’s success during the pandemic by providing a way to collaborate, share files, and participate in online meetings. Outdated 2013 versions of Project Server and SharePoint were upgraded to Project Online and SharePoint Online. This jump to cloud provides increased functionality and stability for the applications. Migration of existing projects and sites was completed. Staff were provided training to learn the new features. With widespread adoption, the Denver Service Center is more fully using the capabilities of Microsoft Project Online.
1968
System expanded to all planning and design offices, parks, regions, and Washington D.C. offices. Resource and site aerial photography added to system.

1972
Denver Service Center created from Eastern and Western Service Centers. Technical Information Center (TIC) is established. System coverage expanded to all areas of National Park Service. Narrative reports included.

1975
Documents include all types of technical reports, including those funded by the National Park Service (NPS).

1979

1980
Technical Information Center (TIC) begins scanning new and legacy drawings and reports.

1990
Documents include all types of technical reports, including those funded by the National Park Service (NPS).

1998

1999
Electronic Technical Information Center (eTIC), an intranet interface to TIC, allows:
• Direct access to images.
• Security to allow various access levels to documents and drawings. Microfilm camera retired.

2002
Technical Information Center (TIC) begins scanning new and legacy drawings and reports.

2005
Database converted for Web access.

2008
Database migrated to Oracle-based document management software. Microsoft Structured Query Language (SQL) portal for NPS Intranet site.

2009
TIC is designated as a servicewide repository. All disciplines—collect drawings, maps, documents, and reports. Computerized search and retrieval. Respond to public requests for NPS technical information.

2017
TIC migrates to powerful integrated document and records management system.

2021
e-TIC redesign and public site launch.
## FY 2020 Project Management Support Statistics

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total active projects tracked in Project Online</td>
<td>1,167</td>
</tr>
<tr>
<td>SharePoint Sites migrated to SharePoint Online</td>
<td>692</td>
</tr>
<tr>
<td>TIC Library actions with loans to libraries in 37 states and 2 foreign countries</td>
<td>1,200</td>
</tr>
<tr>
<td>508 Accessibility Compliance for waysides from the Harpers Ferry collection</td>
<td>2,500</td>
</tr>
<tr>
<td>Architectural drawings from Grand Canyon and Xanterra added to eTIC</td>
<td>800</td>
</tr>
<tr>
<td>FOIA requests resulted in pages released to the public</td>
<td>23,000</td>
</tr>
<tr>
<td>New records in eTIC2</td>
<td>7,000</td>
</tr>
<tr>
<td>Records available in Public eTIC</td>
<td>50,000</td>
</tr>
<tr>
<td>FAC-COR Contracting Officer Representatives</td>
<td>108</td>
</tr>
<tr>
<td>FAC-P/PM Certified Program and Project Managers</td>
<td>33</td>
</tr>
<tr>
<td>LEED Leadership in Energy and Environmental Design Accreditations</td>
<td>27</td>
</tr>
</tbody>
</table>
Denver Service Center operations are funded through a variety of sources. In FY 2020, DSC operational budgets totaled approximately $39.2 million (figure 9). In FY 2020, Denver Service Center’s operational expenditures were funded from 1) Appropriated base funding ($20.1 million), funds that support line-item construction, large-scale partnership project execution, and the National Park Service Technical Information Center; 2) Federal Lands Transportation Program ($4.65 million) to support transportation initiatives servicewide; 3) Park Planning and Special Studies ($4.9 million) to accomplish Unit Management Planning and Special Resources Studies; 4) Park-Funded Projects work ($7.0 million) 5) Disaster and Hurricane recovery efforts (Sandy/Harvey/ Irma/Maria) ($2.4 million), which supports a wide array of project work with various fund sources, including a sizable amount from Federal Lands Recreation Enhancement Act and reimbursable projects. Figure 10 shows the appropriated base funding for the Denver Service Center for FY 2017 through FY 2020.
The Denver Service Center has awarded a $4 million contract to construct a wood-framed, two-story, 12-bedroom dormitory on an empty lot in downtown Skagway at Klondike Gold Rush National Historical Park through the National Parks and Public Land Legacy Restoration Fund, created through the Great American Outdoors Act.

2021 and Beyond
In 2021, the Denver Service Center looks forward to celebrating 50 years of contributions to the mission of the National Park Service. Established in November 1971, the Denver Service Center has moved locations, adapted, and changed its processes into the flexible, resilient organization we celebrate this year.

The Denver Service Center is pleased to continue collaborating with parks and partners to accomplish work at iconic places such as the Arlington House in Virginia, Pullman National Monument in Illinois, and Devils Tower National Monument in Wyoming. The Denver Service Center remains committed to climate resiliency through leadership and construction support for about 40 projects to repair damaged infrastructure after Hurricanes Harvey, Irma, and Maria, and other natural disasters that have affected parks.

Looking ahead, the Denver Service Center will play a major role in the National Parks and Public Lands Legacy Restoration Fund, established through the Great American Outdoors Act. This will provide funding for priority projects to address the maintenance backlog at NPS facilities, including campgrounds, picnic areas, roads, trails, and other critical infrastructure. The Denver Service Center also plans to expand its historic preservation capabilities and is proud to be involved in the restoration of sites that celebrate diversity and inclusion, such as the Martin Luther King, Jr. birth home in Georgia and the Charles Young House at Charles Young Buffalo Soldiers National Monument in Ohio.

The Denver Service Center is committed to excellence in customer service and delivering financially sound and resilient projects for this and future generations. It is a privilege to contribute to the conservation of natural and cultural resources while enhancing recreational opportunities for all.

Left: The Denver Service Center plans to expand its historic preservation capabilities and will be managing the project to restore the Martin Luther King, Jr. birth home in Georgia.
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DSC Workflows
nps.gov/dsc/workflows

Planning, Environment, and Public Comment System
parkplanning.nps.gov

DSC Technical Information Center documents
pubs.etic.nps.gov

Right: Daisies growing at Cowpens National Battlefield.
As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historic places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under US administration.

DSC 900/175275 - June 2021
The Denver Service Center is working on a project to improve the seawalls and storm drainage at Perry’s Victory and International Peace Memorial. Photo by Billy Market.