U.S. Army Corps of Engineers
Fiscal Year 2021
Handshake Program Application

Please review instructions before completing application!

Corps Lake/River Project Name: **St. Marys Falls Canal**
District / Division:**Detroit District/Lakes and Rivers Division**
Handshake Proposal Title: **Lock Models Preserve the Past, Present the Future**
Corps POC Name:**Michelle Briggs**
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A. Checklist:

1.	Will the Handshake funds be spent on Corps facilities and resources that are being fully maintained by the Corps? (not in outgranted parks)	☒ **Yes** ☐ **No**
2.	Will the Challenge Partnership agreement be with a non-federal public or private entity(ies)?	☒ **Yes** ☐ **No**
3.	Is the proposed activity within current authorities and contained in the annual or 5-year work plan in the approved lake project OMP?	☒ **Yes** ☐ **No**
4.	Have all of the NEPA requirements been considered for this project?	☒ **Yes** ☐ **No**
5.	I am aware the Challenge Partnership Agreement must be reviewed and Approved by District Office of Counsel before sending to HQUSACE.	☒ **Yes** ☐ **No**
6.	If the full funding amount requested is not available, could a portion of this Handshake Project be completed with partial funding?	☒ **Yes** ☐ **No**
7.	I am aware that all government funds must be spent in accordance with FAR, DFAR and AFAR contracting laws and regulations, and that Handshake funds cannot be provided to the partner(s).	☒ **Yes** ☐ **No**
8.	Did you participate in a Handshake Webinar in 2019 or review a 2019 Handshake Webinar on the Gateway?	☒ **Yes** ☐ **No**

B. Handshake Funding Request (maximum $25,000): 25,000

C. Incentive Points Category: Check the appropriate box if your application qualifies to receive bonus points on the evaluation score.

☐ This project will be completed with a national MOU partner with which the Lake or Project hasn't previously partnered. (100 points).

☒ This project reduces O&M cost to the Corps over the lifecycle of the proposed project or improves existing infrastructure. (100 points).

D. <u>Describe your partnership and the proposed Handshake Partnership Project</u>:

Project applications will be evaluated on the categories below. Please complete each section as appropriate.

Summary Statement:

Sault Sainte Marie, Michigan is a community of 13,000 people, permanently settled by Europeans in 1668 and ancestral home to the Ojibwe people. The Soo Locks, with its navigation locks and public areas is a pedestrian park and the anchor of the downtown. The park and Visitor Center are directly across the street from gift shops, restaurants, and hotels that depend on the tourism draw of the Corps facilities. The locks and park, with over 500,000 visitors each summer, are the main tourist attraction for the region and vital to the local economy. The entire facility, due to its historical significance and engineering innovation is one of less than 3,000 national historic landmarks in the country. Currently in a prime position in the park are two original 3-D models dating back to 1893 and 1912 depicting locks built on the facility over 100 years ago. The glass and concrete structures holding these models have cracked panes and openings in the bases allowing air, moisture and insects to get inside. A third 3-D model of the facility showing the new lock under construction is planned. This Handshake project will provide for repairing and re-housing the historic models, painting and housing the new model as well as interpretive exhibits enhancing the understanding and appreciation by visitors. This project demonstrates that the U.S. Army Corps of Engineers, in addition to providing critical services to the nation, is also committed to preserving and sharing its rich history.

Handshake Funding Cost Break Down:

Cost breakdown for project funds:
Display cases -- $75,000
Materials, fabrication, installation
Model repair and preparation -- $25,000
Conservation, materials, labor
Wayside exhibits -- $4,000
Design, materials, fabrication, installation
Lead mitigation -- $4,000
Labor, materials

Longevity / O&M description:

The new exhibit cases will be constructed of hot-dip galvanized steel and can be expected to last without significant corrosion for at least 50 years. Six 4-inch high steel tube legs will keep the case above the ground and allow for mechanical lifting so the models can be easily moved in the future. Each case will have a 1/2 inch thick radius top of laminated safety glass with a low energy coating to reduce heat gain in the case while allowing optimal viewing by visitors. Reinforced steel T-bars will support the glass and edges will be polished and sealed with room temperature vulcanizing silicone elastomer sealant, good for at least 50 years. Gasket sealed hatches will allow access to the models from each side reducing maintenance time and costs compared to the current cases which are time consuming to disassemble and access the models. Historic models will be meticulously conserved, repairing original elements as much as possible and accurately replicating all others. Each model will undergo lead mitigation and be painted with archival paints in colors consistent with features on the lock complex. This restoration, as well as the improved exhibit cases, will stabilize the models reducing the need to repair and repaint them due to deteriorating materials and damage from exposure to moisture, insects and UV rays. Three wayside exhibits (one for each model) will follow National Park Service standards using low profile cantilevered bases with high-pressure laminate panels that resist fading. The bases will be galvanized to be weather resistant and directly anchored to the concrete plaza. USACE installed several of these exhibits in other parts of the park in 2014. They have proven to be attractive, durable, and maintenance free. USACE is already responsible for maintaining these models and trash collection, snow blowing and leaf removal in this area is already covered by an O&M contract and this project will not impact the current terms of this contract.

Partnership Value:

The Soo Locks and its surrounding park are the top tourism destination in the Eastern Upper Peninsula of Michigan. Up to 500,000 people each summer come to the small town of Sault Sainte Marie, Michigan to see the Soo Locks, a U.S. Army Corps of Engineers facility in the heart of downtown. Their experience during that visit affects their impressions of the rest of the area. Ensuring a positive visit to the Soo Locks is a concern shared by USACE and the larger community as evidenced by the partners stepping up to support this project. The Soo Locks Visitor Center Association has pledged $68,000, coming from its own funds and earmarked donations from businesses and organizations from all over the Great Lakes region. The Sault Sainte Marie Downtown Development Authority will launch and manage a crowd-funding campaign to raise $10,000 from individual donors in the community. The Sault Sainte Marie Convention and Visitors Bureau, a local tourism promotion agency, is contributing $2,000 and another $2,000 has been pledged by the Sault Events, a non-profit organization that manages events to attract tourists and future residents to the region. The Sault Events has also agreed to provide refreshments and planning to stage an unveiling ceremony in conjunction with Engineer's Day, an annual celebration that draws 9,000 people to the Soo Locks for the day. The Great Lakes Shipwreck Historical Society, another regional tourism magnet with offices in the park at the Soo Locks, has pledged $1,000 to the project. These partnerships underscore the value of the relationship between USACE and local agencies in ensuring a healthy tourism industry in the region.

Recreational Benefit:

The Soo Locks and surrounding park are a magnet for tourists, not only from the region, but across the country and around the world. Visitors come individually, in family groups, on school field trips, as part of organized commercial tours and as VIP guests with U.S. Army Corps of Engineers general officers and members of Congress. The models are prominently located in a large plaza near the main entrance into the park, less than 30 feet from the operating locks. Visitors are drawn to the large 3-D scale models of historic locks built on the facility. Unfortunately, the models have no interpretation to help visitors understand what they are seeing and most wander off after a few moments. One of the models is currently positioned perpendicular to the actual locks rather than parallel, adding yet another source of confusion as visitors try to process what they are seeing and figure out how it relates to the facility. The models currently have safety standoff fences to prevent visitor injuries and damage to the glass panes over the models. While essential to protect visitors, these barriers make it difficult for people using wheelchairs to see the models. This project, by restoring and rehousing the models, placing them parallel to the locks on the facility and adding interpretation will allow visitors to better understand the complexity of the locks as some of the world’s most massive machines and appreciate them as a marvel of engineering. This project will allow parents visiting with children to quickly understand and explain how locks work and share the history of the site. Teachers will be able to incorporate the models into learning activities for schoolchildren visiting the Soo Locks. The addition of the new model, showing the facility with the new lock constructed, will allow visitors to take in the whole site and will serve as a useful tool in providing a site orientation to VIP visitors and contractors before they enter the facility.

Environmental Stewardship Value:

The park at the Soo Locks is a pedestrian park in the center of downtown Sault Sainte Marie with paved walking paths, manicured lawns and wayside exhibits, the models stand in a concrete plaza. The project will protect unique cultural resources which is a key component of Environmental Stewardship. At the Soo Locks the U. S. Army Corps of Engineers serves as the steward of a National Historic Landmark and impacts on the historic surroundings are a critical consideration in every project. This project demonstrates the solemn responsibility USACE takes as a steward of America's historic treasures and the commitment of our community and stakeholders in supporting that effort. The original models, the oldest dating back to 1893, form a tangible connection to the rich history of the facility and document two locks built on site that were destroyed as new locks were built to meet the changing needs of shipping. This project will not only preserve and protect these priceless artifacts but with the addition of a new model and interpretation, will put them into the larger context of the constant evolution of this historic facility.

Communication & Education Value:

Nearly 500,000 people each year visit Sault Sainte Marie, Michigan to see and learn about the Soo Locks. In addition to a Visitor Center and observation platform, several outdoor exhibits in the park enhance their understanding of the facility. Two of the most striking items are priceless original models dating back to 1893 and 1912. These scale models document historic locks on site that have been demolished and replaced or are in the process of replacement as construction begins on a new lock. The sheer size of the models, 21 feet long and four feet wide, make them an impressive feature in the plaza at the entrance to the Soo Locks. Unfortunately, their current alignment and lack of interpretation make them confusing and after a quick glance, most visitors wander off. This project will stabilize and rehabilitate the historic models and include the addition of a third model showing the facility with the new lock currently in the first phases of construction. Due to safety and security concerns, the Soo Locks are closed to the public and visitors are only allowed in a small park parallel to the locks. The new model will be an invaluable tool allowing visitors to see a bird's eye view of the facility, which is too large to take in from ground level. The models will each have an interpretive wayside exhibit sharing the origins and purpose of each model, including photos and statistics about the historic locks providing context about both the models and history of the facility. This will make the models powerful tools illustrating how locks operate as well as documenting the history of the facility and USACE's constant innovation to meet the needs of shipping and changing technology.

Innovativeness:

Innovation is standard practice for the U.S. Army Corps of Engineers. Since 1775, the Corps has constantly innovated to adapt to changing demands and new technology. Each of the models in the park at the Soo Locks, including a new 3-D printed model, were built concurrently with the locks they depict. Each lock incorporated the latest technology and innovations of the day and these models provided their first test. The restoration of the original models will take advantage of innovations in conservation techniques using stable archival materials, paints and sealants. The latest in 3-D printing technology will produce the new model, which will also be finished with stable archival paints. The cases will feature laminated safety glass with filters to decrease heat gain and UV damage while allowing clear views of the models. Perhaps the most innovative thing about the project however is the opportunity for USACE to strengthen old partnerships and build new ones. Our recreation program has a long history with the Soo Locks Visitor Center Association and Sault Convention and Visitors Bureau who have been reliable allies supporting our interpretation mission. This project has also helped us form new relationships with stakeholders like the Great Lakes Shipwreck Historical Society who have a similar recreation mission to the Soo Area Office. Perhaps most innovative, the Sault Downtown Development Authority will launch a crowd funding campaign creating an exciting opportunity for individuals in our community to get directly involved in this project.

Conclusion:

Historic models at the Soo Locks currently lack interpretation and are rapidly deteriorating from exposure to the elements. Stabilizing and rehousing the models will protect them and adding a new model and wayside exhibits will connect visitors to the past and future of the facility. Our local and regional partners are excited to commit funds and support to save and interpret these models, but funds are needed from the Handshake Partnership program to get this project past the finish line.

Double click on spreadsheet to access data entry fields and to enter Partner names.

You MUST enter partner names into the spreadsheet:

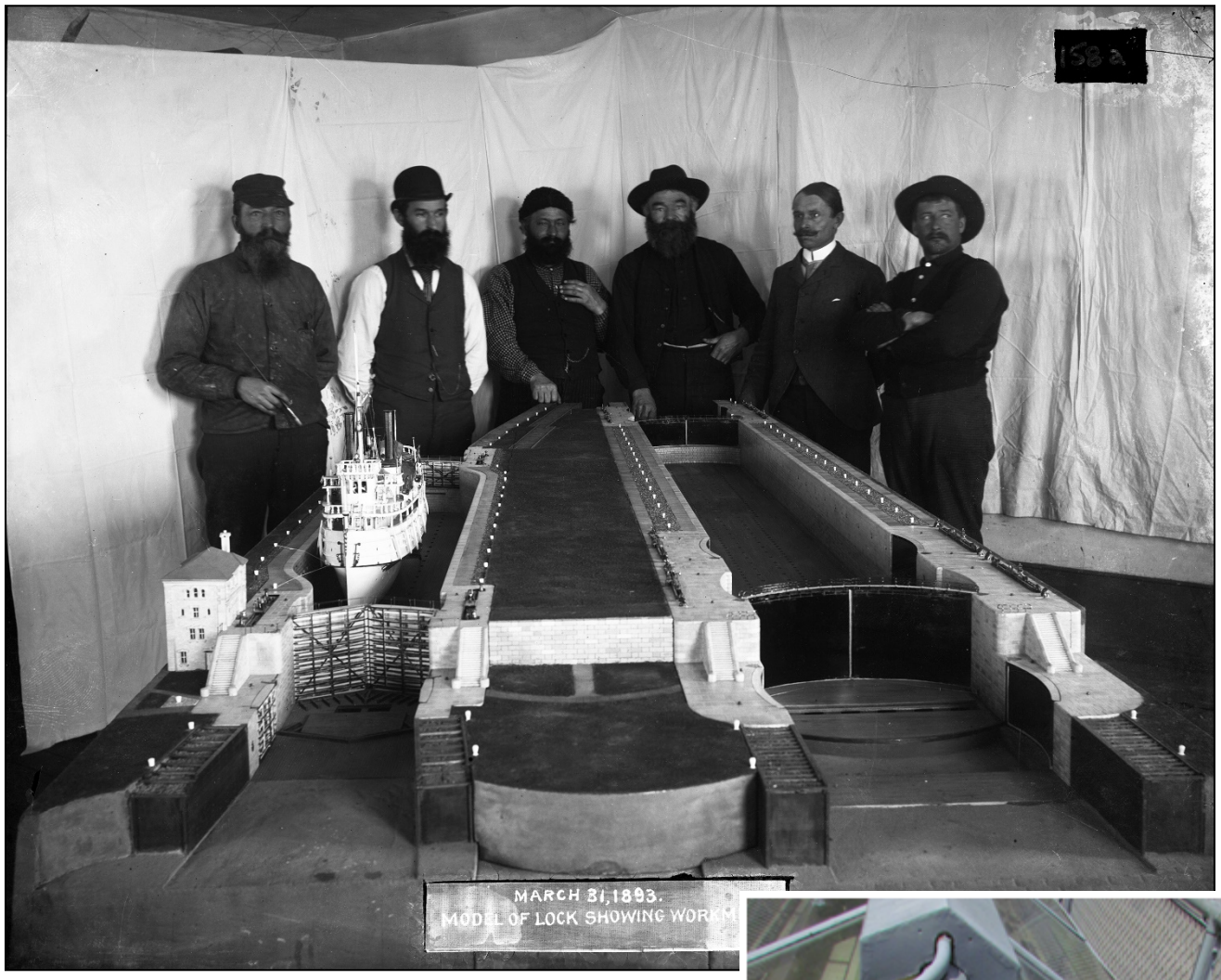
	Local Corps Office	Handshake Funds	Soo Locks Visitor Center Association	Great Lakes Shipwreck Historical Society	Sault Ste. Marie Downtown Development Authority	Sault Ste. Marie Convention and Visitors Bureau
Salaries	$5,000	N/A	$0	$0	$0	$0
Travel	$0	N/A	$0	$0	$0	$0
Materials and Supplies	$500	$0	$0	$0	$0	$0
Equipment Use	$500	$0	$0	$0	$0	$0
Funds Contributed		$25,000	$68,000	$1,000	$10,000	$2,000
Personal Property	N/A	N/A	$0	$0	$0	$0
Volunteer	N/A	N/A	$0	$0	$0	$0
In-Kind Services	N/A	N/A	$0		$0	$0
Other (explain below)	$0		$0	$0	$0	$0
Total	**$6,000**	**$25,000**	**$68,000**	**$1,000**	**$10,000**	**$2,000**
Share of Total Cost	5.2%	21.8%	59.4%	0.9%	8.7%	1.7%
	27.1%					

	The Sault Events
Salaries	$0
Travel	$0
Materials and Supplies	$300
Equipment Use	
Funds Contributed	$2,000
Personal Property	$0
Volunteer	$0
In-Kind Services	$200
Other (explain below)	$0
Total	**$2,500**
Share of Total Cost	2.2%

						Total
Salaries	$0	$0	$0	$0	$0	$5,000
Travel	$0	$0	$0	$0	$0	$0
Materials and Supplies	$0	$0	$0	$0	$0	$800
Equipment Use	$0	$0	$0	$0	$0	$500
Funds Contributed	$0	$0	$0	$0	$0	$108,000
Personal Property	$0	$0	$0	$0	$0	$0
Volunteer	$0	$0	$0	$0	$0	$0
In-Kind Services	$0	$0	$0	$0	$0	$200
Other (explain below)	$0	$0	$0	$0	$0	$0
Total	**$0**	**$0**	**$0**	**$0**	**$0**	$114,500
Share of Total Cost	0.0%	0.0%	0.0%	0.0%	0.0%	100%

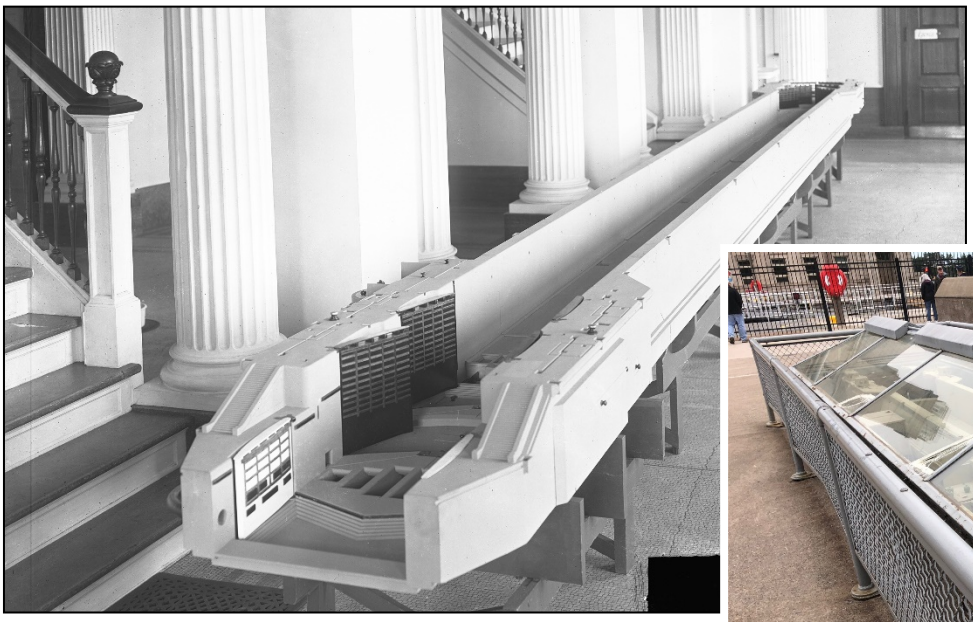
Explanations: All contributed funds, including Handshake funds, will pay for the conservation and restoration of the models, custom display cases, wayside exhibits and installation.

1893 photo of workers finishing one of the models currently in the park.



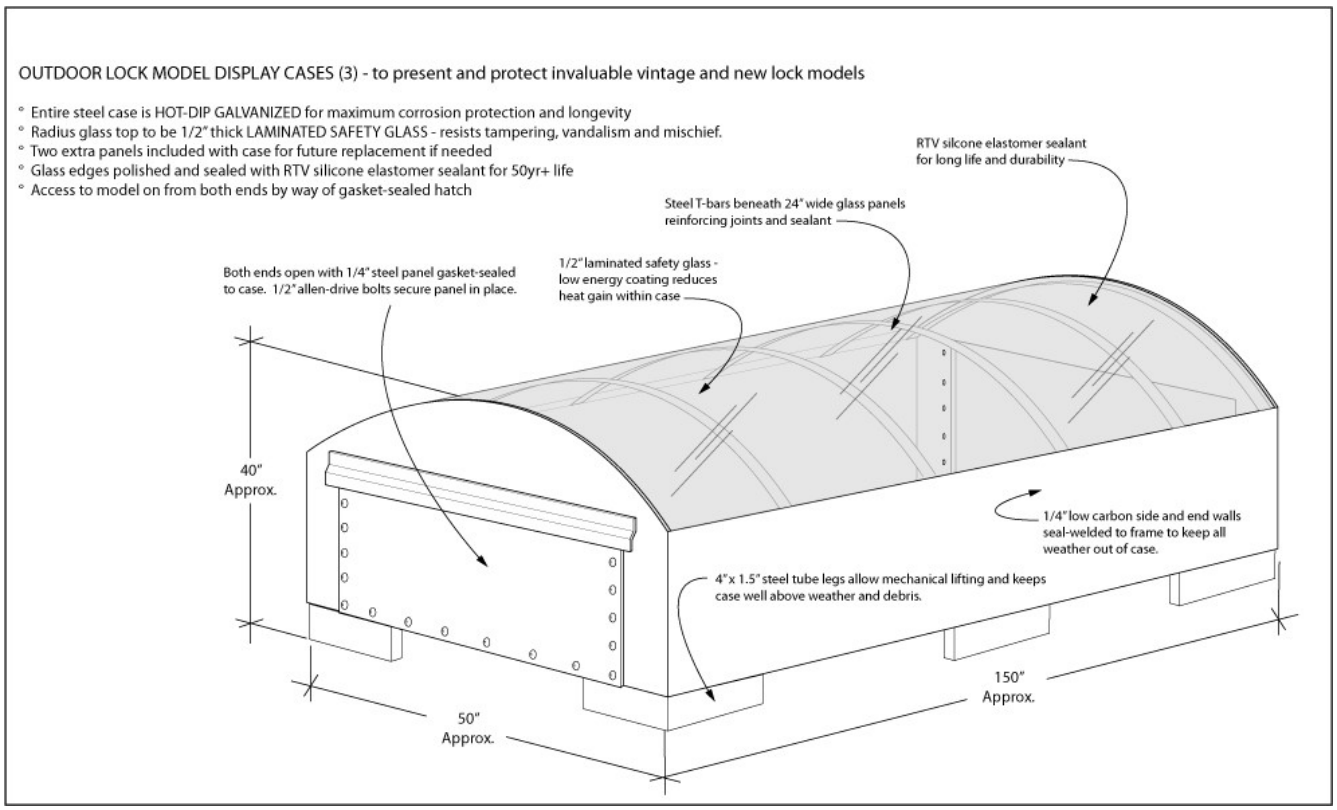
Right: 1893 model as displayed in the park today.
Currently it is vulnerable to moisture, insects and UV light.

1912 Model set up in the lobby of the Soo Locks Administration Building.



Right: 1912 model as displayed in the park today. The display case has broken glass panes and does not protect the model from UV light, insects and moisture.

Below: Proposed replacement cases for the models



Plaza area at the Soo Locks, with current location of models circled in yellow.

Below: Proposed configuration of the models at the end of the project with models aligned with the actual locks. (Wayside exhibits shown in red)

Above: Currently visitors in wheelchairs have an obstructed view of the models.