

Canal Boat leaving Lock, Lambertville, N. J.

D&R Canal Model Project Review

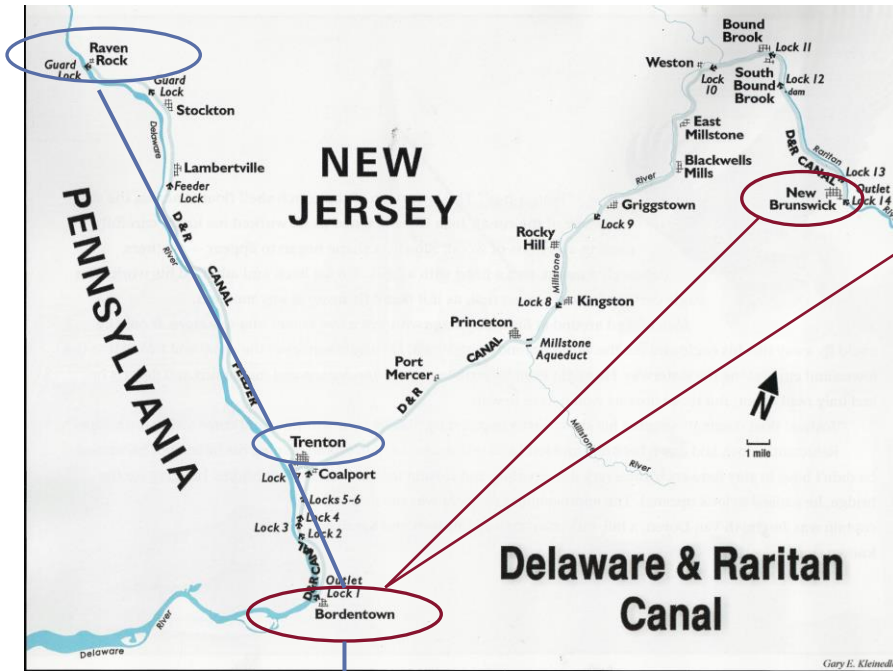
PRESENTED BY MICHAEL BIRD

JULY 17, 2021

OVERVIEW

- The idea of building a working model of the D&R Canal, a once thriving commercial transportation channel, grew out of an informative presentation by Linda Barth to the Lambertville Historical Society that occurred before the Covid pandemic. The purpose of this project is to provide the public an opportunity to learn about the canal's history, operation, and contribution to the area's industrial development.
- The proposed project gained a foothold in the beginning of last year with the encouragement and support of the D&R Canal Watch and Holcombe-Jimison Farmstead Museum.
- The purpose of this meeting is to describe the overall project, present a projected timeline and budget, and encourage you all to join us in this fun, challenging, and educational venture!

THE OVERALL PLAN



The Delaware & Raritan Canal went from Bordentown on the Delaware River, across the narrow waist of New Jersey to New Brunswick, a distance of 44 miles

- The plan is to build an outdoor working model of the canal on the property of the Holcombe-Jimison Farmstead in Lambertville, located near the original feeder canal. Below is the most recent proposed layout to resemble the Y outline of the canal

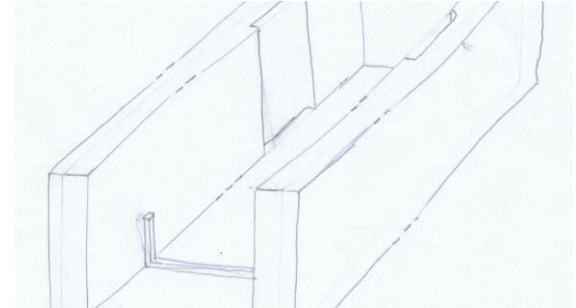
It's source of water was the Delaware River at Raven Rock, 22 miles north of Trenton. The navigable feeder brought water to the summit level in Trenton, then flowed south to Bordentown and northeast to New Brunswick



CONSTRUCTION COMPONENTS

The Canal and Locks

- The canal would be dug to a depth of 5", with 4" of above-grade banks. It would be rubber-lined and covered with bentonite clay and riprap. The water at the summit would be supplied by a buried cistern at the head level of the canal and circulated using a battery-operated pump.
- The model would include five working locks on the three routes (Bordentown to Trenton, Trenton to Lambertville, and Trenton to New Brunswick).
- The locks would be made of wood, stone, and cement. Operation of the locks would also be battery-operated, with sensors installed on both the boats and locks so that they open as the boat approaches and close once it passes through.
- Bridges crossing the canal will also be constructed in period details and materials.



Current prototype of a lock.

CONSTRUCTION COMPONENTS (CONTINUED)

The Boat

- The current model is a replica of the steam tug “Relief.” This type of tug boat operated on the canal beginning in the 1840s. The plan is to build three tugs towing workboats, operating simultaneously on different parts of the canal. They could be driven remotely by a volunteer “captain,” or a computerized control system linked with the operation of the locks.

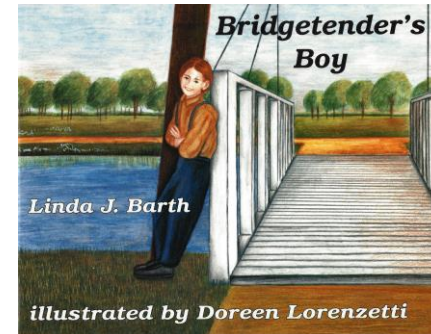
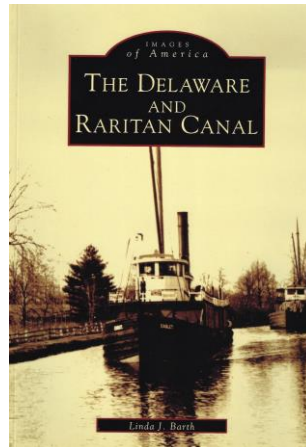


ADDITIONAL PIECES TO COMPLETE THE PROJECT

- Once the construction is complete, a fence enclosing the canal model area will be installed to protect it when not in use.
- The plan is to select a period-appropriate fence that would blend in well with the Farmstead and also be low maintenance.
- We will also create a set of educational materials to coordinate with the canal's operation, using a variety of already well-researched sources.

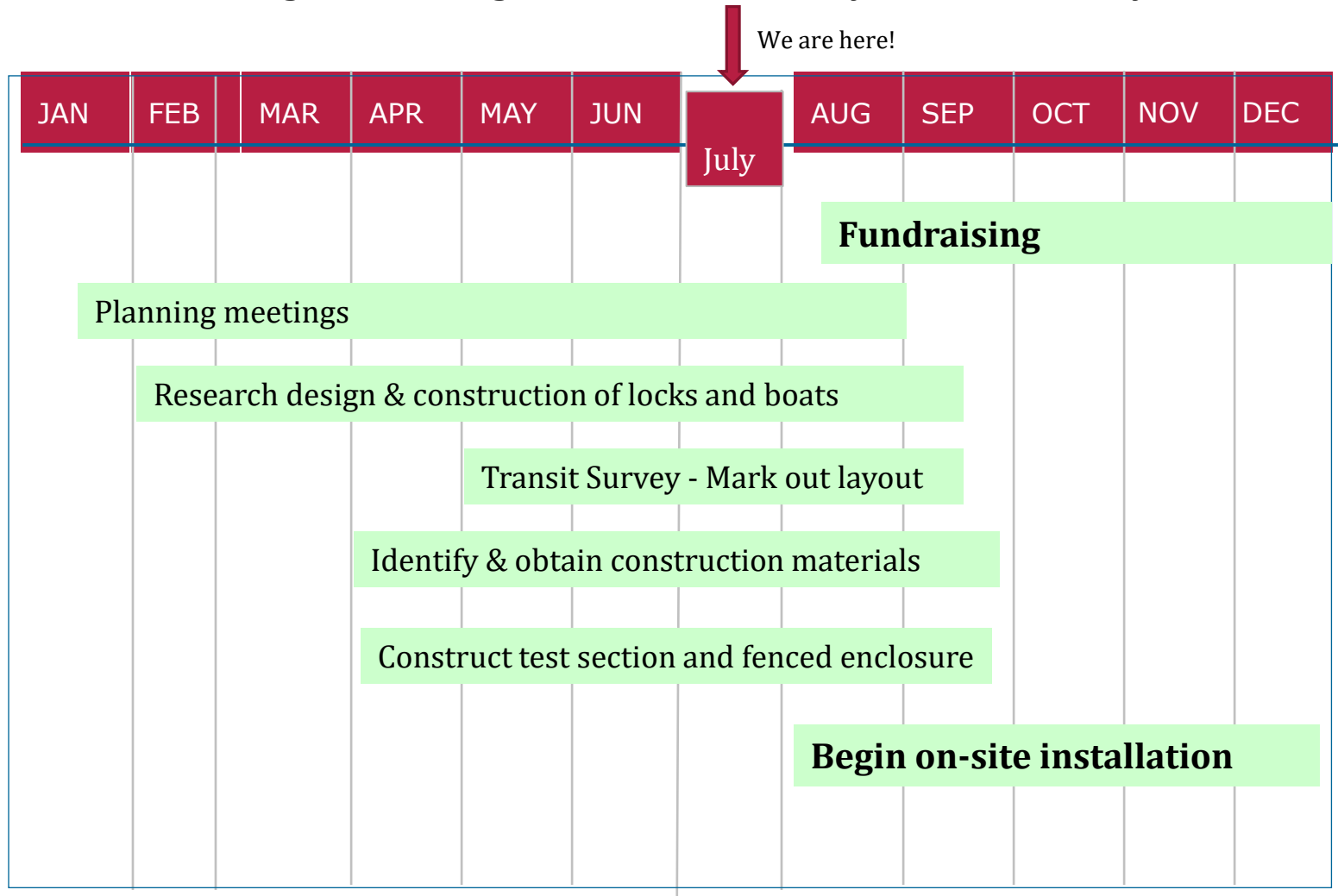


Lambertville - A canal boat on the D and R Canal - c 1910



PROPOSED 2021 TIMELINE

- Our ambitious goal is to begin the installation by the end of the year.



PROPOSED BUDGET & FUNDING

- A rough budget to date indicates that we will need roughly \$4,400, which does not yet include costs for the electronic control systems and other materials.
- We hope to get donations from local Lambertville businesses that specialize in construction materials. And the D&R Canal Watch has generously offered to match whatever funds we raise up to \$2,500.
- It has been difficult to plan a fundraising event during the past year due to Covid. We still need to explore what types of events we can safely hold and/or consider other avenues for raising funds.

Item	Detail	Number	Cost Each	Total Cost
Fencing	Posts 3-hole	30	13.50	405.00
	Rails	90	11.50	1035.00
	Gate	1	120.	120.00
Liner	Liner 5' x 60'	2	225	450.00
	Underlayment	2	75	150.00
	Seam Tape Kit	1	109	109.00
	Clay & riprap	*	*	*
Locks	Lumber for Former		100	100.00
	Concrete 60lb	20	6.60	132.00
	Gates etc. (Oak)	21	10	210.00
Bridge	Frame materials	1	*	*
Boats	Basswood, resin & fittings	5	110	550.00
	Running hardware	5	35	125.00
	R/C & power	5	70	350.00
Operation	Control system TBD	*	*	*
Water Supply	Pumps 4000gph	2	80	160.00
	PVC pond pipe 1 ½ inch 50'	3	130	390.00
	Water tub 100gal	2	40	80.00
				4366.00
* = To be determined				

HOW YOU CAN HELP

- A form is being passed around that lists the areas where we need volunteer assistance.
 - These include:
 - Construction of boats, locks, and bridges which can be done in a home workshop. Included in this is any experience in robotics or building remote controlled vehicles.
 - Fundraising ideas & implementation, and seeking donations
 - On-site construction
- Please review and check off any area (you can check more than one 😊) you are able and willing to lend a hand. We will collect these forms before you leave.

thank you!