



How the Railroad Went to Sea

All Aboard: History, Culture, and Innovation on the Florida East Coast Railway

Grade Level:

7th Grade

Materials:

Photo of:

- Henry M. Flagler
- William J. Krome
- The Everglades
- Florida East Coast Railway Survey Crews

Map of:

- Florida East Coast Railway Survey of the Cape Sable Expedition
- Florida East Coast Railway and Key West Extension
- FEC Railway Extension

Supplies:

- String or Surveyor's Tape
- Stakes
- Graph Paper or Survey Worksheet
- Pencils
- Clipboards
- Compass

Curriculum Connections:

English Language Arts, Science, Social Studies, Florida Education

Objectives:

Students will learn about surveying and the surveying expedition that determined the route of the Florida East Coast Railway's Overseas Extension to Key West. Students will then go on a surveying expedition of their own.

Standards:

SS.7.G: Geography
SC.7.L: Life Science
LAFS.7.W: Writing Standards
VA.68.H: Historical and Global Connections
VA.68.F: Innovation, Technology, and the Future

Corresponding Map Hot Spot:

South Florida and the Florida Keys

Lesson Procedure

Introduction:

Introduce the theme of the lesson, the development of the Florida East Coast Railway's Overseas Key West Extension. Show the students the picture of Henry Flagler and tell them a little about his life and ambitions with the Florida East Coast Railway, highlighting the fact that nothing like the Overseas Railway had ever been done before and the amount of persistence it would take to accomplish such a thing.

Show the students the picture of William Krome, the engineer first responsible for surveys to find the best route for the Overseas Railway and later the head engineer who finished construction of the project. Using the pictures of the survey team, describe the difficulties of the work (heat, mosquitos, sleeping in tents in a swamp, etc.) Explain to the students that surveys are conducted in order to determine land conditions and the feasibility of building routes.

Early in the planning for the Overseas Railway, Flagler thought that the best way would be to take the railroad from Miami through the Everglades, construct a bridge to No Name Key and continue on to Key West. This route would have been shorter, and Krome's team began the Cape Sable Everglades Expedition to see if it would work. It was definitely an adventure as the team traveled through this subtropical wilderness filled with mosquitos. The survey ultimately determined that this was not the best route and the railroad project was built following the Keys from Miami down to Key West, setting the stage for the Overseas Highway that we all know today.

Surveying:

Tell the students that today they have been hired on as members of the Cape Sable Everglades Expedition. Using a ruler, have the students help you mark the string or surveyor's tape at 1-foot intervals. Prior to the lesson, select a location outside to survey that includes landmarks such as trees, buildings, etc. Take the students outside to the survey site. Tell the students that this is uncharted territory. Mark a starting point with a stake.

Using the measuring rope, stretch it to its full length and mark that place with another stake. Rotate 90 degrees and stretch the rope again, marking the end with a third stake. Repeat this process with the fourth stake to make a square. Give each student the worksheet below or graph paper, a clipboard, and a pencil. Ask the students to plot the landmarks within the site on their worksheet or graph paper. Remind the students that they will need to decide on the scale for each square on their map. If they are using graph paper, each square can equal 1 foot.

Deciding where to build:

After the students have surveyed the site, ask them where the best place to build the railroad would be and why.

Additional Resources:

Overseas Railway Timeline

This timeline on the Key West Art & Historical Society's website provides additional information about Henry M. Flagler's life, career, history and the development of the Florida East Coast Railway and extension to Key West, Florida.

Online Collections Database

With a collecting history that extends back to 1949, the Key West Art & Historical Society has unrivaled collections of contemporary and historic art and artifacts. Its collections, which number more than 35,000 works in all media, range from historical to present-day and span the entire Florida Keys.

Henry M. Flagler

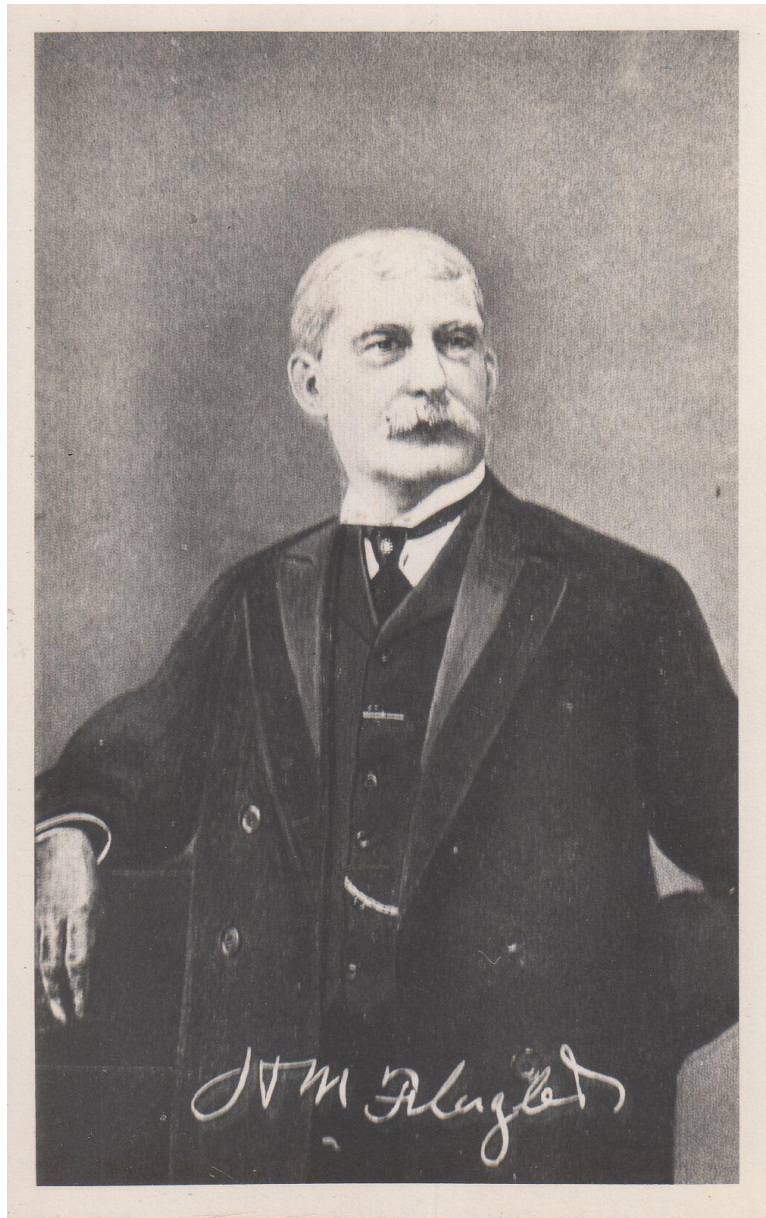


Photo: Key West Art & Historical Society

Map of the Florida East Coast Railway Showing the Key West Extension

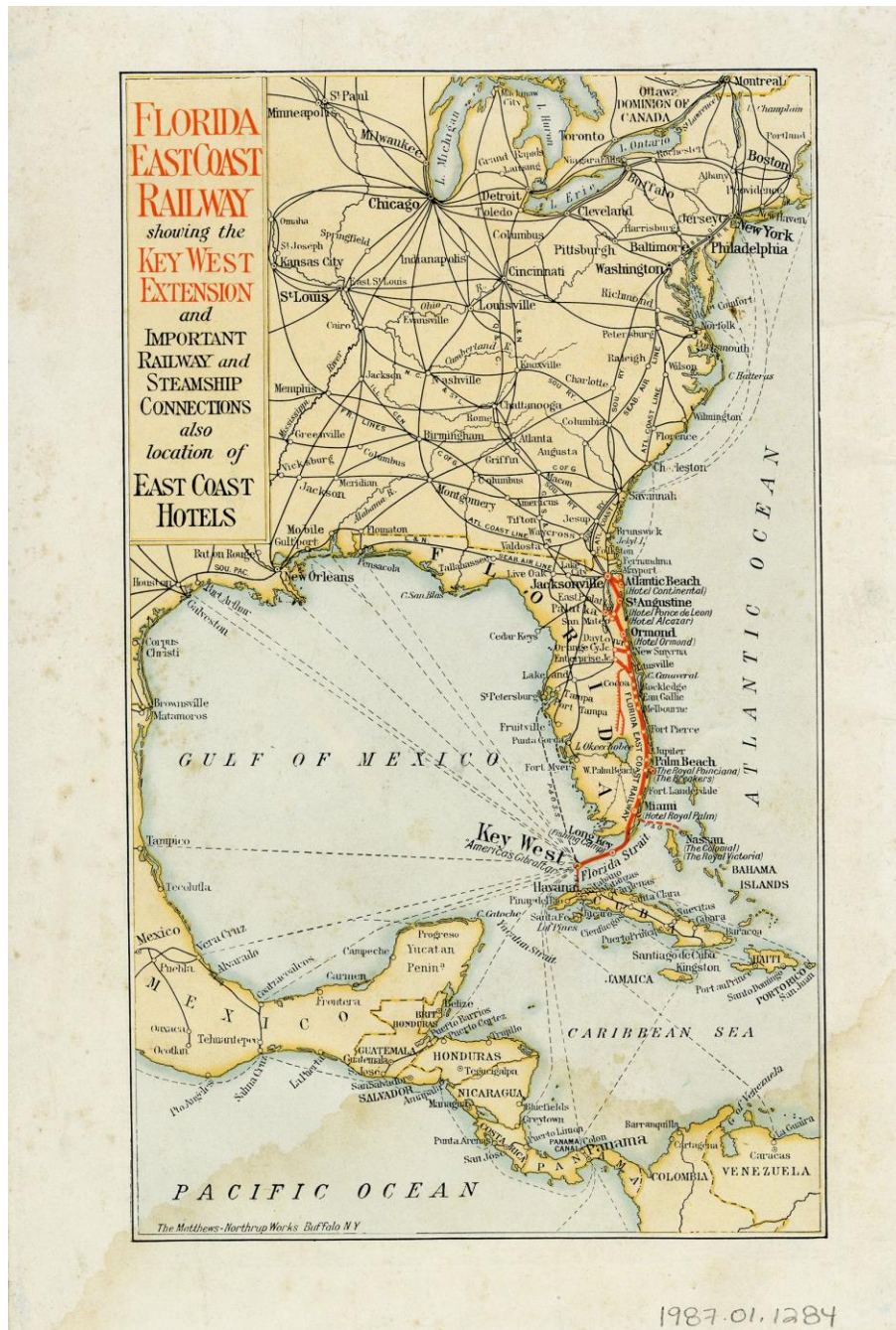


Photo: Key West Art & Historical Society

Florida East Coast Railway Key West Extension



Photo: Florida East Coast Railway

William J. Krome



Photo: Florida Memory

Florida East Coast Railway Survey Crews



Florida East Coast Railway Surveying Crew on Key Largo. Circa 1905.

Photo: Key West Art & Historical Society



Survey crew for the overseas railroad extension project. Circa 1900s.

Photo: Florida Memory

Florida East Coast Railway Survey Crews



Cape Sable expedition of Florida East Coast Railway employees ready to move to Long Key. November 14, 1903.

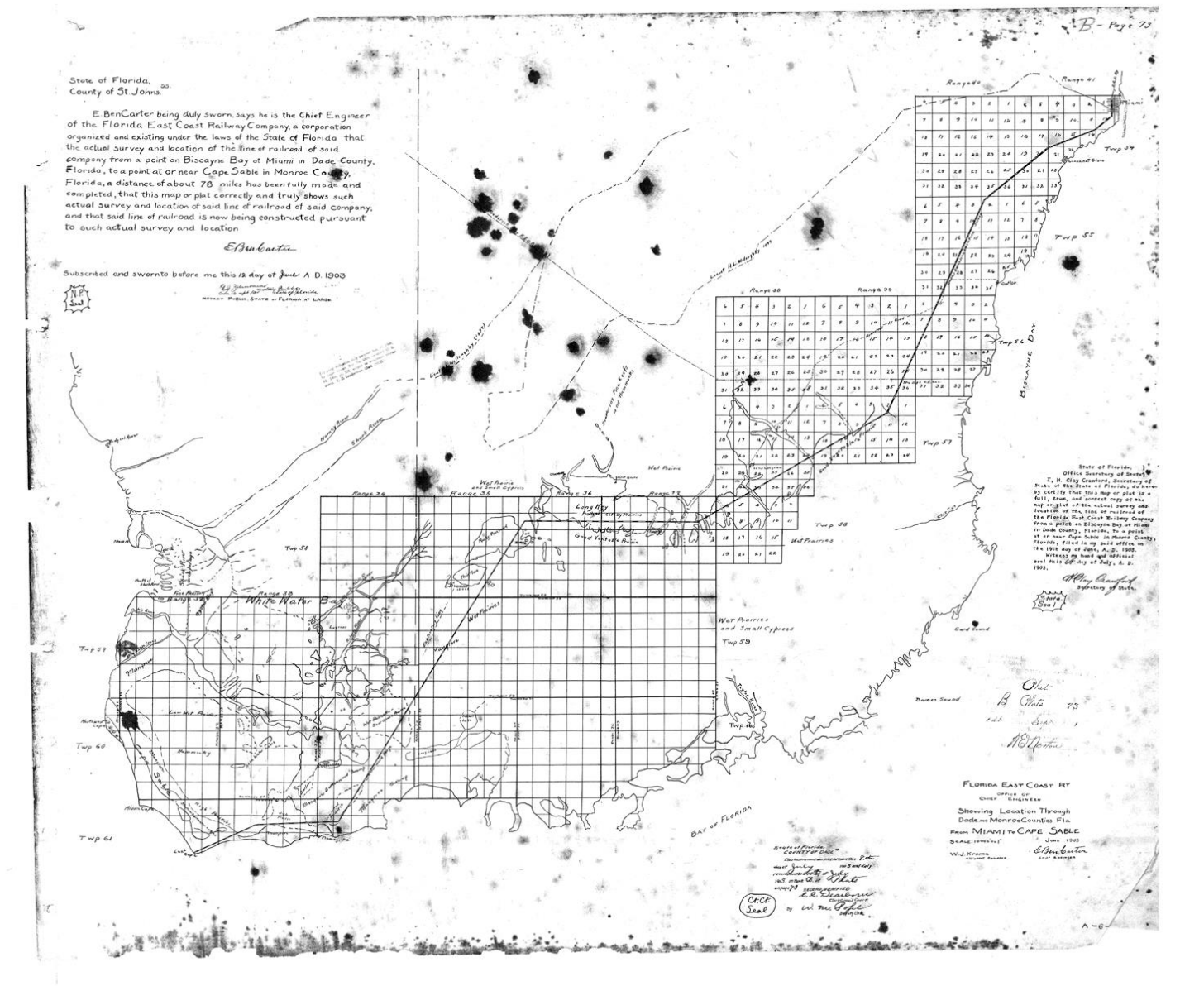
Photo: Florida Memory



William J. Krome in anti-mosquito garb. Circa 1902.

Photo: Florida Memory

Florida East Coast Railway Survey of the Cape Sable Expedition



FEC Railway Survey Showing location through Monroe Counties, FL
from Miami to Cape Sable, June 1903.

Source: Historical Preservation Society of the Upper Keys

Land Survey Worksheet

Surveyor Name:

Date:

Survey Location:

Map of Location:

Scale: 1 square = ____ ft.

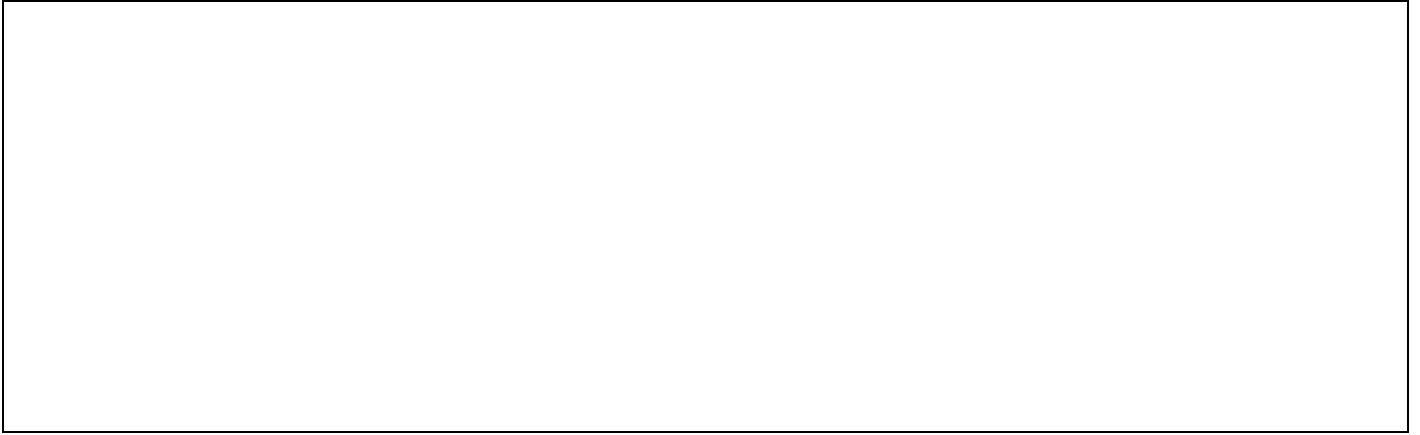
Location Description:

Sample Number	Plant Species Observed	Notes
1		
2		
3		
4		
5		

Sample Number	Animal Species Observed	Notes
1		
2		
3		
4		
5		

Survey Conclusion

Surveys often include photos of the surveyed area. In the box below, draw a picture of the area you have just surveyed.



1. Do you think this location is suitable for the construction of the railroad?
2. Explain your answer.
3. Where on the map would you decide to build the railroad?

Bibliography:

*Information is in the order that it appears in the document

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