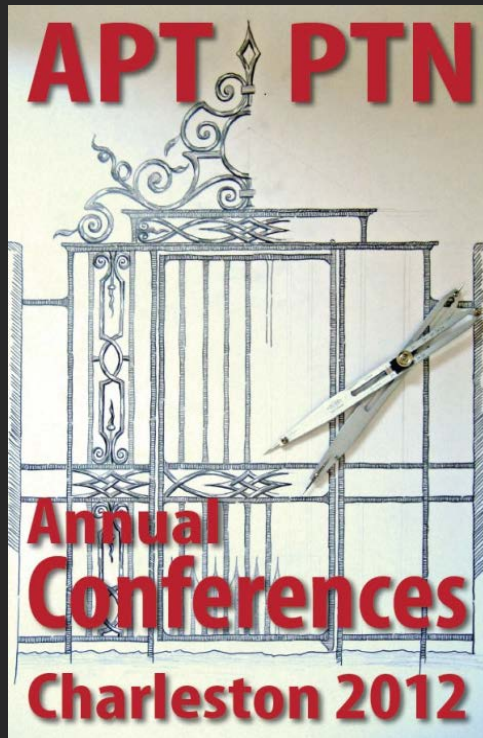


**From HSR to Restoration:  
the Fort Gratiot Light  
Station Tower  
demonstrates cross-  
disciplinary collaboration  
at every step of the  
process**

**Ilene R. Tyler, Preservation Architect  
John Fletcher, Journeyman Mason**





## Learning Objectives:

1. Identify key information in the HSR that impacted the restoration scope and bidding process.
2. Learn how unforeseen conditions and unanticipated costs were addressed collaboratively.



QUINN EVANS  
ARCHITECTS

Cornerstones: Collaborative Approaches to Preservation  
CS13: Project Management: Contractor Interface  
Tuesday, October 2, 2012, 8:15-9:45 am



*It's not luck, it's know how!*



**HISTORY: OLDEST LIGHTHOUSE IN MICHIGAN**



**HISTORY: PERIOD OF SIGNIFICANCE**



## HISTORY: OWNERSHIP TRANSFER



Garfield St

Omar St

Lighthouse Park

U.S. Coast Guard Station

Fort Gratiot Light Station

Lake Huron

**PROJECT SITE**

# PROJECT DATA:

## Client and Owner:

St. Clair County Parks and Recreation Commission, Represented by the City of Port Huron

## Size:

Tower Height: 90'  
Replacement Brick Surface Area: 3000 sq ft per wythe

## Project Dates:

HSR – 2007  
Ownership Transfer – Fall 2010  
CDs - Spring 2011  
Construction - Spring 2012

## HSR and Design Team Lead By:

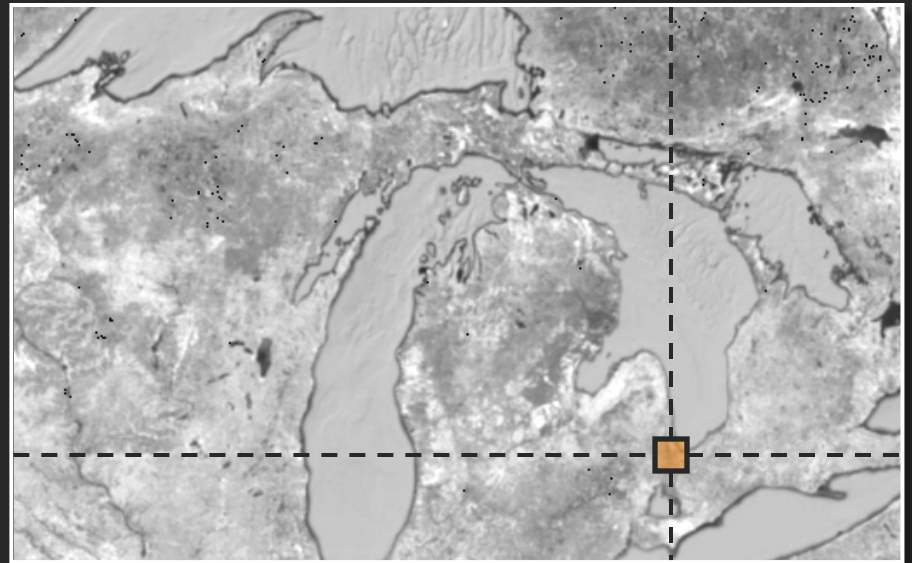
Quinn Evans Architects

## Restoration Contractor:

National Restoration, Inc.

## Construction Budget:

\$332,900 Contract Sum



Site Location: Port Huron, MI



Lighthouse Park Omar Street, Port Huron Michigan



OCT 2 2006 9002 2 130



**DETERIORATED BRICK SKIN**



**MOISTURE ISSUES**



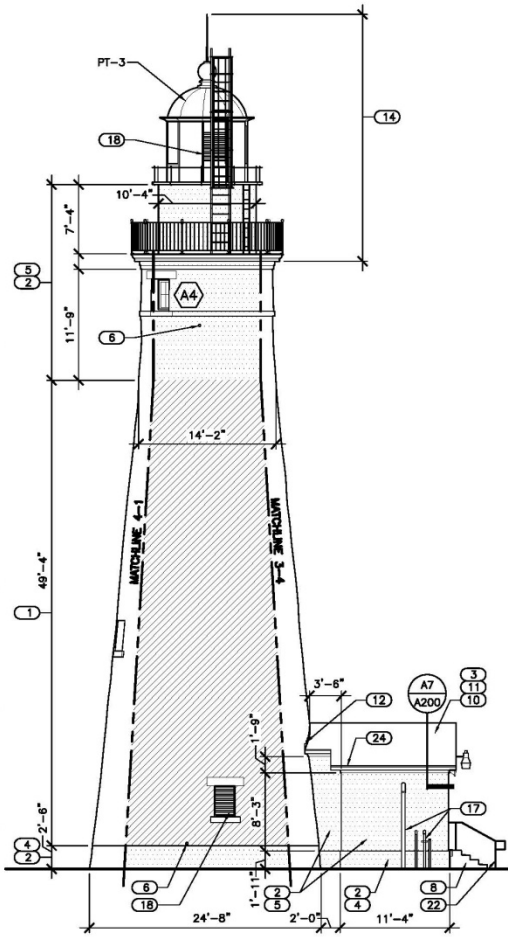




**SURVEY EXISTING CONDITIONS: LASER SCAN**

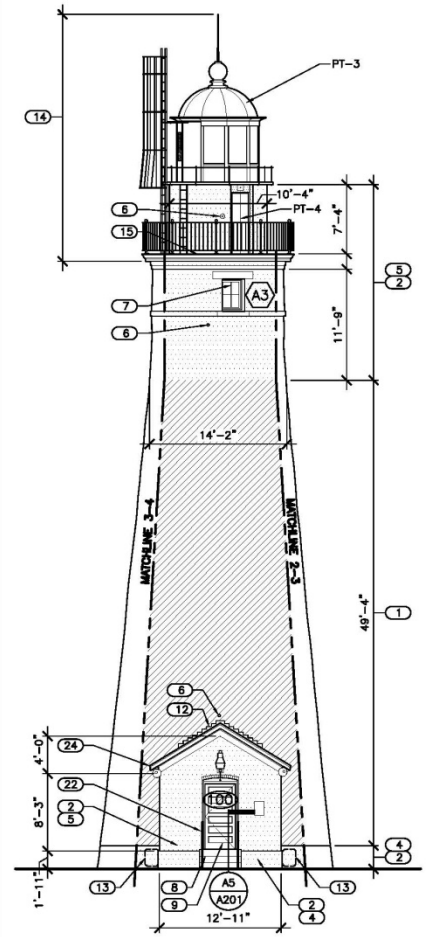


**SURVEY EXISTING CONDITIONS: VISUAL**



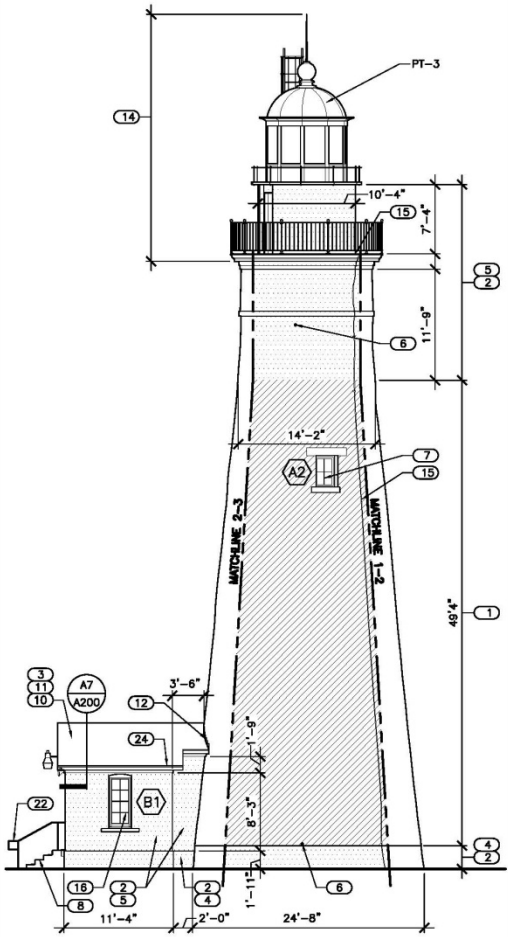
**F1 WEST ELEVATION**

A200 1/8" = 1'-0" REFERRED FROM: File Name:



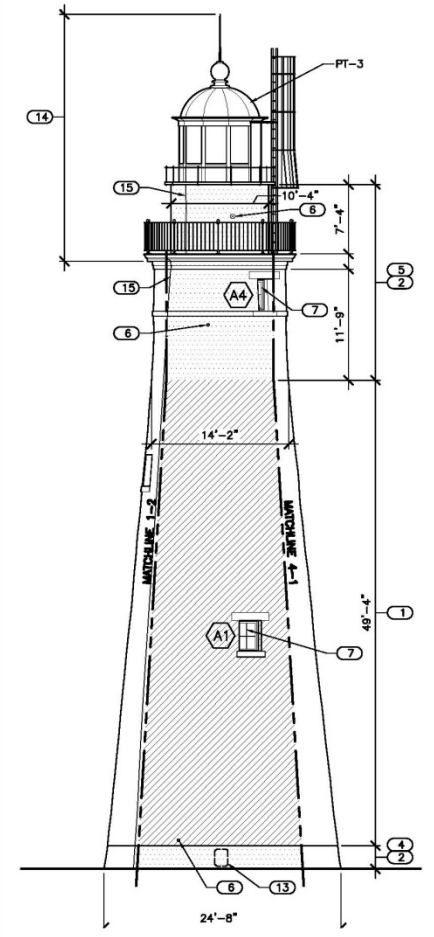
**F4 SOUTH ELEVATION**

A200 1/8" = 1'-0" REFERRED FROM: File Name:



**F7 EAST ELEVATION**

A200 1/8" = 1'-0" REFERRED FROM: File Name:



**F11 NORTH ELEVATION**

A200 1/8" = 1'-0" REFERRED FROM: File Name:



**BIDDING, AWARD, AND CONSTRUCTION**



# CONSTRUCTION: APPROACH



**CONSTRUCTION: APPROACH**



**APPRENTICE TRAINING ON THE JOB**



2011 Sep 20



2011 Oct 4



2011 Oct 18

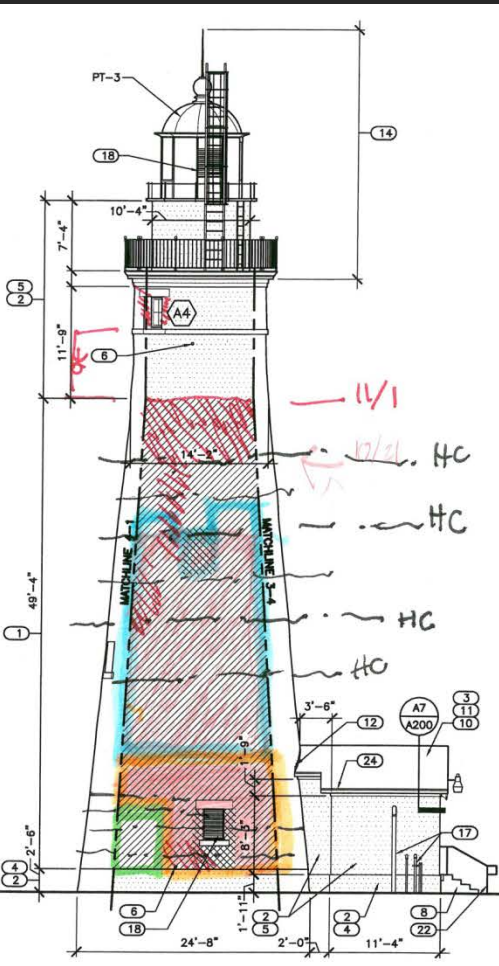


2011 Nov 1

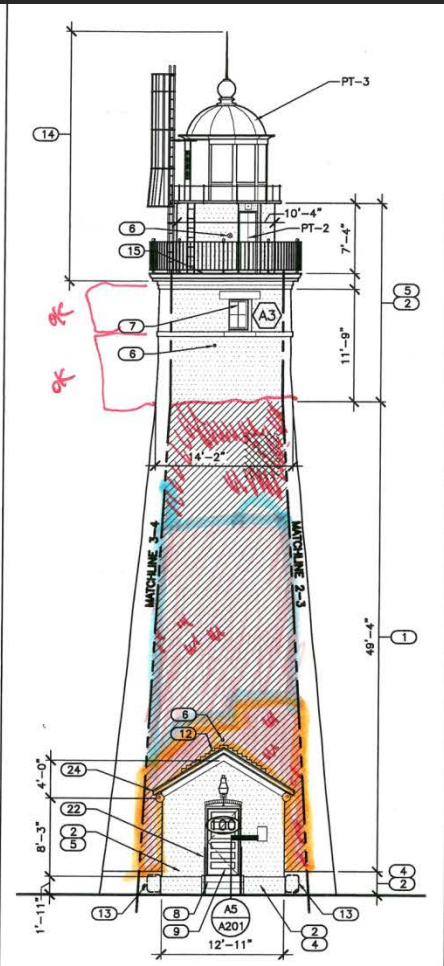


2011 Nov 17

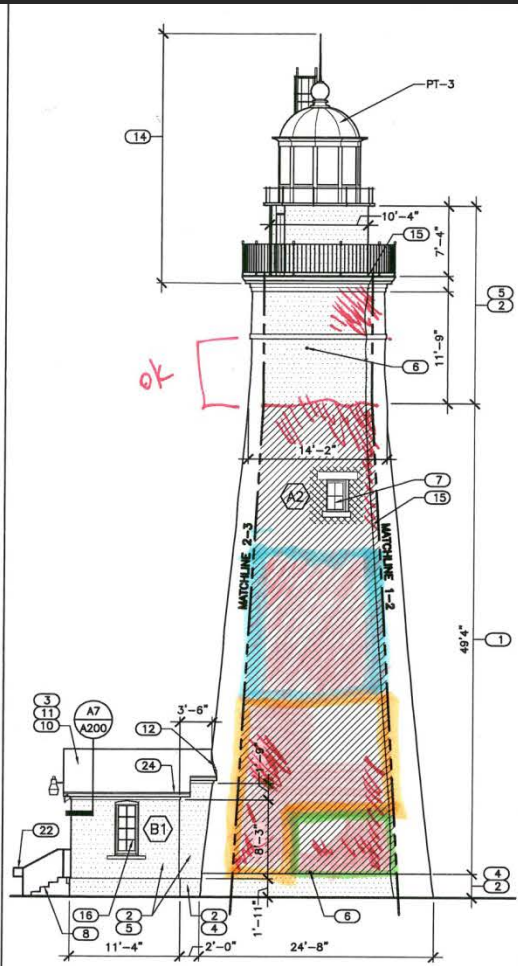
## CONSTRUCTION TIMELINE



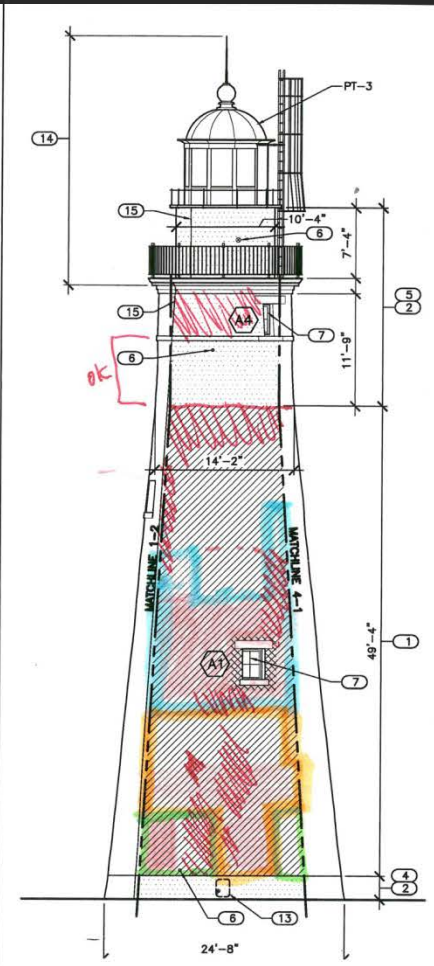
**F1 WEST ELEVATION**



**F4 SOUTH ELEVATION**



**F7 EAST ELEVATION**



**F11 NORTH ELEVATION**

# CONSTRUCTION TIMELINE



**TWO WEEKS LATER...AND FOR THE NEXT SEVERAL MONTHS**

Moisture Reading on Fort Gratiot Lighthouse /Taken Thursday April 19, 2012

Location	In	Out	North	South	East	West	4-19-2012
1 <sup>st</sup> Window	39.5%	44.8%					
2 <sup>nd</sup> Window	54.1%	34.6%					
3 <sup>rd</sup> Window N	13.2%	62%					
3 <sup>rd</sup> Window S	32.2%	30.8%					
Louver	99.9%	49.1%					
Dog House				22.7%	22.5%	28%	
Base			58.9%		34.3%	49.1%	
Observation			28.2%	30.8%	28.8%	29.6%	

**MONITORING AND MOISTURE READINGS**



## MONITORING AND MOISTURE READINGS



## COUNTY INSTALLATIONS AND GRAFFITI CHALLENGE



**REDEDICATED IN MAY**



**REDEDICATED IN MAY**

Moisture Readings on Fort Gratiot Lighthouse/ Taken Tuesday June 19, 2012

Location	In	Out	North	South	East	West	6-19-2012
1 <sup>st</sup> Window		34					
2 <sup>nd</sup> Window		30					
3 <sup>rd</sup> Window N		18					
3 <sup>rd</sup> Window S		17					
Louver		24					
Doghouse				18	17	18	
Base			35		18	24	
Observation							

**MONITORING AND MOISTURE READINGS**



**REPAINTED IN JUNE**



PHOTOGRAPHED IN AUGUST



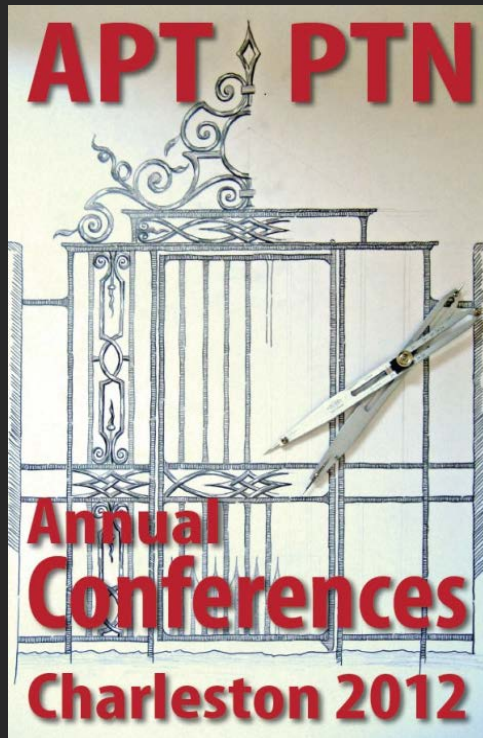
**PHOTOGRAPHED IN AUGUST**



PHOTOGRAPHED IN AUGUST



PHOTOGRAPHED IN AUGUST



## Were You Able to:

1. Identify key information in the HSR that impacted the restoration scope of work and the bidding process.
2. Learn how unforeseen conditions and unanticipated costs were addressed collaboratively.

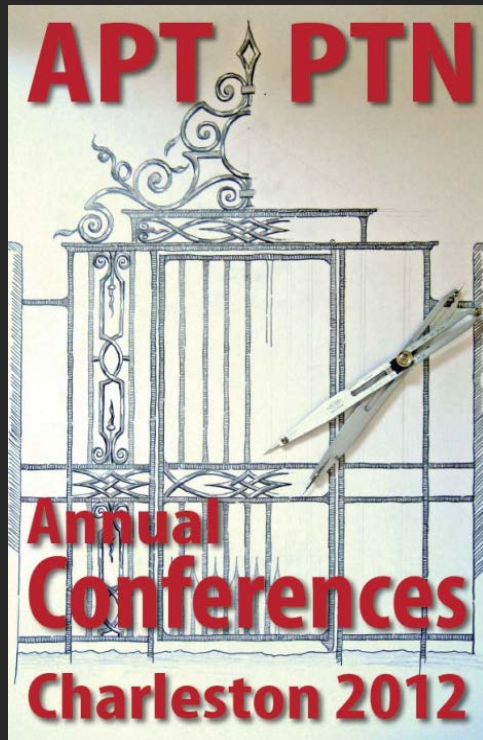


QUINN EVANS  
ARCHITECTS

Cornerstones: Collaborative Approaches to Preservation  
CS13: Project Management: Contractor Interface  
Tuesday, October 2, 2012, 8:15-9:45 am



*It's not luck, it's know how!*



## Questions...

Ilene R. Tyler, Preservation Architect  
John Fletcher, Journeyman Mason



QUINN EVANS  
ARCHITECTS

Cornerstones: Collaborative Approaches to Preservation  
CS13: Project Management: Contractor Interface  
Tuesday, October 2, 2012, 8:15-9:45 am



*It's not luck, it's know how!*