

Restoration of the DeTour Reef Light (DRL)

by

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DeTour Reef Light Preservation Society (DRLPS)

The Annual Meeting of

The Association for Great Lakes Maritime History

September 16-18, 2005

Tobermory, Ontario, Canada

Agenda

- **Background on the DRL**
- Profile of DRLPS
- Major Milestones, 1998 to 2005
- Restoration Program
 - Contributions of a Strong Volunteer Organization
 - Historic Structures Report
 - Grantsmanship – Acquiring the Funding
 - Grant and Project Execution
 - Restoration Execution
 - Before and After Photos
- Final Inspection and Aftermath
- Lessons Learned
- Keys to Success

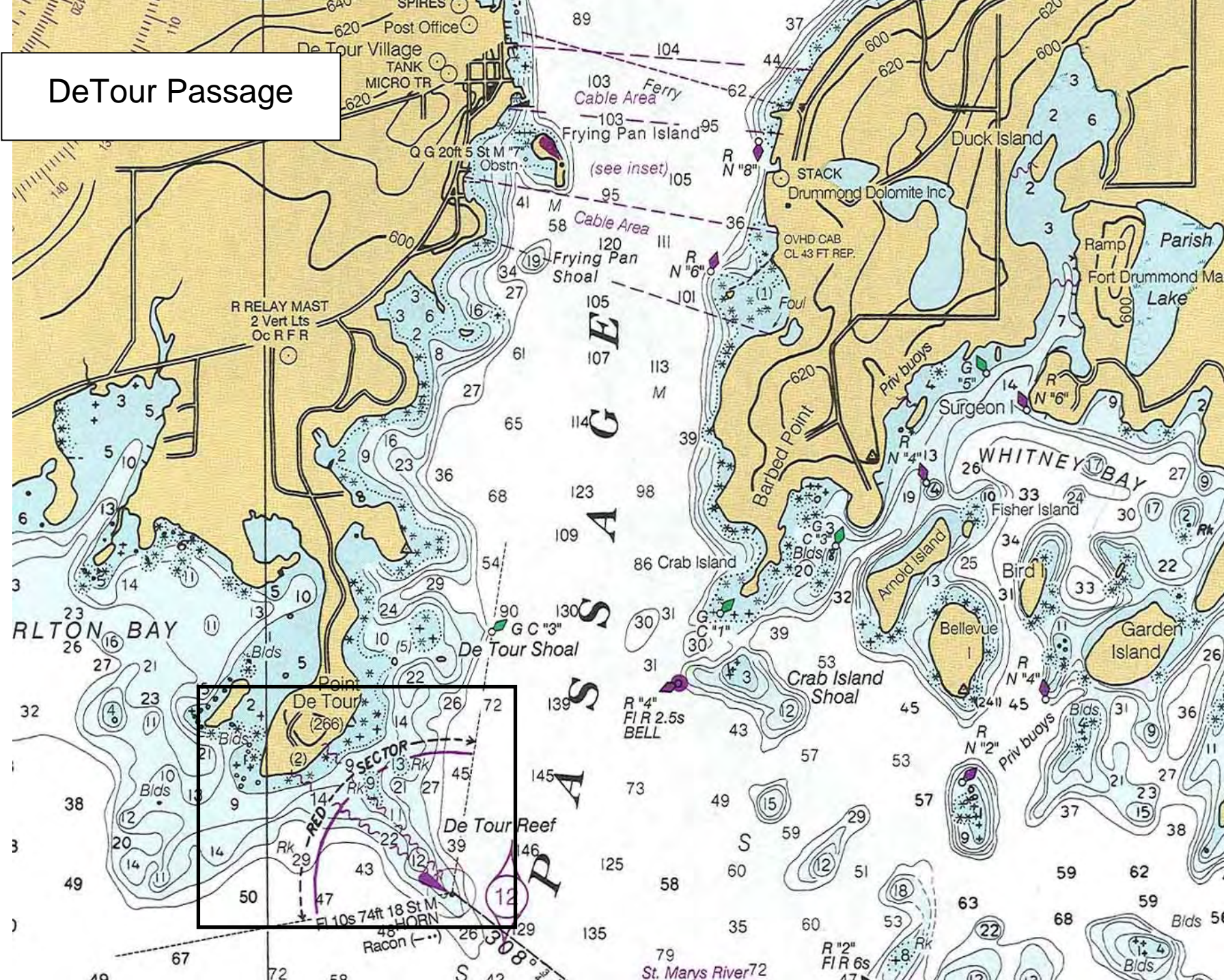
Where We Are

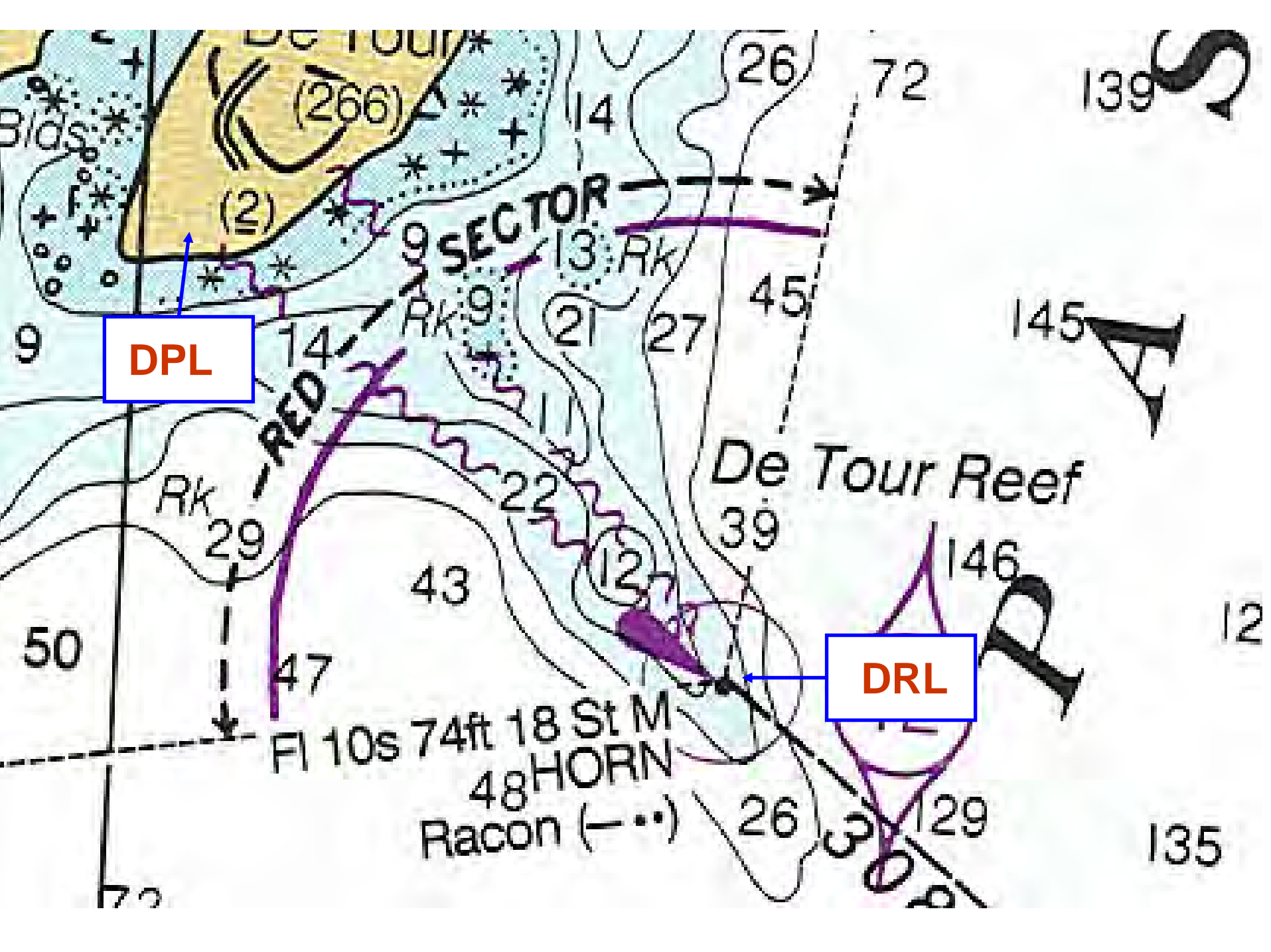
Location of the DeTour Reef Light

**Northern Lake Huron at the eastern end
of Michigan's Upper Peninsula**



DeTour Passage





GATEWAY TO SUPERIOR

The Lighthouses of DeTour Passage

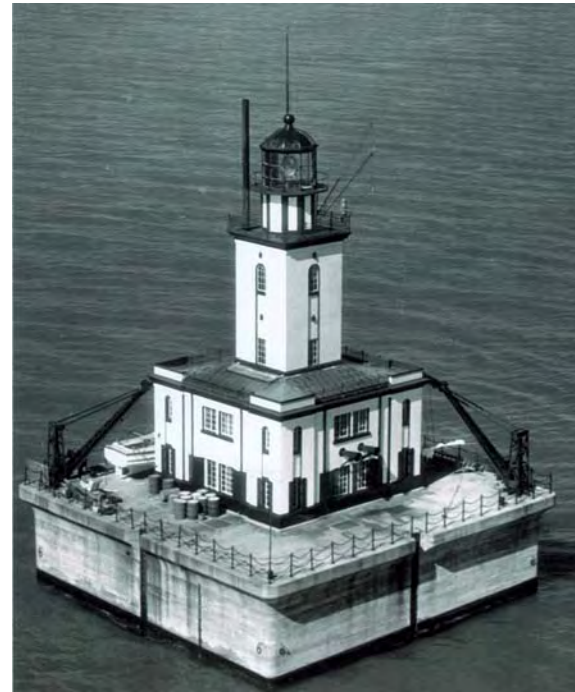


DeTour Point Light in 1914

**Built in 1847 onshore
at DeTour Point**

Rebuilt in 1861

(Same as Whitefish Point Light)

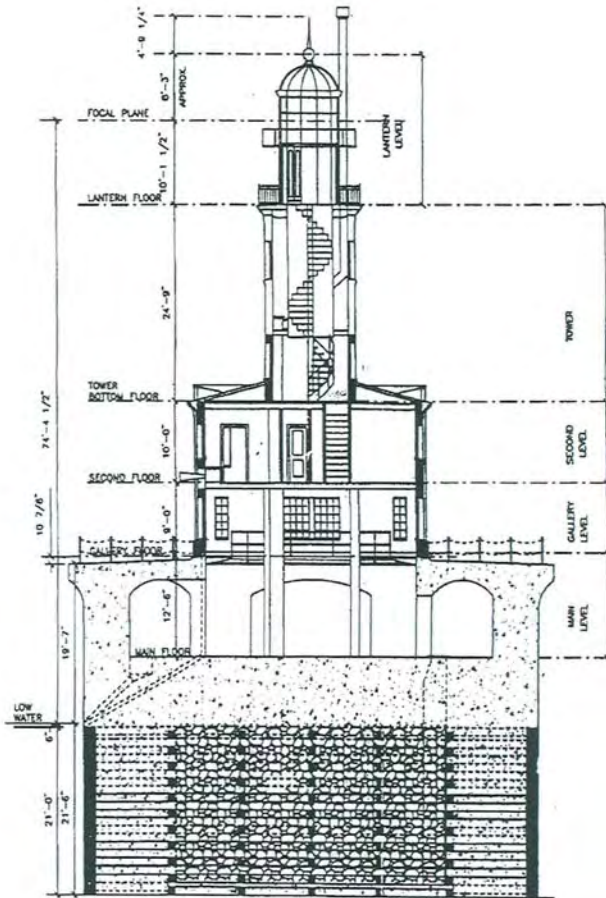


DeTour Reef Light in 1931

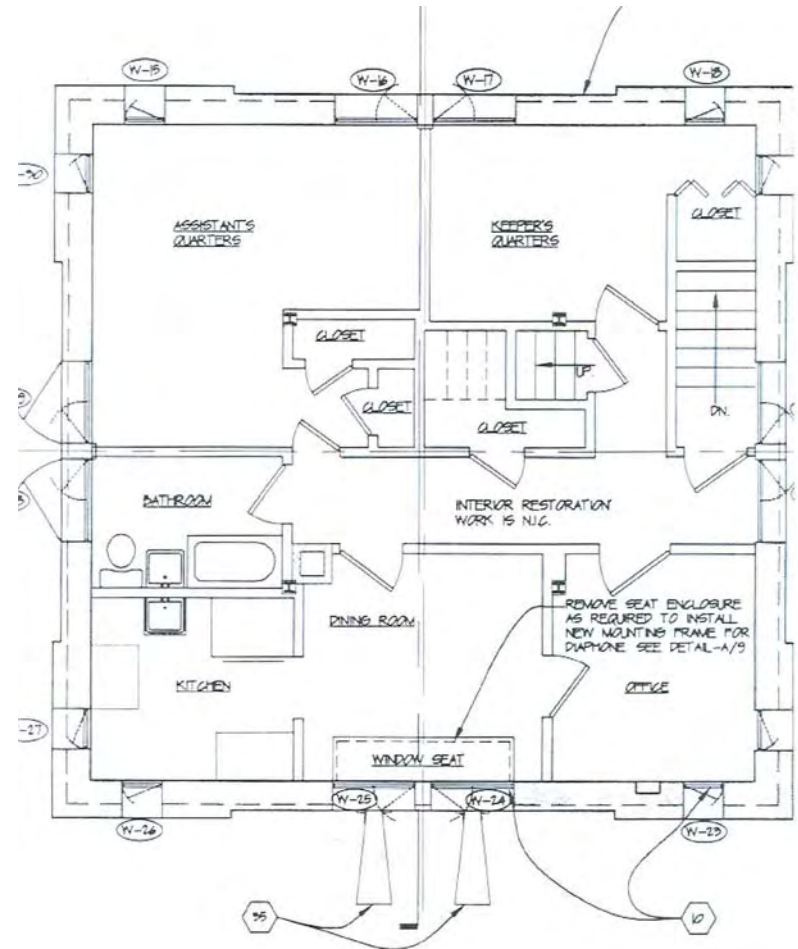
**Built in 1931 one mile offshore
from the DeTour Point Light**

Automated in 1974

DeTour Reef Light



Cross Section Elevation



Second Floor Plan

DeTour Reef Light



Being built in 1931



Being restored in 2003

DeTour Reef Light

Usually Operational from about April 1 to December 15



Excess Property in 1997



Restored by DRLPS in 2004

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Profile of DRLPS

- Founded in 1998
- Legally organized as a 501(c)(3) nonprofit
- Primary mission is to preserve & maintain DRL in perpetuity
- 356 members from 23 States
- Fundraising events, donations, etc., generate about \$35,000/year
- Board of Directors with wide ranging expertise and high level executive experience
- Current assets of \$129,463 and cash on hand of \$27,344
- Net worth of \$1,322,590 (includes leasehold improvements to DRL of \$1,054,532)
- Major experience in historic preservation to Department of Interior Standards

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Major Milestones for DRLPS, 1998 to 2005

- January 1998 – DRLPS formed in response to DRL being declared excess property by USCG
- June 1998 – Michigan’s Historic Lighthouses, exemplified by DRL, placed on National Trust for Historic Preservation 1998 *“List of America’s 11 Most Endangered Historic Places”*
- October 1999 – DRLPS awarded its first grant
- June 2000 - Cullen Chambers, nationally recognized lighthouse preservationist, conducts existing conditions report on DRL
- September 2000 - DRLPS signs 20 year lease on DRL with USCG
- May 2001 - DRLPS awarded DEQ/CMI, MLAP and MDOT/TEA-21 grants totaling \$976,500
- September 2001 - DRL deck crane restoration completed
- May 2003 - Contracts for major exterior and interior restoration work signed
- September 2004 - DEQ, MDOT, NPS and SHPO conduct final inspection of restoration work
- March 2005 – DRL placed on the *National Register of Historic Places*
- May 2005 – DRLPS receives *2005 Governor’s Award for Historic Preservation*

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Contributions of a Strong Volunteer Organization

“Everybody loves a lighthouse”

The DRLPS as a Society Made the Following Contributions to Restoration

- Gathered together the people who cared about the cause
- Created identity and established awareness of our cause
- Provided a pool of volunteers with various expertise
- Generated money for grant matches
- Connected to resources in the lighthouse community
- Established credibility with government agencies and commercial institutions
- Constructed a platform for grant acquisition and execution
- Set the vision, plans and goals to accomplish the mission

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Historic Structures Report

“The core of any historic property management program is accurate information about the building.” (NPS)

- Historical material (October 1999 – June 2003) mostly from the National Archives
 - Original architectural and engineering drawings (156),
 - Original photographs (85),
 - Original USLHE and USCG correspondence (1500 pgs.)
 - Original logbooks, 1931 to 1965 (9000 pgs.)
 - Other (900 pgs.)
 - Oral history videos of former DRL Keepers/workers (6)
- Existing conditions study (June 2000)
- Existing conditions video (September 2001)
- Paint study (May 2002)
- Restoration plans, specifications and drawings (September 2001 – March 2003)

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Grantsmanship – Acquiring the Funding (12 Grants)

- Michigan Coastal Management Program (DEQ)
 - Four grants totaling \$63,750 (includes \$21,250 DRLPS match)
 - Mostly acquisition of historical material and educational products
- National Trust for Historic Preservation
 - One grant for \$3,400 (includes \$1,700 DRLPS match)
 - Existing conditions video
- Michigan Lighthouse Assistance Program (SHPO)
 - Four grants totaling \$125,287 (includes \$48,700 DRLPS match)
 - Restoration including deck crane, windows, flooring, molding, etc.
- Plym Foundation - \$15,000 for restoration
- Transportation Enhancement Act of the 21st Century (TEA-21, MDOT)
 - One grant for \$241,500 (\$80,500 match provided by CMI-DEQ)
 - Exterior restoration (DeTour Village as local agency)
- Clean Michigan Initiative Act (DEQ)
 - One grant for \$705,000 (\$235,000 match provided by TEA-21)
 - Interior & exterior restoration (Drummond Island Township as local agency)

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Grant and Project Execution

- Grant execution (coordinate with grant and local agency)
 - Signed grant agreement before proceeding
 - Understand and carry out the payment/reimbursement process
 - Establish a way to finance negative cash flow
 - Meet regular (quarterly?) reporting requirements
 - Conduct a final inspection
 - Write a final report
- Project execution (coordinate with grant and local agency)
 - Develop plans and specifications and get approval
 - Obtain “No Adverse Effect” letter
 - Issue an RFP
 - Advertise for bids
 - Hold contractors meeting
 - Evaluate bids and award contract
 - Manage the ongoing contractor work (Restoration Execution)

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Restoration Execution

- Restoration work took place between May 2003 and October 2004 (winter shutdown December to April)
- Exterior first – interior second
- Offshore lighthouse presents major logistics problems
- Fog and rough seas were a problem
- Very limited work space and storage space
- Mess made by seagulls and cormorants
- Major problem with bugs and flying insects
- A trip to the hardware store was a big deal
- Severe winds ripped off shroud used to capture lead paint
- Difficult as project manager to drop in and check on the job
- Inspections by architect and granting agency were weather dependent

Traveling to and from the Work Site by Boat



Getting on and off the Lighthouse



The Work Crew



The Other Way to Get On and Off the Lighthouse



The Weekly Port-a-John Replacement Process



Limited Workspace on the Pier Deck



Stuck at the Lighthouse in the Fog



Stripping and Repainting the Lighthouse Exterior



Sealing the Joints on the Pier Deck was a Critical Issue



Subcontractors, Such as Plasterers, also Had to be Transported to DRL



In Process Inspection by
Department of
Environmental Quality



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DeTour Reef Light



Excess Property in 1997



Restored by DRLPS in 2004

Pediment above Front Door and Upper Tower Levels



Before



After

Upper Tower Including Watch Room and Lantern Room



Before



After

West Wall of Lower Tower



Before

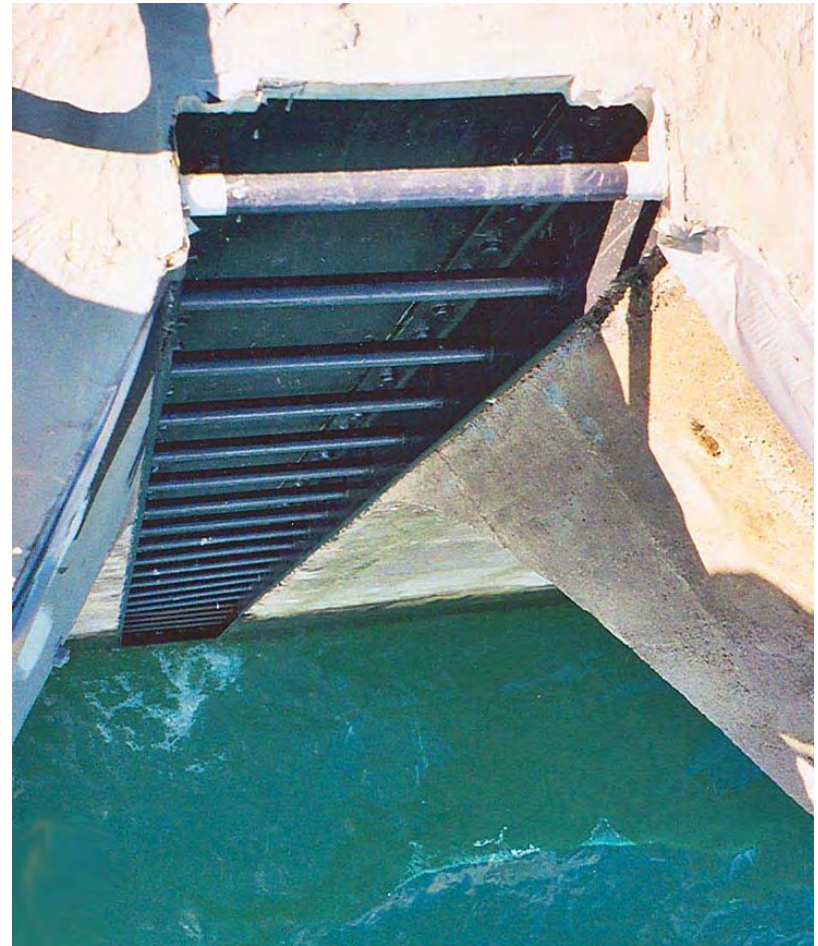


After

One of the Four Ladders that Provide Access to the Pier Deck from a Boat



Before



After

Spiral Staircase Leading from Tower Room up to Lantern Room



Before



After

Storage Cabinet in Southeast Corner of Tower Room

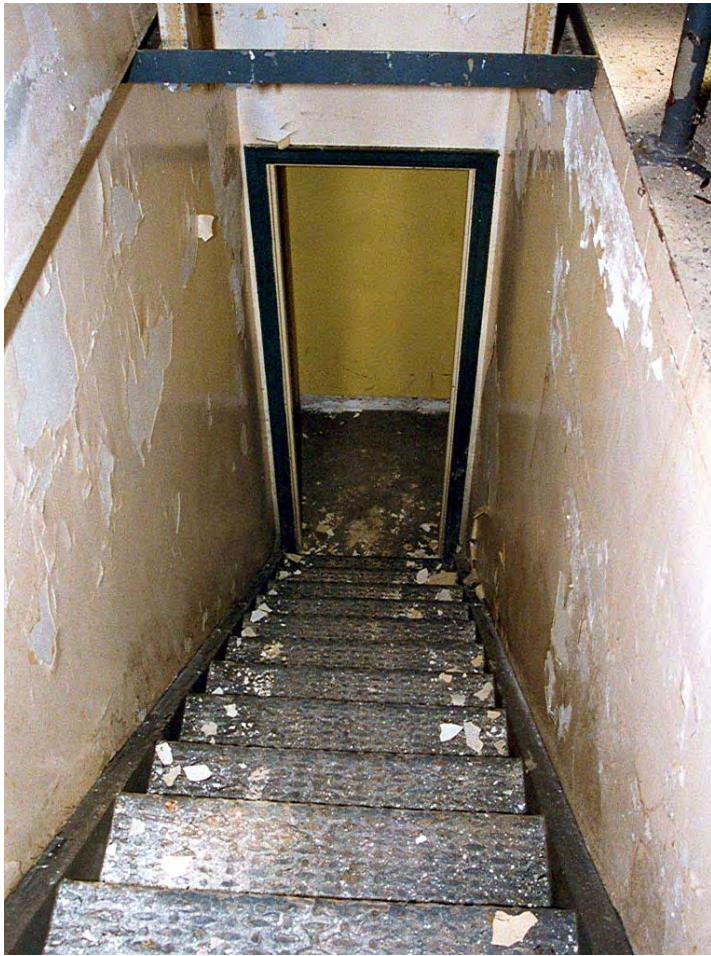


Before

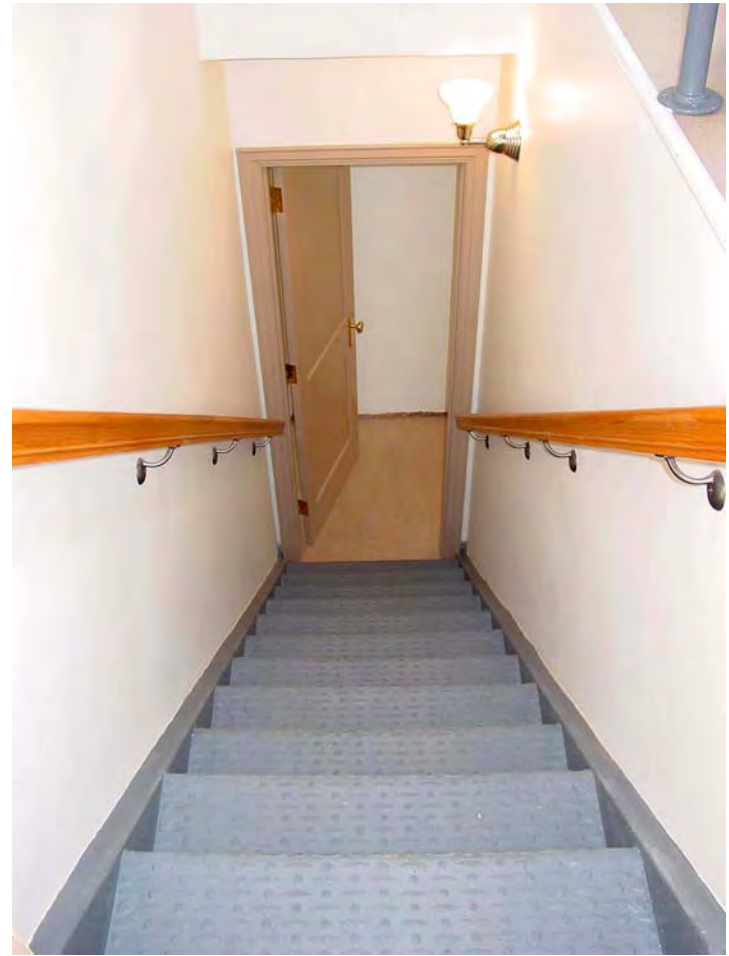


After

Stairway Leading Down to Keepers' Quarters from Tower Room



Before



After

View from Head Keepers Bedroom Looking along Hallway To Radio Room



Before



After

Northwest Corner of Head Keeper's Bedroom



Before



After

The Bathroom in the Keepers' Quarters



Before



After

Dining Room Looking Toward South Wall with Sitting Bench and Upper Access to Fog Horns



Before



After

Southeast Corner of Office/Radio Room



Before



After

Stairway Leading Down from Keepers' Quarters to the Gallery Level



Before



After

Gallery Level Looking towards East Wall and Front Door

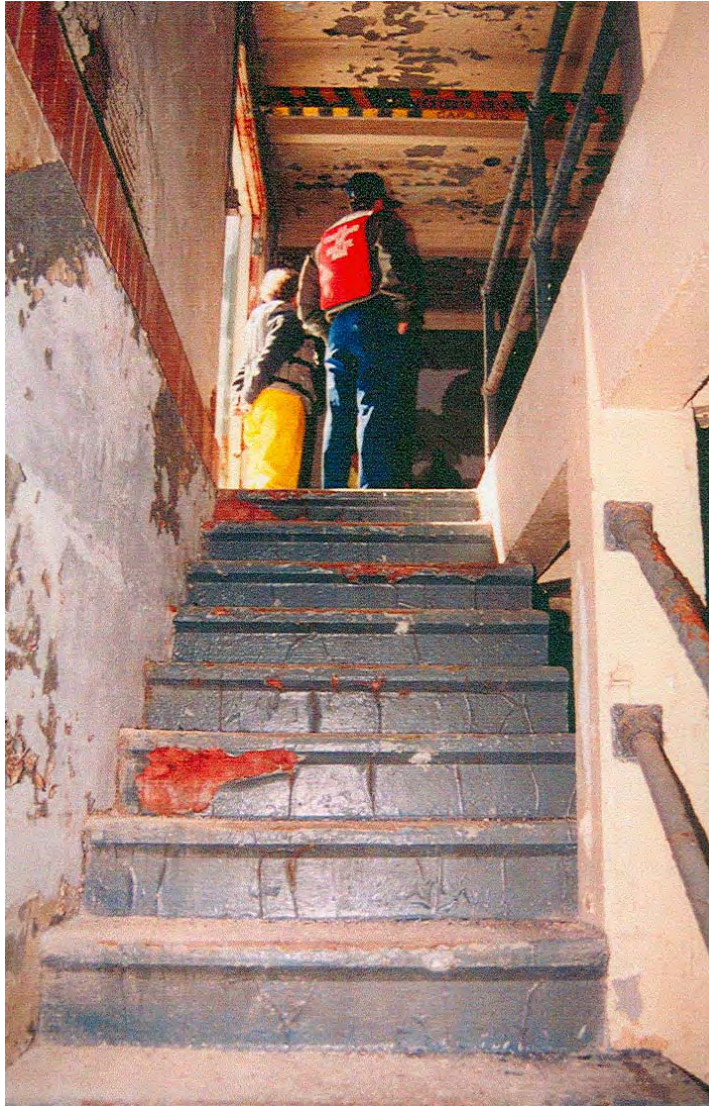


Before



After

Staircase Going up from Machinery Room to Gallery Room Level



Before



After

Former Fuel Storage Area in Machinery Room With New Water Treatment System Installed



Before



After

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Final Inspection and Aftermath

- Final inspection held September 15, 2004
- Representatives from SHPO, DEQ, MDOT, UPEA, Mihm Enterprises and local agencies
- Major grants closed out by December 2004
- DRL placed on the *“National Register of Historic Places”* on March 15, 2005
- DRLPS received *“2005 Governor’s Award for Historic Preservation”* on May 19, 2005
- Minor restoration work still ongoing
- Public tours began July 8, 2005

Inspecting the Quality of Work in Pier Deck Restoration



A Novel Approach to Handling “Black Water”



Michigan State Historic Preservation Office Officials View Interior Restoration



**Susan Vincent of National Park Service is Interviewed for Video
Entitled “Saving the DeTour Reef Light”**



The People from All the Organizations that Made It Happen



Receiving the "2005 Governor's Award for Historic Preservation"



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Lessons Learned

- Better understand upfront government agency requirements to execute grants
- Time between grant award and beginning of restoration work was longer than anticipated
- Multiple cross matching grants from different Government agencies are extremely difficult to manage (The Chinese Puzzle)
- Don't underestimate the administrative workload required to execute restoration grants
- Keep all records highly organized and in electronic format by scanning
- Hold more regularly scheduled meetings with contractor/architect
- More rigidly follow the drawings and specifications requiring even the smallest deviation to be made in writing
- Spread out large restoration projects over a longer time frame
- Offshore lighthouses are more difficult to restore than we imagined

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Keys to Our Success

- Our restoration program was launched from a very strong organizational foundation
- We kept our eye on the mission and stayed the course with dedication and perseverance
- We had a spirit and soul that was passionate about the mission
- We had an extremely talented team with the special expertise needed for the situation (including our architect and contractor)
- Our team managed the restoration program with a strong business operations orientation
- We worked hard at maintaining relationships in our local community, the lighthouse community, and the community of government agencies
- Our timing was good – the money and national enthusiasm for preserving lighthouses was there
- We believed that anything was possible and had an attitude that we would not fail
- Luck was important – we found that the harder we worked, the more of it we had!

The Greatest Key to Our Success was

Jeri Baron Feltner

**“The Inspiration for our Organization and the Spirit and
Soul of our Success”**



Thank You

To

The Association for Great Lakes Maritime History

for Inviting us to Speak Today

We Also Wish to Thank the Following Grant Agencies for Their Support

- Michigan DEQ for Four Grants Under the “Michigan Coastal Management Program” for Educational and Historical Displays
- Michigan State Historic Preservation Office for Four Grants under the “Michigan Lighthouse Assistance Program” for Restoration
- Michigan DEQ for a “Clean Michigan Initiative” grant for \$705,000 for restoration
- Michigan Department of Transportation for a TEA-21 Grant for \$241,500 for Exterior Restoration
- The National Trust for Historic Preservation for an Educational Grant

DeTour Reef Light Preservation Society

“We’ll Keep the Light on for You”



WWW.DRLPS.COM