

MAY 2015

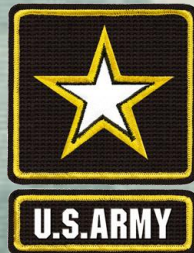
Cat Island Restoration

Steven Check

**CAT ISLAND
Dredged Material Disposal Facility
Green Bay, WI.**



US Army Corps of Engineers
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CORPS MISSION

FY 2012

Navigation: **\$1.883 billion**

USA Material Dredged for Construction and Maintenance:
235 million cubic yards -- Cost: \$1.211 billion.

Commercial deep draft channels (greater than 14 feet deep)
operated/maintained: **13,000 miles**

Commercial inland channels operated/ maintained: **12,000 miles**
(would stretch halfway around the world)

Percentage of U.S. domestic freight carried by water (by ton-miles,
excluding air & pipeline): **16%**



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USACE'S NAVIGATION STRATEGIC VISION

USACE operations and maintenance activities are carried out under the vision provided by the *USACE Navigation Strategic Vision, December 2012*. The entire Strategic Vision can be viewed at

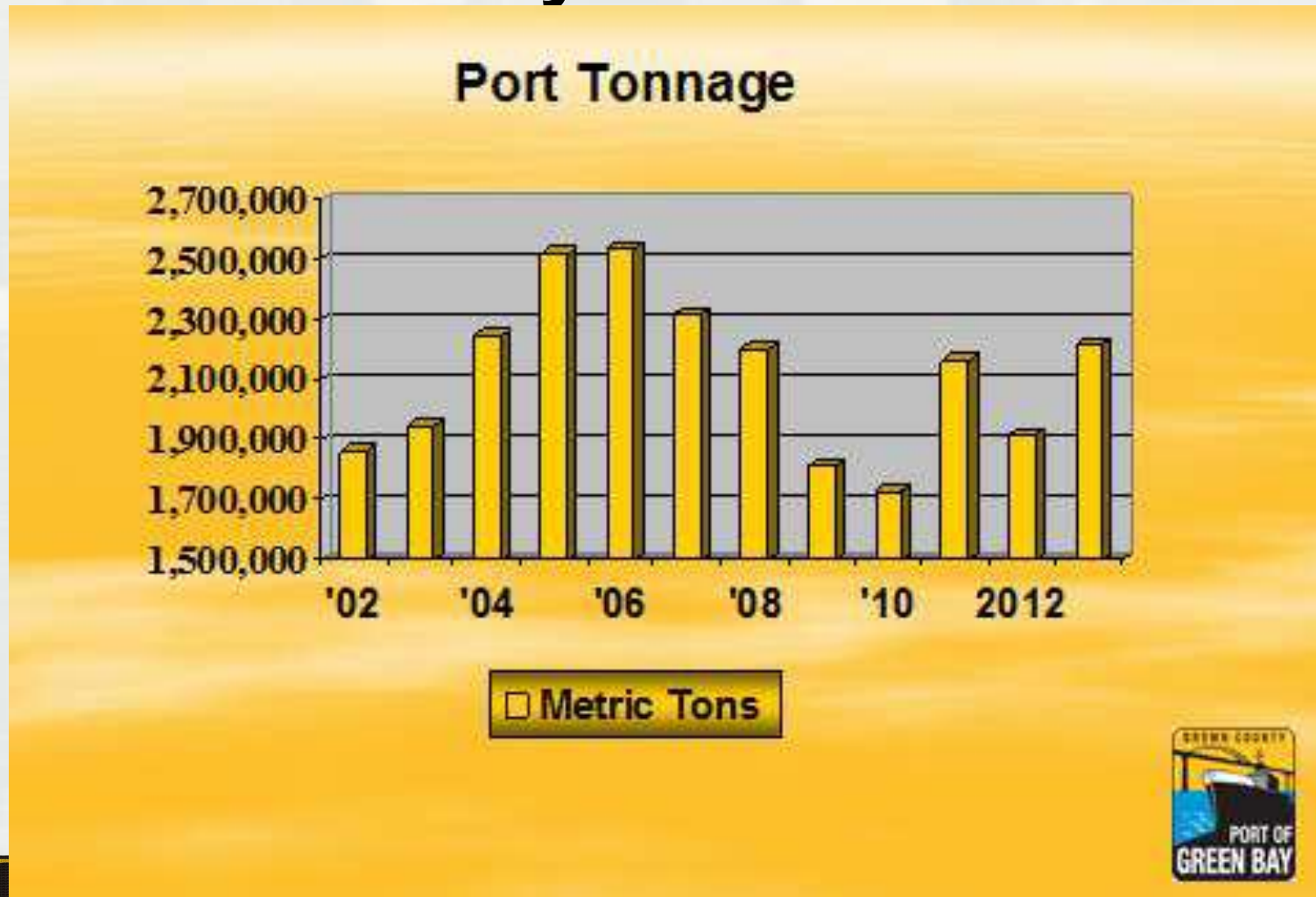
<http://operations.usace.army.mil/nav/pdfs/NavStrategy.pdf>.

- *To provide safe, reliable, efficient, effective and environmentally sustainable waterborne transportation systems for movement of commerce, national security needs, and recreation.*
- *The Corps develops, supports and maintains effective partnerships with State, Federal and Local agencies and offices to ensure proper communication and coordination of activities and activity priorities to continue successful mission execution.*
- *Navigation construction and maintenance activities are performed in a systematic, efficient, sustainable manner based on sound engineering that enhance opportunities for environmental benefits and beneficial use through Engineering With Nature.*



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Port of Green Bay Wisconsin

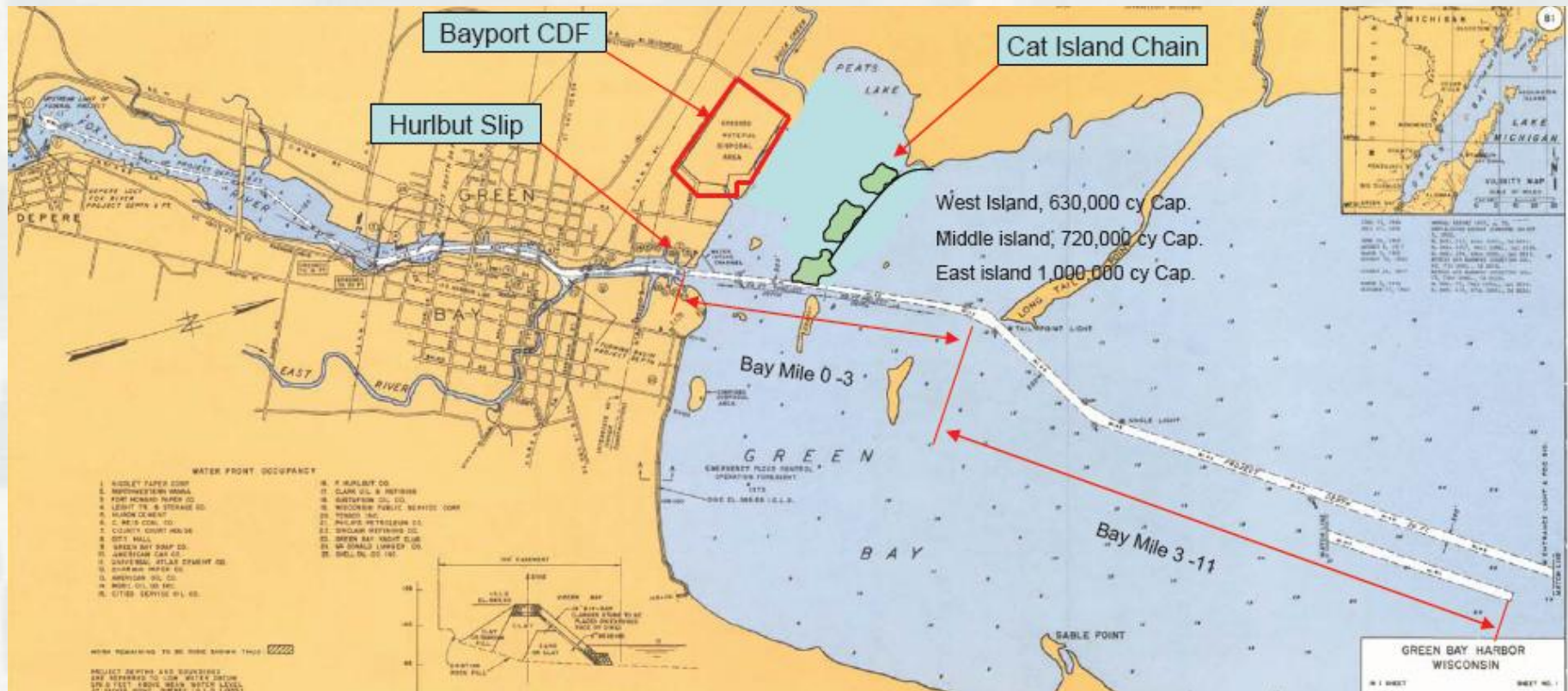


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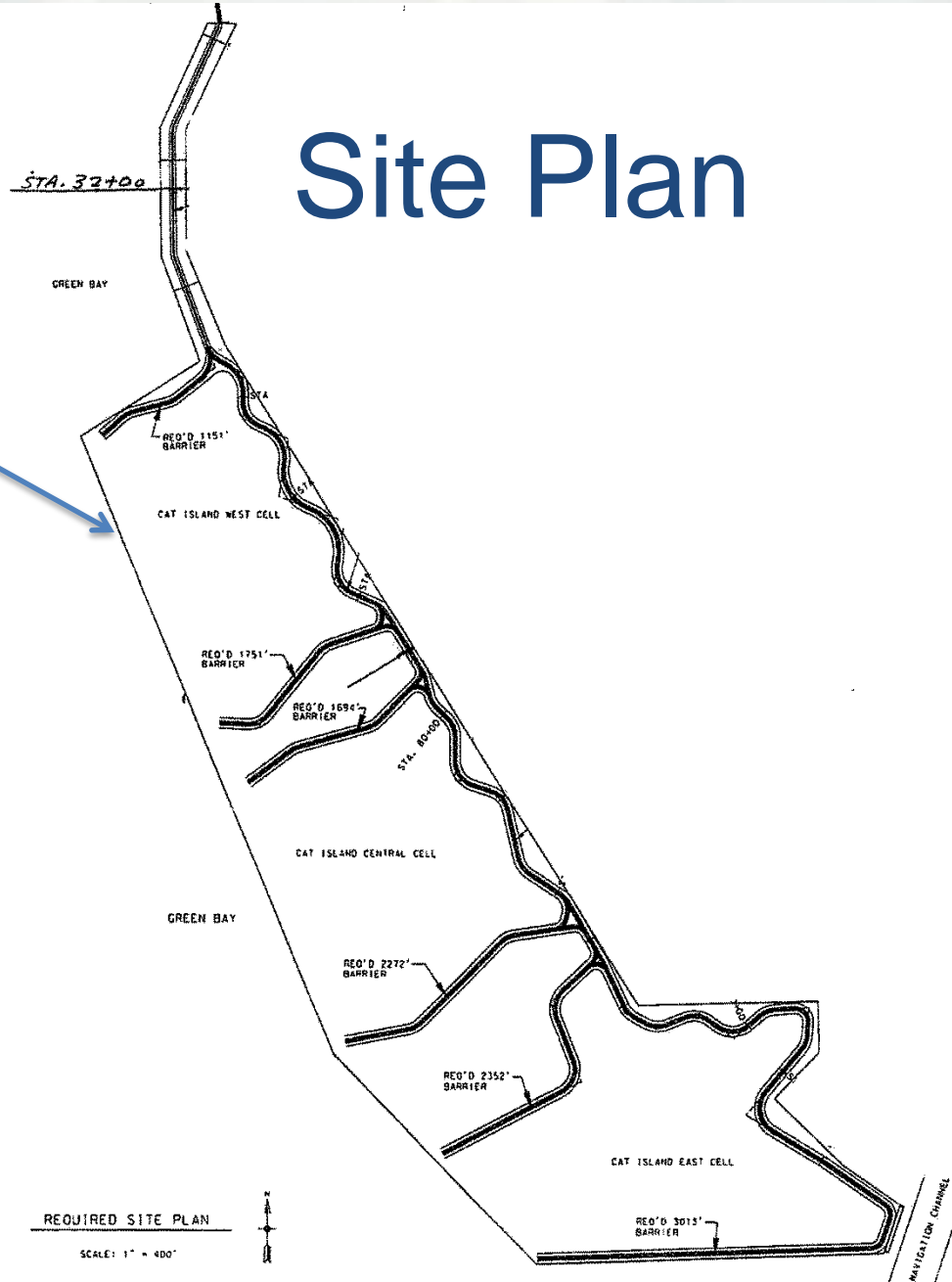
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Project Area in Green Bay

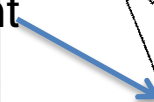


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Site Plan



Lake Bed Grant

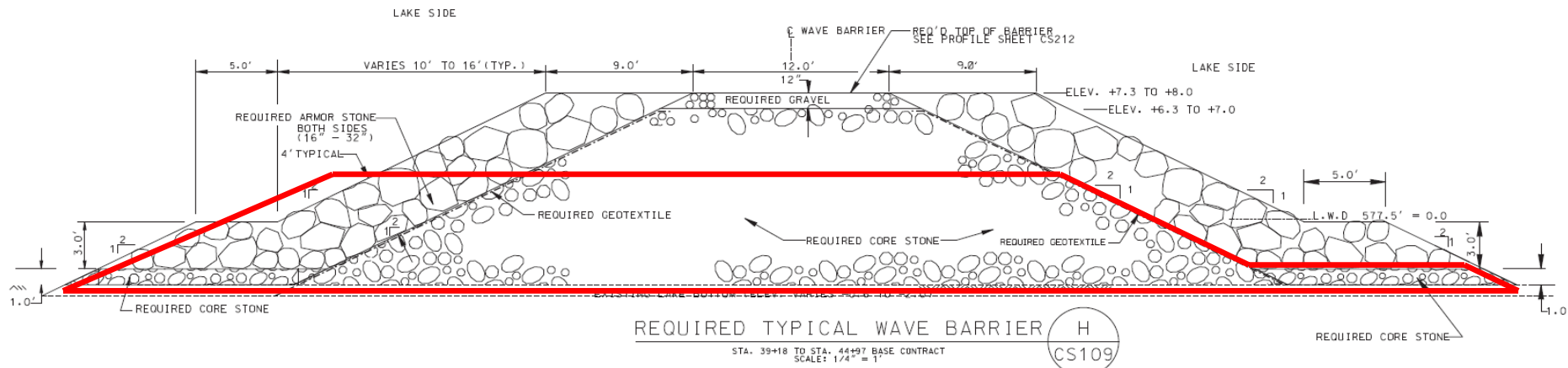


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Contractor Innovation

- Constructed the wave barrier to allow 2-way traffic during construction
 - ▶ Constructed lower and wider driving surface while working from the shore into the bay. Used the same quantity of stone required for final product
 - ▶ Never extended beyond the designed footprint
 - ▶ Faster material delivery to the placement sites
 - ▶ Stone was able to be placed directly on-site straight from the quarries instead of stockpiled in or near the wetlands
 - ▶ Reduced the stone handling, maintaining stone gradation by reducing breakage and reducing amount of QA testing
 - ▶ Improved trucking safety by elimination of lengthy backing up to placement area
 - ▶ Greatly reduced cost and time required for the project



Contractor Innovation

- Utilization of GPS technology for all stone placement
 - ▶ Reduced manpower needed for stone placement and surveying/cross sections, thus improving surveyor safety
 - ▶ Improve safety by eliminating employees in the immediate vicinity of heavy equipment and trucks
 - ▶ Real-time as-built data



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Construction Photos









07/31/2013

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01/16/2013

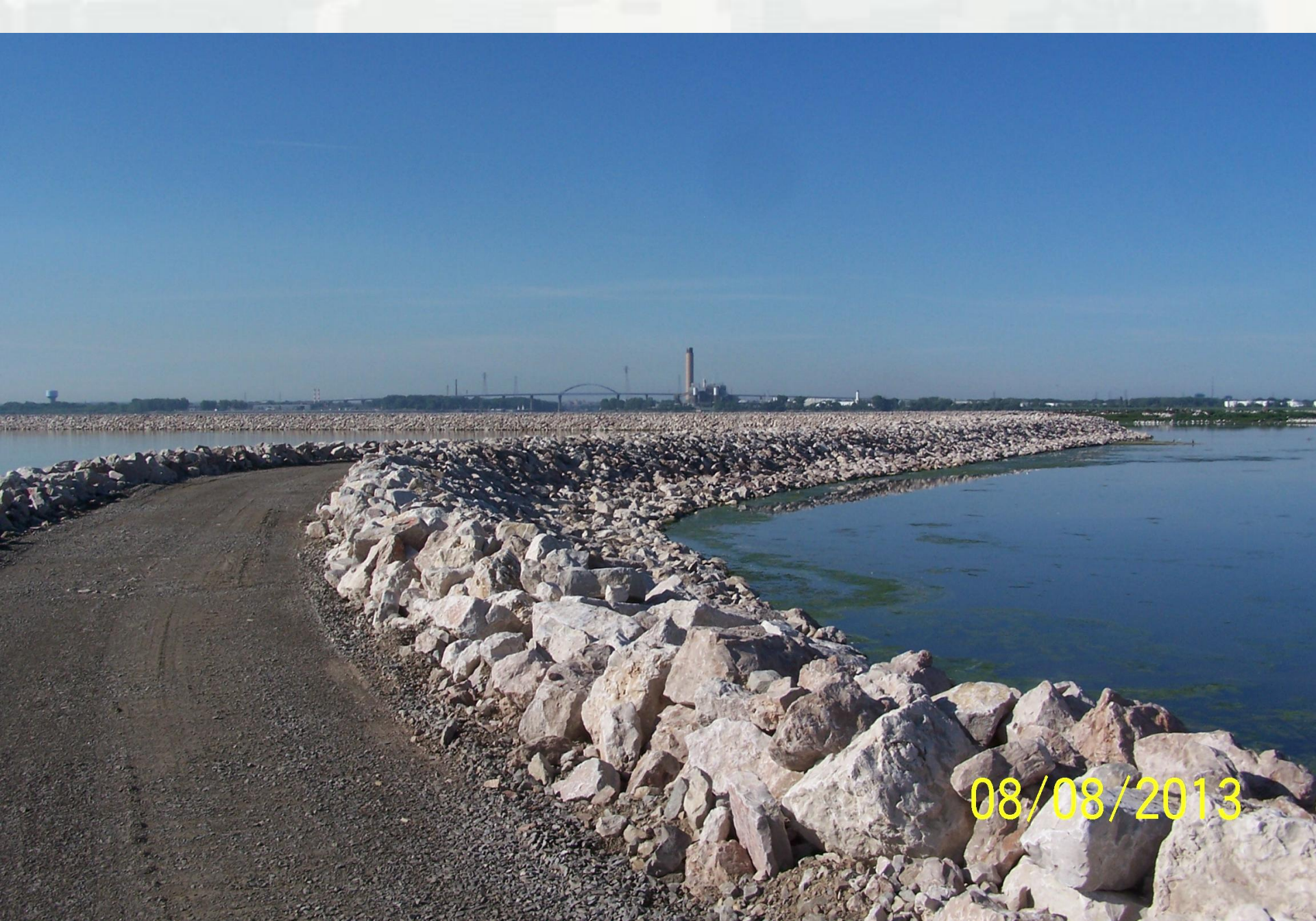
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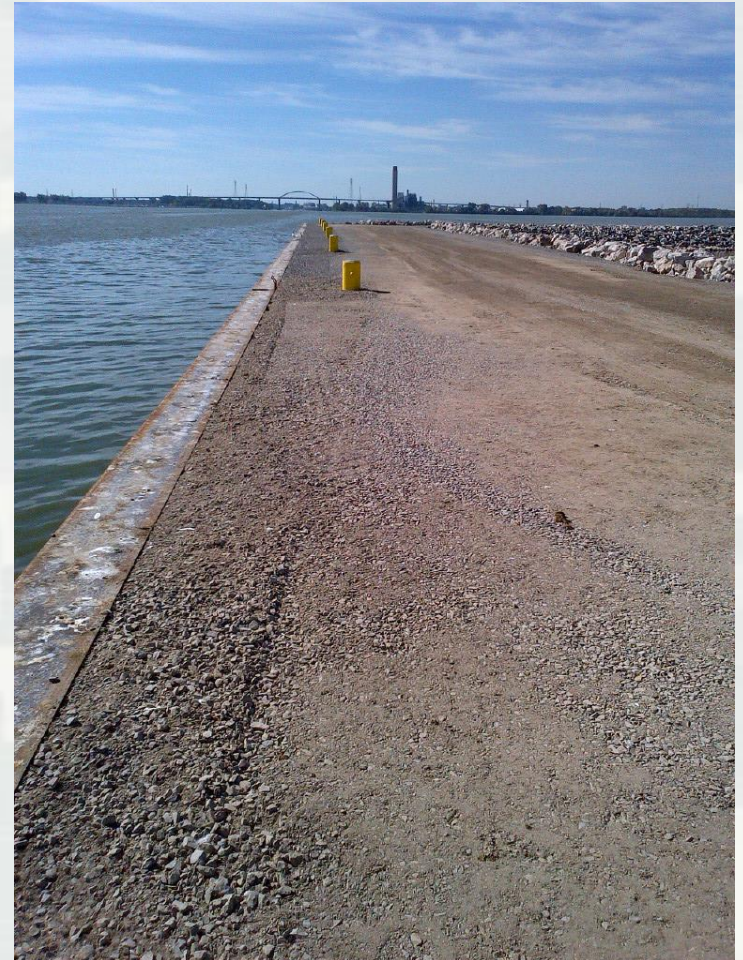
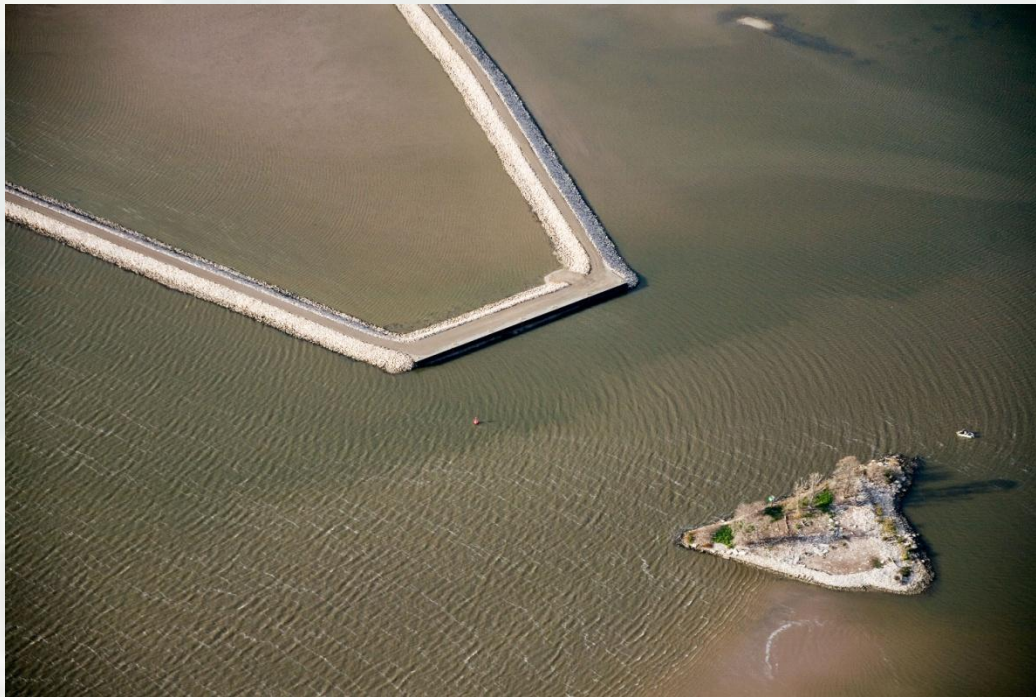


08/08/2013

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Contract Modifications

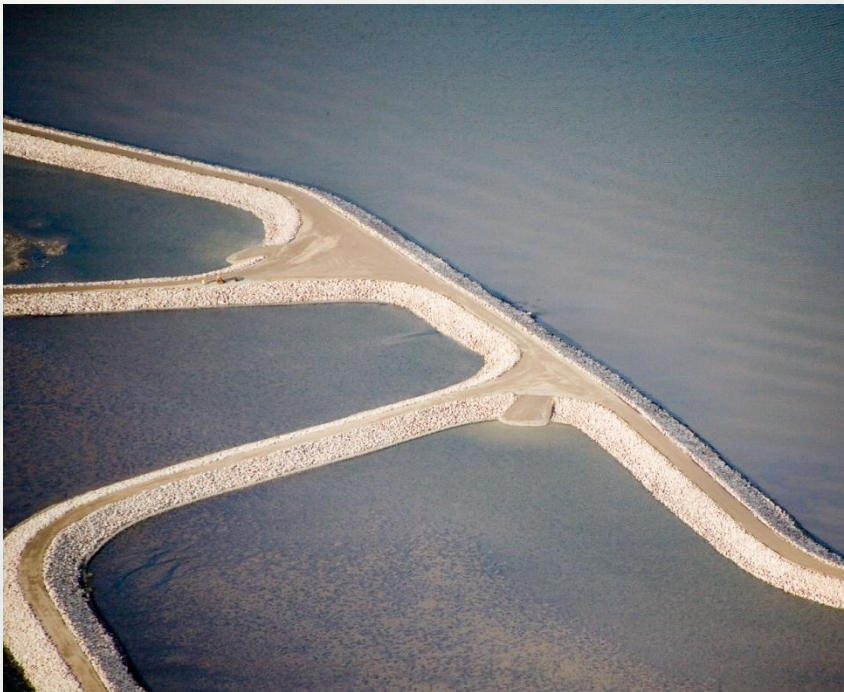
Off-Loading Facility



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Contract Modifications

Access Ramps



Safety Reflectors

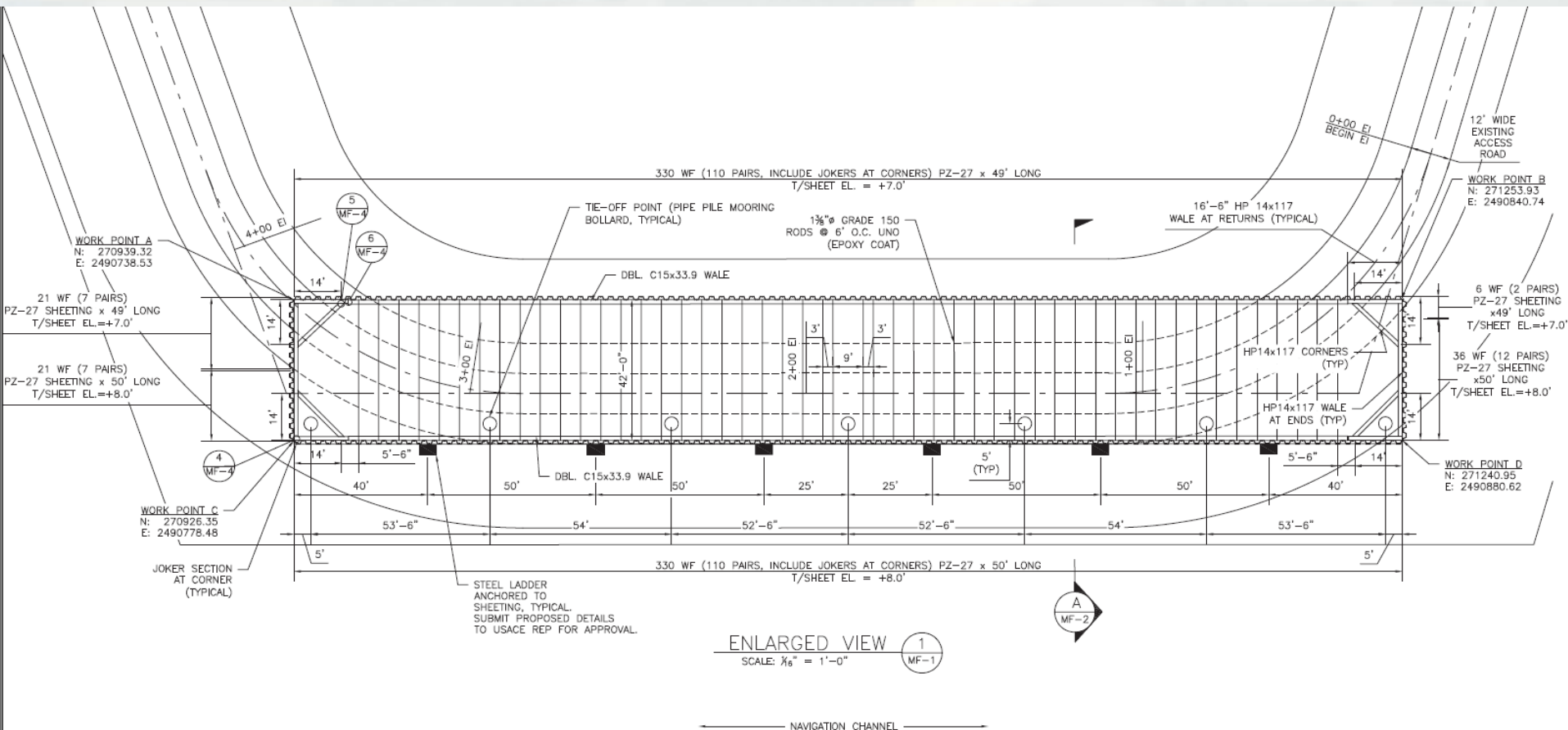


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Off-Loading Facility



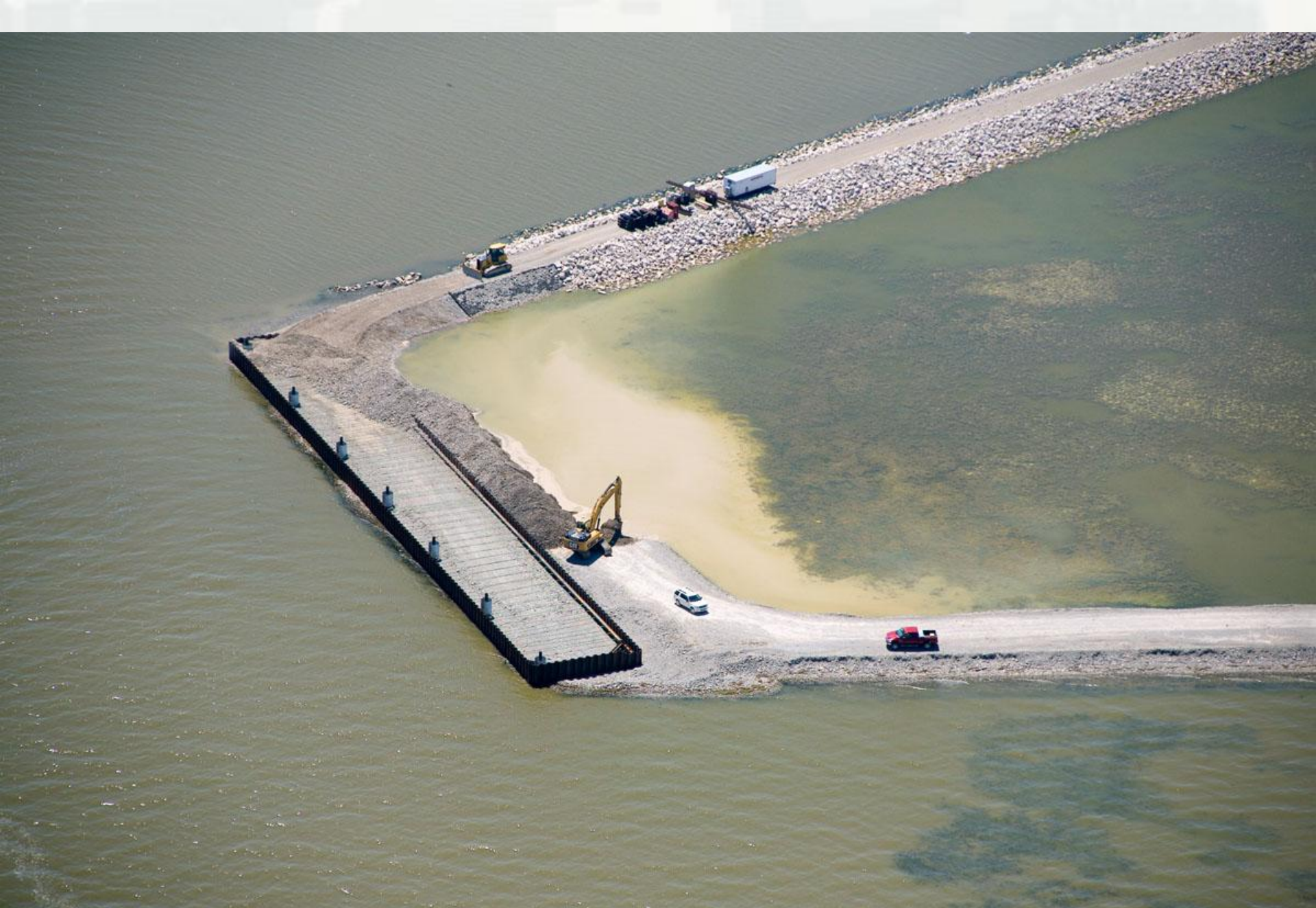
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Off-Loading Facility



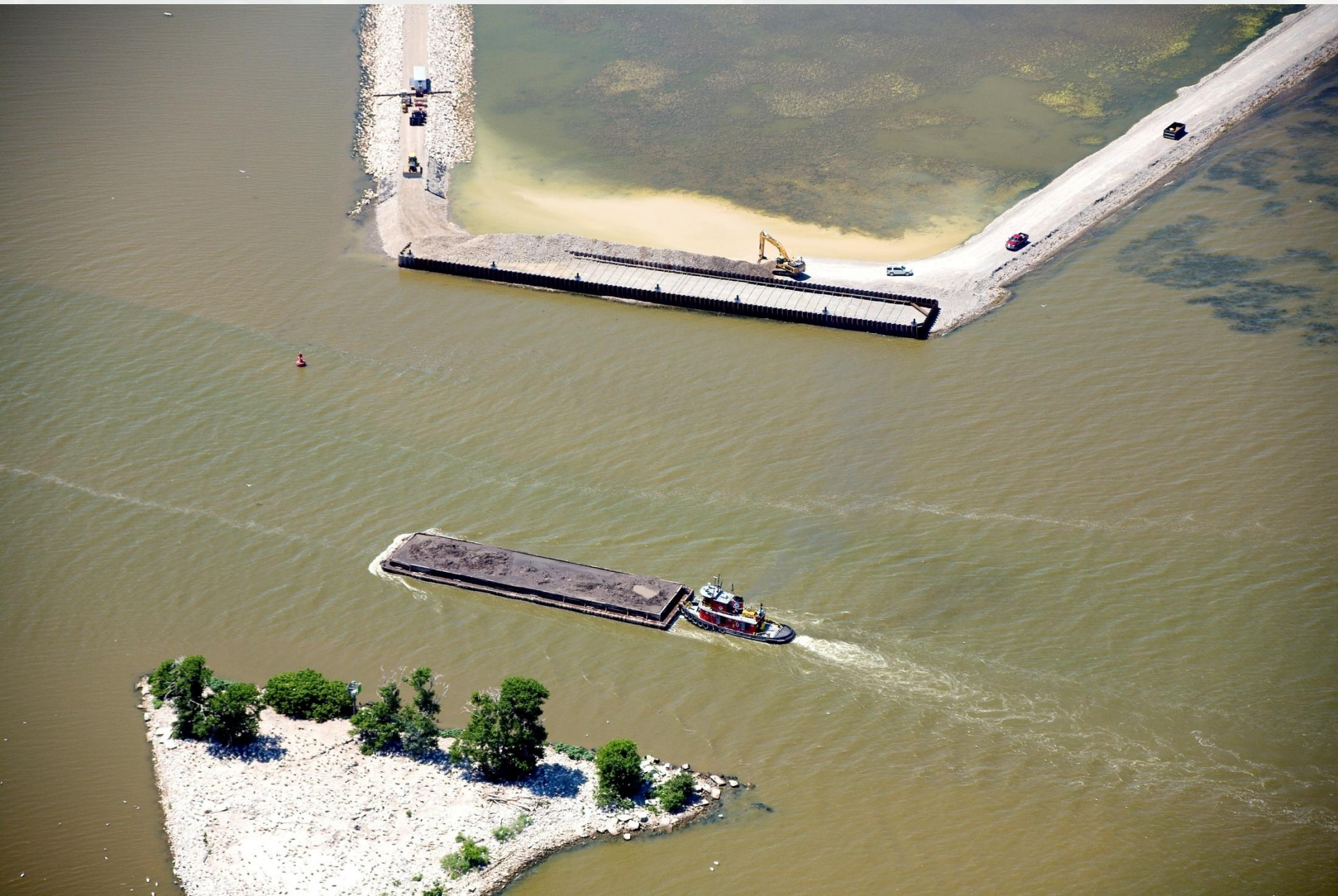


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Placement of approximately 400k cubic yards into the eastern most cell



Restoration of Lineville and Bayshore Roads



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Detroit District



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Basis for Project Funding

- WRDA 1986 requires the Corps to obtain a cost share partner for construction projects.
- The cost share for navigation projects is dependent on the depth of the Federal channel in the authorized project area.
- In the case of Cat Island
 - ▶ Federal Share 75% (initially during construction)
 - ▶ Brown County's Share 25% (initially).
 - ▶ After construction Brown County must pay 10% in cash payable over 30 years.

Final Cost Share

Federal – 65%

Brown County – 35%



Project Funding

- Pre-design Estimated Cost of Construction \$33M
- Post Design Estimated Cost of Construction \$26M
- Post Construction Cost Estimate \$17.2M
 - ▶ The winning contractor for the construction also happened to be the winning contractor for Brown County's stone supplier.
 - ▶ Lower water levels and a harder than expected lake bed.
 - ▶ Favorable bids due to contractor innovations.
- Cost Break Out
 - ▶ Brown County
 - \$4.3M in reimbursable grants
 - \$1.72M in cash payable over 30 years
 - ▶ USACE
 - \$8.3M in Great Lakes Restoration Initiative (GLRI) Funding
 - \$2.88M in Energy and Water Funding





**US Army Corps
of Engineers**

FY12 - Cat Island DMDF, Green Bay, WI

07 JAN 2014

Contract No. W911XK-12-C-0013
Green Bay, WI

Lake MI AO - Kewaunee Sub

Michels Foundations; a Division of Michels Corp

Schedule

Actual Contract Award:	9/19/2012
Actual Notice to Proceed:	10/3/2012
Original Required Completion:	5/1/2015
Current Required Completion:	5/1/2015
Actual Construction Completion:	12/19/2013
Original Scheduled BOD:	
Actual BOD:	12/19/2013
Scheduled Final Payment:	

0% CONTRACT TIME GROWTH

GREEN

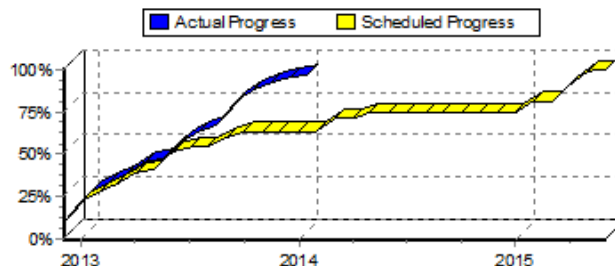
0% BOD TIME GROWTH

GREEN



Progress

Actual Progress:	92%
Scheduled Progress:	64%
Progress Payments to Date:	\$10,725,356.11

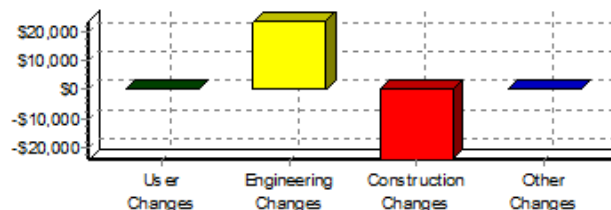


28% AHEAD OF SCHEDULE

GREEN

Funding

Award Contract with Options:	\$11,685,620.00
Modifications:	-\$4.70
Current Contract:	\$11,685,615.30
Pending Changes:	\$0.00
Estimated Contract:	\$11,685,615.30



0% COST GROWTH

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1 year,
4 months, and
12 days ahead
of schedule



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Questions?