

PART 3

INNOVATION AND LESSONS LEARNED ON A **PROJECT** LEVEL

The Aroostook Railroad



Impacts of
Aroostook Rail
Abandonment -
233 miles of track
in northern
Maine.

SAVE MAINE'S RAILWAY Jobs and Mills Depend on It!



“Save the Rail” Campaign



SAVE MAINE'S RAILWAY Jobs and Mills Depend on It!



For over 100 years the 151 miles of railway between Madawaska and Millinocket, and the spurs to Houlton and Presque Isle, has sustained jobs and manufacturing in Maine. It is a vital North-South transportation lifeline.



For business and for the environment, rail is the best way to move wood to mills and finished forest products to market. A number of other businesses also depend on rail. Without a solution more than **30,000 transport trucks** will be added to Maine roads. Jobs, mills, and future economic development will be in jeopardy.

What's at risk ...

- **19,000 JOBS**
- **\$1.15 BILLION/YEAR IN WAGES**
- **\$6.9 BILLION/YEAR FOREST PRODUCTS INDUSTRY**
- **34% GROSS STATE PRODUCT IN MANUFACTURING**

COMMUNITIES THAT NEED THE RAIL LINE

Madawaska	Lincoln	Skowhegan
Fort Kent	Jackman	Waterville
Van Buren	Dover Foxcroft	Bucksport
Portage Lake	Woodland	Searsport
Presque Isle	Lagrange	Rumford
Ashland	Old Town	Dixfield
Oakfield	Bethel	Jay
Houlton	Solon	Livemore Falls
New Limerick	Madison	Rockland
Millinocket	Bangor	Casco
East Millinocket	Hampden	Baldwin
Mattawamkeag	Pittsfield	Portland

**THE VOTE IS TODAY. ENCOURAGE YOUR LEGISLATOR TO SUPPORT THE BONDS.
KEEP MAINE'S RAILWAY LINE WORKING FOR MAINERS!**



ENGINEERED
WOODS



Arazoback
Partnership for Progress



KATAHDIN
CEDAR LOG HOMES

FraserPapers
Fraser Timber Limited

LEADERS
Encouraging American Development



OLDTOWN FUEL & FIBER



IRVING
WYO WOOLAND, LLC



SADC ON THE GO
Sustainable and Affordable
Durable Construction for 21st Century



PORTAGE
WOOD PRODUCTS, LLC



Domtar



Orion
TIMBERLANDS, LLC

BORALEX



MWC
Maine Wood Company



TWIN RIVERS
PAPER COMPANY



MOOSE RIVER
LUMBER

sappi

NMDC hosts meeting between MDOT, MM&A & Shippers. Level of interest is re-assessed.



New operator: Northern Maine Railway



Bridge opened in 2006 –
42 months from concept to completion



Courtesy of Cianbro Corp.

Waldo-
Hancock
Bridge
during initial
reconstruction
work:
spring 2002



June 2003:
Corroded
suspension
cables on
Waldo-
Hancock
Bridge



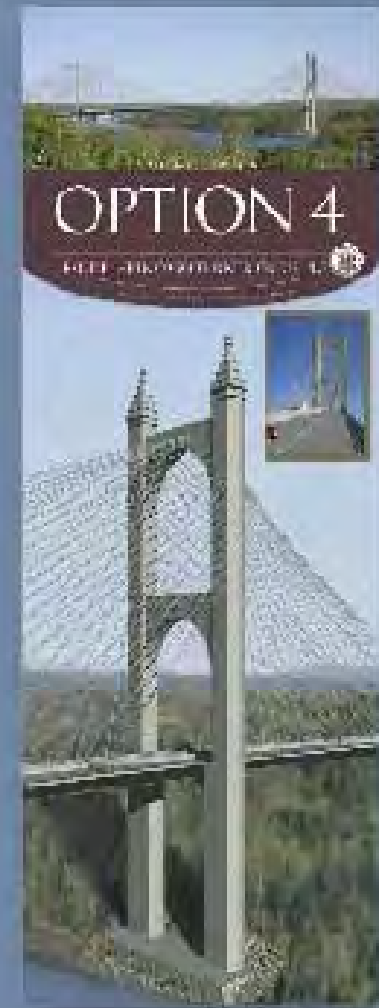
Posting resulted in 46-mile truck detour.



Sept. 2003:
Replacing a
historic bridge –
community
feelings run high



Option 1



Option 4

Tallest bridge
observatory in the
world

360-degree views of
Penobscot Bay

420 feet above
water

80,000+ visitors in
2010



Observation Deck (Vertical Trail)



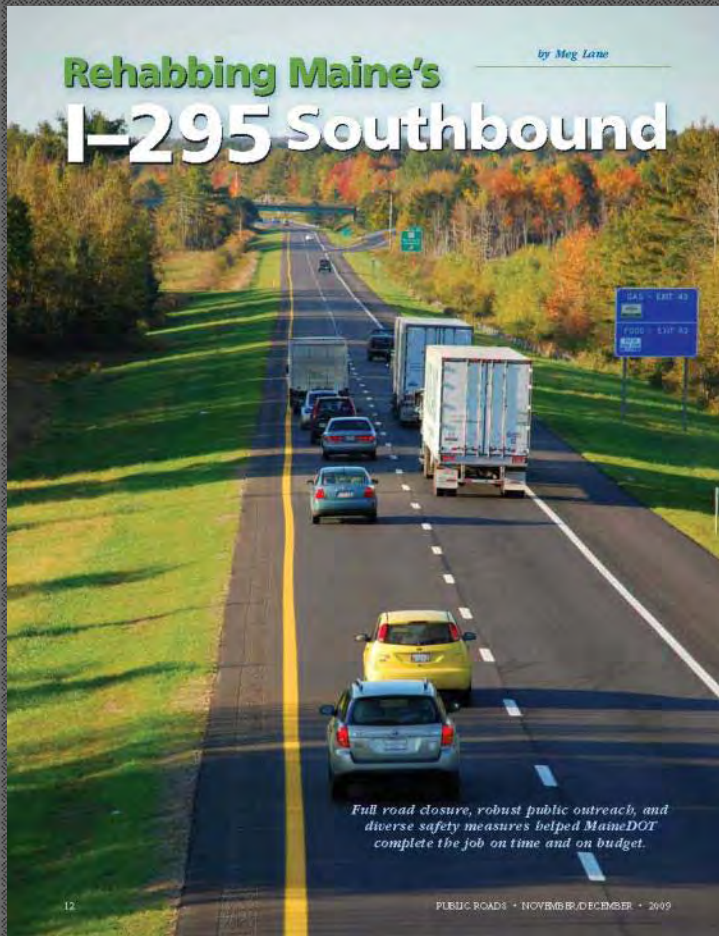
Located within a State park that includes Fort Knox, Maine's premier historic site. Managed by park personnel.



- Received 20 national and int'l awards
- Named top new bridge in America in 2004
- Featured at the International Bridge Conference, 2006
- Received ASCE Pankow Award for Innovation



Rehabilitation of I-295 SB & NB: Gardiner to Topsham



Full Closure of more than 18 miles of Interstate Highway Reduced Project Duration, Saved \$\$, and Ensured Safer Travel

Prior to Rehabilitation



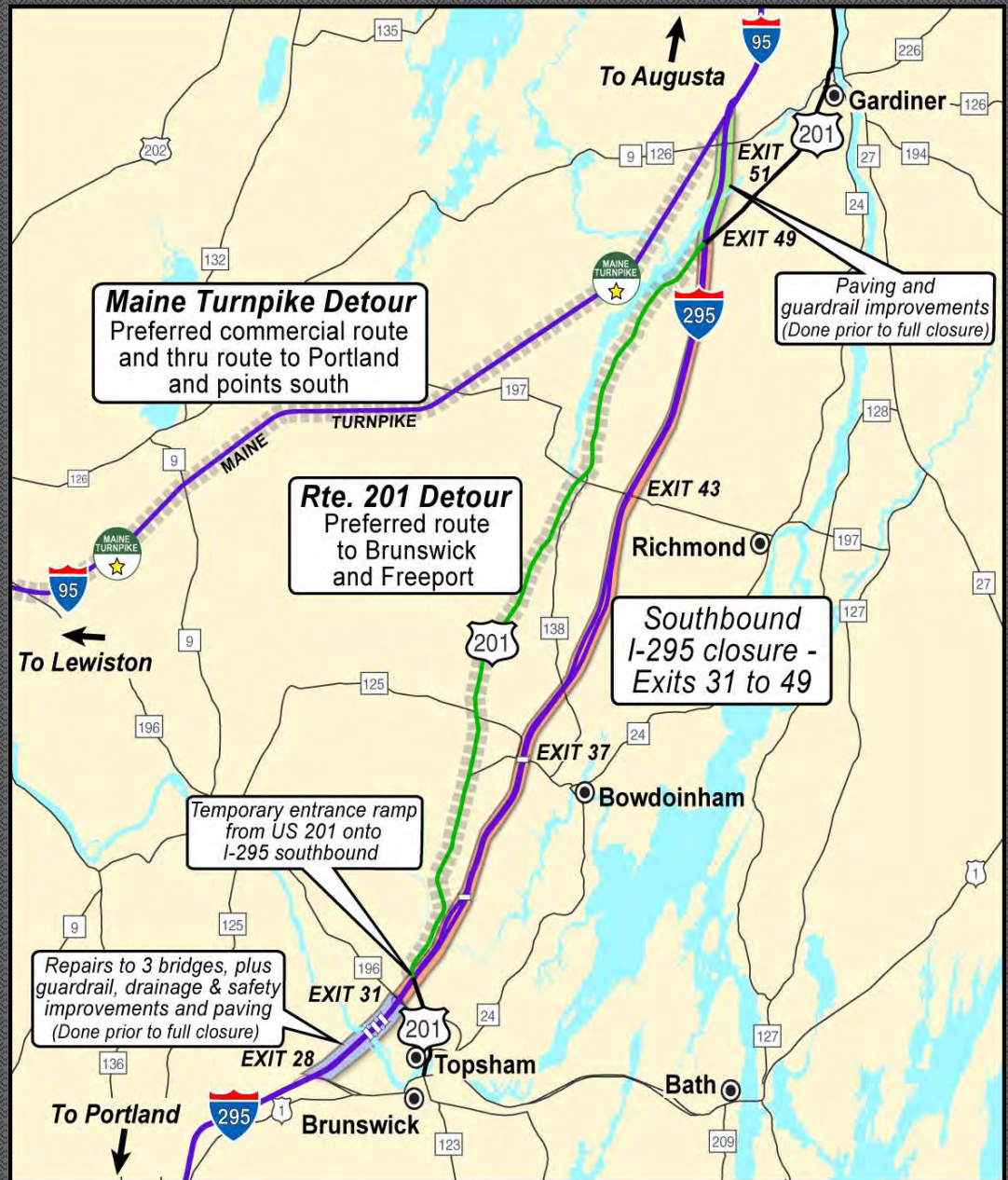
Courtesy of MaineDOT

Rehabilitation of I-295 SB & NB: Gardiner to Topsham



Courtesy of MaineDOT

Projected
completed in one
construction season
vs. 3 years.



Results: Public Perception

Hailed as “an example of how to do things right” and praise from key community members.

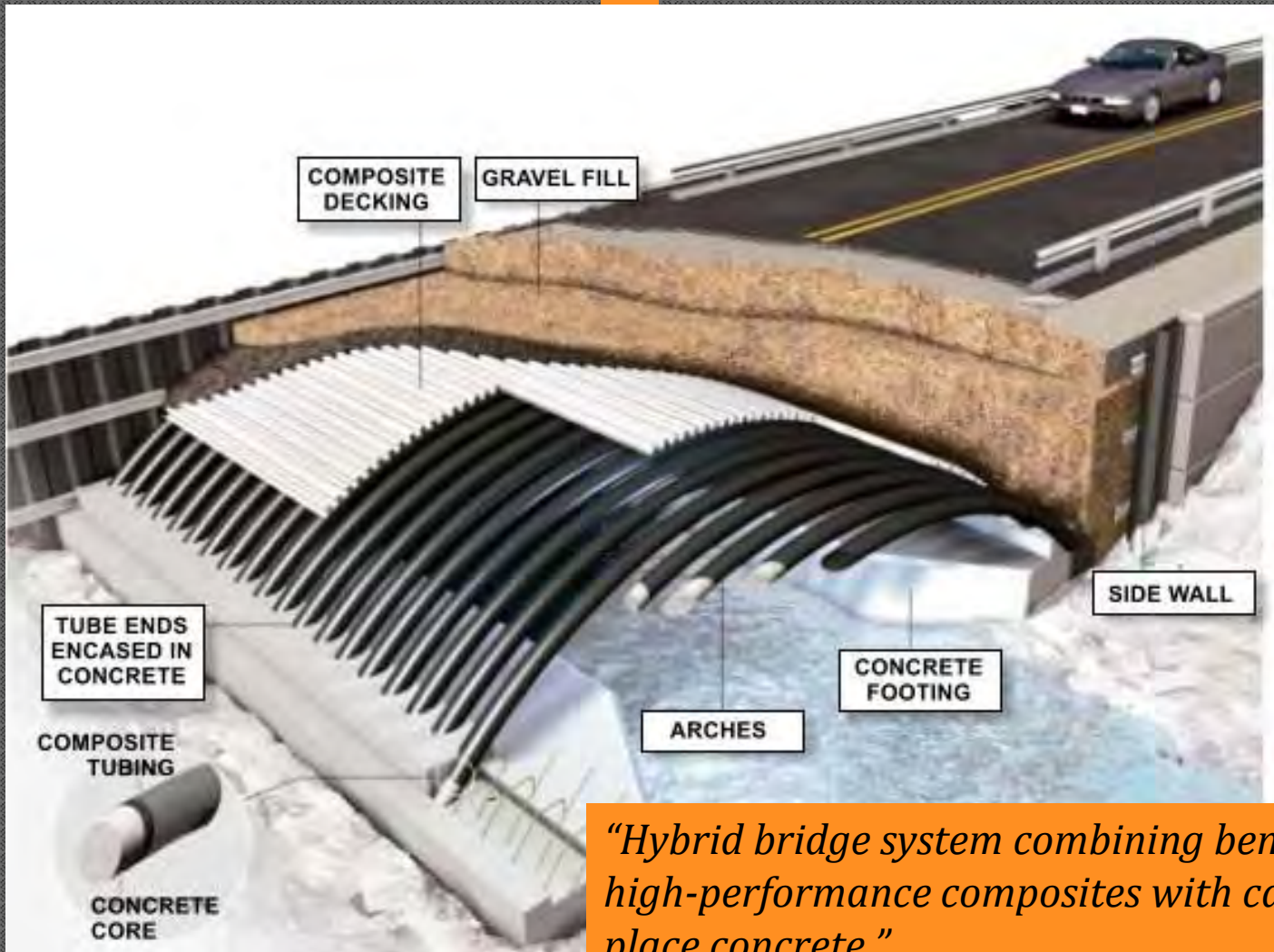
KENNEBEC  **JOURNAL**

- UMaine AEWComposites Center
 - 87,000 ft² facility
 - Researching Hybrid Composite Systems since 1996
 - Nearly 10 years development of Bridge-in-a-Backpack



Secretary of Transportation Ray LaHood Speaks about Bridge-in-a-Backpack at UMaine Press Event

Composite Arch “Bridge-in-a-Backpack” System



“Hybrid bridge system combining benefits of high-performance composites with cast-in-place concrete,”

Image Credit – NY Times/University of Maine

Courtesy of AIT

Third Generation Bridges



- Bradley, ME – Jenkins Bridge
 - 28' Span
 - Composite Panel Headwall
 - 14 Arches (12" Diameter)



- Auburn, ME – Royal River Bridge
 - 38' Span
 - Precast T-Wall Headwall
 - 13 Arches (12" Diameter)



- Belfast, ME – Perkins Bridge
 - 48' Span
 - Precast T-Wall Headwall
 - 16 Arches (15" Diameter)



- Hermon, ME – Tom Frost Memorial Bridge
 - 45' Span
 - Snowmobile/Pedestrian
 - 3 Arches (12" Diameter)





AASHTO Technology Implementation Group

AASHTO TIG - 2011 Focus Technology



American Society of Civil Engineers
2011 Charles Pankow Award for Innovation



2010 Award for Composites
Excellence
Most Creative Application



Engineering Excellence Award
Maine/National
Royal River Bridge, Auburn, ME
with Maine DOT &
Kleinfelder|SEA Consultants

Also recently featured in: ENR, Concrete International, Popular Science, Popular Mechanics, NY Times...

Longest composite bridge in the world: Boothbay Harbor, Maine HC Beam



Courtesy of HC Beam

Port of Searsport



Courtesy of MaineDOT

Sears Island



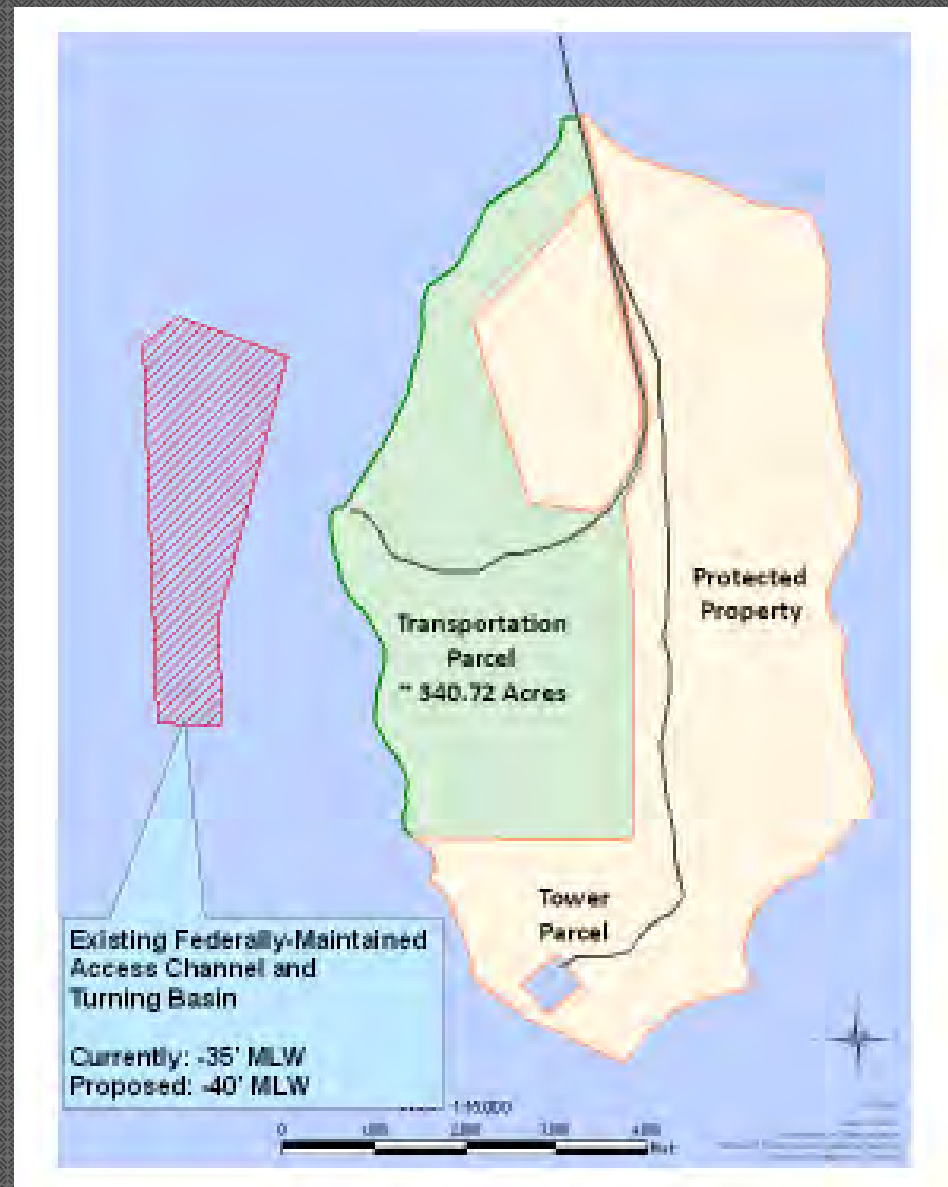
Courtesy of MaineDOT

Maine's Railroad Network





Source: MaineDOT

Compromise from “Consensus agreement”



Marketing Searsport to the World

PORT OF SEARSPORT, MAINE, USA
Access to Global Opportunity

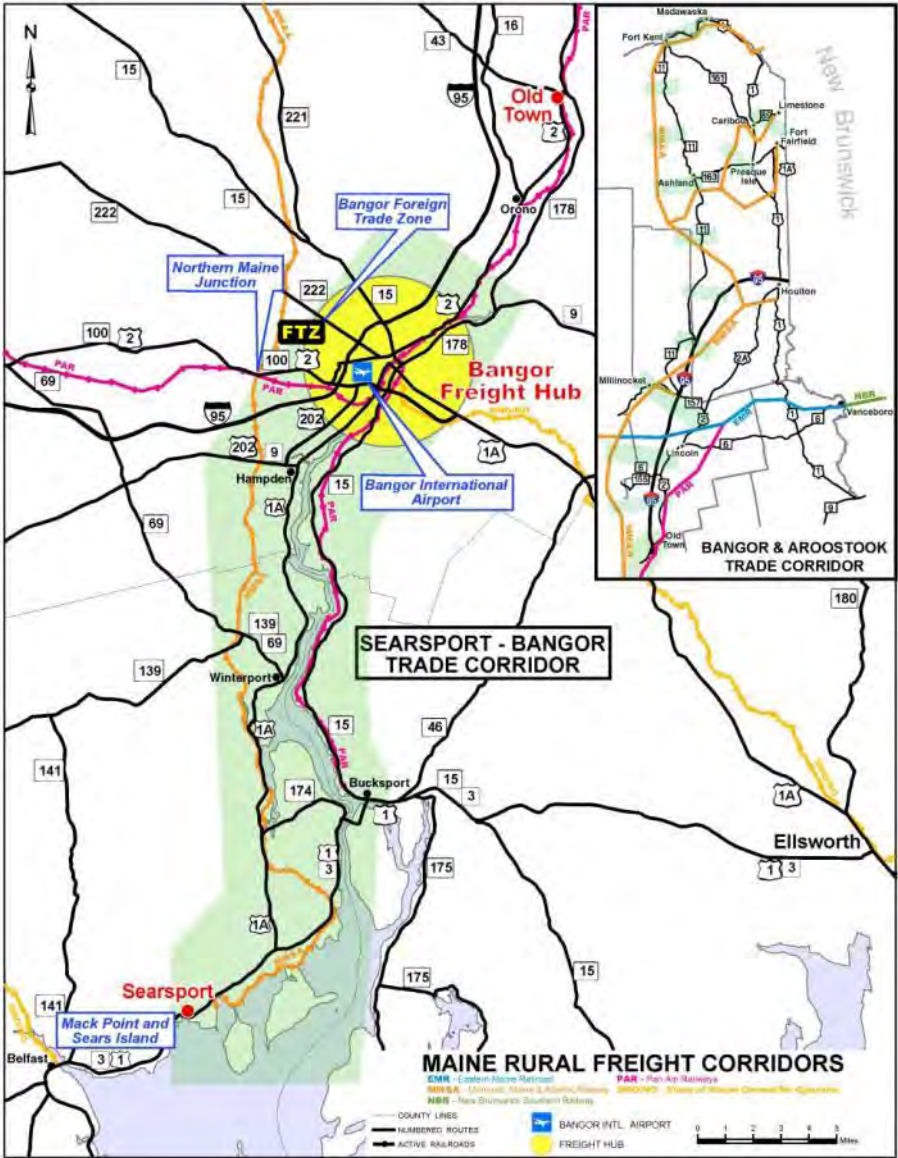


**MAINE
PORT
AUTHORITY**

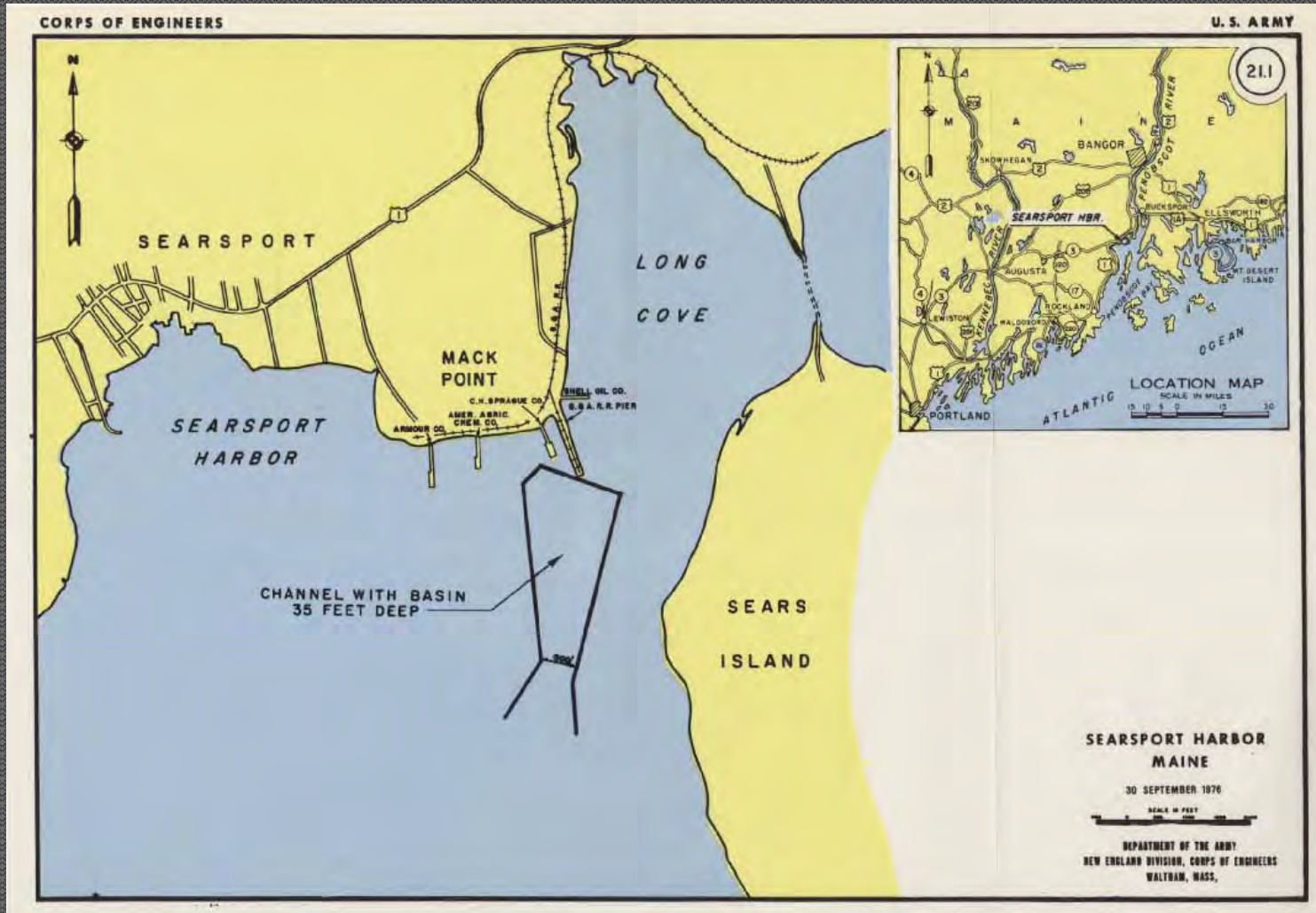
RFEI for Terminal Development and Operation at the Port of Searsport, Maine, USA

Bangor-to-Searsport Freight Corridor

Searsport-to-Bangor rail connections;
 Sears Island
 Inland port
 Port-to-rail
 Port-to-truck



Searsport Channel-Deepening Project



Courtesy of MaineDOT

