



APH / PPHTD / Upriver Sister Ports

Mid-West Logistic Alternative

True Gateway Terminal in Plaquemines, LA.
Innovative / Patented Container on Vessel Design
Strategically Located Upriver Port Network
Provides Significant Competitive Cost Advantages



Today's Issues & Tomorrow's Solutions

Today's Issues

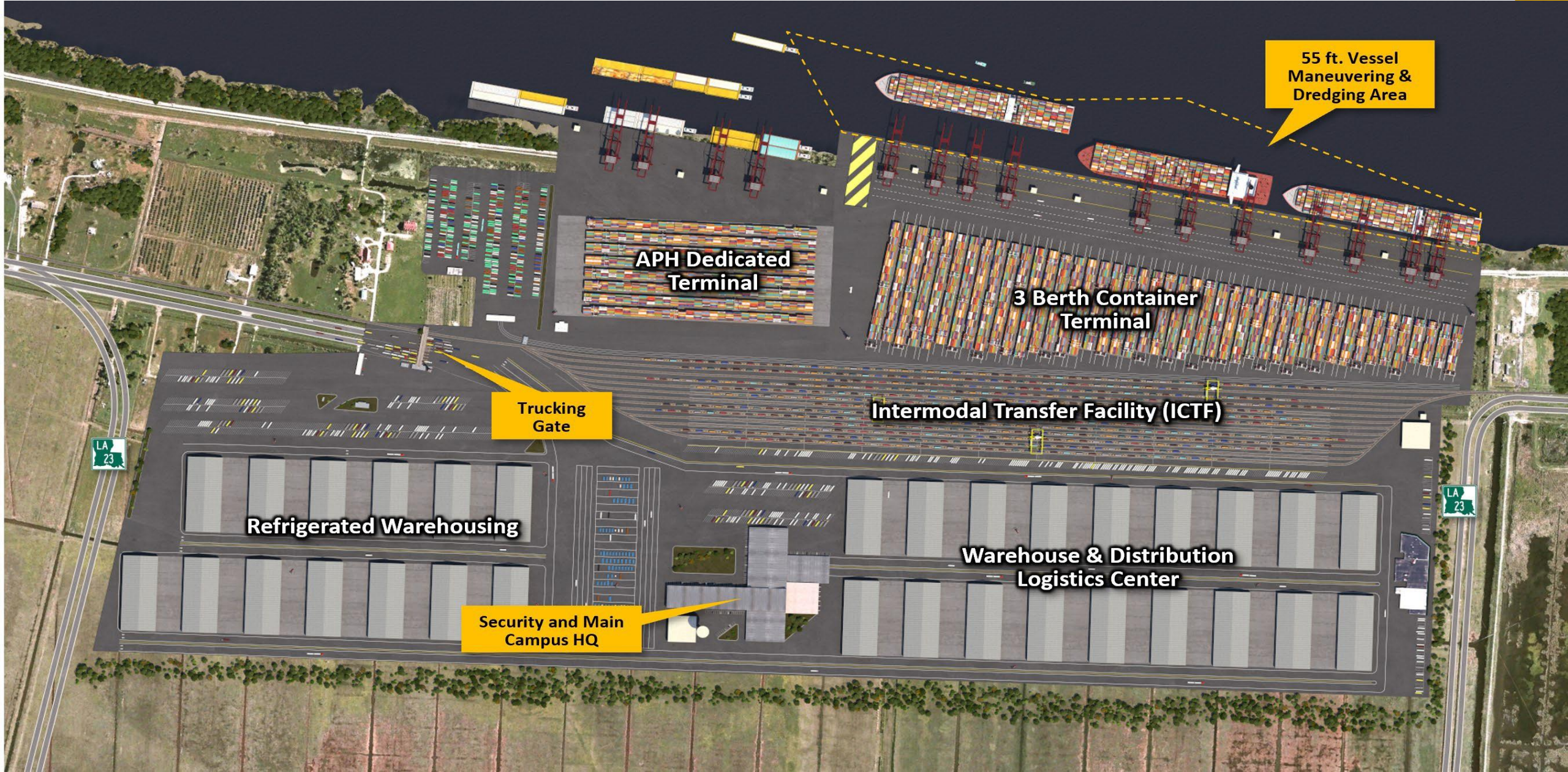
- **Container growth expected to double by 2030**
- **Take advantage of PC / Suez canal expansions**
- **Productivity / Cost of current terminals and transportation alternatives**
 - **Larger ocean vessels; Increasing handling costs; Intermodal reliability; labor issues**
 - **Increasing delays / dwell times; slower intermodal times and dray gate movements**
- **Growing Agricultural Product containerization demand**
- **Mid-West has no true Gateway Port (Patterns predominately via West and East Coasts)**

Tomorrow's Solutions

- **Implement a Mid-West vertically Integrated Transportation Solution**
 - **“Best of Class” Gateway terminal with adjacent DC’s; on dock transfers**
- **Linked with strategic “State of the Art” Upriver Terminals**
- **Linked with dedicated “State of the Art” Container on Vessels**
- **And achieve a system to handle high volume, cargo flexibility, “green” footprint, and lowest landed cost to our customers**



Louisiana Gulf Gateway (LAGG)



55 ft. Vessel
Maneuvering &
Dredging Area

**APH Dedicated
Terminal**

**3 Berth Container
Terminal**

**Trucking
Gate**

Intermodal Transfer Facility (ICTF)

Refrigerated Warehousing

**Warehouse & Distribution
Logistics Center**

**Security and Main
Campus HQ**



RCP DESIGN CONCEPT





Liner Specifications Memphis and Saint Louis

Length Overall	595+ ft.	Ballast Tanks	Eight (8)
Beam	134 ft.	Fuel	LNG
Height Above Water	48 ft. at 9' Draft	Fuel Capacity	1000cm (3 trips)
Speed (Upriver)	13 MPH	Power Plant	Diesel Electric
Operating Draft	Up to 10 ft.	Main Generators	Four (4) – 2880 kW each
DWT	13.7k - 15.7k LT (9-10' Drafts)	Horsepower	14,850
TEU Capacity	2375	Propulsion Drives (Stern)	Three (3) Drives
Reefer TEU Capacity	500+ Electric power as needed	Bow Drives	Two (2) (1000kw Each)
Crew Size	Expect 10-12	Deck Machinery	Electric
Trading Range	Mississippi River	Gross Registered Tons	> 10,000



Upriver Port Network

- **St. Louis Region**
- **Kansas City**
- **Memphis**
- **Cairo**
- **WAIA - Fort Smith**
- **Little Rock**
- **Jefferson City-Mo.**
- **Joliet**





Project “Competitiveness”

Independent third party studies verified the “project pre-feasibility” competitiveness of servicing Mid-West from PPHTD & Container on Vessel vs. Inter-modal from WC, EC and other GC Ports

- CK Americas – PPHTD vs. East and West Coast Ports to Mid-America
- Informa Economics- STC ISA AG Export Study

STC ISA Study Objective:

Determine competitiveness of grain exports via all water route to Asian Markets vs. current inter-modal to LA/LB pattern

Conclusions:

- Significant savings result from all water routing of containerized grains
- Longer trade routing LAGG to Asia offset by persistent LA/LB delays
- New system should increase demand for containers vs. bulk shipments
 - Non-GMO quality commodities increasing in popularity
 - Buyers procure smaller volumes for easier delivery upon arrival

Economic Results: ALL WATER TRANSPORTATION vs. INTER-MODAL: Asia Markets (% Saving with APH)

<u>Origin</u>	<u>APH Advantage</u>
• Memphis	40 %
• St. Louis	44 %



NEXT STEPS

Marine Operations to commence Sept 2021

- **Finalize MOUs with high impact BCOs by June 15**
- **Finalize MOU with Major Ocean Carrier / Terminal Operator by June 15**
 - **Terminal Design, Permitting**
- **Obtain ABS Approval In Principle - May 29**
- **Finalize Vessel Design Criteria**
- **Secure Financing for LAGG / APH / Upriver Ports**
- **Vendor Selection / Shipyard Bidding / Construction**