



**Plaquemines Port, Harbor & Terminal District
Louisiana Gulf Gateway Intermodal Complex
Development Summary**

Global Trade Demand and Opportunity



Plaquemines Port Harbor and Terminal District (“PPHTD”) is a State of Louisiana governmental entity charged with oversight and expansion of the Port’s resources and facilities. Located at the mouth of the Mississippi River, our port provides water access to 33 states – allowing businesses to benefit from barge, rail and interstate highway access across much of the United States. Plaquemines Port is perfectly positioned to serve the expanding global markets for oil & gas, grain, coal, chemicals and more. In addition, the port offers 14 major

anchorage and thousands of acres of properties available for development of container ports, bulk & break bulk operations, docks and much more. PPHTD is currently in development on several major expansion projects including a container port, liquid natural gas complex as well as a crude oil transport and storage terminal. PPHTD utilizes the Australian PPP model to facilitate development through its partnership with Louisiana 23 Development Company, LLC.

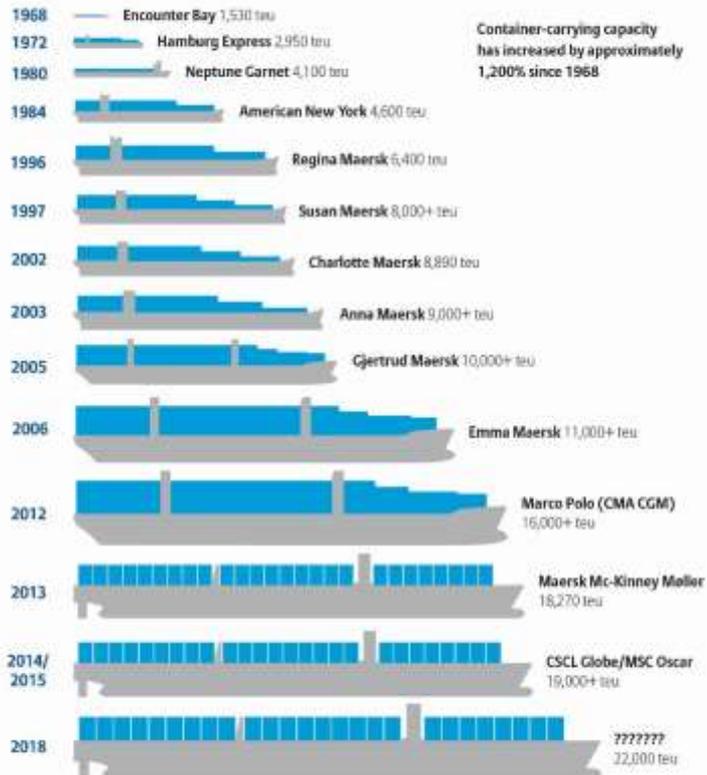


Louisiana 23 Development Company (“LA23”) is a privately held development firm based in Belle Chasse, Louisiana and the sole strategic developer for PPHTD. Our focus is on Class A development in the industrial, transportation and logistics markets between the Gulf Coast and the Midwest. We are currently active in 7 states including: Louisiana, Texas, Arkansas, Missouri, Tennessee, Iowa, and Illinois. Our firm is accelerating to become one of the most active industrial development firms in the country, with a goal of developing over 60,000,000 square feet of Class A industrial product in the next 6 years.

LA23 differentiates ourselves from our competition through a strong engineering and technical focus. We were founded by engineers with extensive experience in civil, environmental, geotech, construction and industrial process engineering as well as team members with deep expertise in logistics, labor and incentives. We also have a deep bench of strategic partners who provide LA23 with full service engineering support, which is a further source of competitive advantage. Our team’s broad experience enables us to create long term value for our clients.

Growing Trade Demand and Opportunity

50 years of Container Ship Growth



Graphic: Allianz Global Corporate & Specialty
 Approximate ship capacity data: Container-traffic.com

Just How **BIG** is the new Triple E Container Ship?

The new Maersk ships are so big that they can only fit in a select number of ports around the world.

- The new Triple E line: 400 metres
- The Eiffel Tower: 324 metres
- The Titanic: 269 metres
- Boeing 777: 73.9 metres
- Human height: 1.7 metres
- The Triple E can fit 18,000 containers.

*Drawings Not to Scale

Recent Shifts in Trade Patterns

- Ocean Carrier Alliances = Fewer / Larger Vessels
 - The Main Three
 - 2M Alliance: MSC, Maersk, Hamburg Sud, Hyundai
 - Ocean Alliance: CMA-CGM, APL, COSCO, China Shipping, OOCL, Evergreen
 - The Alliance: NYK Group, “K” Line, MOL, Yang Ming, Hapag-Lloyd, UASC
 - 53 vessels >20,000 TEU maximum capacity operational
 - 42 vessels >20,000 TEU on order for delivery 2019-2022
- Existing Gulf Coast Ports Have Inherent Inefficiencies:
 - Originally built for smaller vessels
 - New Orleans 9,500 TEU
 - Houston >9,000 TEU 1x/week
 - Tamp 9,500 TEU
 - Have limited expansion capability
 - Growing dwell times and intermodal delays

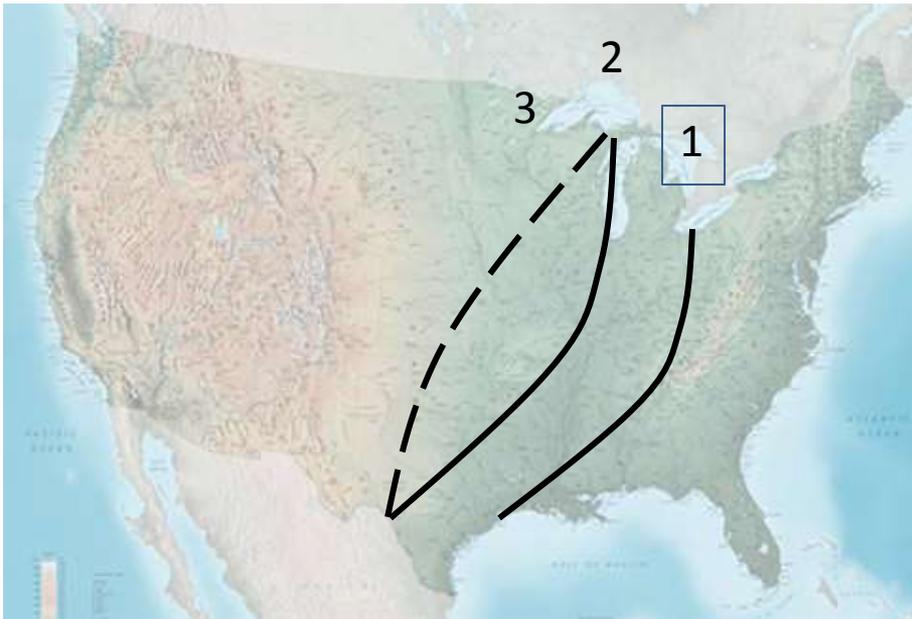


Mid-West Market Overview

5th largest GDP in the world



Mid-West Market Summary



Dashed line represents preliminary feasibility study area of impact by PPHTD port project with connectivity by rail and the APH vessel on the Mississippi River and tributary system.

1. Pre-expansion only 46% of the US was services by ports east of line. Maximum 4,800 TEU through canal.
2. Post-expansion increased to 64% of the US was serviced by ports east of line. Maximum 14,600 TEU through canal.
3. PPHTD project increases to 75% of the US serviced by ports east of the line. Maximum >20,000 TEU into GOM with 3rd expansion of canal.



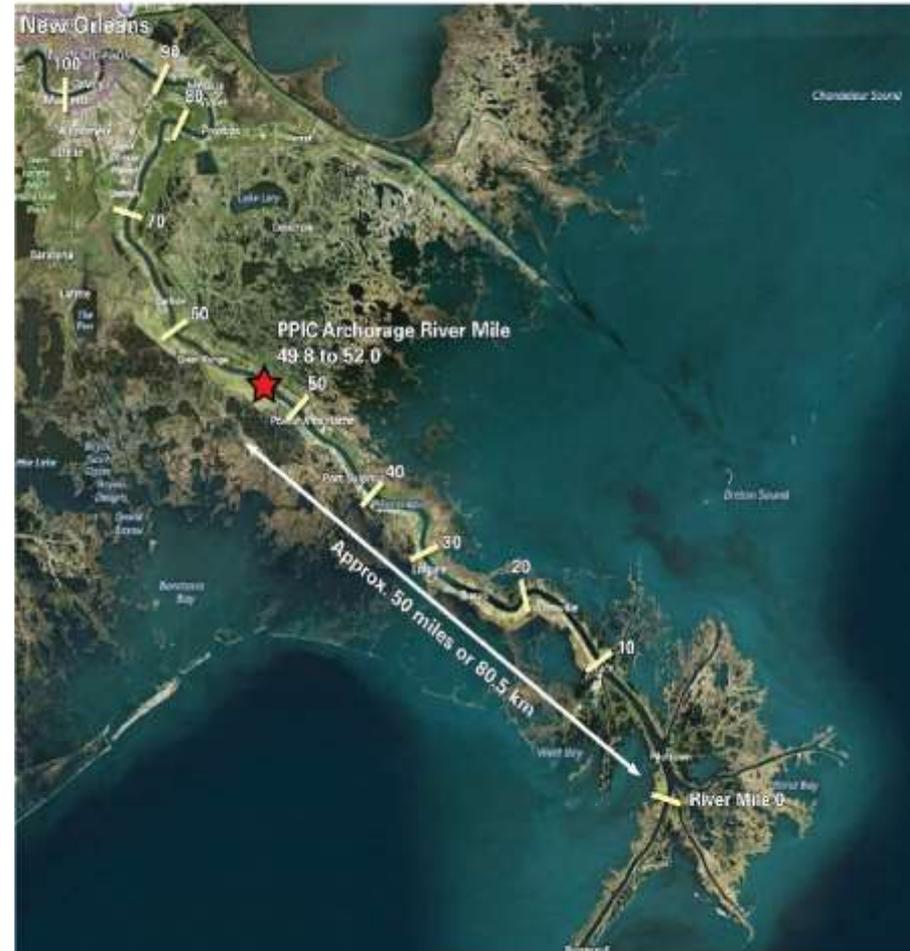
Plaquemines Port, Harbor & Terminal District Overview

PPHTD-First 100 miles of the River

- **Nearest port to the Midwest, saving 50 miles of river transit to next nearest port**
- 8,000 acres for development on West Bank of river
- Southernmost deep draft port on Mississippi River (55 ft.)
- Largest part of river averaging no less than 2,500 feet
- No air draft restrictions
- Full intermodal connectivity
- Rural setting with positive public support
- Jobs and taxes

Sites suitable for:

- Gas processing and refining
- Manufacturing
- Bulk commodities, including agricultural products
- Tank farms
- Container terminals with on dock rail and logistics park
- Southern terminus for all water river transportation
- Distributions centers
- LNG export terminal



Plaquemines Port, Harbor & Terminal District Overview-Verticals

Container Terminal

Need exists for a strategic new maritime container terminal in the lower Mississippi River that can handle the largest vessels moving goods from Asia. The LAGG container terminal provides a competitive alternative to the container traffic needs of Dallas/ Ft. Worth among other metropolitan regions

Fully constructed, the terminal will comprise of:

- 900 acres on more than two miles of Mississippi River frontage
- Three mega shipberths
- Two inland vessel berths
- Eight unit trains of on dock capacity

\$1.2 Billion



LNG

Two liquified natural gas (LNG) facilities are currently in development with PPHTD jurisdiction. Venture Global is finalizing a FERC review and is expected to break ground in 4Q19 and deliver 44 million metric tons per annum (MMTPA) within five years. Pointe LNG, has completed pre-FERC filings. The development group is assisting Pointe LNG with commercial offtake agreements and financing options.

- Common carrier pipelines deliver gas feedstock from offshore production as well as the Marcellus and Haynesville plays

\$18.5 Billion



Short line Railroad

Expansion of the Gulf Coast short line railroad in a joint venture with the current regional operator and industry leader

- The railroad currently serves over 20 switching and industrial customers and is the only railroad on the west bank of the Mississippi River
- Predominant shipments include a variety of food products, oils, grains petroleum products, chemicals and steel

\$2.5 Billion



Air Cargo Terminal

The US Navy has agreed to allow for dual use of the current NAS Belle Chasse facility. This allows the development of a previous non-encroachment zone with commercial entities. We have also entered into agreements with existing land owners adjacent to the Naval Air Station to develop an air cargo terminal that is connected to both rail and major highways in the New Orleans region.

- The Naval Air Station makes available both a 6,000 ft and 10,000 ft runway
- Interest to partner already exists from major air cargo operators

\$1.5 Billion



Agricultural Bulk Terminal

Louisiana Agricultural Terminals will build out additional grain elevators and ocean going terminal capacity to service global food processing and commodities trading corporations and cooperatives to transport agricultural commodities, such as soybeans, oilseeds, corn, wheat, sugar, milo, oats, rice, and barley throughout the world.

- Port of South Louisiana is at capacity

\$1.0 Billion



Plaquemines Port, Harbor & Terminal District Overview-Verticals

Warehousing

The current Master Plan calls for the development of three campuses. The construction will be primarily driven by the commercial viability, with limited spec builds. Additionally, we expect the need for 30%-40% refrigerated space.

- Northern campus will service the air cargo terminal, rail corridor, and highway access with 12 mm sq. ft.
- Central campus will service the secondary handling facility with rail at 14 mm sq ft.
- Southern campus will service the container terminal with rail at 7 mm sq.ft.

\$2.5 Billion



Specialty Chemical

The site setting and access to various modes of transportation and feedstocks allows for the development of a variety of specialty chemical plants. As one of the primary export products, the region currently supports this industry and there is a need for additional facilities.

- Plastic resins and pellets
- Urea, ammonia and other fertilizer products

\$1.5 Billion



Methanol

Currently there are two separate facilities that are in development within the PPHTD jurisdiction. Additional facilities with respect to methanol production are under consideration due to the location and access to feedstocks.

- IGP Methanol is proposed directly north of the southern campus.
- Central campus will service the secondary handling facility with rail at 14 mm sq. ft.
- Southern campus will service the container terminal with rail at 7 mm sq.ft.

\$1.5 Billion



Automotive

Automotive imports are currently managed within the east and west coast port facilities such as Baltimore and Jacksonville. The current operations are limited on land space and access to ultra deep draft vessels. The southern campus has dock capacity, rail and dry access, along nearly 1,000 acres of land which is available for temporary storage and management.

\$0.5 Billion



Recycling

Access to deep draft vessels within 100 miles of the Gulf of Mexico waters opens the ship and vessel recycling market. Sufficient land area, limited population and nearby terminal operations make for the development of a large-scale recycling facility a likely target. Additionally, the ability to load the recycled material into containers, or in large billets for transportation to Asia are advantageous.

\$0.75 Billion



Multimodal Connection

The Louisiana Gulf Gateway facilities have access to all modes of transportation:

- **Deepwater Marine** – Direct access to Gulf of Mexico with similar aperture to Panama Canal
- **Inland Marine** – Exclusive arrangement with APH innovative Container on Vessel for Mississippi River and tributaries
- **Rail** – Class 1 access to: BNSF, CN, CSX, NS, UP, and KCS
- **Highway** – LA Hwy 23 direct ties into US I-49 at New Orleans
- **Air** – Commercial air cargo at NAS Belle Chasse – JRB New Orleans
- **Pipeline** – Comprehensive pipeline network for both raw and refined products



Plaquemines Port, Harbor & Terminal District Development Plan

- 3 primary campus (North, Central, and South) along west bank
- Intermodal connectors
 - Improved rail capacity – up to 15 unit trains per day in and out
 - 4-lane highway with direct access to US interstate highway system
- Northern campus
 - Air cargo terminal with access to existing 6,000 ft and 10,000 ft runways
 - 10M square feet of warehouse space
- Central campus
 - Plaquemines Liquids Terminal
 - Secondary handling facility - 15M square feet of warehouse space
- Southern campus
 - 1,000 acre container terminal
 - Adjacent 7M square foot logistics park
 - Expandable terminal footprint
 - Venture Global LNG facility
 - Dry bulk handing facilities



Northern Campus - Commercial Air Cargo Terminal

- 10 million square feet of warehousing
- Distribution centers
- Intermodal transfer facility
- Rail connectivity to southern campus
- NAS-JRB New Orleans
 - 10,000 ft runway
 - 6,000 ft runway



Central Campus – Secondary Handling Facility

- 15 million square feet of warehousing
- Distribution centers
- Intermodal transfer facility
- Rail connectivity to southern campus and Avondale facility
- Direct access to Highway 23



Central Campus - Plaquemines Liquids Terminal

- 20-million barrel capacity
- Suez class dock at facility
- Connectivity through Seahorse and Pelican pipelines
- Direct connect to SPM for VLCC
- Estimated 30 million barrel per month throughput capacity

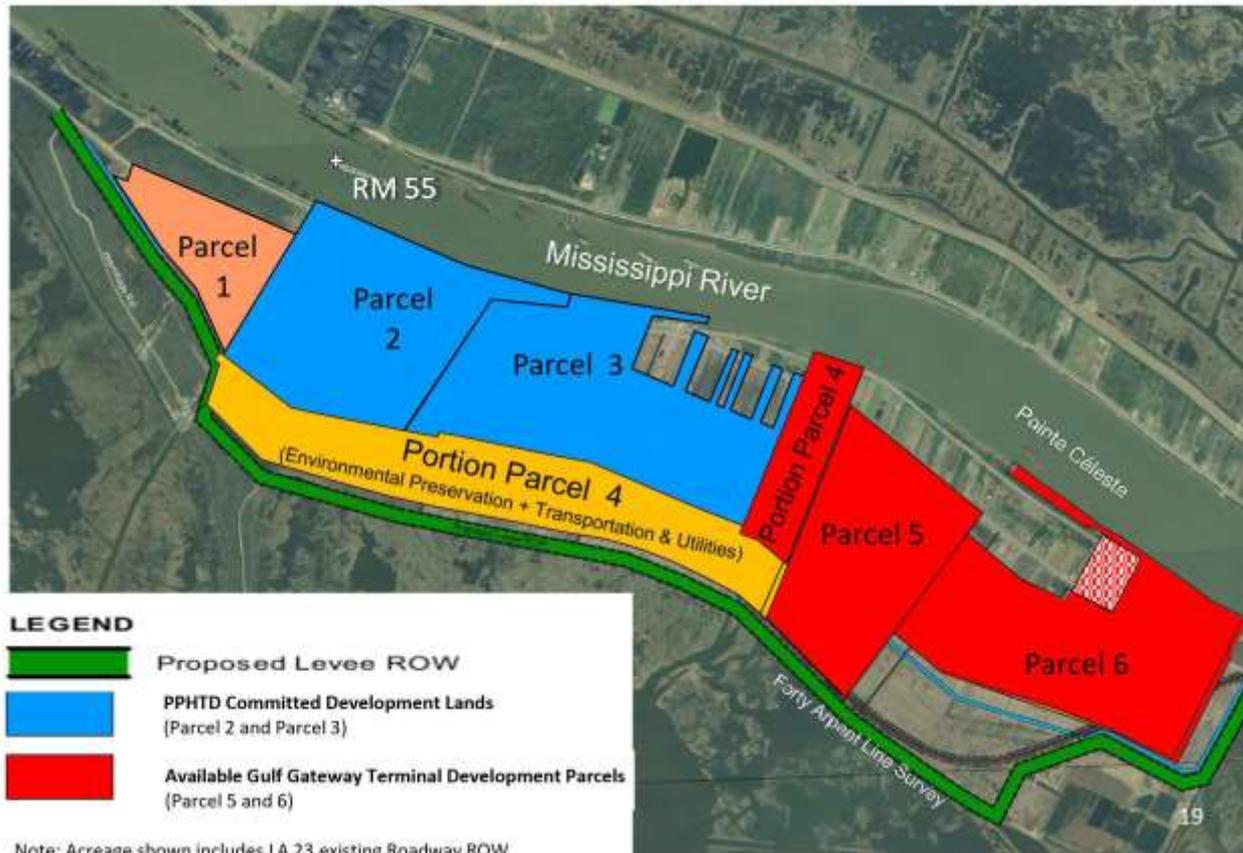


Southern Campus

The Louisiana Gulf Gateway southern campus attributes:

- **Area** – 5,500 acres
- **River Frontage** – 21,620 feet
- **River Dimension** – 55-foot to 113-foot depth; 2,600-foot width
- **Air Draft** - unrestricted
- **Flood Protection** – Existing along river; federal back levee under construction; minimal seasonal wind and wave action
- **Fuel** – LNG bunkering on campus

USACE deepening project 2019 Federal WorkPlan
NOV flood protection completion estimated 4Q20



Southern Campus - Venture Global LNG Facility

- Plaquemines LNG project – 20 MMTPA
- Delta LNG Project – 24 MMTPA
- Dedicated natural gas feed stock
- On dock loading capacity for 3 vessels



Southern Campus – Louisiana Gulf Gateway Intermodal Complex

- ✓ Modern and competitive labor agreement and work rules
- ✓ Seamless multimodal conductivity
- ✓ On dock intermodal rail integration and capacity
- ✓ Adjacent on dock logistics-distribution center park
- ✓ Minimum semi-automation
- ✓ Environmentally sustainable
- ✓ Information Technology (IT) platforms:
 - ✓ Transparency
 - ✓ Security
 - ✓ Cyber protection
 - ✓ Vertically integrated logistics solutions
 - ✓ Satisfy “Cold Iron: Low Sulphur, LNG bunkering:



RESULT: OPTIMIZED LOGISTICS SERVICE PROVIDER

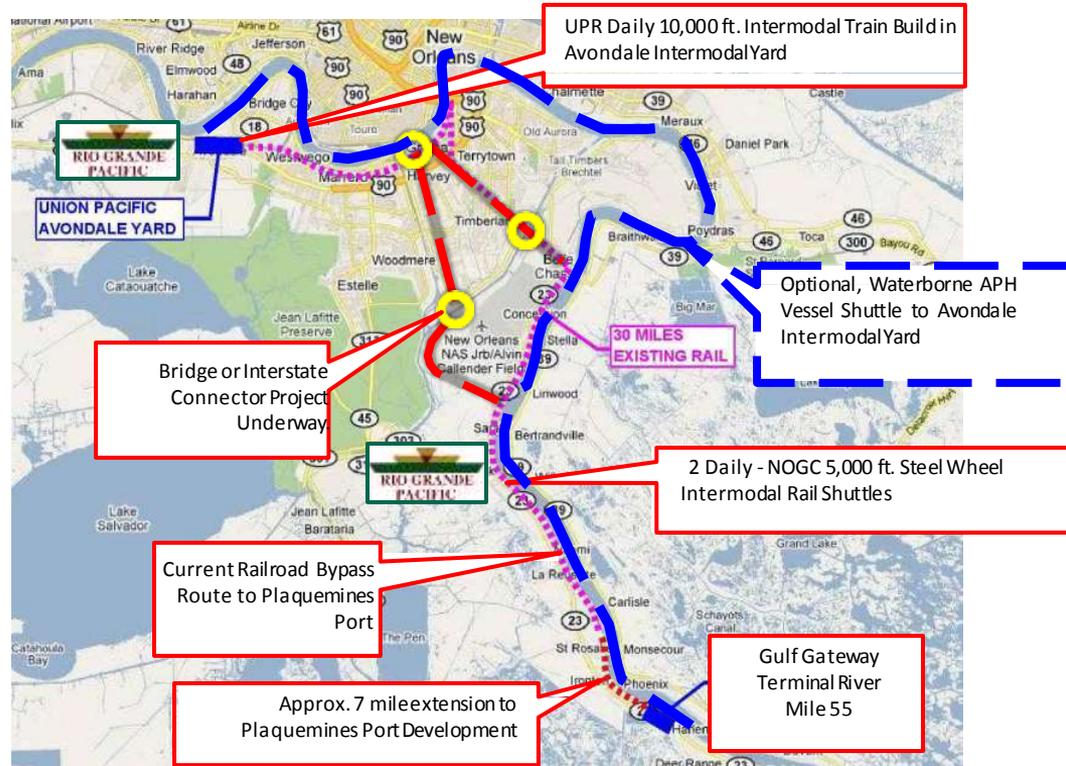


Intermodal Connectivity

Railroad Infrastructure

NOGC / Rio Grande Pacific Short Line Railroad system:

- Access to UP yard at Avondale
- Track access from Avondale to Westwego
- Tract control from Westwego through Gretna
- Current terminus within central campus
- Capacity at 3-unit trains per week



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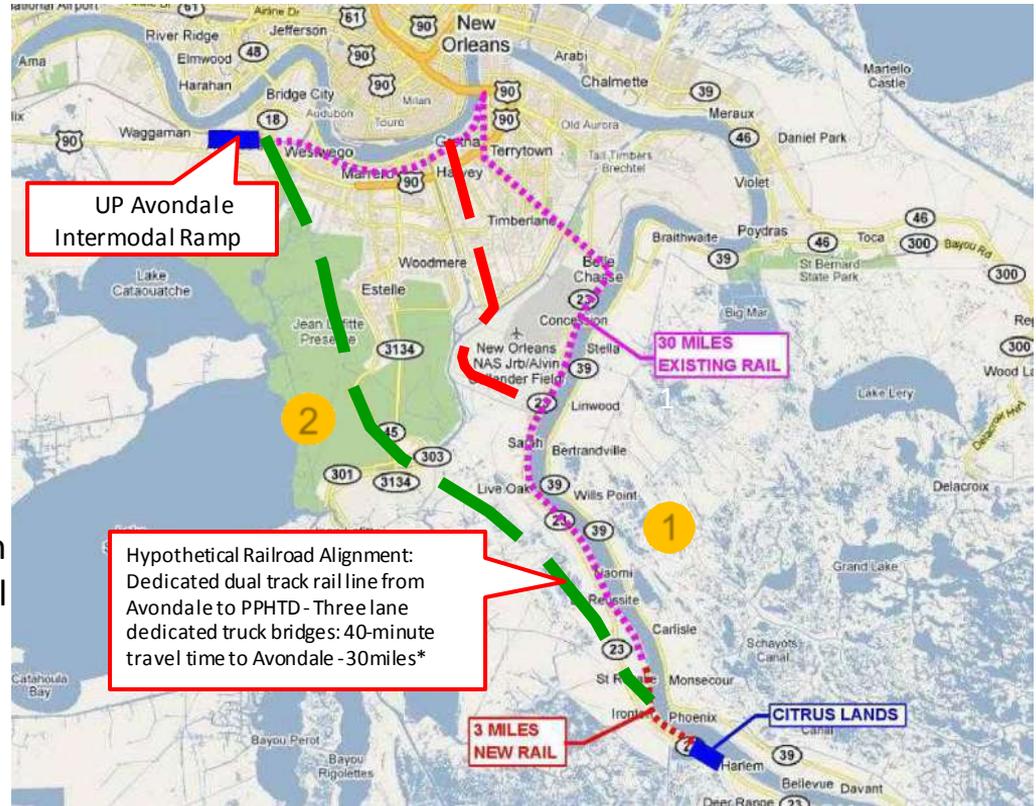
NOGC / Rio Grande Pacific Short Line Railroad systems improvements:

- Railroad bypass around NAS New Orleans,
- Railroad extension to Plaquemines Port
- Railroad Improvements, including turnout sidings, or system double track capability
- Increased capacity 4-unit trains per day

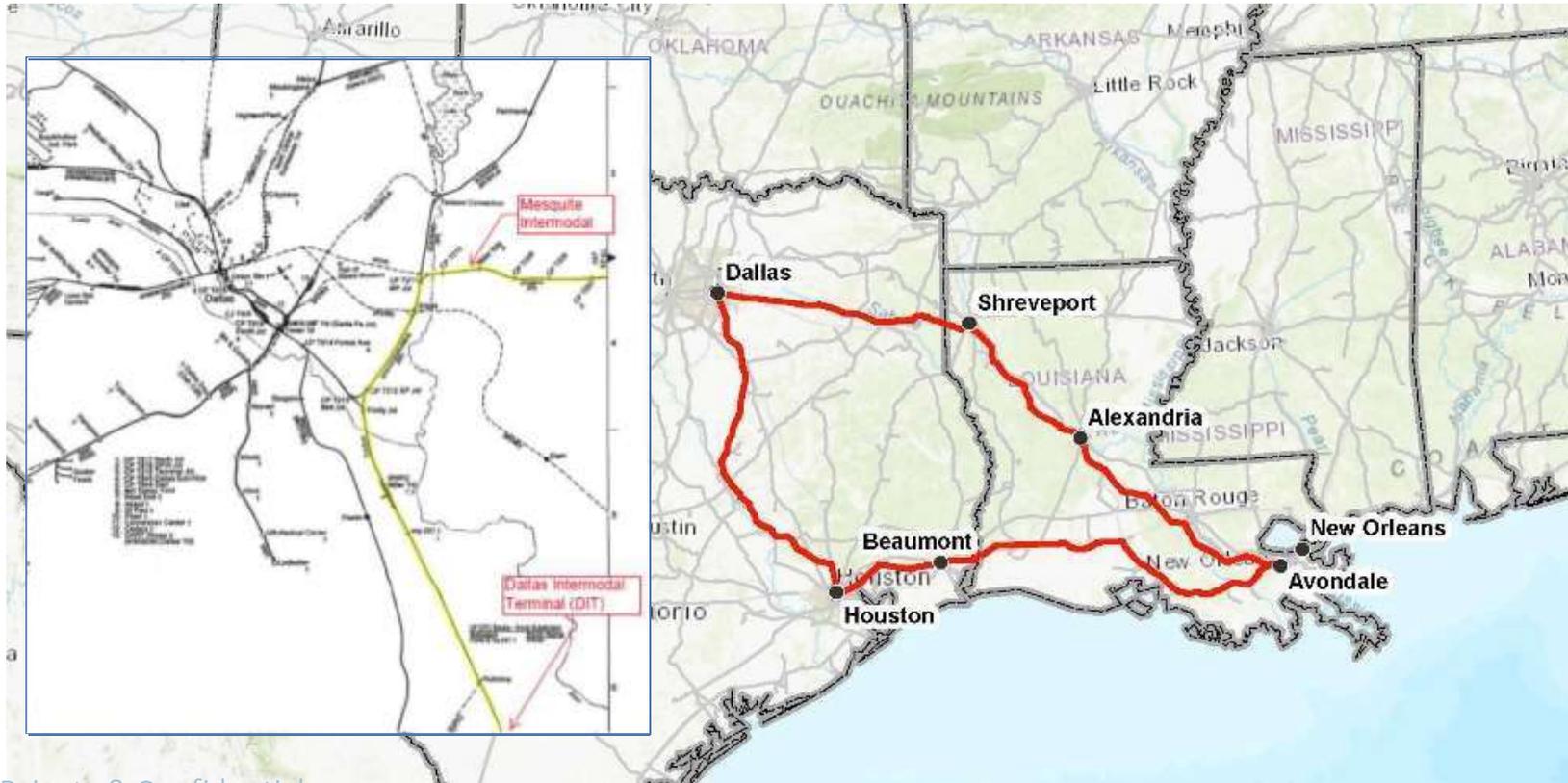
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Build a new railway direct around the Jean Lafitte Preserve, stilted and optimum for all current users.

- Addition of 16-unit trains per day



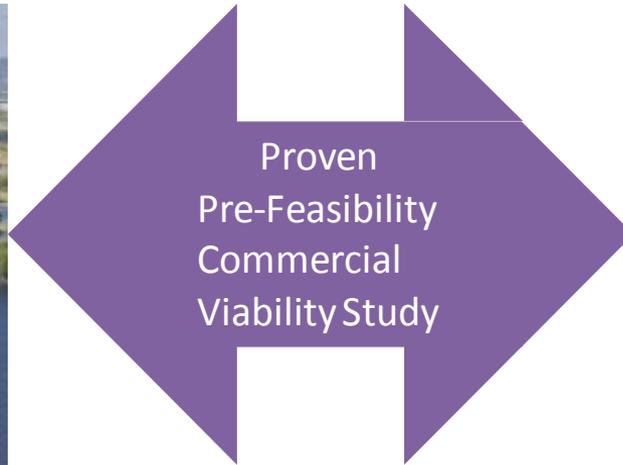
Dallas Rail Connectivity



American Patriot Holdings



APH Inland Carrier



Ocean Transshipment

“Offering Shippers New Flexibility – Lower Cost via All Water Routing utilizing the U.S. Marine Super-Highway”





Liner Specifications Mississippi River Service

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

Origination:	Destination:	Distance	Intermodal Truck Delivery Time
LAGGIC Terminal Current Belle Chasse Route	Avondale Intermodal Ramp	40 miles	1.0 hour
LAGGIC Terminal Via Peter's Road Extension*	Avondale Intermodal Ramp	35 miles	50 minutes
LAGGIC	Memphis, TN	434 miles	7.0 hours
LAGGIC	Little Rock RailRamp	469 miles	8.0 hours
LAGGIC	International InlandPort of Dallas (IIPOD)	544 miles	8.5 hours
LAGGIC	St. Louis RailRamp	717 miles	11 hours
LAGGIC	Kansas City InlandPort	885 miles	14 hours
LAGGIC	Chicago –Joliet Distribution	966 miles	14.75 hours

Strategic Inland Waterway Consolidation & De-Consolidation Locations

- St. Louis Region
- Kansas City
- Memphis
- Cairo
- WAIA – Western AR (Fort Smith)
- Little Rock
- Jefferson City-Mo.
- Joliet (Chicago)



Jointly working Imports / Exports w key Regional and National BCO's

Coordinating “Common” Site Planning:

- 100 acre minimal footprint - out of 100 year flood plain
- Consolidation / de-Consolidation center, warehousing, cold storage
- Access to multimodal corridors (Railroad & Highway)
- Community support
- Terminal requirements (Entry/Exit Gates, Rail tracks, Inspection Facilities, APH berths, etc.
- Stevedore options – local or national, APH berths and general operations plan
- Phase 1 acreage, anticipated future phased growth plans
- “Common” terminal equipment incl. reefer connections
- Terminal automation requirements

Concluding “Specific” terminal planning timelines, including:

- Engineering, Ground Stability, Environmental Assessments, Permits, Phase 1 Construction

Working Options to Consolidate plans for:

- Terminal Operator(s)
 - Union / Local Work Rules
 - Flexible Work Rules
 - Allowance for terminal automation



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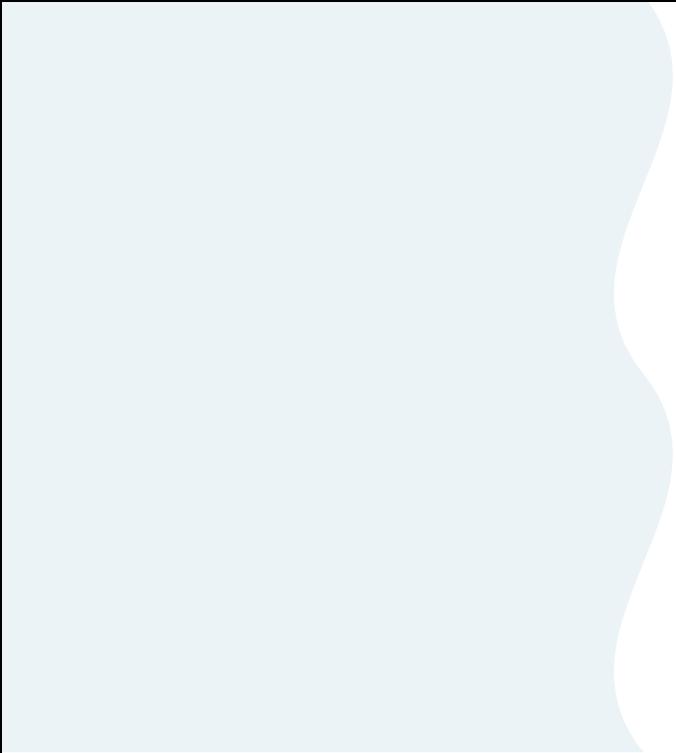
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A Partnership for the Future