IRPT 2018

WATERWAYS ACCESS - MORE ACCESSIBLE THAN YOU THINK

www.krechojad.com
TOOLKIT FOR ACCESS

• TAP INTO THE ACTIVE SYSTEM

• ADAPTIVE RE-USE : LEGACY DOCKS

• TERMINAL INFRASTRUCTURE
TOOLKIT FOR ACCESS

• TAP INTO THE ACTIVE SYSTEM
• ADAPTIVE RE-USE: LEGACY DOCKS
• TERMINAL INFRASTRUCTURE
• **IRPT WEBSITE**

• **ONLINE LOGISTICS BOOKING**

• **LOGISTICS/Terminal COMPANIES**
- **IRPT WEBSITE**
- **ONLINE LOGISTICS BOOKING**
- **LOGISTICS/TERMINAL COMPANIES**
• **IRPT WEBSITE**
  - Terminal Locations
  - Operator Contact Info
  - Transportation Modes
  - Operator Website link
  - Services
    - Warehousing
    - Harbor/Switching/Fleeting Services
• TAP INTO ACTIVE SYSTEM

• IRPT WEBSITE
• **IRPT WEBSITE**
  - Terminal Locations
  - Operator Contact Info
  - Transportation Modes
  - Operator Website link
  - Services
    - Warehousing
    - Harbor/Switching/Fleeting Services
TAP INTO ACTIVE SYSTEM

• WATERWAYS – EXAMPLE BULK MATERIALS
  – DDG
  – SPECIALTY GRAINS
  – SPECIALTY MINERALS
  – FRAC SAND
  – AGGREGATES
  – SCRAP
TAP INTO ACTIVE SYSTEM

WATERWAYS – EXAMPLE BREAKBULK MATERIALS
- SUPERSACKS
- STEEL REINFORCING
- FABRICATED STRUCTURAL STEEL
- STEEL COIL
TAP INTO ACTIVE SYSTEM

WATERWAYS – EXAMPLE BREAKBULK MATERIALS
- SUPERSACKS
- STEEL REINFORCING
- FABRICATED STRUCTURAL STEEL
- STEEL COIL
• TAP INTO ACTIVE SYSTEM

• WATERWAYS – EXAMPLE PROJECT CARGO
  - OVERSIZE
  - OVERWEIGHT
  - BRIDGE GIRDERs
  - WIND TURBINE BLADES
  - OIL AND GAS EQUIPMENT
  - TRANSFORMERS
TAP INTO ACTIVE SYSTEM

WATERWAYS – EXAMPLE PROJECT CARGO

- HOPPER BARGES
  - READILY AVAILABLE
  - LIFT AND TRANSLOAD – NOT ROLLING STOCK
  - MAY REQUIRE DOCK LOAD CAPACITY DETERMINATION
  - MODULAR - FIT IN LARGER TOWS
  - MAY REQUIRE FOCUS ON DUNNAGE AND SUPPORT JIGS
  - MAY REQUIRE CRANE CRITICAL LIFT PLANNING

- DECK BARGES
  - NOT USUALLY READILY AVAILABLE
  - DON’T FIT WELL INTO LINE TOWS
  - CAPABLE OF RO – RO MOVES
TAP INTO ACTIVE SYSTEM

- IRPT WEBSITE
- ONLINE LOGISTICS BOOKING
- LOGISTICS/Terminal COMPANIES
ONLINE LOGISTICS BOOKING – BASIN COMMERCE

STAY FOR FULL PRESENTATION AT 10:30

ONLINE ONE STOP SHOP ADVANTAGE

• Ease/Speed – Low Threshold to Entry
• Simple Menu – Driven Input
• At – A – Glance Comparative Pricing and Arrangements

PROJECT MANAGEMENT

• ARRANGE AND COORDINATE ALL OF THE SEPARATE CONTRACTS
• SINGLE P.O.C. FOR THE ENTIRE LOGISTICS CHAIN
• PROBLEM SOLVING AND GUIDANCE FOR UNEXPECTED DEVELOPMENTS
  – LOW WATER
  – FLOODS
  – LOCK DELAYS
• DEMURRAGE AVOIDANCE AND MONITORING
TAP INTO ACTIVE SYSTEM

ONLINE LOGISTICS BOOKING – BASIN COMMERCE
– STAY FOR FULL PRESENTATION AT 10:30
ONLINE LOGISTICS BOOKING – BASIN COMMERCE

- STAY FOR FULL PRESENTATION AT 10:30
- VARIETY/OPTIONS/VISIBILITY
  - CARRIER AGNOSTIC
  - EFFICIENT WITHIN 150 MILES OF RIVERS
  - ONLINE MAP VISUAL FOR TRACKING
  - ACCESS TO 1500 TERMINALS
  - NOT FOCUSED ON SPECIFIC REGIONS/RIVERS
  - SPECIALIZE HANDLING OR CONTRACT TERMS CAN BE ADDED TO CONTRACTS

TAP INTO ACTIVE SYSTEM
• TAP INTO ACTIVE SYSTEM

• ONLINE LOGISTICS BOOKING – BASIN COMMERCE
  – STAY FOR FULL PRESENTATION AT 10:30
• IRPT WEBSITE

• ONLINE LOGISTICS BOOKING

• LOGISTICS/Terminal COMPANIES
• LOGISTICS/Terminal Companies
  – WATCO
  – Consolidated Terminals and Logistics
  – Celtic Marine and Logistics
  – Alter Terminals
  – Ceres Barge and Consulting
  – Others

• Tap into Active System
• LOGISTICS/Terminal Companies
  – Specialized Tools and Resources
    • Equipment Arrangement/Planning
    • Contract Terms Customization
    • Cargo Insurance
    • Barge Preparation
    • Transload Planning
    • Ocean Shipping
    • Warehousing
    • Permitting Assistance
    • Deep Bench of Experience

TAP INTO ACTIVE SYSTEM
• TAP INTO THE ACTIVE SYSTEM
• ADAPTIVE RE-USE : LEGACY DOCKS
• TERMINAL INFRASTRUCTURE
• ADAPTIVE RE-USE: LEGACY DOCKS

• WORLD OF FREIGHT MOVEMENT IS CONSTANTLY CHANGING
• MANY EXISTING DECOMMISSIONED OR LOW VOLUME SINGLE USE TERMINALS
• DON’T NECESSARILY NEED GREENFIELD SITES
• ADVANTAGES OF LEGACY PROPERTIES
  – PERMITTING
  – ZONING
  – PROXIMATE TO TRANSPORTATION MODES
  – LEASE/PURCHASE AVAILABILITY
  – EXISTING INFRASTRUCTURE
    • DOCKS
    • MOORING DOLPHINS
    • LAY-DOWN AREAS ONSITE
    • UTILITIES
  – PROXIMATE TO FLEETING AND HARBOR SERVICES
  – PROXIMITY TO FREIGHT ORIGIN - CUSTOMERS

• ADAPTIVE RE-USE : LEGACY DOCKS
• STRATEGIES/ACTIONS
  – START-UP … PROOF OF CONCEPT PHASE
    • MAKE USE OF EXISTING ASSETS AND INFRASTRUCTURE WITH LIMITED CAPITAL
    • FILL IN SPECIFIC NEEDED FEATURES
      – MATERIAL SPILLAGE SLAB
      – ENHANCED CAPACITY CRANE SLAB
      – FABRIC COVERED STRUCTURE
    • RENT, LEASE, OR BUY MOBILE EQUIPMENT
      – MOBILE CONVEYORS, FEEDERS, HOPPERS, SCREENERS
      – CRANES
      – MATERIAL HANDLERS
  • RE-POSITIONED ASSETS AND EQUIPMENT
  • SHORT TIMELINE :
    CONTRACTS TO ROI
• **ADAPTIVE RE-USE : LEGACY DOCKS**

• **STRATEGIES/ACTIONS**
  - BUSINESS GROWTH AND EXPANSION PHASE
  - BETTER UNDERSTANDING OF CURRENT AND FUTURE OPERATIONS
  - EXISTING REVENUE STREAM SUPPORTS CAPITAL IMPROVEMENTS (VOLUME, EFFICIENCY)
  - LONGER – RANGE CONTRACTS
  - FOCUS ON DESIGN FOR EFFICIENCIES
  - POSSIBLE AUTOMATION
  - DEDICATED STAFF VS. SUBCONTRACTING
• TYPICAL CAPITAL INVESTMENT ELEMENTS
  • CRANES
  • MATERIAL HANDLERS
  • SITE ROADWAY UPGRADE
  • WAREHOUSE BUILDING
  • LEASED EQUIPMENT
  • TEMPORARY BUNKER WALLS (PRECAST)
  • CONCRETE SLABS
  • TERMINAL STRUCTURE REPAIRS OR REHABILITATION

• ADAPTIVE RE-USE: LEGACY DOCKS
ADAPTIVE RE-USE: LEGACY DOCKS

EXAMPLES
ADAPTIVE RE-USE: LEGACY DOCKS

EXAMPLES
ADAPTIVE RE-USE: LEGACY DOCKS

EXAMPLES
EXAMPLES

ADAPTIVE RE-USE: LEGACY DOCKS
EXAMPLES

ADAPTIVE RE-USE: LEGACY DOCKS
• ADAPTIVE RE-USE: LEGACY DOCKS

• EXAMPLES
• ADAPTIVE RE-USE: LEGACY DOCKS

• EXAMPLES
ADAPTIVE RE-USE: LEGACY DOCKS

EXAMPLES
TOOLKIT FOR ACCESS

• TAP INTO THE ACTIVE SYSTEM
• ADAPTIVE RE-USE : LEGACY DOCKS
• TERMINAL INFRASTRUCTURE
• DOLPHIN/CELL TERMINALS

• DEDICATED/SPECIFIC FUNCTION
  – BARGE LOAD “RIVERBELT”
  – BARGE UNLOAD – RECEIVING HOPPER AND CONVEYOR
  – LIQUID CARGO
  – PNEUMATIC UNLOADING
• **DEDICATED/SPECIFIC FUNCTION**
  - BARGE LOAD “RIVERBELT”
  - BARGE UNLOAD – RECEIVING HOPPER AND CONVEYOR
  - LIQUID CARGO
  - PNEUMATIC UNLOADING
DEDICATED/SPECIFIC FUNCTION

- BARGE LOAD “RIVERBELT”
- BARGE UNLOAD – RECEIVING HOPPER AND CONVEYOR
- LIQUID CARGO
- PNEUMATIC UNLOADING
BULKHEAD WALL TERMINALS

**PROS**
- Versatile
- Vehicle Traffic
- Rail Adjacent
- Staff/Vendor Access
- Common – Long History
- Typical Installation

**EQUIP**

**CONS**
- Corrosion Maintenance
- Damage Vulnerability
- Rigid
- Scour
- Capital Expense
- Permit
- Initial Dredge
- Maintenance Dredge
- Modifies Hydrology
- Rock – Toe Stability
**PROS**
- Structurally simple
- Lower river impact
- Permits
- Initial dredge
- Maintenance dredge
- Corrosion
- “Compliant” structure

**CONS**
- Single function
- Limited staff/vendor access
- Equipment over river
- Larger pile drive equipment
• **BARGE MOVING SYSTEM**
  – **BARGE INDEXING PLAN**
  – **HAUL LINE**
  – **BREAST LINE (SLIDE LINE)**
• BARGE MOVING SYSTEM
  – BARGE INDEXING PLAN
  – HAUL LINE
  – BREAST LINE (SLIDE LINE)
DESIGN FOR EFFICIENCY

- BARGE INDEXING PLAN
• DESIGN FOR EFFICIENCY

• BARGE FENDER LAYOUT
  - DURABILITY
  - SAFETY
  - REPEATABILITY
• DESIGN FOR EFFICIENCY

• BARGE FENDER LAYOUT
  - DURABILITY
  - SAFETY
  - REPEATABILITY
• DESIGN FOR EFFICIENCY

• BARGE FENDER LAYOUT
  - DURABILITY
  - SAFETY
  - REPEATABILITY
AREAS TO LOOK FOR TROUBLE
- TRANSITIONS
- DAMAGE HISTORY
- SURFACE DRAINAGE

Location of transition from concrete cap to full height steel wall

Spalled area of concrete cap

Note: Largest sink holes (as indicated by site personnel) occurred in these two areas.
AREAS TO LOOK FOR TROUBLE

- TRANSITIONS
- DAMAGE HISTORY
- SURFACE DRAINAGE
• AREAS TO LOOK FOR TROUBLE
  – TRANSITIONS
  – DAMAGE HISTORY
  – SURFACE DRAINAGE

MAINTENANCE
MAINTENANCE

AREAS TO LOOK FOR TROUBLE
- TRANSITIONS
- DAMAGE HISTORY
- SURFACE DRAINAGE
• TOOLKIT OF ACTIONS

• CONDITION ASSESSMENT
  – NATURE
  – EXTENT
  – RESOLUTION
  – TIME HORIZON
IMAGING
- BLACK WATER
- STRONG CURRENTS
- SCALEABLE
- SAFETY
- BASELINE

TOOLKIT OF ACTIONS
- BLACK WATER
- STRONG CURRENTS
- SCALEABLE
- SAFETY
- BASELINE
TOOLKIT OF ACTIONS

PHASED RESOLUTION

- TIME HORIZONS
- MAINTAIN OPERATIONS
- CAPITAL CYCLE
TOOLKIT FOR ACCESS

- TAP INTO THE ACTIVE SYSTEM
  - IRPT WEBSITE AND MEMBER RESOURCES
  - ONLINE LOGISTICS BOOKING
  - LOGISTICS/Terminal COMPANIES
- ADAPTIVE RE-USE: LEGACY DOCKS
- TERMINAL INFRASTRUCTURE
TOOLKIT FOR ACCESS

• TAP INTO THE ACTIVE SYSTEM
• ADAPTIVE RE-USE : LEGACY DOCKS
• TERMINAL INFRASTRUCTURE
TOOLKIT FOR ACCESS

• TAP INTO THE ACTIVE SYSTEM
• ADAPTIVE RE-USE : LEGACY DOCKS
• TERMINAL INFRASTRUCTURE
KOA Solutions

Rail Facility Planning & Design
Industrial Site Evaluations & Design
Roadway & Utilities Engineering
Marine Structural Assessment
Design/Repair & Rehab Details
Scour/Corrosion Protection Design
Industrial Structure Planning & Design
Custom Structural Integration
Retrofit Analysis/Rehab
Integrated Plant & Facilities Design
Retrofit of Mechanical Systems
3D Modeling
Power Distribution & Motor Controls
PLC Planning & Programming
Lighting and Controls
Multi-Function Building Design
Building Rehab/Repurpose
Code Review/ Compliance

Civil / Rail
Marine
Structural
Mech/ Process
Elec/ Controls
Arch