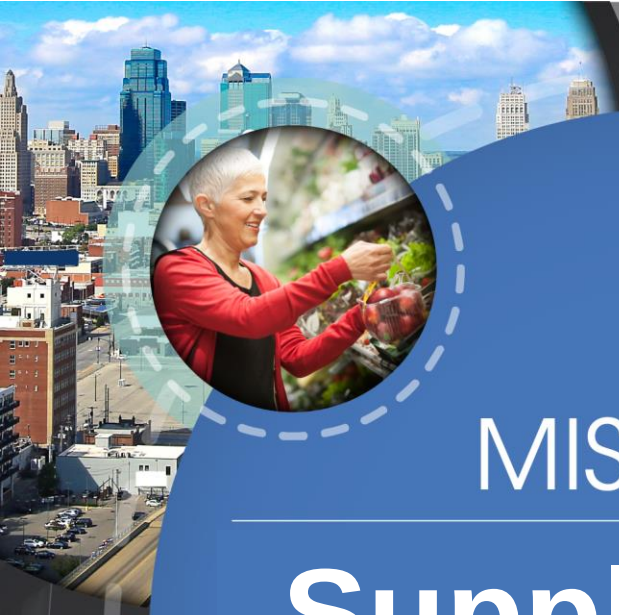


MISSOURI

Supply Chain Task Force

April 7, 2022

DEPARTMENT OF HIGHER EDUCATION & WORKFORCE DEVELOPMENT

presented to

Missouri Supply Chain Task Force Members

presented by

Union Pacific

Mid-America Regional Counsel

Port KC

APH

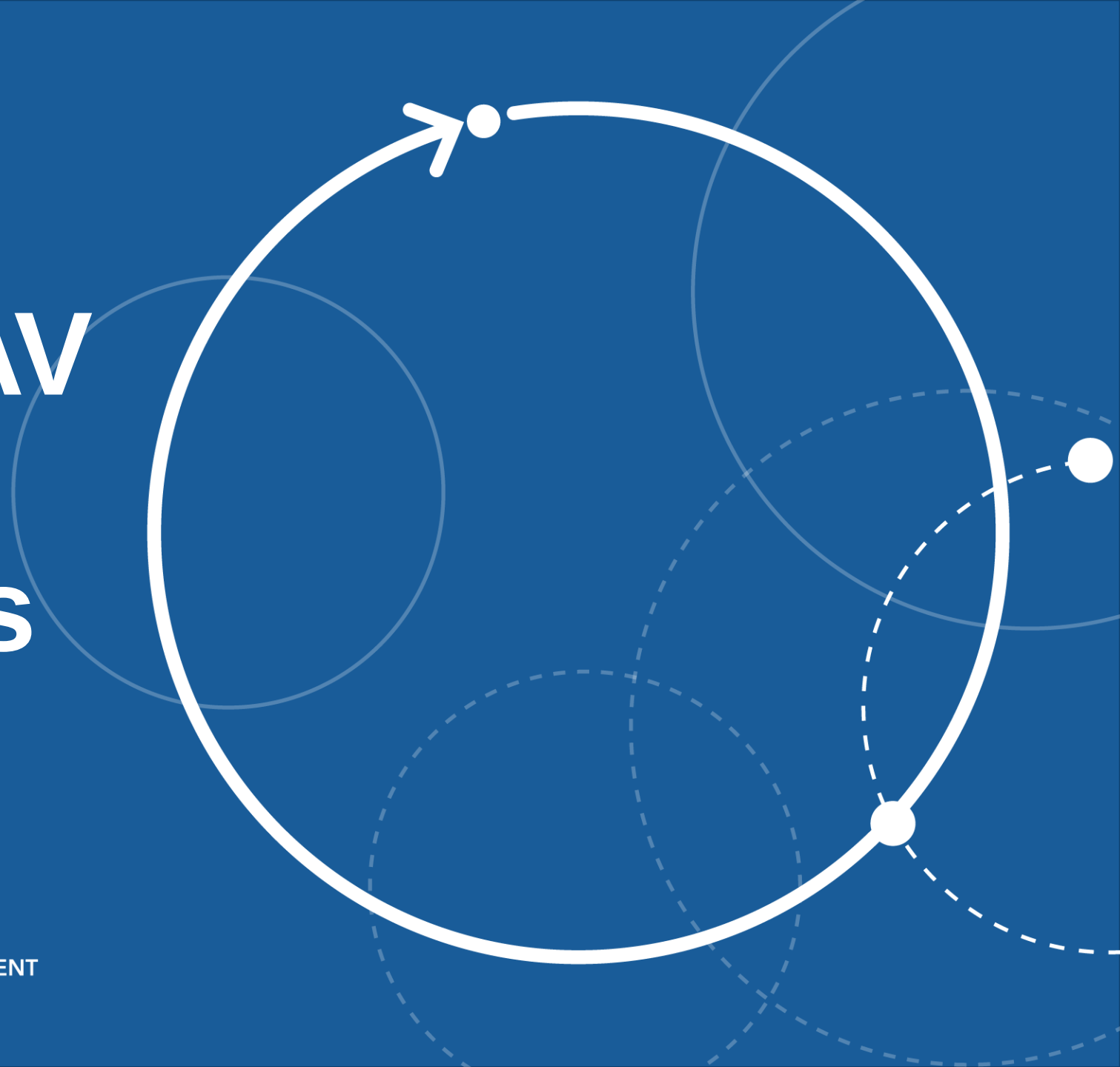
Amtrak

ITS, EV and AV Freight Opportunities

Liz Prestwood
Missouri Department of Transportation

MoDOT

DEPARTMENT OF HIGHER EDUCATION & WORKFORCE DEVELOPMENT



ITS, EV, and AV

- Intelligent Transportation Systems (ITS)
  - Technology to improve roadway safety and operations
  - Benefit both passenger and freight vehicles
- Electric Vehicles (EV)
  - Can be passenger or freight vehicles
  - Reduced emissions and operating costs
- Automated Vehicles (AV)
  - Can be connected or automated vehicles
  - Safety and economic benefits

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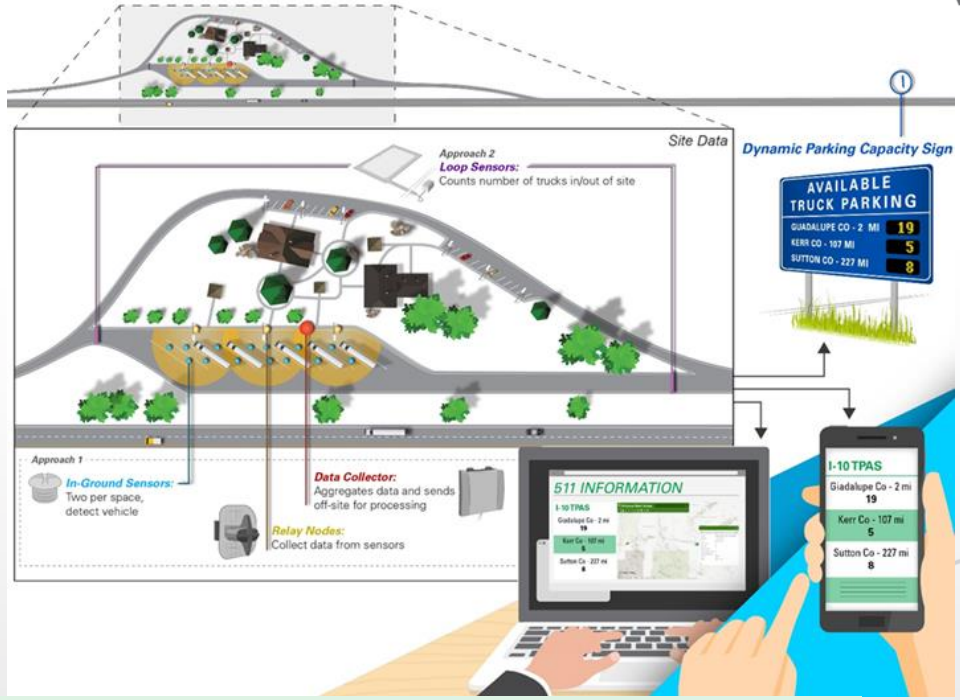
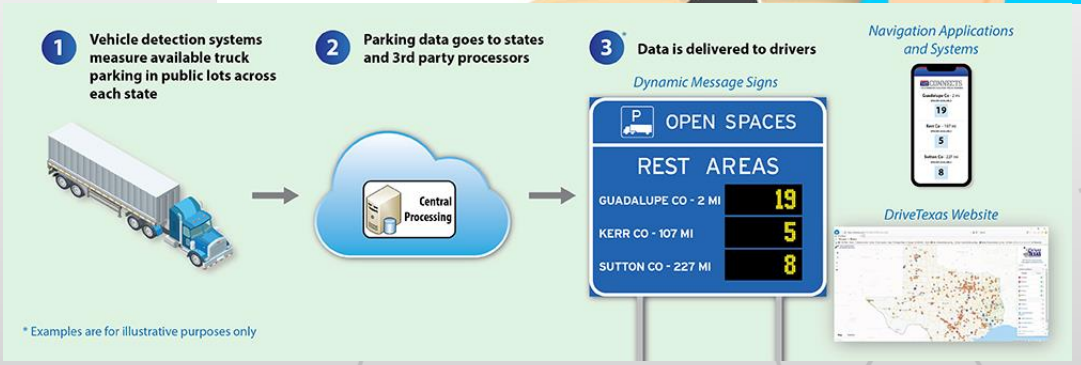
Freight ITS Applications – Truck Parking Availability Systems (TPAS)

- TPAS collect and share truck parking availability information in real-time
  - Spaces electronically monitored in safety rest areas
  - Availability shared on electronic roadside signs, mobile apps, etc.
- Helps truckers make informed parking decisions





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Freight ITS Applications – Connected Freight Corridors

- Connected Freight Corridors
  - Vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) applications with commercial vehicles to improve safety and mobility
- TxDOT currently deploying concept in the “Texas Triangle”

Source: Texas Connected Freight Corridors (TCFC)

Freight ITS Applications – Freight Signal Priority

- Freight Signal Priority
  - Gives priority to freight vehicles approaching a signalized intersection
  - Considers a vehicle's location and speed
  - Provides more green time based on real-time demand
- Reduces truck delay and emissions from idling

Image source: FHWA

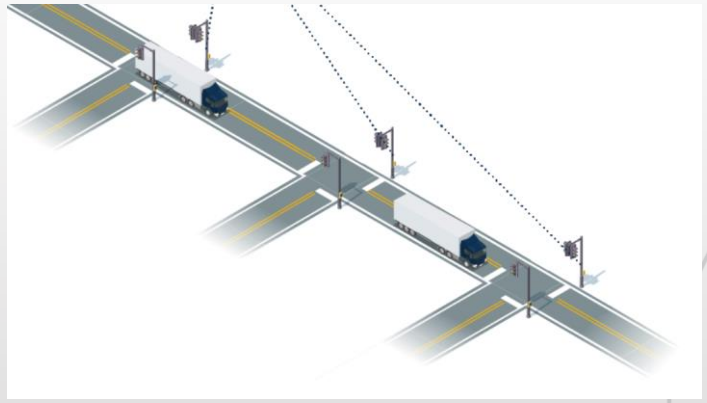

Image source: TxDOT FNTOP

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Freight ITS Applications – Freight Advanced Traveler Information

- Publishes key freight travel information:
  - Pre-construction closure notifications
  - Delay predictions
  - Near real-time construction delay information
- Sends data directly to connected trucks
- Improves freight operations and performance

Image source: I-35 FRATIS:
TRAC, Washington State Transportation Center, 2018

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Freight ITS Applications – Dedicated Truck Lanes

- ITS-enabled lane management strategy
- Increases safety and throughput by separating trucks
- Can use various ITS elements
  - Dynamic Message Signs
  - Traffic Control Devices
  - Lane Control Signals
  - CCTV, etc.

Image source:
California I-5
Truck Only Lane

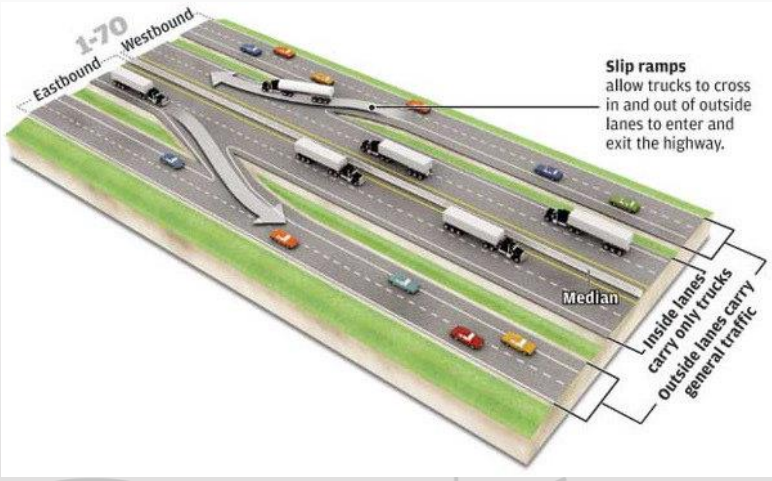

Image source: Missouri DOT Proposed Truck Only Lanes

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Freight ITS Applications – Funding Opportunities

- ITS America's *IIJA Investments Summary* document provides summary of new programs, expanded eligibilities, and funding availability under the Infrastructure Investment and Jobs Act (IIJA)
- IIJA increases funding for two competitive grant programs:
  - **Nationally Significant Freight and Highway Projects Program ($8B over 5 years)** – also know as INFRA grants, towards projects that apply innovative technology.
  - **Local and Regional Project Assistance ($7.5B)** – also known as RAISE grants, towards projects that include innovative technologies.

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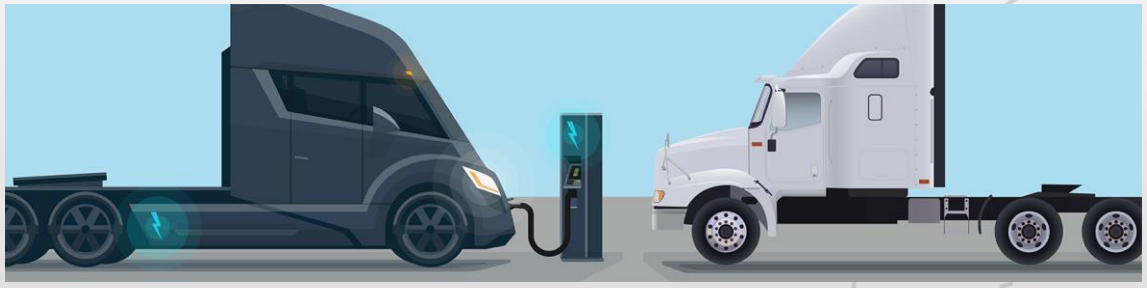
Vehicle Electrification – Heavy Trucks

- Heavy-duty, electric trucks have the potential for zero emissions and lower operating and fuel costs
- Regional Electric Vehicle (REV) Midwest is a partnership to accelerate vehicle electrification in the Midwest
  - Illinois, Indiana, Michigan, Minnesota and Wisconsin
  - Network of charging stations

Source: Volvo Electric Truck



Source: North American Council for Freight Efficiency (NACFE)

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Vehicle Electrification Opportunities

- $1.2 Trillion Bipartisan Transportation Bill allocates over $7.5 Billion towards EVs and related infrastructure
- Large programs include:
  - **Charging and Refueling Infrastructure Grant Program ($2.5M)** – Focus on state and local governments, and MPOs, building alternative fuel corridors
  - **National Electric Vehicle Formula Program (NEVI) ($5B)** – For states to acquire, install, and maintain EV infrastructure.

Other Vehicle Electrification Opportunities

- **$72B Surface Transportation Block Grant** (reauthorized 2021) now includes vehicle charging infrastructure and vehicle-to-grid infrastructure
- **$13.2B Congestion Mitigation and Air Quality Improvement Program (CMAQ)** now allows for funds to be used for micromobility and purchase of medium or heavy-duty zero emission vehicles and charging equipment.
- **$250M Reducing Truck Emissions at Ports program** funds efforts at ports to look at electrification and emerging technology can reduce emissions from idling trucks.

Freight Automation

- Driverless trucks operating with safety engineers.
- Focus on long-haul trucking. Challenges with first/last mile operations.
- Potential to increase safety, fuel efficiency, and mitigate driver shortage.
- Deployments have generally occurred in states with enabling legislation

Source: TuSimple

PACCAR, Aurora and FedEx Launch Autonomous Truck Commercial Pilot

September 22, 2021, Bellevue, Washington – PACCAR has teamed up with Aurora, a leading autonomous driving technology company, and FedEx, one of the largest transportation and logistics companies in the world, to launch a commercial pilot of autonomous trucks in linehaul trucking operations. This is the first collaboration of its kind between a truck manufacturer, an autonomous technology developer and a logistics provider.

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Personal Delivery Devices (PDD)

- Low speed devices built without space for drivers that focus on the last-mile delivery of goods
- Currently being tested on sidewalks in cities throughout U.S.

Source: Amazon Scout

Source: Dezeen, FedEx Same Day Bot

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Drones/Unmanned Aircraft Systems

- Drones/Unmanned Aircraft Systems (UAS) are used for a variety of purposes, including freight delivery.
- Applications currently in early testing stages. Locations include DFW, MI, NC, and OH
- Examples include Ohio UAS Center and Texas Lone Star UAS Center of Excellence and Innovation

Source: Amazon Prime Air

DriveOhio
The Future of Smart Mobility

UAS
OHIO UNMANNED AIRCRAFT SYSTEMS
CENTER

Source: DriveOhio, UAS Center of Excellence

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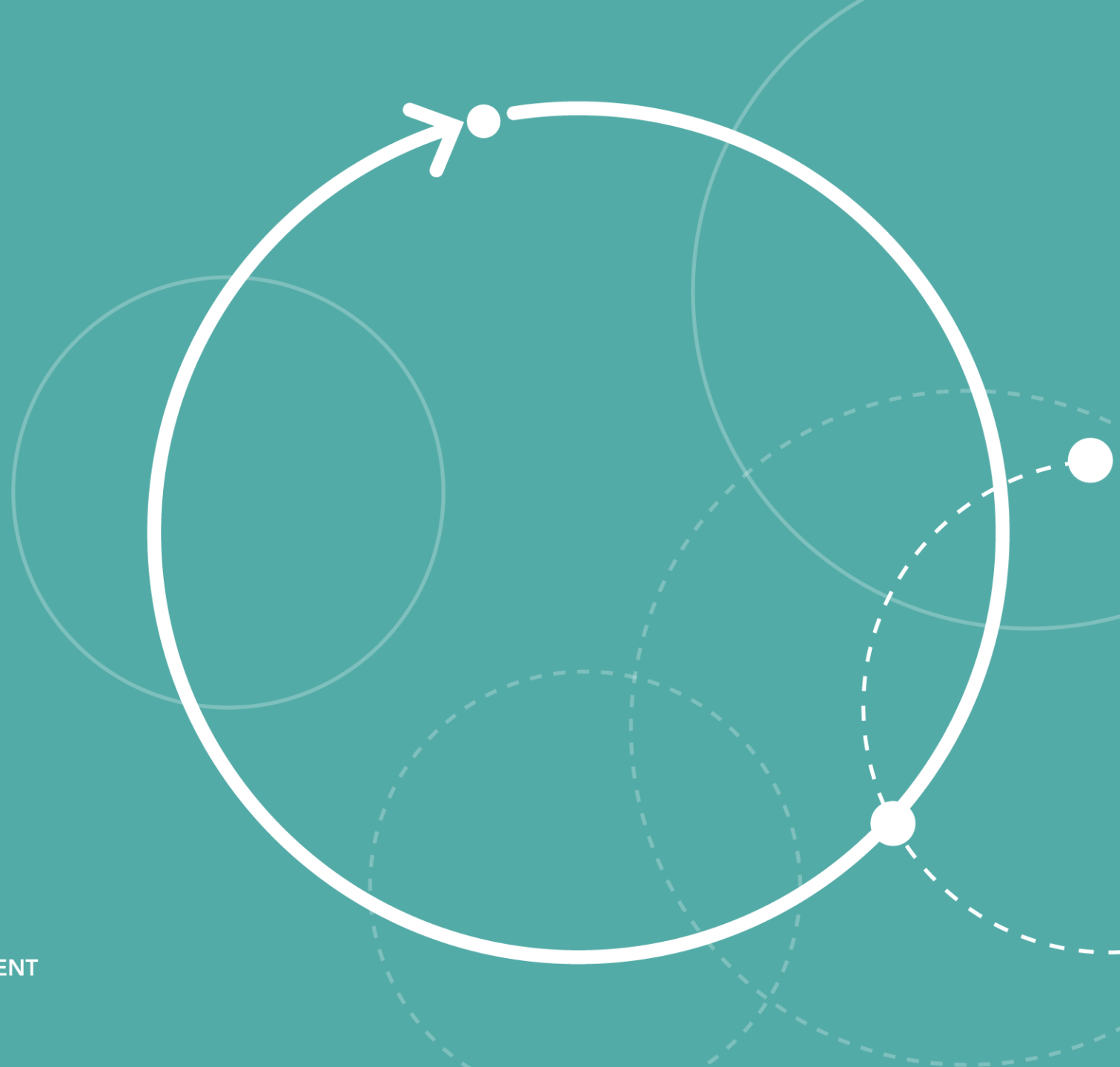
Freight Automation Opportunities

- NHTSA Test Tracking Tool is a useful way to track ongoing deployments
- Under IIJA, MUTCD will be updated to support testing of automated vehicle technology.
- Bill authorizes development of **Center of Excellence on New Mobility and Automated Vehicles**, focused on research of AV impacts.

Questions?



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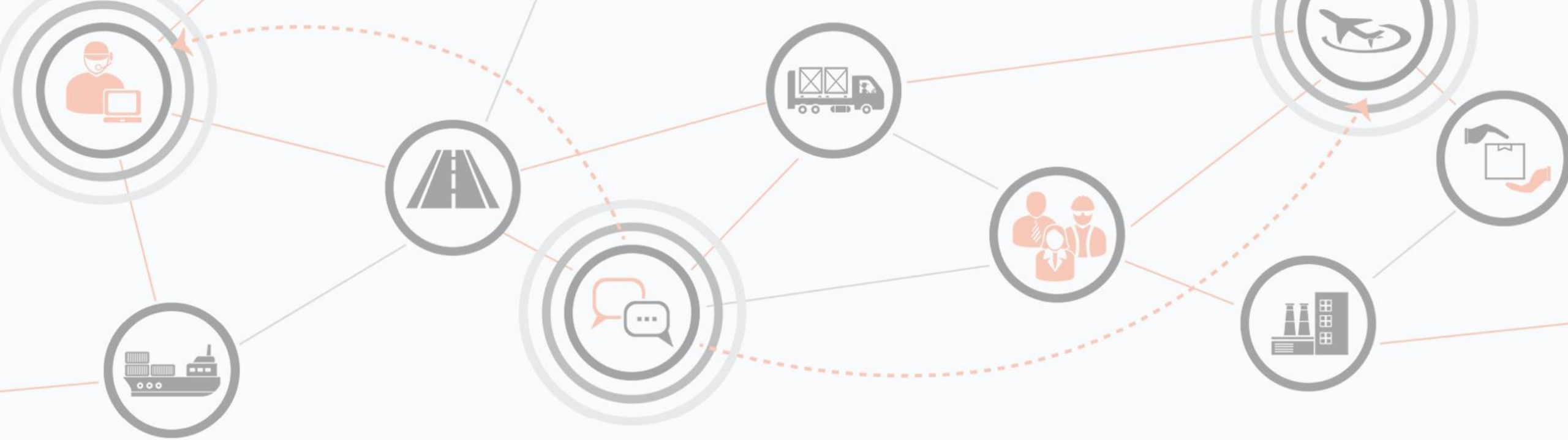


Missouri Supply Chain Task Force Meeting

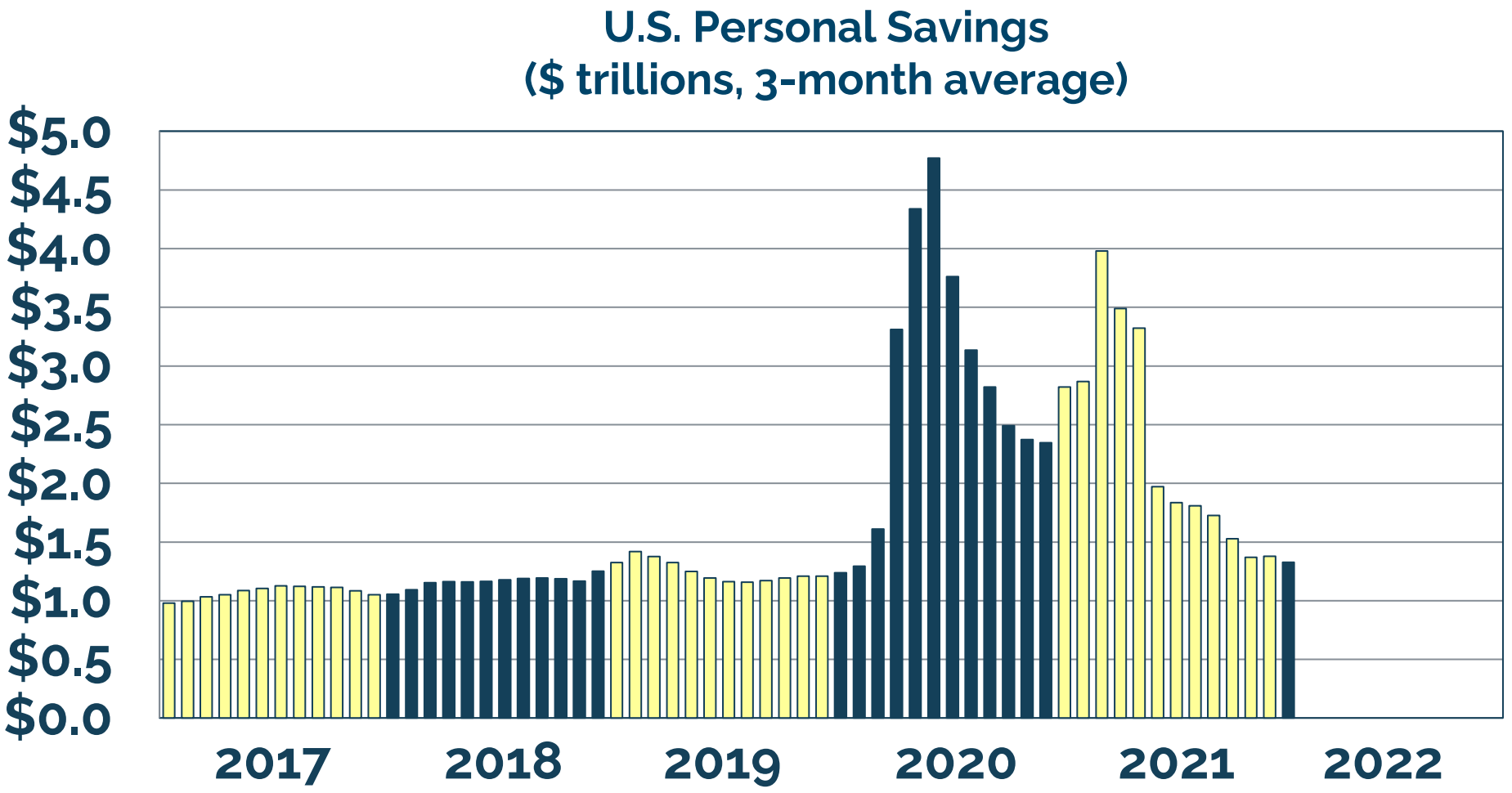
Supply Chain Issues

April 2022

ASSOCIATION OF AMERICAN RAILROADS

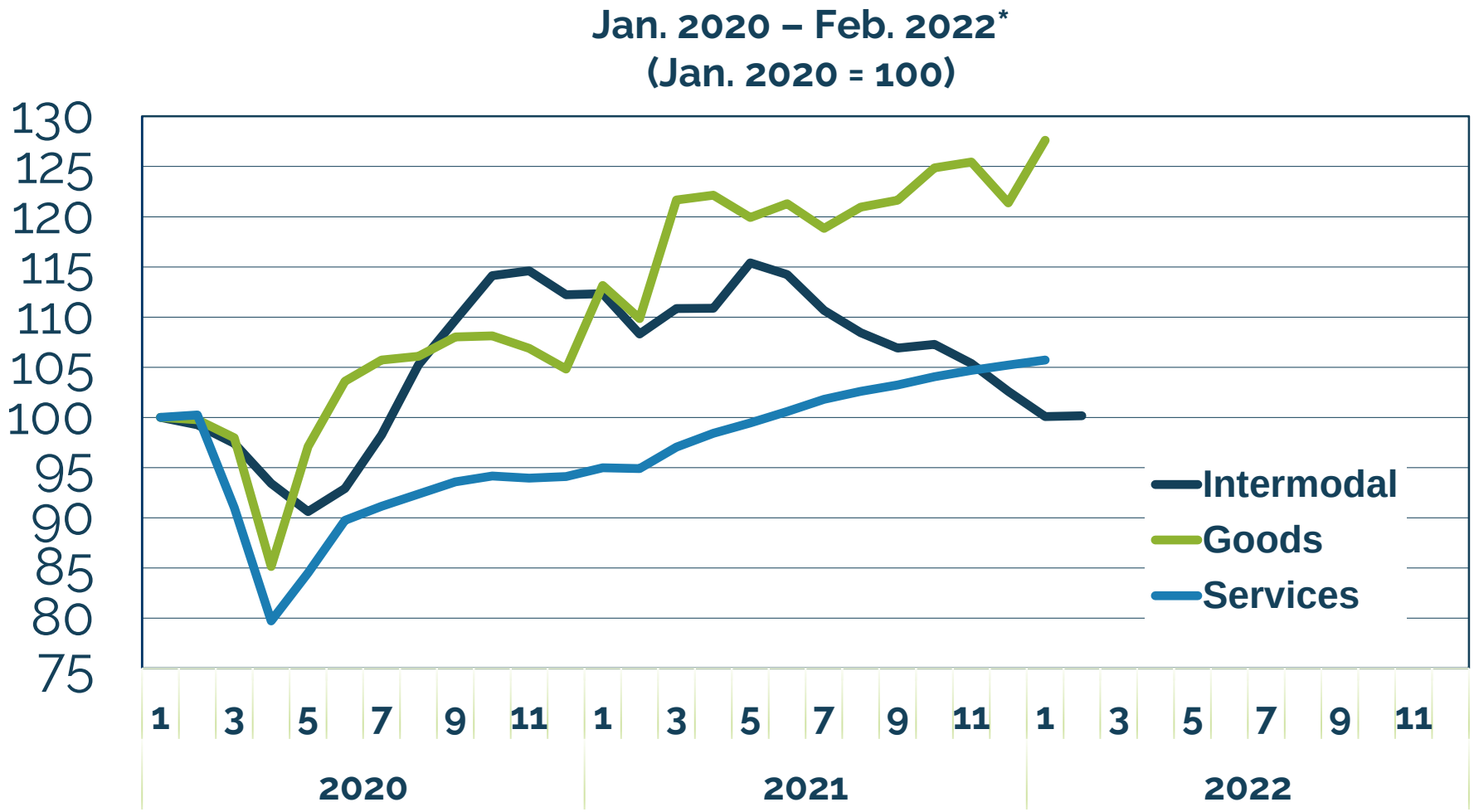
In the Beginning

A lot of money, a lot of people and a lot of spending



Source: Bureau of Economic Analysis

U.S. Intermodal vs. Consumer Spending on Goods & Services

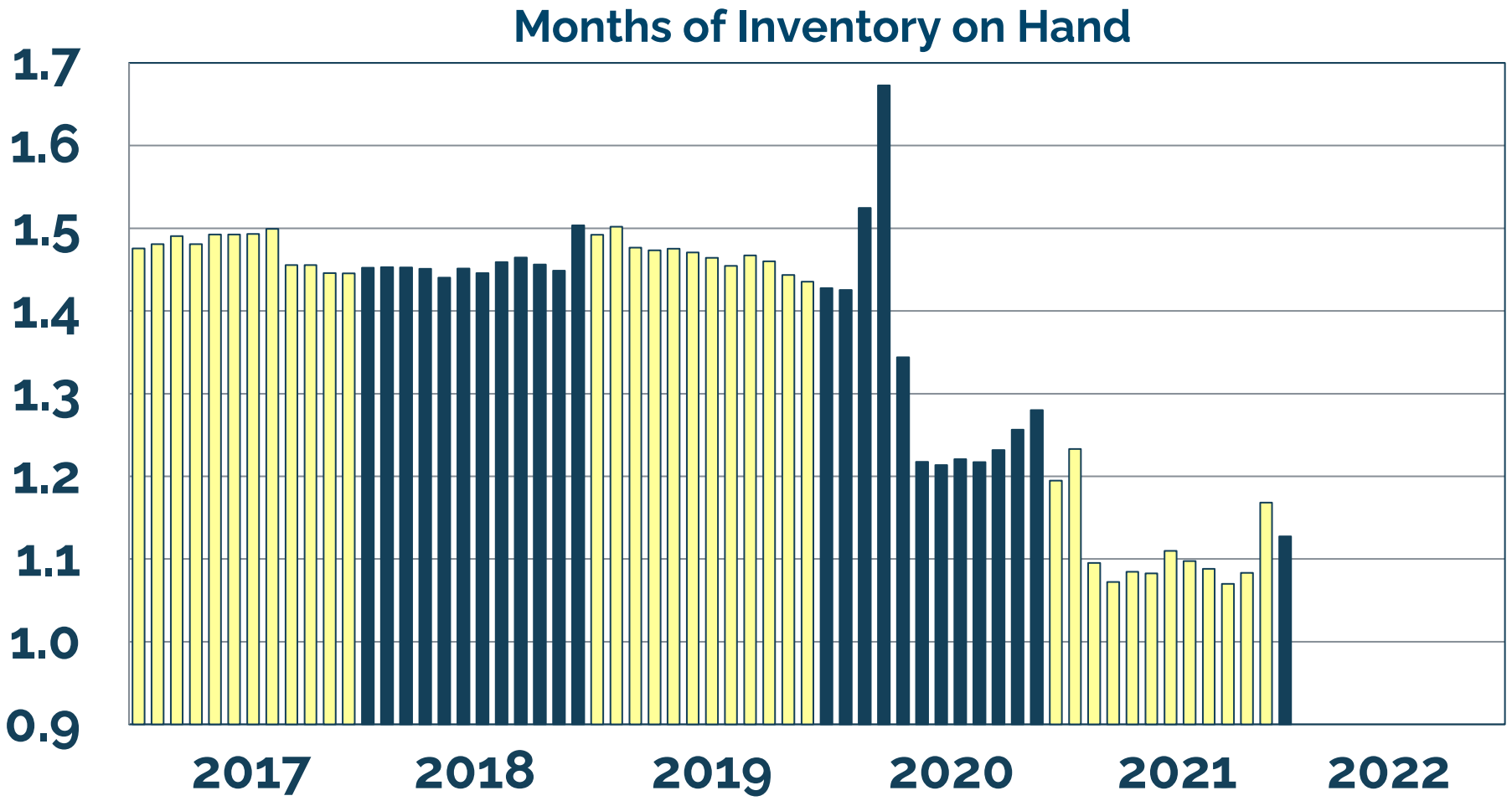


Consumer spending lines are based on seasonally adjusted annualized dollar values. Consumer spending is through Jan. 2022. Intermodal is U.S. originations. Sources: BEA, AAR

ASSOCIATION OF AMERICAN RAILROADS

Moving Forward

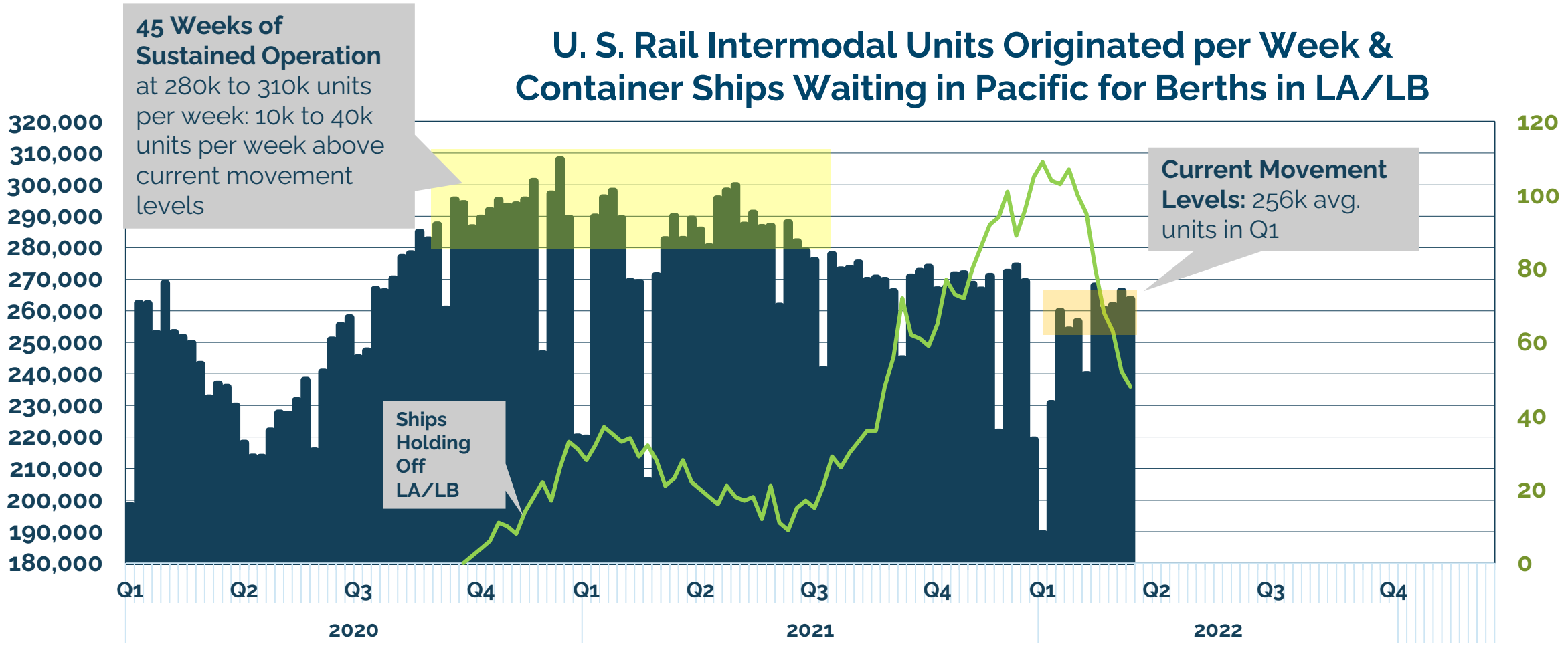
Retail inventories still need to be replenished
before the supply chain can return to a new normal



Source: Census Bureau

A Resilient Network

The rail network has proven its capability to sustain intermodal operation well above current levels.



Source: Marine Exchange of Southern California and AAR Weekly Railroad Traffic

Pre-Pandemic Rail Movement of Los Angeles/Long Beach Containers

Ship discharges international containers at intermodal port.

International containers are loaded onto a truck headed to a distribution warehouse.

International containers are loaded onto a rail car.

Container contents taken into stock at warehouse.

Truck delivers stock to local market.

International containers delivered to distribution center where contents are stocked.

Domestic containers delivered to retail / wholesale outlets

Intermodal terminal in East/Midwest discharges containers, which get sorted into domestic or international.

Rail domestic containers loaded for delivery to retail or wholesale outlet in East/Midwest.

Intermodal terminal dispatches loaded train headed East.

Mid-Pandemic Rail Movement of Los Angeles/Long Beach Containers

Ship discharges international containers at intermodal port.

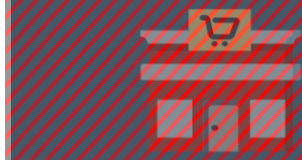
International containers are loaded onto a truck headed to a distribution warehouse.

International containers are loaded onto a rail car.

Container contents taken into stock at warehouse.

Truck delivers stock to local market.

International and domestic containers delivered to distribution center where contents are stocked.



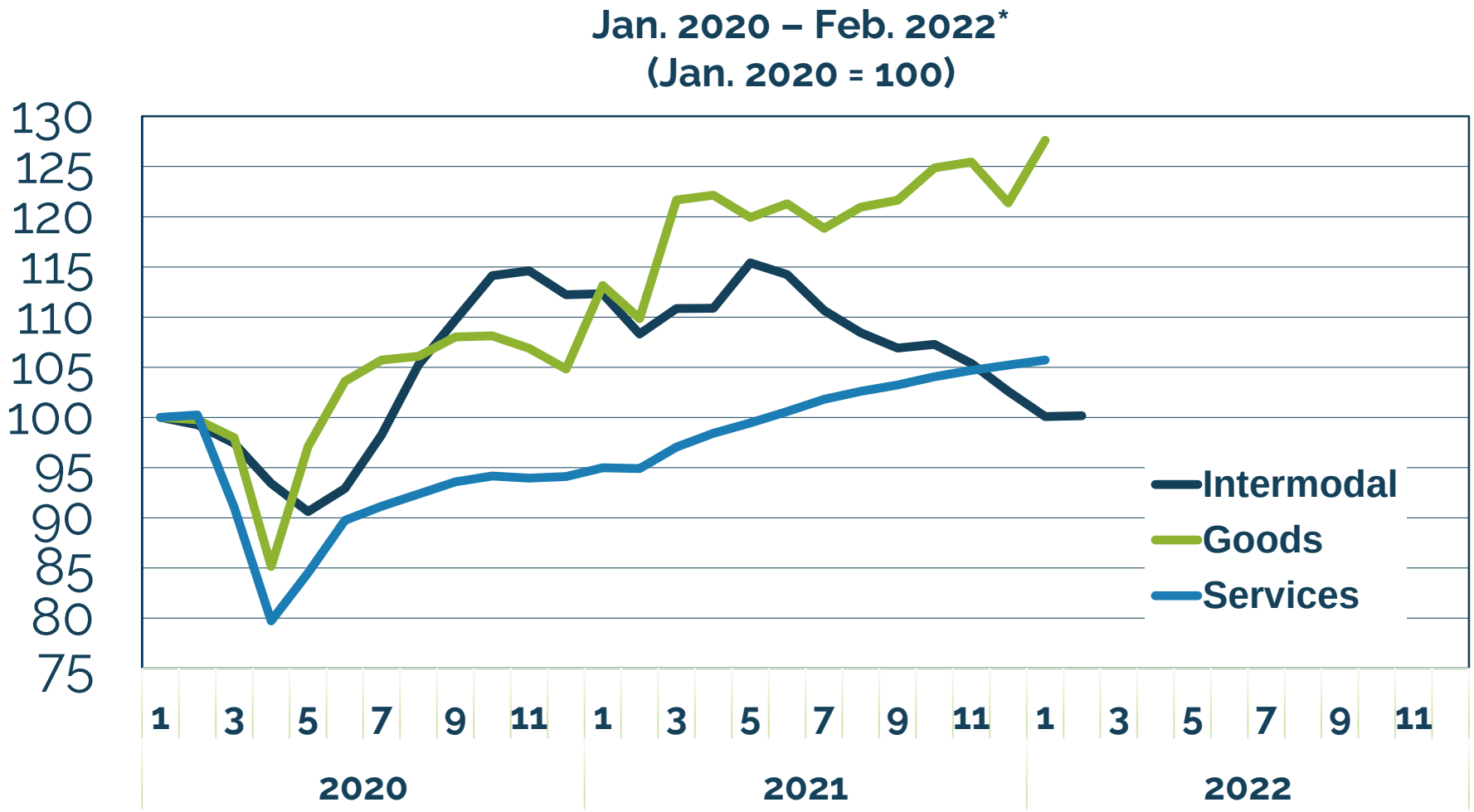
Domestic containers delivered to retail / wholesale outlets

Intermodal terminal dispatches loaded train headed East.

Rail domestic containers loaded for delivery to retail or wholesale outlet in East/Midwest.

Intermodal terminal in East/Midwest discharges containers.

U.S. Intermodal vs. Consumer Spending on Goods & Services



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Moving Forward

Retail inventories still need to be replenished
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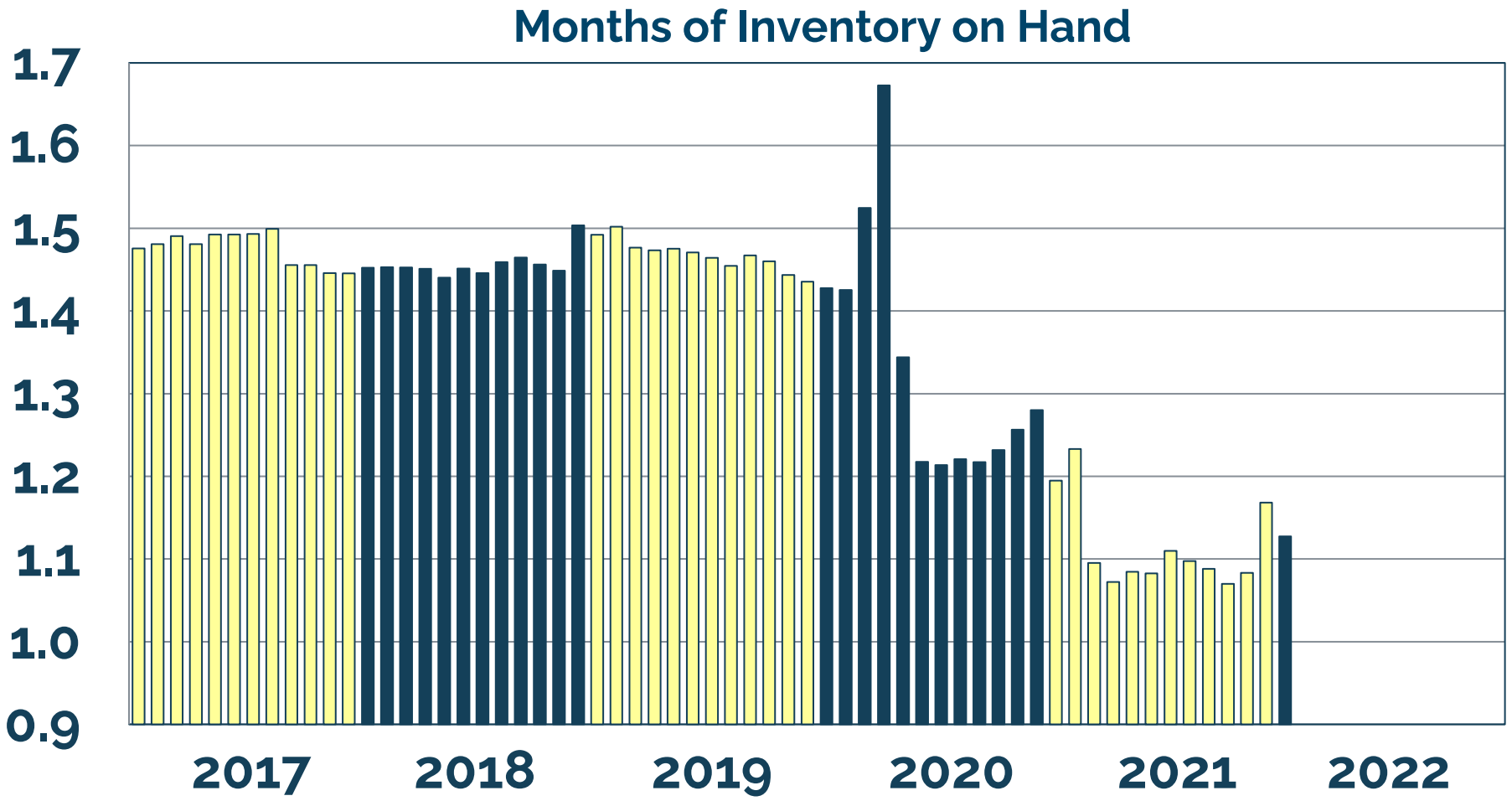
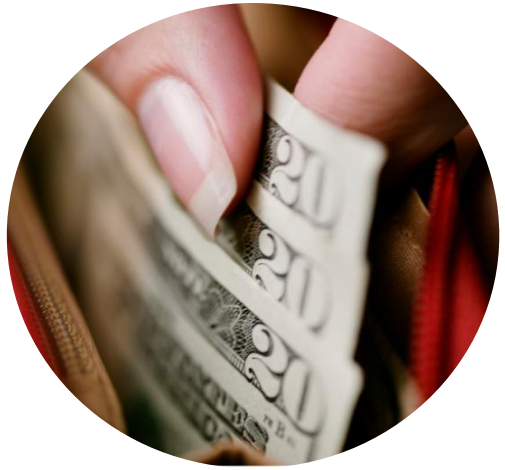


Source: Census Bureau

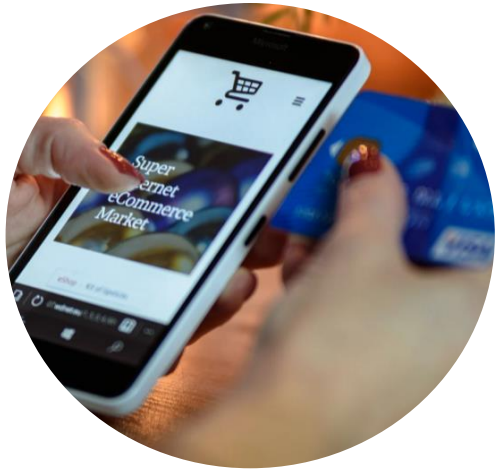
Summary

This Too Shall Pass…

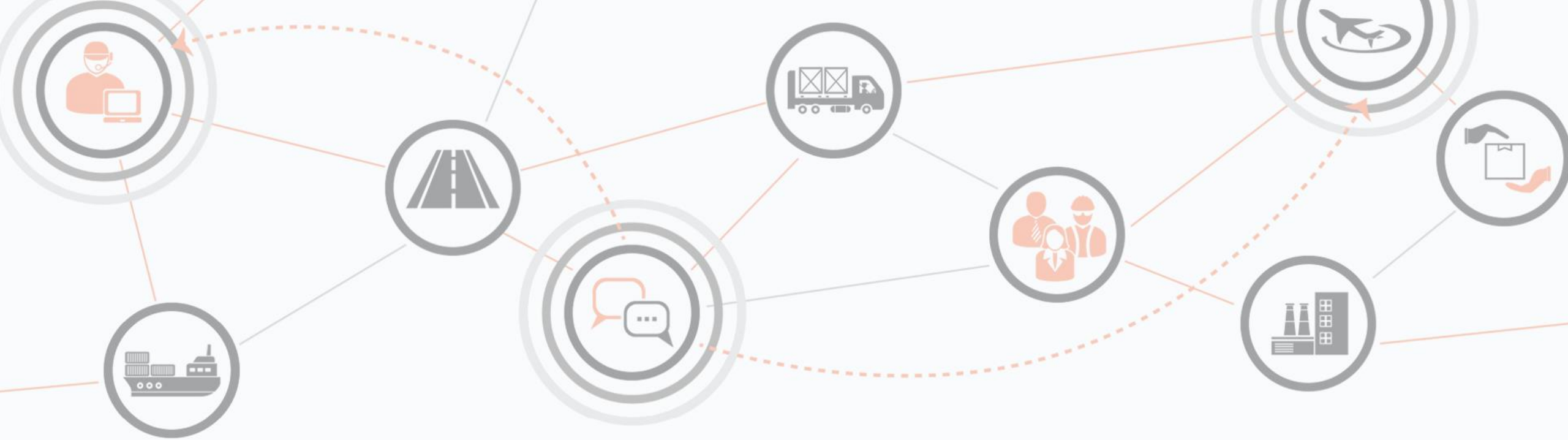


Spending patterns are at an early stage of a return to normal.

A lot of undelivered goods to work off that were ordered during the pandemic.



However, do not expect the post-pandemic norm to equal the pre-pandemic norm.



Missouri Supply Chain Task Force Meeting

Missouri River Terminal

Governor's Task Force on Supply Chain – April 7th, 2022

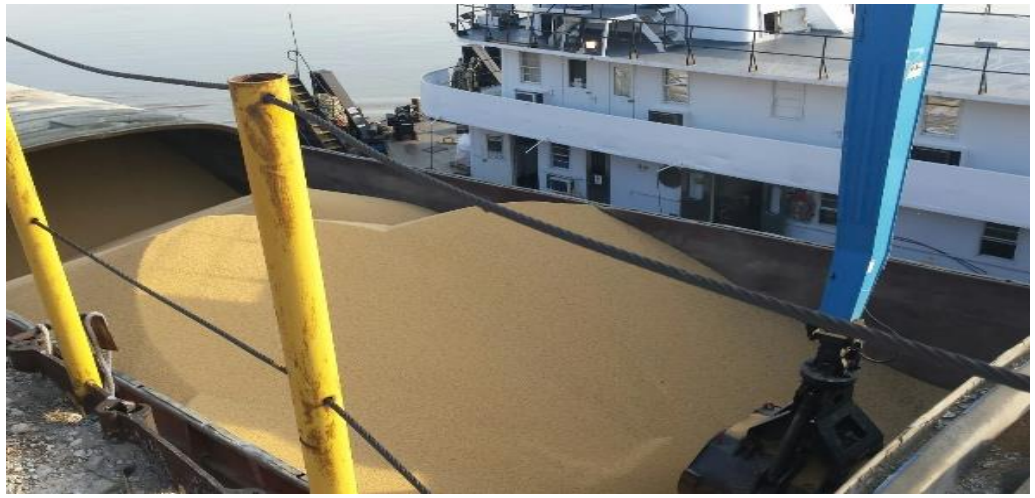
Mark Coulter, Vice President and General Counsel

Richard Grenville, Vice President of Multimodal Logistics

Port of Kansas City

1724 MARKET ST, KCMO

- Missouri River mile 367.1
- Covered Storage approx. 25,000 sq. feet
- $6 mil rail/expansion investment
- $1.9 mil investment in new storage capacity
- Outside Storage 7 acres
- 3 load cells with berthing capacity for twelve barges
- Direct access to 4 interstates (35, 70, 49 & 29)
- 100 ton capacity crane & Fuchs 380 material handler
- UPRR direct access



Port of Duisburg, Germany

2019 over 4.4 million TEU’s handled at the largest inland port in Europe

By 2040, Freight in the United States is expected to double

MISSOURI RIVER TERMINAL

MARINE • RAIL • TRUCK

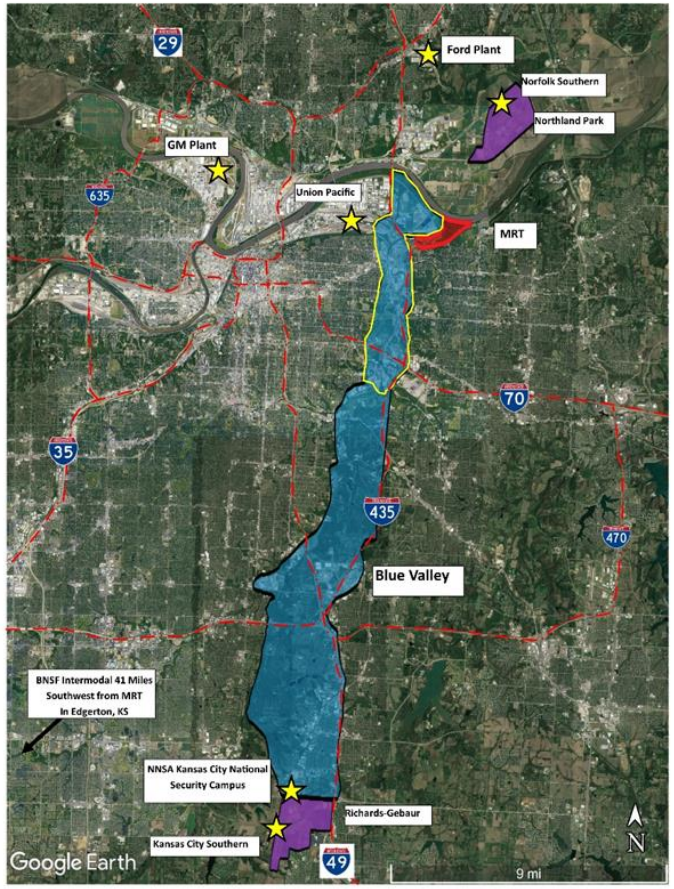
Public/Private Partnership

- February 2018 – Port KC acquires former AK Steel Site
- July 2018 – Port KC engages P3 counsel to begin internal review
- July 2019 - Port KC engages KPMG as P3 Financial Advisor
- September 2020 – Port KC begins application process to form a short line RR with the STB
- October 2020 – Port KC is awarded a Port Infrastructure Development Program (PIDP) Grant from MARAD for $9.88 million
- June 2021 – KPMG Completes Container Market Analysis and Forecast
- March 2022 – Port KC secures private financing for final planning
- June 2022 – Anticipated commencement of multiphase RFQ/RFP Process
- Q2 2023 – Anticipated Commercial/Financial Close
- Q3 2023 – Construction can commence
- 2024 – Potential start of operations

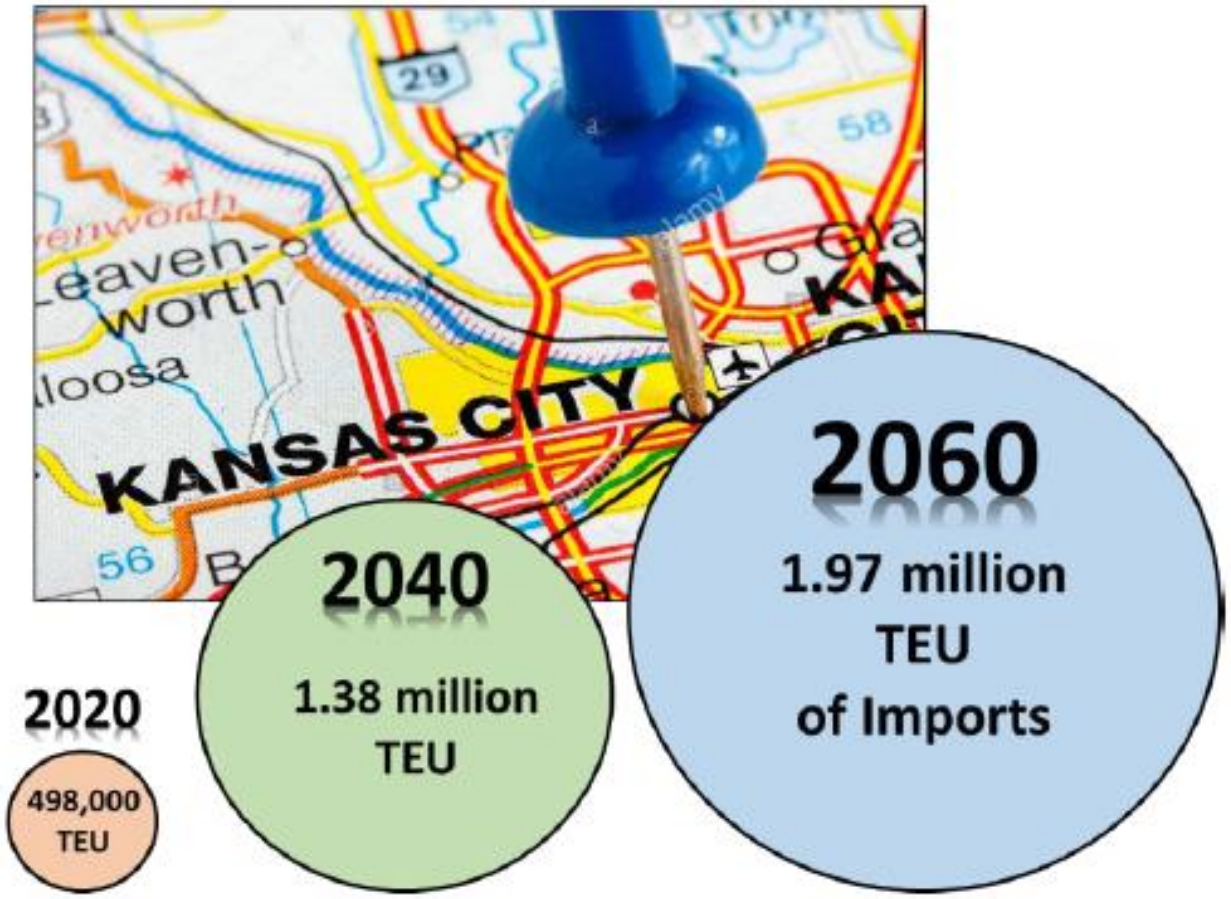
Site

Unimproved Aerial Picture

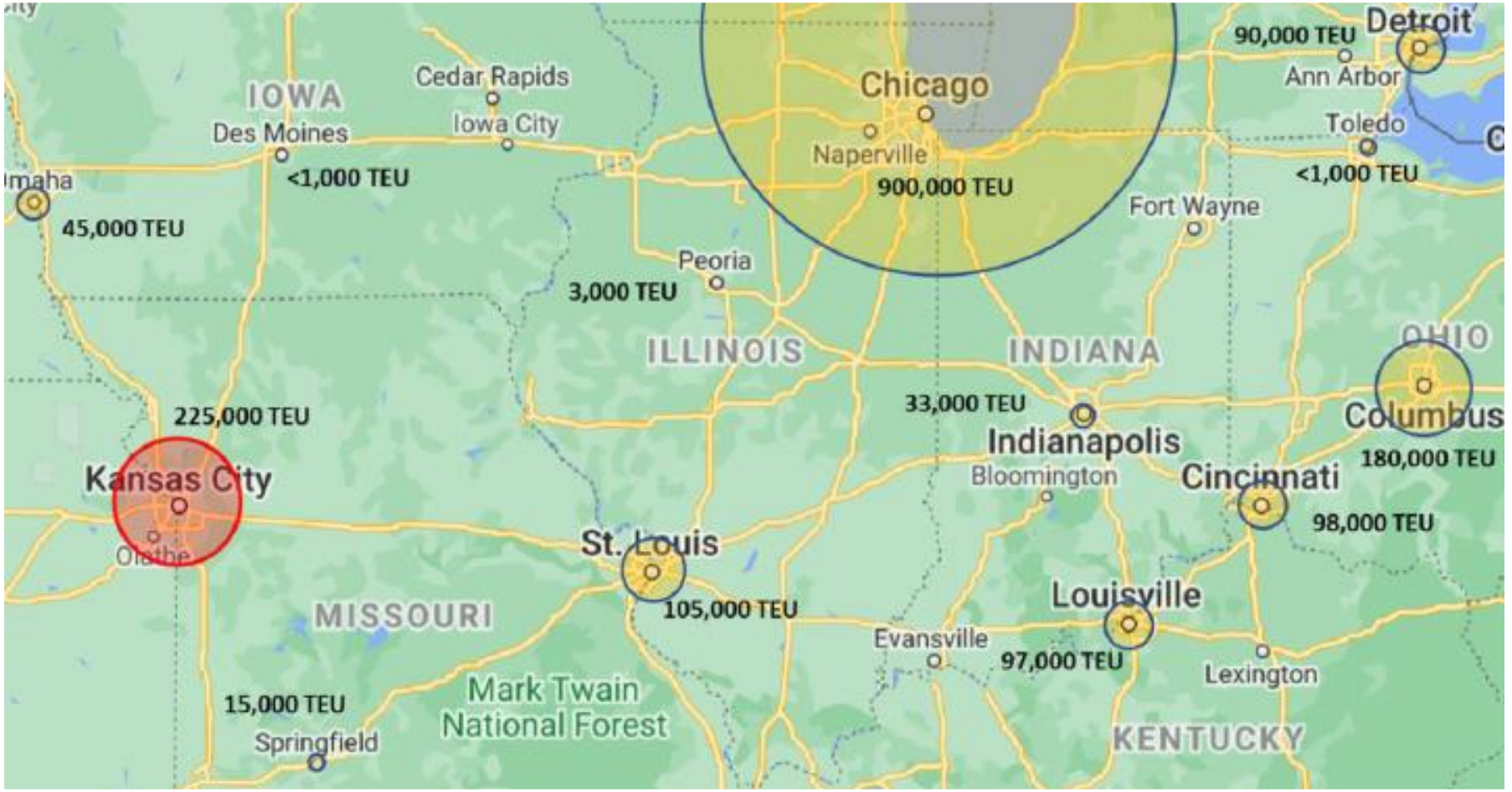
Port Location



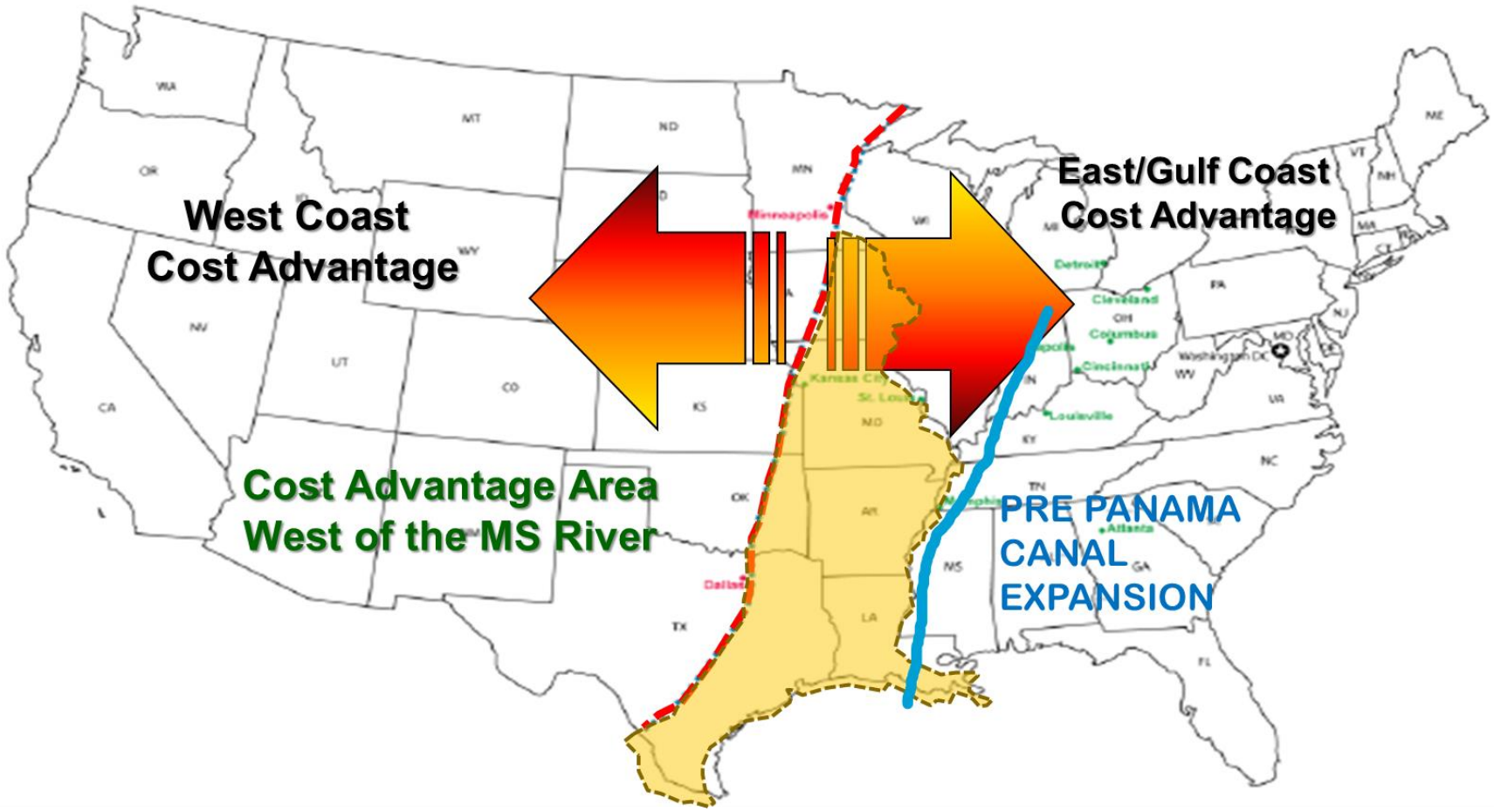
Freight Volume Forecast



Mid West Freight Centers



Shifting Gateways



Catoosa – a Study

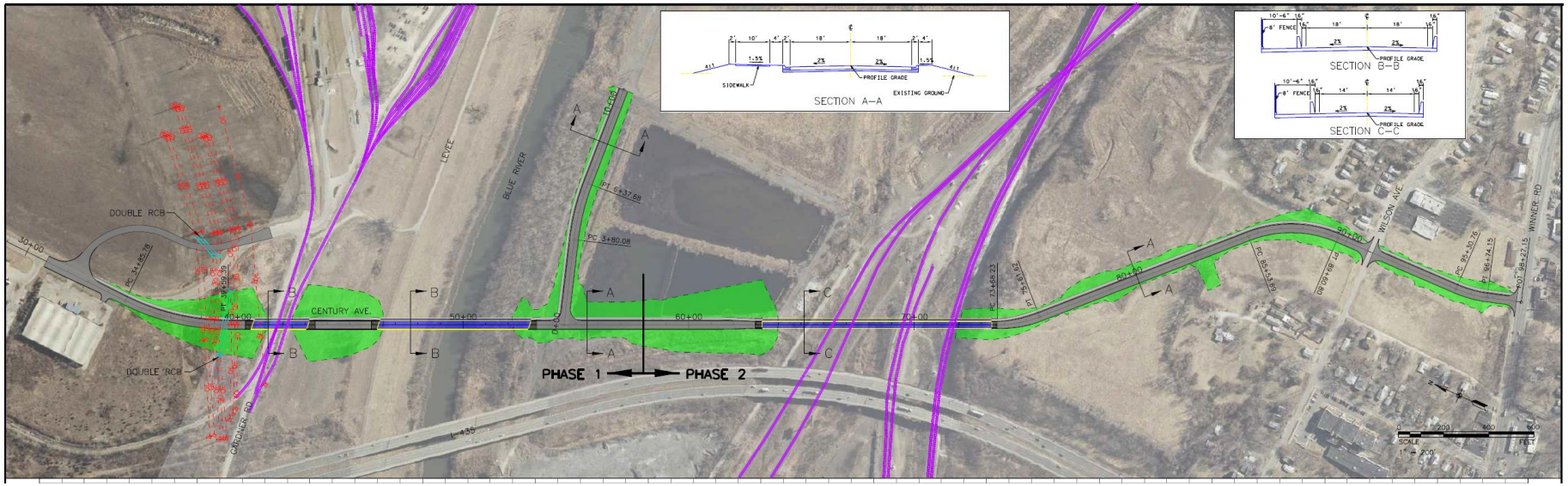
Sources, OK Historical Society, Marine Log

Freight Movement Opportunities
Economic, Social, and Environmental Reinvestment

- First 3 Mode Intermodal Facility in the Kansas City region in decades
- Remediating and Repurposing Environmentally Contaminated Site
- Agricultural Grains, DDG's & Oilseed Transfer/Containerization
- Neglected Heavy Manufacturing Corridor
- Advanced Industrial Manufacturing Zone (AIMZ)
- Foreign Trade Zone
- 5 Class 1 rail connections
- Accessible Workforce
- Efficient and Environmentally Friendly Design

I-435 Connection

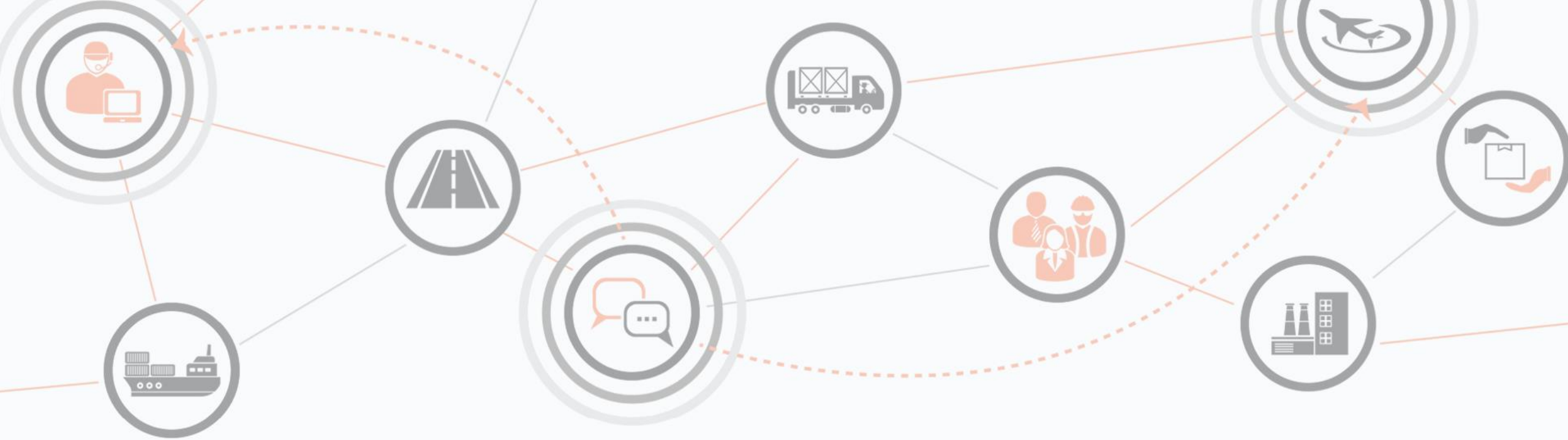
I-435 Connection



Artists Impression

portKC

Artists Impression



Missouri Supply Chain Task Force Meeting

APH /HAWTEX/APMT/LAGG / Missouri Ports

Midwest Logistic Alternative

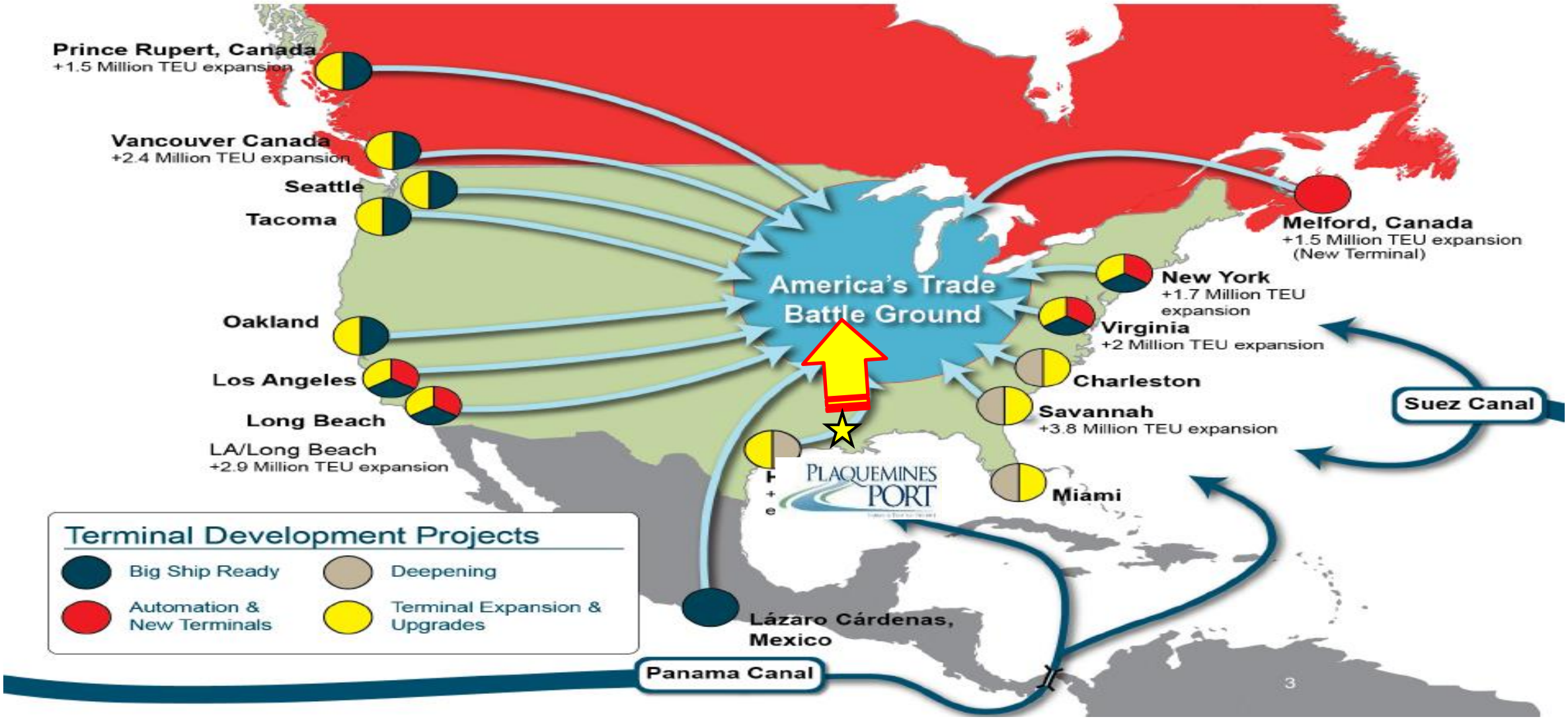
True Gateway Terminal in Plaquemines, LA.
Innovative / Patented Container on Vessel Design
Strategically Located Upriver Port Network
Provides Significant Competitive Cost Advantages

Governor Parson Update–December 16, 2021

Objective: Provide project update / Missouri impact / Next steps

- New State of Marine and Intermodal Competition
- How This Project Benefits the Nation
- New Gateway Port at Plaquemines to Supply Midwest
- Inland Port Strategic Partners
- APH Advantages to Midwest
- Phase 1 Operations – Status
  - Memphis
  - Saint Louis
  - Kansas City
  - Jefferson City
- Project Competitiveness – Third party Studies
- Project Milestones
- Next steps

New State of Marine & Intermodal Competition



Source: NW Seaport Alliance Strategic Business Plan, May 6, 2015

How This Project Benefits the Nation

Midwest and Gulf Coast Acquires “True Gateway Port” @ LAGG

- **Reduces dependence on rail (expensive, reliability issues, lacks customer service)**
- **Reduces dependence on congested West Coast ports**
- **Green hydrocarbon footprint**
- **Services world’s largest ocean going container ships**

APCT Provides Most Efficient Marine Option for Midwest Supply vs. rail / dray

- **Made “Efficient” by combining:**
  - Reliability
  - Speed
  - Cargo Volume
  - Lower Freight Rates
  - Safety and Environmentally Friendly
  - Cargo Flexibility

PPHTD Development Plan – LAGG Container Terminal Detail

Inland Port - Strategic Partners

APH- Advantages to Midwest Market Supply

APH – Offering Efficient Marine vs. Inefficient COB to the Midwest

- *Loading and Unloading via Conventional Cranes*
- *Utilizing Hopper Barges for Containers*

COB's Inherent Operational Shortcomings: (Currently used to Port of New Orleans)

- ✓ Hopper barges have stability issues with high loads
- ✓ Limited cargo payload capacity (250-300 TEU)
- ✓ Conventional upriver speed (4-5 mph); low capacity cranes
- ✓ Potential for barge breakaways
- ✓ Propulsion via diesel engines

Liner Vessel Specifications – Mississippi River Service

- Cairo
- Memphis
- 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	1000 cm
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	2400	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

Hybrid Vessel Specifications Tributary Rivers – Above Locks

- Joliet
- Kansas City
- Jefferson City
- Fort Smith

Length Overall	595 ft.	Ballast Tanks	Eight (8)
Beam	106 ft.	Fuel type	LNG
Height Above Water	42 ft. at 9’ Draft	Fuel Capacity	1000 cm
Speed (Upriver)	13 MPH	Power Plant	Diesel Electric
Operating Draft	Up to 10 ft.	Main Generators	Three (3) 2880 kW each
DWT	10.0k-11.5k LT (9-10 ft drafts)	Horsepower	11,600
TEU Capacity	1864	Propulsion Drives (Stern)	Three / Four Drives
Reefer TEU Capacity	300+ Electric Power as Needed	Bow Drives	Two (2) 750kW each
Crew Size	Expect 10-12	Deck Machinery	Electric
Trading Range	Tributary Rivers	GRT	TBD

Memphis Terminal

Memphis Phase 1 - Update

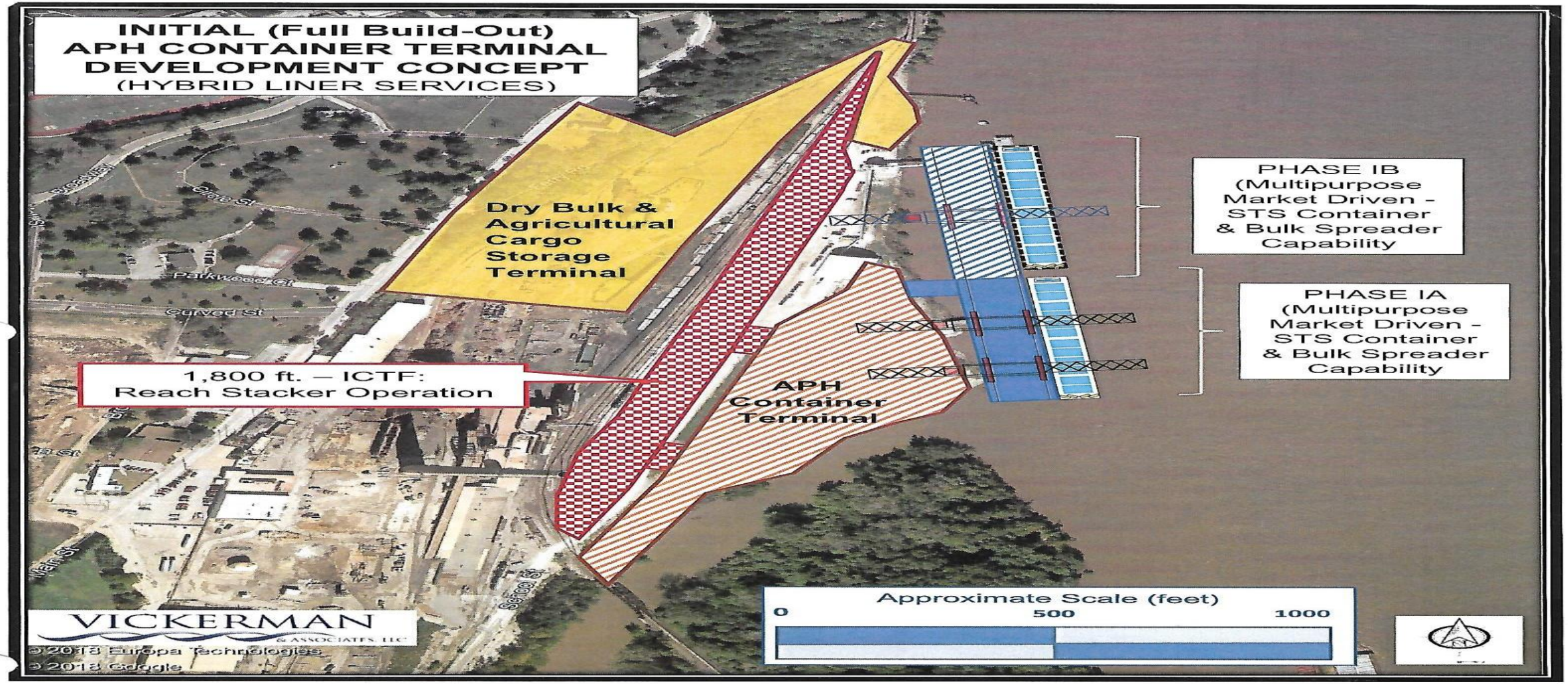
- LOI signed for development of state of the art Container terminal
- HAWTEX confirmed agreements with 2 BCO's for annual long term export volume of 120,OOO TEU commencing 2nd Qtr.2024
- HAWTEX confirmed additional BCO agreement for annual long term import volume of 10,000 TEU commencing 2nd Qtr. 2024
- HAWTEX/APH in discussions with multiple other BCO's representing annual export and imports volume of 125,000 TEU commencing 2nd Qtr. 2024 (Agreements expected 1H 2022)
- Schedule for Phase 1 Operational Date 4/1/2024

RCP / Herculaneum – Saint Louis Terminal

RIVERVIEW COMMERCE PARK, LLC

RIVER PORT TERMINAL BACKLAND
REMEDIAL DEVELOPMENT PLAN
Doe Run Company, RCP / Fred Weber, Inc.

THE DOE RUN COMPANY



Intermodal Container Transfer Facility (ICTF) – Phase IA/IB
APH Area = 4.6 acres (Reach Stacker Operation)

Container Terminal - Phase I (RTG Operation)
APH Area = 7.4 acres

STL/Herculaneum Update

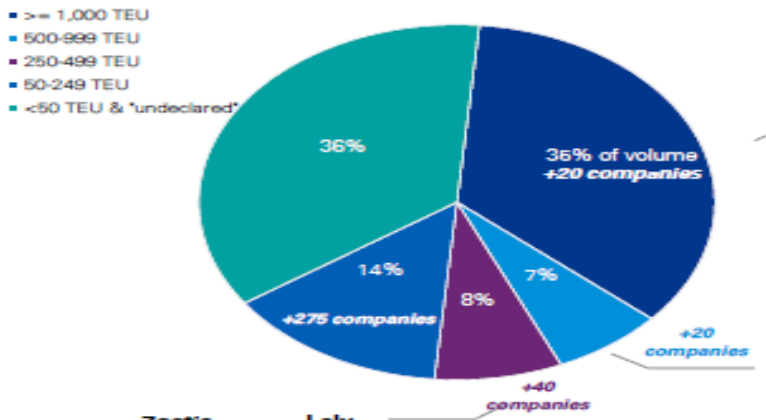
- Developer (HAWTEX) and STL terminal principals have signed LOI

- Commencing large scale marketing initiative
  - ➢ HAWTEX, APH, APMT, STL Freightway
  - ➢ Targeting 2ND Qtr. 2022 sign BCO agreements

- Projected Operational Date 4TH Qtr. 2024
  - ➢ Must be sync'd with terminal start-up and vessel availability

Kansas City Terminal

1 Selected Kansas City Container Importers, 2019



Sunbeam Pure Fishing

Ford Dollar Tree

Grainger GM

Kubota Spectrum Brands

Bayer Crop Science

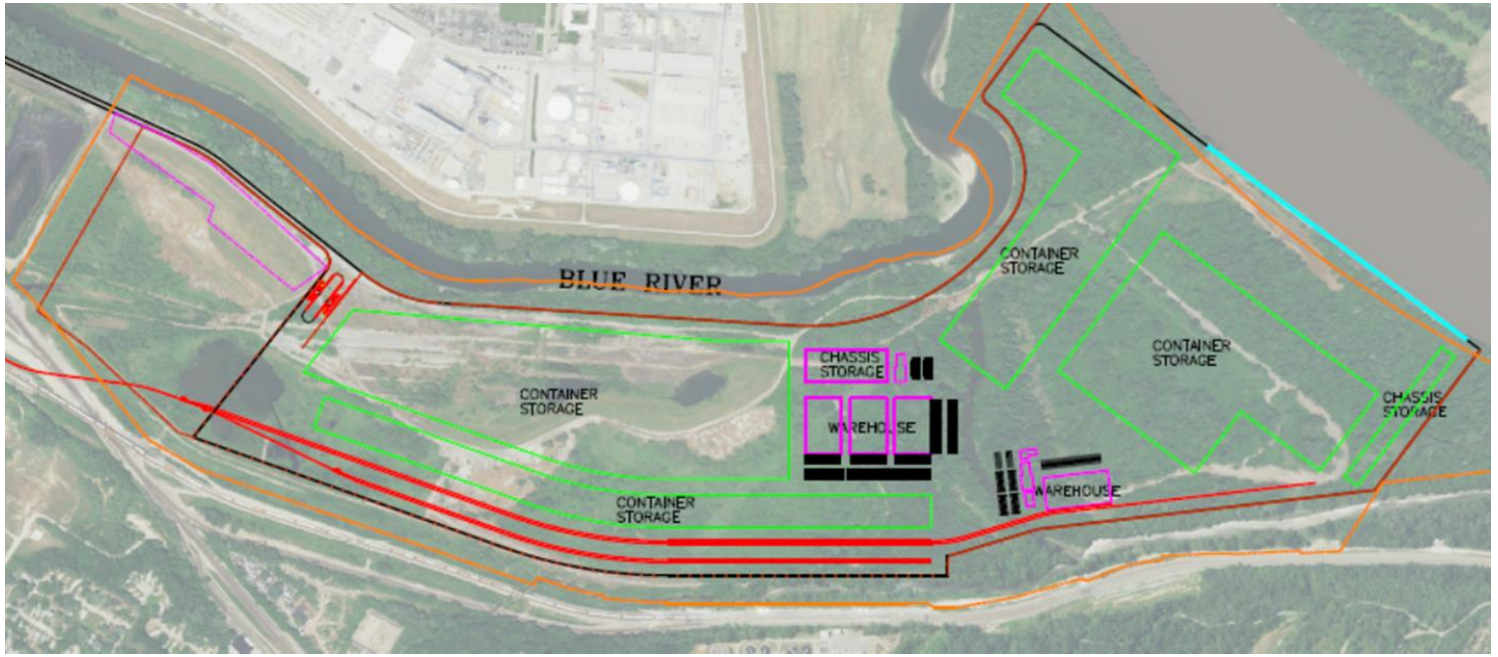
Husqvarna Schlage

CNHI Industrial Everlast Garmin

Zoetis Lely

Empire Candle co Hale Fireworks LLC

Bekaert

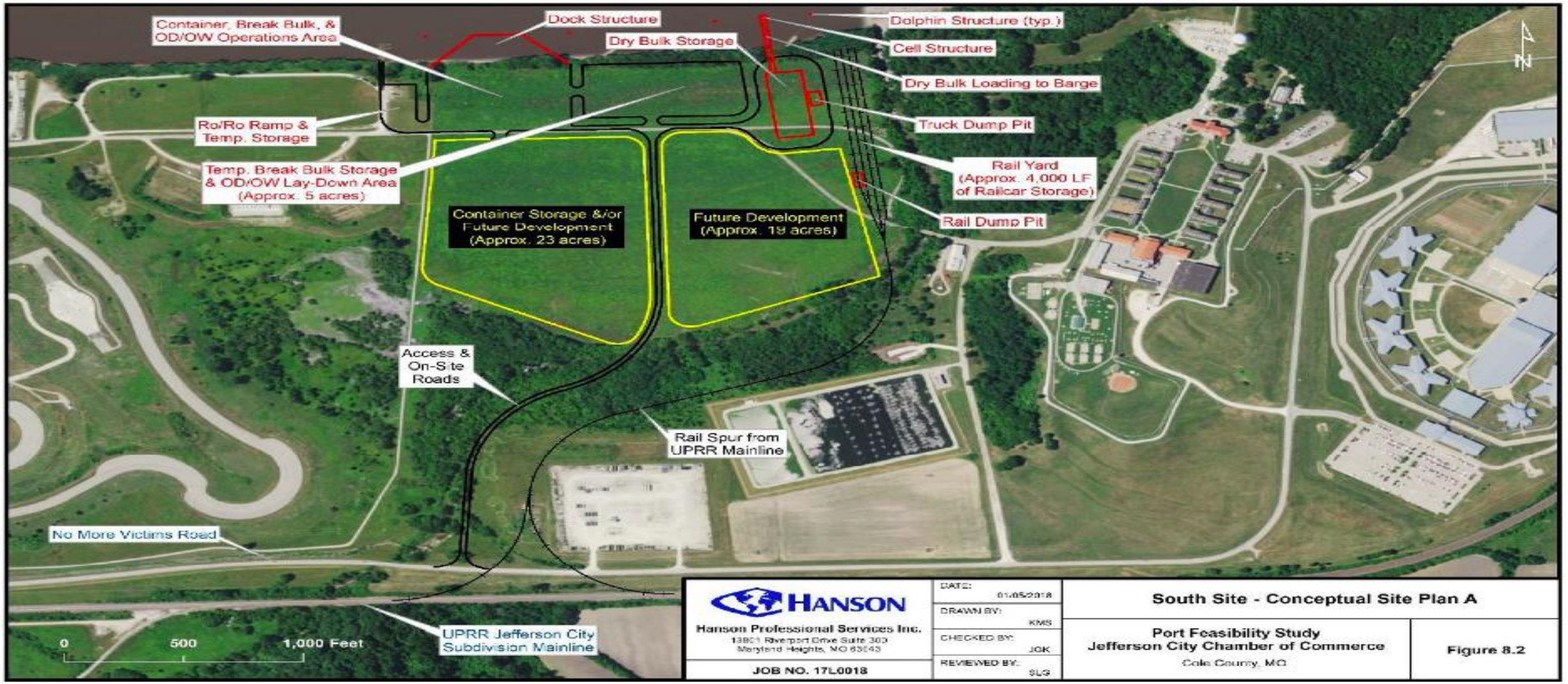


Heartland Port Authority – Jefferson City Terminal

Public/Private Partnership

- Feb 2019 Port KC Employs Law Ballard Spahr for PPP negotiations
- July 2019 Port KC Employees KPMG as Financial Advisor for PPP Transaction
- 3rd quarter 2020 Port KC applies to STB for railroad status
- In October 2020, USDOT awarded Port KC a Port Infrastructure Development Program (PIDP) Grant for $9.88 million
- RFQ/RFP for Terminal Design, Build, Operate, Maintain finalized second quarter 2022
- Terminal construction expected to commence 2023.
- Depending on needs MRT could be operational early 2024.

Heartland Port Authority – Jefferson City Terminal



- Finalize land purchase
- Identify and engage developer
- Attract new Manufacturing
- Secure long term BCO contracts
- Projected Operational start-up date 1st Qtr. 2025
    - ➢ Must be sync'd with terminal start-up and vessel availability

Verification of Project “Competitiveness”

Two Independent third party studies verified the “project pre-feasibility” competitiveness of servicing the Midwest via all water routing from LAGG vs. Inter-modal to / from the Midwest via other WC / EC / GC Ports

- Informa Economics- STC ISA AG Export Study
- CK Americas – LAGG vs. East and West Coast Ports to Midwest

CK Americas - Conclusions

West Coast congestion in LA/LB has been steadily increasing for past five years

- LBCT, in 2018, saw dwell times for freight forwards (BNSF) extend up to 6 days
- UP saw up to 10 to 12 days
- A significant portion of these delays were associated with movement of containers to the Midwest

Cost:

- The traditional ocean vessel cost differential Asia to GC vs. WC is $1,000 - $1,500 per container
  - ➢ More than offsetting this differential is lower GC terminal handling costs, better rail and road interface and lower inland transport cost
  - ➢ **The APH (Container on Vessel) option will provide even greater savings to use GC ports**
    - **32% on imports**
    - **46% on exports**

Time:

- Transit time to the Gulf Coast is 10 to 14 days longer, depending on speed, vs. LA/LB ports
  - ➢ LA/LB port dwell time and delay to access rail exceed the longer ocean transit time
- **LAGG's same day multi-modal conductivity assures more efficient transit times**
  - ➢ **1.1 days on imports**
  - ➢ **1 day on exports**

Independent Verification:

- Midwest BCO's confirmed transit times to W Arkansas via LA/LB are 5 to 7 days longer than from the GC ports

FEU IMPORTS - from Shanghai (Dry Goods)				FEU EXPORTS - to Shanghai (Dry Goods)			
			APH Time				APH Time
Final Destination->	MEMPHIS	APH Savings	Advantage	Final Destination->	Shanghai	APH Savings	Advantage
Ports of Entry	LA	26%	5.0	EXPORT-via LA	Origin		
	Houston	26%	1.0		STL	78%	4.0
	NOLA	17%	4.5		Memphis	73%	3.0
	Mobile	12%	-1.0		Fort Smith	68%	4.0
	PPHTD						
				EXPORT-via HOU	Origin		
Final Destination->	SAINT LOUIS				STL	63%	-1.0
Ports of Entry	LA	29%	5.0		Memphis	46%	1.0
	Houston	41%	-1.0		Fort Smith	22%	-2.5
	NOLA	37%	2.5				
	Mobile	32%	-2.5	EXPORT-via NOLA	Origin		
	PPHTD				STL	49%	2.5
					Memphis	23%	4.5
Final Destination->	FORT SMITH				Fort Smith	28%	1.0
Ports of Entry	LA	48%	5.0				
	Houston	22%	-2.6	EXPORT-via Mobile	Origin		

Informa Economics – Soy Studies – STC/ISA AG Study

Study Objective:

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

Study Conclusions:

Significant savings result from all water routing to LAGG 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

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

Origin	Road WT	Rail WT
Memphis	40 %	33 %
St. Louis	44 %	39 %

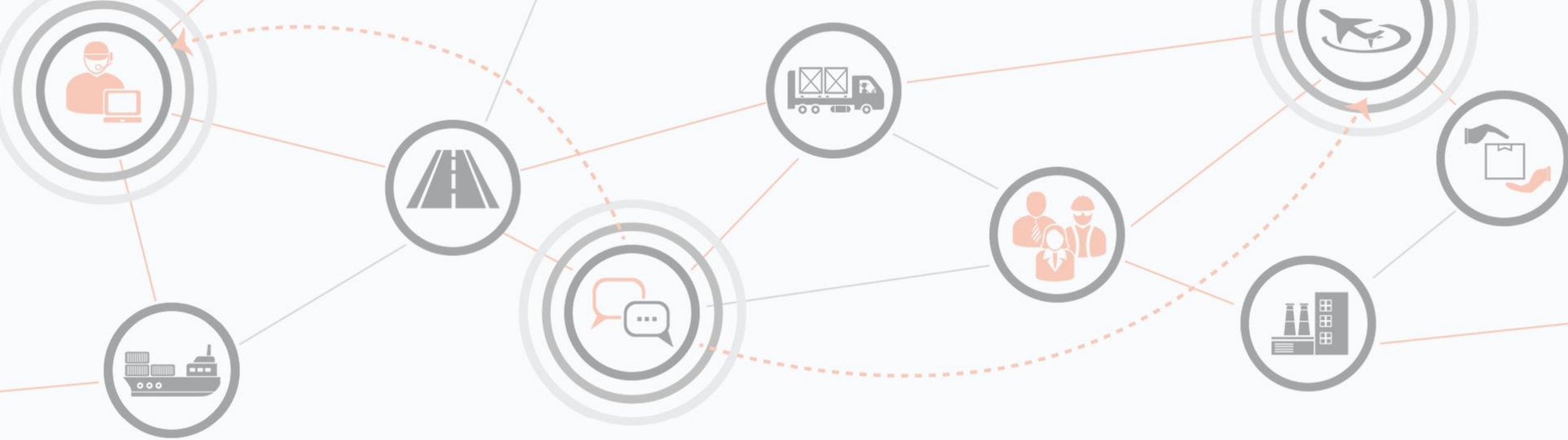
Access the Soybean Transportation Coalition web site to see entire report

Project Milestones as of 12/16/2021

- APMT signed LOI to be terminal operator at LAGG
  - ➢ Plans April 1, 2024 start up for marine operations
  - ➢ Multi-modal at start-up
  - ➢ LOI's signed with several key BCO'S (base load cargo)
- LAGG land secured by PPHTD (2 parcels finalized 4/1/22)
- SP Rail Partnership commitment with $5O M for short line
- Phase 1 - Memphis
  - ➢ Memphis expected operational 2nd QTR, 2024
  - ➢ Plan four (4) dedicated APCT vessels
- APH Commence shipyard bid process (bids final review decision 5/22))
- Phase 2 – Saint Louis
  - ➢ Saint Louis expected operational 4Qtr. 2024

Missouri Team Initiatives and Next Steps

- Team approach through start-up
- Joint marketing initiative
  - ➢ BCO / Shipper meetings planned January 2022
  - ➢ Goal is dedicated term volume to support business model and provides value to shipper
- Conduct Regional outreach for economic development
  - ➢ Attract new manufacturing and distribution opportunities
- Secure bankable agreements for STL/KC/Jeff City
- Align operational dates as marketing and business initiatives support investment



Missouri Supply Chain Task Force Meeting

SHARED CORRIDORS: IT'S IN OUR NATURE

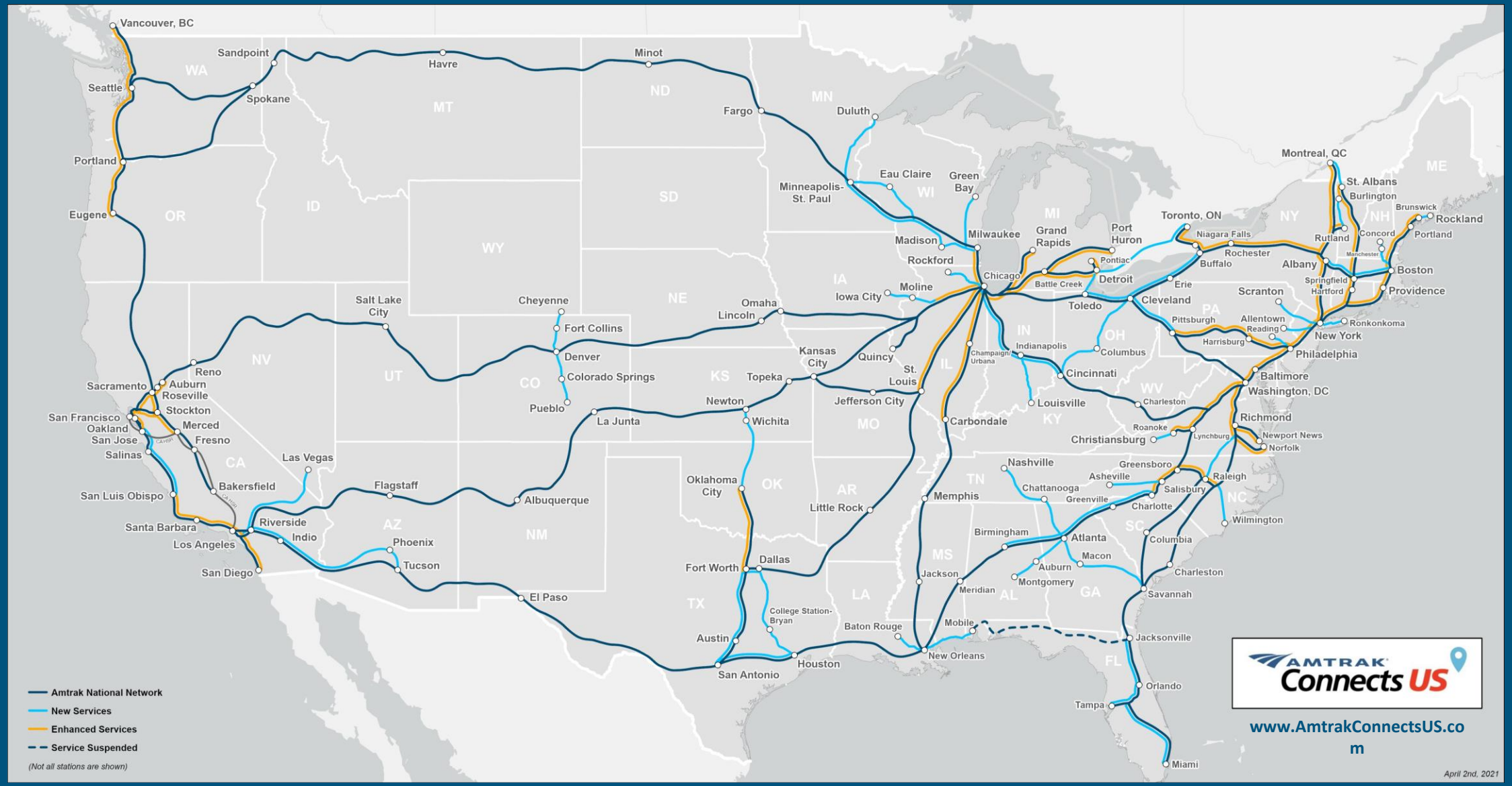
SUCCESS AND PROGRESS IN THE AMTRAK MIDWEST

Derrick James
Amtrak Government Affairs

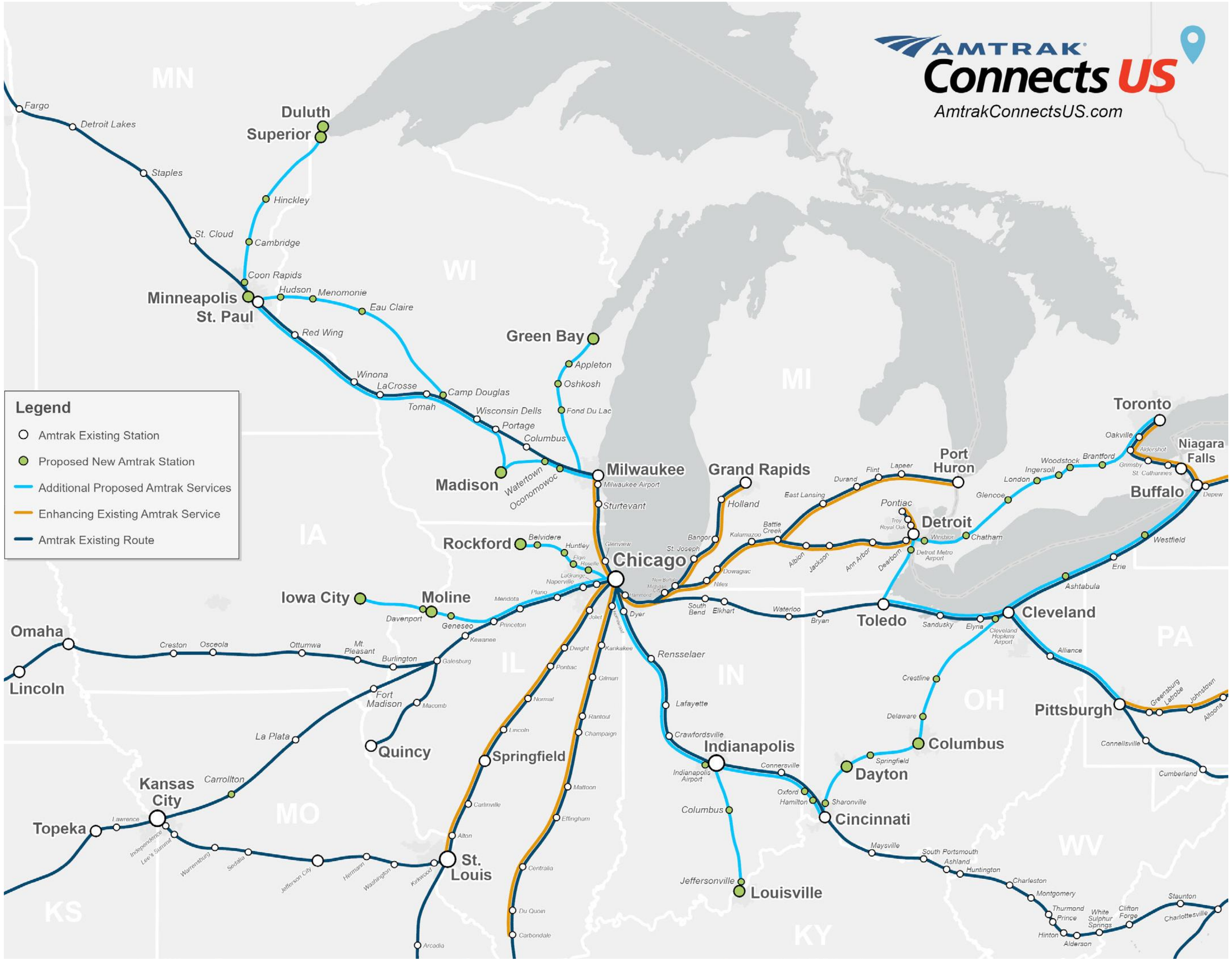
Missouri Supply Chain Task Force

April 7, 2022

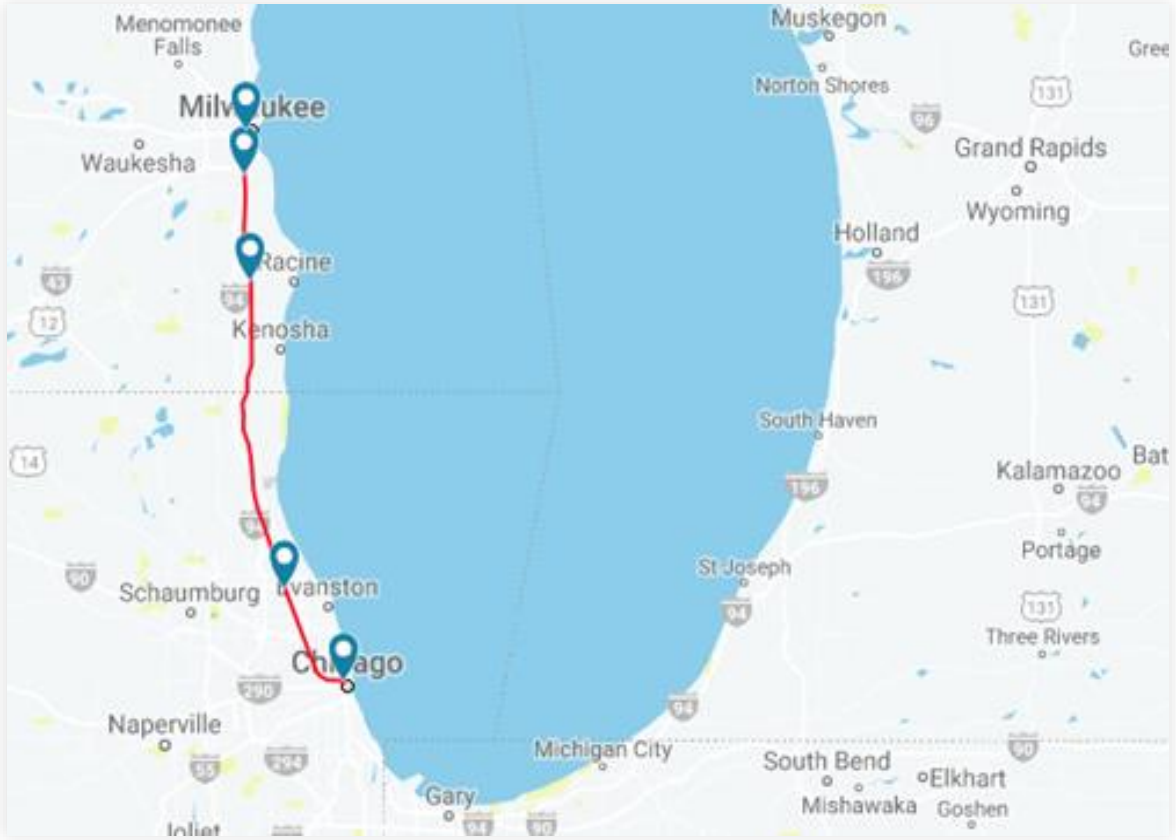
Amtrak's Vision for Corridor Development



Map is for illustrative purposes only, and depicts one of many possible scenarios for what service could look like in 2035. Amtrak is interested in working with any state that wishes to expand service.


AMTRAK
Connects US
AmtrakConnectsUS.com
Legend
Amtrak Existing Station
Proposed New Amtrak Station
Additional Proposed Amtrak Services
Enhancing Existing Amtrak Service
Amtrak Existing Route
MN
WI
MI
IA
IL
IN
OH
PA
MO
KS
KY
WV
Fargo
Detroit Lakes
Staples
St. Cloud
Duluth
Superior
Hinckley
Cambridge
Coon Rapids
Minneapolis
St. Paul
Hudson
Menomonie
Eau Claire
Red Wing
Winona
LaCrosse
Tomah
Camp Douglas
Wisconsin Dells
Portage
Columbus
Madison
Watertown
Oconomowoc
Green Bay
Appleton
Oshkosh
Fond Du Lac
Milwaukee
Milwaukee Airport
Sturtevant
Rockford
Belvidere
Huntley
Glenview
Chicago
Iowa City
Moline
Davenport
Geneseo
Mendota
Plano
Princeton
Kewanee
Galesburg
Omaha
Lincoln
Creston
Osceola
Ottumwa
Mt. Pleasant
Burlington
Fort Madison
Macomb
Quincy
La Plata
Kansas City
Carrollton
Topeka
Lawrence
Independence
Lee's Summit
Warrensburg
Sedalia
Jefferson City
Hermann
Washington
Kirkwood
St. Louis
Arcadia
Joliet
Dwight
Pontiac
Normal
Lincoln
Springfield
Carlinville
Alton
Kankakee
Gilman
Rantoul
Champaign
Mattoon
Effingham
Centralia
Du Quoin
Carbondale
Dyer
Rensselaer
Lafayette
Crawfordsville
Indianapolis
Indianapolis Airport
Connersville
Columbus
Jeffersonville
Louisville
Grand Rapids
Holland
Bangor
St. Joseph
Dowagiac
Niles
South Bend
Elkhart
Waterloo
Bryan
Toledo
Kalamazoo
Battle Creek
Albion
Jackson
Ann Arbor
Dearborn
East Lansing
Durand
Flint
Lapeer
Port Huron
Pontiac
Troy
Royal Oak
Detroit
Detroit Metro Airport
Windsor
Chatham
Glencoe
London
Ingersoll
Woodstock
Brantford
Oakville
Aldershot
Grimsby
St. Catharines
Toronto
Niagara Falls
Buffalo
Depew
Westfield
Erie
Ashtabula
Cleveland
Sandusky
Elyria
Cleveland Hopkins Airport
Alliance
Crestline
Delaware
Columbus
Springfield
Dayton
Oxford
Hamilton
Sharonville
Cincinnati
Pittsburgh
Greensburg
Latrobe
Johnstown
Altoona
Connellsville
Cumberland
Maysville
South Portsmouth
Ashland
Huntington
Charleston
Montgomery
Thurmond
Prince
Hinton
Alderson
White Sulphur Springs
Clifton Forge
Staunton
Charlottesville

HIAWATHA SERVICE

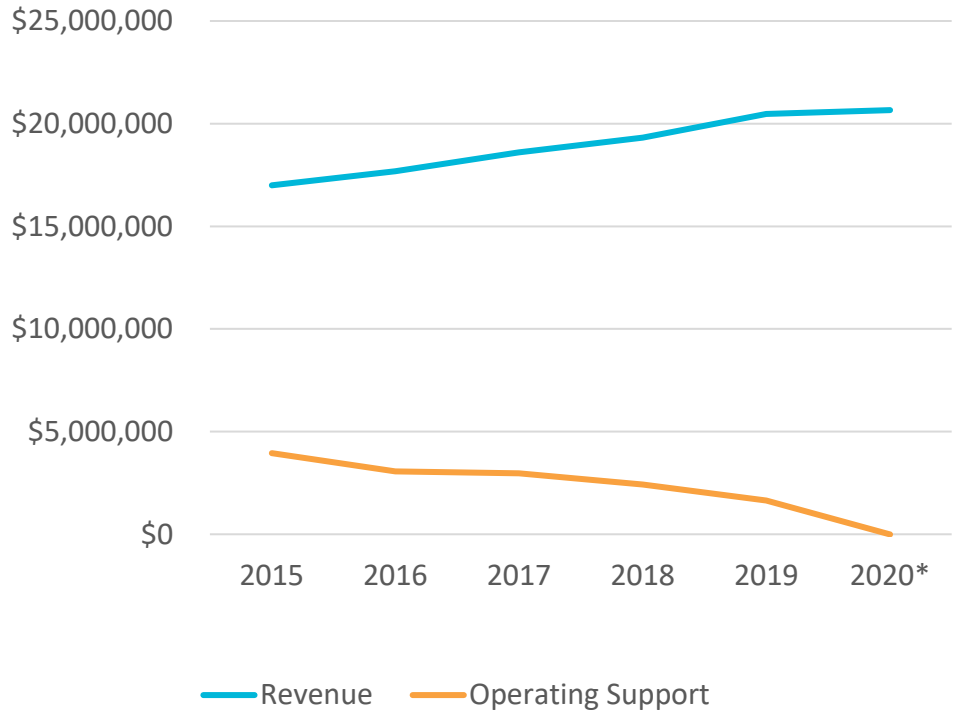


Chicago-Milwaukee Airport-Milwaukee

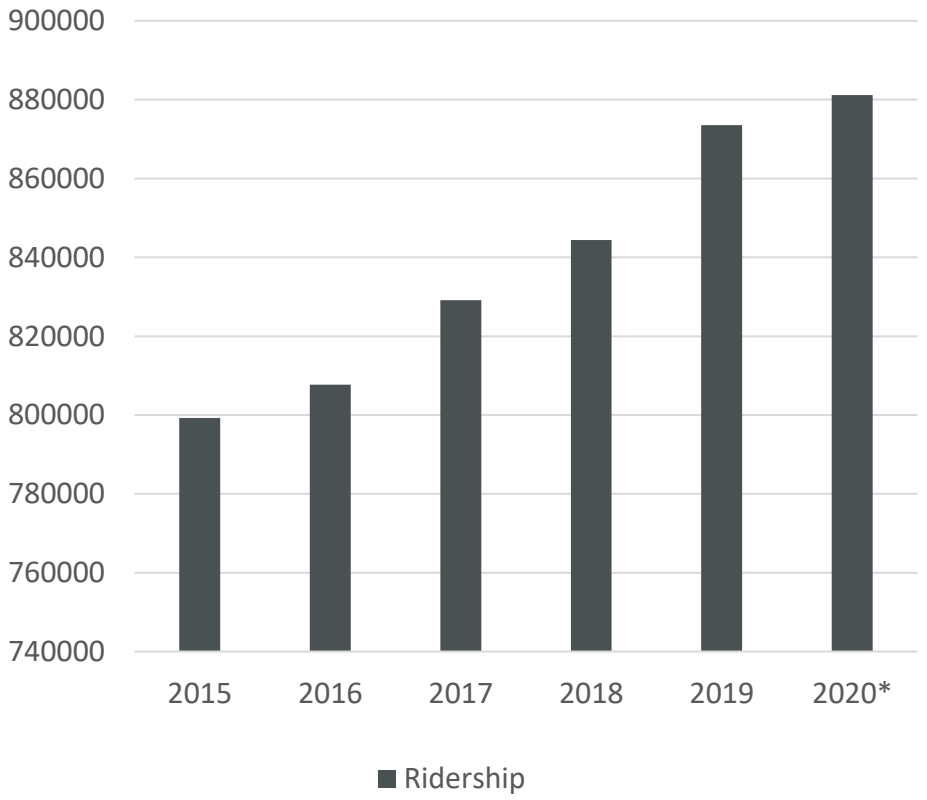
- 86-mile route
- 90-minute trip
- 900,000 annual trips, pre-pandemic
- Operating ratio of 1.0 (pre-pandemic)
- OTP more than 90%.

THE MORE YOU CAPITALIZE, THE LESS YOU SUBSIDIZE

Hiawatha Financial Results



Hiawatha Ridership



*2020 Revenue and ridership performance based on contract estimate. Actual results affected by pandemic induced travel declines.

16 Amtrak, 64 Metra, 20+ CP freight

CANADIAN PACIFIC RAILWAY

CAPITAL INVESTMENTS DRIVE SERVICE IMPROVEMENTS INCREASING CUSTOMER SATISFACTION, RIDERSHIP AND REVENUE

2005 **Milwaukee Airport Rail Station** $6.8 million

2007 **Milwaukee Intermodal Station Renovations** $16.9 million

2012 **CP Truesdale, Pleasant Prairie Crossovers** $11 million (all Federal)

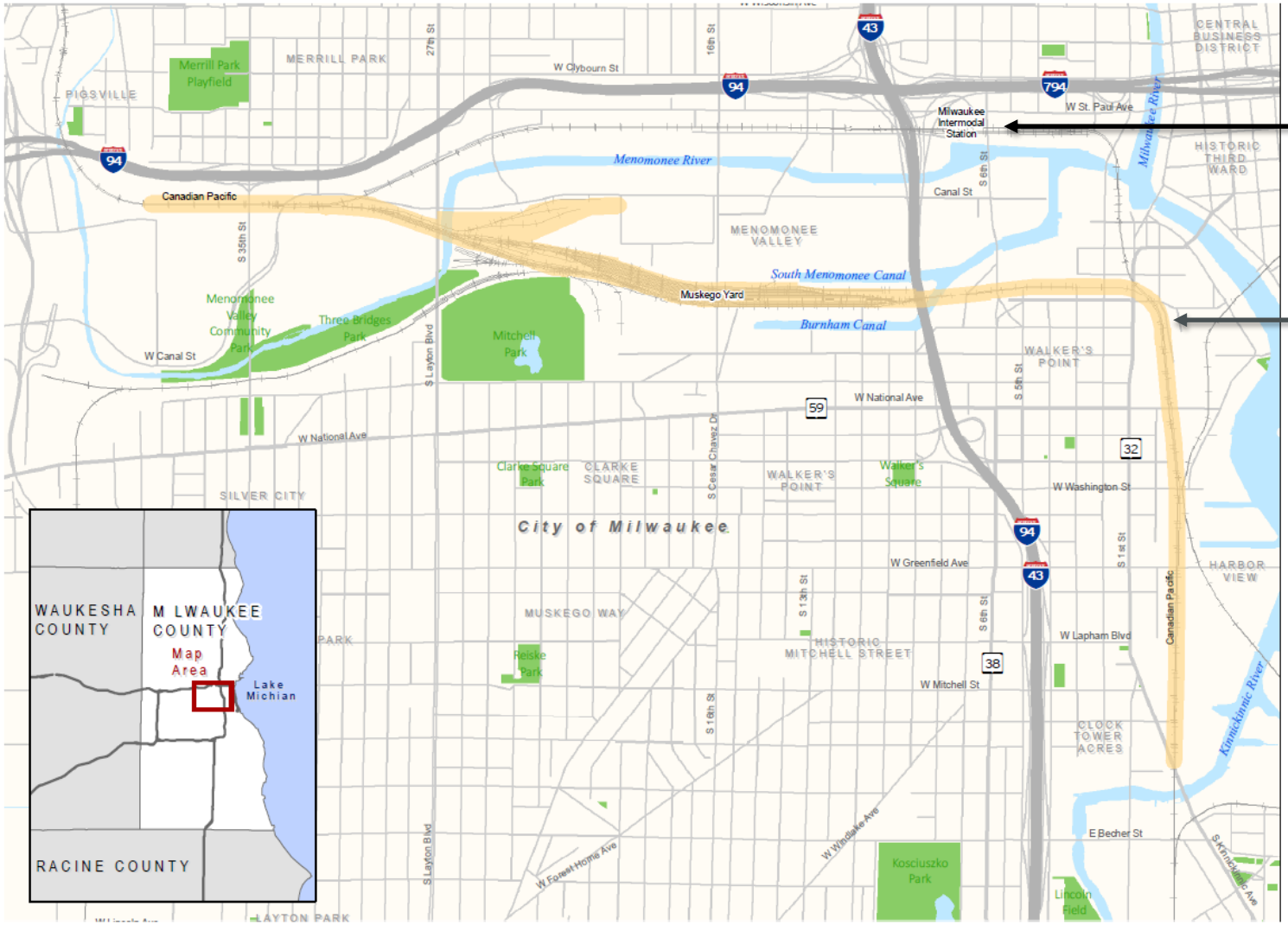
2014 **CP Wadsworth Bridge** $6 million total ($3 million Federal, $3 million CPRR)

2019 **Milwaukee Airport 2nd platform and ped bridge** $5 million Federal

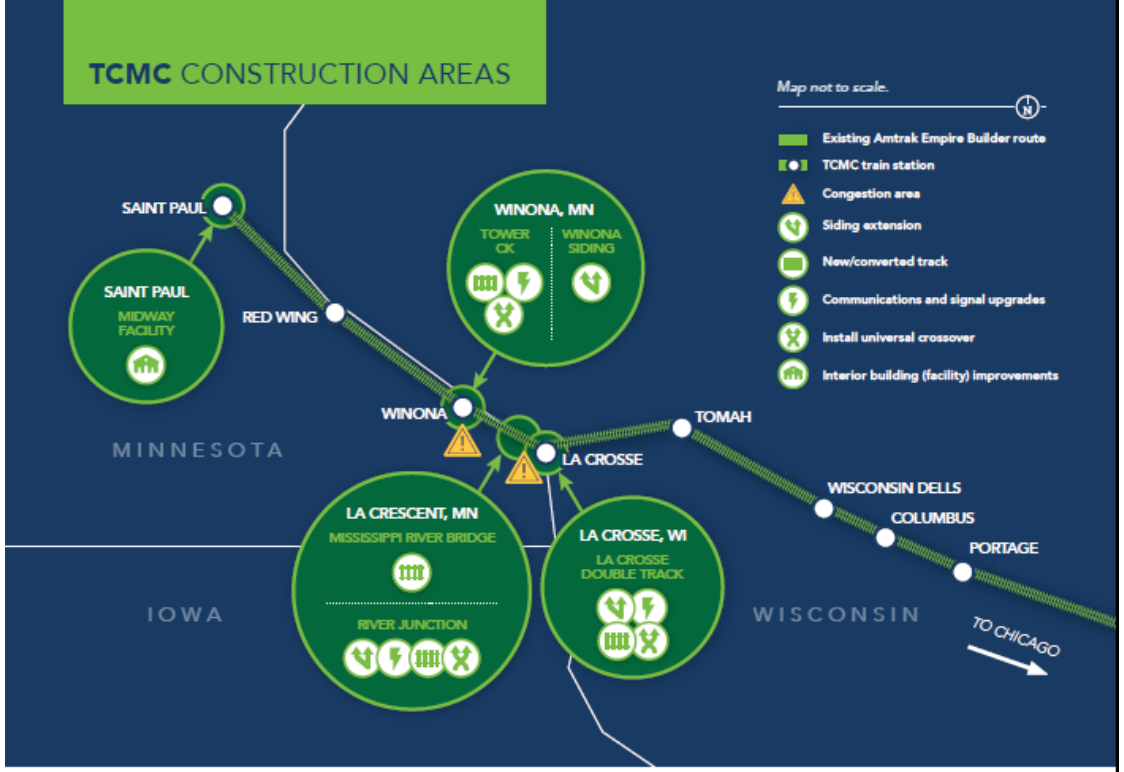
2020 **CP Muskego Yard Bypass** $55 million total ($26.5 million Federal)

2021 **New Venture Coaches deployed** $342 million Federal

$55 MILLION CP MUSKEGO YARD BYPASS



Muskego Yards Bypass Project
Project Area Map



Proposed TCMC improvements would reduce weekly gate-down times by 9% in Winona, Minnesota and La Crosse, Wisconsin.

The TCMC project includes improvements to rail infrastructure, so that the corridor can handle the increased freight and passenger train traffic.

These upgrades will allow the freight trains to move more quickly and smoothly through the corridor and alleviate train congestion and delays.

TCMC BENEFIT: FREIGHT DELAY SAVINGS

	2024	2040
minutes per year	21,800	192,000
hours per year	360	3,200

Cooperation between the states, host railroads and Amtrak critical to securing funding partnership

- ✓ Extensive community outreach
- ✓ Worked with host railroad preferred consultant to identify needed infrastructure improvements
- ✓ $ 53 million project cost with Federal, State and Amtrak commitments
- ✓ Freight shipper and railroad safety benefits broadened supportive coalition

TWIN CITIES-MILWAUKEE-CHICAGO FUNDING PARTNERSHIP

Congress and the Administration have backed this project with funding

- **$31.8 million Federal** Rail Improvement Grant awarded September 2020
- 3-year **$12 million operating support grant** awarded in April 2020
- **$40 million** of track work in LaCrosse, Wisc., and La Crescent and Winona, Minn.

Wisconsin is investing

- Bonding $35 million toward passenger rail improvements, **$6.7 million** for TCMC

Amtrak is investing

- **$5 million**

Minnesota budget appropriation

- **$10 million**

CAPITAL PROJECT TOTAL

- **$53 million**

Federal government ranks TCMC as the #1 potential rail passenger corridor for development in the Midwest, connecting three pivotal American population, cultural and commercial centers.

In Missouri, joint investments expand capacity for freight and passenger trains

$28 million Osage River Bridge funded with Federal grants and railroad capital
$8.1 million 9,000' siding at California paid for with State and Federal funds
Sheffield and Argentine Flyovers in Kansas City

** Frequency information excludes any long-distance / non-state-supported trains. Some trains may be double-counted.*

Working in partnership with open communication and reasonable investment can deliver value to travelers and the economy