35th meeting of the

IOWA FREIGHT ADVISORY COUNCIL

December 10, 2021
10:00 AM to 2:00 PM
Courtyard by Marriot
2405 SE Creekview Dr, Ankeny, IA 50021

Meeting input objectives

1. Hear from two major freight companies in the state and discuss regional, national, and international freight trends and opportunities within the industry.
2. Participate in an input exercise to prioritize multimodal freight strategies in the state freight plan.

10:00 AM	**Safety Briefing**	**Amanda Martin** **Iowa DOT**
	Welcome & Introductions *Ice breaker: Provide any comments, updates, notable items, etc. related to your business since the last meeting.*	**Mike Steenhoek, Chair** **Soy Transportation Coalition**
10:30 AM	**Amazon** A presentation from Amazon including general facility overviews, the company supply chain model, and how the regional facilities fit in.	**Doug Martin** **Amazon DSM5**
11:15 AM	**Port of Blencoe** A presentation from New Cooperative on the new Port of Blencoe on the Missouri River including the effort required to make it a reality, current operations, and future plans for the facility.	**Dan Dix** **New Cooperative**
12:00 PM	**Lunch**	
12:45 PM	**Iowa DOT Update and Federal Infrastructure Bill Status** Overview of the DOT's perspective on the status of the Federal infrastructure bill, summary of the upcoming State legislative session, and other general agency updates.	**Stu Anderson** **Iowa DOT**
1:15 PM	**State Freight Plan: Implementation Strategies** Presentation of the multimodal implementation strategies in the state freight plan, followed by an input exercise for attendees.	**Sam Hiscocks** **Iowa DOT**
1:55 PM	**Future Discussion Topics and Closing Remarks** An opportunity for members to suggest future agenda items or discussion topics to be considered for the 2022 meetings.	**Mike Steenhoek, Chair** **Soy Transportation Coalition**

2:00 PM **Adjourn**

Future meetings:

- March 25, 2022
- June 17, 2022
- September 16, 2022
- December 16, 2022

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Members

x	Gabe Claypool, Des Moines Industrial		Joe Parsons, Iowa Interstate Railroad
x	Tom Determann, Clinton Regional Development	x	Dan Sabin, Iowa Northern Rail.
x	Greg Dickinson, Ten D/Merchants Distribution	x	Jody Sandy, Hy-Vee
x	Gary Handley for Allison Meiners, IMTA	x	Mike Steenhoek, Soy Transportation Coalition
x	Don McDowell, Iowa Farm Bureau	x	Reilly Vaughan, Agribusiness Assoc. of Iowa
x	Bob Rafferty for Delia Moon-Meier, Iowa 80	x	Jeff Woods for Jillian Walsh, Travero
x	James Niffenegger, Landus Cooperative		Ron White, Artco Fleeting Service
	Kelli O'Brien, Union Pacific Railroad		Tim Woods, Woods Development

Ex-Officio Members

	Todd Ashby, Des Moines Area MPO	x	Shirley McGuire, FMCSA
	Col. Jesse Curry, USACE Rock Island District		Mike Norris, Southeast Iowa RPC
x	Mike Hadley, Keokuk County		Paul Ovrom, IDALS
x	Michael Kober, Iowa Dept. of Public Safety	x	Joseph Rude, Iowa Economic Dev. Authority
x	Sean Litteral, FHWA Iowa Div.		Louis Vander Streek, Iowa Utilities Board
	Scott Marler, Iowa DOT	x	Jennifer Wright, Iowa DNR
	Tim Marshall, FHWA Iowa Division		

Iowa DOT

x	Stu Anderson	x	Tammy Nicholson
	Zac Bitting	x	Garrett Pedersen
	Mikel Derby	x	Charlie Purcell
	Brenda Freshour-Johnston	x	Ryan Ridout
	Melissa Gillett		Jeff von Brown
x	Sam Hiscocks		Susan Wallace
x	Alex Jansen		Andrea White
	Troy Jerman	x	Caleb Whitehouse
x	David Lorenzen		Lee Wilkinson
	Craig Markley		
x	Amanda Martin		

Guests

x	Doug Martin, Amazon		Paul Kirpes, TPG Companies
x	Dan Dix, NEW Cooperative		
x	Mark Walter, NEW Cooperative		
x	Frank Huseman, NEW Cooperative		

Meeting input objectives

1. Hear from two major freight companies in the state and discuss regional, national, and international freight trends and opportunities within the industry.
2. Participate in an input exercise to prioritize multimodal freight strategies in the state freight plan.

10:00 AM	**Safety Briefing**	**Amanda Martin** **Iowa DOT**
	Welcome & Introductions *Ice breaker: Provide any comments, updates, notable items, etc. related to your business since the last meeting.*	**Mike Steenhoek, Chair** **Soy Transportation Coalition**

Following a safety briefing by Amanda Martin, Chair Mike Steenhoek opened by thanking the group for attending. Each attendee introduced themselves and provided recent updates in their industry. Items included:

- Traffic fatalities are up in 2021 mostly due to distracted driving.
- Supply chain issues and labor shortages are impacting most industries.
- Commercial drivers license (CDL) changes are resulting in challenges for the agriculture industry.
- The Infrastructure Investment and Jobs Act (IIJA) will provide more funding for transportation, including new opportunities for the inland waterway system.
- A new intermodal container facility in Butler County is resulting in increased container availability and shipping options from the state.
- A new transload facility in Des Moines will be operational by the end of the month which will allow for increased shipping options for Iowa industries.
- Many companies are facing increased equipment prices.
- Fertilizer demand and prices are both up this year.

10:30 AM	**Amazon** A presentation from Amazon including general facility overviews, the company supply chain model, and how the regional facilities fit in.	**Doug Martin** **Amazon DSM5**

Doug Martin with the Amazon DSM5 facility in Bondurant provided an overview of the Amazon supply chain model including building types, operations at fulfillment centers, and the company's overall Iowa footprint.

Amazon utilizes a significant number of buildings to allow for quicker delivery times. The supply chain begins with products leaving suppliers and being transported directly to a fulfillment center or to an inbound cross dock (IXD) facility where it is transferred to another truck and then sent to a fulfillment center. From there, products are moved to a sort center. In some cases, products go from the fulfillment center to an air gateway and then a sort center (or vice versa). Once products are sorted, they are sent to a delivery station or the post office before the final leg of the supply chain which is delivery to the customer.

- IXDs are locations used for product placement and transfer from one truck to another before going to fulfillment centers. Products typically arrive form vendors and then are sent out in totes or on pallets.
- Fulfillment centers are used for product storage and fulfillment.

- Sort centers are used to categorize different products received from fulfillment centers before being delivered to customers. Products typically arrive in boxes from multiple sources and are sent out to multiple destinations.
- Delivery stations receive products before being delivered to customers using different transportation companies and/or the U.S. postal service.

The company footprint in Iowa includes the Bondurant fulfillment center (supplied by over 9,000 Iowa companies among many others outside the state), Bondurant sort center, Grimes Amazon Logistics facility (AMZL), Grimes XL center, Ankeny AMZL, Davenport fulfillment center, Iowa City AMZL, and the Des Moines International Airport, which now serves as an air gateway for Amazon products.

11:15 AM	**Port of Blencoe** A presentation from New Cooperative on the new Port of Blencoe on the Missouri River including the effort required to make it a reality, current operations, and future plans for the facility.	**Dan Dix** **NEW Cooperative**

Dan Dix with NEW Cooperative presented on the company's efforts to establish a barge facility on the Missouri River near Blencoe. NEW Cooperative is headquartered in Fort Dodge and manages 66 locates in Northwest and North Central Iowa. Among other things, the company is involved with grain services and handling, feed production, agronomy sales and recommendation, custom application services, precision ag sales, and transportation.

NEW Cooperative initiated the development of a terminal on the Missouri River as a solution to growing transportation needs and a way to increase soybean basis for area farmers. The company was moving 36,000 tons of fertilizer from the Mississippi River at Dubuque each year. Opening the Blencoe terminal now saves an estimated 248,000 truck miles and 58,000 gallons of fuel annually, significantly reducing carbon emissions.

The company met with different stakeholders, including the Governor's office, Iowa DOT, Soy Transportation Coalition, and U.S. Army Corps of Engineers, to complete the project. The current site was selected due to the proximity to the Interstate System and the location already being permitted for use as it was previously used as a barge terminal prior to 2003. Construction began in October 2020 and the official grand opening was held in June 2021.

The facility now handles corn, soybeans, dry fertilizers, soybean meal, dried distillers grains, and rock. There are multiple expansion projects planned to improve the performance and efficiency of the terminal, as well as a number of inquiries to move additional commodities such as wind turbine blades.

12:00 PM **Lunch**

12:45 PM	**State Freight Plan: Implementation Strategies** Presentation of the multimodal implementation strategies in the state freight plan, followed by an input exercise for attendees.	**Sam Hiscocks** **Iowa DOT**

Sam Hiscocks provided an update on the 2022 Iowa State Freight Plan, focusing primarily on the development of implementation strategies. These strategies will be used to address freight-specific needs in the state, the national freight goals, and the Iowa DOT system objectives.

Draft strategies were developed utilizing strategies from two different lists: 27 strategies from the 2017 Iowa State Freight Plan and 34 different freight trends and issues previously provided by the Freight Advisory Council. These lists were combined, categorized, and information was streamlined to develop 19 draft strategies.

Attendees were asked to participate in a Mentimeter exercise where they rated the potential impact of each of the draft strategies. Results will be used to prioritize these strategies in the final 2022 Iowa State Freight Plan.

1:15 PM	**Iowa DOT Update and Federal Infrastructure Bill Status** Overview of the DOT's perspective on the status of the Federal infrastructure bill, summary of the upcoming State legislative session, and other general agency updates.	**Stu Anderson** **Iowa DOT**

Stu Anderson provided an update of IIJA and the potential impacts. IIJA was signed by President Biden on November 15, 2021 and includes reauthorization of surface transportation programs for FFY 2022 to FFY 2026. With $550 billion in new funding, half of which is for transportation, essentially all modes of freight transportation will receive increased funds compared to current levels. Some of this funding will be utilized by Iowa DOT as part of the 2023-2027 Highway Program that is expected to be approved June 2022.

Mr. Anderson also provided an overview of the Iowa Road Use Tax Fund Study. The purpose of this study is to review current revenue levels every five years and the sufficiency of those revenues for projected road and bridge construction and maintenance needs. The study concluded that Iowa DOT will experience an average annual revenue shortfall of $781 million.

1:55 PM	**Future Discussion Topics and Closing Remarks** An opportunity for members to suggest future agenda items or discussion topics to be considered for the 2022 meetings.	**Mike Steenhoek, Chair** **Soy Transportation Coalition**

Prior to closing the meeting, Chair Mike Steenhoek provided an opportunity for attendees to submit ideas for future meeting topics. Responses included:

- Potential impacts of renewable diesel
- Labor shortages
- CP-KCS rail merger
- Des Moines Transload facility tour
- Global surface transportation trends
- Fuel tax options

2:00 PM **Adjourn**

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Iowa Freight Advisory Council

Doug Martin // Amazon // DSM5

Friday, December 10, 2021

SSSPacer

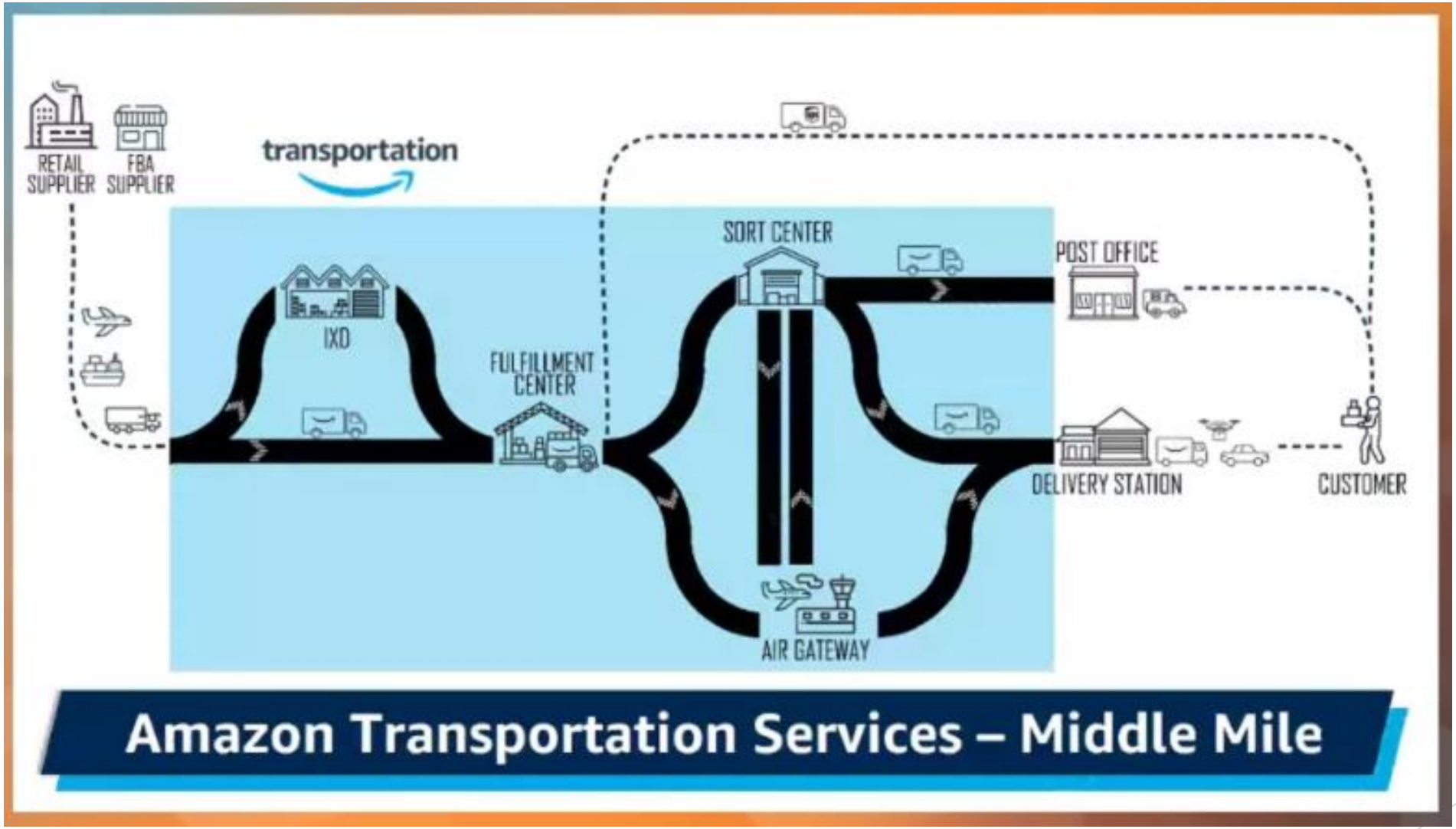
- Safety – Push in chairs
- Standard Work- Raise your hand if you have a question and participate in the presentation
- Sustainability Tip- Turn off the lights when you leave the room
- DEI Tip – Use Peoples preferred Name
- Success Story- Amazon's Iowa Footprint

Agenda

- Introduction
- Overview of the Amazon Supply Chain
- Building type overview
- Fulfillment Center Deep Dive
  - Fun Facts
  - Product flow
- Amazon’s Iowa Foot Print
- What Can the Label tell me about the Journey?
- Amazon’s Supply Chain Statistics and future

Doug Martin Introduction

- Who Am I and what do I do?
- Time with Amazon- 5 Peaks, 4 primes
- Sort Centers (Final and Middle Mile) and *Fulfillment*
- 11 years in the Rail Industry
- Fun Fact
- Disclaimer


RETAIL SUPPLIER
FBA SUPPLIER
transportation
IXD
FULFILLMENT CENTER
SORT CENTER
POST OFFICE
DELIVERY STATION
CUSTOMER
AIR GATEWAY
Amazon Transportation Services – Middle Mile

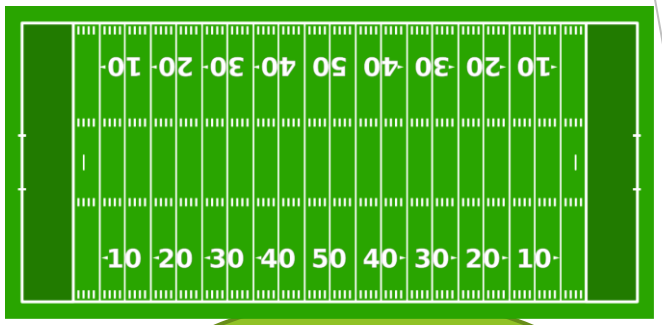
Amazon Building Types

- IXD's
  - 22 in North America
  - Full time employees
  - Product Placement
  - Vendor Product in, Totes or pallets out
  - 53 Ft trailers-Outbound
- Fulfillment Centers
  - Various types
    - Amazon Robotics (AR) -65 buildings
      - Differ in capacity and internal structure
    - Non Sortable- 53 buildings
  - Product storage and fulfillment
  - Full and PT employees
  - 53ft trailers IB and OB
- Sort Centers
  - Full and Part Time employees
  - Boxes in Boxes out
  - Can operate between 8 and 24 hours depending on volume
  - Various transportation methods used depending on next destination
- Deliver Stations
  - 800 buildings Globally
  - Full and Part time employees
  - UTR and OTR org's
  - Various transportation methods used
    - DSP's and Flex

Why does Amazon need so many buildings?

DSM5 Fun Facts

Enough structural steel to build the Eiffel Tower THREE times!



640 operational footprint, 4 floors = 2.5MMsq ft.
= fit 12 footballs fields inside building

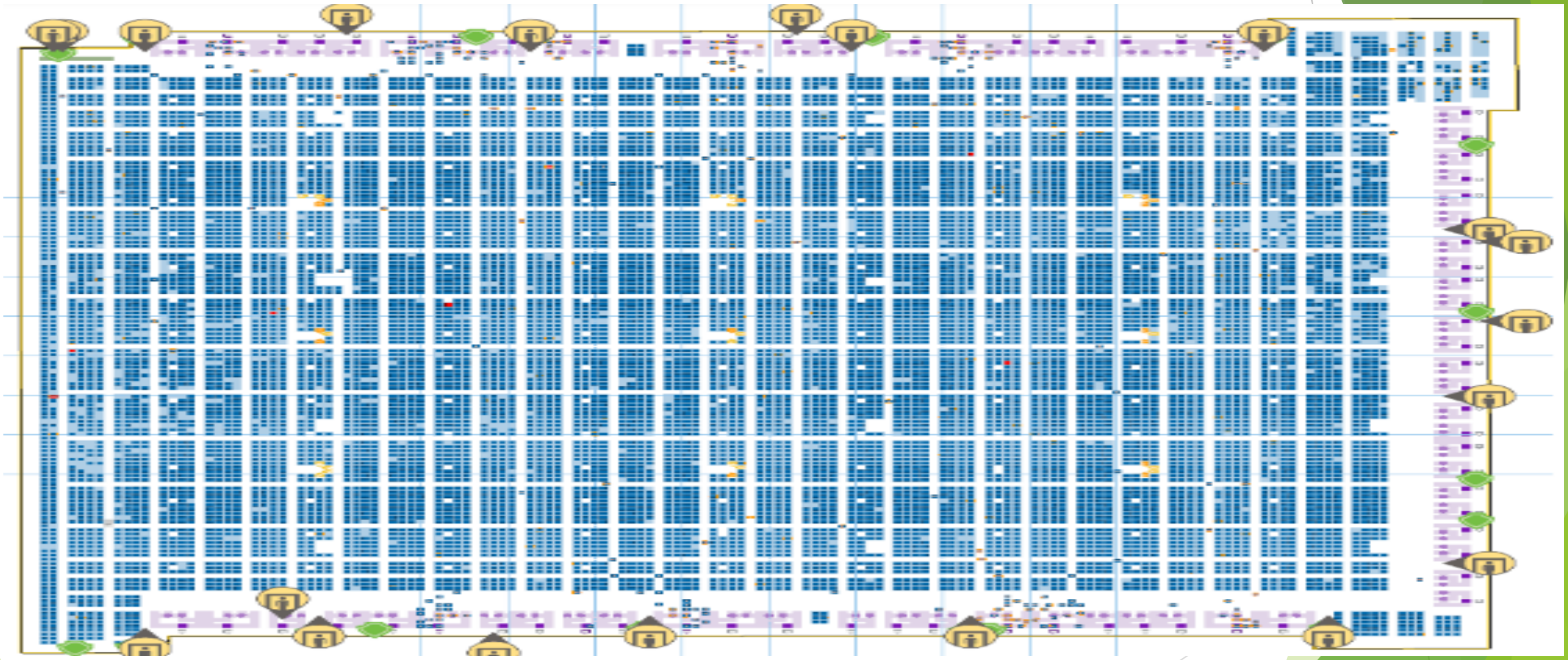
ARS – 4k drives/robots, 40 MM inventory, 1 MM IB & OB, older sides hold 27 MM inventory

13 miles of conveyance

Putting items into inventory

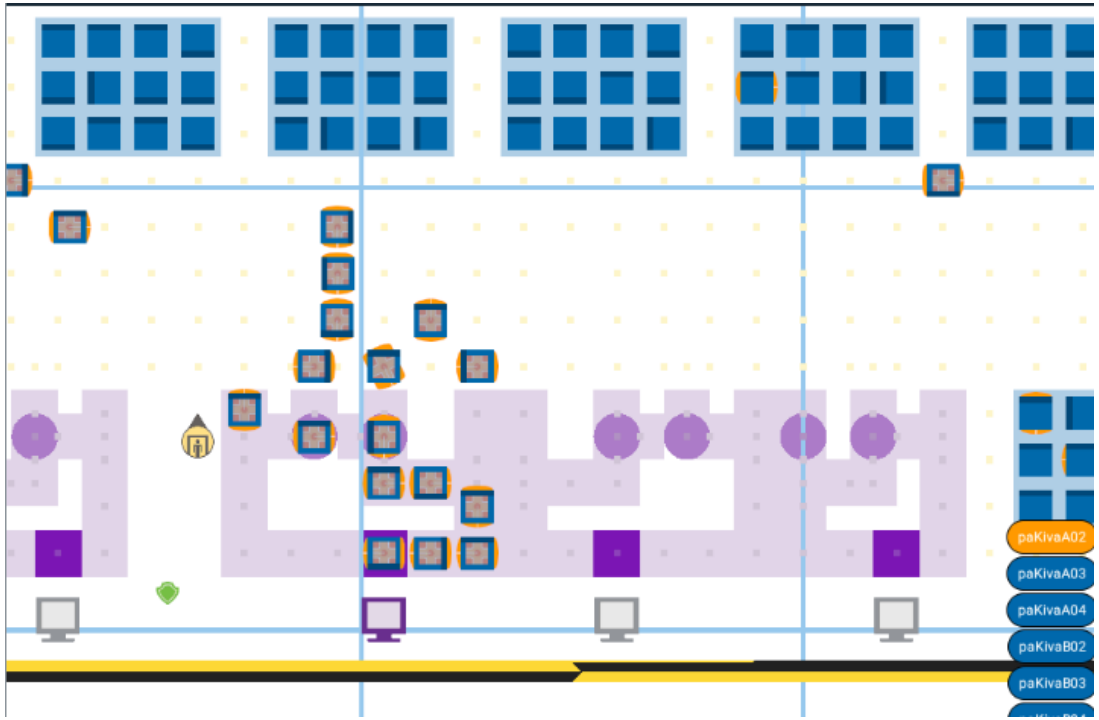
- Stowers
  - Pods come to them
  - The types of pods the get will depend on the type of inventory that they have on their station
  - Stowers place items into pods and the system registers what bin they put them in (touchless)

Amazon Robotics floor

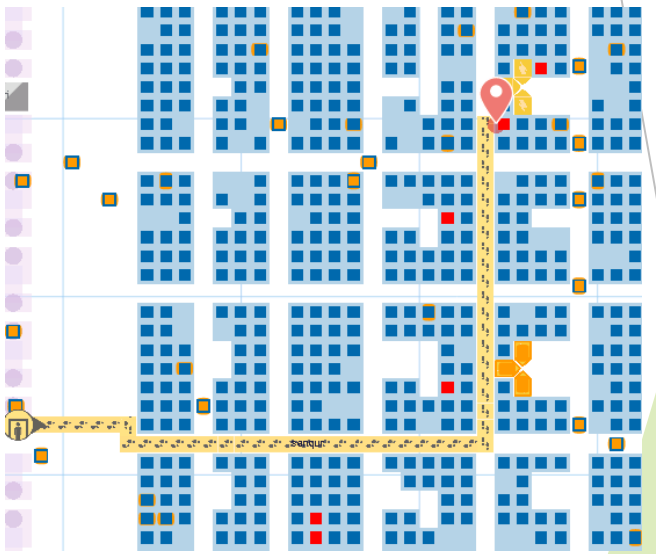


Amazon Robotics floor

- Stations and Pod Queues



- Highways and ??



Amazon’s Iowa Footprint

- DSM5- Fulfillment- Bondurant
- DSM9- Sort Center- Bondurant
- DIA3- Grimes- AMZL
- Grimes- XL Center
- Ankeny- AMZL
- Davenport- Fulfillment- 2022
- Iowa City- AMZL
- DSM- Airport

What can my package label tell me about the journey?

- Origin Fulfillment Center
- Sort Center
- AMZL location (if applicable)
- Deliver by Date
- Final Destination

What can my package label tell me about the journey?

- Origin Fulfillment Center
- Sort Center
- AMZL location (if applicable)
- Deliver by Date
- Final Destination

Lets look at one more

- What Fulfillment Center did it come from?
- Where is it going?
- What Sort Center was used?
- What is different about the final mile delivery?

Amazon Fleet Information

- Port of entry capacity- 50% increase from the start of the pandemic
- Air craft Fleet- 85
- Trailer Pool- 50,000
- 800 Delivery Stations (globally)
  - 260,000 Drivers
- 15 metro Areas-5 hour delivery
- 100,000 Rivan vans on the road by 2030
- 700 CNG vehicles (Class 6 and Class 8)

Questions?

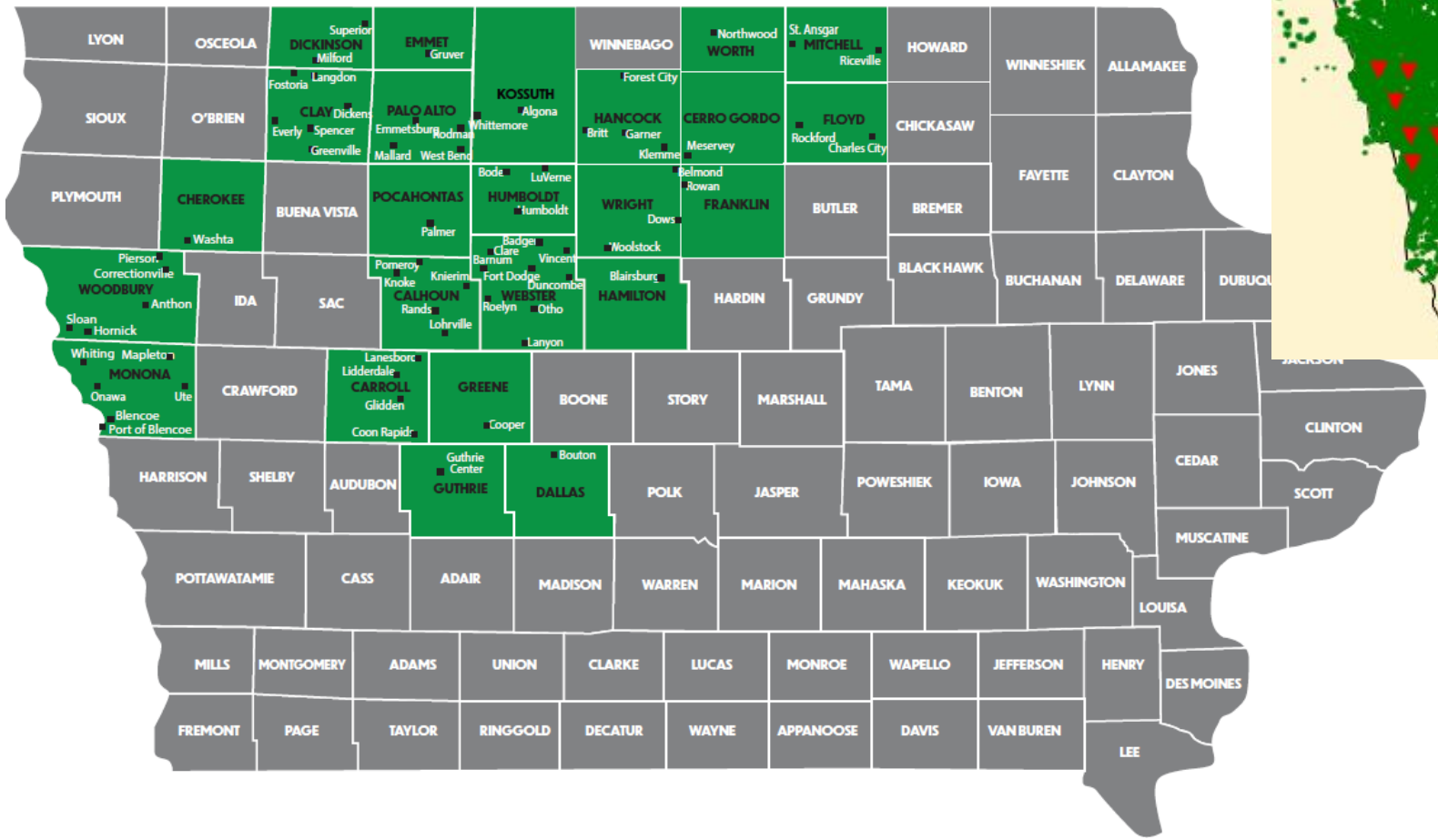
Port of Blencoe

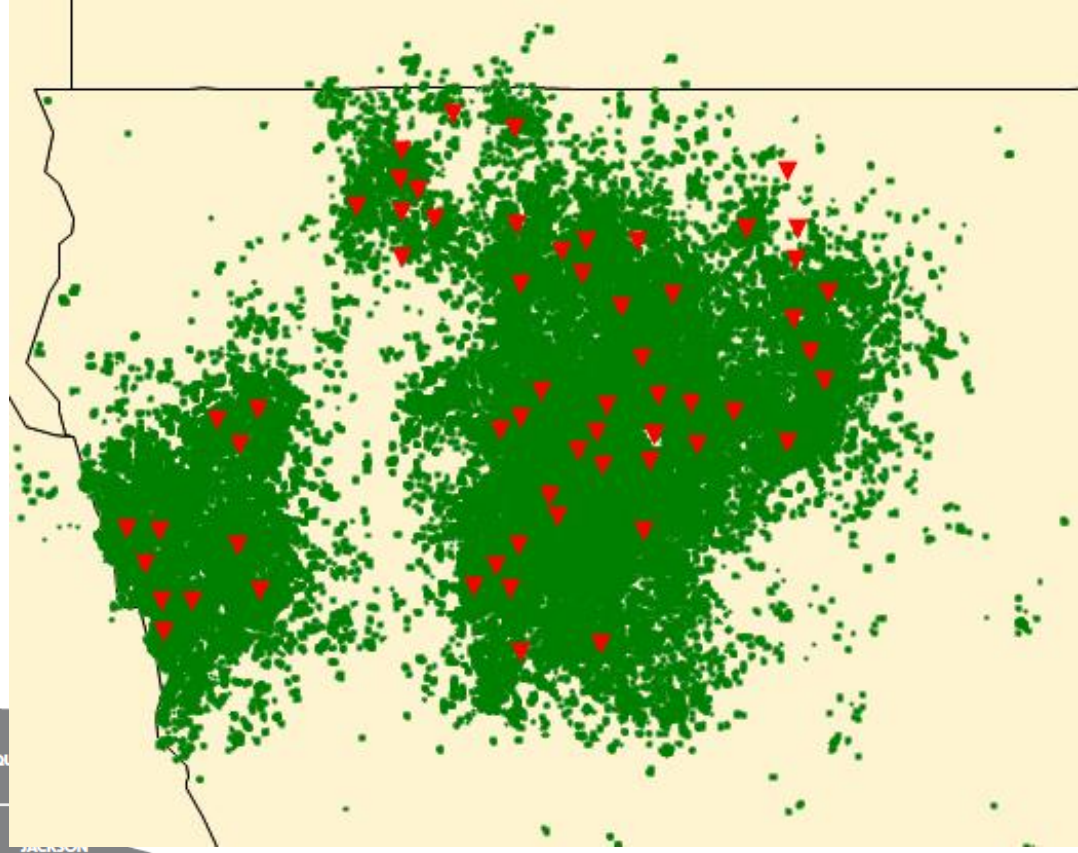
Dan Dix, General Manager
Mark Walter, Grain Manager
Frank Huseman, Director of Operations

Overview Of NEW

- Headquartered In Fort Dodge, IA
- Farmer-Owned Cooperative Formed In 1973.
- Over 8,000 Member Owners
- 66 Locations In Iowa
- 1,000 Full-Time Employees

Locations





Located In Sixty-Six Communities Throughout North Central And Northwest Iowa With Facilities In Twenty-Four Counties

NEW Today

- Grain Services & Handling
- Feed Production
- Agronomy Sales and Recommendations
- Custom Application Services
- Litter and Co-Product Applications
- Precision Ag Sales and Support
- Software Development
- Transportation
- Energy Sales and Service

Why Does A River Port Make Sense To NEW?

Expectations of our 8,000 Member Owners:

- Market Their Grain and Source Their Inputs
  - ✓More Efficiently.
  - ✓More Competitively.
  - ✓More Profitably.

Transportation Is Vital To Our Success

- Railroad Service By The CPRR, CNRR, UPRR, Iowa Northern, BNSF Railroads.
  - Operate Nine – 110 Car Shuttle Loaders
- Centralized Truck Dispatch Of 150 Owned Units
  - Controlled Movement of Grain Between Shuttle Loaders and Processing Plants.
  - Coordinating Dry and Liquid Fertilizer Movement
  - Providing Ingredient Supplies to Seven High-Capacity Feed Mills
  - Directing Delivery Of 2.4 Million Tons Of Feed.

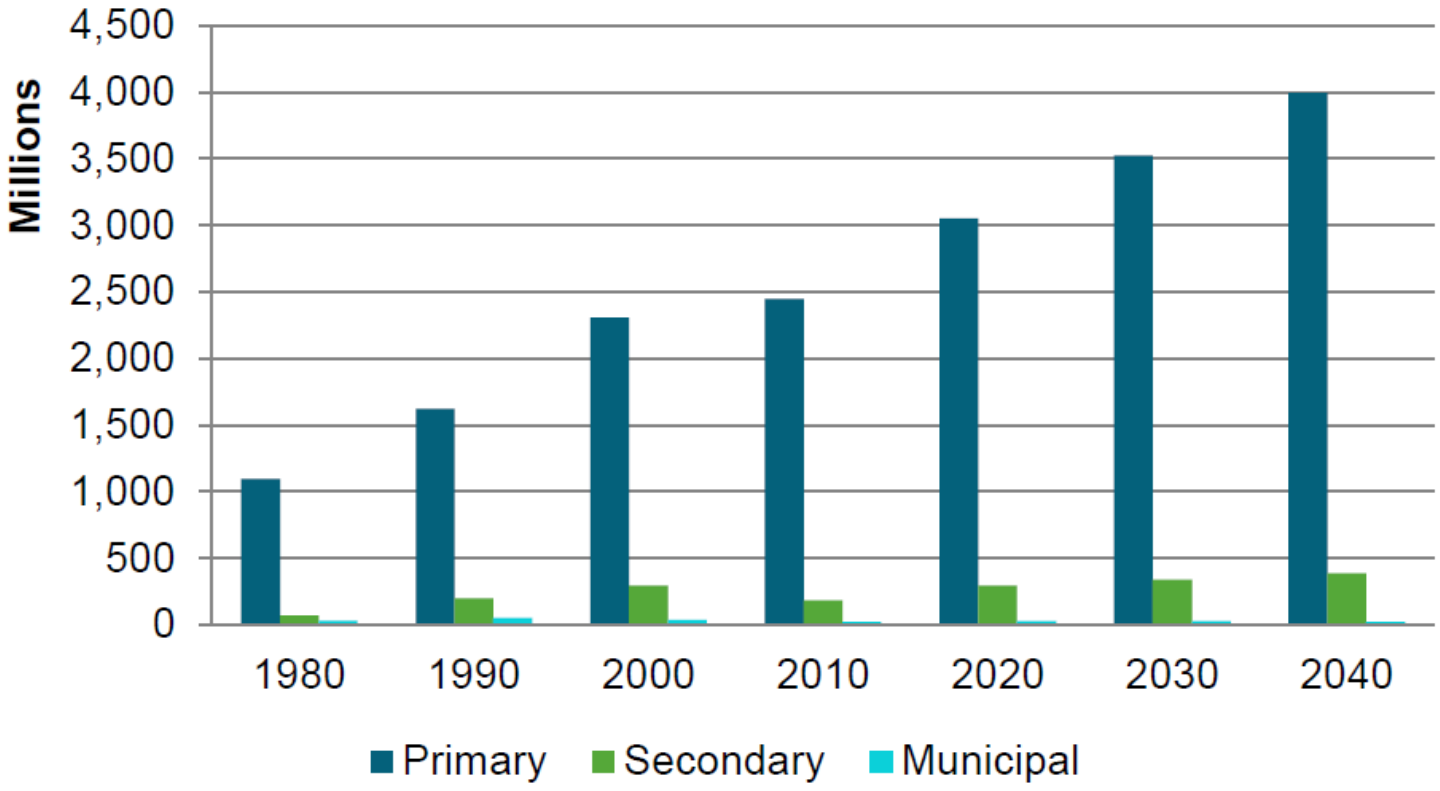
We Live Iowa's Freight Plan

- In order to support a renewed emphasis on the stewardship of our existing transportation system, a strong theme noted throughout the State Transportation Plan, three broad-based and far-reaching goals were identified:
  1. Safety – to make Iowa a safer place to travel.
  2. Efficiency – to make the best use of resources / Fleet.
  3. Quality of life – to make Iowa a better place to live, work, and travel.

NEW's Fleet Miles Continue To Grow Just Like Iowa's

Impacting Our Labor, Safety and Quality of Life

Figure 4.3: Iowa large truck vehicle-miles traveled by jurisdiction, 1980-2040



Source: Iowa Department of Transportation

We Saw The Missouri River As A Solution To Our Increasing Transportation Needs

Table 5.2: Tonnage by mode, 2012-2040 (millions of tons)

	2012	2020	2030	2040	Percent change
Total	**1018.1**	**1181.3**	**1279.7**	**1361.3**	**33.7**
Truck	818.8	943.6	1022.5	1083.9	32.4
Rail	97.3	102.3	110.9	123.1	26.5
Pipeline	77.0	103.5	105.8	103.0	33.7
Multiple modes and mail	18.6	23.9	29.9	37.3	100.8
Water	6.2	7.7	10.4	13.7	119.8
Air (include truck-air)	0.1	0.1	0.2	0.2	163.9
Other and unknown	0.0	0.0	0.1	0.1	271.7

Source: Federal Highway Administration's Freight Analysis Framework

River Transportation Meets All Goals

- NEW Was Moving 36,000 Tons Per Year of Fertilizer off the River at Dubuque To Western Iowa By Truck.
- By Coming off the River at Blencoe:
  - 248,000 Less Semi Miles
  - 58,000 Gallons Less Fuel
  - Reduced Carbon Emissions
  - Semi-Driver Utilization Improvement
- State Freight Plan – Became Our Plan
  1. Safety – To Make Iowa A Safer Place To Travel.
  2. Efficiency – To Make The Best Use Of Resources.
  3. Quality Of Life – To Make Iowa A Better Place To Live, Work, And Travel.

COMPARE ...

IOWA DOT
GETTING YOU THERE

Source: Iowa Department of Transportation | 800 Lincoln Way | Ames, IA | www.iowadot.gov

CARGO CAPACITY

ONE BARGE
1,750 TON
58,333 BUSHELS
1,555,000 GALLONS

ONE 15-BARGE TOW
26,250 TON
874,995 BUSHELS
23,325,000 GALLONS

ONE RAIL CAR
110 TON
4,000 BUSHELS
33,870 GALLONS

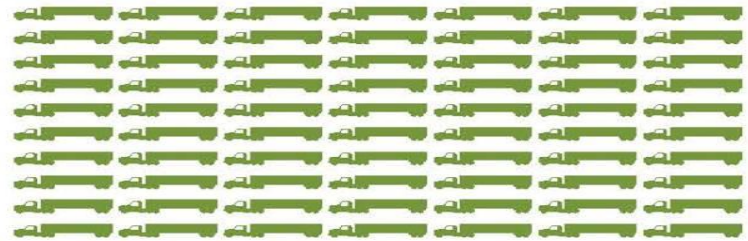
ONE 108-CAR TRAIN
11,880 TON
432,000 BUSHELS
3,657,960 GALLONS

ONE LARGE SEMI
25 TON
910 BUSHELS
7,865 GALLONS

EQUIVALENT UNITS

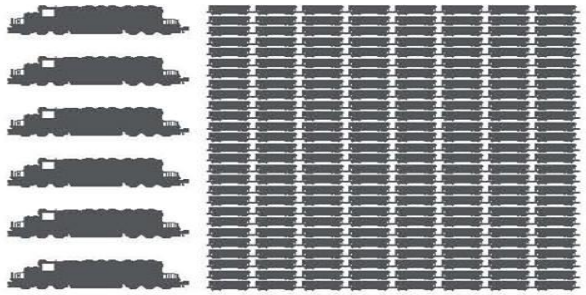
ONE BARGE

16 RAIL CARS

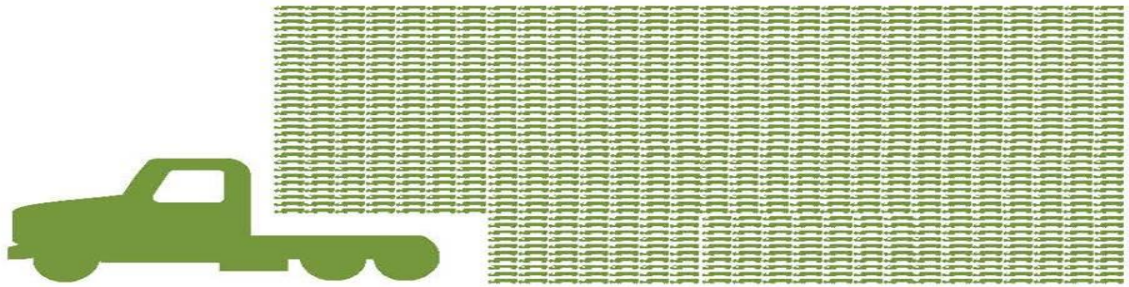


70 LARGE SEMIS/TRACTOR TRAILERS

ONE 15-BARGE TOW AND TOW BOAT



6 LOCOMOTIVES AND 216 RAIL CARS



1,050 LARGE SEMIS/TRACTOR TRAILERS

EQUIVALENT LENGTHS

ONE 15-BARGE TOW
0.25 MILE

TWO 108-CAR TRAINS
2.6 MILES

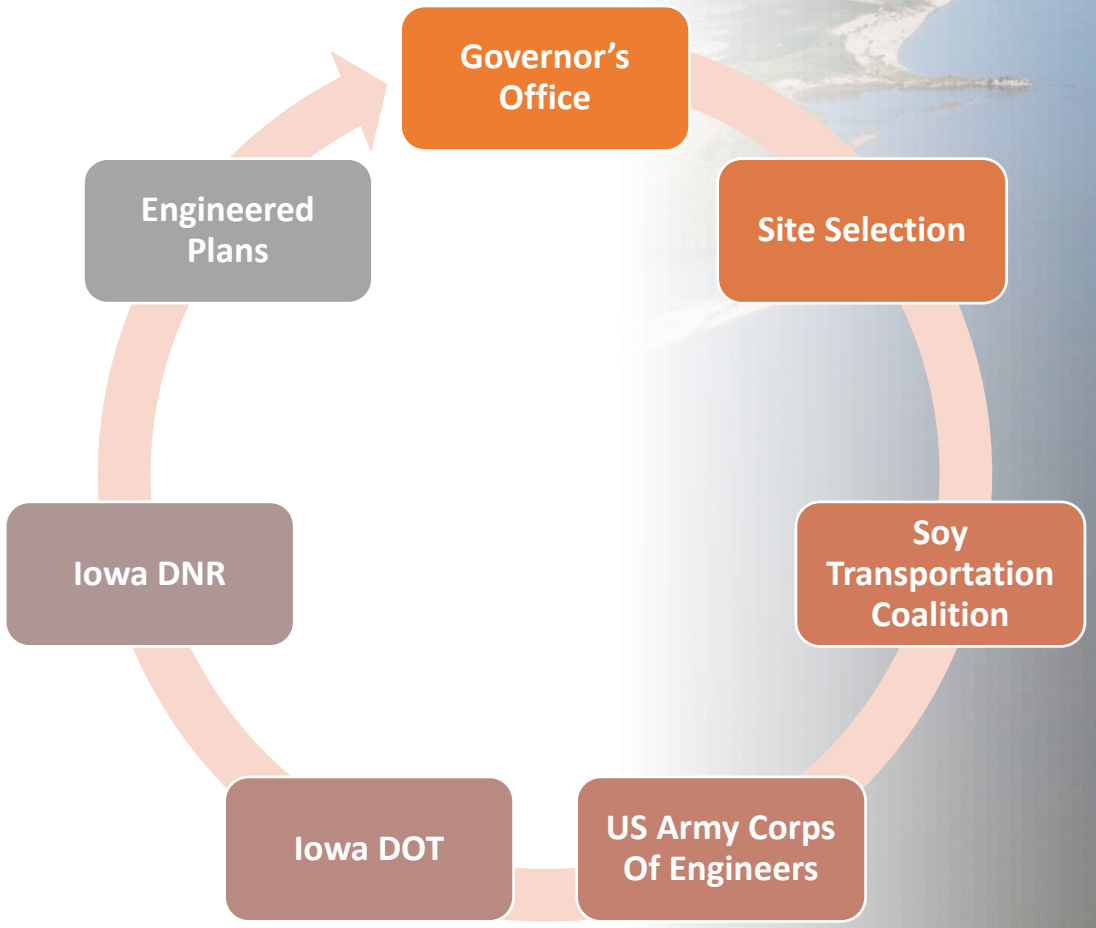
1,050 LARGE SEMIS/TRACTOR TRAILERS
13.9 MILES (BUMPER TO BUMPER)

PM 444 02/25/2019

Goal In Building A Port

- Water Transportation Is The Most Economical And Safest Mode Of Transportation.
- An Engine Of Economic Growth For Western Iowa Industries And Communities.
- The Missouri River Is One Of The Iowa's Most Underutilized Commercial Assets.
- Western Iowa Farmers Now Utilize A More Economical Marketing Option To Export Terminals And International Customers Making Them More Competitive In A World Market.
- The Facility Is Now Allowing High Volume Freight To Be Shifted From Iowa's Roads To A Navigable Waterway.

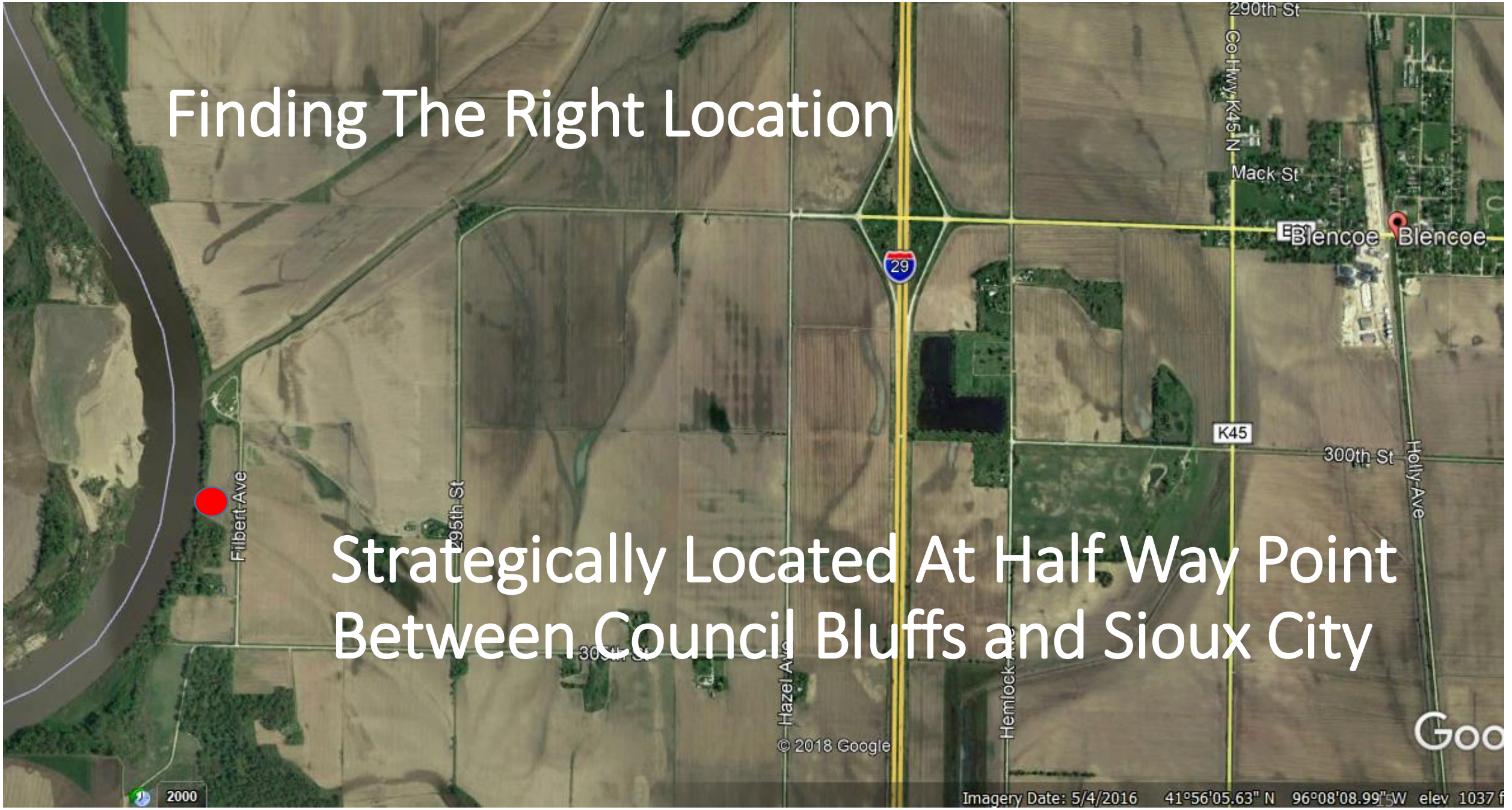
How Did We Get There?



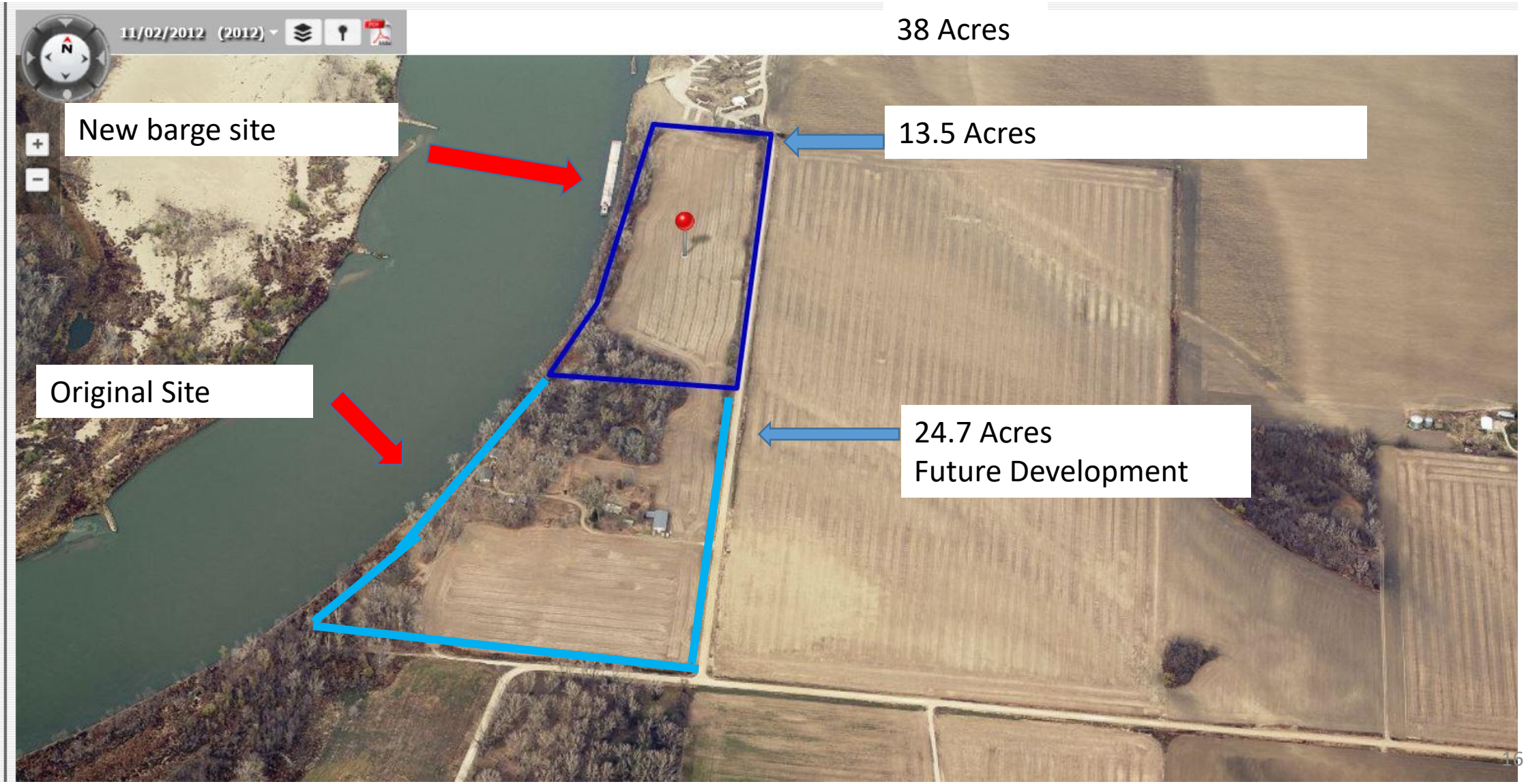
We Appreciate The Commitment To The Missouri

- Iowa to St. Louis: the Missouri River has been designed by The Army Corps of Engineers to be a Channel For Navigation.
- Corps Goal is to maintain a 9’ x 300’ Channel from St Louis to Sioux City allowing Commercial Navigation to Return to the River.
- Currently, the Channel is considered to be in very good shape from St. Louis to Decatur, NE.

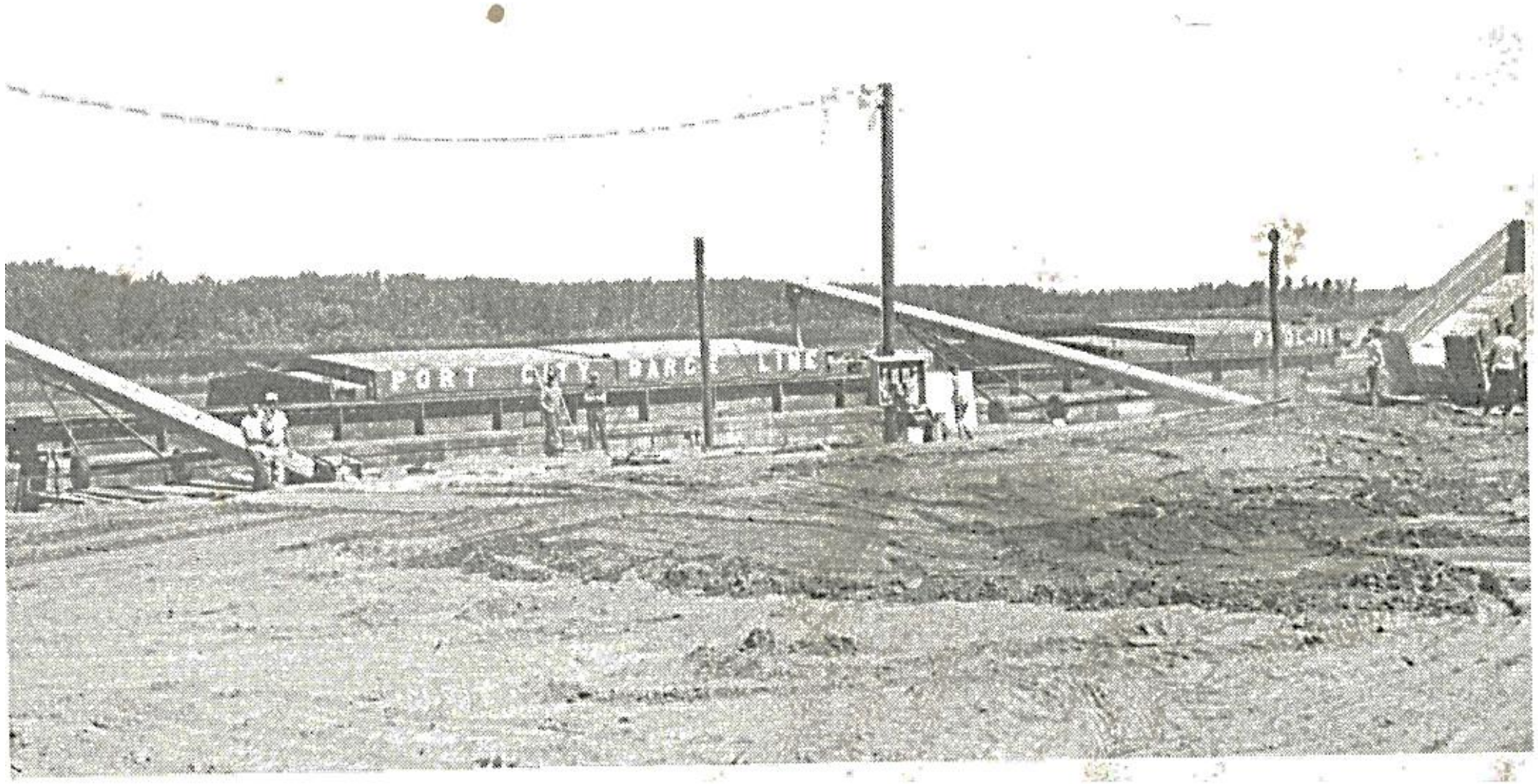
US Army Corps of Engineers ®


Finding The Right Location
Strategically Located At Half Way Point
Between Council Bluffs and Sioux City
290th St
Co-Hwy-K45-N
Mack St
Blencoe
Blencoe
29
K45
300th St
Holly-Ave
Filbert Ave
295th St
Hazel Ave
Hemlock Ave
© 2018 Google
2000
Imagery Date: 5/4/2016 41°56'05.63" N 96°08'08.99" W elev 1037 f

Securing The Site



Permitted in 1938 - Last Utilized in 2003



Financial Assistance By The Iowa Soybean Association

IOWA SOYBEAN Association

NEW COOPERATIVE INC.

We Contacted Mike Steenhoek

SOY TRANSPORTATION COALITION

- ***Mike Was A Key To Putting Our Vision Into Focus.***

We Needed A Hard Surface Road

With Assistance From The Soy Transportation Coalition A RISE Grant Was Secured For Monona County.

IOWA DOT ASSISTANCE 50% Of 1.6 Miles

Construction Began October 2020

Grand Opening
June 2, 2021

First Year Of Operation

Received 35 Loaded Barges Upstream

Shipped 28 Loaded Barges Downstream

Current Commodities

Corn

Soybeans

Dry Fertilizers

Soybean Meal

Dried Distillers

Rock

What Is In The Future For The Port Of Blencoe?

- Office And Scale
- Expanding The Existing Business
- Construction Of Commodity Building
- Cotton Seed - Liquid Fertilizer - Cement
- Corn & Soybean Oils – Renewable Diesel
- Over-the-Fence Opportunities?

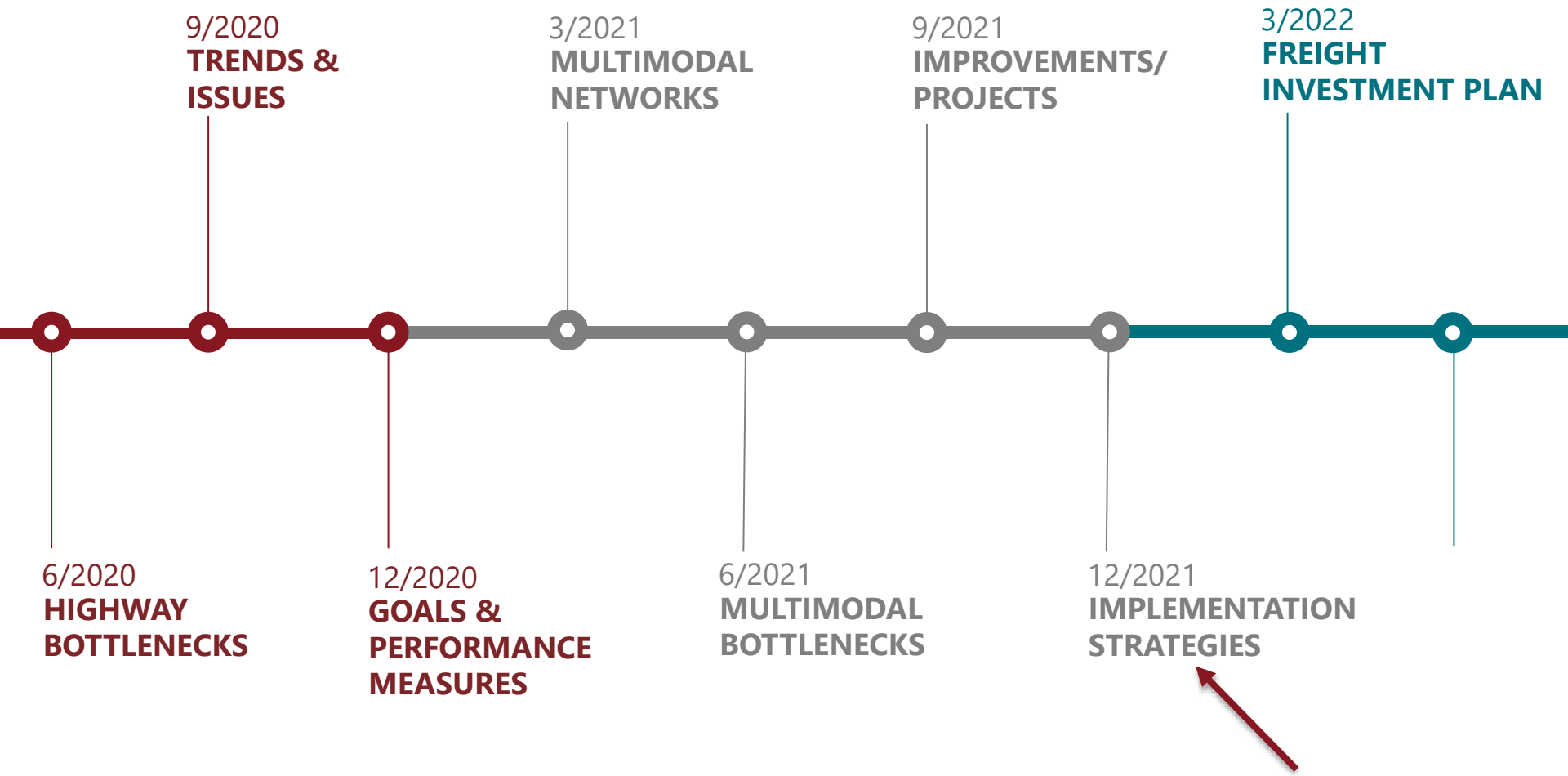
US Army Corps of Engineers ®

DNR IOWA DEPARTMENT OF NATURAL RESOURCES

State Freight Plan
Strategies

Iowa Freight Advisory Council | December 10, 2021

Input opportunities



Freight strategies

Purpose

Develop implementation strategies to address freight needs, national freight goals, and DOT system objectives

Sources of content

1. 2017 SFP
   - 27 strategies
   - Iowa DOT, Freight Advisory Council (FAC), and High Leverage Stakeholder Committee (HLSC)
2. 2020 freight trends and issues
   - 34 items
   - 2017 SFP, FAC, and other trending items
   - High/medium priority from 9/23/2020 FAC exercise

Freight strategies

Development/synthesis process

- 2017 strategies and FAC high/medium priority items
- Categorization, combination, and streamlining
- Addition of background information
- Multiple rounds of internal review (Systems Planning)

Format of draft strategies

- 19 draft strategies
- Strategy with 2-3 sentences of supporting text
- Will identify related DOT system objective(s)

Freight strategies

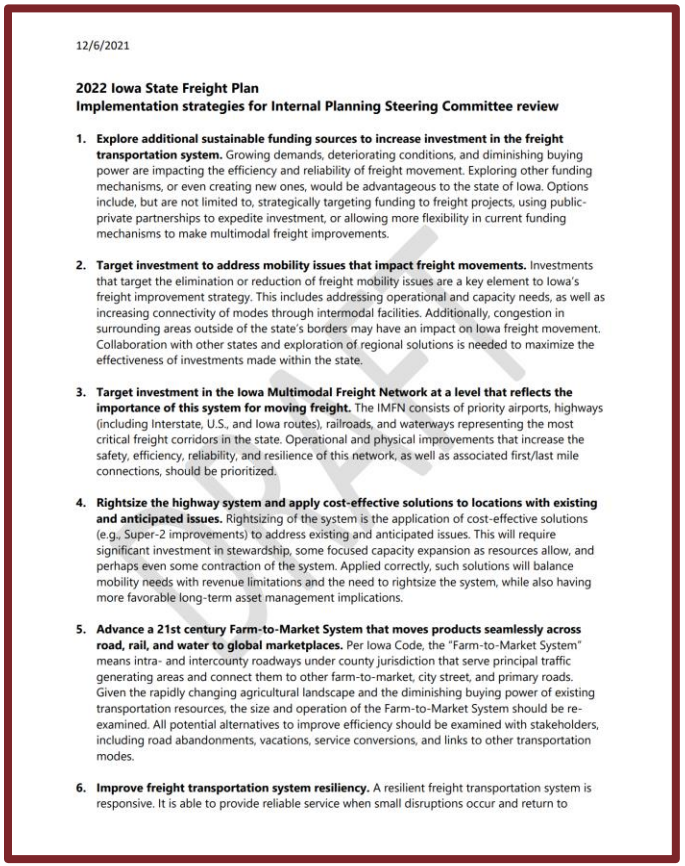
Status and next steps

- –Sent to IPSC for internal review (12/6/2021)
- –Sent to FAC for external review (12/6/2021)
- –FAC prioritization exercise (12/10/2021)
- –Refine and finalize

Today's input exercise:

Go to www.menti.com

Enter code at the top of the screen



12/6/2021

2022 Iowa State Freight Plan
Implementation strategies for Internal Planning Steering Committee review

1. **Explore additional sustainable funding sources to increase investment in the freight transportation system.** Growing demands, deteriorating conditions, and diminishing buying power are impacting the efficiency and reliability of freight movement. Exploring other funding mechanisms, or even creating new ones, would be advantageous to the state of Iowa. Options include, but are not limited to, strategically targeting funding to freight projects, using public-private partnerships to expedite investment, or allowing more flexibility in current funding mechanisms to make multimodal freight improvements.

2. **Target investment to address mobility issues that impact freight movements.** Investments that target the elimination or reduction of freight mobility issues are a key element to Iowa's freight improvement strategy. This includes addressing operational and capacity needs, as well as increasing connectivity of modes through intermodal facilities. Additionally, congestion in surrounding areas outside of the state's borders may have an impact on Iowa freight movement. Collaboration with other states and exploration of regional solutions is needed to maximize the effectiveness of investments made within the state.

3. **Target investment in the Iowa Multimodal Freight Network at a level that reflects the importance of this system for moving freight.** The IMFN consists of priority airports, highways (including Interstate, U.S., and Iowa routes), railroads, and waterways representing the most critical freight corridors in the state. Operational and physical improvements that increase the safety, efficiency, reliability, and resilience of this network, as well as associated first/last mile connections, should be prioritized.

4. **Rightsize the highway system and apply cost-effective solutions to locations with existing and anticipated issues.** Rightsizing of the system is the application of cost-effective solutions (e.g., Super-2 improvements) to address existing and anticipated issues. This will require significant investment in stewardship, some focused capacity expansion as resources allow, and perhaps even some contraction of the system. Applied correctly, such solutions will balance mobility needs with revenue limitations and the need to rightsize the system, while also having more favorable long-term asset management implications.

5. **Advance a 21st century Farm-to-Market System that moves products seamlessly across road, rail, and water to global marketplaces.** Per Iowa Code, the "Farm-to-Market System" means intra- and intercounty roadways under county jurisdiction that serve principal traffic generating areas and connect them to other farm-to-market, city street, and primary roads. Given the rapidly changing agricultural landscape and the diminishing buying power of existing transportation resources, the size and operation of the Farm-to-Market System should be re-examined. All potential alternatives to improve efficiency should be examined with stakeholders, including road abandonments, vacations, service conversions, and links to other transportation modes.

6. **Improve freight transportation system resiliency.** A resilient freight transportation system is responsive. It is able to provide reliable service when small disruptions occur and return to

THANK YOU FOR YOUR TIME AND ATTENTION

Sam Hiscocks
Freight Planning Coordinator
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IOWA DOT UPDATE

Iowa Freight Advisory Council

December 10, 2021

Topics

- Infrastructure Bill Status
- Road Use Tax Fund Study

Infrastructure Bill Status

- Infrastructure Investment and Jobs Act (IIJA)
- Passed the Senate (69-30) and House (228-206)
- President Biden signed Nov. 15
- Includes reauthorization of surface transportation programs for FFY 2022 to FFY 2026.
- Includes $550 billion in new funding with half going to transportation
- Operating under a continuing resolution through Feb. 18, 2022, for FY 2022

Highway Formula Programs (millions)

Program	2021 (actual)	2022	2023	2024	2025	2026
National Highway Performance	307.4	365.8	373.1	380.6	388.2	395.9
Surface Transportation Block	157.2	177.9	181.5	185.1	188.8	192.6
Highway Safety Improvement	28.1	35.8	36.6	37.5	38.3	39.2
Rail-Highway Crossings	5.7	5.7	5.7	5.7	5.7	5.7
Congestion Mitigation/Air Qual.	11.8	12.3	12.6	12.8	13.1	13.3
National Highway Freight	18.2	17.0	17.4	17.7	18.1	18.4
Metro Planning	2.1	2.6	2.7	2.7	2.8	2.8
State Planning and Research	10.6					
Highway Infra/Bridge	43.6					
Bridge		86.3	86.3	86.3	86.3	86.3
Carbon Reduction		15.9	16.2	16.5	16.8	17.2
PROTECT		18.0	18.4	18.8	19.1	19.5
Total	584.7	737.4	750.4	763.7	777.3	791.1
National EV Charging		*10.3*	*10.3*	*10.3*	*10.3*	*10.3*

Highway Formula Programs (millions)

Program	2021 (actual)	2022	2023	2024	2025	2026
Total (minus Carbon Red/Protect/EV)	584.7	703.5	715.8	728.4	741.4	754.4
Increase over 2021		118.8	131.1	143.7	156.7	169.7
Available funding (after obligation limitation)		**106.9**	**118.0**	**129.3**	**141.0**	**152.7**

Potential Amendment

- Will present to Commission on Dec. 14 for potential action in January
- Allocate some of the FFY 2022 Infrastructure Bill funding increases to SFY 2022 Program.
- Projects that can be delivered this fiscal year and distributed across the state.

2023-2027 Highway Program

- To be approved June 2022
- ~ $4 billion of state/federal funding (up from $3.6 billion)
- Challenges
  - Federal funding uncertainty
    - FFY 2022 continuing resolution
    - FFY 2027 funding levels
  - High expectations of the impact of the Infrastructure Bill

Road Use Tax Fund Study

307.31 Periodic review of revenues — evaluation of alternative funding sources.

1. The department shall periodically review the current revenue levels of the road use tax fund and the sufficiency of those revenues for the projected construction and maintenance needs of city, county, and state governments in the future. The department shall submit a written report to the general assembly regarding its findings by December 31 every five years, beginning in 2011. The report may include recommendations concerning funding levels needed to support the future mobility and accessibility for users of Iowa's public road system.

2. The department shall evaluate alternative funding sources for road maintenance and construction and report to the general assembly at least every five years on the advantages and disadvantages and the viability of alternative funding mechanisms. The department's evaluation of alternative funding sources may be included in the report submitted to the general assembly under subsection 1.

2007 Acts, ch 200, §5

Sources of needs estimates

- City road/bridge needs: INTRANS (dTIMS)
- County road/bridge needs: ICEASB (TR608)
- State road needs: Iowa DOT Pavement (dTIMS)
- State bridge needs: Iowa DOT Bridge Management Team (IDS Bridge Optimizer)

Needs estimate parameters

- 2020 baseline condition data
- Forecast period: 2021-2040
- No overall funding/budget constraints
- Condition targets consistent desired management practices
- Initial estimates in current year dollars
- Will apply consistent annual cost inflation

Draft needs estimates

	State	County	City
20-year needs	$32.76B	$28.06B	$26.83B

- Total 20-year needs = $87.65B
- Annual average needs = $4.38B

Sources of revenue estimates

- Road Use Tax Fund Forecast: Iowa DOT
- County revenue history: ICEASB
- City revenue history: City Street Finance Reports (Iowa DOT Local Systems)
- Federal Funding Forecast: Iowa DOT

Revenue estimate parameters

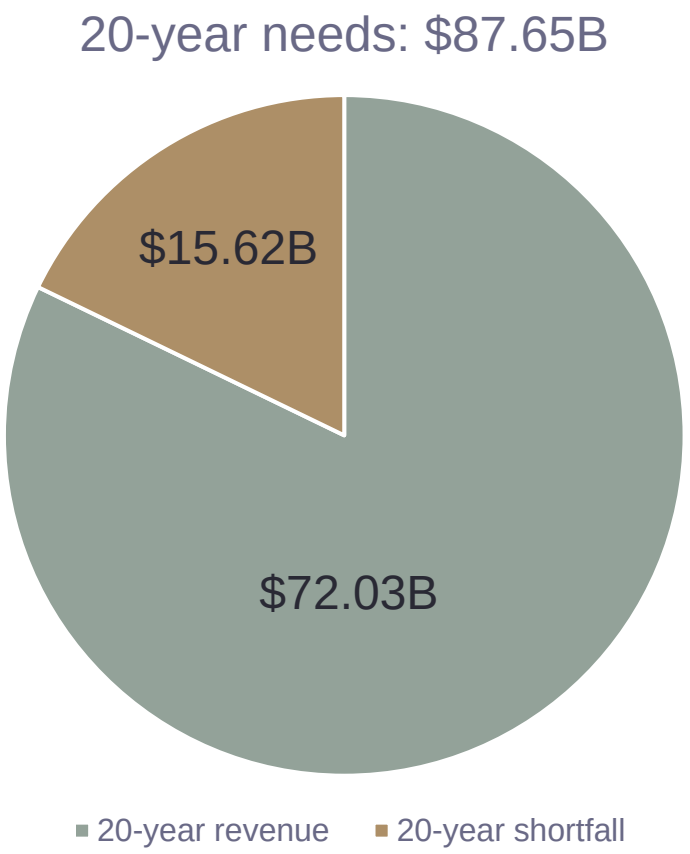
- Forecast period: 2021-2040
- RUTF revenue growth approximately 1% annually
- Federal revenue growth
  - Includes Infrastructure Bill funding levels through FFY 2026
  - Approximately 0.5% growth annually beyond 2026

Draft revenue estimates

	State	County	City
20-year revenue	$28.55B	$18.79B	$24.69B

- Total 20-year revenue = $72.03B
- Annual average revenue = $3.60B

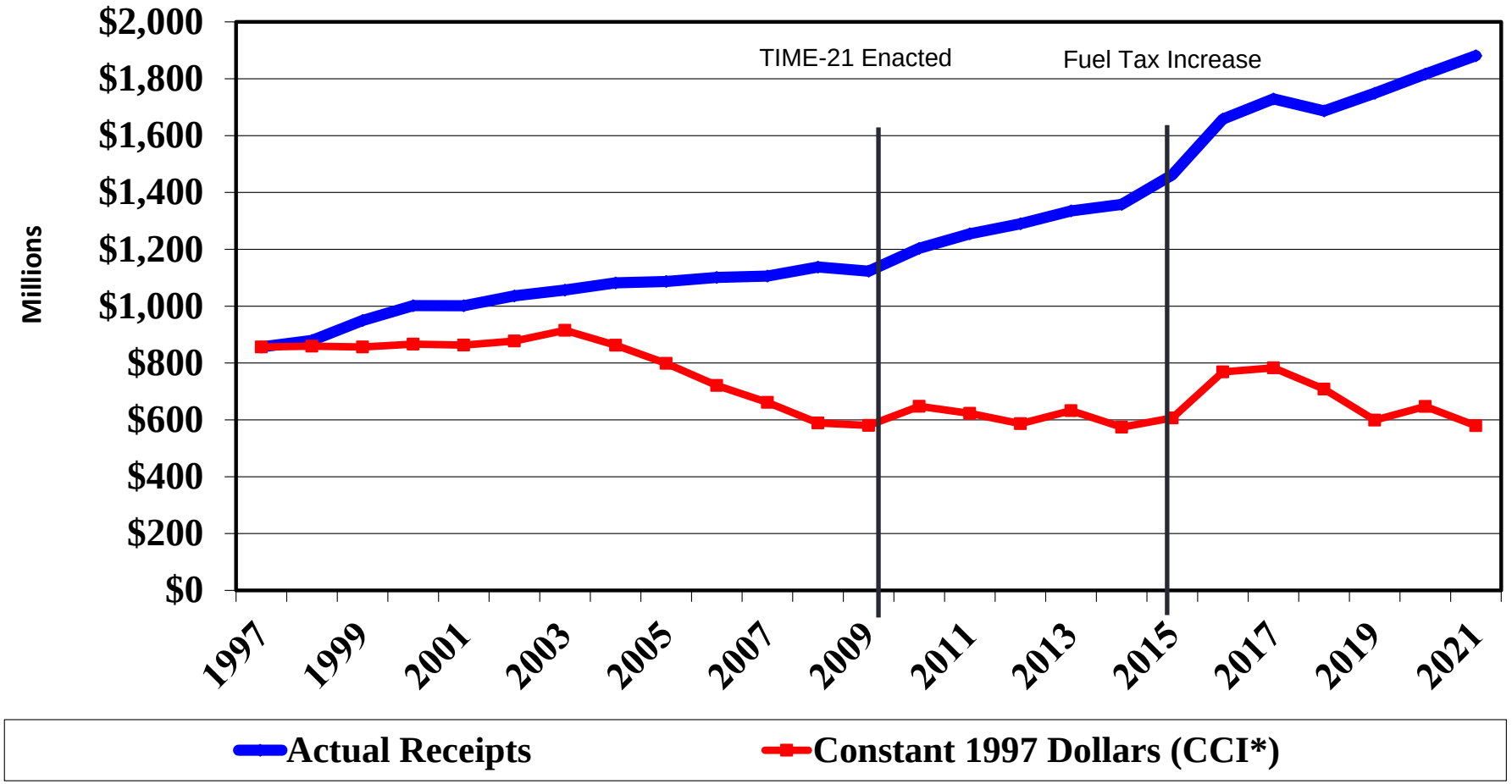
Draft shortfall estimate



Average annual shortfall
$781 million

IOWA DOT

RUTF Revenue



*CCI= Iowa Construction Cost Index. This reflects the inflation of roadway construction costs in Iowa and corresponding loss in buying power.

IOWA DOT

Questions?

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IOWA DOT

2022 Iowa State Freight Plan
Implementation strategies for Freight Advisory Council review

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6. **Improve freight transportation system resiliency.** A resilient freight transportation system is responsive. It is able to provide reliable service when small disruptions occur and return to

service quickly after large disruptions. Reducing the vulnerability of highway infrastructure and working with partners to do the same for other modes and supply chains should be a priority. Operational improvements to address small disruptions can also be made by leveraging real-time information from users of the system to support advanced decision-making, incidence avoidance, and faster response times, as well as by providing real-time information on system conditions to support the movement of freight.

7. **Support opportunities to develop new intermodal freight facilities in the state.** Intermodal facilities are critical connections between freight modes that allow shippers to take advantage of the cost, speed, and capabilities of more than one mode. Development of these facilities, including truck cross-docking operations, rail intermodal facilities, transload facilities, barge terminals, and logistics parks, will improve the efficiency of the overall freight transportation system.

8. **Optimize the availability and use of freight shipping containers, including exploring other options for repositioning empty containers.** A significant imbalance exists in the use of in- and outbound shipping containers. This is a problem that is inherent to many intermodal facilities in major metropolitan areas. Cost effective opportunities may exist to utilize different transportation modes to relocate some of these empty containers to locations in Iowa for reloading. With significant volumes of production, Iowa is well-positioned to provide potential loads for outbound movements of these containers, which could prevent them from being shipped back to international markets such as Asia without back-loads.

9. **Enhance planning and asset management practices for the Iowa Multimodal Freight Network by utilizing designs and treatments that are compatible with significant freight movements.** Investments targeted for facilities that handle significant freight traffic, including oversize/overweight vehicles, should incorporate designs compatible with these types of freight movements, and avoid improvements that unintentionally create new obstructions to freight movement such as restrictive roundabouts, overhead structures, and turn radii. Particular emphasis should be placed on the highway portion of the IMFN. In addition, future routing and access control decisions and processes should consider those facilities that are most compatible with freight movement.

10. **Work with partners to address increasing truck parking demand.** Continued implementation of initiatives to address truck parking needs to remain an emphasis, including for oversize/overweight trucks. These initiatives include the Iowa Rest Area Management Plan, which provides a strategy to reallocate existing truck parking spaces and strategically add new spaces along high-demand corridors, and the Truck Parking Information and Management System (TPIMS), which is a regionwide system that helps truck drivers find available truck parking spaces.

11. **Advocate for the funding and improvement of the inland waterway system and explore ways to expand Iowa's role.** The M-35 (Mississippi River) and M-29 (Missouri River) marine highways support the economic competitiveness of the nation, relieve landside congestion on highways and railroads, reduce air emissions, and increase the efficiency of other transportation modes. The state of Iowa continues to work with other regional states to promote the value of these rivers, advocate for infrastructure investments, facilitate regional dialogue, market current

services, and seek out new tools. Opportunities to invest in and improve the system should continue to be explored, such as the recent partnership between the Iowa DOT and the U.S. Army Corps of Engineers to build a mooring cell on the Upper Mississippi River.

12. **Collaborate with railroad operators to provide Iowa companies with increased access and capacity to accommodate additional Iowa freight shipments.** Iowa's railroad network provides significant opportunities for reducing transportation costs for shippers. Implementation of strategies and initiatives from the Iowa State Freight Plan and the Iowa State Rail Plan will help to further enhance railroad capacity and access points, which are essential for Iowa shippers to convert additional truck freight to rail.

13. **Partner with freight stakeholders to find innovative ways to address labor shortages across industry sectors.** Truck driver shortages and labor shortages across supply chains continue to plague freight and transportation industries for a variety of reasons. Public and private stakeholders should partner to find innovative solutions to these shortages and improve recruiting, training, and retention.

14. **Streamline and align freight-related regulations and minimize unintended consequences.** The regulatory environment can encourage or deter business in a state, and not all state and federal regulations have a positive impact on freight mobility. State departments should partner to analyze negative impacts, coordinate with stakeholders, and attempt to minimize any unintended consequences of regulations that may hinder freight movement and/or discourage businesses from investing in the state. Additionally, since freight movements are often multistate in nature, there is a need for improved reciprocity between states regarding issues not standardized at the federal level.

15. **Mitigate the impacts of freight transportation on the environment and communities.** Potential negative impacts of freight transportation include emissions, noise pollution, congestion, and accelerated deterioration of local infrastructure. State and local partnerships should continue to work to mitigate negative impacts to citizens.

16. **Partner with law enforcement and the trucking industry to combat human trafficking.** Human trafficking has been reported in all 50 states, and the number of victims in the United States is estimated to be in the hundreds of thousands. Traffickers typically target professions deemed "transient in nature" as consumers and they regularly travel across multiple states to places such as oil and gas fields, truck stops, hotels along highways, etc. The trucking industry is critical in helping to spot these types of activities. Law enforcement, government agencies, and the freight industry should continue to work together to facilitate the investigation of human trafficking and combat this crime.

17. **Support the development and adoption of emerging freight technologies to increase safety and efficiency.** Emerging technologies such as automation, autonomous vehicles, UAS/drones, blockchain, and others have the potential to be transformative to freight industries by increasing safety and efficiencies, altering supply chains, and disrupting business models. These types of opportunities should be explored and supported so industries can address issues such as consumer expectations, increased competition, rising labor costs, and labor availability.

18. **Explore opportunities for increasing value-added production within the state.** Iowa is a major producer of agricultural commodities. Efforts should be made to identify economic development opportunities related to value-added production of agricultural goods. This could provide an opportunity for the state to consider investments that would allow for such value-added processes to occur in-state, prior to these products being exported.

19. **Continually monitor international trade deals and negotiations.** New and ongoing trade negotiations will have impacts on Iowa's commodity markets and associated supply chains. These should be monitored to better understand the implications to freight transportation in Iowa, and strategies should be developed to mitigate negative consequences and take advantage of economic opportunities.