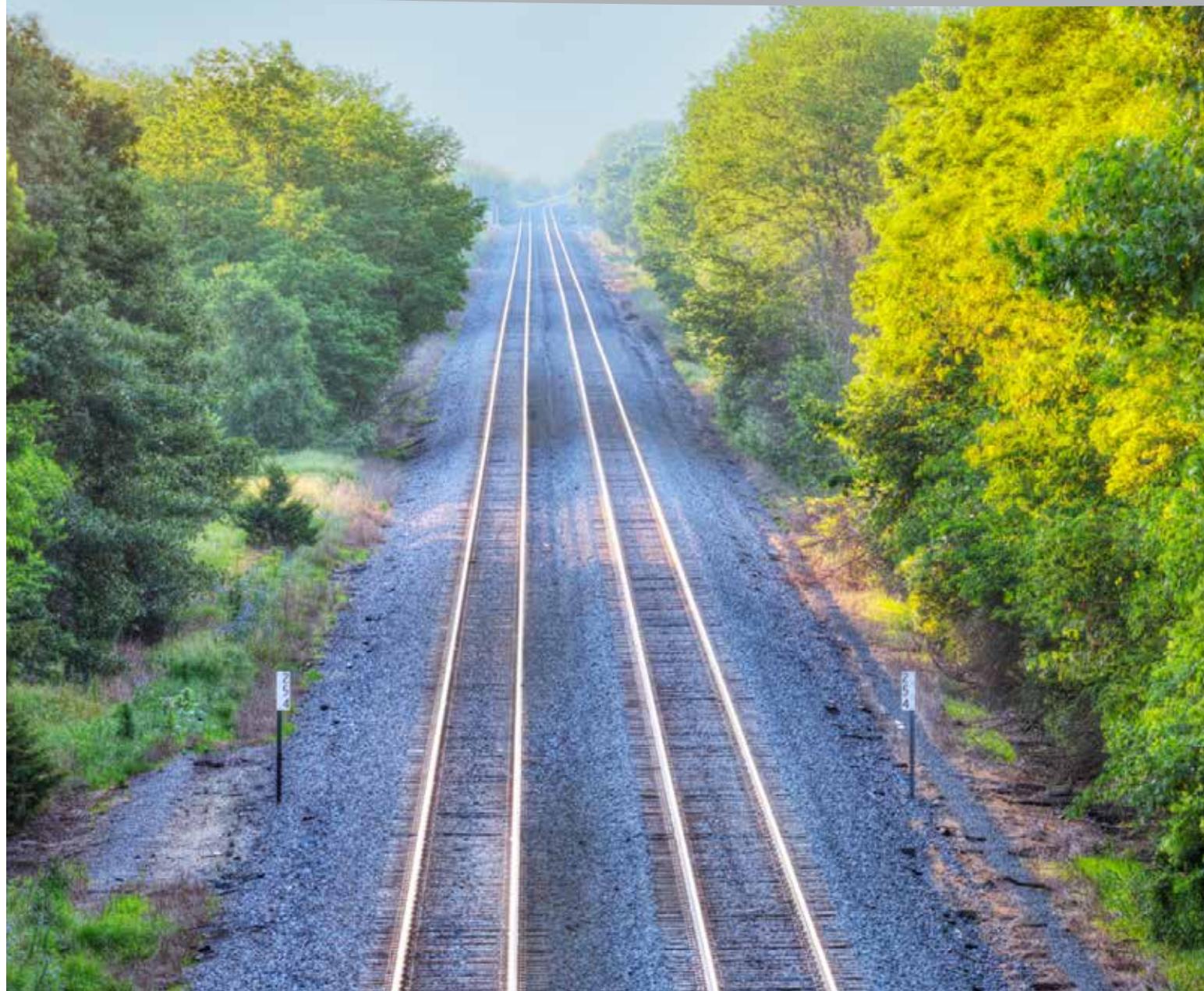


IOWA RAIL TOOLKIT

2019



Railroads in Iowa are essential to the state's economy and the region's economic competitiveness. There are 19 railroads in Iowa that connect shippers, manufacturers, and producers to a robust North American network of trading partners. Iowa shippers benefit from a rail network of 3,825 miles that moves the equivalent of 3.5 million truckloads per year of freight originating or terminating within the state.

Almost every product you can think of can move by rail with proper planning.

The Iowa Department of Transportation, with assistance from the Iowa Economic Development Authority, first assembled this Iowa Rail Toolkit to support the exploration of rail transportation services in the state in 2014. Since then, almost 2,000 toolkits have been distributed and the response has been overwhelmingly positive.

Information is included in the handbook to help make shipping by rail in Iowa easier and more understandable. Chapters have been assembled to provide current information on the benefits of rail transportation and basic explanations of how to access the rail network. A directory of Iowa railroad companies is included listing contact information and a basic profile of each network. Economic development resources are also identified to help new users find resources for using and establishing rail access.

The Iowa DOT is committed to providing a safe and robust multimodal transportation network that supports the region's economy. We hope that this Iowa Rail Toolkit will help you and your business find benefits in utilizing Iowa's rail transportation system.

Sincerely,



Mark Lowe
Iowa Department of Transportation Director

EMERGENCY NOTIFICATION SYSTEMS (ENS) AT HIGHWAY-RAIL GRADE CROSSINGS

As with all modes of transportation, Safety is a prime concern. Effective September of 2016, 49 CFR Part 234 E requires every railroad crossing in the United States to have an Emergency Notification Sign (shown below).

The purpose of the ENS sign is to provide the public with critical emergency contact information at every highway-rail grade crossing. The information contained on the ENS sign enables the public to reach the railroad responsible for the crossing and to identify the specific crossing in the event of an emergency. In cases of unsafe crossing conditions or railroad-related emergencies, look for the sign near the crossing. It can usually be found on the crossbuck or crossing signal mast. You should also call 911.

This system also enables railroads to document calls from the public reporting unsafe conditions at highway-rail and pathway grade crossings and to track the remedial actions taken by the railroads as required by the rule.



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RAILROAD INDEX

| <i>It is not uncommon for a railroad to be owned by one entity and the operations of the rail line contracted out to another railroad. Also, when a railroad is acquired by another, it is not uncommon for the acquired railroad to continue operating under an individual or legacy name. Those relationships are noted in parentheses.</i> | Abbr. | Type of railroad* | Profile page with more information |
|---|-------|---------------------|------------------------------------|
| BNSF Railway | BNSF | Class I | 46 |
| Boone & Scenic Valley Railroad | BSV | Short line/ Tourist | 48 |
| Burlington Junction Railway | BJRY | Short line | 50 |
| Canadian Pacific Railway Ltd. (owner of Dakota, Minneapolis & Eastern Railroad) | CP | Class I | 52 |
| CBEC Railway (operated by Iowa Interstate Railroad) | CBEX | Short line | (see IAIS) |
| Cedar Rapids & Iowa City Railway Co. (also known as CRANDIC) | CIC | Short line | 54 |
| Cedar River Railroad Co. (owned by CN) | CEDR | (see CN) | (see CN) |
| Chicago, Central & Pacific Railroad (owned by CN) | CC | (see CN) | (see CN) |
| CN (owner of Cedar River Railroad and Chicago, Central & Pacific Railroad) | CN | Class I | 56 |
| D & I Railroad Co. (owned by State of South Dakota) | DAIR | Short line | 58 |
| D & W Railroad (operated by Iowa Northern Railway Co.) | DWRR | Short line | (see IANR) |
| Dakota, Minnesota & Eastern Railroad (owned by Canadian Pacific) | DME | (see CP) | (see CP) |
| Iowa Interstate Railroad Ltd. | IAIS | Regional | 60 |
| Iowa Northern Railway Co. | IANR | Short line | 62 |
| Iowa River Railroad | IARR | Short line | 64 |
| Iowa Southern Railway | ISRY | Short line | 66 |
| Iowa Traction Railway Co. (owned by Progressive Rail Inc.) | IATR | Short line | 68 |
| Keokuk Junction Railway Co. (owned by Pioneer Railcorp) | KJRY | Short line | 70 |
| Norfolk Southern | NS | Class I | 72 |
| North Central Iowa Rail Corridor LLC (operated by Iowa Northern Railway Co.) | NCIRC | Short line | (see IANR) |
| Union Pacific Railroad | UP | Class I | 74 |

***Class I railroads** include the largest freight-hauling railroads. The rail lines of the seven Class I railroads span the North American continent.

Regional railroads are midsize freight-hauling railroads that normally operate at least 350 miles of track and may span multiple states.

Shortline railroads are smaller railroads that include local railroads as well as railroads that primarily do car switching. Tourist railroads offer passenger rides usually in restored historic rail equipment and often accompanied by an on-site museum.

INDEX TO REFERENCED ORGANIZATIONS

| | |
|--|----------|
| Iowa Department of Transportation | Iowa DOT |
| Iowa Economic Development Authority | IEDA |
| Federal Railroad Administration | FRA |
| Federal Highway Administration | FHWA |
| Association of American Railroads | AAR |
| American Short Line and Regional Railroad Association | ASLRRA |

ARE YOU A RAIL SHIPPER? IS THIS TOOLKIT FOR YOU?

If you answer more than five questions “yes,” it might be worth evaluating your rail options.

YES

- Do you ship more than three truckloads to any destination within a week?
- Do your shipments move more than 300 miles?
- If transporting by rail takes longer but is reliable, could you include rail in your supply chain?
- Is it becoming more difficult to get a truck to move your freight?
- Is a rail transload located within 50 miles of your customers?
- Are your suppliers accessible by rail?
- Are your customers accessible by rail?
- Have your transportation prices increased?
- Do you manage your own logistics?
- Do you pay the transportation bill for your inbound or outbound freight?
- Does your company or do your customers measure their carbon footprint?

If the answers to these questions surprise you, you might be a candidate for using rail transportation in your supply chain network. We hope you find this Iowa Rail Toolkit helpful as a resource and basic guide.

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GETTING STARTED

WHO IS THIS GUIDE INTENDED FOR?

This toolkit contains references and a resource guide to help new freight rail users and economic development professionals with basic information about railroad transportation products and access. Railroad transportation is not new, but it is experiencing growth and innovations. According to the Association of American Railroads (AAR), freight railroads spend more than \$20 billion annually to build and maintain the rail network. Since 1980, railroads have invested more than \$525 billion in the North American rail network to improve safety, shipment visibility, and service.

The Iowa Rail Toolkit was developed by the State of Iowa to assist the freight rail user community and those investigating the potential of utilizing or expanding rail freight shipment activities. This guide is intended to provide a basic introduction to rail freight shipping concepts and practices. Many freight rail programs, policies, and practices are updated on a continuing basis. For up to the minute accurate information, use the contacts provided throughout this toolkit to contact the railroads, government agencies, and others directly.

WHY USE RAIL TRANSPORTATION?

As of 2011, there were 185,000 miles of railroad track that supported 1.5 million rail cars and 31,000 locomotives in the United States, Canada, and Mexico. In the United States, there are 568 railroads, seven of which are Class I carriers (the larger railroads), that form an interconnected national network. Rail transportation is enjoying a renaissance in freight transportation in large part due to fuel economy and efficiency when it comes to moving large volumes of freight long distances. Railroads are safe and environmentally friendly. Moving freight by rail helps reduce congestion and highway maintenance cost.

According to the AAR, "Adjusted for inflation, average U.S. rail rates (based on revenue per ton-mile) fell 42 percent from 1981 through 2013. This means that the average rail customer today can ship close to twice as much freight for about the same price as it paid more than 30 years ago ..."

Iowa is home to 18 railroads that operate across 3,854 track miles within the state.

Benefits of using rail

The seven primary benefits of using railroad transportation are:

- 1. Cost savings:** Freight moving by rail often provides lower total delivered cost, depending on available rail access, length of haul, type of commodity, car ownership, competition, and shipping volumes, among other things.
- 2. Fuel savings:** A freight train can move a ton of freight an average of 473 miles on a single gallon of fuel.
- 3. Safety:** Investments in infrastructure, employee training, and new technologies make railroad transportation safer now than it has ever been. According to the AAR, "Roughly 99.998 percent of hazardous material carloads moving by rail arrive at their destination without a release caused by an accident." (Source: AAR Analysis of Federal Railroad Administration's Train Accident Database; carloads from Interstate Commerce Commission/Surface Transportation Board waybill sample)
- 4. Congestion mitigation:** A typical rail car moves the equivalent of three to four semitrailers. An intermodal train diverts more than 300 truckloads from the highway system. A unit train of coal would require more than 416 trucks to move the same amount of cargo.

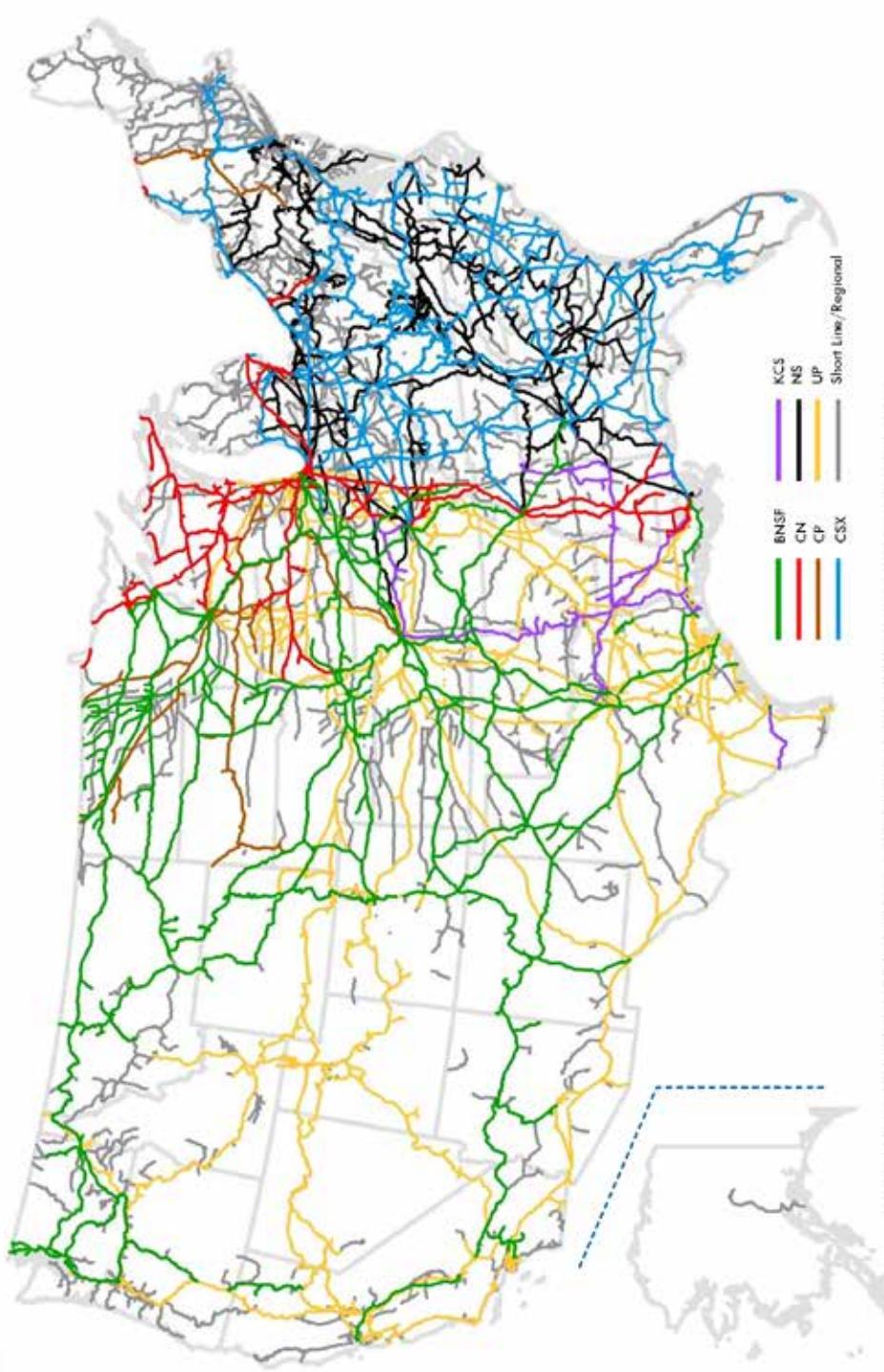


Credit: Brad Grefe

5. **Reduced greenhouse gas emissions:** Shifting 10 percent of long-haul freight from truck-to-rail would save nearly 1 billion gallons of fuel annually, according to a study by the Federal Railroad Administration (FRA). Replacing over-the-road trucking with intermodal transportation for shipments of more than 1,000 miles reduces greenhouse gas emissions by 65 percent, according to the Environmental Protection Agency.
6. **Reduced dependence on foreign oil:** Railroads move freight on an efficient, low-friction, steel-wheel network using less fuel per ton of freight moved than truck transportation.
7. **Reduced pavement maintenance:** Choosing rail for freight transportation greatly decreases the number of trucks on the highway system. Because truck loadings are the most significant cause of wear on highway infrastructure, decreasing the number of trucks leads to a decrease in highway infrastructure maintenance costs.



Freight Railroads in United States



Map shows rail line ownership based on 2011 National Transportation Atlas Database published by the U.S. DOT's Bureau of Transportation Statistics.

© 1993–2013, Association of American Railroads. For more information about railroads, visit www.aar.org or www.freightnetworks.org.

June 2013



ABOUT IOWA'S RAIL SYSTEM

Overview

Iowa has a robust and thriving rail transportation system consisting of 3,825 miles of mainline track. Of the 19 railroads in Iowa, five are Class I railroads (those that have a national presence); one is a regional railroad spanning two states; the remainder are shortline or switching railroads. The railroads run the gamut from operating hundreds of miles of track within Iowa to only a few miles.

Through connections with the national rail system and ports, Iowa's railroads can send or receive shipments throughout the world.

The rail transportation system is a critical component of Iowa's agricultural and manufacturing economy, carrying more than 86 million tons of inbound or outbound freight. Some routes play a key part in the national freight system carrying more than 265 million tons of freight through the state to other destinations.

Commodities transported by rail in Iowa

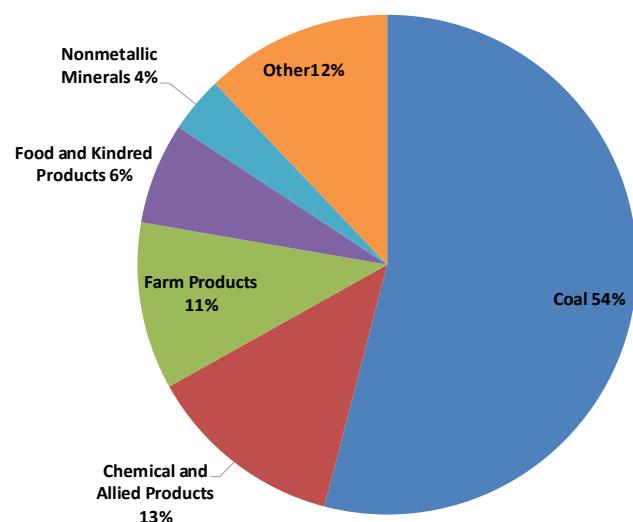
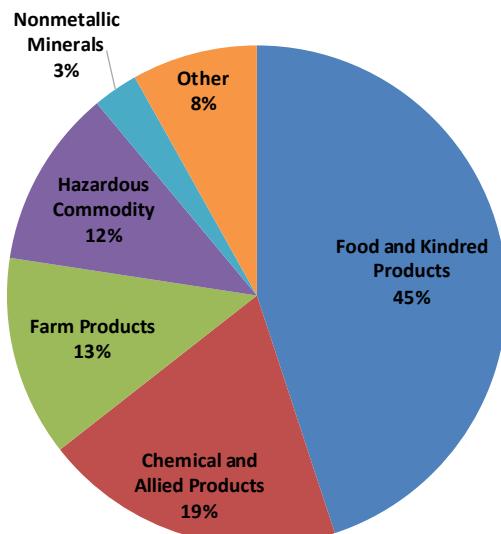
Railroads in Iowa carry just about every product you can imagine. They range from agricultural products to coal, from wind generator components to ethanol. The charts below show the quantities and percentages of commodities shipped to and from Iowa in 2016.

Rail traffic originating in Iowa in 2016

| Commodity | Tons | Carloads |
|------------------------------|-------------------|----------------|
| Food and kindred products | 21,921,912 | 242,131 |
| Chemical and allied products | 9,500,231 | 113,049 |
| Farm products | 6,329,500 | 142,067 |
| Hazardous commodity | 5,627,288 | 54,055 |
| Nonmetallic minerals | 1,428,714 | 10,392 |
| Other | 3,961,363 | 60,467 |
| Total tons | 48,769,008 | |
| Total carloads | | 622,161 |

Rail traffic terminated in Iowa in 2016

| Commodity | Tons | Carloads |
|------------------------------|-------------------|----------------|
| Coal | 20,371,929 | 159,206 |
| Chemical and allied products | 4,838,203 | 46,743 |
| Farm products | 4,079,327 | 36,978 |
| Food and kindred products | 2,472,708 | 30,487 |
| Nonmetallic minerals | 1,336,993 | 15,455 |
| Other | 4,558,167 | 97,839 |
| Total tons | 37,687,327 | |
| Total carloads | | 386,708 |



IOWA

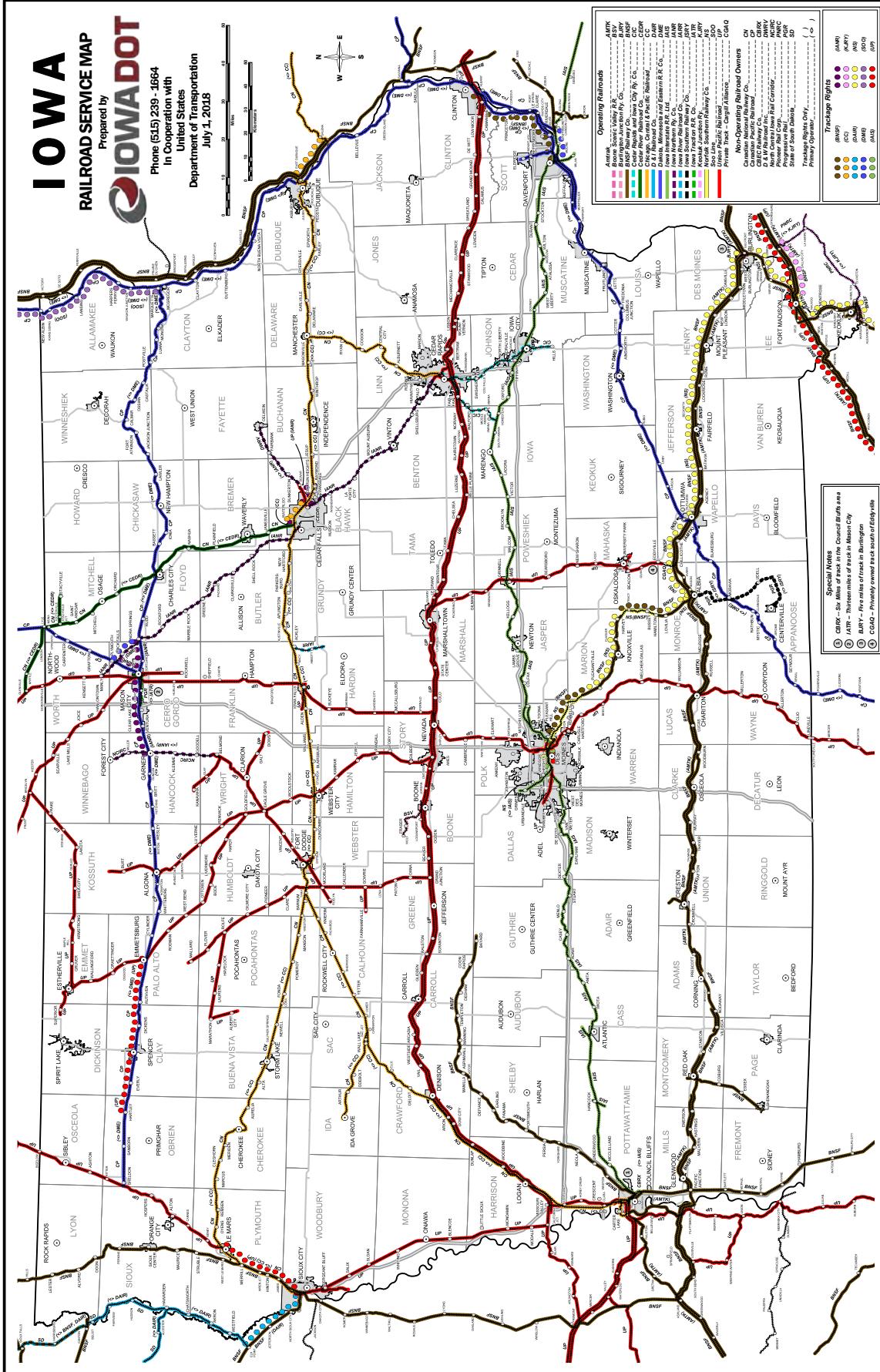
RAILROAD SERVICE MAP

Prepared by

Phone (515) 239-1664

In Cooperation with
United States
Department of Transportation

July 1, 2018



| Operating Railroads | |
|---------------------|-------------------------------------|
| AAR | Bonaparte Valley R.R. |
| CP | Burlington Northern Santa Fe Ry Co. |
| C&NW | C&NW Ry Co. |
| CSX | CSX Transp Co. |
| IC | Illinoian Ry Co. |
| IP | Interstate Ry Co. |
| MP | Midland Pacific Ry Co. |
| NS | New York Central Ry Co. |
| UP | Union Pacific Ry Co. |
| WABCO | Wabash Ry Co. |

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INTERESTING FACTS ABOUT IOWA RAIL

- One train can carry as much freight as several hundred trucks. It would have taken approximately 3.5 million additional trucks to handle the 86.5 million tons of freight that originated or terminated in Iowa by rail in 2016.
- The American Association of Railroads reports that America's railroads moved a ton of freight an average of 479 miles on one gallon of fuel. That's like going from Des Moines to Indianapolis.
- Farm, food, chemicals, and ethanol products account for 90 percent by weight of the rail shipments originating in Iowa. (2016)
- It would require more than 1 million semitractor trailer loads to move the same amount of farm and food products originated by Iowa's railroads (28.3 million tons) in the year 2016.
- On average, railroads are four times more fuel-efficient than trucks. Moving freight by rail instead of truck reduces greenhouse gas emissions by 75 percent.
- Since 1985, the tons of rail freight originating, terminating, or traveling through Iowa has more than doubled.
- Iowa's rail system moves more freight over fewer miles of track than ever before. Between 1985 and 2010, net ton-miles tripled while rail-miles fell by nearly 800 miles. (2011)
- Iowa railroads move goods in 100 to 110-ton cars and in trains that are often 100-plus cars long. One covered hopper car is capable of hauling 3,500 to 3,900 bushels of grain, which is equivalent to approximately four semitractor trailers.
- Coal, farm products, chemicals, and food products make up 84 percent by weight of the rail shipments terminating in Iowa. (2016)





SELECTING RAIL AS A MODE OF TRANSPORTATION

SELECTING RAIL AS A MODE OF TRANSPORTATION

Transportation modes are selected based on several factors that include but are not limited to the following.

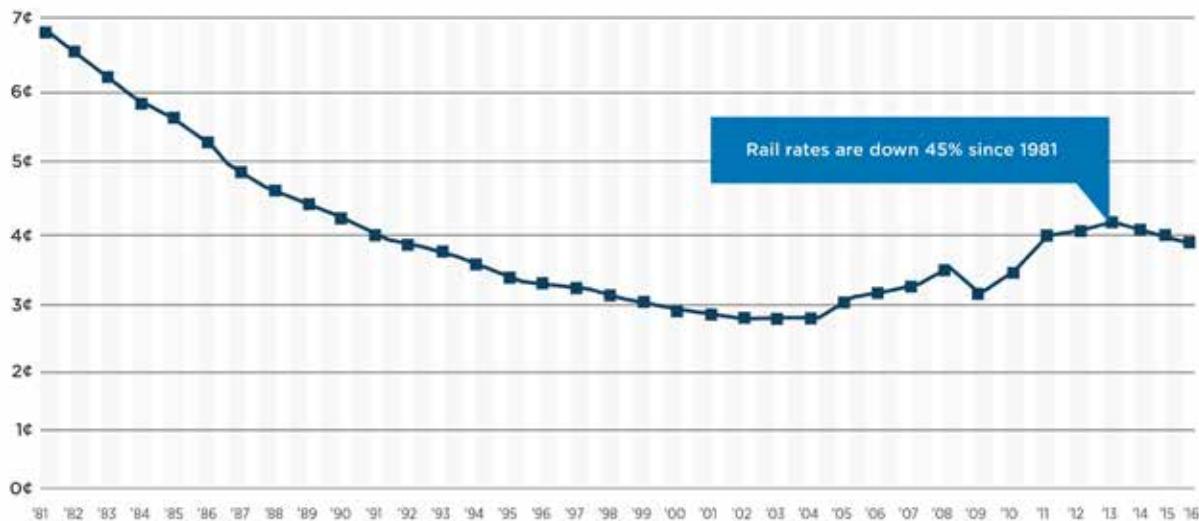
Economics

Rail has particular cost advantages when shipping sizable quantities or commodities in bulk where the large capacity of a rail car (or multiple cars) offers economies of scale. Shippers moving oversize or overweight truckloads may be able to use rail to avoid or reduce issues with highway clearances and permitting. Rail is often a very effective way to move large equipment, pipe, and other dimensional cargo. The serving railroad can provide details and the process to ship over dimensional loads by rail.

In a competitive transportation market, transportation service providers typically compete on a cost per mile basis. Total landed costs (includes the cost of the product as well as all shipping costs, tariffs, taxes, insurance, handling fees, etc.) can also be compared when making mode selections. But other factors such as inventory, damage in transit, and any special material handling requirements must also be considered. The ability of a carrier to make information available on the status and location of in-transit shipments can be important and mitigate the impact of potentially longer transit times and travel time variability that can be experienced when shipping by rail.

AVERAGE U.S. FREIGHT RAIL RATES DOWN SINCE DEREGULATION

U.S. Freight Rail Rates Keep Costs Low for Rail Customers and Help Save Consumers Money



Thanks to freight rail's efficiency and productivity improvements, the average rail customer today can move nearly twice as much freight for about what they paid 35 years ago. With rates among the lowest in the industrialized world, U.S. freight railroads help keep America's farmers and manufacturers competitive in a tough global economy and save consumers billions of dollars each year.

Notes: *Based on average revenue per ton-mile in 2016 dollars

Source: Association of American Railroads



Commodity characteristics

Most products can move by rail if packaged correctly. Railroad carriers have loading specialists who can help you secure your shipment to avoid damage. The matrix below illustrates a sample of products that can successfully be shipped by rail. Some products, depending on shipment quantity, can move in either rail car or intermodal service. One intermodal shipment is typically the same size as a truckload shipment. One railcar shipment can move the same amount of cargo as three or four truckloads depending on the product dimensions and rail car size. Loading bulk cargo in rail cars can often speed up the loading process given today's high-capacity loading equipment and large-capacity rail cars.

Access

Rail-served industries can load rail cars at the point of origin and destination. For shippers or receivers without direct rail access, transload operations using public or contract facilities can load/unload railcars directly, and then trucks can support the first and/or last segment of transportation. Intermodal rail services involve the loading of containers or trailers that can be loaded onto the train at designated terminals. This equipment is then trucked from the rail terminal to the shipper's or consignee's facility.

Train operating service characteristics

Railroads often distinguish carload train service by the operational profile of the train handling the freight. A train that loads an entire train at an elevator, mine, or other facility is often called a "unit" or "shuttle" train, which is a grouping of cars that are all loaded at the same place and move to a single destination without intermediate stops. Manifest train service is typically described as several railcars moving from one customer to another. These individual shipments are grouped together at the rail terminal and move together in designated train service, which stops to make pickups and drop-offs along the way.

| Industry | Automotive | Bulk products | Consumer goods | Merchandise | Dimensional cargo |
|----------------|--|---|---|---|--|
| Rail car types | Autorack car | Hopper rail car | Intermodal | Railcar | Flat car |
| Products | Finished vehicles Import or export vehicles | Grain, feed | Food, beverage | Food, beverage Building supplies Machinery Fertilizer Paper products Basic chemicals | Machinery Logs Lumber Wind generator blades |
| | | Sand, cement, gravel Coal Ores Nonmetallic minerals Stone | Electronics Parts Manufactured products Mixed freight Textiles Retail products Scrap Exports and imports | | |

Train operating service characteristics

- Railcars can carry as much as three to four truckloads moving between the same origin and destination pairs. Rail service provides a benefit to any shipper who moves large quantities of freight.
- Rail service is more cost competitive the longer the length of haul; however, some shipments under the right circumstances can move short distances over a single rail-owned segment competitively.
- While rail transit times may be longer than truck transit times, with proper planning, a longer transit time via a lower cost mode can reduce supply chain costs.
- Are your suppliers or customers located on rail or near a rail transload? If the answer is yes, rail might be an option for you to consider.
- For shippers who measure their carbon footprint, rail is a desirable mode of transportation.
- For those who pay for and designate the mode of transportation, understanding rail alternatives can provide substantial cost savings.

MODE TRANSPORTATION COMPARISONS

Trucks

Trucking companies provide a variety of services. Contract fleets typically move between modes in one shipper-owned network. Less than truck load (LTL) service typically combines the freight of several customers and moves cargo between consolidation points, and delivers freight to the customers' locations. A most notable LTL shipper is United Parcel Service. Full truckload service providers move products from one customer to another using a variety of equipment, including dry van, flatbed, hopper, and refrigerated equipment. Trucks are flexible and can move small shipments of a few hundred pounds up to 48,000 pounds per shipment depending on equipment configuration.

Railroads

Railroads move on privately owned networks for the most part, and are well suited for moving large volumes of freight between two shipping points. Railroads are the workhorse of the bulk commodities and construction trades. They provide significant economies of scale due to their fuel-efficient operations. Rail access is available to many industries nationwide and is also available to users who are near transload facilities. These transload operations combine the volume of three to four truck shipments into one rail car for transportation to the final customer or supplier.

Barges

Barges are a staple of the industries moving bulk products by river or inland waterway. This mode often competes with rail but is more limited based on marine access. Barges can be loaded and unloaded much more rapidly than packaging a bulk product and putting it in a truck. The comparison below shows that one barge can handle as much as 58 trucks or more than 13 jumbo hopper rail cars. Barges are also very fuel-efficient compared to rail or truck. Barges can be delayed by ice on the waterways in the winter. Transit time may vary widely based on the direction of the current and river conditions.

COMPARE

CARGO CAPACITY



ONE BARGE

1,500 TONS
62,500 BUSHELS
453,500 GALLONS

ONE 15-BARGE TOW

22,500 TONS
767,500 BUSHELS
6,804,000 GALLONS

ONE RAIL CAR

110 TONS
3,500 BUSHELS
32,600 GALLONS

ONE LARGE SEMI

25 TONS
910 BUSHELS
7,865 GALLONS

EQUIVALENT UNITS

(USING CORN BUSHEL SHIPMENTS FOR THIS EXAMPLE)



ONE BARGE



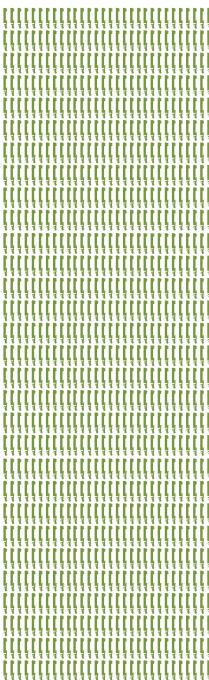
14 RAIL CARS



ONE 100-CAR TRAIN

11,000 TONS
350,000 BUSHELS
3,260,000 GALLONS

60 LARGE SEMIS/TRACTOR TRAILERS



900 LARGE SEMIS/TRACTOR TRAILERS



ONE 15-BARGE TOW AND TOW BOAT

0.25 MILE



TWO 100-CAR TRAINS

2.2 MILES



900 LARGE SEMIS/TRACTOR TRAILERS

11.9 MILES (BUMPER TO BUMPER)

ALTERNATE ACCESS TO RAILROADS

TRANSLOADING

A SOLUTION FOR SHIPPER WITHOUT DIRECT RAIL ACCESS

Transloading

In its broadest definition, transloading is the process of transferring freight between two modes of transportation. This toolkit will focus on transferring freight between rail and trucking.

Transloading allows a shipper to take advantage of the cost, speed, and capabilities of more than one mode of transportation. For example, it can link the flexibility of a truck to the long-haul efficiency of rail. A larger shipment can be hauled a long distance by rail and divided at a site near the end-use market into several truck movements for deliveries to customers in the area.

Trucking coupled with long-haul rail service may offer cost savings and improve the flexibility and reliability within the supply chain. Transloading may be a viable option whenever a shipper or customer does not currently have railroad tracks into or at a facility.

Transloading works for many commodities, including finished and unfinished goods, fresh food and beverage products, lumber, paper, metals, building materials, a variety of packaged bulk commodities, as well as special shipments that cannot travel their entire route by road.

How a shipper gains access to the rail system to transload a shipment varies a great deal. A shipper may utilize high-tech container shipping (covered in the next section on intermodal shipping) or a simple rail car set out on a siding (a team track). Between those two extremes there are a variety of options with varying levels of service.

How does transloading work?

The diagram on the following page illustrates an example of a transload process. In this example, there is a transload at both ends of the commodity's journey. The transload process can produce greater economic benefits if only one end of the transportation process uses a transload operation.

Types of transloading

Transloading facility with warehousing

A full-service transloading facility with warehousing can add value and flexibility to your supply chain. By offering short- or long-term storage and handling for goods, a shipper can position goods closer to end users. Products can be reloaded from a larger-quantity rail car, stored, and shipped direct to customers meeting their needs for speed and reliability. Each transload facility may offer a variety services such as on-call delivery from their warehouse; merchandise consolidation and distribution; packaging, labeling, assembly, or other value-added services.

Some transloading facilities specialize in a particular product or type of product such as a cold storage transload/warehouse that deals only in refrigerated or frozen goods.

Basic transloading facility

Other transloading facilities have the ability to shift from mode to mode, but lack warehousing and have limited or no value-added services and staffing. Also, a transload facility may be dedicated to a single type of product with particular requirements such as an ethanol transloading site or a food grade product transloading site. Other facilities may have the capability for multiple types of products.

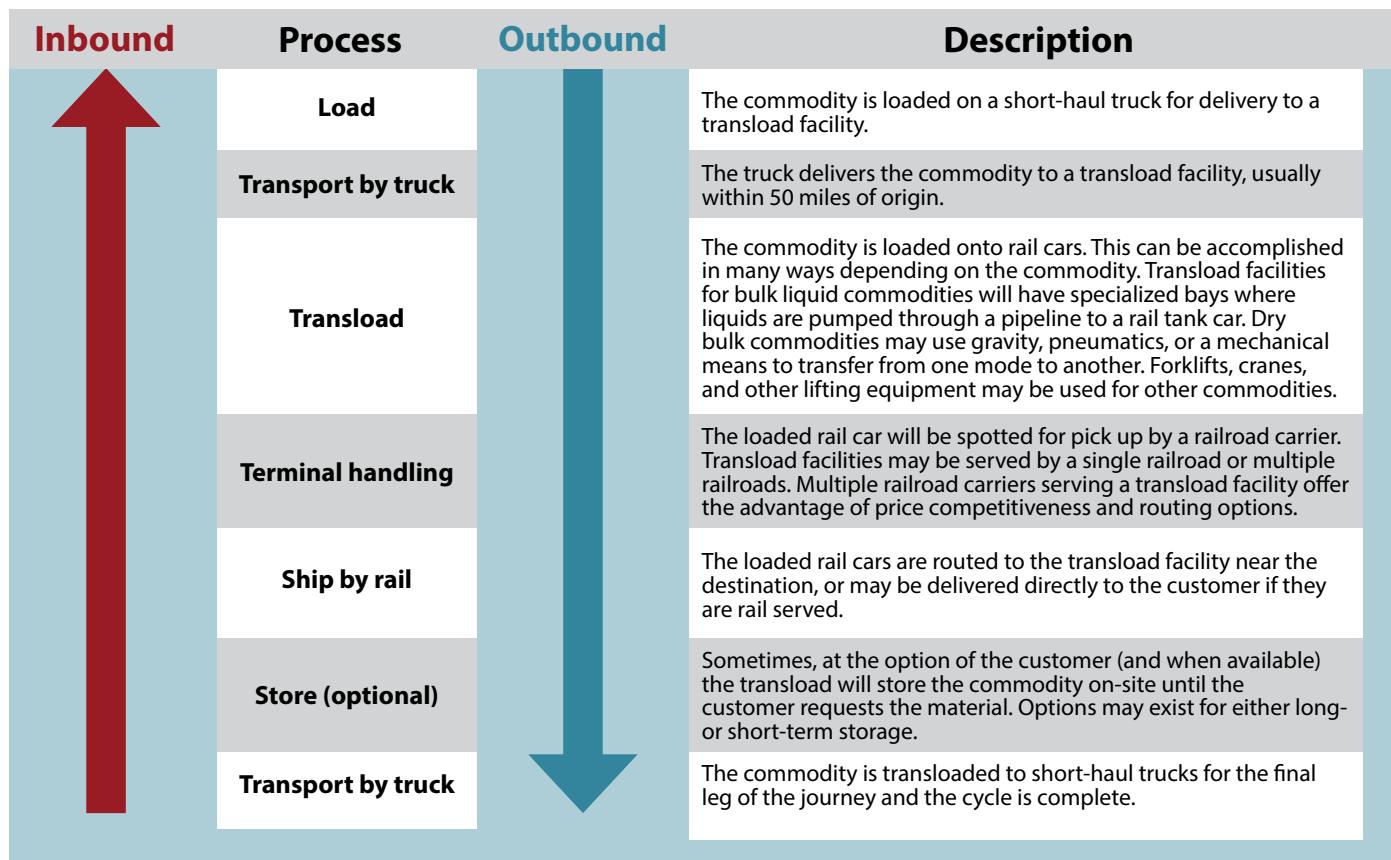
Cross dock

At a cross-dock transloading facility, cargo is unloaded from an incoming truck or rail car and is reloaded, typically within the same day, directly into outbound trucks, trailers, containers, or rail cars. Inventory is not held during the process. A cross dock typically allows level loading between modes.

Team track

A team track is the most basic type of transload facility. It is a simple siding or spur track where railcars are placed, available for public use to load or unload freight. No services or equipment are provided by the track owner. A team track may be owned by the railroad, business served by the railroad, industrial park, public agency, or freight terminal operator. It is the responsibility of the shipper or receiver to load/unload the car(s). The shipper or receiver must provide any needed equipment, as well as blocking and bracing to secure the load. Once the cars are loaded, the railroad is notified to pick them up.

Example of a transload process



Iowa's transloading facilities

The table and map on the following pages show transloading locations that have been identified through conversations with railroad staff, along with a brief description and the name of a contact person or number. Contact the transloading location directly to find out more about the services, staffing, and capabilities of each location.

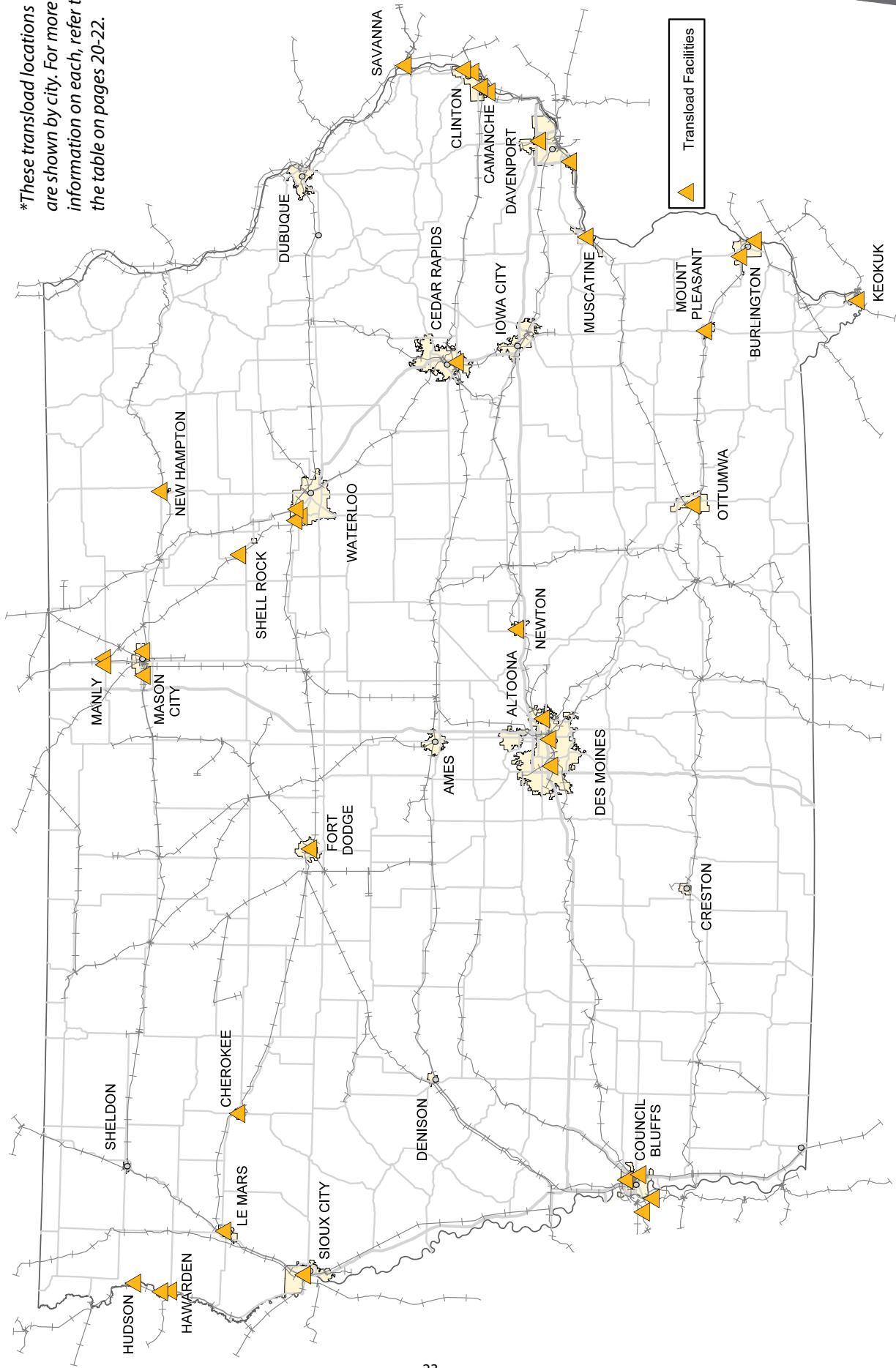
TRANSLOADING FACILITIES AND WAREHOUSES WITH RAIL SERVICE

| Location | Name | Services | Railroad | Contact |
|--------------------|-------------------------------------|---|-------------------|--|
| Altoona, IA | Iowa Cold Storage | Large capacity refrigerated warehouse resources, cross dock | BNSF, UP | iowacold.com 515-957-8595 |
| Altoona, IA | Merchants Distribution Services | 135,000 sq ft heated high cube warehouse and cross-dock facility with 8 rail doors. Pallets, roll paper, packaged food, coiled and flat steel, and unitized building materials. Located one mile from I-80 in the Altoona Business Park. | IAIS | sales@merchantsdsm.com 515-244-2123 |
| Atlantic, IA | IAIS | Railroad-owned two-acre rolled stone tarmac with 800 foot single-side accessible rail siding. | IAIS | Andy Laurent 319-423-5186 |
| Boone, IA | PDM Distribution Services, Inc. | BRCA certified food-grade and non-food-grade packaging, transloading, and warehousing. | BSV | Terry Goodman terry.goodman@pdmcompany.com 515-264-8655 |
| Boone, IA | Boone & Scenic Valley Railroad | Team Track Accessibility | BSV | Travis Stevenson travis.stevenson@bsvrr.com 515-432-4249 |
| Burlington, IA | Burlington Junction Railroad | Provides transloading for liquid and dry bulk products, lumber, machinery, oversize, plastics. Industrial development sites available. Rail served barge transfer facilities. | BJRY, BNSF | www.bjryrail.com 319-753-6157 transload@bjryrail.com |
| Camanche, IA | ADM Terminal Service | Enclosed facility with 8 tracks and 100 railcar spots. Can handle bulk and dimensional cargo. | BNSF, CP, UP | Jim Dougherty 563-259-2474 |
| Camanche, IA | Union Pacific Distribution Services | 12-acre wind component distribution center | UP | Cheryl A. Schow 402-233-3538 |
| Cedar Falls, IA | Standard Distribution Co. | Third-party logistics and transloading | CN | www.standarddist.com info@sdcdc.com |
| Cedar Rapids, IA | CRANDIC | Cross dock, team track for dry material transfer via PD truck | CRANDIC | Jeff Woods 319-786-3660 |
| Centerville, IA | Iowa Southern Railway | Car loading and unloading facilities handling steel products, lumber, and feed ingredients | ISRY | Michael Johns 641-954-1519 |
| Cherokee, IA | Cloverleaf Cold Storage | Warehouse facility | CN | 712-225-5151 cherokee@cloverleaf.com |
| Clayton, IA | Consolidated Grain and Barge | Transload to/from barge, rail, truck, and storage of aggregates, minerals, ag products, biomass, and project cargo. Track space for 30 railcars with options for expansion. Truck access to four interstate highways. | CP | ctlconline.com/terminals/clayton-ia |
| Clear Lake, IA | Progressive Rail Services | Third-party logistics and transloading, 70,000 square-foot warehouse storage | IATR | Michael Johns 641-529-0061 |
| Clinton, IA | ADM Terminal Services | Bulk material handling. Facilities include dry bulk barge dock, ground and covered storage | BNSF, CP, UP | Jim Dougherty 563-259-2474 |
| Clinton, IA | Clausen Companies | Food grade and non-food grade warehouse space including temperature control, rail/truck transfer for dry and liquid bulk as well as packaged products, 80 car spots | UP | Cheryl A. Schow 402-233-3538 |
| Council Bluffs, IA | IAIS | Transloading space available for customer-direct or third-party rail-truck accessibility. 20+ car spots available on two tracks, along with 7 acres of rolled stone tarmac, end ramp, lighting, perimeter fencing, and a third-party truck scale on site. I-29/80 highway access within ¼ mile. | IAIS | Andy Laurent 319-423-5186 |
| Council Bluffs, IA | IAIS | Intermodal facility | UP, BNSF, KCS, CN | intermodaldistro@iaisrr.com |

| | | | | |
|--------------------|--|---|--------------|--|
| Council Bluffs, IA | Union Pacific Distribution Services | Team track with a four-car spot and side dock | UP | Cheryl A. Schow 402-233-3538 |
| Davenport, IA | Catch-Up Logistics | Frozen, refrigerated, and dry storage | CP | 412-441-9512 |
| Davenport, IA | Murray Warehousing | | CP | www.murrayswarehouse.com 563-333-4587 |
| Davenport, IA | Savage Services | Box car, flat car, and bulk transload facility with more than 20 railcar spots. Enclosed 20,000 square foot warehouse. Outside laydown storage area. Hazardous and non-hazardous liquids and dry bulk commodities, lumber, steel, pipe, break bulk materials. | SDR, CP | Dan Price DanielP@savageservices.com |
| Des Moines, IA | Luckey Logistics LLC | Plastics, scale available, 60 railcar spots | UP | 815-672-2931 |
| Dubuque, IA | Foodliner Inc./Quest Liner | Food and plastics | BNSF, CN | 800-251-9569 |
| Emery, IA | | This transload facility includes car loading and unloading facilities, a truck height dock, liquid transfer capability with track pans, crane service for heavy lifts and flat car loading for machinery. | IATR | Michael Johns 641-529-0061 |
| Fort Dodge, IA | | | CN | |
| Hawarden, IA | GCC Dakotah Cement (raw cement) | 3,000 feet of track leased for a cement terminal with additional track space as needed for storage. | DAIR | Jack Parliament 724-552-3818 |
| Hawarden, IA | Poet Nutrition (corn oil) | 1,800 feet of track leased for a truck to rail transload with additional track space as needed for storage | DAIR | Jack Parliament 605-330-6588 |
| Hudson, SD | Siouxland Energy Transload (SELC) | Nearly 7,000 feet of private track constructed by SELC for their ethanol transloading operation. | DAIR | Jack Parliament 712-722-4904 |
| Keokuk, IA | KJRY | Team track | KJRY | Dale Montgomery 309-697-1400 |
| Le Mars, IA | Burlington Junction Railway | Provides transloading of liquid and dry bulk products, lumber, machinery, and oversize. Industrial development sites available. | CN | www.bjryrail.com 319-753-6157 transload@bjryrail.com |
| Manly, IA | Manly Logistics Park and Waterloo Terminal | Three-mile loop track and cross-dock facility | IANR | Amy Homan ahoman@iowanorthern.com 319-431-2605 |
| Manly, IA | Manly Terminal/Yard | 800-car rail classification yard, 100-acre site for liquid storage and transload, wind turbine component distribution center | IANR | 641-454-4000 |
| Mason City, IA | Emery Yard | Wet and dry chemicals, wet and dry foods, propane transloading | UP, IATR, CP | Michael Johns 641-529-0061 |
| Mason City, IA | Cartersville Elevator Inc. | Warehouse rail-to-truck and truck-to-rail transload | CP | Richard Weiner 641-749-2584 |
| Mason City, IA | Iowa Traction Railway Co. | Cross dock, feed ingredients bagging services, bulk commodity transloading of all types. Interchanging with UP and CP. | IATR | Michael Johns 641-529-0061 |
| Middleton, IA | Commerce Center of Southeast Iowa | Existing rail and truck served warehouses available as well as building sites. | BNSF | Eric Pitcher 312-850-5699 eric.pitcher@bnsf.com |
| Moravia, IA | Iowa Southern Railway | Propane transload, railcar to truck. Interchange with BNSF, NS, and CP. | ISRY | Michael Johns 641-954-1519 |
| Mount Pleasant, IA | Burlington Junction Railway | Provides transloading for liquid and dry bulk products, oversize, and plastics. Industrial development sites available. | BJRY, BNSF | www.bjryrail.com 319-753-6157 transload@bjryrail.com |
| Muscatine, IA | CAMI Warehouse Inc. | Warehousing facility | CP | 563-264-8871 |

| | | | | |
|-------------------------------------|------------------------------------|--|-------------|---|
| Muscatine, IA | Kinder Morgan Terminals | Bulk liquid storage and warehousing (chemicals and herbicides), tank truck loading/unloading, tank car unloading, tank car to tank truck transloading. Four available rail car spots. | CP | Greg Chappell 319-262-8621 www.kindermorgan.com/content/docs/terminalbrochures/r_Muscatine.pdf |
| New Hampton, IA | New Hampton Transfer & Storage | 300,000 square feet of climate-controlled warehouse facilities, railcar transload | CP | Jonas Schwickerath 641-394-3191 www.nhwarehouse.com info@nhwarehouse.com |
| Newton, IA | IAIS | Transloading access on two parallel railroad-owned tracks with 56 car spots. Adjacent rolled stone tarmac with lighting available for project, dimensional, or bulk commodities. Industrial roadway access to I-80. | IAIS | Andy Laurent 319-423-5186 |
| Omaha, NE | Geo Transload LLC | Warehouse, 32 car spots, dry bulk capable | UP | 402-504-6146 |
| Omaha, NE | Omaha Transloading | Covered and enclosed facilities with 15 tracks and spots for 300 railcars. Can handle bulk and dimensional cargo. Has warehouse available. | BNSF | www.omahatransloading.com 402-341-2233 steven2@omahatransloading.com |
| Ottumwa, IA | Burlington Junction Railway | Provides transloading for liquid and dry bulk products, machinery, oversize, and plastics. Industrial development sites available. | BJRY, BNSF | www.bjryrail.com 319-753-6157 transload@bjryrail.com |
| Ottumwa, IA | Questliner/Foodliner Inc. | Transloading facility for wet and dry chemicals, dry foods, plastics, and petroleum products, 23 car spots | CP | questliner.com |
| Savanna, IL | Riverport Railroad | Enclosed and uncovered facilities with three tracks and spots for 999 cars, bulk and dimensional cargo capability, and warehouse and industrial development options available. | BNSF | www.riverportrailroad.com 815-273-3200 |
| Shell Rock, IA | Butler Logistics Park | Rail car storage, industrial building space available, cross-dock/warehouse facility | IANR | Bill Rhodes 319-415-8150 wrhodes@iowanorthern.com |
| Sioux City, IA | Big Soo Terminal | Multi-commodity, multi-dimensional rail/truck and rail/barge transload terminal, two tracks, 65 car spots, 100,000-square-foot warehouse storage, 6 million gallons of liquid tank storage capacity, 125,000 tons of dry bulk storage capacity, 15 acres outside storage, river dock for transferring products to barges | UP | www.bigsoo.com Kevin Knepper 712-258-0537 |
| Sioux City, IA | Floyd Valley Transload | Transload for dry and liquid bulk as well as machinery. Non-hazardous commodities only. Access to interstate, state highway, and river port. | BNSF | Brad Cummings bradcummings@live.com 712-244-5103 |
| Various locations in northwest Iowa | | 100,000-square-foot warehouse storage, 6 million gallons of liquid tank storage capacity, 125,000 tons of dry bulk storage capacity, 15 acres outside storage, | DAIR | Jack Parliament 605-330-6588 |
| Waterloo, IA | Waterloo Terminal/ Bryant Yard | Self-serve, cross dock, and direct rail-to-truck transload facility | IANR | Bill Rhodes 319-415-8150 wrhodes@iowanorthern.com |
| Waterloo, IA | Kinder Morgan, Black Hawk Terminal | Handling fertilizer and steel bar, rail/truck/storage transloading, access to US 20, I-380, and US 63, warehouse services | UP | www.kindermorgan.com Fred Nordman 319-233-5273 |
| West Liberty, IA | Custom Farming Transload | River dock for transferring products to barges | IAIS | Larry Regennitter 319-627-4168 |
| Williams, IA | Williams Bulk Transfer (WBT) | State of the art materials handling terminal. Access to I-35 and US 20 as well as the CN railroad. Also offering outdoor storage and development opportunities. | CRANDIC, CN | Jeff Woods 319-786-3698 jeffwoods@alliantenergy.com |

*These transload locations
are shown by city. For more
information on each, refer to
the table on pages 20-22.



INTERMODAL

What is intermodal?

Intermodal freight transport involves an intermodal container or trailer, using multiple modes of transportation (rail, ship, and/or truck), without handling of the freight itself when changing modes. The method reduces cargo handling, improving security, reducing damage and loss, and can allow freight to be transported faster. For this toolkit, the focus will be intermodal service using rail. Intermodal rail service typically combines truck pickup and delivery with rail line haul service. Trucks transport containers and trailers to rail terminals often within 100 miles of the loading/unloading point. Intermodal trains typically are not mixed with rail manifest or unit trains and move in dedicated rail service between designated terminals.

Intermodal service is not sold directly to shippers, but instead it is coordinated by truckload carriers, intermodal marketing companies, or third-party logistics (3PL) providers. These providers bundle the terminal-to-terminal train service with trucking services (often called drayage) between customer locations. Container and trailer equipment is provided by the intermodal marketing company and/or trucking company.

What are the types of intermodal service?

Domestic intermodal service typically moves across the rail network in 48' or 53' long containers between terminals located on the Class I rail network in North America. While technically terminals in Mexico and Canada are international locations, the North American surface transportation system connects these markets using the same railroad service standards and similar equipment. Equipment specifications are shown below in Figure 1.

International intermodal import service typically enters the rail network at or near a deep-water port. Export products are loaded in empty containers and typically shipped by rail to a deep-water port. International containers are provided by the ocean carrier and are typically 20 or 40 feet in length. International containers are mounted to chassis at the final terminal for local delivery. These services are typically coordinated by a freight forwarder or are specified in the ocean transportation contract. Equipment specifications are listed on the next page in Figure 2.

| 48' high cube x 102" Usable cube capacity 3,470 cu. ft. | | | | 53' high cube x 102" Usable cube capacity 3,830 cu. ft. | | | |
|--|--------------|-----------------------|---------------------------------------|--|--------------|-----------------------|---------------------------------------|
| Inside dimensions | Door opening | Palletized loads | Tare weights | Inside dimensions | Door opening | Palletized loads | Tare weights |
| L 48'6" | W 98" | 48"x40" (units) 28 | Container only 9,600 lbs. | L 52'6" | W 98" | 48"x40" (units) 30 | Container only 10,750 lbs. |
| H 106.5" | | | Container with chassis 18,000 lbs. | | | | |
| H 206.5" | | 48"x42" (units) 26 | | H 106.5" | H 106.5" | 48"x42" (units) 30 | Container with chassis 19,340 lbs. |

Figure 1: Domestic container specifications source: PNW Equipment Inc.

| Container size/ type | Material | Outside height (in.) | Tare weight (lbs.) | Max. cargo capacity (lbs.) | Door opening | | Interior dimensions | | |
|----------------------|----------|----------------------|--------------------|----------------------------|--------------|--------------|---------------------|-------------|--------------|
| | | | | | Width (in.) | Height (in.) | Length (in.) | Width (in.) | Height (in.) |
| 20 ft. | Aluminum | 102 | 3,594 | 41,204 | 92 | 90 | 233 | 92 | 94 |
| 20 ft. | Steel | 102 | 5,071 | 47,840 | 92 | 90 | 232 | 92 | 94 |
| 40 ft. | Aluminum | 102 | 5,820 | 61,377 | 92 | 90 | 475 | 92 | 94 |
| 40 ft. | Steel | 102 | 8,510 | 58,687 | 92 | 90 | 474 | 93 | 94 |
| 40 ft. high cube | Aluminum | 114 | 6,636 | 60,561 | 92 | 104 | 475 | 92 | 105 |
| 40 ft. high cube | Steel | 114 | 8,796 | 58,400 | 92 | 102 | 474 | 93 | 106 |
| 20 ft. refrigerated | Aluminum | 102 | 6,217 | 46,694 | 89 | 87 | 218 | 89 | 89 |
| 40 ft. refrigerated | Aluminum | 102 | 9,039 | 58,158 | 90 | 85 | 460 | 90 | 87 |
| 20 ft. open top | Steel | 96 | 5,401 | 47,510 | 92 | 88 | 232 | 93 | 92 |
| 40 ft. open top | Steel | 102 | 9,149 | 58,048 | 92 | 88 | 473 | 93 | 92 |
| 20 ft. flat rack | Steel | 102 | 5,732 | 47,179 | - | - | 234 | 93 | 89 |
| 40 ft. flat rack | Steel | 102 | 11,244 | 55,953 | - | - | 475 | 93 | 89 |
| 40 ft. platform | Steel | - | 13,580 | 110,231 | - | - | 480 | 96 | - |

Figure 2: International Container Dimensions Source: Redhawkglobal.com/resources/intermodal-container-specs

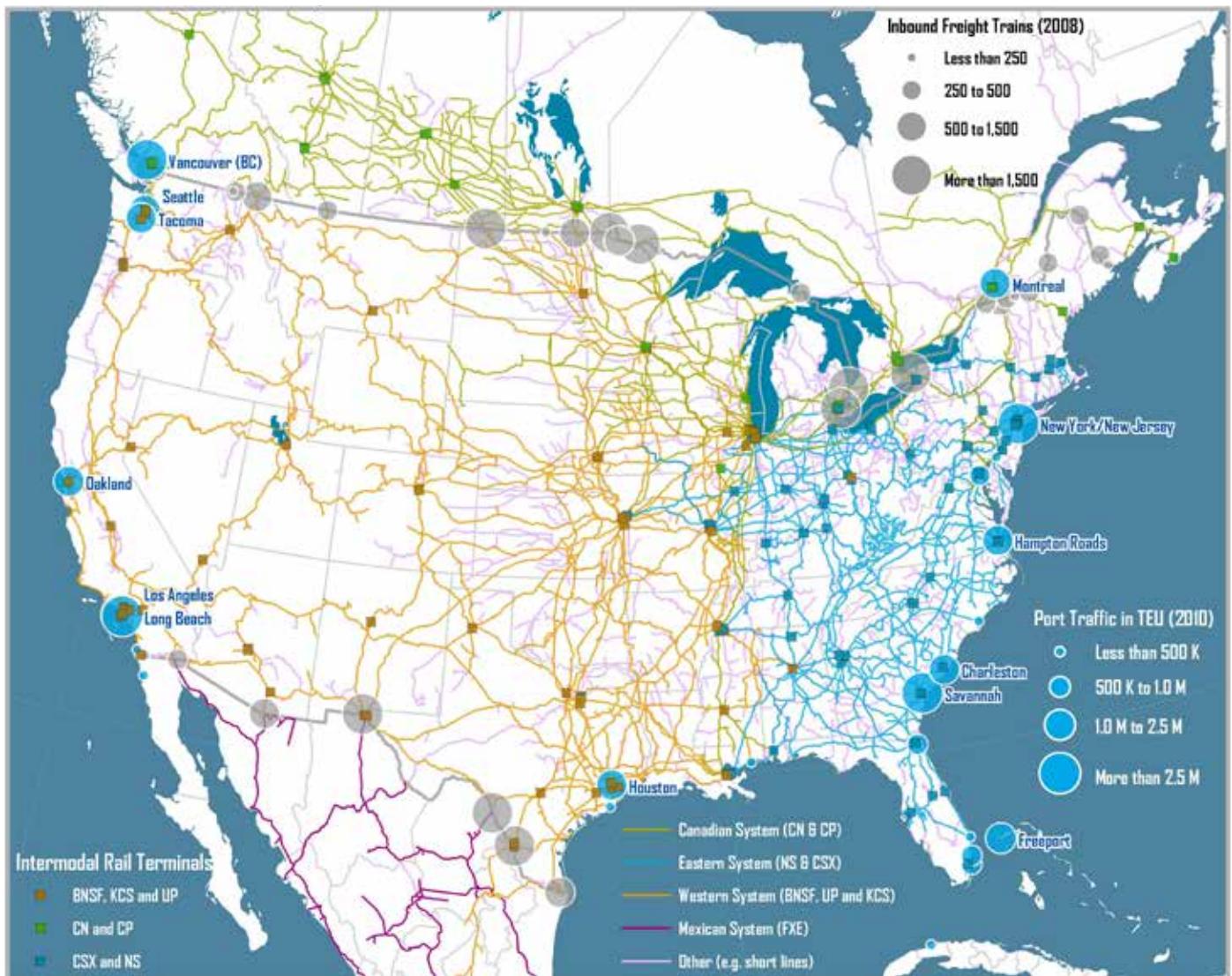


Figure 3: North American Intermodal train network and terminals:

Source: Oak Ridge National Laboratory. BTS. Containerization International
Credit: Dr. Jean-Paul Rodrigue, Department of Global Studies and Geography, Hofstra University

The map in Figure 3 shows the North American intermodal train network and terminal locations. There is one intermodal terminal in Iowa, located in Council Bluffs on the Iowa Interstate Railroad. Other Midwest intermodal facilities are in Minneapolis/Saint Paul, Minnesota; Chicago and Rochelle, Illinois; Kansas City, Missouri; and Omaha, Nebraska.

CARLOAD

Rail carload shipping has been a viable form of transportation since the 1800s. Freight can be transported in a dedicated (unit) train or as part of a broad mix of freight types (manifest service). Solids, liquids, and gases can be moved with a variety of car types. Some of the common options for freight transportation by rail are described below.

Manifest train service

Manifest trains are made up of rail car shipments from multiple shippers. The train might contain boxcars, hopper cars, and flatcars carrying a broad variety of products. Individual rail cars are loaded at a customer facility and move to a regional switching yard. From that yard they are added to a train, moved to the final train terminal where individual cars are switched out of the train, and then are delivered to local customers. Manifest trains may have 100 different shipper and receiver combinations within a single train. The diagram below illustrates how cargo moves in a Class I manifest rail network. While transit times can be predictable, when train volumes vary, transit times can often be widely variable.



Figure 1: Class I manifest train movement

Unit train service

Unit trains are often blocks of 100 to 130 rail cars, all traveling at the same time between two point pairs. Shuttle trains typically move 50 to 55 cars between two point pairs. When possible, shuttle trains are combined to gain operational efficiency. Cars in unit train or shuttle train service are loaded at one origin and all the cars move together to the final destination. There are efficiencies in this type of service because there is less car switching required. However, the shipper must be able to load a full train in the space of 24 hours or within a time specified by the railroad. Unit train service is very efficient and among the lowest cost trains for shippers. Unit train service is often used for coal, crude oil, grain, and other bulk commodities.



Figure 2: Class I unit train movement

RAIL CARS

There are many rail car types in use in the rail industry. Several standard car types are provided by many railroads. Shippers with special needs have designed and purchased their own rail cars. Equipment leasing companies also offer lease agreements for certain types of equipment. In 2013, the American Association of Railroads reported that 364,025 rail cars were owned by Class I railroads, 90,502 were owned by short line and regional railroads, and shippers and leasing companies owned 792,100 cars for transportation purposes.

Boxcars

Boxcars are general purpose vehicles that carry products like packaged foods, paper, machinery, and just about anything you might load in a dry van truck. Some boxcars are refrigerated and carry fresh and frozen foods or any products requiring temperature control. The specifications below illustrate rail car cubic and weight carrying capacity.

| | 50' standard | 50' high-roof | 60' standard | 60' high-roof | 86' auto |
|------------------|-------------------|---------------|-------------------|---------------|-------------------|
| Inside length | 50'7" | 50'6" | 60'9" | 60'9" | 86'6" |
| Inside width | 9'6" | 9'6" | 9'4" | 9'6" | 9'6" |
| Inside height | 10'11" | 13' | 10'10" | 13' | 13' |
| Door type | Slide and/or plug | Plug | Slide and/or/plug | Plug | Slide and/or/plug |
| Door width | 10' | 10' – 12' | 10' | 10' – 12' | 20' |
| Door height | 10' | 12' | 10' | 12' | 12' |
| Exterior length | 55'5" | 58'2" | 67'11" | 67'7" | 93'6" |
| Exterior width | 10'7" | 10'8" | 10'6" | 10'8" | 10'8" |
| Cube capacity | 5,238 cu. ft. | 6,269 cu. ft. | 6,085 cu. ft. | 6,646 cu. ft. | 9,999 cu. ft |
| Freight capacity | 70 – 100 tons | 100 tons | 70 – 100 tons | 100 tons | 70 tons |

Flatcars

Flatcars are often used for finished machinery, transformers, tractors, steel plate, steel coils, logs, pipe, and other products that may not be able to be loaded easily within a boxcar. Flatcars can have a center beam for strapping finished lumber, wall board, or building products. Bulkhead flatcars often carry pulp logs cut into 5-foot lengths that move to paper mills, and can also be used to move pipe or other products that might shift if a bulkhead was not available to stabilize the load. General purpose flatcars often carry machinery that is tied down to stabilize the load. Flatcars come in a wide variety of lengths and configurations.

Hopper cars

These bulk utility cars come in several sizes and configurations. Some have covers to keep cargo dry in transit. Most hopper cars have two to four compartments and are typically loaded from the top. Many hopper cars have a bottom gate allowing them to dump product using gravity to unload the product. Open hopper cars move bulk products that are not affected by weather such as scrap, coal, stone, slag, gravel, and sand.

| | Small cube | Jumbo |
|--------------------------------|--|---|
| Size | 2,700 to 3,599 cubic feet | 3,600 to 5,324 cubic feet |
| Freight capacity | 70 to 100 tons | 100 to 110 tons |
| Car length | 39 to 50 feet | 13 feet |
| Car height | 13 to 15.5 feet | 15 to 15.5 feet |
| Compartments | Two to three | Three to four |
| Loading hatches | Three to six centered 30-inch diameter; or eight to 12 off-centered 30-inch diameter | 20- to 40-inch wide center trough running the length of the car |
| Outlet gates | One to two 13-inch by 42 -inch gates per compartment | Two 13-inch by 42-inch gates per compartment |
| Number of gates per car | Two to six | Three to six |
| Gate spacing | 12 feet | 12 to 15 feet |
| Gate types | Gravity | Gravity |

Gondola cars

Gondola cars are an open top car with a flat bottom. Cars can reach up to 65-feet long and sides range between four to eight feet high. Commodities that typically move in gondola cars include sand, ore, gravel, and scrap.

| | 52' gondola | 65' gondola |
|---------------------------------|--------------------|--------------------|
| Freight capacity | 70 to 100 tons | 100 to 110 tons |
| Car length (standard) | 52'6" | 55'6" |
| Car height (standard) | 9'13/16" | 9'13/16" |
| Inside height (standard) | 5'6" | 5'6" |
| Inside width (standard) | 9'6" | 9' |
| Cubic capacity | 2,743 cubic feet | 3,242 cubic feet |

Tank cars

Tank cars are highly specialized to carry bulk liquids. Primary types of tank cars include general service, heat coil and insulated cars, high-pressure tank cars, acid and liquid sulfur cars, and crude oil cars.

These cars are typically privately owned, and carry a wide range of chemicals, gases, fertilizer, and food products such as syrups, juices, and other beverage products.



DEVELOPING A RAIL-SERVED FACILITY



The following guidelines have been assembled from multiple railroads and rail development groups. This information will help you get started with the planning and construction process of developing a rail-served facility. Three areas will be explored: 1) Site Selection Considerations, 2) Rail Planning and Design, and 3) Iowa Economic Development Authority (IEDA) Resources.

SITE SELECTION CRITERIA

Professional trade publications such as Site Selection Magazine and Area Development Magazine have published site selection criteria lists. An annual survey is conducted and responses from real estate and development professionals are ranked. An industry segment's particular needs or interests may rank site selection priorities differently. Consider agriculture, food processing, data centers, health care, manufacturing, and distribution. Each might have a different ranking for potential sites for expansion.

Typical site selection criteria include:

- Physical site attributes – suitability, topography, zoning, and total cost.
- Transportation infrastructure – availability of network access to various modes.
- Utility infrastructure – availability, capacity, reliability, and cost.
- Workforce – availability, skills, cost, quality, and access to training.
- Political climate – leadership at state and local level; business friendly climate.
- State and local laws – policies, programs, and incentives to support business development.
- Community information – quality of life, access to housing, medical services, and recreation.

Agricultural, manufacturing, and industrial firms are increasingly interested in having good access to transportation. Rail-served properties, especially those that are accessible to multiple Class I rail networks (either through a shortline railroad or an industrial park) are ideal.

RAIL PLANNING AND DESIGN

Railroads are private sector companies who own and maintain their tracks and locomotives and provide service on demand or based upon contracted schedules. To access the rail network, communication must start with the railroad about their ability to serve a given site and whether a rail spur is present or desired.

A company wanting to develop direct rail access has two basic approaches available, which are listed below.

- Building or refurbishing a facility in an existing site or rail-served industrial park.
- Building a spur or siding at a new or existing site.

Existing industrial park

The decision about this being right for your business is based largely on location and amount of shipping. If you have an existing facility with a rail line nearby, it may not make sense to move sites. Also, you will want to estimate the number of rail cars you would be shipping in and out and storing. If the number is large, the industrial park may be a good fit. If the number is smaller, it may not make economic sense to locate in an existing industrial park, a spur or something similar may work better. The IEDA and the site's owners/operators can help with these discussions.

Building a new site

There are three basic track layouts for connecting to a serving railroad.

- 1. Basic stub-in or spur:** This is an ordinary spur that connects to the serving railroad at one end. With this configuration, cars may need to be pushed and pulled and will have a limited number of cars that can be handled at a time.
- 2. Runaround or siding:** A section of track that usually parallels the serving railroad and can accommodate traffic from either direction.
- 3. Loop track:** A track designed to support continuous train movement for faster loading/unloading of unit trains. Many Class I railroads require loop type tracks if the business wants to connect to one of the railroad's main lines.

Design considerations

Each railroad will have specific requirements for constructing rail that will connect with their line. See the railroad's website or find contact information for each of the railroads in the profile section of this toolkit.

- **Slope (also known as grade):** Even very small slopes (e.g., 1 percent) can be important to a railroad for train operations. Also, from a safety standpoint, many railroads will require zero slope between the spur and the serving line. This is to keep errant rail cars from coasting toward the serving line. Site evaluation should include examining any elevation differences between the site and the serving railroad. Significant earthwork to correct slopes can be expensive.
- **Track curvature:** Trains cannot turn as sharply as trucks. It is not uncommon to see a turning radius of 600 feet or more for a train compared to 60 feet for a truck. Space requirements for such large turns need to be included in a site evaluation.
- **Nearby obstacles:** Turnouts for rail spurs or sidings cannot be located too close to rail curves, road crossings, bridges, tunnels, or other turnouts. For many railroads, the minimum distance to any of these obstacles is 200 feet.

Representative costs for rail development

Over the last decade, the Iowa DOT has helped fund several projects involving building a spur from a serving railroad. The costs to build such a project include everything from clearing and grubbing and earth work to installing track and switches. The table below shows the cost estimates (materials and labor) for several of these projects. These examples can give a rough estimate of the current cost of developing a site for rail access.

| Location/date | Spur length/turnouts | Cost |
|-------------------|-----------------------|-------------|
| Boone (2015) | 1,700 feet/2 turnouts | \$260,000 |
| Waterloo (2016) | 1,244 feet/1 turnout | \$715,000 |
| Des Moines (2016) | 1,600 feet/2 turnouts | \$500,000 |
| LeMars (2016) | 500 feet/1 turnout | \$196,000 |
| Davenport (2017) | 9,800 feet/7 turnouts | \$3,500,000 |

Timeline considerations

The time required for rail spur construction depends largely on the magnitude of your project. Additional time may be necessary if the project involves road crossings, utilities, or requires state permitting approval. Average times to accomplish rail access where there was none prior are listed below. These times vary between Class I and Class III rail carriers. Some railroads have standardized rail access applications that must be completed before discussions can begin.

- Track construction without addition of a Class I railroad turnout averages 11 months.
- Track construction with the addition of a Class I railroad turnout averages 15 months.
- Track construction with the addition of a Class I turnout and signal facilities averages 17 months.

Getting started

Processes for getting started vary widely based on the railroad carrier. Yet regardless of railroad size or service, beginning the discussion with the railroad is absolutely essential before project work begins.

Typical screening questions include, but are not limited to:

- Site location and facility description.
- Company information and ownership.
- Rail service contracts or lease agreements.
- Current rail operating status.
- Commodities and equipment types to be handled.
- Loading and unloading information.
- Service frequency expectations and freight volumes.
- Safety considerations.

If the site is already rail served, communication with the railroad is still essential as newer locomotives may require larger track curvature due to axle placement. Jumbo hopper cars also require heavier track structures to handle increasing loading weights. Railroads may require the following documentation.

- Industrial Track Agreement
- Track Agreement Audit
- Engineered drawings and current track condition
- General location map
- Material safety data sheet (if hazardous materials will be handled)

Location analysis

The industrial development contacts for each railroad are provided in the railroad profile section of this tool kit. Iowa Economic Development Authority is also an excellent resource and can provide free consultation services to assist companies with location attributes, workforce development information, and local regulatory requirements. The IEDA also maintains a database of available industrial buildings and land available for development within the state of Iowa.

Transload operations may be private facilities or open to the public. Public transload facilities are listed in the Alternate Access to Railroads section of this tool kit.

Iowa DOT also has railroad programs that may assist with building rail infrastructure. These programs are in the Freight Finance Options chapter of this tool kit.

Business analysis

Once a site has been determined, communication with the railroad representative is essential to identify service, rates, billing requirements, and equipment availability for the proposed location and railroad. A Memorandum of Understanding may be required to document the plan for the proposed facility. If the site will involve signal facilities, an engineering consultant will need to prepare a plan to expedite the signal planning process.

Final documentation

Final documentation depends on the rail carrier and the site owner. The process for Class I and shortline railroads can differ. Typical documents include:

- A detailed construction drawing of the proposed track layout and other facility features that will become part of an Industrial Track Agreement.
- Additional legal documents, payments, and insurance will be required for the project. Once the track design is finalized, typically an Industrial Track Agreement will be finalized.

Track construction

Track construction is the final step in the process and can only begin after the Industrial Track Agreement is completed. In some cases, the railroad will perform the work. In other cases, the facility owner contracts with professional track development and construction companies to complete the work. The railroad can assist in identifying qualified engineering and construction firms.

IOWA ECONOMIC DEVELOPMENT AUTHORITY RESOURCES

The IEDA is equipped to help expanding businesses and new facility site location efforts. The agency maintains an inventory of physical sites and buildings available for industrial development. The IEDA also provides financial, tax, and regulatory assistance. The state of Iowa is committed to supporting business growth and economic development. IEDA staff contacts are listed below.

To get started, contact a manager for assistance, or go to www.iowaeconomicdevelopment.com.

Beth Balzer

Team leader, site selection consultants
beth.balzer@iowaeda.com
515-348-6195

Jennifer Rhuppiyah

Foreign direct investment
jennifer.rhuppiyah@iowaeda.com
515-348-6193

Allen Williams

Advanced manufacturing
allen.williams@iowaeda.com
515-348-6194

Michael Gould

Insurance, financial services, data centers, distribution centers
michael.gould@iowaeda.com
515-348-6189

Mark Laurenzo

Biosciences, renewable fuels
mark.laurenzo@iowaeda.com
515-348-6191

Rick Peterson

Advanced manufacturing
rick.peterson@iowaeda.com
515-348-6192



FREIGHT FINANCE OPTIONS



The railroads in Iowa are all privately owned businesses. The railroads are a capital-intensive industry that invests in and maintains their own right of way, track, bridges, structures, equipment, and facilities. When a company or community chooses to invest in rail infrastructure, it can represent a large initial investment, often more than a company can afford without assistance or creative financing. Access to rail provides users many advantages and also benefits public transportation agencies by reducing highway maintenance and congestion. Rail transportation also provides environmental benefits for the public.

Rail development projects are typically complex. They require land, track, and equipment and often include facility investments for storage and freight handling. The rail funding programs listed below come from a variety of state and federal programs. Most programs have a defined eligibility that specifies types of projects and organizations eligible to apply.

When considering any capital investment, a solid business plan is a good first step. Understanding expected shipment volumes, competitive rate structures, and return-on-investment is necessary to justify funding for rail projects. Matching funds are often important for both loan and grant applications.

FINANCING AND BUSINESS ASSISTANCE

The federal, state, and local governments all have business assistance or funding programs in place that can assist you in various ways. Each state university in Iowa has some form of business assistance services available to help you with your business plan. Your local economic development organization may also be aware of additional local or regional resources or contacts. The Iowa Economic Development Authority has trained professionals available to help you navigate state incentive programs, regulatory assistance, and other business development options.

Most shortline railroads and Class I railroads are familiar with rail development programs. They can help you identify engineering and planning resources to help you develop your project and estimated costs in order to apply for funding. Many Class I railroads have a structured process for seeking their approval for new rail development projects that connect to their network. Most funding programs will require that the connecting railroad provides approval for the project plans.

The following pages detail funding programs that have or could potentially assist in financing a rail development. This is by no means an exhaustive list, but includes details on proven programs. To begin the process, it is often helpful to consider project eligibility. Some funding programs are available for railroad applicants or businesses; some might only be available to or must be sponsored by a public/government agency, such as the Transportation Investment Generating Economic Recovery (TIGER) discretionary grant program. Review different programs and make sure your project fits the program objectives. For example: Congestion Mitigation and Air Quality Improvement Program grants seek to improve the environment through the reduction of greenhouse gas emissions. Some programs focus on job creation and are designed to support economic development. Other funding programs prioritize exporting assistance and rail safety.

Each public or private funding source may use different evaluation criteria. Finding a funding source, or combination of sources, that aligns well with the specifics of your project or that match your goals can be the key to successfully obtaining financing assistance.

State programs

Railroad Revolving Loan and Grant (RRLG) Program

Eligible projects: Economic development, rail network, and rail port planning.

Program objectives: To build or improve rail infrastructure or facilities that will spur economic development and job growth; provide assistance to railroads for the preservation and improvement of the rail transportation system; and planning studies related to rail development.

Website: www.iowadot.gov/iowarail/financial-assistance/rrlgp

Revitalize Iowa's Sound Economy (RISE) Fund

Eligible projects: Construction or improvement of primary roads, secondary roads, city streets, state park roads, and county conservation parkways.

Program objectives: To promote economic development in Iowa through construction or improvement of roads and streets.

Website: www.iowadot.gov/systems_planning/grant-programs/revitalize-iowa-s-sound-economy-rise-program

Iowa's Clean Air Attainment Program (ICAAP)

Eligible projects: Eligible projects will fall into one of the following categories –

- Investments that reduce emissions via traffic flow improvements and provide a direct benefit to air quality by addressing ozone, carbon monoxide, or particulate matter PM-2.5 or PM-10.
- Investments that reduce vehicle miles of travel.
- Investments that reduce single-occupant vehicle trips; or other transportation improvement projects that improve air quality or reduce congestion.

Program objectives: This program funds highway/street, transit, bicycle/pedestrian, or freight projects or programs that help maintain Iowa's clean air quality by reducing transportation-related emissions. Eligible highway/street projects must be on the federal-aid system.

Website: www.iowadot.gov/systems_planning/grant-programs/iowa-clean-air-attainment-program-icaap

Highway-Railroad Crossing Safety Program

Eligible projects: Public grade crossings. Priorities are determined through a benefit-cost analysis that takes into consideration the extent of vehicle and train traffic at the crossing, speed of trains, certain characteristics of the crossing, effectiveness of the proposed improvement, estimated cost of the improvement, and other factors. Generally, those crossings with a high probability for a serious crash with a proposed improvement anticipated to be effective and cost-efficient will receive the highest priority.

Project objectives: This federally funded program improves the safety of public highway-railroad grade crossings.

Website: www.iowadot.gov/iowarail/safety/federal-aid-crossing-safety-program

Highway-Railroad Crossing Surface Repair Program

Eligible projects: Public grade crossings.

Program objectives: This program assists railroad companies and public road jurisdictions with rebuilding public highway-railroad grade crossing surfaces in Iowa. Both the railroad and the public road jurisdiction must enter into a project agreement.

Website: www.iowadot.gov/iowarail/financial-assistance/crossing-programs

The Iowa DOT's Office of Rail Transportation has experience with each of these programs and is available to help you conceptualize your project. Depending on the project scope, the Iowa Economic Development Authority can assist you with economic development programs.

Federal rail programs

Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grants

Eligible projects: Transportation infrastructure projects sponsored by state, local, and tribal governments, metropolitan planning organizations, other political subdivisions of state or local governments, and multijurisdictional groups.

- Highway or bridge projects eligible under 23 U.S.C. 53.
- Public transportation projects eligible under chapter 53 U.S.C. 53.
- Freight rail projects.
- High-speed and intercity passenger rail projects.
- Port infrastructure investments.

Program objectives: Invest in road, rail, transit, and port projects that promise to achieve critical national objectives and have a significant impact on the nation, a region, or a metropolitan area.

Website: www.dot.gov/tiger

Railroad Rehabilitation & Improvement Financing (RRIF) Program

Eligible projects: Acquire, improve, or rehabilitate intermodal or rail equipment or facilities, including track, bridges yards, buildings and shops, and to develop or establish new intermodal or rail facilities.

Program Objectives: Loans to develop railroad infrastructure.

Website: www.transportation.gov/tiger

Transportation Infrastructure Finance and Innovation Act (TIFIA)

Eligible projects: Help advance qualified, large-scale projects that otherwise might be delayed or deferred because of size, complexity, or uncertainty over the timing of revenues. Many surface transportation projects including railroad, and intermodal freight are eligible for assistance.

Program objectives: Direct loans, loan guarantees, and standby lines of credit to finance surface transportation projects of national and regional significance.

Website: www.transportation.gov/buildamerica/programs-services/rrif

Economic Development Assistance Program

Eligible projects: Construction, nonconstruction, technical assistance

Program objectives: To leverage regional assets and support the implementation of economic development strategies that advance new ideas and creative approaches to advance economic prosperity in distressed communities.

Website: www.eda.gov/funding-opportunities

FINANCE CASE STUDY 1:

Boone and Scenic Valley Railroad (BSVRR)

Project

Rehabilitate track leading to existing and potential customers and build/replace old spurs to provide access to those customers.



Background

In late 2015, the railroad's infrastructure was in need of a lot of work. There was only one customer, with a second customer under construction. The line serving these customers was older and in need of upgrading. The railroad wanted to be prepared to serve both of these as well as potential new customers in an industrial park that was planned next to their line.

Rail finance approach

In late 2015 the Boone & Scenic Valley Railroad was awarded a grant and loan totaling \$556,050.00 from the Iowa DOT Office of Rail Transportation -- Railroad Revolving Loan and Grant Program (RRLG). Thanks to the RRLG, the railroad was able to upgrade the track, including the installation of a siding and the rehabilitation or replacement of several switches.

Results

- Two of the switches that were replaced served spurs for industrial sites that weren't using rail service at the time. Subsequently, in late 2017 and early 2018 those two sites were sold to industries that are or will be using rail service.
- The financing from this program made it possible for the railroad to increase their customer base from one to four in a short time period.
- Looking to the future, the area to the north of the mainline is planned to be an expansion of the current Boone Industrial Park. It is in the process of being accredited by the Iowa Economic Development Authority as an Iowa Certified Site. This industrial site is planned for as many as 17 industries, of which at least 10 will have the potential of direct rail service.

FINANCE CASE STUDY 2:

Des Moines Cold Storage

Crossroads Cold Storage Rail Spur

Project

Des Moines Cold Storage was building a new 110,000 square foot cold storage warehouse facility in Des Moines. The facility will be exporting frozen food such as beef and pork, by rail. There was an existing spur nearby that they needed to repair and extend to the new facility.



Background and finance approach

A partnership between Des Moines Cold Storage, local banks, and the Railroad Revolving Loan and Grant Program (RRLG) allowed the company to upgrade and repair the existing spur and extend it to serve their new facility. Des Moines Cold Storage leveraged commercial financing with a no-interest, 10-year loan of \$385,000 from the RRLGP to finance the project.

Results

The company completed the project in 2017. The project is expected to add 13 employees to their operations as a result of the project; and they expect to ship up to 1,500 rail cars within the first three years of operation.

FINANCE CASE STUDY 3:

Iowa Corn Processors Rail Expansion

Project

Add two additional tracks on company property to allow for additional production and facilitate interchange with the serving railroad.



Prior to this project, Iowa Corn Processors (ICP) was served by a single track that was approximately 1,800 feet in length. That set-up required the serving railroad to make multiple entries and exits to the property to deliver empty cars and take away loaded cars. This was inefficient for the railroad because it tied up their main-line tracks causing congestion along the system.

With the additional tracks, the railroad is able to drop off and pick up cars in just two steps. This significantly reduces the amount of time the railroad has to spend on ICP property and reduces congestion on the railroad main line.

Rail finance approach

In 2014 ICP was a grant and a loan totaling \$419,000 from the Iowa DOT Office of Rail Transportation – Railroad Revolving Loan and Grant Program (RRLG) which they matched from other funding sources.

Results

The added lines to this facility had a two-fold benefit. They allowed for efficiencies in arrival and departure of cars. And they have allowed the company to expand their operations.



IOWA RAILROAD PROFILES



The railroad profiles in this section were prepared using the annual reports and input from railroads in Iowa. Contacts, transload facilities, and map information are included. Please contact each company about specific services and available resources.

BNSF RAILWAY (BNSF)

www.bnsf.com

Emergency number: 800-832-5452

Corporate headquarters

2650 Lou Menk Drive
Fort Worth, TX 76131-2830

General offices

Sioux City, Iowa



Overview

BNSF is among the largest railroads in the United States today with operating mileage totaling more than 32,000 miles covering 28 states and three Canadian provinces. BNSF covers the western two-thirds of the United States from major Pacific Northwest and California ports to the Midwest, Southeast, and Southwest; and from Canada to Mexico. The railroad operates 597 miles of track in Iowa, which runs from Burlington to Glenwood. Operations are on mainline tracks in the east, south, and west parts of the state as well as several branch lines (see map).

Transloading

| | |
|---------------------------|---------------------------|
| Altoona, IA | Middletown, IA |
| Burlington, IA | Mount Pleasant, IA |
| Camanche, IA | Ottumwa, IA |
| Clinton, IA | Sioux City, IA |
| Council Bluffs, IA | Savanna, IL |
| Dubuque, IA | Omaha, NE |

Intermodal

Omaha, NE

www.bnsf.com/customers/prices-and-tools/intermodal-advisor

Railroad interchanges

| | | | |
|---------------------------|------|---------------------------|----------------|
| Albia, IA | APNC | Keokuk, IA | KJRY |
| Burlington, IA | BJRY | Mount Pleasant, IA | BJRY |
| Clinton, IA | CP | Ottumwa, IA | BJRY, IAIS, CP |
| Council Bluffs, IA | CN | Quad Cities, IA | CP |
| Davenport, IA | IAIS | Sioux City, IA | CN, DAIR |
| Des Moines, IA | IAIS | | |

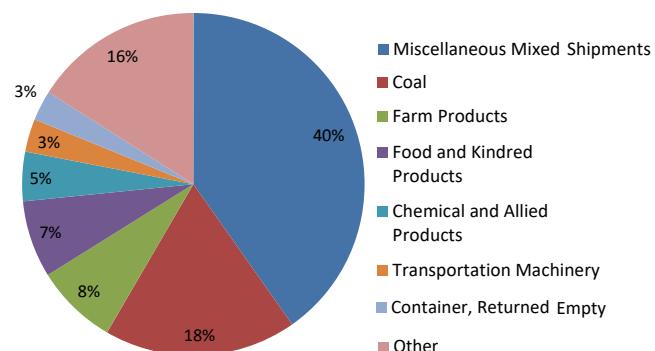
Contact(s)

| | |
|--|--|
| Andy Williams Director, Public Affairs | andy.williams@bnsf.com 763-782-3212 |
| Peter Skosey State government affairs | peter.skosey@bnsf.com 312-850-5678 |
| John Rider Economic development | john.rider@bnsf.com 913-551-4148 |
| Eric Pitcher (eastern Iowa) Economic development | eric.pitcher@bnsf.com 312-850-5699 |

BNSF in Iowa

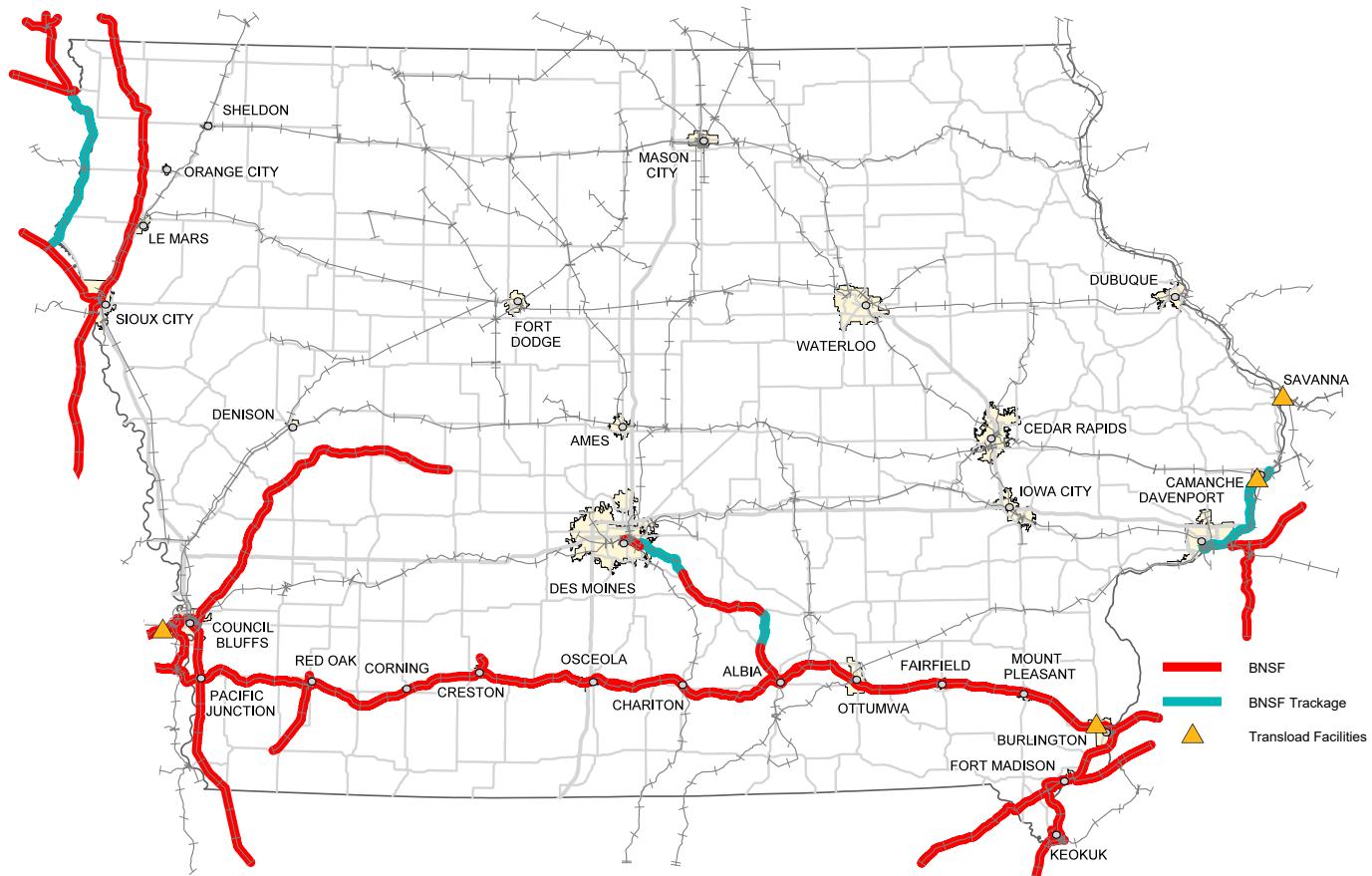
| | |
|---|------------|
| Miles of track owned/leased/serviced in Iowa | 597 |
| Miles operated under trackage rights in Iowa | 35 |
| Employees in Iowa | 701 |

Commodities



Marketing development summary

Since 2015, BNSF has been instrumental in locating 10 new or expanded facilities in Iowa, creating nearly 250 new jobs and more than \$3 billion in investments. Projects include BNSF Logistics in Shenandoah, Orascom Construction Industries in Wever, and United Farmers Cooperative in Osceola. Iowa is also home to one BNSF Certified Site: Commerce Center of Southeast Iowa in Middletown.



BOONE & SCENIC VALLEY RAILROAD (BSV)

www.bsvrr.com

Emergency number: 515-433-0524

Corporate headquarters

225 10th St.
P.O. Box 603
Boone, IA 50036



Overview

BSV is a nonprofit operating museum located in Boone, Iowa. In 1983, BSV purchased 12 miles of track that was scheduled for abandonment by the Chicago and North Western. A nonprofit historical society was established and began passenger service later that year. Since 1983, BSV has operated a passenger excursion train over the 12 miles of track from Boone to Wolf. In February 2001, BSV obtained an additional 1.66 miles of right of way from downtown Boone eastward to the Boone Industrial Park from the Union Pacific Railroad to serve the industries located in the park. Currently, freight service is only provided on the 1.66 miles to the Boone Industrial Park. Current employment totals four people, all located in Iowa.

Transloading

Boone, IA

Railroad interchanges

Boone, IA

UP

Potential development opportunities

Boone is developing a 150 acre addition to the Boone Industrial Park. This will provide space for up to 17 industrial sites. Most will be accessible by rail from the Boone and Scenic Valley railroad, which has interchange with the Union Pacific railroad for potentially nation-wide shipping availability.

Contact(s)

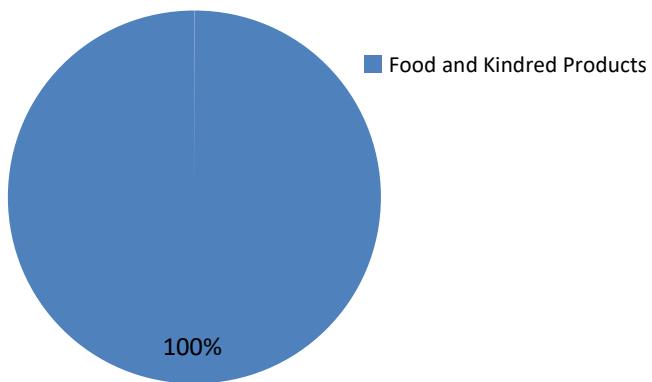
Travis Stevenson General manager

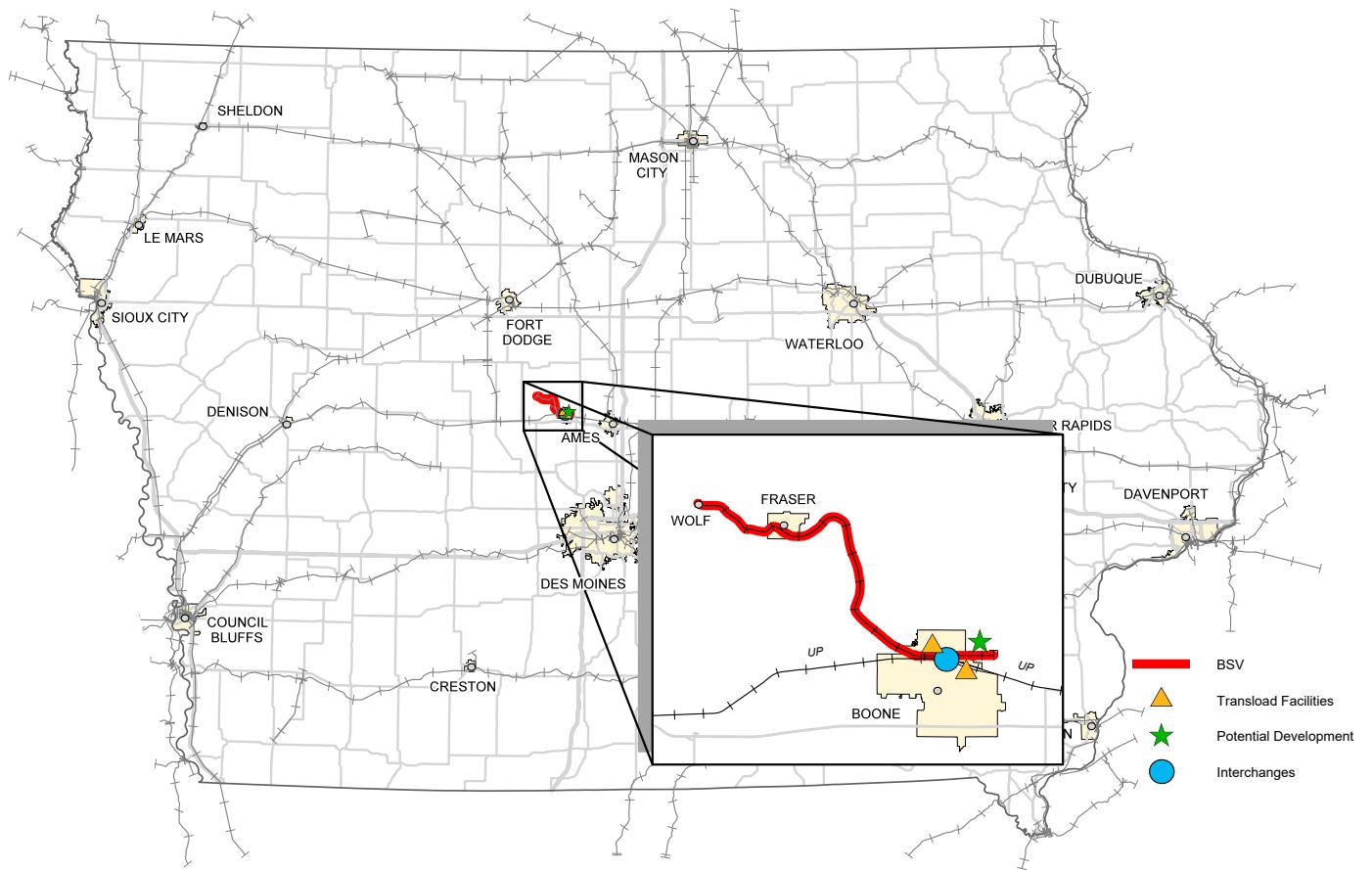
travis.stevenson@bsvrr.com
515-432-4249

BSV in Iowa

| | |
|---|----|
| Miles of track owned/leased/serviced in Iowa | 12 |
| Miles operated under trackage rights in Iowa | 0 |
| Employees in Iowa | 4 |

Commodities





BURLINGTON JUNCTION RAILWAY (BJRY)

www.bjryrail.com

Emergency number: 888-753-6157

Corporate headquarters
200 Jefferson St.
Burlington, IA 52601
Phone: 319-754-5000

General offices
1510 Bluff Road
P.O. Box 37
Burlington, IA 52601
Phone: 319-753-6157



Overview

The BJRY is a shortline railroad that was established in 1985 and is headquartered in Burlington, Iowa. BJRY provides rail switching and commodity transloading services in Burlington, Mount Pleasant, and Ottumwa in Iowa, as well as at locations in Illinois and Missouri.

Transloading

Burlington, IA

Le Mars, IA

Mount Pleasant, IA

Ottumwa, IA

Railroad interchanges

| | |
|---------------------------|------|
| Burlington, IA | BNSF |
| Le Mars, IA | CN |
| Mount Pleasant, IA | BNSF |
| Ottumwa, IA | BNSF |

Potential development opportunities

Henry County – Mount Pleasant

Forty-acre greenfield site suitable for manufacturing and transloading operations

Des Moines County – Burlington/West Burlington

Forty-acre greenfield site suitable for manufacturing and transloading operations

Contact(s)

| | |
|--|--|
| Robert Wingate General manager | rwingate@bjryrail.com 319-753-6157 |
| Jonathon Wingate Marketing manager | jwingate@bjryrail.com 319-753-6157 ext.102 |
| Andrew Hoth Corporate relations | hothlaw@mchsi.com 319-754-5000 |
| General inquiries | bjry@lisco.com |

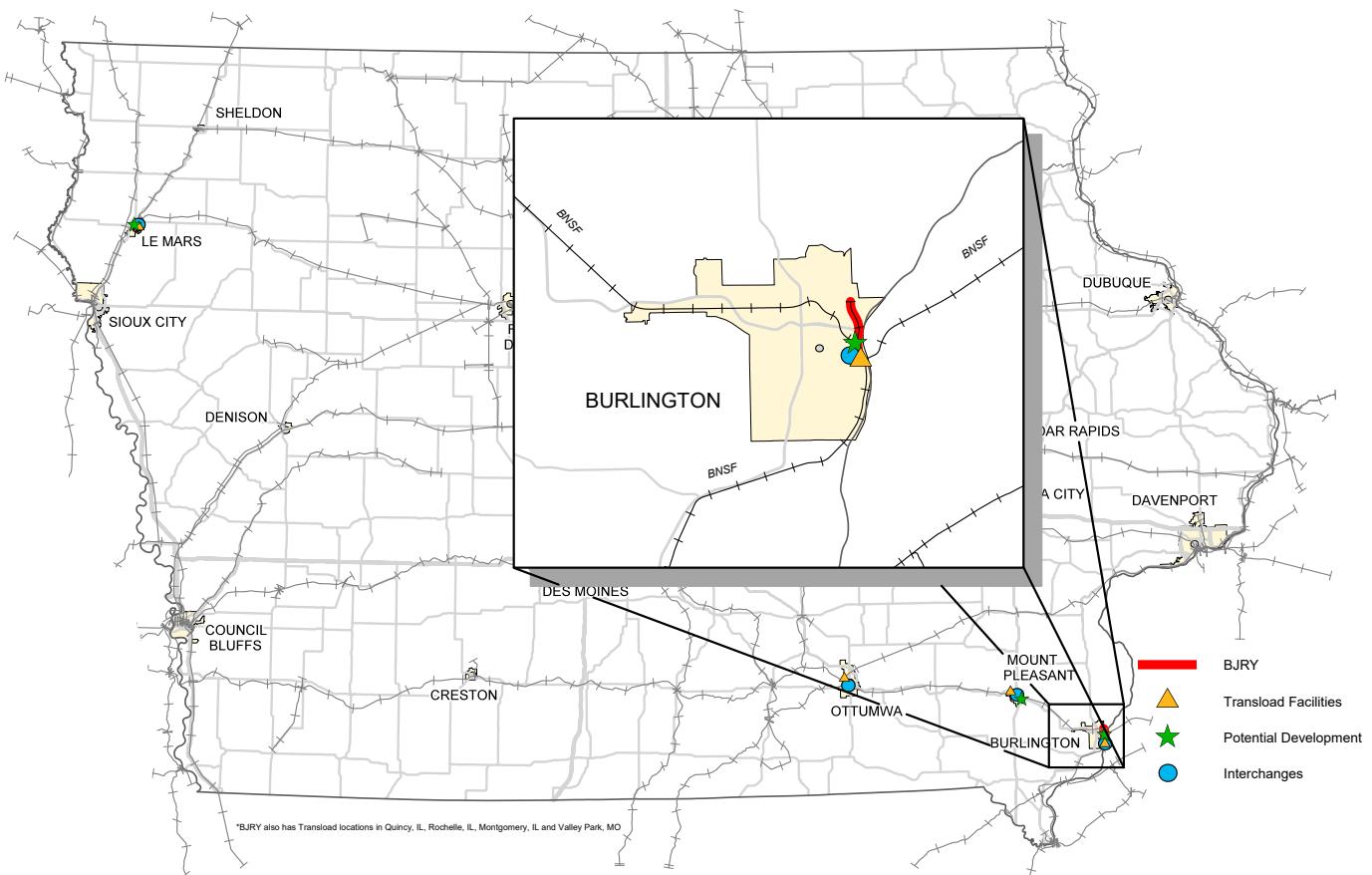
BJRY in Iowa

| | |
|---|----|
| Miles of track owned/leased/serviced in Iowa | 12 |
| Miles operated under trackage rights in Iowa | 0 |
| Employees in Iowa | 17 |

Marketing development summary

BJRY provides customers with a fully integrated approach to accessing the freight rail network for both domestic and international shipments. In addition to rail switching services, BJRY provides complete logistical solutions for the needs of our customers. BJRY can handle all or part of the rail shipment process – everything from ordering and billing cars, facilitating transloads from rail-to-truck or truck-to-rail at origin or destination, and provide support with its Class I partners as your commodity moves on the rail network.

BJRY provides this logistic support and offers transload services at each of its terminals. BJRY is able to provide to its customers custom daily reports, on-demand switching, dedicated customer support, and it has locomotives and crews stationed at each site. BJRY has experience handling most types of commodities, including lumber, paper, building materials, frozen food, liquid and dry bulk commodities, machinery, and specialty/oversize loads.



Operates in Iowa as the Dakota, Minnesota and Eastern Railroad Corp.

CANADIAN PACIFIC (CP)

www.cpr.ca

Emergency number: 800-766-HELP (4357)

Corporate headquarters
7550 Ogden Dale Road S.E.
Calgary, AB T2C 4X9

General offices
120 S. Sixth St.
Minneapolis, MN 55402



Overview

CP operates in Iowa as the Dakota, Minnesota and Eastern Railroad Corp. CP operates a transcontinental railroad network in the United States and Canada with a total of 14,000 route-miles. The CP network serves the ports of Montreal and Vancouver in Canada, and reaches key U.S. gateways, including Chicago, Minneapolis/St. Paul, Milwaukee, and Kansas City. CP's corporate headquarters are located in Calgary, Alberta, Canada, while its U.S. operations are based in Minneapolis. Iowa operations include a main route following the Mississippi River from the Minnesota border to Muscatine (crossing the Mississippi River at Sabula for route toward Chicago), then onto Ottumwa and the Missouri border, plus routes operating from Mason City west to Sheldon, east to Marquette, and north into Minnesota.

Transloading

Camanche & Clinton, IA

Muscatine, IA

Davenport, IA

New Hampton, IA

Mason City, IA

Contact(s)

Arielle Giordano
Government Affairs

Arielle_Giordano@cpr.ca

Will Wangerin
Manager Industrial
Development

will_wangerin@cpr.ca

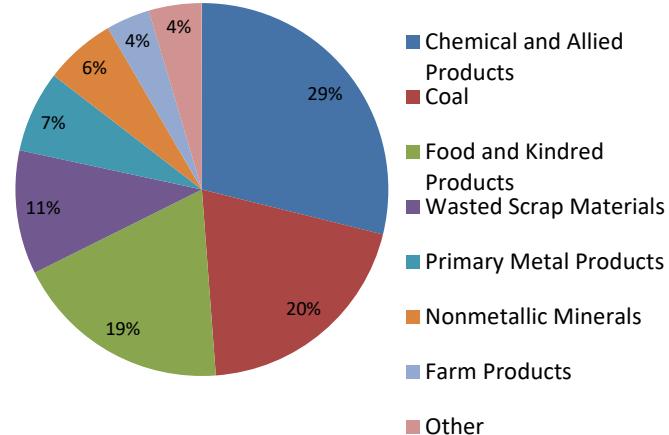
CP in Iowa

Miles of track owned/leased/serviced: 650

Miles operated under trackage rights in Iowa 11

Employees 465

Commodities



Railroad interchanges

Sheldon, IA UP

Mason City, IA UP

Clinton, IA UP, BNSF

Dubuque, IA CN

Moravia, IA ISRY

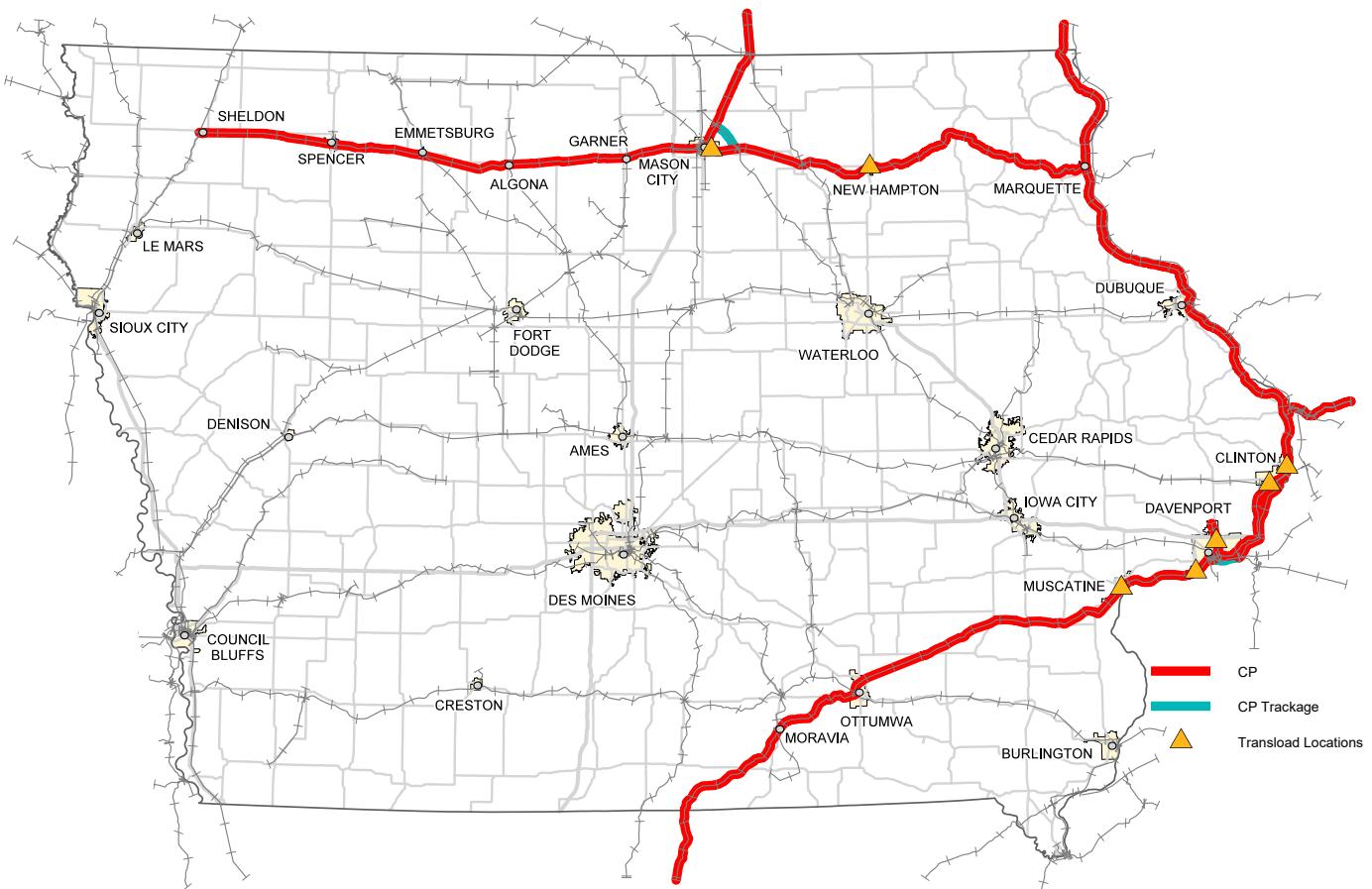
Quad Cities, IA IAIS, BNSF

Nora Springs, IA IANR

Ottumwa, IA BNSF, NS

Marketing development summary

What used to arrive today now gets there yesterday. CP helps its customers become more competitive and grow their business with faster and more reliable transit times.



CEDAR RAPIDS AND IOWA CITY RAILWAY CO. (CRANDIC) (CIC)

www.crandic.com

Emergency number: 319-786-3645

Corporate headquarters

2330 12th St. SW
Cedar Rapids, IA 52404
Phone: 319-786-3686

Overview

CIC, more commonly referred to as CRANDIC, is a shortline railroad providing freight rail service in the Cedar Rapids to Iowa City corridor. CRANDIC connects with two Class I (UP, CN) and two shortline railroads (IANR, IAIS). Priding itself on customer service and flexibility, CRANDIC has been instrumental in supporting economic development in eastern Iowa.

Transloading

Cedar Rapids, IA

Railroad interchanges

| | |
|------------------|--------------------|
| Cedar Rapids, IA | CN, UP, IANR, IAIS |
| Iowa City, IA | IAIS |
| Homestead, IA | IAIS |

Major existing customers

| | |
|----------------------------|---------------------|
| Alliant Energy | Ingredion |
| Archer Daniels Midland Co. | International Paper |
| Cargill | |

Potential development opportunities

| | |
|------------------|-----------------------------|
| Cedar Rapids, IA | Big Cedar Industrial Center |
|------------------|-----------------------------|

Tools and resources for shippers and developers

CRANDIC's website provides points of contact for all aspects of rail transportation. CRANDIC also provides customers access to RMI software for billing, tracking, etc. Staff is available 24/7 to answer your questions.



Contact(s)

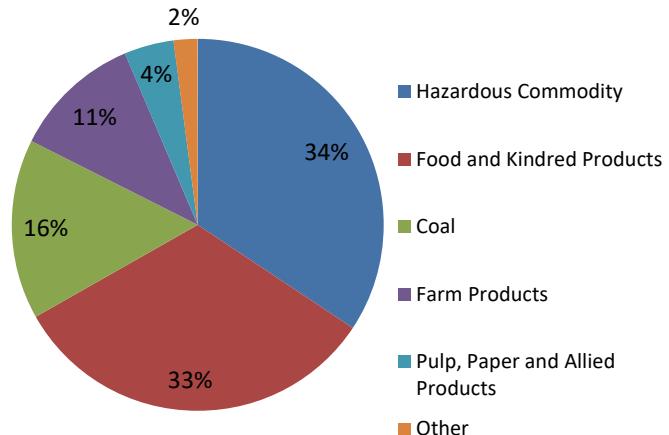
Jeff Woods jeffwoods@alliantenergy.com
Industrial development, 319-786-3698
marketing, and rates

Scott Whiting scottwhiting@alliantenergy.com
Customer service 319-786-3660

CRANDIC in Iowa

| | |
|--|----|
| Miles of track owned/leased/serviced in Iowa | 94 |
| Miles operated under trackage rights in Iowa | 0 |
| Employees in Iowa | 80 |

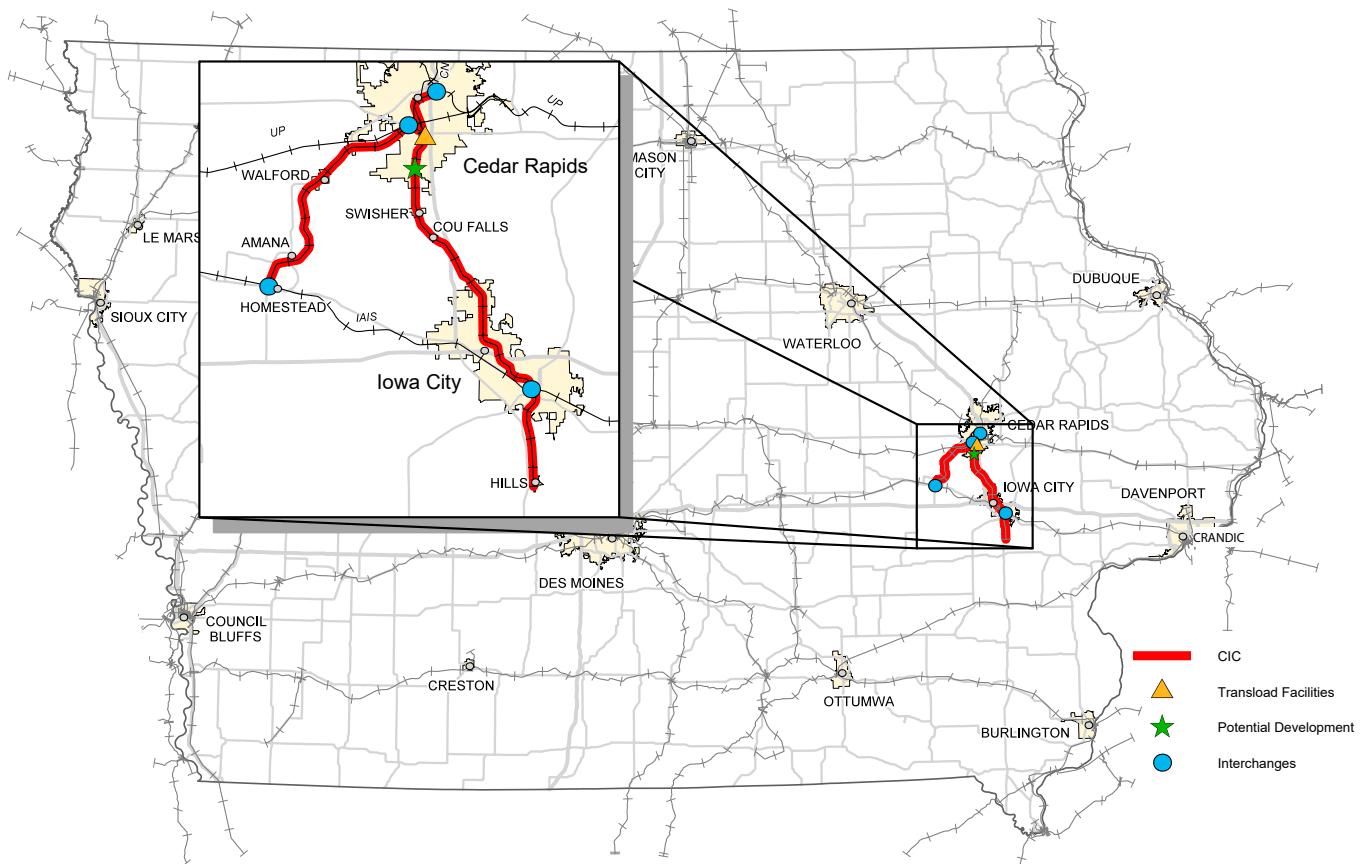
Commodities



Marketing development summary

CRANDIC provides direct freight service to 16 industries, and via reciprocal switching, bridge traffic, transloading, and many others. Operating 24/7, CRANDIC offers unique pricing and service options in conjunction with its connecting carrier partners. CRANDIC handles 105,000 carloads of freight annually. Main products hauled are corn, coal, and ethanol. Its 80 employee-strong workforce maintains 94 miles of main line and secondary track and eight locomotive/slugs units. Having invested \$50 million to rebuild or expand yards, main lines, bridges, and locomotives since 2007, CRANDIC is poised to provide safe, reliable rail service for decades. In 2005, CRANDIC was selected as the Short Line Railroad of the Year by RailwayAge magazine. It is the only railroad to twice receive the Argus Rail Business Win-Win Award, presented by Argus Media at the North American Rail Shippers Association's annual meeting to honor the best railroad-shipper partnerships in the industry.

CRANDIC's website provides points of contact for all aspects of rail transportation. CRANDIC also provides customers access to RMI for billing, tracing, etc. Staff is available 24/7 to answer your questions.



CN (CN)

www.cn.ca

Emergency number: 800-465-9239

Corporate headquarters

935 de La Gauchetiere St. W
Montreal PQ H3B 2M9

General offices

17641 S. Ashland Ave.
Homewood, IL 60430

Overview

Through our subsidiary, the Chicago, Central & Pacific Railroad, CN's rails stretch the breadth of Iowa, from the Missouri River in the west to the Mississippi in the east. We carry a wide variety of manufactured and industrial products like food, machinery, electrical equipment, chemical products, and primary metals. In addition to serving local businesses, CN's ethanol franchise is centered in the Hawkeye State with several plants along the route between Dubuque and Sioux City and Council Bluffs. The largest rail yard and facility on CN's Iowa network are in Waterloo. In 2020, CN invested over US\$35 million to support growing demand and enable supply chains in Iowa. The program focused on continued investments in Positive Train Control as well as the replacement of rail and ties and maintenance of bridges, level crossings, culverts, signal systems, and other track infrastructure.

Transloading

| | |
|-----------------|--------------|
| Cedar Falls, IA | Le Mars, IA |
| Cherokee, IA | Waterloo, IA |
| Fort Dodge, IA | |

Railroad interchanges

| | |
|--------------------|-------------------------|
| Cedar Rapids, IA | CRANDIC, IAIS, IANR, UP |
| Council Bluffs, IA | IAIS, UP, BNSF |
| Dubuque, IA | CP |
| Iowa Falls, IA | UP |
| Sioux City, IA | DAIR, UP, BNSF |
| Waterloo, IA | IANR, UP |

Iowa river port terminals

| | |
|-------------|------------------|
| Dubuque, IA | Bulk commodities |
|-------------|------------------|

Potential development opportunities

| |
|------------------|
| Cedar Falls, IA |
| Fort Dodge, IA |
| Iowa Falls, IA |
| Le Mars, IA |
| Webster City, IA |



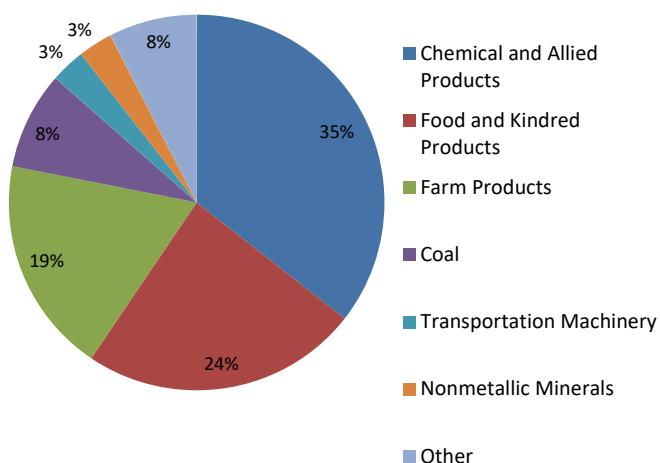
Contact(s)

| | |
|---|--------------------------------------|
| Jim Fountain Manager – business development and real estate | James.Fountain@cn.ca 708-332-3559 |
| Larry Lloyd Manager, Government & Public Affairs | Larry.Lloyd@cn.ca 312-505-4625 |

CN in Iowa

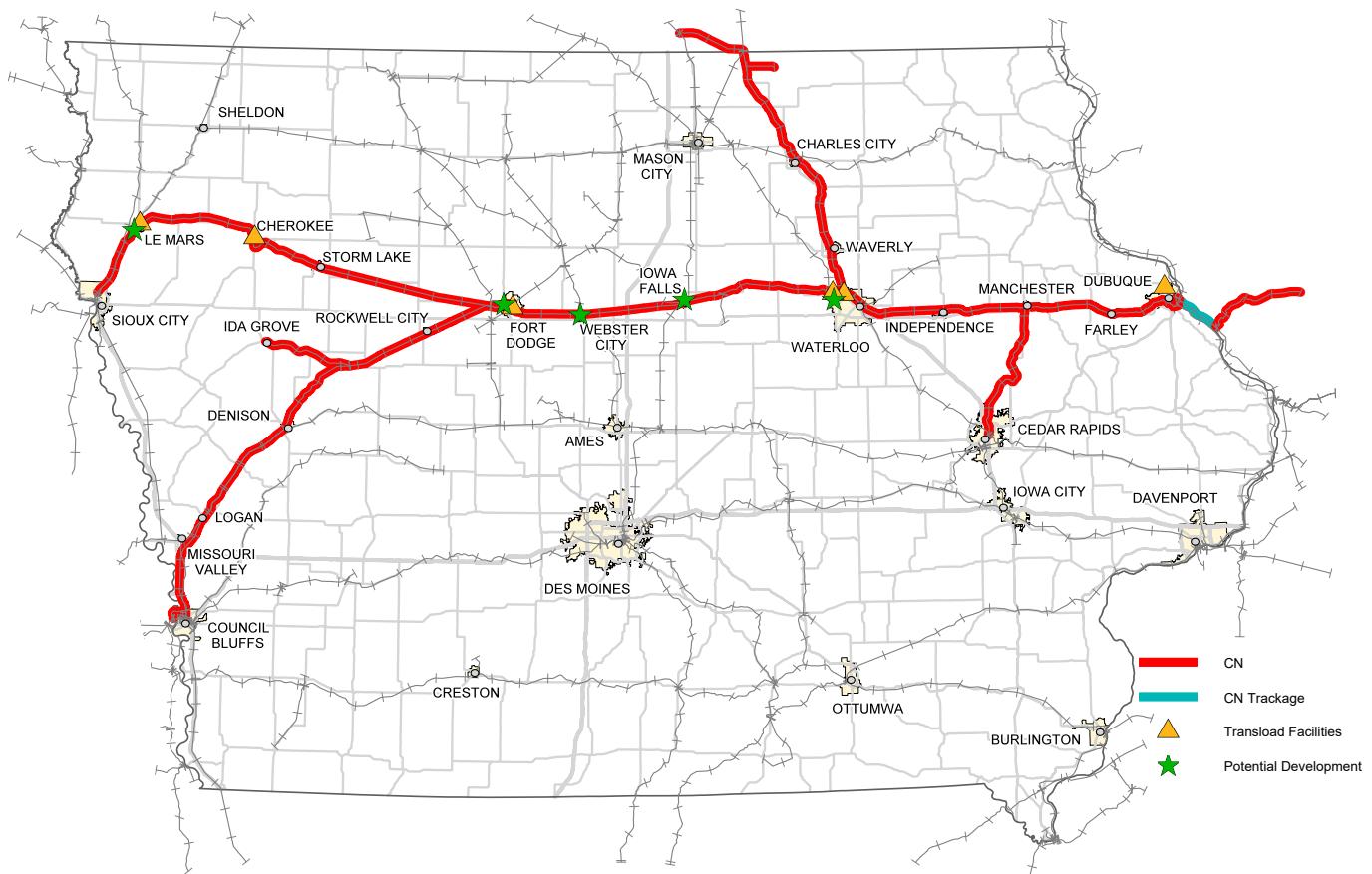
| | |
|--|-----|
| Miles of track owned/leased/serviced in Iowa | 574 |
| Miles operated under trackage rights in Iowa | 0 |
| Employees in Iowa | 262 |

Commodities



Marketing development summary

CN serves Iowa with main-line routes from Council Bluffs and Sioux City through Fort Dodge, Waterloo, and Dubuque and onto Chicago, where connections are made with the rest of CN's North American network. Branches extend to Cedar Rapids and Ida Grove, Iowa; and southern Minnesota. CN serves numerous unit-train loading facilities, providing single-line service to the Gulf elevators for export.



D & I RAILROAD CO. (DAIR)

www.dirailroad.com

Emergency number: 800-843-7992

Corporate headquarters

350 S. Main Ave. Suite 400
Sioux Falls, SD 57104
Phone: 605-330-6588



Overview

DAIR was established in 1981 as a result of the bankruptcy of the former Milwaukee Road. The State of South Dakota purchased a majority of the rail lines in South Dakota, and a portion of the track miles in Iowa. DAIR interchanges with BNSF, CN, and UP in Sioux City, Iowa.

Transloading

Hawarden, IA

Hudson, SD

Various locations

Railroad interchanges

Sioux City, IA BNSF, CN, UP

Sioux Falls, SD BNSF

Major existing customers

L.G. Everist Inc. Aggregates

Poet BioRefining - Hudson Ethanol, DDGs

Siouxland Energy Transload Ethanol

GCC Dacotah Cement Cement

Poet Nutrition Corn oil

Prinsco Inc. Agricultural drain tile

BX Civil & Construction Inc. Magnesium, calcium chloride

Contact(s)

Jack Parliament

President/General manager

jdparliment@lgeverist.com

605-330-6588

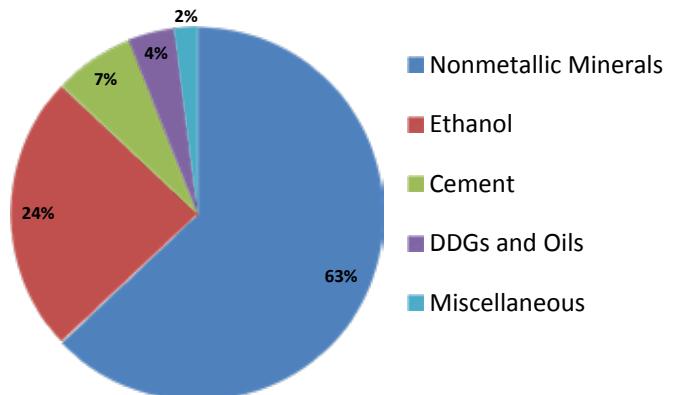
DAIR in Iowa

Miles of track owned/leased/serviced in Iowa: 39

Miles operated under trackage rights in Iowa 0

Employees 0

Commodities

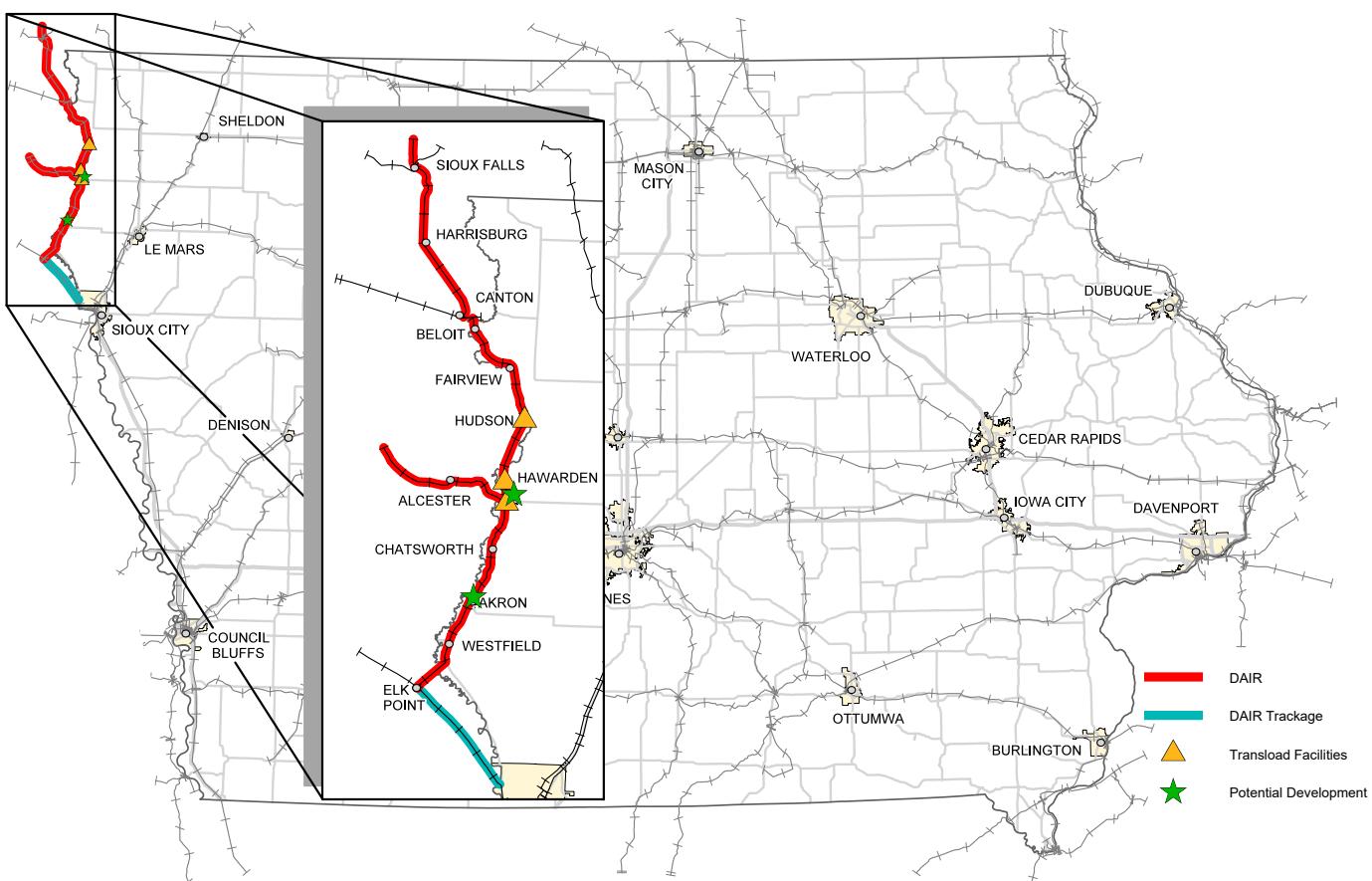


Marketing development summary

DAIR has upgraded all of its bridges and track to 286,000-pound capability. It operates seven days per week on an as-needed basis, with regular service operating five days per week. There are currently seven transload locations in operation in Hudson, SD and Hawarden, IA:

| | |
|-------------------------------|------------|
| Siouxland Energy | Ethanol |
| Poet Nutrition | Corn oil |
| GCC Dacotah Cement | Raw cement |
| Green Plains Renewable Energy | Corn oil |
| Purina/Land O Lakes | DDGs |
| Agri Trading Company | Corn oil |
| Valero Energy | Corn oil |

DAIR is still developing their transload site in Hawarden, Iowa, and welcomes additional customers. We also have numerous greenfield sites for industry development. DAIR regularly interchanges manifest and unit trains with our respective Class I partners.



IOWA INTERSTATE RAILROAD LTD. (IAIS)

www.aisrr.com

Emergency number: 800-321-3891

Corporate headquarters

Iowa Interstate Railroad Ltd.
5900 Sixth St. SW
Cedar Rapids, IA 52404
Phone: 319-298-5400

Overview

IAIS is one of the few regional railroads that connects with the entire Class I railroad system (BNSF, UP, CN, CP, KCS, CSXT, and NS) at multiple locations. The IAIS main line operates from Council Bluffs through Des Moines, Iowa City, and Davenport, Iowa; to Chicago and Peoria, Illinois.

Transloading

| | |
|--------------------|------------------|
| Altoona, IA | Newton, IA |
| Atlantic, IA | West Liberty, IA |
| Council Bluffs, IA | |

Intermodal

| |
|--------------------|
| Council Bluffs, IA |
| Blue Island, IL |

Railroad interchanges

| | |
|-----------------------------------|---|
| Blue Island, IL | IHB, CSXT, NS, CPRS, CN, UP, CFE, BNSF |
| Cedar Rapids, IA | CRANDIC |
| Council Bluffs, IA | BNSF, UP, CN KCS |
| Davenport, IA/ Rock Island, IL | BNSF, CPRS |
| Des Moines, IA | BNSF, NS, UP |
| Iowa City, IA | CRANDIC |
| Peoria, IL | TZPR, TPW, IMRR, NS, UP, BNSF, CN, KJRY |
| Utica, IL | CSXT |



Potential development opportunities

| | |
|---|--|
| Dexter, IA West Metro I-80 Rail Park | Newton, IA Former Maytag Plant |
| Iowa City, IA Iowa City Industrial Park | Stuart, IA Stuart I-80 Rail Park |
| Marengo, IA Former Quad Graphics Building | |

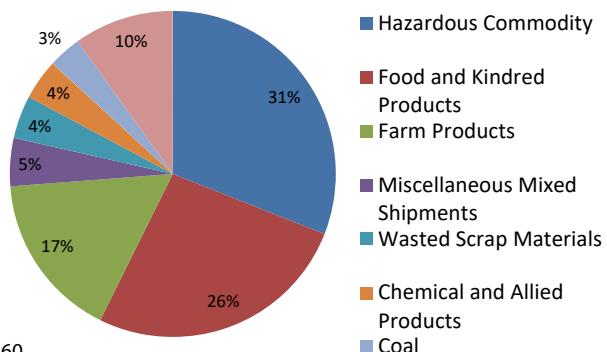
Contact(s)

| | |
|--|-------------------------------------|
| Carrie Evans Vice president, sales and marketing | cmevans@aisrr.com 319-298-5408 |
| Marty Hanson Director, Customer Service | mjhanson@aisrr.com 319-298-5426 |
| AI Satunas Chief operating officer | ajsatunas@aisrr.com 319-298-5418 |

IAIS in Iowa

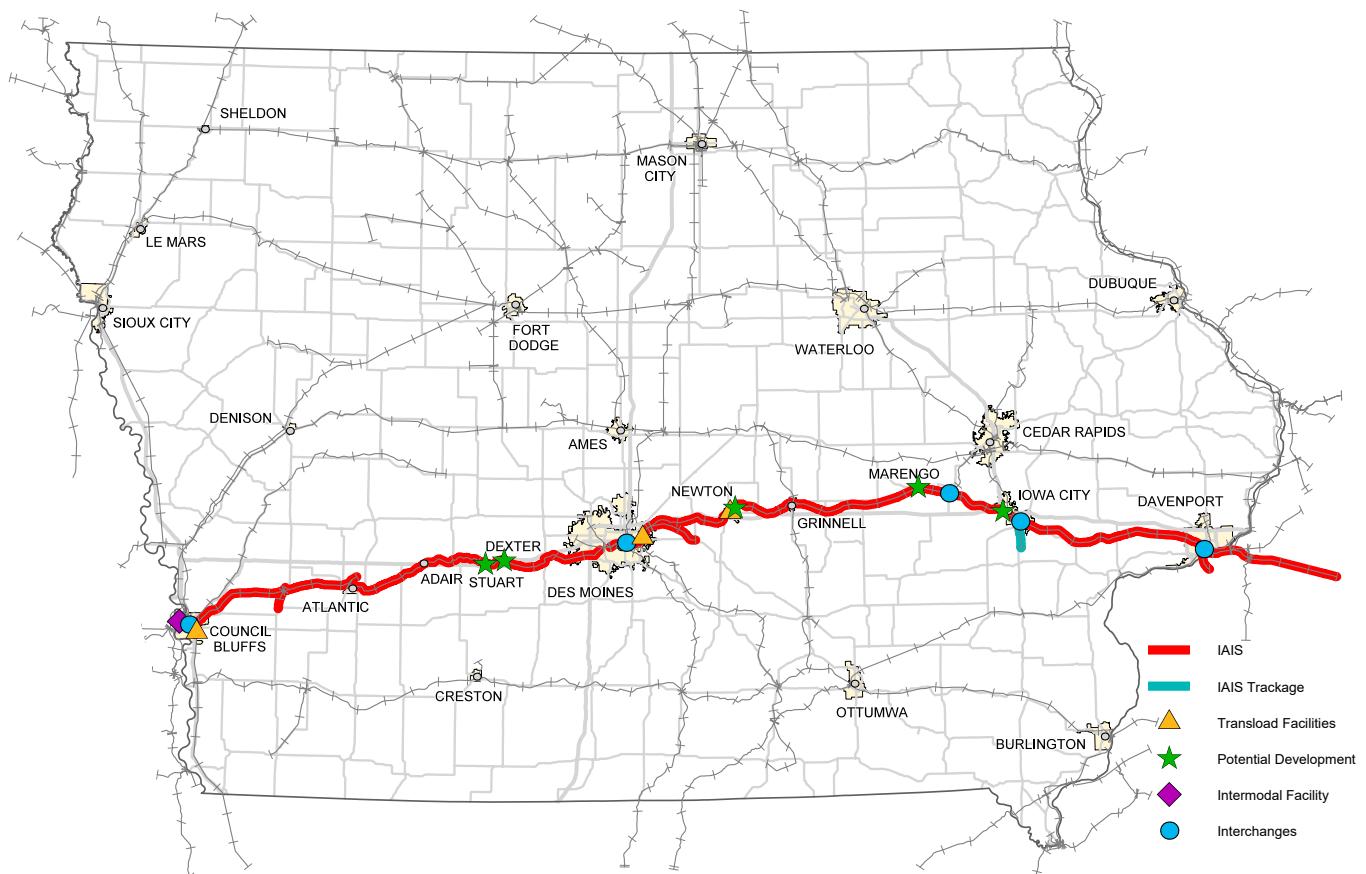
| | |
|--|-----|
| Miles of track owned/leased/serviced in Iowa | 306 |
| Miles operated under trackage rights in Iowa | 62 |
| Employees in Iowa | 182 |

Commodities



Marketing development summary

Connecting national rail network to Chicago, the Quad Cities, Des Moines, and Omaha. Regional railroads provide the flexibility and nimble service of a short line, with the multi-state connections of a much larger railroad. IAIS connects to six Class I railroads at various points on our 580-mile system. The company works closely with its customers to tailor their service to the needs of Iowa and Illinois business. IAIS has proven capability to move freight in ways that many railroads cannot or will not. They can assemble and move full unit trains over hundreds of miles; or handle single-car shipments of high-value commodities. Besides being a low-cost freight service provider, IAIS is also known for their ability to listen to their customers and provide tremendous value for their logistics supply chain.



IOWA NORTHERN RAILWAY CO. (IANR)

www.iowanorthern.com

Emergency number: 800-392-3342

Corporate headquarters

201 Tower Park Drive, Suite 300
Waterloo, Iowa 50701
Phone: 319-888-7070



Overview

IANR operates over 253 miles of track in northeast Iowa. Their line runs diagonally northwest to southeast from Manly to Cedar Rapids. Passing near or through Mason City, Waterloo, and Cedar Rapids. There are also two branch lines; one from Waterloo to Oelwein, and the other from Forest City south to Belmond.

Transloading/development opportunities

Manly, IA

Shell Rock, IA

Waterloo, IA

Linn and Benton counties, IA

Railroad interchanges

Manly, IA UP

Nora Spring, IA CP to CSXT, NS, and KCS

Waterloo, IA CN to BNSF, CSXT, and NS

Cedar Rapids, IA UP, CN, CIC to IAIS

Contact(s)

Amy Homan
Director of marketing

ahoman@iowanorthern.com
319-888-7070

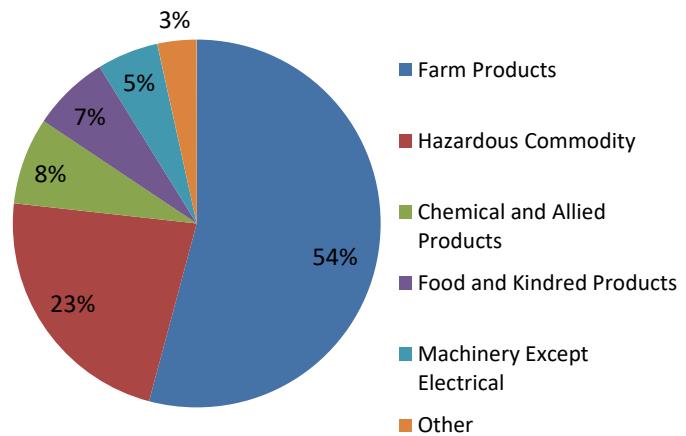
IANR in Iowa

Miles of track owned/leased/serviced in Iowa 219

Miles operated under trackage rights in Iowa 35

Employees in Iowa 101

Commodities

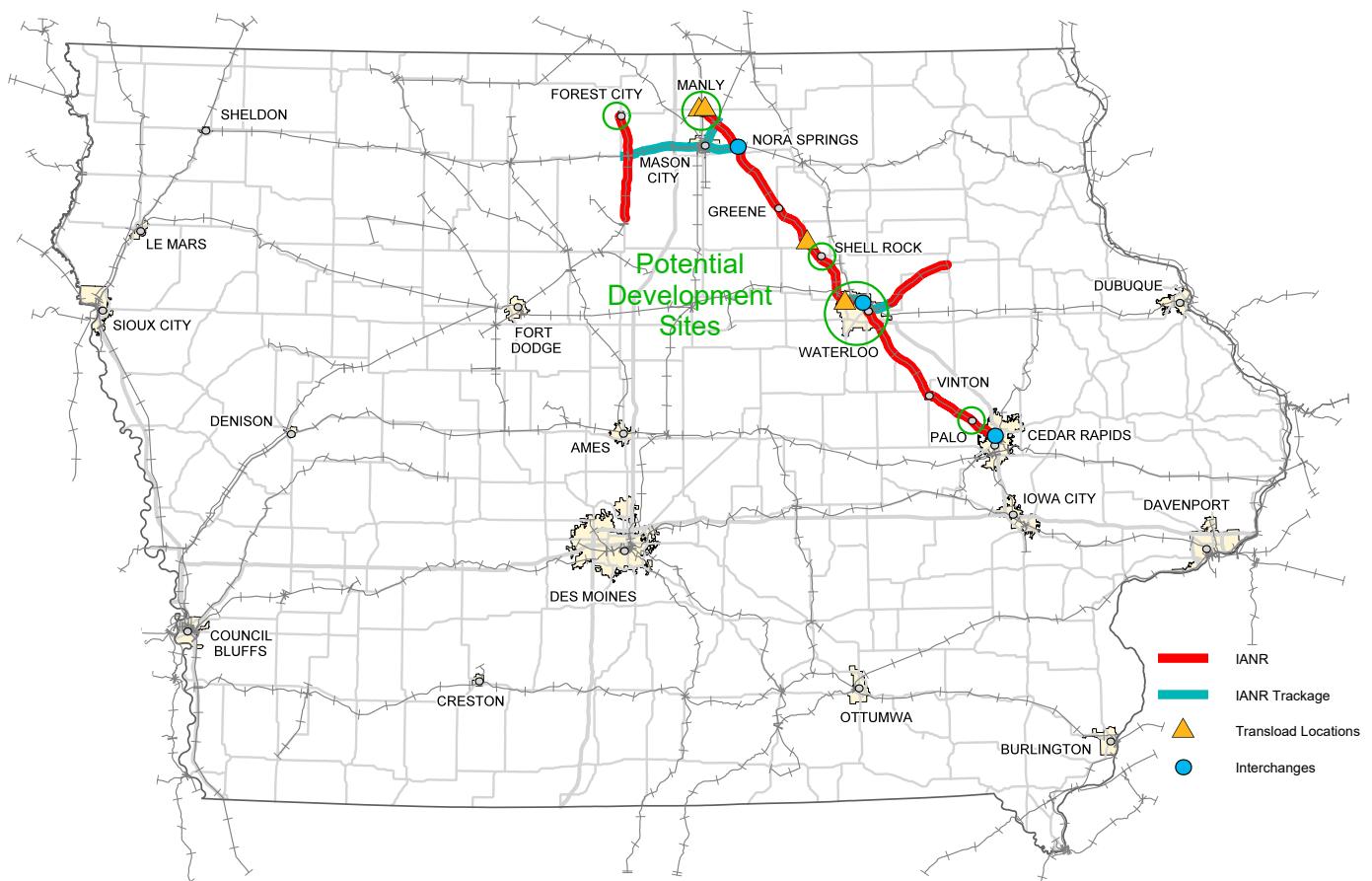


Marketing development summary

IANR is a leader in market development with high service levels, intense attention to customer needs, and deep knowledge of the regional agricultural marketplace – all of which help our customers to be more competitive. Major industrial expansion has occurred along the IANR lines, with traffic having more than tripled during the past decade. IANR's success in a competitive industry has been achieved with its commitment and dedication to personalized customer service.

IANR has multiple facilities for transloading services, including Manly Terminal, Manly Logistics Park, and Butler Logistics Park (in Shell Rock) with additional rail-served industrial parks under development at Forest City, Oelwein, Vinton, and Cedar Rapids (Palo). IANR is an integral part of agriculture and industry in Iowa and is a proud link in the chain from the farmer's field to the end product. From the grain railed in for production, to ethanol and other co-products railed out to market, IANR provides quality service on both ends of the process for agricultural producers.

IANR is located in the heart of the Midwest and connects with virtually every rail system in the nation giving our customers reliable, cost-effective and efficient rail service to every market in North America. IANR has direct connections with the UP, CN, CRANDIC, and CP. These interchanges also make it possible to connect with BNSF, Kansas City Southern, CSXT, and NS.



IAWA RIVER RAILROAD INC. (IARR)

Emergency number: 641-858-6056
641-751-5105 after hours

Corporate headquarters
33371 170th St.
Steamboat Rock, IA 50627
Phone: 641-868-2676



Overview

IARR is based in Steamboat Rock, Iowa. It operates between Steamboat Rock and Ackley, Iowa, carrying corn byproducts and ethanol from Pinelake Corn Processors to the interchange with the CN.

Railroad interchanges

Ackley, IA CN

Major existing customers

Pine Lake Corn Processors LLC Steamboat Rock, IA

Potential development opportunities

Steamboat Rock, IA
Potential transload location

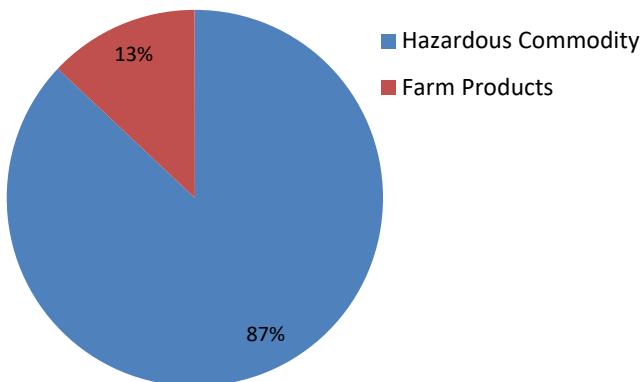
Contact(s)

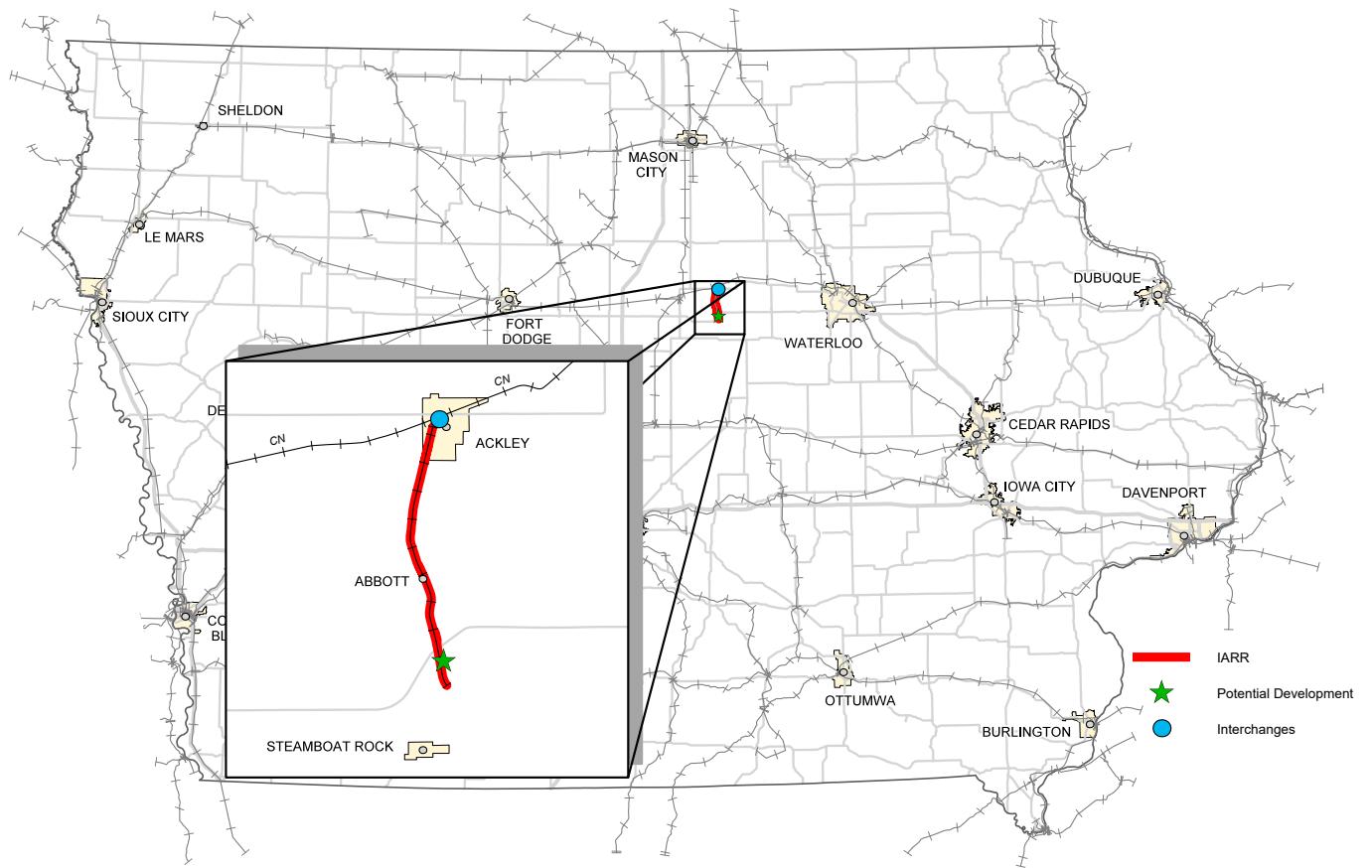
| | |
|--|---|
| Renee Schachterle Yardmaster | rschachterle@pinelakecorn.com 641-868-2676 |
| Curt Bennet General manager | 641-868-2676 |

IARR in Iowa

| | |
|--|---|
| Miles of track owned/leased/serviced in Iowa | 9 |
| Miles operated under trackage rights in Iowa | 0 |
| Employees in Iowa | 1 |

Commodities





IOWA SOUTHERN RAILWAY (ISRY)

**Emergency number: 641-437-7029
641-529-0061 after hours**

Corporate Headquarters

1303 S. 21st St.
P.O. Box 321
Centerville, IA 52544



Overview

The Iowa Southern Railway (ISRY) joined the Progressive family of shortlines in 2016. The railroad consists of 35.3 miles of track, formerly operated by the BNSF, the Wabash Railroad, and the Rock Island, in Monroe and Appanoose counties, Iowa.

Railroad interchanges

| | |
|--------------------|----------|
| Albia, IA | BNSF, NS |
| Moravia, IA | CP |

Major existing customers

| | |
|--------------------------------------|-----------------|
| RELCO, Inc. | Albia, IA |
| Lee Container, Inc. | Centerville, IA |
| Bemis Corporation | Centerville, IA |
| Centerville Iron & Metals | Centerville, IA |
| Rio Tinto Aluminum | Centerville, IA |
| Iowa Steel & Wire | Centerville, IA |
| World Foods Processing, Inc. | Centerville, IA |
| Growmark, Inc. | Moravia, IA |
| Performance Pipe, Inc. | Centerville, IA |

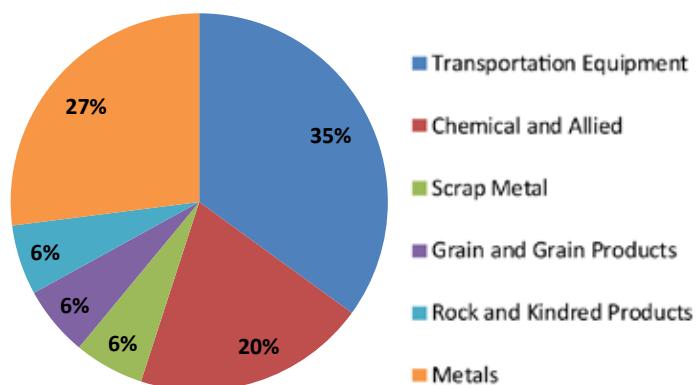
Contact(s)

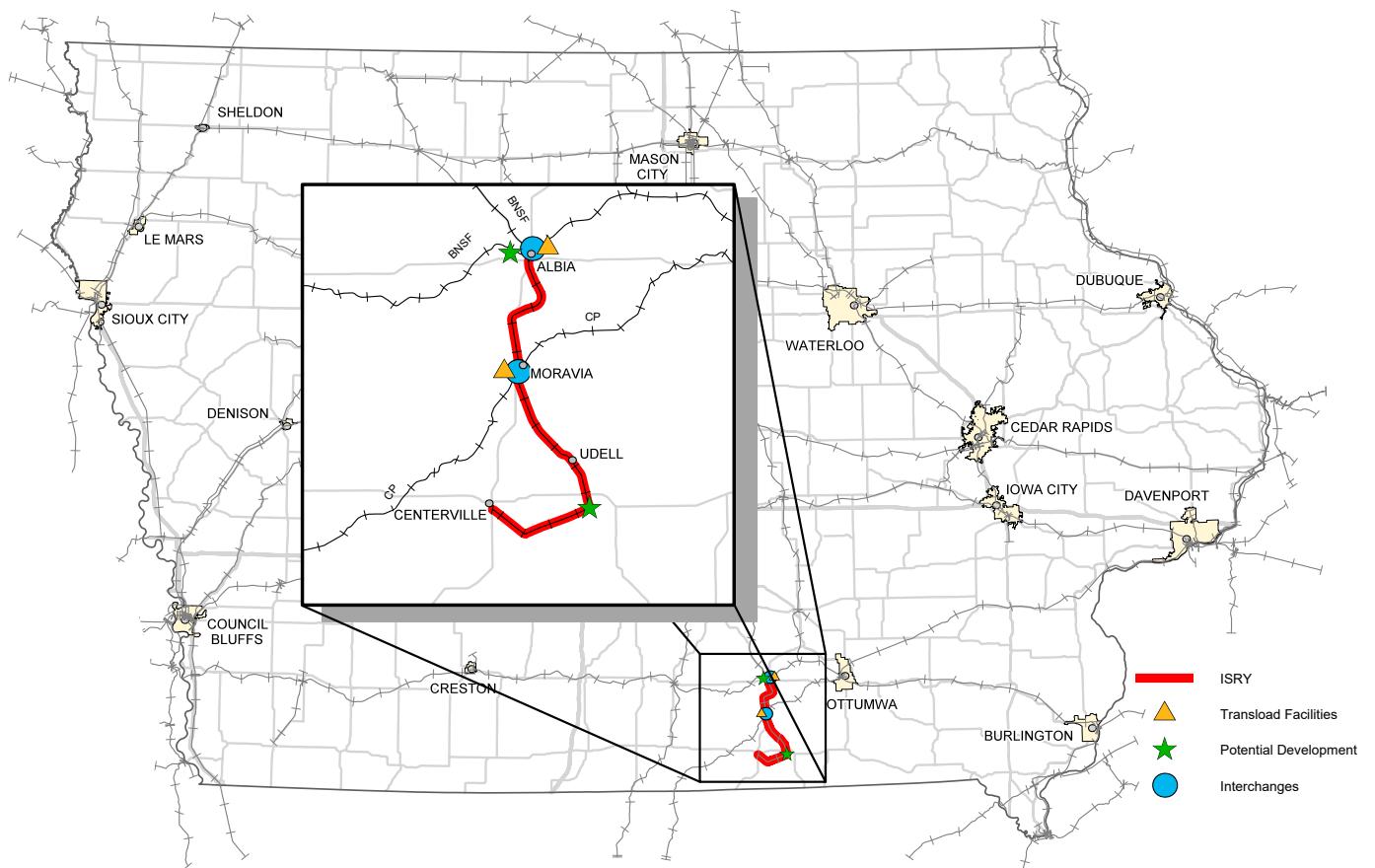
| | |
|---|---|
| David J. Fellon President | dfellon@progressiverail.com 612-791-3255 |
| Michael R. Johns Vice president Industrial Development | mjohns@progressiverail.com 641-954-1519 |

IARR in Iowa

| | |
|---|----|
| Miles of track owned/leased/serviced in Iowa | 35 |
| Miles operated under trackage rights in Iowa | 0 |
| Employees in Iowa | 7 |

Commodities





IOWA TRACTION RAILWAY CO. (IATR)

www.progressiverail.com

Emergency number: 641-424-4600

Corporate Headquarters

Progressive Rail
21778 Highview Ave.
Lakeville, MN 55044
Phone: 612-791-1190

General offices

12045 W. State St.
P.O Box 309
Mason City, IA 50401
Phone: 641-424-2600



Overview

IATR is one of seven railroads owned and operated by Progressive Rail Inc. out of Lakeville, Minnesota. IATR is an electric railroad that serves 10.4 miles of track between Mason City and Clear Lake, Iowa. The railroad serves agribusiness and industry in northern Iowa and southern Minnesota. Their operations at Emery, Iowa provide direct switching of train cars and transloading service between trucks and train.

Transloading

Mason City, IA

Railroad interchanges

Mason City, IA **UP, CP**

Potential development opportunities

Clear Lake, IA
Transload facility

Mason City, IA
Industrial rail access

Contact(s)

David J. Fellon **dfellon@progressiverail.com**
President (Marketing/Sales) 612-791-3255
Progressive Rail
Lakeville, Minnesota

Michael R. Johns **mjohns@progressiverail.com**
Marketing manager 641-529-0061
Mason City, IA

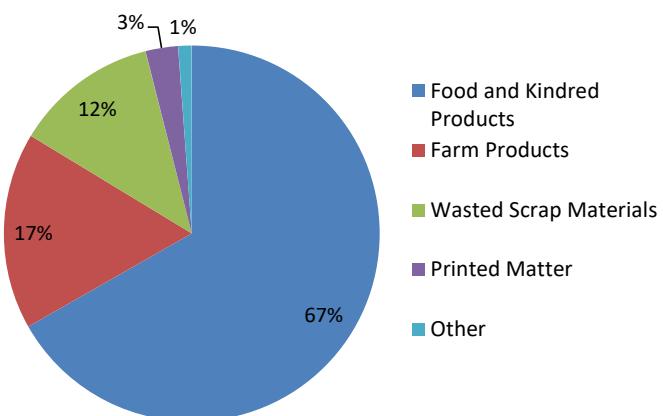
IATR in Iowa

Miles of track owned/leased/serviced in Iowa 10.4

Miles operated under trackage rights in Iowa 0

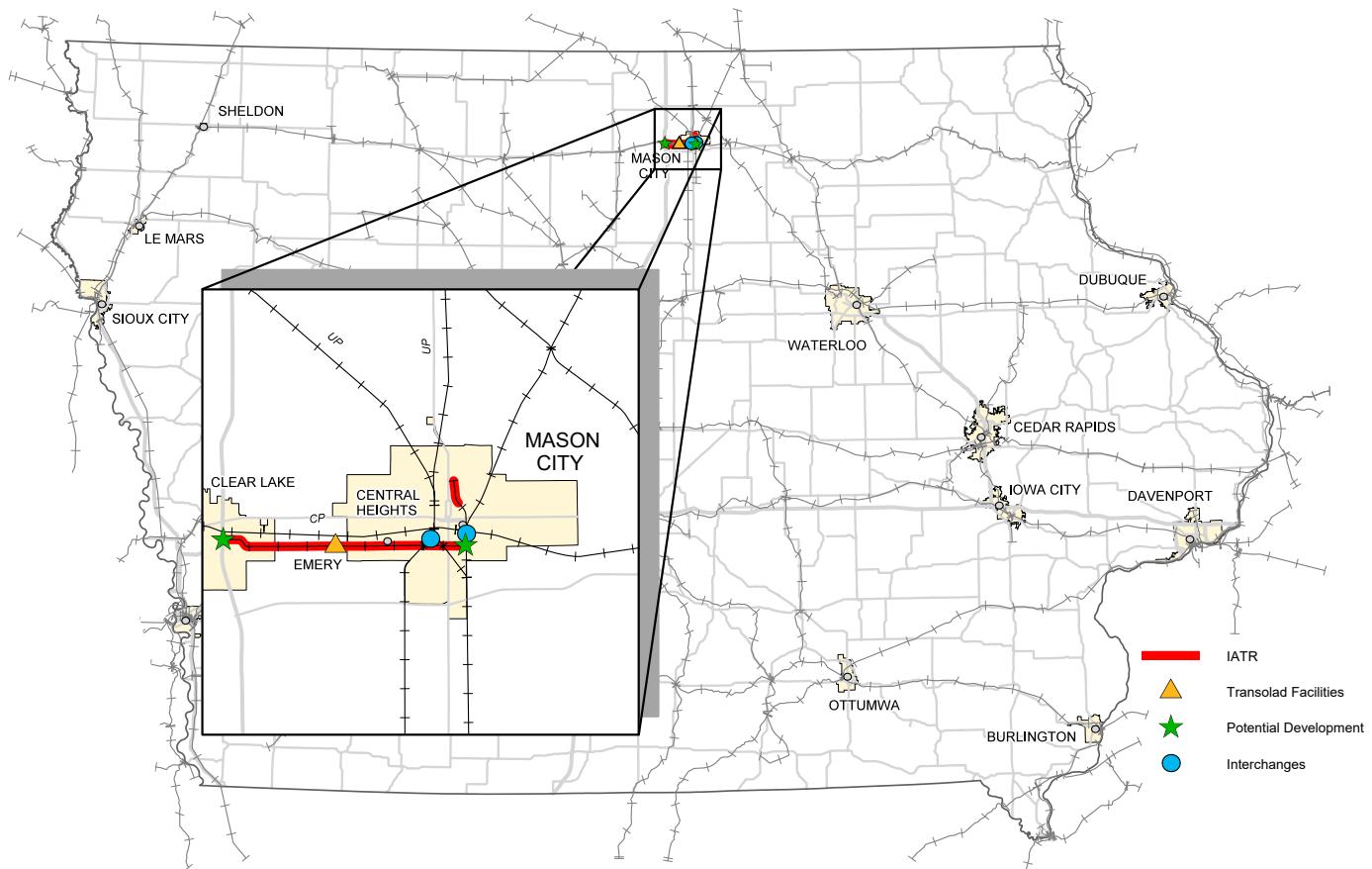
Employees in Iowa 3

Commodities



Marketing development summary

IATR interchanges with CP and UP, both at Mason City. Switching service is daily, Monday through Friday, and as needed on weekends. IATR presently moves soybean meal, soybeans, biofuels, oils and animal fats, scrap metals, fertilizers, livestock feed ingredients, utility poles, and bulk liquids. The railroad also operates a transload center at its Emery (rural Cerro Gordo County – near Mason City) yard facility.



KEOKUK JUNCTION RAILWAY CO. (KJRY)

www.pioneer-railcorp.com

Emergency number: 800-914-7851

Corporate Headquarters

1318 S. Johanson Road
Peoria, IL 61607
Phone: 309-697-1400



Overview

KJRY, a wholly owned subsidiary of Pioneer Railcorp, operates 114 miles of track from Peoria, Illinois, to Keokuk, Iowa, 12 miles of track in Illinois from La Harpe to Lomax; and has trackage rights from Lomax, Illinois, to Fort Madison, Iowa, a distance of approximately 15.5 miles over the BNSF, allowing the KJRY to interchange traffic with the UP. KJRY also provides service to other Keokuk shippers via reciprocal switching and transloading. The railroad's principal commodities are corn, corn germ, corn syrup, meal, gluten feed, and railroad wheels.

Transloading

Keokuk, IA

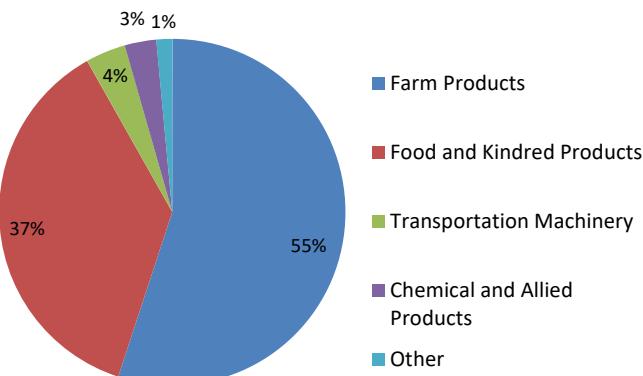
Railroad interchanges

Keokuk, IA BNSF

Fort Madison, IA UP

Peoria, IL BNSF, UP, CN, NS, IAIS, TPW,
IMRL, TZPR

Commodities



Contact(s)

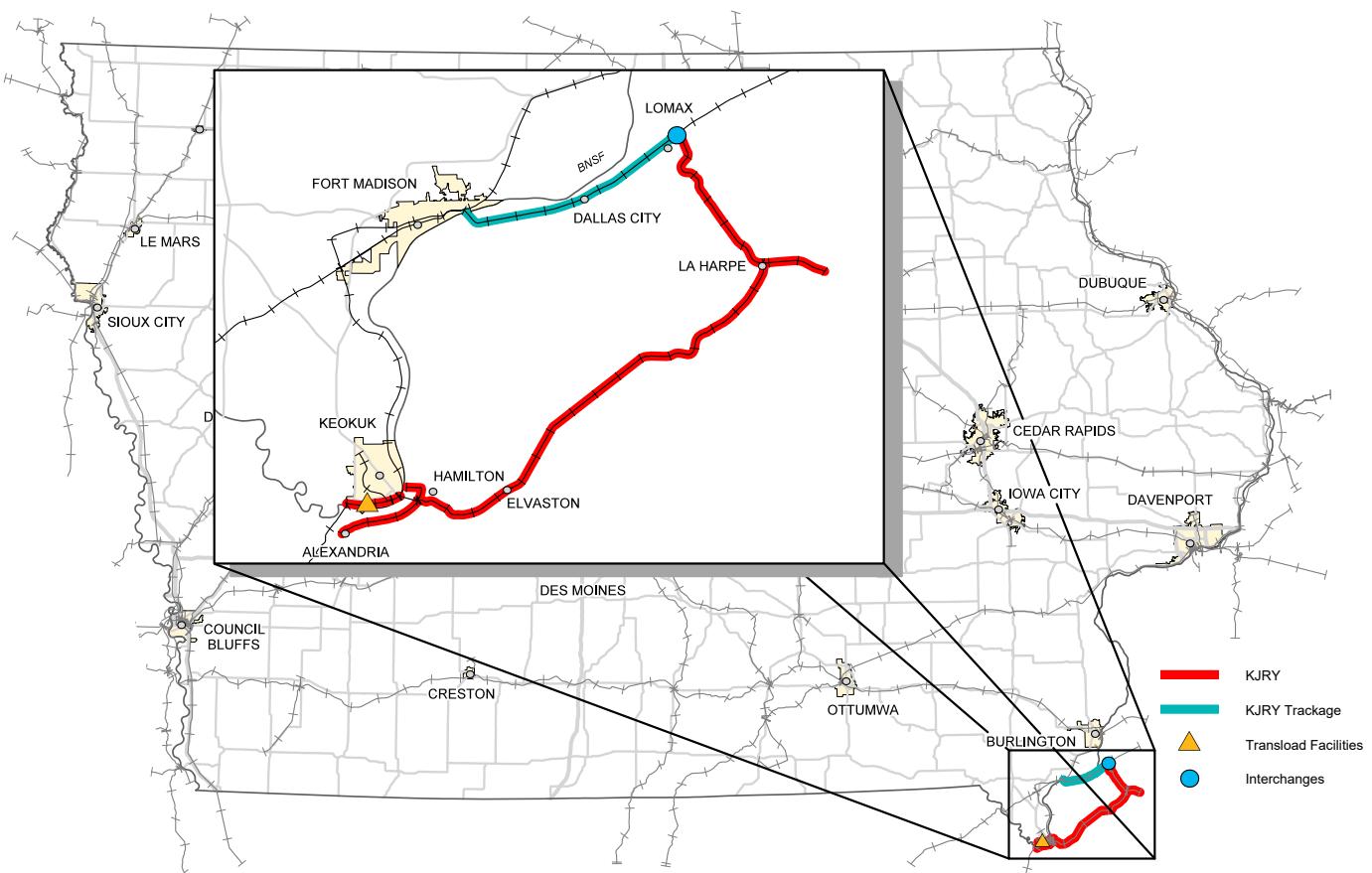
| | |
|---|--------------------------------|
| Shane Cullen Storage, purchasing, emergencies | scullen@pioneer-railcorp.com |
| Tom Black Transportation, safety | tblack@pioneer-railcorp.com |
| Nathan Johns Governmental affairs, pricing, business development, general inquiry | njohns@pioneer-railcorp.com |
| Angela Ibbotson Customer service | aibbotson@pioneer-railcorp.com |
| Frank May Real estate, right of way, utilities | fmay@pioneer-railcorp.com |

KJRY in Iowa

| | |
|---|----|
| Miles of track owned/leased/serviced in Iowa | 5 |
| Miles operated under trackage rights in Iowa | 3 |
| Employees in Iowa | 17 |

Marketing development summary

KJRY, through its multiple Class 1 interchanges, is able to offer reliable, cost-effective service allowing its shippers access to the entire North American freight rail network. KJRY continues to make significant investments in its infrastructure so Iowa's rail network remains a valuable asset for the expansion of existing industry and development of new industry. When rail service is not available at a shipper's/customer's facility, transloading can provide a competitive mode, as well as the opportunity to expand their markets. Transloading provides shippers and customers with the ability to combine the economics of rail with the flexibility of trucks. KJRY has several sites for transloading, giving customers that are not directly rail served, with the advantages of rail.



NORFOLK SOUTHERN (NS)

www.nscorp.com

Emergency number: 800-453-2530

Corporate Headquarters

Norfolk Southern Corp.
Three Commercial Place
Norfolk, VA 23510



Overview

NS operates 20,000 miles of track in 22 states and Washington, D.C. The company supports international trade with service to every major eastern seaport, 10 river ports, and nine lake ports. In Iowa, NS has operating agreements with BNSF to run on track from Keokuk through Burlington, and onto Des Moines.

Railroad Interchanges

| | |
|----------------|----------|
| Des Moines, IA | UP, IAIS |
| Ottumwa, IA | CP |

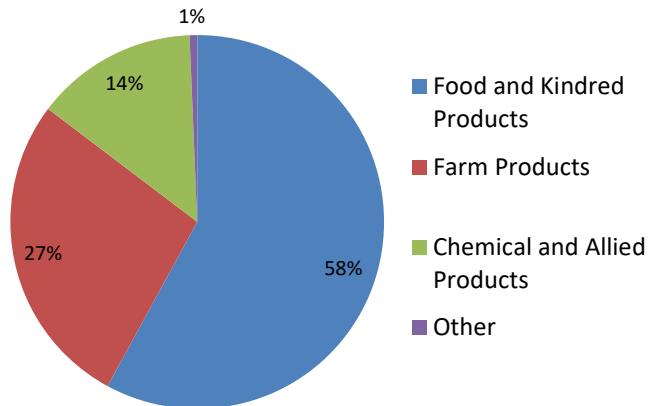
Contact(s)

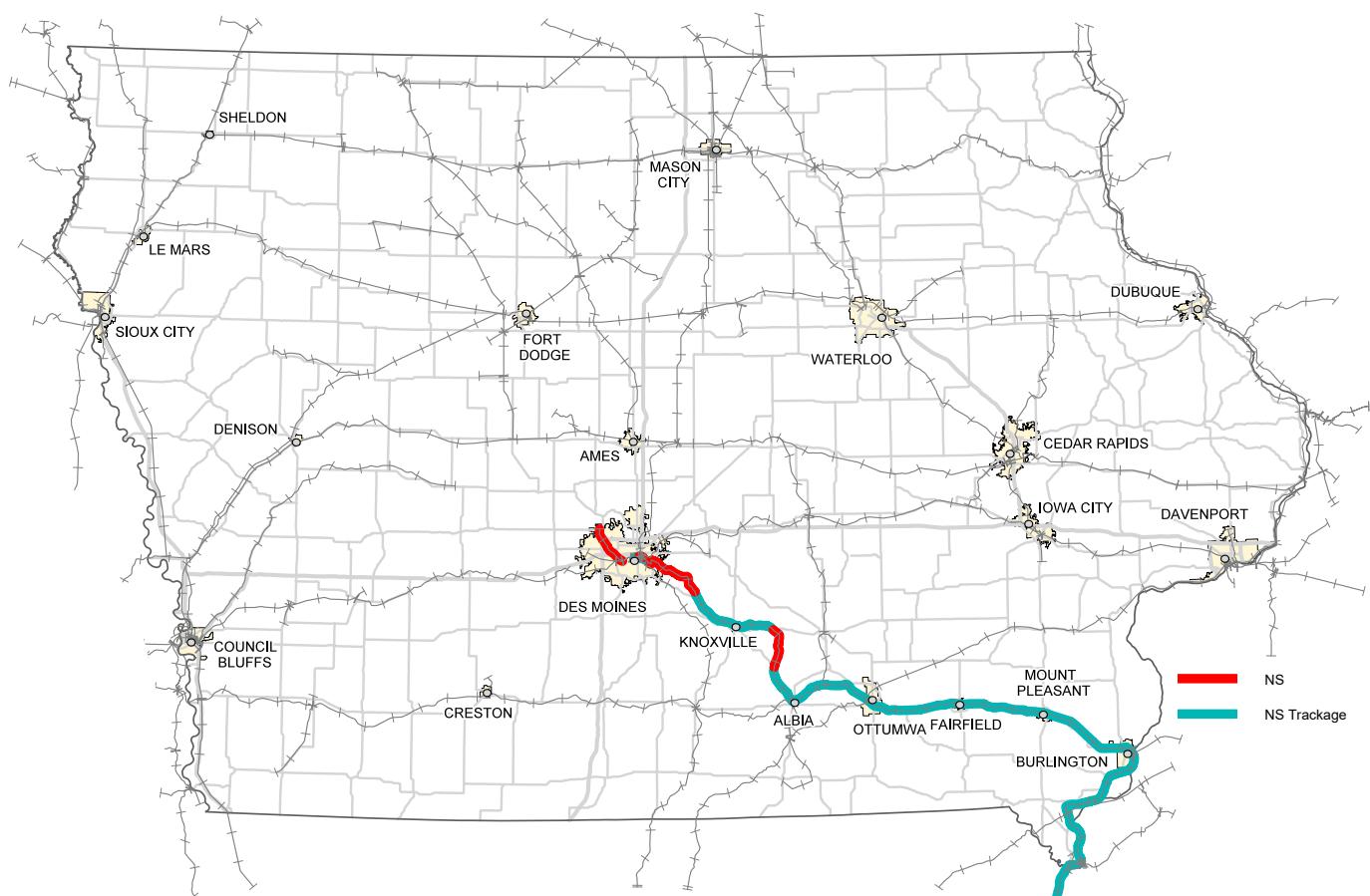
National Customer Service Center 800-635-5768

NS in Iowa

| | |
|--|----|
| Miles of track owned/leased/serviced in Iowa | 99 |
| Miles operated under trackage rights in Iowa | 37 |
| Employees in Iowa | 0 |

Commodities





SAVAGE DAVENPORT RAILROAD (SDR)

www.savageservices.com

Emergency number: 855-563-4072

Corporate Headquarters

901 W Legacy Center Way
Midvale, UT 84047



Overview

SDR operates 2.8 miles of track on the north side of Davenport, servicing a new, city-owned, Savage-operated transload facility and providing rail services for industrial center businesses. SDR provides direct interchange with the DM&E (CP) railroad. The transload facility features over 20 rail car spots and 20,000 square feet of indoor warehousing with indoor rail car and truck loading.

Transloading

Davenport, IA

Railroad Interchanges

Davenport, IA

DM&E (CP)

Contact(s)

Dan Price

Vice President, Business Development

DanielP@savageservices.com

Jeff Hymas

Communications Director

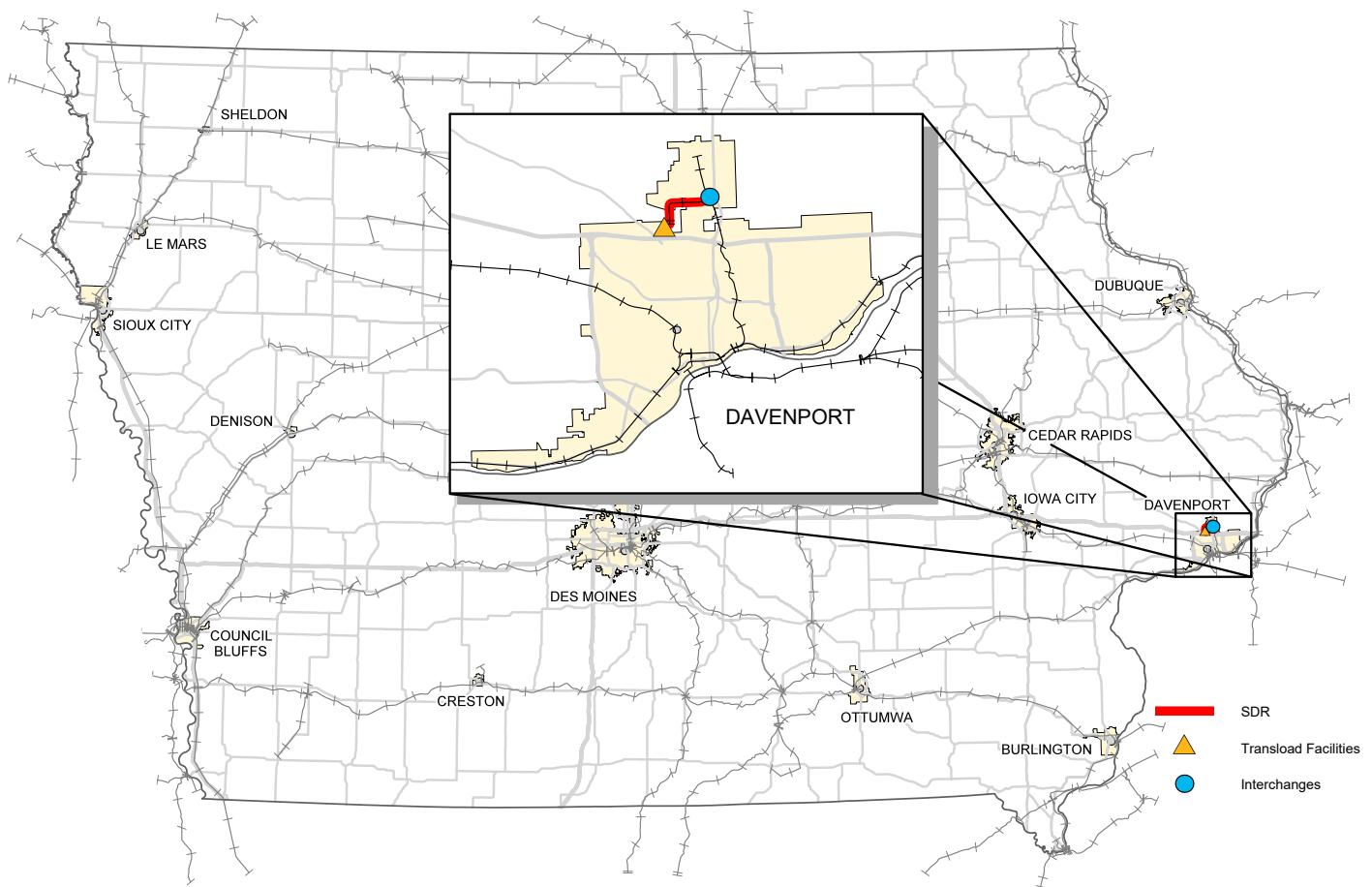
JeffHymas@savageservices.com

NS in Iowa

| | |
|--|-----|
| Miles of track owned/leased/serviced in Iowa | 2.8 |
|--|-----|

| | |
|--|---|
| Miles operated under trackage rights in Iowa | 0 |
|--|---|

| | |
|-------------------|---|
| Employees in Iowa | 2 |
|-------------------|---|



UNION PACIFIC RAILROAD (UP)

www.up.com

Emergency number: 888-877-7267

Corporate Headquarters

1400 Douglas St.
Omaha, NE 68179
Phone: 402-544-5000



Overview

Union Pacific Railroad and the Chicago & North Western Transportation Co., which merged in 1995, have been part of the Iowa landscape since the 1850s. Today, UP's tracks span the length and breadth of the state. The east-west main line corridor provides a direct route from Chicago to the West Coast, while the north-south "Spine Line" main line running through Des Moines and Mason City connects Minneapolis-St. Paul and Kansas City. In northwest Iowa, an extensive branch line network exists.

Transloading

| | |
|---------------------------|-----------------------|
| Camanche, IA | Des Moines, IA |
| Clear Lake, IA | Manly, IA |
| Clinton, IA | Sioux City, IA |
| Council Bluffs, IA | Omaha, NE |

Railroad interchanges

| | | | |
|---------------------------|----------------------|-----------------------|----------|
| Boone, IA | BSV | Iowa Falls, IA | CN |
| Cedar Rapids, IA | CRANDIC, CN, IANR | Manly, IA | IANR |
| Clinton, IA | CP | Mason City, IA | CP, IATR |
| Council Bluffs, IA | CN, IAIS | Sheldon, IA | CP |
| Des Moines, IA | IAIS, NS | Sioux City, IA | CN |
| Emmetsburg, IA | CP | Waterloo, IA | CN, DAIR |
| Fort Madison, IA | KJRY | | |

Contact(s)

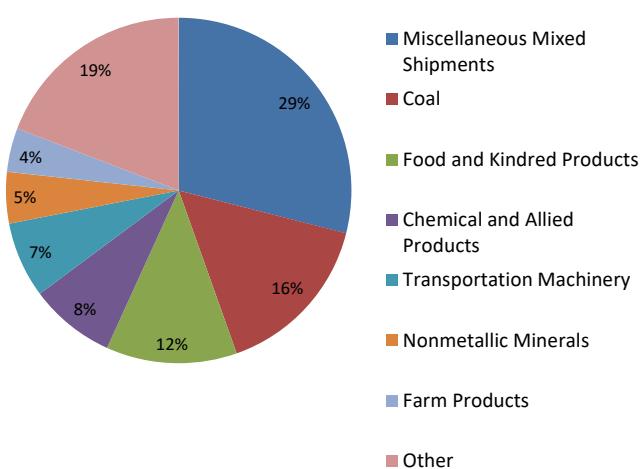
Cheryl A. Schow caschow@up.com
Network Economic &
Industrial Development
WY, NE, IA
402-233-3538

Kelli O'Brien kobrien@up.com
Public affairs
515-263-4585

UP in Iowa

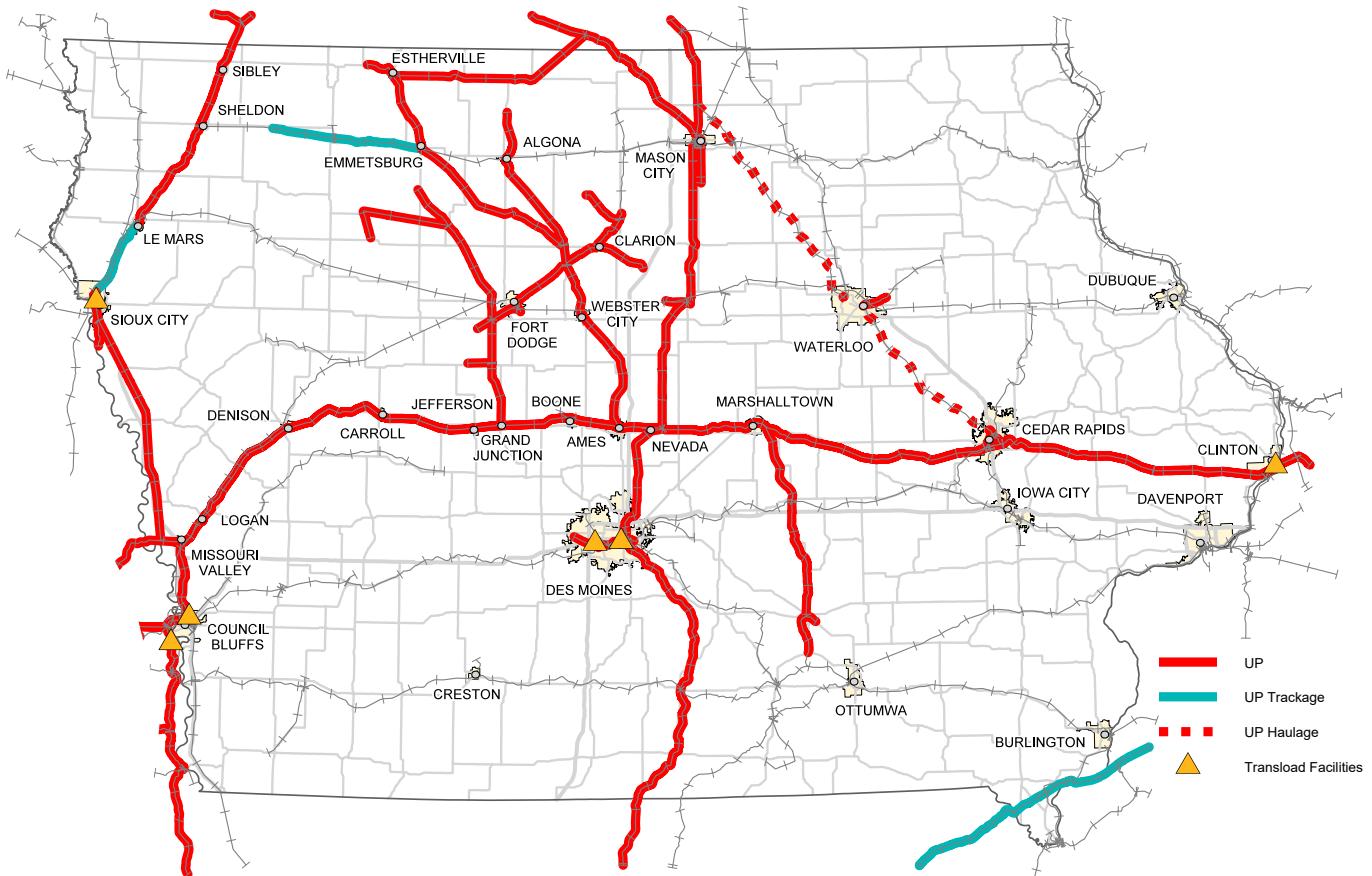
| | |
|---|-------|
| Miles of track owned/leased/serviced in Iowa | 1,291 |
| Miles operated under trackage rights in Iowa | 95 |
| Employees in Iowa | 1,528 |

Commodities



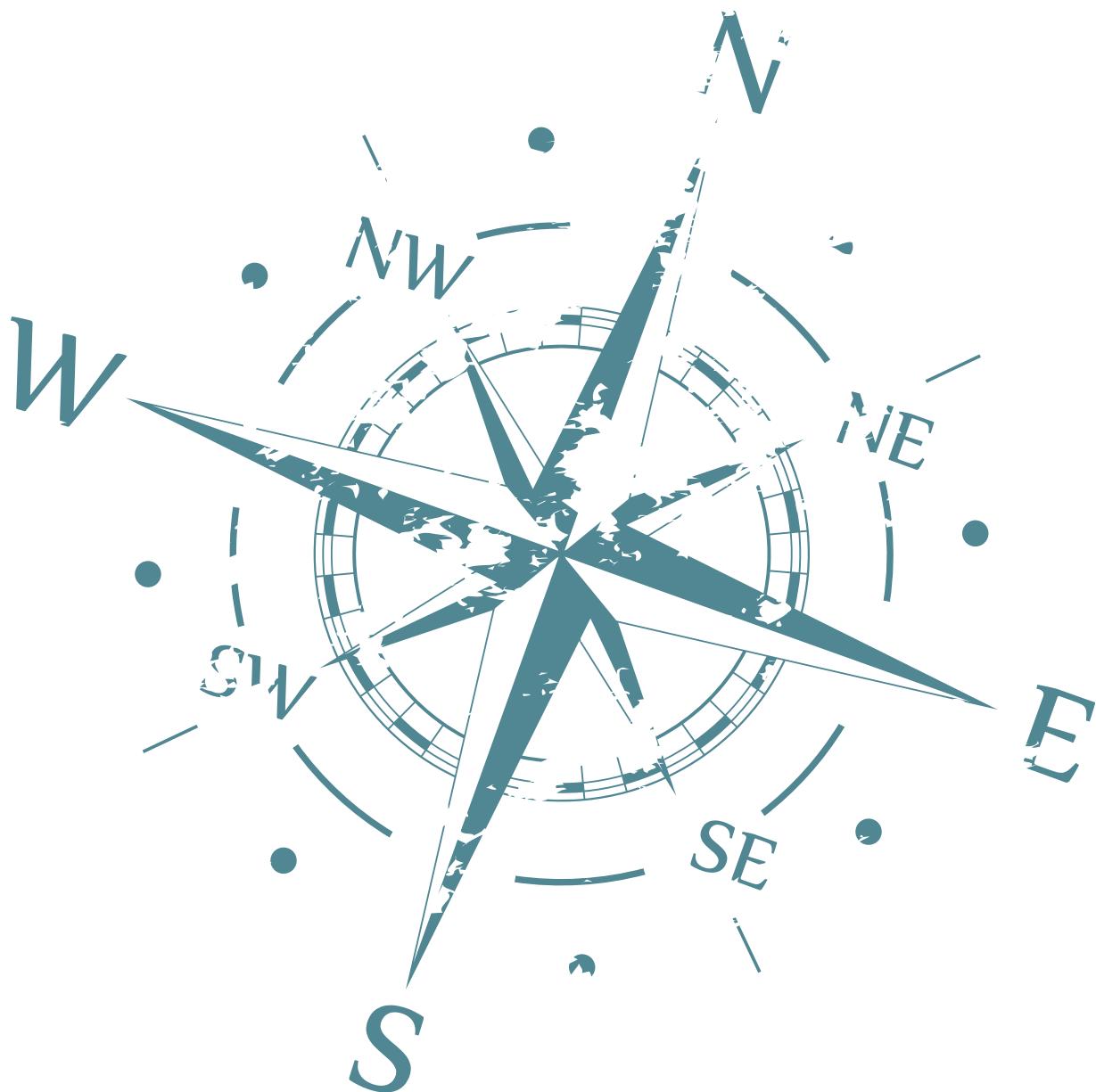
Marketing development summary

As your shipping needs grow, look to the men and women of UP to ensure your shipment gets delivered where you need it, when you need it. Put the power of America's premier transportation company to work for you. Call UP's shipping and logistics experts today at 800-877-0513.





RESOURCE DIRECTORY



There are many railroad resources available. Some of the best resources are the individual railroad websites. Transportation services and consulting resources are listed but not necessarily endorsed by the Iowa DOT. These firms were included as initial resources for further guidance. Additional, more generalized public information is contained in trade journals. Trade Associations can be good opportunities for networking and topic-specific presentations. Educational resources are also abundant in Iowa.

THIRD-PARTY LOGISTICS SERVICES

CONSIDERATIONS WHEN SELECTING A LOGISTICS COMPANY

Freight transportation intermediaries and third-party logistics (3PLs) companies can provide freight transportation logistics expertise that can improve customer service, reduce damage, improve transit times, and save money. Many companies who have a limited workforce or do not have in-house transportation expertise, especially find that hiring a logistics company to plan, store, package, and ship products can improve the quality of transportation for new companies, small shippers, and mid to large companies with complex shipping needs. The following list of considerations about your supply chain can help identify a company or expert who can work with you to improve service.

What type of product do you plan on storing?

- Is it perishable or does it require temperature control?
- How many pallets or slip sheets will you be moving or storing?
- How many times will the inventory turnover each year?
- Is it a hazardous material?
- Must your products move in bond?
- Is high-value security required?
- Is the product a food-grade material?
- Will it come palletized?
- Do you need any value added services like kitting and assembly or pick and pack services?

Transportation services

Do you ship full truck loads? Less than a truck load or in bulk quantities? What are the terms of sale? Will you own the product in transit? Can you specify carriers? Do you require warehouse services? Will all the product ordered move to the same customer or will inventory be held in transit? Are you familiar with rail car or intermodal services? How many dock doors do you have for truck or rail? How large a parking lot do you have for truck delivery or trailer storage?

Do you use trucking services? If so, do you have pre-existing carrier relationships or would you like to use the vendor's transportation services? Do you only want to work with a logistics company that has a warehouse and a private trucking fleet or do you need to work with preferred carriers who are familiar with your facilities and products?

What size container will be required? How often do you release shipments? Will products be live-loaded or will a pool of equipment be needed? Do you need transloading services? Do you need customs or international freight documentation services?

3PLs can help you select trucking services, storage solutions, and rail options to move your freight economically with safe and reliable transportation services. With integrated software, often too expensive for individual shippers to own and maintain, they provide shipment visibility for products moving throughout the supply chain. A list of Iowa-based providers is on the following page.

THIRD-PARTY LOGISTICS SERVICES

COMPANY DIRECTORY

The following lists Iowa logistics companies, Iowa warehousing companies, and 3PL providers serving the Des Moines and Cedar Rapids areas in Iowa. Other 3PL firms may serve Iowa shippers, but are not located in the state. When seeking logistics services, a regional search may be necessary.

Barr Nunn Transportation Inc.

Barr-Nunn Transportation Inc. is a privately owned, dry van truckload carrier based in Granger. Founded by Robert Sturgeon in 1982, Barr-Nunn operates about 500 tractors and about 1,550 trailers. The company provides an industry-leading Iowa shipping service to manufacturers and users of consumer products, paper products, food products and ingredients, plastic and rubber, building materials, appliances, hardware, castings, animal feeds, and a host of other products.

www.barr-nunn.com

Centennial Warehouse Corp.

Centennial Warehouse of Des Moines is a full-service logistics company. Services range from a full-service warehouse, over the road trucking, regional distribution, and freight brokerage. Centennial operates its own fleet of semitrucks and 53-foot air-ride trailers driven by professional drivers.

www.centennialwarehouse.com

GSTC Logistics Inc.

For more than 25 years, GSTC Logistics Inc. has provided companies with efficient and reliable Iowa transportation and logistics services with 440,000 square feet of warehousing space in Walford.

www.gstcinc.com

Iowa Logistics Quotes

Get competitive warehousing quotes from leading Iowa third-party logistics providers serving the Des Moines metro area and beyond.

www.logisticslist.com/warehousing-logistics-quote.html

Jacobson Companies

Jacobson Companies is a leading national third-party logistics service provider providing integrated warehousing, transporation, and logistics services to the Iowa area and beyond.

www.jacobsonco.com

Merchants Distribution Service

Merchants Distribution Service is a leading Iowa

warehousing and distribution provider. Merchants is literally at the crossroads of America - the intersection of interstates 80 and 35 in Des Moines. Almost any place in the continental United States is just three days by truck, a few more by rail. It is no secret that a public warehouse offers storage. However, the company offers much more. Merchants has established themselves as specialists in rail-to-truck and truck-to-rail, serving the paper, lumber, manufacturing, and agriculture industries with warehouse facilities in Altoona and Des Moines.

www.merchantsdsm.com

Midwest 3PL

Midwest 3PL is a leading Iowa third-party logistics provider specializing in advanced value-added services such as tracking and tracing, cross-docking, specific packaging, or providing a unique security system. With a solid logistics information technology foundation and a focus on economies of scale, Midwest 3PL is a leading Iowa warehousing and logistics service provider.

www.midwest3pl.com

Scarborough International, Ltd.

Scarborough has been servicing the Midwest USA since 1984 as the leading Global Trade Management Service Provider. Scarborough's services include: U.S. Customs Brokerage, Import & Export Freight Forwarding, Domestic Transportation, Warehousing, Large Project Freight and Consulting. Right from our offices in the Midwest, your single point of contact can connect you to the world. We are your Partner for International Logistics.

www.scarbrough-intl.com

Worley™ Warehousing

Worley's is a leading logistics and freight management provider headquartered in Cedar Rapids. Their experience goes well beyond their innovative warehouse management software and operational expertise. Worely has built and facilitated more than 4 million square feet of warehousing start-ups. Worley provides custom Iowa logistics services for hundreds of companies, delivering world class results every step of the way.

www.worleycompanies.com

PUBLICATIONS

3PLwire.com

A Web-based publication featuring third-party logistics trends, news, and information.
www.3plwire.com

Commercial Carrier Journal (CCJ)

CCJ is a transportation-focused logistics publication edited for executives who manage, operate, and maintain for-hire, utility, and specialty transportation fleets.
www.ccjdigital.com

DC Velocity

A trade publication for operations and logistics management professionals, offering logistics solutions for distribution center management.
www.dcvelocity.com

Inbound Logistics

Inbound Logistics provides the latest news about warehousing, logistics, supply chain management, transportation, logistics IT, 3PLs, cargo, freight, and shipping.
www.inboundlogistics.com/cms

Journal of Commerce: International Logistics

The legendary online newsletter for busy supply chain and logistics professionals considered the “first-read” for international trade and logistics professionals.
www.joc.com/international-logistics

Leonard's Guide

Offers a variety of directories on trucking, warehousing, 3PLs, and other freight-related services.
www.leonardsguide.com

Logistics Management

Publication for logistics professionals offering industry news and in-depth analysis on the major forms of freight transportation (truck, maritime, air, and rail/intermodal), plus information on products, technologies, government regulations, and international logistics. Also publishes the respected warehousing buyer’s guide, American Public Warehouse Register.
www.logisticsmgmt.com

Logistics Quarterly: LQ™ Magazine

A quarterly logistics magazine written by logistics professionals to exchange ideas and transform business through supply chain management and logistics.
www.logisticsquarterly.com

Manufacturing & Logistics IT

One of the few supply chain and logistics trade magazines that focus solely on information technology (IT). Covers pertinent IT topics including ERP, advanced planning and scheduling, demand forecasting, mobile solutions, warehouse management, printing and labeling, and transportation solutions.
www.logisticit.com

Material Handling & Logistics magazine

Material Handling & Logistics magazine delivers thought-provoking, high-quality, fact-based editorial that supports material handling and logistics as functions that support the bottom line and ultimately enhance an organization's profitability. Subscribe to Material Handling & Logistics and learn about cutting-edge trends, new product innovations, and best practices in the logistics industry.

www.mhlnews.com

Progressive Railroading

Top rail news and reporting on the Web with railroad industry articles, events, webcasts, jobs, product directories, and more.
www.progressiverailroading.com

Railway Age

Railcar shipping statistics, including railcar deliveries, traffic, commodities hauled, and intermodal statistics.
www.railwayage.com

Supply and Demand Chain® Executive magazine

A supply chain trade publication catered toward logistics and supply chain executives. Covers business strategies trends and key issues in supply chain management.
www.sdcexec.com

Supply Chain Digest™

Supply Chain Digest is the industry's best publication and website for supply chain management and logistics practitioners to find information, news, insights, and benchmarking measures.
www.scdigest.com

Supply Chain Management Review

An executive-level logistics publication known for its well-researched think pieces focusing on supply and logistics industry issues. Provides comprehensive coverage of a wide range of supply chain management issues. The editorial package includes in-depth feature articles, exclusive columnists, professional development opportunities, and a complete listing of information resources.
www.scmr.com

Trains magazine

A railroader magazine covering Class I, II, and III carriers, covers management and network-related topics. Features a rail map of the month.
www.trainsmag.com

TRADE ASSOCIATIONS

APICS – The Educational Society for Resource Management
5301 Shawnee Road
Alexandria, VA 22312
800-444-2742
www.apics.org

APQC – American Productivity & Quality Center
123 N. Post Oak Lane
Houston, TX 77024
800-776-9676
www.apqc.org

AST&L – The American Society of Transportation and Logistics
1400 Eye St. NW, Suite 1050
Washington, DC 20005
202-580-7270
www.astl.org

ATA – American Trucking Association
950 N. Glebe Road, Suite 210
Alexandria, VA 22203
703-838-1700
www.truckline.com

AAR – Association of American Railroads
50 F St. NW
Washington, DC 20001
202-639-2100
www.aar.org

CSCMP – Council of Supply Chain Management Professionals
333 E. Butterfield Road, Suite 140
Lombard, IL 60148
630-574-0985
www.cscmp.org

ISM – Institute for Supply Management
P.O. Box 22160
Tempe, AZ 85285
480-752-6276
www.ism.ws

IWLA - International Warehouse Logistics Association
2800 S. River Road, Suite 260
Des Plaines, IL 60018
847-813-4699
www.iwla.com

IANA – Intermodal Association of North America
11785 Bettsville Drive, Suite 1100
Calverton, MD 20705
301-982-3400
www.intermodal.org

Iowa Regional and Shortline Railroad Association Inc.
c/o Iowa Northern Railway Co.
Paramount Theatre Building
305 Second St. SE, Suite 400
Cedar Rapids, IA 52401
319-297-6000
www.iowanorthern.com

MHIA – Material Handling Industry of America
8720 Red Oak Blvd., Suite 201
Charlotte, NC 28217-3992
704-676-1190
www.mhia.org

NITL – National Industrial Transportation League
1700 North Moore St., Suite 1900
Arlington, VA 22209
703-524-5011
www.nitl.org

NARS – North American Rail Shippers
2115 Portsmouth Drive
Richardson, TX 75082
972-690-4740
www.railshippers.com

SmartWay® Program
2000 Traverwood
Ann Arbor, MI 48105
734-214-4767
www.epa.gov/smartway

SOLE – The International Society of Logistics
810 Professional Place, Suite 111
Hyattsville, MD 20785
301-459-8446
www.sole.org

APICS SCC – APICS Supply Chain Council
1400 Eye St., NW Suite
1050 Washington, DC 20005
202-962-0440
www.supply-chain.org

TIA – Transportation Intermediaries Association
1625 Prince Str., Suite 200
Alexandria, VA 22314
703-299-5700
www.tianet.org

GS1 US
1009 Lenox Drive, Suite 202
Lawrenceville, NJ 08648
609-620-4590
www.gs1us.org

WERC – The Warehouse Education and Research Council
1100 Jorie Blvd., Suite 170
Oak Brook, IL 60523
630-990-0001
www.werc.org

EDUCATION AND CERTIFICATION

Education and training

As the importance of supply chain logistics and carrier management increase, many programs have become available to train tomorrow's workforce. Many state universities, such as Iowa State University, offer a degree program in supply chain management. More than a hundred national and international programs are listed on the Council of Supply Chain Management Professionals' Web page (www.cscmp.org).

Logistics certification programs

The trade and professional associations listed below offer certification programs specifically in the logistics area. Visit an association's website for information about its certification program(s).

| | | |
|---------|--|--|
| APICS | The Association for Operations Management | www.apics.org |
| AST&L | American Society of Transportation and Logistics | www.astl.org |
| ILM | Institute of Logistical Management | www.instituteoflogisticsng.org |
| IMA | Institute of Certified Management Accountants | www.imanet.org |
| IMC USA | Institute of Management Consultants | www.imcusa.org |
| IoPP | Institute of Packaging Professionals | www.iopp.org |
| ISM | Institute for Supply Management | www.ism.ws |
| IWLA | International Warehouse Logistics Association | www.iwla.com |
| MHMS | Materials Handling & Management Society | www.mhi.org/mhms |
| SOLE | The International Society of Logistics | www.sole.org |
| VICS | Voluntary Interindustry Commerce Solutions Association | www.gs1us.org |

COMMON RAILROAD TERMS AND ACRONYMS

3PL

Third-party logistics company

AAR

Association of American Railroads

ASLRRA

American Short Line and Regional Rail Association

Bond

A certificate of debt issued by a government or corporation guaranteeing payment plus interest.

Brownfield

Commercial or industrial site that has real or perceived contamination.

Building trains

Assembling sorted cars in proper sequence for outbound departure.

Bulk

Train made up of a single “bulk” commodity and car type. Bulk commodities include coal, grain, soda ash, and ore.

Business incentives

Financial, tax, and technical assistance to help companies expand or locate in a particular place.

CDC

Community development corporation, typically a nonprofit organization.

Certified site

An industrial site that has been certified through the Iowa Economic Development Authority, ready for quick development.

Chassis

The wheels and truck body structure that moves intermodal containers on the highway.

COFC

Container on flatcar which is a container that is transported on a rail flatcar. It can be shipped via tractor/trailer using a chassis as the wheel section.

Containers

Typically a 20-foot or 40-foot international container leased or owned by an ocean carrier.

Cross dock

A facility that provides for unloading materials from an incoming semitruck or rail car and loading these materials directly into an outbound truck or rail car with little or no storage in between.

Cross overs

Track that joins two main line tracks. When a train moves from one main track to another, it “crosses over.”

Drayage

The short portions of an intermodal movement at the beginning and ending.

First mile

A logistics term used for the movement of goods (usually by truck) from the origin to a freight hub.

Hazmat

Hazardous material that can corrode, explode, ignite, or create noxious fumes.

Hot shot

A high-priority train that moves ahead of other trains along the network.

Hump yard

A yard where rail cars are sorted via a gravity switching process.

IANA

Intermodal Association of North America

IEDA

Iowa Economic Development Authority, the state agency responsible for strengthening economic and community vitality.

Industrial park

A business development area that may or may not be rail-served.

Intermodal

A transportation option that moves containers or trailers on rail cars for part of a hauling trip. Normally, the first and last mile are carried by truck.

Intermodal terminal

A terminal that provides for transfer of intermodal containers to and from train cars and trucks.

Last mile

A logistics term that refers to the movement of goods between the final distribution node to the end user.

LCL

Less than car load is a logistics term that refers to amounts of cargo that will not fill an entire rail car. The company will usually charge different rates in cases where a shipper cannot fill an entire rail car.

LTL

Less than truck load is a logistics term that refers to amounts of cargo that will not fill an entire truck. The company will usually charge different rates in cases where a shipper cannot fill an entire truck.

Location assistance

The Iowa Economic Development Authority hosts a database of available buildings and sites for business expansion.

Logistics

The management of the flow of goods between the point of origin and the point of consumption in order to meet the requirements of customers.

Long-haul trucking

Truck transport of goods outside of a 250-mile radius from origin.

Loop track

A long circular or oval railroad track with a connection to a serving railroad. The loop track allows for unit trains to be loaded, unloaded, and stored without affecting traffic on the serving railroad's line.

Mainline

A principal railroad artery over which through-trains move between terminals and yards in the rail network.

Manifest train

A train made up of mixed rail cars (boxcars, tank cars, flatcars, etc.).

Passing track

A track that allows a train to pass another train or move without being on the mainline.

Power

Another term for locomotive.

Railroad class

Railroads are categorized as Class I, II, or III based on revenue. Class I railroads include the seven largest railroads. Class II railroads are often referred to as regional railroads. Class III railroads include local or switching railroads.

Rail part

An industrial park served by rail.

Reefer

A common informal name for a refrigerated rail car.

Revenue bond

A bond backed by anticipated revenue stream from a specific project.

Run-through

"Point-to-point train service" is when a train that generally is not scheduled to add (pickup) or reduce (set out) rail cars en route.

Shortline railroad

A railroad that may originate or terminate freight traffic on its track, participate in division of revenue, and usually has less than 100 miles of track.

Shuttle train

A group of 50 to 55 rail cars that are loaded at a single location and are going to the same destination.

Siding

A track auxiliary to the main track for meeting or passing trains. A siding is connected to the main track at both ends with turnouts.

Special assessment district

An area designated by a taxing authority to be assessed at a different rate from the rest of the jurisdiction.

Spur track (or stub in)

Short, usually a dead-end, section of track used to access a facility or loading/unloading ramp. It also can be used to temporarily store equipment.

Sustainable development

Development that does not destroy or deplete the location's natural resources.

Switching

Moving cars from one track to another track or to different positions on the same track. This includes moving cars in the make up and break up of trains.

Switching railroad

A shortline railroad whose main business is to provide switching for other railroads.

Tare

The weight of a container. This weight is subtracted from the combined weight of container and product to get the weight of the product.

Team track

A track on which railcars are placed for the use of the public in loading or unloading freight.

Terminal

A railroad facility used for handling of freight and receiving, classifying, assembling, and dispatching trains.

TOFC

Trailer on flatcar is an intermodal option. A semitruck trailer is transported on a flatcar.

Ton-mile

A term denoting the movement of 1 ton of freight a distance of 1 mile. It is used in determining and evaluating rates for freight shipments.

Trackage rights

The right of one carrier to use track owned by another carrier pursuant to an agreement between them and payment of a fee.

Transload facility

A facility that provides for transferring freight to and from trucks and rail cars. Intermodal facilities, cross docks, and team tracks are all examples of transload facilities.

Turnout

A track arrangement that enables a train to diverge from one track to another.

Unit train

A grouping of 100 to 130 rail cars that are loaded at the same place and move to a single destination.

Yard

A system of auxiliary tracks used for the classification of railroad cars according to commodity and/or destination; assembling of cars for train movement; storage of cars; or repair of equipment.

IOWA CONTACTS AND RESOURCES

The Iowa DOT's Office of Rail Transportation staff and Iowa Economic Development Authority are available to assist in growth and development options in Iowa.

Iowa Department of Transportation

Office of Rail Transportation

800 Lincoln Way

Ames, IA 50010

Phone: 515-239-1140

Fax: 515-233-7983

Vacant

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This toolkit was prepared with the best available information at the time. If there are changes, updates, or additions you feel would improve or enhance this toolkit please contact:

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The Iowa Rail Toolkit was created by the Iowa DOT's Office of Rail Transportation with the assistance of:
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www.iowadot.gov/iowarail