



Rail Service 101

MEDC Spring Conference

June 10, 2014

Today's Panelists

- Kevin McIntosh, Asst. VP – State/Local Relations
Kansas City Southern
- Barb Moore, Regional Mgr. – Ind. Development
Union Pacific
- John Rider, Regional Mgr. – Econ. Development
BNSF Railway
- Jake Weir, Manager – Industrial Development
Norfolk-Southern

Today's Topics

- Overview of rail service in U.S. and Missouri
- Benefits of rail
- Key railroad terms
- Intermodal vs. Trans-loading
- What makes for a good “rail-served” site?
- What's it take to get rail service?
- Advice for economic developers



Disclaimer

Anti-Trust Disclaimer

In this presentation, there will be no discussion of the following:

- Prices, discounts and credit terms, and procedures offered to or by any rail shipper or receiver;
- Standardizing or stabilizing prices among competitors;
- Contract provisions in general or for particular shippers or receivers;
- Boycotts or discussions of suppliers' pricing or marketing practices; and
- Any other subject or topic which applies to a particular company or supplier and which would give the appearance of a discussion of prices or other practices of any particular meeting participant



Overview of Rail

Backbone of U.S. Freight Transportation

- Over 140,000 miles of track
- Over 165,000 employees
- Aggregate freight revenue of nearly \$57BB
- 40% of all freight moved in the U.S. (more than trucks, boats, barges or planes)
- 70% of all U.S. automobiles produced move by rail
- 30% of all U.S. grain move by rail
- 60% of all U.S. coal (produces 40% of U.S. electricity)
- Enough wheat moved to provide every person with a loaf of bread 6 days a week
- Enough concrete moved to build 45 miles of highway every day

Backbone of U.S. Freight Transportation



Source: BNSF Railway Company

Rail in Missouri

U.S. Freight Railroad Industry Snapshot



Missouri Snapshot

Number of Freight Railroads	17
Freight Railroad Miles	3,958
Freight Railroad Employees	7,017
Avg. Wages & Benefits Per Freight Railroad	\$112,640
Railroad Retirement Beneficiaries	18,612

One train can carry as much freight as several hundred trucks. It would have taken approximately 24.2 million additional trucks to handle the 436.1 million tons of freight that moved in Missouri by rail in 2011.

Starting in Missouri

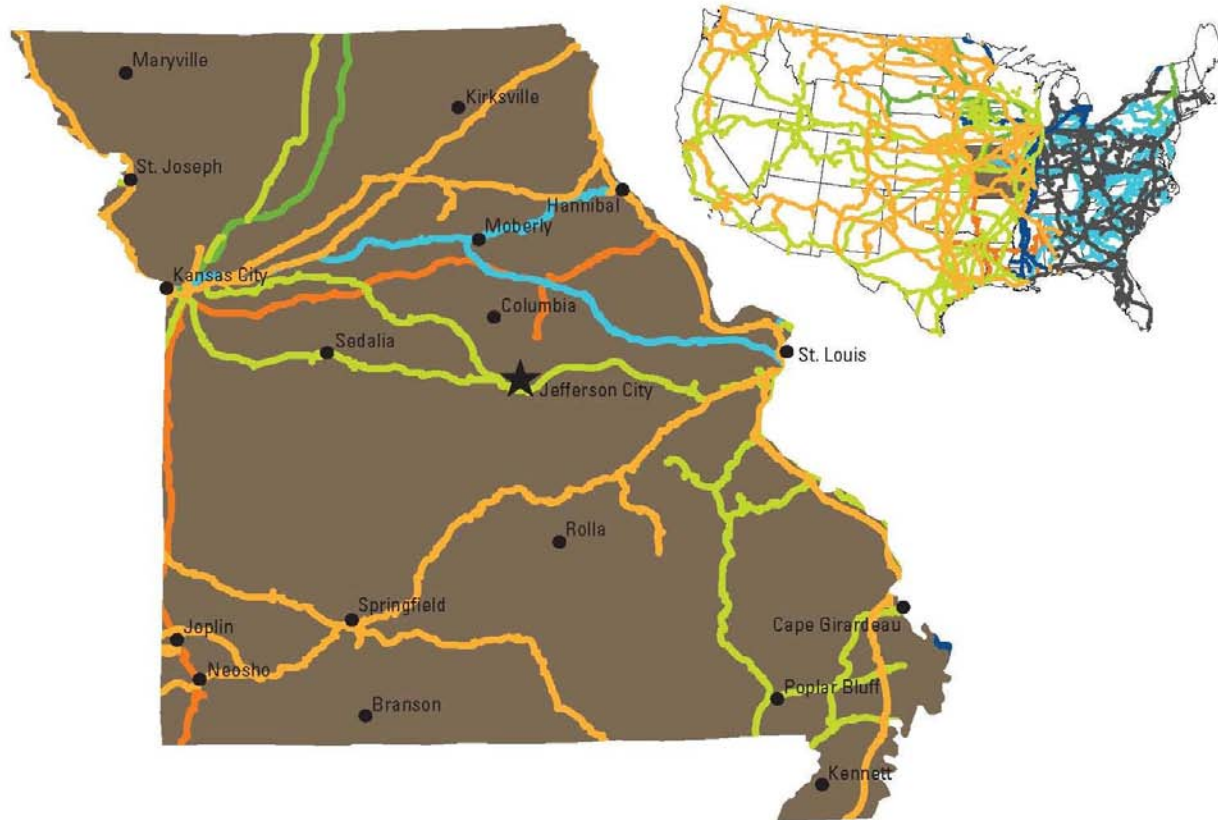


Ending in Missouri



Source: Kansas City Southern

Rail in Missouri



- BNSF
- CN
- CP
- CSX
- KCS
- NS
- UP

Kansas City Southern in Missouri



Union Pacific in Missouri



BNSF Railway in Missouri



BNSFSM
RAILWAY

Norfolk Southern in Missouri





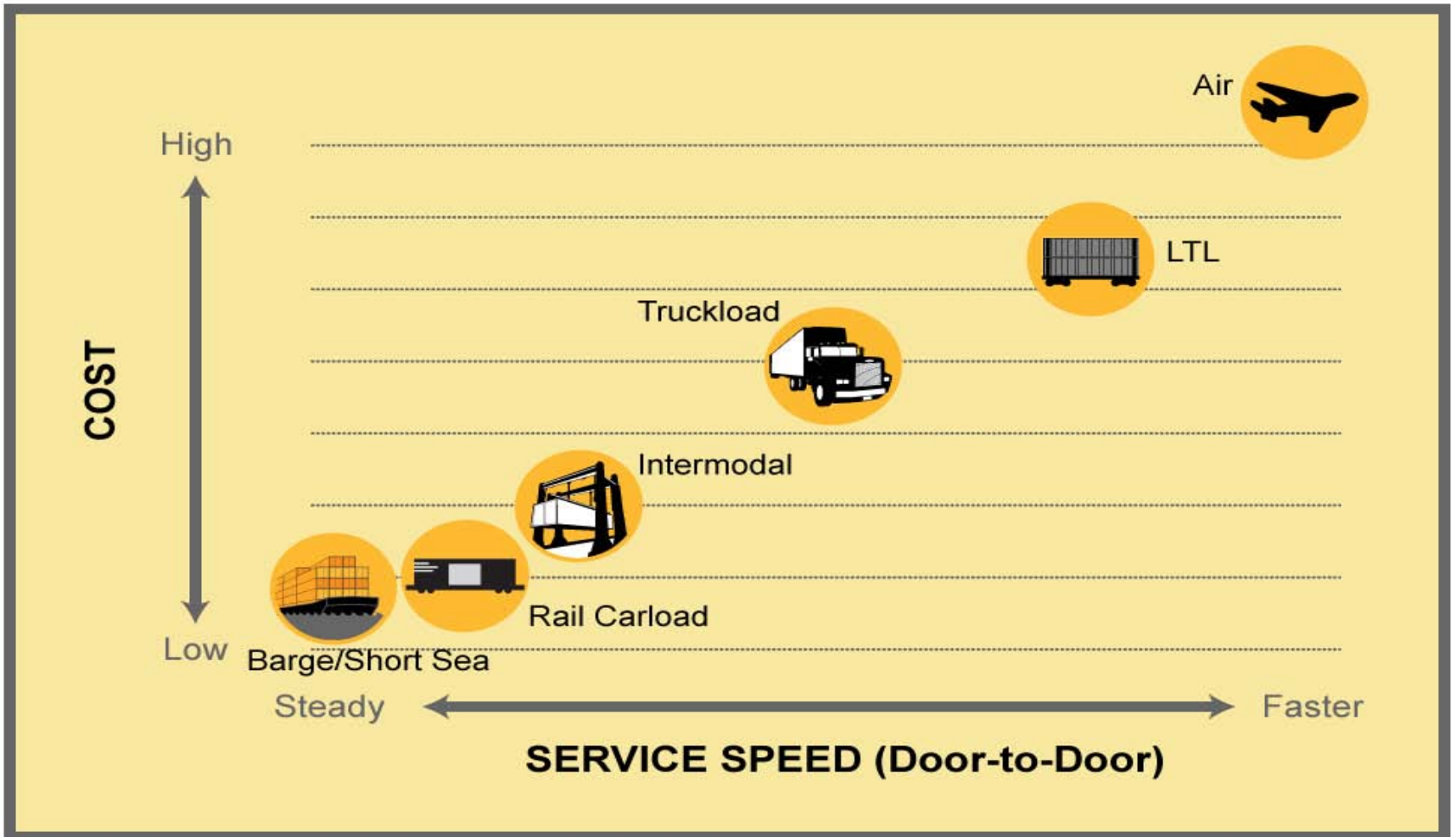
Why Rail?

Why Ship by Rail?

- **Fuel efficiency**
 - 4x more fuel efficient versus trucks
- **Reduction of highway congestion**
 - 1 freight train = 280 trucks off the roads
- **Cost efficiency**
 - Lowest cost vs. other surface transportation
- **Environmental impact**
 - Only 2.1% of transportation-related greenhouse gas emissions (43% of freight)

Why Ship by Rail?

Economies of Rail



Source: BNSF Railway Company

Why Ship by Rail?

- **When does shipping by rail make sense?**
 - Types of industries
 - Types of products
 - Types of projects



Key Rail Terminology

Types of Railroads

■ Class 1

- Operate between 3,200~32,500 miles of track
- Annual revenues of \$340 million or more
- Seven Class 1 railroads in North America

■ Regional

- Operate at least 350 miles of track
- Annual revenues of \$40 million or more
- 33 regional railroads

Types of Railroads

- **Local line-haul**
 - Operations of less than 350 miles of track
 - Less than \$40 million in annual revenue
 - 324 local line-haul railroads

Other Key Rail Terms

- **Siding vs. Rail spur vs. Passing siding**
- **Short line railroads**
- **Switch carriers, e.g. TRRA, KCT**
- **Main line vs. Branch line/Industrial lead**
- **Switch/turnout**
- **Derail (safety measure)**
- **At-grade crossing vs. Grade separation**
- **Types of rail cars (box, tank, flat, hopper, intermodal, double-stack)**

Types of Railcars





Intermodal vs. Trans-loading

Intermodal vs. Trans-loading

■ Intermodal

- **Definition:** Transportation by more than one form of carrier during a single journey, such as truck trailers or containers shipped by rail
- **Advantages:** Faster than standard rail service; cheaper than standard truck service and rail service; no double-handling of product; intermodal facilities typically railroad-owned and operated

Intermodal vs. Trans-loading

■ Trans-loading

- **Definition:** Transfer of a shipment from one mode of transportation to another, e.g. from rail to truck or from truck to rail
- **Advantages:** Enables non-rail-served companies to access rail service through short-haul truck and long-haul train service; consolidation and distribution (e.g. 4 truck trailers' worth of volume per rail car)

Intermodal



Intermodal



Intermodal



Transloading



Transloading



Transloading



Transloading Team Track / Public Use Track



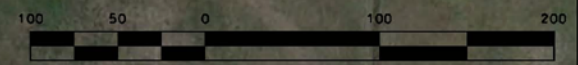
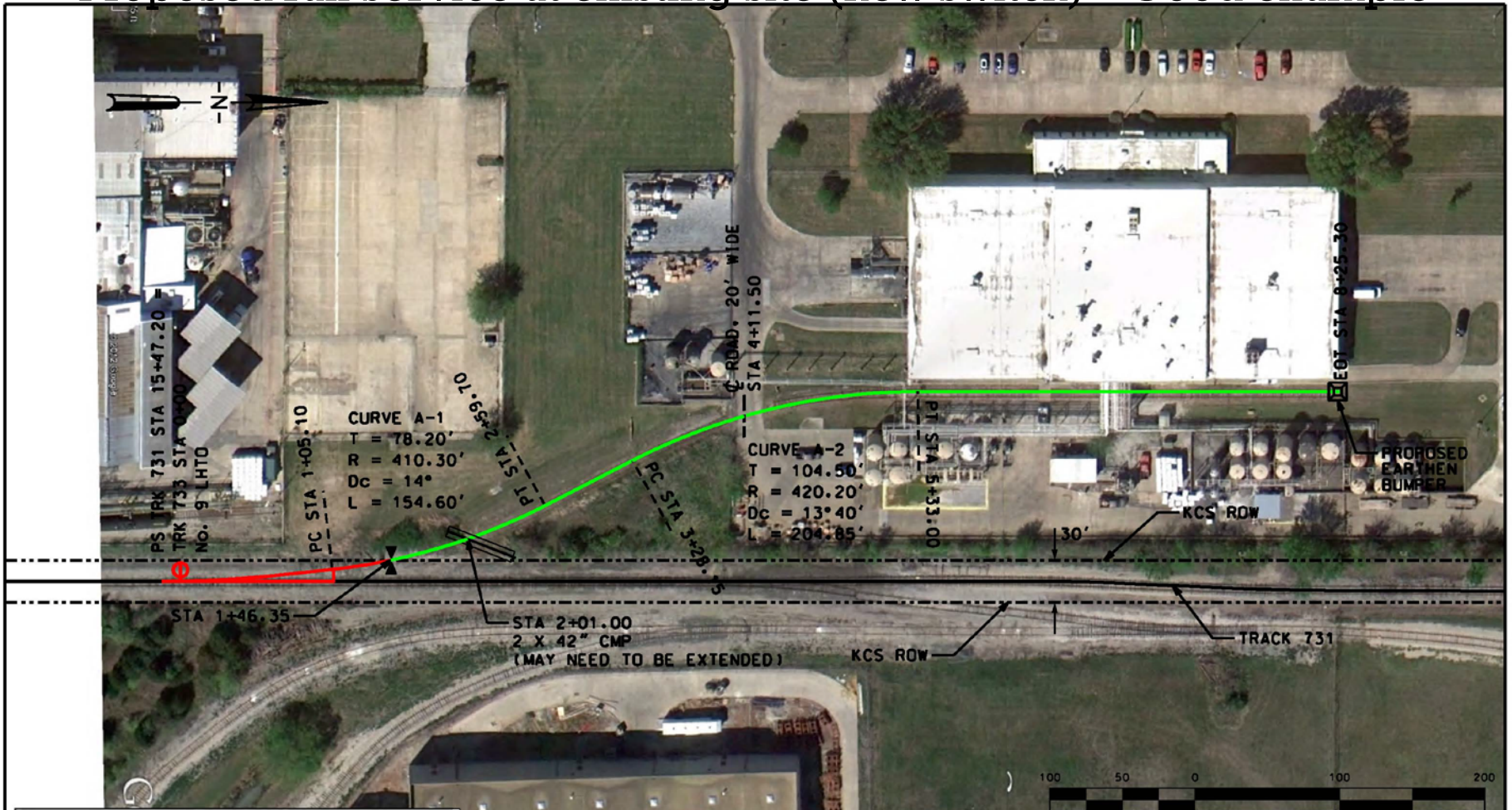


Good Rail Sites vs. Challenging Rail Sites

What Makes a Good Rail Site?

- **Existing sites**
 - Site or facility was formerly served by rail; service has since been de-activated
 - Site or facility currently served by rail
- **Greenfield sites**
 - Site or facility has good potential to be served by rail

Proposed rail service at existing site (new switch) – Good example



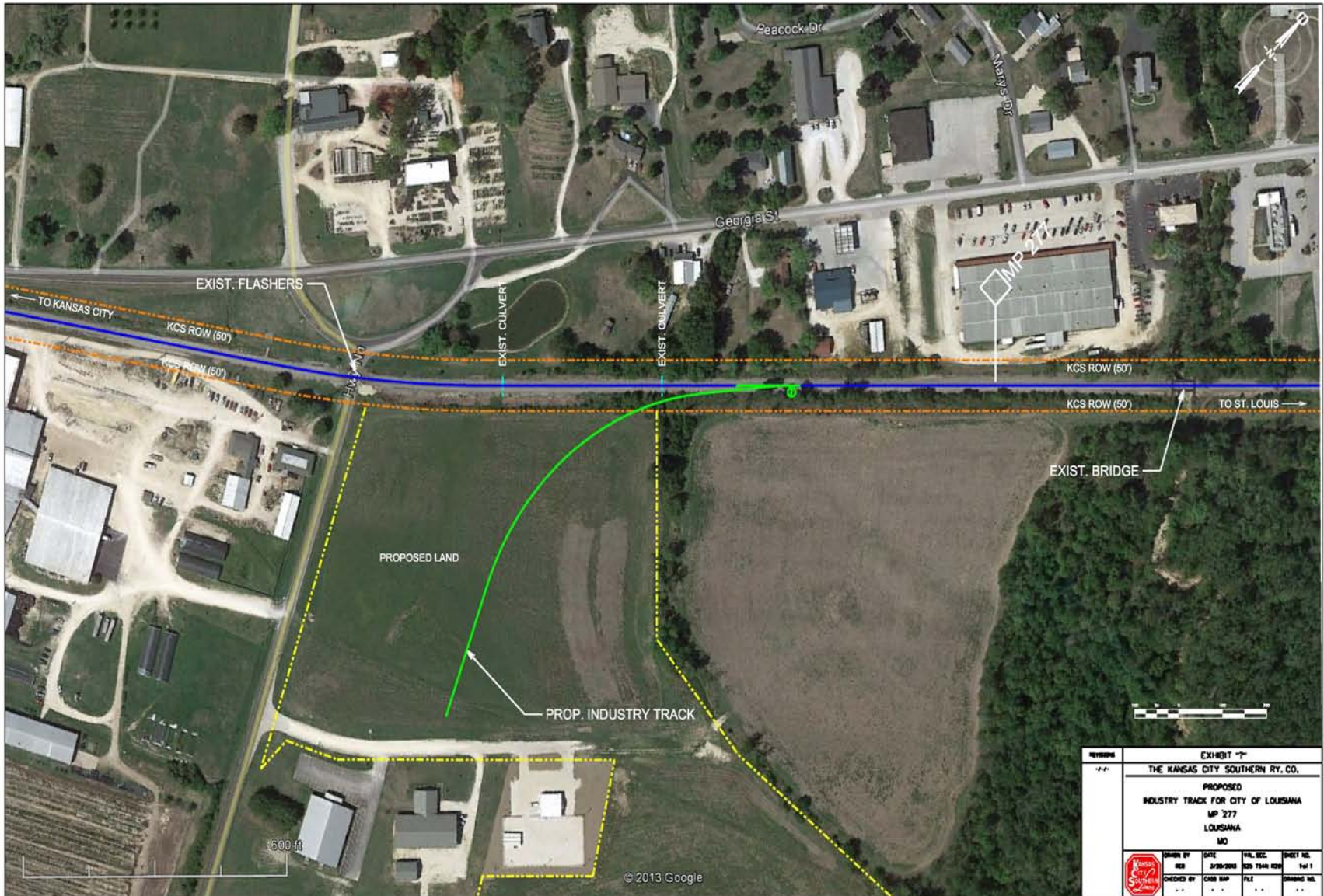
REVIEW AND APPROVAL		
KCS DIVISION	DATE	SIGNATURE
REAL ESTATE	x	
ENGINEERING	x	
SIGNAL DEPT.	x	
TRANSPORTATION	x	
VP TRANSPORTATION	x	
VP ENGINEERING	x	
MARKETING	x	

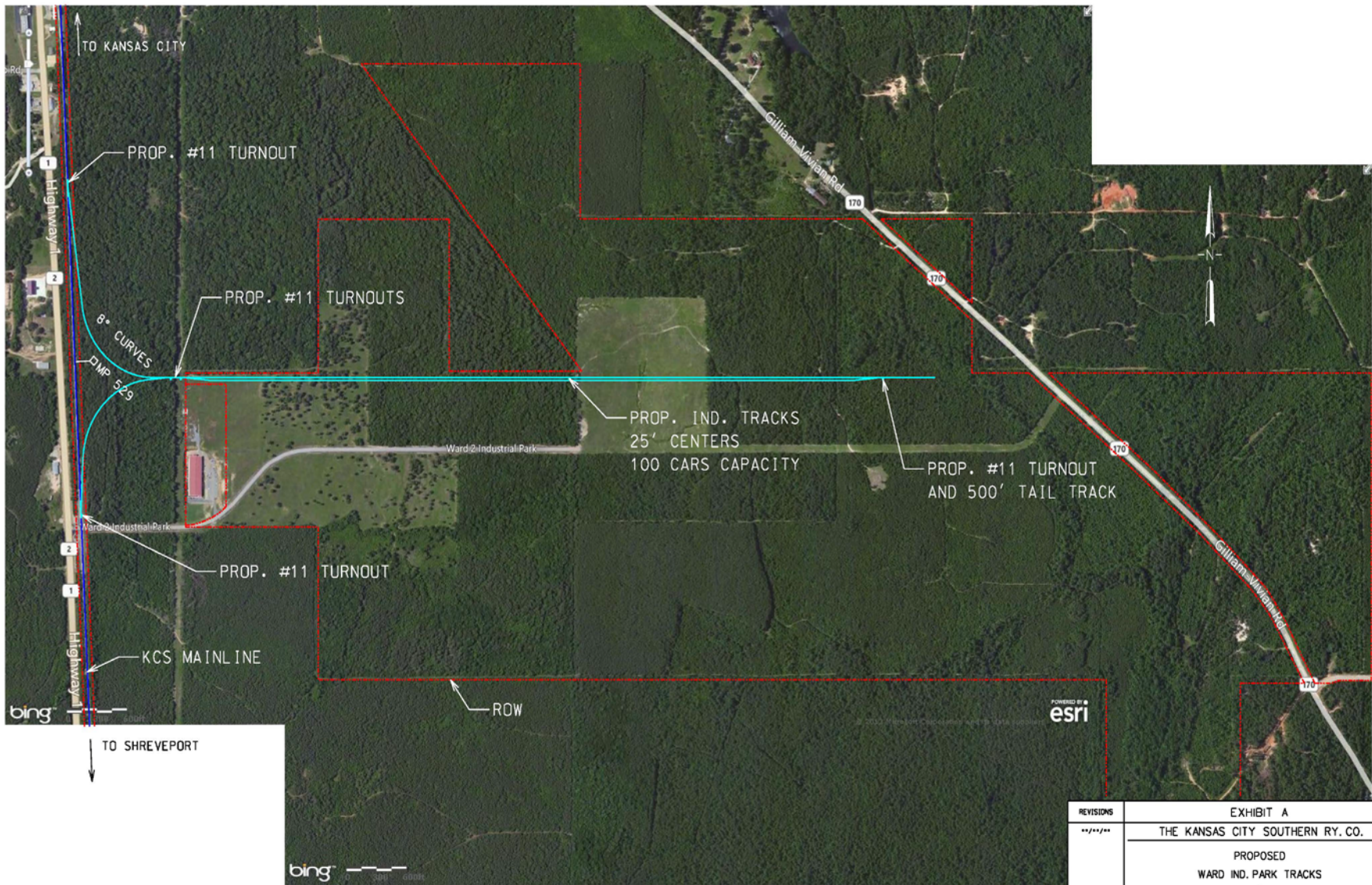
**CONCEPTUAL
(NOT FOR CONSTRUCTION)**


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REVISIONS	EXHIBIT A			
1-1-1	THE KANSAS CITY SOUTHERN RAILWAY CO.			
	INDUSTRY TRACK AGREEMENT			
	IFS			
	TRACK #733 ZONE 4			
	WHITE ROCK BRANCH			
	GARLAND, TX			
	DRAWN BY	DATE	VAL. SEC.	SHEET NO.
	RED	11/21/2003		1 of 1
	CHECKED BY	CADD MAP	FILE	DRAWING NO.
				524

Proposed rail service at greenfield site – Good example





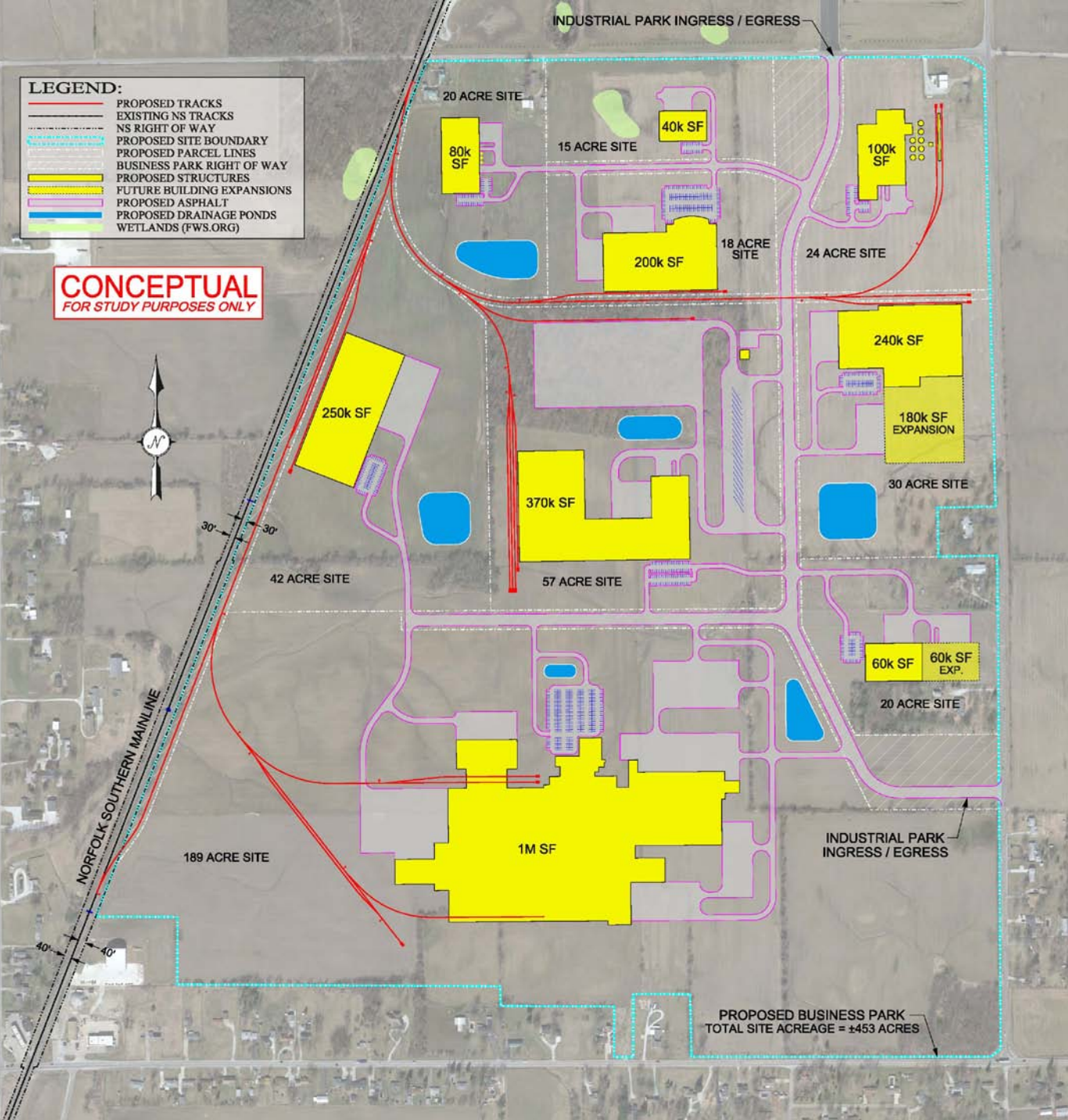
REVISIONS	EXHIBIT A			
//**	THE KANSAS CITY SOUTHERN RY. CO.			
	PROPOSED			
	WARD IND. PARK TRACKS			
	MP 529			
	VIVIAN			
	LOUISIANA			
	 DRAWN BY RED	DATE 4/20/2012	VAL. SEC. N/A	SHEET NO. 1 OF 1
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Proposed rail service at greenfield site – Good example

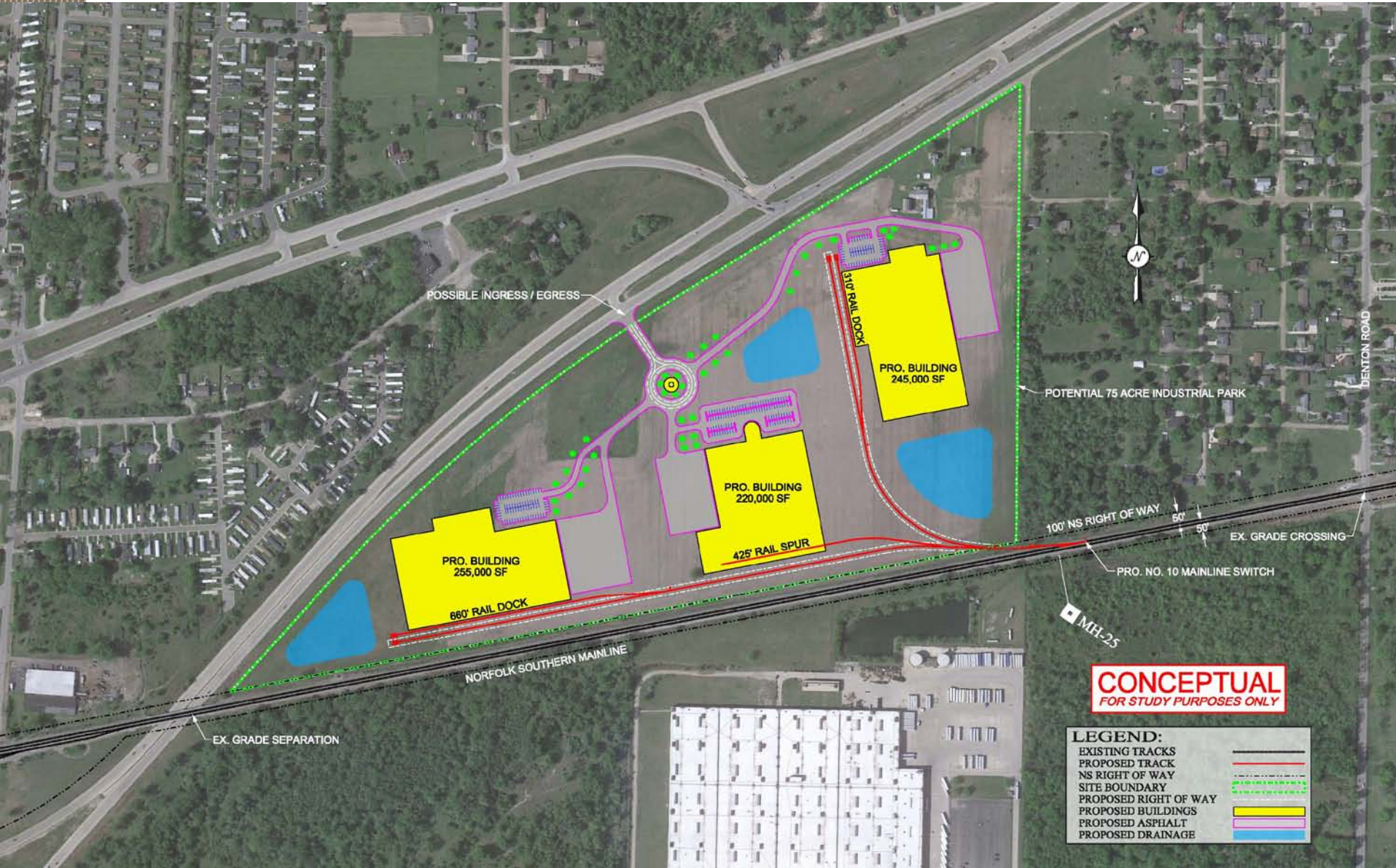
Proposed rail service to greenfield site – Good example

- LEGEND:**
- PROPOSED TRACKS
 - EXISTING NS TRACKS
 - NS RIGHT OF WAY
 - PROPOSED SITE BOUNDARY
 - PROPOSED PARCEL LINES
 - BUSINESS PARK RIGHT OF WAY
 - PROPOSED STRUCTURES
 - FUTURE BUILDING EXPANSIONS
 - PROPOSED ASPHALT
 - PROPOSED DRAINAGE PONDS
 - WETLANDS (FWS.ORG)

CONCEPTUAL
FOR STUDY PURPOSES ONLY



Proposed rail to greenfield site – Good example



Proposed rail to greenfield site – Good example



Proposed rail to
greenfield site –
Good or
challenging
example

LEGEND:
PROPOSED TRACKS ————
EXISTING TRACKS - - - - -
NS RIGHT OF WAY - - - - -

8+39 END AWF TRACK
EARTHBOUND

8+03 PT

680' (10 - 65' CARS)
12° CURVE

1+11 PC 12°
1+59 15' CP

0+00 AWF TRACK
PS#10 RHTO

42'

NORFOLK SOUTHERN MAINLINE

180' NS RIGHT OF WAY



CONCEPTUAL
FOR STUDY PURPOSES ONLY





NORFOLK SOUTHERN MAINLINE

55'

5+81 END TRACK 1
3+33 END TRACK 2

EARTHMOUND

TRACK CAPACITIES:
2-65' CARS PER TRACK

EXISTING BUILDING
30,000 SQ FT

2+48 PT
PS#8 LHTO
0+00 BEGIN TRACK 2

1+11 PC 12°

3539+14 PS#10 LHTO
0+00 BEGIN TRACK 1



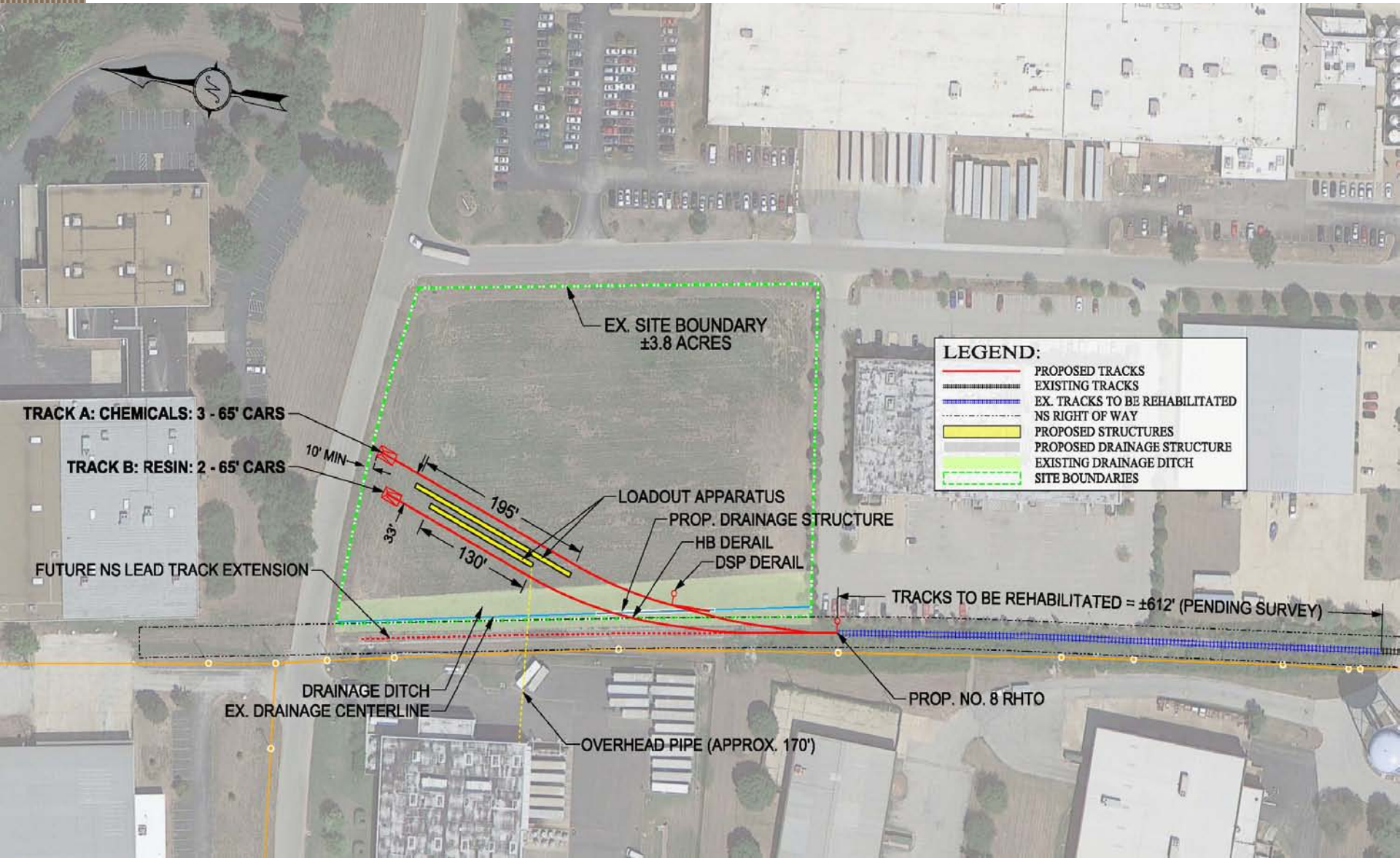
LEGEND:

PROPOSED TRACKS	
EXISTING TRACKS	
NS RIGHT OF WAY	
SITE BOUNDARIES	

CONCEPTUAL
FOR STUDY PURPOSES ONLY

**Proposed rail to non-rail-served building—
Challenging example**

Proposed rail to greenfield– Challenging example





No Matter How Good A Site Looks...

You've Got To Get The Big Picture.





Getting Rail Service to Your Site

What's Involved in Getting Rail Service?

- **Type of rail line**
- **Engineering feasibility**
- **Cost feasibility**
- **Timing**
- **Financial and technical resources for assistance**



Advice for Economic Developers

What Do You Need to Know?

- How to confirm who your rail service provider is (hint: check the signal bungalow)
- Get the rail providers involved early and often
- Rail service can be the most restrictive factor in developing an industrial site

Your Missouri Railroad Contacts

- *Kevin McIntosh – Kansas City Southern*
KMcIntosh@KCSouthern.com
- *Barb Moore – Union Pacific*
BarbMoore@UP.com
- *John Rider – BNSF Railway*
John.Rider@BNSF.com
- *Jake Weir – Norfolk Southern*
Jacob.Weir@NSCorp.com



Thank you!