



# Railroad Issues

## Presentation to City Council

St. Louis Park

December 13, 2010



*Experience LIFE in the Park.*

# Purpose of Study

- Evaluate existing railroad operations
- Evaluate 3 on going freight rail studies
- Evaluate freight rail impacts to SW LRT

# PRESENTATION OUTLINE

- Railroad Regulation
- Railroad Safety
- Railroad Right of Way
- Existing Train Operations
- Environmental Process
- SW LRT
- Alternatives
- Next Steps

# PRESENTATION OUTLINE

- **Railroad Regulation**
- Railroad Safety
- Railroad Right of Way
- Existing Train Operations
- Environmental Process
- SW LRT
- Alternatives
- Next Steps

# Railroad Regulation

- What rules to railroads follow?
- What role does the City have in railroad operations?

# Railroad Regulation

- Sources of Information
  - Railroads and Cities (League of Minnesota Cities, May 2004, Document 465.1)
  - Federal Railroad Administration (FRA)
    - ([www.fra.dot.gov](http://www.fra.dot.gov))
  - Surface Transportation Board (STB)
    - ([www.stb.dot.gov](http://www.stb.dot.gov))
  - Minnesota Dept of Transportation (MnDOT)
    - ([www.dot.state.mn.us/ofrw](http://www.dot.state.mn.us/ofrw))

# Railroad Regulation

- **Railroad Companies** (in St Louis Park)
  - Canadian Pacific Railway
  - Twin Cities & Western Railroad
  - BNSF Railway

# Railroad Regulation

- Railroads
  - Private owned Companies
  - Provide interstate shipping services
  - Follow Federal rules and regulations

# Railroad Regulation

- Federal Railroad Administration (FRA)
  - Regulates rail safety in five disciplines, including tracks, signal and train control, operating practices, mechanical equipment, and hazardous materials. FRA rules determine track speed.
  - Oversees railroad compliance of more than 2,000 regulations by conducting routine and targeted inspections, audits and special assessments of railroad operations.

# Railroad Regulation

- Surface Transportation Board (STB)
  - Regulates interstate shipments of freight.
  - Resolves freight rate and rail service disputes.
  - Authorizes track abandonments.
  - Authorizes construction of new lines of rail except for sidings and spurs.
  - Authorizes mergers and creation of railroad companies.

# Railroad Regulation

- **Minnesota Department of Transportation (MNDOT)**
  - Has the authority to order closure, vacation, relocation, consolidation, or separation of public at-grade crossings.
  - Determines appropriate warning devices at grade crossing.
  - Responsible for developing the Minnesota Comprehensive Statewide Freight and Passenger Rail Plan (“State Rail Plan”)
  - Administers the Railroad–Highway Grade Crossing Safety Improvement

# Railroad Regulation

- **City**
  - Influence decisions
  - Negotiate with Railroads
  - Advocate to solve safety issues
  - Apply for money to solve safety issues
  - Adverse abandonment process

# PRESENTATION OUTLINE

- Railroad Regulation
- **Railroad Safety**
- Railroad Right of Way
- Existing Train Operations
- Environmental Process
- SW LRT
- Alternatives
- Next Steps

# Railroad Safety

- Track
- Grade Crossings
- Train Operations

# Railroad Safety

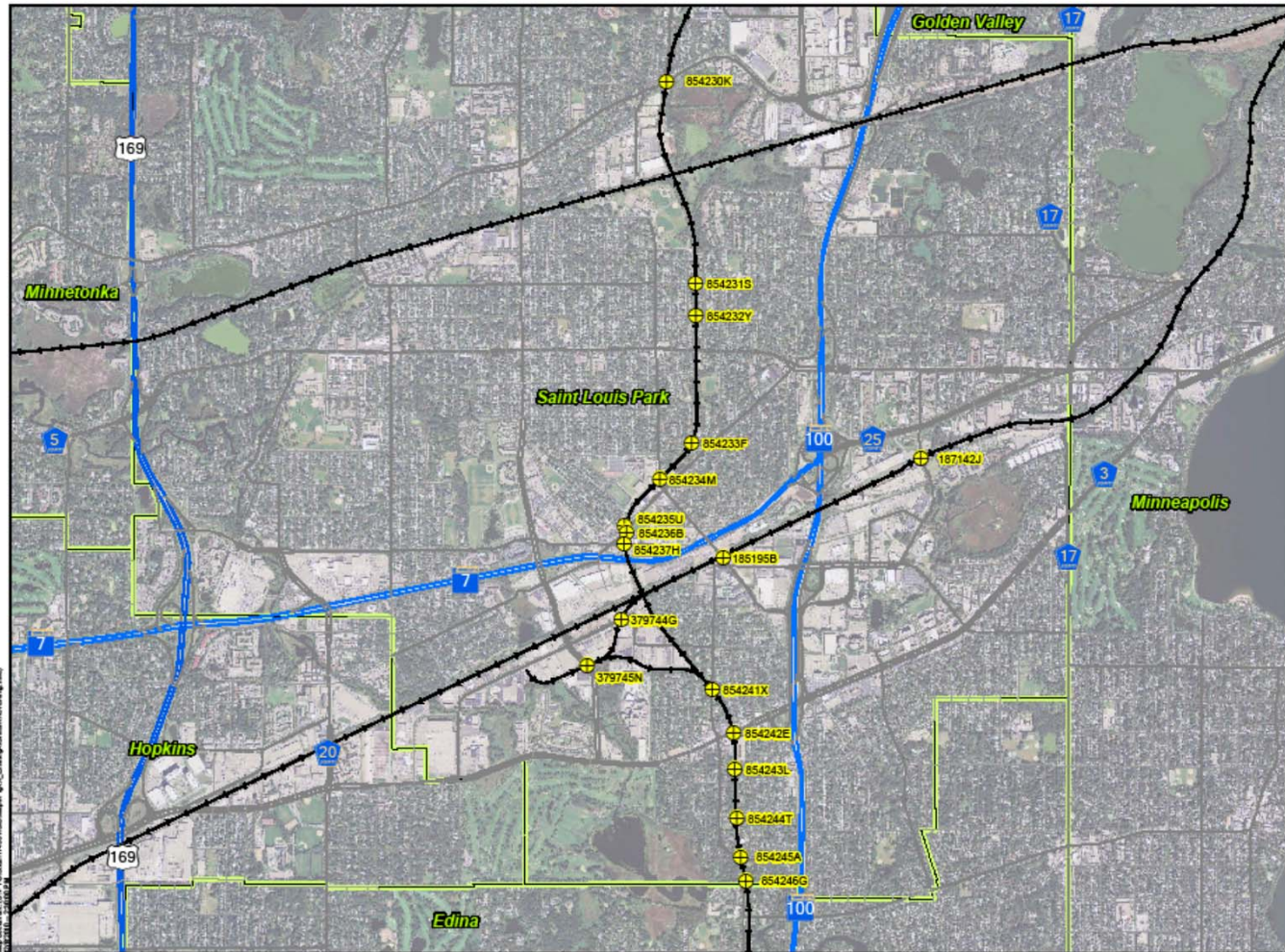
- **Track**
- Track Structure: Rails, crossties, track switches, tie plates, and rail fastening systems
- Track Geometry: Track gage, alignment, elevation, curvature, and track surface
- Road Bed: Drainage and vegetation (vegetation cannot obstruct signs and signals)



# Railroad Safety

- **Grade Crossings**
  - Warning devices
    - Crossbucks
    - Crossbucks & Stop Signs
    - Railroad Signals
    - Railroad Signals with Gates
  - Pedestrians
  - Quiet Zones





**Legend**

- Railroad Crossing
- Railroads
- Municipal Boundaries
- Interstate Highway
- US Trunk Highway
- Minnesota Trunk Highway
- County State Aid Highway
- Municipal State Aid Street
- County Road
- Township Road
- Municipal Street
- Ramp

0 1,000 2,000 4,000 Feet

This map is neither a legally recorded map nor an address map and is not intended to be used as one. This map is a compilation of records, photographs, and data gathered from various sources that is intended to be used for reference purposes only. SEH does not warrant the accuracy, completeness, or timeliness of the information shown on this map. The user assumes all liability for any errors or omissions on this map. No responsibility is assumed by SEH for any errors or omissions on this map. The user assumes all liability for any errors or omissions on this map. The user assumes all liability for any errors or omissions on this map.

Map Source: Esri, DigitalGlobe, GeoEye, IGN, AerGRID, AIRPHOTO, USDA, CNR, Bing Maps, Microsoft, Swire, GEBCO, DELTA, GeoEye, IGN, AerGRID, AIRPHOTO, USDA, CNR, Bing Maps, Microsoft, Swire, GEBCO, DE

	3835 VANDER CENTER DR. ST. PAUL, MN 55119 PHONE: 651-492-2000 FAX: 651-492-2100 WWW: 651-492-2000 www.seh.com	Project: STLOU 114331 Print Date: 11/10/2010
	Map by: SEH Project: Hennepin County WAC99 & Douglas, MN/CO, MN/PA, MN/CO City of St. Louis Park, and SEH Inc.	

## RAILROAD FREIGHT RELOCATION STUDY

### Saint Louis Park, Minnesota

<p><b>Existing At Grade RR Crossing</b></p>
---

# Railroad Safety

- **Train Operations**
  - Track signals
  - Dispatching
  - Speed
  - Train length
  - Hours of Service
  - Rail car maintenance
  - Training



# PRESENTATION OUTLINE

- Railroad Regulation
- Railroad Safety
- **Railroad Right of Way**
- Existing Train Operations
- Environmental Process
- SW LRT
- Alternatives
- Next Steps

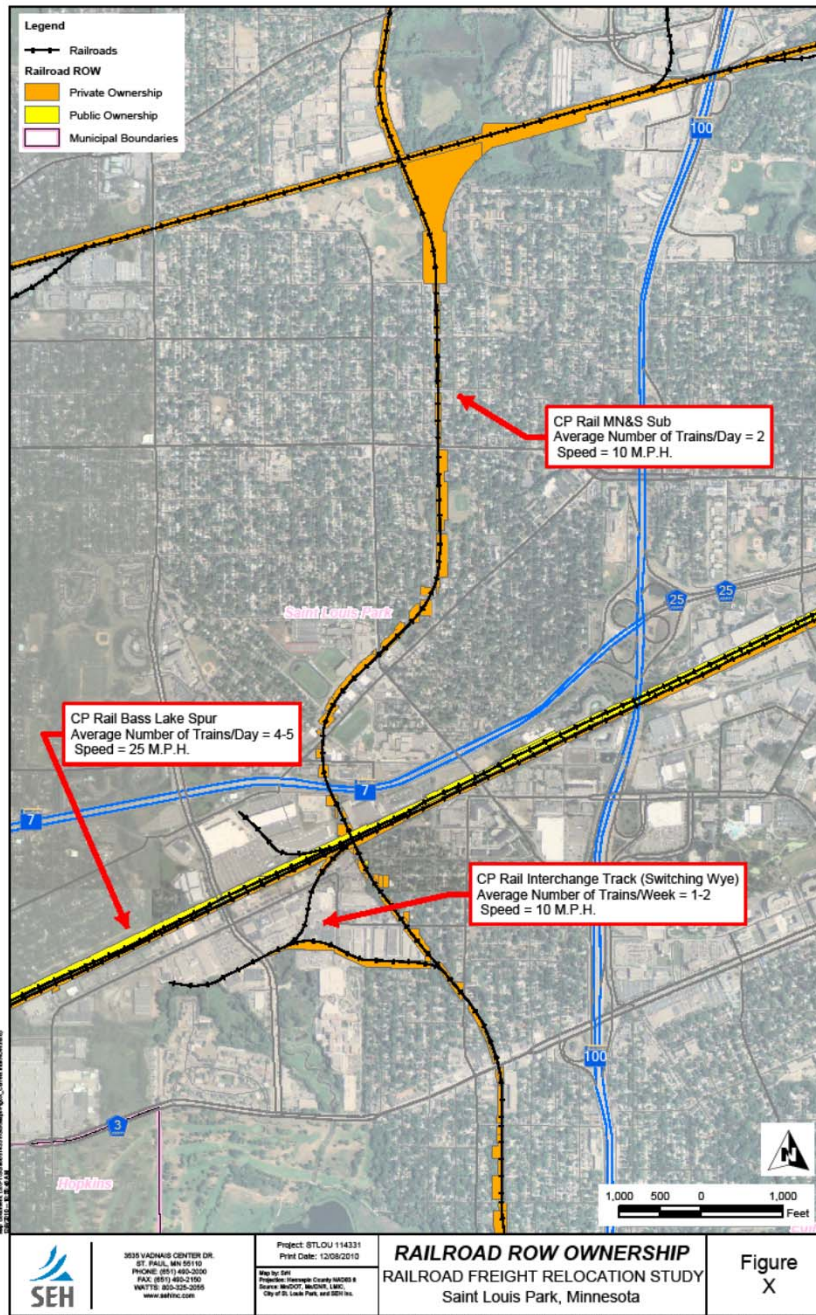
# Railroad Right of Way

- **Width**

- Typical is 100' but could vary between 20' and 300'
- Statutory horizontal clearance is 8' 6".
  - Buffer zone for safety
  - FRA 25' rule
- Statutory vertical clearance is 22' over tracks.
  - FHWA design clearance is 23'
  - Railroad prefer 24' to 25'.

# Railroad Right of Way

- Vertical clearance for roadway under tracks
  - MnDOT standard is 16' 4"
  - Local roadways is 14' 6"



# PRESENTATION OUTLINE

- Railroad Regulation
- Railroad Safety
- Railroad Right of Way
- **Existing Train Operations**
- Environmental Process
- SW LRT
- Alternatives
- Next Steps

# Existing Train Operations

- MN&S Corridor
  - North
    - 2 trains per day, normally 5 days per week
  - South
    - 2 trains per day, normally 5 days per week
- Bass Lake Line
  - East
    - 4 to 5 trains per day, 6 days per week
  - West
    - 4 to 5 trains per day, 6 days per week

# Existing Train Operations

- MN&S wye track
  - 1-2 trains per week
  - 2-6 trains per day if trains are going to Savage or Minneapolis
- BNSF Railway
  - 15 trains per day, 7 days per week

# Existing Train Operations

- Train Volume Variations
  - Seasonal
  - Economy
  - Change in commodity mix
  - Change in origin/ destination

# Existing Train Operations

Year	Wooddale Ave (397741L & 185195B)*	Lake Street ( 854236B)
Track	Bass Lake/ CNW	MN&S
1970	10 + 6	10
1980	10 + 6	10
1990	12 + 6	10
2000	6 + 0	4
2010	6 + 0	3

- Source: FRA crossing database
- \*CP RR + CNW RR Each had a separate track across the crossing

# PRESENTATION OUTLINE

- Railroad Regulation
- Railroad Safety
- Railroad Right of Way
- Existing Train Operations
- **Environmental Process**
- SW LRT
- Alternatives
- Next Steps

# Environmental Process

- Federal
  - Federal Funds
  - Federal Permits
    - Corps of Engineers
    - EPA
  - Review Authority
- State
  - Threshold levels

# PRESENTATION OUTLINE

- Railroad Regulation
- Railroad Safety
- Railroad Right of Way
- Existing Train Operations
- Environmental Process
- **SW LRT**
- Alternatives
- Next Steps

# SW LRT

- Locally Preferred Alternative

# SW LRT

- **Freight Railroad Issues**

- Assumed Freight Rail to be relocated out of Kenilworth Corridor
- HCRRA agreement with CP RR/TC&W RR
  - Moved freight operations from Midtown Corridor to Kenilworth/BNSF Corridor
  - HCRRA responsible to maintain a safe, economical and efficient corridor for CP RR/TC&W RR operations

# PRESENTATION OUTLINE

- Railroad Regulation
- Railroad Safety
- Railroad Right of Way
- Existing Train Operations
- Environmental Process
- SW LRT
- **Alternatives**
- Next Steps

# Alternatives

- 1999 Freight Study
- 2009 Freight Rail Study
- 2010 Evaluation of TC&W RR Routing Alternatives
- Kenilworth Corridor Freight Rail/LRT Coexistence Study
- MN&S Freight Relocation Study

# Alternatives

- **TC&W RR Routing Alternatives**

Route Alternatives		Western MN Connection	Chaska Cut-Off	Midtown Corridor	Hwy 169 Connector
Description		Reroute all TC&W traffic west through Granite Falls on the BNSF	Reroutes traffic thru Chaska on the Union Pacific Railroad	Reestablish freight traffic in the 29 <sup>th</sup> Street corridor	Reestablish freight traffic on BNSF abandon track from Hopkins to St Louis Park
Cost (millions)	Construction Right of way Total		\$100.4 \$9.8 \$129.8	\$192.8 \$2.8 \$195.6	\$73.6 \$38.0 \$121.6
Positive		Current RR alignments	Bypass of St Louis Park New customers in Chaska	Acceptable Railroad Grade	Bypass of St Louis Park
Negative		Complete change in TC&W traffic pattern Acquiring trackage rights from BNSF	New Minnesota River crossing Profile grade issues Acquisition of 25 housing units Acquiring trackage rights from UP RR	Conflicts with Midtown transit options Bridge clearance issues Track conditions east of River	Acquisition of 131 housing units Acquiring trackage rights from BNSF
Additional Information needed		Does a rate subsidy make sense? Additional cost information	Additional cost information	Additional cost information	Additional cost information
Comments		Additional information on traffic patterns and costs	Not viable	Not viable	Not viable

# Alternatives

- **Kenilworth Corridor**

Route Alternatives		Scenario 1	Scenario 2	Scenario 3	Scenario 4
Description		Freight Rail, SW LRT and trail all in same corridor	Freight Rail and SWLRT in same corridor; trail relocated	Trail above SW LRT and freight rail	SW LRT above freight rail and trail
Cost (millions)	Construction	\$30-38	\$43-55		
	Right of way	\$21	\$65		
	Total	\$51-59	\$109-120	\$71-88	\$112-139
Positive		-Minimum Disruption to TC&W RR	-Minimum Disruption to TC&W RR	-Minimum Disruption to TC&W RR -No additional RofW is needed	-Minimum Disruption to TC&W RR -No additional RofW is needed
Negative		-Acquisition of 33 to 57 housing units -Complicates station areas -Parkland impacts -No grade separation at Cedar Lake Parkway -Additional LRT bridge	-Acquisition of 117 housing units -Major disruption to trail system -Complicates station areas -Parkland impacts -No grade separation at Cedar Lake Parkway -Additional LRT bridge	-No grade separation at Cedar Lake Parkway -Complicates station areas -No grade separation at Cedar Lake Parkway -Isolated trail	-No grade separation at Cedar Lake Parkway -Complicates station areas -No grade separation at Cedar Lake Parkway -Expensive
Additional Information needed		-Detailed cost estimates	-Detailed cost estimates	-Detailed cost estimates	-Detailed cost estimates
Comments		-Assumes LRT was fixed alignment -Freight track on west side - Additional study needed if LRT alignment can be adjusted	-Assumes LRT was fixed alignment -Freight track on east side - Additional study needed if LRT alignment can be adjusted	-Not viable	-Freight track on west side -Not viable

# Alternatives

- **Kenilworth Corridor**

Route Alternatives		Scenario 5	Scenario 6	Scenario 7
Description		SW LRT in tunnel; Freight rail and trail on grade	Freight rail and SW LRT share track and trail	SW LRT on one track; Freight Rail on one track and trail
Cost (millions)	Construction Right of way Total	\$203-230	\$35-43	\$31-38
Positive		-Minimum Disruption to TC&W RR	-No property acquisition -No additional RofW is needed	-Minimum Disruption to TC&W RR -No additional RofW is needed
Negative		-No grade separation at Cedar Lake Parkway -Complicates station areas -Ground water issues -Very expensive	-No grade separation at Cedar Lake Parkway -Complicates station areas -Additional LRT bridge -Major disruption to TC&W schedule	-No grade separation at Cedar Lake Parkway -Complicates station areas - Additional LRT bridge -Major impact to LRT capacity/operations
Additional Information needed		-Detailed cost estimates	-Detailed cost estimates	-Detailed cost estimates
Comments		-Freight track on west side -Not viable	-Freight track on west side -Freight trains allow for 3 hours/day in early morning -Not viable	-Freight track on west side -Not viable

# Alternatives

- **MN&S Study**
  - Study not complete to evaluate

# PRESENTATION OUTLINE

- Railroad Regulation
- Railroad Safety
- Railroad Right of Way
- Environmental Process
- SW LRT
- Alternatives
- **Next Steps**

# Next Steps

- **Current Studies**

- Reduce number of Alternatives
- More detailed engineering on alternatives
- Kenilworth Corridor
  - Right of Way issues
  - Trail relocation options
  - Parkland (4f) issues
- Freight rate subsidy to TC&W RR to operate longer routes
- MN&S Alternative

# Next Steps

- **LRT Design**
  - Station Design
  - Redevelopment Issues around the stations
  - Roadway impacts
- **Other Issues**
  - Engage other stakeholders
    - Adjoining Cities and local agencies
    - System Users
  - Redevelopment

# Thank You

David McKenzie, P.E.

Short Elliot Hendrickson, Inc

[dmckenzie@sehinc.com](mailto:dmckenzie@sehinc.com)