

**CITY OF SHOREVIEW
AGENDA
CITY COUNCIL WORKSHOP
FEBRUARY 10, 2014
7:00 P.M.**

1. ROLL CALL
2. PRESENTATION BY RAMSEY COUNTY—CULTIVATING ECONOMIC PROSPERITY
3. DISCUSSION REGARDING TRANSIT IN RAMSEY COUNTY
4. REVIEW OF DRAFT RAIL QUIET ZONE STUDY
5. OTHER ISSUES
6. ADJOURNMENT

TO: MAYOR AND COUNCILMEMBERS

**FROM: TERRY SCHWERM
CITY MANAGER**

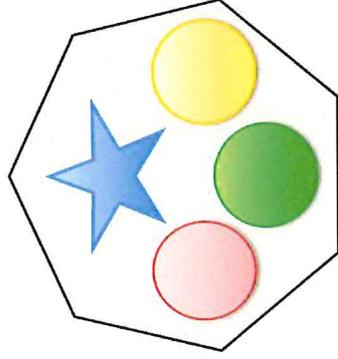
DATE: FEBRUARY 7, 2014

SUBJECT: PRESENTATION BY RAMSEY COUNTY—CULTIVATING ECONOMIC PROSPERITY

Ramsey County has requested an opportunity to present information to the City Council on the County's newest goal of "Cultivating Economic Prosperity." Ramsey County Manager Julie Kleinschmidt, Senior Policy Analyst Janet Guthrie and County Commissioner Blake Huffman will all be part of the presentation. It is designed to provide an overview of the County's upcoming plans and priorities related to combating concentrated areas of economic poverty and to focus and discuss how we can work together to solve issues that are larger than one jurisdiction. City staff believes that some of the key objectives of this new County initiative are consistent with the City's recent economic development efforts and our Business Retention and Expansion Program.

Attached is a copy of the power point presentation that will be used during the County presentation.

Building Our Future



Cultivating Economic Prosperity. Combating Concentrated Areas of Financial Poverty.

Shoreview City Council

February 10, 2014



Previewing the Four Key Policy Themes

Our People are our Future.

Intensity of Land Use Matters.

New Partnerships can Drive Change.

Build on the Existing Foundation.



Why We Are Here Today

- **January 22:** Ramsey County Board adopted County goals for 2014 - 2015 to guide the budget development process.
- **New Goal Added:** Cultivate Economic Prosperity and Combat Areas of Financial Poverty.
- **Ongoing Work:** Staff have been gathering relevant data, developing a framework through which to view the goal, and identifying key policy themes requiring further attention.

“If you don’t measure the right thing, you don’t do the right thing.”
– Joseph Stiglitz (*Nobel Laureate - economics*)



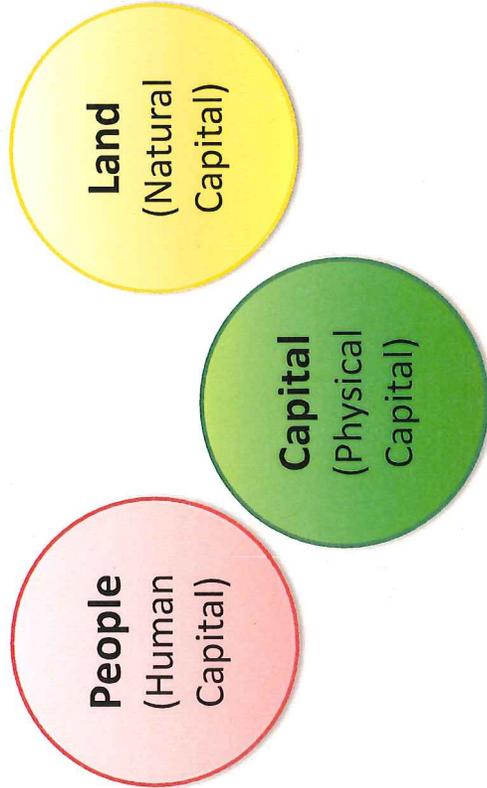
Approaching Economic Prosperity Work

- Economic prosperity work is **multijurisdictional**.
 - It must incorporate regional, county, city and neighborhood levels of analysis and planned actions. *Success requires consistent data, complimentary visions and collaborative efforts.*
- Economic prosperity work is **multifaceted**.
 - It must incorporate data measures and strategies that address different issue areas and audiences. *Success requires the creation of a general policy and thought framework that can be effectively applied to a variety of specific situations and circumstances.*
- The **creation of a conceptual model** can assist in this work.
 - Ramsey County, the Region, its cities, neighborhoods, community partners and citizens can better understand and effectively unify efforts that are intended to make progress toward greater economic prosperity.



An Indicator of Economic Prosperity

Wealth is defined as the assets available to use as the basis for current and future consumption and investment



In this section we will use **people, land,** and **capital** to describe the concepts of wealth generation.

Why is Wealth Important?

- Serves as an indicator of the **current strength** of a jurisdiction.
- Greater wealth—when spread across all three circles—indicates **greater resiliency and potential for future growth.**
- Understanding the types of wealth contributes to preemptively **addressing areas of risk.**



Analyzing Wealth Measures

Questions to consider when examining data about people, land and capital

Assess Available Assets

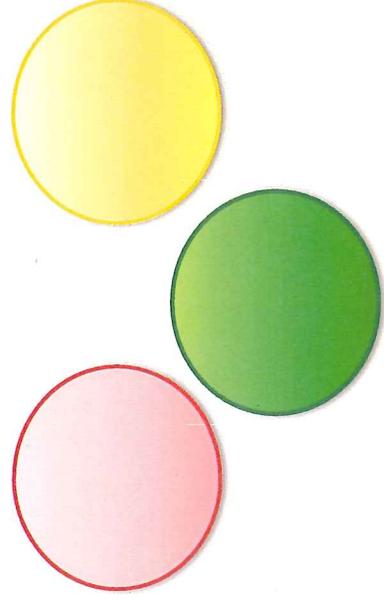
1. What is generating or could generate short and long term stability and growth?
2. In what areas is the county already a leader?
3. Where is more investment currently needed?
4. What growth strategies could build upon the county's available assets?

Monitor Specific Trends of Interest

7. Is the county currently over reliant on a particular wealth circle for growth?
8. Is the county becoming more or less similar to the rest of the Region?
9. What trends suggest future success or trouble?

Recognize Inherent Limitations

5. What aspects of wealth are outside the realm of county influence?
6. What limitations are unique to the county that do not impact the rest of the Region?



A Closer Look at

People

within Ramsey County

Future economic growth requires an educated, trained and available workforce.

County	Population
Anoka	333,140
Carver	92,638
Dakota	402,006
Hennepin	1,168,431
Scott	132,556
Washington	241,280
Ramsey	514,696
Metro Area TOTAL	2,884,747
Ramsey as % of Metro	17.8 %

Source: US Census 2011 American Community Survey

Ramsey County is the second most populous county in the Region with more than half a million residents.

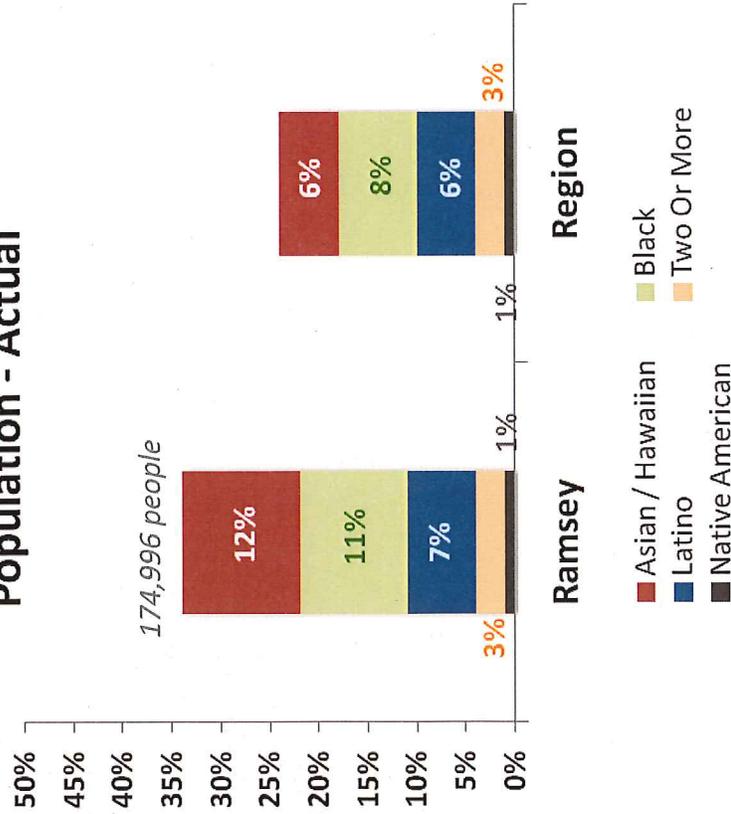


A Closer Look at

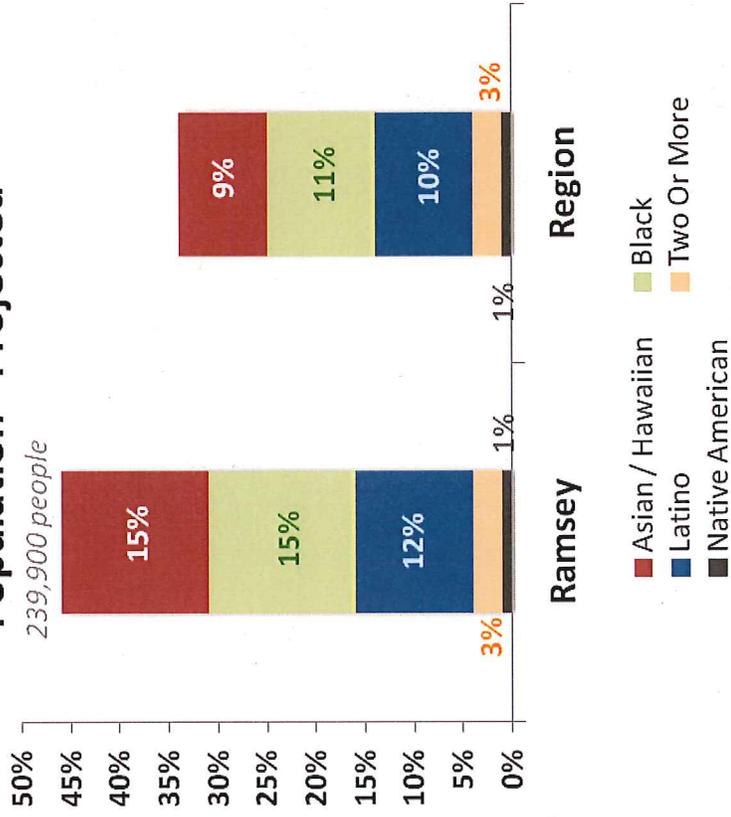
People

within Ramsey County

2010 Percent of Total Population - Actual



2030 Percent of Total Population - Projected



Census 2010 and Minnesota Population Projections by Race and Hispanic Origin, 2005 to 2035.

Ramsey County is and will remain significantly more diverse than the Region, meaning that any ongoing, race-based disparities will have a greater impact.



A Closer Look at

Land

within Ramsey County

Available land is a key wealth generation factor and a predictor of future development and economic growth

County	Land Area (acres)
Anoka	269,543
Carver	226,390
Dakota	362,296
Hennepin	353,334
Scott	224,663
Washington	244,980
Ramsey	98,410
Metro Area TOTAL	1,779,618
Ramsey as % of Metro Area	5.5 %

Metropolitan Council 2010 Land Use Data

Ramsey County is less than 100,000 acres in size and contains 5.5% of the total land area in the Region.



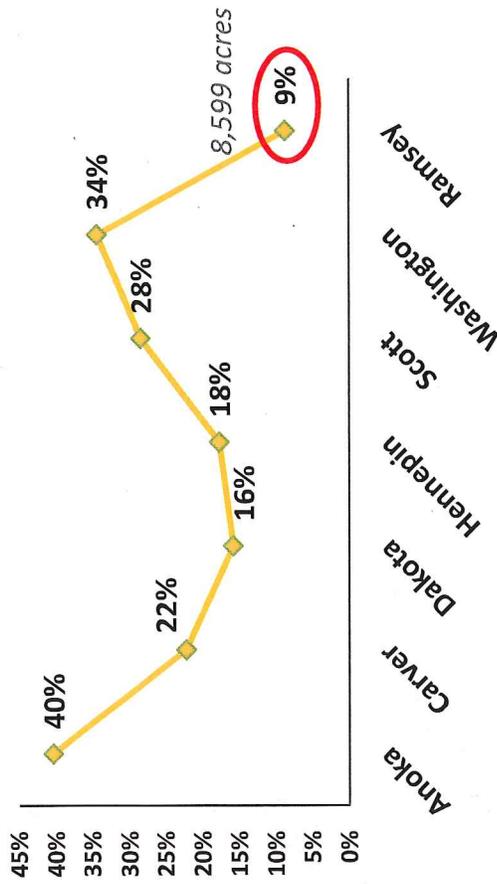
A Closer Look at

Land

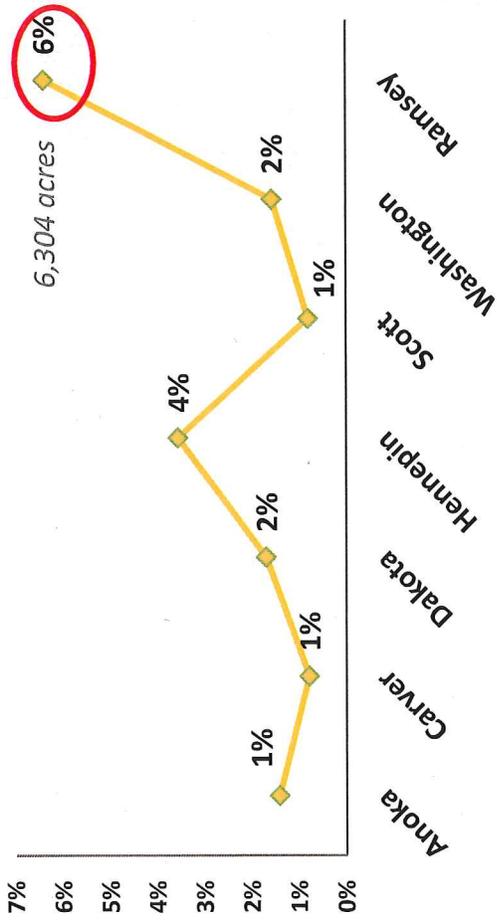
within Ramsey County

Undeveloped land offers an easy source for future economic growth; Institutional land is already developed and non-taxable

Percent Undeveloped Land



Percent Institutional Land



6,304 acres

Metropolitan Council 2010 Land Use Data

“State Capitol Communities” often have higher proportions of institutional land use. And when combined with little undeveloped land, **every development and redevelopment opportunity** in the County and its partner cities is significant.



A Closer Look at

Land

within Ramsey County

A diversified and balanced mix of uses is important for economic growth and sustainability within a community.

Percent Dedicated to Select Land Uses

County	Institutional Commercial & Industrial		
	Residential	& Parks	Industrial
Anoka	24.8	15.6	3.8
Carver	7.1	6.6	1.2
Dakota	15.7	9.0	4.2
Hennepin	37.4	16.1	8.2
Scott	10.9	8.9	2.4
Washington	20.7	10.9	2.7
Ramsey	48.2	21.3	13.7
Metro Area AVERAGE	22.2	12.0	4.6
Difference from Average	+ 26.0	+ 9.3	+ 9.1

Metropolitan Council 2010 Land Use Data

Finding the Right Mix

Development Type	Expenditures per \$1.00 of Revenue
Residential	\$1.06 - \$1.15
Commercial	\$0.77 - \$0.94
Industrial	\$0.60 - \$0.69

Saint Paul Port Authority, An Industrial Strategy for the City of Saint Paul, 2012

The County is also **disproportionately residential**. When coupled with being a “State Capitol Community”, the spread between residential and commercial/industrial becomes even more significant and presents future opportunities.



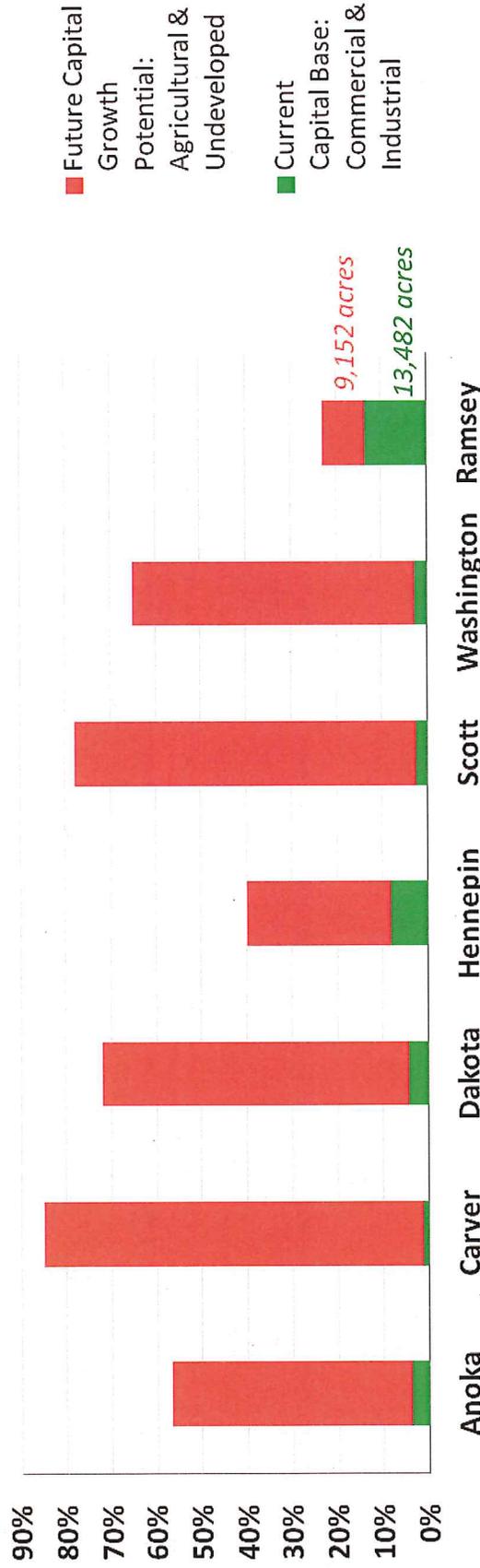
A Closer Look at



within Ramsey County

Assessing the current and future capital land base provides a measure of capital growth potential

Percent of Total Land Available for Current and Future Capital Use



Metropolitan Council 2010 Land Use Data

Ramsey County has the lowest proportion of undeveloped land to use for future capital expansion, meaning that the **intensity of use on that available land matters** more than in any other county within the Region.



A Closer Look at

Capital

within Ramsey County

Current employment figures are an indicator of the presence of capital from which future wealth generation can occur

County Employment Figures

	Total Employment	Employment Per Square Mile
Anoka	107,456	254.0
Carver	32,831	92.7
Dakota	170,470	303.3
Hennepin	822,641	1,484.9
Scott	41,522	116.6
Washington	72,974	190.0
Ramsey	316,297	2,080.9

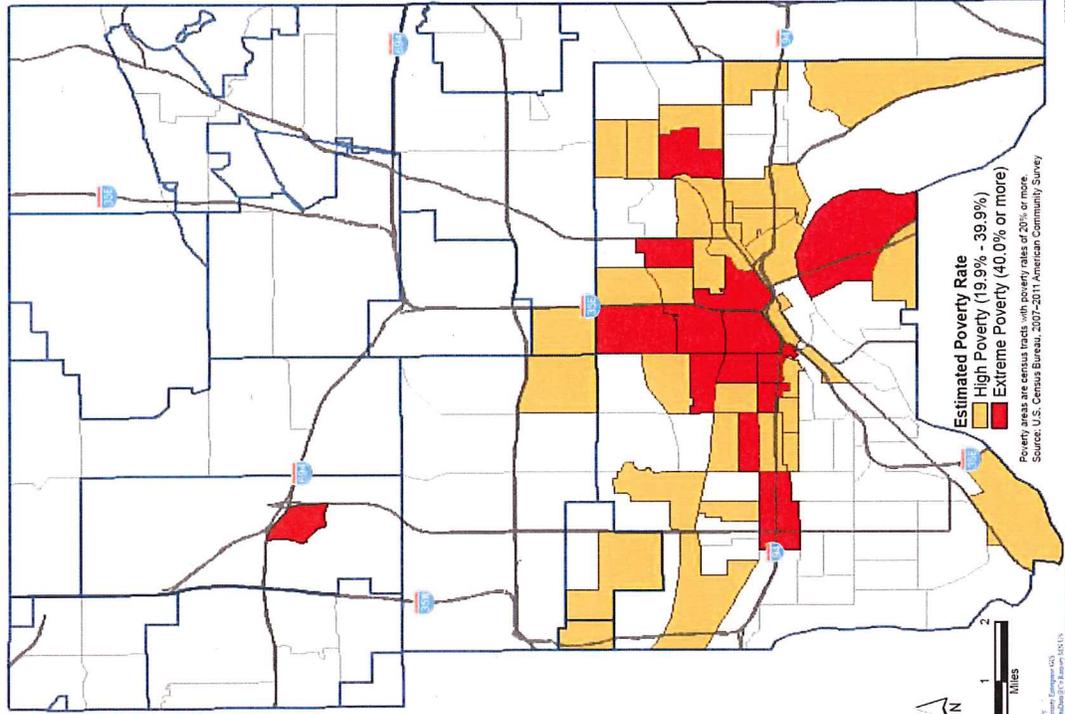
Employment and Wages-QCEW 2011

Ramsey County is one of two employment centers in the Region. This is a strength from which the County can build – if there are qualified workers and a transportation system that connects them with employment opportunities (both remain ongoing challenges).



Understanding Concentrated Areas of Financial Poverty

Ramsey County Extreme and High Poverty Census Tracts:
2007-2011



Key Definitions

- **Poverty Threshold** is a federally defined term for the amount of money that is expected to meet basic needs.
- **Concentrated Poverty** is the concept that select neighborhoods have disproportionately high poverty levels.
- **High Poverty Area** is a census tract with over 20% of its residents below the federal poverty line. Identified in **tan** on the map to the left.
- **Extreme Poverty Area** is a census tract with over 40% of its residents below the federal poverty line. Identified in **red** on the map to the left.



Understanding Concentrated Areas of Financial Poverty

Ramsey County has the **highest proportion** of census tracts in the Region identified as Concentrated Areas of Financial Poverty

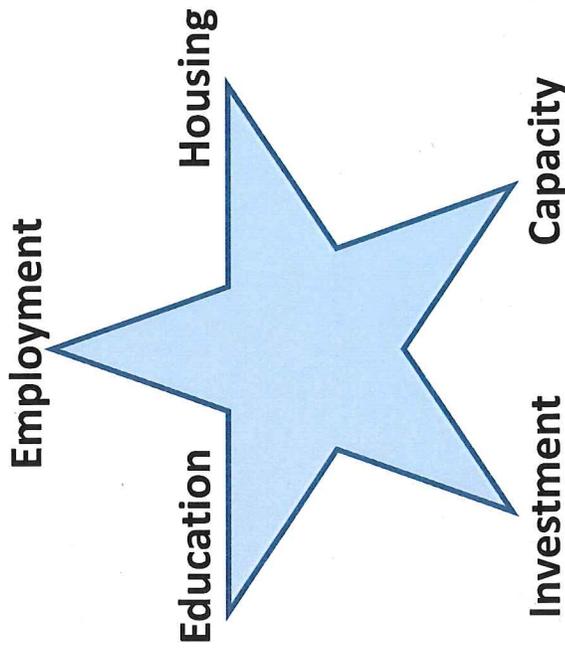
- Concentrated areas of financial poverty do not just create challenges for people living within them; the opportunity divide **impacts broader economic growth and community connectivity.**
- **Mostly within Saint Paul** but also in Ramsey County suburbs (Maplewood, Falcon Heights, Roseville & Arden Hills).
- **Hennepin County is the only other county** in the Region with concentrated areas of financial poverty (Minneapolis, Brooklyn Park, Brooklyn Center & Richfield) .

National research identifies **five neighborhood resiliency factors** that, when present, create a **web of opportunity** that enables residents to prosper, thus combating concentrated areas of financial poverty.



Prosperity Means Opportunity for Everyone

In order to successfully cultivate economic prosperity, we must ensure that everyone in our community can take advantage of opportunities to grow.



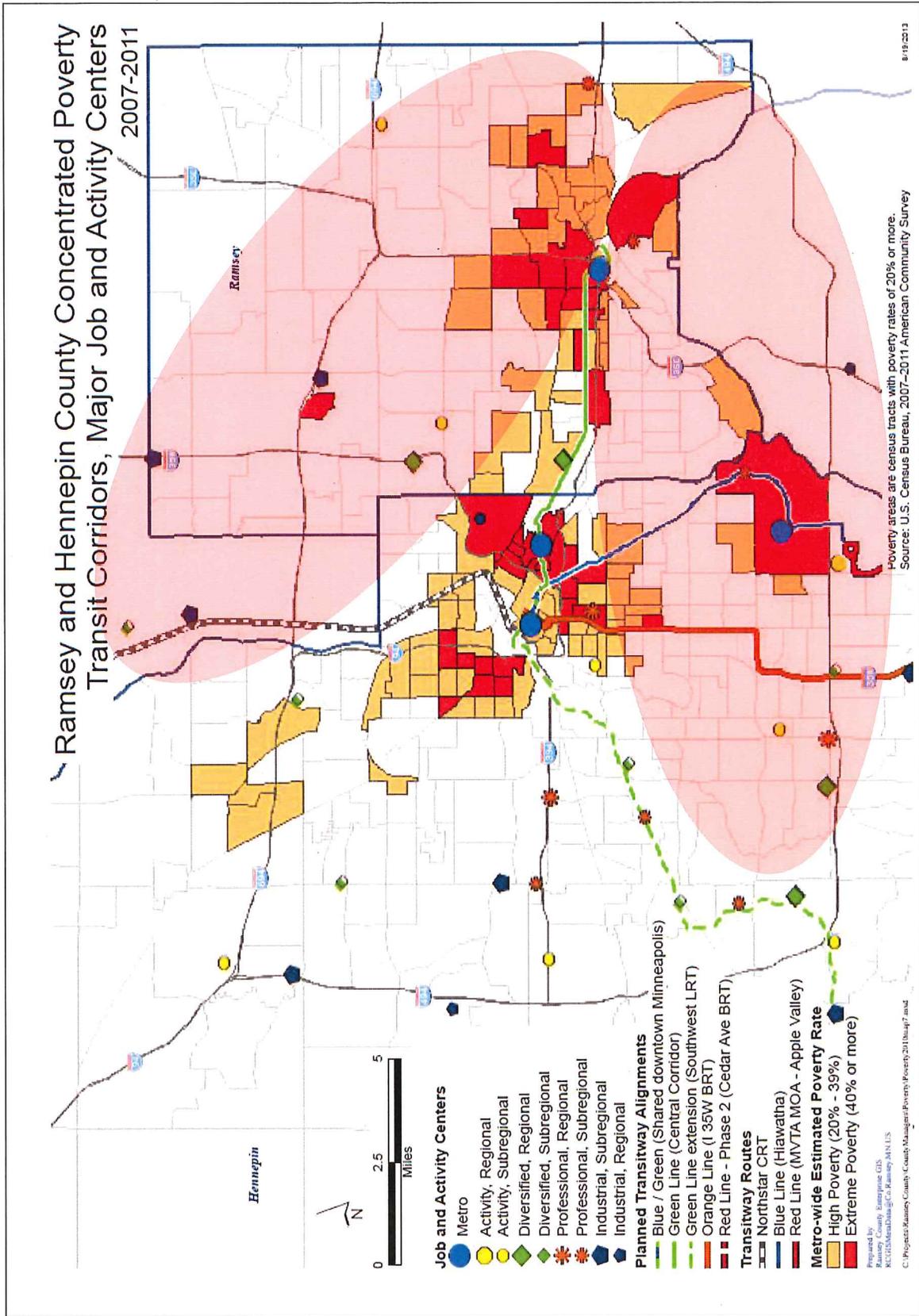
In this section we will focus on neighborhoods resiliency factors to assess the **web of opportunity**.

“Life is lived in a **web of opportunity**. Only if we address all of the mutually reinforcing constraints on opportunity can we expect to make real progress.”

- Dr. John Powell
Chair, Civil Rights & Civil Liberties - Moritz College of Law, Ohio State University



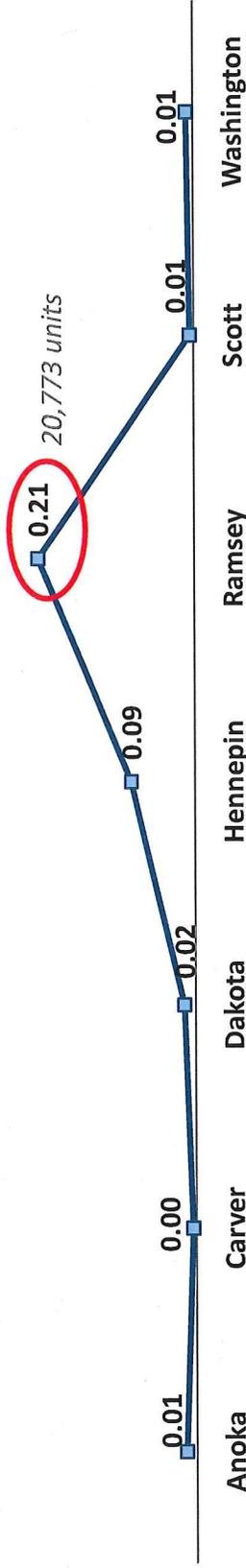
Opportunity Through Employment



Opportunity Through Housing

Affordable housing is important to resilient neighborhoods, but concentrating subsidized housing can concentrate financial poverty

Ratio of Subsidized Units (HUD + LIHTC) by Land Acres



US HUD Picture of Subsidized Housing 2010 (2010 Geography); Metro 2010 Land Use Data

Ramsey County has 32% of the Region's federally subsidized housing units. The rate of subsidized housing is approximately twice that of Hennepin County and twenty times that of the rest of the Region.

This heavy concentration of subsidized units, without similar concentrations of investments to increase the web of opportunity, has the effect of increasing financial poverty within neighborhoods.



Four Key Policy Themes

1. Our People Are Our Future

  	<p>As the most diverse community in the Region, the County will be the bellwether if there are ongoing disparities issues in race, wealth, health, education or employment. These disparities currently remain significant and are the most significant long-term risk.</p> <p>There are and will continue to be more available jobs than workers within the County, but there are short, medium and long-term educational challenges that present employment barriers for those workers unless trends are changed in coming years.</p> <p>There are neighborhoods that are disproportionately disconnected from regional job and activity centers, and it will be challenging to close the opportunity divide unless better connectivity is created.</p>
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Four Key Policy Themes

2. Intensity of Land Use Matters

  	<p>With only 5.5% of the Region’s available land, there is every incentive for the community to consider different land use strategies than the rest of the Region. Density can be a comparative strength for the community in spite of size constraints.</p>
	<p>As a built-out “State Capitol Community”, decisions about the future spread between residential and commercial/industrial becomes even more important. A rebalanced spread provides opportunities for increased employment and an expanded property tax base.</p>
	<p>The placement of future affordable housing can create greater webs of opportunity and neighborhood resiliency, but unless regional placement plans change, they are likely to further concentrate financial poverty.</p>



Four Key Policy Themes

3. New Partnerships can Drive Change

  	<p>Due to its geographic size, diversity of residents and built-out status, the County and the cities within it face challenges that are unique to the Region and present similarly unique leadership opportunities.</p> <p>Generating greater countywide prosperity will require stronger, more aligned institutional partnerships (state, county, city, school, private, nonprofit, etc.) with the ability to at times deviate from the long-standing regional status quo.</p> <p>An opportunity already exists to form a new partnership of communities with neighborhoods of concentrated areas of financial poverty - together they can collectively devise and support efforts to increase the web of opportunity in new ways.</p>
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Four Key Policy Themes

4. Build on the Existing Foundation

  	<p>There are two job centers in the Region and the one with the most jobs per square mile is located here – there are no hidden barriers to future equitable growth if policy themes 1-3 are addressed.</p> <p>Without undeveloped land to spur future growth, land opportunities for wealth generation primarily exist in redeveloping and increasing the productive capacity of the current land base, which is feasible but admittedly new and challenging for this Region.</p> <p>Jobs will be available in the County, but only for effectively educated, trained and connected workers. If current trends continue, it is likely that an increasing percentage of people living in the County will be unable to work in the careers within its boundaries.</p>
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Timeline of Activity (Completed & Planned)

2013

Strategic Modeling, Data Gathering and Analysis

Begin to implement Next Steps from Nov. workshop

Focused work on 3 follow-ups from Sept. workshop

January
Board Strategic Planning Defines New Goal

September
Initial Board Workshop

November
Workshop II

2014

Push Community Conversations, List of "Internal Levers" w/ Dashboard Metrics

Finalize Internal Dashboard, "Internal Levers" now live, List of "Collaborative Levers" w/ Dashboard Metrics

Finalize Collaborative Dashboard; "Collaborative Levers" now live

January
Countywide Dept Leadership Team Workshop

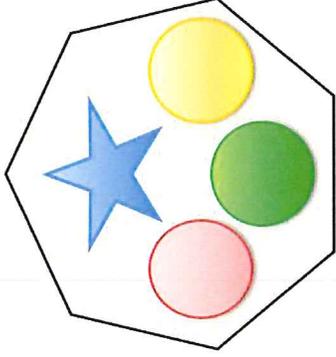
April
Workshop III

October
Workshop IV

January 2015
Board Strategic Planning to Check-In and Assess



Thank You for Listening



**Produced by the Policy Analysis and Planning Division
within the Office of the Ramsey County Manager**

Additional Questions or Comments?

Contact:

Ryan T. O'Connor

Director, Policy and Planning

ryan.oconnor@co.ramsey.mn.us

651-266-8011



TO: MAYOR AND COUNCILMEMBERS

**FROM: TERRY SCHWERM
CITY MANAGER**

DATE: FEBRUARY 7, 2014

SUBJECT: DISCUSSION REGARDING TRANSIT IN RAMSEY COUNTY

Councilmember Ady Wickstrom has requested that the City Council have an opportunity to hear about efforts to increase transit opportunities in Ramsey County. Councilmember Wickstrom, along with County Commissioner Jim McDonough, White Bear Lake Mayor Jo Emerson, and Regional Director of the St. Paul Chamber Jonathan Weinhagen are scheduled to present information to the City Council. They have also met with other City Councils in Ramsey County to discuss this topic. They will provide handouts at the meeting.

TO: Mayor, City Council and City Manager

FROM: Kathleen Castle, City Planner

DATE: February 7, 2014

SUBJECT: Discussion of Report Draft - Rail Quiet Zone and Operation Study

The draft Railroad Quiet Zone report, prepared by Dave McKenzie of SEH, Inc. is being presented to the City Council for review and discussion. This study, which also reviews rail operations and regulations, was initiated in October, 2013 in response to the increase in rail activity on the rail lines in our community, including Cardigan Junction.

Quiet Zone Analysis and Alternatives

Mr. McKenzie completed an analysis and provided recommendations regarding the establishment of quiet zones on the two rail corridors in the City. The community has the option of establishing a 24 hour per day zone or a partial quiet zone which would be in effect during the night time hours of 10:00 pm to 7:00 am.

Paynesville Subdivision

The first is the east/west rail corridor known as the Paynesville Subdivision that runs parallel to County Road E has two at grade crossings: Lexington Avenue and Victoria Street. Both roadways are under the jurisdiction of Ramsey County and the east half of Lexington Avenue is in the City of Arden Hills. The recommended improvements and costs associated with these improvements are summarized below:

Lexington Avenue Crossing

- Extend the existing raised median approximately 10 feet closer to the track;
- Add "NO TRAIN HORN" signs to the existing advance warning signs;
- Add additional passive signs and pavement markings to the trails to alert trail users that the trains do not sound their horns.

The estimated cost is estimated to be between \$5,000 and \$10,000.

Victoria Street Crossing

- Add "NO TRAIN HORN" signs to the existing advance warning signs;
- Add additional passive signs and pavement markings to the trails to alert trail users that the trains do not sound their horns.

The estimated cost is estimated to be between \$2,000 and \$5,000.

Saint Paul Subdivision

The second line, the Saint Paul Subdivision is a north/south line runs east of Lake Owasso, Lake Wabasso and Grass Lake and has two at grade crossings:

North Owasso Boulevard Crossing

- Upgrade the railroad circuitry
- Add “NO TRAIN HORN” signs to the existing advance warning signs;
- Install a center median with curb and gutter on the east side of the crossing.

The estimated cost is estimated to be between \$50,000 and \$100,000. The signal improvements included in the above range above is between \$25,000 and \$50,000 of the total cost.

Jerrold Avenue

- Install new railroad signals with gates
- Add “NO TRAIN HORN” signs to the existing advance warning signs;
- Install a center median on the east side of the crossing.

The estimated cost is estimated to be between \$250,000 and \$300,000. The signal improvements included in the range above are between \$225,000 and \$250,000 of the total cost.

Recommendation

The draft study is being presented to the City Council for review and discussion. The Council may want to discuss the recommended supplemental safety measures, the establishment of full or partial quiet zones, funding and timeframe. The Staff is seeking Council direction regarding the recommendations identified in the study and feedback regarding the study and future actions.

Attachments:

1. Railroad Quiet Zone Report – Draft - February 6, 2014

Railroad Quiet Zone Report

City of Shoreview, Minnesota

SEH No. SHORE 126249

February 6, 2014

DRAFT

Railroad Quiet Zone Report
City of Shoreview, Minnesota

SEH No. SHORE 126249

February 6, 2014

I hereby certify that this report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

David M. McKenzie, PE

Date: _____ Lic. No.: _____

Reviewed by: _____ Date _____

Short Elliott Hendrickson Inc.
3535 Vadnais Center Drive
St. Paul, MN 55110-5196
651.490.2000

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Railroad Quiet Zone Report

Prepared for City of Shoreview

1.0 Introduction

The City has been concerned about the impact of the railroad noise to the residents within the City from increased train traffic from the Canadian Pacific (CP) Railroad. The City has two CP lines that connect in the northeast corner of the City commonly referred to as Cardigan Junction. The train noise is generated by the train horns blowing at four mainline grade crossings and railcar switching activity at Cardigan. This study addresses the requirements to implement a quiet zone within the City and why the increase in activity at Cardigan.

2.0 Railroad Operations

2.1 Operations

The East West line for the CP thru Shoreview is called the Paynesville Subdivision. The track is used by the CP and the Canadian National Railroad (CN). The CP uses it to provide access to several local industries and to their railroad ballast supplier in Dresser Wisconsin. The CN uses the same track as access the Twin Cities market from Wisconsin.

The North South line for the CP thru Shoreview is called the St. Paul Subdivision. The track is primarily used by the CP. This track is a local track but connects the Paynesville sub to the BNSF tract in St. Paul.

These two lines connect at Cardigan Junction. Cardigan is a yard and wye that allows trains to move between the two lines and also a place to interchange and store cars. The yard consists of 4 tracks. Trains can also meet there to pass.

For many years, the railroad operations have stay steady without many changes to volumes, speeds or length of trains. The Paynesville subdivision was running about 4 to 6 trains per day at speeds up to 40 miles per hour. Most of the trains were CN trains that passed thru with their main interchange point at New Brighton or in Minneapolis. The St. Paul subdivision was a very lightly used connecting track that saw 2 trains per day at speeds up to 10 mph. Cardigan Junction was a very seldom used yard and was used to meet trains.

A majority of the CP traffic used their main track from northwestern Minnesota that parallels Highway 55 and goes thru the Twin Cities using either their track or the BNSF track to the main CP yard in the Pig's Eye area of St. Paul. The BNSF track was in better condition and allowed higher speeds. The BNSF track was busy but had available capacity and the operation was working for the CP.

In 2012 the CP operations had undergone several changes that have impacted the tracks in Shoreview. Some were as a result of the increase in freight traffic nationally and others by decision of CP management.

- The traffic levels on the BNSF have increased to a point where the operations are experiencing congestion. The CP was using the BNSF tracks for most of their thru shipments. A railroad that uses another railroad's track pays a fee to use that track. This increase is a combination of general improvement in the economy and specific areas such as the North Dakota oil boom. This congestion has put pressure on the CP to find additional capacity to haul their freight.
- The CP has a new upper management team that has been making major changes to the overall operations. One of their decisions is to shift traffic from the BNSF to the CP tracks through Shoreview. The track, signals, and grades will be upgraded to handle the increase in traffic. In addition to having more control over their operations, it reduces the interchange fees that would be paid to outside railroads.
- In addition to the increase in thru traffic, there have been changes to interchange points within the Twin Cities for both their cars and the CN's trains. To handle this, Cardigan Yard has been undergoing a major upgrade that includes new train signals and track realignments to allow for a better movement to the south. Last Fall, the cities met with the CP because of noise complaints, and the interchange movements have been adjusted to limit the locomotives idling and crossing being blocked.
- The St. Paul subdivision connects with the BNSF in St. Paul near I-35E and Maryland Avenue. The major impediment to the increase in traffic on the St. Paul Sub was the low capacity turnout between the BNSF and CP tracks. The turnout was slow speed but also it was a hand throw which limited how many trains could use it per day because it causes such an impact to the BNSF capacity. There is a construction project that will upgrade this turnout to a powered switch that would allow for more capacity. These changes would allow the St. Paul Sub to increase their trains to between 5 and 8 per day.
- The CP has also been in discussion with MnDOT Railroad Office about crossing safety. MnDOT is the ruling agency that determines what the appropriate warning devices are at at-grade crossings. They completed a field evaluation in May of 2013. Their recommendations are based on sight distance, train speed, crash history and roadway volumes. Based on a no increase in speed, no changes would be required. If the train speed is increased to 25 mph, new railroad signals at Jerrold Avenue and upgraded electronic circuitry at North Owasso.

2.1.1 Emergency Operations

There is a wide variety of material being shipped by the CP and CN through Shoreview. The material ranges from coal, crushed rock, lumber, sand, car parts, steel, grain, fertilizer, containers, chemicals, oil, ethanol and other industrial products. The contents will vary from train to train. The train crews and dispatchers have a list of all the different products that are on each train.

Railroads are common carrier providers and have little control over what is being shipped on their trains, provided that it is safely loaded and legal to ship. Railroad safety and responses to emergency situations are very important aspects of running a railroad.

Recently there has been a series of highly publicized crashes that have resulted in impacts to local communities and their residents. Part of this is the rapid increase in shipments of crude

oil by train. (Historically, crude oil was transported by pipeline and pipelines still carry the majority of crude oil.)

The CP has two programs that help local communities prepare and react to railroad emergencies. The first is a 1-800 telephone system that allows the public and local officials to have direct contact with a railroad operation office. This can be used to quickly notify the railroad of an unsafe condition, such as a stalled vehicle at a road crossing or a dangerous situation on the tracks or trains. All railroads are required to provide 24 hour coverage of this phone line. The CP number is 1.800.716.9132. This number is posted at each public railroad crossing. There also is a unique DOT identification number posted at each crossing that should be used to locate the problem.

The other program is an emergency education program that is targeted for first responders and local officials. This is an education program designed to help prepare a community for a railroad incident. The CP's contact to start the process would be Dale Buckholtz - Manager System Emergency Response. Dale's office is in Minneapolis, his office number is 612.904.6132 and email is Dale_Buckholtz@cpr.ca.

3.0 Railroad Crossing Quiet Zones

There are four at grade crossings within the City on two different CP lines. The Federal Railroad Administration (FRA) rules require that a multiple crossing quiet zone must be on same corridor and have similar characteristics to be combined into a quiet zone. Based on this, the City will need to have a minimum of two quiet zones.

In the 1996 legislation, the federal government preempted local and state governments from regulating train horn noise. In 2005, after many years of investigation and rule making, final rules regulating train horn noise were adopted. There are four public grade crossings within the City that could be included in a federally approved railroad quiet zone.

The FRA rules provide a mechanism to evaluate how the City may minimize the noise caused by the trains. The rules provide for communities to create quiet zones where trains are exempt from horn regulations. There can be multiple quiet zones in a Community provided that each zone meets the criteria in the rules. This allows for phasing of quiet zones based on funding, local development, and jurisdictional issues.

There are three basic options for the City to reduce noise.

1. Permanently close or grade separate (bridge) the roadways from the tracks
2. Install wayside or stationary horns at a crossing.
3. Comply with the FRA rules for a full-time or a nighttime quiet zone.

Wayside or stationary horns are a relatively new technology that has recently been approved for general installation. The wayside horn replaces the train mounted horn with a horn mounted at the crossing. The wayside horn is activated by the crossing signal system. The Road Authority is generally responsible for installation and maintenance of the system. The noise level is comparable to a train horn, but it decreases the noise impact area. The stationary horn works well in non residential areas, because the immediate area near the crossing is subjected to the full noise of the horn for 25 seconds, rather than a gradual increase as the train approaches. Although the wayside horn was authorized in the quiet zone rule packet, it is technically not in a quiet zone. It is considered the same risk level as a train-mounted horn.

The FRA quiet zone rules allow a community to establish a quiet zone, provided a series of conditions are met. The community has the option of a 24-hour per day zone or a nighttime (10:00 p.m. to 7:00 a.m.) zone. The process of obtaining either one is the same.

4.0 Background on FRA Rules

The FRA was directed in the early 1990s to establish national standards for locomotive horns at public grade crossings. After careful research, the FRA released draft rules in 2000. In December 2003, Interim Final rules were issued, and on April 27, 2005, the Final Rules were adopted. These rules preempt any state or local laws related to locomotive train horns.

The Final Rules have four distinct parts. Quiet zone issues dominate the rules and are of most interest to local communities, even though the three other parts will help to reduce noise impacts.

The four sections are:

1. Railroads must sound the horn 15 to 20 seconds prior to a train's arrival at a grade crossing, but not more than one-quarter mile in advance of the crossing.
2. The rules describe a minimum and maximum volume level for a train horn. (96 dB (A) and 110dB (A)).
3. The rules outline a new test procedure to determine horn compliance.
4. The rules have provisions for local communities to establish quiet zones, where railroads are exempt from blowing the locomotive horns.

There are six types of quiet zones. Four of these quiet zone types provide for a transitional process for preexisting train horn bans. The City does not meet these requirements. The two types of zones that the City meets are 1) a 24-hour quiet zone or 2) a partial nighttime quiet zone. The partial quiet zone would run from 10:00 p.m. to 7:00 a.m. The requirements for either a full-time or partial nighttime quiet zones are the same. The City can choose which type to establish. Communities that have chosen the part-time zone reasoned that risk associated with no train horns were greatly reduced at night because of the decreased traffic volumes.

The FRA has incorporated flexibility in the process to create quiet zones, but has also made the process complex. The concept utilizes a risk index approach that estimates expected safety outcomes. Risk is averaged over the railroad crossings in the proposed zone and compared to a national risk level called the National Significant Risk Threshold (NSRT). This risk analysis computes a Risk Index With Horns (RIWH) and a Quiet Zone Risk Index (QZRI). This analysis determines what crossing improvements are needed for a community to establish a quiet zone. At a minimum, all new quiet zones must have railroad signals with gates. The FRA has provided an Internet site (www.fra.dot.gov) to allow for the calculation of the QZRI and RIWH and NSRT, and is commonly called the Quiet Zone Calculator.

There are different ways that a community can institute a quiet zone, and are based on the risk index approach. Each method may require the community to apply for different types of quiet zones.

- A community can install supplemental safety measures (SSM) at each crossing. This would allow for automatic approval from the FRA.

-
- If SSMs are impractical at every crossing, a risk analysis is calculated and if the RIWH is less than the NSRT, or if the QZRI is less than the RIWH, a quiet zone can be instituted without additional safety measures.
 - If the risk index cannot meet the FRA standards, the City can propose an Alternative Safety Measure (ASM) that the FRA will evaluate on an individual case basis.

There are five predetermined engineering improvements, called supplementary safety measures (SSM) that can be used to lower the QZRI and bring a crossing(s) into automatic conformance with the rules. The five SSMs include the following:

1. One-Way Streets with Full Gate Coverage – One-way streets allow for the gate(s) to be placed on the approach lanes of traffic, and vehicles cannot go around the gates. Vehicles also cannot get trapped between the gates.
2. Nighttime Closure of a Crossing – The roadway would be closed by the use of some type of barricade(s) that can completely close off the crossing. This would be used only if a part-time quiet zone is requested. The closure must include a process that will verify that a crossing has been closed for the night. Other cities have used an automatic barricade that is locked into place and provides a warning light to the train that the crossing is closed.
3. Permanent Closure of the Crossing – This means that the roadway would be closed and barricaded permanently. The railroad signals and surface would be removed. Under the FRA risk computations, the closure allows a credit in the risk assessment that may allow other options at the remaining crossings in the zone.
4. Raised Center Medians – Raised center medians a minimum of 60 feet long (100 feet long preferred) are installed to prevent vehicles from driving around the gates. If the median is less than 6 inches tall, traffic delineators are required. If a roadway is of sufficient width, medians are relatively inexpensive to install. The disadvantage of medians is disruption to local access.
5. Four Quadrant Gates – Four quadrant gates are regular railroad gates with two additional gates being added to the exit traffic lanes. This will completely close off the crossing. The exit gates are on a delay that will allow a vehicle to clear the crossing before descending. Traffic loop detectors may be required to detect if a vehicle is stopped on the tracks. The advantage of this SSM is that no additional roadway work is usually needed for the gates to be installed. The disadvantage is that there is a potential to trap a vehicle, they are expensive to install, the City may assume maintenance of the loop detectors and the City may be responsible for the extra maintenance for the extra gates.

If SSMs or Risk Index level is insufficient, Alternate Safety Measures (ASM) can be proposed to the FRA for individual crossings. These ASM can be non-engineering solutions, such as traffic enforcement, photo enforcement, or education programs. Other engineering solutions can be proposed if shown effective in improving safety. These may include different styles of medians or a new type of warning device. A community is required to provide documentation that an ASM is effective. This documentation may require video camera installation, review of police efforts to enforce crossing violations, or a record of public service announcements. The level of documentation is not well defined in the rules. The three most popular ASM are:

1. Photo Enforcement of Traffic Violations – This is a system of cameras that monitor the railroad crossings and will issue traffic tickets to violators. In Minnesota, it is against state law to photo enforce traffic violations.

-
2. Increased Traffic Enforcement – This is a program that targets traffic violations near railroad crossings. The Quiet Zone submittal would outline and document what the City has done to enforce traffic violations.
 3. Partial Center Medians – This is where full length medians are not possible on both sides and a median is installed on one side. The FRA will compute a partial risk reduction, based on the crossing improvements.

The FRA rules require communities to notify the FRA, the State Department of Transportation, and the railroad that they are interested in creating a quiet zone and provide a process for these interested parties to comment. The process has some built in time periods and that take 4 to 6 months to implement. If SSMs are installed according to the rules at all crossings, the community will receive an automatic approval for a quiet zone. If ASMs or other exceptions are needed, the FRA review and approval will be needed.

The rules are silent on the liability to either the railroad or communities who enact quiet zones. In the record of decision, the FRA discusses railroad and community liability. In the record of decision (page 66), the FRA says “As for the public authority that creates a quiet zone in accordance with this part, FRA expects that courts will apply the standard of care set by this rule, inasmuch as any quiet zone established in accordance with this part will have been established in accordance with federal law and FRA’s intention to preempt State laws expressly stated.” This rule, in effect, establishes the standard of care for the creating of quiet zones and the sounding of train horns, providing reassurance both to railroads and communities that no plaintiff will prevail on the basis that an audible warning has been withheld. Further, this rule making does nothing to undermine the sovereign immunity of State and local governments, where they have asserted it.

The rules encourage joint establishment of quiet zones where there are multiple roadway jurisdictions. Generally, one government agency will take the lead and coordinate the process

5.0 Proposed Alternatives

The following is a discussion regarding the feasibility of installing SSMs at each of the two crossings. One-way streets and grade separations are impractical for the City of Shoreview.

5.1 Center Medians

Center medians have become a popular SSM alternative for local communities because they can be inexpensive compared to other SSM options and are easy to install.

The rules require that the medians be raised and be a minimum of 100 feet long. In certain exceptions, medians can be shortened to 60 feet. If a median is less than 6 inches high, delineator signs must be installed on the median.

5.2 Four Quadrant Gates

Four quadrant gates systems have two additional exit gates installed compared to a traditional signal system. These exit gates operate on a delay to the normal gates to allow vehicles to clear the crossing. The addition of the two exit gates requires a complete rewiring of the crossing circuitry and generally will require the installation of loop detectors in the pavement. Loop detectors would detect if a vehicle is stopped on the track and would keep the existing gate in the up position, so the vehicle is not trapped between two gates.

The following is a detailed look at the improvements for each crossing.

6.1.1 Lexington Avenue

Lexington Avenue is a divided 4 lane County roadway that has an ADT approaching 20,000 vehicles per day. There is 1 track through the crossing. A second track was removed several years ago. The roadway also has a trail on each side of roadway. The roadway has a raised median standing several hundred feet in each direction.

The median meets the criteria for a supplemental safety device (SSM) except that the median on the south side of the crossing does not extend close enough to the track to qualify for preexisting SSM. The railroad signal system meets the quiet zone rule for type and quality.

The proposed improvements would be:

- Extend the existing raise median approximately 10 feet closer to the track;
- Add “NO TRAIN HORN” signs to the existing advance warning signs;
- Add additional passive signs and pavement markings to the trails to alert trail users that the trains to not sound their horns.

The estimated cost is estimated to be between \$5,000 and \$10,000.

6.1.2 Victoria Street

Victoria Street is a divided four lane County roadway that has an ADT of about 12,500 vehicles. The railroad crossing signal system is interconnected to the traffic signals for Victoria/ County Road E intersection.

This intersection is currently under reconstruction to allow for an addition access point on the south side. This intersection and crossing is a major challenge to provide an efficient, safe and effective signal system. It is further complicated by a close proximity of the fire station and a railroad siding just east of the crossing. The roadway project includes an upgrade signal system and circuitry.

During design of the reconstruction, care was taken to accommodate the physical aspects of the quiet zone rule. The roadway does have sufficient room to place SSM compliant center medians, but will have medians installed that do not meet the minimum lengths.

The proposed additional improvements are:

- Add “NO TRAIN HORN” signs to the existing advance warning signs;
- Add additional passive signs and pavement markings to the trails to alert trail users that the trains to not sound their horns.

The estimated cost is estimated to be between \$2,000 and \$5,000.

6.2 North Owasso/Jerrold Street Quiet Zone

The north south railroad corridor requires more investment and coordination to allow for a quiet zone. The two crossings are close enough to each other that they will need treated as one zone.

North Owasso has railroad signals with gates but has older electronic circuitry that will need to be upgraded. Jerrold Avenue currently only has stop signs and crossbucks that will need to

The rewiring of the signal system is needed because the exit gate circuitry is complex and needs a new controller and additional battery backup capacity. The CP's policy is that the Road Authority will be responsible for the installation and maintenance of the loop detectors and the two additional gates.

Detailed cost estimates to upgrade are not available at this stage of a project but the cost will be around \$350,000 to \$450,000 plus the maintenance costs of \$2,000 to \$3,000 per year per crossing. Complete new signals systems may be required.

5.3 Crossing Closure

Permanent closure of a crossing is the removal of the crossing surface and roadway approaches.

There are also provisions in the rules for temporary closures, usually based on time of day. The rules require that a positive indication to the railroad is required that the crossing barricades are in place.

5.4 Stationary Horns

Wayside or stationary horns are a relatively new technology that has recently been approved for general installation. The wayside horn replaces the train mounted horn with a horn mounted at the crossing. The wayside horn is activated by the crossing signal system. The Road Authority is generally responsible for installation and maintenance of the system. The noise level is comparable to a train horn, but it decreases the noise impact area. The stationary horn works well in non-residential areas, because the immediate area near the crossing is subjected to the full noise of the horn for 25 seconds, rather than a gradual increase as the train approaches. The wayside horn was authorized in the quiet zone regulations but it is technically not in a quiet zone. It is considered the same risk level as a train mounted horn. Stationary horn costs range from \$75,000 to \$125,000, plus a monthly maintenance cost.

6.0 Crossing Analysis and Alternatives

There are four at grade crossings within the City on two different CP lines. The FRA rules require that a multiple crossing quiet zone must be on same corridor and have similar characteristics to be combined into a quiet zone. Based on this, the City will need to have a minimum of two quiet zones.

The East West line for the CP thru Shoreview is called the Paynesville Subdivision. The track is used by the CP and the Canadian National Railroad (CN). The CP uses it to provide access to several local industries and to their railroad ballast supplier in Dresser Wisconsin. The CN uses the same track as access the Twin Cities market from Wisconsin.

6.1 Lexington/Victoria Quiet Zone

The CP east west line has two crossings that are close to being quiet zone compliant. The railroad signals at both crossings meet the minimum standards, so no railroad work is required. Lexington Avenue needs additional signing and a median extension. Victoria Street is under reconstruction and because of the roadway geometrics; a full SSM is not possible. If the two crossings are combined into one quiet zone, the rules allow the risks to be averaged between the two, so the risk index is low enough to allow for a quiet zone implementation.

The implementation cannot happen until the roadway and signal work at Victoria Street is complete this summer.

upgraded to railroad signals with gates. Both these improvements require coordination with the railroad and would take at least a year to complete their improvements.

The risk index numbers are low enough that no other roadway improvements would be required but adding medians where possible is recommended.

6.2.1 North Owasso Boulevard

North Owasso Boulevard is a 2 lane County road that has an ADT of about 7,000 vehicles per day. It is a rural section with close by commercial driveways and Soo Line roadway on the west side of the crossing.

The proposed improvements are:

- Upgrade the railroad circuitry
- Add “NO TRAIN HORN” signs to the existing advance warning signs;
- Install a center median with curb and gutter on the east side of the crossing.

The estimated cost is estimated to be between \$50,000 and \$100,000. The signal improvements included in the range above is between \$25,000 and \$50,000.

6.2.2 Jerrold Avenue

Jerrold Avenue is a local 2 lane residential City Street with an ADT under 1,000 vehicles per day. The roadway provides the main access to a large residential area west of the track. The crossing currently has crossbucks and stop signs.

The proposed improvements are:

- Install new railroad signals with gates
- Add “NO TRAIN HORN” signs to the existing advance warning signs;
- Install a center median on the east side of the crossing.

The estimated cost is estimated to be between \$250,000 and \$300,000. The signal improvements included in the range above is between \$225,000 and \$250,000.

7.0 Risk Analysis

The FRA has developed a risk analysis to evaluate proposed quiet zones. The analysis is based on their national crossing inventory and accident databases. The accident prediction model uses 12 criteria to determine the probability and severity of a vehicle-train crash at each crossing. Using these calculations, a National Significant Risk Threshold (NSRT) and an individual Risk Index with Horns (RIWH) can be developed. The FRA have also compared crossings that have had quiet zones in-place with non quiet zone crossings and have developed a QZRI and an effectiveness rating for each type of SSM.

Using their Quiet Zone Calculator, these various index numbers are computed and provided the basis for what needs to be done at each crossing in order for a community to obtain a Quiet Zone. Appendix B has the quiet zone calculator results from the FRA website. Risk is averaged over the railroad crossings in the proposed zone and compared to a national significant risk threshold level (NSRT). This risk analysis computes a Risk Index with Horns (RIWH) and a Quiet Zone Risk Index (QZRI). This analysis determines what crossing improvements are needed for a community to establish a quiet zone. At a minimum, all new

quiet zones must have railroad signals with gates. Appendix D is a process flow chart outline the steps needed to obtain a quiet zone.

There are different ways that a community can institute a quiet zone, based on the risk index approach.

- Install supplemental safety measures at each crossing
- If the RIWH is less than the NSRT
- If the QZRI is less than the RIWH

Table 1 – Risk Index Summary (East-West line)

Type of Improvement	Lexington Ave	Victoria Street	RIWH	QZRI	Comment
National (NSRT)			14,347		
Existing	41,889	38,192	24,005	40,041	QZRI > RIWH Needs additional safety measures
Lexington – SSM Victoria – no SSM	8,377	38,192	24,005	23,285	QZRI < RIWH

Table 2 – Risk Index Summary (North South Line)

Type of Improvement	North Owasso	Jerrod Avenue	RIWH	QZRI	Comment
National (NSRT)			14,347		
Existing	12,496	3,865	4,90	8,181	QZRI < RIWH No additional safety measures needed

8.0 Implementation of a Quiet Zone

Phasing of quiet zones is a process where a community can group the crossings based on spacing, similar land use characteristics, safety and funding considerations. Phasing can get complicated but many communities have successfully implemented multiple quiet zones.

The City should consider the following series of questions to decide how to implement a quiet zone:

1. Should the quiet zone be night time only?

The rules allow two different types of quiet zones a 24 hour or a nighttime. The rules are the same but some communities have shown a reluctance to suspend the train horns during the heavy roadway or pedestrian traffic periods of the day.

2. Should each crossing have SSM installed?

Supplemental Safety Measures are very effective but the way the rules are written, communities can average the risk among all the crossings so some may not have any improvements at all and still meet the requirements. The City needs to weigh the risk of no horns and no improvements at some of the crossings. Could partial SSMs be installed?

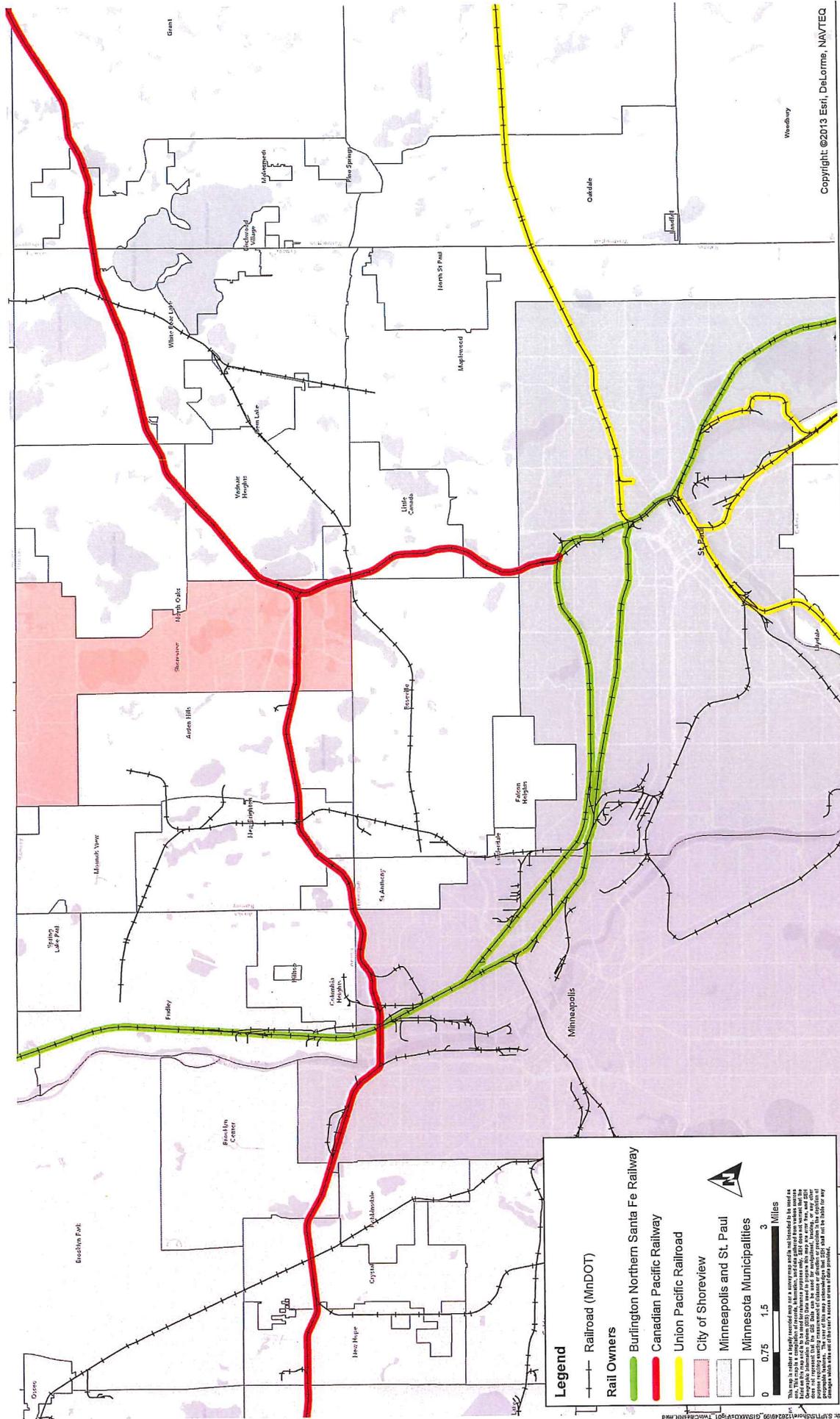
If not all the crossings have SSMs at the implementation stage, these improvements could be incorporated into future roadway or redevelopment projects.

3. How are the crossings spaced?

Spacing of the crossings is important since the quiet zone boundary is $\frac{1}{4}$ mile either side of a crossing, so if another crossing is within that zone, it also must be included in the same quiet zone.

Appendix A

Area Maps



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FIGURE 1
Twin Cities Railroad Overview

RAILROAD QUIET ZONE STUDY
Shoreview, Minnesota

Legend

- Railroad (MnDOT)
- Rail Owners**
- Burlington Northern Santa Fe Railway
- Canadian Pacific Railway
- Union Pacific Railroad
- City of Shoreview**
- Minneapolis and St. Paul
- Minnesota Municipalities

0 0.75 1.5 3 Miles

This map is either a digital or printed map. It is not intended to be used as a legal document. It is not intended to be used for any purpose other than the one for which it was prepared. It is not intended to be used for any purpose other than the one for which it was prepared. It is not intended to be used for any purpose other than the one for which it was prepared.

Project Number: SHORE 126249
 Print Date: 02/05/2014
 Map by: SRH
 Prepared by: SRH, J. DeLorme, NAVTEQ, Esri, and SBA Inc.
 Source: Aerial, Esri, NAVTEQ, Esri, and SBA Inc.



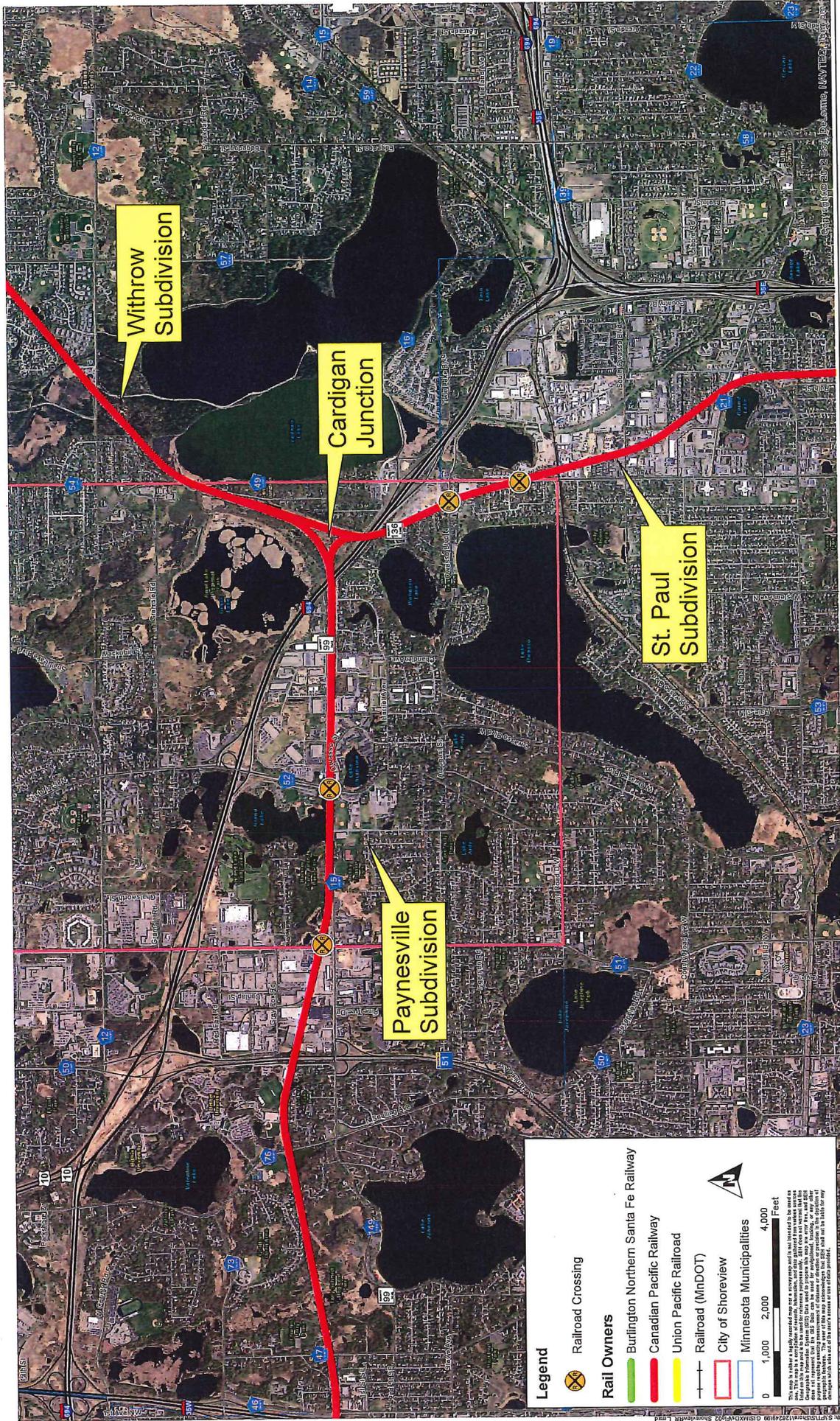


FIGURE 2
Shoreview Railroad Overview

RAILROAD QUIET ZONE STUDY
Shoreview, Minnesota

Project Number: SHORE 126248
Print Date: Print Date: 02/05/2014

Map by: SRH
Prepared by: SRH, ESR, and SEH Inc.
Source: Industry Analysis, ESR, and SEH Inc.



Legend

- Railroad Crossing
- Rail Owners**
- Burlington Northern Santa Fe Railway
- Canadian Pacific Railway
- Union Pacific Railroad
- Railroad (MnDOT)
- City of Shoreview
- Minnesota Municipalities

0 1,000 2,000 4,000 Feet

This map is neither a legally recorded map nor a survey map and is intended to be used as a general reference only. It is not intended to be used for any legal or financial purposes. The user of this map is advised to consult with a professional surveyor or engineer for any specific information. The user of this map is advised to consult with a professional surveyor or engineer for any specific information.

Appendix B

Letters from CP and FRA



**CANADIAN
PACIFIC**

Robert A. Johnson
Vice President Operations
Southern Region

Suite 1000
120 South 6th St.
Minneapolis MN
55402

Tel 612 904 5959
Fax 612 851 5647
Cell 612 760 1533
Robert_A_Johnson@cpr.ca

November 15, 2013

Mayor Sandy Martin
4600 Victoria Street North
Shoreview, MN 55126

Dear Mayor Martin:

I'm writing firstly to thank you, your city leaders, and the residents in your community for your openness and honesty in our recent discussions. Canadian Pacific is committed to being a good neighbor in the communities in which we operate.

Your community has raised valid concerns about the impact of CP's operations, and following what I feel has been a positive dialogue, we conducted an extensive review of our operations in the Shoreview area.

Effective Sunday, November 17, 2013, we will be implementing the following changes:

- **Reduce Idling:** We will take steps to reduce locomotive idling at Cardigan Junction. This includes adding one train assignment to balance workload and reduce switching.
- **Interchange with CN:** As we discussed at our meeting, we have identified a site outside of the Shoreview area where we can conduct the daily interchange and switching operations with the CN. These interchange operations, which have been occurring at Cardigan Junction, remain the subject of discussions for a permanent relocation subject to CN approval. In the meantime, CP is committed to no longer switch any of the rail cars from this interchange train at Cardigan Junction, but rather, to simply pick up and drop off cars there. This will reduce the amount of night operations and potential for blocked crossings. The train will continue to be dropped off by CN at Cardigan Junction, where a CP crew will remove it to another location. We will keep you apprised of our discussions with CN officials going forward.
- **Horns:** CP managers will monitor our operating crews to ensure their use of locomotive horns is in accordance with Federal Railroad Administration guidelines. We will continue to use horns per these regulations, which are geared toward protecting the public at grade crossings.
- **Blocked Crossings:** CP managers will monitor our operating crews to all but eliminate train stops on grade crossings in the Shoreview area. With the exception of emergency situations, train stops on crossings should be brief, under ten minutes, or nonexistent.

Mayor Sandy Martin

Page 2

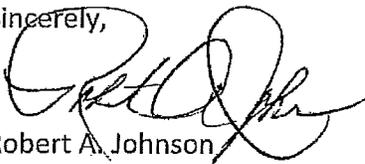
- **Storage of regulated cars:** We will take steps to ensure the yard tracks at Cardigan Junction will not be used to hold cars loaded with regulated commodities. One exception would be for cars bound for the City of Shoreview water treatment facility, as operational needs may require it. However, in that case, we would seek to minimize the amount of time such cars would be held at Cardigan Junction.
- **Monitoring:** By November 22, a closed-circuit camera will be installed for CP's internal use only. This will enable us to check up immediately on operations at Cardigan Junction when residents raise issues.

Even as we institute these changes, we must remain committed to meeting the needs of our customers and the American economy. As I've stated before, that does involve continued 24/7 freight-rail operations through Cardigan Junction and around the Shoreview area. And we will continue to switch cars at Cardigan Junction to service local customers. We expect train volumes through the area will remain at current levels of 5-8 movements daily for the immediate future, though that can change as the economic need requires.

From the beginning of our discussions, my team has been listening to the concerns of our neighbors in Shoreview and nearby communities. We are committed to being a responsible community member, and to doing what we say we're going to do.

I hope you and your citizens will continue to offer your feedback as these operational changes are instituted, and I remain committed to keeping lines of communication open. Residents should continue to refer feedback to Brenda Rivera at: brenda_rivera@cpr.ca (612-851-5651) with a cc to Community_Connect@cpr.ca. This will ensure I continue to be informed on these important matters.

Sincerely,



Robert A. Johnson

Cc: Terry Schwerm, City Manager, City of Shoreview
Cc: Blake Huffman Ramsey County Commissioner
Cc: Marcia Figus Cardigan Junction Steering Committee
Cc: Jan Bunde, Cardigan Junction Steering Committee
Cc: Don Bunde, Cardigan Junction Steering Committee
Cc: Dody LeGault Cardigan Junction Steering Committee
Cc: Nathan Anderson Cardigan Junction Steering Committee
Cc: Mark Redd-GM Southern Operations Region, Canadian Pacific
Cc: Ed Greenberg- Public Relations, Canadian Pacific
Cc: Brenda Rivera- Public Relations, Canadian Pacific
Cc: Breanne Feigel- Public Relations, Canadian Pacific



U.S. Department
of Transportation
Federal Railroad
Administration

Administrator

1200 New Jersey Avenue, SE
Washington, DC 20590

NOV - 6 2013.

The Honorable Al Franken
United States Senator
60 Plato Boulevard East, Suite 220
St. Paul, MN 55107

Dear Senator Franken:

The Federal Railroad Administration (FRA) has completed its investigation of railroad noise, diesel exhaust, and other issues arising from the Canadian Pacific Railway (CP) operations at Cardigan Junction in Shoreview, Minnesota. Our findings are summarized below.

The FRA's investigation found normal horn sounding noise from the audible device (train horn) used to indicate the starting/stopping of operations. The primary source of mechanical noise was the slack noise that resulted from switching operations. An FRA industrial hygienist conducted noise sampling to collect some information, even though the site criteria designated in the regulations could not be met. Samples for pass-by and car coupling operations were found to be in compliance.

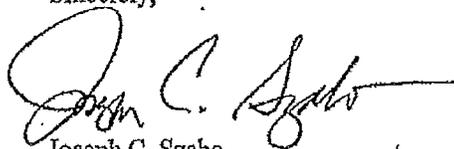
State law generally governs locomotive horn sounding at private crossings that are more than one-quarter mile from the outermost public crossings in a Federal quiet zone. FRA exercises limited jurisdiction over private crossings within Federal quiet zones in order to keep them from being subject to horn sounding due to State laws that would otherwise require it at these crossings. However, FRA purposefully left States free to require locomotive horn sounding at private crossings outside of Federal quiet zones.

FRA regulations require railroad bridges to be inspected at least once per calendar year in order to ensure that they can safely continue to support trains. In this case, the two CP bridges over I-694 near Cardigan Junction were inspected on April 26, 2013. Regarding the concern about trains being parked on the bridges, the stresses placed on the bridges are actually lower with the train stopped than they would be with the train in motion.

I appreciate your interest in this matter and look forward to working with you on this and other transportation issues of importance to you and your constituents. If you need

further assistance, please contact Mr. Nathan Robinson, Director of Congressional Affairs, at [REDACTED]

Sincerely,

A handwritten signature in cursive script, appearing to read "Joseph C. Szabo". The signature is written in dark ink and is positioned above the printed name.

Joseph C. Szabo
Administrator

Appendix C

Summary of FRA Quiet Zone rules

THE “TRAIN HORN” FINAL RULE

Summary

1. Overview:

- The Final Rule on Use of Locomotive Horns at Highway-Rail Grade Crossings, published in the *Federal Register* on April 27, 2005, is intended to:
 - ⇒ Maintain a high level of public safety;
 - ⇒ Respond to the varied concerns of many communities that have sought relief from unwanted horn noise; and
 - ⇒ Take into consideration the interests of localities with *existing* whistle bans.
- Currently, state laws and railroad operating rules govern use of the horn at highway-rail grade crossings. When this rule takes effect, it will determine when the horn is sounded at public crossings (and private crossings within “quiet zones”).
- This Final Rule was mandated by law¹, and was issued by the Federal Railroad Administration (FRA) after consideration of almost 1,400 public comments on the Interim Final Rule (IFR) (68 FR 70586) published December 18, 2003.
- Consistent with the statutory mandate requiring its issuance, the rule requires that locomotive horns be sounded at public highway-rail grade crossings, but provides several exceptions to that requirement.²
- Local public authorities may designate or request approval of, quiet zones in which train horns may not be routinely sounded. The details for establishment of quiet zones differ depending on the type of quiet zone to be created (Pre-Rule or New) and the type of safety improvements implemented (if required).
- Horns may continue to be silenced at Pre-Rule Quiet Zones, provided certain actions are taken.
- Intermediate Quiet Zones (whistle bans that were implemented after October 9, 1996 but before December 18, 2003) may continue to have the horns silenced for one year (until June 24, 2006), provided certain actions are taken. After which time they must comply with the provisions for a New Quiet Zone if the horns are to remain silent.

¹49 U.S.C. 20153.

- The rule goes into effect on June 24, 2005.
- Pre-Rule Quiet Zones in the six county Chicago region are excepted from the provisions of this rule pending further evaluation of the data.

2. Requirement to sound the locomotive horn:

- Outside of quiet zones, railroads must sound the horn 15-20 seconds prior to a train's arrival at the highway-rail grade crossing, but not more than 1/4 mile in advance of the crossing.

Note: Most State laws and railroad rules currently require that the horn be sounded beginning at a point 1/4 mile in advance of the highway-rail grade crossing and continued until the crossing is occupied by the locomotive. Under the rule, for trains running at less than 45 mph, this will reduce the time and distance over which the horn is sounded. This will reduce noise impacts on local communities.

- The pattern for sounding the horn will remain, as it currently exists today (two long, one short, one long repeated or prolonged until the locomotive occupies the highway-rail grade crossing).
- Locomotive engineers may vary this pattern as necessary where highway-rail grade crossings are closely spaced; and they will also be empowered (but not required) to sound the horn in the case of an emergency, even in a quiet zone.
- The rule addresses use of the horn only with respect to highway-rail grade crossings. Railroads remain free to use the horn for other purposes as prescribed in railroad operating rules on file with FRA, and railroads must use the horn as specified in other FRA regulations (in support of roadway worker safety and in the case of malfunctions of highway-rail grade crossing active warning devices).
- The rule prescribes both a minimum and *maximum* volume level for the train horn. The minimum level is retained at 96 dB(A), and the new maximum will be 110 dB(A). This range will permit railroads to address safety needs in their operating territory (see discussion in the preamble).
- The protocol for testing the locomotive horn will be altered to place the sound-level meter at a height of 15 feet above top of rail, rather than the current 4 feet above the top of the rail. Cab-mounted and low-mounted horns will continue to have the sound-level meter placed 4 feet above the top of the rail.

Note: The effect of this change will be to permit center-mounted horns to be "turned down" in some cases. The previous test method was influenced by the "shadow

effect” created by the body of the locomotive to indicate a lower sound level than would otherwise be expected several hundred feet in front of the locomotive (where the crossing and approaching motorists are located).

- The effect of these changes will reduce noise impacts for 3.4 million of the 9.3 million people currently affected by train horn noise.

3. Creation of quiet zones:

- The rule provides significant flexibility to communities to create quiet zones, both where there are existing whistle bans and in other communities that heretofore have had no opportunity to do so.
- The Final Rule permits implementation of quiet zones in low-risk locales without requiring the addition of safety improvements.
 - ✓ This concept utilizes a risk index approach that estimates expected safety outcomes (that is, the likelihood of a fatal or non-fatal casualty resulting from a collision at a highway-rail crossing).
 - ✓ Risk may be averaged over crossings in a proposed quiet zone.
 - ✓ Average risk within the proposed quiet zone is then compared with the average nationwide risk at gated crossings where the horn is sounded (the “National Significant Risk Threshold” or “NSRT”). FRA will compute the NSRT annually.

The effect of this approach is that horns can remain silenced in over half of Pre-Rule Quiet Zones without significant expense; and many New Quiet Zones can be created without significant expense where flashing lights and gates are already in place at the highway-rail grade crossings.

- If the risk index for a proposed New Quiet Zone exceeds the NSRT, then supplementary or alternative safety measures must be used to reduce that risk (to fully compensate for the absence of the train horn or to reduce risk below the NSRT).
- The Final Rule—
 - ✓ Retains engineering solutions known as “supplementary safety measures” for use without FRA approval.
 - ✓ Retains explicit flexibility for the modification of “supplementary safety measures” to receive credit as “alternative safety measures.” For instance,

Disclaimer: This is a summary of the Final Rule for initial briefing purposes only. Entities subject to the rule should refer to the rule text as published in the Federal Register on April 27, 2005.

shorter traffic channelization arrangements can be used with reasonable effectiveness estimates.

- ✓ Adds a provision that provides risk reduction credit for pre-existing SSMs and pre-existing modified SSMs that were implemented prior to December 18, 2003.
- ✓ Continues education and enforcement options, including photo enforcement, subject to verification of effectiveness.³
- The public authority responsible for traffic control or law enforcement at the highway-rail grade crossing is the only entity that can designate or apply for quiet zone status.
- FRA will provide a web-based tool for communities to use in performing “what if” calculations and preparing submissions necessary to create or retain quiet zones. The tool may be found at <http://www.fra.dot.gov>.
- In order to ensure proper application of the risk index, the National Highway-Rail Crossing Inventory must be accurate and complete. In the absence of timely filings to the Inventory by the States or Railroads, local authorities may file updated inventory information, and railroads must cooperate in providing railroad-specific data.
- FRA regional personnel will be available to participate in diagnostic teams evaluating options for quiet zones.
- Once a quiet zone is established (including the continuation of Pre-Rule or Intermediate Quiet Zones pending any required improvements), the railroad is barred from routine sounding of the horn at the affected highway-rail grade crossings.
- See below for discussion of **Pre-Rule Quiet Zones** and **New Quiet Zones**.

³The rule neither approves nor excludes the possibility of relying upon regional education and enforcement programs with alternative verification strategies. FRA is providing funding in support of an Illinois Commerce Commission-sponsored regional program. The law provides authority for use of new techniques when they have been demonstrated to be effective.

Horns may continue to be silenced at Pre-Rule Quiet Zones if-

- ⇒ The average risk at the crossings is less than the NSRT; or
- ⇒ The average risk is less than twice the NSRT and no relevant collisions have occurred within the past 5 years; or
- ⇒ The community undertakes actions to compensate for lack of the train horn as a warning device (or at least to reduce average risk to below the NSRT).

Train horns will not sound in existing whistle ban areas if authorities state their intention to maintain "Pre-Rule Quiet Zones" and do whatever is required (see above) within **5 years** of the effective date (June 24, 2005) (**8 years** if the State agency provides at least some assistance to communities in that State).

A "Pre-Rule Quiet Zone" is a quiet zone that contains one or more consecutive grade crossings subject to a whistle ban that has been actively enforced or observed as of October 9, 1996 and December 18, 2003.

To secure Pre-Rule Quiet Zone status, communities must provide proper notification to FRA and other affected parties by June 3, 2005 and file a plan with FRA by June 24, 2008 (if improvements are required).

New Quiet Zones may be created if–

All public highway-rail grade crossings are equipped with flashing lights and gates; and either–

- ✓ After adjusting for excess risk created by silencing the train horn, the average risk at the crossings is less than the NSRT; or
- ✓ Supplemental Safety Measures are present at each public crossing; or
- ✓ Safety improvements are made that compensate for loss of the train horn as a warning device (or at least to reduce average risk to below the NSRT).

Detailed instructions for establishing or requesting recognition of a quiet zone are provided in the regulation.

4. Length of quiet zones:

- Generally, a quiet zone must be at least ½ mile in length and may include one or more highway-rail grade crossings.
- Pre-Rule Quiet Zones may be retained at the length that existed as of October 9, 1996, even if less than ½ mile. A Pre-Rule Quiet Zone that is greater than ½ mile may be reduced in length to no less than ½ mile and retain its pre-rule status. However, if its length is increased from pre-rule length by the addition of highway-rail grade crossings that are not pre-rule quiet zone crossings, pre-rule status will not be retained.

5. Supplementary and alternative safety measures:

- Supplementary safety measures are engineering improvements that clearly compensate for the absence of the train horn. If employed at every highway-rail grade crossing in the quiet zone, they automatically qualify the quiet zone (subject to reporting requirements). They also may be used to reduce the average risk in the corridor in order to fully compensate for the lack of a train or to below the NSRT.
 - ✓ Temporary closure used with a partial zone;
 - ✓ Permanent closure of a highway-rail grade crossing;
 - ✓ Four-quadrant gates;

- ✓ Gates with traffic channelization arrangements (i.e., non-mountable curb or mountable curb with delineators) at least 100 feet in length on each side the crossing (60 ft. where there is an intersecting roadway);
 - ✓ One-way Street with gate across the roadway.
- Alternative safety measures may be applied such that the combination of measures at one or more highway-rail grade crossings reduces the average risk by the required amount across the quiet zone (so-called “corridor approach”).
 - ✓ Any modified supplementary safety measure (e.g., barrier gate and median; shorter channelization); or
 - ✓ Education and/or enforcement programs (including photo enforcement) with verification of effectiveness; or
 - ✓ Engineering improvements, other than modified SSMs; or
 - ✓ Combination of the above.
- The rule provides that pre-existing SSMs and pre-existing modified SSMs will be counted towards risk reduction.

6. Recognition of the automated wayside horn:

- The rule authorizes use of the automated wayside horn at any highway-rail grade crossing with flashing lights and gates (inside or outside a quiet zone) as a one-to-one substitute for the train horn.
- Certain technical requirements apply, consistent with the successful demonstrations of this technology.
- The Federal Highway Administration (FHWA) has issued an interim approval for the use of wayside horns as traffic control devices. Communities interested in employing this option should contact FHWA to ensure that they comply with the provisions of the interim approval.

7. Special circumstances:

- A community or railroad that views the provisions of the rule inapplicable to local circumstances may request a waiver from the rule from FRA.
- A railroad or community seeking a waiver must first consult with the other party and seek agreement on the form of relief. If agreement cannot be achieved the party may still request the relief by a waiver, provided the FRA Associate Administrator determines that a joint waiver petition would not be likely to contribute significantly to public safety.

Disclaimer: This is a summary of the Final Rule for initial briefing purposes only. Entities subject to the rule should refer to the rule text as published in the Federal Register on April 27, 2005.

- FRA grants waivers if in the public interest and consistent with the safety of highway and railroad users of the highway-rail grade crossings.

8. Summary of major changes to the Interim Final Rule

- The final rule provides a one-year grace period to comply with New Quiet Zone standards for communities with pre-existing whistle bans that were in effect on December 18, 2003, but were adopted after October 9, 1996. These communities are considered “Intermediate” Quiet Zones under the final rule.
- The final rule addresses quiet zones that prohibit sounding of horns during the evening and/or nighttime hours. These are referred to as Partial Quiet Zones.
- The final rule requires diagnostic team reviews of pedestrian crossings that are located within proposed New Quiet Zones and New Partial Quiet Zones.
- The final rule requires quiet zone communities to retain automatic bells at public highway-rail grade crossings that are subject to pedestrian traffic.
- The final rule extends “recognized State agency” status to State agencies that wish to participate in the quiet zone development process.
- The final rule contains a 60-day comment period on quiet zone applications.
- The final rule requires public authorities to provide notification of their intent to create a New Quiet Zone. During the 60-day period after the Notice of Intent is mailed, comments may be submitted to the public authority.
- The final rule provides quiet zone risk reduction credit for certain *pre-existing* SSMS.
- The final rule provides quiet zone risk reduction credit for *pre-existing* modified SSMS.
- The final rule contains a new category of ASMS that addresses engineering improvements other than modified SSMS.

Additional information, including the full text of the Final Rule, the Final Environmental Impact Statement, and background documents, are available at <http://www.fra.dot.gov>.

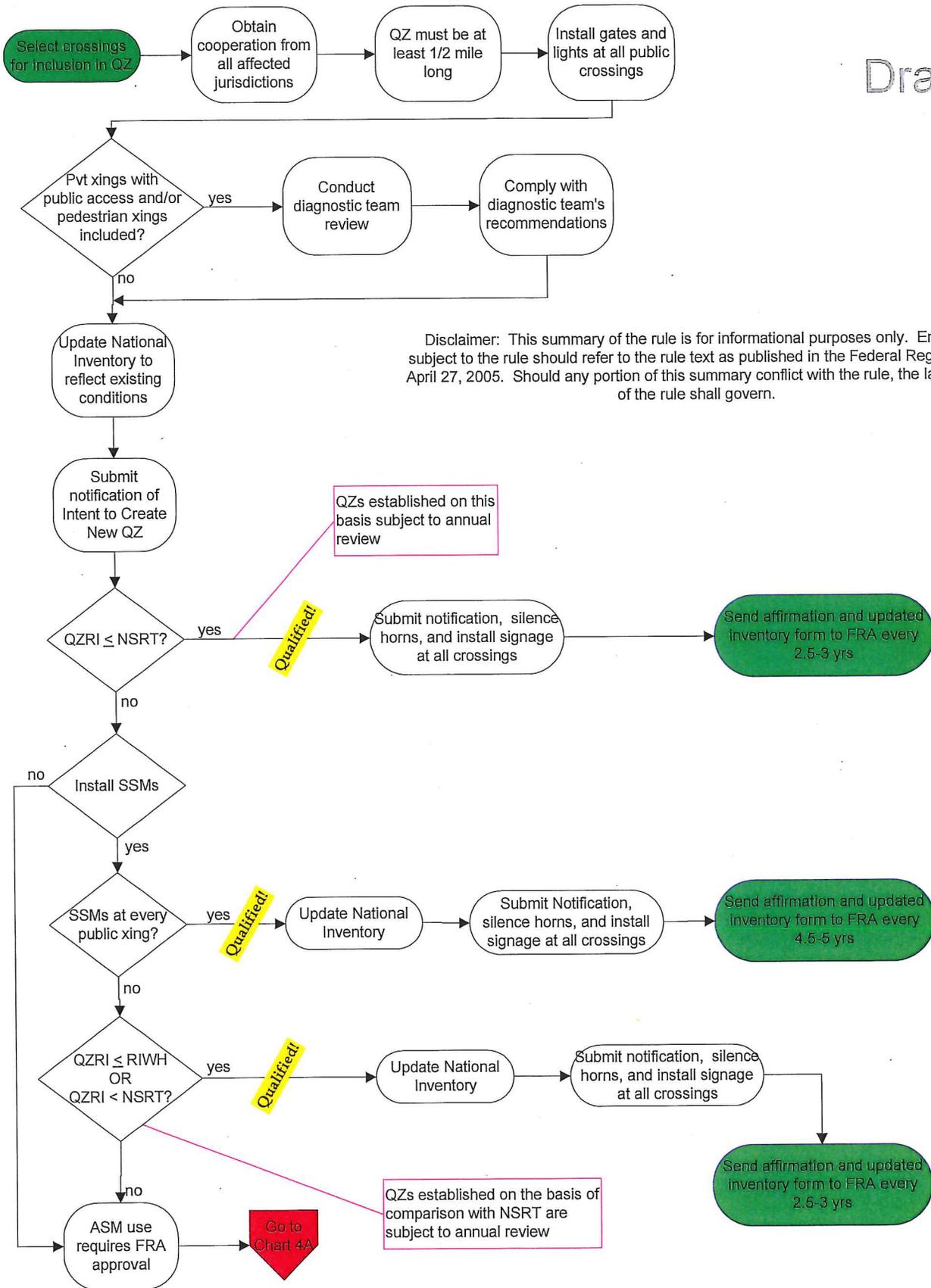
Disclaimer: This is a summary of the Final Rule for initial briefing purposes only. Entities subject to the rule should refer to the rule text as published in the Federal Register on April 27, 2005.

Appendix D

Process Flow Chart for Obtaining a Quiet Zone

Chart 3 - Creating a New Quiet Zone or New Partial Quiet Zone using SSMs

Draft



Appendix E

Risk Index Calculations

Update and Verify Crossing Information

Create New Zone Zone: 689006W LEXINGTON AVE
Manage Existing Zones Quiet Zone Type : New 24-hour Quiet Zone

689006W LEXINGTON AVE
689007D *PRIVATE ROAD
689008K VICTORIA ST N

Present warn device: Gates 1
Number of highway vehicles per day: 22500
Total trains: 5
Day through trains : 3
Total Switching Trains : 0
Number of main tracks: 1
Number of other tracks: 0
Urban(U.) / Rural(R.): Arterial U.Minor Arterial
Highways paved: Yes
Maximum timetable speed mph: 24
Number of highway lanes: 4
Number of years accident data: 5
Number of accidents in accident data years: 0
Wayside horn: No
Pre-Existing_SSM: No

CONTINUE

Log Off

Step by Step Instructions:

- Step 1: To add more crossings to the zone Click the ADD CROSSING.
Step 2: To Make changes to the default information, select the crossing from list. Enter the changes in the appropriate box, then click the UPDATE button.
Step 3: To permanently remove a crossing from the zone, select Crossing from list. Click the DELETE CROSSING button.
Step 4: Verify All Crossing Information Provided is correct. Then Click the Check Box, then CONTINUE button.
* Note: To see a list of SSMs, click on "Pre-Existing SSM".

* = Not Public At Grade Crossing
** = Closed Crossing

To verify ALL CROSSING INFORMATION PROVIDED is correct, click on the check box here.

ADD CROSSING DELETE CROSSING

UPDATE

Note: Updating Crossing information on the Quiet Zone Calculator DOES NOT update the crossing inventory. Be sure that an updated current and accurate inventory form is also submitted.

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Update and Verify Crossing Information

Create New Zone Zone: **689006W LEXINGTON AVE**
Manage Existing Zones Quiet Zone Type : **New 24-hour Quiet Zone**
Log Off **689007D *PRIVATE ROAD**
689008K VICTORIA ST. N

Step by Step Instructions:

- Step 1:** To add more crossings to the zone Click the ADD CROSSING.
- Step 2:** To Make changes to the default information, select the crossing from list. Enter the changes in the appropriate box, then click the UPDATE button.
- Step 3:** To permanently remove a crossing from the zone, select Crossing from list. Click the DELETE CROSSING button.
- Step 4:** Verify All Crossing Information Provided is correct. Then Click the Check Box, then CONTINUE button .

* Note: To see a list of SSMs, click on "Pre-Existing SSM".

* = Not Public At Grade Crossing
 ** = Closed Crossing

To verify ALL CROSSING INFORMATION PROVIDED is correct, click on the check box here.

ADD CROSSING **DELETE CROSSING**

CONTINUE

689008K VICTORIA ST N

Crossing Updated!

Present warn device: Gates	<input type="text" value="12500"/>
Number of highway vehicles per day: 014200	<input type="text" value="13"/>
Total trains: 13	<input type="text" value="8"/>
Day through trains : 8	<input type="text" value="0"/>
Total Switching Trains : 0	<input type="text" value="1"/>
Number of main tracks: 1	<input type="text" value="0"/>
Number of other tracks: 0	<input type="text" value="U.Minor Arterial"/>
Urban(U.)/Rural(R.): Arterial	<input type="text" value="Yes"/>
Highways paved: Yes	<input type="text" value="40"/>
Maximum timetable speed mph: 40	<input type="text" value="4"/>
Number of highway lanes: 4	<input type="text" value="5"/>
Number of years accident data: 5	<input type="text" value="0"/>
Number of accidents in accident data years: 0	<input type="text" value="No"/>
Wayside horn:	<input type="text" value="No"/>
Pre-Existing SSM:	<input type="text" value="No"/>

UPDATE

Note: Updating Crossing information on the Quiet Zone Calculator **DOES NOT** update the crossing inventory. Be sure that an updated current and accurate inventory form is also submitted.

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Change Scenario:

Crossing	Street	Traffic	Warning Device	Pre-SSM	SSM Risk
689006W	LEXINGTON AVE	22500 Gates		0	41,889.77
689008K	VICTORIA ST N	12500 Gates		0	38,192.48

[Create New Zone](#)
[Manage Existing Zones](#)
[Log Off](#)

* Only Public At Grade Crossings are listed.
 Click for [Supplementary Safety Measures \[SSM\]](#)
 Click for ASM spreadsheet: * Note: The use of ASMs requires an application to and approval from the FRA.

Step by Step Instructions:

Step 1: To specify New Warning Device (For Pre-Rule Quiet Zone Only) and/or SSM, click the **MODIFY** Button

Step 2: Select proposed warning device or SSM. Then click the **UPDATE** button. To generate a spreadsheet of the values on this page, click on **ASM** button—This spreadsheet can then be used for ASM calculations.

Step 3: Repeat Step (2) until the **SELECT** button is shown at the bottom right side of this page. Note that the **SELECT** button is shown **ONLY** when the Quiet Zone Risk Index falls below the NSRT or the Risk Index with Horn.

Step 4: To save the scenario and continue, click the **SELECT** button

Summary	
Proposed Quiet Zone:	SHOREVIEW2014EASTWEST5
Type:	New 24-hour QZ
Scenario:	SHOREVIEW2_41605
Estimated Total Cost:	\$0.00
Nationwide Significant Risk Threshold:	14347 .00
Risk Index with Horns:	24005.47
Quiet Zone Risk Index:	40041.12

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[Create New Zone](#)
[Manage Existing Zones](#)
[Log Off](#)

Crossing	Street	Traffic	Warning Device	Pre-SSM	SSM Risk
689006W	LEXINGTON AVE	22500 Gates		0	8,377.95
689008K	VICTORIA ST N	12500 Gates		0	38,192.48

* Only Public At Grade Crossings are listed.

Step by Step Instructions:

Step 1: To specify New Warning Device (For Pre-Rule Quiet Zone Only) and/or SSM, click the **MODIFY** Button

Step 2: Select proposed warning device or SSM. Then click the **UPDATE** button. To generate a spreadsheet of the values on this page, click on **ASM** button—This spreadsheet can then be used for ASM calculations.

Step 3: Repeat Step (2) until the **SELECT** button is shown at the bottom right side of this page. Note that the **SELECT** button is shown **ONLY** when the Quiet Zone Risk Index falls below the NSRT or the Risk Index with Horn.

Step 4: To save the scenario and continue, click the **SELECT** button

ALERT: Quiet Zone qualifies because QZRI is less than Risk Index with Horns.

Click for [Supplementary Safety Measures \[SSM\]](#)

Click for ASM spreadsheet: **ASM** * Note: The use of ASMs requires an application to and approval from the FRA.

Summary	
Proposed Quiet Zone:	SHOREVIEW2014EASTWEST5
Type:	New 24-hour QZ
Scenario:	SHOREVIEW2_41605
Estimated Total Cost:	\$15,000.00
Nationwide Significant Risk Threshold:	14347 .00
Risk Index with Horns:	24005.47
Quiet Zone Risk Index:	23285.22
<input type="button" value="Select"/>	

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Update and Verify Crossing Information

Create New Zone
Manage Existing Zones
Log Off
Zone:
Quiet Zone Type : New 24-hour Quiet Zone

689011T OWASSO BLVD
689012A JERROLD AVE

Step by Step Instructions:

Step 1: To add more crossings to the zone Click the ADD CROSSING.

Step 2: To Make changes to the default information, select the crossing from list. Enter the changes in the appropriate box, then click the UPDATE button.

Step 3: To permanently remove a crossing from the zone, select Crossing from list. Click the DELETE CROSSING button.

Step 4: Verify All Crossing Information Provided is correct. Then Click the Check Box, then CONTINUE button.

* Note: To see a list of SSMs, click on "Pre-Existing SSM".

* = Not Public At Grade Crossing
** = Closed Crossing

To verify ALL CROSSING INFORMATION PROVIDED is correct, click on the check box here.

ADD CROSSING DELETE CROSSING

CONTINUE

689011T OWASSO BLVD

Crossing Updated!

Present warn device: Gates
Number of highway vehicles per day: 006750
Total trains: 6
Day through trains : 4
Total Switching Trains : 0
Number of main tracks: 1
Number of other tracks: 0
Urban(U./Rural(R.): U.Collector
Highways paved: Yes
Maximum timetable speed mph: 40
Number of highway lanes: 2
Number of years accident data: 5
Number of accidents in accident data years: 0
Wayside horn:
Pre-Existing SSM:

UPDATE

Note: Updating Crossing information on the Quiet Zone Calculator DOES NOT update the crossing inventory. Be sure that an updated current and accurate inventory form is also submitted.

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Update and Verify Crossing Information

Create New Zone Zone: 689011T OWASSO BLVD
Manage Existing Zones Quiet Zone Type : New 24-hour Quiet Zone

Log Off

Step by Step Instructions:

- Step 1: To add more crossings to the zone Click the ADD CROSSING.
Step 2: To Make changes to the default information, select the crossing from list. Enter the changes in the appropriate box, then click the UPDATE button.
Step 3: To permanently remove a crossing from the zone, select Crossing from list. Click the DELETE CROSSING button.
Step 4: Verify All Crossing Information Provided is correct. Then Click the Check Box, then CONTINUE button.

* Note: To see a list of SSMs, click on "Pre-Existing SSM".

CONTINUE

689012A JERROLD AVE

Crossing Updated!

Form with fields: Stop Gates, Present warn device: Signs, Number of highway vehicles per day: 000675, Total trains: 4, Day through trains : 2, Total Switching Trains : 0, Number of main tracks: 1, Number of other tracks: 0, Urban(U./Rural(R.)): U.Local, Highways paved: Yes, Maximum timetable speed mph: 40, Number of highway lanes: 2, Number of years accident data: 5, Number of accidents in accident data years: 0, Wayside horn: No, Pre-Existing SSM: No

UPDATE

Note: Updating Crossing information on the Quiet Zone Calculator DOES NOT update the crossing inventory. Be sure that an updated current and accurate inventory form is also submitted.

* = Not Public At Grade Crossing
** = Closed Crossing

To verify ALL CROSSING INFORMATION PROVIDED is correct, click on the check box here.

ADD CROSSING DELETE CROSSING

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Change Scenario:

Crossing	Street	Traffic Warning Device	Pre-SSM	SSM	Risk
689011T	TOWASSO BLVD	6750 Gates	0	0	12,496.85
689012A	JERROLD AVE	675 Gates	0	0	3,865.58

Create New Zone

Manage Existing Zones

Log Off

* Only Public At Grade Crossings are listed.

Click for [Supplementary Safety Measures](#) [SSM]

Step by Step Instructions:

Step 1: To specify New Warning Device (For Pre-Rule Quiet Zone Only) and/or SSM, click the MODIFY Button

Step 2: Select proposed warning device or SSM. Then click the UPDATE button. To generate a spreadsheet of the values on this page, click on ASM button—This spreadsheet can then be used for ASM calculations.

Step 3: Repeat Step (2) until the SELECT button is shown at the bottom right side of this page. Note that the SELECT button is shown ONLY when the Quiet Zone Risk Index falls below the NSRT or the Risk Index with Horn.

Step 4: To save the scenario and continue, click the SELECT button

Summary	
Proposed Quiet Zone:	SHOREVIEW2014NORTHSOUTH2
Type:	New 24-hour QZ
Scenario:	SHOREVIEW2_41607
Estimated Total Cost:	\$0.00
Nationwide Significant Risk Threshold:	14347 .00
Risk Index with Horns:	4904.8
Quiet Zone Risk Index:	8181.21
	Select

3013

Appendix F
Crossing Analysis

**U.S. DOT - CROSSING INVENTORY INFORMATION
AS OF 2/6/2014**

Crossing No.: **689006W** Update Reason: **Changed Crossing** Effective Begin-Date of Record: **09/28/11**
 Railroad: **SOO SOO Line RR Co. [SOO]** End-Date of Record:
 Initiating Agency **Railroad** Type and Position: **Public At Grade**

Part I Location and Classification of Crossing

Division:	ST PAUL SERVIC	State:	MN
Subdivision:	PAYNESVILLE	County:	RAMSEY
Branch or Line Name:		City:	In SHOREVIEW
Railroad Milepost:	0009.83	Street or Road Name:	LEXINGTON AVE
RailRoad I.D. No.:		Highway Type & No.:	CSAH 51
Nearest RR Timetable Stn:	NEW BRIGHTON	HSR Corridor ID:	
Parent Railroad:	Canadian Pacific Rwy Co. [CP]	County Map Ref. No.:	503
Crossing Owner:		Latitude:	45.0509990
ENS Sign Installed:	Yes	Longitude:	-93.1468960
Passenger Service:	None	Lat/Long Source:	
Avg Passenger Train Count:	0	Quiet Zone:	No
Adjacent Crossing with Separate Number:	No		

Private Crossing Information:

Category: Public Access: **Unknown**
 Specify Signs: Specify Signals:

ST/RR A ST/RR B ST/RR C ST/RR D

Railroad Use:

State Use: **F-0476**

Narrative:

Emergency Contact: **(800)716-9132** Railroad Contact: State Contact: **(651)366-3667**

Part II Railroad Information

Number of Daily Train Movements:		Less Than One Movement Per Day:	No
Total Trains:	5	Total Switching:	0
Typical Speed Range Over Crossing: From	5 to 24 mph	Day Thru:	3
Type and Number of Tracks: Main:	2	Other:	0
		Specify:	24
Does Another RR Operate a Separate Track at Crossing?			No
Does Another RR Operate Over Your Track at Crossing?			No

U.S. DOT - CROSSING INVENTORY INFORMATION

Crossing **689006W**

Continued

Effective Begin-Date of Record: **09/28/11**

End-Date of Record:

Part III: Traffic Control Device Information

Signs:

Crossbucks:	0	Highway Stop Signs:	0
Advanced Warning:	Yes	Hump Crossing Sign:	No
Pavement Markings:	No Markings	Other Signs:	0
		Specify:	0

Train Activated Devices:

Gates:	2	4 Quad or Full Barrier:	
Mast Mounted FL:	2	Total Number FL Pairs:	0
Cantilevered FL (Over):	0	Cantilevered FL (Not over):	0
Other Flashing Lights:	0	Specify Other Flashing Lights:	
Highway Traffic Signals:	0	Wigwags:	0
Other Train Activated Warning Devices:		Bells:	1
Channelization:		Special Warning Devices Not Train Activated:	
Track Equipped with Train Signals?	No	Type of Train Detection:	Constant Warning Time
		Traffic Light	Advance Preemption
		Interconnection/Preemption:	

Part IV: Physical Characteristics

Type of Development:	Commercial	Smallest Crossing Angle:	60 to 90 Degrees
Number of Traffic Lanes Crossing Railroad:	4	Are Truck Pullout Lanes Present?	No
Is Highway Paved?	Yes	If Other:	
Crossing Surface:	Concrete	Is it Signalized?	Yes
Nearby Intersecting Highway?	201 to 500 feet	Is Crossing Illuminated?	No
Does Track Run Down a Street?	No		
Is Commercial Power Available?	Yes		

Part V: Highway Information

Highway System:	Other FA Highway - Not NHS	Functional Classification of Road at Crossing:	Urban Minor Arterial
Is Crossing on State Highway System:	No	AADT Year:	2006
Annual Average Daily Traffic (AADT):	022500	Avg. No of School Buses per Day:	30
Estimated Percent Trucks:	05		
Posted Highway Speed:	40		

U.S. DOT - CROSSING INVENTORY INFORMATION

AS OF 2/6/2014

Crossing No.: 689008K Update Reason: Changed Crossing Effective Begin-Date of Record: 12/04/13
 Railroad: SOO SOO Line RR Co. [SOO] End-Date of Record:
 Initiating Agency Railroad Type and Position: Public At Grade

Part I Location and Classification of Crossing

Division:	ST PAUL SERVIC	State:	MN
Subdivision:	WITHROW	County:	RAMSEY
Branch or Line Name:		City:	Near NEW BRIGHTON
Railroad Milepost:	0007.51	Street or Road Name:	VICTORIA ST N
RailRoad I.D. No.:		Highway Type & No.:	CSAH 52
Nearest RR Timetable Strn:	CARDIGAN JCT	HSR Corridor ID:	
Parent Railroad:	Canadian Pacific Rwy Co. [CP]	County Map Ref. No.:	504
Crossing Owner:		Latitude:	45.0503010
ENS Sign Installed:	Yes	Longitude:	-93.1328960
Passenger Service:	None	Lat/Long Source:	Neither
Avg Passenger Train Count:	0	Quiet Zone:	No
Adjacent Crossing with Separate Number:			

Private Crossing Information:

Category:	Public Access:	Unknown
Specify Signs:	Specify Signals:	

	ST/RR A	ST/RR B	ST/RR C	ST/RR D
Railroad Use:				
State Use:	F-0957			

Narrative:

Emergency Contact:	(800)716-9132	Railroad Contact:		State Contact:	(651)366-3667
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Part II Railroad Information

Number of Daily Train Movements:	Less Than One Movement Per Day:	No
Total Trains: 13 Total Switching: 0	Day Thru:	8
Typical Speed Range Over Crossing: From 20 to 40 mph	Maximum Time Table Speed:	40
Type and Number of Tracks: Main: 1 Other 0	Specify:	
Does Another RR Operate a Separate Track at Crossing?		No
Does Another RR Operate Over Your Track at Crossing?		No

U.S. DOT - CROSSING INVENTORY INFORMATION

Crossing 689008K

Continued

Effective Begin-Date of Record: 12/04/13

End-Date of Record:

Part III: Traffic Control Device Information

Signs:

Crossbucks:	0	Highway Stop Signs:	0
Advanced Warning:	Yes	Hump Crossing Sign:	No
Pavement Markings:	No Markings	Other Signs: 2	Specify: W10-4
		0	

Train Activated Devices:

Gates:	2	4 Quad or Full Barrier:	
Mast Mounted FL:	0	Total Number FL Pairs:	10
Cantilevered FL (Over):	0	Cantilevered FL (Not over):	0
Other Flashing Lights:	4	Specify Other Flashing Lights:	SIDELIGHT
Highway Traffic Signals:	0	Wigwags:	0 Bells: 1
Other Train Activated Warning Devices:		Special Warning Devices Not Train Activated:	
Channelization:	All	Type of Train Detection:	Motion Detectors
Track Equipped with Train Signals?	No	Traffic Light Interconnection/Preemption:	Simultaneous Preemption

Part IV: Physical Characteristics

Type of Development:	Residential	Smallest Crossing Angle:	60 to 90 Degrees
Number of Traffic Lanes Crossing Railroad:	4	Are Truck Pullout Lanes Present?	No
Is Highway Paved?	Yes	If Other:	
Crossing Surface:	Concrete and Rubber	Is it Signalized?	Yes
Nearby Intersecting Highway?	N/A	Is Crossing Illuminated?	Yes
Does Track Run Down a Street?	No		
Is Commercial Power Available? Yes			

Part V: Highway Information

Highway System:	Non-Federal-aid	Functional Classification of Road at Crossing:	Urban Minor Arterial
Is Crossing on State Highway System:	No	AADT Year:	2010
Annual Average Daily Traffic (AADT):	014200	Avg. No of School Buses per Day:	47
Estimated Percent Trucks:	05		
Posted Highway Speed:	40		

U.S. DOT - CROSSING INVENTORY INFORMATION

AS OF 2/6/2014

Crossing No.: 689011T Update Reason: Changed Crossing Effective Begin-Date of Record: 04/01/12
 Railroad: SOO SOO Line RR Co. [SOO] End-Date of Record:
 Initiating Agency State Type and Position: Public At Grade

Part I Location and Classification of Crossing

Division:	ST PAUL SERVIC	State:	MN
Subdivision:	PAYNESVILLE	County:	RAMSEY
Branch or Line Name:	ST PAUL SUB	City:	Near SHOREWOOD
Railroad Milepost:	0012.54	Street or Road Name:	OWASSO BLVD
RailRoad I.D. No.:		Highway Type & No.:	CSAH 18
Nearest RR Timetable Str:	CARDIGAN JCT	HSR Corridor ID:	
Parent Railroad:	Canadian Pacific Rwy Co. [CP]	County Map Ref. No.:	519
Crossing Owner:		Latitude:	45.0315020
ENS Sign Installed:	Yes	Longitude:	-93.1035000
Passenger Service:	None	Lat/Long Source:	
Avg Passenger Train Count:	0	Quiet Zone:	No
Adjacent Crossing with Separate Number:	No		

Private Crossing Information:

Category:	Public Access:	Unknown
Specify Signs:	Specify Signals:	

	ST/RR A	ST/RR B	ST/RR C	ST/RR D
Railroad Use:				
State Use:	F0952			

Narrative:

Emergency Contact: (800)716-9132 Railroad Contact: State Contact: (651)366-3667

Part II Railroad Information

Number of Daily Train Movements:	Less Than One Movement Per Day:	No
Total Trains: 6 Total Switching: 0	Day Thru:	4
Typical Speed Range Over Crossing: From 10 to 30 mph	Maximum Time Table Speed:	40
Type and Number of Tracks: Main: 1 Other 0	Specify:	
Does Another RR Operate a Separate Track at Crossing?		No
Does Another RR Operate Over Your Track at Crossing?		No

U.S. DOT - CROSSING INVENTORY INFORMATION

Crossing 689011T

Continued

Effective Begin-Date of Record: 04/01/12

End-Date of Record:

Part III: Traffic Control Device Information

Signs:

Crossbucks:	0	Highway Stop Signs:	0
Advanced Warning:	Yes	Hump Crossing Sign:	No
Pavement Markings:	No Markings	Other Signs: 0	Specify:
		0	

Train Activated Devices:

Gates:	2	4 Quad or Full Barrier:	
Mast Mounted FL:	0	Total Number FL Pairs:	6
Cantilevered FL (Over):	0	Cantilevered FL (Not over):	0
Other Flashing Lights:	2	Specify Other Flashing Lights:	SIDE LTS
Highway Traffic Signals:	0	Wigwags: 0	Bells: 1
Other Train Activated Warning Devices:		Special Warning Devices Not Train Activated:	
Channelization:		Type of Train Detection:	Motion Detectors
Track Equipped with Train Signals?	No	Traffic Light	N/A
		Interconnection/Preemotion:	

Part IV: Physical Characteristics

Type of Development:	Industrial	Smallest Crossing Angle:	60 to 90 Degrees
Number of Traffic Lanes Crossing Railroad:	2	Are Truck Pullout Lanes Present?	No
Is Highway Paved?	Yes	If Other:	
Crossing Surface:	Concrete	Is it Signalized?	No
Nearby Intersecting Highway?	Less than 75 feet	Is Crossing Illuminated?	Yes
Does Track Run Down a Street?	No		
Is Commercial Power Available? Yes			

Part V: Highway Information

Highway System:	Non-Federal-aid	Functional Classification of Road at Crossing:	Urban Collector
Is Crossing on State Highway System:	No	AADT Year:	2010
Annual Average Daily Traffic (AADT):	006750	Avg. No of School Buses per Day:	31
Estimated Percent Trucks:	05		
Posted Highway Speed:	30		

U.S. DOT - CROSSING INVENTORY INFORMATION

AS OF 2/6/2014

Crossing No.: 689012A Update Reason: Changed Crossing Effective Begin-Date of Record: 03/22/12
 Railroad: SOO SOO Line RR Co. [SOO] End-Date of Record:
 Initiating Agency State Type and Position: Public At Grade

Part I Location and Classification of Crossing

Division:	ST PAUL SERVIC	State:	MN
Subdivision:	PAYNESVILLE	County:	RAMSEY
Branch or Line Name:	ST PAUL SUB	City:	In SHOREVIEW
Railroad Milepost:	0012.72	Street or Road Name:	JERROLD AVE
RailRoad I.D. No.:		Highway Type & No.:	MUN 87
Nearest RR Timetable Stn:	CARDIGAN JCT	HSR Corridor ID:	
Parent Railroad:	Canadian Pacific Rwy Co. [CP]	County Map Ref. No.:	520
Crossing Owner:		Latitude:	45.0400010
ENS Sign Installed:	Yes	Longitude:	-93.1066970
Passenger Service:	None	Lat/Long Source:	
Avg Passenger Train Count:	0	Quiet Zone:	No
Adjacent Crossing with Separate Number:	No		

Private Crossing Information:

Category: Public Access: Unknown
 Specify Signs: Specify Signals:

ST/RR A ST/RR B ST/RR C ST/RR D

Railroad Use:

State Use:

Narrative:

Emergency Contact: (800)716-9132 Railroad Contact: State Contact: (651)366-3667

Part II Railroad Information

Number of Daily Train Movements:		Less Than One Movement Per Day:	No
Total Trains: 4	Total Switching: 0	Day Thru:	2
Typical Speed Range Over Crossing: From 20 to 40 mph		Maximum Time Table Speed:	40
Type and Number of Tracks: Main: 1 Other 0		Specify:	
Does Another RR Operate a Separate Track at Crossing?			No
Does Another RR Operate Over Your Track at Crossing?			No

U.S. DOT - CROSSING INVENTORY INFORMATION

Crossing 689012A

Continued

Effective Begin-Date of Record: 03/22/12

End-Date of Record:

Part III: Traffic Control Device Information

Signs:

Crossbucks: 2	Highway Stop Signs: 2
Advanced Warning: Yes	Hump Crossing Sign: No
Pavement Markings: No Markings	Other Signs: 2 Specify: W10-3
	1 W3-1

Train Activated Devices:

Gates: 0	4 Quad or Full Barrier:
Mast Mounted FL: 0	Total Number FL Pairs: 0
Cantilevered FL (Over): 0	Cantilevered FL (Not over): 0
Other Flashing Lights: 0	Specify Other Flashing Lights:
Highway Traffic Signals: 0	Wigwags: 0 Bells: 0
Other Train Activated Warning Devices:	Special Warning Devices Not Train Activated:
Channelization:	Type of Train Detection: None
Track Equipped with Train Signals? No	Traffic Light: N/A
	Interconnection/Preemption:

Part IV: Physical Characteristics

Type of Development: Residential	Smallest Crossing Angle: 60 to 90 Degrees
Number of Traffic Lanes Crossing Railroad: 2	Are Truck Pullout Lanes Present? No
Is Highway Paved? Yes	If Other:
Crossing Surface: Timber	Is it Signalized? No
Nearby Intersecting Highway? Less than 75 feet	Is Crossing Illuminated? Yes
Does Track Run Down a Street? No	
Is Commercial Power Available? Yes	

Part V: Highway Information

Highway System: Non-Federal-aid	Functional Classification of Road at Crossing: Urban Local
Is Crossing on State Highway System: No	
Annual Average Daily Traffic (AADT): 000675	AADT Year: 2010
Estimated Percent Trucks: 05	Avg. No of School Buses per Day: 5
Posted Highway Speed: 30	