City of St. Louis Park, MN
Quiet Zone Assessment

City of St. Louis Park, Hennepin County, Minnesota

Prepared by:

SRF

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OVERVIEW

Study Purpose and Background

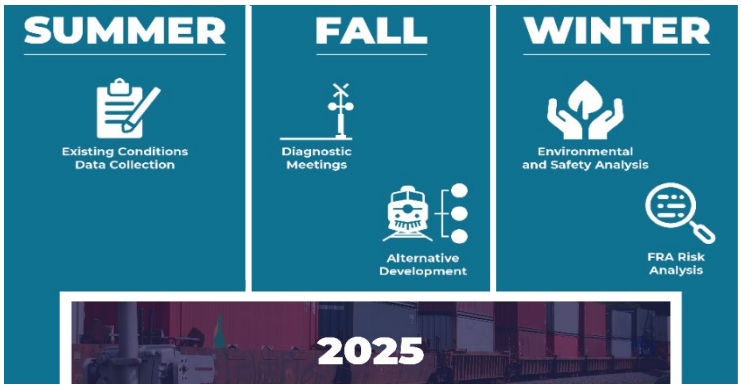
The City of St. Louis Park (the City) is leading a study to investigate options to improve safety and minimize the impacts of train horn noise. The Federal Railroad Administration's (FRA's) Train Horn Rule, issued in June 2005, provides an opportunity to accomplish this objective. The Train Horn Rule specifies the procedures and actions necessary to establish a train horn quiet zone for at-grade highway-rail crossings.

SRF Consulting Group, Inc. (SRF) was retained to conduct a Rail Crossing Safety Study to analyze current safety risk levels and evaluate the necessary safety measures required to compensate for the loss of routine train horn sounding if a federally approved quiet zone were established in the City. Through the assessment process, 22 (20 public and two private) at-grade rail crossings along the Canadian Pacific Kansas City (CPKC) railroad were evaluated. Two crossings in the City of Golden Valley and four crossings in the City of Edina were identified as crossings that would need to be part of a potential quiet zone if every crossing in St. Louis Park was to be part of a quiet zone. The crossings included:

- Laural Avenue*
- Golden Hills Drive*
- Wayzata Boulevard S
- Brunswick North Pedestrian Crossing
- Cedar Lake Road
- W 28th Street
- W 29th Street
- Dakota Avenue
- Library Lane
- Lake Street
- Walker Street
- Brunswick South Pedestrian Crossing
- Alabama Avenue
- Excelsior Boulevard
- W 41st Street
- W 42nd Street
- Brookside Avenue
- Yosemite Avenue
- Private Road
- Brookside Terrace
- W 49th Street
- Edina Public Works Access

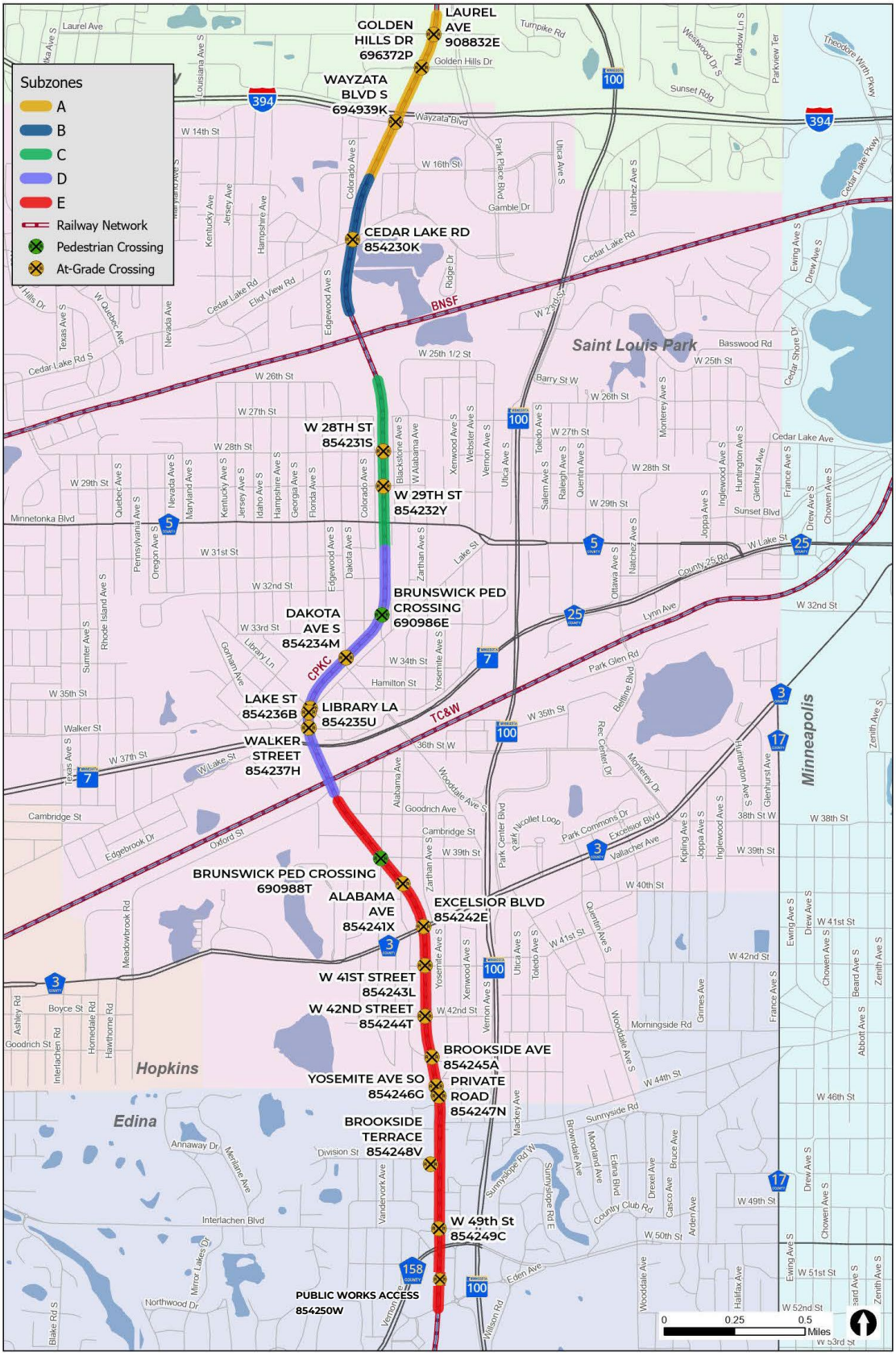
*Laural Avenue and Golden Hills Drive in The City of Golden Valley were not reviewed as part of this study.

Figure 1: Quiet Zone Process



This document outlines the recommended crossing improvements for quiet zone implementation at crossings in St. Louis Park and Edina. A map of the corridor with the locations of the rail crossings evaluated for the quiet zone is shown in Figure 2 below. This assessment included a field diagnostic review of the crossings with representatives from the City of St. Louis Park, CPKC, the FRA, Minnesota Department of Transportation (MnDOT), and SRF. Representatives from the City of Edina participated in the meeting while reviewing the crossings within Edina. This report summarizes the Quiet Zone Assessment methodology, discussion items, and proposed improvement scenarios with planning level layouts and planning-level cost estimates.

Figure 2: Rail Crossings and Subzones



Existing Conditions

Prior to determining the necessary improvements for any future quiet zone, the study team examined the existing characteristics and rail safety features of each crossing. For a public at-grade rail crossing to be eligible for a quiet zone, the crossing must meet pre-qualifying criteria which mean it includes flashing lights, two-quadrant vehicle gates, constant warning time (CWT) detection, and power out indicators. The crossings at Dakota Avenue, Library Lane, Lake Street, Walker Street, Alabama Avenue, Brookside Avenue, and Yosemite Avenue meet the pre-qualifying criteria. Additionally, pedestrian and private crossings do not have the same requirements, therefore both Brunswick Avenue pedestrian crossings, and the two private crossings in Edina meet the requirement to be part of a quiet zone as well. Table 1 below summarizes each crossing's current characteristics.

Table 1: Crossing Characteristics

Crossing Location	Number of trains per day	Maximum train speed	Average Daily Traffic Volume (Year)	Pairs of Lights	Gates	Train Detection System	Crossing meets pre-qualifying criteria
Laurel Avenue	2	10	4,450 (2009)	10	2 Roadway	Motion Detection	NO
Golden Hills Drive	2	10	5,400 (2009)	5	2 Roadway	CWT	YES
Wayzata Boulevard S	2	10	4,118 (2024)	4	None	None	NO
Cedar Lake Road	2	15	13,380 (2025)	8	None	Motion Detection	NO
W 28th Street	2	15	975 (2025)	0	None	None	NO
W 29th Street	2	10	200 (2025)	0	None	None	NO
Brunswick North Pedestrian Crossing	2	15	N/A	3	None	None	YES
Dakota Avenue	2	15	4,167 (2023)	4	2 Roadway, 4 Pedestrian	CWT	YES
Library Lane	2	15	1,850 (2025)	5	2 Roadway	CWT	YES
Lake Street	2	15	4,500 (2025)	4	2 Roadway	CWT	YES
Walker Street	2	15	875 (2025)	4	2 Roadway	CWT	YES
Brunswick South Pedestrian Crossing	2	15	N/A	4	None	None	YES
Alabama Avenue	2	15	1,963 (2024)	4	2 Roadway	CWT	YES
Excelsior Boulevard	2	15	21,087 (2024)	12	2 Roadway	Motion Detection	NO
W 41st Street	2	15	775 (2025)	0	None	None	NO
W 42nd Street	2	15	325 (2025)	0	None	None	NO
Brookside Avenue	2	15	1,162 (2024)	4	2 Roadway	CWT	YES
Yosemite Avenue	2	15	4,075 (2025)	5	2 Roadway	CWT	YES
Private Road	2	15	N/A	0	None	None	YES

Crossing Location	Number of trains per day	Maximum train speed	Average Daily Traffic Volume (Year)	Pairs of Lights	Gates	Train Detection System	Crossing meets pre-qualifying criteria
Brookside Terrace	2	15	1,162 (2024)	0	None	None	NO
W 49th Street	2	15	600 (2025)	0	None	None	NO
Edina Public Works Access (Private)	2	15	N/A	0	0	None	YES

QUIET ZONE ANALYSIS

A diagnostic team meeting was held on October 21st, 2025. Representatives from the City, CPKC, FRA, MnDOT, and SRF Consulting Group attended. Representatives from the City of Edina joined the meeting to review the crossings in the City of Edina. The diagnostic team met at St. Louis Park City Hall to discuss background information on the crossings, the quiet zone assessment process, a safety briefing, and future City and CPKC rail plans. The diagnostic team then completed a field inspection of each crossing and discussed possible Supplemental Safety Measure (SSM) and Alternative Safety Measure (ASM) improvement options at each crossing.

SSMs are crossing safety improvements designated as effective substitutes for negating train whistles at highway-rail crossings. SSMs deemed acceptable by the FRA for quiet zone implementation, in addition to the minimum crossing requirements (as identified earlier), include non-traversable medians, four-quadrant vehicle gates, channelization delineators, one-way pairs, and street closures.

ASMs are highway-rail crossing safety improvements not pre-approved for implementation per the Final Rule and, as such, are subject to approval upon application review by the FRA Associate Administrator of Safety. This application process is more time-consuming; however, it is an acceptable alternative to the designation method (i.e., the use of SSMs). ASMs include three-quadrant vehicle gates, medians less than 60 feet, programmed/photo enforcement, public awareness education, and other geometric improvements.

The suitability of a particular SSM/ASM depends on various rail crossing factors. For example, four-quadrant vehicle gates are a very effective measure but also have a high associated cost. The installation of medians generally has a low relative cost, and they are effective in reducing risk, but are sometimes not acceptable because they reduce or eliminate access for existing driveways along the roadway. Additionally, the installation of delineators also generally has a low relative capital cost, but ongoing maintenance costs can be significant.

During the diagnostic team's field review of the crossings, the feasibility and constructability of various SSM/ASM recommendations were evaluated. The quiet zone diagnostic meeting was also an opportunity to identify other concerns or issues related to the crossing, such as safety, traffic operations, etc. The following summarizes the field review and assessment at each crossing. Four-quadrant gates were discussed and considered at most crossings due to the access and property limitations present at several crossings. In addition to placement of the gate mechanism, participants discussed a variety of desired pedestrian safety improvements, including lights, bells, gates, and channelization strategies that could be implemented at each crossing. These should be considered in quiet zones with high volumes of pedestrian traffic. Bicycle and pedestrian safety in quiet zones is a significant safety concern for meeting participants, especially where

there are no audible or visual warnings or other safety issues that may warrant pedestrian crossing improvements.

DIAGNOSTIC MEETING CROSSING REVIEW

The following section includes the notes taken for each crossing during the diagnostic meetings on October 21st. The notes include characteristics about each crossing, identified changes that could be made to improve crossing safety, and recommended improvements required to qualify to be part of a quiet zone. As stated previously, the two crossings in the City of Golden Valley were not reviewed as part of this study.

Wayzata Boulevard S - 694939K

This crossing currently does not meet the requirements of being part of a quiet zone by having lights, gates, and constant warning time detection. The crossing has four pairs of flashing lights but does not have gates or CWT detection. Wayzata Boulevard has 4,118 vehicles traversing the crossing each day.

St. Louis Park staff mentioned that there is an upcoming project on this roadway that will take place in the next five years. That project could include lane narrowing along with a mill and overlay. Visibility of trains can be difficult at the crossing as southbound trains cross over Interstate 394. There was a conical mirror that allowed people to be more aware of oncoming trains, but that mirror was removed.

The diagnostic team mentioned that reinstalling the conical mirror could be helpful to improve visibility. The diagnostic team also discussed installing SSM length medians to this crossing as the roadway is wide enough and there are no driveways within 100 feet of the crossing. The team noted that both the vehicle and pedestrian crossing surface were in poor condition and should be improved.

Installing pedestrian bells were mentioned as an option. No risk reduction treatment other than installing gates, and CWT detection was mentioned as an option.

Cedar Lake Road – 854230K

This crossing does not currently meet the requirements of being part of a quiet zone by havingf lights, gates, and Constant Warning Time detection. The crossing has eight pairs of flashing lights but lacks gates and CWT detection system.

Cedar Lake Road has 13,380 daily vehicles traversing the crossing which may be elevated because of the partial closure of Wayzata Boulevard to the north. Cedar Lake Road was recently reconstructed and has ADA compliant advanced warnings at all four sidewalk approaches. The road also has a painted westbound bike lane on the north side of the road and a sidewalk level eastbound bikeway on the south side. The crossing condition for both vehicles and pedestrians is in good condition. There is a railroad driveway in the southeast quadrant that is used by the city to access their brush composting site. There are many vehicles using this access on a seasonal basis. In the northwest quadrant Colorado Avenue intersects with Cedar Lake Road.

The diagnostic team discussed options that would reduce the risk at this crossing including installing a three quadrant gate system. In this scenario, the intersection with Colorado Avenue in the northwest quadrant would have the exist gate so southbound left turning traffic from Colorado Avenue would not be able to enter the gate area when the gates are down. Another option the diagnostic team discussed would be to convert the intersection with Colorado Avenue into a right in right out. Another option mentioned was to convert one block of Colorado Avenue to be a southbound one way with a right out only intersection with

Cedar Lake Road. Both scenarios would render an exit gate unnecessary. Representatives from the City mentioned that Colorado Avenue is used as a cut through street so residents may welcome that change.

There is space to add a median on the east side of the crossing, but it would not have a risk reduction benefit because of the driveway in the gate arm area. Additionally, drivers were seen veering into the painted bike lane as they took the curve towards the crossing and adding a median would make that problem worse. A median could be added to the west side of the crossing if the city determined that eastbound traffic turning north onto Colorado Avenue not necessary and found the median placement acceptable. That median could be over 100 feet long but would also not have a significant risk reduction value because the intersection with Colorado Avenue is so close to the crossing.

No risk reduction treatment other than installing gates, and CWT detection system was mentioned as an option.

W 28th Street- 854231S

This crossing does not currently meet the requirements of being part of a quiet zone by having lights, gates, and Constant Warning Time detection. The crossing lacks lights, gates, and CWT detection system.

W 28th Street has 975 vehicles traversing the crossing each day. The roadway is 26 feet wide and has an alley 11 feet from the west side of the crossing. There is a sidewalk on the north side of the street. There are driveways 26 and 36 feet away from the crossing on the west side. The roadway is humped especially from the eastbound direction. Both vehicle and pedestrian crossing surface are in poor condition.

The diagnostic team did not recommend an SSM or ASM treatment at this crossing because medians would be very limited to do the nearby driveways and alley. Members wondered if low ground clearance signs should be added because of how humped the crossing is. They also mentioned that the westbound stop sign is too short and should be raised and that retroreflective striping should be added to the backs of the signposts. No risk reduction treatment other than installing lights, gates, and CWT detection was mentioned as an option.

W 29th Street - 854232Y

This crossing does not currently meet the requirements of being part of a quiet zone by having lights, gates, and Constant Warning Time detection. The crossing lacks lights, gates, and CWT detection system.

W 29th Street has 200 vehicles traversing the crossing each day. The roadway is 29 feet wide and has a driveway within 6 and 20 feet of future gate placement on the west side. There are driveways 26 and 36 feet away from the crossing on the west side. There is not a sidewalk at this crossing. The roadway is humped especially from the eastbound direction. The crossing has stop signs as the traffic control device. The vehicle crossing is in poor condition.

The diagnostic meeting recommended ongoing vegetation clearance to maintain sight lines. No risk reduction treatment other than installing lights, gates, and CWT detection system was mentioned as an option.

Brunswick Ave North Pedestrian Crossing - 690986E

This crossing meets the requirements of being part of a quiet zone because pedestrian crossings are not required to have the prequalifying elements that public crossings are. This crossing does not have lights, gates, or any warning detection system although lights are listed as present in the current inventory form.

The crossing has a single concrete panel for the crossing which is in very poor condition. This crossing may be used as part of a future north south regional trail.

The diagnostic team recommended replacing the concrete panel and expanding the crossing to include two panels. The team mentioned trespassing as an issue at this crossing. People have been seen walking along west side of the tracks to access the park, while others cross outside of the crossing area to access W 33rd Street on the west side of the tracks. The diagnostic team also recommended altering the curves to the approach of the crossings so future signage would be more visible to crossing users. The diagnostic team discussed using stop signs rather than yield signs as the traffic control device at the crossing and decided that stop signs should be used. The diagnostic team also recommended keeping vegetation clear from the crossing to maintain sight lines.

Dakota Avenue – 854234M

This crossing meets the requirements of being part of a quiet zone by having lights, gates, and Constant Warning Time detection. This crossing has four pairs of flashing lights, two roadway gates, and four pedestrian gates.

Dakota Avenue S has 4,167 vehicles traversing the crossing each day. This section of Dakota Avenue is planned to be part of a regional trail and to have a shared use path on the east side of the street in 2030. The current street design is 43.5 feet wide with two travel lanes, painted bike lanes, and parking on the west side. The vehicle and pedestrian crossing surfaces are in good condition. There is a one way driveway entrance to the high school in the northwest quadrant, a driveway to a business in the northeast quadrant, and a public alley access in the southwest quadrant. The McDonald's property in the southeast and the limited right of way space required the northbound entrance gate to be parallel to the tracks rather than perpendicular to the roadway.

The diagnostic team discussed adding medians to the crossing. With the current driveway configuration north of the crossing, a 17-foot median could be added. The diagnostic team recommended contacting the school to see if the school's driveway could be narrowed so a median up to 54 feet long could be added. To the south, a 43-foot median could be installed from the gate arm to the alley entrance. The diagnostic team recommend moving the bike lane towards the curbline by removing some of the parking on the west side so the bike lane could continue through the crossing. No risk reduction treatment at this crossing was also discussed.

Library Lane - 854235U

This crossing meets the requirements of being part of a quiet zone by having lights, gates, and Constant Warning Time detection. The crossing is equipped with five pairs of flashing lights.

Library Lane has 1,850 vehicles traversing the crossing each day. The crossing is at the intersection of Library Lane and Lake Street. The tracks run along the north side of intersection when crossing Library Lane and the west side of the intersection when crossing Lake Street. Library Lane is 34 feet wide north of the intersection and 24 feet wide on the south side. There Is a small private parking lot on the west side of the crossing and public parking that is perpendicular to the street to the southeast. The vehicle and pedestrian surfaces are in good condition at this crossing. This crossing has yield and "look both ways" signs for pedestrians at all quadrants.

The team noted that because of the way the pedestrian crossing is constructed, the pedestrian crossing can inadvertently be used as a second driveway into the parking lot which is unsafe. The diagnostic team

recommends adding posts or bollards along the private parking lot in the northwest quadrant to prevent this possible use of the crosswalk. Because of the formal driveway entrance on the northwest quadrant, it is not possible to add medians. A 58-foot median could be added to the south side of the crossing but could be challenging with the narrower roadway. No risk reduction treatment at this crossing was discussed as an option.

Lake Street - 854236B

This crossing meets the requirements of being part of a quiet zone by having lights, gates, and Constant Warning Time detection. This crossing is equipped with four pairs of flashing lights.

Lake Street has 4,500 vehicles traversing the crossing each day. The crossing is at the intersection of Library Lane and Lake Street. The tracks run along the north side of intersection when crossing Library Lane and the west side of the intersection when crossing Lake Street. Lake Street is 34 feet wide on the west side at the gates but expands to 49 feet slightly further west where parking on both sides is present. Lake Street has painted bike lanes in both directions and has curb extensions. The vehicle and pedestrian surfaces are in good condition at this crossing. This crossing has yield and "look both ways" signs for pedestrians at three of the quadrants.

The diagnostic team noted that medians would not be possible on the east side of the intersection without impacting the bike lanes because the curb extensions narrow the street. Medians could be added to the west side without impacting the bike lanes if parking was reduced inside the gate arm area to allow the bike lane to be next to the curb before being moved back to the current configuration where the street widens out. A 103-foot median would fit in the west side. The diagnostic team recommended adding the yield and "look both ways" signs for pedestrians at quadrant that is missing the signs. No risk reduction treatment was mentioned as an option.

Walker Street - 854237H

This crossing does not currently meet the requirements of being part of a quiet zone by having lights, gates, and Constant Warning Time detection. The crossing has four pairs of lights and gates (which are not mentioned in the current inventory form) but lacks and CWT detection system.

Walker Street has 875 vehicles traversing the crossing each day. The diagnostic team recommended no changes to the crossing besides adding gates and CWT detection system because the crossing already has good crossing surfaces, has ADA compliant advanced warnings, and additional signage. Medians are not possible at this crossing because the roadway is narrow, has perpendicular parking on the west side, and a private driveway in the northeast quadrant.

Brunswick Ave South Pedestrian Crossing - 690988T

This crossing meets the requirements of being part of a quiet zone because pedestrian crossings are not required to have the prequalifying elements that public crossings are. This crossing does not have lights, gates, or any warning detection system although lights are listed as present in the current inventory form. This crossing has two tracks for pedestrians and bicyclists to cross, the CPKC line, and an industry track that splits to the west on the south side of the crossing.

This crossing could be used as part of a future north south regional trail. The city also has long term plans for converting the westbound industry track to a regional trail. The crossings have a single rubber panel for the crossing which are in adequate condition.

The diagnostic team recommended widening the crossing to include two panels. The diagnostic team discussed using stop signs rather than yield signs as the traffic control device at the crossing and decided that stop signs should be used. The diagnostic team recommended keeping vegetation clear from the crossing to maintain sight lines.

Alabama Avenue – 854241

This crossing meets the requirements of being part of a quiet zone by having the prequalifying elements of lights, gates, and Constant Warning Time detection. This crossing is equipped with four pairs of flashing lights.

Alabama Avenue has 1,963 vehicles traversing the crossing each day and is 36 feet wide at the crossing with parking on both sides of the street. There is a driveway within the gate area in both the northeast and southwest quadrants. This is an alternative route for a future north/ south regional trail. The vehicle surface at the crossing is in good condition and while the pedestrian surface is in good condition although ADA compliant advanced warnings are missing at all quadrants.

The diagnostic meeting recommended clearing vegetation at the crossing to improve visibility, and to make the crossing ADA compliant. The team discussed adding medians to the crossing, but because of the driveways there would be no risk reduction benefit. The diagnostic team also discussed the FRA recommendation for how far parking should be prohibited from crossings to maintain visibility. No risk reduction treatment was mentioned as an option.

Excelsior Boulevard - 854242E

This crossing does not currently meet the requirements of being part of a quiet zone by having lights, gates, and Constant Warning Time detection. The crossing has 12 pairs of lights with cantilevers but lacks CWT detection system.

Excelsior Boulevard has 21,087 vehicles traversing the crossing each day and has two lanes in each direction with an existing median the length of the block between the two lanes. Bunny's, a popular bar and restaurant, is in northwest quadrant. There is a vacant building which was formally a gas station in the northeast quadrant, a functioning gas station in the southwest quadrant and a multi-tenant office and retail building in the southeast quadrant. All these businesses have driveways near the crossing. There is an informal pedestrian path between Bunny's entrance and the gas station about 70 feet north of the crossing, but it is likely unused since the gas station closed. The vehicle and pedestrian crossing surfaces are in good condition.

The diagnostic team mentioned adding fencing along the northern section of track between Bunny's and the gas station building but did not make a recommendation because the building is vacant and the path is unlikely used. The team recommended the city investigate what the plans for the building are. If the building is used as a gas station in the future, fencing should be considered. The diagnostic team acknowledged the existing medians and noted that the city may take credit for the portion that has risk reduction value. The team noted that with the current driveway configuration, little risk reduction safety improvements could be made. No risk reduction treatment other than installing CWT detection system was mentioned as an option.

W 41st Street - 854243L

This crossing does not currently meet the minimum requirements of being part of a quiet zone by having lights, gates, and Constant Warning Time detection. The crossing does not have any lights, gates, or CWT detection system.

W 41st Street has 775 vehicles traversing the crossing each day. The street is 26.5 feet wide on the east side of the crossing and 24 feet wide about 100 feet west of the crossing. There is a driveway in the northeast quadrant 77 feet from future gate arm locations. On the east side, the intersection with Zarthan Avenue S is 26 feet from the crossing. 41st Street has a significant downhill slope for eastbound traffic. There is a sidewalk on the south side of the street without ADA compliant advanced warnings. During the meeting people were clearing brush in the northeast quadrant and mentioned that a driveway to the retail and industrial building on Excelsior Boulevard was going to be added there.

The diagnostic team recommended installing ADA compliant advanced warnings and clearing vegetation near the crossing. The group highlighted that trees from a house in the southwest quadrant were blocking the view of the eastbound stop sign. The group discussed closure or conversion to a pedestrian crossing as an option for either this crossing or the crossing at W 42nd Street as both have very low volumes and require expensive upgrades.

W 42nd Street - 854244T

This crossing does not currently meet the requirements of being part of a quiet zone by having lights, gates, and Constant Warning Time detection. The crossing does not have any lights, gates, or CWT detection system.

W 42nd Street has 325 vehicles traversing the crossing each day. The street is 21 feet wide and does not have sidewalks. The crossing is slightly humped and there was evidence of vehicles scraping the crossing surface. On the southwest side of the crossing there is a driveway access to a small park 21 feet from future gate arm locations. On the east side, the intersection with Zarthan Avenue S is 21 feet from the crossing.

The diagnostic team recommended clearing vegetation especially along the south side of the crossing. The group discussed closure or conversion to a pedestrian crossing was mentioned as an option for either this crossing or the crossing at W 41st Street as both have very low volumes and require expensive upgrades.

Brookside Avenue - 854245A

This crossing meets the requirements of being part of a quiet zone by having lights, gates, and Constant Warning Time detection. The crossing is equipped with four pairs of flashing lights.

Brookside Avenue has 1,162 vehicles traversing the crossing each day. There is an upcoming street project to improve the street near this crossing. The project could include installing a sidewalk along the north side of the street. Brookside Avenue currently only has a sidewalk on the south side of the street. There is a driveway directly outside the gate arm area in the northeast quadrant and an alley in the southwest quadrant. Trespassing was mentioned as an issue at this crossing as people walk along the bridge as a shortcut to cross Minnehaha Creek instead of using Yosemite Ave S.

The diagnostic team recommended clearing vegetation on all sides of the crossing and to make the pedestrian crossings ADA compliant. The team mentioned ASM medians as an option but recognized the existing driveways would limit the risk reduction value.

Yosemite Avenue - 854246G

This crossing meets the minimum requirements of being part of a quiet zone by having lights, gates, and Constant Warning Time detection. This crossing is equipped with five flashing lights.

Yosemite Avenue S has 4,075 vehicles traversing the crossing each day. The crossing is at the top of a hill and at a curve in the street. The street has a sidewalk on the north side which does not have ADA compliant advanced warnings. There is also a driveway in the southeast quadrant.

The group discussed the possibility of rerouting the driveway to connect to the private road just south of the crossing or to close the private road and its crossing by routing those driveways to this driveway. Both options had benefits and drawbacks, and the team did not conclude that either option would have a significant safety benefit. The team also discussed adding medians to the crossing, but because of the slope on the east side of the crossing and the curve on the west side, delineator posts should be added if that option is pursued. Additionally, because of the existing driveway on the east side, a median on that side would not have any risk reduction credit and would require the driveway to be right in right out. The team recommended clearing vegetation near the crossing to improve sightlines and that no risk reduction treatment was an option.

Private Road - 854247N (Edina)

This crossing meets the requirements of being part of a quiet zone because private crossings are not required to have the prequalifying elements that public crossings are. This crossing does not have lights, gates, or any warning detection system.

The Private Road crossing has 15 vehicles traversing the crossing each day and is a humped gravel crossing in poor condition. The signage is in poor condition and there is overgrown vegetation around the crossing.

As discussed in the Yosemite Avenue crossing summary, the diagnostic team discussed closing this crossing and rerouting driveways to the driveway at the crossing is an option. The team discussed adding private crossing signage and replacing the signs with new ones. The team also noted that because this is a private crossing, nothing is required to be done.

The team noted that because this is a private crossing, nothing is required to be done.

Brookside Terrace - 854248V (Edina)

This crossing does not currently meet the requirements of being part of a quiet zone by having lights, gates, and Constant Warning Time detection. The crossing does not have any lights, gates, or CWT detection system.

Brookside Terrace has 50 vehicles traversing the crossing each day. This crossing is a humped gravel crossing that serves about a dozen homes on the east side of the crossing. The street makes an “L” shape and connects to W 44th Street on the north side and Brookside Avenue on the south. The crossing seems to exist largely for emergency vehicle access in and out of the area as the street is narrow and there is not enough space to easily turn around.

The diagnostic team recommended following up with emergency responders to understand their needs at the crossing. One member discussed the possibility of temporarily closing the crossing and making it only available to emergency vehicles. The group also mentioned that the signage is in poor condition and that vegetation should be cleared. The team noted that no risk reduction treatment was also an option.

W 49th Street - 854249C (Edina)

This crossing does not currently meet the requirements of being part of a quiet zone by having lights, gates, and Constant Warning Time detection. The crossing does not have any lights, gates, or CWT detection system.

W 49th Street has 600 vehicles traversing the crossing each day. The crossing at W 49th Street is about 50 feet east of the intersection with Brookside Avenue. On the east side of the crossing there are newer multifamily buildings and single family homes. There is a sidewalk on the south side of the street that abruptly ends before the crossing. There is an informal pedestrian path in the southwest quadrant that parallels the tracks going up the hill to the commercial area there. There are trees and vegetation that limit the visibility at the crossing. The stop and crossbuck signs are warned.

The diagnostic team determined that ASM medians could be possible at this crossing. It would be possible to fit a 60-foot median on the east side and a 50-foot median on the west side of the crossing. The diagnostic team recommended connecting the sidewalk to the sidewalk on Brookside Avenue. They also recommended clearing vegetation and upgrading signs to improve maintain visibility.

Public Works Access - 854250W (Edina)

This crossing meets the requirements of being part of a quiet zone because private crossings are not required to have the prequalifying elements that public crossings are. This crossing does not have lights, gates, or CTW detection system.

The crossing has a public parking ramp on the west side of the crossing where a driveway connects south to Eden Avenue. On the east side of the crossing is the former facility for the Public Works Department but is now planned to be used for a mixed use development. There is a new pedestrian bridge that connects the commercial area on the east side to Arcadia Avenue directly over the crossing. There is a commercial business that has driveway access on the northwest quadrant of the crossing. It appears that new pavement was recently laid to access the loading dock at the building.

This crossing is the last crossing in St. Louis Park's proposed quiet zone. The Train Horn Rule formally requires that a quiet zone does not end on a private crossing, but the FRA representative in the meeting mentioned that they received directive that quiet zones can end at private crossings if the crossing is within a quarter mile of the last public crossing. Because this is a private crossing, no improvements need to be made, but the group recommended that the new development in the southeast quadrant should not use this access.

FRA RISK CALCULATOR

Using diagnostic team input, the next step in the quiet zone analysis was to evaluate the crossings using the FRA's online risk calculator. The FRA has made the calculator available to determine the risk reduction benefits achieved by various Supplemental Safety Measures (SSMs). Because Alternative Safety Measures (ASMs) are not pre-approved and have no established effectiveness rating, they cannot be evaluated using the web calculator and must be calculated via an Excel spreadsheet. For the SSM improvements to be considered effective, they must reduce the rail corridor's Quiet Zone Risk Index (QZRI) to below the Risk Index With Horns (RIWH) or the Nationwide Significant Risk Threshold (NSRT). The QZRI is the risk to the motoring public after the corridor's risk level is adjusted for the increased risk due to a lack of locomotive horn sounding and the reduced risk due to the implementation of acceptable safety measures. The RIWH is the level of risk that exists today when horns are sounded at every public crossing. The NSRT is a measure of risk, calculated on a nationwide basis, which reflects the average level of risk to the motoring public at public rail crossings equipped with vehicle gates and flashing lights, and at which the locomotive horns are sounded. The NSRT, established by the FRA, is currently 15,488 for all crossings.

QUIET ZONE IMPLEMENTATION SCENARIO

The following scenario outlines the combined improvements recommended for each crossing and the associated costs to the city for a quiet zone to be established. Table 2 depicts the recommended improvements for every crossing in St. Louis Park to be part of a quiet zone. Two crossings in Golden Valley and four in Edina would be part of the quiet zone which is required based on the distance between crossings. If the changes outlined below were made, one quiet zone would be able to be implemented from Laural Avenue in the City of Golden Valley to the Public Works Access in the City of Edina. The risk could not be calculated for this potential quiet zone because the crossings in Golden Valley were not reviewed as part of the diagnostic meeting so specific safety improvements were not identified. Additionally, updated traffic counts were not collected, however, costs for those two crossings were estimated based on what was available on the current FRA inventory forms. The costs identified in the following pages are planning-level estimates based on 2026 dollars. They do not include the design, contingency, or administrative costs necessary to deliver the improvements.

Table 2: Quiet Zone Improvements

Crossing Location	Subzone	Improvement	Cost
Laurel Avenue	A	Install Lights, Gates, and CWT Improve sidewalks, signage, and markings	$1,010,000
Golden Hills Drive	A	Improve sidewalks, signage, and markings	$10,000
Wayzata Boulevard	A	Install Lights, Gates, and CWT Install 100-foot non traversable medians Improve crossing surface, sidewalks, signage, and markings	$1,110,000
Cedar Lake Road	B	Install Lights, Gates, and CWT Improve signage and markings	$1,005,000
W 28th Street	C	Install Lights, Gates, and CWT Improve sidewalks, signage, and markings	$1,010,000
W 29th Street	C	Install Lights, Gates, and CWT Improve sidewalks, signage, and markings	$1,010,000
Brunswick North Ped Crossing	D	Improve crossing surface, signage, and markings	$15,000
Dakota Avenue S	D	Improve signage and markings	$5,000
Library Lane	D	Improve signage and markings	$5,000
Lake Street	D	Improve signage and markings	$5,000
Walker Street	D	Improve signage and markings	$5,000
Brunswick South Ped Crossing	E	Improve crossing surface, signage, and markings	$15,000
Alabama Avenue	E	Improve sidewalks, signage, and markings	$10,000

Crossing Location	Subzone	Improvement	Cost
Excelsior Boulevard	E	Install CWT Improve sidewalks, signage, and markings	$1,005,000
W 41st Street	E	Install Lights, Gates, and CWT Improve sidewalks, signage, and markings	$1,010,000
W 42nd Street	E	Install Lights, Gates, and CWT Improve sidewalks, signage, and markings	$1,010,000
Brookside Avenue	E	Improve crossing surface, signage, and markings	$10,000
Yosemite Avenue S	E	Improve sidewalks, signage, and markings	$10,000
Private Crossing	E	None	$0
Brookside Terrace	E	Install Lights, Gates, and CWT Improve signage and markings	$1,010,000
W 49th Street	E	Install Lights, Gates, and CWT. Improve sidewalks, signage, and markings	$1,010,000
Public Works Access	E	None	$0

Implementation Plan

Because the spacing between some crossings, individual or groups of crossings in the city can be part of their own quiet zone. These quiet zones, shown in Table 3, can be considered subzones within the city and can be implemented and combined when different improvements are made.

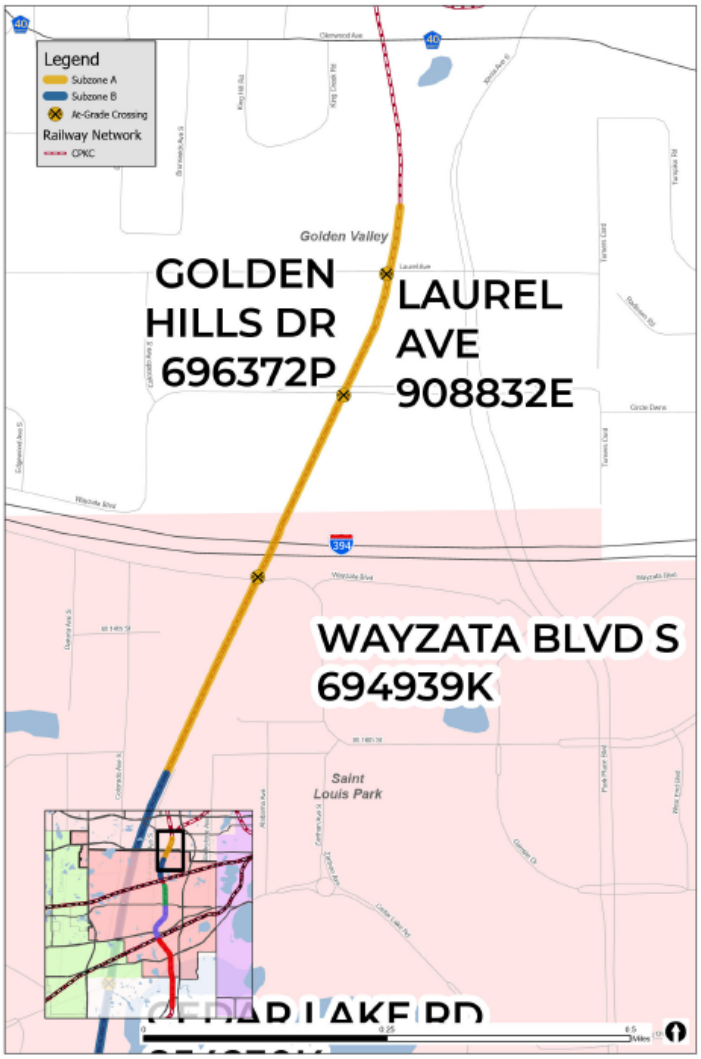
Table 3: Subzones

City	Subzone	Street	Pairs of Flashing Lights	Gates	Detection Type	Meets Minimum Requirement
Golden Valley	A	Laurel Avenue	10	2 Roadway	Motion Detection	No
	A	Golden Hills Drive	5	2 Roadway	CWT	Yes
St. Louis Park	A	Wayzata Boulevard	4	None	None	No
	B	Cedar Lake Road	8	None	Motion Detection	No
	C	W 28th Street	0	None	None	No
	C	W 29th Street	0	None	None	No
	D	Brunswick North Ped Crossing	3	None	None	Yes
	D	Dakota Avenue	4	2 Roadway, 4 Pedestrian	CWT	Yes
	D	Library Lane	5	2 Roadway	CWT	Yes
	D	Lake Street	4	2 Roadway	CWT	Yes
	D	Walker Street	4	2 Roadway	CWT	Yes
	E	Brunswick South Ped Crossing	4	None	None	Yes
	E	Alabama Avenue	4	2 Roadway	CWT	Yes
	E	Excelsior Boulevard	12	2 Roadway	Motion Detection	No
	E	W 41st Stret	0	None	None	No
	E	W 42nd Street	0	None	None	No
	E	Brookside Avenue	4	2 Roadway	CWT	Yes
	E	Yosemite Avenue	5	2 Roadway	CWT	Yes
Edina	E	Private Road	0	None	None	Yes
	E	Brookside Terrace	0	None	None	No
	E	W 49th Street	0	None	None	No
	E	Public Works Access	0	None	None	Yes

Subzone A

Subzone A is a potential future quiet zone that includes three crossings shown in Figure 3. Two of the northern crossings are in the City of Golden Valley and one in the City of St. Louis Park. If this subzone were established, trains would not routinely use their horn from the crossing at Laural Avenue to the crossing at Wayzata Boulevard. Specific improvements for crossings in Golden Valley were not included because they were not reviewed during the diagnostic meeting and because traffic counts are not up to date, so calculating risk was not possible. While risk calculations cannot be done at this time, at the time of the study, none of the crossings have had crashes in the last five years and if traffic volumes have not changed significantly since the last traffic counts were taken, all three of the crossings would only need to have the prerequisite infrastructure in place to qualify to be part of a quiet zone. For the two crossings in Golden Valley, Laural Avenue requires CWT to be installed, while Golden Hills Drive has the requirements to be part of a quiet zone already in place. To create a subzone including these crossings, both cities would need to make the necessary improvements before the zone could be established. The estimated cost of implementing a quiet zone for these three crossings would likely be about $2,130,000 with about half of that cost being for the Wayzata Boulevard crossing improvement in St. Louis Park.

Figure 3: Subzone A



Crossing Improvements for Subzone A

As stated previously; to implement a quiet zone in Subzone A, the city will need to coordinate with the City of Golden Valley to understand what specific improvements will be needed at Laural Avenue and Golden Hills Drive. Wayzata Boulevard in St. Louis Park is the only crossing where SSM length non-traversable medians can be installed so the diagnostic team recommends constructing 100-foot medians on each side of the crossing.

Laural Avenue – 908832E

Improvement	Cost
Gates and CWT	$1,000,000
Improved sidewalks, signage, and markings	$10,000
TOTAL	$1,110,000

Golden Hills Drive – 696372P

Improvement	Cost
Improved sidewalks, signage, and markings	$10,000
TOTAL	$10,000

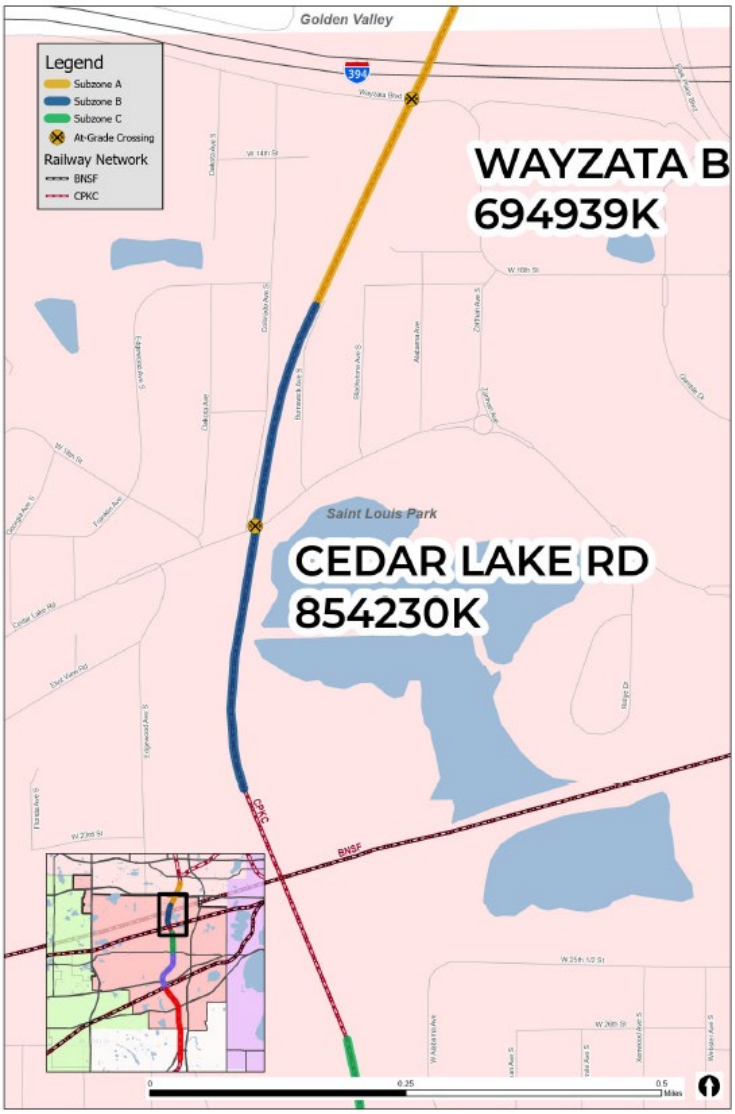
Wayzata Boulevard – 694939K

Improvement	Cost
Gates and CWT	$1,000,000
Non-traversable medians	$100,000
Improved crossing surface, sidewalks, signage, and markings	$10,000
TOTAL	$1,110,000

Subzone B

Cedar Lake Road is the only crossing in Subzone B, shown in Figure 4. Quiet zones can include a single crossing, but because risk of a quiet zone is averaged over all crossings in the zone, if a crash occurred at the crossing, the risk would not be shared with other crossings the zone and would possibly elevate the risk index to a point where the quiet zone would no longer be compliant. This crossing has relatively high traffic volumes, so the risk is already higher at this crossing than most of the other crossings in the City. For that reason, it would not be recommended to pursue a quiet zone for Subzone B without it being included in a quiet zone with an adjacent subzone. The total cost of implementing this quiet zone would likely be about $1,005,000.

Figure 4: Subzone B



Crossing Improvements for Subzone B

Cedar Lake Road – 854230K

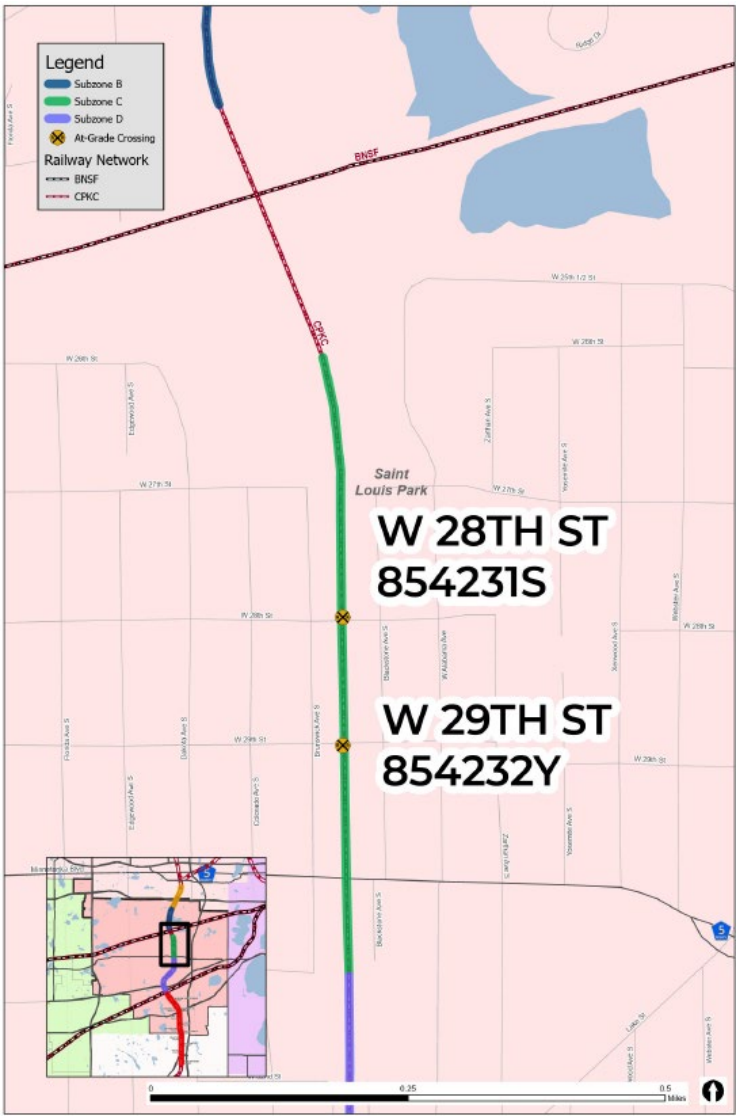
Improvement	Cost
Gates and CWT	$1,000,000
Improved signage and markings	$5,000
TOTAL	$1,005,000

Crossing Risk Index without Horns: 8,760

Subzone C

Subzone C, shown in Figure 5, includes two crossings in a residential area of the city. Neither of the crossings have lights, gates, or CWT so improvements will be expensive for the number of people who use these crossings. One option is to permanently close W 29th Street to reduce the cost of implementing a quiet zone in this area. W 29th Street was identified as the better candidate for closure because it does not have sidewalks and has fewer vehicle crossings each day compared to W 28th Street. If the crossing was closed, the traffic would be rerouted to W 28th Street, marginally increasing the risk index of the crossing. If W 29th Street was closed, it would not be recommended to establish a quiet zone for only Subzone C because of how risk would not be able to be distributed across multiple crossings. CPKC and the FRA offer funds to municipalities to permanently close crossings, so not only would the city not have to pay for upgrades, but they could also use the money from closing the crossing to make improvements at other crossings. The total cost of implementing this quiet zone would likely be about $985,000 to $2,020,000 depending on if a crossing was closed.

Figure 5: Subzone C



Crossing Improvements for Subzone C

W 28th Street – 854231S

Improvement	Cost
Gates and CWT	$1,000,000
Improved crossing surface, sidewalks, signage, and markings	$10,000
TOTAL	$1,010,000

Crossing Risk Index without Horns: 1,531 (1,641 if W 29th Street was closed and traffic was routed to this crossing)

W 29th Street – 854232Y

Improvement	Cost
Gates and CWT	$1,000,000
Improved crossing surface, signage, and markings	$10,000
TOTAL	$1,010,000

Crossing Risk Index without Horns: 852

OR

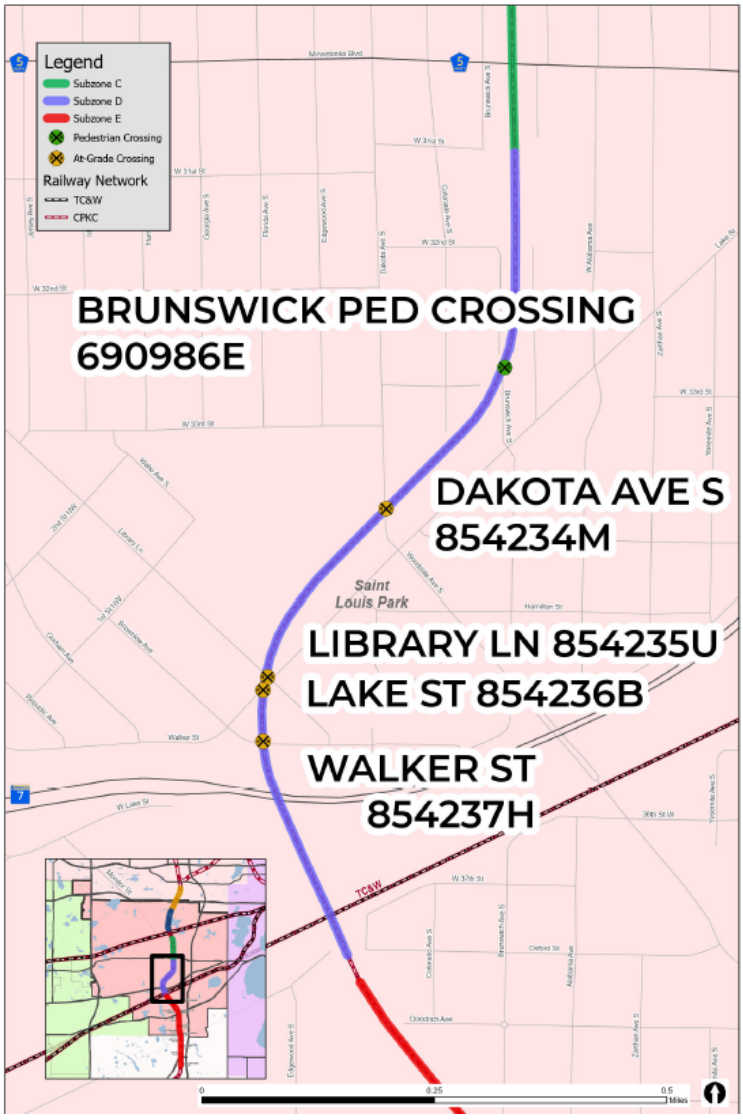
Improvement	Cost
Closure	+$50,000
Improvements around closure	$25,000
TOTAL	+$25,000

Crossing Risk Index without Horns: 0

Subzone D

Subzone D, shown in Figure 6, includes five crossings, including one pedestrian crossing, in the area between Minnetonka Boulevard and Highway 7. All crossings in this subzone meet the FRA requirements for being in a quiet zone so the improvements needed are minimal. Pedestrian crossings, like the one at Brunswick Avenue do not require lights, gates, or CWT, so no significant changes would be made to that crossing. If the city were to construct non-traversable medians (which is not necessary for the zone), it would be advantageous to not claim risk reduction credit from them in official notices because they would be considered an ASM treatment requiring a Pubic Authority Application rather than a Notice of Intent, which is a time consuming process for treatments that do not offer a sizable risk reduction credit in the zone. The total cost of implementing this quiet zone would likely be between $35,000 and $145,000.

Figure 6: Subzone D



Crossing Improvements for Subzone D

Brunswick N Ped Crossing – 690986E

Improvement	Cost
Improved crossing surface, signage, and markings	$15,000
TOTAL	$15,000

Crossing Risk Index without Horns: N/A

Dakota Avenue – 854234M

Improvement	Cost
Non-traversable medians	$30,000
Improved signage and markings	$5,000
TOTAL	$35,000

Crossing Risk Index without Horns: 5,995, (3,597 without medians)

Library Lane – 854235U

Improvement	Cost
Non-traversable medians	$29,000
Improved signage and markings	$5,000
TOTAL	$34,000

Crossing Risk Index without Horns: 4,788 (2,937 without medians)

Lake Street – 854236B

Improvement	Cost
Non-traversable medians	$51,500
Improved signage and markings	$5,000
TOTAL	$61,5000

Crossing Risk Index without Horns: 6,123 (3,674 without medians)

Walker Street – 854237H

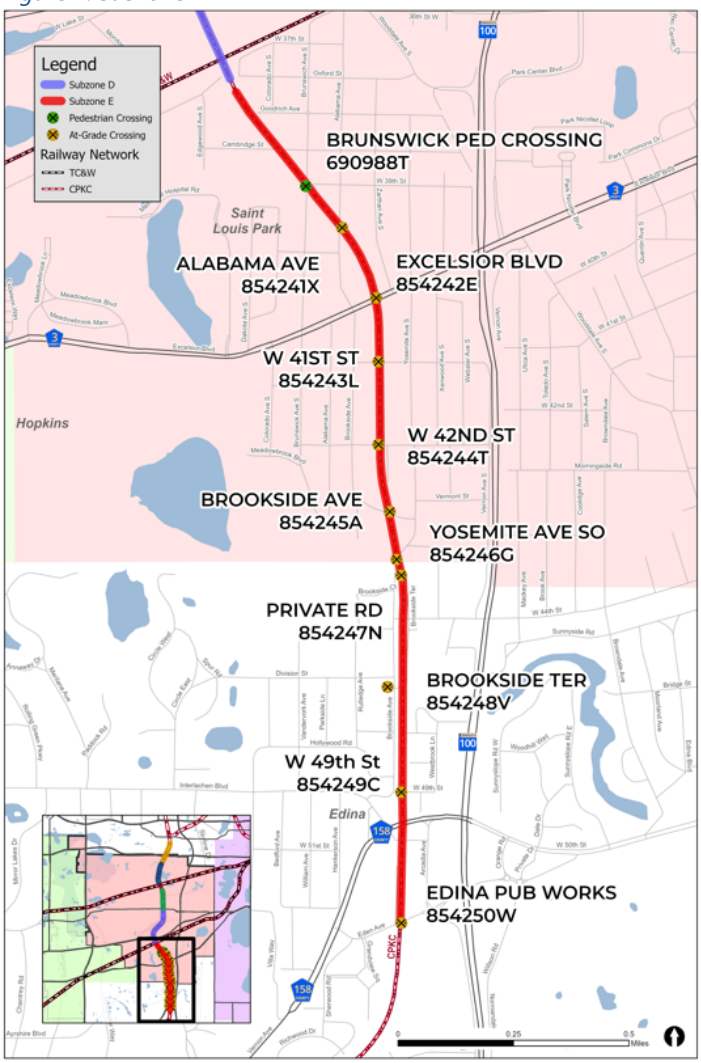
Improvement	Cost
Improved signage and markings	$5,000
TOTAL	$5,000

Crossing Risk Index without Horns: 2,859

Subzone E

Subzone E is a potential future quiet zone that includes 11 crossings shown in Figure 7. Four of the southern crossings are in the City of Edina while the northern seven are in the City of St. Louis Park. If this subzone were established, trains would not routinely use their horn from the southern Brunswick Avenue pedestrian crossing in St. Louis Park to the Public Works Access crossing in the City of Edina. To create a subzone including these crossings, both cities would need to make the necessary improvements before the zone could be established. Potential ASM treatments were indentifeid at some crossings during the diagnostic meeting so the cities can weigh the importance of addinal risk reduction credit when determining how to move forward with implementation. Similar to the crossings in Subzone C, W 41st and W 42nd Street are nearby streets with low traffic volumes that require significant upgrades. The city could consider permanently closing one of the streets to reduce the cost of implementing a quiet zone. W 42nd Street would be the better candidate for closure because it has lower traffic volumes and does not have sidewalks. The total cost of implementing a quiet zone for these crossings would likely be between $4,005,000 and $5,193,500. The cost to St. Louis Park is estimated to be between $1,985,000 and $3,118,500 depending on if a crossing was closed or not.

Figure 7: Subzone E



Crossing Improvements for Subzone E

Brunswick S Ped Crossing – 690988T

Improvement	Cost
Improved crossing surface, signage, and markings	$15,000
TOTAL	$15,000

Crossing Risk Index without Horns: N/A

Alabama Avenue – 854241X

Improvement	Cost
Improved sidewalks, signage, and markings	$10,000
TOTAL	$10,000

Crossing Risk Index without Horns: 4,868

Excelsior Boulevard – 854242E

Improvement	Cost
Gates and CWT	$1,000,000
Improved signage and markings	$5,000
TOTAL	$1,005,000

Crossing Risk Index without Horns: 11,936

W 41st Street – 854243L

Improvement	Cost
Gates and CWT	$1,000,000
Improved sidewalks, signage, and markings	$10,000
TOTAL	$1,010,000

Crossing Risk Index without Horns: 1,657 (1,804 if W 42nd Street was closed and traffic was routed to this crossing)

W 42nd Street – 854244T

Improvement	Cost
Gates and CWT	$1,000,000
Improved signage and markings	$10,000
TOTAL	$1,010,000

Crossing Risk Index without Horns: 1,202

OR

Improvement	Cost
Closure	+$50,000
Improvements around closure	$25,000
TOTAL	+$25,000

Crossing Risk Index without Horns: 0

Brookside Avenue – 854245A

Improvement	Cost
Improved crossing surface, sidewalks, signage, and markings	$10,000
TOTAL	$10,000

Crossing Risk Index without Horns: 4,204

Yosemite Avenue – 854246G

Improvement	Cost
Non-traversable medians	$48,500
Improved sidewalks, signage, and markings	$10,000
TOTAL	$58,500

Crossing Risk Index without Horns: 5,958

Private Road– 854247N

Improvement	Cost
None	-

Crossing Risk Index without Horns: N/A

Brookside Terrace – 854248V

Improvement	Cost
Gates and CWT	$1,000,000
Improved crossing surface, signage, and markings	$10,000
TOTAL	$1,110,000

Crossing Risk Index without Horns: 331

W 49th Street – 854249C

Improvement	Cost
Gates and CWT	$1,000,000
Non-traversable medians	$55,000
Improved sidewalks, signage, and markings	$10,000
TOTAL	$1,065,000

Crossing Risk Index without Horns: 1,878

Public Works Access – 854250W

Improvement	Cost
None	-

Crossing Risk Index without Horns: N/A

NEXT STEPS

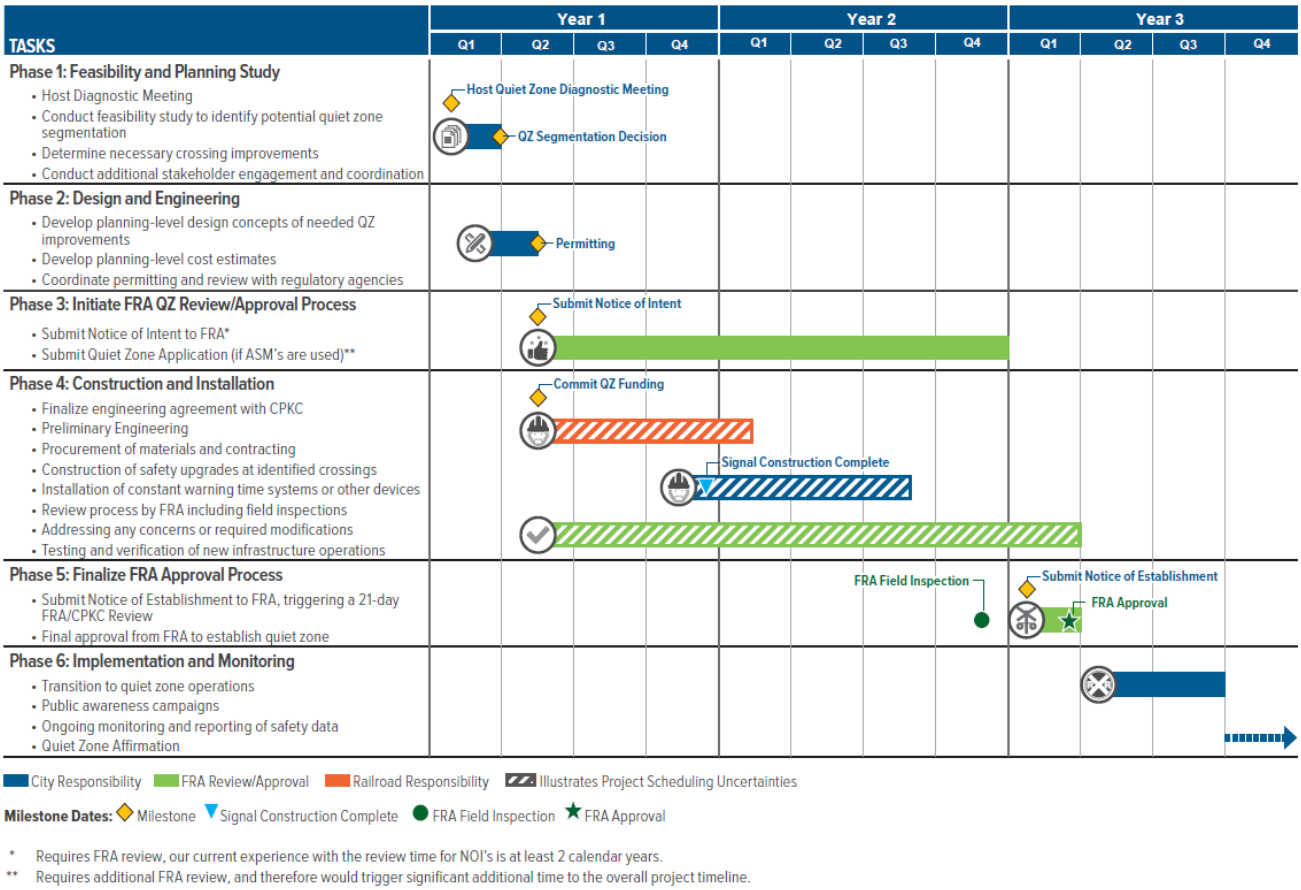
The next steps the city should take is to decide on whether to pursue quiet zone. The most efficient way for the city to implement a quiet zone is to first establish a quiet zone for crossings in Subzone D which includes the northern Brunswick pedestrian crossing, Dakota Avenue, Library Lane, Lake Street, and Walker Street. Many of these crossings have been upgraded recently and all have prequalifying requirements of lights, gates, and constant warning time in place. The safety improvements needed, shown in Table 4, are low cost and easy to implement. These cost estimates are planning level estimates and do not account for build year, administrative costs, or contingency,

Table 4 Subzone D Improvements

Crossing Location	Improvement	Cost
Brunswick North Ped Crossing	Improve crossing surface, signage, and markings	$15,000
Dakota Avenue S	Improve signage and markings	$5,000
Library Lane	Improve signage and markings	$5,000
Lake Street	Improve signage and markings	$5,000
Walker Street	Improve signage and markings	$5,000

The QZRI of this quiet zone would be 4,941 which is above the RIWH, but well below the NSRT. While the diagnostic team identified some improvements that could slightly improve the safety of crossing by constructing reduced length non-traversable medians the risk reduction credit from the medians would be negligible and not reduce the risk below the RIWH. The city could construct the medians and not take credit for their risk reduction but know that they do have some safety benefit outside of FRA risk calculation. The timeline for implementation for this, or any quiet zone can be seen in Figure 8.

Figure 8: Implementation Timeline



SUBMIT A NOI

Once the city decides to move forward with pursuing a quiet zone, the next step of implementing a quiet zone is to submit a Notice of Intent (NOI). In the process of creating a quiet zone, the NOI serves as the formal way a city declares to the FRA, state, and railroad the city's intent to establish a quiet zone. It is a legally required document under 49 CFR Part 222 that transitions a project from a local idea into a formal federal regulatory process.

The NOI essentially starts the 60-day agency review. A city cannot establish a quiet zone until at least 60 days have passed since sending the NOI. This ensures that railroads and state agencies have sufficient time to review the safety plans and provide feedback. The NOI must send to a specific set of stakeholders including:

- All railroads operating over the crossings in the proposed zone
- The State agency responsible for highway and road safety
- FRA

The NOI provides the technical "blueprint" for the proposed zone. It must include: A list of all DOT Crossing Inventory numbers and street names involved. The time period of the restriction. A brief explanation of the proposed safety improvements (SSMs or ASMs) the city intends to install. Contact information for the city's

designated Point of Contact. Filing a Noice of Intent is required before the city can file a Notice of Establishment (NOE). The NOE is the final document that actually stops the horns. The NOE must explicitly affirm that the NOI was sent and that all comments received during the 60-day period were addressed.

CONCLUSION

The Quiet Zone Assessment for the City of St. Louis Park reviewed specific crossing characteristics to create a plan to implement a quiet zone along the CPKC railroad. The analysis indicates that many of the crossings require upgrades to meet the minimum requirements of the FRA, but the corridor is relatively safe requiring few risk reduction treatments. The City is in good position to establish a quiet zone within part of the city but will need to coordinate with the City of Edina and the City of Golden Valley to implement a quiet zone throughout the entire city.

Ultimately, the decision on when to pursue will depend on the City's priorities, balancing the desire to minimize train horn noise with budget constraints and community impacts. Further discussions with stakeholders, including the FRA and CPKC, are recommended to finalize the quiet zone design and implementation plan.