

**City of Ramsey**  
**Agenda**  
**Public Works Committee**  
**Tuesday, May 16, 2017**  
**5:30 pm**  
**Lake Itasca Room, 7550 Sunwood Drive NW**

- 1. Call to Order**
- 2. Citizen Input**
- 3. Approve Agenda**
- 4. Approve Minutes**
  1. Approve Public Works Committee Meeting Minutes
- 5. Committee Business**
  1. Review Pedestrian Safety Concerns at Variolite St and 161st Ave
  2. Parking Concern Near Rhinestone St and Ramsey Parkway
  3. Consider Recommending City Council Approval of Plans and Specifications for Improvement Project #17-03, 2017 Crackseal and Sealcoat Improvements
- 6. Committee/Staff Input**
  1. Review Green Valley Road/County Road 63 Speed Zone Study Results
  2. Review Preliminary Plans for Improvement Project #17-04, Sunwood Drive Striping Improvements.
  3. Staff Updates on Improvement Projects and Items of Interest
  4. Review Future Topics Calendar
- 7. Adjournment**

**Public Works Committee**

4. 1.

**Meeting Date:** 05/16/2017

**Submitted For:** Grant Riemer, Engineering/Public Works

**By:** MaryJo Warner, Engineering/Public Works

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**Title:**

Approve Public Works Committee Meeting Minutes

**Purpose/Background:**

To review and approve attached meeting minutes.

**Timeframe:**

5 minutes

**Observations/Alternatives:**

n/a

**Funding Source:**

n/a

**Recommendation:**

**Action:**

Motion to approve Public Works Committee meeting minutes dated March 21, 2017 and April 18, 2017.

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**Attachments**

March Minutes

April Minutes

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**Form Review**

<b>Inbox</b>	<b>Reviewed By</b>	<b>Date</b>
Grant Riemer	Grant Riemer	05/10/2017 08:22 PM
Kurt Ulrich	MaryJo Warner	05/11/2017 04:08 PM
Form Started By: MaryJo Warner		Started On: 04/25/2017 09:06 AM
Final Approval Date: 05/11/2017		

**PUBLIC WORKS COMMITTEE  
CITY OF RAMSEY  
ANOKA COUNTY  
STATE OF MINNESOTA**

The Public Works Committee conducted a regular meeting on Tuesday, March 21, 2017, at the Ramsey Municipal Center, 7550 Sunwood Drive NW, Ramsey, Minnesota.

Members Present:     Chairperson Chris Riley  
                            Councilmember Jill Johns  
                            Councilmember Mark Kuzma

Absent:                 Councilmember Melody Shryock

Also Present:         City Administrator Kurtis Ulrich  
                            Public Works Superintendent Grant Riemer  
                            City Engineer Bruce Westby  
                            Utilities Supervisor John Nelson

**1.     CALL TO ORDER**

Chairperson Riley called the regular meeting of the Public Works Committee to order at 5:30 p.m.

**2.     CITIZEN INPUT**

There was none.

**3.     APPROVE AGENDA**

Motion by Councilmember Kuzma, seconded by Councilmember Johns, to approve the agenda, as presented.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Kuzma and Johns. Voting No: None.

**4.     APPROVE MINUTES**

**4.01: Approve January 17, 2017, Meeting Minutes**

Motion by Councilmember Johns, seconded by Councilmember Kuzma, to approve the Regular Meeting Minutes dated January 17, 2017.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Johns and Kuzma. Voting No: None.

## **5. COMMITTEE BUSINESS**

### **5.01: Nominate Chair and Vice-Chair of the Public Works Committee**

Motion by Councilmember Johns, seconded by Councilmember Kuzma, to recommend nomination of Chris Riley for Committee Chair and Mark Kuzma for Committee Vice Chair.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Johns and Kuzma. Voting No: None.

### **5.02: Consider Recommending Council Approval of City Cost Participation for Looped Watermain Connection through Brookfield 8<sup>th</sup> Addition**

City Engineer Westby explained the Brookfield 8<sup>th</sup> Addition development includes a 1,200-foot-long cul-de-sac street that is proposed to be served by City water and sanitary sewer. The development plans, submitted by Capstone Homes, shows the 8" diameter watermain coming to a dead end at the edge of the plat. City Engineering staff have directed the developer to extend the dead-end watermain line to connect with an existing watermain stub north of 166<sup>th</sup> Avenue. The line would extend through a City-owned right-of-way to create a looped trunk watermain system, which provides numerous benefits. The line could be either trenched or drilled, at an overall cost of \$100,000. The developer has agreed to share up to 50% of the costs.

In terms of benefits, the looped watermain will improve public safety, enhance water pressure and water quality, and reduce maintenance costs. This unique situation will not set a precedent for future developers as the extension will not be within the plat for Brookfield 8<sup>th</sup> Addition. Capstone Homes would complete the connection as part of their development, and the City's share of costs will be covered under the Water Funds.

City Staff are requesting a recommendation to the City Council to approve connecting the watermain from Brookfield 8<sup>th</sup> Addition to the existing trunk watermain at 166<sup>th</sup> Avenue, at a not to exceed amount of \$50,000.

City Engineer Westby introduced Barry Onufrock, a representative of Capstone Homes. He added Mr. Onufrock was present to answer the Committee's questions and receive comments.

Councilmember Kuzma asked where the City's Water Funds come from.

City Engineer Westby stated the Water Funds are comprised of water trunk fees that are collected when new development occurs.

Councilmember Kuzma asked whether there is any future development anticipated to the south of this area.

City Engineer Westby stated no new development has been proposed.

Chairperson Riley asked whether City Staff supports the developer's estimated water usage calculations.

City Engineer Westby confirmed this, adding the developer calculated the volume of water in the pipe and the development's daily water requirements, and the totals are reasonable.

Councilmember Kuzma asked whether trenching or drilling is recommended for this project.

City Engineer Westby stated the developer is recommending drilling the line as there is less surface disturbance, and trenching will require additional de-watering costs.

Councilmember Johns asked whether the total project cost estimate is reasonable, and whether City staff expects any fluctuation.

City Engineer Westby stated this type of project has a defined cost with few potential changes, and the City's portion should not exceed \$50,000 in any case.

Chairperson Riley asked whether Mr. Onufrock had any comments.

Mr. Onufrock stated Capstone Homes plans to begin construction in Brookfield 8<sup>th</sup> Addition in the fall of 2017. He added the development's model homes can be built at the end of the cul-de-sac to alleviate concerns regarding water quality.

Chairperson Riley asked whether the looped watermain connection was a requirement for the plat development.

City Engineer Westby stated City Staff recommended the loop connection but the costs were prohibitive for the developer alone, and there are benefits for the City.

Motion by Councilmember Kuzma, seconded by Councilmember Johns, to recommend that the City Council approve City cost participation to connect the watermain from Brookfield 8<sup>th</sup> Addition to the existing trunk watermain at 166<sup>th</sup> Avenue at a not to exceed amount of \$50,000.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Kuzma and Johns. Voting No: None.

### **5.03: Review of Municipal Water System Control and Alarm Systems**

Utilities Supervisor Nelson reviewed the City's SCADA (Supervisory Control and Data Acquisition) system and gave a demonstration of its capabilities. The SCADA computer program controls the City's water towers, municipal wells and sanitary sewer lift stations. The SCADA system allows City Staff to monitor infrastructure, determine cause when an alarm is triggered, and respond appropriately.

Utilities Supervisor Nelson stated there is a UPS (Uninterruptable Power Supply) at every facility location, providing enough power during an outage to initiate an alarm and continue to monitor the site.

Public Works Superintendent Riemer asked whether there is an alarm in case of UPS failure.

Utilities Supervisor Nelson confirmed this, adding UPS failure contributed to the City of Blaine's recent water outages.

Utilities Supervisor Nelson stated there are eleven Public Works staff – four Utilities employees and seven on-call employees – with SCADA password access, and all activity is recorded for security purposes. He added the SCADA system controller is an easily accessed online application. Utilities Supervisor Nelson stated the system is securely stored on a computer in the Public Works Department. He added the City's SCADA System integrator, who lives in Ramsey, has a duplicate software back-up.

Councilmember Kuzma asked how old the computer system is that is running the SCADA software.

Utilities Supervisor Nelson stated it is approximately five years old.

Councilmember Kuzma requested that City staff review the possibility of upgrading the computer system.

Councilmember Johns asked whether the SCADA system provides an "at a glance" option for viewing all facilities, rather than viewing them one at a time.

Utilities Supervisor Nelson stated current data is located on each individual page and must be viewed separately, but any alarm messages will be visible on the bottom of the screen.

Councilmember Kuzma asked whether the City has a reciprocal water agreement with the City of Anoka.

Utilities Supervisor Nelson confirmed this, adding the reciprocal water connection, located near Anoka Technical College, is currently being upgraded. Utilities Supervisor Nelson stated access to well station cabinets and lift stations is continuously monitored.

Councilmember Kuzma requested that City staff compile a review of SCADA system function redundancy for discussion at the Committee's next meeting.

Utilities Supervisor Nelson agreed.

Public Works Superintendent Riemer stated City staff have initiated a new policy that the on-call system monitor must log in and review the system once a day while they are on call.

Councilmember Kuzma asked whether future water storage growth and solutions will be included in the 2040 Comprehensive Plan.

Utilities Supervisor Nelson stated all 19 sites are being updated one at a time, and updates will be included in the Comprehensive Plan.

Chairperson Riley thanked Utilities Supervisor Nelson for his report.

**5.04: Authorize Professional Services for Design and Installation of Emergency Generator at Well House #3**

Public Works Superintendent Riemer explained that City staff is requesting consideration of work authorization for design and installation of an emergency generator at Well #3, 731 Bunker Lake Boulevard. The City currently has a back-up generator operating Well #5. Proposals were received from two engineering firms for design and construction management – SEH Inc. for \$15,000.00, and Bolton & Menk Inc. for \$11,310.00. Staff’s recommendation is to enter a contract with Bolton & Menk Inc.

Motion by Councilmember Kuzma, seconded by Councilmember Johns, to accept staff recommendation to enter a contract with Bolton & Menk Inc. to provide design and construction management for the installation of an emergency back-up natural gas generator for Well #3 for a not to exceed amount of \$11,310.00

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Kuzma and Johns. Voting No: None.

**5.05: Consider Recommending City Council Approval for Speed Zone Study on Sunfish Lake Boulevard**

City Engineer Westby explained that the Anoka County Highway Department received a complaint on March 13 from a resident who lives on Sunfish Lake Boulevard, regarding excessive traffic speed on that road near 155<sup>th</sup> Avenue. Anoka County contacted City staff to request support for a speed zone study, as the last study was undertaken in 1975.

The traffic speed zone study will be conducted by Mn/DOT, who require that speed zone studies are performed on segments that are more than one mile in length. City staff recommends the study be conducted between Bunker Lake Boulevard/CSAH 116 and Nowthen Boulevard/CSAH 5, where Sunfish Lake Boulevard terminates. The existing speed limit north of Bunker Lake Boulevard is 55 mph, so the speed can only be lowered or stay the same as a result of the study.

Councilmember Kuzma asked whether there will be any cost to the City.

City Engineer Westby stated there will be no cost to the City for the speed study.

Motion by Councilmember Johns, seconded by Councilmember Kuzma, to recommend City Council approval for a request to Mn/DOT for a Speed Zone Study on Sunfish Lake Boulevard between Bunker Lake Boulevard/CSAH 116 and Nowthen Boulevard/CSAH 5.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Johns and Kuzma. Voting No: None.

## **6. COMMITTEE / STAFF INPUT**

### **6.01: Review of Rivers Bend Street Reconstruction Assessments**

City Engineer Westby stated the Public Works Committee requested that the issue of Rivers Bend assessments be reviewed and discussed again after the feasibility report was approved. He added a copy of the feasibility report was included in the meeting packet. He noted residents to be assessed will be contacted soon by City staff, and the feasibility report will be made available to them.

City Engineer Westby stated this street reconstruction was originally proposed as a mill and overlay project, but borings have indicated that the roadway does not have enough pavement to mill so reconstruction is necessary.

Councilmember Kuzma stated the road should be reconstructed, and the full cost of construction should be applied to assessments, as per the City's assessment policy.

Councilmember Johns agreed, adding that making an exception in this case could set a precedent for other developments.

Chairperson Riley expressed concern that road reconstruction has not been publicized or discussed. He added the increased project assessment amounts may seem unfair to residents who were expecting lower assessment costs related to a mill and overlay project. Chairperson Riley asked whether there will be two separate projects with different assessments.

City Engineer Westby confirmed the assessments will most likely be different and City staff is currently reviewing project timelines and materials costs.

### **6.02: Update on The COR Wear Course Improvements**

City Engineer Westby explained there are several streets in The COR that have only base course, and the pavement is starting to show signs of wear and tear. He added City staff recommends completion of wear course improvements for the following streets: 146th Avenue between Center Street and Peridot Street, and Traprock Street between 146th Avenue and Ramsey Parkway.

Chairperson Riley asked whether escrow funds are available.

City Engineer Westby stated the previous developers are no longer involved in The COR development, and escrow funds were insufficient to complete the necessary public improvements.

### **6:03: Staff Updates on Improvement Projects and Items of Interest**

City Engineer Westby stated Alpine Drive between Variolite Street NW and Armstrong Boulevard is scheduled for reconstruction from July 10 through August 25, 2017, and City staff recommends road closure for the project duration. He added closing the road will shorten the construction schedule and create a safer environment for workers. He noted mail and garbage pick-up will be temporarily re-located to Armstrong Boulevard, and City staff intends to mail letters to Alpine Drive residents regarding this closure.

City Engineer Westby stated Anoka County plans to begin several improvement projects, including partial road reconstruction and grade separation on Hanson Boulevard. He added modification of three intersections to flashing yellow arrows is planned, which will involve short-term single lane closures. He noted Anoka County is completing a cost analysis for the modification at Sunwood Drive/Armstrong Boulevard, for which the City of Ramsey will be responsible.

City Engineer Westby stated City staff received an email on March 17 from Mn/DOT regarding the cable median barrier that is planned for Highway 10. He added City staff hopes to have a meeting with Mn/DOT soon, and an update will be provided for the Public Works Committee at their next meeting.

City Engineer Westby stated pavement corings are planned for street reconstruction projects in 2018 and 2019, but ground penetrating radar is now being considered. He added this new technology is non-invasive and more efficient in terms of time and cost than pavement coring. He noted City staff is researching cost and feasibility.

Chairperson Riley stated the new technology would be a positive change in the way pavements are tested, and would result in fewer pre-construction problems and issues.

Councilmember Kuzma requested an update on the City records scanning project.

City Engineer Westby stated City staff has reviewed possible methods and has consulted with a scanning service provider. He added the biggest issue is determining a File Naming Convention, to describe what the files contain, and how they inter-relate with other files. He noted staff are moving forward with this important initiative.

City Engineer Westby stated the City of Ramsey commissioned a stormwater retrofit study from the Anoka Conservation District (ACD) in 2016. He added the ACD's report outlines opportunities for implementing future projects to improve water quality. He noted the report would be added to an upcoming Public Works Committee meeting agenda for review and comment.

City Engineer Westby stated ACD staff is considering the use of boulevard bioretention swales, or rain gardens, on Waco Street and in River's Bend in 2017 or 2018, and that staff will work with ACD staff to ensure proper coordination with City street reconstruction projects. He added rain gardens are an effective way to provide infiltration and reduce run-off. He noted ACD staff plan to contact residents in designated areas to discuss the benefits of rain gardens, as the improvements will be voluntary.

Councilmember Kuzma asked whether there is available funding for planning and implementing rain gardens.

City Engineer Westby stated the Clean Water Fund grant will be utilized with no cost to the City, and street grades will not change.

Councilmember Johns asked whether there are any outlots in the project area that could have a rain garden, like the Brookfield development.

Public Works Superintendent Riemer confirmed there are outlots near the tennis courts at River's Bend Park.

#### **6:04: Review Future Topics Calendar**

City Engineer Westby stated City staff have completed comprehensive water and sewer plans to be included in the 2040 Comprehensive Plan. He added a review of the plans will be added to an upcoming Public Works Committee meeting agenda.

Councilmember Johns stated stop sign requests were discussed at the recent Highway 10 public meeting. She requested that stop sign requests are added to the Public Works Committee's topics calendar.

City Engineer Westby agreed.

Chairperson Riley requested an update on the Highway 10 public meeting.

City Engineer Westby stated City staff were well prepared for the meeting, and provided a review of the City's proposed plans. He added the general feeling from local commercial businesses was one of frustration, and that something needs to be done quickly so they can properly utilize their properties.

**7. ADJOURNMENT**

Motion by Councilmember Kuzma, seconded by Councilmember Johns, to adjourn the Public Works Committee meeting.

Motion carried.

The regular meeting of the Public Works Committee adjourned at 7:05 p.m.

Respectfully submitted,

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Grant Riemer  
Public Works Superintendent

Drafted by Mary Mullen  
*TimeSaver Off Site Secretarial, Inc.*

**PUBLIC WORKS COMMITTEE  
CITY OF RAMSEY  
ANOKA COUNTY  
STATE OF MINNESOTA**

The Public Works Committee conducted a regular meeting on Tuesday, April 18, 2017, at the Ramsey Municipal Center, 7550 Sunwood Drive NW, Ramsey, Minnesota.

Members Present:     Chairperson Chris Riley  
                              Councilmember Jill Johns  
                              Councilmember Mark Kuzma

Absent:

Also Present:           Public Works Superintendent Grant Riemer  
                              City Engineer Bruce Westby  
                              Parks and Assistant Public Works Superintendent Riverblood  
                              Utilities Supervisor John Nelson  
                              Craig LaFreniere, Total Control, Inc.

**1.     CALL TO ORDER**

Chairperson Riley called the regular meeting of the Public Works Committee to order at 5:30 p.m.

**2.     CITIZEN INPUT**

Clint Seul, 7496 161<sup>st</sup> Avenue NW, presented a contribution of \$480 for the Sweetbay Ridge Median Fund. He added the funds were raised by residents who want to support the median beautification.

Chairperson Riley thanked Mr. Seul and the Sweetbay Ridge residents on behalf of the City for their contribution.

**3.     APPROVE AGENDA**

Motion by Councilmember Johns, seconded by Councilmember Kuzma, to approve the agenda, as presented.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Johns and Kuzma. Voting No: None.

**4.     APPROVE MINUTES**

There were no minutes to approve.

Motion by Councilmember Kuzma, seconded by Councilmember Johns, to table approval of Meeting Minutes.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Kuzma and Johns. Voting No: None.

## **5. COMMITTEE BUSINESS**

### **5.01: Consider Preventative Maintenance for 29-year old Well Pump and Motor at Central Park**

Parks and Assistant Public Works Superintendent Riverblood reviewed the staff report and explained that preventative maintenance is recommended for the 4-inch submersible water supply well that was installed in 1988 at the Park Center Building at Central Park. In 2006, a concessions stand was completed. There are 23 separate fixtures in the park, and the Park Center Building is used year-round. A group of trees to the north of the buildings is in a dry, non-irrigated area. City Staff hopes to provide irrigation to that area as part of this project. He explained that failure of the water supply well at Central Park would cause significant inconvenience to park users, especially during a weekend tournament or when the Park Center Building is being used as a polling place. The motor and pump were inspected on March 10, 2017, and found to be worn and in need of replacement. City Staff recommends City Council consideration of preventative maintenance to the well at Central Park at a not-to-exceed cost of \$9,000 from the Capital Maintenance Fund, which includes replacement of the existing system with a Variable Frequency Drive and pump.

Councilmember Kuzma asked what the additional cost would be.

Parks and Assistant Public Works Superintendent Riverblood stated total project cost would be less than \$9,000, and would be funded from the Capital Maintenance Fund.

Motion by Councilmember Johns, seconded by Councilmember Kuzma, to recommend City Council consideration of preventative maintenance to the well at Central Park at a not-to-exceed cost of \$9,000 from the Capital Maintenance Fund, which includes replacement of the existing system with a Variable Frequency Drive and pump.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Johns and Kuzma. Voting No: None.

### **5.02: Consider A Review of SCADA System and the Need for Redundancy Upgrades**

Utilities Supervisor John Nelson reviewed the staff report and explained that the Public Works Committee had requested that City Staff review the SCADA (Supervisory Control and Data Acquisition) redundancy program, and provide a cost estimate. He introduced Craig LaFreniere, Total Control, Inc., who does SCADA system upgrades and programming.

Mr. LaFreniere reviewed options for SCADA system upgrades for the Public Works Committee's review and consideration. These include: spare master equipment to be stored at Public Works; updated software for use with existing SCADA computer; the addition of a new SCADA computer and software update; a redundant SCADA computer, only valid with purchase of additional software under Option #3; or wireless broadband connection and Cradlepoint device.

Councilmember Kuzma stated he would support a redundant computer. He asked whether the existing system could be run on a redundant SCADA computer.

Mr. LaFreniere confirmed this, but a conversion would be necessary.

Councilmember Kuzma asked whether there is a budget for the proposed changes.

Public Works Superintendent Riemer stated funding options are being considered, including the Water Fund through the Capital Improvement Plan (CIP).

Utilities Supervisor Nelson stated Programmable Logic Controllers (PLC) control the system.

Councilmember Johns expressed the importance of not having a failure like they had in Blaine, and asked whether the SCADA system monitors system failure.

Mr. LeFreniere stated the City of Ramsey has a back-up hardware dialer that automatically kicks in if the software dialer fails or times out.

Councilmember Kuzma reiterated that a redundant system is necessary to maintain functionality.

Councilmember Johns stated funding sources could include the CIP or City Budget over the next few years.

Motion by Councilmember Kuzma, seconded by Councilmember Johns, to recommend City Council consideration of Item # 1 for 2017 for purchase of Spare Master Equipment and to have the PW staff budget as necessary for Items #2-4 in future years, as reviewed in Mr. LeFreniere's April 6, 2017, report.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Kuzma and Johns. Voting No: None.

Chairperson Riley thanked Mr. LeFreniere for his review.

**5.03: Consider Pedestrian and Traffic Concerns on Variolite Street and Receive Petition for Pedestrian Crosswalk**

Public Works Superintendent Riemer reviewed the staff report and explained that City Staff received a petition from the Sweetbay Ridge Neighborhood residents requesting consideration of a safer pedestrian crossing area at the intersection of Variolite Street and 161<sup>st</sup> Avenue NW. Traffic and pedestrian volumes, sight lines, accident history, posted speed, and other information about the intersection will be collected and reviewed by City Staff and a recommendation will be made based on that data as well as standard engineering practices.

Public Works Superintendent Riemer stated the Public Works Committee can direct City Staff to collect the necessary data and present findings and recommendations on the requested crosswalk at the May 16, 2017, Public Works Committee meeting.

A resident of the Variolite neighborhood at the meeting expressed concern that the roads in this area are unsafe for pedestrians trying to walk to the park. He requested that traffic counts be done during summer evenings when there is soccer practice and games.

Public Works Superintendent Riemer stated City Staff requested traffic accident and speed data from the Police Department and there has been 1 accident in 5 years.

Councilmember Johns stated a pedestrian tunnel might be considered.

Public Works Superintendent Riemer stated there is no trail system to connect it to on either side.

Parks and Assistant Public Works Superintendent Riverblood stated there is no trail on 161<sup>st</sup> Avenue NW. He added there might be other solutions for the crosswalk.

Chairperson Riley stated he supports having this discussion and reviewing potential solutions that will be acceptable to the neighborhood as well as the City.

Motion by Councilmember Kuzma, seconded by Councilmember Johns, to instruct City Staff to review potential safety-related improvements on Variolite Street, including a proposed crosswalk, and present their findings and recommendations to the Public Works Committee at their May 16, 2017, meeting.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Kuzma and Johns. Voting No: None.

#### **5.04: Consider Recommending City Council Approval of Plans and Specifications for Improvement Project #17-00, Sunwood Drive Reconstruction**

City Engineer Westby presented the staff report, and explained that City Staff recommends City Council approval of plans and specifications for Project #17-00, Sunwood Drive Reconstruction.

The current plans were submitted to the Minnesota Department of Transportation (MnDOT) State Aid office for review and approval. The current plan is consistent with the design in the Feasibility Study reviewed by the City Council, except that the entire bituminous pavement

section will be reclaimed with the existing aggregate base. Existing elevations will be maintained by removing 4 inches of reclaim material to allow for 4 inches of new bituminous pavement.

The total estimated project cost is \$571,539.48. Special assessments are proposed to pay for 25% of total project costs. City Staff is communicating the project plans with abutting property owners.

Motion by Councilmember Kuzma, seconded by Councilmember Johns to recommend that the City Council approve plans specifications for Improvement Project #17-00, Sunwood Drive Reconstruction.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Kuzma and Johns. Voting No: None.

**5:05: Consider Recommending City Council Approval of Plans and Specifications for Improvement Project #17-01, Alpine Drive Reconstruction**

City Engineer Westby presented the staff report, and explained that plans for this proposed project are being reviewed by MnDOT State Aid. City Council approval of plans and specifications and authorization to bid the project will be requested at their May 9, 2017, regular meeting.

It was discussed that the design has been modified from the Feasibility Report as reviewed and approved by the City Council. The entire existing crushed concrete base material is now proposed to be removed and disposed of due to concerns that this material has a significant amount of concrete fines, which could lead to the same issues being encountered today.

City Engineer Westby stated City Staff is proposing additional grading and storm sewer work based on new findings made during final design, related to a culvert under Alpine Drive that was buried. Letters were mailed to property owners on the west side of the project as that section of Alpine Drive is proposed to be closed during construction. This will ensure that the project can be completed quickly and safely.

Councilmember Kuzma asked how the project will be funded.

City Engineer Westby stated the improvements are proposed to be funded using a combination of street reconstruction bonds and stormwater utility funds. No special assessments are proposed.

Motion by Councilmember Kuzma, seconded by Councilmember Johns, to recommend City Council approval of plans and specifications for Improvement Project #17-01, Alpine Drive Reconstruction.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Kuzma and Johns. Voting No: None.

Chairperson Riley asked whether stabilization is a viable option for this project, as proposed with Sunwood Drive. City Engineer Westby stated that Sunwood Drive has a lot of heavy truck traffic, and that significant growth is anticipated along Sunwood Drive as the corridor develops and expands, therefore using a stabilized full depth reclamation process on Sunwood Drive to further strengthen the pavement makes sense. Alpine Drive does not currently have a large volume of heavy truck traffic, nor is a significant amount of truck traffic expected in future years, so stabilizing the base on Alpine Drive is not necessary.

**5:6 Consider Recommending City Council Authorization to Prepare Plans and Specifications for Improvement Project #17-09, Bunker Lake Boulevard Utilities Extension**

City Engineer Westby presented the staff report, and explained that two developments are currently proposed that will require utilities extension. The first development, proposed by Capstone Homes, is the construction of roughly 300 single family homes that are proposed to be served by City water and sanitary sewer. Capstone Homes intends to begin construction this summer, with development of lots on the south end occurring first. The second development, proposed by PSD LLC, is a new business park to be located on 45 acres of land between Bunker Lake Boulevard and Highway 10. The concept plan of this development proposal was presented to the City Council at their March 28, 2017, Work Session.

City Engineer Westby noted a utilities extension will be required along Bunker Lake Boulevard to Puma Street to support these and other development proposals. City Staff proposes to prepare plans and specifications in-house, administer the project, and stake and inspect construction.

Councilmember Kuzma stated the future business park will require utilities in any case, and it makes sense to go ahead and complete this portion of the required utilities extension.

Chairperson Riley expressed concern about doing portions of the utilities extension separately, that it will be inefficient to do a portion of the utilities extension now, essentially breaking it into 3 separate projects. He added Puma Street would have to be opened eventually as utilities would be installed under the roadway. He noted it would make sense to complete the work now as part of the assessment agreement project so the developers can share the costs.

City Engineer Westby stated the proposed project on Bunker Lake Boulevard will have minimal impact on the roadway, and can be done cost effectively with little traffic disruption.

Chairperson Riley stated the PSD development already has utilities available. He asked whether Capstone will be ready to commence construction by the time the utilities project is completed. City Engineer Westby stated Capstone's Memorandum of Understanding will be reviewed by the City Council at their April 25, 2017, Regular Meeting.

Chairperson Riley asked whether there is still a proposal for townhomes at the south end. City Engineer Westby stated they have changed their layout a few times, and are still proposing a development on the south side but the proposed housing units have changed.

Chairperson Riley stated he is unable to vote in support of the proposed project, as he has many questions that remain unanswered.

Motion by Councilmember Kuzma, seconded by Councilmember Johns, to recommend City Council authorization to prepare plans and specifications for extended trunk sanitary sewer and watermain along Bunker Lake Boulevard to Puma Street.

Motion carried. Voting Yes: Councilmembers Kuzma and Johns. Voting No: Chairperson Riley.

**5:7 Consider Recommending City Council Authorization to Prepare Plans and Specifications for Flashing Yellow Arrow Improvements to Signal System at Armstrong Boulevard and Sunwood Drive**

City Engineer Westby presented the staff report, and explained that City Staff is requesting authorization from the City Council to hire SEH to prepare plans and specifications for converting the signal system at the Armstrong Boulevard/CSAH 83 and Sunwood Drive/147th Avenue to flashing yellow arrow (FYA) operations.

City Engineer Westby stated the Anoka County Highway Department is planning to complete FYA modifications at eight different intersections in late 2017 and/or early 2018, including three intersections in the City of Ramsey. Preparing plans and specifications now will ensure that the City will be well-positioned to coordinate modifications, limit disruption and ensure consistency.

Councilmember Kuzma asked how old the intersection is, and why an FYA signal system was not considered when it was built.

City Engineer Westby stated this signal system was constructed in 2006, when FYA's were first being constructed in the metro area, and that the estimated cost for converting the signal system is \$40,000. He added modification involves incremental costs, including pavement cuttings, conduit insertion, rewiring, new signal heads, and mast arm extensions.

Councilmember Johns asked whether the signal system modification would happen in 2018.

City Engineer Westby the bidding process and construction could occur late this fall or winter, or it could occur in 2018.

Councilmember Kuzma stated an option would be to wait and see how the new FYA signal systems work along Bunker Lake Boulevard.

City Engineer Westby stated it could be more problematic to implement FYA operations at different times on Armstrong Boulevard at Sunwood Drive and at Bunker Lake Boulevard.

Chairperson Riley stated it makes sense to move forward with this project, as Anoka County will be making signal system modifications at the same time.

Motion by Councilmember Johns, seconded by Councilmember Kuzma, to recommend City Council authorization to hire SEH, Inc., to prepare plans and specifications for converting the City-owned signal system at the intersection of Armstrong Boulevard/CSAH 83 and Sunwood Drive/147<sup>th</sup> Avenue to flashing yellow arrow operations.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Kuzma and Johns. Voting No: None.

## **6. COMMITTEE / STAFF INPUT**

### **6:1 Large Diameter Culvert Inspection Report**

Public Works Superintendent Riemer reviewed a list of 10 large diameter culverts in the City that were inspected by City Staff and found to be in need of replacement. He added a culvert at 160<sup>th</sup> Lane is requested to be replaced in 2017, but the others can be delayed for potential inclusion in street improvement projects or Capital Improvements Plan (CIP) additions. He noted plans for replacement of each culvert will be brought to the Public Works Committee for review and consideration.

City Engineer Westby stated roadway reconstruction typically accounts for 1/3 of culvert replacement costs, and road closures will be necessary, but none will cause a dead-end road.

Chairperson Riley thanked City Staff for bringing this issue to the Committee's attention.

### **6:2 Staff Updates on Improvement Projects and Items of Interest**

City Engineer Westby reviewed a list of projects that are either proposed or currently under way. He stated stormwater improvements at Business Park 95 are complete and operational. He added work is complete on Andrie Street & 164<sup>th</sup> Lane, and an additional "no parking" sign is being considered by the park because of comments received from residents. He noted the Mississippi Trail Phase 3 is currently being graded and will be open for use by summer.

City Engineer Westby stated storm sewer extension at Zeolite Street was completed last year. He added the Riverdale Drive extension project and Joint Powers Agreement will be reviewed by the City Council at their April 25, 2017, Regular Meeting. He noted MnDOT is planning to install a cable median barrier along Highway 10 through Ramsey in 2018.

City Engineer Westby stated City Staff is requesting quotes for ground penetrating radar systems to identify constructs for the CIP roadway projects.

Councilmember Kuzma stated a ribbon-cutting dedication for the MRT trail across King's Island should be held soon.

### **6:3 Review Future Topics Calendar**

City Engineer Westby reviewed a list of topics for discussion by the Public Works Committee. He added some of the items were requested for inclusion by the Committee, or have previously been discussed but are not resolved.

City Engineer Westby stated the Committee should consider drafting policies related to trail maintenance and stormwater pond maintenance. He added the Green Valley Road speed study results were received by City Staff last week, and will be added to an upcoming agenda.

Chairperson Riley inquired about the future well-siting study, and asked if one or more existing smaller wells could be taken out of production and replaced by a larger well.

Public Works Superintendent Riemer stated Well 2 is the lowest producing well, and it is used for irrigation at Rivers Bend Park. He added this may be a good idea, and agreed to look into it.

Public Works Superintendent Riemer stated one of the City's spray patching vendors is renting out their equipment on a monthly basis. He added City Staff have decided to rent the equipment rather than use funds to buy it. This will allow staff to test the equipment.

## **7. ADJOURNMENT**

Motion by Councilmember Kuzma, seconded by Councilmember Johns, to adjourn the Public Works Committee meeting.

Motion carried.

The regular meeting of the Public Works Committee adjourned at 7:18 p.m.

Respectfully submitted,

---

Grant Riemer  
Public Works Superintendent

Drafted by Mary Mullen  
*TimeSaver Off Site Secretarial, Inc.*

**Public Works Committee**

5. 1.

**Meeting Date:** 05/16/2017

**Submitted For:** Grant Riemer, Engineering/Public Works

**By:** Grant Riemer, Engineering/Public Works

---

**Title:**

Review Pedestrian Safety Concerns at Variolite St and 161st Ave

**Purpose/Background:**

At the April 18th Public Works Committee meeting staff was directed to gather traffic data and other pertinent information regarding pedestrian safety at the intersection of Variolite St/ 161st Ave. Staff has compiled traffic counts, speed data, stopping sight distances for vehicles, pedestrian sight distances, accident reports and LOS (Level of Service) ratings for the intersection. Variolite St has a posted speed limit of 50 mph with a restricted sight line view to the north of 161st because of a hill. Information gathered from the police speed trailer over two days shows the 85 percentile speed is 64.91 mph. The speed limit is commonly set at or below the 85th percentile operating speed (being the speed which no more than 15% of traffic is exceeding) and in the US is typically set 8 to 12 mph **13 to 19 km/h** below that speed.

**Timeframe:**

15-20 minutes

**Observations/Alternatives:**

The results of information gathered are as follows:

**Traffic Counts (traffic counts are based on two 24 hour counts and then averaged)**

Variolite St south of 161st Ave =1767 cars

Variolite St north of 161st Ave=1817 cars

161st Ave west of Variolite St=674 cars

161st Ave east of Variolite St= 522 cars

**Crosswalk Width on Variolite St= 52 feet**

**Level of Service Rating-A** Average wait time is estimated at 4.3 seconds

**Clear sight line distance to the south of 161st Ave = 1810 feet**

**Clear sight line distance to the north of 161st Ave =330 ft**

**Required stopping distance at 50 mph = 424 feet**

**Required stopping distance at 65 mph = 644 feet**

**Pedestrians crossing Variolite St in 91 hour time span -8**

**Accident Reports = 1 2/20/2012 car slid off the road due to slippery conditions**

This crossing location has several factors that make it not suitable for a pedestrian crosswalk at this time. The first and the most significant negative feature would be the lack of sight line distance to the north. The sight line distance to the north is approximately 330 feet. A motorist traveling at 50 mph requires 424 feet to react to a pedestrian in the crosswalk and to begin braking to avoid a collision. The next negative factor would be the speed on Variolite.

Through our data collection we found that the actual speed driven by 85% of the motorists on Variolite is 64.9 mph. At that speed the the braking distance required would increase to 644 feet. That's almost twice the the sight line distance available to the north. The last point would be pedestrian volume at the intersection. MnDot recommends

as a minimum 20 people/ hour or 15 people /hour with an elderly or school facility near by to be considered for a marked crosswalk. Staff installed a trail camera to capture pedestrian volumes at the intersection for our calculations. The camera was installed the afternoon of May 4th and picked up the morning of May 8th. During that time period staff counted 8 people crossing Variolite St at 161st Ave. The City of Boulder CO has done extensive engineering studies in the area of crosswalk applications and their recommendation is not to install a marked crosswalk at this type of location, as it is configured today. In their studies the Variolite St/ 161st Ave intersection would be rated an **E** with the following recommendation for treatment "Do not install marked crosswalk at uncontrolled crossing. Determine if the speed limit can be effectively reduced to 40 mph AND a raised refuge median can be installed. If so, utilize Scenario D criteria above. If this is not possible, or if pedestrian volume falls above the RRFB limit line on Figure 2, consider HAWK beacon, pedestrian traffic signal, or grade-separated crossing. Specific Guidance : Consider HAWK beacon, pedestrian traffic signal or grade-separated crossing; application of these treatments will consider corridor signal progression, existing grades, physical constraints, and other engineering factors. Scenario **D** reads: Install marked crosswalk with enhanced signs, pedestrian activated RRFBs, and geometric improvements to increase pedestrian visibility and reduce exposure **Specific Guidance** : Install raised median refuge island (unless it is a one-way street or one already exists) to shorten the pedestrian crossing distance and increase pedestrian visibility to motorists. [If a median refuge can not be constructed on a two-way street, Go To Scenario F]. Install marked crosswalk with "State Law - Yield to Pedestrian" signs WITH pedestrian activated RRFBs mounted on the side of the roadway and on median mounted signs; use standard (W11-2) advance pedestrian warning signs; use S1-1 signs for School Crossing locations. Consider adding neckdowns at the crossing if on-street parking exists on the roadway and storm drain considerations will allow. [Note: If pedestrian volume falls above the RRFB limit line on Figure 2, consider Hawk beacon, pedestrian traffic signal, or grade-separated crossing.] After reviewing the data and comparing it to the recommendations of MnDot and the City of Boulder CO staff recommends that a crosswalk NOT be installed at Variolite St and 161st Ave. Staff also recommends that this area be studied again in 2021 when Variolite street is scheduled for reconstruction. At that time engineering could provide information on the possibility of lowering the grade of Variolite St some what to improve the sight line to the north. Engineering could also provide for the feasibility and cost estimate of a raised refuge median for pedestrians at this location.

**Funding Source:**

General fund

**Recommendation:**

Staff recommendation is to not install a crosswalk at this location at this time and to restudy this location for possible roadway improvements when Variolite St is scheduled for reconstruction in 2021.

**Action:**

Accept staff recommendation or reject the staff recommendation, and accept alternate recommendation based on committee discussion.

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**Attachments**

May 5th Speed Study

May 8th Speed Study

LOS Work Sheet

Crosswalk Installation Flow Chart

Criteria for Crossing Treatments

Ped Facility Treatments

Estimated Costs for Crosswalk Treatments

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### **Form Review**

**Inbox**

Kurt Ulrich

Form Started By: Grant Riemer

Final Approval Date: 05/11/2017

**Reviewed By**

MaryJo Warner

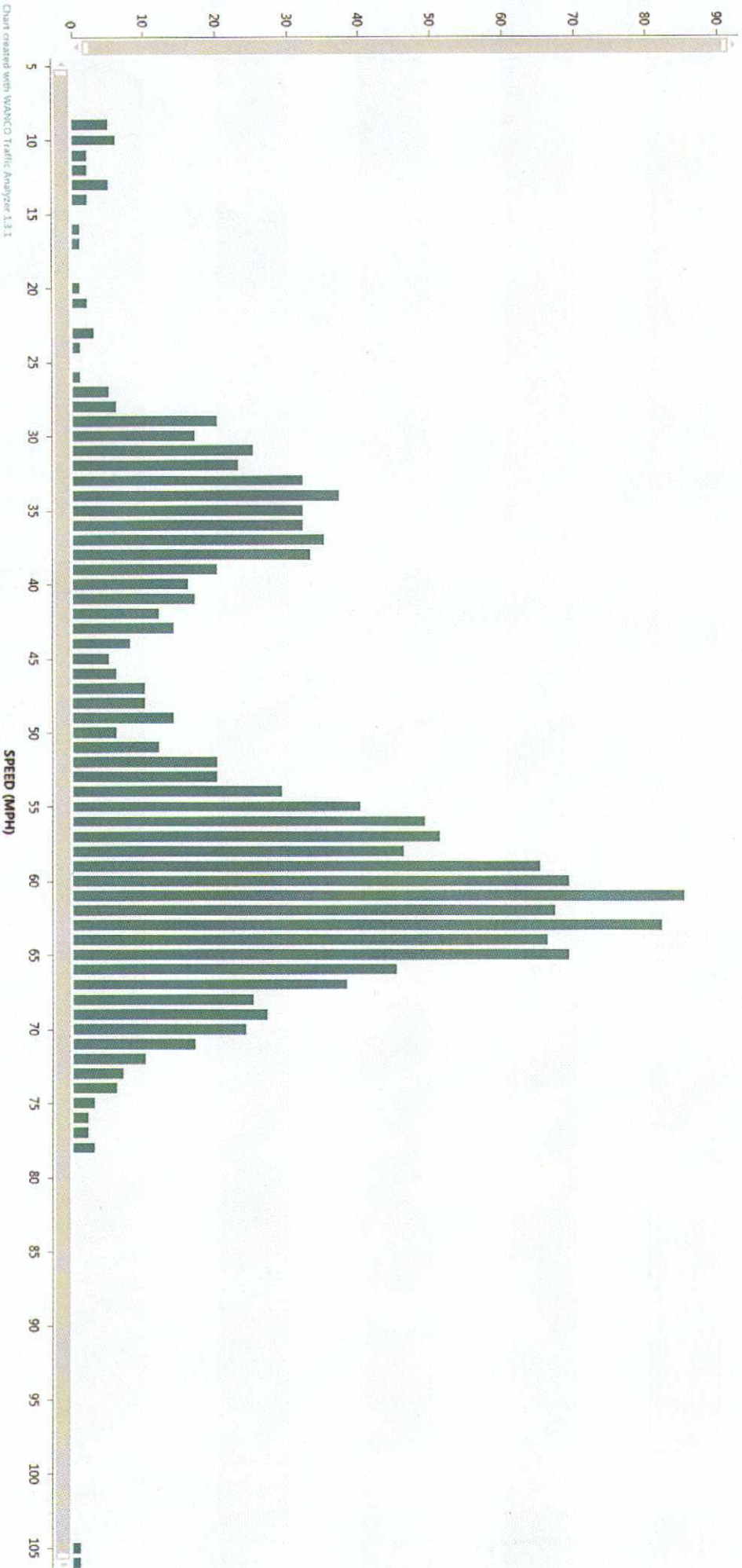
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05/11/2017 04:08 PM

Started On: 05/05/2017 11:38 AM

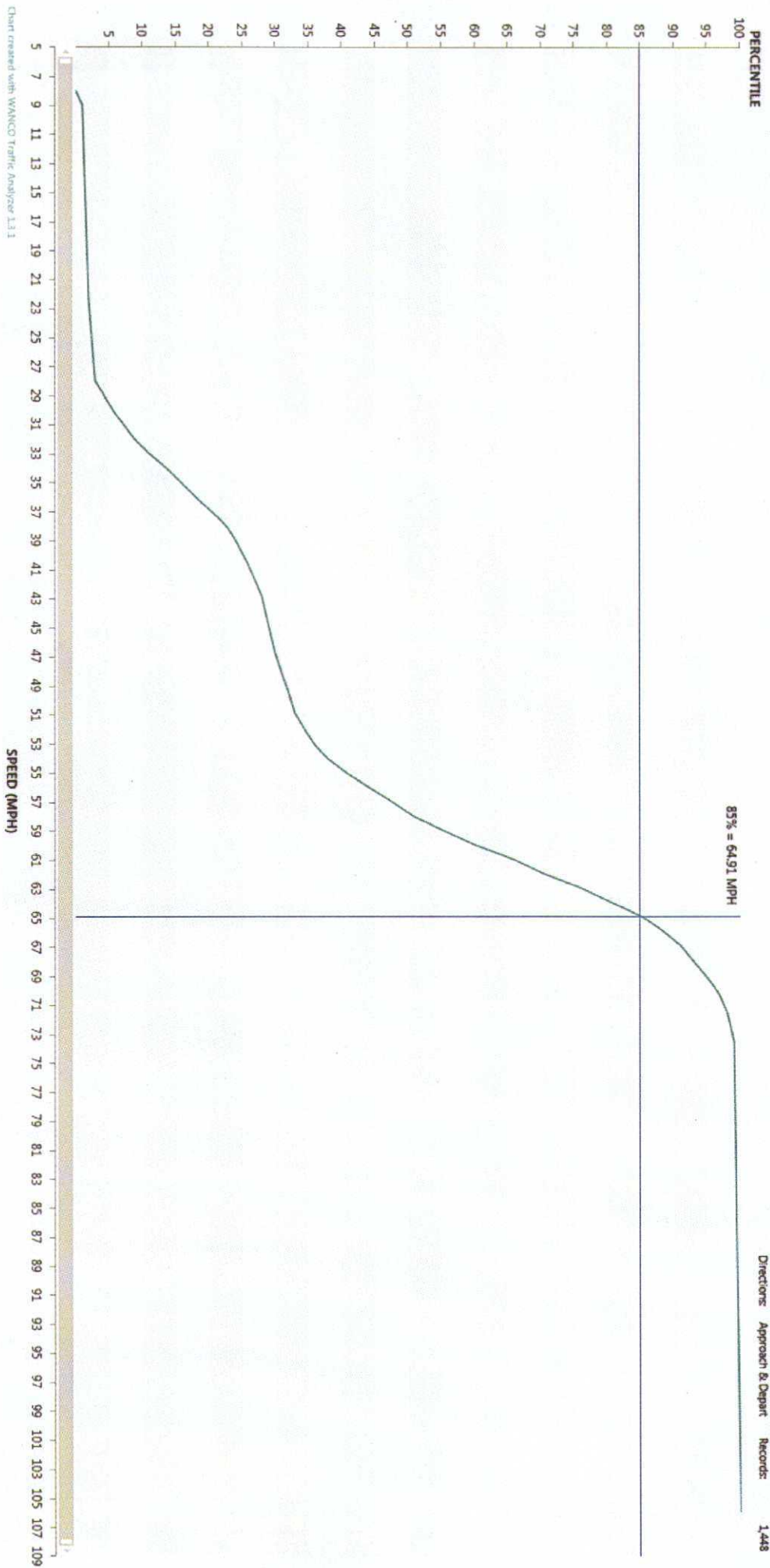
# > Vehicle Count By Speed

COUNT



Speeds: 9 - 105 MPH Start: 2017-05-05  
Vehicles: All Types End: 2017-05-05  
Directions: Approach & Depart Records: 1,448

# > Percentile By Speed



Speeds: 9 - 106 MPH Start: 2017-05-05  
Vehicles: All Types End: 2017-05-05  
Directions: Approach & Depart Records: 1,448

Chart created with WANCO Traffic Analyzer 1.1.1

# > Average Speed By Time

MPH

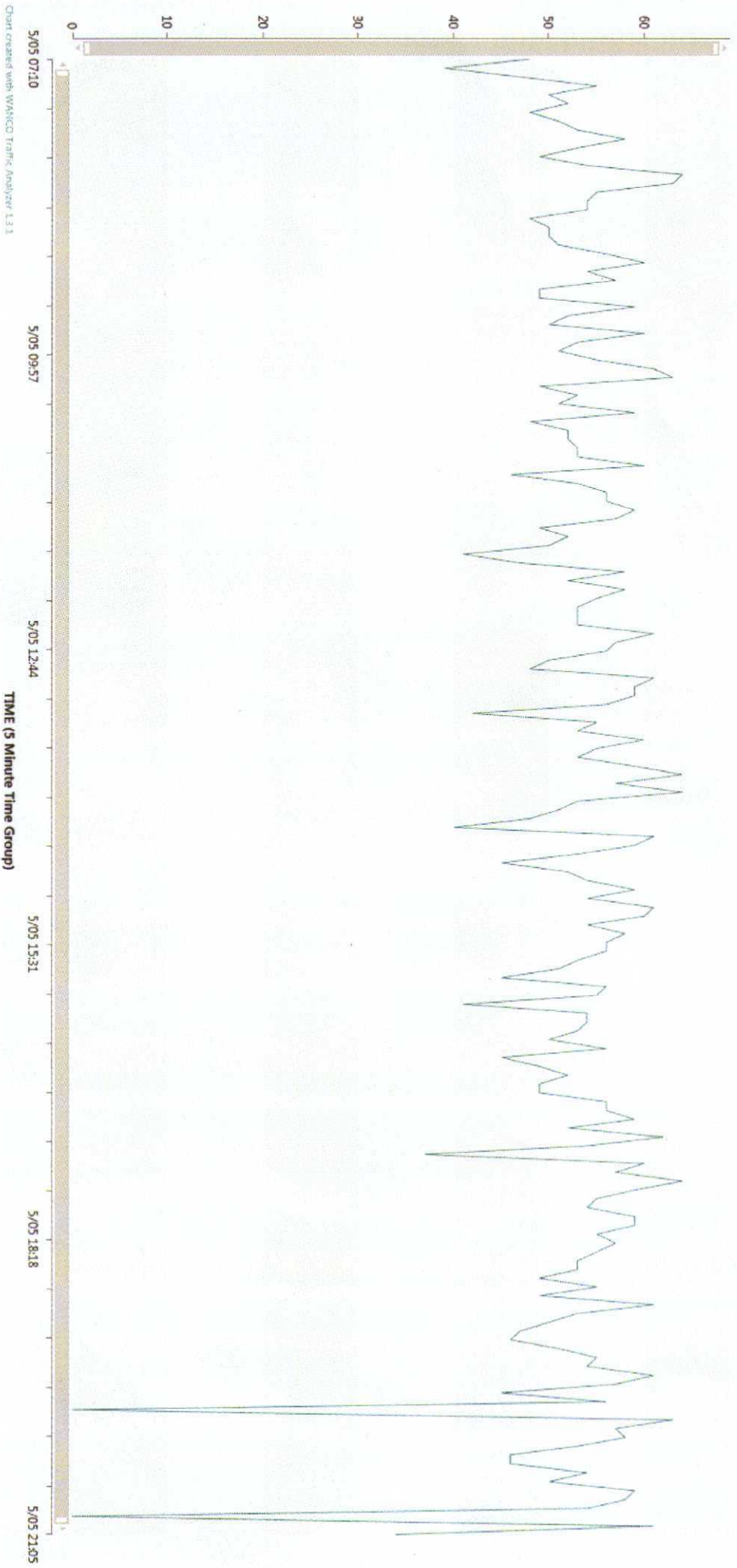


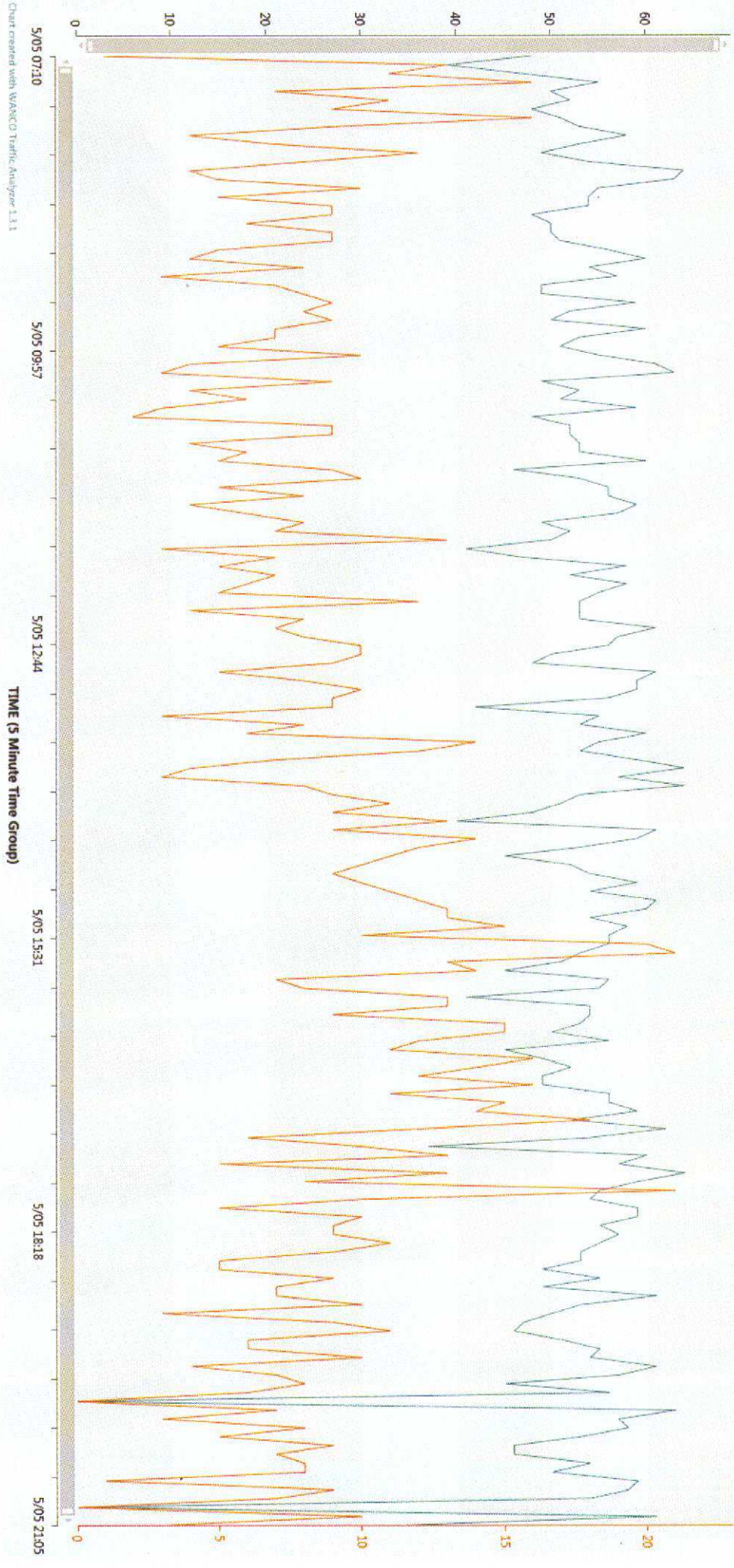
Chart created with WANCO Traffic Analyzer 1.3.1

Include Vehicle Count

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Vehicles: All Types  
Directions: Approach & Depart  
Start: 2017-05-05  
End: 2017-05-05  
Records: 1,448

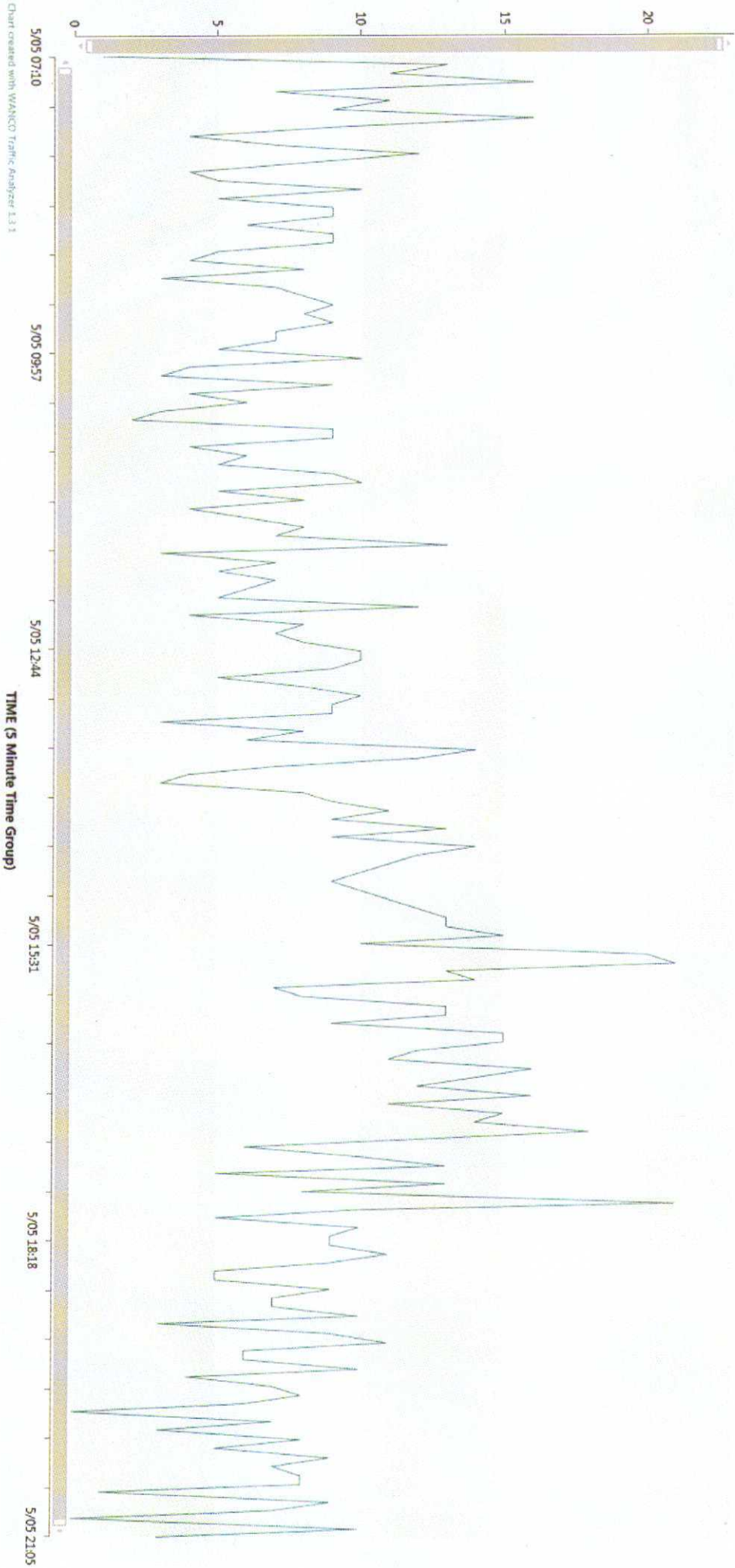
# > Average Speed By Time

MPH



# > Vehicle Count By Time

COUNT



Include Avg. Speed

Speeds: 9 - 106 MPH Start: 2017-05-05  
Vehicles: All Types End: 2017-05-05  
Directions: Approach & Depart Records: 1,448

# Vehicle Count By Time

COUNT

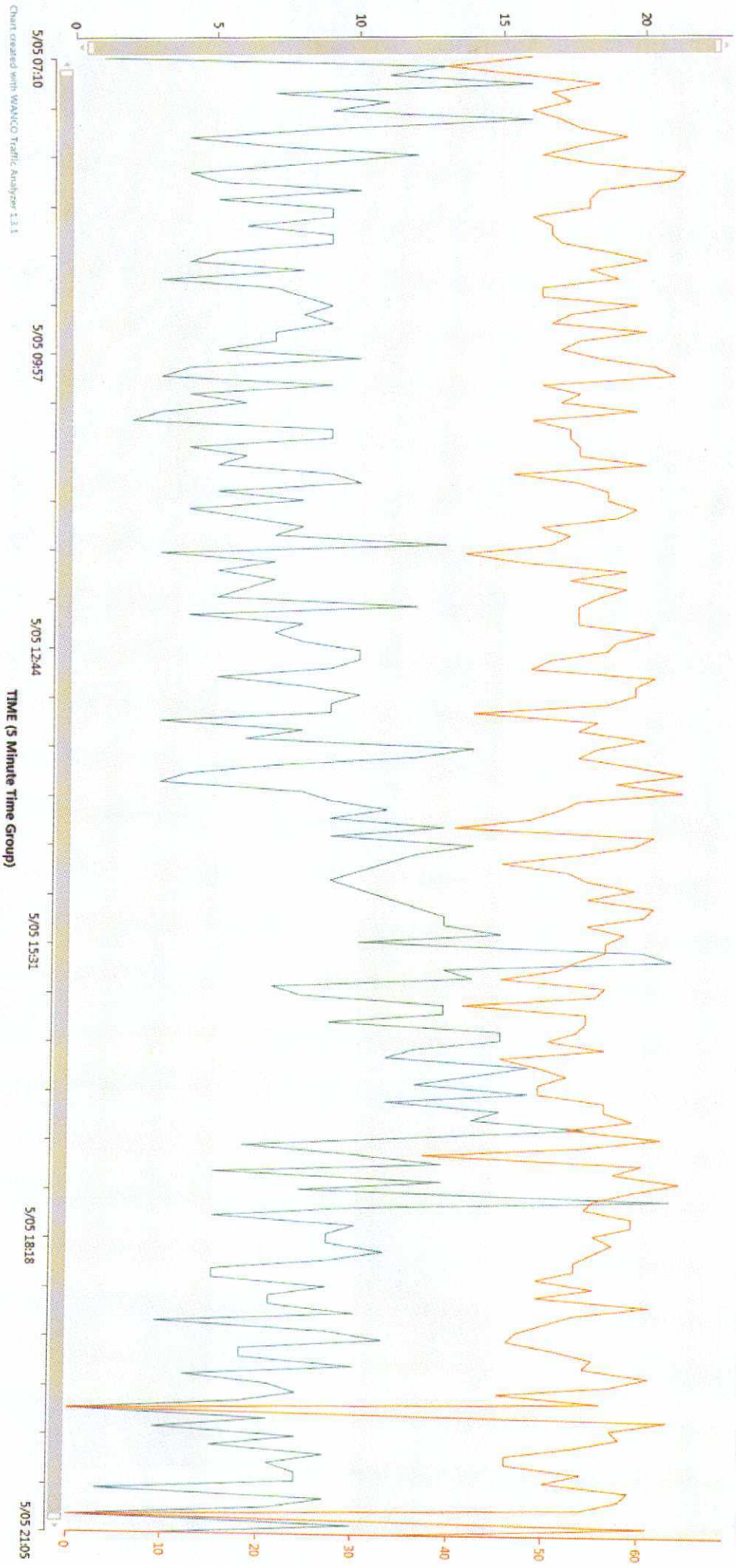
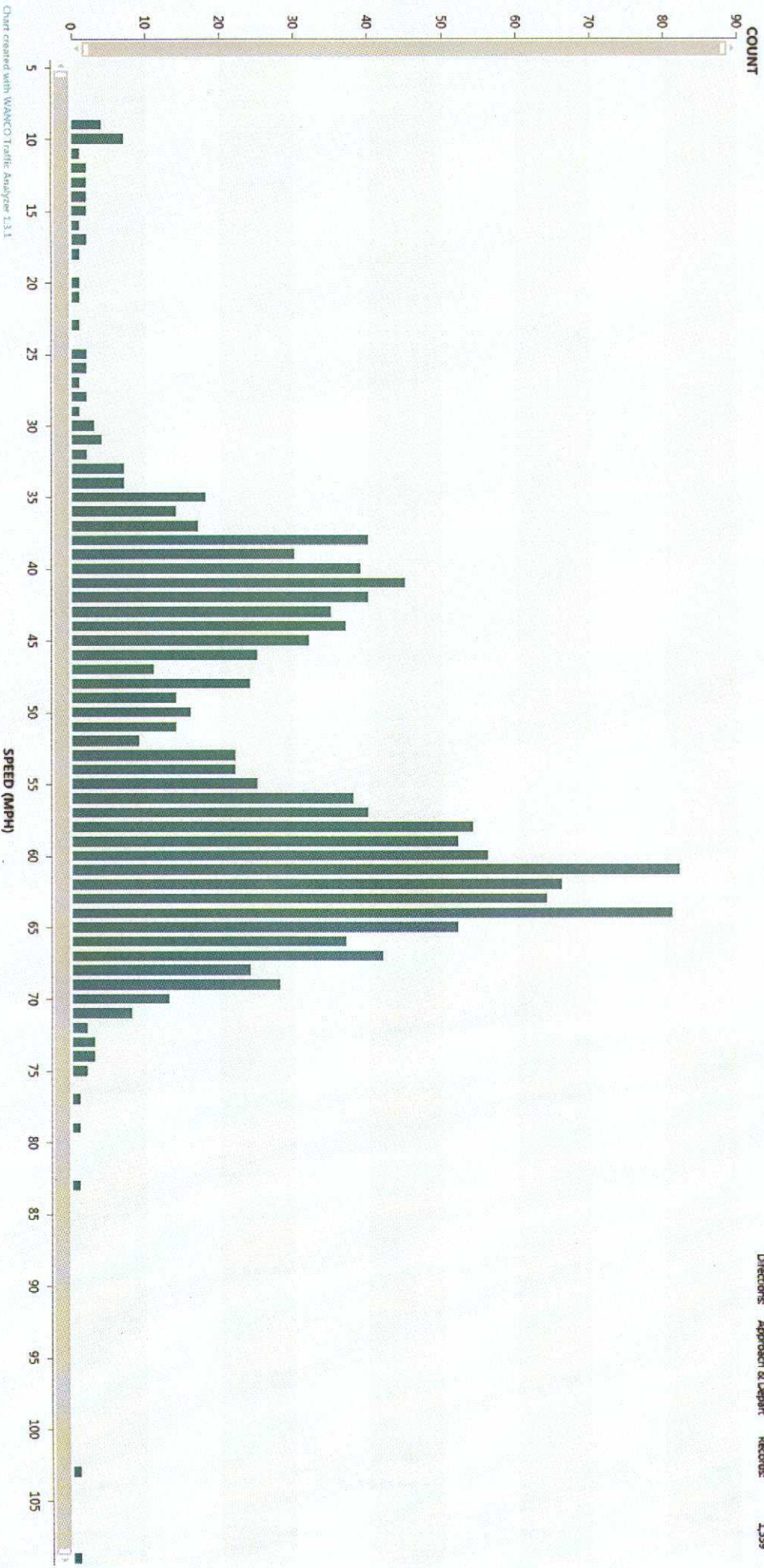


Chart created with WANCO Traffic Analyzer 1.1.1

Include Avg Speed

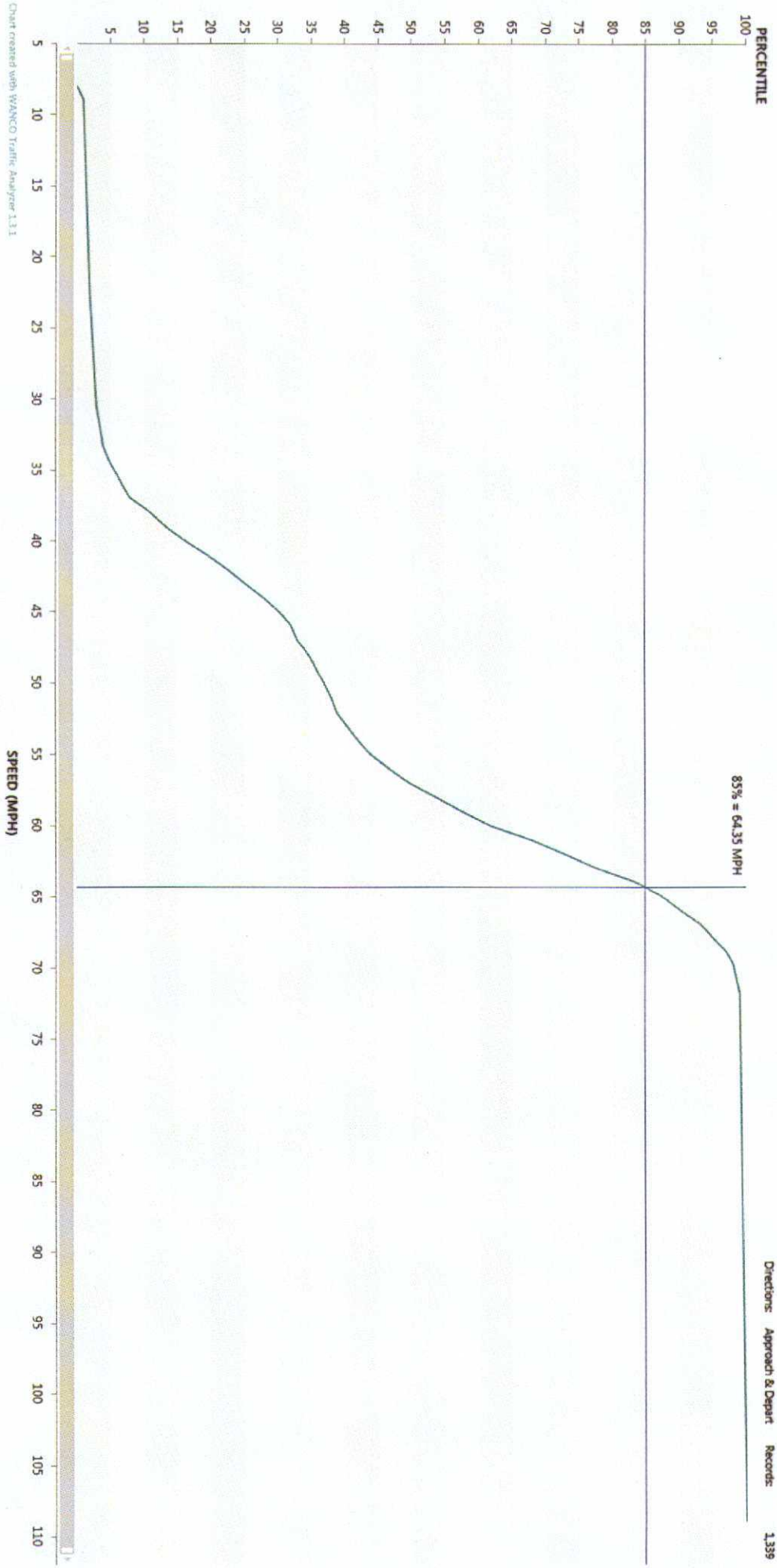
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Vehicles: All Types  
Directions: Approach & Depart  
Start: 2017-05-05  
End: 2017-05-05  
Records: 1,448

# > Vehicle Count By Speed



Speeds: 9 - 109 MPH  
 Vehicles: All Types  
 Directions: Approach & Depart  
 Start: 2017-05-08  
 End: 2017-05-08  
 Records: 1,339

# > Percentile By Speed



Speeds: 9 - 109 MPH Start: 2017-05-08  
Vehicles: All Types End: 2017-05-08  
Directions: Approach & Depart Records: 1,339

Chart created with WANCO Traffic Analyzer 1.11

# > Average Speed By Time

MPH

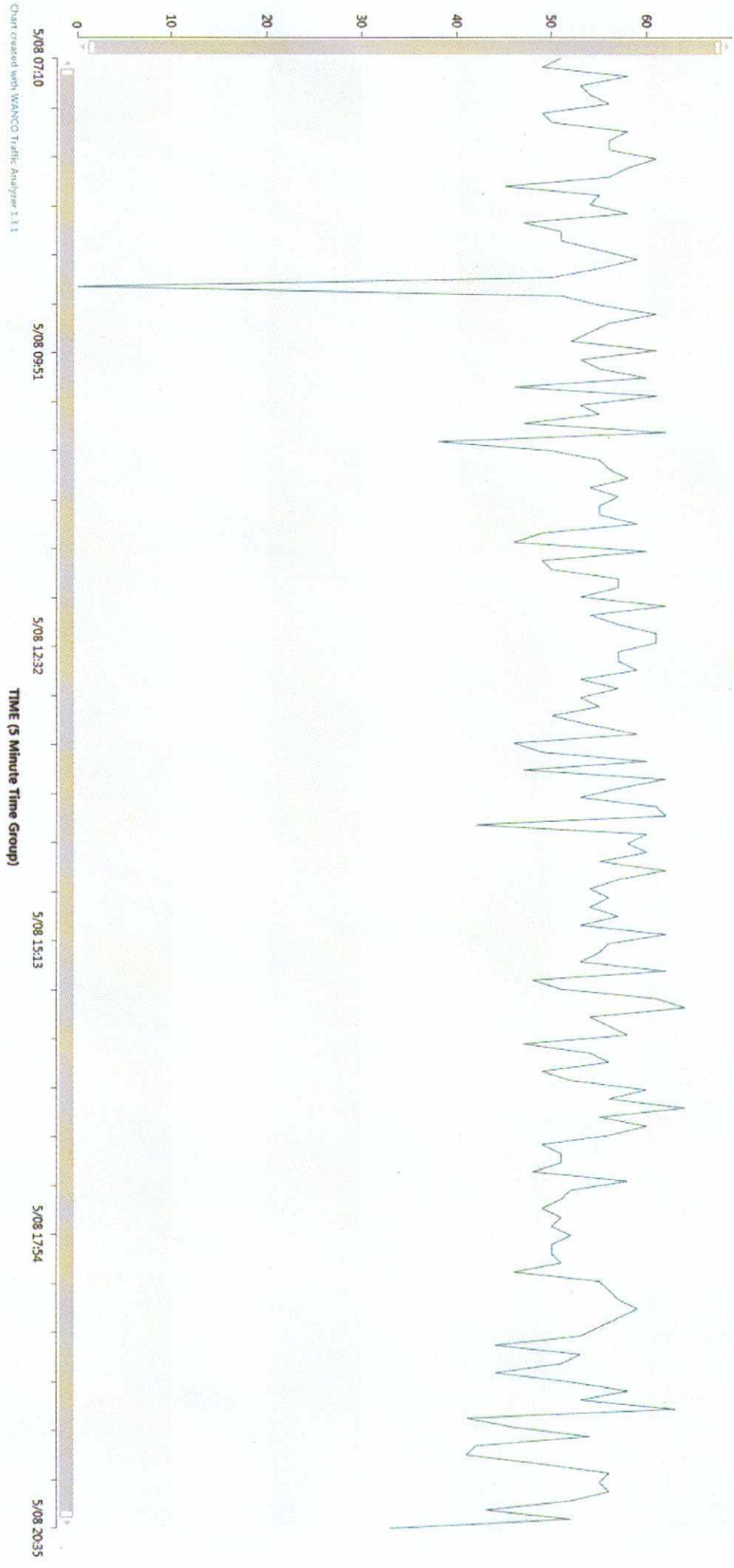


Chart created with MANCO Traffic Analyzer 1.1.1

Include Vehicle Count?

Speeds: 9 - 109 MPH Start: 2017-05-08  
Vehicles: All Types End: 2017-05-08  
Directions: Approach & Depart Records: 1,339

# > Average Speed By Time

MPH

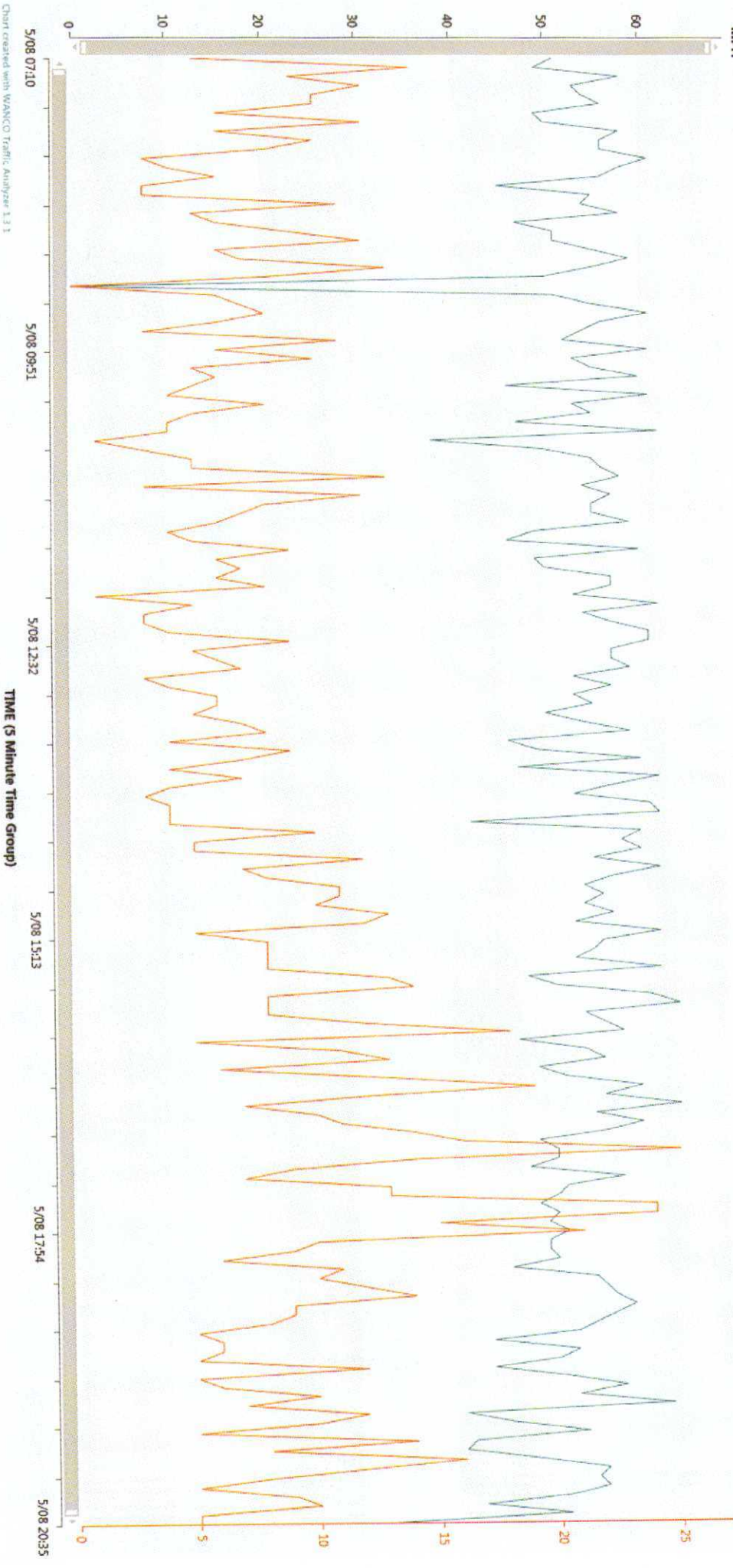


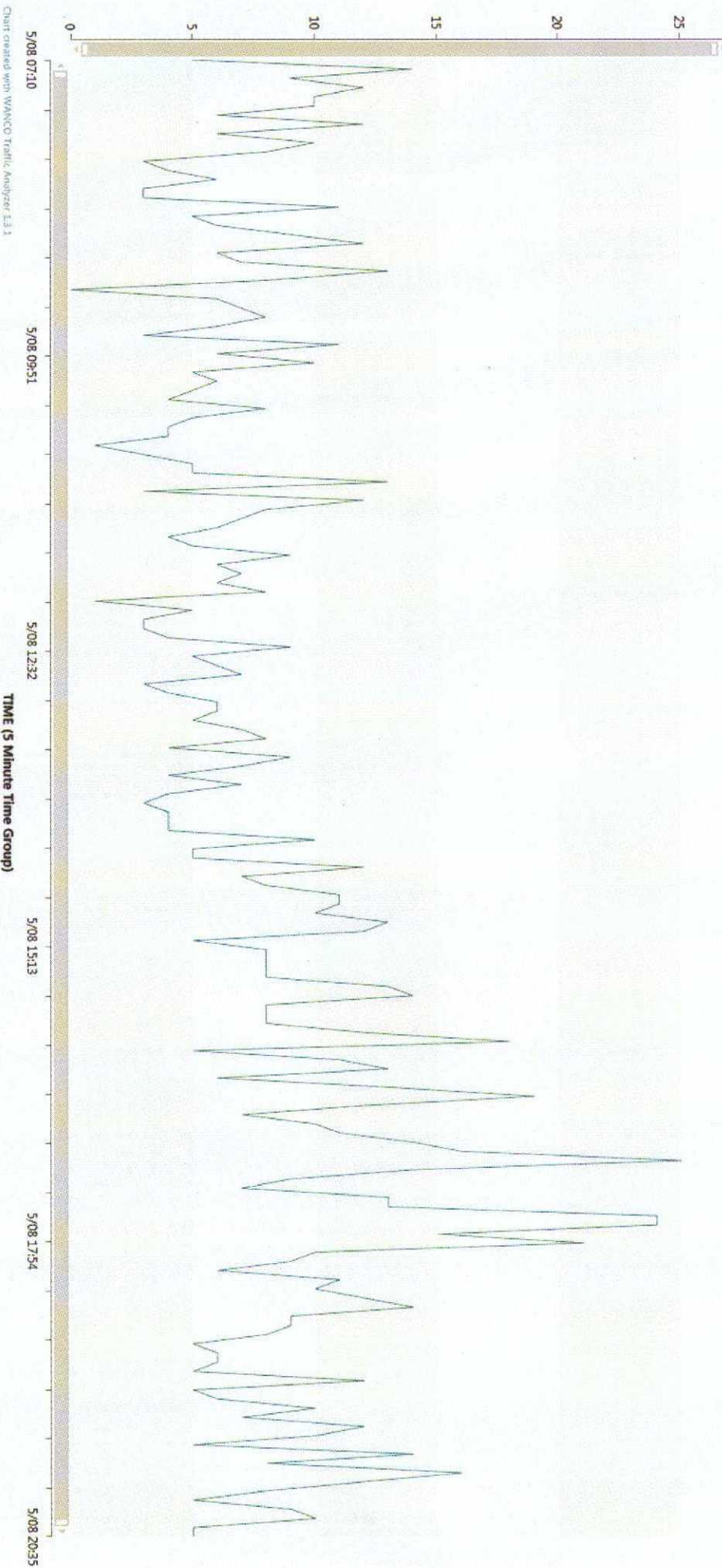
Chart created with WANCO Traffic Analyzer 1.3.1

Include Vehicle Count

SPEEDS: 9 - 109 MPH  
VEHICLES: All Types  
DIRECTIONS: Approach & Depart  
START: 2017-05-08  
END: 2017-05-08  
RECORDS: 1,339

# > Vehicle Count By Time

COUNT



Include Avg. Speed?

Speeds: 9 - 109 MPH  
Vehicles: All Types  
Directions: Approach & Depart  
Start: 2017-05-08  
End: 2017-05-08  
Records: 1,339

# > Vehicle Count By Time

COUNT

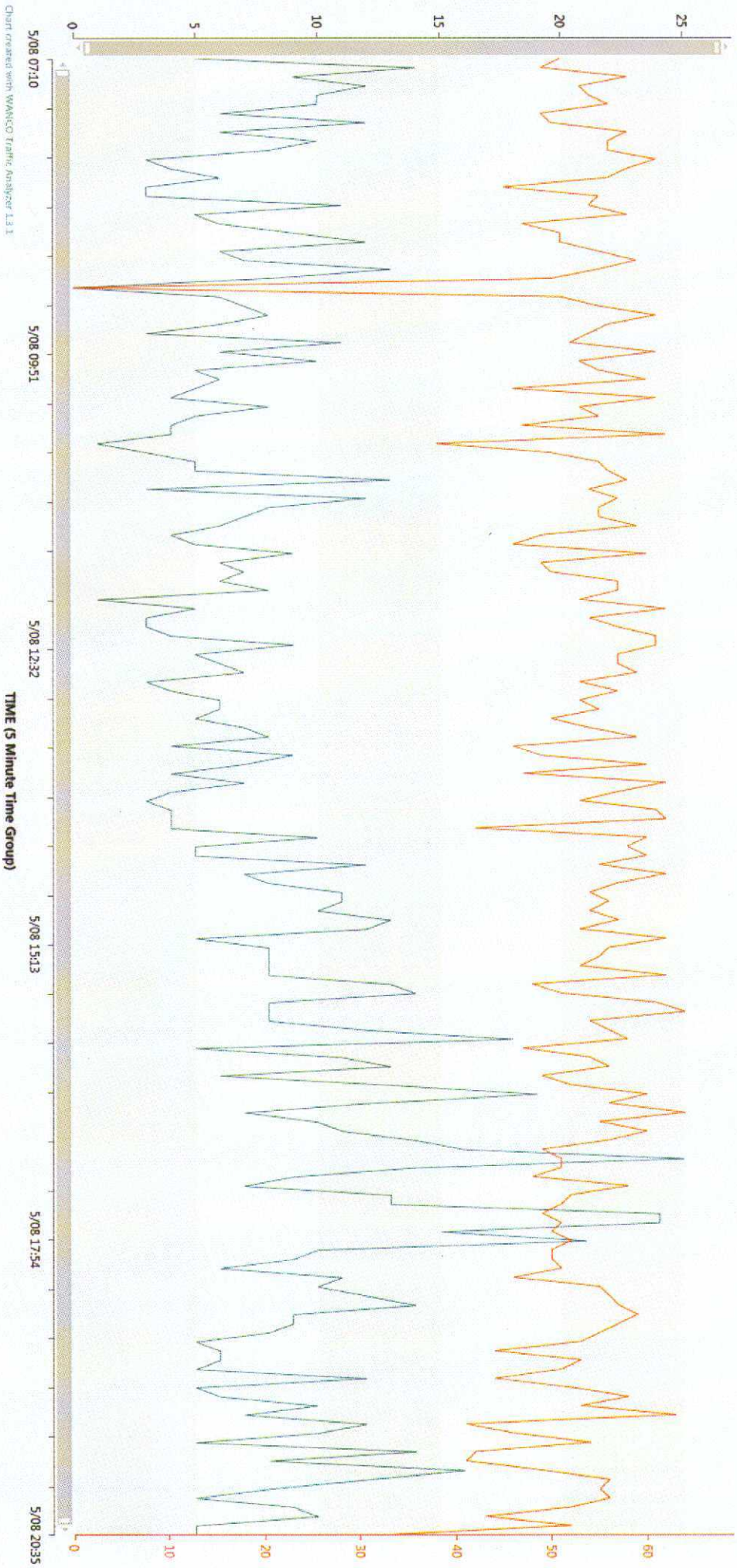


Chart created with WANCO Traffic Analyzer 1.3.1

Include Avg. Speed?

Speeds:	9 - 109 MPH	Start:	2017-05-08
Vehicles:	All Types	End:	2017-05-08
Directions:	Approach & Depart	Records:	1,339

# 2010 Highway Capacity Manual (HCM)

## Pedestrian Level of Service (LOS) at Uncontrolled Crossing Locations Intersection and Mid-Block Crossings

### **Introduction:**

The Worksheets provide a procedure for evaluating the Level of Service (LOS) at uncontrolled pedestrian crossings according to the methodology presented in Chapter 19 of the 2010 Highway Capacity Manual. Uncontrolled pedestrian crossings include: marked crossings at mid-block locations; marked crossings at intersections; and unmarked crossings at intersections, that are not controlled by a traffic control device such as signals and stop or yield signs.

Use of these Worksheets in Microsoft Excel results in an automated procedure. While this automated procedure has been checked for accuracy using multiple examples, no warranty is made by the developers as to the accuracy, completeness, or reliability of the equations and results. No responsibility is assumed for incorrect results or damages resulting from the use of these worksheets.

This process is not for use at signalized crossings and has not been verified to be accurate for unsignalized pedestrian crossings within a signalized corridor.

The equations and methodology presented through this process is contained within the 2010 Highway Capacity Manual (HCM). Any questions on the approach, assumptions, and limitations of the procedure or for verification of equations are directed to the 2010 HCM.

This material was developed by Bolton & Menk, Inc. in coordination with the Local Road Research Board (LRRB) for the use by practitioners. These Worksheets are made without charge and under no circumstances shall be sold by third parties for profit.

Submitted for Approval: May 12, 2014  
Updated June 6, 2014

# 2010 Highway Capacity Manual (HCM)

## Pedestrian Level of Service (LOS) at Uncontrolled Crossing Locations Intersection and Mid-Block Crossings

Crossing Location: Variolite/161st Ave Date: 5/4/2017  
 City, State: Ramsey, Mn Scenario: \_\_\_\_\_  
 Reviewer(s): Grant Riemer Agency: City of Ramsey  
 Project Number: \_\_\_\_\_ ID #: \_\_\_\_\_

The following is the base information needed to complete the analysis.

If this is a one-stage crossing, use only Crossing 1.

If this is a two-stage crossing, each stage must be evaluated separately using Crossing 1 and Crossing 2.

### Crossing 1: \_\_\_\_\_

#### Evaluation Inputs:

- L = crosswalk length (ft)
- $S_p$  = average pedestrian walking speed (ft/s)
- $t_s$  = pedestrian start-up and end clearance time (s)
- V = vehicular hourly volume (veh/hr)
- $v_p$  = pedestrian flow rate (ped/s)
- v = vehicular flow rate (veh/s) =  $V/3600$
- $W_c$  = crosswalk width (ft)
- N = number of through lanes crossed (Integer)

defaults:	
$S_p$ =	3.5
$t_s$ =	3.0
$v_p$ =	0*
v =	$V/3600$
$W_c$ =	8.0
N =	$INT(L/11)$

Input Table:	
L =	52
$S_p$ =	3.5
$t_s$ =	3
V =	74
$v_p$ =	3.00
v =	0.020
$W_c$ =	10.0
N =	2

\*no platooning observed

### Crossing 2: \_\_\_\_\_

(only used for two-stage crossings)

#### Evaluation Inputs:

- L = crosswalk length (ft)
- $S_p$  = average pedestrian walking speed (ft/s)
- $t_s$  = pedestrian start-up and end clearance time (s)
- V = vehicular hourly volume (veh/hr)
- $v_p$  = pedestrian flow rate (ped/s)
- v = vehicular flow rate (veh/s) =  $V/3600$
- $W_c$  = crosswalk width (ft)
- N = number of through lanes crossed (Integer)

defaults:	
$S_p$ =	3.5
$t_s$ =	3.0
$v_p$ =	0*
v =	$V/3600$
$W_c$ =	8.0
N =	$INT(L/11)$

Input Table:	
L =	
$S_p$ =	
$t_s$ =	
V =	
$v_p$ =	
v =	
$W_c$ =	
N =	

\*no platooning observed

### Crossing Treatment Yield Rate

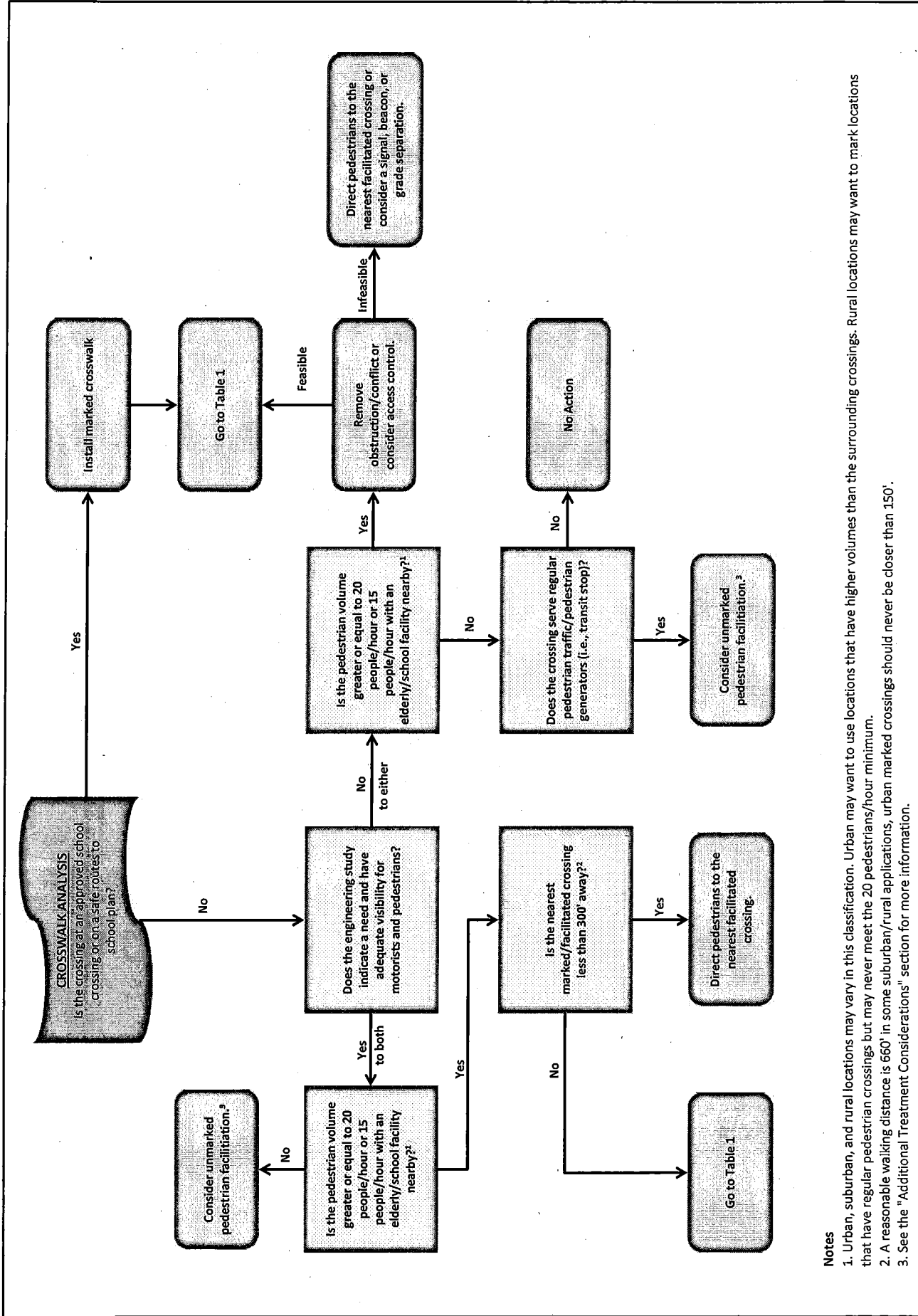
$M_y$  = motorist yield rate (decimal)

Input Table:	
$M_y$ =	7%

Entering data into the tables above will populate the evaluation tables in Microsoft Excel.

### Results:

<b>Average Delay</b>	<b>4.3</b>	<b>sec/ped</b>
<b>LOS</b>	<b>A</b>	



January 2015

UNSIGNALIZED MARKED CROSSWALK INSTALLATION FLOWCHART

FIGURE 9

Notes  
 1. Urban, suburban, and rural locations may vary in this classification. Urban may want to use locations that have higher volumes than the surrounding crossings. Rural locations may want to mark locations that have regular pedestrian crossings but may never meet the 20 pedestrians/hour minimum.  
 2. A reasonable walking distance is 660' in some suburban/rural applications, urban marked crossings should never be closer than 150'.  
 3. See the "Additional Treatment Considerations" section for more information.

**Table 1 - Criteria for Crossing Treatments at Uncontrolled Locations**

Roadway Configuration	# of lanes crossed to reach a refuge <sup>(1)</sup>	# of multiple threat lanes <sup>(2)</sup> per crossing	Roadway ADT and Posted Speed															
			1,500-9,000 vpd				9,000-12,000 vpd				12,000-15,000 vpd				> 15,000 vpd			
			≤ 30 mph	35 mph	40 mph	≥ 45 mph	≤ 30 mph	35 mph	40 mph	≥ 45 mph	≤ 30 mph	35 mph	40 mph	≥ 45 mph	≤ 30 mph	35 mph	40 mph	≥ 45 mph
2 Lanes (one-way street)	2	1	A	B	C	E	A	B	C	E	B	B	C	E	B	C	C	E
2 Lanes (two way street with no median)	2	0	A	B	C	E	A	B	C	E	B	B	C	E	B	C	C	E
3 Lanes w/Raised Median	1 or 2	0 or 1	A	B	D	E	A	C	D	E	B	D	D	E	C	D	D	E
3 Lanes w/Striped Median	3	0 or 1	C	C	D	E	C	C	D	E	C	C	D	E	C	D	D	E
4 Lanes (two way street with no median)	4	2	A	D	D	E	B	D	D	E	B	D	D	E	D	D	D	E
5 Lanes w/Raised Median	2 or 3	2	A	B	D	E	B	C	D	E	B	C	D	E	C	C	D	E
5 Lanes w/Striped Median	5	2	D	D	D	E	D	D	D	E	D	D	D	E	D	D	D	E
6 Lanes (two way street with or without median)	3 to 6	4	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F

Notes:

- Painted medians can never be considered a refuge for a crossing pedestrian. Similarly, a 4 foot wide raised median next to a left turn lane can only be considered a refuge for pedestrians if the left turning volume is less than 20 vehicles per hour (meaning that in most cases the left turn lane is not occupied while the pedestrian is crossing).
- A multiple threat lane is defined as a through lane where it is possible for a pedestrian to step out from in front of a stopped vehicle in the adjacent travel lane (either through or turn lane).

**Treatment Descriptions:**

**A** *Install marked crosswalk with enhanced road-side signs*  
*Specific Guidance:* Install marked crosswalk with "State Law - Yield to Pedestrian" signs mounted on the side of the roadway with standard (W11-2) advance pedestrian warning signs; use S1-1 signs for School Crossing locations.

**B** *Install marked crosswalk with enhanced road-side and in-roadway (bollard mounted) signs*  
*Specific Guidance:* Install marked crosswalk with "State Law - Yield to Pedestrian" signs mounted on the side of the roadway and on in-roadway bollards; use standard (W11-2) advance pedestrian warning signs; use S1-1 signs for School Crossing locations.

**C** *Install marked crosswalk with enhanced signs and geometric improvements to increase pedestrian visibility and reduce exposure*  
*Specific Guidance:* For 2 or 3-lane roadways, install marked crosswalk with "State Law - Yield to Pedestrian" signs mounted on the side of the roadway and on in-roadway bollards or median mounted signs; use standard (W11-2) advance pedestrian warning signs; use S1-1 signs for School Crossing locations. Add neckdowns or median refuge islands to shorten the pedestrian crossing distance and increase pedestrian visibility to motorists.

**D** *Install marked crosswalk with enhanced signs, pedestrian activated RRFBs, and geometric improvements to increase pedestrian visibility and reduce exposure*  
*Specific Guidance:* Install raised median refuge island (unless it is a one-way street or one already exists) to shorten the pedestrian crossing distance and increase pedestrian visibility to motorists. [If a median refuge can not be constructed on a two-way street, Go To Scenario F]. Install marked crosswalk with "State Law - Yield to Pedestrian" signs WITH pedestrian activated RRFBs mounted on the side of the roadway and on median mounted signs; use standard (W11-2) advance pedestrian warning signs; use S1-1 signs for School Crossing locations. Consider adding neckdowns at the crossing if on-street parking exists on the roadway and storm drain considerations will allow. [Note: If pedestrian volume falls above the RRFB limit line on Figure 2, consider Hawk beacon, pedestrian traffic signal, or grade-separated crossing.]

**E** *Do not install marked crosswalk at uncontrolled crossing. Determine if the speed limit can be effectively reduced to 40 mph AND a raised refuge median can be installed. If so, utilize Scenario D criteria above. If this is not possible, or if pedestrian volume falls above the RRFB limit line on Figure 2, consider HAWK beacon, pedestrian traffic signal, or grade-separated crossing.*  
*Specific Guidance:* Consider HAWK beacon, pedestrian traffic signal or grade-separated crossing; application of these treatments will consider corridor signal progression, existing grades, physical constraints, and other engineering factors

**F** *Do not install marked crosswalk at uncontrolled crossing with 3 or more THROUGH lanes per direction or where the speed limit is ≥ 45 mph and/or there is not a median refuge on a 5-lane crossing. Consider HAWK beacon, pedestrian traffic signal, or grade-separated crossing.*  
*Specific Guidance:* Consider HAWK beacon, pedestrian traffic signal or grade-separated crossing; application of these treatments will consider corridor signal progression, existing grades, physical constraints, and other engineering factors

Roadway Configuration <sup>1,5</sup>	Vehicle ADT ≤ 9,000				Vehicle ADT > 9,000 - 12,000				Vehicle ADT > 12,000 - 15,000				Vehicle ADT > 15,000			
	≤ 30 mph	35 mph	40 mph	≥ 45 mph	≤ 30 mph	35 mph	40 mph	≥ 45 mph	≤ 30 mph	35 mph	40 mph	≥ 45 mph	≤ 30 mph	35 mph	40 mph	≥ 45 mph
2 lanes (with or without a raised median)	A	A	B	D	A	A	B	D	A	A	C	D	A	B	C	D
3 lanes with raised median	A	A	C	D	A	B	C	D	A	C	C	D	B	C	C	D
3 lanes without raised median	A	B	C	D	A	B	C	D	B	B	C	D	B	C	C	D
Multilane (4 or more lanes) with raised median <sup>2</sup>	A	A	C	D	A	B	C	D	A	B	C	D	C	C	C	D
Multilane (4 or more lanes) without raised median <sup>2</sup>	A	C	C	D	B	C	C	D	C	C	C	D	C	C	C	D

**Treatment Descriptions:**

A. Consider marked crosswalk and signs

*Guidance: Consider installing marked crosswalk with advance warning signs (W11-2); use S1-1 signs for school crossings. Consider in-roadway (R1-6) or overhead (R1-9b) signs.*

B. Consider marked crosswalk with enhanced signs (R1-6 or R1-9b) and/or geometric improvements

*Guidance: Consider installing treatment options from Type A treatments. Add curb extensions or median refuge islands.*

C. Consider marked crosswalk with signs, geometric improvements, and pedestrian activated warning devices<sup>4</sup>

*Guidance: Consider installing a raised median refuge island if one is not present. Consider installing marked crosswalk and appropriate crossing signs along with a pedestrian activated warning device (i.e., RRFB). Consider adding curb extensions if possible.*

D. Do not install marked crosswalk<sup>3</sup>

*Guidance: Consider pedestrian hybrid beacon, pedestrian traffic signal, or grade separated crossing.*

*Guidance: Consider pedestrian hybrid beacon, pedestrian traffic signal, or grade separated crossing.*

**Specific Notes:**

- Advanced stop lines and signing (R1-5b or c) should be used whenever possible if a multiple threat crash issue is present. Overhead signing, RRFBs or other overhead treatments should be used to mitigate multiple threat crash risks.
- Do not install a marked crosswalk where there are 3 or more through lanes per direction. Consider a pedestrian hybrid beacon, pedestrian traffic signal, or grade separated crossing.
- Traffic calming measures should be considered to reduce speed.
- If a median cannot be or is not currently installed go to Treatment Type D.
- Minimum acceptable median width to provide a refuge is 6 feet.

**General Notes:**

- Adding crosswalks alone will not make crossings safer, result in more vehicles stopping for pedestrians, nor will they necessarily create a false sense of security.
- Crosswalks have not been proven to create a false sense of security - research shows that pedestrians scan the road more at marked crosswalks.
- Whether a crosswalk is marked or not, additional crossing enhancements should be considered. See the "Additional Treatment Considerations" section.
- See MUTCD Section 3B.18 for additional guidance on using this table.
- Lanes are total cross section.

JANUARY 2015

# Pedestrian Facility Treatments

TABLE

1

**Table 3: Uncontrolled Crossing Treatments (in conjunction with markings and signs)**

Treatment	Advantages	Disadvantages	Recommended Locations	Stage Pedestrian Yield Rate	Unaided Pedestrian Yield Rate	Cost
Center Median with Refuge Island	<ul style="list-style-type: none"> <li>Decreases pedestrian crossing distance</li> <li>Provides higher pedestrian visibility</li> <li>Reduces vehicle speeds approaching the island</li> <li>Reduces conflicts</li> <li>Increases usable gaps</li> <li>Reduces pedestrian exposure time</li> </ul>	<ul style="list-style-type: none"> <li>May make snow removal more difficult</li> <li>May be a hazard for motorists</li> <li>Small islands not recommended on high-speed roadways (&gt;40 mph)</li> </ul>	<ul style="list-style-type: none"> <li>Wide, two-lane roads and multilane roads with sufficient right-of-way</li> </ul>	34%	29%	Variable depending on length
Signal Crossing (Guards)	<ul style="list-style-type: none"> <li>Inexpensive</li> <li>Provides higher pedestrian visibility</li> <li>Highlights when a pedestrian crossing is being used</li> </ul>	<ul style="list-style-type: none"> <li>May require trained staff or local law enforcement, especially on high-speed and high-volume roadways</li> </ul>	<ul style="list-style-type: none"> <li>At school locations</li> </ul>	NR	86%	Variable
Pedestrian Crossing Flags	<ul style="list-style-type: none"> <li>Inexpensive</li> <li>Provides higher pedestrian visibility to drivers assuming the flag is held in a noticeable location</li> </ul>	<ul style="list-style-type: none"> <li>No effect at night</li> <li>Requires pedestrians to actively use a flag</li> <li>Can be easily removed/stolen</li> <li>Shorter crossings are preferred</li> </ul>	<ul style="list-style-type: none"> <li>Downtown/urban locations</li> <li>High pedestrian volume locations</li> <li>Across low-speed (&lt;45mph) roadways</li> </ul>	65%	74%	<\$500
Warning Sign with Side Mount LED	<ul style="list-style-type: none"> <li>Highlights a crossing both at night and during the day</li> </ul>	<ul style="list-style-type: none"> <li>Requires pedestrian activation</li> <li>Minimal to no effect on speed</li> </ul>	<ul style="list-style-type: none"> <li>In conjunction with in-road warning lights</li> <li>Downtown/urban conditions</li> </ul>	NR	28%	\$3,000-\$8,000
In-Road Warning Lights	<ul style="list-style-type: none"> <li>Highlights a crossing both at night and during the day</li> <li>Provides higher driver awareness when a pedestrian is present</li> </ul>	<ul style="list-style-type: none"> <li>Snowplows can cause maintenance issues</li> <li>No effect when road surface is snow covered</li> <li>Requires pedestrian activation</li> </ul>	<ul style="list-style-type: none"> <li>Downtown/urban conditions</li> </ul>	NR	66%	\$20,000-\$40,000
Pedestrian Mounted Pedestrian Flashing Signal Beacons	<ul style="list-style-type: none"> <li>Provides higher driver awareness when a pedestrian is present</li> </ul>	<ul style="list-style-type: none"> <li>Requires pedestrian activation</li> <li>Not advisable on multilane streets</li> <li>Not shown to reduce crashes</li> </ul>	<ul style="list-style-type: none"> <li>Low-speed school crossings</li> <li>Two-lane roads</li> <li>Midblock crossing locations</li> </ul>	NR	57% (two-lane, 35mph)	\$12,000-\$18,000
Pedestrian Overhead Flashing Signal Beacons	<ul style="list-style-type: none"> <li>Provides higher driver awareness when a pedestrian is present</li> </ul>	<ul style="list-style-type: none"> <li>Requires pedestrian activation</li> </ul>	<ul style="list-style-type: none"> <li>Multilane roadways</li> <li>Mid-block crossing locations</li> <li>Lower speed roadways</li> </ul>	active 47% passive 31%	active 49% passive 67%	\$75,000-\$150,000
Rectangular Rapid Flash Beacons (RRFBs)	<ul style="list-style-type: none"> <li>Provides higher driver awareness when a pedestrian is present</li> <li>Increases yielding percentage</li> <li>Increases usable gaps</li> <li>Reduces probability of pedestrian risk taking</li> <li>Can be seen from 360 degrees</li> </ul>	<ul style="list-style-type: none"> <li>Requires pedestrian activation</li> </ul>	<ul style="list-style-type: none"> <li>Supplement existing pedestrian crossing warning signs</li> <li>School crossings</li> <li>Midblock crossing locations</li> <li>Low- and high-speed roadways</li> </ul>	84%	81%	\$12,000-\$18,000

NR = No research found on effect to yielding rate

**Public Works Committee**

5. 2.

**Meeting Date:** 05/16/2017

**Submitted For:** Grant Riemer, Engineering/Public Works

**By:** Grant Riemer, Engineering/Public Works

**Title:**

Parking Concern Near Rhinestone St and Ramsey Parkway

**Purpose/Background:**

Staff received an email from a resident that lives on the northern portion of Rhinestone St concerned with the residents of Parkview East parking on Rhinestone St. Their concern is with all the activity in the area during the summer a child could run into the street between the parked cars and motorists would not have time to react. To date Ramsey PD has no recorded accidents at this location. The COR was designed to encourage on street parking as to limit the need for large parking lots throughout the development. ParkView East does provide off street parking for their residents, but again there is nothing to prohibit the residents from parking on the street, except the no parking ordinance that addresses no on street parking from 2 am to 6 am.

**Timeframe:**

5 Minutes

**Observations/Alternatives:**

Staff has reviewed the intersection of Rhinestone St and Ramsey Parkway and observed that the curb lines painted yellow to designate "No Parking" vary in length at this intersection. A diagram provided in the MUTCD (Manual For Uniform Traffic Control Devices) suggests that parking be restricted for a minimum of 20 feet from an unmarked crosswalk. Staff recommends that the yellow curb markings be extended, where needed, to make all legs of the intersection uniform where "No Parking" restrictions are concerned. This action will help improve the visibility at the intersection and provide additional reaction time for motorists when pedestrians are present.

**Funding Source:**

General Fund - Cost Center 0260 Traffic Engineering

**Recommendation:**

Staff recommends that the yellow curb markings be extended, as needed, to make all legs of the intersection uniform in regards to No Parking restrictions.

**Action:**

Motion to except staff recommendation or reject staff recommendation and accept alternate motion based on committee discussion.

**Attachments**

Examples of Parking Space Markings

**Form Review**

<b>Inbox</b>	<b>Reviewed By</b>	<b>Date</b>
Kurt Ulrich	MaryJo Warner	05/11/2017 04:08 PM
Form Started By: Grant Riemer		Started On: 05/04/2017 01:01 PM
Final Approval Date: 05/11/2017		



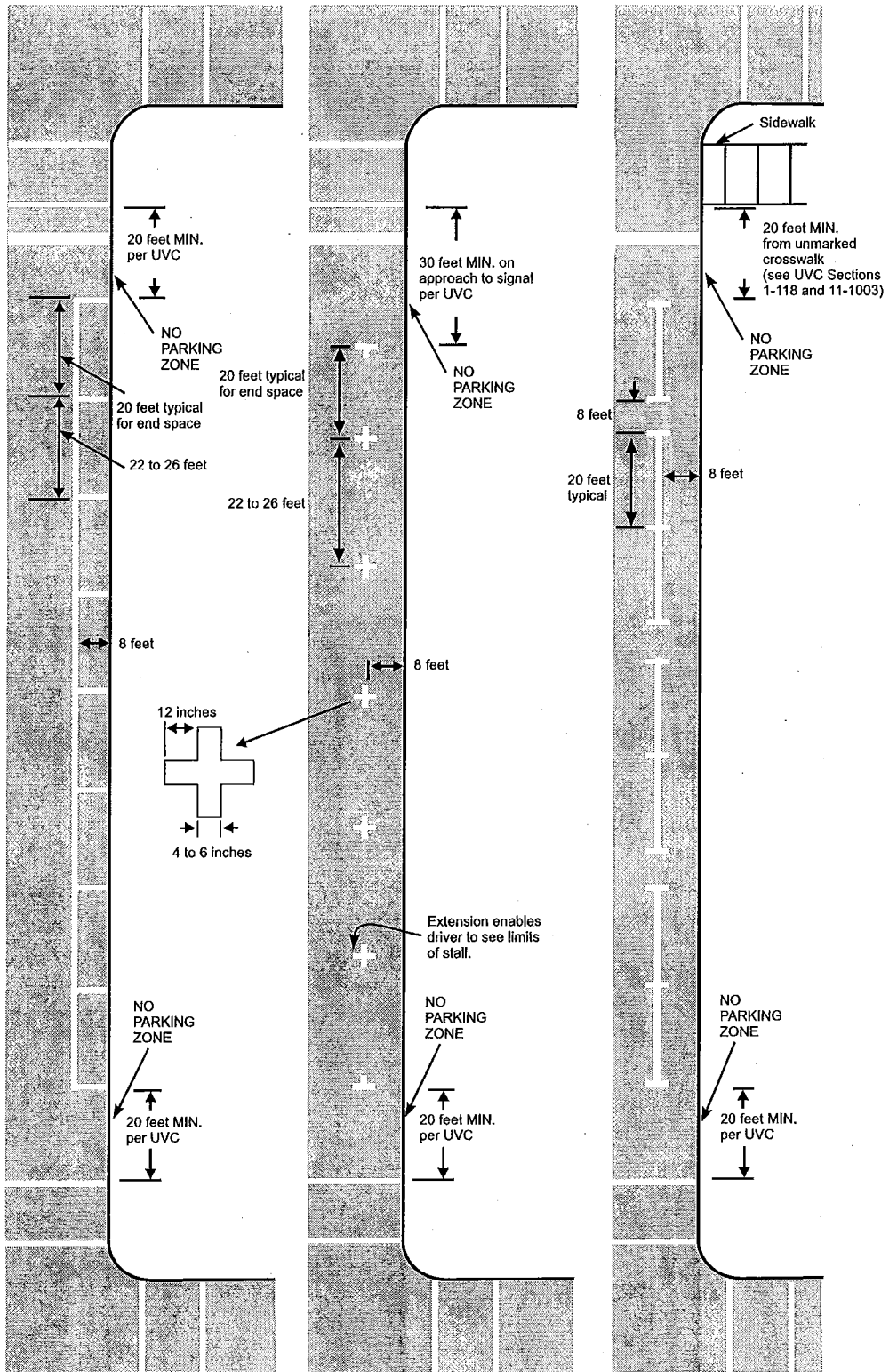


Figure 3B-21 Examples of Parking Space Markings

**Public Works Committee**

5. 3.

**Meeting Date:** 05/16/2017

**By:** Bruce Westby, Engineering/Public Works

**Title:**

Consider Recommending City Council Approval of Plans and Specifications for Improvement Project #17-03, 2017 Crackseal and Sealcoat Improvements

**Purpose/Background:**

**Purpose:**

The purpose of this case is to consider recommending City Council approval of plans and specifications for Improvement Project #17-03, 2017 Crackseal and Sealcoat Improvements.

**Background:**

Attached are the plans for Improvement Project #17-03, 2017 Crackseal and Sealcoat Improvements. In total, crackseal improvements are proposed for approximately 0.24 miles of City streets, and crackseal and sealcoat improvements are proposed for approximately 13.41 miles of City streets.

The plan includes a base bid, as well as 4 alternate bids. All streets colored magenta on the attached plans are included in the base bid, while streets colored orange are included in the 4 alternate bids, noted as alternates A through D. Staff will present this project in more detail at the meeting, including breaking down the rationale and costs for both the base and the alternate bids.

**Timeframe:**

Staff estimates 10 minutes will be required to present this case and respond to questions.

**Observations/Alternatives:**

**Alternatives:**

Alternative #1 – Motion recommending City Council approval of plans and specifications for Improvement Project #17-03, 2017 Crackseal and Sealcoat Improvements.

Alternative #2 – Motion of other.

**Funding Source:**

A total of \$500,000 was budgeted in 2017 for crackseal and sealcoat improvements, but as previously discussed with the City Council, staff would like to use approximately \$35,000 of this budgeted amount to analyze existing pavement sections of all streets listed in the 10 year CIP that are identified to be reconstructed or milled and overlaid. In addition, Public Works staff rented a spray patching machine this spring and is requesting up to \$35,000 of the \$500,000 budget to pay for this work. This leaves a total of \$430,000 for crackseal and sealcoat improvements.

Estimated project costs for the base bid plus 4 alternate bids are attached to this case. Bidding the improvements in this manner should allow the City to award a contract for the base bid, plus a combination of one or more alternates, in an amount close to the \$430,000 budget designated for this work. The estimated project costs include 14% indirect costs for administrative, engineering, finance, and legal costs.

**Recommendation:**

Staff recommends alternative #1.

**Action:**

Motion recommending City Council approval of plans and specifications for Improvement Project #17-03, 2017 Crackseal and Sealcoat Improvements.

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**Attachments**

[IP1703 Overall Plan](#)

[IP1703 Area A Plan](#)

[IP1703 Area B Plan](#)

[IP1703 Area C Plan](#)

[IP1703 Area D Plan](#)

[IP1703 Engineers Estimate](#)

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**Form Review**

**Inbox**

Grant Riemer

Kurt Ulrich

Form Started By: Bruce Westby

Final Approval Date: 05/11/2017

**Reviewed By**

MaryJo Warner

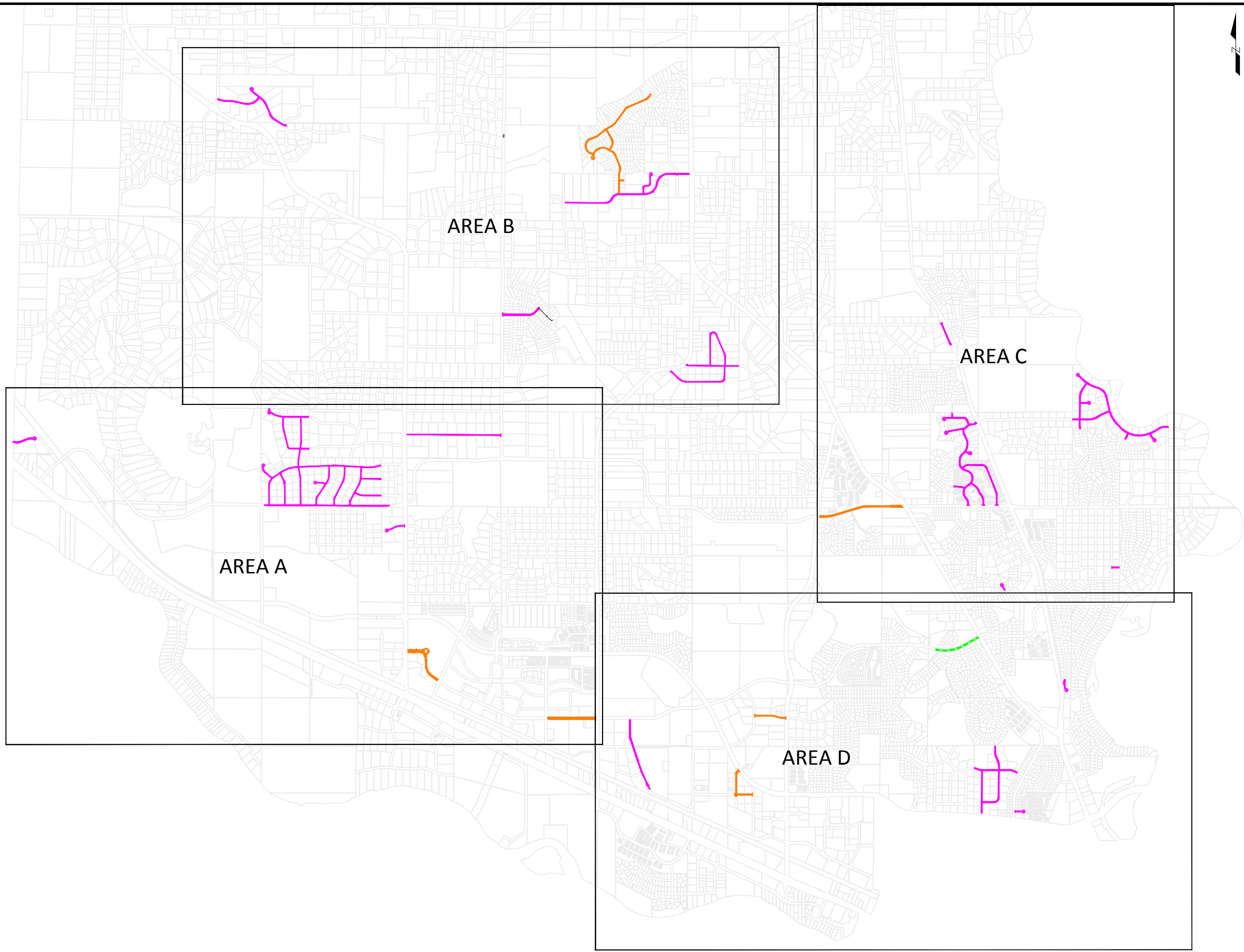
MaryJo Warner

**Date**

05/11/2017 09:49 AM

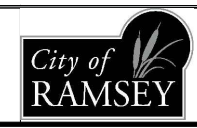
05/11/2017 04:08 PM

Started On: 05/10/2017 02:53 PM



- CRACK SEAL AND SEAL COAT
- CRACK SEAL ONLY
- CRACK SEAL AND SEAL COAT - ALTERNATIVE AREA

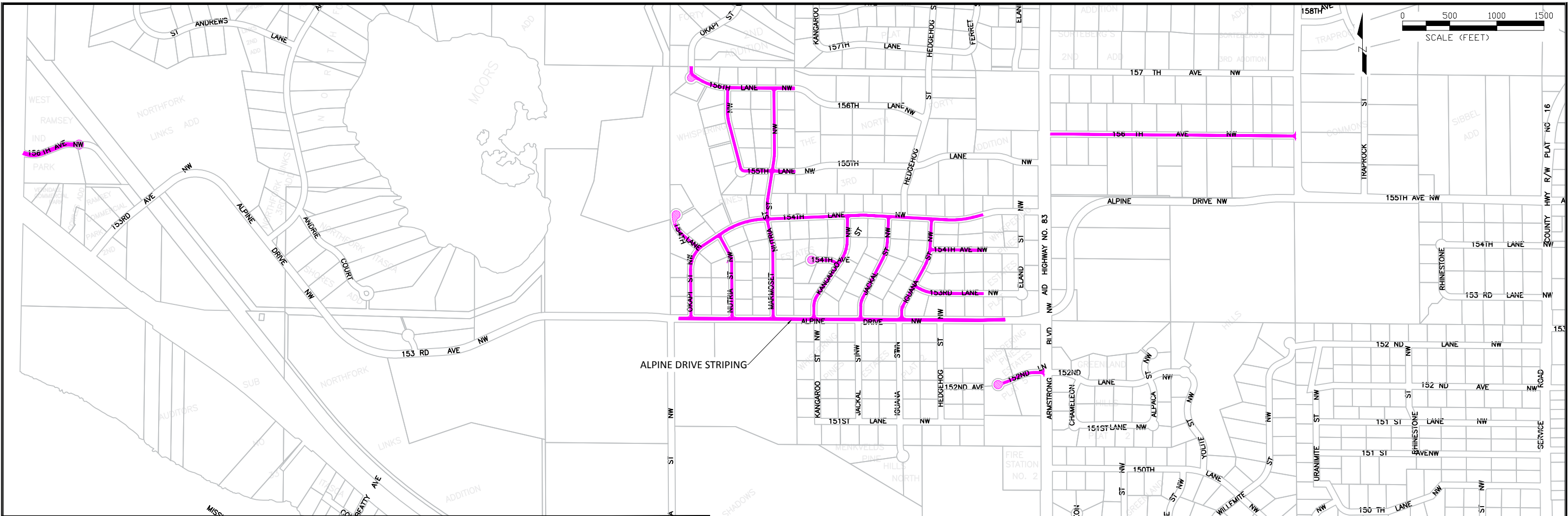
NOTE: SEAL COAT - USE CRS-2 BIT MATERIAL  
CUL-DE-SACS - USE CRS-2P BIT MATERIAL



CITY OF RAMSEY  
7550 SUNWOOD DRIVE  
RAMSEY, MN 55303  
(763) 427-1410 FAX (763) 433-9898

OVERALL MAP

2017 CRACK SEAL AND SEAL COAT PROJECT  
CITY PROJECT NO. 17-03  
CITY OF RAMSEY, MINNESOTA



**AREA B STRIPING SUMMARY**

SUBDIVISION	SEGMENT DESCRIPTION	ITEM DESCRIPTION	UNIT	QUANTITY
MSA	ALPINE DRIVE	4" DOUBLE SOLID LINE YELLOW - EPOXY	LF	3461
		4" SOLID LINE WHITE - EPOXY	LF	6415
MSA (ALT A)	SUNWOOD DRIVE - CR 83 TO ZEOLITE ST.	4" DOUBLE SOLID LINE YELLOW - EPOXY	LF	380
		4" SOLID LINE YELLOW - EPOXY	LF	2046
		4" SOLID LINE WHITE - EPOXY	LF	1584
		4" BROKEN LINE YELLOW - EPOXY	LF	230
		4" BROKEN LINE WHITE - EPOXY	LF	132
		24" SOLID LINE YELLOW - EPOXY	LF	92
		24" DOTTED LINE WHITE - EPOXY	LF	60
		PVT MSSG (LT TURN ARROW) - EPOXY	EA	2
		PVT MSSG (RT TURN ARROW) - EPOXY	EA	2
		PVT MSSG ("ONLY") - EPOXY	EA	8
MSA (ALT A)	SUNWOOD DRIVE - CR 56 TO RHINESTONE ST	4" DOUBLE SOLID LINE YELLOW - EPOXY	LF	1319
		4" SOLID LINE WHITE - EPOXY	LF	2265
		4" BROKEN LINE WHITE - EPOXY	LF	380
		24" SOLID LINE WHITE - EPOXY	LF	35
		PVT MSSG (LT TURN ARROW) - EPOXY	EA	6
		PVT MSSG (RT TURN ARROW) - EPOXY	EA	5
		CROSSWALK MARKING	SF	252



CRACK SEAL AND SEAL COAT  
 CRACK SEAL ONLY  
 CRACK SEAL AND SEAL COAT - ALTERNATIVE A

NOTE: SEAL COAT - USE CRS-2 BIT MATERIAL  
 CUL-DE-SACS - USE CRS-2P BIT MATERIAL

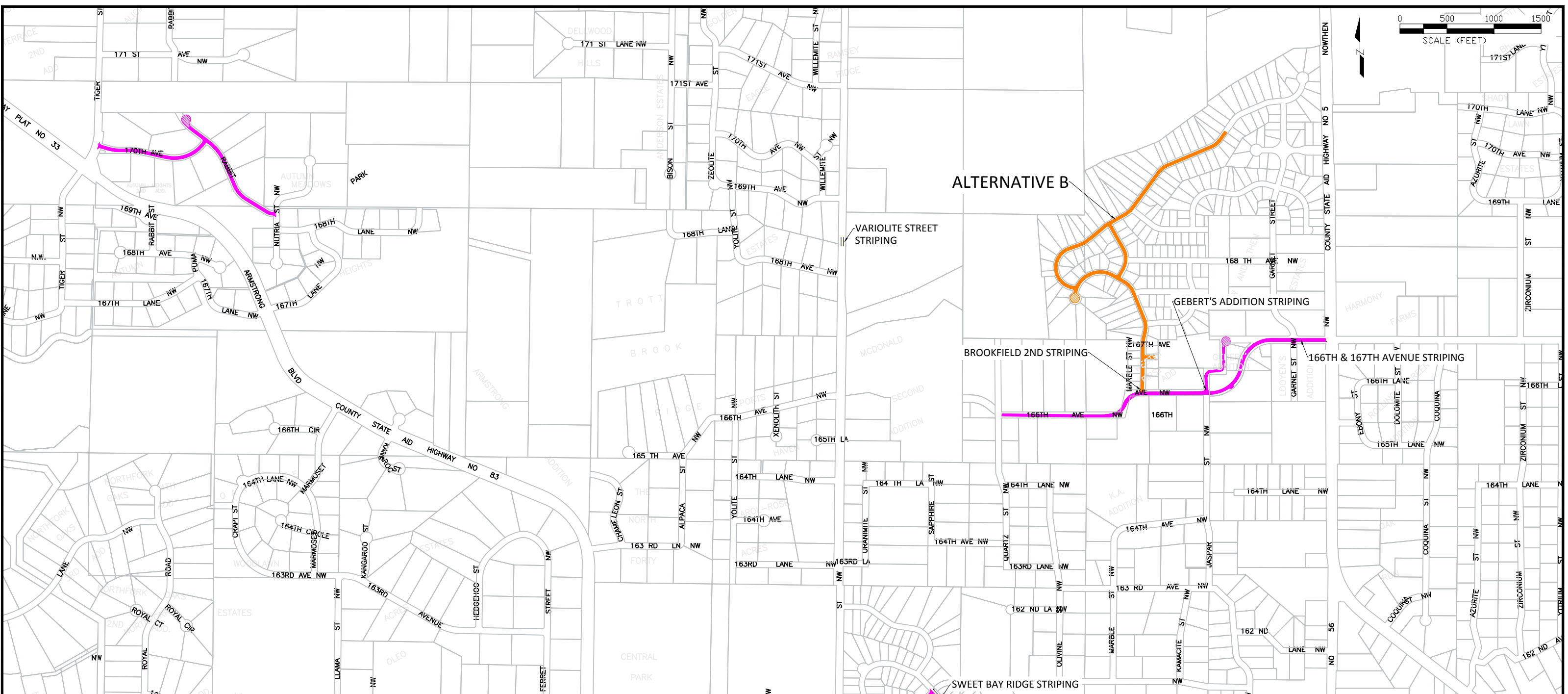
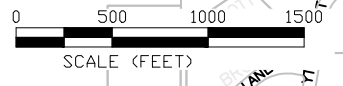


**CITY OF RAMSEY**  
7550 SUNWOOD DRIVE  
RAMSEY, MN 55303  
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**DETAIL MAP  
AREA A**

**2017 CRACK SEAL AND SEAL COAT PROJECT  
CITY PROJECT NO. 17-03  
CITY OF RAMSEY, MINNESOTA**

SHEET  
2  
OF  
5  
SHEETS

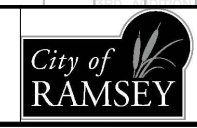


**AREA A STRIPING SUMMARY**

SUBDIVISION	SEGMENT DESCRIPTION	ITEM DESCRIPTION	UNIT	QUANTITY
BROOKFIELD 2ND (ALT B)	LIMONITE STREET	CROSSWALK MARKING - EPOXY	SF	90
SWEET BAY RIDGE	RHINESTONE STREET	4" SOLID LINE WHITE - EPOXY	LF	525
		PVT MSSG (BIKE SYMBOL)	EA	3
MSA	VARIOLITE STREET	4" BROKEN LINE YELLOW - EPOXY	LF	30
		4" SOLID LINE WHITE - EPOXY	LF	180
MSA	167TH & 166TH AVENUE	4" DOUBLE SOLID LINE YELLOW - EPOXY	LF	2545
		4" SOLID LINE WHITE - EPOXY	LF	5125
GEBERT'S ADDTION	JASPAR STREET	CROSSWALK MARKING - EPOXY	SF	90

- CRACK SEAL AND SEAL COAT
- CRACK SEAL ONLY
- CRACK SEAL AND SEAL COAT - ALTERNATIVE B

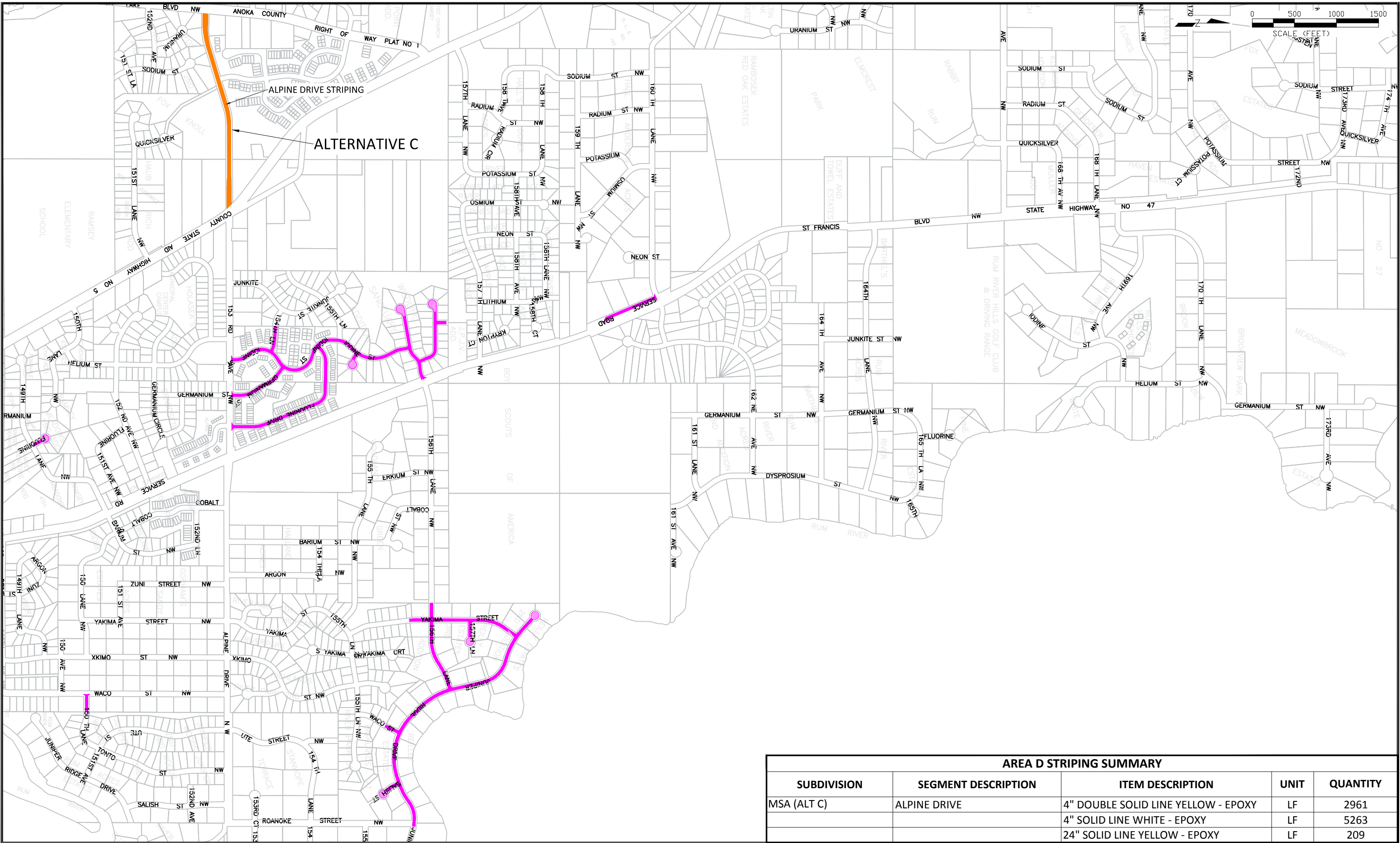
NOTE: SEAL COAT - USE CRS-2 BIT MATERIAL  
 CUL-DE-SACS - USE CRS-2P BIT MATERIAL



CITY OF RAMSEY  
 7550 SUNWOOD DRIVE  
 RAMSEY, MN 55303  
 (763) 427-1410 FAX (763) 433-9898

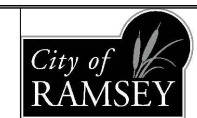
DETAIL MAP  
 AREA B

2017 CRACK SEAL AND SEAL COAT PROJECT  
 CITY PROJECT NO. 17-03  
 CITY OF RAMSEY, MINNESOTA



- CRACK SEAL AND SEAL COAT - ALTERNATIVE C
- CRACK SEAL AND SEAL COAT
- CRACK SEAL ONLY

NOTE: SEAL COAT - USE CRS-2 BIT MATERIAL  
 CUL-DE-SACS - USE CRS-2P BIT MATERIAL

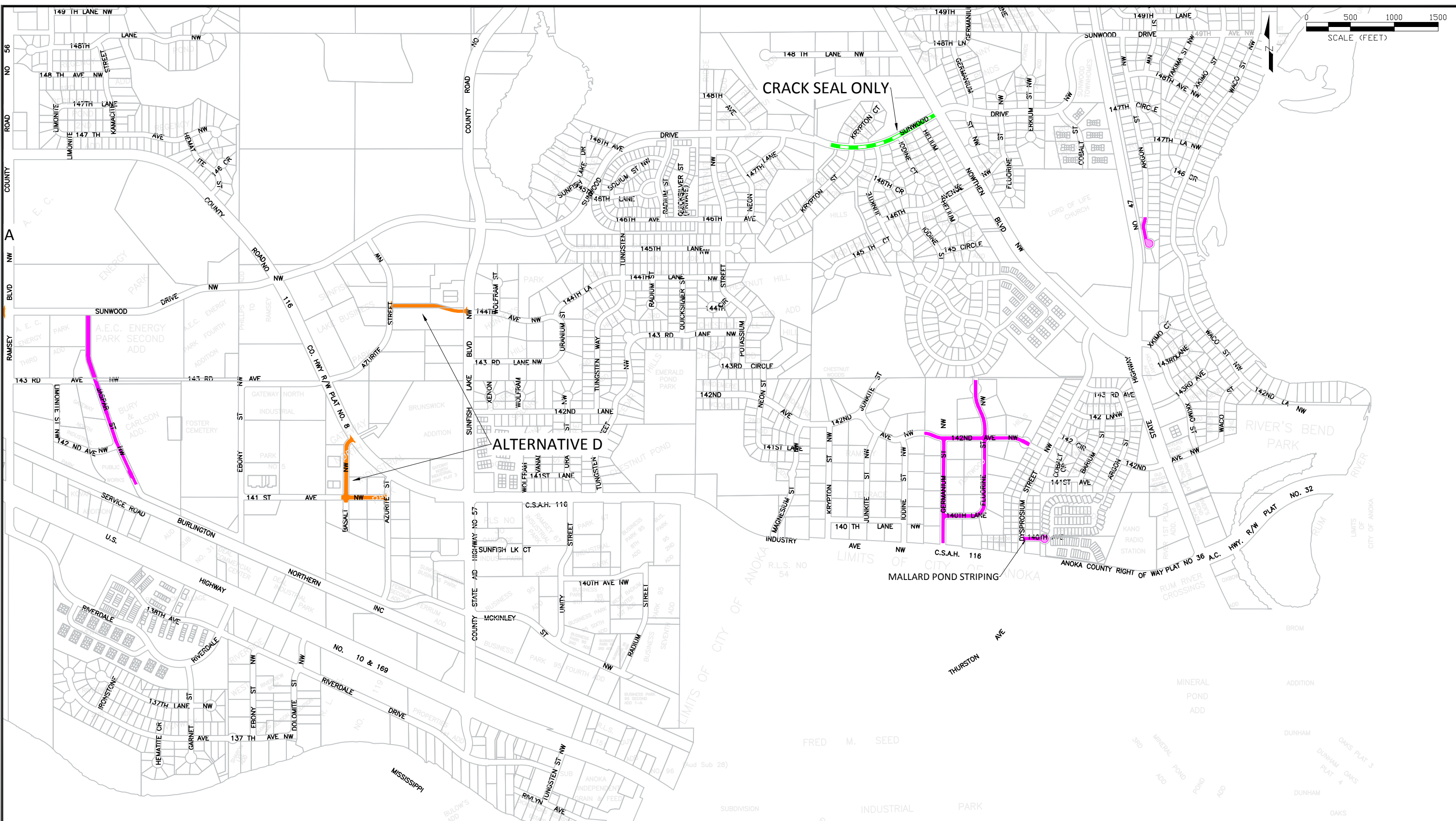


CITY OF RAMSEY  
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 RAMSEY, MN 55303  
 (763) 427-1410 FAX (763) 433-9898

DETAIL MAP  
 AREA C

2017 CRACK SEAL AND SEAL COAT PROJECT  
 CITY PROJECT NO. 17-03  
 CITY OF RAMSEY, MINNESOTA

AREA D STRIPING SUMMARY				
SUBDIVISION	SEGMENT DESCRIPTION	ITEM DESCRIPTION	UNIT	QUANTITY
MSA (ALT C)	ALPINE DRIVE	4" DOUBLE SOLID LINE YELLOW - EPOXY	LF	2961
		4" SOLID LINE WHITE - EPOXY	LF	5263
		24" SOLID LINE YELLOW - EPOXY	LF	209



**AREA C STRIPING SUMMARY**

SUBDIVISION	SEGMENT DESCRIPTION	ITEM DESCRIPTION	UNIT	QUANTITY
MALLARD POND	140TH AVENUE	24" SOLID LINE WHITE - EPOXY	LF	14

- CRACK SEAL AND SEAL COAT
- CRACK SEAL ONLY
- CRACK SEAL AND SEAL COAT - ALTERNATIVE D

NOTE: SEAL COAT - USE CRS-2 BIT MATERIAL  
 CUL-DE-SACS - USE CRS-2P BIT MATERIAL



CITY OF RAMSEY  
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DETAIL MAP  
 AREA D

2017 CRACK SEAL AND SEAL COAT PROJECT  
 CITY PROJECT NO. 17-03  
 CITY OF RAMSEY, MINNESOTA

**ENGINEER'S ESTIMATE - ALTERNATIVES  
CITY OF RAMSEY IMPROVEMENT PROJECT 17-03  
CRACK SEAL AND SEAL COAT**

BASE AREA	\$	374,769.71
ALTERNATE A	\$	46,872.63
ALTERNATE B	\$	36,089.67
ALTERNATE C	\$	30,499.91
ALTERNATE D	\$	15,073.83
<b>CRACK SEAL AND SEAL COAT PROJECT</b>		
<b>TOTAL</b>	<b>\$</b>	<b>503,305.76</b>

**Public Works Committee**

6. 1.

**Meeting Date:** 05/16/2017

**By:** Bruce Westby, Engineering/Public Works

**Title:**

Review Green Valley Road/County Road 63 Speed Zone Study Results

**Purpose/Background:**

On April 21, 2014, City staff received the attached email from a resident living on Green Valley Road who was concerned with the 55 mph posted speed limit. The resident requested that the speed limit be dropped from 55 mph to 40-45 mph to provide a safer environment for pedestrians and pets.

The 55 mph posted speed limit is a statutory speed limit based on the basic speed law as defined in Minnesota State Statute 169.14. A copy of Statute 169.14 is attached. Because speed limits are posted based on the provisions of the basic speed law, revising a speed limit is not as simple as changing a sign. To determine if a posted speed limit should be changed, a traffic and engineering investigation called a Speed Zone Study is completed. More information on this process is included in the attached speed limit brochure published by MnDOT.

MnDOT completes all Speed Zone Studies in Minnesota. Factors considered in Speed Zone Studies include roadway type and condition, location and type of access points, types of development along the route, existing traffic control devices, crash histories, existing traffic volumes, available sight distances along the route, and radar speed samples from traffic traveling on the route during various times of the day. Using engineering judgment, MnDOT evaluates these factors in conjunction with the 85th percentile speed (the point at which 85% of the drivers on the route are driving under). Experience has shown that a posted speed limit near this 85% value is the speed limit that a roadway should be signed at. Once a Speed Zone Study has been completed, it is then formally authorized by the State Commissioner of Transportation, and once authorized, the road authority implements the new speed zone.

Attached is an aerial image of Green Valley Road/CR 63 which falls under the jurisdiction of Anoka County, but because the Ramsey Police Department is responsible for enforcing speeds on Green Valley Road/CR 63, the City submitted a written request to Anoka County Highway requesting a Speed Zone Study in the fall of 2014. This request was submitted with the approval of the Public Works Committee.

Last month staff received a copy of the attached Speed Zone Study results dated March 3, 2016. Based on the results, Anoka County is leaving the posted speed limit at 55 mph. Staff was informed that Anoka County has informed the resident that brought this issue forward of these results.

**Timeframe:**

Staff anticipates this case will take approximately 10 minutes to present and discuss.

**Observations/Alternatives:**

Anoka County defers trail improvements along County Roads to the City that the road is in.

Staff would not recommend constructing trail improvements along the shoulder of Green Valley Road/CR 63 as it currently exists for the following reasons.

1) Segments of this road would be extremely difficult to widen enough to accommodate a bike lane without constructing retaining walls, which would then require roadside safety treatments (guardrail) unless they are located outside the clear zone. Not only would this be an extremely expensive segment of trail to construct, it would

reduce safety for drivers by introducing retaining walls and guardrail.

2) No regional trail connections exist on either end of CR 63 so a trail would only serve residents living along CR 63, of which there are relatively few.

3) Constructing a trail along CR 63 would result in safety issues where the trail would terminate at CSAH 5 and TH 47. If a trail is constructed along CSAH 5 or TH 47 in the future then it might make sense to consider providing a trail along CR 63 at that time, along with crossing improvements on CSAH 5 and TH 47.

4) The City regularly receives requests for trail connections and expansion improvements throughout the City, which are then prioritized. Numerous other trail improvements currently have a higher priority based on safety concerns and benefit to the public.

**Funding Source:**

N/A

**Recommendation:**

N/A

**Action:**

N/A

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**Attachments**

[Resident email](#)

[Statute 169.14](#)

[MnDOT Speed Brochure](#)

[Aerial Image GVR](#)

[Speed Zone Study Results](#)

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**Form Review**

<b>Inbox</b>	<b>Reviewed By</b>	<b>Date</b>
Grant Riemer	MaryJo Warner	05/11/2017 10:53 AM
Kurt Ulrich	MaryJo Warner	05/11/2017 04:08 PM
Form Started By: Bruce Westby		Started On: 05/10/2017 02:46 PM
Final Approval Date: 05/11/2017		

**From:** Pamela Thinesen [<mailto:pamthinesen@msn.com>]

**Sent:** Monday, April 21, 2014 12:03 PM

**To:** Bruce Westby

**Cc:** Jane Rose; Joni Carlstrom

**Subject:** RE: Report a county roadway concern

Hello Bruce,

I'm writing in follow up to the concern I have for the speed limit of 55 on Green Valley Rd/Co Hwy 63 in Ramsey. Jane Rose suggested that perhaps a Speed Zone Study could be done. I live at 6165 Green Valley Rd and like to take walks with my dog on the road, but there is barely a shoulder. It's also scary when just going out to mailbox to collect the mail. The road is in very bad condition and, although I understand it's going to be "reclaimed" this coming summer, there are many heavy trucks, including from the nearby Green Valley Nursery, that use the road -- I would think that that truck traffic is part of the reason for the road being in such poor condition.

There are also a couple of sharp curves on this road and if horses, donkeys, dogs, cats or other animals should make it onto the road, there is danger of them and/or drivers being injured.

I see many bicyclists kids walking on that road, too, and one can "feel the wind" when cars/trucks go by. I hope something can be done about the speed limit on this short road (about a mile long between Hwy 47 and Hwy 5) and that, also, perhaps a wider shoulder and/or bike path could be created at the time of reclaiming.

Thanks for your time and for considering these concerns.

Pam Thinesen

[pamthinesen@msn.com](mailto:pamthinesen@msn.com)

651-779-3476

6165 Green Valley Rd

Ramsey, MN 55303

**169.14 SPEED LIMITS, ZONES; RADAR.**

Subdivision 1. **Duty to drive with due care.** No person shall drive a vehicle on a highway at a speed greater than is reasonable and prudent under the conditions. Every driver is responsible for becoming and remaining aware of the actual and potential hazards then existing on the highway and must use due care in operating a vehicle. In every event speed shall be so restricted as may be necessary to avoid colliding with any person, vehicle or other conveyance on or entering the highway in compliance with legal requirements and the duty of all persons to use due care.

Subd. 1a. **License revocation for extreme speed.** The driver's license of a person who violates any speed limit established in this section, by driving in excess of 100 miles per hour, is revoked for six months under section 171.17, or for a longer minimum period of time applicable under section 169A.53, 169A.54, or 171.174.

Subd. 2. **Speed limits.** (a) Where no special hazard exists the following speeds shall be lawful, but any speeds in excess of such limits shall be prima facie evidence that the speed is not reasonable or prudent and that it is unlawful; except that the speed limit within any municipality shall be a maximum limit and any speed in excess thereof shall be unlawful:

(1) 30 miles per hour in an urban district;

(2) 65 miles per hour on noninterstate expressways, as defined in section 160.02, subdivision 18b, and noninterstate freeways, as defined in section 160.02, subdivision 19;

(3) 55 miles per hour in locations other than those specified in this section;

(4) 70 miles per hour on interstate highways outside the limits of any urbanized area with a population of greater than 50,000 as defined by order of the commissioner of transportation;

(5) 65 miles per hour on interstate highways inside the limits of any urbanized area with a population of greater than 50,000 as defined by order of the commissioner of transportation;

(6) ten miles per hour in alleys;

(7) 25 miles per hour in residential roadways if adopted by the road authority having jurisdiction over the residential roadway; and

(8) 35 miles per hour in a rural residential district if adopted by the road authority having jurisdiction over the rural residential district.

(b) A speed limit adopted under paragraph (a), clause (7), is not effective unless the road authority has erected signs designating the speed limit and indicating the beginning and end of the residential roadway on which the speed limit applies.

(c) A speed limit adopted under paragraph (a), clause (8), is not effective unless the road authority has erected signs designating the speed limit and indicating the beginning and end of the rural residential district for the roadway on which the speed limit applies.

(d) Notwithstanding section 609.0331 or 609.101 or other law to the contrary, a person who violates a speed limit established in this subdivision, or a speed limit designated on an appropriate sign under subdivision 4, 5, 5b, 5c, or 5e, by driving 20 miles per hour or more in excess of the applicable speed limit, is assessed an additional surcharge equal to the amount of the fine imposed for the speed violation, but not less than \$25.

Subd. 2a. **Increased speed limit when passing.** Notwithstanding subdivision 2, the speed limit is increased by ten miles per hour over the posted speed limit when the driver:

- (1) is on a two-lane highway having one lane for each direction of travel;
- (2) is on a highway with a posted speed limit that is equal to or higher than 55 miles per hour;
- (3) is overtaking and passing another vehicle proceeding in the same direction of travel; and
- (4) meets the requirements in section 169.18.

Subd. 3. **Reduced speed required.** (a) The driver of any vehicle shall, consistent with the requirements, drive at an appropriate reduced speed when approaching or passing an authorized emergency vehicle stopped with emergency lights flashing on any street or highway, when approaching and crossing an intersection or railway grade crossing, when approaching and going around a curve, when approaching a hill crest, when traveling upon any narrow or winding roadway, and when special hazards exist with respect to pedestrians or other traffic or by reason of weather or highway conditions.

(b) A person who fails to reduce speed appropriately when approaching or passing an authorized emergency vehicle stopped with emergency lights flashing on a street or highway shall be assessed an additional surcharge equal to the amount of the fine imposed for the speed violation, but not less than \$25.

Subd. 4. **Establishment of zones by commissioner.** On determining upon the basis of an engineering and traffic investigation that any speed set forth in this section is greater or less than is reasonable or safe under the conditions found to exist on any trunk highway or upon any part thereof, the commissioner may erect appropriate signs designating a reasonable and safe speed limit thereat, which speed limit shall be effective when such signs are erected. Any speeds in excess of such limits shall be prima facie evidence that the speed is not reasonable or prudent and that it is unlawful; except that any speed limit within any municipality shall be a maximum limit and any speed in excess thereof shall be unlawful. On determining upon that basis that a part of the trunk highway system outside a municipality should be a zone of maximum speed limit, the commissioner may establish that part as such a zone by erecting appropriate signs showing the beginning and end of the zone, designating a reasonable and safe speed therefor, which may be different than the speed set forth in this section, and that it is a zone of maximum speed limit. The speed so designated by the commissioner within any such zone shall be a maximum speed limit, and speed in excess of such limit shall be unlawful. The commissioner may in the same manner from time to time alter the boundary of such a zone and the speed limit therein or eliminate such zone.

Subd. 4a. [Repealed, 1997 c 143 s 20]

Subd. 5. **Zoning within local area.** When local authorities believe that the existing speed limit upon any street or highway, or part thereof, within their respective jurisdictions and not a part of the trunk highway system is greater or less than is reasonable or safe under existing conditions, they may request the commissioner to authorize, upon the basis of an engineering and traffic investigation, the erection of appropriate signs designating what speed is reasonable and safe, and the commissioner may authorize the erection of appropriate signs designating a reasonable and safe speed limit thereat, which speed limit shall be effective when such signs are erected. Any speeds in excess of these speed limits shall be prima facie evidence that the speed is not reasonable or prudent and that it is unlawful; except that any speed limit within any municipality shall be a maximum limit and any speed in excess thereof shall be unlawful. Alteration of speed limits on streets and highways shall be made only upon authority of the commissioner except as provided in subdivision 5a.

Subd. 5a. **Speed zoning in school zone; surcharge.** (a) Local authorities may establish a school speed limit within a school zone of a public or nonpublic school upon the basis of an engineering and traffic investigation as prescribed by the commissioner of transportation. The establishment of a school speed limit on any trunk highway shall be with the consent of the commissioner of transportation. Such school speed limits shall be in effect when children are present, going to or leaving school during opening or closing hours or during school recess periods. The school speed limit shall not be lower than 15 miles per hour and shall not be more than 30 miles per hour below the established speed limit on an affected street or highway.

(b) The school speed limit shall be effective upon the erection of appropriate signs designating the speed and indicating the beginning and end of the reduced speed zone. Any speed in excess of such posted school speed limit is unlawful. All such signs shall be erected by the local authorities on those streets and highways under their respective jurisdictions and by the commissioner of transportation on trunk highways.

(c) For the purpose of this subdivision, "school zone" means that section of a street or highway which abuts the grounds of a school where children have access to the street or highway from the school property or where an established school crossing is located provided the school advance sign prescribed by the Manual on Uniform Traffic Control Devices adopted by the commissioner of transportation pursuant to section 169.06 is in place. All signs erected by local authorities to designate speed limits in school zones shall conform to the Manual on Uniform Traffic Control Devices.

(d) Notwithstanding section 609.0331 or 609.101 or other law to the contrary, a person who violates a speed limit established under this subdivision is assessed an additional surcharge equal to the amount of the fine imposed for the violation, but not less than \$25.

Subd. 5b. **Segment in urban district.** When any segment of at least a quarter-mile in distance of any city street, municipal state-aid street, or town road on which a speed limit in excess of 30 miles per hour has been established pursuant to an engineering and traffic investigation by the commissioner meets the definition of "urban district" as defined in section 169.011, subdivision 90, the governing body of the city or town may by resolution declare the segment to be an urban district and may establish on the segment the speed limit for urban districts prescribed in subdivision 2. The speed limit so established shall be effective upon the erection of appropriate signs designating the speed and indicating the beginning and end of the segment on which the speed limit is established, and any speed in excess of such posted limits shall be unlawful. A copy of the resolution shall be transmitted to the commissioner at least ten days prior to the erection of the signs.

Subd. 5c. **Speed zoning in alleyway.** Local authorities may regulate speed limits for alleyways as defined in section 169.011 based on their own engineering and traffic investigations. Alleyway speed limits established at other than ten miles per hour shall be effective when proper signs are posted.

Subd. 5d. **Speed limit in work zone when workers present.** (a) Notwithstanding subdivision 2 and subject to subdivision 3, the speed limit on a road having an established speed limit of 50 miles per hour or greater is adjusted to 45 miles per hour in a work zone when (1) at least one lane or portion of a lane of traffic is closed in either direction, and (2) workers are present. A speed in excess of the adjusted speed limit is unlawful.

(b) Paragraph (a) does not apply to a segment of road in which:

- (1) positive barriers are placed between workers and the traveled portion of the highway;
- (2) the work zone is in place for less than 24 hours;

(3) a different speed limit for the work zone is determined by the road authority following an engineering and traffic investigation and based on accepted engineering practice; or

(4) a different speed limit for the work zone is established by the road authority under paragraph (c).

(c) The commissioner, on trunk highways and temporary trunk highways, and local authorities, on streets and highways under their jurisdiction, may authorize the use of reduced maximum speed limits in work zones when workers are present, without an engineering and traffic investigation required. The work zone speed limit must not reduce the speed limit on the affected street or highway by more than:

(1) 20 miles per hour on a street or highway having an established speed limit of 55 miles per hour or greater; and

(2) 15 miles per hour on a street or highway having an established speed limit of 50 miles per hour or less.

(d) A work zone speed limit under paragraph (c) is effective on erection of appropriate regulatory speed limit signs. The signs must be removed or covered when they are not required. A speed in excess of the posted work zone speed limit is unlawful.

(e) For any speed limit under this subdivision, a road authority shall erect signs identifying the speed limit and indicating the beginning and end of the speed limit zone.

Subd. 5e. **Speed limit on park road.** The political subdivision with authority over a park may establish a speed limit on a road located within the park. A speed limit established under this subdivision on a trunk highway is effective only with the commissioner's approval. A speed limit established under this subdivision must be based on an engineering and traffic investigation prescribed by the commissioner of transportation and must not be lower than 20 miles per hour, and no speed limit established under this subdivision may reduce existing speed limits by more than 15 miles per hour. A speed limit established under this subdivision is effective on the erection of appropriate signs designating the speed limit and indicating the beginning and end of the reduced speed zone. Any speed in excess of the posted speed is unlawful.

Subd. 5f. **Speed limits on certain rural residential districts.** (a) A rural residential district existing and lawfully signed before August 1, 2009, continues to qualify as a rural residential district.

(b) A rural residential district existing and lawfully signed before August 1, 2009, is subject to the speed limit signed before August 1, 2009.

*[See Note.]*

Subd. 6. [Repealed, Ex1971 c 27 s 49]

Subd. 6a. **Work zone speed limit violations.** A person convicted of operating a motor vehicle in violation of a speed limit in a work zone, or any other provision of this section while in a work zone, shall be required to pay a fine of \$300. This fine is in addition to the surcharge under section 357.021, subdivision 6.

Subd. 7. **Burden of proof.** The provisions of this chapter declaring speed limitation shall not be construed to relieve the plaintiff in any civil action from the burden of proving negligence on the part of the defendant as the proximate cause of an accident.

Subd. 8. **Minimum speeds.** On determining upon the basis of an engineering and traffic investigation that a speed at least as great as, or in excess of, a specified and determined minimum is necessary to the reasonable and safe use of any trunk highway or portion thereof, the commissioner may erect appropriate signs specifying the minimum speed on such highway or portion thereof. The minimum speed shall be effective when such signs are erected. Any speeds less than the posted minimum speeds shall be prima facie evidence that the speed is not reasonable or prudent and that it is unlawful.

Subd. 9. **Standards of evidence.** In any prosecution in which the rate of speed of a motor vehicle is relevant, evidence of the speed of a motor vehicle as indicated on the speedometer thereof shall be admissible on a showing that a vehicle is regularly used in traffic law enforcement and that the speedometer thereon is regularly and routinely tested for accuracy and a record of the results of said tests kept on file by the agency having control of said vehicle. Evidence as to the speed indicated on said speedometer shall be prima facie evidence that the said vehicle was, at the time said reading was observed, traveling at the rate of speed so indicated; subject to correction by the amount of error, if any, shown to exist by the test made closest in time to the time of said reading.

Records of speedometer tests kept in the regular course of operations of any law enforcement agency shall be admissible without further foundation, as to the results of said tests. Such records shall be available to the defendant upon demand. Nothing herein shall be construed to preclude or interfere with the cross examination or impeachment of evidence of rate of speed as indicated by speedometer readings, pursuant to the Rules of Evidence.

Subd. 10. **Radar; speed-measuring device; standards of evidence.** (a) In any prosecution in which the rate of speed of a motor vehicle is relevant, evidence of the speed as indicated on radar or other speed-measuring device is admissible in evidence, subject to the following conditions:

- (1) the officer operating the device has sufficient training to properly operate the equipment;
- (2) the officer testifies as to the manner in which the device was set up and operated;
- (3) the device was operated with minimal distortion or interference from outside sources; and
- (4) the device was tested by an accurate and reliable external mechanism, method, or system at the time it was set up.

(b) Records of tests made of such devices and kept in the regular course of operations of any law enforcement agency are admissible in evidence without further foundation as to the results of the tests. The records shall be available to a defendant upon demand. Nothing in this subdivision shall be construed to preclude or interfere with cross examination or impeachment of evidence of the rate of speed as indicated on the radar or speed-measuring device.

Subd. 11. **Handheld traffic radar.** (a) Law enforcement agencies that use handheld radar units shall establish operating procedures to reduce the operator's exposure to microwave radiation.

- (b) The procedures, at a minimum, must require:
- (1) that the operator turn the unit off when it is not in use;
  - (2) if the unit has a standby mode, that the operator use this mode except when measuring a vehicle's speed;
  - (3) that the operator not allow the antenna to rest against the operator's body while it is in operation; and
  - (4) that the operator always point the antenna unit away from the operator and any other person in very close proximity to the unit.

Subd. 12. **Radar jammer.** For purposes of this section, "radar jammer" means any instrument, device, or equipment designed or intended for use with a vehicle or otherwise to jam or interfere in any manner with a speed-measuring device operated by a peace officer.

No person shall sell, offer for sale, use, or possess any radar jammer in this state.

**History:** (2720-178) 1937 c 464 s 28; 1939 c 430 s 6; 1947 c 428 s 12,13; 1955 c 802 s 1,2; 1957 c 580 s 1; 1963 c 843 s 1-4; 1969 c 623 s 1; 1975 c 53 s 1; 1975 c 363 s 1,2; 1976 c 166 s 7; 1979 c 60 s 1; 1980 c 498 s 4; 1984 c 417 s 24,25; 1986 c 444; 1987 c 319 s 1; 1991 c 298 art 4 s 9; 1993 c 26 s 1; 1993 c 61 s 1; 1994 c 635 art 1 s 12; 1994 c 640 s 1; 1994 c 645 s 1; 1995 c 118 s 1; 1995 c 265 art 2 s 18; 1996 c 455 art 1 s 5,6; 1997 c 143 s 9-11; 1997 c 159 art 2 s 20,21; 1999 c 44 s 1; 2001 c 213 s 9; 1Sp2003 c 19 art 2 s 27; 1Sp2005 c 6 art 3 s 41,42; 2008 c 287 art 1 s 45; 2009 c 56 s 4,5; 2009 c 165 s 1; 2010 c 356 s 1; 2014 c 312 art 11 s 7,8

**NOTE:** Subdivision 5f, paragraph (b), as added by Laws 2009, chapter 56, section 5, expires when the speed limit signs erected before August 1, 2009, are replaced. Laws 2009, chapter 56, section 5, the effective date.

## Q&A

### ***Will lowering the speed limit reduce speeds?***

No. Studies show there is little change in the speed pattern after the posting of a speed limit. The driver is much more influenced by the roadway conditions.

### ***Will lowering the speed limit reduce crash frequency?***

No. Although lowering the speed limit is often seen as a cure-all in preventing crashes, this is not the case. Crashes are most often the result of driver inattention and driver error. However, if a posted speed limit is unrealistically low, it creates a greater speed variance (i.e. some drivers follow the speed limit while most drive the reasonable speed). This speed variance can contribute to crashes.

### ***Why do we even have speed limits?***

A uniform speed of vehicles in a traffic flow results in the safest operation. The posted speed limits can keep the traffic flowing smoothly provided the majority of drivers find the speed limits reasonable. To best do this, the limits must be consistent throughout the state. The speed limits also give the motorist an idea of a reasonable speed to drive in an unfamiliar location. The speed limits are used by police officials to identify excessive speeds and curb unreasonable behavior.






## Who do I contact?

If you believe that there is a safety concern or an inappropriate speed limit posted, the person to contact depends on the type of road.

### **Interstates, federal and state highways**

For regulatory and advisory speed limits on the trunk highway system, contact the district traffic engineer at your MnDOT district office.

The trunk highway system includes:

-  Interstate Highways
-  U.S. Highways and
-  Minnesota State Highways

### **Local streets and highways**

For these roadways, you may contact your local road authority (county, city, or township).

If you are unable to find the right phone number, call the MnDOT Information center:

Greater Minnesota: 1-800-657-3774  
Twin Cities Metro: 651-296-3000

MnDOT Office of Traffic Safety and Technology

For more information, visit: [www.mndot.gov/speed/](http://www.mndot.gov/speed/)

We all have a stake in **A+B**

# Minnesota Speed Limits





## What are the legal speed limits?

**State law says every road should have a speed limit, whether posted or not. Speed limits are set according to Minnesota State Statute 169.14. The Minnesota Department of Transportation carries out state laws through the development and enforcement of regulations.**

Speed limits are set to improve traffic flow and reduce crashes, injuries and fatalities and the costs associated with them. Speed limits are also intended to supplement motorists' judgment in determining speeds. To effectively enforce a law, motorists must believe that the law is reasonable.

Minnesota's speed regulations are based on the same basic speed law that is used in all 50 states: "No person shall drive a vehicle on a highway at a speed greater than is reasonable and prudent under the conditions."

Speed limits are based on the concept that highways can operate safely at set maximum speeds under ideal conditions. In poor weather conditions, at curves or hills and when there are potential hazards such as pedestrians, drivers are required to reduce speeds below the speed limits, whether they are posted or not.

Drivers must also reduce speed when approaching or passing emergency vehicles with emergency lights flashing.

The most common speeds regulated by state law are:

- 10 mph in alleys
- 30 mph on streets in urban districts
- 70 mph on rural interstate highways
- 65 mph on urban interstate highways
- 65 mph on expressways
- 55 mph on other roads

When these speed limits are not the correct value for a specific highway, speed limits may be changed.



**Interstates** are high design multi-lane divided highways that have controlled access interchanges such as cloverleaf or diamond shaped interchanges. Through traffic on the interstate never has to stop or yield. Examples: I-94 or I-35



**Expressways** are multi-lane divided highways but they have entries and intersections, sometimes controlled by traffic signals. Some interchanges may exist but they are not the rule. Examples: Highways 10 or Highway 52

## What are the types of speed limits?

### REGULATORY SPEED LIMIT SIGN



This black and white sign shows the maximum speed that motorist may travel under ideal conditions. It can be a value based on state statute or it must be authorized by the commissioner of transportation.

### ADVISORY SPEED SIGN



This black and yellow speed sign is used to advise motorists of a comfortable speed to navigate certain situations. It is used with a warning sign. For example, when traveling on a winding road, the curve warning sign would be used with an advisory speed sign. This sign may be posted by the local road authority on local roads.

### SPEED LIMITS IN SCHOOL ZONES



Local authorities may establish school speed limits on local streets, within a school zone, based on the engineering and traffic investigation as directed by the commissioner of transportation. This speed limit is in effect whenever children are present, such as before and after school or during recess. The school sign is black and yellow and the other signs are black and white. Optional fluorescent yellow green may be used for the school sign.

## How does MnDOT determine the speed limit?

These factors are considered:

- Road type and condition
- Location and type of access points (intersections, entrances, etc.)
- Sufficient length of roadway (1/4 mile minimum)
- Existing traffic control devices (signs, signals, etc.)
- Crash history
- Traffic volume
- Sight distances (curve, hill, etc.)
- Test drive results
- Speed study

The speed study is the most important part of the traffic investigation. Drivers take many roadway environment factors into consideration when choosing a speed. The speed that the majority of people consider reasonable is an important value. Data is collected by performing radar checks at selected locations on the roadway under ideal driving conditions.

An analysis is done on the results to determine the 85th percentile, which is the value indicating the speed at which most (85%) drivers are traveling. The posted speed limit near the 85th percentile is the maximum safe and reasonable speed. Studies show that traveling faster or slower than this value can increase the chances of being in a crash.

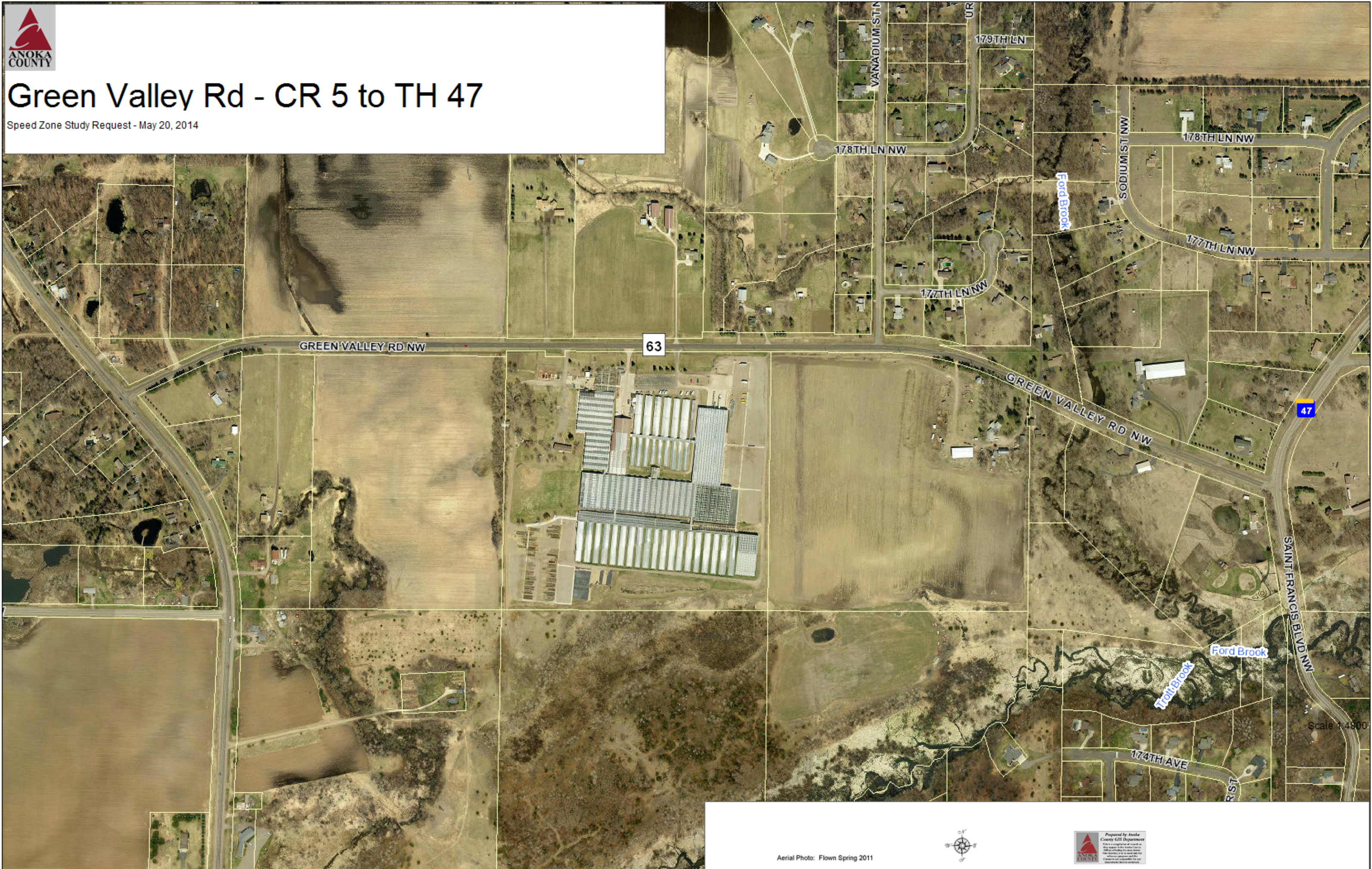
Engineering judgment is the most important tool. The traffic investigator must use knowledge of nationally accepted principles combined with experience to assign the safe speed.





# Green Valley Rd - CR 5 to TH 47

Speed Zone Study Request - May 20, 2014



Aerial Photo: Flown Spring 2011





STATE OF MINNESOTA  
DEPARTMENT OF TRANSPORTATION  
LOCAL STREET OR HIGHWAY SPEED LIMIT AUTHORIZATION

Road Authority	Anoka County (City of Ramsey)	Date	March 3, 2016
Road Name or No.	County Road 63 (Green Valley Road)		
Termini of Zone: From	County State Aid Highway 5 (Nowthen Boulevard NW)		
To	Trunk Highway 47 (St. Francis Boulevard NW)	Date of Request	November 3, 2014

As authorized in Minnesota Statutes, Section 169.14, it is hereby ordered that the following speed limits are approved and shall be put into effect on the described roadway or sections thereof.

55 miles per hour between the intersection with County State Aid Highway 5 (Nowthen Boulevard NW) and the intersection with Trunk Highway 47 (St. Francis Boulevard NW)

NOTE:

The speed limits, described in this authorization, are authorized contingent upon curves and hazards being signed with the appropriate advance curve or warning signs, including appropriate speed advisory plates. The roadway described shall be reviewed for traffic control devices impacted by the authorized speed limits before posting the signs. Warning signs and speed limit signs shall be in accordance with the Minnesota Manual on Uniform Traffic Control Devices. The speed limits, described in this authorization, are based on roadway conditions on the date of this authorization. Changes in roadway alignment, grade, or paving a gravel surface shall void this authorization.

MnDOT Authorized Signature

Road authority use only when traffic control devices changed or are installed, implementing this authorization:

DATE	SIGNATURE	TITLE
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**Public Works Committee**

6. 2.

**Meeting Date:** 05/16/2017

**By:** Bruce Westby, Engineering/Public Works

**Title:**

Review Preliminary Plans for Improvement Project #17-04, Sunwood Drive Striping Improvements.

**Purpose/Background:**

**Purpose:**

The purpose of this case is to review preliminary plans for Improvement Project #17-04, Sunwood Drive Striping Improvements.

**Background:**

The existing striping along Sunwood Drive between Armstrong Boulevard and Ramsey Boulevard is missing or faded in many areas, and some areas are no longer striped appropriately based on recent development that occurred since the street was originally striped. Staff is therefore in the process of preparing preliminary plans for Improvement Project #17-04, Sunwood Drive Striping Improvements, and will present the plans to the Public Works Committee at the meeting.

In summary, the preliminary plans represent a design that replaces all existing Center Two-Way Turn Lanes with dedicated left turn lanes, which will result in less driver confusion. The plans also include a dedicated left turn lane for westbound vehicles to use when turning into Casey's , as well as a dedicated left turn lane for westbound vehicles turning into the Residence at the COR.

At the time this case was prepared, Staff was still developing preliminary plans. Preliminary plans will therefore be presented to the Public Works Committee during the meeting.

**Timeframe:**

Staff estimates 10 minutes will be required to present this case and respond to questions.

**Observations/Alternatives:**

N/A

**Funding Source:**

Preliminary estimated costs will be presented during the meeting, along with the preliminary plans.

**Recommendation:**

N/A

**Action:**

N/A

**Attachments**

*No file(s) attached.*

**Form Review**

**Inbox**

Grant Riemer

Kurt Ulrich

Form Started By: Bruce Westby

Final Approval Date: 05/11/2017

**Reviewed By**

MaryJo Warner

MaryJo Warner

**Date**

05/11/2017 09:49 AM

05/11/2017 04:08 PM

Started On: 05/10/2017 02:49 PM

## Public Works Committee

6.3.

Meeting Date: 05/16/2017

By: Bruce Westby, Engineering/Public  
Works

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### Title:

Staff Updates on Improvement Projects and Items of Interest

### Purpose/Background:

The purpose of this case is to update the Public Works Committee on current and proposed improvement projects within the City, and on other items of interest to the Committee.

### City Improvement Projects

- **Business Park 95 Regional Stormwater Pond Improvements**
  - Work is substantially complete
  - Final payment will occur in 2017 following satisfactory completion of punch list and warranty work
- **Andrie Street & 164th Lane Reconstruction**
  - Work is substantially complete
  - Final payment will occur in 2017 following satisfactory completion of punch list and warranty work
- **Mississippi River Trail Phase 3**
  - Work is substantially complete
  - Final completion scheduled for summer 2017
- **Zeolite Street Storm Sewer Extension Improvements**
  - Work is substantially complete
  - Final payment will occur in 2017 following satisfactory completion of punch list and warranty work
- **Riverdale Drive Extension - Traprock St. to Ramsey Blvd.**
  - Plans and specifications are complete
  - Working with Anoka County Parks to acquire 5.3 acres of roadway right-of-way (appraised value \$200,000)
  - Construction proposed for 2017 (pending right of way acquisition)
- **Alpine Drive Reconstruction**
  - Out for bids
  - Construction proposed from June 26<sup>th</sup> through September 22<sup>nd</sup> (open to traffic August 26<sup>th</sup>)
- **Sunwood Drive Reconstruction**
  - Out for bids
  - Construction proposed from June 26<sup>th</sup> through September 29<sup>th</sup>

### Anoka County Improvement Projects

- **Hanson Boulevard/CSAH 78 Grade Separation @ BNSF Railway Crossing (2017)**
  - Reconstruct County State Aid Highway 78 (CSAH 78) / Hanson Boulevard to a 4-lane divided section
  - Construct a grade-separated overpass for Burlington Northern Sante Fe (BNSF) railway crossing
- **Hanson Boulevard/CSAH 78 Reconstruction (2018)**
  - Expand CSAH 78 / Hanson Blvd between 139th Ave and CSAH 18 / Crosstown Blvd to 4-lane divided section
- **Foley Boulevard/CSAH 11 Grade Separation @ BNSF Railway Crossing**
  - This project is currently unscheduled and unfunded

### MnDOT Improvement Projects

- **Trunk Highway 10 Cable Median Barrier Installation (2018)**

- Install cable median barrier along Highway 10 between Thurston Avenue and Highway 101
- **Ferry Street / Trunk Highway 47 Grade Separation @ BNSF Railway Crossing (2017)**
  - Preliminary design underway

**Items of Interest**

- **Puma St & Bunker Lake Blvd Improvements**
- **Updating Wellhead Protection Plan**
- **Request for Quotes for Ground Penetrating Radar, Pavement Corings and Soil Borings on Street Maintenance Projects in 2018 & 2019 CIP**

**Timeframe:**

Staff estimates that 10 minutes will be needed for updates and discussion.

**Observations/Alternatives:**

N/A

**Funding Source:**

N/A

**Recommendation:**

N/A

**Action:**

N/A

**Attachments**

*No file(s) attached.*

**Form Review**

<b>Inbox</b>	<b>Reviewed By</b>	<b>Date</b>
Grant Riemer	MaryJo Warner	05/11/2017 10:53 AM
Kurt Ulrich	MaryJo Warner	05/11/2017 04:08 PM
Form Started By: Bruce Westby		Started On: 05/10/2017 03:03 PM
Final Approval Date: 05/11/2017		

**Public Works Committee**

**6. 4.**

**Meeting Date:** 05/16/2017

**By:** Bruce Westby, Engineering/Public Works

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**Title:**

Review Future Topics Calendar

**Purpose/Background:**

Attached is a list of topics for review and discussion by the Public Works Committee. The list includes topics that were drawn from Committee requests received during meetings or are topics that have previously been discussed by the Committee but have yet to be resolved. Calendar dates have been estimated based on availability of information, staff workload, and competing objectives and are therefore subject to change.

**Timeframe:**

Staff estimates 5 minutes will be necessary to review the future topics calendar and address Committee questions.

**Observations/Alternatives:**

N/A

**Funding Source:**

N/A

**Recommendation:**

N/A

**Action:**

For Committee review and discussion purposes only. No formal action required.

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**Attachments**

PWC Calendar May2017

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**Form Review**

<b>Inbox</b>	<b>Reviewed By</b>	<b>Date</b>
Grant Riemer	MaryJo Warner	05/11/2017 10:53 AM
Kurt Ulrich	MaryJo Warner	05/11/2017 04:08 PM
Form Started By: Bruce Westby		Started On: 05/10/2017 03:06 PM
Final Approval Date: 05/11/2017		

## **Public Works Committee Future Topics Calendar \***

<b>Date</b>	<b>Topics for Discussion – Committee Action</b>
July 2017	Sunfish Lake Sedimentation Basin Improvements ( <i>Westby</i> )
July 2017	Gibbon Street & 173 <sup>rd</sup> Avenue Drainage Improvements ( <i>Westby</i> )
September 2017	Well Siting Study - Well #9
Future	County Ditch Maintenance / Buffer Law ( <i>Westby</i> )
<b>Date</b>	<b>Topics for Discussion – Regulatory</b>
Future	Sunfish Lake Boulevard Speed Zone Study Results ( <i>Westby</i> )
Future	Wellhead Protection Plan Update ( <i>Westby</i> )
<b>Date</b>	<b>Topics for Discussion – Policy</b>
Future	Landscaped Median Maintenance Policy ( <i>Riemer</i> )
August 2017	Draft Trail Maintenance Policy ( <i>Westby</i> )
August 2017	Draft Stormwater Pond Maintenance Policy ( <i>Westby</i> )
<b>Date</b>	<b>Topics for Discussion – Planning and Budget</b>
June 2017	Municipal State Aid System (MSAS) Revisions ( <i>Westby</i> )
Future	Review 1996 and 2007 (unadopted) TH 47 Corridor Studies ( <i>Westby</i> )
Future	Public Works Facility Review/Update ( <i>Riemer/Brama</i> )
Future	Comprehensive Plan for Long-Term Water Supply ( <i>Westby</i> )
<b>Date</b>	<b>Topics for Discussion – Staff Updates</b>
Future	Water Conservation Options / Incentives

\* Dates are estimated and are subject to change based on availability of information, staff workload, and competing objectives.