City of Ramsey
Agenda
Public Works Committee
Tuesday, August 21, 2018
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. Consider Roundabout Landscape Improvements—Sunwood Drive

2. Consider City Council Recommendation to Review Feasibility Report and Order Public Input Meeting for Improvement Project #18-02, HY-10 Ramsey Street Reconstructions

3. Consider City Council Recommendation to Order Feasibility Report for Improvement Project #19-01, Ford Brook Estates Street Reconstructions

4. Consider City Council Recommendation to Order Feasibility Report for Improvement Project #19-02, Brookview Estates Street Reconstructions

5. Consider City Council Recommendation to Order Feasibility Report for Improvement Project #19-03, Wood Pond Hills & Chestnut Ridge Street Reconstructions

6. Committee/Staff Input

1. Staff Updates on Improvement Projects and Items of Interest

2. Review Future Topics Calendar

7. Adjournment

Public Works Committee **4. 1.**

Meeting Date: 08/21/2018
Submitted For: Grant Riemer, Engineering/Public Works
By: MaryJo Warner, Engineering/Public Works

Title:
Approve Public Works Committee Meeting Minutes.

Purpose/Background:
To review and approve the July 17, 2018 Public Works Committee meeting minutes.

Timeframe:
5 minutes.

Observations/Alternatives:
n/a

Funding Source:
n/a

Recommendation:

Action:
Motion to approve the Public Works Committee meeting minutes.

Attachments

Minutes
Agenda

Form Review

Inbox	Reviewed By	Date
Grant Riemer	Grant Riemer	08/16/2018 08:09 AM
Kurt Ulrich	MaryJo Warner	08/16/2018 03:52 PM
Form Started By: MaryJo Warner		Started On: 08/13/2018 09:02 AM
Final Approval Date: 08/16/2018		

PUBLIC WORKS COMMITTEE
CITY OF RAMSEY
ANOKA COUNTY
STATE OF MINNESOTA

The Public Works Committee conducted a regular meeting on Tuesday, July 17, 2018, at the Ramsey Municipal Center, 7550 Sunwood Drive NW, Ramsey, Minnesota.

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

Also Present: Public Works Superintendent Grant Riemer
City Engineer Bruce Westby

1. CALL TO ORDER

Chairperson Riley called the regular meeting of the Public Works Committee to order at 5:32 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 June 19, 2018, Meeting Minutes

Motion by Councilmember Kuzma, seconded by Councilmember Riley, to approve the following minutes:

Regular Meeting Minutes dated June 19, 2018

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

5. COMMITTEE BUSINESS

5.01: Consider Speed Limit Reduction on Quicksilver Street

City Engineer Westby stated that the purpose of the case is to consider a request to reduce the speed limit on Quicksilver Street, south of 167th and north of Elmcrest Park. He noted that staff received a request from the property owner at 16601 Quicksilver Street to reduce the speed limit on Quicksilver Street, south of 167th Avenue and north of Elmcrest Park. This property owner has reported excessive speeds along this segment of Quicksilver Street, and recently experienced damage to their landscaping and mailbox due to vehicles leaving the roadway. He stated that this section of Quicksilver currently has no posted speed limit, but based on its functional classification as a local street and the properties it serves, the street could be posted at 30 mph.

City Engineer Westby stated that local road authorities can determine advisory speeds for local roads and post the roads with advisory speed signs without authorization from the MnDOT Commissioner. He noted that local road authorities can also pass a resolution requesting a speed study investigation by MnDOT. The local road authority that owns and operates the segment of road to be studies is responsible for submitting the request to MnDOT. He stated that based on the speed study results, which often take in excess of one year to receive, MnDOT may authorize the local road authority to post the road with new speed limits. However, it is important to note that the study could find that the new speed limit should be greater than the existing speed limit, which is typically contrary to the desired outcome. In this case, staff would not expect the speed limit to increase, given the functional classification of the road and the properties it serves.

City Engineer Westby stated that staff would not recommend requested a speed study from MnDOT. Based on the functional classification of the road and the properties it serves, staff believes the lowest posted speed MnDOT would authorize would be 30 mph. As such, staff recommends either leaving this segment of Quicksilver Street as is with no posted speed limit, or posting this segment of Quicksilver Street at 30 mph. Staff does not support posting an advisory speed of something less than 30 mph. In any scenario, the Police Department can only enforce a 30-mph speed limit. He noted that it is best to maintain uniform speed limits along roadway corridors where the functional classification does not vary, to meet driver expectation.

City Engineer Westby reviewed the options available to the Committee and stated that staff recommends leaving the segment of Quicksilver Street between 167th Avenue and Elmcrest Park unposted as to the speed limit and to direct staff to place the speed trailer along this street segment when the trailer is available. He noted that staff could also support the option to furnish and install two 30 mph speed limit signs along the segment of Quicksilver Street between 167th and Elmcrest Park, one at each end in the direction of travel, and direct staff to place the speed trail along this street segment when the trailer is available. He stated that he spoke with the resident that submitted the concern and he was supportive of the speed trailer being posted for two weeks to see if that would detour high traveling speeds.

Chairperson Riley stated that it appears that police activity would be pretty easy to enforce as most of the activity would be likely to occur from 6:30 to 7:30 p.m. when the park traffic is increased.

Councilmember Johns stated that it would be her assumption that the majority of problem arise during the soccer season and believed that season is wrapping up.

Chairperson Riley asked if the City has posted a sign stating park entrance ahead, please drive slowly.

Public Works Superintendent Riemer replied that this is the longest strip of road leading into a park and therefore there is not another park with a similar sign.

Councilmember Kuzma stated that 30 mph seems high and was unsure that posting the sign would help.

Councilmember Johns stated that she would support the speed trailer but is not sure that the correct data will be provided as the busiest part of the soccer season has concluded.

Chairperson Riley stated that perhaps when the annual meeting with the soccer association occurs, this topic could be discussed.

Councilmember Johns stated that perhaps it is a dual solution, using the speed trailer and also emailing the sports association to remind their teams on the speed.

Councilmember Kuzma also suggested placing an article in the *Ramsey Resident*.

Public Works Superintendent Riemer stated that public works has ordered two additional flashing speed signs that can be rotated through neighborhoods next year and that could be an option for the spring.

Motion by Councilmember Johns, seconded by Councilmember Kuzma, to leave the segment of Quicksilver Street between 167th Avenue and Elmcrest Park unposted as to the speed limit, to direct staff to place the speed trailer along this street segment when the trailer is available, and to direct staff to reach out to the soccer association with a reminder to watch for speeds.

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

6. COMMITTEE / STAFF INPUT

6.01: Review Draft City of Ramsey Americans with Disabilities Act (ADA) Transition Plan

City Engineer Westby stated that the purpose of this case is to review the City of Ramsey's Draft Americans with Disabilities Act (ADA) Transition Plan.

City Engineer Westby stated that Americans with Disabilities Act (ADA) was enacted on July 26, 1990. Title II of ADA requires the City of Ramsey to meet the following general requirements:

- Must operate their programs so that, when viewed in their entirety, the programs are accessible to and useable by individuals with disabilities (28 C.F.R. Sec. 35.150).
- May not refuse to allow a person with a disability to participate in a service, program, or activity simply because the person has a disability (28 C.F.R. Sec. 35.130 (a).
- Must make reasonable modifications in policies, practices and procedures that deny equal access to individuals with disabilities unless a fundamental alteration in the program would result (28 C.F.R. Sec. 35.130(b) (7).
- May not provide services or benefits to individuals with disabilities through programs that are separate or different unless the separate or different measures are necessary to ensure that benefits and services are equally effective (28 C.F.R. Sec. 35.130(b)(iv) & (d).
- Must take appropriate steps to ensure that communications with applicants, participants, and members of the public with disabilities are as effective as communications with others (29 C.F.R. Sec. 35.160(a).
- Must designate at least one responsible employee to coordinate ADA compliance [28 CFR Sec. 35.107(a)]. This person is often referred to as the "ADA Coordinator." The public entity must provide the ADA coordinator's name, office address, and telephone number to all interested individuals [28 CFR Sec. 35.107(a)].
- Must provide notice of ADA requirements. All public entities, regardless of size, must provide information about the rights and protections of Title II to applicants, participants, beneficiaries, employees, and other interested persons [28 CFR Sec. 35,106]. The notice must include the identification of the employee serving as the ADA coordinator and must provide this information on an ongoing basis [28 CFR Sec. 104.8(a)].
- Must establish a grievance procedure. Public entities must adopt and publish grievance procedures providing for prompt and equitable resolution of complaints [28 CFR Sec. 35.107(b)]. This requirement provides for a timely resolution of all problems or conflicts related to ADA compliance before they escalate to litigation and/or the federal complaint process.

City Engineer Westby noted that the City must have an adopted ADA Transition Plan before accepting any new Federal funds, therefore this Plan must be adopted by the City Council before any Federal grants can be accepted for any projects. He reviewed the draft Plan with the Committee and requested input from the Committee.

Councilmember Kuzma asked if there is an estimate of cost.

Chairperson Riley agreed that it would be helpful to have an estimate of the cost for these impacts.

City Engineer Westby stated that staff has been completing an inventory and stated that at least 370 pedestrian ramps would need to be replaced, along with segments of trails that would need to be replaced. He stated that a very rough estimate would be well over $3,000,000 and could range up to $10,000,000. He noted that this would also impact buildings. He noted that this would be worked into the budget. He stated that the updates would be tied to the trail maintenance policy.

Chairperson Riley asked if this only applies to streets and sidewalks.

City Engineer Westby stated that this would apply to anything within public right-of-way or that allows for public access.

Councilmember Johns asked if private businesses are included.

City Engineer Westby stated that this would only apply to the public elements. It was noted that businesses are responsible themselves for meeting ADA compliance requirements.

Chairperson Riley asked if this is the best template to use.

City Engineer Westby confirmed that this is the best template and is also used by other municipalities. He stated that he recently attended an ADA workshop, which provided good information. He stated that they walked around Central Park in Brooklyn Park and were able to view and discuss the elements that were ADA compliant. He stated that the ADA representatives explained that the best attempt would be to hit the "low hanging fruit" first and then work your way up and do your best to meet the goals, because they do understand that there is an expense to making these changes.

Chairperson Riley asked if the goals are required to be included. He stated that if the goals are not required, then perhaps this adds more trouble than needed.

City Engineer Westby stated that these were the generic goals included in the plan and are similar to those used by other municipalities. He stated that a scheduled plan is required in order to be eligible for Federal grant funds.

Councilmember Johns suggested adding the other elementary school.

Chairperson Riley stated that should not be an issue because it is a new neighborhood and will be a new school. He noted that the City would already be on a schedule for replacement of things within its own plans. He asked if the goals are reasonable for the City.

City Engineer Westby stated that goal could be backed down to 50 percent within 15 years and 75 percent within 20 years.

Councilmember Johns noted that part of the calculation would be to fully determine needs and therefore a lesser goal may be best to start with.

Chairperson Riley asked if the goal could be worded to state that replacement will occur in the natural schedule of replacement.

City Engineer Westby stated that the implementation section addresses that element, explaining that the improvements would occur in conjunction with street replacement projects or as standalone projects; using the example of a "low hanging fruit" project or an area that is causing problems.

Chairperson Riley asked if the goal fits together with the activity of the parks department.

City Engineer Westby stated that he is unsure that the parks plan would get into that level of detail.

Public Works Superintendent Riemer stated that the parks department is working on a replacement plan for the parks and ADA elements would be included in those activities.

Chairperson Riley stated that he is glad the City is doing this. He asked for information on the next steps.

City Engineer Westby asked if the Committee would like staff to attempt to gain input from the public prior to bringing this forward to the Council for adoption. He stated that staff would like to bring this forward to the Council in August as the City has one grant application out currently. He stated that another option would be to adopt the draft and then there could be options for public input in the future.

Councilmember Johns stated that while she likes to involve the public, most of the document is State statute and there is not much room for changes to be made at this time.

Councilmember Kuzma stated that he would support bringing the draft forward to the Council for adoption and if changes need to be made in the future, that could be done. He noted that it would be good to alert the public in the future to the potential cost for these improvements.

It was the consensus of the Committee to bring the document forward to the Council at the August 6th meeting to consider to adoption.

City Engineer Westby stated that once adopted, the plan could be placed on the website with a summary of how the City plans to implement and maintain the plan.

Chairperson Riley encouraged staff to make it clear to the public that this is a fluid plan and changes can be made based on public input.

6.02: Review Future Topics Calendar

City Engineer Westby reviewed the future topics calendar.

6.03: Staff Updates on Improvement Projects and Items of Interest

City Engineer Westby stated that a list of improvement projects and updates were included in the case and provided a brief summary. He provided an update on The COR regional infiltration basin project. He noted that staff continues to negotiate with PSD to obtain the necessary land for the basin, using a land swap method as directed by Council. He stated that staff will talk to the LRRWMO later this week in attempt to obtain an extension for the project.

City Engineer Westby stated that staff has been taking pavement cores on completed street reconstruction projects to ensure that sufficient pavement was placed per plan. He stated that it may be more beneficial to use ground penetrating radar (GPR) as that would provide a full picture of the pavement section. He stated that the cost would be slightly higher, but using GPR provides a fuller set of data as readings are taken every foot along the street, and would include the aggregate base thickness.

Councilmember Kuzma asked how the current process is working and whether the samples from the cores are providing accurate results.

City Engineer Westby confirmed that the pavement cores have matched what they are supposed to be for the newly built roads.

Chairperson Riley stated that if the cost is not much more, he would like to use the GPR to ensure that the roads are being built to the City standards.

Councilmember Johns agreed that it would be helpful to have the additional data.

Councilmember Kuzma stated that his concern would be that a few hundred dollars would add up over a season. He stated that it would be great to have the data, but he would just be concerned with the additional cost that could accumulate.

It was the consensus of the Committee to use the GPR to review the roadway following reconstruction.

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 6:27 p.m.

Respectfully submitted,

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Grant Riemer
Public Works Superintendent

Drafted by Amanda Staple
TimeSaver Off Site Secretarial, Inc.

City of Ramsey
Agenda
Public Works Committee
Tuesday, July 17, 2018
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. Consider Speed Limit Reduction on Quicksilver Street

6. Committee/Staff Input

1. Review Draft City of Ramsey Americans with Disabilities Act (ADA) Transition Plan

2. Review Future Topics Calendar

3. Staff Updates on Improvement Projects and Items of Interest

7. Adjournment

Public Works Committee **4. 1.**

Meeting Date: 07/17/2018
Submitted For: Grant Riemer, Engineering/Public Works
By: MaryJo Warner, Engineering/Public Works

Title:
Approve Public Works Committee Meeting Minutes.

Purpose/Background:
To review and approve the Public Works Committee meeting minutes dated June 19, 2018.

Timeframe:
5 minutes.

Observations/Alternatives:
n/a

Funding Source:
n/a

Recommendation:

Action:
Motion to approve the Public Works Committee meeting minutes dated June 19, 2018.

Attachments

Minutes

Form Review

Inbox	Reviewed By	Date
Bruce Westby	Bruce Westby	07/12/2018 12:49 PM
Grant Riemer	MaryJo Warner	07/12/2018 01:37 PM
Kurt Ulrich	Kurt Ulrich	07/12/2018 04:09 PM
Form Started By: MaryJo Warner		Started On: 07/12/2018 09:11 AM
Final Approval Date: 07/12/2018		

PUBLIC WORKS COMMITTEE
CITY OF RAMSEY
ANOKA COUNTY
STATE OF MINNESOTA

The Public Works Committee conducted a regular meeting on Wednesday, June 19, 2018, at the Ramsey Municipal Center, 7550 Sunwood Drive NW, Ramsey, Minnesota.

Members Present: Chairperson Chris Riley
Councilmember Melody Shryock
Councilmember Mark Kuzma

Members Absent: Councilmember Jill Johns

Also Present: Public Works Superintendent Grant Riemer
Parks & Assistant Public Works Superintendent Mark Riverblood
City Engineer Bruce Westby

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 Shryock, to approve the agenda, as presented.

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

4. APPROVE MINUTES

4.01: Approve April 18, 2018, Meeting Minutes

Motion by Councilmember Kuzma, seconded by Chairperson Riley, to approve the following minutes:

Regular Meeting Minutes dated April 18, 2018

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Kuzma. Voting No: None. Abstain: Councilmember Shryock. Absent: Councilmember Johns.

5. COMMITTEE BUSINESS

5.01: Consider Stop Sign Installation at Garnet Street and 169th Lane

Public Works Superintendent Riemer stated that staff has received a request for stop signs at the intersection of 169th Lane and Garnet Street. Currently there are no stop signs on any legs of the intersections. The requested action would change this intersection to a 2-way stop, with the stop condition on the north and south legs of Garnet Street. The reasons given for requesting the additional stop signs are excessive speed and there is a bus stop located at that intersection. The neighborhood petition requesting the stop sign was attached to the case.

Public Works Superintendent Riemer stated that the City used the police radar trailer to gather information on vehicle speed and to determine the 85th percentile speed. The 85th percentile speed is defined as "the speed at or below which 85 percent of all vehicle are observed to travel under free-flowing conditions past a monitored point". The trailer was in place May 16, 17, 21, 24 and 29th.

Public Works Superintendent Riemer stated that based on the information gathered, the intersection does not meet the warrants outlined in *Minnesota Manual of Uniform Traffic Control Devices* because of the following factors: insufficient traffic volumes, accident history at the intersection, sufficient visibility at the intersection. He stated that staff recommends not installing additional stop signs at this intersection based on the traffic counts and accident history. Staff would also recommend that the Police Department continue to enforce the 30-mph speed limit in the area in an effort to reduce speeds on Garnet Street.

Councilmember Kuzma expressed appreciation to staff for the research that was done on this matter.

Chris Worts, 6893 169th Lane, stated that his biggest concern is with construction traffic. He stated that this intersection is a bus stop for the children in the neighborhood. He stated that five resident signatures were required for the petition, but he obtained 13 signatures, noting that two of the residents are police officers. He appreciated the quick response from staff in posting the speed trailer. He noted that his concern was that the trailer only faced in one direction.

Public Works Superintendent Riemer replied that the trailer obtains speeds from both directions.

Mr. Worts stated that many of the other neighbors could not attend because of sports commitments with their children. He stated that they understand the decision of the City and asked what else could be done if the stop signs are not an option. He stated that the development has boomed, and they are concerned with the safety of the children. He stated that perhaps signs could be posted for children crossing or watch for children. He stated that the neighborhood is also worried that traffic will increase down Garnet for those attempting to reach the new elementary school.

Chairperson Riley stated that the City receives three or four requests each year that get to this level and there are specific criteria that must be reviewed. He stated that rarely ever do the

requests meet the criteria, which makes it difficult. He asked staff if there are other things that can be done in lieu of the stop sign.

Public Works Superintendent Riemer stated that the City does not install watch for children signs as there are children in every neighborhood. He stated that marked crosswalks are determined by the number of crossings and other criteria, which would not be met in this location. He stated that even if stop signs were installed, they would be placed on 169th and that would still not stop the traffic on Garnet. He stated that once the school opens, the resident could call the City again to redo the survey.

Chairperson Riley suggested that perhaps staff just schedule to redo the survey maybe one month after the school opens. He stated that additional police enforcement is available. He noted that in the long-term the construction traffic will go away.

Mr. Worts stated that he has thought about calling the police, but they did not want to bother the police, who have bigger issues.

Chairperson Riley stated that it would be encouraged to call the police when there are issues.

Mr. Worts noted that one of the police officers in the neighborhood has begun parking his police vehicle in his driveway in attempt to deter speeding.

Parks and Assistant Public Works Superintendent Riverblood stated that staff could communicate with Capstone Homes to ensure that the message is clearly communicated regarding construction traffic.

Councilmember Shryock stated that there would be opportunities to spread the word that there are children out in the area in the warmer weather, suggesting Night to Unite or neighborhood parties.

Mr. Worts noted that there have been postings on the neighborhood Facebook page as well.

Councilmember Shryock stated that education of the children is also important to ensure that they are watching for traffic as well. She understood the plight of the residents but noted that unfortunately there are guidelines that must be met for those requests. She stated that sometimes having children play equipment in the front yard also alerts some drivers to slow down.

Chairperson Riley stated that although the request does not meet the criteria, they will try to see what else they can do in terms of police enforcement.

Councilmember Shryock stated that perhaps in future editions of *Ramsey Resident* a blurb could be included warning residents to watch for children in the warmer weather.

Motion by Councilmember Kuzma, seconded by Councilmember Shryock, to accept staff recommendation to not install additional stop signs at 169th Lane/Garnet Street based on the traffic counts, visibility, and accident history.

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

5.02: Consider Speed Study Request for Ramsey Boulevard between Bunker Lake Boulevard and Sunwood Drive

City Engineer Westby stated that staff received a request from a former PACT Charter School bus driver who resides in Nowthen to reduce the speed limit on Ramsey Boulevard between Bunker Lake Boulevard and Sunwood Drive. The applicant feels that the existing pedestrian crossings for Ramsey Boulevard are unsafe for children who walk to PACT Charter School due to the existing posted speed limit of 55 mph.

City Engineer Westby stated that this segment of Ramsey Boulevard has two controlled pedestrian crossings, one at Bunker Lake Boulevard and one at Sunwood Drive. The controlled crossings consist of marked crosswalks with pedestrian actuated signals at each of the signalized intersections. The applicant is concerned that if a child crosses against a red light, that vehicles will not be able to react in time to avoid hitting the child, and that a slower speed limit will provide more reaction time for drivers to help them avoid hitting the child.

City Engineer Westby stated that staff does not believe that a speed study will result in a reduced speed limit on Ramsey Boulevard based on the criteria used to perform speed studies. Staff did not reach out to PACT Charter School to discuss the issue, but if the Committee believes this request should be pursued, staff will meet with school officials to discuss this issue in detail, including obtaining information on bus/walking zones. Staff did not reach out to the Anoka County Highway Department to discuss the issue but if the Committee believes that this request should be pursued, staff will meet with Anoka County Highway Department staff to discuss the issue in detail, including obtaining information on planned improvements for this corridor. It is typically best to maintain uniform speed limits along roadway corridors where the functional classification does not vary to meet driver expectations.

City Engineer Westby recommended denial to file a request with Anoka County to perform a speed study on Ramsey Boulevard between Bunker Lake Boulevard and Sunwood Drive.

Motion by Councilmember Kuzma, seconded by Chairperson Riley, of denial to file a request with Anoka County to perform a speed study on Ramsey Boulevard between Bunker Lake Boulevard and Sunwood Drive.

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

5.03: Consider Replacing 20+ Year Old Pergola and Park Shelter Roof At Emerald Pond Park

Parks & Assistant Public Works Superintendent Riverblood stated that the purpose of this case is to consider a recommendation to City Council for authorization to perform maintenance/replacement activity for two structures at Emerald Pond Park. Funding is requested to be allocated from the City's Capital Maintenance Fund (not the Park Trust Fund) and therefore is being brought to the Public Works Committee, because the project funding source is limited, and also is used for other (non-park) capital maintenance needs of the community. In 2017, the Council expanded the scope of this fund to allow use for other non-park capital maintenance needs (roof replacement, parking lot resurfacing, etc.).

Parks & Assistant Public Works Superintendent Riverblood stated that the pergola was completely removed in 2017 due to the cedar post decay at the mounting point with the concrete base and a concern that if not removed may have represented a safety hazard. The pergola was in service for 21 years. The roof replacement does not represent a hazard; however, the cedar shake roof is in very poor shape and water is likely penetrating through to the laminated wood roof itself. The hexagonal shelter has been in service for approximately 26 years. Emerald Pond Park is one of the most well used neighborhood parks in Ramsey's system of parks, and some of the nearby residents are very eager to see the pergola back in service, which was also used for weddings when it was in a more presentable condition.

Parks & Assistant Public Works Superintendent Riverblood stated that it may be useful to note that staff is in process of inventorying all of the City's, and park systems', capital maintenance needs to develop long-term maintenance cost projections and priorities. This work is expected to be completed this fall. If the Committee recommends replacement of the pergola and the shelter's roof, utilizing the Capital Maintenance Fund (formerly known as the Park Maintenance Fund), staff would proceed to immediately develop an RFP or obtain competitive quotes for the two projects consistent with the City's Purchasing Policy. The pergola is anticipated to cost less than $30,000; the roof replacement to a standing seam (green) steel roof with trim, less than $15,000. The new shelter's roof protects an existing asset and delaying replacement may cost more in the long-run. Consequently, replacement is recommended versus the option of not replacing the roof at this time. The pergola replacement is not time critical, and not replacing the structure is an option. Likely the expectation of the park users is that replacement would be soon, however other priorities may be considered by the City. He stated that staff recommends replacing the pergola and the roof shelter as described in the case.

Chairperson Riley stated that $30,000 for a pergola seems like a lot.

Parks & Assistant Public Works Superintendent Riverblood provided additional details on the pergola. He noted that the quote also includes replacement of the four fence sections.

Councilmember Kuzma asked the plans for the landscaping that appears to be overgrown.

Parks & Assistant Public Works Superintendent Riverblood agreed that the landscaping needs attention. He stated that with the pergola removed, the area has become overgrown and would be given attention.

Councilmember Kuzma asked how far this is from Elmcrest.

Parks and Assistant Public Works Superintendent Riverblood provided details on the location of the park. He noted that Emerald Pond Park is one of the most used and beloved neighborhood parks.

Councilmember Shryock stated that this is part of her neighborhood and it is a beautiful park to visit and also is a connection to many of the trails within the trail system. She stated that the pergola was always one of the interest points of this park. She stated that each park has a unique feature, and this was one of those unique features for this park. She believed that this feature is needed for the park. She stated that this is a dense neighborhood area that uses its park.

Chairperson Riley asked if there is a lower cost option, such as treated wood.

Parks and Assistant Public Works Superintendent Riverblood stated that treated wood could be an option, noting that staff could ask for quotes on treated and cedar but was unsure if there would be much of a cost savings.

Chairperson Riley stated that this was a structure that belongs in this park. He stated that the City has to preserve its assets and the park would not be as nice without the features.

Councilmember Kuzma stated that while the cost may seem expensive, there are a lot of young families in Ramsey and the parks and trails system is extremely important. He noted that parks are a place where young families can come to and enjoy for free. He stated that he would prefer cedar rather than treated wood.

Parks and Assistant Public Works Superintendent Riverblood commented that if there is a price difference in the treated wood and cedar, there may be a higher construction cost because it is heavier.

Councilmember Shryock noted that treated wood requires more ongoing maintenance.

Motion by Councilmember Shryock, seconded by Councilmember Kuzma, to recommend to City Council, the replacement of the pergola and roof shelter at Emerald Pond Park as discussed, at a not-to-exceed cost of $45,000 from the Capital Maintenance Fund.

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

Chairperson Riley confirmed the consensus of the Committee is that these types of requests for appropriation from the Capital Maintenance Fund #810, should continue to come before the Public Works Committee.

6. COMMITTEE / STAFF INPUT

6.01: Staff Updates on Improvement Projects and Items of Interest

City Engineer Westby provided an update on road construction projects within Ramsey. He reviewed the proposed schedule for crackseal and sealcoating work and noted that there will be a change order coming forward. He stated that staff is going to attempt to pursue warranty work on the sealcoating that was completed the previous year. He provided an update on The COR Infiltration Basin project, noting that staff is attempting to ensure the sizing is correct. He noted that the rail grade separation plans for Ferry Street in Anoka is still on hold and provided an update.

Councilmember Kuzma asked about painting of curbs when sections are repaired or replaced. It was confirmed that the policy has changed to now repaint the entire curb area.

Chairperson Riley asked for input on the status within the five-year plan and when the next five-year plan would be developed. He stated that he was not fully informed when the process occurred as to the inflexibility of the five-year plan.

City Engineer Westby provided details. He noted that if an unexpected repair arises, that work could still be completed without assessment. He acknowledged that road conditions can deteriorate significantly during the five-year period, explaining that perhaps a road did not seem bad and was not included in the plan but then deteriorates significantly during that period.

Chairperson Riley asked if there is a point where the City would get ahead of the road repairs, acknowledging that the City began behind.

City Engineer Westby stated that it would be difficult to determine. He noted that there are so many challenges with the unknown road conditions and therefore it is still a process to get through those unknown road conditions. He stated that once the City has roads that were all constructed to standards and on a maintenance schedule, it will be easier to follow. He noted that the City is reactive and will at some point get to the point of being proactive.

Parks & Assistant Public Works Superintendent Riverblood provided an update on the Sweet Bay median and provided a photograph of the current conditions.

6.02: Review Future Topics Calendar

No comments.

7. ADJOURNMENT

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

Motion carried.

The regular meeting of the Public Works Committee adjourned at 6:27 p.m.

Respectfully submitted,

_____
Grant Riemer
Public Works Superintendent

Drafted by Amanda Staple
TimeSaver Off Site Secretarial, Inc.

Public Works Committee **5. 1.**

Meeting Date: 07/17/2018

By: Bruce Westby, Engineering/Public Works

Title:

Consider Speed Limit Reduction on Quicksilver Street

Purpose/Background:

Purpose:

The purpose of this case is to consider a request to reduce the speed limit on Quicksilver Street, south of 167th Avenue and north of Elmcrest Park.

Background:

Staff received a request from the property owner at 16601 Quicksilver Street to reduce the speed limit on Quicksilver Street, south of 167th Avenue and north of Elmcrest Park. This property owner has reported excessive speeds along this segment of Quicksilver Street, and recently experienced damage to their landscaping and mailbox due to vehicles leaving the roadway.

Attached are three figures showing the segment of Quicksilver Street under consideration and all accesses into Elmcrest Park.

This section of Quicksilver Street currently has no posted speed limit, but based on its functional classification as a local street and the properties it serves, this street could be posted at 30 mph.

Minnesota Statute 169.14 establishes statutory speed limits on most typical roadways under ideal conditions. All other speed limits are set by the Commissioner of the Minnesota Department of Transportation (MnDOT) based upon an engineering and traffic investigation (speed study) in which the following 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 (sign, signals, etc.)
- Crash history traffic volume sight distances (curve, hill, etc.)
- Test drive results

The most common speed limits observed throughout Minnesota are:

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

Where speed limits are not posted, these are considered the default speed limits.

Local road authorities (cities, townships, and counties) can determine advisory speeds for local roads and post the roads with advisory speed signs without authorization from the MnDOT Commissioner.

Local road authorities can also pass a resolution requesting a speed study investigation by MnDOT. The local road authority that owns and operates the segment of road to be studied is responsible for submitting the request to

MNDOT. Anoka County owns and operates Ramsey Boulevard/CSAH 56 so they are required to submit the Speed Study request to MnDOT.

Based on the speed study results, which often take in excess of a year to receive, MnDOT may authorize the local road authority to post the road with new speed limits. However, it is important to note that the study could find that the new speed limit should be greater than the existing speed limit, which is typically contrary to the desired outcome. In this case, Staff would not expect the speed limit to increase given the functional classification of the road and the properties it serves.

Additional information regarding speed limits is available on MnDOT's web site at http://www.dot.state.mn.us/speed/index.html.

Timeframe:

Staff estimates 15 minutes will be required to present and discuss this case.

Observations/Alternatives:

Observations:

Staff does not recommend requesting a speed study from MnDOT. Based on the functional classification of the road and the properties it serves, staff believes the lowest posted speed MnDOT would authorize would be 30 mph. As such, Staff recommends either leaving this segment of Quicksilver Street as is with no posted speed limit, or posting this segment of Quicksilver Street at 30 mph. Staff does not support posting an advisory speed of something less than 30 mph. In any scenario, the Police Department can only enforce a 30 mph speed limit.

As always, it is best to maintain uniform speed limits along roadway corridors where the functional classification does not vary to meet driver expectation.

The applicant intends to attend the Public Works Committee meeting to explain their concerns in detail.

Alternatives:

Alternative #1 – Motion to leave the segment of Quicksilver Street between 167th Avenue and Elmcrest Park unposted as to the speed limit, and to direct staff to place the speed trailer along this street segment when the trailer is available.

Alternative #2 – Motion directing Staff to furnish and install two 30 mph speed limit signs along the segment of Quicksilver Street between 167th Avenue and Elmcrest, one at each end in the direction of travel, and to direct staff to place the speed trailer along this street segment when the trailer is available.

Funding Source:

No costs are anticipated if alternative #1 is selected. If alternative #2 is selected, each speed limit sign would cost roughly $300 to furnish and install.

Recommendation:

Staff recommends alternative #1, but would support alternative #2. If the Committee selects alternative #2, Staff recommends installing two speed limit signs, one in each direction of travel.

Staff also recommends placing the speed trailer along this segment of Quicksilver Street to help deter speeding as soon as the trailer is available.

Action:

Motion to leave the segment of Quicksilver Street between 167th Avenue and Elmcrest Park unposted as to the speed limit, and to direct staff to place the speed trailer along this street segment when the trailer is available.

Attachments

Figure 1
Figure 2
Figure 3
MSS 169.14
MnDOT Brochure

Form Review

Inbox	Reviewed By	Date
Grant Riemer	MaryJo Warner	07/12/2018 02:49 PM
Kurt Ulrich	Kurt Ulrich	07/12/2018 04:07 PM
Form Started By: Bruce Westby		Started On: 07/05/2018 02:53 PM
Final Approval Date: 07/12/2018		

Quicksilver Street - 167th Ave to Elmcrest Park

0 37.575 150 225 300 Feet

Print Date: July 12, 2018

Figure 1

Quicksilver Street - 167th Ave to Elmcrest Park

Figure 2

Print Date: July 12, 2018

Elmcrest Park Access Routes

Print Date: July 12, 2018

0 260 520 1,040 1,560 2,080 Feet

Figure 3

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. 5g. **St. Louis County Road 128.** Notwithstanding any provision to the contrary in this section, the speed limit on St. Louis County Road 128 in Eagles Nest Township between marked Trunk Highway 169 and County Road 989 is 40 miles per hour. The county engineer must erect appropriate signs displaying the 40 miles per hour speed limit.

[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; 1Sp2017 c 3 art 3 s 48*

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.

NOTE: The new speed limit under subdivision 5g, as added by Laws 2017, First Special Session chapter 3, article 3, section 48, is effective when the required signs are erected. Laws 2017, First Special Session chapter 3, article 3, section 48, 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/

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.

Public Works Committee **6. 1.**

Meeting Date: 07/17/2018

By: Bruce Westby, Engineering/Public Works

Title:

Review Draft City of Ramsey Americans with Disabilities Act (ADA) Transition Plan

Purpose/Background:

Purpose:

The purpose of this case is to review the City of Ramsey's Draft Americans with Disabilities Act (ADA) Transition Plan.

Background:

The Americans with Disabilities Act (ADA) was enacted on July 26, 1990. Title II of ADA requires the City of Ramsey to meet the following general requirements:

- Must operate their programs so that, when viewed in their entirety, the programs are accessible to and useable by individuals with disabilities (28 C.F.R. Sec. 35.150).
- May not refuse to allow a person with a disability to participate in a service, program or activity simply because the person has a disability (28 C.F.R. Sec. 35.130 (a).
- Must make reasonable modifications in policies, practices and procedures that deny equal access to individuals with disabilities unless a fundamental alteration in the program would result (28 C.F.R. Sec. 35.130(b) (7).
- May not provide services or benefits to individuals with disabilities through programs that are separate or different unless the separate or different measures are necessary to ensure that benefits and services are equally effective (28 C.F.R. Sec. 35.130(b)(iv) & (d).
- Must take appropriate steps to ensure that communications with applicants, participants and members of the public with disabilities are as effective as communications with others (29 C.F.R. Sec. 35.160(a).
- Must designate at least one responsible employee to coordinate ADA compliance [28 CFR Sec. 35.107(a)]. This person is often referred to as the "ADA Coordinator." The public entity must provide the ADA coordinator's name, office address, and telephone number to all interested individuals [28 CFR Sec. 35.107(a)].
- Must provide notice of ADA requirements. All public entities, regardless of size, must provide information about the rights and protections of Title II to applicants, participants, beneficiaries, employees, and other interested persons [28 CFR Sec. 35,106]. The notice must include the identification of the employee serving as the ADA coordinator and must provide this information on an ongoing basis [28 CFR Sec. 104.8(a)].
- Must establish a grievance procedure. Public entities must adopt and publish grievance procedures providing for prompt and equitable resolution of complaints [28 CFR Sec. 35.107(b)]. This requirement provides for a timely resolution of all problems or conflicts related to ADA compliance before they escalate to litigation and/or the federal complaint process.

Attached is a draft copy of the City of Ramsey's Americans with Disabilities Act (ADA) Transition Plan, which addresses the City of Ramsey's plan for meeting these requirements over time. Staff will review the draft Plan with the Committee, and will request Committee input on several items within the plan, including ADA Compliance Goals (see page 6) and Public Outreach (see page 7).

Timeframe:

Staff estimates this case will take 20 minutes to present and respond to questions.

Observations/Alternatives:

Observations:
It is important to note that the City must have an adopted ADA Transition Plan before accepting any new federal funds. This plan must therefore be adopted by City Council before any federal grants can be accepted for projects such as the Mississippi Skyway, or any of the proposed Highway 10 improvements.

Alternatives:
N/A

Funding Source:
Staff is completing this work as part of its normal duties.

Recommendation:
Staff recommends providing input on requested items to allow Staff to present a final draft to City Council for approval on August 6th.

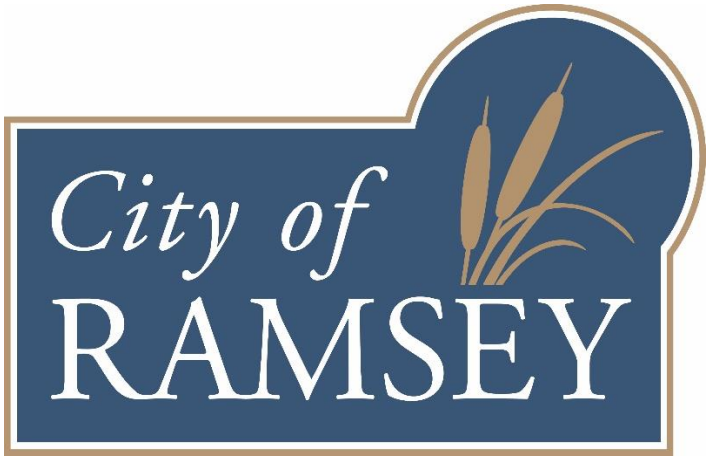
Action:
No action required.

Attachments

Draft ADA Transition Plan

Form Review

Inbox	Reviewed By	Date
Grant Riemer	MaryJo Warner	07/12/2018 01:37 PM
Kurt Ulrich	Kurt Ulrich	07/12/2018 04:11 PM
Form Started By: Bruce Westby		Started On: 07/05/2018 03:05 PM
Final Approval Date: 07/12/2018		



ADA TRANSITION PLAN

DRAFT COPY

JULY 2018

Introduction

Transition Plan Need and Purpose

The Americans with Disabilities Act (ADA), enacted on July 26, 1990, is a civil rights law prohibiting discrimination against individuals on the basis of disability. ADA consists of five titles outlining protections in the following areas:

1. Employment
2. State and local government services
3. Public accommodations
4. Telecommunications
5. Miscellaneous Provisions

Title II of ADA pertains to the programs, activities and services public entities provide. As a provider of public transportation services and programs, the City of Ramsey must comply with this section of the Act as it specifically applies to public service agencies. Title II of ADA provides that, "…no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any such entity." (42 USC. Sec. 12132; 28 CFR. Sec. 35.130)

As required by Title II of ADA, 28 CFR. Part 35 Sec. 35.105 and Sec. 35.150, the City of Ramsey has conducted a self-evaluation of its facilities within public rights of way and has developed this Transition Plan detailing how the organization will ensure that all of those facilities are accessible to all individuals. This document serves as a supplement to the City of Ramsey's existing Transition Plan covering buildings, services, programs and activities.

ADA and its Relationship to Other Laws

Title II of ADA is companion legislation to two previous federal statutes and regulations: the Architectural Barriers Acts of 1968 and Section 504 of the Rehabilitation Act of 1973.

The Architectural Barriers Act of 1968 is a Federal law that requires facilities designed, built, altered or leased with Federal funds to be accessible. The Architectural Barriers Act marks one of the first efforts to ensure access to the built environment.

Section 504 of the Rehabilitation Act of 1973 is a Federal law that protects qualified individuals from discrimination based on their disability. The nondiscrimination requirements of the law apply to employers and organizations that receive financial assistance from any Federal department or agency. Title II of ADA extended this coverage to all state and local government entities, regardless of whether they receive federal funding or not.

Agency Requirements

Under Title II, the City of Ramsey must meet these general requirements:

- Must operate their programs so that, when viewed in their entirety, the programs are accessible to and useable by individuals with disabilities (28 C.F.R. Sec. 35.150).
- May not refuse to allow a person with a disability to participate in a service, program or activity simply because the person has a disability (28 C.F.R. Sec. 35.130 (a).
- Must make reasonable modifications in policies, practices and procedures that deny equal access to individuals with disabilities unless a fundamental alteration in the program would result (28 C.F.R. Sec. 35.130(b) (7).
- May not provide services or benefits to individuals with disabilities through programs that are separate or different unless the separate or different measures are necessary to ensure that benefits and services are equally effective (28 C.F.R. Sec. 35.130(b)(iv) & (d).
- Must take appropriate steps to ensure that communications with applicants, participants and members of the public with disabilities are as effective as communications with others (29 C.F.R. Sec. 35.160(a).
- Must designate at least one responsible employee to coordinate ADA compliance [28 CFR Sec. 35.107(a)]. This person is often referred to as the "ADA Coordinator." The public entity must provide the ADA coordinator's name, office address, and telephone number to all interested individuals [28 CFR Sec. 35.107(a)].
- Must provide notice of ADA requirements. All public entities, regardless of size, must provide information about the rights and protections of Title II to applicants, participants, beneficiaries, employees, and other interested persons [28 CFR Sec. 35,106]. The notice must include the identification of the employee serving as the ADA coordinator and must provide this information on an ongoing basis [28 CFR Sec. 104.8(a)].
- Must establish a grievance procedure. Public entities must adopt and publish grievance procedures providing for prompt and equitable resolution of complaints [28 CFR Sec. 35.107(b)]. This requirement provides for a timely resolution of all problems or conflicts related to ADA compliance before they escalate to litigation and/or the federal complaint process.

This document has been created to specifically cover accessibility within the public rights of way and does not include information on City of Ramsey programs, practices, or building facilities not related to public rights of way.

Self-Evaluation

Overview

The City of Ramsey is required, under Title II of the Americans with Disabilities Act (ADA) and 28CFR35.105, to perform a self-evaluation of its current transportation infrastructure policies, practices, and programs. This self-evaluation will identify what policies and practices impact accessibility and examine how the City of Ramsey implements these policies. The goal of the self-evaluation is to verify that, in implementing the City of Ramsey's policies and practices, the department is providing accessibility and not adversely affecting the full participation of individuals with disabilities.

The self-evaluation also examines the condition of the City of Ramsey's Pedestrian Circulation Route/Pedestrian Access Route) (PCR/PAR) and identifies potential need for PCR/PAR infrastructure improvements. This will include the sidewalks, curb ramps, bicycle/pedestrian trails, traffic control signals and transit facilities that are located within the City of Ramsey rights of way. Any barriers to accessibility identified in the self-evaluation and the remedy to the identified barrier are set out in this transition plan.

Summary

In 2017, the City of Ramsey completed an inventory of pedestrian facilities within its public right of way consisting of the evaluation of the following facilities:

- 21.6 miles of sidewalks
- 993 curb ramps
- 50.6 miles of trails
- 0 traffic control signals
- 1 bus stops

A detailed evaluation on how these facilities relate to ADA standards is found in Appendix A and will be updated periodically.

Policies and Practices

Previous Practices

Since the adoption of the ADA, the City of Ramsey has striven to provide accessible pedestrian features as part of the City of Ramsey's capital improvement projects. As additional information was made available as to the methods of providing accessible pedestrian features, the City of Ramsey updated their procedures to accommodate these methods.

(Insert specific previous ADA project, or sidewalk replacement project info here.)

Policy

The City of Ramsey's goal is to continue to provide accessible pedestrian design features as part of the City of Ramsey capital improvement projects. The City of Ramsey has established ADA design standards and procedures as listed in Appendix F. These standards and procedures will be kept up to date with nationwide and local best management practices.

The City of Ramsey will consider and respond to all accessibility improvement requests. All accessibility improvements that have been deemed reasonable will be scheduled consistent with transportation priorities. The City of Ramsey will coordinate with external agencies to ensure that all new or altered pedestrian facilities within the City of Ramsey jurisdiction are ADA compliant to the maximum extent feasible.

Maintenance of pedestrian facilities within the public right of way will continue to follow the policies set forth by the City of Ramsey . (Insert specific policy references here)

Requests for accessibility improvements can be submitted to the Responsible Party (title). Contact information for Responsible Party is located in Appendix E.

Improvement Schedule

Priority Areas

The City of Ramsey has identified specific locations as priority areas for planned accessibility improvement projects. These areas have been selected due to their proximity to specific land uses such as schools, government offices and medical facilities, as well as from the receipt of public comments. The priority areas as identified in the January 2018 self-evaluation are as follows:

- Area within 0.5 mile of the COR
  The COR was designed to be pedestrian friendly.
- Area around existing Ramsey Elementary School

Staff contacted the school district in January 2018 regarding walking routes to school. The City has a previous walking area map for the school and was seeking an update. The Current district policy is to bus all students to this school.

Additional priority will be given to any location where an improvement project or alteration was constructed after January 26, 1991, and accessibility features were omitted.

External Agency Coordination

Numerous other agencies are responsible for pedestrian facilities within the jurisdiction of the City of Ramsey. The City of Ramsey will coordinate with those agencies to track and assist in the facilitation of the elimination of accessibility barriers along their routes.

Schedule

The City of Ramsey has set the following schedule goals for improving the accessibility of its pedestrian facilities within the City of Ramsey's jurisdiction:

- After 10 years, 80% of accessibility features within the priority areas identified by City of Ramsey staff would be ADA compliant.
- After 20 years, 80% of accessibility features within the jurisdiction of City of Ramsey would be ADA compliant.
- After 20 years, 100% of accessibility features constructed after January 26, 1991, would be ADA compliant.

ADA Coordinator

In accordance with 28 CFR 35.107(a), the City of Ramsey has identified an ADA Title II Coordinator to oversee the City of Ramsey policies and procedures. Contact information for this individual is located in Appendix E.

Implementation Schedule

Methodology

The City of Ramsey will utilize two methods for upgrading pedestrian facilities to the current ADA standards. The first and most comprehensive of the two methods are the scheduled street and utility improvement projects. All pedestrian facilities impacted by these projects will be upgraded to current ADA accessibility standards. The second method is employing stand-alone sidewalk and ADA accessibility improvement projects. These projects will be incorporated into the Capital Improvement Program (CIP) on a case by case basis as determined by City of

Ramsey staff. The City of Ramsey CIP, which includes a detailed schedule and budget for specific improvements, is included in Appendix B.

Public Outreach

The City of Ramsey recognizes that public participation is an important component in the development of this document. Input from the community has been gathered and used to help define priority areas for improvements within the jurisdiction of the City of Ramsey.

Public outreach was not utilized during the creation of this document, but will be utilized during future updates.

This document will be available for public review and comment on the City of Ramsey's website following its adoption by the City Council. A summary of comments received and detailed information regarding future public outreach activities will be added in Appendix C.

Grievance Procedure

Under the Americans with Disabilities Act, each agency is required to publish its responsibilities in regards to the ADA. A draft of this public notice is provided in Appendix D. If users of City of Ramsey facilities and services believe the City of Ramsey has not provided reasonable accommodation, they have the right to file a grievance.

In accordance with 28 CFR 35.107(b), the City of Ramsey has developed a grievance procedure for the purpose of the prompt and equitable resolution of citizens' complaints, concerns, comments, and other grievances. This grievance procedure is outlined in Appendix D.

Monitor the Progress

This document will continue to be updated as conditions within the City of Ramsey evolve. The appendices in this document will be updated periodically, while the main body of the document will be updated every 5 years, with a future update schedule to be developed at that time. With each main body update, a public comment period will be established to continue the public outreach.

Appendices

A. Self-Evaluation Results

B. Schedule / Budget Information

C. Public Outreach

D. Grievance Procedure

E. Contact Information

F. Agency ADA Design Standards and Procedures

G. Glossary of Terms

Appendix A – Self-Evaluation Results

This initial self-evaluation of pedestrian facilities yielded the following results:

- XX% of sidewalks met accessibility criteria
- XX% of curb ramps met accessibility criteria
- XX% intersections did not have any curb ramps
- XX% of trails met accessibility criteria
- N/A % of traffic control signals had push buttons that are accessible, or had the pedestrian indications on recall
- N/A % of traffic control signals had APS
- 100 % of bus stops met accessibility criteria
- 100 % of bus stops had amenities that met accessibility criteria

Insert detailed self-evaluation results here:

Ped Ramps

Organize GIS files by Street, numbered then A-Z, listing cross street and quadrant, date checked and compliant. Add columns as necessary. Include table in this report.

Buildings

Add table

7-6-17 888 of 994 ramps in rightofway shape. Some are in City Parks, Some are in Townhouse developments and need more sorting. We are missing some ramps.

Appendix B – Schedule / Budget Information

Cost Information

Unit Prices

Construction costs for upgrading facilities can vary depending on each individual improvement and conditions of each site. Costs can also vary on the type and size of project the improvements are associated with. Listed below are representative 2011 costs for some typical accessibility improvements based on if the improvements are included as part of a retrofit type project, or as part of a larger comprehensive capital improvement project.

Intersection corner ADA improvement retrofit: +/- $4,000 per corner

Intersection corner ADA improvement as part of adjacent capital project: +/- $1,500 per corner

Traffic control signal APS upgrade retrofit: +/- $15,000

Traffic control signal APS upgrade as part of full traffic control signal installation: +/- $10,000

Sidewalk / Trail ADA improvement retrofit: +/- $5.00 per SF

Sidewalk / Trail ADA improvement as part of adjacent capital project: +/- $3.50 per SF

Bus Stop ADA improvement retrofit: +/- $400 per stop

Bus Stop ADA improvement as part of adjacent capital project: +/- $250 per stop

Priority Areas

Based on the results of the self-evaluation, the estimated costs associated with eliminating accessibility barriers within the targeted priority areas is as follows:

- Area 1 Cost Info COR
- Area 2 Cost Info SE Business District (TH47)
- Area 3 Cost Info Ramsey Elementary Area

Entire Jurisdiction

Based on the results of the self-evaluation, the estimated costs associated with providing ADA accessibility within the entire jurisdiction is $$$$$. This amount signifies a significant investment that City of Ramsey is committed to making in the upcoming years. A systematic approach to providing accessibility will be taken in order to absorb the cost into the City of Ramsey budget for improvements to the public right of way.

Insert detailed CIP information here:

Add any special ADA impvoement project info here:

Appendix C – Public Outreach

Insert Summary of Public Outreach here:

Insert Outreach agenda's and sign in info, as well as notification and invite strategy.

Appendix D – Grievance Procedure

As part of the ADA requirements, the City of Ramsey has posted the following notice outlining its ADA requirements:

Public Notice

In accordance with the requirements of title II of the Americans with Disabilities Act of 1990, City of Ramsey will not discriminate against qualified individuals with disabilities on the basis of disability in the City of Ramsey's services, programs, or activities.

Employment: The City of Ramsey does not discriminate on the basis of disability in its hiring or employment practices and complies with all regulations promulgated by the U.S. Equal Employment Opportunity Commission under title I of the Americans with Disabilities Act (ADA).

Effective Communication: The City of Ramsey will generally, upon request, provide appropriate aids and services leading to effective communication for qualified persons with disabilities so they can participate equally in the City of Ramsey's programs, services, and activities, including qualified sign language interpreters, documents in Braille, and other ways of making information and communications accessible to people who have speech, hearing, or vision impairments.

Modifications to Policies and Procedures: The City of Ramsey will make all reasonable modifications to policies and programs to ensure that people with disabilities have an equal opportunity to enjoy all City of Ramsey programs, services, and activities. For example, individuals with service animals are welcomed in City of Ramsey offices, even where pets are generally prohibited.

Anyone who requires an auxiliary aid or service for effective communication, or a modification of policies or procedures to participate in a City of Ramsey program, service, or activity, should contact the office of ADA Coordinator, as soon as possible but no later than 48 hours before the scheduled event.

The ADA does not require the City of Ramsey to take any action that would fundamentally alter the nature of its programs or services, or impose an undue financial or administrative burden.

The City of Ramsey will not place a surcharge on a particular individual with a disability or any group of individuals with disabilities to cover the cost of providing auxiliary aids/services or reasonable modifications of policy, such as retrieving items from locations that are open to the public but are not accessible to persons who use wheelchairs.

Sample Grievance Procedure (Source www.ada.gov):

City of Ramsey
Grievance Procedure under
the Americans with Disabilities Act

This Grievance Procedure is established to meet the requirements of the Americans with Disabilities Act of 1990 ("ADA"). It may be used by anyone who wishes to file a complaint alleging discrimination on the basis of disability in the provision of services, activities, programs, or benefits by the City of Ramsey. The City of Ramsey's Personnel Policy governs employment-related complaints of disability discrimination.

The complaint should be in writing and contain information about the alleged discrimination such as name, address, phone number of complainant and location, date, and description of the problem. Alternative means of filing complaints, such as personal interviews or a tape recording of the complaint, will be made available for persons with disabilities upon request.

The complaint should be submitted by the grievant and/or his/her designee as soon as possible but no later than 60 calendar days after the alleged violation to:

[Insert ADA Coordinator's name]
ADA Coordinator [and other title if appropriate]
[Insert ADA Coordinator's mailing address]

Within 15 calendar days after receipt of the complaint, ***[ADA Coordinator's name]*** or ***[his/her]*** designee will meet with the complainant to discuss the complaint and the possible resolutions. Within 15 calendar days of the meeting, ***[ADA Coordinator's name]*** or ***[his/her]*** designee will respond in writing, and where appropriate, in a format accessible to the complainant, such as large print, Braille, or audio tape. The response will explain the position of the **[name of public entity]** and offer options for substantive resolution of the complaint.

If the response by ***[ADA Coordinator's name]*** or ***[his/her]*** designee does not satisfactorily resolve the issue, the complainant and/or his/her designee may appeal the decision within 15 calendar days after receipt of the response to the **[City Manager/County Commissioner/ other appropriate high-level official]** or ***[his/her]*** designee.

Within 15 calendar days after receipt of the appeal, the **[City Manager/County Commissioner/ other appropriate high-level official]** or ***[his/her]*** designee will meet with the complainant to discuss the complaint and possible resolutions. Within 15 calendar days after the meeting, the **[City Manager/County Commissioner/ other appropriate high-level official]** or ***[his/her]*** designee will respond in writing, and, where appropriate, in a format accessible to the complainant, with a final resolution of the complaint.

All written complaints received by ***[name of ADA Coordinator]*** or ***[his/her]*** designee, appeals to the **[City Manager/County Commissioner/ other appropriate high-level official]** or ***[his/her]*** designee, and responses from these two offices will be retained by the **[public entity]** for at least three years.

Hennepin County Sample Grievance Procedure

Those wishing to file a formal written grievance with City of Ramsey may do so by one of the following methods:

Internet

Visit the City of Ramsey website (website) and click the "ADA" link to the ADA Grievance Form. Fill in the form online and click "submit." A copy of The ADA Grievance Form is included in this Appendix.

Telephone

Contact the pertinent City of Ramsey staff person listed in the **Contact Information** section of Appendix E to submit an oral grievance. The staff person will utilize the Internet method above to submit the grievance on behalf of the person filing the grievance.

Paper Submittal

Contact the pertinent City of Ramsey staff person listed in the **Contact Information** section of Appendix E to request a paper copy of the county's grievance form, complete the form, and submit it to the Responsible Party. A staff person will utilize the Internet method above to submit the grievance on behalf of the person filing the grievance.

The ADA Grievance Form will ask for the following information:

The **name, address, telephone number, and email address** for the person filing the grievance

The **name, address, telephone number, and email address** for the person alleging an ADA violation (if different than the person filing the grievance)

A **description and location of the alleged violation and the nature of a remedy sought**, if known by the complainant.

If the complainant has filed the same complaint or grievance with the United States Department of Justice (DOJ), another federal or state civil rights agency, a court, or others, the **name of the agency or court where the complainant filed it and the filing date**.

The City of Ramsey will acknowledge receipt of the grievance to the complainant within 10 working days of its submittal. The City of Ramsey will also provide to the complainant within 10 working days of its submittal; 1) a response or resolution to the grievance or; 2) information on when the complainant can expect a response or resolution to the grievance.

If the grievance filed does not concern a City of Ramsey facility, the City of Ramsey will work with the complainant to contact the agency that has jurisdiction.

3. Within 60 calendar days of receipt, City of Ramsey engineering staff will conduct an investigation to determine the validity of the alleged violation. As a part of the investigation, engineering staff will conduct an engineering study to help determine the City of Ramsey's response. Engineering staff will take advantage of department resources and use engineering judgment, data collected, and any information submitted by the resident to develop a conclusion. Engineering staff will be available to meet with the complainant to discuss the matter as a part of the investigation and resolution of the matter. The City of Ramsey will document each resolution of a filed grievance and retain such documentation in the department's ADA Grievance File for a period of seven years.

The City of Ramsey will consider all specific grievances within its particular context or setting. Furthermore, the City of Ramsey will consider many varying circumstances including: 1) the nature of the access to services, programs, or facilities at issue; 2) the specific nature of the disability; 3) the essential eligibility requirements for participation; 4) the health and safety of others: and 5) the degree to which an accommodation would constitute a fundamental alteration to the program, service, or facility, or cause an undue hardship to City of Ramsey.

Accordingly, the resolution by the City of Ramsey of any one grievance does not constitute a precedent upon which the City of Ramsey is bound or upon which other complaining parties may rely.

File Maintenance

The City of Ramsey shall maintain ADA grievance files for a period of seven years. Complaints of Title II violations may also be filed with the DOJ within 180 days of the date of discrimination. In certain situations, cases may be referred to a mediation program sponsored by the Department of Justice (DOJ). The DOJ may bring a lawsuit where it has investigated a matter and has been unable to resolve violations.
For more information, contact:

U.S. Department of Justice
Civil Rights Division
950 Pennsylvania Avenue, N.W.
Disability Rights Section - NYAV
Washington, D.C. 20530
www.ada.gov
(800) 514-0301 (voice – toll free)
(800) 514-0383 (TTY)

Title II may also be enforced through private lawsuits in Federal court. It is not necessary to file a complaint with the DOJ or any other Federal agency, or to receive a "right-to-sue" letter, before going to court.

Insert grievance form here.

Sample Complaint Form (Source www.ada.gov):

Appendix E – Contact Information

ADA Title II Coordinator

Name:
Address:

Phone:
Fax:
E-mail:

Public Right of Ways ADA Implementation Coordinator

Name:
Address:

Phone:
Fax:
E-mail:

Other

Appendix F – Agency ADA Design Standards and Procedures

Design Procedures

Intersection Corners

Curb ramps or blended transitions will attempt to be constructed or upgraded to achieve compliance within all capital improvement projects. There may be limitations which make it technically infeasible for an intersection corner to achieve full accessibility within the scope of any project. Those limitations will be noted and those intersection corners will remain on the transition plan. As future projects or opportunities arise, those intersection corners shall continue to be incorporated into future work. Regardless on if full compliance can be achieved or not, each intersection corner shall be made as compliant as possible in accordance with the judgment of City of Ramsey staff.

Sidewalks / Trails

Sidewalks and trails will attempt to be constructed or upgraded to achieve compliance within all capital improvement projects. There may be limitations which make it technically infeasible for segments of sidewalks or trails to achieve full accessibility within the scope of any project. Those limitations will be noted and those segments will remain on the transition plan. As future projects or opportunities arise, those segments shall continue to be incorporated into future work. Regardless on if full compliance can be achieved or not, every sidewalk or trail shall be made as compliant as possible in accordance with the judgment of City of Ramsey staff.

Other policies, practices and programs

Policies, practices and programs not identified in this document will follow the applicable ADA standards.

Design Standards

City of Ramsey has PROWAG, as adopted by the Minnesota Department of Transportation (MnDOT), as its design standard. A copy of this document is included in the following pages of this appendix.

NOTICE OF AVAILABILITY OF DRAFT PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES

The Americans with Disabilities Act (ADA) recognizes and protects the civil rights of people with disabilities and is modeled after earlier landmark laws prohibiting discrimination on the basis of race and gender. To ensure that buildings and facilities are accessible to and usable by people with disabilities, the ADA establishes accessibility requirements for State and local government facilities, places of public accommodation, and commercial facilities. Under the ADA, the Access Board has developed and continues to maintain design guidelines for accessible buildings and facilities known as the ADA Accessibility Guidelines (ADAAG). ADAAG covers a wide variety of facilities and establishes minimum requirements for new construction and alterations.

The Board maintains a similar responsibility for accessibility guidelines under the Architectural Barriers Act (ABA). The ABA requires access to certain facilities designed, built, altered, or leased with Federal funds. Like ADAAG, the Board's ABA accessibility guidelines apply to new construction and alterations.

The Board's guidelines become enforceable when they are adopted by the standard setting agency for the ADA and the ABA. The agencies responsible for standards under the ADA are the Department of Justice (DOJ) and the Department of Transportation (DOT). The agencies responsible for standards under the ABA are the General Services Administration (GSA), the Department of Defense (DOD), the Department of Housing and Urban Development (HUD), and the United States Postal Service (USPS).

The Board plans to undertake rulemaking to supplement its ADA and ABA accessibility guidelines, which primarily cover facilities on sites, by adding new provisions specific to public rights-of-way. The Board's aim is to ensure that access for persons with disabilities is provided wherever a pedestrian way is newly built or altered, and that the same degree of convenience, connection, and safety afforded the public generally is available to pedestrians with disabilities. The guidelines would not require alterations to existing public rights-of-way, but would apply where a pedestrian route or facility is altered as part of a planned project to improve existing public rights-of-way.

BACKGROUND

The Need for Guidelines on Public Rights-of-Way

Local jurisdictions, and other entities covered by the ADA or ABA, must ensure that the facilities they build or alter are accessible to people with disabilities. The Board's ADA and ABA accessibility guidelines specify the minimum level of accessibility in new construction and alteration projects and serve as the basis for enforceable standards maintained by other agencies. Currently, the Board's guidelines, like the industry standards from which they derive, focus mainly on facilities on sites. While they address certain features common to public sidewalks, such as curb ramps, accessible routes, ground and floor surfaces, and bus stops and shelters, further guidance is necessary to address conditions unique to public rights-of-way. Various

constraints posed by space limitations at sidewalks, roadway design practices, slope, and terrain raise valid questions on how and to what extent access can be achieved. Access for blind pedestrians at street crossings and wheelchair access to on-street parking are typical of the issues for which additional guidance is needed. In addition, new trends in roadway design, such as the growing use of traffic roundabouts, pose additional challenges to access, while various technological innovations, particularly those pertaining to pedestrian signaling devices, offer new solutions.

The Board previously proposed guidelines for public rights-of-way under the ADA which were published for public comment in 1992 and 1994. Based on the comments received, the Board determined that it should further coordinate with the transportation industry and State and local governments before continuing its rulemaking. Consequently, the Board undertook an outreach and training program on accessible public rights-of-way. Under this program, the Board developed a series of videos, an accessibility checklist, and a design guide on accessible public rights-of-way. In addition, the Board sponsored research on tactile warnings at street crossings, accessible pedestrian signals, and traffic roundabouts. The Board has made this information widely available to the public. The interest in these materials has underscored the need for criteria for public rights-of-way that are definitive and enforceable so that local jurisdictions and others are clear on their obligations when constructing or altering streets and sidewalks.

Public Rights-of-Way Access Advisory Committee

In resuming its rulemaking effort, the Board chartered an advisory committee in 1999 to develop recommendations on guidelines for accessible public rights-of-way. Use of advisory committees has become a standard practice in the Board's process for developing and updating design requirements. Through such committees, interested groups, including those representing designers, industry, and people with disabilities, play a substantive role in recommending to the Board the content of the guidelines to be developed. These committees provide significant sources of expertise while enhancing the level of consensus among stakeholders in advance of proposing a rule for public comment.

The Public Rights-of-Way Access Advisory Committee was composed of 33 members representing disability organizations, public works departments, transportation and traffic engineering groups, design professionals and civil engineers, government agencies, and standards-setting bodies. The committee coordinated its efforts with leading trade organizations represented on the committee, such as the American Association of State Highway and Transportation Officials, and federal agencies, such as the Federal Highway Administration, to ensure that its recommendations were consistent with generally accepted practice among design professionals. The committee organized several subcommittees focused on key issue areas. The subcommittee structure enabled members to continue work on a tight time schedule between meetings of the full committee and allowed for greater public participation in the process.

The advisory committee met regularly over a year's time, usually in Washington, D.C. but also in Austin and San Francisco. Its work culminated in the issuance of a report, "Building a True Community," which was submitted to the Board in January 2001 (http://www.access-board.gov/prowac/commrept/index.htm). The committee's report provides criteria for the construction or alteration of public rights-of-way that reflects the broad spectrum of expertise

represented by committee members. The report follows a "toolbox" approach to the establishment of guidelines designed to facilitate implementation and to promote an understanding of the needs of all users of public rights-of-ways. The report comprehensively covers the various components of public streets and sidewalks and provides criteria for sidewalks, street fixtures and furnishings, street crossings, vehicular ways, parking, and other components of public rights-of-way. In addition, the report includes advisory notes, figures, and discussion of issues that merit further study or special attention in the Board's rulemaking.

June 17, 2002 Release of Draft Guidelines

An ad hoc group of Board members reviewed the committee's report in depth and crafted a set of draft guidelines based on the committee's recommendations. Because the draft guidelines departed from the advisory committee's report in several areas, the Board made an advance draft of the guidelines available for comment by the public. The notice of availability of the draft guidelines was published in the Federal Register on June 17, 2002. The Board requested information and feedback on the draft guidelines, including usability and cost data. In addition to seeking written comment, the Board held a public hearing in Portland, Oregon.

Over 1,400 comments were received from the public in response to the publication of the draft. Of this total, almost 900 comments were tabulated from persons with disabilities and groups representing them; the great preponderance of comments in this category came from people who indicated that they were blind or had low vision. Slightly over 200 comments were submitted by respondents from the transportation industry: design engineers and consultants, State and local government departments of transportation, and the organizations and groups that represent them. Another 100 were received from State and local government administrative agencies. Comments are posted on the Board's website at http://www.access-board.gov/prowac/comments/index.htm.

Almost all of the commenters from the two major blindness organizations, the American Council of the Blind (ACB) and the National Federation of the Blind (NFB), and persons who were not affiliated with either organization addressed only the use of detectable warnings and/or accessible pedestrian signals (APS) and virtually all of them supported the requirement for these features in at least some locations (detectable warnings at islands and medians and at all low-slope sidewalk connections to the street; APS at complex intersections, irregular intersections, intersections with compound turning movements, and intersections with leading pedestrian intervals). Some commenters misunderstood the effect of the scoping provisions for these features, believing that all intersections would have to be retrofitted at tremendous cost. In fact, only future new projects would be subject to these guidelines. With respect to APS in particular, only pedestrian crossings that provide pedestrian signals would be required to include APS. Some commenters, expressing concerns about the noise output of APS, were apparently unfamiliar with the quiet, pedbutton-integrated devices now available in the United States (these devices are installed at the departure curb, near the listening user, rather than overhead).

Ten key issues from comment were identified for detailed analysis: crosswalk width; on-street parking; walking speed and pedestrian signal phase timing; elevators at pedestrian overpasses and underpasses; same-side alternate circulation routes; cross slope in crosswalks; detectable warnings; accessible pedestrian signals; roundabouts and roundabout signalization; and

alterations. These issues have been addressed in this second draft. Changes include the following:

- referenced Manual on Uniform Traffic Control Devices (MUTCD) for crosswalk width;
- reduced scoping in on-street parking to be consistent with parking lots;
- set walking speed at 3.5 fps (consistent with new recommendations currently under consideration by the National Committee on Uniform Traffic Control Devices);
- eliminated the provision requiring elevators to provide pedestrian access at overpasses and underpasses (either ramps, lifts, or elevators may be used);
- modified scoping and technical provisions for alternate circulation routes to be consistent with current MUTCD requirements and alterations requirements, which would permit opposite side routes if same-side routes are not feasible;
- provided relief (up to 5%) for maximum cross slope limits in pedestrian crosswalks at midblock and through-street locations where the roadway slope will necessarily exceed 2%;
- clarified the placement of detectable warnings on curb ramps, landings, and blended transitions;
- clarified the scoping in new construction and alterations of accessible pedestrian signals (APS);
- limited pedestrian signalization at roundabouts and channelized turn lanes to pedestrian crossings (to the splitter) of two lanes of traffic or more; and
- clarified the scope of alterations to include only that work included in the limits, boundaries, or scope of a planned project; clarified that there is no obligation in the guidelines to expand the scope or limits of a project to include other or adjacent work.

Other changes included the addition of significant advisory material throughout the document. Advisory notes are for informational purposes only.

The Board also considered industry recommendations that the guidelines be re-formatted to use transportation metrics and language and to be better coordinated with industry standards and documents, particularly the Manual on Uniform Traffic Control Devices (MUTCD).

This draft is now formatted as a stand-alone document that expresses its dimensioning requirements first in international units, as is done in other industry documents. Its provisions have been harmonized with current MUTCD standards, support, options, and guidance. Industry terms and phrases have been adopted, and industry practices recognized where feasible.

The Board is placing the revised draft in the docket to facilitate the gathering of cost data necessary for the next step in this rulemaking which is the preparation of a regulatory assessment for government review and approval prior to issuing a Notice of Proposed Rulemaking (NPRM). In order to develop an accurate picture of the potential costs and benefits of this rulemaking, the Board must work closely with the transportation industry representatives who have data on both current cost and industry practices and the knowledge and skills to assess potential effects.

The Board is not seeking comments on this draft. Readers will have an opportunity to provide input when the NPRM is published. Additional figures will be included in the NPRM.

Rulemaking Process
The Board reviewed the comments received to the draft guidelines and revised the guidelines in accordance with the comments received. The revisions are briefly discussed below in the section-by-section analysis.

The proposed rule will provide another opportunity for public comment on the guidelines. The Board will then proceed to finalize the guidelines based on public comments received in response to the proposed rule. The Board's guidelines serve as the basis for enforceable standards maintained by other agencies under the ADA and the ABA. The Department of Justice and the Department of Transportation maintain standards based on the Board's guidelines that apply to facilities covered by the ADA. Design standards for federally funded facilities covered by the ABA are maintained by the Department of Defense, the Department of Housing and Urban Development, the General Services Administration, and the U.S. Postal Service. These enforceable standards must be consistent with the Board's guidelines.

Relationship to ADA and ABA Accessibility Guidelines/Format
On July 23, 2004, the Board completed an update of ADAAG, the first comprehensive revision of the document since its publication in 1991. The revised ADAAG features a new format and numbering system and a host of updated scoping and technical provisions. On the same date, the Board updated its ABA Accessibility Guidelines along similar lines so that both of the documents are more consistent. The revised ADA and ABA Accessibility Guidelines may be found on the Board's website at http://www.access-board.gov/news/ada-aba.htm.

The draft guidelines for public rights-of-way published on June 17, 2002 were formatted to supplement the ADA and ABA guidelines and not as a stand-alone document. The guidelines were intended to ultimately comprise a new chapter on public rights-of-way. The current draft guidelines made available in this document are now formatted as a stand-alone document using transportation industry standards, terms, and measures in response to recommendations in industry comments. The document is identified by the prefix R in its provisions and has four chapters:

Chapter R1: Application and Administration covers purpose, effect on existing facilities, equivalent facilitation, conventions, figures, units of measurement, referenced documents, and definitions, harmonized with transportation industry usage.

Chapter R2: Scoping Requirements address what items of new construction and alteration are covered by this document and references technical sections that follow in Chapters R3 and R4. Key scoping provisions in R2 include: R204 Pedestrian Access Route; R205 Alternate Pedestrian Access Route; R206 Pedestrian Crossings; R207 Curb Ramps and Blended Transitions; R208 Accessible Pedestrian Signals; R209 Protruding Objects; R210 Pedestrian Signs; R211 Street Furniture; R212 Bus Stops; R213 Stairways; R214 Handrails; R215 Vertical Access; R216 On-street Parking; R217 Passenger Loading Zones; R218 Call Boxes; R219 Transit Platforms; R220 Escalators; R221 Detectable Warning Surfaces; and R222 Doors, Doorways, and Gates.

Coverage extends to temporary as well as permanent facilities. Chapter R2 also includes special provisions for historic facilities and contains a limited series of general exemptions from accessibility.

Chapter R3: Technical Provisions contains detailed specifications for new construction and alterations scoping in Chapter R2. Construction detailed in Chapter R3 is specific to public sidewalk, street crossing, and roadway projects, and covers the building blocks of pedestrian accessibility: the pedestrian access route (analogous to the accessible route on a site), curb ramps and blended transitions, pedestrian crossings (including those at roundabouts and channelized turn lanes), pedestrian signals, street furniture, and parking.

Chapter R4: Supplementary Technical Provisions include specifications adapted from the ADA and ABA Accessibility Guidelines (2004) for rights-of-way application, including such features as maneuvering clearances at doorways; drinking fountain, and telephone provisions; reach ranges; operable parts; handrails; and other items of broader application.

DISCUSSION OF PROVISIONS

DRAFT GUIDELINES FOR PUBLIC RIGHTS-OF-WAY

Clarifications, modifications, and changes that have been incorporated in this draft in response to public comment from industry, consumers, and State and local government agencies are briefly discussed below.

R1: APPLICATION AND ADMINISTRATION
R104.2.1 MUTCD. This draft references the 2003 edition of the Manual on Uniform Traffic Control Devices (MUTCD). The Access Board works closely with the MUTCD team at the Federal Highway Administration (FHWA) to harmonize standards and advisory material and to sponsor needed research. Changes in future MUTCD provisions for accessible pedestrian signals, markings (including detectable warnings), and temporary traffic zones are in process. A joint FHWA/ American Traffic Safety Services Association (ATSSA)/Access Board demonstration project identified desirable characteristics for pedestrian channelizing devices. FHWA research projects on pedestrian usability at roundabouts and contrast in detectable warnings are underway, and the Board has proposed a FY 2006 project on pedestrian demand signals for use at multi-lane roundabout crossings.

R105 Definitions. This draft uses definitions drawn from key industry references where they exist.

R2: SCOPING REQUIREMENTS
R201 Application. Text and advisory material has been added to clarify the application of these guidelines to new or altered work (permanent or temporary) put in place within the scope or limits of a planned project in the public right-of-way.

Other requirements, including those for existing facilities, maintenance of accessible features, and effective communication that derive from the ADA title II implementing regulations (28 CFR part 35) or Federal highway-aid funding (49 CFR part 27), are not addressed in these guidelines for new construction and alteration. Advisory notes have been added to clarify this difference.

This draft now includes a reference to the revised ADA and ABA Accessibility Guidelines (36 CFR part 1191) to cover buildings and facilities newly constructed or altered within the public right-of-way.

R202 Alterations and Additions to Existing Facilities. Text and advisory notes have been added to this draft to clarify the application of new construction guidelines to an alteration project. New work put in place within an existing developed right-of-way must comply with these guidelines to the maximum extent feasible; see Advisory R202.3. Transitional segments that connect undisturbed improvements with new work can facilitate compliance (R202.1.1). Where items are placed within an existing developed streetscape and the circulation route is not altered, items required to be accessible shall be located for optimal usability and access (R202.1.2).

An alteration is a change in a space or element that affects, or could affect, the accessibility or usability of that space or element. In general, when a feature in the public right-of-way is altered, the requirements for new construction in this document must be applied to the maximum extent feasible within the scope or boundary of the project that has been planned. This document does not contain a 'path of travel' obligation to expand a given scope of work to include other items or elements that are adjacent to the alteration project nor does it cover an agency's obligations to achieve program access in its existing facilities that are not being altered.

In response to the comments received, the Board has developed answers to frequently asked questions regarding the application of the alterations requirements. Those questions and the Board's responses have been included at the end of this discussion.

R204 Pedestrian Access Route (technical provisions at R301). This draft clarifies the requirement for a 1.2-meter-wide (4 ft) accessible route of travel within a pedestrian circulation path, which may be a wider sidewalk, shoulder (if pedestrian use is not prohibited), shared street, or street crossing. A provision requiring periodic passing spaces 1.5 m (5 ft) in width, omitted in the first draft, has been re-instituted. Because of the constraints imposed by right-of-way width, the pedestrian access route (PAR) is relieved of the slope limits that would apply to an accessible route on a site provided it matches the general grade of the adjacent roadway (R301.4). Where the PAR is supported by structure, as in an underpass, overpass, or bridge, this draft requires compliance with ADAAG requirements for ramps.

Technical provisions in the June 2002 draft that would have required a 30-inch separation between changes in level in the PAR have been replaced in this draft with provisions requiring a planar surface (R305.1) and limiting surface discontinuities (R301.5.2). An advisory note discourages the use of heavily textured, rough, or excessively chamfered unit pavings. Research undertaken by the Research and Rehabilitation Training Center (RRTC) at the University of Pittsburgh, under contract to a group of unit masonry associations, measured the vibration effects of various chamfer spacings on wheeled mobility devices and found that chamfers of less than 1.25 mm (.5 in), if flush, were not distinguishable from cast-in-place concrete sidewalks with a broom finish.

A series of related provisions in the June 2002 draft has been reorganized into R301.7 Horizontal Openings, which now includes walkway joints, gratings, flangeway gaps at rail crossings, and sill gaps at elevators and lifts. (Platform and car gaps at transit facilities are addressed at 36 CFR part 1191).

R205 Alternate Pedestrian Access Route. This draft clarifies that the establishment of an alternate pedestrian route is an alteration that must comply to the maximum extent feasible with technical provisions for the pedestrian access route, including curb ramps or blended transitions. MUTCD requirements and advisory material at Part 6D.01 and 6D.02 are referenced and an advisory note added to highlight the safety benefits of same-side alternate routes. Specifications for pedestrian channelizing devices and barricades at 302.4 include a reference to the MUTCD.

R206 Pedestrian Crossings (technical provisions at R305). This draft omits a provision in the June 2002 draft that would have required 2.4 m-wide (8 ft) markings at crosswalks. The MUTCD minimum of 1.8 m (6 ft) has been proposed at 305.2.1 of this draft.

Measurements on which pedestrian signal phase timing are based have been modified in response to industry comment. Calculations now proposed in R305.3 in the current draft would require the distance to be the full street width and the pedestrian walking speed to be 1.1 m/s (3.5 fps).

The June 2002 draft also proposed that the approaches to overpasses and underpasses be provided with elevators where the grade change was 1.5 m (5 ft) or greater. Both industry and persons with disabilities opposed this requirement with persons with disabilities expressing a preference for ramps, even if lengthy, to ensure the availability of a crossing. Elevators in single installations provide no access at all when out of service. Industry expressed concerns about cost and maintenance requirements. The current draft applies ramp provisions at R305.5 (but permits elevators, LULAs, and lifts).

Newly available research and the comments of both industry and consumer representatives confirm the Access Board's concerns about the usability of pedestrian crossings at roundabouts and channelized turn lanes. However, access to additional data has indicated that well-designed roundabouts and channelized turn lanes with single-lane crossings can provide cues that make non-visual use possible. Accordingly, this draft (R305.6.2) provides that signals (including accessible pedestrian signal features) be required only at multi-lane pedestrian crossings of roundabouts. The Board does not prescribe the signal operation here and has proposed that FHWA conduct research to identify appropriate technologies. Two-head signals that flash amber, then flash red and go to steady red, are in use in Australia and the United Kingdom. US motorists are familiar with pre-emptive signals installed for emergency vehicles. Utah has at least one roundabout that uses standard railway gates across the roadway when light rail cars pass through the roundabout. The Board believes that the occasional use of a properly-designed pedestrian demand signal may actually reduce delay at pedestrian crossings.

R207 Curb Ramps and Blended Transitions (technical provisions at R303). Additional text, advisory, and illustrations have been added to this draft to describe curb ramp types (perpendicular, parallel, and their combination) and to distinguish them from blended transitions, for which a definition has now been provided at R105. Blended transitions are connections between the PAR and the street that have a running slope of 1:20 or less. Level landings, gently sloped transitions, and raised crosswalks fall into this category. Parallel and perpendicular curb ramps have a running slope between 1:20 and 1:12 (steeper slopes are not permitted in new construction).

Non-visual wayfinding cues can be provided by the orientation of curb ramps, particularly if they are in-line with the path of pedestrian travel along a sidewalk. Curb ramps installed at tangent points rather than on the corner radius provide more usable cues and locate the shortest crossing point. The Access Board is collaborating with the Institute of Transportation Engineers (ITE) on a project to standardize sidewalk/ramp/crossing schemes for optimal non-visual cuing based

upon a range of corner radii and attached/separated sidewalk configurations. An advisory note (R303.1) in this draft notes the benefits for pedestrians.

Cross slope provisions at midblock curb ramps (R303) have been revised in response to industry comment to permit warping to meet roadway grade. Similar changes have been made to technical provisions at pedestrian crossings (R305.2.2). Crossings of streets without stop control would be permitted a 1:20 maximum cross slope.

Running slope limits at crosswalks (R305.2.3) are maintained at 1:20 maximum in this draft. Many commenters noted that design practices that approach this limit in new construction may have to mill the roadway crown before resurfacing in order to retain usable crossings.

R208 Accessible Pedestrian Signals (technical provisions at R306). APS provisions in this draft differ only slightly from those of the June 2002 draft. Many commenters to the June 2002 draft expressed concerns about the costs of retrofitting intersections with APS, which is not required by these or prior proposals, which guide only new construction and alterations. Where new pedestrian signals are being installed or added, scoping in this document would require that they incorporate audible and vibrotactile features.

Comments from disability organizations and individuals to the June 2002 draft were diverse. Many who believed that retrofitting was required objected to what they understood to be excessive cost. And even those who did not support a general requirement that all future pedestrian signals incorporate audible and vibrotactile formats nevertheless saw the need for them at certain types of intersections including irregular crossings, lengthy crossings, and at complex intersections with multiple vehicle turning phases or leading pedestrian interval phasing. Although many responders noted the utility of non-visual cues, a clear majority of commenters who identified themselves as blind supported universal pedestrian signals.

R209 Protruding Objects (technical provisions at R401). Advisory notes have been added at several places in this document to remind users of the need to consider projections into the pedestrian circulation route when coordinating the placement of improvements, appurtenances, utilities, or street furniture. Comments from disability organizations and individuals identified blocked or compromised pedestrian routes as a major barrier to independent travel. Protruding objects provisions in this draft have been revised only to accommodate the new format and add advisory information.

R210 Pedestrian Signs (technical provisions at R409). An advisory note has been added to clarify requirements for visual legibility in signs that indicate sidewalk closure, pedestrian detour, and tourist route signage covered in MUTCD. Braille street name signage is required only on APS pedbuttons (R306.4.2).

Signage provisions in this draft have been revised only to accommodate the new format and add advisory information.

R211 Street Furniture (technical provisions at R307). Advisory notes have been added at several places in this document to remind users of the need to consider the dimensions and use of

pedestrian circulation routes when coordinating the placement of improvements, appurtenances, utilities, or street furniture. Comments from disability organizations and individuals identified blocked or compromised pedestrian routes as a major barrier to independent travel.

Street furniture provisions in this draft have been revised only to accommodate the new format and add advisory information.

R212 Bus Stops (technical provisions at R410.2). An advisory note has been added to clarify the difference between establishing a bus stop by installing signage (signage must comply with R210.2) and constructing a bus stop (boarding/alighting areas, if provided, must comply with R410, bus shelters with R410.2).

Bus stop provisions in this draft have been revised only to accommodate the new format and add advisory information.

R213 Stairways (technical provisions at R407). Stairway provisions in this draft have been revised only to accommodate the new format.

R214 Handrails (technical provisions at R408). Handrail provisions in this draft have been revised only to accommodate the new format and add an advisory note on alterations and protruding objects.

R215 Vertical Access (technical provisions in ADAAG). Vertical access provisions in this draft have been revised only to accommodate the new format and add an advisory note on elevator use in extremes of terrain.

R216 On-Street Parking (scoping at Table R216; technical provisions at R308). Table R216 in this draft has been adapted from the table in ADAAG based upon the overall number of spaces provided within a block (or analog). Commenters strongly objected to scoping based upon the numbers of parking spaces on a block face, which could, in many places, require very high numbers of spaces disproportionate to those required in lots.

Additionally, this draft clarifies when, in new construction or alterations, the presence of a sidewalk or border wider than 4.3 m (14 ft) can accommodate an access aisle that is indented into the curb for protected transfer space, a construction that is similar to that of an on-street loading zone provided at an office, hotel, convention center, arena, or airport (R308.2.1).

Advisory notes have been added at several places in this section to convey additional information about indented, end-of-block, perpendicular or angled spaces, and signage.

R218 Call Boxes (technical provisions at R309). Call box provisions in this draft have been revised only to accommodate the new format and add an advisory note at R309.1 about the applicability of accessible call box technology to other types of communications systems, such as on-street security systems.

R219 Transit Platforms (technical provisions at R414). Transit provisions from the ADA and ABA Accessibility Guidelines (204) have been newly incorporated in this draft.

R220 Escalators. Escalator provisions in this draft have been revised only to accommodate the new format.

R221 Detectable Warning Surfaces (technical provisions at R304). Transportation industry and State and local government agency commenters expressed concern about the durability, maintainability, and contrast of detectable warning materials required at curb ramps and blended transitions in the June 2002 draft. Recent research by several State departments of transportation and by the Transportation Research Board identified several high-performing products suitable for both new construction and alterations. Approximately 20 manufacturers now produce detectable warning products in metal, concrete, tile, pavers, resilient sheets, and membrane types. The FHWA is currently overseeing human factors research intended to test the contrast effectiveness of 13 different detectable warning colors when viewed by people who have low vision.

Comments from disability organizations and individuals were divided in much the same way as consumer comments on accessible pedestrian signals. Many expressed concern about cost but, valued detectable warnings as a way to provide a cue at certain locations such as pedestrian waiting areas at roadway medians, islands, and roundabout splitter islands and at low-slope blended transitions to street crossings. A majority of these commenters favored the June 2002 draft provision requiring detectable warnings at flush transitions between sidewalks and street crossings.

The rows of domes in the detectable warning material (technical provisions at R304.2.2) must be aligned with the path of wheelchair travel, which is required to be perpendicular to the grade break at the toe of the ramp to permit tracking between dome rows. On blended transitions, dome orientation is not significant.

A new advisory note (R304.1.1) covers the use of radial dome patterns.

Detectable warnings provisions in this draft have also been clarified with respect to their permitted setback from the grade break marking the face of a curb. One corner of the detectable warning must be within 205 mm (8 in) of the grade break; no other point on the leading edge of the detectable warning may be more than 1.5 m (5 ft) from the grade break (R304.2.1).

R222 Doors, Doorways, and Gates (technical provisions at R411). These provisions have been added to this draft from the ADA and ABA Accessibility Guidelines (2004). Because public sidewalks serve the entrances and other facilities of abutters covered by title III of the ADA, coordination of slope, cross slope, and maneuvering space requirements is typically required. In many places, developers provide sidewalk improvements as part of a project. State and local governments must include accessibility compliance in such work.

TECHNICAL ASSISTANCE Q&A FOR ALTERATIONS PROJECTS

Alterations are projects planned for implementation by a jurisdiction. Program access obligations for existing facilities are not a part of the Board's accessibility guidelines, and the Board's responses to the following questions do not address program access issues (see title II of the ADA at 28 CFR 35.149 and 35.151).

CURB RAMPS

Question: A multi-block length of roadway is being resurfaced. The corners have curb ramps that meet some but not all of the current specifications; for example the cross slope may be too steep or the curb ramps do not have detectable warnings. Must the curb ramps be reconstructed as part of the resurfacing project?
Answer: Yes, if it is technically feasible to provide complying features. The work should be done at the same time the resurfacing is being done.

Question: New curb ramps are being installed at an existing developed corner. New construction standards require the curb ramp to be within the crosswalk, but an existing underground utility vault is located where the ramp should be. Must the utility vault be moved?
Answer: The scope of this project will determine the answer. If utilities are being moved for other reasons within the project limits, it may be possible to alter or relocate the vault. If project construction will not involve the vault, it may be technically infeasible to locate the curb ramp optimally. It may be possible to widen the crosswalk markings to include the curb ramp.

Question: What if the curb ramp can be placed over the vault, but the access cover would be located on the curb ramp?
Answer: If the access cover must be located on the curb ramp, it should meet the surface requirements of the pedestrian access route.

Question: One corner of an intersection is being altered by curb and gutter reconstruction and paired curb ramps are being installed as part of this project. The other three corners of the intersection are not being altered. Must curb ramps be provided at the unaltered corners as part of this work?
Answer: No. The scope of the project requires curb ramps only at the altered corner.

SIDEWALKS

Question: A project will be undertaken to connect a series of sidewalk segments near a school. Must the existing segments of sidewalk be modified if they do not meet width or cross slope provisions?
Answer: Yes, to the maximum extent feasible within the scope of the project. Agencies are not required to expand a planned scope of work to include other items of accessibility.

Question: A new sidewalk is being built along an existing road that contains driveway access points. Must those driveways be modified if their cross slope exceeds 2%?
Answer: Yes, to the maximum extent feasible within the scope of the project.

Question: A city is rebuilding a sidewalk along Main Street. The distance between the edge of the right-of-way and the existing road does not provide sufficient room for a 4-foot-wide pedestrian access route. Does the municipality have to acquire more right-of-way on private property or narrow the roadway to provide the necessary space?
Answer: No, these guidelines do not require the municipality to obtain right-of-way or to narrow roadways. A municipality may decide to do either for other reasons (for instance, the roadway may be narrowed as a larger traffic calming effort or as part of a larger project in the roadway).

SIGNALS

Question: Curb ramps are being installed at a signalized intersection as part of a roadway improvement project. Existing pedestrian signals are pedestrian actuated but the pushbuttons are not accessible or placed in accessible locations. Must accessible pedestrian signals be installed at the existing pedestrian signals?
Answer: If work on pedestrian pushbuttons is not planned as part of this project, there is no need to expand its scope to include APS.

Question: The pedestrian signals in a corridor are being replaced with new combined count-down signals. Must APS be included in the new system?
Answer: Yes. The installation of a new system is an alteration that requires compliance with the new construction guidelines to the maximum extent feasible. However, the addition of a new feature, such as a countdown face or larger display, to an existing installed system does not require that the scope of work be expanded to include other features.

Question: Count-down signal displays are being added to the existing pedestrian signal heads at an intersection, but the software and signal controller are not being altered. Must APS be installed?
Answer: No, simply adding a display to the existing WALK/DON'T WALK signal would not involve the system changes needed to implement APS.

Question: An intersection is being signalized and will include APS. The installation of stub poles on the existing sidewalks to mount the new pedbuttons will not involve disturbing the roadway or sidewalk. Must curb ramps be installed if none existed?
Answer: No. This is a project to install pedbuttons; it is not an alteration to the sidewalk or street that would require the installation of curb ramps, as required by 28 CFR 35.151(e).

Question: The pushbutton on an existing pedestrian signal is being replaced with a sturdier model. Must APS be installed?
Answer: No, but the new pushbutton must meet applicable requirements (i.e., location, height, operable parts).

Question: An intersection with sidewalks and pedestrian signals is being widened to include a right turn lane. Must APS be installed as a consequence of the widening project?

Answer: No, installing APS is not within scope of the project. Any new pedestrian pushbuttons installed in the course of the work must meet applicable requirements. Note that this project is an alteration to the street and sidewalk and thus must provide compliant curb ramps.

GENERAL

Question: The local public transit agency has designated a bus stop by placing a sign in the ground along a roadway with no sidewalk. Must a concrete or other improved surface be installed?

Answer: No, the placement of a bus stop sign alone does not require other site improvements. When other site improvements are provided they should meet the applicable access requirements.

CHAPTER R1: APPLICATION AND ADMINISTRATION

R101 Purpose

R101.1 General. This document contains scoping and technical requirements for accessibility to facilities for pedestrian circulation and use located in the public right-of-way. Advisory notes are for informational purposes only. These requirements are to be applied during the design, construction, additions to, and alterations of facilities in the public right-of-way to the extent required by regulations issued by Federal agencies.

Advisory R101.1 General. Access requirements are also addressed in the Manual on Uniform Traffic Control Devices (MUTCD), FHWA/US DOT, 2003 (http://mutcd.fhwa.dot.gov). MUTCD is a reference standard in this guideline.

Key transportation industry guidance documents also address accessibility in the public right-of-way and can provide useful information on design and construction. They include 'Guide for the Planning, Design, and Operation of Pedestrian Facilities', American Association of State Highway and Transportation Officials, July 2004 (www.aashto.org) and 'Designing Sidewalks and Trails for Access', FHWA/US DOT September 2001 (http://www.fhwa.dot.gov/environment/sidewalk2/index.htm).

R101.2 Effect on Existing Facilities. This document does not address existing facilities unless they are included in the scope of an alteration undertaken at the discretion of a covered entity. The U.S. Department of Justice and U.S. Department of Transportation have issued and enforce separate regulations for existing facilities subject to their requirements for program accessibility under the Americans with Disabilities Act.

Advisory R101.2 Effect on Existing Facilities. The U.S. Department of Justice ADA regulations require that the usability of accessible features be maintained (28 CFR §35.133 and §36.211).

Federal agencies and entities receiving federal funds may also have an obligation for program accessibility under section 504 of the Rehabilitation Act of 1973 as amended. For example, state departments of transportation that receive Federal-aid Highway funds must comply with program accessibility requirements issued by the U.S. Department of Transportation at 49 CFR part 27.

R102 Equivalent Facilitation

Nothing in these requirements prevents the use of designs, products, or technologies as alternatives to those prescribed, provided they result in substantially equivalent or greater accessibility and usability.

R103 Conventions

R103.1 Dimensions. Dimensions that are not stated as "maximum" or "minimum" are absolute.

> **R103.1.1 Construction and Manufacturing Tolerances.** All dimensions are subject to conventional industry tolerances except where the requirement is stated as a range with specific minimum and maximum end points.

Advisory R103.1.1 Construction and Manufacturing Tolerances. Conventional industry tolerances recognized by this provision include those for field conditions and those that may be a necessary consequence of a particular manufacturing process. Recognized tolerances are not intended to apply to design work.

Information on specific tolerances may be available from industry or trade organizations, code groups and building officials, and published references.

R103.2 Calculation of Percentages. Where the required number of elements or facilities to be provided is determined by calculations of ratios or percentages and remainders or fractions result, the next greater whole number of such elements or facilities shall be provided. Where the determination of the required size or dimension of an element or facility involves ratios or percentages, rounding down for values less than one half shall be permitted.

R103.3 Figures. Unless specifically stated otherwise, figures are provided for informational purposes only.

R103.4 Units of Measurement. Measurements are presented in this document in both metric and U.S. customary units and were developed independently within each system. The relationship between the metric and U.S. customary values is neither an exact (soft) conversion nor a completely rationalized (hard) conversion. The metric values are those that would have been used had the requirements been presented exclusively in metric units; the U.S. customary values are those that would have been used had the requirements been presented exclusively in U.S. customary units. Therefore, the user is advised to work entirely in one system and not attempt to convert directly between the two.

R104 Referenced Guidelines and Standards

R104.1 General. The guidelines and standards listed in R104.2 are incorporated by reference in this document and are part of the requirements to the prescribed extent of each such reference. The Director of the Federal Register has approved these guidelines and standards for incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the referenced guidelines and standards may be inspected at the Architectural and Transportation Barriers Compliance Board, 1331 F Street, NW, Suite 1000, Washington, DC 20004; at the Department of Justice, Civil Rights Division,

Disability Rights Section, 1425 New York Avenue, NW, Washington, DC; at the Department of Transportation, 400 Seventh Street, SW, Room 10424, Washington DC; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: **http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html**.

R104.2 Referenced Guidelines and Standards. The specific edition of the guidelines and standards listed below are referenced in this document. Where differences occur between this document and the reference, this document applies.

R104.2.1 MUTCD. Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), 2003 edition. Copies of the referenced standard may be obtained on-line from the Federal Highway Administration at **http://mutcd.fhwa.dot.gov**. (see R205 and R302.4).

R104.2.2 ANSI/BHMA. Copies of the referenced standards may be obtained from the Builders Hardware Manufacturers Association, 355 Lexington Avenue, 17th floor, New York, NY 10017 (http://www.buildershardware.com).

ANSI/BHMA A156.10-1999 American National Standard for Power Operated Pedestrian Doors (see R411.3).

ANSI/BHMA A156.19-1997 American National Standard for Power Assist and Low Energy Power Operated Doors (see R411.3).

ANSI/BHMA A156.19-2002 American National Standard for Power Assist and Low Energy Power Operated Doors (see R411.3).

R104.2.3 ASME. Copies of the referenced standard may be obtained from the American Society of Mechanical Engineers, Three Park Avenue, New York, NY 10016 (http://www.asme.org).

ASME A17.1-2000 Safety Code for Elevators and Escalators, including ASME A17.1a-2002 Addenda and ASME A17.1b-2003 Addenda (see R220; R305.5.5).

R105 Definitions

R105.1 General. For the purpose of this document, the terms defined in R105.5 have the indicated meaning.

R105.2 Terms Defined in Referenced Guidelines and Standards. Terms not defined in R105.5 or in regulations issued by Federal agencies, but specifically defined in a referenced guideline or standard, shall have the specified meaning from the referenced guideline or standard unless otherwise stated.

R105.3 Undefined Terms. The meaning of terms not specifically defined in R105.5 or in regulations issued by Federal agencies or in referenced guidelines and standards shall be as defined by collegiate dictionaries in the sense that the context implies.

R105.4 Interchangeability. Words, terms and phrases used in the singular include the plural and those used in the plural include the singular.

R105.5 Defined Terms.

Accessible. Describes a facility in the public right-of-way that complies with this part.

Accessible Pedestrian Signal. A device that communicates information about the WALK phase in audible and vibrotactile formats.

Alteration. A change to a facility in the public right-of-way that affects or could affect access, circulation, or use.

Blended Transition. A connection with a grade of 5 percent or less between the level of the pedestrian walkway and the level of the crosswalk.

Channelization. The separation or regulation of conflicting traffic movements into definite paths of travel by devices such as cones, tubular markers, vertical panels, drums, barricades, temporary raised islands and barriers, to facilitate the orderly movements of traffic, to separate vehicles and pedestrians, and to protect them from construction or hazardous areas.

Channelized Intersection. An at-grade intersection in which traffic is directed into definite paths by islands.

Crosswalk. (Shall have the meaning in MUTCD Section 1A13.18).

Cross Slope. The grade that is perpendicular to the direction of accessible pedestrian travel. On a sidewalk, shoulder, or blended transition, it is measured perpendicular to the curb line or edge of the street or highway; on a curb ramp, it is measured perpendicular to the running grade.

Curb Line. A line at the face of the curb that marks the transition between the curb and the gutter, street, or highway.

Curb Ramp. A perpendicular or parallel ramp and its landing that cuts through or is built up to the curb.

Detectable Warning. A surface feature of truncated dome material built in or applied to the walking surface to advise of an upcoming change from pedestrian to vehicular way.

Element. An architectural or mechanical component of a building, facility, space, site, or public right-of-way.

Facility. All or any portion of buildings, structures, improvements, elements, and pedestrian or vehicular routes located in a public right-of-way.

Grade Break. The meeting line of two adjacent surface planes of different grade.

Highway. (Shall have the meaning in MUTCD Section 1A13.32).

Intersection. (Shall have the meaning in MUTCD Section 1A13.39).

Island. (Shall have the meaning in MUTCD Section 1A13.40).

Median. (Shall have the meaning in MUTCD Section 1A13.48).

Operable Part. A component of an element used to insert or withdraw objects, or to activate, deactivate, or adjust the element.

Pedestrian. (Shall have the meaning in MUTCD Section 1A13.55).

Pedestrian Access Route. A continuous and unobstructed walkway within a pedestrian circulation path that provides accessibility.

Pedestrian Circulation Path. A prepared exterior or interior way of passage provided for pedestrian travel.

Pushbutton Locator Tone. A repeating sound that identifies the pushbutton location and indicates the need to actuate pedestrian timing.

Public Right-of-Way. Public land or property, usually in interconnected corridors, that is acquired for or devoted to transportation purposes.

Roundabout Intersection. (Shall have the meaning in MUTCD Section 1A13.68).

Running Slope. The grade that is parallel to the direction of travel, expressed as a ratio of rise to run or as a percent.

Sidewalk. (Shall have the meaning in MUTCD Section 1A13.73).

Splitter Island. A flush or raised island that separates entering and exiting traffic in a roundabout intersection.

Street. (Shall have the meaning in MUTCD Section 1A13.84).

Street Furniture. Sidewalk equipment or furnishings.

Vibrotactile. A vibrating surface, located on the accessible pedestrian signal button, that communicates information through touch.

Walk Interval. That phase of a traffic signal cycle during which the pedestrian is to begin crossing, typically indicated by a WALK message or the walking person symbol and its audible equivalent.

Walkway. The continuous portion of the pedestrian access route that is connected to street crossings by curb ramps or blended transitions.

CHAPTER R2: SCOPING REQUIREMENTS

R201 Application

R201.1 Scope. All newly designed and newly constructed facilities located in the public right-of-way shall comply with these requirements. All altered portions of existing facilities located in the public right-of-way shall comply with these requirements to the maximum extent feasible.

Advisory R201.1 Scope. This document (see R101.1General) covers facilities for pedestrian circulation and use in the right-of-way. Examples of facilities include, but are not limited to, walkways and sidewalks, street or highway shoulders where pedestrians are not prohibited, crosswalks, islands and medians, overpasses and underpasses, on-street parking spaces and loading zones, and equipment, signals, signs, street furniture, and other appurtenances provided for pedestrians. Examples of facilities not included are manholes and utility vaults.

These requirements are to be applied to all areas of a facility within the scope or limits of the planned project unless expressly exempted or limited with respect to the number of multiple elements required to be accessible. For example, not all benches are required to be accessible; those that are not required to be accessible are not required to comply with these requirements or to be served by a pedestrian access route.

R201.2 Temporary and Permanent Facilities. These requirements shall apply to temporary and permanent facilities.

Advisory R201.2 Temporary and Permanent Facilities. Temporary facilities covered by these requirements include, but are not limited to, temporary routes around work zones, portable toilets in the public right-of-way, sidewalk vending facilities, street fair booths, performance stages and reviewing stands, and the pedestrian access routes that serve them. As permitted in R203.1.1, structures and equipment directly associated with the actual processes of construction are not required to be accessible.

Elements are often placed on a sidewalk without coordination by different agencies or entities. The U.S. Department of Justice ADA regulations require that the usability of accessible features be maintained (28 CFR §35.133 and §36.211).

R201.3 Requirements for Buildings and Structures. Buildings, structures, and similar facilities constructed in the public right-of-way but not specified in this document shall comply with the applicable requirements in 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines).

R201.3.1 Buildings and Structures Covered by the Americans with Disabilities Act. Buildings, structures, and similar facilities covered by the Americans with Disabilities Act (ADA) shall comply with Appendices B and D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines).

R201.3.2 Buildings and Structures Covered by the Architectural Barriers Act. Buildings, structures, and similar facilities covered by the Architectural Barriers Act (ABA) shall comply with Appendices C and D to 36 CFR part 1191.

R202 Alterations and Additions to Existing Facilities

R202.1 General. Additions and alterations to existing facilities shall comply with R202.

Advisory R202.1 General. Alterations include, but are not limited to, renovation, rehabilitation, reconstruction, historic restoration, resurfacing of circulation paths or vehicular ways, or changes or rearrangement of structural parts or elements of a facility.

The U.S. Department of Justice Title II regulation at 28 CFR 35.151(e) requires that curb ramps be installed whenever pedestrian walkways on sidewalks and across streets are newly constructed or altered. A 1993 case, Kinney v. Yerusalim, 9 F.3d 1067 (3d Cir. 1993), cert. denied, 511 U.S. 1033 (1994), held that resurfacing of a street constitutes an alteration that requires the installation of curb ramps (for text see http://www.ada.gov/deldot.htm).

Pavement patching and liquid-applied sealing, lane restriping, and short-term maintenance activities are not alterations.

R202.1.1 Transitional Segments. Transitional segments connecting to existing unaltered segments shall comply with R301 to the maximum extent feasible.

Advisory R202.1.1 Transitional Segments. It is often possible to construct transitional segments that blend between existing undisturbed facilities and newly-altered elements. This may permit the work of the alteration to more nearly meet the new construction standards. At a later time, when other walkway segments are altered, the non-complying transitional segments can be removed and replaced with complying work.

R202.1.2 Added Elements. Where elements are added and the circulation path is not altered, a pedestrian access route is not required.

Advisory R202.1.2 Added Elements. This provision does not eliminate the requirements specified for a particular element. For example, a bench that is installed on an existing sidewalk must have the necessary clearances and clear floor space specified in section 307. Where possible added elements should connect to an existing pedestrian access route.

R202.2 Additions. Each addition to an existing facility shall comply with the requirements for new construction. Where an existing pedestrian circulation path is extended, the extension shall contain a pedestrian access route complying with R301.

R202.3 Alterations. Where existing elements or spaces are altered, each altered element or space within the limits or scope of the project shall comply with the applicable requirements for new construction to the maximum extent feasible.

Advisory R202.3 Alterations. From the U.S. Department of Justice title III regulation at 28 CFR 36.402 Alterations: "The phrase 'to the maximum extent feasible,' … applies to the occasional case where the nature of an existing facility makes it virtually impossible to comply fully with applicable accessibility standards through a planned alteration. In these circumstances, the alteration shall provide the maximum physical accessibility feasible. Any altered features of the facility that can be made accessible shall be made accessible. If providing accessibility in conformance with this section to individuals with certain disabilities (e.g., those who use wheelchairs) would not be feasible, the facility shall be made accessible to persons with other types of disabilities (e.g., those who use crutches, those who have impaired vision or hearing, or those who have other impairments)."

Existing conditions (e.g., underlying terrain, right-of-way availability, underground structures, adjacent developed facilities, drainage, the presence of a notable natural or historic feature) may limit choices in an alterations project. In determining the maximum feasible accessibility that can be achieved for pedestrians with disabilities within a given alterations project, covered entities may consider constructability limits commensurate with those of the project as a whole.

There is no 'path-of-travel' obligation in these guidelines; covered entities shall apply the guidelines to achieve the maximum feasible accessibility within the limits of the planned project boundary or scope. However, the alteration of multiple elements or spaces within a facility may provide a cost-effective opportunity to make the entire facility, or a significant portion of it, accessible. When undertaking right-of-way alterations, jurisdictions should consult their transition plans to determine if related work has been identified as needed to achieve program accessibility in existing facilities at the same location.

Most rights-of-way work occurs as an alteration in a complex environment also regulated for vehicle operation and safety and subject to the well-established industry practice of applying 'engineering judgment'. These techniques can also be used to evaluate the feasibility of accessibility solutions.

R202.3.1 Prohibited Reduction in Required Access. An alteration shall not decrease or have the effect of decreasing the accessibility of a facility or an accessible connection to an adjacent building or site below the requirements for new construction in effect at the time of the alteration.

Advisory R202.3.1 Prohibited Reduction in Access. Sidewalk improvements that correct existing excessive cross slope should be carefully planned to avoid the imposition of barriers elsewhere, as, for example, creating excessive slope in a curb ramp or adding a step at an existing building entrance. Solutions that have been successfully implemented include:

1)split sidewalks that serve entrances and roadway at separate levels;
2)sidewalk widths of greater cross slope at street edge, with a pedestrian access route at lesser cross slope along building entrances;
3)a pedestrian access route along the curb, with ramped entrances along the shop fronts.

Where facilities are newly-constructed or altered along an existing sidewalk, it may not always be possible to provide the required level landing at an entrance or other feature required to be accessible without altering the sidewalk. Often, the jurisdiction will require the developer of a new or altered facility on a site served by the sidewalk to redesign and replace the public sidewalk as a part of the permit for construction. Careful coordination between public and private planning is the usual practice.

R202.3.2 Extent of Application. An alteration of an existing element, space, or area of a facility shall not impose a requirement for accessibility greater than required for new construction.

R202.3.3 Alterations to Qualified Historic Facilities. Where the State Historic Preservation Officer or Advisory Council on Historic Preservation determines that compliance with these requirements would threaten or destroy the historic significance of a qualified facility or element, compliance shall be required to the maximum extent that does not threaten or destroy the historic significance.

Advisory R202.3.3 Alterations to Qualified Historic Facilities. It is the element or facility subject to the alteration which must have historic significance. Furthermore, it must be determined that compliance with these requirements would threaten or destroy the historic significance, not merely alter the appearance.

R202.3.3.1 Historic District. Location of the facility or element within an historic district is not a sufficient condition for qualification as an historic facility.

Advisory R202.3.3.1 Historic District. Altered street crossings, sidewalks, and pedestrian facilities that are not historic but are merely located in historic areas must meet new construction requirements to the maximum extent feasible.

R202.3.3.2 Reproductions or Replications. Reproductions or replications of historic facilities shall not qualify as historic facilities.

R203 General Exceptions

R203.1 General. Facilities, sites, spaces, and elements are exempt from these requirements to the extent specified by R203.

R203.1.1 Construction Sites. Structures and sites directly associated with the actual processes of construction, including but not limited to, scaffolding, bridging, materials hoists, materials storage, portable toilet units provided for use exclusively by construction personnel, and construction trailers, shall not be required to comply with this part.

R203.1.2 Limited Access Spaces. Spaces accessed only by ladders, catwalks, crawl spaces, or very narrow passageways shall not be required to comply with this part.

R203.1.3 Machinery Spaces. Spaces or elements frequented only by service personnel for maintenance, repair, or occasional monitoring of equipment shall not be required to comply with this part. Machinery spaces include, but are not limited to, elevator pits or elevator penthouses; mechanical, electrical or communications equipment cabinets and vaults; electric substations and transformer vaults; and highway and tunnel utility facilities.

R203.1.4 Single Occupant Structures. Single occupant structures accessed only by passageways below grade or elevated above standard curb height, including but not limited to toll booths that are accessed only by underground tunnels, shall not be required to comply with this part.

R204 Pedestrian Access Route

Pedestrian circulation paths shall contain a pedestrian access route complying with R301 which connects to facilities, elements, and spaces required to be accessible by Chapter R2 and to accessible routes required to connect to public streets and sidewalks by section 206.2.1 of appendix B to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines) or section F206.2.1 of appendix C of 36 CFR 1191 (the ADA and ABA Accessibility Guidelines). Where a pedestrian circulation path is provided in the street, along a highway, or within a shoulder, it shall contain a pedestrian access route.

Advisory R204 Pedestrian Access Route. The pedestrian access route is a portion of the general pedestrian circulation path, which may include walkways, sidewalks, street crossings and crosswalks, and overpasses and underpasses, courtyards, elevators, platform lifts, stairs, ramps and landings. Where sidewalks are not provided, pedestrian circulation paths maybe provided in the street, highway, or shoulder unless pedestrian use is prohibited. This provision does not require a pedestrian access route if a pedestrian circulation path is not provided. -

R205 Alternate Pedestrian Access Route

When an existing pedestrian access route is blocked by construction, alteration, maintenance, or other temporary conditions, an alternate pedestrian access route complying to the maximum extent feasible with R301, R302, and Section 6D.01 and 6D.02 of the MUTCD (incorporated by reference; see R104.2.1) shall be provided.

Advisory R205 Alternate Pedestrian Access Route. Same-side travel is preferred because it does not increase pedestrian exposure and risk of accident consequent upon added street crossings. A route that uses vehicle lane width may be shorter, safer, and more usable than one that requires two street crossings, even if the roadway surface is imperfect. Part 6D.01 of the MUTCD requires alternate routes to provide the best elements of accessibility provided in the pedestrian circulation route before its disruption.

R206 Pedestrian Crossings

Where a pedestrian street or rail track crossing is provided, it shall contain a pedestrian access route complying with R301 and the applicable provisions of R305. Where a pedestrian rail crossing is not contained within a street or highway, a detectable warning shall be provided in compliance with R304.

Advisory R206 Pedestrian Crossings. When tracks are located in a street or highway that has a pedestrian route, the detectable warnings at the curb ramps make a second set of detectable warnings at the rail unnecessary in most applications. When rail tracks are not associated with a street or highway, they must have detectable warnings across the pedestrian access route on either side.

R207 Curb Ramps and Blended Transitions

A curb ramp or blended transition complying with R303, or a combination of curb ramps and blended transitions, shall connect the pedestrian access route to each pedestrian street crossing within the width of each crosswalk.

R208 Accessible Pedestrian Signals (APS)

Where pedestrian signals are provided at pedestrian street crossings, they shall comply with R306.

R209 Protruding Objects

Protruding objects along or overhanging any portion of a pedestrian circulation path shall comply with R401 and shall not reduce the clear width required for pedestrian access routes.

Advisory R209 Protruding Objects. Banners, awnings, tree branches, and temporary street or highway signs may also be hazards if not placed or maintained properly.

R210 Pedestrian Signs

R210.1 General. Signs designed primarily for pedestrian use shall comply with R210.

R210.2 Bus Route Identification. Bus route identification signs shall comply with R409.5.1 through R409.5.4, and R409.5.7 and R409.5.8. In addition, to the maximum extent practicable, bus route identification signs shall comply with R409.5.5. Bus route identification signs located at bus shelters shall provide raised and braille characters complying with R409.2, and shall have rounded corners. Signs shall not be required to comply with R409.2 where audible signs are user- or proximity-actuated or are remotely transmitted to a portable receiver carried by an individual. Bus schedules, timetables and maps that are posted at the bus stop or bus shelter are not required to comply.

R210.3 Directional, Informational, and Warning Signs. Directional, informational, and warning signs shall comply with R409.5.

Advisory R210.3 Directional, Informational, and Warning Signs. This provision applies legibility criteria to text signs. Examples of covered signs include, but are not limited to, sidewalk closure and pedestrian detour signing required by MUTCD, tourist information signing, and pedestrian route signing along an historic trail. Standard highway street-name signage is not covered by this part.

Braille identification of street names is a required feature where APS are provided (see R306).

A proximity-,-user-, or button-activated audible sign can provide this information in audible formats for pedestrians who don't read print. Such devices are now being manufactured for rights-of-way applications.

R211 Street Furniture

Street furniture intended for use by pedestrians and installed on or adjacent to a pedestrian circulation path shall comply with R307.

Advisory R211 Street Furniture. This scoping applies usability and operability criteria to certain items intended for pedestrian use in the public right-of-way. Where multiple items of a single type are provided at a single location, only a proportion may be required to be accessible and to be located on a pedestrian access route. Types of street furniture for which usability and operational criteria are provided include elements such as drinking fountains; public telephones; public toilet facilities; and tables, counters, and benches in R211; parking meters in R308.6; bus stops and shelters in R212; and signage, including bus stop signage, in R210. Where applicable, usability and operability provisions shall be satisfied in the design and construction of other items installed on or along a public right-of-way for pedestrian use (see sections R307, R401, and R405).

Some items intended for pedestrian use are installed on private property bounded by a public right-of-way and are intended for use from the right-of-way. Such items include wall-mounted ATMs, overnight mail kiosks, and walk-up service windows. Other items may be placed within a public sidewalk under the terms of a public space permit, such as the tables, chairs, and enclosures used by sidewalk cafes and restaurants or sidewalk vending carts and machines. The ADA and ABA Accessibility Guidelines cover these street furniture items, which should not be permitted to intrude on the required pedestrian access route or to violate protruding objects provisions.

Some street furniture, such as fire hydrants, signal control boxes, signal and sign poles, and overhead awnings and signs, is not intended for pedestrian operation. These and similar items shall not intrude on the required pedestrian access route or violate protruding objects provisions (see sections R301 and R401).

The location of bicycle racks on a public sidewalk should consider their footprint in use, since a bicycle carelessly fixed to a rack can become a barrier to accessible travel along a pedestrian access route or a protruding object along it.

Careful coordination is required between agencies and divisions authorized to install items on and along sidewalks in order to avoid inadvertent conditions that may constitute barriers. The U.S. Department of Justice ADA regulations require that the usability of accessible features be maintained (28 CFR §35.133 and §36.211).

R212 Bus Stops

Where provided, bus boarding and alighting areas shall comply with R410. Where provided, bus shelters shall comply with R410.2.

Advisory R212 Bus Stops. Where bus stops are marked along existing streets by the placement of signage, benches, or shelters, other features necessary to accessibility, such as surface improvements and curb ramps, will be subject to the program access requirements of the U.S. Department of Justice title II regulation at 28 CFR 35.151 or the U.S. Department of Transportation 504 regulation at 49 CFR Part 27. Transportation, public works, and transit agencies should consider including needed improvements in their transition plans and other program accessibility planning.

Furthermore, the placement of such items is subject to usability and protruding objects provisions that apply to street furniture. Bus stop benches and shelters shall not intrude into an existing pedestrian access route.

Signage required at bus stops is scoped at R210.2 Bus Route Identification.

R213 Stairways
Where provided on a pedestrian circulation path, stairways shall comply with R407. Stairways shall not be part of a pedestrian access route.

R214 Handrails
Where provided, handrails shall comply with R408.

Advisory R214 Handrails. It may not be feasible to install handrails with fully complying features on existing developed rights-of-way if the full horizontal handrail extension would narrow a required pedestrian access route or be a hazard to cross traffic. Handrail design should not constitute a protruding object (see R401).

R215 Vertical Access
Where provided, elevators, limited-use/limited-application elevators, and platform lifts shall comply with the applicable requirements in section 407, 408, and 410 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines) and shall provide for independent operation. Vertical access shall remain unlocked during the operating hours of the facility served.

Advisory R215 Vertical Access. Elevators in public and private buildings accessible from the public right-of-way have been successfully used to provide low-effort routes between sidewalk levels in hilly terrain.

R216 On-Street Parking
Where on-street parking is marked or metered, accessible parking spaces complying with R308 shall be provided on the block perimeter in accordance with Table R216.

Advisory R216 On-Street Parking. Accessible on-street parking spaces are best located where the street has the least crown and grade and close to key destinations. Adjacent sidewalk space should be free of obstructions (including curb ramps) to permit deployment of a van side-lift.-

Table R216 Accessible Parking Spaces

Total Number of Marked or Metered Parking Spaces on the Block Perimeter	Minimum Required Number of Accessible Parking Spaces
1 to 25	1
26 to 50	2

51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 and over	4% of total

R217 Passenger Loading Zones
Where passenger loading zones are provided, a minimum of one passenger loading zone complying with R412 shall be provided in every continuous 30 m (100 ft) of loading zone space or fraction thereof.

R218 Call Boxes
Where provided, roadside call boxes shall comply with R309.

R219 Transit Platforms
Where provided, transit platforms shall comply with R414.

R220 Escalators
Where provided, escalators shall comply with sections 6.1.3.5.6 and 6.1.3.6.5 of ASME A17.1 (incorporated by reference; see 104.2.2).

R221 Detectable Warning Surfaces
Detectable warning surfaces shall comply with R304.

Advisory R221 Detectable Warning Surfaces. Detectable warning surfaces are required where curb ramps, blended transitions, or landings provide a flush pedestrian connection to the street. Sidewalk crossings of residential driveways should not generally be provided with detectable warnings, since the pedestrian right-of-way continues across most driveway aprons and overuse of detectable warning surfaces should be avoided in the interests of message clarity. However, where commercial driveways are provided with traffic control devices or otherwise are permitted to operate like public streets, detectable warnings should be provided at the junction between the pedestrian route and the street.

R222 Doors, Doorways, and Gates
Where provided, doors, doorways, and gates shall comply with R411.

CHAPTER R3: TECHNICAL PROVISIONS

R301 Pedestrian Access Route

R301.1 General. Pedestrian access routes shall comply with R301 and shall connect pedestrian elements and facilities required to be accessible.

R301.2 Components. Pedestrian access routes shall consist of one or more of the following components: walkways, ramps, curb ramps (excluding flared sides) and landings, blended transitions, crosswalks, and pedestrian overpasses and underpasses, elevators, and platform lifts. Stairways and escalators shall not be part of a pedestrian access route. All components of a pedestrian access route shall comply with the applicable portions of this document.

R301.3 Width.

R301.3.1 Continuous Width. The minimum continuous and unobstructed clear width of a pedestrian access route shall be 1.2 m (4.0 ft), exclusive of the width of the curb.

Advisory R301.3.1 Continuous Width. The pedestrian access route provides a minimum accessible route of passage within a sidewalk or other walkway that may not comprise the full width of the pedestrian circulation route, particularly in urban areas. Industry-recommended sidewalk widths can be found in 'Guide for the Planning, Design, and Operation of Pedestrian Facilities', American Association of State Highway and Transportation Officials, July 2004 (www.aashto.org). The minimum width must be maintained without obstruction.

Where a pedestrian access route turns or changes direction, it should accommodate the continuous passage of a wheelchair or scooter. As with street or highway design for vehicles, additional maneuvering width or length may be needed at recesses and alcoves, doorways and entrances, and along curved or angled routings, particularly where the grade exceeds 5%. Individual segments of pedestrian access routes should have a minimum straight length of 1.2 m (4.0 ft).

Street furniture, including fixed or movable elements such as newspaper and sales racks, cafe seating and tables, bus shelters, vender carts, sidewalk sculptures, and bicycle racks, shall not reduce the required width of the pedestrian access route.

Provisions for protruding objects apply across the entire width of the pedestrian circulation path, not just the pedestrian access route.

R301.3.2 Width at Passing Spaces. Walkways in pedestrian access routes that are less than 1.5 m (5.0 ft) in clear width shall provide passing spaces at intervals of 61 m (200 ft) maximum. Pedestrian access routes at passing spaces shall be 1.5 m (5.0 ft) wide for a distance of 1.5m (5.0 ft).

R301.3.3 Width at Elevators and Lifts. The pedestrian access route at elevators and platform lifts shall be permitted to comply with the applicable requirements of section 407, 408, and 410 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines).

R301.3.4 Width at Doors, Doorways, and Gates. The pedestrian access route through doors, doorways, and gates shall be permitted to comply with R411.2.3.

R301.4 Walkway Grade and Cross Slope.

R301.4.1 Cross Slope. The cross slope of the walkway of a pedestrian access route shall be 2 percent maximum.

R301.4.2 Street or Highway Grade. Where the walkway of a pedestrian access route is contained within a street or highway border, its grade shall not exceed the general grade established for the adjacent street or highway.

R301.4.3 Supported Slope. Where the walkway of a pedestrian access route is supported by a structure, it shall comply with R305.5.

Advisory R301.4.3 Supported Slope. This provision covers pedestrian access routes on bridges, overpasses, underpasses and similar facilities.

R301.5 Surface. The surface of the pedestrian access route shall be firm, stable and slip resistant.

Advisory R301.5 Surface. The U.S. Department of Justice ADA regulations require that the usability of accessible features be maintained (28 CFR §35.133 and §36.211).-

R301.5.1 Vertical Alignment. Vertical alignment shall be planar within curb ramp runs, blended transitions, landings, and gutter areas within the pedestrian access route, and within clear spaces required for accessible pedestrian signals, street furniture, and operable parts. Grade breaks shall be flush. Where the pedestrian access route crosses rail tracks at grade, the surface of the pedestrian access route shall be level and flush with the top of the rail at the outer edges of the rail. The surface between the rails shall be aligned with the top of the rail.

R301.5.2 Surface Discontinuities. Surface discontinuities shall not exceed 13 mm (0.50 in) maximum. Vertical discontinuities between 6.4 mm (0.25 in) and 13 mm (0.5 in) maximum shall be beveled at 1:2 minimum. The bevel shall be applied across the entire level change.

Advisory R301.5.2 Surface Discontinuities. Surfaces with individual units laid out of plane and those that are heavily textured, rough, or chamfered, will greatly increase rolling resistance and will subject pedestrians who use wheelchairs, scooters, and rolling walkers to the stressful (and often painful) effects of vibration. It is highly desirable to minimize surface discontinuities; when discontinuities on the pedestrian access route are unavoidable, they should be widely separated.

R301.7 Horizontal Openings.

R301.7.1 Walkway Joints and Gratings. Openings shall not permit passage of a sphere more than 13 mm (0.5 in) in diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

R301.7.2 Clearances at Elevator and Platform Lift Sills. Clearances between elevator car platform sills and associated hoistways and between a platform lift sill and any landing shall comply with the applicable requirements in sections 407.4.3, 408.4.3, and 410.4 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines).

R301.7.3 Flangeway Gaps at Non-Freight Rail Crossings. Openings for wheel flanges at pedestrian crossings of non-freight rail track shall be 64 mm (2.5 in) maximum.

R301.7.4 Flangeway Gaps at Freight Rail Crossings. Openings for wheel flanges at pedestrian crossings of freight rail track shall be 75 mm (3 in) maximum.

R302 Alternate Circulation Path

R302.1 General. Alternate circulation paths shall comply with R302 and shall contain a pedestrian access route complying with R301.

Advisory R302.1 General. Temporary routes are alterations to an existing developed pedestrian environment and are required to achieve the maximum accessibility feasible under existing conditions.

R302.2 Location. To the maximum extent feasible, the alternate circulation path shall be provided on the same side of the street as the disrupted route.

Advisory R302.2 Location. Where it is not feasible to provide a same-side alternate circulation path and pedestrians will be detoured, section 6D.02 of the MUTCD specifies that the alternate path provide a similar level of accessibility to that of the existing disrupted route. This may include the incorporation of accessible pedestrian signals (APS), curb ramps, or other accessibility features.

R302.3 Protection. Where the alternate circulation path is exposed to adjacent construction, excavation drop-offs, traffic, or other hazards, it shall be protected with a pedestrian barricade or channelizing device complying with R302.4.

Advisory R302.3 Protection. When it is necessary to block travel at the departure curb to close a crosswalk that is disrupted by excavation, construction, or construction activity, care must be taken to preserve curb ramp access to the perpendicular crosswalk. This may require additional pedestrian channelization if only a single diagonal curb ramp

serves the corner.

Figures 6H-28 and 6H-29 of the MUTCD specify notification signage for pedestrian closings and detours. Audible signage triggered by proximity switches can provide information to pedestrians who do not use print signs.

R302.4 Pedestrian Barricades and Channelizing Devices. Pedestrian barricades and channelizing devices shall be continuous, stable, and non-flexible and shall consist of a wall, fence, or enclosures specified in section 6F-58, 6F-63, and 6F-66 of the MUTCD (incorporated by reference; see R104.2.4).

R302.4.1 Detectable Base. A continuous bottom edge shall be provided 150 mm (6 in) maximum above the ground or walkway surface.

R302.4.2 Height. Devices shall provide a continuous surface or upper rail at 0.9 m (3.0 ft) minimum above the ground or walkway surface. Support members shall not protrude into the alternate circulation path.

R303 Curb Ramps and Blended Transitions

R303.1 General. Curb ramps and blended transitions shall comply with R303.

Advisory R303.1 General. Curb ramps can be a key source of wayfinding information for pedestrians who travel without vision cues if they are installed in-line with the direction of pedestrian travel at crossings. This is most easily accomplished by locating the ramp at the tangent point of the curb return, using either a small curb radius in an attached sidewalk or, in larger radii, a border or setback from the street edge. The Institute of Transportation Engineers (www.ite.org) has undertaken an industry-wide effort to develop and standardize intersection plans that optimize wayfinding. The challenge for practitioners is to provide usability for pedestrians in wheelchairs and scooters with a rectangular ramp plan that can also be directional.

R303.2 Types. Perpendicular curb ramps shall comply with R303.2.1 and R303.3; parallel curb ramps shall comply with R303.2.2 and R303.3; blended transitions shall comply with R303.2.3 and R303.3.

Advisory R303.2 Types. This provision permits a combination of ramps and blended transitions.

It will sometimes be necessary to limit the run of a parallel or perpendicular ramp in order to avoid 'chasing grade' indefinitely. In new construction at standard curb heights, required level landings can provide a datum for measuring most curb ramp slopes.

Limiting new ramps to an 8.3% slope on steep routes will result in a slight increase in grade on the balance of the route, but will facilitate street crossing and a timely and manageable ascent to the sidewalk, particularly important when crossing in traffic.

R303.2.1 Perpendicular Curb Ramps. Perpendicular curb ramps shall have a running slope that cuts through or is built up to the curb at right angles or meets the gutter grade break at right angles.

R303.2.1.1 Running Slope. The running slope shall be 5 percent minimum and 8.3 percent maximum but shall not require the ramp length to exceed 4.5 m (15.0 ft).

R303.2.1.2 Cross Slope. The cross slope at intersections shall be 2 percent maximum. The cross slope at midblock crossings shall be permitted to be warped to meet street or highway grade.

R303.2.1.3 Landing. A landing 1.2 m (4.0 ft) minimum by 1.2 m (4.0 ft) minimum shall be provided at the top of the curb ramp and shall be permitted to overlap other landings and clear space. Running and cross slopes at intersections shall be 2 percent maximum. Running and cross slope at midblock crossings shall be permitted to be warped to meet street or highway grade.

R303.2.1.4 Flares. Flared sides with a slope of 10 percent maximum, measured parallel to the curb line, shall be provided where a pedestrian circulation path crosses the curb ramp.

Advisory R303.2.1.4 Flares. Sides of ramps may be returned, providing useful directional cues, if protected from cross travel by landscaping, street furniture, poles, or equipment.

R303.2.2 Parallel Curb Ramps. Parallel curb ramps shall comply with R303.2.2, and shall have a running slope that is in-line with the direction of sidewalk travel.

R303.2.2.1 Running Slope. The running slope shall be 5 percent minimum and 8.3 percent maximum but shall not require the ramp length to exceed 4.5 m (15.0 ft).

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R303.2.2.2 Cross Slope. The cross slope shall be 2 percent maximum.

R303.2.2.3 Landing. A landing 1.2 m (4.0 ft) minimum by 1.2 m (4.0 ft) minimum shall be provided at the bottom of the ramp run and shall be permitted to overlap other landings and clear floor or ground space. Running slope and cross slopes at intersections shall be 2 percent maximum. Running and cross slope at midblock crossings shall be permitted to be warped to meet street or highway grade.

R303.2.2.4 Diverging Sidewalks. Where a parallel curb ramp does not occupy the entire width of a sidewalk, drop-offs at diverging segments shall be protected.

R303.2.3 Blended Transitions. Blended transitions shall comply with R303.3. Running slope shall be 5 percent maximum and cross slope shall be 2 percent maximum.

R303.3 Common Elements. Curb ramps and blended transitions shall comply with R303.3.

R303.3.1 Width. The clear width of landings, blended transitions, and curb ramps, excluding flares, shall be 1.2 m (4.0 ft) minimum.

R303.3.2 Detectable Warnings. Detectable warning surfaces complying with R304 shall be provided, where a curb ramp, landing, or blended transition connects to a street.

R303.3.3 Surfaces. Surfaces of curb ramps, blended transitions, and landings shall comply with R301. Gratings, access covers, and other appurtenances shall not be located on curb ramps, landings, blended transitions, and gutters within the pedestrian access route.

R303.3.4 Grade Breaks. Grade breaks at the top and bottom of perpendicular curb ramps shall be perpendicular to the direction of ramp run. At least one end of the bottom grade break shall be at the back of curb. Grade breaks shall not be permitted on the surface of curb ramps, blended transitions, landings, and gutter areas within the pedestrian access route. Surface slopes that meet at grade breaks shall be flush.

R303.3.5 Counter Slopes. The counter slope of the gutter or street at the foot of a curb ramp, landing, or blended transition shall be 5 percent maximum.

R303.3.6 Clear Space. Beyond the curb face, a clear space of 1.2 m (4.0 ft) minimum by 1.2 m (4.0 ft) minimum shall be provided within the width of the crosswalk and wholly outside the parallel vehicle travel lane.

R304 Detectable Warning Surfaces

R304.1 General. Detectable warnings shall consist of a surface of truncated domes aligned in a square or radial grid pattern and shall comply with R304.

R304.1.1 Dome Size. Truncated domes in a detectable warning surface shall have a base diameter of 23 mm (0.9 in) minimum to 36 mm (1.4 in) maximum, a top diameter of 50 percent of the base diameter minimum to 65 percent of the base diameter maximum, and a height of 5 mm (0.2 in).

Advisory R304.1.1 Dome Size. Where domes are arrayed radially, they may differ in diameter within the ranges specified.

R304.1.2 Dome Spacing. Truncated domes in a detectable warning surface shall have a center-to-center spacing of 41 mm (1.6 in) minimum and 61 mm (2.4 in) maximum, and a base-to-base spacing of 17 mm (0.65 in) minimum, measured between the most adjacent domes.

Advisory R304.1.2 Dome Spacing. Where domes are arrayed radially, they may differ in center-to-center spacing within the range specified.

R304.1.3 Contrast. Detectable warning surfaces shall contrast visually with adjacent gutter, street or highway, or walkway surface, either light-on-dark or dark-on-light.

Advisory R304.1.3 Contrast. Contrast may be provided on the full ramp surface but should not extend to the flared sides. Many pedestrians use the visual contrast at the toe of the ramp to locate the curb ramp opening from the other side of the street.

R304.1.4 Size. Detectable warning surfaces shall extend 610 mm (24 in) minimum in the direction of travel and the full width of the curb ramp (exclusive of flares), the landing, or the blended transition.

R304.2 Location and Alignment.

R304.2.1 Perpendicular Curb Ramps. Where both ends of the bottom grade break complying with R303.3.4 are 1.5 m (5.0 ft) or less from the back of curb, the detectable warning shall be located on the ramp surface at the bottom grade break. Where either end of the bottom grade break is more than 1.5 m (5.0 ft) from the back of curb, the detectable warning shall be located on the lower landing.

Advisory R304.2.1 Perpendicular Curb Ramps. Detectable warnings are intended to provide a tactile equivalent underfoot of the visible curbline; those placed too far from the street edge because of a large curb radius may compromise effective crossing analysis.

R304.2.2 Landings and Blended Transitions. The detectable warning shall be located on the landing or blended transition at the back of curb.

R304.2.3 Alignment. The rows of truncated domes in a detectable warning surface shall be aligned to be perpendicular or radial to the grade break between the ramp, landing, or blended transition and the street.

Advisory R304.2.3 Alignment. Where a ramp, landing, or blended transition provides access to the street continuously around a corner, the vertical rows of truncated domes in a detectable warning surface should be aligned to be perpendicular or radial to the grade break between the ramp and the street for a 1.2 meter-wide (4.0 ft) width for each crosswalk served.

R304.2.3 Rail Crossings. The detectable warning surface shall be located so that the edge nearest the rail crossing is 1.8 m (6 ft) minimum and 4.6 m (15 ft) maximum from the centerline of the nearest rail. The rows of truncated domes in a detectable warning surface shall be aligned to be parallel with the direction of wheelchair travel.

R305 Pedestrian Crossings

R305.1 General. Pedestrian crossings shall comply with R305.

R305.2 Crosswalks. Crosswalks shall comply with R305.2 and shall contain a pedestrian access route that connects to departure and arrival walkways through any median or pedestrian refuge island.

R305.2.1 Width. Marked crosswalks shall be 1.8 m (6 ft) wide minimum.

R305.2.2 Cross Slope.

R305.2.2.1 Crossings with Stop Control. The cross slope shall be 2 percent maximum.

R305.2.2.2 Crossings without Stop Control. The cross slope shall be 5 percent maximum.

R305. 2.2.3 Midblock Crossings. The cross slope at midblock crossings shall be permitted to be warped to meet street or highway grade.

R305.2.3 Running Slope. The running slope shall be 5 percent maximum, measured parallel to the direction of pedestrian travel in the crosswalk.

R305.3 Pedestrian Signal Phase Timing. All pedestrian signal phase timing shall be calculated using a pedestrian walk speed of 1.1 m/s (3.5 ft/s) maximum. The crosswalk distance used in calculating pedestrian signal phase timing shall include the entire length of the crosswalk.

R305.4 Medians and Pedestrian Refuge Islands. Medians and pedestrian refuge islands in crosswalks shall comply with R305.4 and shall contain a pedestrian access route, including passing space, complying with R301 and connecting to each crosswalk.

R305.4.1 Length. Medians and pedestrian refuge islands shall be 1.8 m (6.0 ft) minimum in length in the direction of pedestrian travel.

Advisory R305.4.1 Length. The edges of cut-throughs and curb ramps are useful as cues to the direction of a crossing. This should be considered when planning an angled route through a median or island. Curb ramps in medians and islands can add difficulty to the crossing for some users. There are many factors to consider when deciding whether to ramp or cut-through a median or island. Those factors may include slope and cross slope of road, drainage, and width of median or island.

R305.4.2 Detectable Warnings. Medians and pedestrian refuge islands shall have detectable warnings complying with R304 at curb ramps and blended transitions. Detectable warnings at cut-through islands shall be located at the curbline in-line with the face of curb and shall be separated by a 61 cm (2.0 ft) minimum length of walkway without detectable warnings. Where the island has no curb, the detectable warning shall be located at the edge of roadway.

R305.5 Pedestrian Overpasses and Underpasses. Pedestrian overpasses and underpasses shall comply with R305.5.

R305.5.1 Pedestrian Access Route. Pedestrian overpasses and underpasses shall contain a pedestrian access route complying with R301.

R305.5.2 Approach. Where the approach slope exceeds 5 percent, the approach shall be a ramp 1.2 m (4.0 ft) minimum in width complying with R406 or an elevator, a limited use/limited application elevator, or platform lift complying with the applicable requirements in section 407, 408, and 410 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines) and providing for independent operation.

Advisory R305.5.2 Approach. This provision leaves the decision of type of accessible vertical access up to the jurisdiction. Long ramps can present difficulties for some persons with disabilities and may require snow clearance. Elevators or lifts entail a maintenance obligation.

R305.5.3 Stairs. Stairs shall comply with R407.

R305.5.4 Escalators. Escalators shall comply with sections 6.1.3.5.6 and 6.1.3.6.5 of ASME A17.1 (incorporated by reference; see R104.2.3) and shall have a clear width of 82 cm (32 in) minimum.

R305.6 Roundabout Intersections. Where pedestrian facilities are provided at roundabout intersections, they shall comply with R305.6 and shall contain a pedestrian access route complying with R301.

R305.6.1 Separation. If walkways are curb-attached, there shall be a continuous and detectable edge treatment along the street side of the walkway wherever pedestrian crossing is not intended. Where chains, fencing, or railings are used, they shall have a bottom element 38 cm (15 in) maximum above the pedestrian access route.

Advisory R305.6.1 Separation. Because the pedestrian crossings are located off to the side of the pedestrian route around the street or highway and noise from continuously circulating traffic may mask useful audible cues. Carefully delineated crosswalk approaches with plantings, low enclosures, curbs, or other defined edges can be effective in identifying the crossing location(s). European and Australian roundabout intersections extend a 6- cm (24-inch) width of tactile surface treatment from the centerline of the ramp or blended transition across the full width of the sidewalk to provide an underfoot cue. Several manufacturers make a surface of raised bars for this use. The detectable warning surface should not be used, since it indicates the edge of a street or highway.

Schemes that remove cyclists from the circulating street or highway by means of a ramp that angles from the curb lane to the sidewalk and then provide re-entry by means of a similar ramp beyond the pedestrian crossing may provide false cues about the location of a crossing to pedestrians who are using the edge of the sidewalk for wayfinding. Designers should consider ways to mitigate this hazard.

R305.6.2 Signals. At roundabouts with multi-lane crossings, a pedestrian activated signal complying with R306 shall be provided for each segment of each crosswalk, including the splitter island. Signals shall clearly identify which crosswalk segment the signal serves.

Advisory R305.6.2 Signals. There are many suitable demand signals for this application. Crossings at some roundabout intersections in Australia and the United Kingdom

incorporate such systems, in which the driver first sees a flashing amber signal upon pedestrian activation and then a solid red while the pedestrian crosses to the splitter island (there is no green). These types of signals are also used in some U.S. cities at pedestrian crossings of arterial street or highways. The pedestrian pushbutton should be identifiable by a locator tone, and an accessible pedestrian signal incorporated to provide audible and vibrotactile notice of the gap created by the red signal. If properly signed, it need only be used occasionally by those who do not wish to rely solely on visual gap selection.

Roundabout intersections with single-lane approach and exit legs are not required to provide signals.

R305.7 Channelized Turn Lanes at Intersections. Where pedestrian crosswalks are provided at multi-lane right or left channelized turn lanes at intersections with pedestrian signal indications, a pedestrian activated signal complying with R306 shall be provided.

Advisory R305.7 Channelized Turn Lanes at Intersections. Accessible pedestrian signal devices installed at splitter and 'pork chop' islands must be carefully located and separated so that signal spillover does not give conflicting information about which crossing has the WALK indication displayed.

Additional guidance on signal types is provided in Advisory R305.6.2.

R306 Accessible Pedestrian Signals (APS)

R306.1 General. Pedestrian signals shall comply with R306.

R306.2 Pedestrian Signals. Each crosswalk with pedestrian signal indication shall have an accessible pedestrian signal which includes audible and vibrotactile indications of the WALK interval. Where a pedestrian pushbutton is provided, it shall be integrated into the accessible pedestrian signal and shall comply with R306.2.

Advisory R306.2 Pedestrian Signals. Signals should generally sound and vibrate throughout the WALK interval. Where signals rest in WALK, audible operation may be limited to a repetition at short intervals rather than continuous sounding for several minutes.

R306.2.1 Location. Accessible pedestrian signals shall be located so that the vibrotactile feature can be contacted from the level landing serving a curb ramp, if provided, or from a clear floor or ground space that is in line with the crosswalk line adjacent to the vehicle stop line.

R306.2.1.1 Crossings. Accessible pedestrian signal devices shall be 3.0 m (10.0 ft) minimum from other accessible pedestrian signals at a crossing. The control face of the accessible pedestrian signal shall be

installed to face the intersection and be parallel to the direction of the crosswalk it serves.

R306.2.1.2 Medians and Islands. Accessible pedestrian signals located in medians and islands shall be 1.5 m (5.0 ft) minimum from other accessible pedestrian signals.

R306.2.2 Reach and Clear Floor or Ground Space. Accessible pedestrian pushbuttons shall be located within a reach range complying with R404. A clear floor or ground space complying with R402 shall be provided at the pushbutton and shall connect to or overlap the pedestrian access route.

R306.2.3 Audible Walk Indication. The audible indication of the WALK interval shall be by tone or speech message.

R306.2.3.1 Tones. Tones shall consist of multiple frequencies with a dominant component at 880 Hz. The duration of the tone shall be 0.15 s and shall repeat at intervals of 0.15 s.

Advisory R306.2.3.1 Tones. Many new accessible pedestrian signal installations in the US use speech messages, which are perceived as being more user-friendly than tones. However, such messages may not be intelligible under high-ambient-noise conditions or to non-English speakers. Electronic tones are more universal and unambiguous. Section 4E.06 of the MUTCD specifies content of speech messages.

R306.2.3.2 Volume. Tone or voice volume measured at 92 cm (3.0 ft) from the pedestrian signal device shall be 2 dB minimum and 5 dB maximum above ambient noise level in standard operation and shall be responsive to ambient noise level changes.

Advisory R306.2.3.2 Volume. Where additional volume or beaconing features are available on pedestrian activation, they will momentarily exceed volume limits.

R306.3 Pedestrian Pushbuttons. Pedestrian pushbuttons shall comply with R306.3.

R306.3.1 Operation. Pedestrian pushbuttons shall comply with R405.4.

R306.3.2 Pushbutton Locator Tone. Pedestrian pushbuttons shall incorporate a locator tone at the pushbutton. Pushbutton locator tone volume measured at 92 cm (3.0 ft) from the pushbutton shall be 2 dB minimum and 5 dB maximum above ambient noise level and shall be responsive to ambient noise level changes. The duration of the locator tone shall be 0.15 s maximum and shall repeat at intervals of one second. The locator tone shall operate during the DON'T WALK and flashing DON'T WALK intervals only and shall be deactivated when the pedestrian signal is not operative.

R306.3.3 Size and Contrast. Pedestrian pushbuttons shall be a minimum of 0.5 cm (2 in) across in one dimension and shall contrast visually with their housing or mounting.

R306.3.4 Optional Features. An extended button press shall be permitted to activate additional features. Buttons that provide additional features shall be marked with three braille dots forming an equilateral triangle in the center of the pushbutton.

R306.4 Directional Information and Signs. Pedestrian signal devices shall provide tactile and visual signs complying with 306.4 on the face of the device or its housing or mounting to indicate crosswalk direction and the name of the street containing the crosswalk served by the pedestrian signal.

R306.4.1 Arrow. Signs shall include a tactile arrow aligned parallel to the crosswalk direction. The arrow shall be raised 0.8 mm (.03 inch) minimum and shall be 4 mm (1.5 in) minimum in length. The arrowhead shall be open at 45 degrees to the shaft and shall be 33 percent of the length of the shaft. Stroke width shall be 10 percent minimum and 15 percent maximum of arrow length. The arrow shall contrast with the background.

R306.4.2 Street Name. Accessible pedestrian signals (APS) shall include street name information aligned parallel to the crosswalk direction and shall comply with R409.3 or shall provide street name information in audible format.

R306.4.3 Crosswalk Configuration. Where provided, graphic indication of crosswalk configuration shall be tactile.

R307 Street Furniture

R307.1 General. Street furniture shall comply with R307.

Advisory R307.1 General. Elements are often placed on a sidewalk without coordination by different agencies or entities. Covered entities must ensure that the usability of the pedestrian access route is maintained.

Where items are added to an existing developed streetscape and the pedestrian walkway is not being replaced or altered within the scope of the project, locations should be carefully selected for minimum slope and cross slope and adequate width and maneuvering space to optimize usability.

R307.2 Clear Floor or Ground Space. Street furniture shall have clear space complying with R402 and shall be connected to the pedestrian access route.

R307.3 Drinking Fountains. Where drinking fountains are provided, they shall comply with R413.

R307.4 Public Telephones. Where public telephones are provided, they shall comply with R307.4.

R307.4.1 Single Telephone. Where a single public telephone is provided, it shall comply with sections 704.2 and 704.4 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines).

R307.4.2 Multiple Telephones. Where a bank of public telephones is provided, at least one telephone shall comply with section 704.2 of Appendix D to 36 CFR part 1191, and at least one additional telephone shall comply with section 704.4 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines).

R307.4.3 Volume Controls. All public telephones shall provide volume controls complying with section 704.3 of Appendix D to 36 CFR 1191.

R307.5 Public Toilet Facilities. Permanent or portable public toilet facilities shall comply with section 603 of Appendix D to 36 CFR part 1191. At least one fixture of each type provided shall comply with sections 604 through 610 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines). Operable parts, dispensers, receptacles, or other equipment shall comply with R405. Where multiple single-user toilet facilities are clustered at a single location, at least 5 percent, but no fewer than one single-user toilet at each cluster shall comply with section 603 of Appendix D to 36 CFR part 1191 and shall be identified by the International Symbol of Accessibility complying with R409.7.2.1.

R307.6 Tables, Counters, and Benches. Tables, counters, and benches shall comply with R307.6.

R307.6.1 Tables. Where tables are provided in a single location, at least 5 percent but no fewer than one, shall comply with section 902 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines).

R307.6.2 Counters. Where provided, counters shall comply with section 904 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines).

R307.6.3 Benches.

R307.6.3.1 Clear Space for Wheelchairs at Benches. Where benches without tables are provided at a single location, at least 50 percent, but no fewer than one, shall provide clear space complying with R402 positioned at the end of the bench seat and located for shoulder-to-shoulder seating.

R307.6.3.2 Benches. Where benches without tables are provided at a single location, at least 50 percent, but no fewer than one, shall have a seat

height at the front edge of 43 cm (17 in) minimum and 49 cm (19 in) maximum above the ground or floor space.

Advisory R307.6.3.2 Benches. Benches will be most useful if they have full back support and armrests to assist in sitting and standing.

R308 On-Street Parking

R308.1 General. On-street parking spaces shall comply with R308.

R308.2 Parallel Parking Spaces.

R308.2.1 Wide Walkways. Where the width of the adjacent walkway exceeds 4.3 m (14 ft), an access aisle at least 1.5 m (5.0 ft) wide shall be provided at street level the full length of the parking space and shall connect to a pedestrian access route serving the space. The access aisle shall not encroach on the vehicular travel lane.

Advisory R308.2.1 Wide Walkways. The walkway adjacent to an accessible parallel parking space should be free of obstructions such as signage, plantings, or equipment that would preclude deployment of a vehicle side-lift onto the access aisle or walkway.

A vehicle may park at the curb or at the parking lane boundary in order to locate the access aisle for individual use.

R308.2.2 Narrow Walkways. An access aisle is not required where the width of the adjacent walkway is less than or equal to 4.3 m (14 ft). When an access aisle is not provided, the parking space shall be located at either end of the block face.

Advisory R308.2.2 Narrow Walkways. An end-of-block space can be served by the curb ramps at the street crossing.

R308.3 Perpendicular or Angled Parking Spaces. Where perpendicular or angled parking is provided, an access aisle 2.4 m (8.0 ft) wide minimum shall be provided at street level the full length of the parking space and shall connect to a pedestrian access route serving the space. Access aisles shall be marked so as to discourage parking in them.

Advisory R308.3 Perpendicular or Angled Parking Spaces. All accessible angled and perpendicular on-street parking is treated as van parking with wide access aisles. In many cases, two spaces on either side of a single access aisle will satisfy scoping requirements. Where backing into the space (to locate the access aisle on the side needed) is not permitted, an access aisle for each accessible space should be provided.

R308.4 Curb Ramps or Blended Transitions. A curb ramp or blended transition complying with R303 shall connect the access aisle to the pedestrian access route.

R308.5 Signs. Parking space identification signs shall include the International Symbol of Accessibility complying with R409.5.10. Signs shall be located at the head or foot of the parking space so as not to interfere with the operation of a side lift or a passenger side transfer.

Advisory R308.5 Signs. Accessible parallel parking spaces located at the foot of a block can serve vans that have rear lifts or cars with scooter platforms.

R308.6 Parking Meters. Where parking meters are provided, they shall comply with R308.6. Operable parts shall comply with R405.

R308.6.1 Meters at Parking Spaces. A parking meter shall be located at the head or foot of a parallel parking space so as not to interfere with the operation of a side lift or a passenger side transfer.

R308.6.2 Remote Meters. Where payment for parking in a space is included in a centralized collection box or paying station, the space shall be connected to the centralized collection point with a pedestrian access route.

R308.6.3 Displays and Information. Displays and information shall be visible from a point located 1.0 m (3.3 ft) maximum above the center of the clear floor space in front of the meter.

R309 Call Boxes

R309.1 General. Call boxes shall comply with R309. Where provided, labeling shall comply with R409.2 and R409.3.

Advisory R309.1 General. These provisions may be helpful in making other types of emergency communication devices accessible such as on street security phone systems.

R309.2 Operable Parts.

R309.2.1 Electronic Operation. Operable parts shall comply with R405.

R309.2.2 Mechanical Operation. Operable parts shall comply with R404 and R405.2. Mechanically operated systems in which the signal is initiated by a lever pull shall be permitted to have an activating force of 53.4 N (12 lbs) maximum.

R309.3 Edge Protection. Edge protection complying with R406.8 shall be provided where the use area at the call box is adjacent to an abrupt level change.

R309.4 Motor Vehicle Turnouts. Where provided, a motor vehicle turnout shall have a minimum paved area of 4.9 m (16 ft) wide minimum and 7.0 m (23 ft) long minimum and shall connect to the clear space at the call box with a pedestrian access route complying with R301. Where shoulder texturing is used, it shall be discontinued at the turnout.

R309.5 Two-Way Communication. Where provided, two-way voice communication shall comply with R309.5, and with sections 708.2 and 708.3 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines).

> **R309.5.1 Volume Controls.** Volume controls complying with section 704.3 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines) shall be provided.
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> **R309.5.2 TTY.** A TTY complying with section 704.4 of Appendix D to 36 CFR part 1191 (the ADA and ABA Accessibility Guidelines) shall be provided.

CHAPTER R4: SUPPLEMENTARY TECHNICAL PROVISIONS

R401 Protruding Objects

R401.1 General. Protruding objects on sidewalks and other pedestrian circulation paths shall comply with R401 and shall not reduce the clear width required for pedestrian access routes.

Advisory R401.1 General. Banners, awnings, tree branches, sidewalk sculpture, and temporary street or highway signs can become protruding objects if not placed or maintained properly.

R401.2 Protrusion Limits. Objects with leading edges more than 685 mm (27 in) and not more than 2 m (80 in) above the finish surface or ground shall protrude 100 mm (4 in) maximum horizontally into the pedestrian circulation path.

R401.3 Post-Mounted Objects. Objects mounted on free-standing posts or pylons, 685 mm (27 inches) minimum and 2030 mm (80 inches) maximum above the finish surface or ground, shall overhang circulation paths 100 mm (4 inches) maximum beyond the post or pylon base measured 150 mm (6 inches) minimum above the finish surface or ground. Where a sign or other obstruction is mounted between posts or pylons and the clear distance between the posts or pylons is greater than 305 mm (12 in), the lowest edge of such sign or obstruction shall be 685 mm (27 in) maximum or 2 m (80 in) minimum above the finish surface.

R401.4 Reduced Vertical Clearance. Guardrails or other barriers shall be provided where the vertical clearance is less than 2 m (80 in) high. The leading edge of such

guardrail or barrier shall be located 685 mm (27 in) maximum above the finish surface or ground.

R402 Clear Space

R402.1 General. Clear space at accessible pedestrian signals (APS), street furniture, and operable parts shall comply with R402.

R402.2 Surface Characteristics. Surfaces of clear spaces shall comply with R301.5 and shall have a slope and cross slope of 2 percent maximum.

R402.3 Size. The clear space shall be 760 mm (30 in) minimum by 1220 mm (48 in) minimum.

R402.4 Knee and Toe Clearance. Unless otherwise specified, clear space shall be permitted to include knee and toe clearance complying with R403.

R402.5.Position. Unless otherwise specified, clear space shall be positioned for either forward or parallel approach to an element.

R402.6 Approach. One full unobstructed side of the clear space shall adjoin a pedestrian access route or adjoin another clear space.

R402.7 Maneuvering Space. Where a clear space is located in an alcove or otherwise confined on all or part of three sides, additional maneuvering space shall be provided in accordance with R402.7.1 and R402.7.2.

> **R402.7.1 Forward Approach.** Alcoves shall be 915 mm (36 in) wide minimum where the depth exceeds 610 mm (24 in).
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> **R402.7.2 Parallel Approach.** Alcoves shall be 1525 mm (60 in) wide minimum where the depth exceeds 380 mm (15 in).

R403 Knee and Toe Clearance

R403.1 General. Where space beneath an element is included as part of clear space, the space shall comply with R403. Additional space shall not be prohibited beneath an element but shall not be considered as part of the clear space.

Advisory R403.1 General. Clearances are measured in relation to the usable clear space, not necessarily to the vertical support for an element. When determining clearance under an object for required maneuvering space, care should be taken to ensure the space is clear of any obstructions.

R403.2 Toe Clearance.

R403.2.1 General. Space under an element between the finish surface and 230 mm (9 in) above the finish surface shall be considered toe clearance and shall comply with R403.2.

R403.2.2 Maximum Depth. Toe clearance shall extend 635 mm (25 in) maximum under an element.

R403.2.3 Minimum Required Depth. Where toe clearance is required at an element as part of a clear space, the toe clearance shall extend 430 mm (17 in) minimum under the element.

R403.2.4 Additional Clearance. Space extending more than 150 mm (6 in) beyond the available knee clearance at 230 mm (9 in) above the finish surface shall not be considered toe clearance.

R403.2.5 Width. Toe clearance shall be 760 mm (30 in) wide minimum.

R403.3 Knee Clearance.

R403.3.1 General. Space under an element between 230 mm (9 in) and 685 mm (27 in) above the finish surface shall be considered knee clearance and shall comply with R403.3.

R403.3.2 Maximum Depth. Knee clearance shall extend 635 mm (25 in) maximum under an element at 230 mm (9 in) above the finish surface.

R403.3.3 Minimum Required Depth. Where knee clearance is required under an element as part of a clear space, the knee clearance shall be 280 mm (11 in) deep minimum at 230 mm (9 in) above the finish surface, and 205 mm (8 in) deep minimum at 685 mm (27 in) above the finish surface.

R403.3.4 Clearance Reduction. Between 230 mm (9 in) and 685 mm (27 in) above the finish surface, the knee clearance shall be permitted to reduce at a rate of 25 mm (one inch) in depth for each 150 mm (6 in) in height.

R403.3.5 Width. Knee clearance shall be 760 mm (30 in) wide minimum.

R404 Reach Ranges

R404.1 General. Reach ranges shall comply with R404.

R404.2 Forward Reach.

R404.2.1 Unobstructed. Where a forward reach is unobstructed, the high forward reach shall be 1220 mm (48 in) maximum and the low forward reach shall be 380 mm (15 in) minimum above the finish surface.

R404.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear space shall extend beneath the element for a distance not less than the required reach depth over the obstruction. The high forward reach shall be 1220 mm (48 in) maximum where the reach depth is 510 mm (20 in) maximum. Where the reach depth exceeds 510 mm (20 in), the high forward reach shall be 1120 mm (44 in) maximum and the reach depth shall be 635 mm (25 in) maximum.

R404.3 Side Reach.

R404.3.1 Unobstructed. Where a clear space allows a parallel approach to an element and the side reach is unobstructed, the high side reach shall be 1220 mm (48 in) maximum and the low side reach shall be 380 mm (15 in) minimum above the finish surface. An obstruction shall be permitted between the clear space and the element where the depth of the obstruction is 255 mm (10 in) maximum.

R404.3.2 Obstructed High Reach. Where a clear space allows a parallel approach to an element and the high side reach is over an obstruction, the height of the obstruction shall be 865 mm (34 in) maximum and the depth of the obstruction shall be 610 mm (24 in) maximum. The high side reach shall be 1220 mm (48 in) maximum for a reach depth of 255 mm (10 in) maximum. Where the reach depth exceeds 266 mm (10 in), the high side reach shall be 1170 mm (46 in) maximum for a reach depth of 610 mm (24 in) maximum.

R405 Operable Parts

R405.1 General. Operable parts shall comply with R405.

R405.2 Clear Space. A clear space complying with R402 shall be provided.

R405.3 Height. Operable parts shall be placed within one or more of the reach ranges specified in R404.

R405.4 Operation. Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 22 N (5 lbs) maximum.

R406 Ramps

R406.1 General. Ramps shall comply with R406.

R406.2 Slope. Ramp runs shall have a running slope between 5 percent minimum and 8.3 percent maximum.

Advisory R406.2 Slope. To accommodate the widest range of users, provide ramps with

the least possible running slope and, wherever possible, accompany ramps with stairs for use by those individuals for whom distance presents a greater barrier than steps, for example, people with heart disease or limited stamina.

R406.3 Cross Slope. Cross slope of ramp runs shall be 2 percent maximum.

R406.4 Surfaces. Ramp run surfaces shall comply with R301.5.

R406.5 Rise. The rise for any ramp run shall be 76 cm (30 in) maximum.

R406.6 Landings. Ramps shall have landings at the top and the bottom of each ramp run. Landings shall comply with R406.6.

R406.6.1 Slope. Perpendicular and parallel ramp landing slopes shall be 2 percent maximum.

R406.6.2 Width. The landing clear width shall be at least as wide as the widest ramp run leading to the landing.

R406.6.3 Length. The landing clear length shall be 1.5 m (5.0 ft) long minimum.

R406.6.4 Change in Direction. Ramps that change direction between runs at landings shall have a clear landing 1.5 m (5.0 ft) minimum by 1.5 m (5.0 ft) minimum.

R406.7 Handrails. Ramp runs with a rise greater than 15 cm (6 in) shall have handrails complying with R408.

R406.8 Edge Protection. Edge protection complying with R406.8.1 or R406.8.2 shall be provided on each side of ramp runs. Edge protection shall not be required on curb ramps and their landings.

R406.8.1 Extended Ramp Surface. The surface of the ramp run or landing shall extend 31 cm (12 in) minimum beyond the inside face of a handrail complying with R408.

Advisory R406.8.1 Extended Ramp Surface. The extended surface prevents wheelchair casters and crutch tips from slipping off the ramp surface.

R406.8.2 Curb or Barrier. A curb or barrier shall be provided that prevents the passage of a 100 mm (4 in) diameter sphere, where any portion of the sphere is within 100 mm (4 in) of the ramp surface.

R407 Stairways

R407.1 General. Stairways shall comply with R407.

R407.2 Treads and Risers. All steps on a flight of stairs shall have uniform riser heights and uniform tread depths. Risers shall be 100 mm (4 in) high minimum and 180 mm (7 in) high maximum. Treads shall be 28 cm (11 in) deep minimum.

R407.3 Open Risers. Open risers are not permitted.

R407.4 Tread Surface. Stairway treads shall comply with R301.5. Stairway treads shall have a 51 mm (2 in) minimum wide strip that contrasts visually with the tread and riser. The strip shall be located at the front of each tread and run the full width of the tread.

R407.5 Nosings. The radius of curvature at the leading edge of the tread shall be 13 mm (0.5 inch) maximum. Nosings that project beyond risers shall have the underside of the leading edge curved or beveled. Risers shall be permitted to slope under the tread at an angle of 30 degrees maximum from vertical. The permitted projection of the nosing shall extend 38 mm (1.5 in) maximum over the tread below.

R407.6 Handrails. Stairs shall have handrails complying with R408.

R408 Handrails

R408.1 General. Handrails provided along walking surfaces complying with R301, required at ramps complying with R406, and required at stairs complying with R407 shall comply with R408.

Advisory R408.1 General. Handrails are required on ramp runs with a rise greater than 150 mm (6 in) and on certain stairways. Handrails are not required on walking surfaces with running slopes less than 5 percent. However, if handrails are provided on walking surfaces with running slopes less than 5 percent, they must comply with R408. Sections R408.2, R408.3, and R408.10 do not apply to handrails provided on walking surfaces with running slopes less than 5 percent as those sections only reference requirements for ramps and stairs.

R408.2 Where Required. Handrails shall be provided on both sides of stairs and ramps.

R408.3 Continuity. Handrails shall be continuous within the full length of each stair flight or ramp run. Inside handrails on switchback or dogleg stairs and ramps shall be continuous between flights or runs.

R408.4 Height. Top of gripping surfaces of handrails shall be 87 cm mm (34 in) minimum and 97 cm (38 in) maximum vertically above walking surfaces, stair nosings, and ramp surfaces. Handrails shall be at a consistent height above walking surfaces, stair nosings, and ramp surfaces.

R408.5 Clearance. Clearance between handrail gripping surfaces and adjacent surfaces shall be 38 mm (1.5 in) minimum.

R408.6 Gripping Surface. Handrail gripping surfaces shall be continuous along their length and shall not be obstructed along their tops or sides. The bottoms of handrail gripping surfaces shall not be obstructed for more than 20 percent of their length. Where provided, horizontal projections shall occur 38 mm (1.5 in) minimum below the bottom of the handrail gripping surface.

Advisory R408.6 Gripping Surface. People with disabilities, older people, and others benefit from continuous gripping surfaces that permit users to reach the fingers outward or downward to grasp the handrail.

R408.7 Cross Section. Handrail gripping surfaces shall have a cross section complying with R408.7.1 or R408.7.2.

R408.7.1 Circular Cross Section. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 32 mm (1.25 in) minimum and 51 mm (2 in) maximum.

R408.7.2 Non-Circular Cross Sections. Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 100 mm (4 in) minimum and 160 mm (6.25 in) maximum, and a cross-section dimension of 57 mm (2.25 in) maximum.

R408.8 Surfaces. Handrail gripping surfaces and any surfaces adjacent to them shall be free of sharp or abrasive elements and shall have rounded edges.

R408.9 Fittings. Handrails shall not rotate within their fittings.

R408.10 Handrail Extensions. Handrail gripping surfaces shall extend beyond and in the same direction of stair flights and ramp runs in accordance with R408.10. Extensions shall not be required for continuous handrails at the inside turn of switchback or dogleg stairs and ramps.

R408.10.1 Top and Bottom Extension at Ramps. Ramp handrails shall extend horizontally above the landing for 31 cm (12 in) minimum beyond the top and bottom of ramp runs. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent ramp run.

R408.10.2 Top Extension at Stairways. At the top of a stair flight, handrails shall extend horizontally above the landing for 31 cm (12 in) minimum beginning directly above the first riser nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

R408.10.3 Bottom Extension at Stairways. At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. Extension shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

R409 Signs

R409.1 General. Signs shall comply with R409. Where both visual and tactile characters are required, either one sign with both visual and tactile characters, or two separate signs, one with visual, and one with tactile characters, shall be provided.

R409.2 Raised Characters. Raised characters shall comply with R409.2 and shall be duplicated in braille complying with R409.3. Raised characters shall be installed in accordance with R409.4.

Advisory R409.2 Raised Characters. Signs that are designed to be read by touch should not have sharp or abrasive edges.

R409.2.1 Depth. Raised characters shall be 0.8 mm (.03 in) minimum above their background.

R409.2.2 Case. Characters shall be uppercase.

R409.2.3 Style. Characters shall be sans serif. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

R409.2.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

R409.2.5 Character Height. Character height measured vertically from the baseline of the character shall be 16 mm (0.625 in) minimum and 51 mm (2 in) maximum based on the height of the uppercase letter "I". Where separate raised and visual characters with the same information are provided, raised character height shall be permitted to be 13 mm (0.5 in) minimum.

R409.2.6 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 15 percent maximum of the height of the character.

R409.2.7 Character Spacing. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Where characters have rectangular cross sections, spacing between individual raised characters shall be 3.2 mm (0.125 in) minimum and 4 times the raised character stroke width maximum. Where characters have other cross sections, spacing between individual raised characters shall be 1.6 mm (.625 in)

minimum and 4 times the raised character stroke width maximum at the base of the cross sections, and 3.2 mm (0.125 in) minimum and 4 times the raised character stroke width maximum at the top of the cross sections. Characters shall be separated from raised borders and decorative elements 9.5 mm (.375 in) minimum.

R409.2.8 Line Spacing. Spacing between the baselines of separate lines of raised characters within a message shall be 135 percent minimum and 170 percent maximum of the raised character height.

R409.3 Braille. Braille shall be contracted (Grade 2) and shall comply with R409.3 and R409.4.

R409.3.1 Dimensions and Capitalization. Braille dots shall have a domed or rounded shape and shall comply with Table R409.3.1. The indication of an uppercase letter or letters shall only be used before the first word of sentences, proper nouns and names, individual letters of the alphabet, initials, and acronyms.

R409.3.1 Braille Dimensions

Measurement Range	Minimum in Millimeters Maximum in Millimeters
Dot base diameter	1.5 mm (0.059 in) to 1.6 mm (0.063 in)
Distance between two dots in the same cell[1]	2.3 mm (0.090 in) to 2.5 mm (0.100 in)
Distance between corresponding dots in adjacent cells[1]	6.1 mm (0.241 in) to 7.6 mm (0.300 in)
Dot height	0.6 mm (0.025 in) to 0.9 mm (0.037 in)
Distance between corresponding dots from one cell directly below[1]	10 mm (0.395 in) 10.2 mm to (0.400 in)

1. Measured center to center.

R409.3.2 Position. Braille shall be positioned below the corresponding text. If text is multi-lined, braille shall be placed below the entire text. Braille shall be separated 9.5 mm (.375 in) minimum from any other tactile characters and 9.5 mm (.375 in) minimum from raised borders and decorative elements. Braille provided on elevator car controls shall be separated 4.8 mm (.1875 in) minimum and shall be located either directly below or adjacent to the corresponding raised characters or symbols.

R409.4 Installation Height and Location. Signs with tactile characters shall comply with R409.4.

R409.4.1 Height Above Finish Floor or Ground. Tactile characters on signs shall be located 1.2 m (4.0 ft) minimum above the finish floor or ground surface, measured from the baseline of the lowest tactile character and 1.5 m (5.0 ft) maximum above the finish floor or ground surface, measured from the baseline of the highest tactile character. Tactile characters for elevator car controls shall not be required to comply with R409.4.1.

R409.5 Visual Characters. Visual characters shall comply with R409.5. Where visual characters comply with R409.2 and are accompanied by braille complying with R409.3, they shall not be required to comply with R409.5.2 through R409.5.9.

R409.5.1 Finish and Contrast. Characters and their background shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

Advisory R409.5.1 Finish and Contrast. Signs are more legible for persons with low vision when characters contrast as much as possible with their background. Additional factors affecting the ease with which the text can be distinguished from its background include shadows cast by lighting sources, surface glare, and the uniformity of the text and its background colors and textures.

R409.5.2 Case. Characters shall be uppercase or lowercase or a combination of both.

R409.5.3 Style. Characters shall be conventional in form. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

R409.5.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

R409.5.5 Character Height. Minimum character height shall comply with Table R409.5.5. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign. Character height shall be based on the uppercase letter "I".

R409.5.5 Visual Character Height

Height to Finish Floor or Ground From Baseline of Character	Horizontal Viewing Distance	Minimum Character Height
1.0 m (3.3 ft) to less than or equal to 1.8 m	less than 1.8 m (6 ft)	16 mm (0.625 in)
	1.8 m (6 ft) and	16 mm (0.625 in), plus 3.2 mm (0.125

(5.8 ft)	greater	in) per 0.3 m (one ft) of viewing distance above 1.8 m (6 ft)
Greater than 1.8 m (5.8 ft) to less than or equal to 3.0 m (10 ft)	less than 4.6 m (15 ft)	51 mm (2 in)
	4.6 m (15 ft) and greater	51 mm (2 in), plus 3.2 mm (0.125 in) per 0.3 m (12 in) of viewing distance above 4.6 m (15 ft)
greater than 3.0 m (10 ft)	less than 6.4 m (21 ft)	75 mm (3 in)
	6.4 m (21 ft) and greater	75 mm (3 in), plus 3.2 mm (0.125 in) per 0.3 m (12 in) of viewing distance above 6.4 m (21 ft)

R409.5.6 Height from Finish Floor or Ground. Visual characters shall be 1.0 m (3.25 ft) minimum above the finish floor or ground. Visual characters indicating elevator car controls shall not be required to comply with R409.5.6.

R409.5.7 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 10 percent minimum and 30 percent maximum of the height of the character.

R409.5.8 Character Spacing. Character spacing shall be measured between the two closest points of adjacent characters, excluding word spaces. Spacing between individual characters shall be 10 percent minimum and 35 percent maximum of character height.

R409.5.9 Line Spacing. Spacing between the baselines of separate lines of characters within a message shall be 135 percent minimum and 170 percent maximum of the character height.

R409.5.10 The International Symbol of Accessibility. The International Symbols of Accessibility shall comply with Figure 409.5.10.

Figure R409.5.10
International Symbol of Accessibility

R410 Bus Stops

R410.1 Bus Boarding and Alighting Areas. Bus boarding and alighting areas shall comply with R410.

Advisory R410.1 Bus Boarding and Alighting Areas. At bus stops where a shelter is provided, the bus stop pad can be located either within or outside of the shelter.

R410.1.1 Surface. Bus stop boarding and alighting areas shall have a firm, stable, and slip resistant surface.

R410.1.2 Dimensions. Bus stop boarding and alighting areas shall provide a clear length of 2.4 m (8.0 ft) minimum, measured perpendicular to the curb or vehicle street or highway edge, and a clear width of 1.5 m (5.0 ft) minimum, measured parallel to the vehicle street or highway.

R410.1.3 Connection. Bus stop boarding and alighting areas shall be connected to streets, sidewalks, or pedestrian paths by a pedestrian access route complying with R301.

R410.1.4 Grade. Parallel to the street or highway, the grade of the bus stop boarding and alighting area shall be the same as the street or highway, to the maximum extent practicable. Perpendicular to the street or highway, the grade of the bus stop boarding and alighting area shall not be steeper than 2 percent.

R410.2 Bus Shelters. Bus shelters shall provide a minimum clear space complying with R402 entirely within the shelter. Bus shelters shall be connected by pedestrian access route complying with R301 to a boarding and alighting area complying with R410.1.

R411 Doors, Doorways, and Gates

R411.1 General. Doors, doorways, and gates that are part of a pedestrian access route shall comply with R411.

Advisory R411.1 General. This section provides information on minimum width and maneuvering space requirements for doors, doorways, and gates. For additional requirements for accessible doors, doorways, and gates, see 36 CFR part 1191 Appendix D Section 404 (the ADA and ABA Accessibility Guidelines).

R411.2 Manual Doors, Doorways, and Manual Gates. Manual doors and doorways and manual gates intended for user passage shall comply with R411.2.

R411.2.1 Revolving Doors, Gates, and Turnstiles. Revolving doors, revolving gates, and turnstiles shall not be part of a pedestrian access route.

R411.2.2 Double-Leaf Doors and Gates. At least one of the active leaves of doorways with two leaves shall comply with R411.2.3 and R411.2.4.

R411.2.3 Clear Width. Door openings shall provide a clear width of 82 cm (32 in) minimum. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. Openings more than 61 cm (24 in) deep shall provide a clear opening of 92 cm (36 in) minimum. There shall be no projections into the required clear opening width lower than 87 cm (34 in) above the finish floor or ground. Projections into the clear opening width between 87 cm (34 in) and 2 m (6.7 ft) above the finish floor or ground shall not exceed 100 mm (4 in).

R411.2.4 Maneuvering Clearances. Minimum maneuvering clearances at doors and gates shall comply with R411.2.4. Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side clearance.

R411.2.4.1 Swinging Doors and Gates. Swinging doors and gates shall have maneuvering clearances complying with Table R411.2.4.1.

R411.2.4.1 Maneuvering Clearances at Manual Swinging Doors and Gates

Type of Use		Minimum Maneuvering Clearance	
Approach Direction	**Door or Gate Side**	**Perpendicular to Doorway**	**Parallel to Doorway (beyond latch side unless noted)**
From front	Pull	153 cm (60 in)	46 cm (18 in)
From front	Push	122 cm (48 in)	0 mm (0 in)[1]
From hinge side	Pull	153 cm (60 in)	92 cm (36 in)
From hinge side	Pull	137 cm (54 in)	107 cm (42 in)
From hinge side	Push	107 cm (42 in)[2]	56 cm (22 in)[3]
From latch side	Pull	122 cm (48 in)[4]	61 cm (24 in)
From latch side	Push	107 cm (42 in)[4]	61 cm (24 in)

1. Add 305 cm (12 in) if closer and latch are provided.
2. Add 150 mm (6 in) if closer and latch are provided.
3. Beyond hinge side.
4. Add 150 mm (6 in) if closer is provided.

R411.2.4.2 Doorways without Doors or Gates, Sliding Doors, and Folding Doors. Doorways less than 92 cm (36 in) wide without doors or gates, sliding doors, or folding doors shall have maneuvering clearances complying with Table R411.2.4.2.

R411.2.4.2 Maneuvering Clearances at Doorways without Doors or Gates, Manual Sliding Doors, and Manual Folding Doors

	Minimum Maneuvering Clearance	
Approach Direction	**Perpendicular to Doorway**	**Parallel to Doorway (beyond stop/latch side unless noted)**
From Front	122 cm (48 in)	0 mm (0 in)

From side[1]	107 cm (42 in)	0 mm (0 in)
From pocket/hinge side	107 cm (42 in)	56 cm (22 in)[2]
From stop/latch side	107 cm (42 in)	61 cm (24 in)

1. Doorway with no door only.
2. Beyond pocket/hinge side.

R411.2.4.3 Recessed Doors and Gates. Maneuvering clearances for forward approach shall be provided when any obstruction within 46 cm (18 in) of the latch side of a doorway projects more than 205 mm (8 in) beyond the face of the door, measured perpendicular to the face of the door or gate.

Advisory R411.2.4.3 Recessed Doors and Gates. A door can be recessed due to wall thickness or because of the placement of casework and other fixed elements adjacent to the doorway. This provision must be applied wherever doors are recessed.

R411.2.4.4 Floor or Ground Surface. Floor or ground surface within required maneuvering clearances shall comply with R301.5.

R411.2.5 Doors in Series and Gates in Series. The distance between two hinged or pivoted doors in series and gates in series shall be 1.2 m (48 in) minimum plus the width of doors or gates swinging into the space.

R411.2.6 Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on doors and gates shall comply with R405. Operable parts of such hardware shall be 87 cm (34 in) minimum and 122 cm (48 in) maximum above the finish floor or ground. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.

R412 Passenger Loading Zones

R412.1 General. Passenger loading zones shall comply with R412.

R412.2 Vehicle Pull-Up Space. Passenger loading zones shall provide a vehicular pull-up space 2.4 m (8 ft) wide minimum and 6.1 m (20 ft) long minimum.

R412.3 Access Aisle. Passenger loading zones shall provide access aisles complying with R412 adjacent to the vehicle pull-up space. Access aisles shall adjoin a pedestrian access route and shall not overlap the vehicular way.

R412.3.1 Width. Access aisles serving vehicle pull-up spaces shall be 1.5 m (5.0 ft) wide minimum.

R412.3.2 Length. Access aisles shall extend the full length of the vehicle pull-up spaces they serve.

R412.3.3 Marking. Access aisles shall be marked so as to discourage parking in them.

R412.4 Floor and Ground Surfaces. Access aisles serving vehicle pull-up spaces shall comply with R301.5. Access aisles shall be at the same level as the vehicle pull-up space they serve.

R412.5 Vertical Clearance. Vehicle pull-up spaces, access aisles serving them, and a vehicular route to and from the passenger loading zone shall provide a vertical clearance of 3 m (9.5 ft) minimum.

R413 Drinking Fountains

R413.1 General. Drinking fountains shall comply with R401 and R413.

R413.2 Clear Floor Space. Units shall have a clear space complying with R402 positioned for a forward approach and centered on the unit. Knee and toe clearance complying with R403 shall be provided.

R413.3 Operable Parts. Operable parts shall comply with R405.

R413.4 Spout Height. Spout outlets shall be 92 cm (36 in) maximum above the finish floor or ground.

R413.5 Spout Location. The spout shall be located 38 cm (15 in) minimum from the vertical support and 125 mm (5 in) maximum from the front edge of the unit, including bumpers.

R413.6 Water Flow. The spout shall provide a flow of water 100 mm (4 in) high minimum and shall be located 125 mm (5 in) maximum from the front of the unit. The angle of the water stream shall be measured horizontally relative to the front face of the unit. Where spouts are located less than 75 mm (3 in) of the front of the unit, the angle of the water stream shall be 30 degrees maximum. Where spouts are located between 75 mm (3 in) and 125 mm (5 in) maximum from the front of the unit, the angle of the water stream shall be 15 degrees maximum.

Advisory R413.6 Water Flow. The purpose of requiring the drinking fountain spout to produce a flow of water 4 inches (100 mm) high minimum is so that a cup can be inserted under the flow of water to provide a drink of water for an individual who, because of a disability, would otherwise be incapable of using the drinking fountain.

R413.7 Drinking Fountains for Standing Persons. Spout outlets of drinking fountains for standing persons shall be 97 cm (38 in) minimum and 109 cm (43 in) maximum above the finish floor or ground.

R414 Rail Platforms

R414.1 General. Rail platforms shall comply with R414. In light rail, commuter rail, and intercity rail systems, platforms shall provide level-entry boarding where structurally and operationally practicable.

R414.2 Slope. Rail platforms shall not exceed a slope of 2 percent in all directions. Where platforms serve vehicles operating on existing track or track laid in existing street or highway, the slope of the platform parallel to the track shall be permitted to be equal to the slope (grade) of the street or highway or existing track.

R414.3 Detectable Warnings. Platform boarding edges not protected by platform screens or guards shall have detectable warnings complying with R304 along the full length of the public use area of the platform.

R414.4 Platform and Vehicle Floor Coordination. Station platforms shall be positioned to coordinate with vehicles in accordance with the applicable requirements of 36 CFR part 1192 (ADA Accessibility Guidelines for Transportation Vehicles). Low-level platforms shall be 205 mm (8 in) minimum above top of rail. Where vehicles are boarded from sidewalks or street-level, low-level platforms shall be permitted to be less than 205 mm (8 in).

*Advisory R414.4 Platform and Vehicle Floor Coordination. The height and position of a platform must be coordinated with the floor of the vehicles it serves to minimize the vertical and horizontal gaps, in accordance with the ADA Accessibility Guidelines for Transportation Vehicles (36 CFR part 1192). The vehicle guidelines, divided by bus, van, light rail, rapid rail, commuter rail, intercity rail, are available at **www.access-board.gov**. The preferred alignment is a high platform, level with the vehicle floor. In some cases, the vehicle guidelines permit use of a low platform in conjunction with a lift or ramp. Most such low platforms must have a minimum height of eight inches above the top of the rail. Some vehicles are designed to be boarded from a street or the sidewalk along the street. The exception permits those boarding areas to be less than eight inches high.*

R415 Rail Station Signs

R415.1 General. Rail station signs shall comply with R415.

Advisory R415.1 General. Emerging technologies such as audible sign systems using infrared transmitters and receivers may provide greater accessibility in the transit environment than traditional braille and raised letter signs. The transmitters are placed

on or next to print signs and transmit their information to an infrared receiver that is held by a person. By scanning an area, the person will hear the sign. This means that signs can be placed well out of reach of pedestrians, even on parapet walls and on walls beyond barriers. Additionally, such signs can be used to provide wayfinding information that cannot be efficiently conveyed on braille signs.

R415.2 Entrances. Where signs identify a station or its entrance, at least one sign at each entrance shall comply with R409.2 and shall be placed in uniform locations to the maximum extent practicable. Where signs identify a station that has no defined entrance, at least one sign shall comply with R409.2 and shall be placed in a central location. Tactile signs shall not be required where audible signs are remotely transmitted to hand-held receivers, or are user- or proximity-actuated.

R415.3 Routes and Destinations. Lists of stations, routes and destinations served by the station which are located on boarding areas, platforms, or mezzanines shall comply with R409.5. Signs covered by this requirement shall, to the maximum extent practicable, be placed in uniform locations within the system. Where sign space is limited, characters shall not be required to exceed 75 mm (3 in). At least one tactile sign identifying the specific station and complying with R409.2 shall be provided on each platform or boarding area. Tactile signs shall not be required where audible signs are remotely transmitted to hand-held receivers, or are user- or proximity-actuated. Route maps are not required to comply.

R415.4 Station Names. Stations covered by this section shall have identification signs complying with R409.5. Signs shall be clearly visible and within the sight lines of standing and sitting passengers from within the vehicle on both sides when not obstructed by another vehicle.

Appendix G – Glossary of Terms

ABA: See Architectural Barriers Act.

ADA: See Americans with Disabilities Act.

ADA Transition Plan: Mn/DOT's transportation system plan that identifies accessibility needs, the process to fully integrate accessibility improvements into the Statewide Transportation Improvement Program (STIP), and ensures all transportation facilities, services, programs, and activities are accessible to all individuals.

ADAAG: See Americans with Disabilities Act Accessibility Guidelines.

Accessible: A facility that provides access to people with disabilities using the design requirements of the ADA.

Accessible Pedestrian Signal (APS): A device that communicates information about the WALK phase in audible and vibrotactile formats.

Alteration: A change to a facility in the public right-of-way that affects or could affect access, circulation, or use. An alteration must not decrease or have the effect of decreasing the accessibility of a facility or an accessible connection to an adjacent building or site.

Americans with Disabilities Act (ADA): The Americans with Disabilities Act; Civil rights legislation passed in 1990 and effective July 1992. The ADA sets design guidelines for accessibility to public facilities, including sidewalks and trails, by individuals with disabilities.

Americans with Disabilities Act Accessibility Guidelines (ADAAG): contains scoping and technical requirements for accessibility to buildings and public facilities by individuals with disabilities under the Americans with Disabilities Act (ADA) of 1990.

APS: See Accessible Pedestrian Signal.

Architectural Barriers Act (ABA): Federal law that requires facilities designed, built, altered or leased with Federal funds to be accessible. The Architectural Barriers Act marks one of the first efforts to ensure access to the built environment.

Capital Improvement Program (CIP): The CIP for the Transportation Department includes an annual capital budget and a five-year plan for funding the new construction and reconstruction projects on the county's transportation system.

Detectable Warning: A surface feature of truncated domes, built in or applied to the walking surface to indicate an upcoming change from pedestrian to vehicular way.

DOJ: See United States Department of Justice

Federal Highway Administration (FHWA): A branch of the US Department of Transportation that administers the federal-aid Highway Program, providing financial assistance to states to construct and improve highways, urban and rural roads, and bridges.

FHWA: See Federal Highway Administration

Pedestrian Access Route (PAR): A continuous and unobstructed walkway within a pedestrian circulation path that provides accessibility.

Pedestrian Circulation Route (PCR): A prepared exterior or interior way of passage provided for pedestrian travel.

PROWAG: An acronym for the *Guidelines for Accessible Public Rights-of-Way* issued in 2005 by the U. S. Access Board. This guidance addresses roadway design practices, slope, and terrain related to pedestrian access to walkways and streets, including crosswalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way.

Right of Way: A general term denoting land, property, or interest therein, usually in a strip, acquired for the network of streets, sidewalks, and trails creating public pedestrian access within a public entity's jurisdictional limits.

Section 504: The section of the Rehabilitation Act that prohibits discrimination by any program or activity conducted by the federal government.

Uniform Accessibility Standards (UFAS): Accessibility standards that all federal agencies are required to meet; includes scoping and technical specifications.

United States Access Board: An independent federal agency that develops and maintains design criteria for buildings and other improvements, transit vehicles, telecommunications equipment, and electronic and information technology. It also enforces accessibility standards that cover federally funded facilities.

United States Department of Justice (DOJ): The United States Department of Justice (often referred to as the Justice Department or DOJ), is the United States federal executive department responsible for the enforcement of the law and administration of justice.

Public Works Committee **6. 2.**

Meeting Date: 07/17/2018

By: Bruce Westby, Engineering/Public Works

Title:

Review Future Topics Calendar

Purpose/Background:

Attached is a calendar of future topics for review and discussion by the Public Works Committee. The list includes topics drawn from Committee requests received during meetings and/or topics previously discussed by the Committee that are not yet resolved. All dates shown are 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:

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

Attachments

PWC Calendar July2018

Form Review

Inbox	Reviewed By	Date
Grant Riemer	MaryJo Warner	07/12/2018 03:42 PM
Kurt Ulrich	Kurt Ulrich	07/12/2018 04:08 PM
Form Started By: Bruce Westby		Started On: 07/05/2018 02:55 PM
Final Approval Date: 07/12/2018		

Public Works Committee Future Topics Calendar *

Date	Topics for Discussion – Committee Action
August 2018	Sunfish Lake Sedimentation Basin Improvements *(Westby)*
September 2018	Gibbon Street Basement Flooding Funding Options *(Westby)*
October 2018	Well Siting Study - Well #9 *(Westby)*
Future/TBD	Sunwood Drive Roundabout Landscaping *(Riemer)*
Future/TBD	County Ditch Maintenance / Buffer Law *(Westby)*
Date	**Topics for Discussion – Regulatory**
Future/TBD	Sunfish Lake Boulevard Speed Zone Study Results *(Westby)*
October 2018	Wellhead Protection Plan Update *(Westby)*
Date	**Topics for Discussion – Policy**
Future	Landscaped Median Maintenance Policy *(Riemer)*
November 2018	Draft Trail Maintenance Policy *(Westby)*
November 2018	Draft Stormwater Pond Maintenance Policy *(Westby)*
July 2018	ADA Transition Plan *(Westby)*
Date	**Topics for Discussion – Planning and Budget**
October 2018	Municipal State Aid System (MSAS) Revisions *(Westby)*
September 2018	Review 1996 and 2007 (unadopted) TH 47 Corridor Studies *(Westby)*
Future	Public Works Facility Review/Update *(Riemer)*
February 2019	Long-Term Water Supply Plan *(Westby)*
Date	**Topics for Discussion – Staff Updates**
February 2019	Water Conservation Opportunities / Incentives *(Westby)*
January 2019	Asset Management Program *(Westby)*

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

Public Works Committee **6. 3.**

Meeting Date: 07/17/2018

By: Bruce Westby, Engineering/Public Works

Title:

Staff Updates on Improvement Projects and Items of Interest

Purpose/Background:

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

- **Riverdale Drive Extension - Traprock St. to Ramsey Blvd. (#16-20)**
  - Construction complete
  - Only punch list items remain
  - Final payment in 2019
- **River's Bend Street Reconstructions (#17-02)**
  - Construction complete
  - Only punch list items remain
  - Final payment in 2019
- **Puma Street Utilities Extensions (#17-10)**
  - Construction complete
  - Only punch list items remain
  - Final payment in 2019
- **Stanhope Terrace Street Reconstructions (#18-00)**
  - Construction complete
  - Only punch list items remain
  - Final payment in 2019
- **2018 Street Overlay Improvements (#18-03)**
  - Construction substantially complete
  - Final payment 2019
- **2018 Crackseal and Sealcoat Improvements (#18-04)**
  - Cracksealing nearly complete
  - Sealcoating scheduled for week of July 16
- **The COR Regional Infiltration Basin (#18-09)**
  - Plans & Specifications nearly complete
  - Excess fill to be placed throughout The COR
  - Anticipate City Council approval to authorize bids August 6th
  - Construction proposed to start this fall
  - Final completion proposed in 2019
- **Bunker Lake Boulevard and Puma Street Improvements (#18-05)**
  - Construction anticipated to begin late August
  - Substantial completion anticipated mid-October
  - Final completion 2019

Anoka County Improvement Projects

- **Foley Boulevard/CSAH 11 Grade Separation @ BNSF Railway Crossing**

- Project is currently unfunded

MnDOT Improvement Projects

- **Ferry Street / Trunk Highway 47 Grade Separation @ BNSF Railway Crossing (2017)**
  - Preliminary design on hold
  - Exploring realignment of Highway 47 to remove S-curve at fair grounds
  - Ramsey Staff will continue tracking this project
  - Combine with other Highway 10 improvement projects?

Items of Interest

- **Ground Penetrating Radar versus Pavement Cores**
  - Staff requests Committee input on using GPR vs. pavement cores to verify constructed pavement sections

Timeframe:

Staff estimates 5 minutes will be needed for updates and discussion.

Observations/Alternatives:

N/A

Funding Source:

N/A

Recommendation:

N/A

Action:

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

Attachments

No file(s) attached.

Form Review

Inbox	Reviewed By	Date
Grant Riemer	MaryJo Warner	07/12/2018 03:42 PM
Kurt Ulrich	Kurt Ulrich	07/12/2018 04:07 PM
Form Started By: Bruce Westby		Started On: 07/05/2018 02:55 PM
Final Approval Date: 07/12/2018		

Public Works Committee **5. 1.**

Meeting Date: 08/21/2018

Submitted For: Grant Riemer, Engineering/Public Works

By: Grant Riemer, Engineering/Public Works

Title:

Consider Roundabout Landscape Improvements—Sunwood Drive

Purpose/Background:

The purpose of this case is to receive Committee input on the landscaping desired for the Sunwood Drive roundabout. This project in part, has been on hold waiting for a more comprehensive streetscape and wayfinding signage plan to be finalized. At present the area is turf grass, and has a basic irrigation system and mowed weekly. What staff is proposing may be considered an interim landscaping plan, until the larger landscape plan for the roundabout may be developed (E.g. wayfinding and retail signage/monuments).

Timeframe:

15 minutes

Observations/Alternatives:

Staff's proposal would involve developing a RFP for design and installation services from local landscape companies—and setting three, not-to-exceed price ranges for those services. Staffs initial thought on the prices ranges was $2,000, $5,000, and $10,000.00, though these ranges can be adjusted based on discussion. The RFP would specify a illustrative design and planning plan, installation of the landscape, a basic one year warranty, and an alternative quote for annualized maintainanace.

Note: Depending on the landscape proposals received, modifications to the irrigation system may be required. The estimated range of this cost by a contractor may be between $2,000 and $4,000. Additionally, it is recommended that the RFP be issued late Fall or Early Winter 2018 to achieve the best pricing/proposals with landscape installation to be completed in April 2019 (subject to City Council approval).

Funding Source:

Public Improvement Revolving Fund (PIR)

Recommendation:

Staff's recommendation is to issue an RFP for landscape design and installation of the Sunwood Drive roundabout at various price points. The recommended design and plan(s) will be brought back to the PW Committee for review and approval before recommendation to Council.

Action:

Motion to accept staff recommendation or reject staff recommendation, and approve new recommendation based on Committee discussion.

Attachments

No file(s) attached.

Form Review

Inbox	Reviewed By	Date
Kurt Ulrich	MaryJo Warner	08/16/2018 03:52 PM

Form Started By: Grant Riemer
Started On: 08/14/2018 12:58 PM
Final Approval Date: 08/16/2018

Public Works Committee **5. 2.**

Meeting Date: 08/21/2018

By: Bruce Westby, Engineering/Public Works

Title:

Consider City Council Recommendation to Review Feasibility Report and Order Public Input Meeting for Improvement Project #18-02, HY-10 Ramsey Street Reconstructions

Purpose/Background:

Purpose:

The purpose of this case is to consider a recommendation to the City Council to review the Feasibility Report and order a Public Input Meeting for Improvement Project #18-02, HY-10 Ramsey Street Reconstructions.

Background:

City Improvement Project No. 18-02 proposes to reconstruct streets within the HY-10 Ramsey neighborhood including 146th Avenue, 147th Avenue, and Ferret Street. The streets total approximately 1,400 linear feet (0.27 miles) in length. A map showing the location and scope of the proposed improvements is included as ***Figure 1*** in ***Appendix A*** of the attached Draft Feasibility Report.

The streets were constructed in 1988 with bituminous curb to a width of 40 feet from face-of-curb to face-of-curb, and are generally centered within a 66-foot wide right-of-way. However, during the Highway 10/Armstrong Interchange project the west end of 146 th Avenue was reconstructed and a temporary cul-de-sac was constructed.

The storm sewer system consists of openings in the bituminous curb at the north end of the Ferret Street cul-de-sac and the east end of the 146th Avenue cul-de-sac. Utility easements exist north of Ferret Street and along the northern boundary of the eastern Ferret Street cul-de-sac which has shallow ditches leading towards Armstrong Boulevard. Storm runoff from 147th Avenue is collected in catch basins placed as part of the 2012 Sunwood Drive re-alignment project, and is carried under Armstrong Boulevard to existing regional ponds.

The existing bituminous pavement section ranges from 1.6 to 6.1 inches thick, with an average thickness of 2.9 inches, and the aggregate base ranges from 4.3 to 15.5 inches thick, with an average thickness of 9.7 inches. This was determined from Ground Penetrating Radar (GPR) analysis performed by Braun Intertec in 2017, as well as from field observations and record plan documents. Copies of Braun Intertec's GPR results are included in ***Appendix C*** of the attached Draft Feasibility Report. The pavement section was built on sandy subgrade material generally considered suitable for pavement support.

City staff evaluates and rates the condition of pavement sections on all City streets on an annual basis using the Pavement Surface Evaluation and Rating (PASER) system. In the summer of 2017, the pavement section of the above referenced street segments were rated with a PASER rating of 2 which indicates these streets require complete reconstruction. City staff patch the streets at least once per year, particularly before winter so the street can be plowed without further damaging the pavement in the process. Pictures of the street are located in ***Appendix A*** of the attached Draft Feasibility Report.

On July 11, 2017, the City Council adopted Resolution #17-07-170 authorizing the preparation of a Feasibility Report for the reconstruction of HY-10 Ramsey. These streets were originally included in the City's CIP as proposed 2015 overlay improvements. However, the overlay work was delayed when construction of the Highway 10 & Armstrong Boulevard Interchange was funded. Then following completion of the Interchange, the pavement was re-evaluated and Staff determined it would be best to reconstruct these streets in the future. This project is now listed in the current 10-year CIP as a total reconstruction.

Staff has not yet discussed the proposed improvements with local property owners. However, staff is proposing to schedule a public information meeting on September 13, 2018 for the purpose of explaining the proposed improvements and assessments in more detail, and to gather public input on the project, including any information which should be explored in more detail during development of plans and specifications. Staff will present the public input to Council during the public hearing.

Proposed improvements include reconstructing the existing bituminous pavement section using the Full Depth Reclamation (FDR) process. This process generally involves reclaiming the entire existing bituminous pavement section, along with an inch or two of the existing aggregate base material. A portion of this reclaimed (ground and mixed) material would then be spread and compacted on top of the reshaped and compacted existing subgrade and/or aggregate base. Three and one-half inches of bituminous pavement would be installed on top of a minimum of 6 inches of aggregate base composed of existing aggregate base and FDR reclaim material. This pavement section would meet the City of Ramsey's standard pavement design. Though the design strength of this pavement design is less than a typical industrial park pavement design, it should provide a useful life of at least 30 years based on the life achieved by the existing pavement section. Staff also believes this development will re-develop within the next 10 to 20 years, and that new streets will be required as a result of re-development.

This proposed project was brought to the Development Review Committee on May 22, 2018 for Staff comment on design alternatives based on potential future development of the HY-10 Ramsey subdivision. Based on the uncertainty of future development, staff felt it would be most cost effective to bring the bituminous pavement up to usable standards, extend utilities and concrete curb and gutter along 147 th Avenue only, and not to connect the streets to adjacent developments at this time.

The engineer's opinion of probable costs including streets, drainage, and public water utilities is $ 290,000. Estimated costs include 10-percent contingency costs plus 23-percent indirect costs for administrative, engineering, finance and legal costs. A summary of the engineer's opinion of probable costs is included in ***Appendix B*** of the attached Draft Feasibility Report.

The project is proposed to be funded using a combination of special assessments to benefitting properties, street reconstruction bond proceeds, and stormwater utility funds. Sewer and Water Utility Funds would be used to pay for any public utility improvements.

Nine (9) parcels have been identified as receiving special benefit from the improvements. Four of the parcels have permanent structures, and the other five are undeveloped. Several of these parcels are currently listed for sale, including two City-owned parcels. These parcels are identified in the preliminary Assessment Map and Roll which are attached in***Appendix C*** of the attached Draft Feasibility Report.

Assessments were calculated using the area method, which is typically used for commercial applications. Staff recommends ordering a special benefit consultation report for this project to verify the proposed assessment amount will not exceed the benefit to the properties. If the report concludes the benefit to the properties is less than the proposed preliminary assessment rate, Staff will then propose to lower the assessment rate accordingly during the Assessment Hearing, which is proposed for October 8, 2019. If the report verifies the assessment rate as proposed is justified, Staff will propose to adopt the final assessment roll using the rate as preliminarily proposed.

This project would best be constructed as a stand-alone project and is necessary, feasible, and cost-effective from an engineering standpoint, and can be constructed as proposed herein.

Timeframe:

Staff anticipates approximately 15 minutes will be required to present and discuss this case.

Observations/Alternatives:

Observations:
Staff originally intended to conduct a public information meeting with benefiting property owners of HY-10 Ramsey while preparing the Feasibility Report to explain the purpose and need for the proposed improvements, the scope of the improvements, estimated costs, the proposed funding program, and proposed schedule. However, due to growing uncertainties surrounding the future use of adjacent parcels, Staff determined it would be better to complete a draft Feasibility Report before scheduling and conducting the public input meeting to help keep discussions focused.

On August 28th Staff plans to review the Feasibility Report with Council, then ask Council to order a public input meeting for 9 AM on September 13th. This will allow Staff to gather feedback on the project from benefiting property owners, which will then be presented to Council at their September 25th regular meeting, after which Council will be asked to accept the Feasibility Report and order a Public (Improvement) Hearing for October 9th.

Public Works Committee comments and recommendations will be included in the Staff reports to Council.

Alternatives:
Alternative #1– Motion approving a recommendation to City Council to review the Draft Feasibility Report and order a Public Input Meeting for 9 AM on Thursday, September 13, 2018, for Improvement Project #18-02, HY-10 Ramsey Street Reconstructions.

Alternative #2 – Motion of other.

Funding Source:
See funding program in attached Feasibility Report.

Recommendation:
Staff recommends alternative #1.

Action:
Motion approving a recommendation to City Council to review the Draft Feasibility Report and order a Public Input Meeting for 9 AM on Thursday, September 13, 2018, for Improvement Project #18-02, HY-10 Ramsey Street Reconstructions.

Attachments

Draft Feasibility Report IP1802

Form Review

Inbox	Reviewed By	Date
Grant Riemer	Grant Riemer	08/16/2018 02:06 PM
Kurt Ulrich	MaryJo Warner	08/16/2018 03:52 PM
Form Started By: Bruce Westby		Started On: 08/13/2018 11:22 AM
Final Approval Date: 08/16/2018		

FEASIBILITY REPORT

HY-10 RAMSEY
STREET RECONSTRUCTIONS

CITY IMPROVEMENT PROJECT NO. 18-02

August 20, 2018

Prepared By:

City of Ramsey
Engineering Department
7550 Sunwood Drive NW
Ramsey, MN 55303
763-433-9839
763-433-9848 (Fax)

August 20, 2018

Honorable Mayor and City Council
City of Ramsey
7550 Sunwood Drive NW
Ramsey, MN 55303

Re: Feasibility Report - City of Ramsey Improvement Project #18-02
HY-10 Ramsey Street Reconstructions

Dear Mayor and City Council Members:

Transmitted herewith is a Feasibility Report for the proposed HY-10 Ramsey Street Reconstructions project including; 146th Avenue from Ferret Street to its termini cul-de-sac, 147th Avenue from Ferret Street to 380 feet west of Armstrong Boulevard, and Ferret Street from 146th Avenue to its termini cul-de-sac. The report examines the feasibility of reconstructing the bituminous street section and completing other appurtenant improvements.

This Feasibility Report examines the scope of the proposed improvements, explores estimated costs and available funding sources, defines a preliminary project schedule, and determines the necessity, feasibility and general cost-effectiveness of the proposed improvements, including any alternate designs, as well as whether the improvements would best be completed separately or in conjunction with another project.

I would be happy to discuss this report with you at your convenience. Please feel free to contact me at 763-433-9825 or bwestby@cityoframsey.com with any questions.

Sincerely,
City of Ramsey

Bruce Westby, PE
City Engineer

Enclosure

C: Kurt Ulrich, City Administrator
Leonard Linton, Civil Engineer IV

CERTIFICATION

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

Bruce Westby, PE

Date: August 20, 2018 License No. 40116

I hereby certify that this plan, specification or report was reviewed for Quality Control and Quality Assurance purposes and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Leonard Linton, PE

Date: August 20, 2018 License No. 21112

TITLE SHEET
LETTER OF TRANSMITTAL
CERTIFICATION SHEET
TABLE OF CONTENTS

Appendix A

Figure 1 – Project Scope
Figure 2 – Typical Section
Project Site Pictures

Appendix B

Opinion of Probable Costs
Preliminary Assessment Map
Preliminary Assessment Roll

Appendix C

Ground Penetrating Radar Summary

1. EXECUTIVE SUMMARY

City Improvement Project No. 18-02 proposes to reconstruct streets within the HY-10 Ramsey neighborhood including 146th Avenue, 147th Avenue, and Ferret Street. The streets total approximately 1,400 linear feet (0.27 miles) in length. A map showing the location and scope of the proposed improvements is included as ***Figure 1*** in ***Appendix A.***

The streets were constructed in 1988 with bituminous curb to a width of 40 feet from face-of-curb to face-of-curb, and are generally centered within a 66-foot wide right-of-way. However, during the Highway 10/Armstrong Interchange project the west end of 146th Avenue was reconstructed and a temporary cul-de-sac was constructed.

The storm sewer system consists of openings in the bituminous curb at the north end of the Ferret Street cul-de-sac and the east end of the 146th Avenue cul-de-sac. Utility easements exist north of Ferret Street and along the northern boundary of the eastern Ferret Street cul-de-sac which has shallow ditches leading towards Armstrong Boulevard. Storm runoff from 147th Avenue is collected in catch basins placed as part of the 2012 Sunwood Drive re-alignment project, and is carried under Armstrong Boulevard to existing regional ponds.

The existing bituminous pavement section ranges from 1.6 to 6.1 inches thick, with an average thickness of 2.9 inches, and the aggregate base ranges from 4.3 to 15.5 inches thick, with an average thickness of 9.7 inches. This was determined from Ground Penetrating Radar (GPR) analysis performed by Braun Intertec in 2017, as well as from field observations and record plan documents. Copies of Braun Intertec's GPR results are attached in ***Appendix C.*** The pavement section was built on sandy subgrade material generally considered suitable for pavement support.

City staff evaluates and rates the condition of pavement sections on all City streets on an annual basis using the Pavement Surface Evaluation and Rating (PASER) system. In the summer of 2017, the pavement section of the above referenced street segments were rated with a PASER rating of 2 which indicates these streets require complete reconstruction. City staff patch the streets at least once per year, particularly before winter so the street can be plowed without further damaging the pavement in the process. Pictures of the street are located in ***Appendix A.***

On July 11, 2017, the City Council adopted Resolution #17-07-170 authorizing the preparation of a Feasibility Report for the reconstruction of HY-10 Ramsey. These streets were originally included in the City's CIP as proposed 2015 overlay improvements. However, the overlay work was delayed when construction of the Highway 10 & Armstrong Boulevard Interchange was funded. Then following completion of the Interchange, the pavement was re-evaluated and Staff determined it would be best to reconstruct these streets in the future. This project is now listed in the current 10-year CIP as a total reconstruction.

Staff has not yet discussed the proposed improvements with local property owners. However, staff is proposing to schedule a public information meeting on September 13, 2018 for the purpose of explaining the proposed improvements and assessments in more detail, and to gather public input on the project, including any information which should be explored in more detail during development of plans and specifications. Staff will present the public input to Council during the public hearing.

Proposed improvements include reconstructing the existing bituminous pavement section using the Full Depth Reclamation (FDR) process. This process generally involves reclaiming the entire existing bituminous pavement section, along with an inch or two of the existing aggregate base material. A portion of this reclaimed (ground and mixed) material would then be spread and compacted on top of the reshaped and compacted existing subgrade and/or aggregate base. Three and one-half inches of bituminous pavement would be installed on top of a minimum of 6 inches of aggregate base composed of existing aggregate base and FDR reclaim material. This pavement section would meet the City of Ramsey's standard pavement design. Though the design strength of this pavement design is less than a typical industrial park pavement design, it should provide a useful life of at least 30 years based on the life achieved by the existing pavement section. Staff also believes this development will re-develop within the next 10 to 20 years, and that new streets will be required as a result of re-development.

This proposed project was brought to the Development Review Committee on May 22, 2018 for Staff comment on design alternatives based on potential future development of the HY-10 Ramsey subdivision. Based on the uncertainty of future development, staff felt it would be most cost effective to bring the bituminous pavement up to usable standards, extend utilities and concrete curb and gutter along 147th Avenue only, and not to connect the streets to adjacent developments at this time.

The engineer's opinion of probable costs including streets, drainage, and public water utilities is $ 290,000. Estimated costs include 10-percent contingency costs plus 23-percent indirect costs for administrative, engineering, finance and legal costs. A summary of the engineer's opinion of probable costs is included in ***Appendix B.***

The project is proposed to be funded using a combination of special assessments to benefitting properties, street reconstruction bond proceeds, and stormwater utility funds. Sewer and Water Utility Funds would be used to pay for any public utility improvements.

Nine (9) parcels have been identified as receiving special benefit from the improvements. Four of the parcels have permanent structures, and the other five are undeveloped. Several of these parcels are currently listed for sale, including two City-owned parcels. These parcels are identified in the preliminary Assessment Map and Roll which are attached in ***Appendix C***. Assessments were calculated using the area method, which is typically used for commercial applications. Staff recommends ordering a special benefit consultation report for this project to verify the proposed assessment amount will not exceed the benefit to the properties. If the report concludes the benefit to the properties is less than the proposed preliminary assessment rate, Staff will then propose to lower the assessment rate accordingly during the Assessment Hearing, which is proposed for October 8, 2019. If the report verifies the assessment rate as proposed is justified, Staff will propose to adopt the final assessment roll using the rate as preliminarily proposed.

This project would best be constructed as a stand-alone project and is necessary, feasible, and cost-effective from an engineering standpoint, and can be constructed as proposed herein.

2. INTRODUCTION

2.1 Authorization

The preparation of this report was authorized by the Ramsey City Council on July 11, 2017. This project has been designated as City Improvement Project No. 18-02

2.2 Program Overview

In support of the City's long-term Street Maintenance Program, the entire existing bituminous pavement section will be reconstructed using a full-depth reclamation (FDR) process. The existing bituminous curb is proposed to be replaced by this project.

The City's pavement evaluation process involves a visual evaluation of each street's pavement surface based on the type, extent and severity of each pavement distress observed. Numerous types of pavement distresses may exist within a pavement section including, but not limited to, alligator cracking, block cracking, longitudinal cracking, transverse cracking, rutting, raveling, shoving, potholes and patches. This field data is then used to rate the pavement condition.

The City uses the Pavement Surface Evaluation and Rating (PASER) system to rate pavement condition. A PASER rating is a numerical index between 1 and 10 indicating the condition of a pavement based on the various pavement distresses recorded during visual observations. A PASER rating of 10 represents brand new pavement, while a PASER rating of 1 represents a pavement section that has fallen into complete disrepair requiring full reconstruction.

In the summer of 2017, City staff evaluated and rated the condition of the pavement along the HY-10 Ramsey street segments. A PASER rating of 2 was determined for 147th Avenue and Ferret Street. A PASER rating of 7 was determined for 146th Avenue, however, as previously noted a portion of this street segment was reconstructed with a temporary bituminous pavement section as part of the Armstrong Interchange project.

2.3 Scope

City of Ramsey Improvement Project 18-02 proposes to reconstruct the existing bituminous pavement using the FDR process, and to complete other appurtenant work on 146th Avenue from Ferret Street to its termini cul-de-sac, 147th Avenue from 380 feet west of Armstrong Boulevard to Ferret Street, and Ferret Street from 146th Avenue to its termini cul-de-sac which totals approximately 1,400 feet (0.27 miles) in length.

A map showing the location and scope of the proposed improvements is included as ***Figure 1*** in ***Appendix A.***

3. EXISTING CONDITIONS

3.1 Existing Pavement and Soil Conditions

All streets proposed to be improved were constructed in 1988 with bituminous pavement, class 5 aggregate base, bituminous curb, and bituminous curb cuts for storm runoff. The streets were constructed to a width of 40-feet from face-of-curb to face-of-curb. The streets are generally centered within a 66-foot wide right-of-way.

The only pavement maintenance treatments applied to the street segments included crack sealing and seal coating in 1994 and 2001. Spot patching has been performed on an as-needed basis, and has been a yearly treatment recently. In 2017, Staff observed a PASER rating of 2 on 147th Avenue and Ferret Street, and a PASER rating of 7 on 146th Avenue.

In June 2018 traffic counts were taken on 147th Avenue, a traffic volume of 147 average annual daily traffic (AADT) was recorded. Ferret Street and 146th Avenue would be expected to have similar traffic volumes. The only access to these street segments is Armstrong Boulevard. Five of the parcels have active uses. The speed limit is 30 mph for these street segments.

Based on extensive geotechnical exploration of adjacent projects and staff knowledge of the general area, groundwater is not anticipated to be a significant issue for work completed with this proposed project.

In 2017, Braun Intertec was employed to complete a ground penetrating radar (GPR) analysis for the project area, which included driving a GPR equipped vehicle throughout all street segments within the project area. A summary table and charts of the GPR Analysis are attached in ***Appendix C***. The GPR data determined an average bituminous pavement thickness of 2.9 inches, and an average aggregate base thickness of 9.7 inches. The average street pavement and base section thickness is therefore 12.6 inches, with a minimum section of 7.5 inches located on 147th Avenue, 160 feet east of Ferret Street.

3.2 Watermain

Watermain was installed along 147th Avenue up to the beginning of the proposed improvements in 2012 as part of the Sunwood Drive re-alignment project. The existing watermain is believed to be in good condition and no repairs are anticipated to be required as part of this project. However, Staff plans to leak test the watermain during development of plans and specifications.

3.3 Sanitary Sewer

Sanitary sewer was installed under Armstrong Boulevard in City-owned right-of-way east of the 146th Avenue temporary cul-de-sac as part of the Armstrong Boulevard Interchange project in 2015. The existing sanitary sewer is believed to be in good condition and no repairs are anticipated to be required as part of this project. However, Staff plans to televise the sewer during development of plans and specifications.

3.4 Storm Sewer/Drainage

Storm sewer was installed along 147th Avenue up to the beginning of the proposed improvements in 2012 as part of the Sunwood Drive re-alignment project. Currently storm water runoff drains off of the two existing cul-de-sacs to low areas. This storm sewer is believed to be in good condition and no repairs are anticipated to be required as part of this project. However, Staff plans to televise the sewer during development of plans and specifications.

3.5 Streets

3.5.1 Existing Typical Sections

The width of 146th Avenue, 147th Avenue, and Ferret Street is 40-feet from face-of-curb to face-of-curb. The cul-de-sac on Ferret Street has a 50-foot radius to the back of curb. The streets are generally centered within a 66-foot wide City-owned right-of-way, with a 130-foot wide diameter right-of-way around the cul-de-sac on Ferret Street. The project is proposed to end at the throat of the 46-foot radius temporary cul-de-sac on 146th Avenue.

3.5.2 Maintenance History

HY-10 Ramsey was originally constructed in 1988. 146th Avenue, 147th Avenue, and Ferret Street received crack seal and seal coat in 1994 and 2001. The street segments have regularly received spot patching on an as-needed basis.

3.6 Land Use

The parcels within the construction area are zoned the COR.

4. PROPOSED IMPROVEMENTS

4.1 Street and Stormwater Improvements

4.1.1 Street Improvements

146th Avenue and Ferret Street are proposed to be reconstructed with bituminous pavement and bituminous curb. 147th Avenue is proposed to be reconstructed with bituminous pavement and concrete curb and gutter, which will better facilitate drainage over time.

The proposed surface improvements are shown on ***Figure 1 in Appendix A.***

Street Design:
146th Avenue, 147th Avenue, and Ferret Street are currently urban commercial streets with bituminous curb and pavement, 40 feet wide from face-of-curb to face-of-curb. The cul-de-sac on Ferret Street is 100-feet in diameter from back-of-curb to back-of-curb. Existing and proposed traffic counts are low for typical commercial streets.

All street segments are proposed to be reconstructed at their current width. A typical section for the proposed pavement reconstruction improvements is shown in ***Figure 2*** in ***Appendix A.***

City staff is proposing a pavement section design of 1.5 inches bituminous wear course, 2 inches bituminous base course, and a minimum of 6 inches of aggregate base composed of existing aggregate base and FDR reclaim material. This pavement section would be constructed over the existing subgrade and/or aggregate base after it is reshaped and compacted.

4.1.2 Storm Sewer Improvements

The existing storm sewer system does not include storm sewer pipe. Storm sewer pipe will be extended west along 147th Avenue for future connection to the existing system. No stormwater treatment improvements are required for this project since the streets are proposed to be reconstructed at their current widths.

4.1.3 Geotechnical Considerations

Braun Intertec was employed to complete a ground penetrating radar (GPR) analysis for the project area. This determined an average street pavement and base section thickness of 12.6 inches. Based on staff knowledge of the area and several soil borings taken for adjacent projects, City staff proposes completing a full-depth reclamation of the existing pavement resulting in a minimum of 6 inches of aggregate base composed of existing aggregate base and FDR reclaim material, and 3.5-inches of new bituminous pavement. The proposed improvements should have a service life of at least 30-years, assuming maintenance such as overlays, crack sealing and seal coating is routinely performed.

4.1.4 Other Considerations

Future Development:
Several parcels within the improvement area are currently listed for sale, including two City-owned parcels. The Development Review Committee reviewed this project to consider several design alternatives, which included possible roadway and utility extensions. Based on the uncertainty of future development, Staff felt it would be most cost-effective to reconstruct the bituminous pavement to minimum standards and to not extend utilities or upgrade concrete curb and gutter beyond 147th Avenue. Staff also believes it would not be cost-effective to realign streets or connect to other streets in the area at this time considering that several parcels are for sale and redevelopment is likely to occur within the next 10 to 20 years.

Driveways:
Existing driveway aprons may need to be reconstructed to varying degrees. The limits of construction will vary with each driveway apron based on the elevation of the street abutting the driveway and the driveway pavement type. During design, Staff will evaluate the construction limits for each driveway and will incorporate this into the plans, but as with all street reconstruction projects, the exact limits of construction will be determined in the field during construction. Right-of-entry forms will be obtained from private property owners where work is required outside City right-of-ways and easements.

Irrigation Systems:
Developed properties along the project corridor may have private irrigation systems. Staff will notify property owners of pending construction as far in advance as practical to allow them time to move their irrigation systems out of harm's way before work begins.

Parking Restrictions:
Parking is currently provided along both sides of the streets and is not currently restricted except for overnight parking per City code. During this project, parking will be restricted during allowable working hours.

Pavement Corings:
Existing pavement thicknesses have been found to be inconsistent throughout the City. It is now standard practice to have City Staff on-site during pavement installation to insure the proper quantities are being placed. As further conformation, Staff is proposing to collect GPR data or to have pavement corings taken at the conclusion of all reconstruction projects. This is already a requirement on all State Aid projects, and will leave more data on the pavement section for future street maintenance projects.

4.2 Stormwater Treatment

No stormwater retention and/or treatment improvements will be required with this project since the project will not result in the addition of new impervious areas.

4.3 Water Main Improvements

Trunk watermain is proposed to be extended from mid-block 147th Avenue, through the intersection of 147th Avenue and Ferret Street. This segment of 147th Avenue is being constructed with concrete curb and gutter, and extending the watermain with this improvement will than not require 147th Avenue to be disturbed with future development. A hydrant will be added at the west end of 147th Avenue for flushing purposes.

4.4 Sanitary Sewer Improvements

No sanitary sewer improvements are proposed with this project.

4.5 Construction Methods

The existing bituminous pavement section will be reconstructed using the FDR process previously outlined within this report.

4.6 Private Utilities

Staff has not yet met with the telephone, gas, power and cable utilities regarding this project. During preparation of plans and specifications, Staff will meet with the private utility companies to discuss the proposed improvements as noted in the project schedule within this report. The alignment and footprint of the streets will be considered to minimize impacts to private utilities. No impacts to power poles or street lights are anticipated with this project.

Should any utility company indicate they wish to upgrade, replace and/or otherwise modify their services during this project, any such upgrades, replacements and/or modifications will be at the sole discretion and cost of the utility company.

4.7 Permits

Permits that are anticipated to be required as part of the proposed improvements include:

- MPCA General Stormwater Permit (NPDES)..... Grading and Storm Water

A stormwater permit from the Lower Rum River Watershed Management Organization will not be required with this project.

4.8 Right-of-Ways/Easements

It is anticipated all improvements will occur within existing City right-of-ways and/or easements, with the possible exception of tying into private driveways and green areas. It is therefore not anticipated that the City will need to acquire additional permanent right-of-way or easements for this project. As such, costs for right-of-way or easement acquisitions are not included in the probable project costs.

City Staff will work with private property owners as needed to obtain any required right of entries.

5. FINANCING

5.1 Opinion of Cost

A detailed opinion of probable costs for the proposed improvements can be found in ***Appendix B*** of this report. The opinion of probable costs incorporates anticipated 2019 construction costs for the proposed improvements with 10-percent contingency costs, plus 23-percent indirect costs for administrative, engineering, financing and legal costs.

City staff prepared the Feasibility Report in-house as part of staff's normal duties.

5.2 Funding

5.2.1 Assessments

The City's adopted Special Assessments Policy allows special assessments to be levied against all benefitting properties in an amount not to exceed 25% of eligible street reconstruction costs. Eligible costs include costs required to reconstruct the street at its current width, and to reconstruct the pavement without increasing its structural capacity. Benefitting properties are considered to be any developable parcel that has, or has the ability to create, one or more direct accesses onto the segment of 146th Avenue, 147th Avenue or Ferret Street being reconstructed. A total of 9 benefitting properties have been identified for this project. The Preliminary Assessment Map and Roll are included in ***Appendix B***.

The engineer's opinion of probable costs for eligible assessment costs totals $225,737.92. Assessable industrial parcels are preliminarily proposed to be assessed for up to 25 percent of eligible project costs, which totals $56,434.48. Assessment terms are proposed at ten years. Interest rates are proposed at two percent above the bond interest rate.

The "area" method of assessment as identified in the City of Ramsey's Special Assessments Policy was applied to assign preliminary assessment amounts for this project. State Statute and the City Charter do not allow for assessments to exceed benefit to the property. Therefore, Staff wants to ensure all assessments applied with this project will not exceed the benefit to assessed properties. Staff therefore recommends ordering a benefit appraisal consultation report for this project in accordance with the City's Special Assessments Policy at the time a construction contract is awarded.

5.2.2 City Contribution

The City contribution to the project would include all funding in excess of the amount collected through special assessments to benefiting properties. No funds have been budgeted for this project. The City's share of eligible project costs related to surface (street) improvements is proposed to come from the previously encumbered 5-year Street Reconstruction and Overlay Program bonds. Water and Stormwater Utility Funds are proposed to pay for all utility improvements.

Table 1 illustrates the proposed project funding based on the design proposed within this report. This funding program assumes construction will occur in 2019.

TABLE 1
Proposed Project Funding

	ASSESSMENTS	CITY FUNDS	TOTAL
Surface	**$ 56,434.48**	**$ 175,493.40**	**$ 231,927.88**
Storm Sewer	**--**	**$ 24,956.76**	**$ 24,956.76**
Water Main	**--**	**$ 30,761.81**	**$ 30,761.81**
TOTALS	**$ 56,434.48**	**$ 231,211.97**	**$ 287,646.45**

Total Project Cost		**$ 287,646.45**
Less Special Assessments	-	$ 56,434.48
Subtotal	**=**	**$ 231,211.97**
Less City Bonding Funds	-	$ 175,493.40
Subtotal	**=**	**$ 55,718.57**
Less Stormwater Utility Funds	-	$ 24,956.76
Subtotal	**=**	**$30,761.81**
Less Water Main Utility Funds	-	$30,761.81
TOTAL Remaining Cost	**=**	**$0**

6. PROJECT SCHEDULE

The proposed project schedule is as follows:

Council Orders Feasibility Report ..... July 11, 2017

Council Reviews Feasibility Report/Orders Public Informational Meeting..... August 28, 2018

Staff Conducts Public Information Meeting ..... September 13, 2018

Council Accepts Feasibility Report/Orders Public Hearing ..... September 25, 2018

Council Conducts Public Hearing/Orders Plans and Specifications..... October 9, 2018

Staff Conducts Private Utility Coordination Meeting ..... November, 2018

Council Approves Plans and Specifications / Authorizes Ad for Bids..... January 22, 2019

Staff Receives Bids ..... February 20, 2019

Council Awards Contract..... February 26, 2019

Contractor Begins Construction..... May, 2019

Contractor Completes Construction..... August 30, 2019

Council Orders Assessment Hearing ..... September 10, 2019

Council Conducts Assessment Hearing..... October 8, 2019

7. CONCLUSIONS AND RECOMMENDATIONS

City of Ramsey Improvement Project No. 18-02 proposes to reconstruct the bituminous pavement section, to remove the existing bituminous curb and replace it with a combination of B618 concrete curb and gutter and bituminous curb, and to complete miscellaneous appurtenant work on the following street segments within the HY-10 Ramsey commercial subdivision:

1. 146th Avenue (approx. 230 linear feet) – Ferret Street to bulb of east cul-de-sac.
2. 147th Avenue (approx. 190 linear feet) – Ferret Street to 180 feet west of Armstrong Boulevard.
3. Ferret Street (approx. 900 linear feet) – 146th Avenue to north cul-de-sac.

It is the recommendation of City staff that City Project No. 18-02 is feasible, necessary, and cost-effective from an engineering standpoint, and this project would best be constructed as a stand-alone project as proposed herein.

The following Staff recommendations related to the proposed project are presented for Council consideration and concurrence:

1. Remove existing bituminous curb. 147th Avenue will receive B618 concrete curb and gutter. 146th Avenue and Ferret Street will receive new bituminous curb. The existing bituminous curb would likely not hold up to the full-depth reclamation process.
2. Reconstruct existing bituminous pavement using full-depth reclamation process, meeting the City's standard pavement section. Staff proposes 1½-inches new bituminous wear course, 2-inches new bituminous base course, and 6-inches aggregate base class 5 or (reclaim).
3. Extend watermain and storm sewer west along 147th Avenue for future development.
4. Staff recommends excluding private irrigation system work from this project. Instead, staff will notify property owners of pending construction as far in advance as possible, and instruct them to relocate their irrigation system(s) away from the construction area during construction, then allow replacement in or near the original location after construction is complete.
5. Staff recommends holding a neighborhood information meeting on September 13, 2018 to inform property owners of the proposed improvements and to gather their input prior to completing plans and specifications and requesting Council approval to advertise for bids as outlined in the project schedule.
6. Staff recommends assessing special benefitting properties for these improvements per the area method. If assessments are adopted by council action, order an assessment appraisal consultation to ensure special assessments do not exceed the benefit received as a result of the improvements.

The City Council is asked to act on the following items related to the proposed project:

1. Adopt Resolution #18-XXX accepting this Feasibility Report and ordering a Public Hearing for October 9, 2018.

APPENDIX A

Figure 1 – Project Scope
Figure 2 – Typical Section
Project Site Pictures

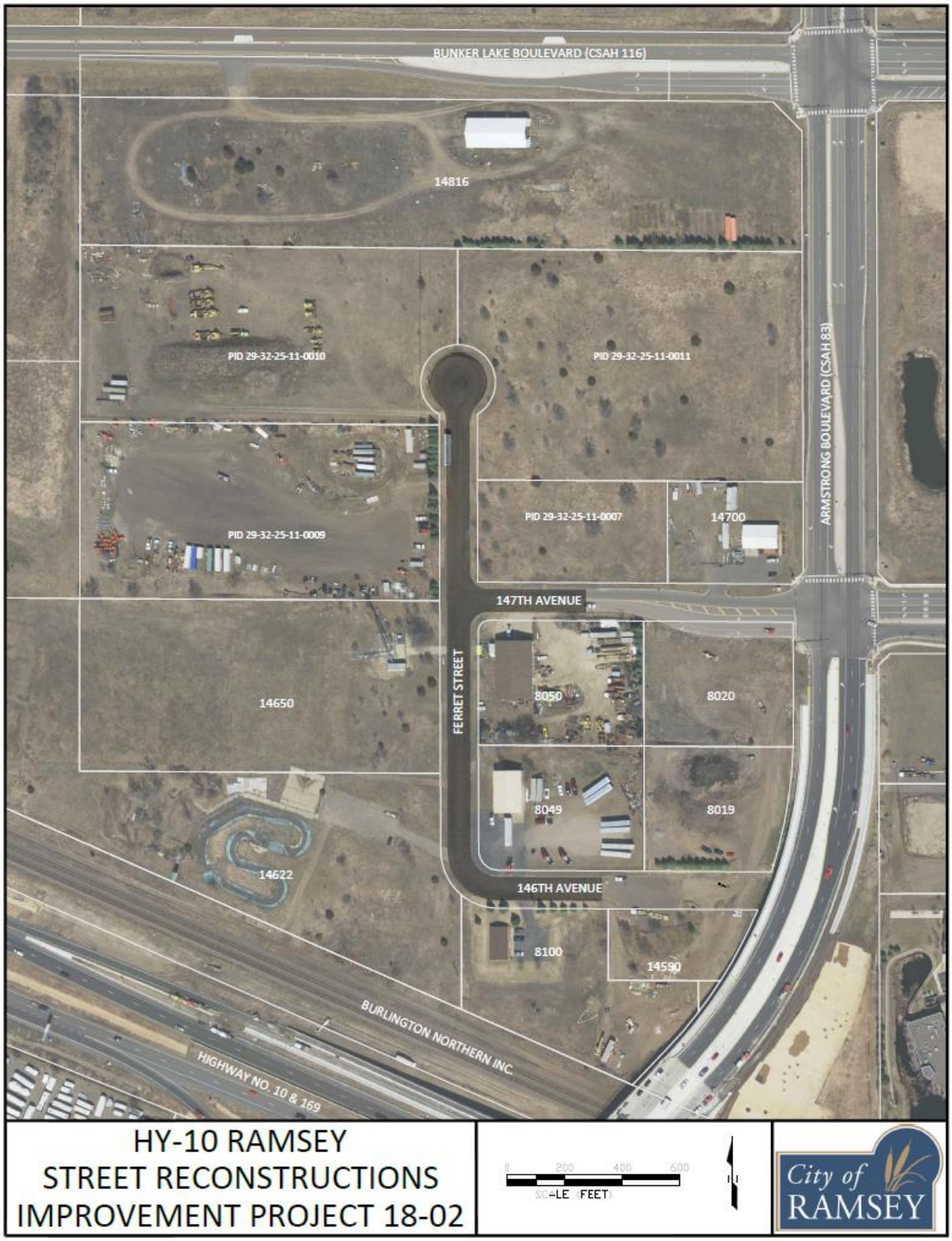


FIGURE 1
PROJECT SCOPE

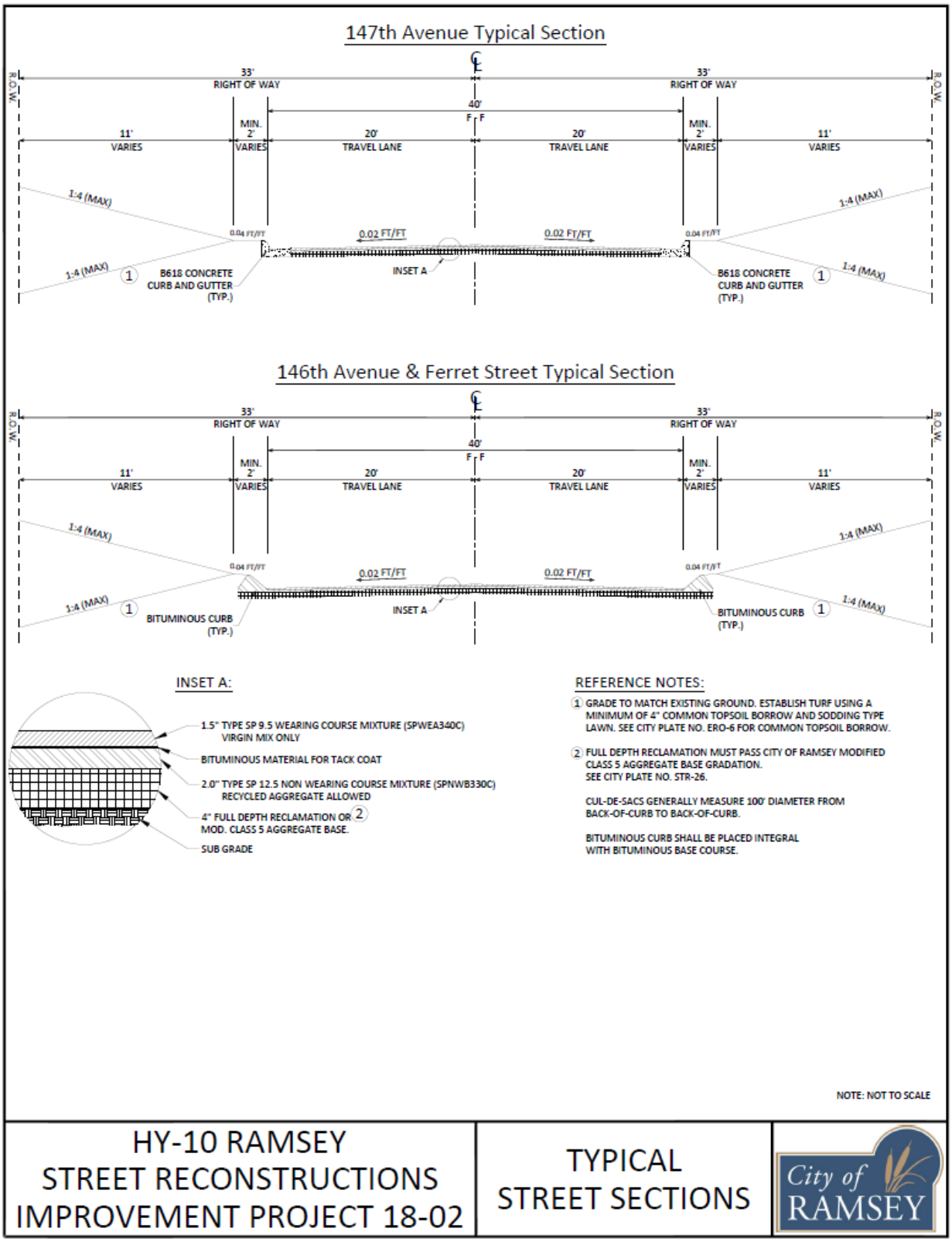


FIGURE 2
TYPICAL SECTIONS – PROPOSED IMPROVEMENTS

PROJECT SITE PICTURES

1: 146th Avenue from Ferret Street

2: **Ferret Street from 146th Avenue**

3**: Ferret Street from north cul-de-sac**

4: **147th Avenue from Ferret Street**

APPENDIX B

Opinion of Probable Costs
Preliminary Assessment Map
Preliminary Assessment Roll

18-02 HY-10 RAMSEY STREET RECONSTRUCTIONS					
Preliminary Engineer's Estimate 6/11/2018					
STREET CONSTRUCTION					
Item No.	**Description**	**Unit**	**Estimated Quantity**	**Unit Cost**	**Cost Extension**
1	Mobilization	LS	1	$ 8,000.00	$ 8,000.00
2	Sawing Bituminous Pavement – Full Depth	LF	200	$ 4.00	$ 800.00
3	Common Excavation (EV)	CY	30	$ 30.00	$ 900.00
4	Salvage Topsoil (LV)	CY	100	$ 15.00	$ 1,500.00
5	Subgrade Preparation	RDST	14	$ 225.00	$ 3,150.00
6	Water	MGAL	30	$ 30.00	$ 900.00
7	Aggregate Base Class 5	CY	210	$ 20.00	$ 4,200.00
8	Bituminous Pavement Reclamation – Full Depth	SY	6,505	$ 1.50	$ 9,757.50
9	Haul Bit Pavement Reclamation (LV)	CY	760	$ 9.00	$ 6,840.00
10	Mill Bituminous Pavement (1.5" Depth)	SY	245	$ 3.00	$ 735.00
11	Bituminous Material for Tack Coat	GAL	450	$ 2.50	$ 1,125.00
12	Type SP 9.5 Wearing Course Mixture (SPWEA340C) (1.5")	TON	550	$ 75.00	$ 41,250.00
13	Type SP 12.5 Non Wearing Course Mixture (SPNWB330C) (2.0")	TON	700	$ 66.00	$ 46,200.00
14	Type SP 9.5 Wearing Course Mixture (SPWEA340C) for Driveways	TON	57	$ 75.00	$ 4,275.00
15	Adjust Valve Box	EA	2	$ 250.00	$ 500.00
16	Adjust Frame and Ring Casting	EA	3	$550.00	$ 1,650.00
17	Concrete Curb & Gutter Design B618	LF	430	$ 22.00	$ 9,460.00
18	Bituminous Curb	LF	2,700	$ 8.00	$ 21,600.00
19	Traffic Control	LS	1	$ 2,500.00	$ 2,500.00
20	Silt Fence, Type MS	LF	50	$ 2.50	$ 125.00
21	Storm Drain Inlet Protection	EA	5	$ 150.00	$ 750.00
22	Common Topsoil Borrow (LV)	CY	35	$ 50.00	$ 1,750.00
23	Seeding	ACRE	0.25	$ 5,000.00	$ 1,250.00
24	Erosion Control Blankets Category III	SY	1,100	$ 2.00	$ 2,200.00
				Total Street Construction Cost	*$ 171,417.50*
				10% Contingency Cost	*$ 17,141.75*
				23% Indirect Cost	*$ 43,368.68*
				Total Street Project Cost	*$ 231,927.88*
WATERMAIN CONSTRUCTION					
Item No.	**Description**	**Unit**	**Estimated Quantity**	**Unit Cost**	**Cost Extension**
25	6" Gate Valve & Box	EA	1	$ 1,300.00	$ 1,300.00
26	12" Gate Valve & Box	EA	1	$ 2,000.00	$ 2,000.00
27	F&I Hydrant	EA	1	$ 5,000.00	$ 5,000.00
28	Connect to Existing Watermain	EA	1	$ 1,500.00	$ 1,500.00
29	6" Watermain Ductile Iron Class 53	LF	35	$ 40.00	$ 1,400.00
30	12" Watermain Ductile Iron Class 52	LF	210	$ 50.00	$ 10,500.00
31	Ductile Iron Fittings	LBS	148	$ 7.00	$ 1,036.00
				Total Watermain Construction Cost	*$ 22,736.00*
				10% Contingency Cost	*$ 2,273.60*
				23% Indirect Cost	*$ 5,752.21*
				Total Watermain Project Cost	*$ 30,763.81*
STORM SEWER CONSTRUCTION					
Item No.	**Description**	**Unit**	**Estimated Quantity**	**Unit Cost**	**Cost Extension**
32	Geotextile Fabric Type IV	SY	63	$ 3.50	$ 220.50
33	Concrete Flume	EA	2	$ 200.00	$ 400.00
34	15" RC Pipe Apron with Trash Guard	EA	2	$ 800.00	$ 1,600.00
35	15" RC Pipe Sewer, Design 3006 Class III	LF	340	$ 35.00	$ 11,900.00
35	Construct Drainage Structure Design 48-4020	EA	1	$ 2,125.00	$ 2,125.00
36	F&I Casting Assembly	EA	1	$ 800.00	$ 800.00
37	Random Rip Rap Class III	CY	14	$ 100.00	$ 1,400.00
				Total Storm Sewer Construction Cost	*$ 18,445.50*
				10% Contingency Cost	*$ 1,844.55*
				23% Indirect Cost	*$ 4,666.71*
				Total Storm Sewer Project Cost	*$ 24,956.76*
				TOTAL ESTIMATED PROJECT COST	**$ 287,646.45**


BUNKER LAKE BOULEVARD (CSAH 116)
14816
ARMSTRONG BOULEVARD (CSAH 83)
PID 29-32-25-11-0010
PID 29-32-25-11-0011
PID 29-32-25-11-0009
PID 29-32-25-11-0007
14700
147TH AVENUE
FERRET STREET
14650
8050
8020
8049
8019
14622
146TH AVENUE
8100
14590
BURLINGTON NORTHERN INC
HIGHWAY NO. 10 & 169
HY-10 RAMSEY
ASSESSABLE PROPERTIES
0 300 600 900
SCALE (FEET)
City of RAMSEY

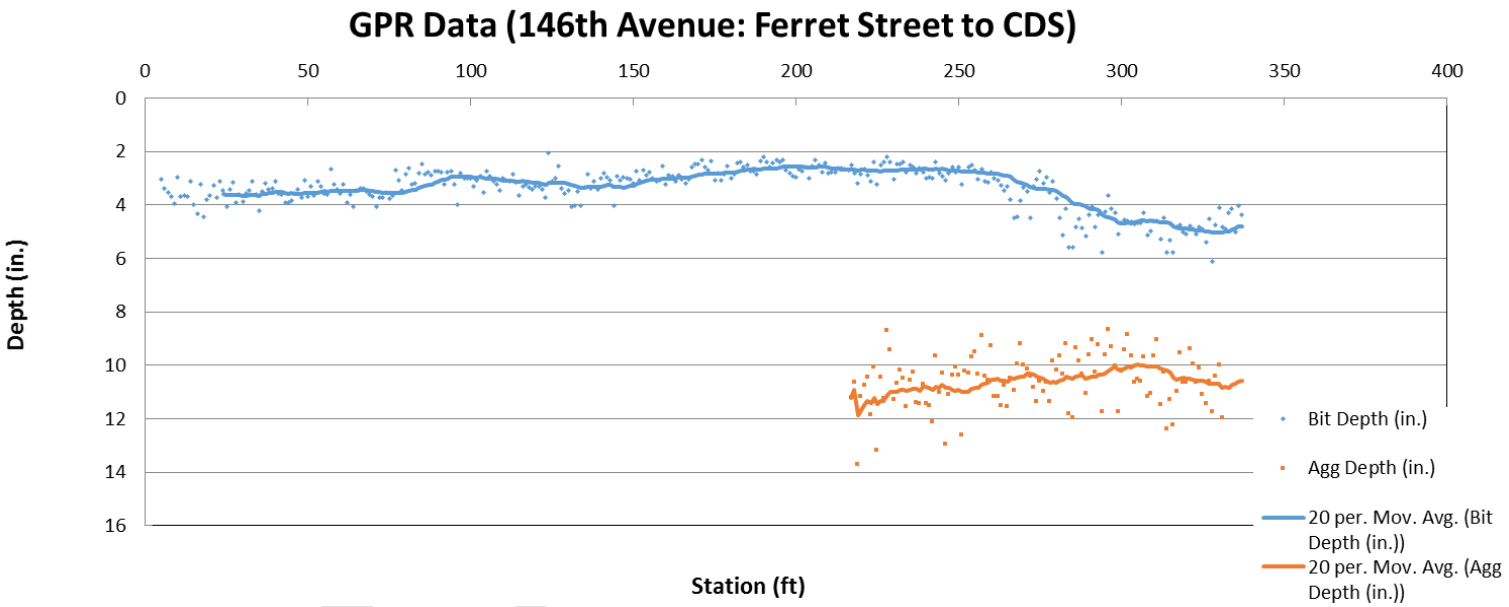
PRELIMINARY ASSESSMENT ROLL - IP #18-02										
PID No.	Property Owner	Property Area (Sq Ft)	Benefitting Area (Sq Ft)	Benefitting Area (%)	Special Assessment ($ / Sq Ft)	Property Address	City	Sate	Zip	Property Area Assessment
293225110007	NATIONAL GROWTH LLC	58,574.92	58,574.92	100	$ 0.0390499054					$ 2,287.35
293225110009	FALLS DON & NYHUSMOEN SIDNEY	191,350.66	191,350.66	100	$ 0.0391564311					$ 7,492.61
293225110010	STANTON TRUSTEE JAMES	194,538.18	194,538.18	100	$ 0.0391564311					$ 7,617.42
293225110011	NATIONAL GROWTH LLC	233,844.74	233,844.74	100	$ 0.0391564311					$ 9,156.53
293225140005	KRH LAND LLC	187,962.50	187,962.50	100	$ 0.0391564311	14650 FERRET ST NW	RAMSEY	MN	55303	$ 7,359.94
293225140008	LEUKAM JOHN	62,496.16	62,496.16	100	$ 0.0391564311	8050 147TH AVE NW	RAMSEY	MN	55303	$ 2,447.13
293225140011	CHALICH PETER	62,341.55	62,341.55	100	$ 0.0391564311	8049 146TH AVE NW	RAMSEY	MN	55303	$ 2,441.07
293225140012	CHALICH PETER	80,718.46	80,718.46	100	$ 0.0391564311	8100 146TH AVE NW	RAMSEY	MN	55303	$ 3,160.65
293225140015	KRH LAND LLC	373,361.48	373,361.48	100	$ 0.0391564311	14622 FERRET ST NW	RAMSEY	MN	55303	$ 14,619.50
	TOTALS	**1,445,188.65**	**1,445,188.65**							**$ 56,434.48**

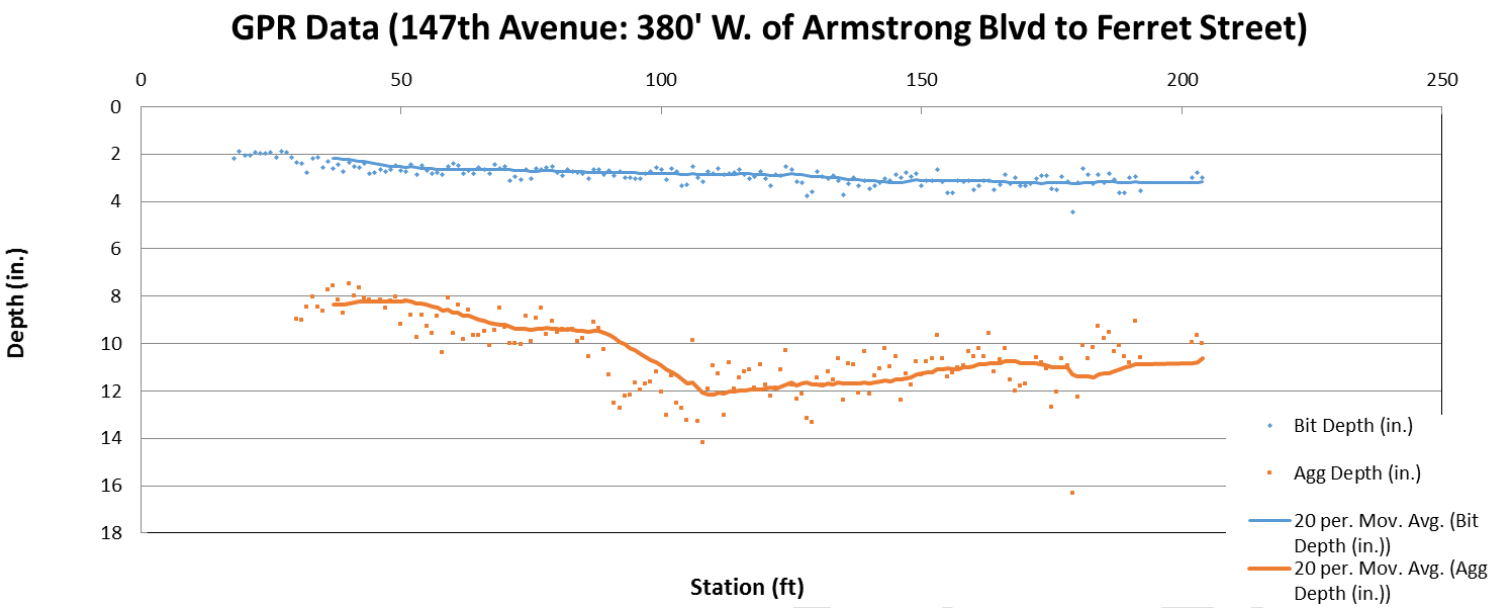
NOTES:
1) Area method of assessment applied per City of Ramsey Special Assessments Policy.
2) Properties abutting project streets with access only onto project streets assessed for 100% of property area.

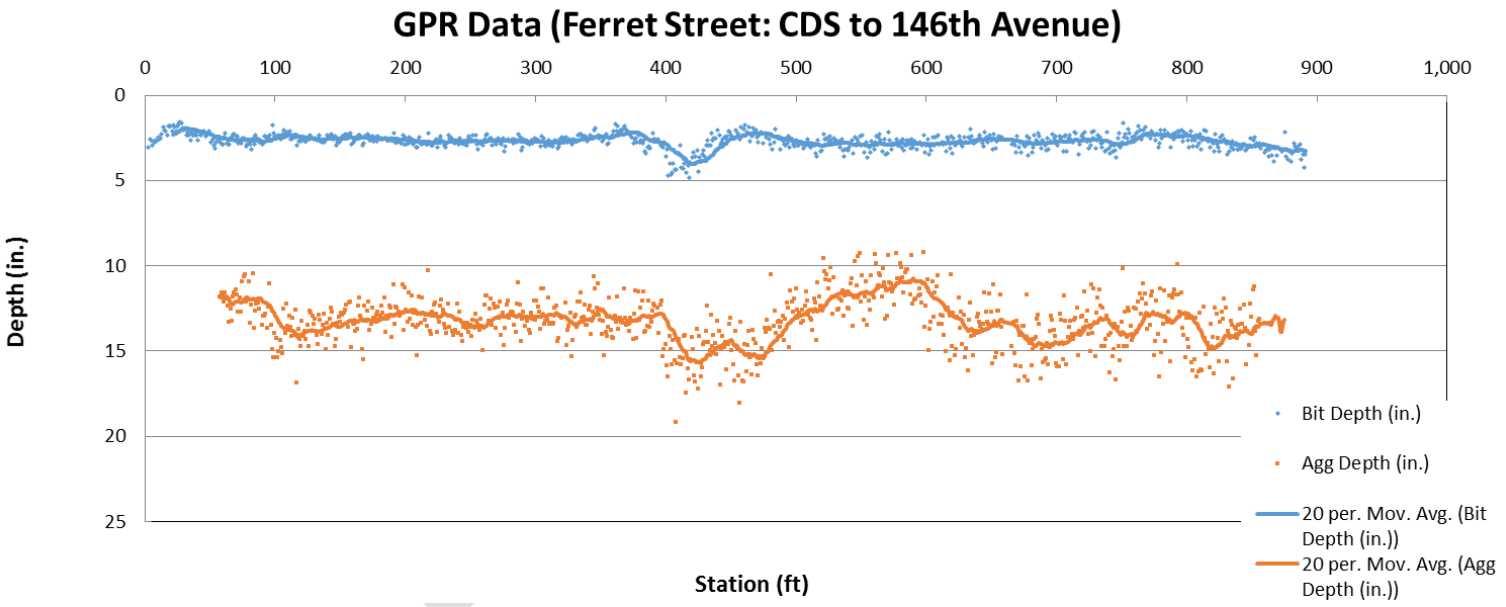
APPENDIX C

Ground Penetrating Radar (GPR) Results

HY-10 Ramsey GPR Summary										
Project Segment		**Pavement**			**Aggregate**			**Section**		
Street	**Segment Description**	**Min**	**Max**	**Avg**	**Min**	**Max**	**Avg**	**Min**	**Avg**	**Location**
146th Avenue	Ferret Street / CDS	2.0	6.1	3.4	4.3	10.5	6.8	8.6	10.6	296’ east of Ferret Street.
147th Avenue	380’ west of Armstrong Blvd. / Ferret Street	1.9	4.5	2.9	5.0	11.9	7.6	7.5	10.5	160’ east of Ferret Street.
Ferret Street	CDS / 146th Avenue	1.6	4.9	2.7	6.6	15.5	10.6	9.3	13.3	250’ north of 146th Avenue
Project Summary		*1.6*	*6.1*	*2.9*	*4.3*	*15.5*	*9.7*	*7.5*	*12.6*	*147th Avenue 160’ east of Ferret Street.*




GPR Data (147th Avenue: 380' W. of Armstrong Blvd to Ferret Street)
0
50
100
150
200
250
0
2
4
6
8
10
12
14
16
18
Depth (in.)
Station (ft)
Bit Depth (in.)
Agg Depth (in.)
20 per. Mov. Avg. (Bit Depth (in.))
20 per. Mov. Avg. (Agg Depth (in.))


GPR Data (Ferret Street: CDS to 146th Avenue)
0
100
200
300
400
500
600
700
800
900
1,000
0
5
10
15
20
25
Depth (in.)
Station (ft)
Bit Depth (in.)
Agg Depth (in.)
20 per. Mov. Avg. (Bit Depth (in.))
20 per. Mov. Avg. (Agg Depth (in.))

Public Works Committee **5. 3.**

Meeting Date: 08/21/2018

By: Bruce Westby, Engineering/Public Works

Title:

Consider City Council Recommendation to Order Feasibility Report for Improvement Project #19-01, Ford Brook Estates Street Reconstructions

Purpose/Background:

Purpose:

The purpose of this case is to consider approving a recommendation to the City Council to order a Feasibility Report for Improvement Project #19-01, Ford Brook Estates Street Reconstructions.

Background:

The City of Ramsey's current 10-year Capital Improvement Plan (CIP) covers calendar years 2018 to 2027. The plan identifies all public streets proposed to be reconstructed or to receive overlays in 2019 as part of the City's long-term Street Maintenance Program. Page 220 from the CIP is attached which shows the streets in Ford Brook Estates were proposed to be reconstructed in 2019.

Staff recommends that these streets be reconstructed in 2019 to allow bonds to be used to pay for the improvements per the City's 2015 - 2019 Street Reconstruction and Overlay Program (SROP). Attached is a copy of the 2015 - 2019 SROP for reference.

Figure 1 (attached) shows the general location of the Ford Brooks Estates development within the City.

Figure 2 (attached) shows the overall scope of the project.

Timeframe:

Staff estimates 5 minutes will be required to present this case and respond to questions.

Observations/Alternatives:

Observations:

If these streets are not reconstructed in 2019, they can be added to the next 5-year SROP to allow reconstruction between 2020 and 2024 instead. However, this would reduce the amount of pavement maintenance work that can be completed in the current 5-year SROP since no new streets can be added to the 5-year SROP.

Alternatives:

Alternative #1 – Motion approving a recommendation to the City Council to order a Feasibility Report for Improvement Project #19-01, Ford Brook Estates Street Reconstructions.

Alternative #2 – Motion of other.

Funding Source:

The Feasibility Report will be completed in-house as part of Staff's normal duties.

Staff proposes to fund the proposed street reconstruction improvements using a combination of special assessments to benefiting properties, street reconstruction bond funds, and stormwater utility funds (if needed).

Recommendation:

Staff recommends alternative #1.

Action:

Motion approving a recommendation to the City Council to order a Feasibility Report for Improvement Project #19-01, Ford Brook Estates Street Reconstructions.

Attachments

Figure 1

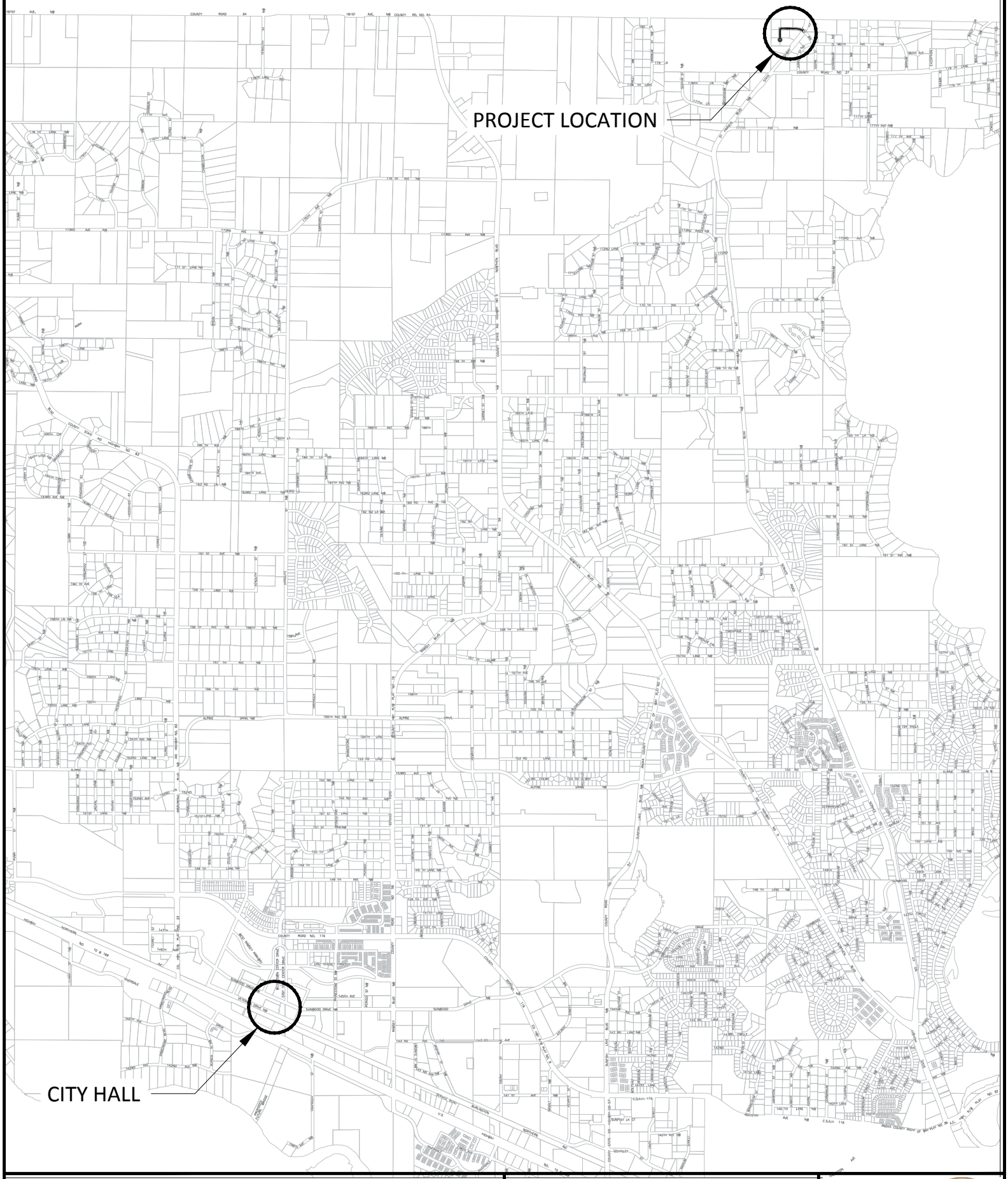
Figure 2

5 year SROP

CIP Pg220

Form Review

Inbox	Reviewed By	Date
Grant Riemer	Grant Riemer	08/16/2018 03:09 PM
Kurt Ulrich	MaryJo Warner	08/16/2018 03:52 PM
Bruce Westby (Originator)	Bruce Westby	08/17/2018 01:51 PM
Form Started By: Bruce Westby		Started On: 08/13/2018 11:24 AM
Final Approval Date: 08/17/2018		



FORD BROOK ESTATES
PROJECT LOCATION

0 3000 6000 9000

SCALE (FEET)

N

City of RAMSEY

FORD BROOK ESTATES PROJECT SCOPE

0 150 300 450

SCALE (FEET)

N

City of RAMSEY

2015 through 2019

Five-Year Street Reconstruction Overlay Plan for the

City of Ramsey, Minnesota

March 10, 2015

Prepared by:

Ehlers & Associates, Inc.
3060 Centre Pointe Drive
Roseville, MN 55113

Table of Contents

City of Ramsey, MN

Five-Year Street Reconstruction and Overlay Plan

2015 through 2019

I. INTRODUCTION

In 2002, the Minnesota State Legislature passed into law a bill which generally exempts city bonds issued under a street reconstruction program from the referendum requirements usually required for bonding expenditures. In 2013 the Legislature amended the law to allow bituminous overlays to be included in the street reconstruction program.

II. PURPOSE

Street reconstruction or bituminous overlay is a major expenditure of city funds for the reconstruction or overlay of streets. Street reconstruction and bituminous overlay may include utility replacement and relocation and other incidental costs, turn lanes and other improvements having a substantial public safety function, realignments, other modifications to intersect with state and county roads, and the local share of state and county road projects. Except in the case of turn lanes, safety improvements, realignments, intersection modifications, and local share of state and county road projects, street reconstruction does not include the portion of project costs allocable to widening a street or adding curbs and gutters where none previously existed. A Street Reconstruction and Overlay Plan (SROP) is a document designed to anticipate street reconstruction and overlay expenditures and schedule them over a five-year period so that they may be purchased in the most efficient and cost effective method possible. A SROP allows the matching of expenditures with anticipated income. As potential expenditures are reviewed, the city considers the benefits, costs, alternatives and impact on operating expenditures.

The City of Ramsey, Minnesota (the "City") believes the street reconstruction and overlay process is an important element of responsible fiscal management. Major capital expenditures can be anticipated and coordinated so as to minimize potentially adverse financial impacts caused by the timing and magnitude of capital outlays. This coordination of capital expenditures is important to the City in achieving its goals of adequate physical assets and sound fiscal management. In these financially difficult times good planning is essential for the wise use of limited financial resources.

The Street Reconstruction and Overlay Plan is designed to be updated on an annual basis. In this manner, it becomes an ongoing fiscal planning tool that continually anticipates future capital expenditures and funding sources.

III. THE STREET RECONSTRUCTION AND OVERLAY PLANNING PROCESS

The street reconstruction and overlay planning process is as follows; the City Council authorizes the preparation of the SROP. The City staff is instructed to assemble the capital expenditures to be undertaken within the next five years. The City Council then reviews the expenditures according to their priority, fiscal impact, and available funding. From this information, a preliminary street reconstruction and overlay plan is prepared. A public hearing is held to solicit input from citizens and other governmental units. Changes are made based on that input, and a final project list is established.

The City Council then prepares a plan based on the available funding sources. If general obligation bonding is necessary, the City works with its financial advisor to prepare a bond sale and repayment schedule. Over the life of the SROP, once the funding, including proceeds from the bond sales becomes available, the individual capital expenditures can be made.

In subsequent years, the process is repeated as expenditures are completed as new needs arise. Street reconstruction planning looks five years into the future.

For a city to use its authority to finance expenditures under Chapter 475.58, Subdivision 3b, it must meet the requirements provided therein. Specifically, the city council must approve the sale of street reconstruction bonds by a unanimous vote of its membership present. In addition, it must hold a public hearing for public input. Notice of such hearing must be published in the official newspaper of the city at least 10, but not more than 28 days prior to the date of the public hearing. The city council approves the SROP unanimously following the public hearing.

Although a referendum is not required, a reverse referendum is allowable. If a petition bearing the signatures of at least 5 percent of the votes cast in the last general election requesting a vote on the issuance of bonds is received by the municipal clerk within 30 days after the public hearing, a referendum vote on the issuance of the bonds shall be called (if a vote is taken and the referendum passes, the taxes would be levied on market value rather than tax capacity).

IV. PROJECT SUMMARY

The expenditures to be undertaken with this Street Reconstruction and Overlay Plan (SROP) are limited to those listed in Appendix A. All other foreseeable capital expenditures within the City government will come through other means. The following expenditures have been submitted for inclusion in this SROP:

2015 Expenditures

- Garnet Street & 168th Avenue Reconstruction and overlay of streets in Hy-10 Ramsey, Northfork Highlands, Northfork Oaks, Northfork Point, Pondvale Estates, Pondvale Estates 2nd and Rolling Green.

2016 Expenditures

- Andrie Street and 164th Lane reconstruction and overlay of streets in AEC, Woodland Green and Sunwood Drive.

2017 Expenditures

- Reconstruction of Alpine Drive and overlay of streets in Rivers Bend.

2018 Expenditures

- Reconstruction of streets in Stanhope Terrace and North Forty and overlay of streets in Woodland Green, North Forty 2nd, Forth Forty 3rd, Northfork Oaks, Northfork, Northfork 2nd, Northfork 3rd and Northfork Itasca Shores.

2019 Expenditures

- Reconstruction of streets in Ford Brook Estates and overlay of streets in Brookview Estates, Meadow View, Flintwood Hills, Wood Pond Hills and Chestnut Ridge.

V. FINANCING THE STREET RECONSTRUCTION PLAN

The total amount of requested expenditures under the Street Reconstruction and Overlay Plan is approximately $9 million. If these expenditures are to be funded, that amount of money is anticipated to be generated through the tax levy and the sale of approximately $10,000,000 in bonds over the five-year period.

In the financing of the Street Reconstruction Plan, one statutory limitation applies. Under Chapter 475, with few exceptions, cities cannot incur debt in excess of 3% of the assessor's estimated market value for the city. In the City the pay 2014 EMV is $1,795,975,400. Therefore, the total amount of outstanding debt cannot exceed $53,879,262. As of February 10, 2015 the City had $20,050,000 subject to the legal debt limit.

Under the Street Reconstruction Plan, the City will secure $1,775,000 in general obligation bonds in the year 2015 to finance Garnet Street & 168th Avenue reconstruction and overlay of streets in Hy-10 Ramsey, Northfork Highlands, Northfork Oaks, Northfork Point, Pondvale Estates, Pondvale Estates 2nd and Rolling Green. In the year 2016, general obligation bonds in the amount of $2,865,000 will be secured for the Andrie Street and 164th Lane reconstruction and overlay of streets in AEC, Woodland Green and Sunwood Drive. In 2017, general obligation bonds in the amount of $995,000 will be used to finance reconstruction of Alpine Drive and overlay of streets in Rivers Bend. In 2018, general obligation bonds in the amount of $2,435,000 will be used to finance reconstruction of streets in Stanhope Terrace and North Forty and overlay of streets in Woodland Green, North Forty 2nd, Forth Forty 3rd, Northfork Oaks, Northfork, Northfork 2nd, Northfork 3rd and Northfork Itasca Shores. Finally in the year 2019, $1,440,000 in general obligation bonds will be secured for the financing of reconstruction of streets in Ford Brook Estates and overlay of streets in Brookview Estates, Meadow View, Flintwood Hills, Wood Pond Hills and Chestnut Ridge. All five general obligation bond issues will be repaid over a 10 - year period. The only exception is the road reconstruction portion of the 2016 bonds will be repaid over a 15-year period due to the size of the project (approximately $2.325 million). The par amount of each issue is based on the amounts listed in Appendix A plus estimated issuance costs. The proposed general obligation street reconstruction bonds (including issuance costs) are shown in Appendix B.

Continuation of the Street Reconstruction and Overlay Plan

This Street Reconstruction and Overlay Plan should be reviewed annually by the City Council using the process outlined in this Plan. It should review proposed expenditures, make priority decisions, and seek funding for those expenditures it deems necessary for the City. If deemed appropriate, the Council should prepare an update to this Plan.

APPENDIX A

PROJECT COSTS

(Capital Expenditures to be funded with Bond Proceeds)

The 2015 capital expenditure of approximately $1,680,100 for the City's portion of reconstruction of Garnet Street & 168th Avenue and overlay of streets in Hy-10 Ramsey, Northfork Highlands, Northfork Oaks, Northfork Point, Pondvale Estates, Pondvale Estates 2nd and Rolling Green is to be funded with $1,775,000 in bond proceeds.

Total Issue Sources And Uses

Dated 05/01/2015 | Delivered 05/01/2015

	Street Reconstruction	Overlay	Issue Summary
Sources Of Funds			
Par Amount of Bonds	$1,095,000.00	$680,000.00	$1,775,000.00
Total Sources	**$1,095,000.00**	**$680,000.00**	**$1,775,000.00**
Uses Of Funds			
Total Underwriter's Discount (1.200%)	13,140.00	8,160.00	21,300.00
Costs of Issuance	24,059.15	14,940.85	39,000.00
Deposit to Capitalized Interest (CIF) Fund	19,857.50	12,333.75	32,191.25
Deposit to Project Construction Fund	1,036,000.00	644,100.00	1,680,100.00
Rounding Amount	1,943.35	465.40	2,408.75
Total Uses	**$1,095,000.00**	**$680,000.00**	**$1,775,000.00**

PROJECT COSTS

The 2016 capital expenditure of approximately $2,719,710 for the City's portion of Andrie Street and 164th Lane reconstruction and overlay of streets in AEC, Woodland Green and Sunwood Drive is to be funded with $2,865,000 in bond proceeds.

Total Issue Sources And Uses

Dated 05/01/2016 | Delivered 05/01/2016

	Street Reconstruction	Overlay	Issue Summary
Sources Of Funds			
Par Amount of Bonds	$2,325,000.00	$540,000.00	$2,865,000.00
Total Sources	**$2,325,000.00**	**$540,000.00**	**$2,865,000.00**
Uses Of Funds			
Total Underwriter's Discount (1.200%)	27,900.00	6,480.00	34,380.00
Costs of Issuance	35,706.80	8,293.20	44,000.00
Deposit to Capitalized Interest (CIF) Fund	52,715.00	9,820.42	62,535.42
Deposit to Project Construction Fund	2,205,105.00	514,605.00	2,719,710.00
Rounding Amount	3,573.20	801.38	4,374.58
Total Uses	**$2,325,000.00**	**$540,000.00**	**$2,865,000.00**

PROJECT COSTS

The 2017 capital expenditure of approximately $919,065 for the reconstruction of Alpine Drive and overlay of streets in Rivers Bend is to be funded with $995,000 in bond proceeds.

Total Issue Sources And Uses

Dated 05/01/2017 | Delivered 05/01/2017

	Street Reconstruction	Overlay	Issue Summary
Sources Of Funds			
Par Amount of Bonds	$810,000.00	$185,000.00	$995,000.00
Total Sources	**$810,000.00**	**$185,000.00**	**$995,000.00**
Uses Of Funds			
Total Underwriter's Discount (1.500%)	12,150.00	2,775.00	14,925.00
Costs of Issuance	32,562.82	7,437.18	40,000.00
Deposit to Capitalized Interest (CIF) Fund	14,695.42	3,396.25	18,091.67
Deposit to Project Construction Fund	747,180.00	171,885.00	919,065.00
Rounding Amount	3,411.76	(493.43)	2,918.33
Total Uses	**$810,000.00**	**$185,000.00**	**$995,000.00**

PROJECT COSTS

The 2018 capital expenditure of approximately $2,316,050 for the reconstruction of streets in Stanhope Terrace and North Forty and overlay of streets in Woodland Green, North Forty 2nd, Forth Forty 3rd, Northfork Oaks, Northfork, Northfork 2nd, Northfork 3rd and Northfork Itasca Shores is to be funded with $2,435,000 in bond proceeds.

Total Issue Sources And Uses

Dated 05/01/2018 | Delivered 05/01/2018

	Street Reconstruction	Overlay	Issue Summary
Sources Of Funds			
Par Amount of Bonds	$1,565,000.00	$870,000.00	$2,435,000.00
Total Sources	**$1,565,000.00**	**$870,000.00**	**$2,435,000.00**
Uses Of Funds			
Total Underwriter's Discount (1.200%)	18,780.00	10,440.00	29,220.00
Costs of Issuance	28,279.26	15,720.74	44,000.00
Deposit to Capitalized Interest (CIF) Fund	28,426.67	15,805.83	44,232.50
Deposit to Project Construction Fund	1,486,980.00	829,070.00	2,316,050.00
Rounding Amount	2,534.07	(1,036.57)	1,497.50
Total Uses	**$1,565,000.00**	**$870,000.00**	**$2,435,000.00**

PROJECT COSTS

The 2019 capital expenditure of approximately $1,353,990 for the reconstruction of streets in Ford Brook Estates and overlay of streets in Brookview Estates, Meadow View, Flintwood Hills, Wood Pond Hills and Chestnut Ridge is to be funded with $1,440,000 in bond proceeds.

Total Issue Sources And Uses

Dated 05/01/2019 | Delivered 05/01/2019

	Street Reconstruction	Overlay	Issue Summary
Sources Of Funds			
Par Amount of Bonds	$725,000.00	$715,000.00	$1,440,000.00
Total Sources	**$725,000.00**	**$715,000.00**	**$1,440,000.00**
Uses Of Funds			
Total Underwriter's Discount (1.200%)	8,700.00	8,580.00	17,280.00
Costs of Issuance	19,131.95	18,868.05	38,000.00
Deposit to Capitalized Interest (CIF) Fund	13,102.92	12,943.13	26,046.05
Deposit to Project Construction Fund	680,570.00	673,420.00	1,353,990.00
Rounding Amount	3,495.13	1,188.82	4,683.95
Total Uses	**$725,000.00**	**$715,000.00**	**$1,440,000.00**

APPENDIX B

PROPOSED 2015 SROP BOND ISSUE

City of Ramsey, Minnesota

$1,775,000 General Obligation Bonds, Series 2015
Issue Summary

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	CIF	Net New D/S	105% of Total
12/01/2015	-	-	17,333.75	17,333.75	(17,333.75)	-	-
12/01/2016	180,000.00	0.850%	29,715.00	209,715.00	(14,857.50)	194,857.50	204,600.38
12/01/2017	170,000.00	1.050%	28,185.00	198,185.00	-	198,185.00	208,094.25
12/01/2018	170,000.00	1.250%	26,400.00	196,400.00	-	196,400.00	206,220.00
12/01/2019	170,000.00	1.400%	24,275.00	194,275.00	-	194,275.00	203,988.75
12/01/2020	170,000.00	1.650%	21,895.00	191,895.00	-	191,895.00	201,489.75
12/01/2021	175,000.00	1.750%	19,090.00	194,090.00	-	194,090.00	203,794.50
12/01/2022	180,000.00	1.900%	16,027.50	196,027.50	-	196,027.50	205,828.88
12/01/2023	185,000.00	2.050%	12,607.50	197,607.50	-	197,607.50	207,487.88
12/01/2024	185,000.00	2.300%	8,815.00	193,815.00	-	193,815.00	203,505.75
12/01/2025	190,000.00	2.400%	4,560.00	194,560.00	-	194,560.00	204,288.00
Total	**$1,775,000.00**	**-**	**$208,903.75**	**$1,983,903.75**	**(32,191.25)**	**$1,951,712.50**	**$2,049,298.13**

PROPOSED 2016 SROP BOND ISSUE

City of Ramsey, Minnesota

$2,865,000 General Obligation Bonds, Series 2016
Issue Summary

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	CIF	Net New D/S	105% of Total
12/01/2016	-	-	33,672.92	33,672.92	(33,672.92)	-	-
12/01/2017	215,000.00	0.850%	57,725.00	272,725.00	(28,862.50)	243,862.50	256,055.63
12/01/2018	185,000.00	1.050%	55,897.50	240,897.50	-	240,897.50	252,942.38
12/01/2019	190,000.00	1.250%	53,955.00	243,955.00	-	243,955.00	256,152.75
12/01/2020	190,000.00	1.400%	51,580.00	241,580.00	-	241,580.00	253,659.00
12/01/2021	200,000.00	1.650%	48,920.00	248,920.00	-	248,920.00	261,366.00
12/01/2022	200,000.00	1.750%	45,620.00	245,620.00	-	245,620.00	257,901.00
12/01/2023	205,000.00	1.900%	42,120.00	247,120.00	-	247,120.00	259,476.00
12/01/2024	205,000.00	2.050%	38,225.00	243,225.00	-	243,225.00	255,386.25
12/01/2025	210,000.00	2.300%	34,022.50	244,022.50	-	244,022.50	256,223.63
12/01/2026	215,000.00	2.400%	29,192.50	244,192.50	-	244,192.50	256,402.13
12/01/2027	160,000.00	2.550%	24,032.50	184,032.50	-	184,032.50	193,234.13
12/01/2028	165,000.00	2.700%	19,952.50	184,952.50	-	184,952.50	194,200.13
12/01/2029	170,000.00	2.850%	15,497.50	185,497.50	-	185,497.50	194,772.38
12/01/2030	175,000.00	2.950%	10,652.50	185,652.50	-	185,652.50	194,935.13
12/01/2031	180,000.00	3.050%	5,490.00	185,490.00	-	185,490.00	194,764.50
Total	**$2,865,000.00**	**-**	**$566,555.42**	**$3,431,555.42**	**(62,535.42)**	**$3,369,020.00**	**$3,537,471.00**

PROPOSED 2017 SROP BOND ISSUE

City of Ramsey, Minnesota

$995,000 General Obligation Bonds, Series 2017
Issue Summary

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	CIF	Net New D/S	105% of Total
12/01/2017	-	-	9,741.67	9,741.67	(9,741.67)	-	-
12/01/2018	100,000.00	0.850%	16,700.00	116,700.00	(8,350.00)	108,350.00	113,767.50
12/01/2019	90,000.00	1.050%	15,850.00	105,850.00	-	105,850.00	111,142.50
12/01/2020	95,000.00	1.250%	14,905.00	109,905.00	-	109,905.00	115,400.25
12/01/2021	95,000.00	1.400%	13,717.50	108,717.50	-	108,717.50	114,153.38
12/01/2022	100,000.00	1.650%	12,387.50	112,387.50	-	112,387.50	118,006.88
12/01/2023	100,000.00	1.750%	10,737.50	110,737.50	-	110,737.50	116,274.38
12/01/2024	100,000.00	1.900%	8,987.50	108,987.50	-	108,987.50	114,436.88
12/01/2025	105,000.00	2.050%	7,087.50	112,087.50	-	112,087.50	117,691.88
12/01/2026	105,000.00	2.300%	4,935.00	109,935.00	-	109,935.00	115,431.75
12/01/2027	105,000.00	2.400%	2,520.00	107,520.00	-	107,520.00	112,896.00
Total	**$995,000.00**	**-**	**$117,569.17**	**$1,112,569.17**	**(18,091.67)**	**$1,094,477.50**	**$1,149,201.38**

PROPOSED 2018 SROP BOND ISSUE

City of Ramsey, Minnesota

$2,435,000 General Obligation Bonds, Series 2018
Issue Summary

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	CIF	Net New D/S	105% of Total
12/01/2018	-	-	23,817.50	23,817.50	(23,817.50)	-	-
12/01/2019	250,000.00	0.850%	40,830.00	290,830.00	(20,415.00)	270,415.00	283,935.75
12/01/2020	225,000.00	1.050%	38,705.00	263,705.00	-	263,705.00	276,890.25
12/01/2021	230,000.00	1.250%	36,342.50	266,342.50	-	266,342.50	279,659.63
12/01/2022	235,000.00	1.400%	33,467.50	268,467.50	-	268,467.50	281,890.88
12/01/2023	235,000.00	1.650%	30,177.50	265,177.50	-	265,177.50	278,436.38
12/01/2024	240,000.00	1.750%	26,300.00	266,300.00	-	266,300.00	279,615.00
12/01/2025	250,000.00	1.900%	22,100.00	272,100.00	-	272,100.00	285,705.00
12/01/2026	250,000.00	2.050%	17,350.00	267,350.00	-	267,350.00	280,717.50
12/01/2027	255,000.00	2.300%	12,225.00	267,225.00	-	267,225.00	280,586.25
12/01/2028	265,000.00	2.400%	6,360.00	271,360.00	-	271,360.00	284,928.00
Total	**$2,435,000.00**	**-**	**$287,675.00**	**$2,722,675.00**	**(44,232.50)**	**$2,678,442.50**	**$2,812,364.63**

PROPOSED 2019 SROP BOND ISSUE

City of Ramsey, Minnesota

$1,440,000 General Obligation Bonds, Series 2019
Issue Summary

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	CIF	Net New D/S	105% of Total
12/01/2019	-	-	14,024.80	14,024.80	(14,024.80)	-	-
12/01/2020	150,000.00	0.850%	24,042.50	174,042.50	(12,021.25)	162,021.25	170,122.31
12/01/2021	135,000.00	1.050%	22,767.50	157,767.50	-	157,767.50	165,655.88
12/01/2022	140,000.00	1.250%	21,350.00	161,350.00	-	161,350.00	169,417.50
12/01/2023	140,000.00	1.400%	19,600.00	159,600.00	-	159,600.00	167,580.00
12/01/2024	140,000.00	1.650%	17,640.00	157,640.00	-	157,640.00	165,522.00
12/01/2025	140,000.00	1.750%	15,330.00	155,330.00	-	155,330.00	163,096.50
12/01/2026	145,000.00	1.900%	12,880.00	157,880.00	-	157,880.00	165,774.00
12/01/2027	150,000.00	2.050%	10,125.00	160,125.00	-	160,125.00	168,131.25
12/01/2028	150,000.00	2.300%	7,050.00	157,050.00	-	157,050.00	164,902.50
12/01/2029	150,000.00	2.400%	3,600.00	153,600.00	-	153,600.00	161,280.00
Total	**$1,440,000.00**	-	**$168,409.80**	**$1,608,409.80**	**(26,046.05)**	**$1,582,363.75**	**$1,661,481.94**

APPENDIX C

Pre-Sale Schedule dated March 10, 2015
5-Year City Street Reconstruction Plan Bond Issuance
City of Ramsey, Minnesota

The City Council must take the following actions before Bonds can be issued:

- City Council directs preparation of a 5-Year Street Reconstruction Plan.
- City Council conducts a Public Hearing on issuance of Bonds and Street Reconstruction Plan.
- City Council approves Bonds and Street Reconstruction Plan by unanimous vote.

The table below lists the steps in the issuing process:

February 10, 2015:	City Council adopts Resolution calling for Public Hearing on issuance of Bonds and on Street Reconstruction Plan.
February 16, 2105:	Close date to get Notice of Public Hearing on issuance of Bonds and on Street Reconstruction Plan to official newspaper for publication.
February 20, 2015:	Publish Notice of Public Hearing on issuance of Bonds and on Street Reconstruction Plan (publication no more than 28 days and no less than 10 days prior to hearing date).
March 10, 2015:	City Council holds Public Hearing at 7:00 p.m. on Bonds and on Street Reconstruction Plan and adopts Resolution giving preliminary approval for their issuance and approving Street Reconstruction Plan by unanimous vote of its membership present.
March 10, 2015:	City Council provides for sale of Bonds.
April 9, 2015:	Reverse referendum period ends (within 30 days of the public hearing).
April 14, 2015:	City Council accepts offer for Bonds and adopts Resolution-Approving sale of Bonds.
May 7, 2014:	Tentative closing/receipt of funds.

Net Debt Limit	
Assessor's Estimated Market Value	1,795,975,400
Multiply by 3%	0.03
Statutory Debt Limit	53,879,262
Less: Debt Paid Solely from Taxes	(20,050,000)
Unused Debt Limit	33,829,262

Project #	15-STR-006
Project Name	Reconstruction of Streets-Ford Brook Estates/Hy 10

Department	Street Improvements
Contact	
Type	Improvement
Useful Life	60 Years
Category	Street Improvement
Priority	1-Existing Obligation (High)
Status	Active

Total Cost $1,740,400

Description

Reconstruction of streets in Ford Brook Estates. & Hy 10 Ramsey, West of Highway 47/St. Francis Blvd.

Total Project Cost = $1,740,400
Street Improvements: $1,566,360
Storm Water Improvements: $174,040

20 lots for possible assessment

Justification

These streets are in poor condition and require reconstruction. The pavement has deteriorated beyond the point where an overlay could be applied. This project will install concrete curb and gutter and storm sewer.

Look at Possibility of Using MSA or PIR funds for portion of costs instead of bonding

Expenditures	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
Improvements Other than Building Cost		1,740,400									1,740,400
Total		**1,740,400**									**1,740,400**

Funding Sources	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
Special Assessment - Bonded		391,590									391,590
Storm Water Utility Fund		174,040									174,040
GO Bonding (Road Funding)		1,174,770									1,174,770
Total		**1,740,400**									**1,740,400**

Public Works Committee **5. 4.**

Meeting Date: 08/21/2018

By: Bruce Westby, Engineering/Public Works

Title:

Consider City Council Recommendation to Order Feasibility Report for Improvement Project #19-02, Brookview Estates Street Reconstructions

Purpose/Background:

Purpose:

The purpose of this case is to consider approving a recommendation to the City Council to order a Feasibility Report for Improvement Project #19-02, Brookview Estates Street Reconstructions.

Background:

The City of Ramsey's current 10-year Capital Improvement Plan (CIP) covers calendar years 2018 to 2027. The plan identifies all public streets proposed to be reconstructed or to receive overlays in 2019 as part of the City's long-term Street Maintenance Program. Page 223 from the CIP is attached which shows the streets in Brookview Estates were proposed to receive overlays in 2019.

In the spring of 2018 Staff re-evaluated the pavement condition of these streets and found the pavement has degraded past the point where an overlay should be applied, and that a total reconstruct is now required. Staff therefore recommends that these streets be reconstructed in 2019 to allow bonds to be used to pay for the improvements per the City's 2015 - 2019 Street Reconstruction and Overlay Program (SROP). Attached is a copy of the 2015 - 2019 SROP for reference.

Figure 1 (attached) shows the general location of the Brookview Estates development within the City.

Figure 2 (attached) shows the overall scope of the project.

Timeframe:

Staff estimates 5 minutes will be required to present this case and respond to questions.

Observations/Alternatives:

Observations:

If these streets are not reconstructed in 2019, they can be added to the next 5-year SROP to allow reconstruction between 2020 and 2024 instead. However, this would reduce the amount of pavement maintenance work that can be completed in the current 5-year SROP since no new streets can be added to the 5-year SROP.

Alternatives:

Alternative #1 – Motion approving a recommendation to the City Council to order a Feasibility Report for Improvement Project #19-02, Brookview Estates Street Reconstructions.

Alternative #2 – Motion of other.

Funding Source:

The Feasibility Report will be completed in-house as part of Staff's normal duties.

Staff proposes to fund the proposed street reconstruction improvements using a combination of special assessments to benefiting properties, street reconstruction bond funds, and stormwater utility funds (if needed).

Recommendation:

Staff recommends alternative #1.

Action:

Motion approving a recommendation to the City Council to order a Feasibility Report for Improvement Project #19-02, Brookview Estates Street Reconstructions.

Attachments

CIP Pg 223

Figure 1

Figure 2

5 year SROP

Form Review

Inbox	Reviewed By	Date
Grant Riemer	Grant Riemer	08/16/2018 03:11 PM
Kurt Ulrich	MaryJo Warner	08/16/2018 03:52 PM
Bruce Westby (Originator)	Bruce Westby	08/17/2018 01:51 PM
Form Started By: Bruce Westby		Started On: 08/13/2018 11:25 AM
Final Approval Date: 08/17/2018		

Project #	15-STR-012
Project Name	2019 Overlay Projects

Department	Street Improvements
Contact	
Type	Improvement
Useful Life	20 Years
Category	Street Improvement
Priority	1-Existing Obligation (High)
Status	Active

Total Cost $612,200

Description

Each paved street within the City is scheduled to receive preventative maintenance on a regularly scheduled basis, including reconstruction at the end of its useful life.

2019 Projects: Brookview Estates, Meadow View, Flintwood Hills, Wood Pond Hills, Chestnut Ridge

There is a total of $2.2M designated to maintain streets annually.

Overlays will be assessed at 25% of cost

Justification

Regular scheduled maintenance safeguards the considerable investment the City has in its pavements by cost effectively maximizing pavement life and minimizing emergency repairs.

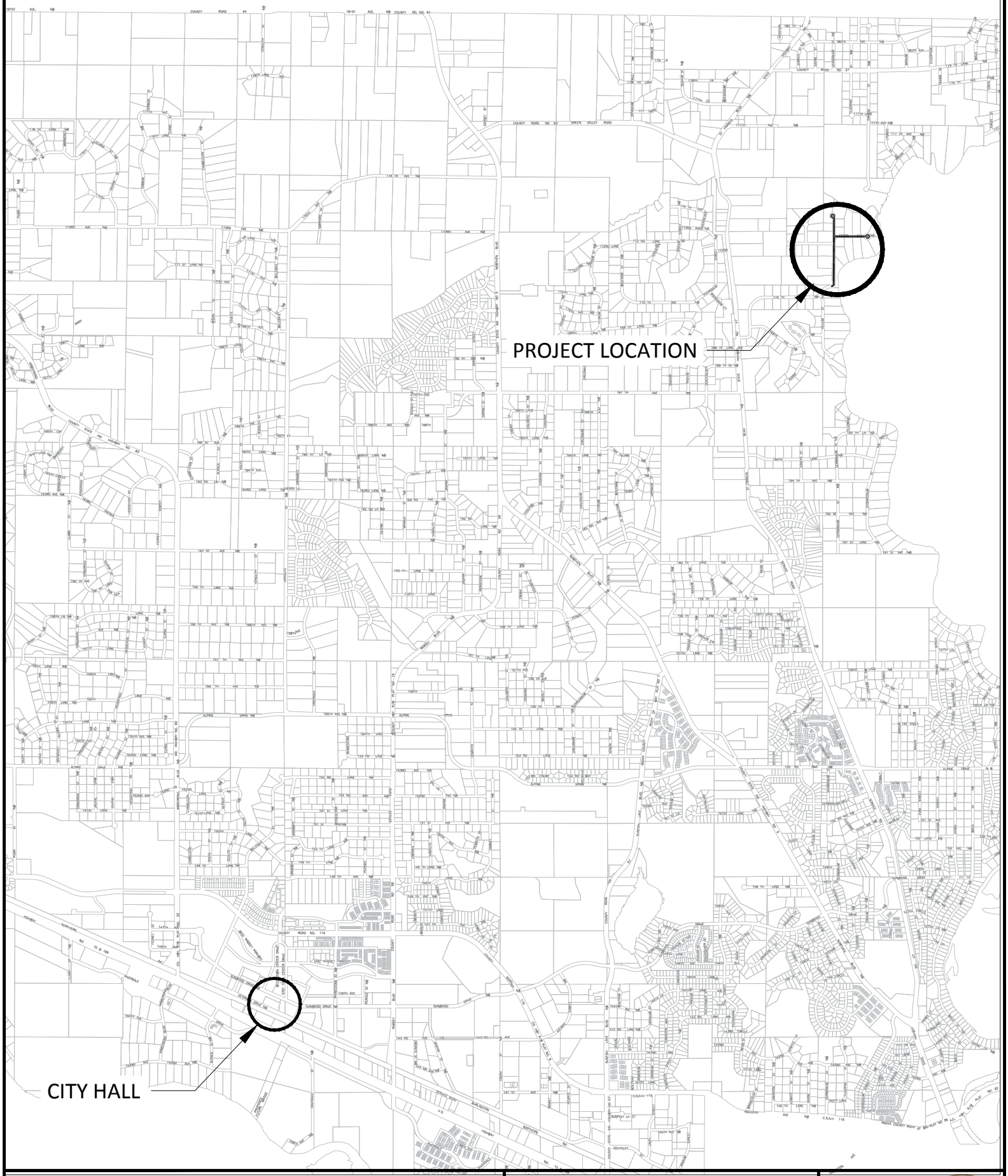
Overlaying streets provides additional pavement life. These streets were selected based on Paser rating and time since last pavement maintenance treatment.

Look at Possibility of Using MSA or PIR funds for portion of costs instead of bonding.

Revisit Program for 2020-2025

Expenditures	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
Improvements Other than Building Cost		612,200									612,200
Total		**612,200**									**612,200**

Funding Sources	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
Special Assessment - Bonded		153,050									153,050
GO Bonding (Road Funding)		459,150									459,150
Total		**612,200**									**612,200**



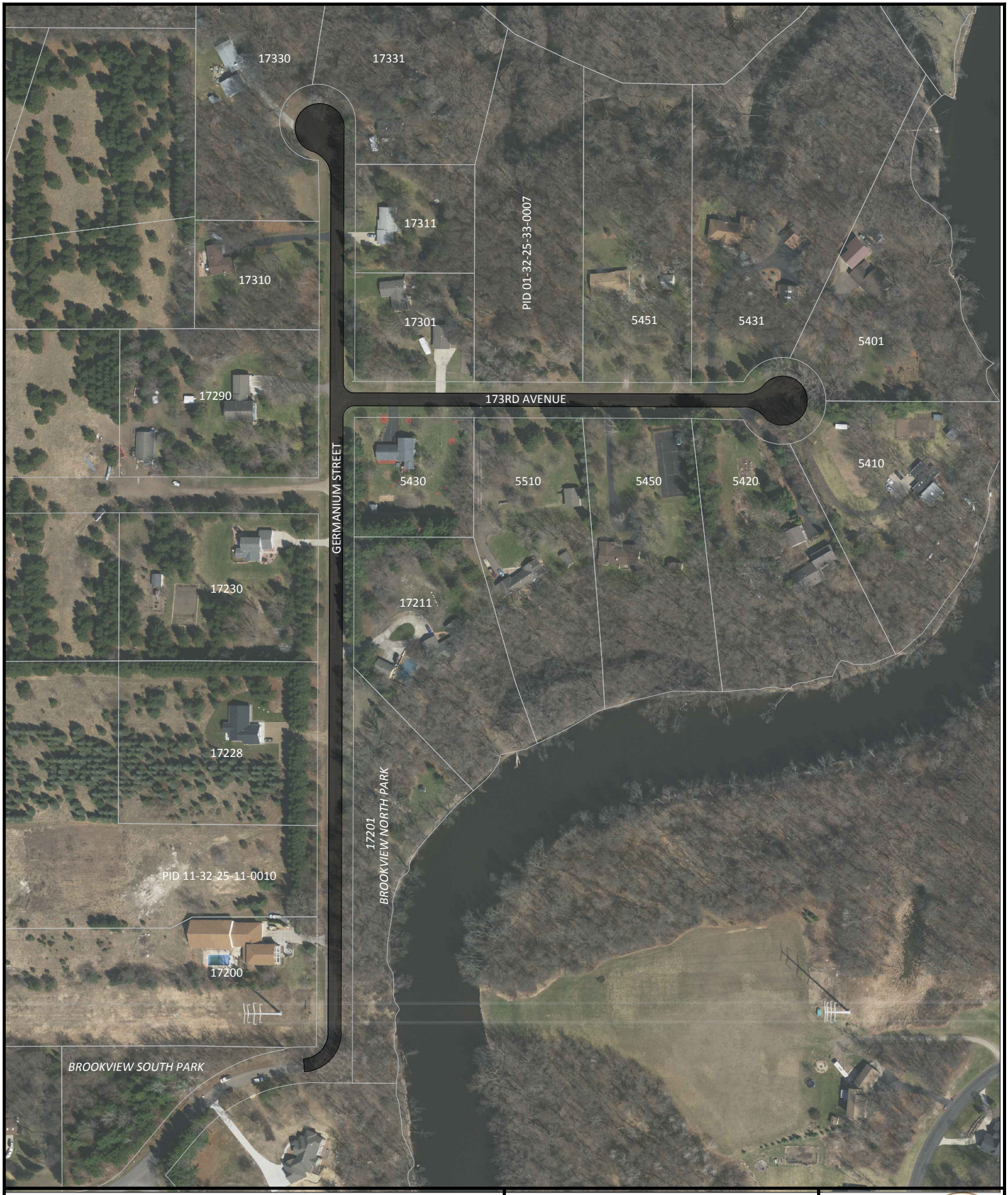
BROOKVIEW ESTATES
PROJECT LOCATION

0 3000 6000 9000

SCALE (FEET)

N

City of RAMSEY



BROOKVIEW ESTATES PROJECT SCOPE

0 225 450 675

SCALE (FEET)

N

City of RAMSEY

2015 through 2019

Five-Year Street Reconstruction Overlay Plan for the

City of Ramsey, Minnesota

March 10, 2015

Prepared by:

Ehlers & Associates, Inc.
3060 Centre Pointe Drive
Roseville, MN 55113

Table of Contents

City of Ramsey, MN

Five-Year Street Reconstruction and Overlay Plan

2015 through 2019

I. INTRODUCTION

In 2002, the Minnesota State Legislature passed into law a bill which generally exempts city bonds issued under a street reconstruction program from the referendum requirements usually required for bonding expenditures. In 2013 the Legislature amended the law to allow bituminous overlays to be included in the street reconstruction program.

II. PURPOSE

Street reconstruction or bituminous overlay is a major expenditure of city funds for the reconstruction or overlay of streets. Street reconstruction and bituminous overlay may include utility replacement and relocation and other incidental costs, turn lanes and other improvements having a substantial public safety function, realignments, other modifications to intersect with state and county roads, and the local share of state and county road projects. Except in the case of turn lanes, safety improvements, realignments, intersection modifications, and local share of state and county road projects, street reconstruction does not include the portion of project costs allocable to widening a street or adding curbs and gutters where none previously existed. A Street Reconstruction and Overlay Plan (SROP) is a document designed to anticipate street reconstruction and overlay expenditures and schedule them over a five-year period so that they may be purchased in the most efficient and cost effective method possible. A SROP allows the matching of expenditures with anticipated income. As potential expenditures are reviewed, the city considers the benefits, costs, alternatives and impact on operating expenditures.

The City of Ramsey, Minnesota (the "City") believes the street reconstruction and overlay process is an important element of responsible fiscal management. Major capital expenditures can be anticipated and coordinated so as to minimize potentially adverse financial impacts caused by the timing and magnitude of capital outlays. This coordination of capital expenditures is important to the City in achieving its goals of adequate physical assets and sound fiscal management. In these financially difficult times good planning is essential for the wise use of limited financial resources.

The Street Reconstruction and Overlay Plan is designed to be updated on an annual basis. In this manner, it becomes an ongoing fiscal planning tool that continually anticipates future capital expenditures and funding sources.

III. THE STREET RECONSTRUCTION AND OVERLAY PLANNING PROCESS

The street reconstruction and overlay planning process is as follows; the City Council authorizes the preparation of the SROP. The City staff is instructed to assemble the capital expenditures to be undertaken within the next five years. The City Council then reviews the expenditures according to their priority, fiscal impact, and available funding. From this information, a preliminary street reconstruction and overlay plan is prepared. A public hearing is held to solicit input from citizens and other governmental units. Changes are made based on that input, and a final project list is established.

The City Council then prepares a plan based on the available funding sources. If general obligation bonding is necessary, the City works with its financial advisor to prepare a bond sale and repayment schedule. Over the life of the SROP, once the funding, including proceeds from the bond sales becomes available, the individual capital expenditures can be made.

In subsequent years, the process is repeated as expenditures are completed as new needs arise. Street reconstruction planning looks five years into the future.

For a city to use its authority to finance expenditures under Chapter 475.58, Subdivision 3b, it must meet the requirements provided therein. Specifically, the city council must approve the sale of street reconstruction bonds by a unanimous vote of its membership present. In addition, it must hold a public hearing for public input. Notice of such hearing must be published in the official newspaper of the city at least 10, but not more than 28 days prior to the date of the public hearing. The city council approves the SROP unanimously following the public hearing.

Although a referendum is not required, a reverse referendum is allowable. If a petition bearing the signatures of at least 5 percent of the votes cast in the last general election requesting a vote on the issuance of bonds is received by the municipal clerk within 30 days after the public hearing, a referendum vote on the issuance of the bonds shall be called (if a vote is taken and the referendum passes, the taxes would be levied on market value rather than tax capacity).

IV. PROJECT SUMMARY

The expenditures to be undertaken with this Street Reconstruction and Overlay Plan (SROP) are limited to those listed in Appendix A. All other foreseeable capital expenditures within the City government will come through other means. The following expenditures have been submitted for inclusion in this SROP:

2015 Expenditures

- Garnet Street & 168th Avenue Reconstruction and overlay of streets in Hy-10 Ramsey, Northfork Highlands, Northfork Oaks, Northfork Point, Pondvale Estates, Pondvale Estates 2nd and Rolling Green.

2016 Expenditures

- Andrie Street and 164th Lane reconstruction and overlay of streets in AEC, Woodland Green and Sunwood Drive.

2017 Expenditures

- Reconstruction of Alpine Drive and overlay of streets in Rivers Bend.

2018 Expenditures

- Reconstruction of streets in Stanhope Terrace and North Forty and overlay of streets in Woodland Green, North Forty 2nd, Forth Forty 3rd, Northfork Oaks, Northfork, Northfork 2nd, Northfork 3rd and Northfork Itasca Shores.

2019 Expenditures

- Reconstruction of streets in Ford Brook Estates and overlay of streets in Brookview Estates, Meadow View, Flintwood Hills, Wood Pond Hills and Chestnut Ridge.

V. FINANCING THE STREET RECONSTRUCTION PLAN

The total amount of requested expenditures under the Street Reconstruction and Overlay Plan is approximately $9 million. If these expenditures are to be funded, that amount of money is anticipated to be generated through the tax levy and the sale of approximately $10,000,000 in bonds over the five-year period.

In the financing of the Street Reconstruction Plan, one statutory limitation applies. Under Chapter 475, with few exceptions, cities cannot incur debt in excess of 3% of the assessor's estimated market value for the city. In the City the pay 2014 EMV is $1,795,975,400. Therefore, the total amount of outstanding debt cannot exceed $53,879,262. As of February 10, 2015 the City had $20,050,000 subject to the legal debt limit.

Under the Street Reconstruction Plan, the City will secure $1,775,000 in general obligation bonds in the year 2015 to finance Garnet Street & 168th Avenue reconstruction and overlay of streets in Hy-10 Ramsey, Northfork Highlands, Northfork Oaks, Northfork Point, Pondvale Estates, Pondvale Estates 2nd and Rolling Green. In the year 2016, general obligation bonds in the amount of $2,865,000 will be secured for the Andrie Street and 164th Lane reconstruction and overlay of streets in AEC, Woodland Green and Sunwood Drive. In 2017, general obligation bonds in the amount of $995,000 will be used to finance reconstruction of Alpine Drive and overlay of streets in Rivers Bend. In 2018, general obligation bonds in the amount of $2,435,000 will be used to finance reconstruction of streets in Stanhope Terrace and North Forty and overlay of streets in Woodland Green, North Forty 2nd, Forth Forty 3rd, Northfork Oaks, Northfork, Northfork 2nd, Northfork 3rd and Northfork Itasca Shores. Finally in the year 2019, $1,440,000 in general obligation bonds will be secured for the financing of reconstruction of streets in Ford Brook Estates and overlay of streets in Brookview Estates, Meadow View, Flintwood Hills, Wood Pond Hills and Chestnut Ridge. All five general obligation bond issues will be repaid over a 10 - year period. The only exception is the road reconstruction portion of the 2016 bonds will be repaid over a 15-year period due to the size of the project (approximately $2.325 million). The par amount of each issue is based on the amounts listed in Appendix A plus estimated issuance costs. The proposed general obligation street reconstruction bonds (including issuance costs) are shown in Appendix B.

Continuation of the Street Reconstruction and Overlay Plan

This Street Reconstruction and Overlay Plan should be reviewed annually by the City Council using the process outlined in this Plan. It should review proposed expenditures, make priority decisions, and seek funding for those expenditures it deems necessary for the City. If deemed appropriate, the Council should prepare an update to this Plan.

APPENDIX A

PROJECT COSTS

(Capital Expenditures to be funded with Bond Proceeds)

The 2015 capital expenditure of approximately $1,680,100 for the City's portion of reconstruction of Garnet Street & 168th Avenue and overlay of streets in Hy-10 Ramsey, Northfork Highlands, Northfork Oaks, Northfork Point, Pondvale Estates, Pondvale Estates 2nd and Rolling Green is to be funded with $1,775,000 in bond proceeds.

Total Issue Sources And Uses

Dated 05/01/2015 | Delivered 05/01/2015

	Street Reconstruction	Overlay	Issue Summary
Sources Of Funds			
Par Amount of Bonds	$1,095,000.00	$680,000.00	$1,775,000.00
Total Sources	**$1,095,000.00**	**$680,000.00**	**$1,775,000.00**
Uses Of Funds			
Total Underwriter's Discount (1.200%)	13,140.00	8,160.00	21,300.00
Costs of Issuance	24,059.15	14,940.85	39,000.00
Deposit to Capitalized Interest (CIF) Fund	19,857.50	12,333.75	32,191.25
Deposit to Project Construction Fund	1,036,000.00	644,100.00	1,680,100.00
Rounding Amount	1,943.35	465.40	2,408.75
Total Uses	**$1,095,000.00**	**$680,000.00**	**$1,775,000.00**

PROJECT COSTS

The 2016 capital expenditure of approximately $2,719,710 for the City's portion of Andrie Street and 164th Lane reconstruction and overlay of streets in AEC, Woodland Green and Sunwood Drive is to be funded with $2,865,000 in bond proceeds.

Total Issue Sources And Uses

Dated 05/01/2016 | Delivered 05/01/2016

	Street Reconstruction	Overlay	Issue Summary
Sources Of Funds			
Par Amount of Bonds	$2,325,000.00	$540,000.00	$2,865,000.00
Total Sources	**$2,325,000.00**	**$540,000.00**	**$2,865,000.00**
Uses Of Funds			
Total Underwriter's Discount (1.200%)	27,900.00	6,480.00	34,380.00
Costs of Issuance	35,706.80	8,293.20	44,000.00
Deposit to Capitalized Interest (CIF) Fund	52,715.00	9,820.42	62,535.42
Deposit to Project Construction Fund	2,205,105.00	514,605.00	2,719,710.00
Rounding Amount	3,573.20	801.38	4,374.58
Total Uses	**$2,325,000.00**	**$540,000.00**	**$2,865,000.00**

PROJECT COSTS

The 2017 capital expenditure of approximately $919,065 for the reconstruction of Alpine Drive and overlay of streets in Rivers Bend is to be funded with $995,000 in bond proceeds.

Total Issue Sources And Uses

Dated 05/01/2017 | Delivered 05/01/2017

	Street Reconstruction	Overlay	Issue Summary
Sources Of Funds			
Par Amount of Bonds	$810,000.00	$185,000.00	$995,000.00
Total Sources	**$810,000.00**	**$185,000.00**	**$995,000.00**
Uses Of Funds			
Total Underwriter's Discount (1.500%)	12,150.00	2,775.00	14,925.00
Costs of Issuance	32,562.82	7,437.18	40,000.00
Deposit to Capitalized Interest (CIF) Fund	14,695.42	3,396.25	18,091.67
Deposit to Project Construction Fund	747,180.00	171,885.00	919,065.00
Rounding Amount	3,411.76	(493.43)	2,918.33
Total Uses	**$810,000.00**	**$185,000.00**	**$995,000.00**

PROJECT COSTS

The 2018 capital expenditure of approximately $2,316,050 for the reconstruction of streets in Stanhope Terrace and North Forty and overlay of streets in Woodland Green, North Forty 2nd, Forth Forty 3rd, Northfork Oaks, Northfork, Northfork 2nd, Northfork 3rd and Northfork Itasca Shores is to be funded with $2,435,000 in bond proceeds.

Total Issue Sources And Uses

Dated 05/01/2018 | Delivered 05/01/2018

	Street Reconstruction	Overlay	Issue Summary
Sources Of Funds			
Par Amount of Bonds	$1,565,000.00	$870,000.00	$2,435,000.00
Total Sources	**$1,565,000.00**	**$870,000.00**	**$2,435,000.00**
Uses Of Funds			
Total Underwriter's Discount (1.200%)	18,780.00	10,440.00	29,220.00
Costs of Issuance	28,279.26	15,720.74	44,000.00
Deposit to Capitalized Interest (CIF) Fund	28,426.67	15,805.83	44,232.50
Deposit to Project Construction Fund	1,486,980.00	829,070.00	2,316,050.00
Rounding Amount	2,534.07	(1,036.57)	1,497.50
Total Uses	**$1,565,000.00**	**$870,000.00**	**$2,435,000.00**

PROJECT COSTS

The 2019 capital expenditure of approximately $1,353,990 for the reconstruction of streets in Ford Brook Estates and overlay of streets in Brookview Estates, Meadow View, Flintwood Hills, Wood Pond Hills and Chestnut Ridge is to be funded with $1,440,000 in bond proceeds.

Total Issue Sources And Uses

Dated 05/01/2019 | Delivered 05/01/2019

	Street Reconstruction	Overlay	Issue Summary
Sources Of Funds			
Par Amount of Bonds	$725,000.00	$715,000.00	$1,440,000.00
Total Sources	**$725,000.00**	**$715,000.00**	**$1,440,000.00**
Uses Of Funds			
Total Underwriter's Discount (1.200%)	8,700.00	8,580.00	17,280.00
Costs of Issuance	19,131.95	18,868.05	38,000.00
Deposit to Capitalized Interest (CIF) Fund	13,102.92	12,943.13	26,046.05
Deposit to Project Construction Fund	680,570.00	673,420.00	1,353,990.00
Rounding Amount	3,495.13	1,188.82	4,683.95
Total Uses	**$725,000.00**	**$715,000.00**	**$1,440,000.00**

APPENDIX B

PROPOSED 2015 SROP BOND ISSUE

City of Ramsey, Minnesota

$1,775,000 General Obligation Bonds, Series 2015
Issue Summary

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	CIF	Net New D/S	105% of Total
12/01/2015	-	-	17,333.75	17,333.75	(17,333.75)	-	-
12/01/2016	180,000.00	0.850%	29,715.00	209,715.00	(14,857.50)	194,857.50	204,600.38
12/01/2017	170,000.00	1.050%	28,185.00	198,185.00	-	198,185.00	208,094.25
12/01/2018	170,000.00	1.250%	26,400.00	196,400.00	-	196,400.00	206,220.00
12/01/2019	170,000.00	1.400%	24,275.00	194,275.00	-	194,275.00	203,988.75
12/01/2020	170,000.00	1.650%	21,895.00	191,895.00	-	191,895.00	201,489.75
12/01/2021	175,000.00	1.750%	19,090.00	194,090.00	-	194,090.00	203,794.50
12/01/2022	180,000.00	1.900%	16,027.50	196,027.50	-	196,027.50	205,828.88
12/01/2023	185,000.00	2.050%	12,607.50	197,607.50	-	197,607.50	207,487.88
12/01/2024	185,000.00	2.300%	8,815.00	193,815.00	-	193,815.00	203,505.75
12/01/2025	190,000.00	2.400%	4,560.00	194,560.00	-	194,560.00	204,288.00
Total	**$1,775,000.00**	**-**	**$208,903.75**	**$1,983,903.75**	**(32,191.25)**	**$1,951,712.50**	**$2,049,298.13**

PROPOSED 2016 SROP BOND ISSUE

City of Ramsey, Minnesota

$2,865,000 General Obligation Bonds, Series 2016
Issue Summary

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	CIF	Net New D/S	105% of Total
12/01/2016	-	-	33,672.92	33,672.92	(33,672.92)	-	-
12/01/2017	215,000.00	0.850%	57,725.00	272,725.00	(28,862.50)	243,862.50	256,055.63
12/01/2018	185,000.00	1.050%	55,897.50	240,897.50	-	240,897.50	252,942.38
12/01/2019	190,000.00	1.250%	53,955.00	243,955.00	-	243,955.00	256,152.75
12/01/2020	190,000.00	1.400%	51,580.00	241,580.00	-	241,580.00	253,659.00
12/01/2021	200,000.00	1.650%	48,920.00	248,920.00	-	248,920.00	261,366.00
12/01/2022	200,000.00	1.750%	45,620.00	245,620.00	-	245,620.00	257,901.00
12/01/2023	205,000.00	1.900%	42,120.00	247,120.00	-	247,120.00	259,476.00
12/01/2024	205,000.00	2.050%	38,225.00	243,225.00	-	243,225.00	255,386.25
12/01/2025	210,000.00	2.300%	34,022.50	244,022.50	-	244,022.50	256,223.63
12/01/2026	215,000.00	2.400%	29,192.50	244,192.50	-	244,192.50	256,402.13
12/01/2027	160,000.00	2.550%	24,032.50	184,032.50	-	184,032.50	193,234.13
12/01/2028	165,000.00	2.700%	19,952.50	184,952.50	-	184,952.50	194,200.13
12/01/2029	170,000.00	2.850%	15,497.50	185,497.50	-	185,497.50	194,772.38
12/01/2030	175,000.00	2.950%	10,652.50	185,652.50	-	185,652.50	194,935.13
12/01/2031	180,000.00	3.050%	5,490.00	185,490.00	-	185,490.00	194,764.50
Total	**$2,865,000.00**	**-**	**$566,555.42**	**$3,431,555.42**	**(62,535.42)**	**$3,369,020.00**	**$3,537,471.00**

PROPOSED 2017 SROP BOND ISSUE

City of Ramsey, Minnesota

$995,000 General Obligation Bonds, Series 2017
Issue Summary

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	CIF	Net New D/S	105% of Total
12/01/2017	-	-	9,741.67	9,741.67	(9,741.67)	-	-
12/01/2018	100,000.00	0.850%	16,700.00	116,700.00	(8,350.00)	108,350.00	113,767.50
12/01/2019	90,000.00	1.050%	15,850.00	105,850.00	-	105,850.00	111,142.50
12/01/2020	95,000.00	1.250%	14,905.00	109,905.00	-	109,905.00	115,400.25
12/01/2021	95,000.00	1.400%	13,717.50	108,717.50	-	108,717.50	114,153.38
12/01/2022	100,000.00	1.650%	12,387.50	112,387.50	-	112,387.50	118,006.88
12/01/2023	100,000.00	1.750%	10,737.50	110,737.50	-	110,737.50	116,274.38
12/01/2024	100,000.00	1.900%	8,987.50	108,987.50	-	108,987.50	114,436.88
12/01/2025	105,000.00	2.050%	7,087.50	112,087.50	-	112,087.50	117,691.88
12/01/2026	105,000.00	2.300%	4,935.00	109,935.00	-	109,935.00	115,431.75
12/01/2027	105,000.00	2.400%	2,520.00	107,520.00	-	107,520.00	112,896.00
Total	**$995,000.00**	**-**	**$117,569.17**	**$1,112,569.17**	**(18,091.67)**	**$1,094,477.50**	**$1,149,201.38**

PROPOSED 2018 SROP BOND ISSUE

City of Ramsey, Minnesota

$2,435,000 General Obligation Bonds, Series 2018
Issue Summary

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	CIF	Net New D/S	105% of Total
12/01/2018	-	-	23,817.50	23,817.50	(23,817.50)	-	-
12/01/2019	250,000.00	0.850%	40,830.00	290,830.00	(20,415.00)	270,415.00	283,935.75
12/01/2020	225,000.00	1.050%	38,705.00	263,705.00	-	263,705.00	276,890.25
12/01/2021	230,000.00	1.250%	36,342.50	266,342.50	-	266,342.50	279,659.63
12/01/2022	235,000.00	1.400%	33,467.50	268,467.50	-	268,467.50	281,890.88
12/01/2023	235,000.00	1.650%	30,177.50	265,177.50	-	265,177.50	278,436.38
12/01/2024	240,000.00	1.750%	26,300.00	266,300.00	-	266,300.00	279,615.00
12/01/2025	250,000.00	1.900%	22,100.00	272,100.00	-	272,100.00	285,705.00
12/01/2026	250,000.00	2.050%	17,350.00	267,350.00	-	267,350.00	280,717.50
12/01/2027	255,000.00	2.300%	12,225.00	267,225.00	-	267,225.00	280,586.25
12/01/2028	265,000.00	2.400%	6,360.00	271,360.00	-	271,360.00	284,928.00
Total	**$2,435,000.00**	**-**	**$287,675.00**	**$2,722,675.00**	**(44,232.50)**	**$2,678,442.50**	**$2,812,364.63**

PROPOSED 2019 SROP BOND ISSUE

City of Ramsey, Minnesota

$1,440,000 General Obligation Bonds, Series 2019
Issue Summary

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	CIF	Net New D/S	105% of Total
12/01/2019	-	-	14,024.80	14,024.80	(14,024.80)	-	-
12/01/2020	150,000.00	0.850%	24,042.50	174,042.50	(12,021.25)	162,021.25	170,122.31
12/01/2021	135,000.00	1.050%	22,767.50	157,767.50	-	157,767.50	165,655.88
12/01/2022	140,000.00	1.250%	21,350.00	161,350.00	-	161,350.00	169,417.50
12/01/2023	140,000.00	1.400%	19,600.00	159,600.00	-	159,600.00	167,580.00
12/01/2024	140,000.00	1.650%	17,640.00	157,640.00	-	157,640.00	165,522.00
12/01/2025	140,000.00	1.750%	15,330.00	155,330.00	-	155,330.00	163,096.50
12/01/2026	145,000.00	1.900%	12,880.00	157,880.00	-	157,880.00	165,774.00
12/01/2027	150,000.00	2.050%	10,125.00	160,125.00	-	160,125.00	168,131.25
12/01/2028	150,000.00	2.300%	7,050.00	157,050.00	-	157,050.00	164,902.50
12/01/2029	150,000.00	2.400%	3,600.00	153,600.00	-	153,600.00	161,280.00
Total	**$1,440,000.00**	-	**$168,409.80**	**$1,608,409.80**	**(26,046.05)**	**$1,582,363.75**	**$1,661,481.94**

APPENDIX C

Pre-Sale Schedule dated March 10, 2015
5-Year City Street Reconstruction Plan Bond Issuance
City of Ramsey, Minnesota

The City Council must take the following actions before Bonds can be issued:

- City Council directs preparation of a 5-Year Street Reconstruction Plan.
- City Council conducts a Public Hearing on issuance of Bonds and Street Reconstruction Plan.
- City Council approves Bonds and Street Reconstruction Plan by unanimous vote.

The table below lists the steps in the issuing process:

February 10, 2015:	City Council adopts Resolution calling for Public Hearing on issuance of Bonds and on Street Reconstruction Plan.
February 16, 2105:	Close date to get Notice of Public Hearing on issuance of Bonds and on Street Reconstruction Plan to official newspaper for publication.
February 20, 2015:	Publish Notice of Public Hearing on issuance of Bonds and on Street Reconstruction Plan (publication no more than 28 days and no less than 10 days prior to hearing date).
March 10, 2015:	City Council holds Public Hearing at 7:00 p.m. on Bonds and on Street Reconstruction Plan and adopts Resolution giving preliminary approval for their issuance and approving Street Reconstruction Plan by unanimous vote of its membership present.
March 10, 2015:	City Council provides for sale of Bonds.
April 9, 2015:	Reverse referendum period ends (within 30 days of the public hearing).
April 14, 2015:	City Council accepts offer for Bonds and adopts Resolution-Approving sale of Bonds.
May 7, 2014:	Tentative closing/receipt of funds.

Net Debt Limit	
Assessor's Estimated Market Value	1,795,975,400
Multiply by 3%	0.03
Statutory Debt Limit	53,879,262
Less: Debt Paid Solely from Taxes	(20,050,000)
Unused Debt Limit	33,829,262

Public Works Committee **5. 5.**

Meeting Date: 08/21/2018

By: Bruce Westby, Engineering/Public Works

Title:

Consider City Council Recommendation to Order Feasibility Report for Improvement Project #19-03, Wood Pond Hills & Chestnut Ridge Street Reconstructions

Purpose/Background:

Purpose:

The purpose of this case is to consider approving a recommendation to the City Council to order a Feasibility Report for Improvement Project #19-03, Wood Pond Hills & Chestnut Ridge Street Reconstructions.

Background:

The City of Ramsey's current 10-year Capital Improvement Plan (CIP) covers calendar years 2018 to 2027. The plan identifies all public streets proposed to be reconstructed or to receive overlays in 2019 as part of the City's long-term Street Maintenance Program. Page 223 from the CIP is attached which shows the streets in Wood Pond Hills & Chestnut Ridge were proposed to receive overlays in 2019.

In the spring of 2018 Staff re-evaluated the pavement condition of these streets and found the pavement has degraded past the point where an overlay should be applied, and that a total reconstruct is now required. Staff therefore recommends that these streets be reconstructed in 2019 to allow bonds to be used to pay for the improvements per the City's 2015 - 2019 Street Reconstruction and Overlay Program (SROP). Attached is a copy of the 2015 - 2019 SROP for reference.

Figure 1 (attached) shows the general location of the Wood Pond Hills & Chestnut Ridge developments within the City.

Figure 2 (attached) shows the overall scope of the project.

Timeframe:

Staff estimates 5 minutes will be required to present this case and respond to questions.

Observations/Alternatives:

Observations:

If these streets are not reconstructed in 2019, they can be added to the next 5-year SROP to allow reconstruction between 2020 and 2024 instead. However, this would reduce the amount of pavement maintenance work that can be completed in the current 5-year SROP since no new streets can be added to the 5-year SROP.

Alternatives:

Alternative #1 – Motion approving a recommendation to the City Council to order a Feasibility Report for Improvement Project #19-03, Wood Pond Hills & Chestnut Ridge Street Reconstructions.

Alternative #2 – Motion of other.

Funding Source:

The Feasibility Report will be completed in-house as part of Staff's normal duties.

Staff proposes to fund the proposed street reconstruction improvements using a combination of special assessments to benefiting properties, street reconstruction bond funds, and stormwater utility funds (if needed).

Recommendation:

Staff recommends alternative #1.

Action:

Motion approving a recommendation to the City Council to order a Feasibility Report for Improvement Project #19-03, Wood Pond Hills & Chestnut Ridge Street Reconstructions.

Attachments

CIP Pg223

Figure 1

Figure 2

5 year SROP

Form Review

Inbox	Reviewed By	Date
Grant Riemer	Grant Riemer	08/16/2018 03:13 PM
Kurt Ulrich	MaryJo Warner	08/16/2018 03:52 PM
Bruce Westby (Originator)	Bruce Westby	08/17/2018 01:51 PM
Form Started By: Bruce Westby		Started On: 08/13/2018 11:26 AM
Final Approval Date: 08/17/2018		

Project #	15-STR-012
Project Name	2019 Overlay Projects

Department	Street Improvements
Contact	
Type	Improvement
Useful Life	20 Years
Category	Street Improvement
Priority	1-Existing Obligation (High)
Status	Active

Total Cost $612,200

Description

Each paved street within the City is scheduled to receive preventative maintenance on a regularly scheduled basis, including reconstruction at the end of its useful life.

2019 Projects: Brookview Estates, Meadow View, Flintwood Hills, Wood Pond Hills, Chestnut Ridge

There is a total of $2.2M designated to maintain streets annually.

Overlays will be assessed at 25% of cost

Justification

Regular scheduled maintenance safeguards the considerable investment the City has in its pavements by cost effectively maximizing pavement life and minimizing emergency repairs.

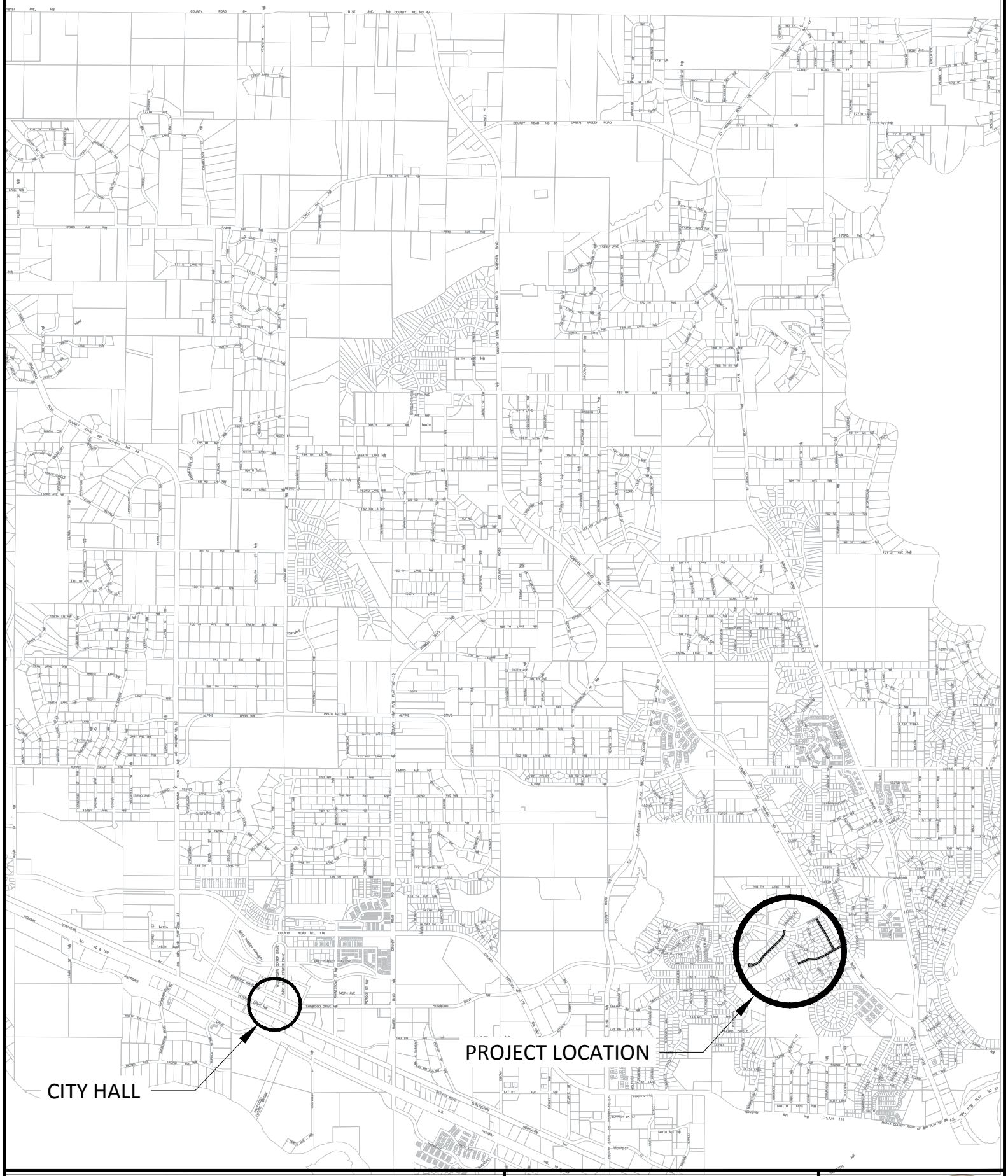
Overlaying streets provides additional pavement life. These streets were selected based on Paser rating and time since last pavement maintenance treatment.

Look at Possibility of Using MSA or PIR funds for portion of costs instead of bonding.

Revisit Program for 2020-2025

Expenditures	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
Improvements Other than Building Cost		612,200									612,200
Total		**612,200**									**612,200**

Funding Sources	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
Special Assessment - Bonded		153,050									153,050
GO Bonding (Road Funding)		459,150									459,150
Total		**612,200**									**612,200**



WOOD POND HILLS & CHESTNUT RIDGE PROJECT LOCATION

0 3000 6000 9000

SCALE (FEET)

N

City of RAMSEY

WOOD POND HILLS & CHESTNUT RIDGE PROJECT SCOPE

0 300 600 900

SCALE (FEET)

N

City of RAMSEY

2015 through 2019

Five-Year Street Reconstruction Overlay Plan for the

City of Ramsey, Minnesota

March 10, 2015

Prepared by:

Ehlers & Associates, Inc.
3060 Centre Pointe Drive
Roseville, MN 55113

Table of Contents

City of Ramsey, MN

Five-Year Street Reconstruction and Overlay Plan

2015 through 2019

I. INTRODUCTION

In 2002, the Minnesota State Legislature passed into law a bill which generally exempts city bonds issued under a street reconstruction program from the referendum requirements usually required for bonding expenditures. In 2013 the Legislature amended the law to allow bituminous overlays to be included in the street reconstruction program.

II. PURPOSE

Street reconstruction or bituminous overlay is a major expenditure of city funds for the reconstruction or overlay of streets. Street reconstruction and bituminous overlay may include utility replacement and relocation and other incidental costs, turn lanes and other improvements having a substantial public safety function, realignments, other modifications to intersect with state and county roads, and the local share of state and county road projects. Except in the case of turn lanes, safety improvements, realignments, intersection modifications, and local share of state and county road projects, street reconstruction does not include the portion of project costs allocable to widening a street or adding curbs and gutters where none previously existed. A Street Reconstruction and Overlay Plan (SROP) is a document designed to anticipate street reconstruction and overlay expenditures and schedule them over a five-year period so that they may be purchased in the most efficient and cost effective method possible. A SROP allows the matching of expenditures with anticipated income. As potential expenditures are reviewed, the city considers the benefits, costs, alternatives and impact on operating expenditures.

The City of Ramsey, Minnesota (the "City") believes the street reconstruction and overlay process is an important element of responsible fiscal management. Major capital expenditures can be anticipated and coordinated so as to minimize potentially adverse financial impacts caused by the timing and magnitude of capital outlays. This coordination of capital expenditures is important to the City in achieving its goals of adequate physical assets and sound fiscal management. In these financially difficult times good planning is essential for the wise use of limited financial resources.

The Street Reconstruction and Overlay Plan is designed to be updated on an annual basis. In this manner, it becomes an ongoing fiscal planning tool that continually anticipates future capital expenditures and funding sources.

III. THE STREET RECONSTRUCTION AND OVERLAY PLANNING PROCESS

The street reconstruction and overlay planning process is as follows; the City Council authorizes the preparation of the SROP. The City staff is instructed to assemble the capital expenditures to be undertaken within the next five years. The City Council then reviews the expenditures according to their priority, fiscal impact, and available funding. From this information, a preliminary street reconstruction and overlay plan is prepared. A public hearing is held to solicit input from citizens and other governmental units. Changes are made based on that input, and a final project list is established.

The City Council then prepares a plan based on the available funding sources. If general obligation bonding is necessary, the City works with its financial advisor to prepare a bond sale and repayment schedule. Over the life of the SROP, once the funding, including proceeds from the bond sales becomes available, the individual capital expenditures can be made.

In subsequent years, the process is repeated as expenditures are completed as new needs arise. Street reconstruction planning looks five years into the future.

For a city to use its authority to finance expenditures under Chapter 475.58, Subdivision 3b, it must meet the requirements provided therein. Specifically, the city council must approve the sale of street reconstruction bonds by a unanimous vote of its membership present. In addition, it must hold a public hearing for public input. Notice of such hearing must be published in the official newspaper of the city at least 10, but not more than 28 days prior to the date of the public hearing. The city council approves the SROP unanimously following the public hearing.

Although a referendum is not required, a reverse referendum is allowable. If a petition bearing the signatures of at least 5 percent of the votes cast in the last general election requesting a vote on the issuance of bonds is received by the municipal clerk within 30 days after the public hearing, a referendum vote on the issuance of the bonds shall be called (if a vote is taken and the referendum passes, the taxes would be levied on market value rather than tax capacity).

IV. PROJECT SUMMARY

The expenditures to be undertaken with this Street Reconstruction and Overlay Plan (SROP) are limited to those listed in Appendix A. All other foreseeable capital expenditures within the City government will come through other means. The following expenditures have been submitted for inclusion in this SROP:

2015 Expenditures

- Garnet Street & 168th Avenue Reconstruction and overlay of streets in Hy-10 Ramsey, Northfork Highlands, Northfork Oaks, Northfork Point, Pondvale Estates, Pondvale Estates 2nd and Rolling Green.

2016 Expenditures

- Andrie Street and 164th Lane reconstruction and overlay of streets in AEC, Woodland Green and Sunwood Drive.

2017 Expenditures

- Reconstruction of Alpine Drive and overlay of streets in Rivers Bend.

2018 Expenditures

- Reconstruction of streets in Stanhope Terrace and North Forty and overlay of streets in Woodland Green, North Forty 2nd, Forth Forty 3rd, Northfork Oaks, Northfork, Northfork 2nd, Northfork 3rd and Northfork Itasca Shores.

2019 Expenditures

- Reconstruction of streets in Ford Brook Estates and overlay of streets in Brookview Estates, Meadow View, Flintwood Hills, Wood Pond Hills and Chestnut Ridge.

V. FINANCING THE STREET RECONSTRUCTION PLAN

The total amount of requested expenditures under the Street Reconstruction and Overlay Plan is approximately $9 million. If these expenditures are to be funded, that amount of money is anticipated to be generated through the tax levy and the sale of approximately $10,000,000 in bonds over the five-year period.

In the financing of the Street Reconstruction Plan, one statutory limitation applies. Under Chapter 475, with few exceptions, cities cannot incur debt in excess of 3% of the assessor's estimated market value for the city. In the City the pay 2014 EMV is $1,795,975,400. Therefore, the total amount of outstanding debt cannot exceed $53,879,262. As of February 10, 2015 the City had $20,050,000 subject to the legal debt limit.

Under the Street Reconstruction Plan, the City will secure $1,775,000 in general obligation bonds in the year 2015 to finance Garnet Street & 168th Avenue reconstruction and overlay of streets in Hy-10 Ramsey, Northfork Highlands, Northfork Oaks, Northfork Point, Pondvale Estates, Pondvale Estates 2nd and Rolling Green. In the year 2016, general obligation bonds in the amount of $2,865,000 will be secured for the Andrie Street and 164th Lane reconstruction and overlay of streets in AEC, Woodland Green and Sunwood Drive. In 2017, general obligation bonds in the amount of $995,000 will be used to finance reconstruction of Alpine Drive and overlay of streets in Rivers Bend. In 2018, general obligation bonds in the amount of $2,435,000 will be used to finance reconstruction of streets in Stanhope Terrace and North Forty and overlay of streets in Woodland Green, North Forty 2nd, Forth Forty 3rd, Northfork Oaks, Northfork, Northfork 2nd, Northfork 3rd and Northfork Itasca Shores. Finally in the year 2019, $1,440,000 in general obligation bonds will be secured for the financing of reconstruction of streets in Ford Brook Estates and overlay of streets in Brookview Estates, Meadow View, Flintwood Hills, Wood Pond Hills and Chestnut Ridge. All five general obligation bond issues will be repaid over a 10 - year period. The only exception is the road reconstruction portion of the 2016 bonds will be repaid over a 15-year period due to the size of the project (approximately $2.325 million). The par amount of each issue is based on the amounts listed in Appendix A plus estimated issuance costs. The proposed general obligation street reconstruction bonds (including issuance costs) are shown in Appendix B.

Continuation of the Street Reconstruction and Overlay Plan

This Street Reconstruction and Overlay Plan should be reviewed annually by the City Council using the process outlined in this Plan. It should review proposed expenditures, make priority decisions, and seek funding for those expenditures it deems necessary for the City. If deemed appropriate, the Council should prepare an update to this Plan.

APPENDIX A

PROJECT COSTS

(Capital Expenditures to be funded with Bond Proceeds)

The 2015 capital expenditure of approximately $1,680,100 for the City's portion of reconstruction of Garnet Street & 168th Avenue and overlay of streets in Hy-10 Ramsey, Northfork Highlands, Northfork Oaks, Northfork Point, Pondvale Estates, Pondvale Estates 2nd and Rolling Green is to be funded with $1,775,000 in bond proceeds.

Total Issue Sources And Uses

Dated 05/01/2015 | Delivered 05/01/2015

	Street Reconstruction	Overlay	Issue Summary
Sources Of Funds			
Par Amount of Bonds	$1,095,000.00	$680,000.00	$1,775,000.00
Total Sources	**$1,095,000.00**	**$680,000.00**	**$1,775,000.00**
Uses Of Funds			
Total Underwriter's Discount (1.200%)	13,140.00	8,160.00	21,300.00
Costs of Issuance	24,059.15	14,940.85	39,000.00
Deposit to Capitalized Interest (CIF) Fund	19,857.50	12,333.75	32,191.25
Deposit to Project Construction Fund	1,036,000.00	644,100.00	1,680,100.00
Rounding Amount	1,943.35	465.40	2,408.75
Total Uses	**$1,095,000.00**	**$680,000.00**	**$1,775,000.00**

PROJECT COSTS

The 2016 capital expenditure of approximately $2,719,710 for the City's portion of Andrie Street and 164th Lane reconstruction and overlay of streets in AEC, Woodland Green and Sunwood Drive is to be funded with $2,865,000 in bond proceeds.

Total Issue Sources And Uses

Dated 05/01/2016 | Delivered 05/01/2016

	Street Reconstruction	Overlay	Issue Summary
Sources Of Funds			
Par Amount of Bonds	$2,325,000.00	$540,000.00	$2,865,000.00
Total Sources	**$2,325,000.00**	**$540,000.00**	**$2,865,000.00**
Uses Of Funds			
Total Underwriter's Discount (1.200%)	27,900.00	6,480.00	34,380.00
Costs of Issuance	35,706.80	8,293.20	44,000.00
Deposit to Capitalized Interest (CIF) Fund	52,715.00	9,820.42	62,535.42
Deposit to Project Construction Fund	2,205,105.00	514,605.00	2,719,710.00
Rounding Amount	3,573.20	801.38	4,374.58
Total Uses	**$2,325,000.00**	**$540,000.00**	**$2,865,000.00**

PROJECT COSTS

The 2017 capital expenditure of approximately $919,065 for the reconstruction of Alpine Drive and overlay of streets in Rivers Bend is to be funded with $995,000 in bond proceeds.

Total Issue Sources And Uses

Dated 05/01/2017 | Delivered 05/01/2017

	Street Reconstruction	Overlay	Issue Summary
Sources Of Funds			
Par Amount of Bonds	$810,000.00	$185,000.00	$995,000.00
Total Sources	**$810,000.00**	**$185,000.00**	**$995,000.00**
Uses Of Funds			
Total Underwriter's Discount (1.500%)	12,150.00	2,775.00	14,925.00
Costs of Issuance	32,562.82	7,437.18	40,000.00
Deposit to Capitalized Interest (CIF) Fund	14,695.42	3,396.25	18,091.67
Deposit to Project Construction Fund	747,180.00	171,885.00	919,065.00
Rounding Amount	3,411.76	(493.43)	2,918.33
Total Uses	**$810,000.00**	**$185,000.00**	**$995,000.00**

PROJECT COSTS

The 2018 capital expenditure of approximately $2,316,050 for the reconstruction of streets in Stanhope Terrace and North Forty and overlay of streets in Woodland Green, North Forty 2nd, Forth Forty 3rd, Northfork Oaks, Northfork, Northfork 2nd, Northfork 3rd and Northfork Itasca Shores is to be funded with $2,435,000 in bond proceeds.

Total Issue Sources And Uses

Dated 05/01/2018 | Delivered 05/01/2018

	Street Reconstruction	Overlay	Issue Summary
Sources Of Funds			
Par Amount of Bonds	$1,565,000.00	$870,000.00	$2,435,000.00
Total Sources	**$1,565,000.00**	**$870,000.00**	**$2,435,000.00**
Uses Of Funds			
Total Underwriter's Discount (1.200%)	18,780.00	10,440.00	29,220.00
Costs of Issuance	28,279.26	15,720.74	44,000.00
Deposit to Capitalized Interest (CIF) Fund	28,426.67	15,805.83	44,232.50
Deposit to Project Construction Fund	1,486,980.00	829,070.00	2,316,050.00
Rounding Amount	2,534.07	(1,036.57)	1,497.50
Total Uses	**$1,565,000.00**	**$870,000.00**	**$2,435,000.00**

PROJECT COSTS

The 2019 capital expenditure of approximately $1,353,990 for the reconstruction of streets in Ford Brook Estates and overlay of streets in Brookview Estates, Meadow View, Flintwood Hills, Wood Pond Hills and Chestnut Ridge is to be funded with $1,440,000 in bond proceeds.

Total Issue Sources And Uses

Dated 05/01/2019 | Delivered 05/01/2019

	Street Reconstruction	Overlay	Issue Summary
Sources Of Funds			
Par Amount of Bonds	$725,000.00	$715,000.00	$1,440,000.00
Total Sources	**$725,000.00**	**$715,000.00**	**$1,440,000.00**
Uses Of Funds			
Total Underwriter's Discount (1.200%)	8,700.00	8,580.00	17,280.00
Costs of Issuance	19,131.95	18,868.05	38,000.00
Deposit to Capitalized Interest (CIF) Fund	13,102.92	12,943.13	26,046.05
Deposit to Project Construction Fund	680,570.00	673,420.00	1,353,990.00
Rounding Amount	3,495.13	1,188.82	4,683.95
Total Uses	**$725,000.00**	**$715,000.00**	**$1,440,000.00**

APPENDIX B

PROPOSED 2015 SROP BOND ISSUE

City of Ramsey, Minnesota

$1,775,000 General Obligation Bonds, Series 2015
Issue Summary

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	CIF	Net New D/S	105% of Total
12/01/2015	-	-	17,333.75	17,333.75	(17,333.75)	-	-
12/01/2016	180,000.00	0.850%	29,715.00	209,715.00	(14,857.50)	194,857.50	204,600.38
12/01/2017	170,000.00	1.050%	28,185.00	198,185.00	-	198,185.00	208,094.25
12/01/2018	170,000.00	1.250%	26,400.00	196,400.00	-	196,400.00	206,220.00
12/01/2019	170,000.00	1.400%	24,275.00	194,275.00	-	194,275.00	203,988.75
12/01/2020	170,000.00	1.650%	21,895.00	191,895.00	-	191,895.00	201,489.75
12/01/2021	175,000.00	1.750%	19,090.00	194,090.00	-	194,090.00	203,794.50
12/01/2022	180,000.00	1.900%	16,027.50	196,027.50	-	196,027.50	205,828.88
12/01/2023	185,000.00	2.050%	12,607.50	197,607.50	-	197,607.50	207,487.88
12/01/2024	185,000.00	2.300%	8,815.00	193,815.00	-	193,815.00	203,505.75
12/01/2025	190,000.00	2.400%	4,560.00	194,560.00	-	194,560.00	204,288.00
Total	**$1,775,000.00**	**-**	**$208,903.75**	**$1,983,903.75**	**(32,191.25)**	**$1,951,712.50**	**$2,049,298.13**

PROPOSED 2016 SROP BOND ISSUE

City of Ramsey, Minnesota

$2,865,000 General Obligation Bonds, Series 2016
Issue Summary

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	CIF	Net New D/S	105% of Total
12/01/2016	-	-	33,672.92	33,672.92	(33,672.92)	-	-
12/01/2017	215,000.00	0.850%	57,725.00	272,725.00	(28,862.50)	243,862.50	256,055.63
12/01/2018	185,000.00	1.050%	55,897.50	240,897.50	-	240,897.50	252,942.38
12/01/2019	190,000.00	1.250%	53,955.00	243,955.00	-	243,955.00	256,152.75
12/01/2020	190,000.00	1.400%	51,580.00	241,580.00	-	241,580.00	253,659.00
12/01/2021	200,000.00	1.650%	48,920.00	248,920.00	-	248,920.00	261,366.00
12/01/2022	200,000.00	1.750%	45,620.00	245,620.00	-	245,620.00	257,901.00
12/01/2023	205,000.00	1.900%	42,120.00	247,120.00	-	247,120.00	259,476.00
12/01/2024	205,000.00	2.050%	38,225.00	243,225.00	-	243,225.00	255,386.25
12/01/2025	210,000.00	2.300%	34,022.50	244,022.50	-	244,022.50	256,223.63
12/01/2026	215,000.00	2.400%	29,192.50	244,192.50	-	244,192.50	256,402.13
12/01/2027	160,000.00	2.550%	24,032.50	184,032.50	-	184,032.50	193,234.13
12/01/2028	165,000.00	2.700%	19,952.50	184,952.50	-	184,952.50	194,200.13
12/01/2029	170,000.00	2.850%	15,497.50	185,497.50	-	185,497.50	194,772.38
12/01/2030	175,000.00	2.950%	10,652.50	185,652.50	-	185,652.50	194,935.13
12/01/2031	180,000.00	3.050%	5,490.00	185,490.00	-	185,490.00	194,764.50
Total	**$2,865,000.00**	**-**	**$566,555.42**	**$3,431,555.42**	**(62,535.42)**	**$3,369,020.00**	**$3,537,471.00**

PROPOSED 2017 SROP BOND ISSUE

City of Ramsey, Minnesota

$995,000 General Obligation Bonds, Series 2017
Issue Summary

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	CIF	Net New D/S	105% of Total
12/01/2017	-	-	9,741.67	9,741.67	(9,741.67)	-	-
12/01/2018	100,000.00	0.850%	16,700.00	116,700.00	(8,350.00)	108,350.00	113,767.50
12/01/2019	90,000.00	1.050%	15,850.00	105,850.00	-	105,850.00	111,142.50
12/01/2020	95,000.00	1.250%	14,905.00	109,905.00	-	109,905.00	115,400.25
12/01/2021	95,000.00	1.400%	13,717.50	108,717.50	-	108,717.50	114,153.38
12/01/2022	100,000.00	1.650%	12,387.50	112,387.50	-	112,387.50	118,006.88
12/01/2023	100,000.00	1.750%	10,737.50	110,737.50	-	110,737.50	116,274.38
12/01/2024	100,000.00	1.900%	8,987.50	108,987.50	-	108,987.50	114,436.88
12/01/2025	105,000.00	2.050%	7,087.50	112,087.50	-	112,087.50	117,691.88
12/01/2026	105,000.00	2.300%	4,935.00	109,935.00	-	109,935.00	115,431.75
12/01/2027	105,000.00	2.400%	2,520.00	107,520.00	-	107,520.00	112,896.00
Total	**$995,000.00**	**-**	**$117,569.17**	**$1,112,569.17**	**(18,091.67)**	**$1,094,477.50**	**$1,149,201.38**

PROPOSED 2018 SROP BOND ISSUE

City of Ramsey, Minnesota

$2,435,000 General Obligation Bonds, Series 2018
Issue Summary

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	CIF	Net New D/S	105% of Total
12/01/2018	-	-	23,817.50	23,817.50	(23,817.50)	-	-
12/01/2019	250,000.00	0.850%	40,830.00	290,830.00	(20,415.00)	270,415.00	283,935.75
12/01/2020	225,000.00	1.050%	38,705.00	263,705.00	-	263,705.00	276,890.25
12/01/2021	230,000.00	1.250%	36,342.50	266,342.50	-	266,342.50	279,659.63
12/01/2022	235,000.00	1.400%	33,467.50	268,467.50	-	268,467.50	281,890.88
12/01/2023	235,000.00	1.650%	30,177.50	265,177.50	-	265,177.50	278,436.38
12/01/2024	240,000.00	1.750%	26,300.00	266,300.00	-	266,300.00	279,615.00
12/01/2025	250,000.00	1.900%	22,100.00	272,100.00	-	272,100.00	285,705.00
12/01/2026	250,000.00	2.050%	17,350.00	267,350.00	-	267,350.00	280,717.50
12/01/2027	255,000.00	2.300%	12,225.00	267,225.00	-	267,225.00	280,586.25
12/01/2028	265,000.00	2.400%	6,360.00	271,360.00	-	271,360.00	284,928.00
Total	**$2,435,000.00**	**-**	**$287,675.00**	**$2,722,675.00**	**(44,232.50)**	**$2,678,442.50**	**$2,812,364.63**

PROPOSED 2019 SROP BOND ISSUE

City of Ramsey, Minnesota

$1,440,000 General Obligation Bonds, Series 2019
Issue Summary

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I	CIF	Net New D/S	105% of Total
12/01/2019	-	-	14,024.80	14,024.80	(14,024.80)	-	-
12/01/2020	150,000.00	0.850%	24,042.50	174,042.50	(12,021.25)	162,021.25	170,122.31
12/01/2021	135,000.00	1.050%	22,767.50	157,767.50	-	157,767.50	165,655.88
12/01/2022	140,000.00	1.250%	21,350.00	161,350.00	-	161,350.00	169,417.50
12/01/2023	140,000.00	1.400%	19,600.00	159,600.00	-	159,600.00	167,580.00
12/01/2024	140,000.00	1.650%	17,640.00	157,640.00	-	157,640.00	165,522.00
12/01/2025	140,000.00	1.750%	15,330.00	155,330.00	-	155,330.00	163,096.50
12/01/2026	145,000.00	1.900%	12,880.00	157,880.00	-	157,880.00	165,774.00
12/01/2027	150,000.00	2.050%	10,125.00	160,125.00	-	160,125.00	168,131.25
12/01/2028	150,000.00	2.300%	7,050.00	157,050.00	-	157,050.00	164,902.50
12/01/2029	150,000.00	2.400%	3,600.00	153,600.00	-	153,600.00	161,280.00
Total	**$1,440,000.00**	-	**$168,409.80**	**$1,608,409.80**	**(26,046.05)**	**$1,582,363.75**	**$1,661,481.94**

APPENDIX C

Pre-Sale Schedule dated March 10, 2015
5-Year City Street Reconstruction Plan Bond Issuance
City of Ramsey, Minnesota

The City Council must take the following actions before Bonds can be issued:

- City Council directs preparation of a 5-Year Street Reconstruction Plan.
- City Council conducts a Public Hearing on issuance of Bonds and Street Reconstruction Plan.
- City Council approves Bonds and Street Reconstruction Plan by unanimous vote.

The table below lists the steps in the issuing process:

February 10, 2015:	City Council adopts Resolution calling for Public Hearing on issuance of Bonds and on Street Reconstruction Plan.
February 16, 2105:	Close date to get Notice of Public Hearing on issuance of Bonds and on Street Reconstruction Plan to official newspaper for publication.
February 20, 2015:	Publish Notice of Public Hearing on issuance of Bonds and on Street Reconstruction Plan (publication no more than 28 days and no less than 10 days prior to hearing date).
March 10, 2015:	City Council holds Public Hearing at 7:00 p.m. on Bonds and on Street Reconstruction Plan and adopts Resolution giving preliminary approval for their issuance and approving Street Reconstruction Plan by unanimous vote of its membership present.
March 10, 2015:	City Council provides for sale of Bonds.
April 9, 2015:	Reverse referendum period ends (within 30 days of the public hearing).
April 14, 2015:	City Council accepts offer for Bonds and adopts Resolution-Approving sale of Bonds.
May 7, 2014:	Tentative closing/receipt of funds.

Net Debt Limit	
Assessor's Estimated Market Value	1,795,975,400
Multiply by 3%	0.03
Statutory Debt Limit	53,879,262
Less: Debt Paid Solely from Taxes	(20,050,000)
Unused Debt Limit	33,829,262

Public Works Committee **6. 1.**

Meeting Date: 08/21/2018

By: Bruce Westby, Engineering/Public Works

Title:

Staff Updates on Improvement Projects and Items of Interest

Purpose/Background:

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

- **Riverdale Drive Extension - Traprock St. to Ramsey Blvd. (#16-20)**
  - Construction complete
  - Only punch list items remain
  - Final payment in 2019
- **River's Bend Street Reconstructions (#17-02)**
  - Construction complete
  - Only punch list items remain
  - Final payment in 2019
- **Puma Street Utilities Extensions (#17-10)**
  - Construction complete
  - Only punch list items remain
  - Final payment in 2019
- **Stanhope Terrace Street Reconstructions (#18-00)**
  - Construction complete
  - Only punch list items remain
  - Final payment in 2019
- **2018 Street Overlay Improvements (#18-03)**
  - Construction complete
  - Only punch list items remain
  - Final payment 2019
- **2018 Crackseal and Sealcoat Improvements (#18-04)**
  - Construction complete
  - Third sweeping, striping, and punch list items remain
  - Final payment 2018
- **Bunker Lake Boulevard and Puma Street Improvements (#18-05)**
  - Construction began August 15th
  - Substantial completion mid-October
  - Final completion 2019
- **The COR Regional Infiltration Basin (#18-09)**
  - Plans & Specifications nearing completion
  - Excess fill will be placed in The COR
  - Working with PSD, LLC to acquire property for west end of pond and road
  - Construction proposed for spring/summer 2019
  - Final payment 2020

Anoka County Improvement Projects

- **Foley Boulevard/CSAH 11 Grade Separation @ BNSF Railway Crossing**
  - Project is currently unfunded

MnDOT Improvement Projects

- **Ferry Street / Trunk Highway 47 Grade Separation @ BNSF Railway Crossing (2017)**
  - Preliminary design on hold
  - Exploring realignment of Highway 47 to remove S-curve at fair grounds
  - Ramsey Staff will continue tracking this project
  - Combine with other Highway 10 improvement projects?

Items of Interest

- **Ground Penetrating Radar versus Pavement Cores**
  - Staff is following up on the Committee's direction to pursue the use of GPR vs. pavement cores to verify constructed pavement sections and will report on back on the cost difference.
- **Quicksilver Street Speed Concerns**
  - Staff is following up on the Committee's direction to monitor speeds on Quicksilver Street between 167th Avenue and Elmcrest Park, and to contact ARAA to request that parents slow down on Quicksilver and other Park entrance roads and will report on back on results.

Timeframe:

Staff estimates 5 minutes will be needed for updates and discussion.

Observations/Alternatives:

N/A

Funding Source:

N/A

Recommendation:

N/A

Action:

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

Attachments

No file(s) attached.

Form Review

Inbox	Reviewed By	Date
Grant Riemer	Grant Riemer	08/16/2018 08:10 AM
Kurt Ulrich	MaryJo Warner	08/16/2018 03:52 PM
Form Started By: Bruce Westby		Started On: 08/15/2018 12:49 PM
Final Approval Date: 08/16/2018		

Public Works Committee **6. 2.**

Meeting Date: 08/21/2018

By: Bruce Westby, Engineering/Public Works

Title:

Review Future Topics Calendar

Purpose/Background:

Attached is a calendar of future topics for review and discussion by the Public Works Committee. The list includes topics drawn from Committee requests received during meetings and/or topics previously discussed by the Committee that are not yet resolved. All dates shown are 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 questions.

Observations/Alternatives:

N/A

Funding Source:

N/A

Recommendation:

N/A

Action:

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

Attachments

PWC Calendar Aug2018

Form Review

Inbox	Reviewed By	Date
Grant Riemer	Grant Riemer	08/16/2018 08:10 AM
Kurt Ulrich	MaryJo Warner	08/16/2018 03:52 PM
Form Started By: Bruce Westby		Started On: 08/15/2018 12:50 PM
Final Approval Date: 08/16/2018		

Public Works Committee Future Topics Calendar *

Date	Topics for Discussion – Committee Action
September 2018	Sunfish Lake Sedimentation Basin Improvements *(Westby)*
November 2018	Gibbon Street Basement Flooding Funding Options *(Westby)*
February 2019	Well Siting Study - Well #9 *(Westby)*
Future/TBD	Sunwood Drive Roundabout Landscaping *(Riemer)*
Future/TBD	County Ditch Maintenance / Buffer Law *(Westby)*
Date	**Topics for Discussion – Regulatory**
Future/TBD	Sunfish Lake Boulevard Speed Zone Study Results *(Westby)*
September 2018	Wellhead Protection Plan Update *(Westby)*
Date	**Topics for Discussion – Policy**
Future/TBD	Landscaped Median Maintenance Policy *(Riemer)*
November 2018	Draft Trail Maintenance Policy *(Westby)*
November 2018	Draft Stormwater Pond Maintenance Policy *(Westby)*
Date	**Topics for Discussion – Planning and Budget**
October 2018	Municipal State Aid System (MSAS) Revisions *(Westby)*
October 2018	Review 1996 and 2007 (unadopted) TH 47 Corridor Studies *(Westby)*
Future	Public Works Facility Review/Update *(Riemer)*
February 2019	Long-Term Water Supply Plan *(Westby)*
Date	**Topics for Discussion – Staff Updates**
September 2018	Water Conservation Opportunities / Incentives *(Westby)*
January 2019	Asset Management Program *(Westby)*

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