Board of Public Works

Regular Meeting

Agenda

335 South Broadway
De Pere, WI 54115
https://www.deperewi.gov/

Monday, May 13, 2024 | **7:30 PM** | **Council Chambers and Virtual**

Pursuant to Wisconsin Statute 19.84, Notice is hereby given to the public that a meeting of the **Board of Public Works** of the City of De Pere will be held on **May 13, 2024** at **7:30 PM** in the **COUNCIL CHAMBERS, 2ND FLOOR CITY HALL, 335 S. BROADWAY STREET. DE PERE.**

The Public or Members of the Board of Public Works, which may count toward an official quorum, may attend the meeting either in person in the Council Chambers or telephonically or electronically via video conferencing or other appropriate technological means. Telephonic or electronic access to the meeting is provided below:

Computer/smart phone accessing https://www.gotomeet.me/DePere

OR

You can also dial in using your phone.
United States (Toll Free): 1 866 899 4679
United States: +1 (312) 757-3117
Access Code: 154-883-285

This meeting may also be rebroadcast on Spectrum Cable Channel 4 and AT&T U-verse Channel 99 throughout the week and available on demand at http://deperecitywi.iqm2.com/.

I. Call to Order

1. Roll Call

II. Public comment upon matters not on the agenda. Comments made during the public comment period shall pertain only to matters under the jurisdiction of the Board of Public Works. Section 6-3(f) DPMC

III. Items

1. Approval of the April 8, 2024 Board of Public Works Meeting Minutes
2. Public Hearing to Levy Special Assessments
   - i. Notice of Public Hearing
   - ii. Recommendation from the Board of Public Works
   - iii. Final Resolution Authorizing Levying Special Assessments
     1. Consideration and possible action on Resolution BOPW #24-02, Final Resolution Authorizing the Levying of Special Assessments for Storm Sewer Main and/or Laterals
3. Consideration and possible action on election of Vice Chairperson
4. Discuss Rectangular Rapid Flashing Beacon Policy
5. Consideration and Possible Action Regarding Definitely De Pere's Request to Waive Public Works Fees*

6. Consideration and possible action on award of Contract 24-11 City Hall Flooring Replacement*
7. Consideration and possible action on Award of Contract 24-18 Mission Square Dumpster Enclosure Construction*
8. Discuss PSC Final Water Rate Case Approval
9. Consideration and possible action on applying for a Wisconsin Department of Natural Resources Urban Nonpoint Source and Storm Water Management Grant Program*
10. Discussion on 2025 Gap Sidewalk Orders

IV. Future Agenda Items

V. Adjournment

Any person wishing to attend this meeting who, because of disability, requires special accommodations should contact the Clerk's office at 339-4050 by Noon, the previous day so that arrangements can be made.

***Items with an asterisk require City Council approval.**

Any person wishing to attend this meeting who, because of disability, requires special accommodations should contact the Clerk-Treasurer's office at 339-4050 by Noon, Monday, May 13, 2024 so that arrangements can be made.

Agenda Sent To:

MAYOR
ALDERPERSONS
DEPARTMENT HEADS
DEFINITELY DE PERE
ABIGAIL R LINNANE

ADAM & CRISTINA PICKERING
ADAM & HANNAH WEINGARTEN
ALEXANDER P & REBECCA VISSERS
ALLEN D JOHNSON
ANDREW E DUGAN
ANDREW M & CARRIE T OVEREEM
ANTHONY T CASS
BARBARA A KRULL
BARBARA A STERN
BELL WILLIAM J & PATRICIA A TRUST OF 1995
BRIAN & CHRISTINE SCHROEDER
CALEB & SAMANTHA L STEIN
CASEY & JESSICA DENNIS
JOHN FRIDLAND
CHELSEA M YOUNG
CHRISTOPHER & STEPHANIE ZIEGLER
DE PERE CHAMBER OF COMMERCE
TV, NEWSPAPERS & RADIO
KRESS FAMILY LIBRARY
KENNETH J & KATHRYN J STEPHENSON
KERRY & DIANE CARMODY
KERSTEN FREDERICK I & KAREN PREVETTI LIV TRUST
KEVIN D HOLLOWAY
KLA HOLDINGS LLC
LIBBY K CARTER
MAE H ROHDE
MARK A KITSLAAR
MARK C WEGNER
MARK J & LISA SMITS
MARY A VERHAAGH
THOMAS B & JANE A MONAHAN REVOCABLE TRUST OF 2023
MATTHEW MAYER
MELISSA MAE KNOX
MELISSA STUCK
MICHAEL BECKER
MICHAEL J & JEAN M REEDY
MORGAN SCHILLINGER

SCHNEIDER LARRY A & SANDRA V REVOCABLE TRUST
CLAUDIA C KALOUS
CLIFFORD BOUGIE
CRAIG S DEVOE, ETAL
DAFFINSON PROPERTIES #3 LLC
DAVID A ESERKALN
DEAN J & KELLEY G QUAKKELAAR
DILLAN RONALD MICKE
DONN R & SARA FOOTE
DOUGLAS W & HEIDI L CODDINGTON
DRF PROPERTIES LLC
EDWARD PETER HERMANS
ELEANOR D HINZ
ERIN CORNER
FREDY RIVERA CISNEROS
GARRY W & SUZANNE DAVIS
GARY P & MICHELLE GEIS
GERALD KEYSER
GLEN SCHACHTNER
HOLLY HOMES LLC
HOPE LUTHERAN CHURCH
JAMIE L TANK
JASON P & KESHIA L HERVAS
JEAN B HELEIN
JEAN KOLB
JEANNE M BROOKS, ETAL
JENNIFER LYNN HAWLEY
JENNIFER M ANDERSON
JENNIFER M SNELL
JESSICA A PYREK
JOHN & EILEEN WERY
JONATHAN M PAQUE, ETAL
JORDAN M BIRSCHBACH

JOSEPH VANHORN
JOSEPHINE I SCHMIDT
JULIA MEYER
HJ MARTIN & SONS, INC
NATHAN REIMER & GABRIELLE A MUSCAVITCH
OLVIN & EVELYN ELVIR
PAO & NICOLE YANG
PATRICIA A MOORE
PATRICIA A WALSH
PATRICIA J VOGELS
PATRICIA JOHNSON
PATRICK J & SHEILA FERRON
PAUL E & BONNIE KASTER
PAUL E & DEBBIE M WATRUBA
PAUL K EDINGER
PERANGANJI & MANJU RAMAMOORTHY
REDEFINED LIVING LLC
RENEE HEMAUER
RICKY L & SHARON VANDERWEGEN
ROBERT A MAHN MARITAL TRUST
ROBERT J BUCHANAN
RPRK LLC
SARAH A SAMSA
CJG PROPERTIES LLC
SHANE R KIEFER, ETAL
SMITS DEPERE LLC
STACIE L BRETZ
STEPHANIE A HOWARD
STEVEN D & BETH A SIEBERT
SUSAN A DANEN
MARY L KOLB
THOMAS J & JAMIE VANDEHEI
TODD M KIMBALL
TOWN & COUNTRY DEVELOPMENT LLC
TRISTAN RETZLAFF
TROY & MICHELE STROESSENREUTHER
TYSON R & MONICA JOHNSON
VANSTRATEN PROPERTIES OF DE PERE LLC
KENNETH J & KATHRYN J STEPHENSON
KERRY & DIANE CARMODY
HIGHWAY LANDSCAPERS, INC

City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE:	**May 13, 2024**
DEPARTMENT:	**Board of Public Works**
FROM:	**Betty Marovich**
SUBJECT:	**Approval of the April 8, 2024 Board of Public Works Meeting Minutes**

ATTACHMENTS:

- 2024 0408 BOPW_Draft Minutes (PDF)

Board of Public Works

Regular Meeting

335 South Broadway
De Pere, WI 54115
https://www.deperewi.gov/

Draft Minutes

Monday, April 8, 2024 **7:30 PM** **Council Chambers and Virtual**

I. Call to Order

The meeting was called to order at 7:30 PM by Mayor James Boyd

Attendee Name	Title	Status	Arrived
James Boyd	Mayor	Present	
Dan Carpenter	Alderperson	Present	
Jonathon Hansen	Alderperson	Present	
Shana Defnet Ledvina	Alderperson	Present	
Dean Raasch	Alderperson	Present	

Scott Thoresen, Director of Public Works
Eric Rakers, City Engineer
Betty Marovich, Recording Secretary
Eric Zygarlicke, Water Department Supervisor (Remote)
Jason Hervas
Jo Schmidt
Shane Kiefer
Andrew Dugan (Remote)

II. Public comment upon matters not on the agenda. Comments made during the public comment period shall pertain only to matters under the jurisdiction of the Board of Public Works. Section 6-3(f) DPMC

None

III. Items

1. Approval of the March 11, 2024 Board of Public Works Meeting Minutes

Alderperson Carpenter moved to approve the March 11, 2024 Board of Public Works Meeting Minutes, seconded by Alderperson Raasch. Upon vote, the motion passed unanimously.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Dan Carpenter, Alderperson
SECONDER:	Dean Raasch, Alderperson
AYES:	Boyd, Carpenter, Hansen, Defnet Ledvina, Raasch

2. Consideration and Possible Action on Preliminary Resolution for Special Assessments for Storm Sewer Main and/or Laterals

Eric Rakers, City Engineer, explained the preliminary resolution and special assessments for storm sewer main and/or laterals associated with resurfacing and reconstruction projects in 2024. Mr. Rakers explained the locations and limits of the projects that included special assessments, along with the ordinances governing the installation and charges. Mr. Rakers outlined the special assessment amount as previously approved by the Board of Public Works. Mr. Rakers outlined the notices sent to properties regarding the special assessments and projects. Mr. Rakers also explained the payback options once the special assessments for storm sewer main and/or laterals were invoiced. Mr. Rakers

recommended the Board approve the preliminary resolution and set a 5 year payback option and schedule the public hearing for May 13, 2024.

Mayor Boyd moved to open the meeting for public comment at 7:35 PM, seconded by Alderperson Raasch. Upon vote, the motion passed unanimously.

Jason Hervas, 638 S. Superior St, questioned if the storm sewer improvements were finalized or if they could be removed. Mr. Hervas stated they have not had issues for 12 or 13 years and did not support the installation as they do not need it. Mr. Hervas stated his taxes go up every year and does not want another bill from the City for this work.
Jo Schmidt, 614 S. Superior St, stated she has lived at this location for about 3 years and has not had issues with the sewer. Ms. Schmidt stated she also spoke to neighbors, who told her they have not had issues either. Ms. Schmidt stated the charges came out of nowhere following a letter stating the City did not receive the funding to cover the project. Ms. Schmidt stated she also does not have the funding for this work.
Andrew Dugan, 802 Bomier St, asked if storm lateral assessments were only for locations that do not presently have a lateral connection. Mr. Rakers stated that properties that have storm laterals connected to a main adjacent to their property would not have a lateral assessment and that properties should reach out to staff if they have an existing lateral that was missed by staff. Mr. Dugan asked if curbing was included in the resurfacing. Mr. Rakers answered that spot curb and gutter repairs would occur but that properties can reach out to staff about problem areas to make sure they are being addressed.
Shane Kiefer, 639 S. Superior St, asked how the laterals are installed at the sidewalk. Mr. Rakers explained that the laterals will be installed through the sidewalk and about 6 inches past, towards the house. Mr. Rakers stated that the sidewalk is repaired as part of the project. Mr. Rakers explained that when the property owner wants to connect to the lateral in the future, they would not need to incur the extra costs associated with the sidewalk and street repairs, as the connection will be made to the house side of the sidewalk where the lateral is installed as part of this project.

Mayor Boyd moved to return to regular session at 7:42 PM, seconded by Alderperson Raasch. Upon vote, the motion passed unanimously.

Mayor Boyd stated that the City takes on these projects every year and the laterals in this area were identified as having issues or concerns. Mayor Boyd emphasized the payback plan along with the 25 year deferral option. Mr. Rakers stated that staff understands that a few thousand dollars is a lot of money for property owners and stated that was taken into account when the Board created the payback options. Mr. Rakers explained that installing storm laterals outside of a road construction project would make them considerably more expensive. Mr. Rakers explained that there may be noticeably more runoff in the future when sump pumps are installed and poor drainage already exists in these areas. Mr. Rakers stated that it is difficult to pick and choose certain locations, which is why the whole area gets completed at the same time. Mr. Rakers stated that storm laterals will be installed on every property in the future. Mayor Boyd stated that mandates may be coming from the state-level for installation of laterals in the future. Mr. Rakers explained that the City has to maintain and collect stormwater, along with this work helping resolve backyard drainage issues and collect sump pump runoff. Alderperson Raasch asked what the approximate monthly cost of the storm laterals and main is over five years. Mr. Rakers explained that costs vary based on whether there is storm main existing adjacent to each property. Alderperson Raasch stated that $35-$50 sounds right. Alderperson

Ledvina stated that it would cost about $47.50 without interest. Alderperson Hansen asked how much of the main cost is covered by the City. Mr. Rakers explained that the Stormwater Utility covers 80% of the storm main cost. Alderperson Raasch asked for clarification why it was important to complete the work as part of the construction project. Mr. Rakers explained that the benefit for the property owner is that the City covers the cost of restoring the sidewalk, roadway, curb, gutter, and terrace. Alderperson Carpenter emphasized that locations that do not have sump pumps presently will be mandated in the future to have them installed and the City is currently offering a reimbursement program. Alderperson Carpenter asked about the location of catch basins on S. Superior Street. Mr. Rakers explained that the road will have high point in the center and drain towards each end. Alderperson Carpenter listed a few street sections that do not presently have storm mains. Mr. Rakers stated the locations listed were correct. Alderperson Ledvina shared her personal experience with having this same work done in 2023, which currently allows her children to play in her yard which was previously impossible due to drainage issues that cause their yard to be swamp-like. Alderperson Ledvina stated that while some properties may feel like they do not have issues and do not need these improvements, there may be neighbors that are experiencing flooding and drainage issues. Alderperson Hansen asked staff to provide an estimate of the amount of City currently serviced with storm mains and laterals, along with a timeline for having every property covered. Mr. Rakers explained that staff does not have a timeline and further explained that newer developments (90s and newer) have storm laterals installed as part of the development. Mr. Rakers explained that staff is focusing on older neighborhoods for these improvements. Mr. Rakers further explained that these improvements occur in conjunction with failing street pavement and water mains. Mayor Boyd added that each street is graded for its surface condition and these locations were at the stage to be improved.

Mayor Boyd moved to open the meeting for public comment at 7:52 PM, seconded by Alderperson Raasch. Upon vote, the motion passed unanimously.

Jo Schmidt, 614 S. Superior St, stated she does not have drainage issues in her yard or basement and asked if installing the lateral could cause drainage issues. Mr. Rakers asked if Ms. Schmidt had a sump pump. Ms. Schmidt stated she did not. Mr. Rakers explained that at some point she would need to install a sump pump and when she did, if it discharged to grade, it could cause drainage issues in the yard, but further added that the installation of the lateral and installation of the sump pump were independent of each other. Mr. Rakers added that if there were issues such as icing or continued discharge from a sump pump, after installation in the future, the properties can connect to the lateral to relieve these yard issues. Mr. Rakers explained that when the lateral is installed, it is capped and sits there ready for a connection in the future, it would not create drainage issues by being installed.

Mayor Boyd moved to return to regular session at 7:54 PM, seconded by Alderperson Raasch. Upon vote, the motion passed unanimously.

Mayor Boyd asked staff to describe the sump pump program to property owners in the audience. Mr. Rakers outlined the Foundation Drain Disconnection Program and reimbursement limits. Mayor Boyd added that sump pumps will be required in the future and having 80% reimbursed is a good time to consider having one installed. Mayor Boyd added that staff can help determine if one is required. Someone from the audience asked

if their home already has one if they can be reimbursed. Mayor Boyd stated that if it was installed since January 1, 2023 it can be submitted for reimbursement. Scott Thoresen, Director of Public Works, explained the ordinance for storm lateral installations with street construction projects and why it was created. Mayor Boyd explained that the installations and special assessments were mandated by law. Mayor Boyd added that having residents incur these charges was one of the least favorite parts of their job as elected officials and that the Board tried to make it easier by offering the payment and deferral options. Alderperson Raasch agreed that the payment options were added to make the assessments as painless as possible. Alderperson Raasch added that when the ordinance was put into place, the lateral installations were added along with the improvements to other utility infrastructure for the benefit of both the City and residents alike. Alderperson Carpenter asked if water main was being replaced on these projects. Mr. Rakers stated it was being replaced as part of the projects. Alderperson Carpenter informed the viewing public that it would also include replacing the water service to the homes. Mr. Rakers stated that was correct. Alderperson Carpenter explained how utility replacements occurred in the past with single utilities being replaced, whereas the City currently times multiple utilities along with the road surface to be replaced at the same time to save money and replace more infrastructure in a timely manner.

Mayor Boyd moved to approve the preliminary resolution, seconded by Alderperson Raasch.

Mr. Thoresen emphasized that this item was preliminary and a public hearing will occur next month to approve the final resolution. Mayor Boyd added that if there are questions before the public hearing to reach out to staff. Betty Marovich, Recording Secretary, asked Mayor Boyd if he would amend his motion to be approval of the preliminary resolution, set a 5 year payback option and schedule the public hearing for May 13, 2024. Mayor Boyd and Alderperson Raasch agreed with the amendment.

Upon vote, the motion passed unanimously.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	James Boyd, Mayor
SECONDER:	Dean Raasch, Alderperson
AYES:	Boyd, Carpenter, Hansen, Defnet Ledvina, Raasch

3. Consideration and Possible Action on Proposal for Scheuring Road Reservoir Cleaning and Overcoating*

Mayor Boyd moved to approve the proposal from Water Tower Clean and Coat, seconded by Alderperson Raasch.

Alderperson Carpenter pointed out that the memo stated "Enterprise Reservoir" rather than "Scheuring Reservoir".

Upon vote, the motion passed unanimously.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	James Boyd, Mayor
SECONDER:	Dean Raasch, Alderperson
AYES:	Boyd, Carpenter, Hansen, Defnet Ledvina, Raasch

4. Consideration and Possible Action on 2024 Sidewalk Repair Orders and Special Charges

Scott Thoresen, Director of Public Works, explained the annual sidewalk repair and replacement program. Mr. Thoresen explained the limits of the 2024 sidewalk repair area. Mr. Thoresen added that Board has recommended in past years, offering a five year payback option for properties with sidewalk repairs in excess of $1,000 with an interest rate of 4.6% for this project. Mr. Thoresen recommended the Board approve the 2024 sidewalk repair orders and special charges.

Alderperson Carpenter moved to approve 2024 Sidewalk Repair Orders and Special Charges, seconded by Alderperson Ledvina.

Alderperson Carpenter asked if the residents had been notified of the replacement costs being approved. Eric Rakers, City Engineer, stated once approved by the Board, staff sends notices to property owners and publishes the locations and panels in the newspaper. Mr. Rakers stated that staff was one month ahead on the sidewalk orders this year because of the mild winter. Mr. Rakers stated that property owners have the option of making the repairs themselves or hiring a licensed concrete worker. Alderperson Hansen asked staff to explain how residents notify the City if they completed their own repairs. Mr. Rakers explained that residents should contact the City and then staff would inspect the repairs. Mr. Rakers added that staff tries to inspect the repair area before the contractor starts to catch locations that were not called in to prevent having the repaired panels removed, replaced, and billed to the resident.

Upon vote, the motion passed unanimously.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Dan Carpenter, Alderperson
SECONDER:	Shana Defnet Ledvina, Alderperson
AYES:	Boyd, Carpenter, Hansen, Defnet Ledvina, Raasch

5. Consideration and possible action on City Engineer Parking and Traffic Recommendations*

Eric Rakers, City Engineer, explained item number one was a request to allow parking on the south side of George Street between Huron and Erie Streets.
Alderperson Hansen commented that parking should not impact vision since Erie Street is controlled by the signals. Mr. Rakers added that it will mirror the rest of George Street and adding parking in that block will help with continued traffic calming.
Mr. Rakers explained item number two was a request to add a "No Truck Route" sign on Garroman at American.
Alderperson Carpenter asked if the police were handing out citations because word usually gets out and changes are noticed. Mayor Boyd stated that violators are receiving citations and the issues persist.
Mr. Rakers explained that item number three was a request to relocate "No Engine Braking" sign.

Alderperson Raasch moved to approve City Engineer Parking and Traffic Recommendations, seconded by Alderperson Ledvina. Upon vote, the motion passed unanimously.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Dean Raasch, Alderperson
SECONDER:	Shana Defnet Ledvina, Alderperson
AYES:	Boyd, Carpenter, Hansen, Defnet Ledvina, Raasch

6. Discuss City Engineer Recommendations on No Action Parking and Traffic Discussion Items

Eric Rakers, City Engineer, explained a request to restrict parking on Lewis Street near the De Pere Cultural Center. Mr. Rakers stated that Lewis Street is 32 feet wide, which is the standard for parking on both sides and that can be tight, but since Cultural Center staff have moved their vehicles to the parking lot, staff has not noted any issues. Mr. Rakers stated if there are big events at the Cultural Center, there might be noticeable congestion, but that will also calm traffic in that area for visitors crossing to the building. Staff is not recommending any action at this time, but can be brought back if there are additional issues noticed. Mr. Rakers added that if parking is restricted in this location, the vehicles will be parking further and further into the residential areas.
Alderperson Hansen thanked staff for investigating and stated he had received the request from a resident on Wisconsin Street. Alderperson Hansen asked if a traffic/impact study was being completed with the opening of the Cultural Center. Mr. Rakers stated he was unsure if this area was part of Dan Lindstrom's study, but engineering staff can keep an eye on it during the day. Mr. Rakers added that the issues may be occurring over the weekend when staff is gone, but during the week days staff has not noted issues. Mayor Boyd added that when he drives by he does not notice issues and added that employees do appear to be parking in the lot now, instead of on the street, and there is ample parking in the lots. Mr. Rakers added that most 32 foot streets have parking allowed on both sides, except for Michigan Street adjacent to the Cultural Center. Mayor Boyd stated that church members are able to park at the Cultural Center on Sundays and would prefer to keep the parking on one side of Michigan Street. Mayor Boyd and Mr. Rakers stated they would check with Dan Lindstrom regarding this area being included in his downtown study. Mayor Boyd stated he has not received any calls or emails regarding parking concerns on Lewis Street. Alderperson Hansen stated that he had a resident bring concerns to him about the switch of parking from the east to the west side of Michigan Street and staff had replied at that time that an overall study of the area would be completed after the Cultural Center was open for a few months. Mr. Rakers explained that the change of side was seen as an improvement because the users were on the side of the street of the facility they were most likely to attend (church or Cultural Center) and also assisted with semi traffic entering and exiting the Cultural Center.

Discussion only. No action necessary.

RESULT:	**DISCUSSED**

7. Consideration and possible action on DOT –Municipal Agreement for Southbridge Interchange*

Scott Thoresen, Director of Public Works, stated this agreement is for the anticipated costs for any sanitary sewer manhole or water valve adjustments associated with this project. Mr. Thoresen stated there will be additional agreements in the future for

revisions. Mr. Thoresen explained that one of those revisions will be cost sharing of Southbridge interchange having similar aesthetics to that of Scheuring Road.
Mayor Boyd asked how much the City would be responsible for with this agreement. Mr. Thoresen stated it was $1,500. Alderperson Hansen stated that was a good deal with the State covering over $16 million.

Mayor Boyd moved to approve the DOT-Municipal Agreement for Southbridge Interchange, seconded by Alderperson Raasch. Upon vote, the motion passed unanimously.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	James Boyd, Mayor
SECONDER:	Dean Raasch, Alderperson
AYES:	Boyd, Carpenter, Hansen, Defnet Ledvina, Raasch

8. Consideration and Possible Action for the Installation of Left Turn Lanes on Main Avenue at Eighth Street*

Scott Thoresen, Director of Public Works, stated staff has been working with the Wisconsin Department of Transportation (DOT) on reconstructing the pavement on Main Avenue from Third Street to Eighth Street in 2028. Mr. Thoresen explained that in 2012 planned improvements, DOT had designed for two left turn lanes on Main Ave at Eighth Street. Since 2012, the traffic patterns have changed and the traffic signals were replaced at Eighth Street and Main Avenue and a delayed left turn signal was added for traffic turning left from eastbound Main Avenue to northbound Eighth Street which has improved traffic flow. The DOT has since performed another traffic analysis at this intersection and the analysis shows there are no safety flags or operational flags that required the need to install left turn lanes. The DOT has indicated, if the City wants left turn lanes installed the City would have to fund them at an estimated cost of $310,000. Mr. Thoresen added there would be another couple hundred thousand dollars in right-of-way cost. Mr. Thoresen stated that staff is not recommending funding the installation of the left turn lanes on Main Avenue at Eighth Street. Mr. Thoresen added that as part of the Main Avenue project the DOT will add a right turn drop lane for westbound Main Avenue traffic turning north onto Eighth Street.
Alderperson Carpenter asked if the state would be funding the right turn lane. Mr. Thoresen stated it would be state funded. Alderperson Carpenter added that it appears from the handout that 4 or 5 cars would be able to wait in the right turn lane designed. Alderperson Carpenter added that having the delayed left turn lane has improved the traffic flow. Mayor Boyd commented that there had been discussions about adding signage closer to the Eighth Street intersection about lanes merging at Seventh Street. Mr. Thoresen stated that was still being evaluated. Alderperson Hansen asked to have the cost investigated of offering a left turn lane for eastbound traffic only. Alderperson Hansen also stated that it might make sense to complete the left turn lanes, if a significant portion of the $310,000 is pavement cost that would be required no matter what. Mr. Thoresen stated that adding one turn lane would still cost a couple hundred thousand dollars because it requires widening the street and purchasing right-of-way. Mr. Thoresen added that adding only one turn lane shifts the traffic oddly and is harder for a vehicle to follow through the intersection. Mr. Thoresen stated that outside of the state project, the City may have a couple hundred feet of roadway to repair, but staff anticipates that adding the left turn lanes would cost over $600,000 and do not feel it is necessary at this time. Mr. Thoresen added that once Southbridge is completed, the traffic on Main Avenue will

likely decrease according to DOT projections. Alderperson Carpenter agreed with staff's recommendation and the DOT projection for traffic flow moving to Southbridge upon completion. Alderperson Carpenter stated the delayed signal has helped considerably and suggested adding a few more seconds if there were still some backups. Alderperson Raasch stated the traffic flow at that intersection since the delayed signal was implemented is the best it has been in the 25 years he has lived in De Pere. Alderperson Raasch also commented that southbound on Eighth Street at Main is working well with the left turn lane and straight/right turn area and added that area can fit three cars wide. Mayor Boyd stated that these potential changes being considered are long term and won't be considered again once the Main Avenue/Reid Street work is completed by DOT. Mayor Boyd added that the City will be incurring other significant costs associated with the construction on Main Avenue/Reid Street. Mayor Boyd and Alderperson Raasch stated this addition is a "want" and not a "need" for this corridor. Mayor Boyd stated that traffic can't be changed at the bottleneck when the lane drops for eastbound traffic on Main Avenue at the train bridge, due to the $20-$30 million price tag.

Mayor Boyd moved to approve staff recommendation to deny funding the installation of the left turn lanes on Main Avenue at Eighth Street, seconded by Alderperson Ledvina.

Alderperson Hansen commented that DOT should be funding these improvements being discussed. Mayor Boyd agreed with Alderperson Hansen's comment.

Upon vote, the motion passed unanimously.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	James Boyd, Mayor
SECONDER:	Shana Defnet Ledvina, Alderperson
AYES:	Boyd, Carpenter, Hansen, Defnet Ledvina, Raasch

9. Consider and Possible Action for Seeking Proposals for Transportation Utility*

Scott Thoresen, Director of Public Works, stated the Board has discussed in the past the transportation utility as an alternative source for funding street projects. Mr. Thoresen explained that a transportation utility fee is established utilizing the amount a property uses the local streets. An example of this is a commercial property, such as McDonald's, that generates a higher amount of traffic than a single residential property and therefore would be charged a higher fee. Mr. Thoresen explained that most transportation utilities established in the United States use trip generation rates as a means of setting up fees to be charged. In order for the City to establish a trip generation rate we would need to hire a consultant to establish these rates. The Council approved in the 2024 budget funding to hire a consultant to provide a feasibility study and estimated rates in establishing a transportation utility. This information would be used to assist the Board and Council in determining whether or not to establish a transportation utility to fund future street projects. Since the beginning of the year, the Village of Pewaukee's transportation utility has been legally challenged and ruled an impermissible tax. The Village of Pewaukee has petitioned the State Supreme Court for review of the recent Court of Appeals ruling on the transportation utility. Due to this recent legal challenge, staff recommends holding off on soliciting proposals to hire a consultant until such time the Supreme Court rules on the transportation utility.
Alderperson Hansen stated that previous discussions have included utilizing the transportation utility to fund sidewalk repairs/replacements and added with the legal

challenge that it wouldn't likely be in place for 2025. Alderperson Hansen asked the timeline of the court ruling. Mr. Thoresen stated that the City Legal Department believed it might be in 2025 that a ruling is made. Mr. Thoresen added that prior to implementing, staff would still need to hire a consultant to evaluate and bring to Board and Council for approval. Mr. Thoresen stated that sidewalk repairs/replacements would be one of the projects considered along with other street projects because the referendum isn't paying for as many miles as it used to. Mr. Thoresen added if the transportation utility does not pass, other avenues will need to be investigated for funding street projects. Alderperson Carpenter stated he did not support the transportation utility because it would negatively impact/punish the businesses that staff has been working hard to get into the industrial parks. Alderperson Carpenter stated he would be more in favor of a referendum for obtaining the additional annual funds for street projects. Mr. Thoresen explained that staff is currently speculating what the impact would be for residential, commercial, and industrial users and the feasibility study would create the trip generation rate for Board and Council to more fully understand the impact it would have on businesses and individuals and make an informed decision. Alderperson Carpenter added that residents living on cul-de-sacs could also be negatively impacted because their streets will get work less frequently but pay the same as properties on streets with higher volume. Alderperson Carpenter stated he was okay with the study being completed in the future after the Pewaukee challenge is resolved. Alderperson Ledvina commented that having a referendum for increasing street project funds could impact properties more negatively than a transportation utility. Alderperson Raasch asked the referendum procedure. Mayor Boyd explained that a new referendum would need to be passed. Alderperson Raasch stated he was not in favor of the transportation utility or wheel tax to increase the available funds for street work. Mr. Thoresen explained the difference between a wheel tax and transportation utility and how the wheel tax impacts residential properties and a referendum would not impact non-profits and schools who utilize the streets heavily and would benefit by having their sidewalk charges covered.

Mayor Boyd moved to approve staff recommendation to hold off on soliciting proposals to hire a consultant for Transportation Utility at this time, seconded by Alderperson Hansen. Upon vote, the motion passed unanimously.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	James Boyd, Mayor
SECONDER:	Jonathon Hansen, Alderperson
AYES:	Boyd, Carpenter, Hansen, Defnet Ledvina, Raasch

10. Consideration and possible action on award of Contract 24-02 Ridgeway Drive Pavement Rehabilitation*

Alderperson Hansen moved to approve award of Contract 24-02 Ridgeway Drive Pavement Rehabilitation, seconded by Alderperson Carpenter.

Alderperson Hansen asked why the utility relay did not extend from Mandalay Terrace to Libal Street. Eric Rakers, City Engineer, explained that section has newer utilities along with storm laterals.

Upon vote, the motion passed unanimously.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Jonathon Hansen, Alderperson
SECONDER:	Dan Carpenter, Alderperson
AYES:	Boyd, Carpenter, Hansen, Defnet Ledvina, Raasch

11. Consideration and possible action on award of Contract 24-04 Waterview Heights Utility and Street Construction Phase II*

Mayor Boyd moved to approve award of Contract 24-04 Waterview Heights Utility and Street Construction Phase II, seconded by Alderperson Raasch. Upon vote, the motion passed unanimously.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	James Boyd, Mayor
SECONDER:	Dean Raasch, Alderperson
AYES:	Boyd, Carpenter, Hansen, Defnet Ledvina, Raasch

12. Consideration and possible action on award of Contract 24-06 Concrete Street Repairs*

Alderperson Ledvina moved to approve award of Contract 24-06 Concrete Street Repairs, seconded by Alderperson Raasch. Upon vote, the motion passed unanimously.
5-0

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Shana Defnet Ledvina, Alderperson
SECONDER:	Dean Raasch, Alderperson
AYES:	Boyd, Carpenter, Hansen, Defnet Ledvina, Raasch

13. Consideration and possible action on award of Contract 24-09 Prosper Street Ditch Rehabilitation*

Alderperson Carpenter moved to approve award of Contract 24-09 Prosper Street Ditch Rehabilitation, seconded by Alderperson Ledvina.

Alderperson Carpenter asked if Champion Excavating was new and how they were vetted. Eric Rakers, City Engineer, stated that prior to allowing contractors to bid on projects, they are pre-qualified based on past work, equipment available, financials, and other qualifications. Mr. Rakers outlined the project location and explained it was not complicated work and was comfortable with the award.

Upon vote, the motion passed unanimously.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Dan Carpenter, Alderperson
SECONDER:	Shana Defnet Ledvina, Alderperson
AYES:	Boyd, Carpenter, Hansen, Defnet Ledvina, Raasch

14. Consideration and possible action on award of Contract 24-15 Sewer Televising*

Alderperson Raasch moved to approve award of Contract 24-15 Sewer Televising, seconded by Alderperson Carpenter. Upon vote, the motion passed unanimously.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Dean Raasch, Alderperson
SECONDER:	Dan Carpenter, Alderperson
AYES:	Boyd, Carpenter, Hansen, Defnet Ledvina, Raasch

IV. Future Agenda Items

None

V. Adjournment

Alderperson Raasch moved to adjourn the meeting at 8:47 PM, seconded by Mayor Boyd.

Mayor Boyd, staff, and Board members thanked Alderperson Raasch for serving as Alderperson and his time on the Board of Public Works.

Upon vote, the motion passed unanimously.

Respectfully submitted,
Betty Marovich

City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE: **May 13, 2024**

DEPARTMENT: **Engineering**

FROM: **Eric Rakers**

SUBJECT: **Consideration and possible action on Resolution BOPW #24-02, Final Resolution Authorizing the Levying of Special Assessments for Storm Sewer Main and/or Laterals**

ATTACHMENTS:

- 2024 0513 CI_BOPW_Storm_Lateral_Special_Assessment (PDF)
- 2024 0513_CI-BOPW Final Resolution_24-02 (PDF)
- Schedule B&C (PDF)
- CE_ST_Project_24-01_Schedule_D_FINAL (PDF)
- Schedule D-Project_24-02 (PDF)
- STORM ASSESSMENT MAP 24-01 (PDF)
- STORM ASSESSMENT MAP RIDGEWAY & SMITS (PDF)

CITY OF DE PERE
MEMO

To: Honorable Mayor Boyd
Members of the Board of Public Works
From: Eric P. Rakers, P.E., City Engineer
Date: May 13, 2024

RE: **Consideration and possible action on Resolution BOPW 24-02, Final Resolution Authorizing Levying Special Assessments for Storm Sewer Main and/or Laterals**

The purpose of this item is to approve final resolution for special assessments for storm sewer main and/or storm lateral construction associated with street resurfacing and reconstruction in 2024.

Background

The City is performing the following construction in 2024 that includes the installation of new storm sewer main and/or storm laterals. Properties impacted by the assessment include:

- Both sides of Bomier Street from South Broadway Street to South Erie Street (Project 24-01)
- Both sides of South Superior Street from Southern Terminus to Merrill Street (Project 24-01)
- Both sides of Virginia Drive from South Superior Street to South Erie Street (Project 24-01)
- Both sides of Ridgeway Drive from Webster Avenue to Mandalay Terrace (Project 24-02)
- Both sides of Smits Street from Ridgeway Drive to LeBrun Street (Project 24-02)

The City has had drainage issues and/or complaints in these areas over the last few years. Because of this, storm sewer laterals are being installed to properties within these blocks. The installation of storm laterals conforms to the City Municipal Code Section 26-6(c) which states:

> *"(1) Installation. Storm sewer main and lateral installation to each lot of record shall be constructed at during street resurfacing improvements when:*
> *a. Requested by a property owner along the street to be resurfaced; or*
> *b. When ordered by the Director of Public Works to address drainage issues.*
> *The location of the lateral installation shall be as determined by the City Engineer or designee."*

Assessments for these services were calculated per City Municipal Code Section 13-8. As calculated per Municipal Code Section 13-8 and approved by the Board of Public Works, the costs for the 2024 storm sewer special assessments are as follows:

- Residential Properties
  - Storm Lateral Assessment - $2,246.27
  - Storm Main Assessment - $606.38

Property owners have been notified several times of this project including:

- November 1, 2023 (24-01 and 24-02): Letters sent notifying property owners of storm sewer assessments and 2024 construction project.

- January 19, 2024 (24-01 and 24-02): Letters sent inviting property owners to the public information meeting.
- January 31, 2024 (24-02): Public information meeting notifying property owners of storm sewer assessments.
- February 1, 2024 (24-01): Public information meeting notifying property owners of storm sewer assessments.
- March 1, 2024 (24-01 and 24-02): Letter to property owners notifying of the storm sewer assessment resolution to the Board of Public Works delay.
- April 2, 2024 (24-01 and 24-02): Letter to property owners notify of the storm sewer assessment resolution at the Board of Public Works
- April 5, 2024 (24-01 and 24-02): Copy of agenda sent notifying property owners of the Board of Public Works meeting on April 8, 2024.
- April 17, 2024: Letters sent to property owners reminding them of the public hearing and final resolution at the May 13th Board of Public Works meeting.
- May 10, 2023: Copy of agenda sent notifying property owners reminding them of the public hearing and final resolution at the May 13th Board of Public Works meeting.

Code Section 13-8(f)(1)(d) further identifies procedures and pay options for the storm sewer and special assessments as follows:

"d. Public hearing. The board shall hold a public hearing on the assessments and after the hearing may by resolution approve, disapprove, modify or refer the report with such directions as it deems necessary. The board shall provide for the following payment alternatives if it determines to assess for any of the improvements:

i. No interest imputed if payment of assessment made in full within 30 days of invoice;

ii. Payment in such number of yearly installments as deemed reasonable by the board, together with interest thereon at the rate of one percent over the interest rate paid by the city on its latest bonding issue, with payment in full due upon transfer of the property;

iii. Deferred payment of assessment with interest to accrue at the rate of one percent over the interest rate paid by the city on its last bond issue, with the total becoming due on the earliest of the following:

A. Transfer of the benefited property to any other person or entity:

B. Subdivision of the benefited property;

C. Connection to the storm sewer;

D. The expiration of 25 years from the date of adoption of the final assessment resolution, at which time the assessment plus accrued interest shall be made in full against the benefited property.

iv. Interest on alternatives ii. and iii. Above shall stop accruing after a period of ten years."

Note under item ii. the Board of Public Works established the number of yearly installments for payback at five years. Also, under iii., property owners are not required to pay until they connect to the storm lateral, sell or subdivide the property, or 25 years, whichever occurs first.

The interest rate will be 4.60%.

Recommendation
Staff recommends that the Board of Public Works adopt the resolution.

Attachments
BPW Final Resolution 24-02
Schedule B & C Exhibits
Schedule D-Project 24-01
Schedule D-Project 24-02
Bomier Street, Superior Street, and Virginia Street Assessment Map
Ridgeway Drive and Smits Street Assessment Map

RESOLUTION BOPW #24-02

FINAL RESOLUTION AUTHORIZING STORM SEWER MAIN AND/OR LATERAL CONSTRUCTION AND LEVYING SPECIAL ASSESSMENTS AGAINST BENEFITED PROPERTY
STORM SEWER MAIN AND/OR LATERALS ON
BOMIER STREET FROM SOUTH BROADWAY STREET TO SOUTH ERIE STREET
SOUTH SUPERIOR STREET FROM SOUTHERN TERMINUS TO MERRILL STREET
VIRGINIA DRIVE FROM SOUTH SUPERIOR STREET TO SOUTH ERIE STREET
RIDGEWAY DRIVE FROM WEBSTER AVENUE TO MANDALAY TERRACE
SMITS STREET FROM RIDGEWAY DRIVE TO LEBRUN STREET

WHEREAS, the Board of Public Works of the City of De Pere having declared its intention to exercise its police power to levy special assessments pursuant to Wis. Stats. §66.0703, for improvements constructed within the areas described below and special assessments to be levied on a reasonable basis upon the property benefited thereby. Said improvements to include storm sewer main and/or laterals. Said improvements shall be constructed in, and the properties benefiting therefrom are contained within, the following described areas or abutting streets:

STORM SEWER MAIN AND LATERALS

Both Sides of Bomier Street from South Broadway Street to South Erie Street
Both Sides of South Superior Street from Southern Terminus to Merrill Street
Both Sides of Virginia Drive from South Superior Street to South Erie Street
Both Sides of Ridgeway Drive from Webster Avenue to Mandalay Terrace
Both Sides of Smits Street from Ridgeway Drive to LeBrun Street

WHEREAS, the Board of Public Works has published a Notice of Public Hearing regarding such improvements and, pursuant thereto, a public hearing has been held at the City Hall Council Chambers on the 13th day of May 2024 at 7:30 p.m., whereupon the Board of Public Works heard all interested parties or their agents or attorneys.

NOW, THEREFORE, BE IT HEREBY RESOLVED, by the Board of Public Works of the City of De Pere, Wisconsin, that:

1. The report of the Board of Public Works of the City of De Pere, as compiled by the Director of Public Works, pertaining to the construction of the above described improvements, including plans and specifications therefore is hereby adopted and approved.

2. The Board of Public Works, based on its view of the property and its review of such report, determines that the above described properties are benefited by such public improvements and that the benefits and amounts assessed against each parcel on the basis shown in the report, representing an exercise of police power, are determined to be on a reasonable basis and are hereby confirmed and approved.

3. Payment for the public improvements shall be made by assessing the cost therefore against the above described benefited properties as indicated in such report.

4. The assessments hereby levied for said improvements shall be:

   (1) paid in cash within thirty (30) days of invoice; or

   (2) paid in five (5) annual installments, together with interest on the unpaid balance at a rate of 4.60% if payment starts the year invoiced; or

   (3) deferred with interest to accrue at the rate of 4.60% with the total becoming due on the earliest of the following:
      i. Transfer of the benefited property to any other person or entity;
      ii. Subdivision of the benefitted property;
      iii. Connection to the storm sewer;
      iv. The expiration of 25 years from the date of the adoption of the final assessment resolution, at which time the full assessment against the benefited property, plus accrued interest, shall be made in full.

   Interest on alternatives shall stop accruing after a period of ten years.

5. The total amount assessed benefited properties shall not exceed the total cost of the improvements.

6. The Clerk is hereby directed to publish this resolution in the City of De Pere's Official City Newspaper as a Class 1 Notice.

7. The Clerk is further directed to mail a copy of this resolution to the property owners whose names appear on the assessment roll whose address is known or can, with reasonable diligence, be ascertained.

8. If any section, sentence, or clause of this resolution or any special assessment set forth or referenced herein shall be declared invalid for any reason whatsoever, such decision shall not affect the remaining sections or assessments approved herein, which shall remain in full force and effect.

9. This resolution shall remain in full force and effect from and after its passage and publication according to law.

Adopted by the Board of Public Works of the City of De Pere, Wisconsin, this 13th day of May, 2024.

APPROVED:

_____

James Boyd
Mayor and Chair of the Board of Public Works

Ayes:_____

Nays:_____

SCHEDULE B

2024 EXISTING RESIDENTIAL STORM SEWER COST EVALUATION

UP TO TWO UNITS PER BUILDING

Schedule B
2024 Storm Sewer Cost Evaluation - Residential
Summary Based on 2021-2023 Asphalt Reconstruction and Resurfacing Projects
City of De Pere
Date: December 19, 2023

Mainline Cost

Project	Bid Item	Bid Item Description	Unit	Quantity	Cost	Total	Comment
21-01	ST-02	Remove and Relay 12" PVC or RCP (Class III) Storm Sewer	LF	114.00	$74.00	$8,436.00	
21-02	ST-02	Remove and Relay 12" PVC or RCP (Class III) Storm Sewer	LF	130.00	$63.00	$8,190.00	
21-02	ST-04	Provide 12" PVC or RCP Class III Storm Sewer	LF	767.50	$62.00	$47,585.00	
22-01	ST-04	Remove and Relay 12" PVC or RCP Class III Storm Sewer	LF	298.00	$67.00	$19,966.00	
22-01	ST-05	Provide 12" PVC, RCP Class III, or PP Storm Sewer	LF	1,683.00	$67.00	$112,761.00	
22-02	ST-05	Provide 12" PVC or RCP (Class III) Storm Sewer	LF	961.78	$90.00	$86,560.20	
22-04	ST-01	Remove and Relay 12" RCP Class V Storm Sewer	LF	10.00	$134.00	$1,340.00	
22-04	ST-02	Provide 12" Class V Storm Sewer	LF	248.00	$64.65	$16,033.20	
22-07	ST-08	Remove and Relay 12" PVC or RCP (Class III) Storm Sewer	LF	187.30	$92.44	$17,314.01	
23-01	ST-03	Remove and Replace 12" PVC, RCP Class III, or PP Storm Sewer	LF	89.00	$115.00	$10,235.00	
23-01	ST-04	Provide 12" PVC, RCP Class III, or PP Storm Sewer (Granular Backfill)	LF	2,616.00	$71.00	$185,736.00	
23-01	ST-05	Provide 12" PVC, RCP Class III, or PP Storm Sewer (Natural Backfill)	LF	149.00	$62.00	$9,238.00	
23-02	ST-01	Provide 12" PVC, Class IV, or PP Storm Sewer	LF	68.00	$89.00	$6,052.00	
Total				7,321.58		$529,446.41	
Average Cost Per Foot						**$72.31**	

Schedule B
2024 Storm Sewer Cost Evaluation - Residential
Summary Based on 2021-2023 Asphalt Reconstruction and Resurfacing Projects
City of De Pere
Date: December 19, 2023

Lateral Cost

Project	Bid Item	Bid Item Description	Unit	Quantity	Cost	Total	Comment
21-01	ST-04	Provide 6" PVC Storm Sewer Lateral	LF	300.00	$46.00	$13,800.00	
21-02	ST-06	Provide 6" PVC Storm Sewer Lateral	LF	1,340.00	$48.00	$64,320.00	
22-01	ST-08	Provide 6" PVC Storm Sewer Lateral	LF	2,126.00	$62.00	$131,812.00	
22-02	ST-07	Provide 6" PVC Storm Sewer Lateral	LF	537.00	$57.00	$30,609.00	
23-01	ST-08	Provide 6" PVC Storm Lateral	LF	1,896.00	$53.00	$100,488.00	
Total				6,199.00		$341,029.00	
Average Cost Per Foot						$55.01	
Average Cost per Lot at 30 Feet of Lateral (100% to Resident)						**$1,650.30**	Average length of lateral is based on a 60 foot right of way and several laterals being connected to inlets.

Storm Wye Cost

Project	Bid Item	Bid Item Description	Unit	Quantity	Cost	Total	Comment
21-01	ST-05	Provide 36" x 6" Storm Branch or Inserta Tee	EA	1	$746.00	$746.00	
21-01	ST-06	Provide 12" x 6" Storm Branch or Inserta Tee	EA	1	$746.00	$746.00	
21-01	ST-07	Provide 8" x 6" Storm Branch or Inserta Tee	EA	8	$180.00	$1,440.00	
21-02	ST-07	Provide 30" x 6" Storm Branch or Inserta Tee	EA	9	$250.00	$2,250.00	
21-02	ST-08	Provide 12" x 6" Storm Branch or Inserta Tee	EA	2	$250.00	$500.00	
21-02	ST-09	Core Drill Storm Sewer and Provide Lateral Connection	EA	25	$250.00	$6,250.00	
21-02	ST-21	Core Drill Storm Manhole (6" Opening)	EA	1	$300.00	$300.00	
22-01	ST-09	Provide 18" x 6" Storm Branch or Inserta Tee	EA	8	$250.00	$2,000.00	
22-01	ST-10	Provide 15" x 6" Storm Branch or Inserta Tee	EA	14	$250.00	$3,500.00	
22-01	ST-11	Provide 12" x 6" Storm Branch Inserta Tee	EA	20	$250.00	$5,000.00	
22-01	ST-12	Provide 8" x 6" Storm Branch or Inserta Tee	EA	24	$200.00	$4,800.00	
22-01	ST-13	Provide Lateral Connection to Existing Storm Sewer	EA	16	$200.00	$3,200.00	
22-02	ST-08	Provide 24" x 6" Storm Branch or Inserta Tee	EA	1	$200.00	$200.00	
22-02	ST-09	Provide 21" x 6" Storm Branch or Inserta Tee	EA	3	$200.00	$600.00	
22-02	ST-10	Provide 18" x 6" Storm Branch or Inserta Tee	EA	2	$200.00	$400.00	
22-02	ST-11	Provide 12" x 6" Storm Branch or Inserta Tee	EA	2	$200.00	$400.00	
22-02	ST-12	Provide 8" x 6" Storm Branch or Inserta Tee	EA	4	$120.00	$480.00	
23-01	ST-09	Provide 12" x 6" Storm Branch or Inserta Tee	EA	23	$225.00	$5,175.00	
23-01	ST-10	Provide 8" x 6" Storm Branch	EA	23	$150.00	$3,450.00	
Total				187		$41,437.00	
Average Cost Per Wye						**$221.59**	

Schedule B
2024 Storm Sewer Cost Evaluation - Residential
Summary Based on 2021-2023 Asphalt Reconstruction and Resurfacing Projects
City of De Pere
Date: December 19, 2023

Storm Sewer Manhole

Project	Bid Item	Bid Item Description	Unit	Quantity	Cost	Total	Comment
21-01	ST-09	Remove and Replace 4' Diameter Storm Manhole	VF	9.40	$530.00	$4,982.00	
21-01	ST-10	Provide 4' Diameter Storm Manhole	VF	7.69	$546.00	$4,198.74	
21-02	ST-10	Remove and Replace 4' Diameter Storm Manhole	VF	10.35	$450.00	$4,657.50	
21-02	ST-13	Provide 4' Diameter Storm Manhole	VF	36.89	$570.00	$21,027.30	
22-01	ST-15	Remove and Replace 4' Diameter Storm Manhole	VF	16.16	$600.00	$9,696.00	
22-01	ST-17	Provide 4' Diameter Storm Manhole	VF	89.09	$600.00	$53,454.00	
22-02	ST-13	Remove and Replace 4' Diameter Storm Manhole	VF	5.64	$775.00	$4,371.00	
22-02	ST-15	Provide 4' Diameter Storm Manhole	VF	56.97	$845.00	$48,139.65	
22-04	ST-07	Provide 4' Diameter Storm Manhole	VF	5.69	$912.00	$5,189.28	
22-07	ST-04	Provide 4' Diameter Storm Sewer Manhole	VF	4.66	$803.83	$3,745.85	
22-07	ST-05	Remove and Replace 4' Diameter Storm Sewer Manhole	VF	58.39	$703.36	$41,069.19	
23-01	ST-11	Remove and Replace 4' Diameter Storm Manhole	VF	10.00	$676.00	$6,760.00	
23-01	ST-12	Provide 4' Diameter Storm Manhole	VF	96.00	$867.00	$83,232.00	
23-02	ST-02	Remove and Replace 4' Diameter Storm Manhole	VF	14.00	$733.00	$10,262.00	
Total				420.93		$300,784.51	
Cost Per Foot						$714.57	
Cost for a 5 foot Deep Manhole						$3,572.85	
Average Per Foot Cost with a 300 Foot Spacing						**$11.91**	

SCHEDULE C

2024 EXISTING RESIDENTIAL STORM SEWER COST EVALUATION

UP TO TWO UNITS PER BUILDING

Schedule C
2024 Storm Sewer Cost Evaluation - Residential
Summary Based on 2021-2023 Asphalt Reconstruction and Resurfacing Projects.
City of De Pere
Date: January 5, 2024

Storm Mainline Cost

Item Description	Cost Per LF	Comment
12" Storm Sewer Main	$72.31	
4' Diameter Storm Manhole	$11.91	300 foot spacing with a 5' depth
Mainline Cost Per Street Foot	$84.22	
Cost Per Side of Street	$42.11	
Cost Per Lot	$2,526.60	60 foot wide lot
Assessable Amount (20%)	$505.32	Remaining 80% funded by Storm Water Utility
Engineering and Administration (20%)	$101.06	
Total Mainline Costs	**$606.38**	

Storm Lateral Cost

Item Description	Cost Per EA	Comment
6" Storm Lateral	$1,650.30	30 foot average length. Some laterals will be connected to inlets.
Storm Wye Cost	$221.59	
Assessable Amount (100%)	$1,871.89	
Engineering and Administration (20%)	$374.38	
Total Lateral Costs	**$2,246.27**	

Total Cost

Mainline	$606.38
Storm Lateral	$2,246.27
Total Cost	**$2,852.65**

SCHEDULE D

SCHEDULE D - SCHEDULE OF PRELIMINARY ASSESSMENTS

PRELIMINARY ASSESSMENTS

TYPE OF IMPROVEMENT: STORM SEWER MAIN AND LATERALS

LOCATIONS - BOMIER STREET FROM S. BROADWAY STREET TO S. ERIE STREET, S. SUPERIOR STREET FROM MERRILL STREET TO SOUTHERN TERMINUS, AND VIRGINIA DRIVE FROM S. SUPERIOR STREET TO S. ERIE STREET

RESIDENTIAL ASSESSMENT

COST PER UNIT - STORM MAIN:	**$606.38**
COST PER UNIT - STORM LATERAL:	**$2,246.27**

PROPERTY OWNER	LOT NO. PROPERTY ADDRESS PARCEL NUMBER	STORM MAIN ASSESSMENT UNIT	STORM MAIN ASSESSMENT COST	STORM LATERAL ASSESSMENT UNIT	STORM LATERAL ASSESSMENT COST	TOTAL ASSESSMENT	COMMENT
Project 24-01 Sewer and Water Relay and Street Resurfacing							
PATRICIA WALSH 722 BOMIER ST DE PERE, WI 54115	ED-1423-26 722 BOMIER ST	0	$0.00	0	$0.00	$0.00	Storm Lateral to existing main
JENNIFER LYNN HAWLEY 801 BOMIER ST DE PERE, WI 54115	ED-1423-15 801 BOMIER ST	0	$0.00	1	$2,246.27	$2,246.27	Existing main
EDWARD PETER HERMANS 826 BOMIER ST DE PERE, WI 54115	ED-1423-20 826 BOMIER ST	1	$606.38	1	$2,246.27	$2,852.65	
JORDAN BIRSCHBACH 2078 E VISTA CIR DE PERE, WI 54115	ED-371-G-24 608-610 BOMIER ST	0	$0.00	1	$2,246.27	$2,246.27	Exist inlet @ SE Corner of Bomier & Michigan
STEVEN & BETH SIEBERT 702 BOMIER ST DE PERE, WI 54115	ED-1423-29 702 BOMIER ST	0	$0.00	1	$2,246.27	$2,246.27	Existing main
DRF PROPERTIES LLC 1955 LEDGEVIEW RD DE PERE, WI 54115	ED-1423-22 814 BOMIER ST	1	$606.38	1	$2,246.27	$2,852.65	
MARY KOLB 711 BOMIER ST DE PERE, WI 54115	ED-1423-12 711 BOMIER ST	0	$0.00	1	$2,246.27	$2,246.27	Existing main
ADAM & HANNAH WEINGARTEN 825 BOMIER ST DE PERE, WI 54115	ED-1423-A 825 BOMIER ST	1	$606.38	1	$2,246.27	$2,852.65	

SCHEDULE D - SCHEDULE OF PRELIMINARY ASSESSMENTS

PRELIMINARY ASSESSMENTS

TYPE OF IMPROVEMENT: STORM SEWER MAIN AND LATERALS

LOCATIONS - BOMIER STREET FROM S. BROADWAY STREET TO S. ERIE STREET, S. SUPERIOR STREET FROM MERRILL STREET TO SOUTHERN TERMINUS, AND VIRGINIA DRIVE FROM S. SUPERIOR STREET TO S. ERIE STREET

RESIDENTIAL ASSESSMENT

COST PER UNIT - STORM MAIN:	**$606.38**
COST PER UNIT - STORM LATERAL:	**$2,246.27**

PROPERTY OWNER	LOT NO. PROPERTY ADDRESS PARCEL NUMBER	STORM MAIN ASSESSMENT UNIT	STORM MAIN ASSESSMENT COST	STORM LATERAL ASSESSMENT UNIT	STORM LATERAL ASSESSMENT COST	TOTAL ASSESSMENT	COMMENT
Project 24-01 Sewer and Water Relay and Street Resurfacing							
BRIAN & CHRISTINE SCHROEDER 807 BOMIER ST DE PERE, WI 54115	ED-1423-16 807 BOMIER ST	0	$0.00	1	$2,246.27	$2,246.27	Existing main
PATRICIA WALSH 722 BOMIER ST DE PERE, WI 54115	ED-1423-25 0 BOMIER ST	0	$0.00	1	$2,246.27	$2,246.27	Existing main
MELISSA STUCK 620 BOMIER ST DE PERE, WI 54115	ED-71-1 620 BOMIER ST	0	$0.00	1	$2,246.27	$2,246.27	Existing main on S. Superior
MORGAN SCHILLINGER 723 S SUPERIOR ST DE PERE, WI 54115	ED-1423-9 723-725 S SUPERIOR ST	0	$0.00	0	$0.00	$0.00	Storm lateral to existing main on S. Superior
ANTHONY CASS 67 STONEGATE HTS MARQUETTE, MI 49855	ED-1423-18 819-821 BOMIER ST	1	$606.38	1	$2,246.27	$2,852.65	
CHELSEA YOUNG 832 BOMIER ST DE PERE, WI 54115	ED-1423-19 832 BOMIER ST	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main on S. Erie
LIBBY CARTER 808 BOMIER ST DE PERE, WI 54115	ED-1423-23 808 BOMIER ST	0	$0.00	0	$0.00	$0.00	Existing lateral into back of existing inlet
STEPHANIE HOWARD 717 BOMIER ST DE PERE, WI 54115	ED-1423-13 717 BOMIER ST	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main

SCHEDULE D - SCHEDULE OF PRELIMINARY ASSESSMENTS

PRELIMINARY ASSESSMENTS

TYPE OF IMPROVEMENT: STORM SEWER MAIN AND LATERALS

LOCATIONS - BOMIER STREET FROM S. BROADWAY STREET TO S. ERIE STREET, S. SUPERIOR STREET FROM MERRILL STREET TO SOUTHERN TERMINUS, AND VIRGINIA DRIVE FROM S. SUPERIOR STREET TO S. ERIE STREET

RESIDENTIAL ASSESSMENT

COST PER UNIT - STORM MAIN:	**$606.38**
COST PER UNIT - STORM LATERAL:	**$2,246.27**

PROPERTY OWNER	LOT NO. PROPERTY ADDRESS PARCEL NUMBER	STORM MAIN ASSESSMENT UNIT	STORM MAIN ASSESSMENT COST	STORM LATERAL ASSESSMENT UNIT	STORM LATERAL ASSESSMENT COST	TOTAL ASSESSMENT	COMMENT
Project 24-01 Sewer and Water Relay and Street Resurfacing							
ALEXANDER & REBECCA VISSERS 731 S MICHIGAN ST DE PERE, WI 54115	ED-1430 731 S MICHIGAN ST	0	$0.00	1	$2,246.27	$2,246.27	Exist inlet @ SE Corner of Bomier & Michigan
JEANNE BROOKS, ETAL 2898 OLD PLANK RD DE PERE, WI 54115	ED-1423-21 820-822 BOMIER ST	1	$606.38	1	$2,246.27	$2,852.65	
DILLAN RONALD MICKE 831 BOMIER ST DE PERE, WI 54115	ED-1423 831 BOMIER ST	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main on S. Erie
PAUL & BONNIE KASTER 730 S SUPERIOR ST DE PERE, WI 54115	ED-1429 730 S SUPERIOR ST	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
JOHN FRIDLAND 723 BOMIER ST DE PERE, WI 54115	ED-1423-14 723 BOMIER ST	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
JEAN KOLB 317 SUPERIOR AVE SHEBOYGAN, WI 53081	ED-1423-27 716 BOMIER ST	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
PAUL & DEBBIE WATRUBA 710 BOMIER ST DE PERE, WI 54115	ED-1423-28 710 BOMIER ST	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
ANDREW DUGAN 802 BOMIER ST DE PERE, WI 54115	ED-1423-24 802 BOMIER ST	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main

SCHEDULE D - SCHEDULE OF PRELIMINARY ASSESSMENTS

PRELIMINARY ASSESSMENTS

TYPE OF IMPROVEMENT: STORM SEWER MAIN AND LATERALS

LOCATIONS - BOMIER STREET FROM S. BROADWAY STREET TO S. ERIE STREET, S. SUPERIOR STREET FROM MERRILL STREET TO SOUTHERN TERMINUS, AND VIRGINIA DRIVE FROM S. SUPERIOR STREET TO S. ERIE STREET

RESIDENTIAL ASSESSMENT

COST PER UNIT - STORM MAIN:	**$606.38**
COST PER UNIT - STORM LATERAL:	**$2,246.27**

PROPERTY OWNER	LOT NO. PROPERTY ADDRESS PARCEL NUMBER	STORM MAIN ASSESSMENT UNIT	STORM MAIN ASSESSMENT COST	STORM LATERAL ASSESSMENT UNIT	STORM LATERAL ASSESSMENT COST	TOTAL ASSESSMENT	COMMENT
Project 24-01 Sewer and Water Relay and Street Resurfacing							
ROBERT MAHN MARITAL TRUST 813 BOMIER ST DE PERE, WI 54115	ED-1423-17 813 BOMIER ST	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
TODD KIMBALL 644 S SUPERIOR ST DE PERE, WI 54115	ED-679 644 S SUPERIOR ST	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
PATRICK & SHEILA FERRON 621 S SUPERIOR ST DE PERE, WI 54115	ED-700 621 S SUPERIOR ST	1	$606.38	1	$2,246.27	$2,852.65	
ALLEN JOHNSON 622 S SUPERIOR ST DE PERE, WI 54115	ED-676 622 S SUPERIOR ST	1	$606.38	1	$2,246.27	$2,852.65	
SUSAN DANEN 816 S SUPERIOR ST DE PERE, WI 54115	ED-371-G-25 816-818 S SUPERIOR ST	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
KERRY & DIANE CARMODY 603 S SUPERIOR ST DE PERE, WI 54115	ED-703 603 S SUPERIOR ST	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
MICHAEL BECKER 645 S SUPERIOR ST DE PERE, WI 54115	ED-696 645 S SUPERIOR ST	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
LARRY & SANDRA SCHNEIDER 608 S SUPERIOR ST DE PERE, WI 54115	ED-673 608 S SUPERIOR ST	1	$606.38	1	$2,246.27	$2,852.65	

SCHEDULE D - SCHEDULE OF PRELIMINARY ASSESSMENTS

PRELIMINARY ASSESSMENTS

TYPE OF IMPROVEMENT: STORM SEWER MAIN AND LATERALS

LOCATIONS - BOMIER STREET FROM S. BROADWAY STREET TO S. ERIE STREET, S. SUPERIOR STREET FROM MERRILL STREET TO SOUTHERN TERMINUS, AND VIRGINIA DRIVE FROM S. SUPERIOR STREET TO S. ERIE STREET

RESIDENTIAL ASSESSMENT

COST PER UNIT - STORM MAIN:	**$606.38**
COST PER UNIT - STORM LATERAL:	**$2,246.27**

PROPERTY OWNER	LOT NO. PROPERTY ADDRESS PARCEL NUMBER	STORM MAIN ASSESSMENT UNIT	STORM MAIN ASSESSMENT COST	STORM LATERAL ASSESSMENT UNIT	STORM LATERAL ASSESSMENT COST	TOTAL ASSESSMENT	COMMENT
Project 24-01 Sewer and Water Relay and Street Resurfacing							
ERIN CORNER 630 S SUPRIOR ST DE PERE, WI 54115	ED-2958 630 S SUPERIOR ST	1	$606.38	1	$2,246.27	$2,852.65	
JESSICA PYREK 627 S SUPERIOR ST DE PERE, WI 54115	ED-699 627 S SUPERIOR ST	1	$606.38	1	$2,246.27	$2,852.65	
GERALD KEYSER 1N274 WOODS CAROL STREAM, IL 60188	ED-371-G-26 824 S SUPERIOR ST	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
CALEB & SAMANTHA STEIN 602 S SUPERIOR ST DE PERE, WI 54115	ED-672 602 S SUPERIOR ST	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
GLEN SCHACHTNER 2581 HE-NIS-RA LN GREEN BAY, WI 54304	ED-371-G-1 815-817 S SUPERIOR ST	0	$0.00	0	$0.00	$0.00	Lateral to existing main on S. Superior
JENNIFER SNELL 920 S SUPERIOR ST DE PERE, WI 54115	ED-371-G-30-1 920 S SUPERIOR ST	1	$606.38	1	$2,246.27	$2,852.65	
SHANE KEIFER, ETAL 639 S SUPERIOR ST DE PERE, WI 54115	ED-697 639 S SUPERIOR ST	1	$606.38	1	$2,246.27	$2,852.65	
JOHN & EILEEN WERY 2131 DOLLAR RD DE PERE, WI 54115	ED-371-G-29 902-904 S SUPERIOR ST	1	$606.38	1	$2,246.27	$2,852.65	

SCHEDULE D - SCHEDULE OF PRELIMINARY ASSESSMENTS

PRELIMINARY ASSESSMENTS

TYPE OF IMPROVEMENT: STORM SEWER MAIN AND LATERALS

LOCATIONS - BOMIER STREET FROM S. BROADWAY STREET TO S. ERIE STREET, S. SUPERIOR STREET FROM MERRILL STREET TO SOUTHERN TERMINUS, AND VIRGINIA DRIVE FROM S. SUPERIOR STREET TO S. ERIE STREET

RESIDENTIAL ASSESSMENT

COST PER UNIT - STORM MAIN:	**$606.38**
COST PER UNIT - STORM LATERAL:	**$2,246.27**

PROPERTY OWNER	LOT NO. PROPERTY ADDRESS PARCEL NUMBER	STORM MAIN ASSESSMENT UNIT	STORM MAIN ASSESSMENT COST	STORM LATERAL ASSESSMENT UNIT	STORM LATERAL ASSESSMENT COST	TOTAL ASSESSMENT	COMMENT
Project 24-01 Sewer and Water Relay and Street Resurfacing							
MARY VERHAAGH 903 S SUPERIOR ST DE PERE, WI 54115	ED-371-G-13 901-903 S SUPERIOR ST	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main on Virginia
HOPE LUTHERAN CHURCH 700 S SUPERIOR ST DE PERE, WI 54115	ED-1424 700 S SUPERIOR ST	0	$0.00	0	$0.00	$0.00	Lateral to inlet @ SW corner Superior & Bolles
JONATHAN PAQUE, ETAL 609 S SUPERIOR ST DE PERE, WI 54115	ED-702 609 S SUPERIOR ST	1	$606.38	1	$2,246.27	$2,852.65	
JOSEPHINE SCHMIDT 614 S SUPERIOR ST DE PERE, WI 54115	ED-674 614 S SUPERIOR ST	1	$606.38	1	$2,246.27	$2,852.65	
MARK WEGNER 1053 SHADOW LN GREEN BAY, WI 54304	ED-371-G-27 830-832 S SUPERIOR ST	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
MELISSA MAE KNOX 632 S SUPERIOR ST DE PERE, WI 54115	ED-2959 632 S SUPERIOR ST	1	$606.38	1	$2,246.27	$2,852.65	
DAVID ESERKALN 482 WELLAND AVE GREEN BAY, WI 54311	ED-371-G-28 834-836 S SUPERIOR ST	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main in intersection of S. Superior & Virginia
HOPE LUTHERAN CHURCH 700 S SUPERIOR ST DE PERE, WI 54115	ED-1423-8 715 S SUPERIOR ST	0	$0.00	0	$0.00	$0.00	Lateral to inlet @ SE Corner S. Superior & Bolles

SCHEDULE D - SCHEDULE OF PRELIMINARY ASSESSMENTS

PRELIMINARY ASSESSMENTS

TYPE OF IMPROVEMENT: STORM SEWER MAIN AND LATERALS

LOCATIONS - BOMIER STREET FROM S. BROADWAY STREET TO S. ERIE STREET, S. SUPERIOR STREET FROM MERRILL STREET TO SOUTHERN TERMINUS, AND VIRGINIA DRIVE FROM S. SUPERIOR STREET TO S. ERIE STREET

RESIDENTIAL ASSESSMENT

COST PER UNIT - STORM MAIN:	**$606.38**
COST PER UNIT - STORM LATERAL:	**$2,246.27**

PROPERTY OWNER	LOT NO. PROPERTY ADDRESS PARCEL NUMBER	STORM MAIN ASSESSMENT UNIT	STORM MAIN ASSESSMENT COST	STORM LATERAL ASSESSMENT UNIT	STORM LATERAL ASSESSMENT COST	TOTAL ASSESSMENT	COMMENT
Project 24-01 Sewer and Water Relay and Street Resurfacing							
JOSEPH VANHORN 620 S SUPERIOR ST DE PERE, WI 54115	ED-675 620 S SUPERIOR ST	1	$606.38	1	$2,246.27	$2,852.65	
MARK KITSLAAR 615 S SUPERIOR ST DE PERE, WI 54115	ED-701 615 S SUPERIOR ST	1	$606.38	1	$2,246.27	$2,852.65	
JASON & KESHIA HERVAS 638 S SUPERIOR ST DE PERE, WI 54115	ED-678 638 S SUPERIOR ST	1	$606.38	1	$2,246.27	$2,852.65	
KEVIN HOLLOWAY 633 S SUPERIOR ST DE PERE, WI 54115	ED-698 633 S SUPERIOR ST	1	$606.38	1	$2,246.27	$2,852.65	
JENNIFER ANDERSON 908 S SUPERIOR ST DE PERE, WI 54115	ED-371-G-30-2 908 S SUPERIOR ST	1	$606.38	1	$2,246.27	$2,852.65	
PATRICIA VOGELS 826 VIRGINIA DR DE PERE, WI 54115	ED-371-G-22 826 VIRGINIA DR	1	$606.38	1	$2,246.27	$2,852.65	
SARAH SAMSA 720 VIRGINIA DR DE PERE, WI 54115	ED-371-G-15 720 VIRGINIA DR	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
JULIA MEYER 827 VIRGINIA DR DE PERE, WI 54115	ED-371-G-11 827 VIRGINIA DR	1	$606.38	1	$2,246.27	$2,852.65	

SCHEDULE D - SCHEDULE OF PRELIMINARY ASSESSMENTS

PRELIMINARY ASSESSMENTS

TYPE OF IMPROVEMENT: STORM SEWER MAIN AND LATERALS

LOCATIONS - BOMIER STREET FROM S. BROADWAY STREET TO S. ERIE STREET, S. SUPERIOR STREET FROM MERRILL STREET TO SOUTHERN TERMINUS, AND VIRGINIA DRIVE FROM S. SUPERIOR STREET TO S. ERIE STREET

RESIDENTIAL ASSESSMENT

COST PER UNIT - STORM MAIN:	**$606.38**
COST PER UNIT - STORM LATERAL:	**$2,246.27**

PROPERTY OWNER	LOT NO. PROPERTY ADDRESS PARCEL NUMBER	STORM MAIN ASSESSMENT UNIT	STORM MAIN ASSESSMENT COST	STORM LATERAL ASSESSMENT UNIT	STORM LATERAL ASSESSMENT COST	TOTAL ASSESSMENT	COMMENT
Project 24-01 Sewer and Water Relay and Street Resurfacing							
PAUL EDINGER 721 VIRGINIA DR DE PERE, WI 54115	ED-371-G-4 721 VIRGINIA DR	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
ELEANOR HINZ 807 VIRGINIA DR DE PERE, WI 54115	ED-371-G-7 807 VIRGINIA DR	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
BARBARA STERN 814 VIRGINIA DR DE PERE, WI 54115	ED-371-G-19 814 VIRGINIA DR	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
ADAM & CRISTINA PICKERING 825 VIRGINIA DR DE PERE, WI 54115	ED-371-G-10 825 VIRGINIA DR	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
PAO & NICOLE YANG 726 VIRGINIA DR DE PERE, WI 54115	ED-371-G-16 726 VIRGINIA DR	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
DONN & SARA FOOTE 801 VIRGINIA DR DE PERE, WI 54115	ED-371-G-6 801 VIRGINIA DR	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
RICKY & SHARON VANDERWEGEN 806 VIRGINIA DR DE PERE, WI 54115	ED-371-G-18 806 VIRGINIA DR	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
GARY & MICHELLE GEIS 714 VIRGINIA DR DE PERE, WI 54115	ED-371-G-14 714 VIRGINIA DR	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main

SCHEDULE D - SCHEDULE OF PRELIMINARY ASSESSMENTS

PRELIMINARY ASSESSMENTS

TYPE OF IMPROVEMENT: STORM SEWER MAIN AND LATERALS

LOCATIONS - BOMIER STREET FROM S. BROADWAY STREET TO S. ERIE STREET, S. SUPERIOR STREET FROM MERRILL STREET TO SOUTHERN TERMINUS, AND VIRGINIA DRIVE FROM S. SUPERIOR STREET TO S. ERIE STREET

RESIDENTIAL ASSESSMENT

COST PER UNIT - STORM MAIN:	**$606.38**
COST PER UNIT - STORM LATERAL:	**$2,246.27**

PROPERTY OWNER	LOT NO. PROPERTY ADDRESS PARCEL NUMBER	STORM MAIN ASSESSMENT UNIT	STORM MAIN ASSESSMENT COST	STORM LATERAL ASSESSMENT UNIT	STORM LATERAL ASSESSMENT COST	TOTAL ASSESSMENT	COMMENT
Project 24-01 Sewer and Water Relay and Street Resurfacing							
KENNETH & KATHRYN STEPHENSON 709 VIRGINIA DR DE PERE, WI 54115	ED-371-G-2 709 VIRGINIA DR	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
PERANGANJI & MANJU RAMAMOORTHY 1374 CASTLE ROCK CT DE PERE, WI 54115	ED-371-G-8 815 VIRGINIA DR	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
MARK & LISA SMITS 818 VIRGINIA DR DE PERE, WI 54115	ED-371-G-20 818 VIRGINIA DR	0	$0.00	0	$0.00	$0.00	Storm sewer lateral present at inlet abutting this property.
OLVIN ELVIR CERRATO 831 VIRGINIA DR DE PERE, WI 54115	ED-371-G-12 831 VIRGINIA DR	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main S. Erie
TYSON & MONICA JOHNSON 727 VIRGINIA DR DE PERE, WI 54115	ED-371-G-5 727 VIRGINIA DR	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
PATRICIA JOHNSON 904 VIRGINIA DR DE PERE, WI 54115	ED-371-G-23 904-906 VIRGINIA DR	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main S. Erie
CLIFFORD BOUGIE 822 VIRGINIA DR DE PERE, WI 54115	ED-371-G-21 822 VIRGINIA DR	1	$606.38	1	$2,246.27	$2,852.65	
CHRISTOPHER & STEPHANIE ZIEGLER 819 VIRGINIA DR DE PERE, WI 54115	ED-371-G-9 819 VIRGINIA DR	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main

SCHEDULE D - SCHEDULE OF PRELIMINARY ASSESSMENTS

PRELIMINARY ASSESSMENTS

TYPE OF IMPROVEMENT: STORM SEWER MAIN AND LATERALS

LOCATIONS - BOMIER STREET FROM S. BROADWAY STREET TO S. ERIE STREET, S. SUPERIOR STREET FROM MERRILL STREET TO SOUTHERN TERMINUS, AND VIRGINIA DRIVE FROM S. SUPERIOR STREET TO S. ERIE STREET

RESIDENTIAL ASSESSMENT

COST PER UNIT - STORM MAIN:	**$606.38**
COST PER UNIT - STORM LATERAL:	**$2,246.27**

PROPERTY OWNER	LOT NO. PROPERTY ADDRESS PARCEL NUMBER	STORM MAIN ASSESSMENT UNIT	STORM MAIN ASSESSMENT COST	STORM LATERAL ASSESSMENT UNIT	STORM LATERAL ASSESSMENT COST	TOTAL ASSESSMENT	COMMENT
Project 24-01 Sewer and Water Relay and Street Resurfacing							
DEAN & KELLEY QUAKKELAAR 802 VIRGINIA DR DE PERE, WI 54115	ED-371-G-17 802 VIRGINIA DR	0	$0.00	1	$2,246.27	$2,246.27	Existing storm main
		24	$14,553.12	66	$148,253.82	$162,806.94	

SCHEDULE D - SCHEDULE OF PRELIMINARY ASSESSMENTS

PRELIMINARY ASSESSMENTS

TYPE OF IMPROVEMENT: STORM SEWER MAIN AND LATERALS

LOCATIONS - RIDGEWAY DRIVE FROM N. WEBSTER AVENUE TO MANDALAY TERRACE AND SMITS STREET FROM LEBRUN STREET TO RIDGEWAY DRIVE

RESIDENTIAL ASSESSMENT

COST PER UNIT - STORM MAIN:	**$606.38**
COST PER UNIT - STORM LATERAL:	**$2,246.27**

PROPERTY OWNER	LOT NO. PROPERTY ADDRESS PARCEL NUMBER	STORM MAIN ASSESSMENT UNIT	STORM MAIN ASSESSMENT COST	STORM LATERAL ASSESSMENT UNIT	STORM LATERAL ASSESSMENT COST	TOTAL ASSESSMENT	COMMENT
Project 24-02 Ridgeway Drive Pavement Rehabilitation							
ROBERT BUCHANAN 836 SMITS ST DE PERE, WI 54115	ED-35-1 834-836 SMITS ST	1	$606.38	1	$2,246.27	$2,852.65	
TOWN & COUNTRY DEVELOPMENT LLC 1855 COTTONWOOD CT DE PERE, WI 54115	ED-582-76 823-825 SMITS ST	1	$606.38	1	$2,246.27	$2,852.65	
GARRY WAYNE DAVIS 840 SMITS ST DE PERE, WI 54115	ED-35-8 850-852 SMITS ST	1	$606.38	2	$4,492.54	$5,098.92	
MAE ROHDE 829 SMITS ST DE PERE, WI 54115	ED-582-77 829 SMITS ST	1	$606.38	1	$2,246.27	$2,852.65	
JAMIE TANK 814 SMITS ST DE PERE, WI 54115	ED-714-N-6 812-814 SMITS ST	1	$606.38	1	$2,246.27	$2,852.65	
FREDY RIVERA CISNEROS 822 SMITS ST #824 DE PERE, WI 54115	ED-35-4 822-824 SMITS ST	1	$606.38	1	$2,246.27	$2,852.65	
SMITS DEPERE LLC N651 NORMAN RD KEWAUNEE, WI 54216	ED-582-74 817-819 SMITS ST	1	$606.38	1	$2,246.27	$2,852.65	
TRISTAN RETZLAFF 809 SMITS ST DE PERE, WI 54115	ED-714-N-4 809 SMITS ST	1	$606.38	1	$2,246.27	$2,852.65	
RPRK LLC 1425 ANGELS PATH DE PERE, WI 54115	ED-35-6 846-848 SMITS ST	1	$606.38	1	$2,246.27	$2,852.65	
JEAN HELEIN 813 SMITS ST DE PERE, WI 54115	ED-714-N-5 813 SMITS ST	1	$606.38	1	$2,246.27	$2,852.65	

SCHEDULE D - SCHEDULE OF PRELIMINARY ASSESSMENTS

PRELIMINARY ASSESSMENTS

TYPE OF IMPROVEMENT: STORM SEWER MAIN AND LATERALS

LOCATIONS - RIDGEWAY DRIVE FROM N. WEBSTER AVENUE TO MANDALAY TERRACE AND SMITS STREET FROM LEBRUN STREET TO RIDGEWAY DRIVE

RESIDENTIAL ASSESSMENT

COST PER UNIT - STORM MAIN:	**$606.38**
COST PER UNIT - STORM LATERAL:	**$2,246.27**

PROPERTY OWNER	LOT NO. PROPERTY ADDRESS PARCEL NUMBER	STORM MAIN ASSESSMENT UNIT	STORM MAIN ASSESSMENT COST	STORM LATERAL ASSESSMENT UNIT	STORM LATERAL ASSESSMENT COST	TOTAL ASSESSMENT	COMMENT
Project 24-02 Ridgeway Drive Pavement Rehabilitation							
CRAIG DEVOE, ETAL 853 SMITS ST DE PERE, WI 54115	ED-582-83 853 SMITS ST	1	$606.38	1	$2,246.27	$2,852.65	
ANDREW & CARRIE OVEREEM 3671 HALLERS CREEK RD GREEN BAY, WI 54313	ED-35 858 SMITS ST & 1710 LEBRUN ST	0	$0.00	0	$0.00	$0.00	Exist Storm Lateral and Storm Main off Lebrun Street
MATTHEW MAYER 4281 N. PINE TREE RD ONEIDA, WI 54155	ED-35-5 828-830 SMITS ST	1	$606.38	1	$2,246.27	$2,852.65	
ABIGAIL LINNANE 1620 LEBRUN ST DE PERE, WI 54115	ED-582-85 1620 LEBRUN ST	0	$0.00	0	$0.00	$0.00	Exist Storm Lateral and Storm Main off Lebrun Street
THOMAS & JANE MONAHAN 142 SCOUT WAY DE PERE, WI 54115	ED-714-N-8 802-804 SMITS ST	0	$0.00	0	$0.00	$0.00	Exist Storm Lateral and Storm Main off Ridgeway Drive
DAFFINSON PROPERTIES #3 LLC 635 BREVOORT LN GREEN BAY, WI 54301	ED-582-79 835-837 SMITS ST	1	$606.38	1	$2,246.27	$2,852.65	
DOUGLAS & HEIDI CODDINGTON 816 SMITS ST DE PERE, WI 54115	ED-35-3 816-818 SMITS ST	1	$606.38	1	$2,246.27	$2,852.65	
GARRY & SUZANNE DAVIS 840 SMITS ST DE PERE, WI 54115	ED-35-2 840-842 SMITS ST	1	$606.38	1	$2,246.27	$2,852.65	
MARK WEGNER 1053 SHADOW LN GREEN BAY, WI 54304	ED-714-N-3 1625-1627 RIDGEWAY DR	0	$0.00	0	$0.00	$0.00	Exist Storm Lateral in North Quadrant of Intersection coming from inlet off of Smits and Exist Storm Main off Ridgway Drive
KLA HOLDINGS LLC PO BOX 5492 DE PERE, WI 54115	ED-714-N-7 808-810 SMITS ST	1	$606.38	1	$2,246.27	$2,852.65	

SCHEDULE D - SCHEDULE OF PRELIMINARY ASSESSMENTS

PRELIMINARY ASSESSMENTS

TYPE OF IMPROVEMENT: STORM SEWER MAIN AND LATERALS

LOCATIONS - RIDGEWAY DRIVE FROM N. WEBSTER AVENUE TO MANDALAY TERRACE AND SMITS STREET FROM LEBRUN STREET TO RIDGEWAY DRIVE

RESIDENTIAL ASSESSMENT

COST PER UNIT - STORM MAIN:	**$606.38**
COST PER UNIT - STORM LATERAL:	**$2,246.27**

PROPERTY OWNER	LOT NO. PROPERTY ADDRESS PARCEL NUMBER	STORM MAIN ASSESSMENT UNIT	STORM MAIN ASSESSMENT COST	STORM LATERAL ASSESSMENT UNIT	STORM LATERAL ASSESSMENT COST	TOTAL ASSESSMENT	COMMENT
Project 24-02 Ridgeway Drive Pavement Rehabilitation							
CLAUDIA KALOUS 843 SMITS ST DE PERE, WI 54115	ED-582-80 843 SMITS ST	1	$606.38	1	$2,246.27	$2,852.65	
KERSTEN FREDERICK & KAREN PREVETTI 849 SMITS ST DE PERE, WI 54115	ED-582-81 849 SMITS ST	1	$606.38	1	$2,246.27	$2,852.65	
PATRICIA MOORE 1602 RIDGEWAY DR DE PERE, WI 54115	ED-1435-F-6 1602 RIDGEWAY DR	0	$0.00	1	$2,246.27	$2,246.27	Exist Storm Main on Ridgeway Drive
BARBARA KRULL 1520 RIDGEWAY DR DE PERE, WI 54115	ED-1435-F-1 1520-1522 RIDGEWAY DR	0	$0.00	1	$2,246.27	$2,246.27	Exist Storm Inlet in NE Corner of Lot near Intersection
TROY & MICHELE STROESSENREUTHER 1405 RIDGEWAY DR DE PERE, WI 54115	ED-582-15 1405 RIDGEWAY DR	0	$0.00	0	$0.00	$0.00	Exist Storm Main on Webster Avenue, Unable to install Storm Lateral due to Parcel being out of Project Limits
HOLLY HOMES LLC 9105 CTY RD E OCONTO FALLS, WI 54154	ED-714-N-9 1626-1628 RIDGEWAY DR	0	$0.00	0	$0.00	$0.00	Exist Storm Main on Ridgeway Dr, Parcel has Exist Storm Lateral coming from Inlet in the NE corner of Lot on Smits Street
THOMAS & JAMIE VANDEHEI 1711 RIDGEWAY DR DE PERE, WI 54115	ED-38-2 1709-1711 RIDGEWAY DR	0	$0.00	0	$0.00	$0.00	Exist Storm Main and Storm Lateral on Ridgeway Drive
STACIE BRETZ 1415 RIDGEWAY DR DE PERE, WI 54115	ED-582-17 1415 RIDGEWAY DR	1	$606.38	1	$2,246.27	$2,852.65	
MICHAEL & JEAN REEDY 815 MC CASTLEN ST GREEN BAY, WI 54301	ED-714-N-14 1702-1704 RIDGEWAY DR	0	$0.00	0	$0.00	$0.00	Exist Storm Main and Storm Lateral on Ridgeway Drive
CASEY & JESSICA DENNIS 800 N CLAY ST DE PERE, WI 54115	ED-582-49 800 N CLAY ST	1	$606.38	1	$2,246.27	$2,852.65	

SCHEDULE D - SCHEDULE OF PRELIMINARY ASSESSMENTS

PRELIMINARY ASSESSMENTS

TYPE OF IMPROVEMENT: STORM SEWER MAIN AND LATERALS

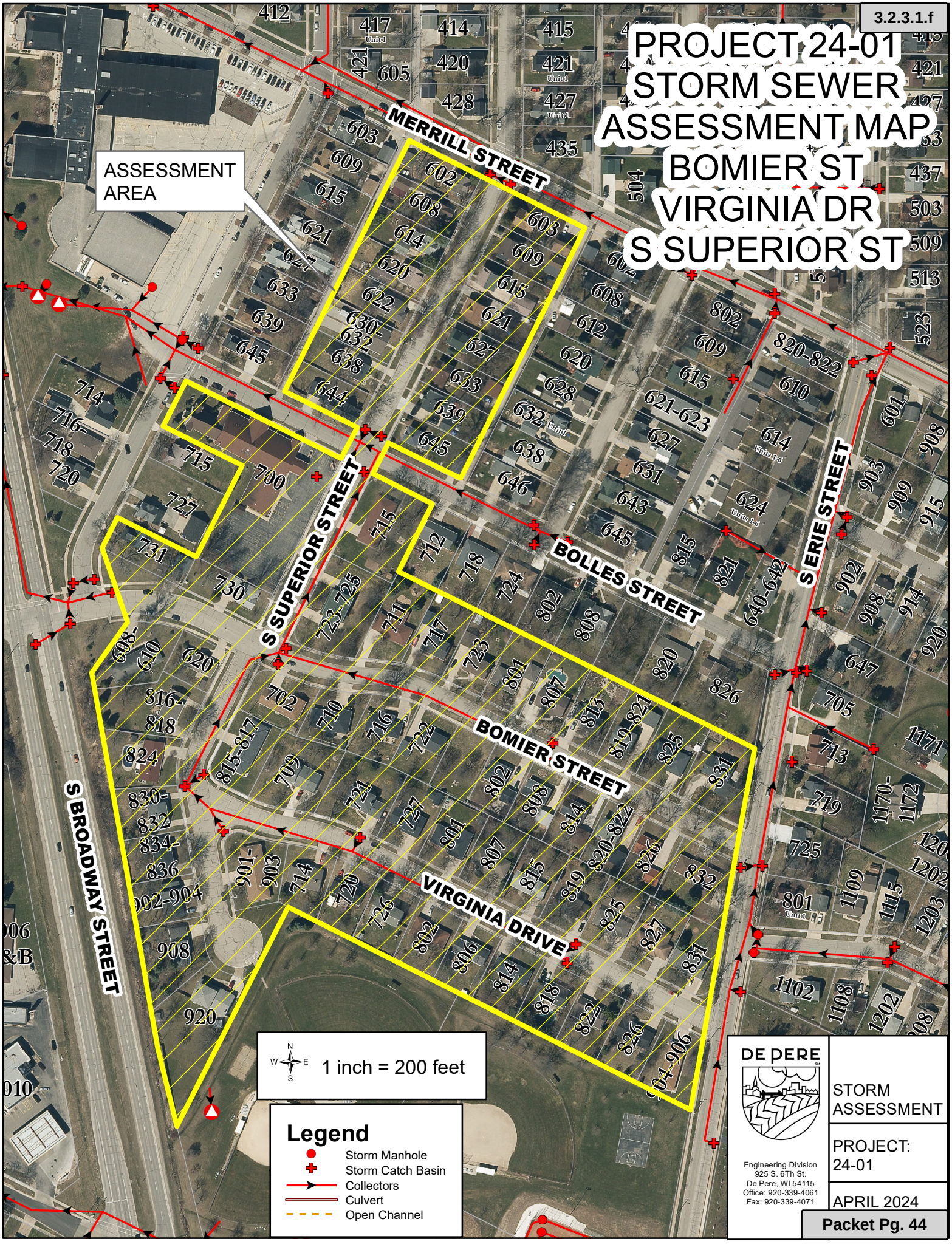
LOCATIONS - RIDGEWAY DRIVE FROM N. WEBSTER AVENUE TO MANDALAY TERRACE AND SMITS STREET FROM LEBRUN STREET TO RIDGEWAY DRIVE

RESIDENTIAL ASSESSMENT

COST PER UNIT - STORM MAIN:	**$606.38**
COST PER UNIT - STORM LATERAL:	**$2,246.27**

PROPERTY OWNER	LOT NO. PROPERTY ADDRESS PARCEL NUMBER	STORM MAIN ASSESSMENT UNIT	STORM MAIN ASSESSMENT COST	STORM LATERAL ASSESSMENT UNIT	STORM LATERAL ASSESSMENT COST	TOTAL ASSESSMENT	COMMENT
Project 24-02 Ridgeway Drive Pavement Rehabilitation							
RENEE HEMAUER 726 N WABSTER AVE DE PERE, WI 54115	ED-39 726 N WEBSTER AVE	0	$0.00	0	$0.00	$0.00	Exist Storm Main on Webster Avenue, Unable to install Storm Lateral due to Parcel being out of Project Limits
VANSTRATEN PROPERTIES OF DE PERE LLC 1116 FOX RIVER DR DE PERE, WI 54115	ED-1128-L-15 1502-1504 RIDGEWAY DR	1	$606.38	1	$2,246.27	$2,852.65	
WILLIAM & PATRICIA BELL 1712 RIDGEWAY DR DE PERE, WI 54115	ED-714-N-15 1712 RIDGEWAY DR	0	$0.00	1	$2,246.27	$2,246.27	Exist Storm Main on Ridgeway Drive
NATHAN REIMER & GABRIELLE MUSCAVITCH 1420 RIDGEWAY DR DE PERE, WI 54115	ED-1128-L-2 1420 RIDGEWAY DR	1	$606.38	1	$2,246.27	$2,852.65	
REDEFINED LIVING LLC 1794 ALLOUEZ AVE GREEN BAY, WI 54311	ED-582-18 1421-1423 RIDGEWAY DR	1	$606.38	1	$2,246.27	$2,852.65	
CJG PROPERTIES LLC 3400 CONCERTO LN GREEN BAY, WI 54311	ED-37-2 1521-1523 RIDGEWAY DR	1	$606.38	1	$2,246.27	$2,852.65	
		24	$14,553.12	28	$62,895.56	$77,448.68	

PROJECT 24-01 STORM SEWER ASSESSMENT MAP BOMIER ST VIRGINIA DR S SUPERIOR ST



DE PERE

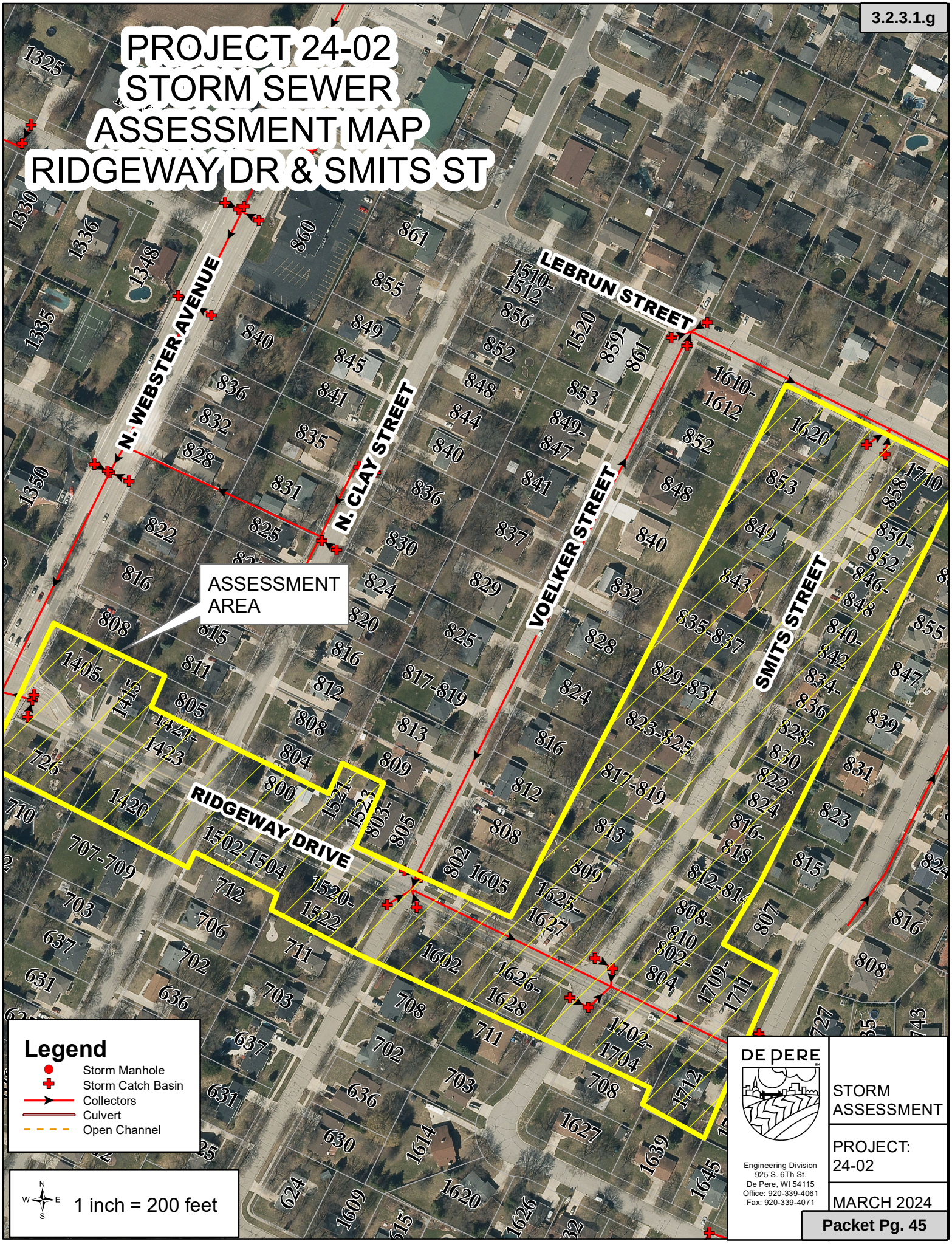
Engineering Division
925 S. 6Th St.
De Pere, WI 54115
Office: 920-339-4061
Fax: 920-339-4071

STORM ASSESSMENT

PROJECT: 24-01

APRIL 2024

PROJECT 24-02 STORM SEWER ASSESSMENT MAP RIDGEWAY DR & SMITS ST



Legend

- Storm Manhole
- Storm Catch Basin
- Collectors
- Culvert
- Open Channel

N W E S

1 inch = 200 feet

DE PERE

Engineering Division
925 S. 6Th St.
De Pere, WI 54115
Office: 920-339-4061
Fax: 920-339-4071

STORM ASSESSMENT

PROJECT: 24-02

MARCH 2024

City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE:	**May 13, 2024**
DEPARTMENT:	**Board of Public Works**
FROM:	**Scott Thoresen**
SUBJECT:	**Consideration and possible action on election of Vice Chairperson**

City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE: **May 13, 2024**

DEPARTMENT: **Engineering**

FROM: **Eric Rakers**

SUBJECT: **Discuss Rectangular Rapid Flashing Beacon Policy**

ATTACHMENTS:

- 2024 0513 CI_BOPW_RRFB_Policy (PDF)
- 1-De Pere Crosswalk Location Policy - 2017-06-29 (PDF)
- 2-FWHA-RRFB_508_0 (PDF)
- 3-MUTCD (PDF)
- 4-boulder_crossing_guidelines_boulder (PDF)
- 5-WisDOT-Teops-04-05 (PDF)
- 6-Ninth Speed Review(PDF)
- 7A-West Side Crosswalks (PDF)
- 7B-East Side Crosswalks (PDF)

City of De Pere
Public Works Department Memo

To: Honorable Mayor Boyd
Members of the Board of Public Works
From: Eric Rakers, P.E., City Engineer
Date: May 13, 2024
Subject: Discuss Rectangular Rapid Flashing Beacon Policy

Alderperson Gantz has made a request for the installation of rectangular rapid flashing beacons (RRFB's) at the intersection of Ninth and Park Street. This location does not currently meet the City policy for the installation. The purpose for this memo is to discuss the current policy and how it has been enacted in the City and then discuss the Ninth and Park Street intersection in more detail.

Background

In March of 2012, the City adopted a policy that addressed the installation of crosswalk. Under the policy, crosswalks were installed at locations meeting the following criteria:

(1) The street to be crossed is designated as an arterial or collector street.
(2) It is more than 300 feet from the next street crossing.
(3) There is adequate demand to justify the crosswalk. Adequate demand is defined as one of the following:
    a. The crosswalk would serve 20 pedestrians per hour during the peak hour or 60 pedestrians total for the highest consecutive 4-hour period; or
    b. The crossing is on a direct route to or from a pedestrian generator, such as a school, library, hospital, senior center, park, or employment center.
(4) The location has adequate site distance. Adequate site distance is based on 10 times the posted speed.

The crosswalk at Ninth Street was approved by the Board based on (3)(b) with several large pedestrian generators in the area.

In 2017, the City hired a consultant to evaluate pedestrian crossings on North Broadway Street and update the pedestrian crosswalk policy. The Board approved the Crosswalk Policy dated June 29, 2017, on October 9, 2017. The policy updated criteria of when crosswalks are installed and when additional amenities, such as ladder crosswalks, bump-outs/refuge islands, or RRFB's are installed. The policy has been attached (Exhibit 1).

Discussion of Current Policy with Other Standards

The goal of the policy is to establish criteria for the installation of crosswalks at locations

with a higher likelihood of pedestrian and vehicle interactions. Additional amenities (such as painting, geometric improvements, and RRFBs) are installed at areas of higher conflicts based on the number of pedestrian crossings, the volume of traffic, posted speed and number of travel lanes. The goal of the policy is to balance the use of RRFBs at high pedestrian, high traffic, multi-lane facilities compared with over-installing RRFBs. Over-use of RRFB's can diminish the effectiveness along with giving drivers the perception that yielding is only required at crosswalks when yellow lights are flashing.

The Federal Highway Administration publication FWHA-SA-21-053 (attached as Exhibit 2) states that "*the RRFB is applicable to many types of pedestrian crossings but is particularly effective at multilane crossings with speed limits less than 40 miles per hour.*" It also states under Considerations, "*Reserve the use of RRFBs for locations with significant pedestrian safety issues, as over-use of RRFB treatments may diminish their effectiveness*".

In preparation for this discussion, staff reviewed other resources for criteria on the installation of crosswalks, and more specifically RRFBs, including the Manual on Traffic Control Devices (MUTCD), Boulder Colorado, and the Wisconsin Department of Transportation (WisDOT) information. A summary of the comparisons is as follows.

City Policy

The City of De Pere has taken a stepped approach to the installation of RRFBs. The City's Crosswalk Policy is attached (Exhibit 1). Figure 1 on page 5 of Exhibit 1 shows the progression of crosswalk enhancements based on traffic volume and travel lanes. Discussion regarding when crosswalks are installed is on page 6. A summary of RRFB installation criteria is as follows:

- Pedestrian Threshold – There are 20 or more pedestrians using the crossing per hour during the peak morning and evening traffic time periods (lower volumes may be considered if a large percentage of the pedestrians consist of young, elderly, or disabled pedestrians); or 15 or more pedestrians per hour during multiple hours throughout the day.
- Vehicle Threshold – A collector or arterial street with greater than 12,000 average vehicles per day.
- Multi-lane facility.
- An alternative to the above is if the RRFB is warranted as part of an engineering study.

MUTCD (Exhibit 3)

Section 3C.02 discusses the criteria to be used for the installation of other traffic control devices at crosswalks.

Guidance:

The installation of other traffic control devices and other measures designed to reduce traffic speeds, shorten crossing distances, enhance driver awareness of the crossing, and/or provide active warning of pedestrian presence, should be considered

in addition to a new marked crosswalk and signs across an uncontrolled roadway where any of the following conditions exist:

A. The roadway has four or more lanes of travel without a raised median or pedestrian refuge island and an ADT of 12,000 vehicles per day or greater; or

B. The roadway has four or more lanes of travel with a raised median or pedestrian refuge island and an ADT of 15,000 vehicles per day or greater, or

C. The posted speed limit is 40 mph or greater, or

D. A crash study reveals that multiple-threat crashes are the predominant crash type on a multi-lane approach, or

E. When adequate visibility cannot be provided by parking prohibitions.

RRFB's would fall under the definition of *other traffic control devices*. Like the De Pere policy, the guidance for RRFBs is a roadway with four or more lanes of travel without a pedestrian refuge island and traffic greater than 12,000 vehicles per day.

Boulder Colorado (Exhibit 4)

Boulder Colorado adopted a comprehensive policy, Pedestrian Crossing Treatment Installation Guidelines, for the installation of crosswalks including enhancements such as RRFB's, in 2011, which is still used today. The policy has been included. Table 1, *Criteria for Crossing Treatments at Uncontrolled Locations* provides a summary of when RRFBs are considered for installation. A crosswalk needs to fall into Category D before RRFBs are installed. The criteria is as follows:

- Pedestrian Threshold – 20 pedestrians per hour in any one hour, or 18 pedestrians per hour in any two hours, or 15 pedestrians per hour in any three hours, or 10 school aged pedestrians traveling to/from school in any one hour. Note: Young, elderly, and disabled pedestrians count 2x towards volume thresholds.
- Vehicle Threshold and Lane Configuration–
    - 1,500 to 9,000 vehicles per day but has five lanes with striped median.
    - Greater than 15,000 vehicles per day (vpd) with four lanes and no median.

The pedestrian threshold is very similar to De Pere. For 25 mph speed limits, the vehicle threshold and lane configuration for five lane facilities is less than De Pere (as low as 1500 vpd) but is more restrictive for four lane facilities (15,000 vpd for Boulder and 12,000 vpd for De Pere).

Under Section 2.23 on Page 8, the guidelines state "*Data collected at Boulder crosswalks where rectangular rapid flash beacon signs (RRFB) or State Law-Yield signs were installed shows that driver compliance typically increases with higher crossing volumes. It is theorized that the primary reason for this relationship is that drivers tend to ignore enhanced crossing treatments over time at locations where they infrequently see pedestrians crossing.*"

Wisconsin Department of Transportation (Exhibit 5)

The WisDOT Traffic Engineering, Operations, and Safety Manual, Section 4-5-1 provides the following criteria that should be met prior to approval of RRFB's (See Page 2 of the attached).

2. A minimum volume of 20 or more pedestrians during a single hour (any four consecutive 15-minute periods) of an average day should be met. Young (<12), elderly (>85) and disabled pedestrians count 2 times toward volume thresholds. Additionally, seasonal day volumes can be used in place of average day volumes if the crossing is in a known tourist area.
3. A minimum vehicular volume of 1,500 vehicles per day.
4. Maximum of four lanes crossed, unless there is a raised median, in which case it can be six lanes.

The pedestrian threshold is very similar to De Pere. The traffic volume is significantly lower and there is no minimum lane criteria.

Current City Pedestrian Crossings and Enhancements (Exhibit 7A and 7B)

Attached are maps showing the crosswalks in the City at various collector and arterial streets, along with types of enhancements. The maps also show the average daily traffic at various locations on streets to provide context between the crosswalk amenity being used and the volume of traffic. The volumes are based on WisDOT traffic counts. Crosswalk locations are based on GIS. The map provides an overview the various crosswalk location and enhancements used in the City.

Enhanced crosswalks with ladders and additional signage have been installed on North Broadway Street as part of the 2017 study. Prior to the policy, ladder crosswalks and/or colored concrete crossings have been installed at various locations around the City, including the downtown areas, on Eighth Street with the WisDOT reconstruction project in 2017 and several other crossings around the City.

Geometric improvements have been made in conjunction with several projects including pedestrian refuge islands or bumpouts. A pedestrian refuge island was installed at Webster Avenue Crosswalk at Charles Street. The crosswalk on Broadway Street at Bomier Street was reconfigured to reduce the travel length and create a pedestrian refuge island. Pedestrian bumpouts have been installed on Grant Street at the Suburban/Apollo Way intersections, and at several of the RRFB's listed below that were installed mid-block.

RRFB's have been installed at multiple locations as follows:

Location	Determination
Broadway Street at James Street	Traffic Volume, 4 Lane Facility and Pedestrian Volume

Broadway Street at George Street	Traffic volume, 4 lane facility and pedestrian volume
Ninth Street at School – Midblock Crossing	Engineering Study for School
Grant Street at School – Midblock Crossing	Engineering Study for School
Superior Street at School – Midblock Crossing	Engineering Study for School
Ryan Road at School – Midblock Crossing	Hazard and Bussing Study for School
Main Avenue – Midblock Crossing	Traffic volume, projected pedestrian volume based on proposed construction

We also have a new RRFB going in on the Lawrence Drive reconstruction project at the Preserve Trail which is a midblock crossing, 35 mph roadway and recommended as part of the engineering design.

Ninth and Park Intersection Review

Ninth Street is categorized as a collector. Traffic volumes based on WisDOT counts vary from 7,600 ADT between Park Street and Main Avenue and 3,800 ADT between Moonglow Drive and Lois Street. Park Street is a local street. ADT are not tracked for these types of facilities due to low volumes.

Ninth Street is 44 feet wide from face of curb to face of curb. This is wide for collector street.

Parking is permitted on Ninth Street. Staff performed many observations during the workday on parking near the intersection. Vehicles are parked north of the intersection, on both sides of Ninth Street, on almost a daily basis. While concerns have been expressed over parking near the crosswalk and overall safety in the area, the parking is decreasing speeds near the crosswalk.

Traffic counters were set up in three locations simultaneously: one south between Apollo Way and Park Street, one immediately north of the crosswalk at Park Street, and one between Park Street and Main Avenue. A map (Exhibit 6) of the locations has been included. Speed information was as follows:

Location	Mean Speed	85% Speed
Between Park and Main	25.7 mph	33.6 mph
North of Park Street Crosswalk	29.0 mph	33.8 mph
Between Apollo and Park	31.4 mph	40.7 mph

The 85% speeds increase significantly south of the crosswalk. The Police Department has been notified of the speeding concerns south of the intersection and will be performing some speed checks. Speeding on Ninth Street is likely attributed to the wide street with very little side obstructions such as parking to the south.

Pedestrian counts were performed at the intersection from April 29th to May 1st. Counts were performed three times each day from 7 am to 9 am, 11 am to 1 pm, and 2:30 pm to 4:30 pm. Rain impacted some of the counts. Results are as follows:

Date	Peak Hour	Total Pedestrians	Comments
Monday, April 29	No Morning Count	N/A	Rain
	11:25 to 12:25	3	Elderly (1)
	2:40 to 3:40	6	Elderly (2), Student (1)
Tuesday, April 30	No Morning Count	N/A	Rain
	12:00 to 1:00	5	Disabled (1)
	3:30 to 4:30	9	Disabled (4)
Wednesday, May 1	8:00 to 9:00	5	Disabled (2)
	11:00 to 12:00	4	Disabled (2)
	2:50 to 3:50	2	

Pedestrian volumes are below the 20 people per hour threshold. Some general observations by staff:

- Pedestrians were observed crossing mid-block south of the intersection and north of the intersection from the USPS facility.
- Pedestrians crossed at the south side of the intersection instead of the north side where the crosswalk is located. These pedestrians were counted.
- There were times that drivers ignored pedestrians ready to cross.
- There were times that pedestrians were distracted and missed traffic gaps.
- Some pedestrians waiting to cross the intersection stood back from the street. Drivers are not required to yield unless the pedestrian is at/in the crosswalk. The highlighted section below from State Statutes requires drivers to yield to pedestrians within the crosswalk who have entered the crosswalk in a safe manner. The clarification for safe manner is that a pedestrian cannot "dart" into the crosswalk where drivers do not have time to react.

346.24 Crossing at uncontrolled intersection or crosswalk.

(1) *At an intersection or crosswalk where traffic is not controlled by traffic control signals or by a traffic officer, the operator of a vehicle shall yield the right-of-way to a pedestrian or personal delivery device, or to a person riding a bicycle, electric scooter, or electric personal assistive mobility device in a manner which is consistent with the safe use of the crosswalk by pedestrians, that is crossing the highway within a marked or unmarked crosswalk.*

Closing

Based on the analysis done, the crosswalk on Ninth Street at Park Street does not meet the criteria for an RRFB per the City policy.

The Police Department will be completing speed enforcement near Apollo Way and a "Frogger" event at the crosswalk.

The cost of RRFBs has increased to between $15,000 and $20,000 per crosswalk. The goal of the policy is to balance the use of RRFB's at high pedestrian, high traffic, multi-lane facilities compared with over-installing RRFB's. As stated by the FHWA, "*Reserve the use of RRFBs for locations with significant pedestrian safety issues, as over-use of RRFB treatments may diminish their effectiveness*".

The intent of this item is for discussion only. If the Board would like additional action, a future agenda item should be made for staff to hire a consultant to evaluate the intersection and/or update the Crosswalk Policy. Staff does not recommend installing an RRFB without having an updated policy or an engineering study completed.

EXHIBIT 1

CITY OF DE PERE CROSSWALK LOCATION POLICY

Appendix

City of De Pere
Crosswalk Location Policy

City of De Pere Crosswalk Policy

June 29, 2017

Background

Wisconsin State Statute, 346.24(1) states that 'motorists are required to yield to pedestrians at an intersection with pedestrian facilities, whether the crosswalk is marked or not'.

The purpose of marked crosswalks at intersections or midblock locations is to indicate optimal or preferred locations for pedestrians to cross a street. Marked crosswalks are intended to provide pedestrians with a feeling of confidence that it is safe to cross a street at a marked location and to give drivers adequate warning to expect that pedestrians will be in the roadway. However, marked crosswalks can also prompt many pedestrians to feel a false sense of safety when using a marked crosswalk.

This policy covers where and how to mark crosswalks, related to the following topics:

- General Crosswalk Location Principles
- Traffic Engineering Studies
- Marking Crosswalks at Unsignalized Intersections
- Marking Crosswalks at Controlled Intersections
- Marking Crosswalks at Mid-Block Locations
- Removal of Crosswalk Markings
- Crosswalk Stripping Patterns

This policy replaces the existing City Department of Public Works policy on 'Crosswalks on Through Streets', dated March 12, 2012.

General Crosswalk Location Principles

It is recognized that pedestrians are sensitive to out-of-the-way travel and that reasonable accommodations should be made to make crossings both convenient and safe allowing pedestrians to cross streets at regular intervals.

The following general principles should be considered when identifying pedestrian crosswalk locations:

1. Arterial street crosswalk locations should be consistent with the City of De Pere *Bicycle and Pedestrian Plan*. Depending on the street network configuration and intersection spacing, pedestrians in dense urban areas should not be expected to walk more than 400 feet out their way to cross a street to reach their destination.
2. Marked crosswalks should be installed where there is:
    a. A substantial conflict between vehicle and pedestrian movements,
    b. Where significant pedestrian concentrations occur,
    c. Where pedestrians would not otherwise recognize the proper place to cross, and
    d. Where traffic movements are controlled
3. Crosswalks should not be installed at locations where sidewalks do not exist.

The widely used national guideline regarding crosswalk markings is documented in the *Manual on Uniform Traffic Control Devices* (*MUTCD*) Section 3B-17 and 3B-18 (6). It states that crosswalks should be marked at all intersections where there is a substantial conflict between vehicular and pedestrian movements.

The Federal Highway Administration (FHWA) advises that the overuse of crosswalk markings should be avoided to maximize their effectiveness. Crosswalks and sign treatments (such as the "State Law – Yield to Pedestrians" and rectangular rapid flash beacon signs – RRFB's) should be used discriminately within a city so that the effectiveness of these treatments is not deteriorated by overuse. Although these treatments may be effective at individual locations, overuse of these treatments city-wide may lead to a decrease in their value as drivers can become desensitized to them.

National pedestrian safety research studies documented in the FHWA Report HRT-04-100, *'Safety Effects of Marked versus Unmarked Crosswalks at Uncontrolled Locations'*, September, 2005 concluded that there is no significant effect on pedestrian crashes between marked versus unmarked crosswalks under the following conditions:

- Two-lane streets
- Multilane streets without raised medians and ADT's below 12,000 vpd
- Multilane streets with raised medians and ADT's below 15,000 vpd

The research report also concludes that crosswalks should not be marked on 2-lane roadways with ADT's greater than 9,000 vpd, or 4-lane roadways with average daily traffic (ADT's) greater than 12,000 vpd, unless other special treatments such as median refuge islands, curb extensions, overhead lighting, pedestrian activated signals or warning lights are provided along with a Traffic Engineering Study that concludes pedestrian safety will be improved by the special treatments.

For multilane streets with ADT's above these volumes, it can be expected that there will be a significant increase in pedestrian crashes on streets with marked crosswalks, compared to streets with unmarked crosswalks (after controlling for traffic ADT and pedestrian ADT). Table 1 provides initial guidance on whether an uncontrolled location might be a candidate for a marked crosswalk and/or whether additional geometric and/or traffic control improvements are needed.

Marked crosswalks may be installed on 4-lane streets without a raised median with a 35 mph or less posted speed limit and ADT's exceeding 15,000 vpd with the installation of a pedestrian signal such as a 'High-Intensity Activated Crosswalk' (HAWK) beacon' or 'Rectangular Rapid Flashing Beacon' (RRFB's) as shown on Table 1. The installation of HAWK beacons should satisfy the *MUTCD* Warrant requirements. Figure 1 provides a Crosswalk Request and Enhancement Process Flow Chart based on the information in Table 1 and the crosswalk location principles described above.

Table 1: Guidelines for Installing Marked Crosswalks and Other Needed Pedestrian Safety Improvements at Uncontrolled Locations*

Roadway Type (Number of Travel Lanes and Median Type)	Vehicle ADT < 9,000			Vehicle ADT >9,000-12,000			Vehicle ADT >12,000-15,000			Vehicle ADT >15,000		
	Speed Limit (mph)**											
	<30	35	40	< 30	35	40	< 30	35	40	<30	35	40
Two lanes	C	C	P	C	C	P	C	C	N	C	P	N
Three lanes	C	C	P	C	P	P	P	P	N	P	N	N
Multilane (4 of more lanes) with raised median***	C	C	P	C	P	N	P	P	N	N	N	N
Multilane (4 or more lanes) without raised median	C	P	N	P	P	N	N	N	N	N	N	N

These guidelines include intersection and midblock locations with no traffic signals or stop signs on the approach to the crossing. They do not apply to school crossings. A two-way center turn lane is not considered as a median. Crosswalks should not be installed at locations that could present an increased safety risk to pedestrians, such as where there is poor sight distance, complex or confusing designs, a substantial volume of heavy trucks, or other dangers, without first providing adequate design features and/or traffic control devices. Adding crosswalks alone will not make crossing safer, nor will they necessarily result in more vehicles stopping for pedestrians. Whether marked crosswalks are installed, it is important to consider other pedestrian facility enhancements (e.g., raised crosswalks, traffic signal, roadway narrowing, enhanced overhead lighting, traffic taming measures, curb extensions), as needed to improve the safety of the crossing. These are general recommendations, good engineering judgement should be used in individual cases for deciding where to install crosswalks.

** Where the speed limit exceeds 40 mph marked crosswalks alone should not be used at unsignalized locations.

The Legend for Table 1 is as follows:

C = Candidate sites for marked crosswalks. Marked crosswalks must be installed safely and selectively. Before installing new marked crosswalks, an engineering study is needed to determine whether the location is suitable for a marked crosswalk. For an engineering study, a site review may be sufficient at some locations, while a more in-depth study of pedestrian volume, vehicle speed, sight distance, vehicle mix, etc. may be needed at other sites. It is recommended that a minimum of 20 pedestrian crossings per hour (or 15 elderly and/or child pedestrians) exist at a location before placing a high priority on the installation of a marked crosswalk.

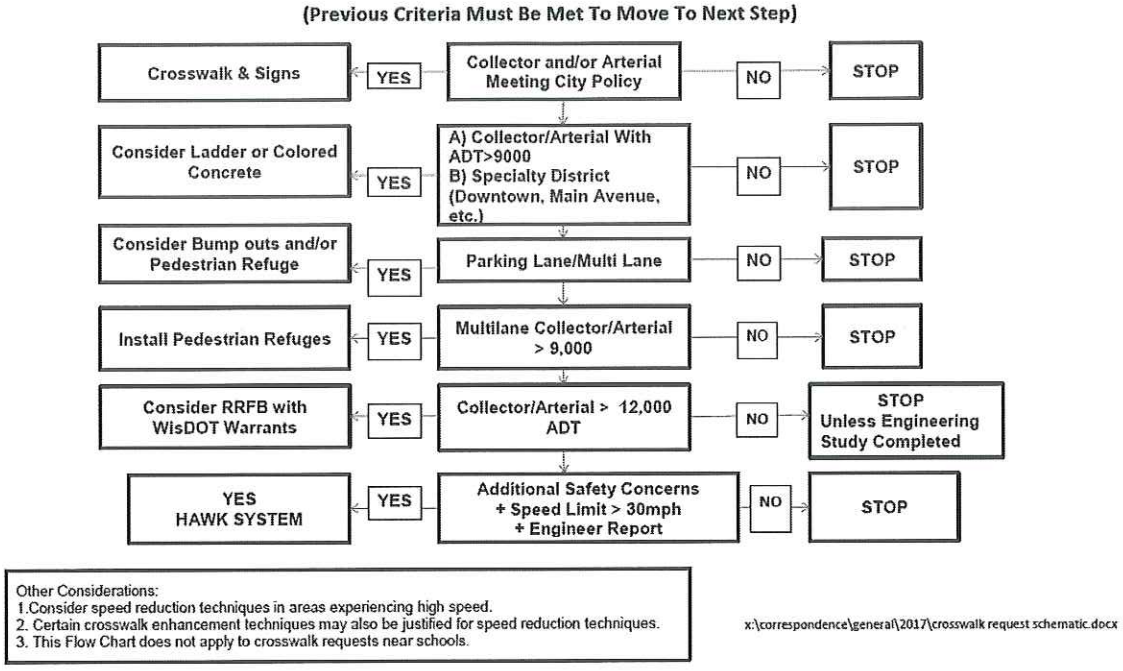
P = Possible increase in pedestrian crash risk may occur if crosswalks are added without other pedestrian facility enhancements. These locations should be closely monitored and enhanced with other pedestrian crossing improvement measures, if necessary, before adding a marked crosswalk.

N = Marked crosswalks alone are not sufficient, since crash risk may be increased due to providing a marked crosswalk alone. Consider using other treatments, such as traffic taming treatments, traffic signals with pedestrians signals where warranted, or other substantial crossing improvements to improve crossing safety for pedestrians.

*** The raised median or crossing island must be at least 4 feet wide and 6 feet long to adequately serve as a refuge area for pedestrians in accordance with MUTCD and American Association of State Highway and Transportation Officials (AASHTO) guidelines.

Source: *Guidance for Installation of Pedestrian Crosswalks on Minnesota State Highways,* October, 2005

Figure 1: Crosswalk Request and Enhancement Process Flow Chart



Traffic Engineering Studies

A traffic engineering study is required to determine if the guidelines in this Policy and *MUTCD* warrants are satisfied for the installation of a marked crosswalk at a particular location. The components of a Traffic Engineering Study will vary by location, but typically should include consideration of:

- Speed and volume on the street involved
- Pedestrian volume, age and level of mobility
- Location of pedestrian origins and destinations and crossing patterns
- Existing sidewalk network and sidewalk ramps
- Adequacy of sight distances and absence of sight obstructions
- Street characteristics including grade, curvature, pavement markings, pavement widths, number of vehicle and bicycle lanes
- Location of adjacent driveways
- On-street parking
- Street lighting
- Location of drainage structures
- Distance to nearest marked crossing
- Traffic signal progression
- Potential for rear-end crashes

Crosswalk Markings at Unsignalized Intersections
Pedestrian crosswalks should not be installed at street intersections that are not controlled by a traffic signal, a STOP sign or a YIELD sign unless all of the following criteria are met:

- The speed limit is 40 mph or less; and
- There are 20 or more pedestrians using the crossing per hour during the peak morning and evening traffic time periods (lower volumes may be considered if a large percentage of the pedestrians consist of young, elderly or disabled pedestrians; or 15 or more pedestrians per hour during multiple hours throughout the day; and
- The two-way traffic ADT for the street exceeds 4,000 vpd; and
- A sidewalk or adequate shoulder is provided for use by pedestrians on both sides of the street approach; and
- There is not another crosswalk across the same roadway within 400 feet of the intersection; and
- Adequate stopping sight distance (equal to or exceeding that for the posted speed) is available in both directions as determined in accordance with guidance contained in the American Association of State Highway and Transportation Officials (AASHTO) '*Policy on the Design of Highways and Streets'.*

Additional design treatments such as crosswalk signing, pedestrian median refuge islands, advance stop bars, HAWK beacons or RRFB's should be considered for crosswalks on streets with four or more moving traffic lanes. The installation of HAWK or RRFB's should satisfy the following criteria.

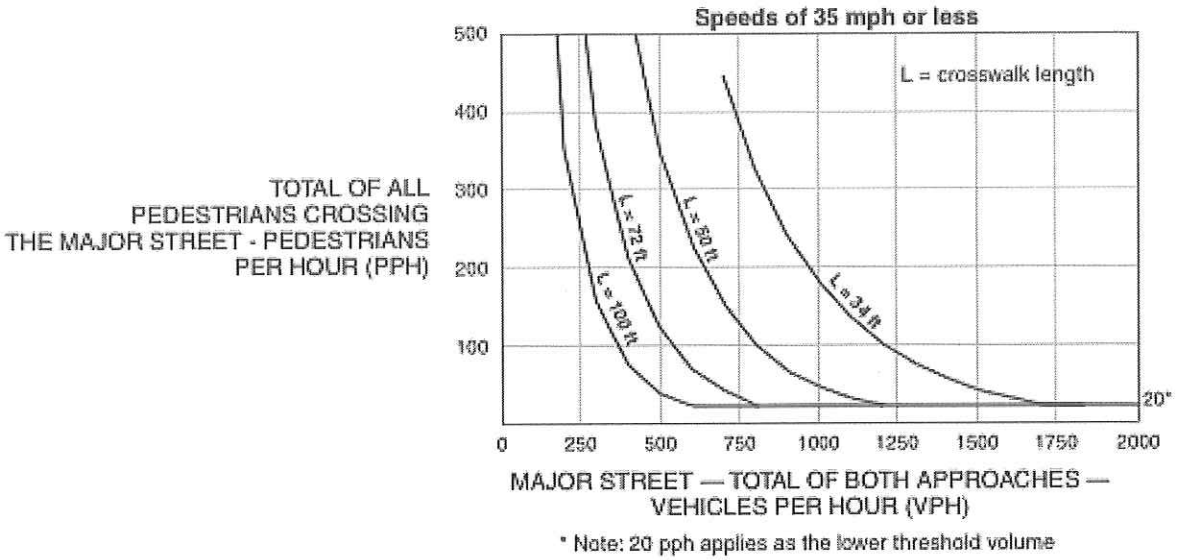
HAWK beacons can be evaluated for marked crosswalk locations with significant pedestrian demand that satisfy the *Manual on Uniform Traffic Control Devices* (*MUTCD)* traffic speed and volume warrants. In general, they should be used if:

1) There are an insufficient number of gaps in traffic to permit pedestrians to cross;
2) Vehicle speeds on the major street are too high to permit pedestrians to cross safely; or
3) Pedestrian delay is excessive.

Bus stop and school crossings are frequently good locations to consider HAWK beacons.

Figure 2 from the *MUTCD* identifies threshold criteria for the installation of HAWK beacons, shown with curves, for various crosswalk lengths based on the number of pedestrians and traffic volume for streets with traffic speeds of 35 mph or less. If pedestrian and traffic volumes exceed the threshold curve criteria, a HAWK beacon may be considered.

Figure 2: MUTCD Recommended Traffic Thresholds for HAWK Beacon Consideration



The WisDOT *Traffic Guidelines Manual,* Section 4-5-2 indicates that RRFB's may be considered based if the following conditions exist:

- Location is an uncontrolled pedestrian crossing.
- Minimum volume* thresholds should be met:
  - 20 or more pedestrians during a single hour (any four consecutive 15-minute time periods) of an average day, or
  - 18 or more pedestrians during each of any two hours of an average day, or
  - 15 or more pedestrians during each of any three hours of an average day.

  *Young (<12), elderly (>85) and disabled pedestrians count 2X toward volume thresholds. Additionally, seasonal day volumes can be used in place of average day volumes if the crossing is a known tourist area.
- A minimum vehicle volume of 1,500 vehicles per day.
- Maximum of four lanes crossed, unless there is a raised median, in which case it can be five lanes.
- There exists a minimum of 300 feet between the subject crossing and the nearest controlled pedestrian crossing or intersection traffic control device on the state trunk highway system. Consideration should be given to extending this distance beyond 300 feet if the proposed crosswalk location falls within an auxiliary turn lane for the nearby intersection or if the standing queue from the intersection extends over the proposed crosswalk location.
- The approach speed is posted at 40 mph or less.
- Adequate stopping sight distance exists based on FDM 11-10-5 or greater than 8 times the posted speed limit.

Crosswalk Markings at Controlled Intersections
Unless a pedestrian crossing is prohibited, marked crosswalks should be provided at all intersection approaches controlled by traffic signals. Intersection approaches controlled by STOP signs can be recommended for marked crosswalks if any of the following conditions apply:

- Crosswalk is located in a school area; or
- Elderly or disabled pedestrian volumes of 20 or more per hour are expected during the peak hour of pedestrian demand; or
- Pedestrian volumes of 60 or more are expected during the peak hour of pedestrian demand and traffic volumes of 6,000 vpd are expected to cross over the crosswalk; or
- Safety or efficiency reasons dictate directing pedestrians to a particular leg of an intersection; or STOP sign approach on a major or minor arterial street.

Crosswalk Markings at Mid-Block Locations
Mid-block crosswalks should only be installed if marked and established by a Traffic Engineering Study and approved by City Council action. Midblock crossings should only be installed at locations where pedestrians would be expected to need to cross the street. Because mid-block pedestrian activity is not expected by drivers, additional safety measures including signage, parking restrictions and HAWK beacons or RRFB's should be installed. Other pedestrian safety measures can include curb bulbouts. Mid-block crosswalks should only be installed if the following conditions exist:

- Mid-block crosswalks should be considered only if there is sufficient demand according to the following criteria:
    - Pedestrian volumes exceed 40 or more during the peak hour of pedestrian demand; or
    - Significant pedestrian trip generators (such as schools, parks or commercial buildings) are on both sides of the street between controlled intersections.
- The location is more than 300 feet from a controlled intersection;
- Adequate stopping sight distance exists between approaching motorists and pedestrians starting to cross the proposed crosswalk;
- The crosswalk location has adequate street lighting; and
- Safety considerations attributed to roadway configuration, traffic volumes or speeds do not preclude establishing a crosswalk.

Removal of Crosswalk Markings
These guidelines should not be used to justify removal of existing crosswalk markings. In most circumstances, additional safety measures should be considered prior to removal of crosswalk markings.

In general, removal of existing crosswalks should be avoided. In exceptional cases, closing a crosswalk or keeping a crosswalk closed may be justified even if a crosswalk meets the criteria outlined elsewhere in this Policy.

EXHIBIT 2

FEDERAL HIGHWAY ADMINISTRATION

FWHA-SA-21-053

U.S. Department of Transportation
Federal Highway Administration



Rectangular Rapid Flashing Beacons (RRFB)

A marked crosswalk or pedestrian warning sign can improve safety for pedestrians crossing the road, but at times may not be sufficient for drivers to visibly locate crossing locations and yield to pedestrians. To enhance pedestrian conspicuity and increase driver awareness at uncontrolled, marked crosswalks, transportation agencies can install a pedestrian actuated Rectangular Rapid Flashing Beacon (RRFB) to accompany a pedestrian warning sign. RRFBs consist of two, rectangular- shaped yellow indications, each with a light-emitting diode (LED)-array-based light source.[1] RRFBs flash with an alternating high frequency when activated to enhance conspicuity of pedestrians at the crossing to drivers.

Transportation agencies should refer to the *Manual on Uniform Traffic Control Devices (MUTCD)* for information on the application of RRFBs.[1]

Safety Benefits:

RRFBs can reduce crashes up to:

47%

for pedestrian crashes.[4]

RRFBs can increase motorist yielding rates up to:

98%

(varies by speed limit, number of lanes, crossing distance, and time of day).[3]



RRFBs used at a trail crossing.
Source: LJB

Applications

The RRFB is applicable to many types of pedestrian crossings but is particularly effective at multilane crossings with speed limits less than 40 miles per hour.[2] Research suggests RRFBs can result in motorist yielding rates as high at 98 percent at marked crosswalks, but varies depending on the location, posted speed limit, pedestrian crossing distance, one- versus two-way road, and the number of travel lanes.[3] RRFBs can also accompany school or trail crossing warning signs.

RRFBs are placed on both sides of a crosswalk below the pedestrian crossing sign and above the diagonal downward arrow plaque pointing at the crossing.[1] The flashing pattern can be activated with pushbuttons or passive (e.g., video or infrared) pedestrian detection, and should be unlit when not activated.

Considerations

Agencies should:[2]

- Install RRFBs in the median rather than the far-side of the roadway if there is a pedestrian refuge or other type of median.
- Use solar-power panels to eliminate the need for a power source.
- Reserve the use of RRFBs for locations with significant pedestrian safety issues, as over-use of RRFB treatments may diminish their effectiveness.

Agencies shall not:[2]

- Use RRFBs without the presence of a pedestrian, school or trail crossing warning sign.
- Use RRFBs for crosswalks across approaches controlled by YIELD signs, STOP signs, traffic control signals, or pedestrian hybrid beacons, except for the approach or egress from a roundabout.

For more information on this and other FHWA Proven Safety Countermeasures, please visit https://highways.dot.gov/safety/proven-safety-countermeasures and https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-06/techSheet_RRFB_2018.pdf.

FHWA-SA-21-053

1 Manual on Uniform Traffic Control Devices (MUTCD), Chapter 4L. FHWA, (2023).
2 "Rectangular Rapid Flash Beacon" in PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System. FHWA, (2013).
3 Fitzpatrick et al. "Will You Stop for Me? Roadway Design and Traffic Control Device Influences on Drivers Yielding to Pedestrians in a Crosswalk with a Rectangular Rapid-Flashing Beacon." Report No. TTI-CTS-0010. Texas A&M Transportation Institute, (2016).
4 (CMF ID: 9024) NCHRP Research Report 841 Development of Crash Modification Factors for Uncontrolled Pedestrian Crossing Treatments, (2017).

EXHIBIT 3

MUTCD CRITERIA

CHAPTER 3C. CROSSWALK MARKINGS

Section 3C.01 General

Support:

01 Crosswalk markings provide guidance for pedestrians who are crossing roadways by defining and delineating paths on approaches to and within signalized intersections, and on approaches to other intersections where traffic stops.

02 In conjunction with signs and other measures, crosswalk markings help to alert road users of a designated pedestrian crossing point across roadways at locations that are not controlled by traffic control signals or STOP or YIELD signs.

03 At non-intersection locations, crosswalk markings legally establish the crosswalk.

04 Detectable warning surfaces mark boundaries between pedestrian and vehicular ways where there is no raised curb. Detectable warning surfaces are typically installed where curb ramps are constructed at the junction of sidewalks and the roadway or shoulder, for marked and unmarked crosswalks. Detectable warning surfaces contrast visually with adjacent walking surfaces, either light-on-dark, or dark-on-light. The U.S. Department of Justice 2010 ADA Standards for Accessible Design, September 15, 2010, 28 CFR 35 and 36, Americans with Disabilities Act of 1990 contains specifications for the design of detectable warning surfaces.

Section 3C.02 Application of Crosswalk Markings

Guidance:

01 *At locations controlled by traffic control signals, crosswalk markings should be installed.*

Option:

02 Crosswalk markings may be omitted if engineering judgment indicates they are not needed to direct pedestrians to the proper crossing path(s).

Guidance:

03 *On approaches controlled by STOP or YIELD signs, crosswalk markings should be installed where engineering judgment indicates they are needed to direct pedestrians to the proper crossing path(s).*

04 *At uncontrolled approaches, an engineering study should be performed before a marked crosswalk is installed. The following criteria should be considered:*

- *A. Total number of approach lanes,*
- *B. The presence of a median,*
- *C. The distance from adjacent signalized intersections or other controlled crossings,*
- *D. Projected pedestrian and bicyclist volumes,*
- *E. Pedestrian and bicyclist paths of travel,*
- *F. Pedestrian ages and abilities,*
- *G. Pedestrian and bicyclist delays,*
- *H. Location or frequency of public transit stops,*
- *I. Average daily traffic (ADT),*
- *J. Speed limit or the 85th-percentile speed,*
- *K. The horizontal and vertical geometry of the crossing location,*
- *L. The possible consolidation of multiple crossing points,*
- *M. The availability of street lighting, and*
- *N. Other appropriate factors.*

Standard:

05 **Crosswalk markings shall be provided at legally established crosswalks at non-intersection locations.**

Guidance:

06 *The installation of other traffic control devices and other measures designed to reduce traffic speeds, shorten crossing distances, enhance driver awareness of the crossing, and/or provide active warning of pedestrian presence, should be considered in addition to a new marked crosswalk and signs across an uncontrolled roadway where any of the following conditions exist:*

- *A. The roadway has four or more lanes of travel without a raised median or pedestrian refuge island and an ADT of 12,000 vehicles per day or greater; or*
- *B. The roadway has four or more lanes of travel with a raised median or pedestrian refuge island and an ADT of 15,000 vehicles per day or greater, or*
- *C. The posted speed limit is 40 mph or greater, or*
- *D. A crash study reveals that multiple-threat crashes are the predominant crash type on a multi-lane approach, or*
- *E. When adequate visibility cannot be provided by parking prohibitions.*

EXHIBIT 4

BOULDER COLORADO POLICY

City of Boulder

Pedestrian Crossing Treatment Installation Guidelines

November 2011









Prepared for:
City of Boulder Transportation Division
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FOX TUTTLE

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APPENDIX

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Executive Summary

Providing safe and efficient pedestrian facilities is a long-established goal of the City of Boulder. Pedestrian facilities are of particular importance as we try to reduce our dependency on the automobile. The decision to travel as a pedestrian is in part subject to the pedestrian's ability and perceived ability to safely and efficiently cross roadways along the travel route. With this in mind, the City of Boulder has established this document to provide a set of criteria, procedures, and policies to guide the installation of crossing treatments. This document, intended to replace the City of Boulder Pedestrian Crossing Treatment Warrants implemented in 1996, incorporates data collected both for the previous document and recently collected for this effort. Specifically, this document summarizes:

- Proposed pedestrian crossing criteria and procedures for evaluating the need for crossing treatments, including a "flowchart" approach
- Specific pedestrian crossing treatments that may be applicable for a particular set of pedestrian volumes, pedestrian types, vehicular volumes, vehicular speeds, and roadway geometry.

When Boulder's original Pedestrian Crossing Treatment Warrants were developed in 1996, there were relatively few studies available at the federal, state, and municipal levels with respect to the installation of crosswalks and other crossing treatments. Over the past few years more studies have been published which assist in the formulation of specific local policies. However, national standards still provide little guidance for the installation of marked crosswalks and treatments, particularly at mid-block locations. Crosswalks and other crossing treatments are typically installed based on engineering judgment. Key issues, such as the circumstances in which a crosswalk should be installed, how much safety benefit crosswalks provide, and the application of various crossing enhancements are still commonly debated topics.

Information recently published by the Federal Highways Administration (FHWA) (Zegeer et al)[1] suggests that on two-lane roadways, marked crosswalks alone at uncontrolled locations have no effect on pedestrian accident rates. The FHWA study goes on to suggest that, on higher volume, multi-lane roadways, marked crosswalks alone (without any other treatments) are associated with higher vehicle-pedestrian accidents rates compared to unmarked locations.

Over the past fourteen years, the City of Boulder has undertaken an extensive evaluation of the effectiveness and safety of various treatments being tested at crossing locations in the City. The City has installed demonstration devices at nearly 40 locations including two-lane and multi-lane crossings. These treatments have included enhanced crosswalk signing, pedestrian-actuated flashing signs, raised crossings on right-turn bypass islands, and other devices. This evaluation has shown that while these devices most often result in a significant increase in driver compliance (yielding to crossing pedestrians) at crosswalks, some of these devices may lead to higher vehicle-vehicle and vehicle-pedestrian accidents at multi-lane, high pedestrian/vehicle volume locations. The results of the data collection to date have been incorporated into these guidelines, though the City of Boulder will continue to evaluate these and other treatments and may make changes to the guidelines over time.

The Pedestrian Crossing Treatment Installation Guidelines are intended to provide a consistent procedure for considering the installation of crossing treatments where needed on a case-by-case basis in the City of Boulder. Implementation of crossing treatments will require funds that could potentially have been spent on other transportation system improvements, and, therefore, must be considered carefully in the funding allocation process.

1.0 DEFINITIONS

This section includes the definitions of some of the common technical terms used in this document.

Average Daily Traffic (ADT)
The amount of vehicular traffic that crosses an imaginary line across a roadway in a 24-hour period. ADT information typically includes both directions of vehicle travel (if on a two-way street).

Controlled Pedestrian Crossing
A pedestrian crossing where motorists are required to stop by either a stop sign or traffic signal (including a HAWK beacon)

Crosswalk Lighting
Street lighting applied at a pedestrian crossing to help approaching motorists see a crossing pedestrian. Crosswalk lighting is at a "vehicular scale" like normal street lighting rather than a "pedestrian scale" that is often used along a sidewalk.

Curb Extensions
A roadway edge treatment where a curbline is bulged out toward the middle of the roadway to narrow the width of the street. Curb extensions are sometimes call "neckdowns", and are often used at the location of a pedestrian crosswalk to minimize the distance and time that a crossing pedestrian must be in the roadway.

Differential Vehicle Queuing
See also Vehicle Queue. A condition on a roadway with two or more travel lanes in a single direction where the line of stopped traffic in one travel lane is significantly longer than the line of stopped traffic in the adjacent travel lane. Differential vehicle queuing across a pedestrian crosswalk can cause a significant safety concern as it increased the potential for "multiple threat" pedestrian accidents.

Gap in Traffic
A gap in traffic is the space between vehicles approaching the pedestrian crossing. Gaps are typically measured in seconds, not distance, as it is the length of the gap in time that a pedestrian must be able to cross in. A directional gap is the gap between vehicles approaching in a single direction. A directional gap can be measured between vehicles in a single lane, or between vehicles approaching in the same direction but in different lanes on a multi-lane approach. If there is no median refuge at the crossing, a pedestrian will need to find an acceptable gap in traffic approaching from two directions at once. This is much more challenging than finding a gap in each approach direction separately.

HAWK Beacon
A pedestrian hybrid beacon is a relatively new type of crossing treatment used to both warn and control traffic at a pedestrian crossing. It actuated by a pedestrian push button, and uses a combination of circular yellow and red traffic signal displays to first warn motorists of a

pedestrian that is about to cross the street, then require the motorist to stop for the pedestrian crossing, and then release the motorist to proceed once the pedestrian has cleared the crossing. The Beacon is a hybrid between a pedestrian traffic signal and a stop sign.

Lane
A portion of the roadway surface designated for motor vehicle travel, typically in a single directions, that is delineated by pavement marking stripes. Types of lanes include: "through lanes" for travel along the length of the roadway, often through intersections; "turn lanes" which are typically on intersection approaches and provide space for left or right turning motorists; "bike lanes" which are designated for bicycle travel in the same direction as the automobile travel, are typically narrower than vehicle lanes, and are usually located along the outside edges of the roadway.

Marked Crosswalk
A pedestrian crossing that is delineated by white crosswalk pavement markings. Marked crosswalks typically also are delineated by a variety of traffic signs. Marked crosswalks would also have curb ramps if there is curb and gutter in an area.

Median Refuge
An area in the middle of a roadway where a crossing pedestrian can take shelter from approaching traffic in either direction. In the context of these guidelines, the median refuge must include a raised median of some width (see Section 2.2.4 for a description of types of median refuges). A median refuge allows a pedestrian to cross each direction of approaching traffic in a separate step. By using the refuge, the pedestrian must only find an acceptable gap in traffic for one approach direction at a time.

Minimum Pedestrian Volume Threshold
The minimum amount of pedestrian crossing traffic (typically in a one hour period) that must be present to "warrant" the installation of a pedestrian crossing treatment. See Section 2.2.3.

Motorist Compliance Data
Observations made and recorded at a pedestrian crossing where it is determined if the approaching motorist complied with their legal requirement to yield to a crossing pedestrian who is in or about to enter the crosswalk.

Multiple Threat Accidents
A type of pedestrian accident that occurs on a roadway with two or more lanes in the same direction. A motorist that stops for a crossing pedestrian can obscure the view of the pedestrian from another motorist approaching in the adjacent travel lane. If the second motorist does not slow down it creates the potential for a crossing pedestrian to step out in front of a high speed approach vehicle with potentially dire consequences.

Multi-Use Path Crossing
A location where a sidewalk designated as a multi-use path intersects a roadway at-grade, and the path extends on both sides of the roadway.

Neckdowns
See Curb Extensions

Pedestrian Traffic Signal
A conventional traffic signal with circular red, yellow, and green displays for motorists and Walk/Don't Walk signals for pedestrians that is applied at a pedestrian crossing. Typically a pedestrian signal would be applied in a mid-block location since it would be considered a normal intersection related traffic signal if it were to be applied at an intersection.

Raised Median
An area in the middle of a roadway, commonly separating vehicles traveling in opposite directions, that is surrounded by curb and gutter and is physically raised above the surrounding pavement where vehicles travel. Raised medians often contain landscaped areas. See also Median Refuge.

Rectangular Rapid Flash Beacons (RRFBs)
RRFBs are small rectangular yellow flashing lights that are deployed with pedestrian crossing warning signs. They are typically actuated by a pedestrian push button and flash for a predetermined amount of time, to allow a pedestrian to cross the roadway, before going dark. RRFBs are warning devices and do not themselves create a legal requirement for a vehicle to stop when they are flashing. Boulder's pedestrian actuated flashing signs are an example of RRFBs.

School Crossing
School Crossing defined as a crossing location where ten or more student pedestrians per hour are crossing

Uncontrolled Pedestrian Crossing
An established pedestrian crossing that does not include a traffic signal, a HAWK beacon, or a stop sign that requires motor vehicles to stop before entering the crosswalk. For example, Boulder's crosswalks with signs and/or pedestrian actuated flashing yellow lights are considered "uncontrolled".

Vehicle Queue
A line of stopped vehicles in a single travel lane, commonly caused by traffic control at an intersection.

2.0 CROSSING LOCATION EVALUATION PROCEDURES AND CONSIDERATIONS

2.1 Evaluation Steps

Evaluation of an individual crossing location for potential crossing treatments in the City of Boulder should include the following four basic steps:

Step 1: Identification and Description of Crossing Location

Step 2: Physical Data Collection

Step 3: Traffic Data Collection and Operational Observations

Step 4: Apply Data to Figure 1, Table 1, and Figure 2 to Determine Appropriate Treatments

The Crossing Location Evaluation Worksheet is included on the following page which will guide staff through these steps. A detailed discussion of each of these procedures is provided in the following text.

Step 1: Identification and Description of Crossing Location

a) Identify the pedestrian crossing location including the major street and specific location of the crossing (i.e.: cross-street, street address, intersection path or trail, etc.).

b) Determine if the crossing location connects both ends of a multi-use path. If it does, the minimum pedestrian volume requirements are not required to be met to apply the treatments prescribed in Table 1 (see the policy discussion in Section 2.4 for more information).

c) Note the posted speed along the major street at the crossing location.

d) Identify the existing traffic control (if any) and any existing crossing treatments (signs, markings, or physical treatments), street lighting, and curb ramps.

Step 2: Physical Data Collection

a) Determine the existing roadway configuration including the number of lanes and the presence of painted or raised medians at the crossing location.

b) Identify the nearest marked or protected crossing and measure the distance to this crossing.

c) Measure the stopping sight distance (SSD) on all vehicular approaches to the crossing. If the SSD is less than eight times (8x) the posted speed limit (in feet), determine if

improvements (such as removal of obstructions) and/or lowering of the posted speed limit are feasible means to mitigate the inadequate SSD.

Step 3: Traffic Data Collection and Operational Observations

a) Gather or collect pedestrian crossing volumes during the peak hours of use. This will typically involve AM, mid-day, and PM peak hours. Locations near schools may only require two hours of data collection (AM and PM peak hours corresponding to school opening and closing times). All pedestrian volumes should include and differentiate between pedestrians and bicyclists and should note separately the number of young, elderly, and/or disabled pedestrians. For locations where school crossing traffic is anticipated, the volume of student pedestrians (school age pedestrians on their way to/from school) should also be separately noted.

   Whenever possible, pedestrian and bicycle volumes should be collected during warm-weather months (May through September) and during fair weather conditions to represent peak crossing activity (i.e.: no snow, rain, or high winds). Counts should be scheduled to coincide with events such as “walking Wednesdays” if appropriate, and at a time when nearby businesses are open. If school traffic is an issue, the counts should be scheduled on school days when classes are in session. Given the potential fluctuation in pedestrian traffic from day to day, it may be necessary to collect up to three days of data (use additional Crossing Location Evaluation Worksheets as needed) to determine if an enhanced pedestrian crossing treatment is warranted as follows:

   - Collect pedestrian data on day one. If the minimum pedestrian volume threshold (see Figure 1) is exceeded, no further pedestrian data collection is needed. If the threshold has not been exceeded, but at least 50% of the minimum pedestrian volume was observed, proceed to a second day of data collection.

   - Collect pedestrian data on day two. If the minimum pedestrian volume threshold is exceeded, no further pedestrian data collection is needed. If the threshold has not been met but again the volume is at least 50% of the minimum threshold, proceed to a third day of data collection.

   - Collect pedestrian data on day three. If the minimum pedestrian volume still has not been met, then no marked pedestrian crossing treatment is warranted by pedestrian crossing volume.

b) Gather or collect hourly and average daily traffic (ADT) volumes for automobile traffic along the major roadway at the crossing location. A one day sample should be adequate, with hourly volumes collected during the same hour as the pedestrian crossing volumes. [Note: City Staff is currently evaluating the benefit of including vehicle gap and/or pedestrian delay data collection to this step]

c) Due to the potential for vehicular traffic queues to impact safety at the crossings, the presence of queues extending from downstream signals or intersections back into the crossing location should be observed, as well as any "differential" queuing that may occur on a lane to lane basis. While collecting automobile traffic data, the formation of

vehicle queues from adjacent intersections should be noted. If one or both directional queues reaches back to the crossing location, the number of times per hour that it reaches the crossing location should be noted and the maximum queue length should also be recorded. If there is more than one through lane in each direction, it should be noted if the queues reaching back to the crossing are approximately the same length in each lane, or is there a significant differences in the length of the queues in each lane. If the queues are routinely of different length as they extend beyond the crossing location, notes should be made as to the potential cause of the differential queuing.

Step 4: Apply Data to Figure 1, Table 1, and Figure 2 to Determine Appropriate Treatments

a) Using the available data, utilize *Figure 1 – Pedestrian Crossing Treatment Flowchart* and *Table 1 – Criteria for Crossing Treatments at Uncontrolled Locations* (if applicable) to determine appropriate treatment(s) for signalized, stop-controlled, or uncontrolled locations. Also consider and incorporate the information in Section 2.2 and in Figure 2 as appropriate.

2.2 Additional Evaluation Considerations

The following information should be considered by the user of these guidelines when determining the appropriate pedestrian crossing treatment:

2.2.1 Types of Crossing Treatments at Uncontrolled Locations

(See also Table 1)

Table 1 identifies six primary types of uncontrolled crossing treatments for consideration depending on the physical roadway conditions, vehicle volume, pedestrian volume at the potential crossing location, etc. The crossing types are as follows:

Crossing Type A:

- Marked crosswalk
- "State Law – Yield to Pedestrians" signs mounted on the side of the roadway at the crossing, with diagonal down arrow placards (W16-7P)
- standard advance pedestrian warning signs (W11-2) mounted in advance of the crossing
- If the location is a school crossing then standard S1-1 signs should be used

Crossing Type B:

- Same as Type A above, plus
- "State Law – Yield to Pedestrians – Within Crosswalk" signs (R1-6) mounted on flexible bollards on the centerline (if no median present) or mounted on sign posts in the median, if median is present

Crossing Type C:

- Same as Type B above plus
- Add neckdowns (curb extensions) and median refuge island to shorten the pedestrian crossing distance and increase the visibility of pedestrians to approaching motorists

Crossing Type D:

- Marked crosswalk
- Median refuge island [Note: If a median refuge can not be constructed on a 2-way street then go to Crossing Type F]
- "State Law – Yield to Pedestrians" signs mounted on the side of the roadway and in the median at the crossing, with diagonal down arrow placards (W16-7P)
- Pedestrian actuated Rectangular Rapid Flash Beacons (RRFBs) mounted with the "State Law…." Signs
- standard advance pedestrian warning signs (W11-2) mounted in advance of the crossing
- If there are 2 approach lanes in a single direction install advance yield lines and "Yield Here To Pedestrians" (R1-5) signs
- If the location is a school crossing then standard S1-1 signs should be used
- Consider adding curb extensions if on-street parking exists and storm drainage can be accommodated
- [Note: If pedestrian volume falls above the RRFB limit line on Figure 2, go to Crossing Type F]

Crossing Type E:

- Where speed limit is initially greater than or equal to 45 miles per hour
- Determine if the speed limit can be effectively reduced to 40 mph AND a raised median refuge island can be installed
- If so, go to Crossing Type D
- If not, go to Crossing Type F

Crossing Type F:

- Crossing has 3 or more through lanes in a given direction or is otherwise not suitable for an uncontrolled marked crosswalk
- Consider HAWK beacon, pedestrian traffic signal, or grade-separated pedestrian crossing
- Refer to Figure 2 when considering crossing treatment type
- Must consider corridor signal progression, grades, physical constraints, and other engineering factors

In Table 1 there are two columns that list:

- # or lanes crossed to reach a refuge
- # of "multiple threat" lanes per crossing

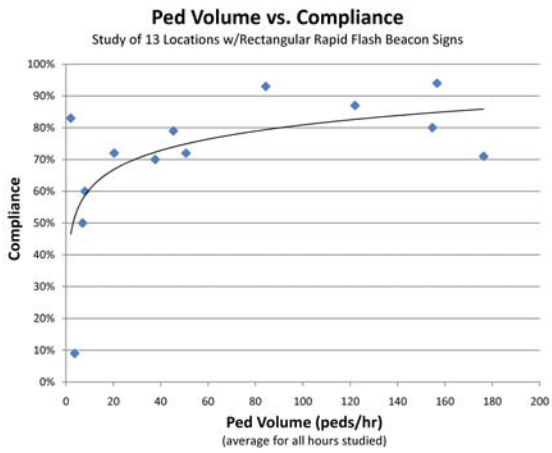
This information does not directly play in to the use of Table 1, but they do provide important context for the user as they help distinguish the crossing types and support the difference in recommended crossing treatments. These topics are discussed in more detail below.

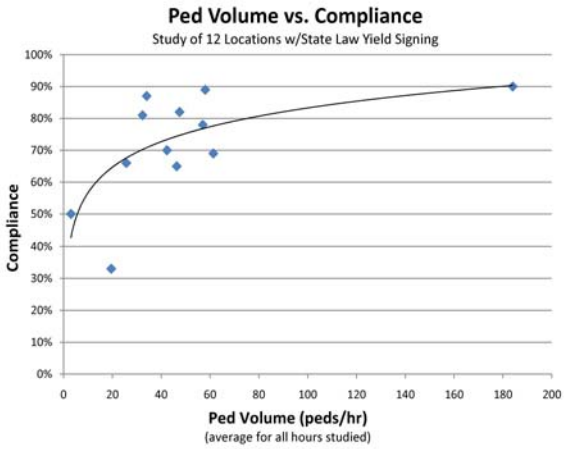
2.2.2 Minimum Vehicle Volume For Treatments

Recognizing the limited availability of resources to implement crossing treatments within the City, crossing treatments should generally not be installed at locations where the ADT is lower than 1,500 vehicles per day. Exceptions may be made at school crossing locations where the peak hour vehicle traffic exceeds 10% of the ADT. School crossings are defined as locations where 10 or more student pedestrians are crossing per hour. Treatments for roadways with greater than 1,500 vehicles per day should be installed based on the criteria in Figure 1, Table 1, and the information in Figure 2 (a or b depending on the speed limit).

2.2.3 Minimum Pedestrian Volume for Treatments at Uncontrolled Crossing Locations

The City of Boulder has evaluated crosswalk enhancements at uncontrolled crossing locations over the years and has determined that there is a clear relationship between driver compliance (yielding) and the pedestrian and/or bicycle crossing volume. Data collected at Boulder crosswalks where rectangular rapid flash beacon signs (RRFB) or State Law-Yield signs were installed shows that driver compliance typically increases with higher crossing volumes. It is theorized that the primary reason for this relationship is that drivers tend to ignore enhanced crossing treatments over time at locations where they infrequently see pedestrians crossing. The following graphs illustrate this relationship:





The above data also illustrates that, below roughly 20 pedestrians per hour, driver compliance decreases significantly. Thus, the base threshold for consideration of an enhanced crossing treatment at an uncontrolled location is 20 pedestrians per hour. This threshold is consistent with recent national guidance and policies adopted by other states and cities, as determined through literature research.

The Minimum Pedestrian Volume Thresholds are as follows:

- 20 peds per hour* in any one hour, or
- 18 peds per hour* in any two hours, or
- 15 peds per hour* in any three hours
- 10 school aged pedestrians traveling to/from school in any one hour

* Young, elderly, and disabled pedestrians count 2x towards volume thresholds
** School Crossing defined as a crossing location where ten or more student pedestrians per hour are crossing

2.2.4 Definition of a Pedestrian Median Refuge and Minimum Median Refuge Width

A pedestrian refuge median is a useful tool in increasing the safety and efficiency of a pedestrian crossing, and the presence (or not) of a median refuge will influence the type of pedestrian crossing treatment that can be considered (see Table 1). In this context a pedestrian refuge median is defined as a location in the middle of a pedestrian crossing where a pedestrian can take refuge, thereby separating their crossing into two steps, across each direction of approaching traffic separately. Separating the crossing into two directional crossings greatly increases the number of acceptable gaps for pedestrians to safely cross a roadway. A pedestrian refuge must include some type of raised median as described below:

- A painted center median or a painted turn lane can never be considered a pedestrian refuge.

- A raised median nose at an intersection (next to a left turn bay for example) can only be considered a pedestrian refuge for the adjacent crosswalk if the median is at least 4 feet wide AND the left turn volume is less than 20 vehicles per hour. This low left turn volume means that during most pedestrian crossings there will not be a vehicle in the left turn lane and the pedestrian will be "shadowed" by the width of the median and the adjacent turn lane as they cross the street.

- A raised median at a mid-block pedestrian crossing can only be considered as a refuge if it is at least 6 feet wide (preferably 8 feet wide) and includes curb ramps or a walkway at grade through the median. A median of this width will allow over two feet on each side for splash protection; it will store a group of pedestrians; and it will accommodate the storage of a bicycle without it overhanging into the traffic lanes. For multi-use path crossing locations, a 10' median refuge width is desirable to better accommodate bicycles with child trailers, recumbent bicycles, and tandem bicycles.

2.2.5 Distance to Nearest Marked or Protected Crossing

The Pedestrian Crossing Treatment Flowchart in Figure 1 includes consideration of spacing criteria for an uncontrolled crossing to the nearest marked or projected crossing. The flowchart requires that a new uncontrolled mid-block crossing be at least 300 feet from the nearest crossing. However, the flowchart allows this spacing criteria to be waived if the proposed crossing serves a multi-use path, or the pedestrian crossing volume exceeds twice the minimum threshold.

As with this entire PCTIG, this criteria is also subject to engineering judgment. In urban conditions where Boulder's typical block length is 400 feet, the engineer may want to consider allowing a minimum spacing of 200 feet, provided that the resultant pedestrian crossing:

- does not cross any auxiliary lanes (left or right turn lanes or their transitions) where it is anticipated that vehicles will be changing lanes and may be distracted from observing pedestrians in the crosswalk
- is not in an intersection influence area where it will create undue restriction to vehicular traffic operations.

2.2.6 Conditions That May Limit the Use of Rectangular Rapid Flash Beacons at Pedestrian Crossings

The City of Boulder has been using pedestrian actuated rectangular rapid flash beacons (RRFBs) at pedestrian crossings on four lane roadways for many years, and these "flashing signs" have greatly increased motorist yielding to pedestrians at these unsignalized crosswalks. However, the City has also learned that the use of RRFBs may not be appropriate in locations where there is a combination of both high traffic volumes and high pedestrian volumes. In these extreme conditions there may be an increase in traffic accidents and/or traffic delay that make

the use of RRFBs inappropriate. In these cases, the use of conventional pedestrian traffic signals or the HAWK signals may be more appropriate.

While the decision not to use RRFBs at a pedestrian crossing should be based on engineering judgment, the limit line in Figure 2 has been prepared to aid in this determination.

2.2.7 Selecting Between a Pedestrian Traffic Signal, HAWK Beacon, or RRFBs

Pedestrian traffic signals may be considered for application at high volume pedestrian crossings based on engineering judgment. The MUTCD contains warranting procedures for conventional pedestrian traffic signals based on automobile and vehicle traffic volumes to help determine if a pedestrian signal is appropriate. These signals are typically considered when there are over 130 pedestrians an hour crossing a roadway.

Hybrid Beacons (HAWK beacons) may also be considered and the MUTCD contains warranting guidelines that utilize automobile traffic, pedestrian traffic, automobile speeds, and pedestrian crossing distance. HAWK beacons may be installed where the crossing volume is as low as 20 pedestrians per hour, depending on the crossing distance, automobile traffic volume, and engineering judgment.

As noted above, the City of Boulder has been successful in using RRFBs to increase motorist yielding to pedestrians at unsignalized crossings, typically where there are two travel lanes in each direction. A minimum crossing volume of 20 pedestrians per hour is typically required, as discussed in Section 2.1.3. However, also as noted in Section 2.1.6, there may be cases where the combination of high pedestrian and traffic volumes may make application of RRFBs inappropriate. Figure 2a and Figure 2b illustrate City of Boulder recommendations for the use of RRFBs overlain on the MUTCD Hawk beacon and Pedestrian Traffic Signal warrant guidelines. The City of Boulder recommendations are based on safety and operational evaluations performed over the years at high volume RRFB locations.

In many cases, either HAWK beacons or RRFBs could be considered for application, and the final decision should be based on engineering judgment. Factors that should be considered include: automobile, bicycle and pedestrian volumes, vehicular speeds, crossing distances, the presence of a median or not, potential impact to corridor signal progression, proximity to signalized intersection, and vehicle queue formation.

2.2.8 Signal Progression and Traffic Operational Considerations

The installation of RRFBs, HAWK beacons, or pedestrian traffic signals can all have a significant impact on the automobile traffic operation in a corridor. The automobile and pedestrian crossing volumes, the spacing to the adjacent signalized intersections, the type of pedestrian population (college students, elementary students, elderly, a mix) should all be considered when selecting the crossing treatment type and how it will be operated. Where practical, HAWK beacons and pedestrian traffic signals should be coordinated with the signal progression in the corridor to minimize the impact of the new traffic signal on corridor traffic flow. However, coordinated signals may be less responsive to pedestrian actuation, and the delay in

pedestrian service may result in some pedestrians crossing against the signal rather than waiting. Not coordinating the pedestrian crossing signals may result in unacceptable increases in automobile congestion and delay.

RRFBs used at high volume pedestrian crossings in congested roadway corridors can also have a significant impact on automobile congestion and compromise effective signal progression. The RRFB limit line in Figure 2 can help minimize this problem.

Once again, engineering judgment will need to be applied to reach the best compromise for all involved.

2.2.9 Differential Vehicle Queue Lengths and Pedestrian Safety

A pedestrian crossing of a roadway with two or more lanes in a single direction has the potential for "multiple threat" type accidents. A multiple threat accident is when one lane of traffic stops for a pedestrian and obscures the view of the crossing pedestrian to a motorist in the adjacent travel lane. The result is that a pedestrian can step in front of a vehicle that is approaching too fast to stop. This condition is exacerbated when there are vehicle queues that back across the pedestrian crossing. If the queue in one lane backs into the crossing and is much longer than the queue in the adjacent lane, a motorist would commonly assume that the stopped traffic in one lane is the result of the queuing (which may usually be the case). Now if a vehicle in one lane stops for a pedestrian, instead of the queue, there is an even greater chance for a multiple threat accident.

Therefore it is important for the engineer to be aware of the formation of queues to and across the pedestrian crossing from a downstream intersection. It is even more important for the engineer to be aware of routine occurrence of one queue longer than the other across the pedestrian crossing. The Operational Observations section of the Crossing Location Evaluation Worksheet has a place to note this occurrence.

When deciding to install an uncontrolled crossing treatment (or not), the engineer should consider if differential vehicle queue lengths is an issue, and if so, can they be mitigated (say by signal timing adjustments at the downstream intersection). If differential queues can not be minimized, it may be reason to not install an unprotected crossing treatment (such as Type A, B, or C).

2.2.10 Unmarked Pedestrian Crossing Facilitation

Staff is aware of the fact that there are locations where pedestrians regularly cross arterial roadways yet the crossing does not serve a multi-use path or a school, and the pedestrian volume is below the minimum thresholds in Figure 1 for installing the types of marked and signed treatments detailed in Table 1. These locations typically occur on 4-lane roadways (such as at the intersection of 23rd/Canyon) or 6-lane roadways (such as at the intersection of Broadway/Ash), and often serve transit stops in the area. In some cases, subject to engineering judgment, it may be appropriate to install treatments that facilitate pedestrian or bicycle

crossings but stop short of the signed and marked crossing treatments defined in Table 1. This type of treatment or pedestrian facilitation may include curb ramps and/or a raised median refuge, but no effort is made to attract pedestrians to this crossing. The treatments simply acknowledge the low volume, but regular pedestrian crossing that occurs at a location. Installing these treatments does not endorse the use of the crossing nor attempt to attract new users to the crossing. They simply acknowledge that the crossing is occurring, will not likely go away, and some level of facilitation can make it safer for the pedestrians or bicyclists that are using the crossing already. The only other option would be to ignore the crossing, but staff does not believe this is an appropriate response. These treatments will only be considered if the location is more than 300 feet from the nearest signed and marked pedestrian crossing (whether it is controlled or uncontrolled), and it is believed that there is little potential to redirect pedestrians to a more defined crossing location.

2.2.11 Pedestrian Crossing Treatments at Higher Speed Roadways with Rural Character

Even though most Boulder streets have speed limits of 35 mph or less, there are some locations, particularly on the edges of the city, where speed limits are 40 or 45 miles per hour and roadways are transitioning between City and Boulder County jurisdiction. County roads may increase to 50 miles per hour just beyond City limits. In this context, there may be conditions that necessitate the installation of pedestrian crossings where speeds are higher and special consideration is warranted. Boulder County Transportation staff also encountered these situations (ex. 75th St. from Jay to Lookout). For reference, Boulder County staff has utilized Boulder's PCTIGs as a starting point and modified them to address this type of higher speed roadway where pedestrian crossings may be needed. The County's approach is to require there to be a refuge median and enhanced signing at any crossing where the speed limit is 40 or 45 (although they currently do not use RRFBs). Where speed limits are greater than 45, the County considers if the speed limit can reasonably be lowered to effect a slower travel speed before declining to install an at grade crossing.

In this context, it is recommended that engineering judgment be applied and consideration be given to providing an uncontrolled at-grade crossing treatment only if the speed limit can be effectively reduced to 40 mph and a raised refuge median is constructed has part of the crossing treatment (See Treatment Type E).

Crossing Location Evaluation Worksheet

Rev. 11/2/11

STEP 1 - LOCATION DESCRIPTION

Major Street: _____ Crossing Location: _____

Is this a multi-use path crossing? ☐ Yes ☐ No Posted Speed Limit: _____ mph

Existing Traffic Control: ☐ Stop Sign ☐ Traffic Signal ☐ Uncontrolled

Existing Crossing Treatments (if any): _____

_____

Nearby Pedestrian Generators (School, transit stop, commercial, etc.): _____

_____

STEP 2 - PHYSICAL DATA

Roadway Configuration:
☐ 2-Lane
☐ 3-Lane w/Striped Median
☐ 3 Lane w/Raised Median
☐ 4 Lane
☐ 5 Lane w/Striped Median
☐ 5 Lane w/Raised Median
☐ 6 Lane
☐ Other: _____

Crossing Distance By Direction: _____ ft total _____ ft to median *(if applicable + note direction)* _____ ft to median *(if applicable + note direction)*

Nearest Marked or Protected Pedestrian Crossing: _____ Distance to: _____ft

(*For uncontrolled location only*) Stopping Sight Distance (SSD) = _____ ft _____ ft.

Is SSD ≥ 8x Speed Limit? ☐ Yes ☐ No If No, are improvements to SSD feasible? ☐ Yes ☐ No

STEP 3a - TRAFFIC DATA

Pedestrian Crossing Volumes / Bicycle Crossing Volumes:

	AM	Mid-Day	PM	Other
Time:	to	to	to	to
Date/Day of Week:	/	/	/	/
Major Street Vehicular Volume (**Hourly**):				
# of Transit Boardings (if applicable)				
# of Young Peds / Bicyclists	/	/	/	/
# of Elderly Peds				
# of Disabled Peds				
# of Non-Y/E/D Peds / Bicyclists	/	/	/	/
TOTAL PEDS (Actual) (Include All Bicyclists in Total Sum)				
TOTAL PEDS (**Adjusted** for 2x Y/E/D				

Major Street Vehicular Volume (**Daily**): ADT = _____ veh/day

Crossing Location Evaluation Worksheet *(Continued)*

STEP 3b - OPERATIONAL OBSERVATIONS

Nearest Intersection (Direction #1): Cross Street Name: _____

Located _____ ft to the ☐N ☐S ☐E ☐W of crossing location

Signalized? ☐Y ☐N Distance from Crossing _____ ft

	AM	Mid-Day	PM	Other
How many times per hour did the downstream vehicle queue back up into pedestrian crossing?				
If multiple lanes per direction, are queue lengths approximately equal?	Y N	Y N	Y N	Y N
If NO (above),which lane is longer (inside, outside, middle) and by how much (feet)?				

Nearest Intersection (Direction #2): Cross Street Name: _____

Located _____ ft to the ☐N ☐S ☐E ☐W of crossing location

Signalized? ☐Y ☐N Distance from Crossing _____ ft

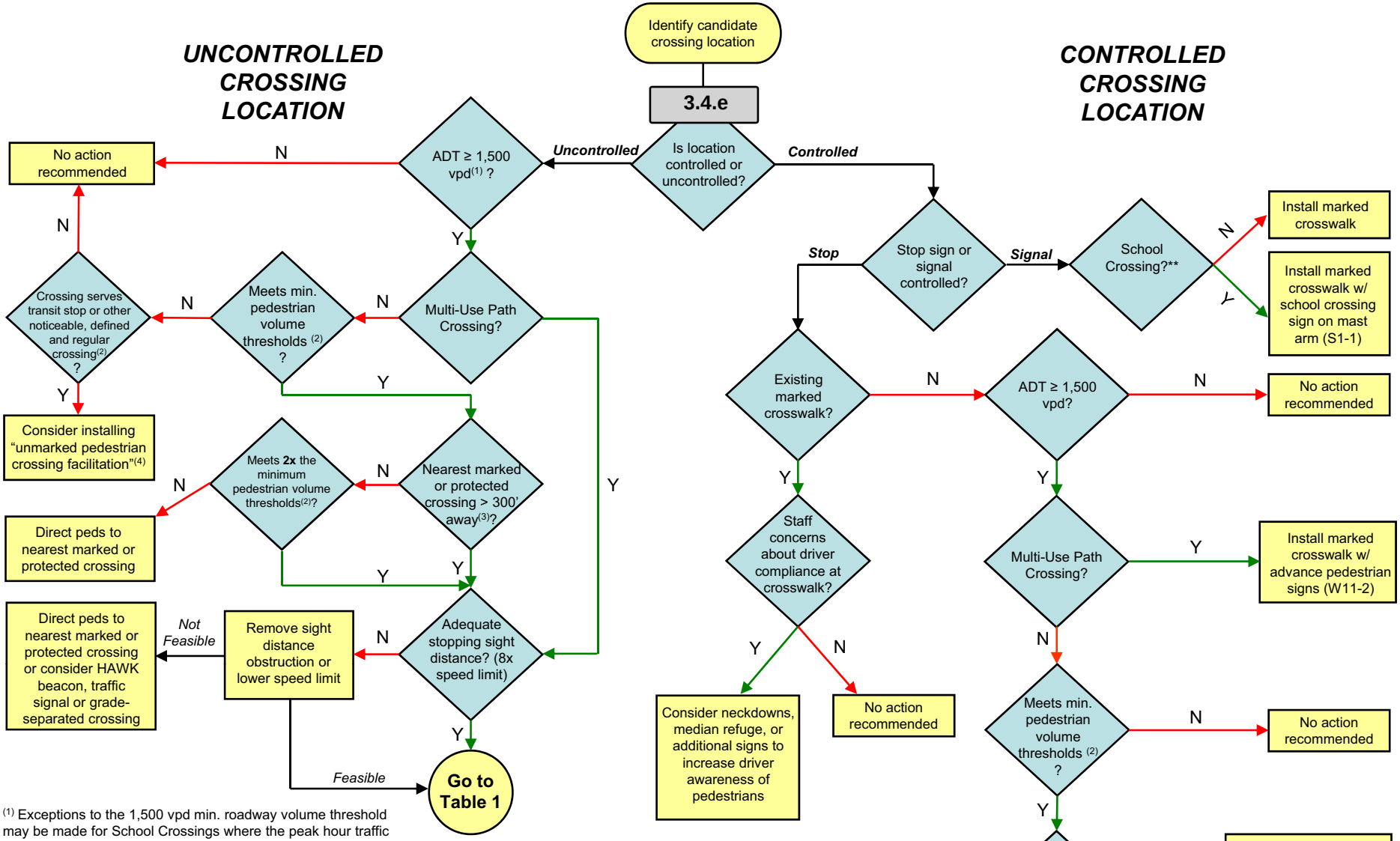
	AM	Mid-Day	PM	Other
How many times per hour did the downstream vehicle queue back up into pedestrian crossing?				
If multiple lanes per direction, are queue lengths approximately equal?	Y N	Y N	Y N	Y N
If NO (above),which lane is longer (inside, outside, middle) and by how much (feet)?				

STEP 4 - APPLY DATA TO FIGURE 1 and TABLE 1

Recommended Treatment(s): _____

_____

_____



(1) Exceptions to the 1,500 vpd min. roadway volume threshold may be made for School Crossings where the peak hour traffic exceeds 10% of the daily traffic

(2) **Minimum Pedestrian Volume Thresholds**:

- 20 peds per hour* in any one hour, or
- 18 peds per hour* in any two hours, or
- 15 peds per hour* in any three hours

* Young, elderly, and disabled pedestrians count 2x towards volume thresholds

** School Crossing defined as a crossing location where ten or more student pedestrians per hour are crossing.

(3) Distance to nearest marked or protected crossing may be reduced to 200' in urban conditions, subject to engineering judgment, where 1) the crosswalk does cross any auxiliary lanes, and 2) crossing treatments and crossing activity would not create undue restriction to vehicular traffic operations.

(4) An "unmarked pedestrian crossing facilitation" is any treatment that improves a pedestrian's ability to cross a roadway, short of the marked, signed and enhanced crossings detailed in Table 1. Installation of this type of pedestrian facilitation is subject to engineering judgment and may include curb ramps and/or a raised median refuge. However, no effort is made to attract pedestrians or recommend that pedestrians cross at this location. The treatments simply provide an improvement for a low volume pedestrian crossing where pedestrians are already crossing and will like continue to cross.

City of Boulder Pedestrian Crossing Treatment Installation Guidelines

Figure 1 – Pedestrian Crossing Treatment Flowchart

City of Boulder Pedestrian Crossing Treatment Installation Guidelines

Table 1 - Criteria for Crossing Treatments at Uncontrolled Locations

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

Notes:

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

Treatment Descriptions:

A ***Install marked crosswalk with enhanced road-side signs***

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

B ***Install marked crosswalk with enhanced road-side and in-roadway (bollard mounted) signs***

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

C ***Install marked crosswalk with enhanced signs and geometric improvements to increase pedestrian visibility and reduce exposure***

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

D ***Install marked crosswalk with enhanced signs, pedestrian activated RRFBs, and geometric improvements to increase pedestrian visibility and reduce exposure***

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

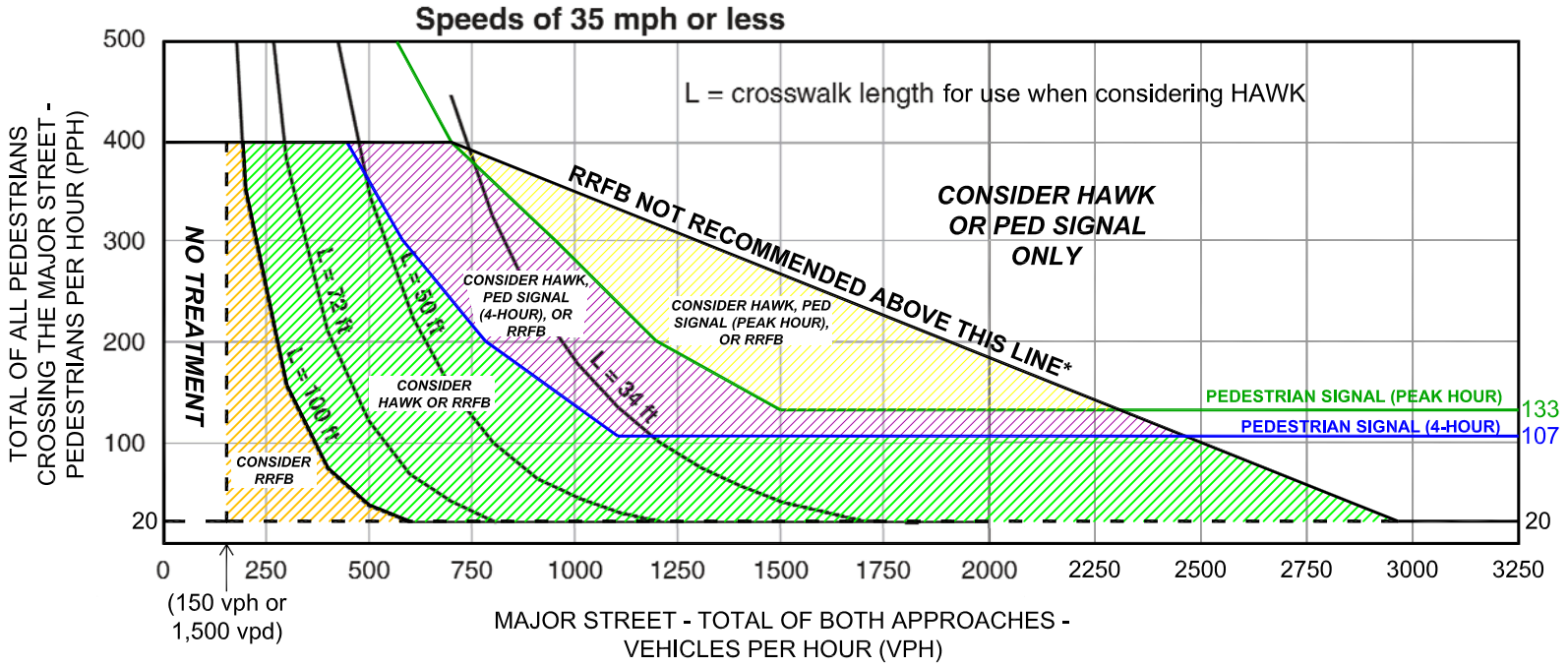
E ***Do not install marked crosswalk at uncontrolled crossing. Determine if the speed limit can be effectively reduced to 40 mph AND a raised refuge median can be installed. If so, utliize Scenario D criteria above. If this is not possible, or if pedestrian volume falls above the RRFB limit line on Figure 2, consider HAWK beacon, pedestrian traffic signal, or grade-separated crossing.***

Specific Guidance : Consider HAWK beacon, pedestrian traffic signal or grade-separated crossing; application of these treatments will consider corridor signal progression, existing grades, phyiscal contraints, and other engieering factors

F ***Do not install marked crosswalk at uncontrolled crossing with 3 or more THROUGH lanes per direction or where the speed limit is ≥ 45 mph and/or there is not a median refuge on a 5-lane crossing. Consider HAWK beacon, pedestrian traffic signal, or grade-separated crossing.***

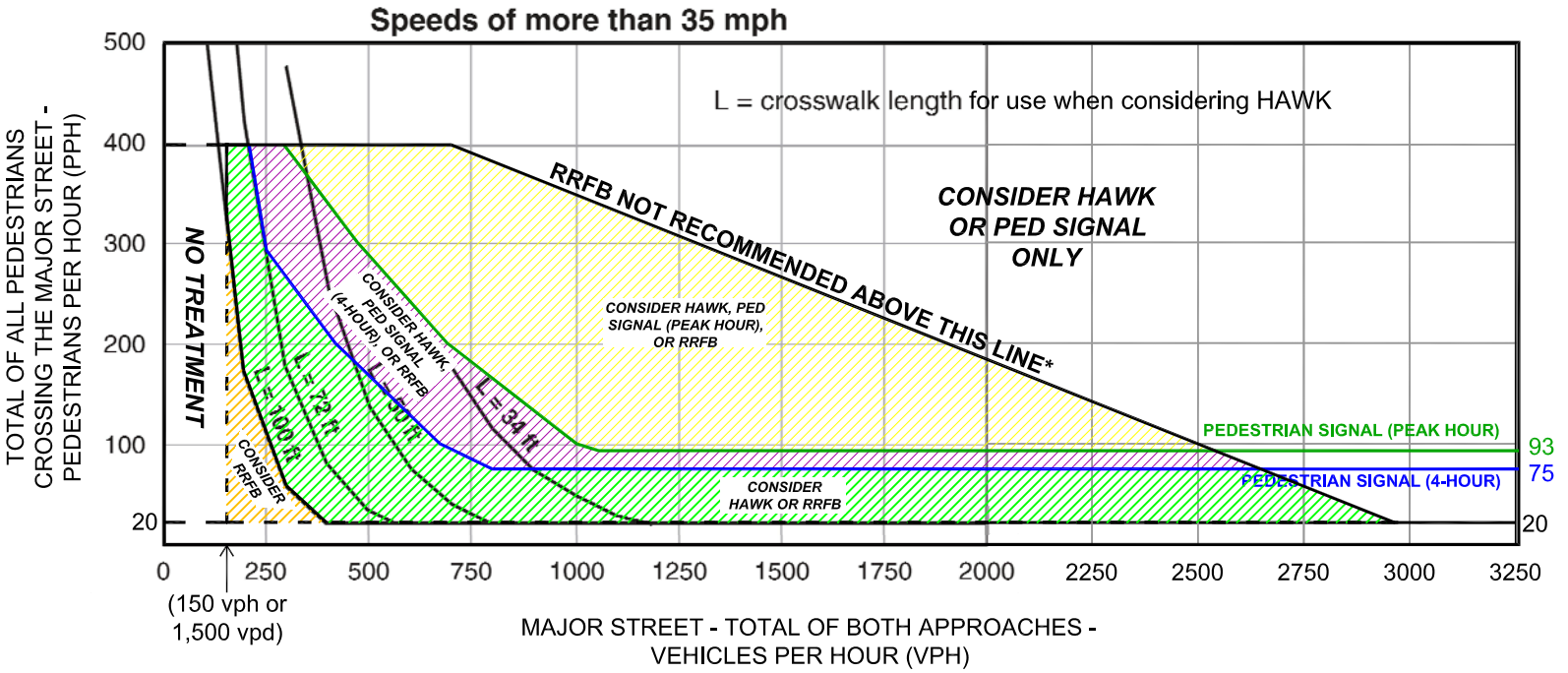
Specific Guidance : Consider HAWK beacon, pedestrian traffic signal or grade-separated crossing; application of these treatments will consider corridor signal progression, existing grades, phyiscal contraints, and other engieering factors

Figure 2a. City of Boulder Guidelines for the Installation of Pedestrian Hybrid (HAWK) Beacons, Pedestrian Signals, or Rectangular Rapid Flash Beacon (RRFB) Signs on Low-Speed Roadways



* RECOMMENDATION BASED ON CITY OF BOULDER SAFETY EVALUATIONS AT EXISTING RRFB SITES AND OBSERVED IMPACTS TO VEHICULAR TRAFFIC OPERATIONS

Figure 2b. City of Boulder Guidelines for the Installation of Pedestrian Hybrid (HAWK) Beacons, Pedestrian Signals, or Rectangular Rapid Flash Beacon (RRFB) Signs on High-Speed Roadways



* RECOMMENDATION BASED ON CITY OF BOULDER SAFETY EVALUATIONS AT EXISTING RRFB SITES AND OBSERVED IMPACTS TO VEHICULAR TRAFFIC OPERATIONS

3.0 SUPPLEMENTAL POLICIES

This section contains discussion of supplemental policies to guide the installation of crossing treatments in the City of Boulder.

3.1 Crosswalk Lighting

Research provided by the FHWA recommends that adequate nighttime lighting should be provided at marked crosswalks to enhance the safety of pedestrians crossing at night. Crosswalk lighting will be provided at all crosswalks utilizing traffic signals, HAWK beacons and RRFBs. Crosswalk lighting will be provided at all other marked crosswalks, unless engineering judgement suggests crosswalk lighting is not needed. The placement and level of crosswalk lighting will be determined by engineering judgement at all crossing treatments.

3.2 Avoiding Overuse of Crossing Treatments

The FHWA recommends that overuse of crosswalk markings should be avoided to maximize their effectiveness. Crosswalks and sign treatments (such as the “State Law – Yield to Pedestrians” and rectangular rapid flash beacon signs) should be used discriminately within the City of Boulder so that the effectiveness of these treatments is not deteriorated by overuse. Although these treatments may be effective at individual locations, overuse of these treatments city-wide may lead to a decrease in their value as drivers become desensitized to them. Minimum pedestrian and vehicular volume criteria have been established in this document with this in mind.

3.3 Multi-Use Path Crossings

Crossing locations where a multi-use path crosses a roadway should include a marked and signed crosswalk at a minimum, regardless of pedestrian crossing volumes, as long as the minimum vehicular volume criteria in Section 2.1.2 is satisfied. This policy is to promote the use of multi-use paths recognizing that roadway crossings often create barriers for pedestrians and bicyclists and may contribute to a lack of use.

3.4 Textured and Colored Pavement Treatments

Textured, brick, and/or colored pavement treatments should typically not be used in lieu of a marked crosswalk. When such treatments are used they are often aesthetic and not considered traffic control devices. Retroreflective pavement markings are required at any location serving as a marked crosswalk. Exceptions are granted for signalized intersection crossings, right-turn bypass (raised) crossings, and for multi-use path crossings at driveways and unsignalized intersections where the City has developed other treatments designed to call attention to the crossings.

3.5 Accessible Crosswalks

It is the goal of the City of Boulder that all crosswalks installed will comply with the Americans with Disabilities Act (ADA) to maximize mobility for all users. Where a new crosswalk is installed in a curbed roadway, curb ramps will include a detectable warning surface. The City intends to retrofit existing non-ADA compliant curb ramps with detectable warning surfaces as part of its on-going sidewalk maintenance program.

3.6 Raised Crossings at Right-Turn Bypass Islands

Raised pedestrian crossings at right-turn bypass islands meet the goals of these guidelines by improving visibility for pedestrians, improving accessibility, and helping to mitigate the speed of right-turning vehicle traffic. City staff will review all new or proposed right-turn bypass movements to determine if a raised crossing should be installed. If deemed feasible, a raised crossing will be incorporated into the design.

3.7 Removal of Treatments

Conditions that contribute to the need for a crosswalk or crossing treatments may change over time, and an existing crosswalk or treatment may no longer be needed. When a roadway surface is to be impacted by reconstruction or resurfacing, a review of any unprotected crosswalks should be performed to determine their use and need. If the use of a crosswalk is less than half of that which would be required for it to be warranted based on the criteria established in these guidelines for a new installation, the crosswalk should not be replaced when the construction or resurfacing is done and any other treatments will be removed. In such cases, residents and property owners within 1000’ of walking distance to the crosswalk in question will be notified via mail. In addition, notices will be visibly posted for 30 days prior at the crossing location to inform the public of the intent to remove them. City contact information will be provided on these mailings and notices. Should concerns arise from the public as a result of that mailing or from the notification sign at the crosswalk, staff may then begin a more substantial public process with concerned parties.

4.0 NEXT STEPS

The City of Boulder is committed to providing safe and effective pedestrian crossing treatments and will continue to evaluate the criteria and treatments being used to implement treatments throughout the City. Specifically, City staff will carry out the following "Next Steps" to ensure that the pedestrian crossing treatment program meets the goals defined in this document:

- Continue testing and evaluation of new multi-lane crossing treatments. These treatments may include variations and/or combinations of the existing RRFB signs to increase both driver and pedestrian awareness at crosswalks. As newer technologies continue to develop into more viable options, passive detection devices such as microwave or video detection may also be tested. As performed for existing devices in the City, evaluation of new devices will include both the effectiveness of devices and a safety (accident history) analysis. Although operational impacts can be evaluated within months of installation of a treatment, it should be noted that safety analysis will require years of accident data to provide relevant results.
- As Federal signing standards continue to become more progressive with respect to enhanced pedestrian signing, strive to become compliant with the standards. This can be accomplished through a combination of bringing Boulder's policies/standards more in line with Federal standards as well as utilizing Boulder's significant experience to help shape future changes to Federal standards.
- Continue to evaluate the City's policy towards provision of curb ramps and median breaks at crossing locations where crosswalks are not provided due to speed, volume, or other consideration.
- Stay current with the latest pedestrian crossing research being performed at the federal, state, and municipal level. As more communities strive to increase the viability of pedestrian mode use additional studies and new findings are being made available. The City of Boulder will look to utilize this research to improve its own use of pedestrian crossing treatments.
- Continue to receive feedback from City of Boulder citizens with respect to various crossing treatments and the criteria established in this document to implement these treatments.
- Continue to work with the Transportation Advisory Board and City Council to implement policies, including these guidelines and any future amendments to this document, to promote the use of pedestrian facilities and the safety of people using them.
- Coordinate with the State of Colorado to modify current state law to include the curb ramp area the definition of a legal crosswalk so that it is clear that a motorist should yield to a pedestrian waiting to cross at a crosswalk.
- Develop an implementation plan to upgrade existing, qualifying crossing locations with "State Law – Yield to Pedestrians" signs as prescribed in this document.
- Continue to evaluate the effectiveness of raised crossings at right-turn bypass islands and work to develop a city-wide policy for application of these treatments.
- Collect data at crossing locations where treatments have been requested (or as defined in the Transportation Master Plan) and apply the criteria in this document to create a list

of projects for implementation. Staff will then prioritize the list of projects and perform crossing treatment installations based on funding availability.

APPENDIX

A1.0 Background

Roadway crossings can be barriers to pedestrian travel. The decision to travel as a pedestrian is in part dependent upon the actual and perceived ability to safely and efficiently cross roadways along the pedestrian's intended travel route. The City of Boulder wants to encourage pedestrian travel by providing safe and efficient roadway crossing opportunities. There are a variety of methods available to help facilitate pedestrian crossings on busy roadways, including marked crosswalks, enhanced crosswalks, and traffic signals. Crosswalk enhancements may include alternative signing, pedestrian-activated warning devices that draw attention to the pedestrian and alert motorists to their presence at a crosswalk, and physical enhancements intended to increase pedestrian visibility and/or reduce exposure such as neckdowns, raised crosswalks, and median refuges.

Signalized traffic control measures to reduce pedestrian-vehicle conflicts typically increase delays for both pedestrian and vehicular traffic. This creates a conflict between providing safety and generating operational efficiency for all modes of travel. These guidelines are tailored to meet the needs of the City of Boulder for optimizing safety and minimizing delay. The Pedestrian Crossing Treatment Installation Guidelines will provide a framework for identifying locations where pedestrian crossing treatments are appropriate and should be implemented by the City.

Application of these guidelines should accomplish the following project goals:

- Promote pedestrian travel by providing safe, efficient, and effective roadway crossing opportunities
- Reflect the needs of our diverse range of pedestrian age and ability groups
- Provide for a balance between the demand for treatments and resources to implement them
- Achieve a reasonable balance of impacts to all modes of travel

A1.1 Standards and Policies

Upon beginning the process of determining pedestrian crossing installation criteria, an extensive review of the latest available technical literature was conducted. This current effort was intended to build upon the research conducted during the previous (1996 and 2006 efforts.

The Manual on Uniform Traffic Control Devices (MUTCD) is the national standard for establishing traffic control on roadways throughout the United States and has been adopted by the City of Boulder as the City standard. Although the MUTCD does provide pedestrian crossing warrant criteria for the installation of pedestrian traffic signals, these warrants have been controversial in that signals are typically very hard to justify. According to the Federal Highway Administration's report on pedestrian signalization alternatives (July 1985), "The existing [1978] MUTCD Minimum Pedestrian Volume Warrant is highly impractical for most real-world conditions and is largely ignored by the traffic engineering community." The MUTCD also offers little guidance with respect to the installation of marked crosswalks, stating that

"crosswalks should be marked at all intersections where there is a substantial conflict between vehicular and pedestrian movements" and that an "engineering study should be performed before they are installed at (uncontrolled) locations."

In response to the controversial MUTCD pedestrian volume and school crossing traffic signal warrants, and lack of guidance by the MUTCD with respect to the installation of marked crosswalks, some agencies have developed their own unique policies and procedures. Generally, these documents supplement the basic provisions of the MUTCD with more detailed criteria based on their own research and field studies.

In 1997, the Institute of Transportation Engineers (ITE) adopted the "Design and Safety of Pedestrian Facilities"[2] as a Recommended Practice. This document built on MUTCD policies and guidelines and provided thresholds for the installation of marked crosswalks at uncontrolled locations based on those developed by Steven A Smith and Richard L. Knoblauch[3]. These guidelines provide recommended thresholds for marked crosswalks based on minimum hourly pedestrian volume, average daily traffic volumes, roadway configuration (laneage and presence of median refuges).

In 2002 the FHWA published a report titled, "Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations: Executive Summary and Recommended Guidelines"[1]. Based on a five-year safety analysis at 1,000 marked crosswalks and 1,000 unmarked crossing locations, this report provides recommendations for installing marked crosswalks and enhancements based on roadway volume, speed, and laneage. The report suggests that on two-lane roadways, marked crosswalks alone at uncontrolled locations have no effect on pedestrian accident rates. The report also suggests that, on multi-lane roadways with a traffic volume greater than 12,000 vehicles per day, marked crosswalks alone (without any other treatments) are associated with higher vehicle-pedestrian accidents rates compared to unmarked locations.

Several years ago the Virginia Department of Transportation adopted a set of guidelines[4] for the installation of marked crosswalks that built upon the FHWA recommendations and provided more detailed guidance with respect to what types of crosswalk enhancements may be appropriate for a given set of roadway. These guidelines provided five basic levels of devices given the conditions present.

Level 1: standard crosswalk, raised crossing, rumble strips
Level 2: high-visibility crosswalks (retroreflective white markings and textured pavements)
Level 3: refuge islands, split-pedestrian crossover, neckdowns
Level 4: overhead signs and flashing beacons, in-roadway warning lights
Level 5: pedestrian-actuated traffic signals, grade-separated crossings

During the research review, it was noted that the City of Boulder's existing minimum pedestrian volume thresholds (based on the 1996 document) for basic crossing treatments were typically higher than those adopted by the agencies researched. The Virginia guidelines[4], for instance, state a minimum requirement of 20 pedestrians per hour (15 elderly and/or children) or 60 in four hours crossing at the location in question. The City of San Jose, CA[5] have adopted guidelines that require at least 15 pedestrians crossing the street during the highest one-hour period or 25 pedestrians crossing during the highest consecutive two-hour period. This is in comparison to the previously adopted City of Boulder thresholds of 100 pedestrians per hour or 50 pedestrians per hour during the peak four hours. It is believed that this downward trend in

pedestrian volume necessary to warrant treatments is both a result of increased efforts by agencies to accommodate pedestrians and provide safer and more efficient pedestrian facilities.

A1.2 Pedestrian Crossing Enhancements

A wide range of crossing enhancements (treatments used to increase the effectiveness of marked crosswalks) are being used in other communities in the United States and elsewhere which have been considered for use in the City of Boulder. The most comprehensive resource for information relative to these devices, including pros and cons, costs, and effectiveness, is the Alternative Treatments for At-Grade Pedestrian Crossings[6]. Enhancements being used elsewhere include:

- Automated detection
- Curb extensions
- In-pavement lighting
- Flags
- Flashing beacons
- In-roadway signs
- Lane reductions
- Rumble strips
- Markings and legends
- Overhead signs
- Pedestrian railings
- Raised markers (with LEDs)
- Refuge islands
- Street lighting
- Raised crossings
- Pavement treatments

Many of these treatments are being used and/or have been tested as “demonstration” devices in the City of Boulder, with varying degrees of success. Devices used in the City of Boulder have included most of the physical devices shown above, in addition to demonstration devices such as in-pavement lighting, rumble strips, flashing signs, in-roadway signs, and alternative signs and markings (such as the “State Law Yield-to-Pedestrians” signs and advance yield markings).

In 2000, city staff began demonstrating two new enhanced pedestrian crossing treatments. The purpose of these treatments was to draw attention to high volume pedestrian crossing locations and to encourage vehicles to have better compliance with their legal requirement to yield to pedestrians in these locations.

The first demonstration was a new, multi-colored sign which stated “State Law - YIELD to Pedestrians in Crosswalk." The signs were placed on an orange barrel or bollard in the street and mounted on a standard assembly at the side of the street. The other demonstration was pedestrian actuated flashing lights imbedded in a standard pedestrian warning sign, mounted at the side of the road and on medians in the center of the road. These lights flash when a pedestrian pushes a button. Over the past 11 years, staff has been expanding the use of these demonstration devices to other locations within the city.

The City of Boulder will continue to stay abreast of the latest crossing enhancement technologies and research and will continue to test and modify its own applications to maximize the safety and efficiency of these treatments. A discussion of the “Next Steps” involved in this process is included in Section 4.0

A1.3 Evaluation of Demonstration Devices Used in the City of Boulder

Over the past 14 years, the City of Boulder has evaluated driver compliance at crosswalks both before and after the installation of "demonstration devices". The devices evaluated included:

- "State Law–Yield to Pedestrians" Signs and Bollards (used at 2 or 3-lane crossings)
- Pedestrian Activated Flashing (or RRFB) Signs (used primarily at multi-lane crossings)
- Rumble strips

In addition to evaluating the effectiveness of these devices in terms of driver compliance, accident histories were compiled to compare the safety effects of the demonstration devices both before and after installation.

The evaluations have showed that the "State Law -Yield" and RRFB devices are effective at getting more vehicles to comply with state law and yield to pedestrians in crosswalks than if not installed. They accomplish this with a relatively minor impact to vehicle delay. In addition, the evaluation showed that at locations with "State Law – Yield to Pedestrians" signs, there were very few examples of increased accident frequency for either rear-end collisions or accidents involving pedestrians or bicyclists being hit by a motor vehicle. The majority of accident frequencies either stayed the same or was reduced at locations studied.

At locations using the pedestrian-actuated flashing signs, there were increases in rear-end collision frequencies at some locations and increases in the frequency of pedestrians or bicycles being hit in the crosswalk at several locations. Injury accident frequencies also increased at many locations. It should be noted that, since these devices were installed primarily at multi-lane crossing locations, the effectiveness of these devices cannot be directly compared to the "State-Law" signs.

While the pedestrian-actuated flashing signs do not change the rules of the roadway, the effectiveness of encouraging vehicles to yield to pedestrians has resulted in more vehicles stopping for pedestrians, which has further resulted in more rear-end collisions (this same phenomenon exists when new traffic signals are installed in the roadway). It is possible that the increased compliance of motor vehicles yielding to pedestrians is also resulting in some pedestrians and bicyclists using less caution when they cross which in turn results in an increase in vehicle-pedestrian and vehicle-bicycle accidents.

Further analysis of the safety effects of these devices is recommended so that a larger sample of data may be obtained and accident trends related to physical and environmental variables may be identified.

Bibliography

[1] Zegeer, C.V., Stewart, R.J., Huang, H.H., Lagerwey, P.A. *Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations: Executive Summary and Recommended Guidelines*, FHWA RD-01-075. Federal Highway Administration, Washington D.C., February 2002.

[2] Institute of Transportation Engineers. *Design and Safety of Pedestrian Facilities*. Washington, D.C., March 1998.

[3] Smith, Steven A., Knoblauch, Richard L. *Guidelines for the Installation of Crosswalk Markings*. Transportation Research Record 1141, Transportation Research Board, National Research Council, Washington, D.C., 1987.

[4] Dougald, Lance E. *Development of Guidelines for the Installation of Marked Crosswalks.* Virginia Transportation Research Council, Charlottesville, Virginia. December 2004.

[5] City of San Jose, California, Department of Transportation. *Guidelines for the Installation and Removal of Marked Crosswalks.* April 2005.

[6] Lalani Nazir and the ITE Pedestrian and Bicycle Task Force. Alternative Treatments for At-Grade Pedestrian Crossings. Institute of Transportation Engineers. 2001.

EXHIBIT 5

WI DOT

TRAFFIC ENGINEERING, OPERATIONS, AND SAFETY MANUAL

4-5-1 General Provisions July 2018

GENERAL

Reference is made to the WisMUTCD Chapter 4L.

Flashing beacons (a.k.a. flashers, warning flashers, beacons) are a special type of signal indication used to supplement standard regulatory and warning signs. According to the WisMUTCD, flashing beacons have the following applications:

1. Intersection control beacon
2. Stop beacon
3. Speed limit sign beacon
4. Warning beacon (includes Rectangular Rapid Flashing Beacons)

Warning beacon includes Rectangular Rapid Flashing Beacons (RRFB). Flashing beacons are part of a sign, as it pertains to the provisions for allowing the installation of the beacons on highway right-of-way. Statutes 84.02 (4)(c) and 86.19 (3) convey exclusive authority for signs and warning devices on the state trunk system to the department.

This policy contains provisions for proper application, design, and permitting of flashing beacons on the STH system.

POLICY

General

The following general criteria apply to all flashing beacon installations on the STH system:

1. There are two types of flashing beacons:
   a. Red—only to be used with STOP signs
   b. Yellow—to be used with any yellow warning (W-series) signs, speed limit, speed limit reduction, pedestrian warning and school speed limit signs

   Flashing beacons **shall** only be associated with the sign installations referred to above.
2. Flashing beacons are supplementary to signs. When used, they **shall** be mounted on the same support as the sign which the beacon supplements in accordance with WisMUTCD 4L.03.
3. Activated flashing beacons **shall not** be approved on the STH system for use in conjunction with train crossings.
4. Emergency vehicle entrances *may* have activated flashing beacons, which will cancel after a pre-timed period of flash.
5. State-owned and permitted installations
   a. The department *may* determine that flashing beacons are needed and *may* install and maintain them at specific sites. In this case, the regional traffic engineer **shall** make a final determination regarding the use of these devices on behalf of the department.
   b. At locations where local authorities determine that the use of flashing beacons is desirable, a permit *may* be issued for the installation and maintenance of flashing beacons. Permitted installations are subject to the approval of the department and the conditions of this policy. Additionally, permits are revocable at the discretion of the department.

Application of Flashing Beacons

The following sections highlight policy items for flashing beacons that *may* be different from those represented in WisMUTCD Chapter 4L.

Intersection Control Beacon: Used at intersections where traffic or physical conditions do not justify conventional traffic control signals but crash rates indicate the possibility of a special need, generally located over the center of an intersection. Refer to WisMUTCD Section 4L.02.

Stop Beacon: Refer to WisMUTCD Section 4L.05.

Speed Limit Sign Beacon: Refer to WisMUTCD Section 4L.04. The department rarely, if ever, would install and maintain flashing beacons with speed limit signs or school speed limit signs. Local authorities **shall** follow the permit requirements stated below.

Warning Beacon: Refer to WisMUTCD Section 4L.03.

Flashing Beacon Design & Installation

The following provisions pertain to the installation, operation, and maintenance of flashing beacons other than rectangular rapid flashing beacons (RRFBs) on the state trunk highway system.

1. Location
    a. Ground mount: Flashing beacons *may* be ground mounted, where they will be approximately one foot above the sign they supplement. The sign *should* be in the lateral and vertical location as specified in the WisMUTCD Part 2 (no change). Illustrations of typical ground-mount installations are in Figure 1 below.
    b. Overhead mount: A flashing beacon *may* be mounted on one or both sides of an overhead sign. It *may* be mounted above the sign if the entire assembly including the sign has a minimum clearance of 17 feet.
2. For state-maintained installations, the standard size of flashing beacons is 12 inches in diameter. At the discretion of the regional traffic engineer, permitted (not state-maintained) installations that are in areas with a posted speed less than 30mph *may* use 8-inch diameter beacons.
3. Ground-mounted supports **shall** be the same as are normally used to support the sign, and of the same cross-section as normally used. These **shall** be 4 x 4 or cross-drilled 4 x 6 posts, or in urban areas signal posts on concrete footings, or light poles or wood poles where speeds are low. Usage of any kind of pole **shall** be in conformance with the offsets specified in highway lighting permit policy, FDM 11-15-1.
4. The installation of two posts, one for the sign and the other for the flashing beacon, is not permissible within the clear zone because of the unpredictable behavior of the combination of two posts when struck.
5. Service poles must be offset to the right-of-way line or in conformance with offsets in FDM 11-15-1.
6. Service *may* drop to the top of the support, which would be extended to maintain an 18-foot minimum wire-to-ground clearance as per Wisconsin electrical code. Service *should* preferably be installed underground. In the latter case, the conduit **shall** be run up and attached to the post or pole. The control box *may* be mounted on the post or pole.
7. At the discretion of the regional traffic engineer, solar-powered flashing beacon installations *may* be allowed on the STH system provided the installation meets applicable electrical and crash standards.
8. According to TEOpS 2-1-8, flashing beacons and STOP or STOP AHEAD signs that incorporate flashing displays (e.g. blinker signs) **shall not** be used at the same intersection approach.

Warning Beacon (i.e., RRFBs) Design & Installation

Yellow flashers are to be used with any yellow warning (W-series) signs and school speed limit signs. Actuated blinker signs are supplementary to warning signs. When used, they **shall** be mounted on the same support as the sign which the beacon supplements in accordance with WisMUTCD 4L.03.

At locations where it is determined that the use of warning sign enhancements signs is desirable, a permit *may* be issued for the installation and maintenance of these blinker-type signs. Permitted installations are subject to the approval of the Department and the conditions of this policy. Additionally, permits are revocable at the discretion of the Department.

It is recognized that the use of warning sign enhancements *may* affect STH traffic operations by increasing delay and reducing mobility, especially if used near existing signalized or stop controlled intersections. The following location criteria *should* be met prior to approval:

1. The location is an uncontrolled pedestrian crossing.
2. A minimum volume of 20 or more pedestrians during a single hour (any four consecutive 15-minute periods) of an average day *should* be met. Young (<12), elderly (>85) and disabled pedestrians count 2 times toward volume thresholds. Additionally, seasonal day volumes can be used in place of average day volumes if the crossing is in a known tourist area.

3. A minimum vehicular volume of 1,500 vehicles per day.
4. Maximum of four lanes crossed, unless there is a raised median, in which case it can be six lanes.
5. There exists a minimum of 300 feet between the subject crossing and the nearest controlled pedestrian crossing or intersection traffic control device on the state trunk highway system. Consideration *should* be given to extending this distance beyond 300 feet if the proposed crosswalk location falls within an auxiliary turn lane for the nearby intersection or if the standing queue from the intersection extends over the proposed crosswalk location.
6. Adequate stopping sight distance exists based on FDM 11-10-5 or greater than 8 times the posted speed limit.
7. RRFBs **shall** use a much faster flash rate and **shall** provide 75 flashing sequences per minute (except for existing RRFBs that follow FHWA IA-11). According to IA-21, the left and right RRFB indications **shall** operate using the following sequence:

RRFB Flash Pattern												
Beacon	0.05 sec	0.05 sec	0.05 sec	0.05 sec	0.05 sec	0.05 sec	0.05 sec	0.05 sec	0.05 sec	0.05 sec	0.05 sec	0.25 sec
Left	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
Right	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	ON	OFF	ON	OFF

The use of warning sign enhancements *may not* be appropriate at locations where there is a combination of both high traffic volumes and high pedestrian volumes. In these situations, there *may* be an increase in crashes and/or delay that make the use of the actuated blinker signs inappropriate. Instead a traffic signal or Pedestrian Hybrid Beacon (PHB) *should* be considered, if feasible.

Consideration *should* also be given to spacing between pedestrian crossings – both uncontrolled as well as those supplemented with warning sign enhancements. These blinker-type signs are highly visible and therefore can be confusing or distracting to drivers if there are too many within their field of vision at one time. Historically, 1,200 feet has been a rule of thumb for minimum spacing.

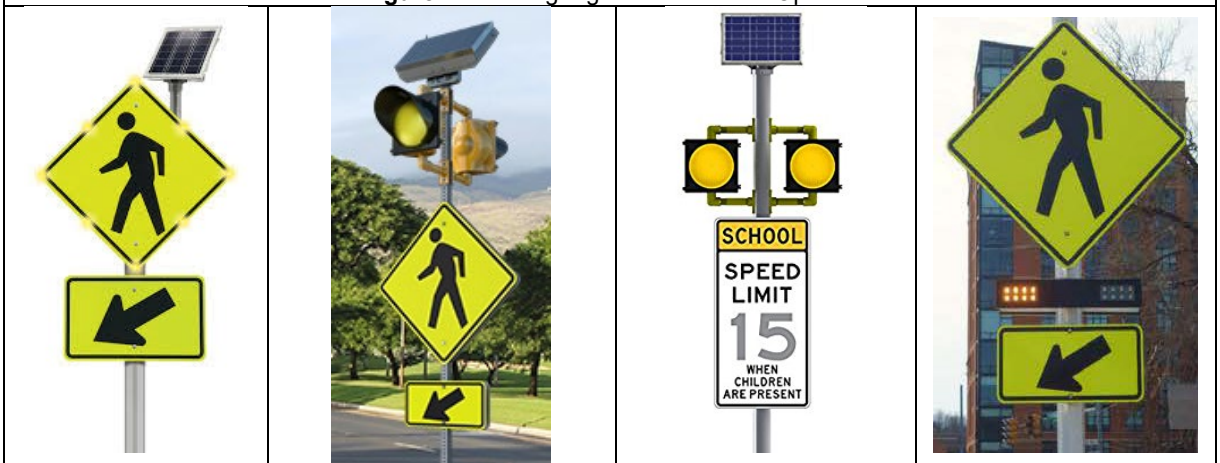
Warning beacon types

There are four options that *may* be used to enhance pedestrian and school warning signs:

1. Blinker Sign. Refer to TEOpS 2-1-8 for application criteria.
2. Standard Blinker Beacon. Refer to TEOpS 4-5-1 for application criteria.
3. Rapid Flashing Beacon (Wig-Wag).
4. Rectangular Rapid Flashing Beacon (RRFB). RRFBs can only be pedestrian actuated.

These devices can be pedestrian actuated and/or time-of-day programmed.

Figure 1. Warning Sign Enhancement Options



Blinker Sign	Standard Blinker Beacon	Rapid Flashing Beacon (Wig-Wag)	Rectangular Rapid Flashing Beacon

As of March 20, 2018, FHWA has granted interim approval (IA-21) for the optional use of the RRFB as a pedestrian-actuated conspicuity enhancement to supplement standard pedestrian crossing or school crossing signs at uncontrolled marked crosswalks to any jurisdiction that submits a written request to FHWA. WisDOT received statewide approval from FHWA to allow all jurisdictions to install an RRFB. The jurisdiction must agree to furnish a list of locations where RRFBs are installed, acknowledge that FHWA has the right to rescind the

interim approval at any time and acknowledge that the interim approval does not guarantee that the provisions will be adopted into the WisMUTCD.

PERMITTING OF FLASHING BEACONS

Any improperly installed electrical equipment *may* pose a hazard to the public. As such, the department spells out general and specific conditions, which are part of the permit agreement. These conditions are incorporated into the permit form, DT1877, a copy of which is appended to this policy. The WisMUTCD Chapter 4L and specific conditions stated above **shall** also be followed for flashing beacons installed on all state trunk highways. Flashing beacons installed on connecting highways **shall not** require a WisDOT permit.

The following information provides conditions and processes related to the issuance of permits:

1. Permit applications **shall** be received, and permits issued, by the appropriate regional office.
2. Permits for flashing beacons *may* only be issued to municipalities, not to private individuals at agencies, or to power companies. This *should* result in working with the most responsible and objective agency associated with the safety problem being addressed.
3. The region *may* rightfully deny the issuance of the permit. Reasons for denial *may* include: lack of need, conflict with other traffic control devices, vulnerable location, lack of confidence in the maintaining ability of the subject agency, or knowledge that the request is due to reaction rather than long term need of commitment.
4. The region *may* revoke the permit for any of the reasons above, especially regarding lack of maintenance, as well as for reasons cited on the permit itself.
5. For permitted flashing beacons installed on signal standards, Standard Detail Drawings 9C2, 9C3, and 9E7 *should* be made part of the permit. SDDs 9C5 and 9D3 for control cabinet installations *may* also apply.
6. In the event of the reconstruction of the highway, reasonable notice *should* be given to the municipality to allow their removal of the equipment and arranging for disconnecting the electrical service.

Figure 1. Standard Flashing Beacon Installations for Rural & Urban Districts

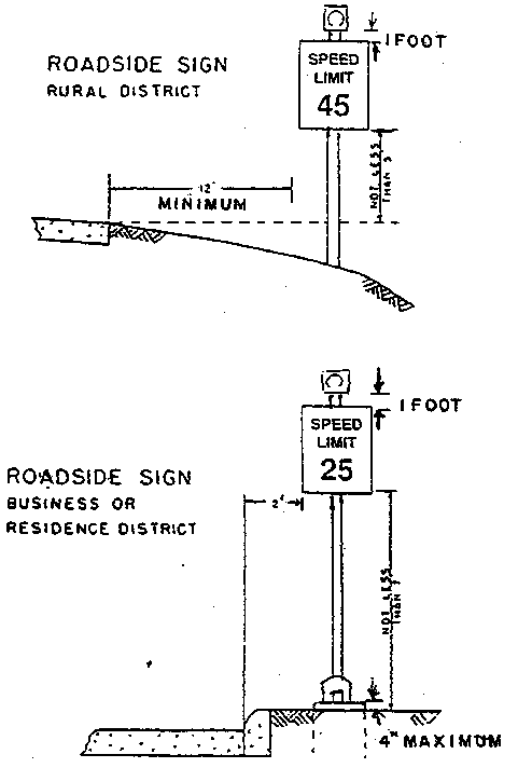
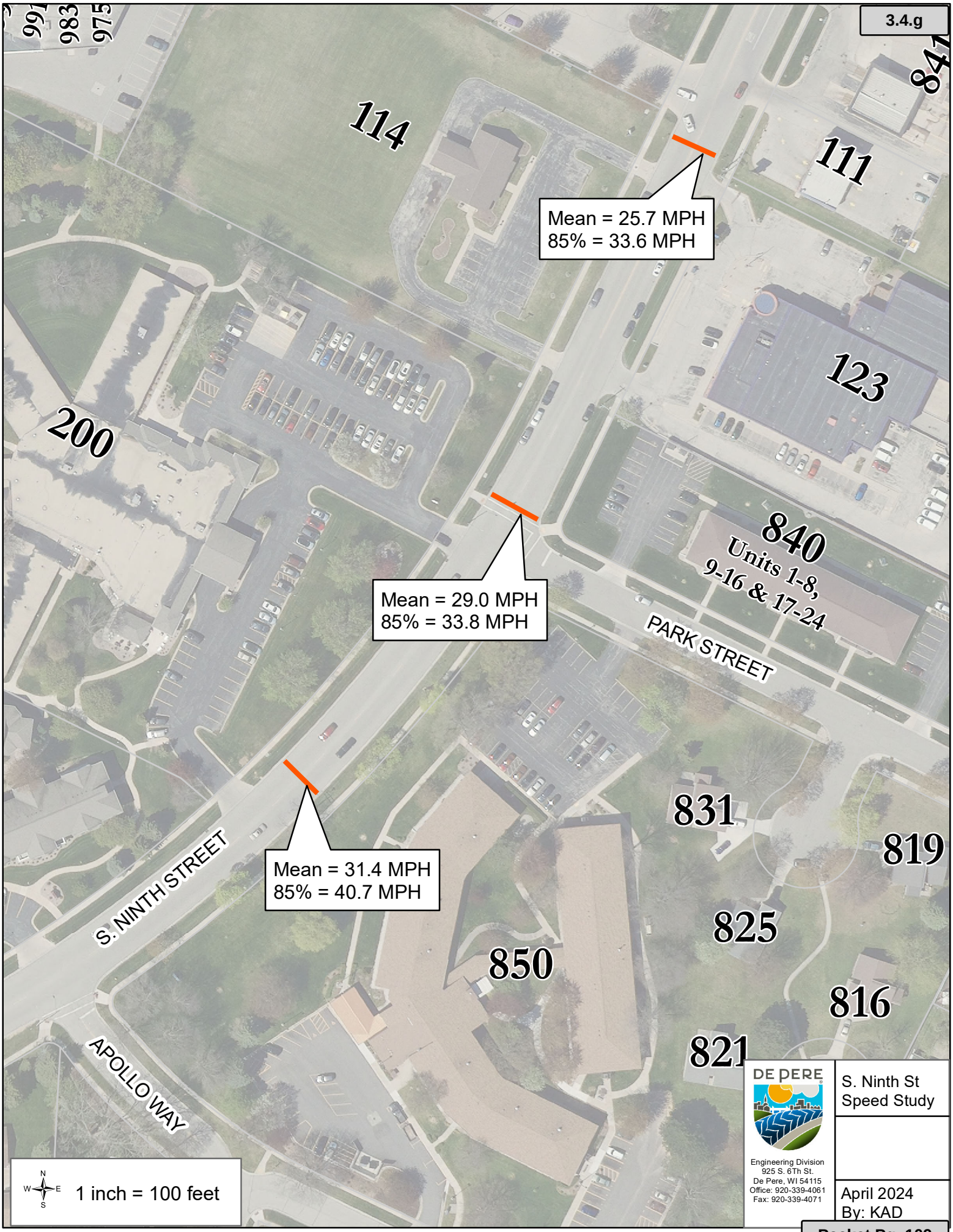


EXHIBIT 6

TRAFFIC COUNTER MAP



DE PERE

Engineering Division
925 S. 6Th St.
De Pere, WI 54115
Office: 920-339-4061
Fax: 920-339-4071

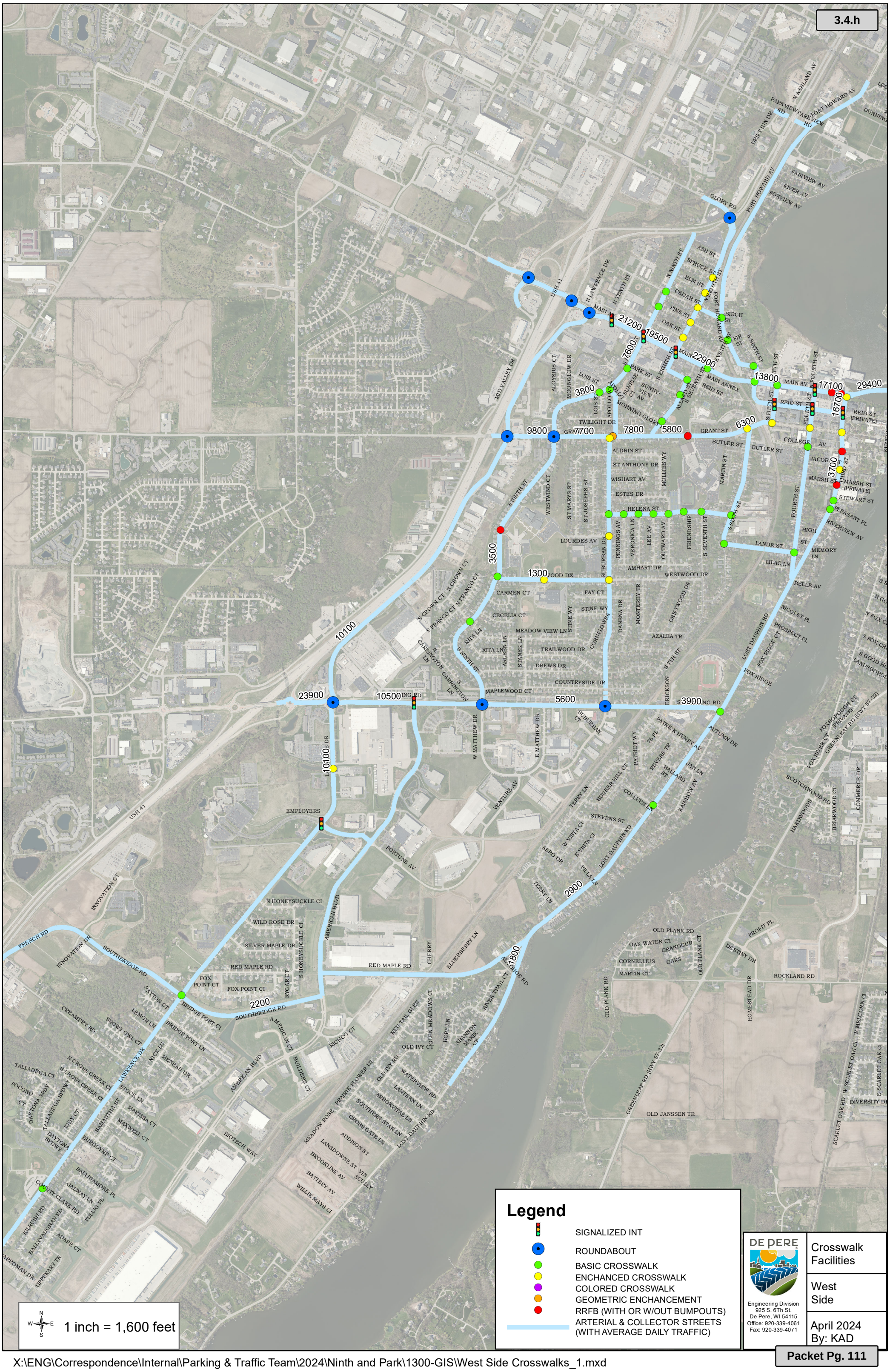
S. Ninth St
Speed Study

April 2024
By: KAD

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EXHIBIT 7A & 7B

CURRENT CITY PEDESTRIAN CROSSINGS AND ENHANCEMENTS MAPS



Legend

- SIGNALIZED INT
- ROUNDABOUT
- BASIC CROSSWALK
- ENCHANCED CROSSWALK
- COLORED CROSSWALK
- GEOMETRIC ENCHANCEMENT
- RRFB (WITH OR W/OUT BUMPOUTS)
- ARTERIAL & COLLECTOR STREETS (WITH AVERAGE DAILY TRAFFIC)

1 inch = 1,600 feet

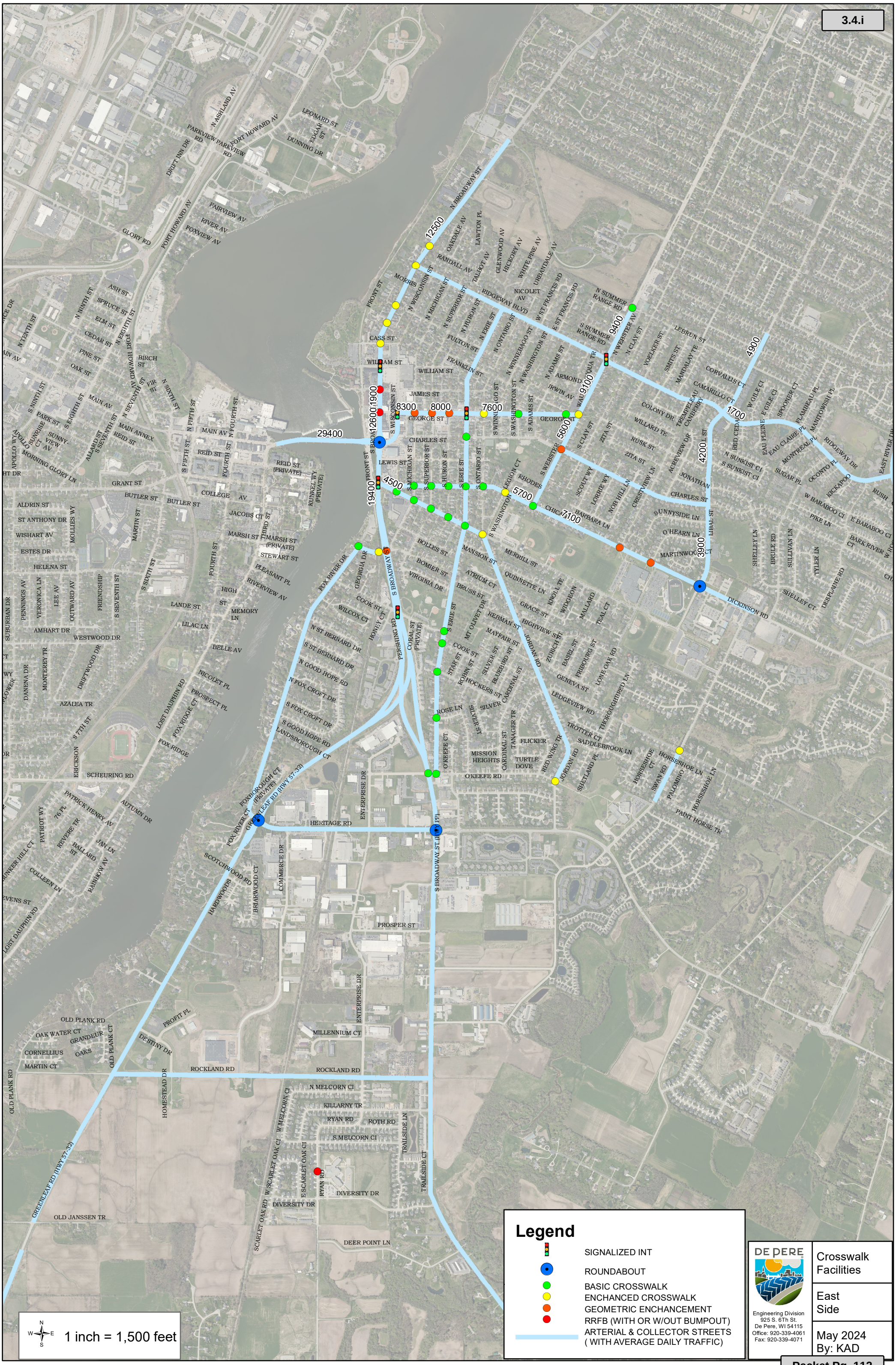
DE PERE
Engineering Division
925 S. 6Th St.
De Pere, WI 54115
Office: 920-339-4061
Fax: 920-339-4071

Crosswalk Facilities

West Side

April 2024
By: KAD

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City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE: **May 13, 2024**

DEPARTMENT: **Public Works**

FROM: **Scott Thoresen**

SUBJECT: **Consideration and Possible Action Regarding Definitely De Pere's Request to Waive Public Works Fees***

Definitely De Pere has requested the City waive the public works' fees for their downtown special events which would include: Farmer's Market, Art & Music Nights, Food Truck Rally, and Tour De Pere (See attached)

ATTACHMENTS:

- Fees Waived Request 2024 (PDF)

DEFINITELY DE PERE

May 9, 2024

RE: Request to waive DPW fees for downtown events

Dear Board of Public Works:

Definitely De Pere respectfully requests that DPW fees be waived for downtown events including: Farmers Market, Art & Music Night, and Food Truck Rally.

The services include storing the Definitely De Pere event trailer (containing tables, tents, chairs, etc) at the MSC and hauling it to and from each event along with barricades and garbage carts.

Time and cost in 2023 was approximately 3 hours and $200 per event. These services would take place during regular DPW business hours. There are 23 event days total, equivalent to approximately $4,600, and with a 50% exempt discount, the total dollar amount would be $2,300.

In exchange, Definitely De Pere will provide the City of De Pere with in-kind sponsorship recognition including logo inclusion on all event related marketing materials.

We are also requesting that DPW fees be waived for Tour De Pere, a City sponsored event. As a second year event, we do not a solid history of costs to reference. We will work with DPW to determine the most efficient way to implement the required road closures and detours required for the event.

Definitely De Pere is a non-profit, 501(c)(3) charitable organization.

Thank you for your consideration and for helping us create vibrancy in downtown De Pere!

Sincerely,



Tina Quigley, Executive Director

117 N Wisconsin St, Ste 20 | De Pere WI 54115 | 920.403.0337

City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE: **May 13, 2024**

DEPARTMENT: **Public Works**

FROM: **Tom Blohowiak**

SUBJECT: **Consideration and possible action on award of Contract 24-11 City Hall Flooring Replacement***

ATTACHMENTS:

- Memo for BOPW MSC Office Flooring (PDF)
- 2024 0502 CE_Project 24-11_Bid Tab (PDF)
- 2ND FLOOR INSTALL PLAN (PDF)

CITY OF DE PERE
MEMO

To: Honorable Mayor Boyd
Members of the Board of Public Works
From: Thomas Blohowiak, Maintenance Supervisor
Date: May 13, 2024
RE: Consideration and possible action on award of Contract 24-11 City Hall Flooring Replacement*

The Maintenance Department received bids on Thursday, May 2, 2024, for Project 24-11 City Hall Flooring Replacement. The project will include replacing all carpet and vinyl base on the entire second floor of City Hall.

The bids received are as follows:

Contractor	Base Bid
H J Martin & Son, Inc	$60,545.24
Macco's Commercial Interiors, Inc	$63,575.00

The allocated amount from the capital improvement budget is $100,000 for Project 24-11. Project 24-11 is under budget approximately $39,000 in the budget allocation for the 2024 City Hall projects.

Staff's recommendation is to accept the bid from H J Martin & Son, Inc with a Bid of $60,545.24

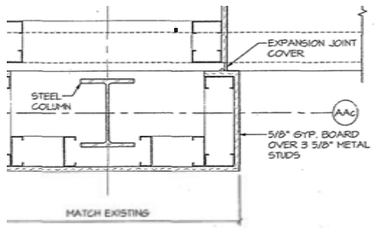
Attachments:
2024 0502 CE_ Project 24-11_Bid Tab (PDF)
2ND FLOOR INSTALL PLAN (PDF)

DE PERE

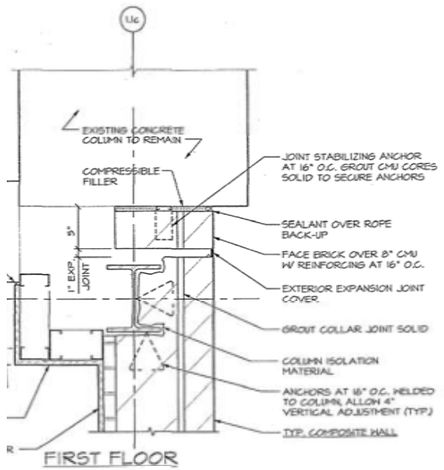
Project 24-11

City Hall Flooring Replacement

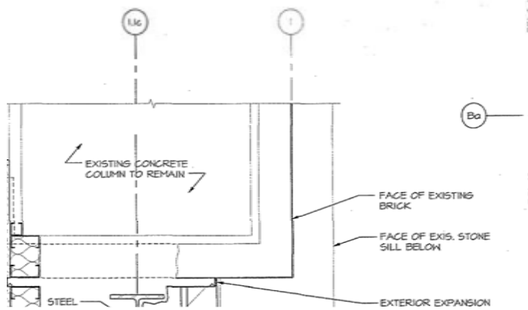
				BIDDER NO. 1		BIDDER NO. 2	
				HJ Martin & Son, Inc.		Macco's Commercial Interiors, Inc.	
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**UNIT PRICE**	**AMOUNT BID**	**UNIT PRICE**	**AMOUNT BID**
SC-01	Move Furniture	LS	1	$2,500.00	$2,500.00	$2,000.00	$2,000.00
SC-02	Remove Carpet and Install 96 CPT-1 Milliken Nordic Stories Tectonic (50 CMx50 CM)	SY	1112	$43.75	$48,650.00	$48.65	$54,095.00
SC-03	Remove Carpet and Install 96 CPT-1 Milliken Nordic Stories Tectonic Border Tile (50 CMx50 CM)	SY	36	$68.33	$2,459.88	$45.83	$1,650.00
SC-04	Provide 97 CTA Reducer	LF	36	$2.50	$90.00	$2.86	$103.00
SC-05	Provide 97-TS-1 Johnsonsite Carpet Tile Nosing	LF	36	$5.00	$180.00	$6.50	$234.00
SC-06	Remove and Replace Vinyl Cove Base with VB-1 Johnsonite 4"	LF	1972	$3.38	$6,665.36	$2.79	$5,493.00
	TOTAL AMOUNT BID:				**$60,545.24**		**$63,575.00**

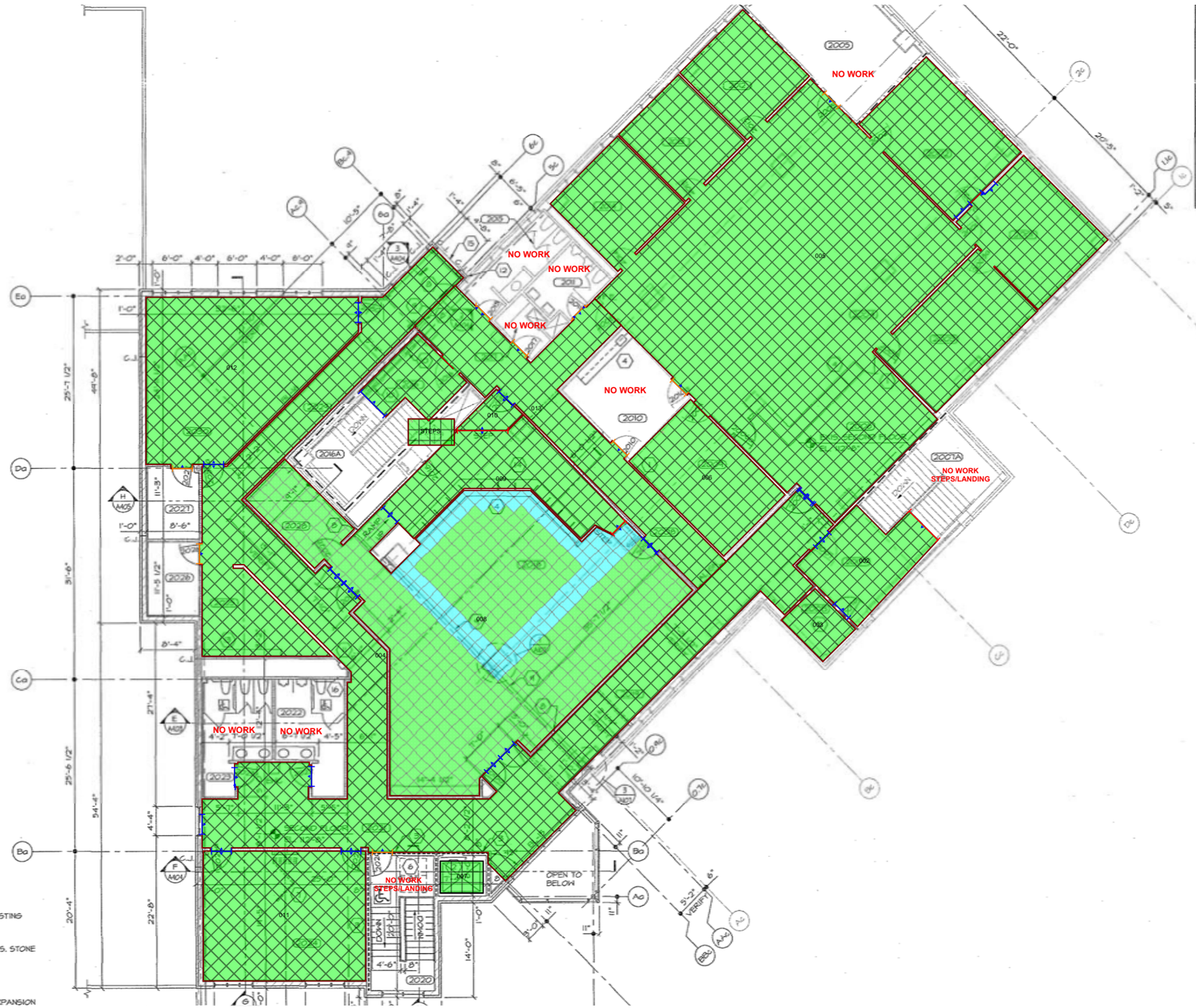


1 A107
1 1/2" = 1'-0"



FIRST FLOOR
2 A107
1 1/2" = 1'-0"

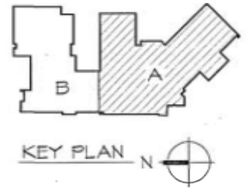




5	EXPANSION JOINT COVER IN STUD WALL.
9	EXPANSION JOINT COVER IN FLOOR.
10	FILL-IN EXISTING OPENING WITH 12" CMU. PLASTER ROOM #2016 SIDE TO MATCH EXISTING.
11	FIRE EXTINGUISHER CABINET.
12	EXTERIOR EXPANSION JOINT.
13	COAT RACK, 12'-0" LONG. PROVIDE BLOCKING IN WALL AS REQUIRED.
14	RAISED FLOOR - SEE 4 A104
15	NEW LOUVER ABOVE WINDOW, LOUVER FURNISHED BY HVAC CONTRACTOR AND INSTALLED BY GENERAL CONTRACTOR.
16	ACCESS PANEL BY GENERAL CONTRACTOR. COORDINATE LOCATION WITH PLUMBING CONTRACTOR.

PARTITION LEGEND

- EXISTING CONSTRUCTION TO REMAIN
- CONCRETE WALL
- GYPSUM BOARD ON METAL STUDS AT 16" O.C.
- FACE BRICK
- CMU WALL W/ R/F AT 16" O.C.
- CONCRETE OR CMU WALL W/ 5/8" GYPSUM BOARD ON 1 1/2" THERMAL STUDS OR 1 1/2" METAL FURRING
- ONE-HOUR FIRE SEPARATION
- TWO-HOUR FIRE SEPARATION
- FOUR-HOUR FIRE SEPARATION



SOMERVILLE
ARCHITECTS ENGINEERS CONSTRUCTION SERVICES
SOMERVILLE, INC. - 2200 RIVERSIDE DRIVE - GREEN BAY, WISCONSIN - 54301-2290
(920) 437-1936 FAX (920) 437-1011

ADDITION AND REMODELING TO
CITY HALL AND SAFETY BUILDING FOR:

CITY OF DE PERE.

- 1112.28 SY - 96 CPT-1 MILLIKEN, NORDIC STORIES, TECTONIC, 50CM x 50CM
- 35.88 SY - 96 CPT-1 MILLIKEN, NORDIC STORIES, TECTONIC, 50CM x 50CM BORDER TILE
- 36 LF - 97 CTA Reducer
- 36 LF - 97 TS-1 JOHNSONITE CARPET TILE NOSING
- 1972 LF - 97 VB-1 Johnsonite 4" Vinyl Cove Base

City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE:	**May 13, 2024**
DEPARTMENT:	**Engineering**
FROM:	**Eric Rakers**
SUBJECT:	**Consideration and possible action on Award of Contract 24-18 Mission Square Dumpster Enclosure Construction***

ATTACHMENTS:

- 2024 0513 CI_BOPW_Consider_Award_of_Contract_24-18 (PDF)
- 2024 0502 CE_Project 24-18_Bid Tab (PDF)
- Mission Square Public Informational Meeting Invite 01-18-2024 (Template) (PDF)
- Public Information Meeting Presentation (PDF)

CITY OF DE PERE
MEMO

To: Honorable Mayor Boyd
Members of the Board of Public Works
From: Eric P. Rakers, P.E., City Engineer
Date: May 13, 2024

RE: **Consideration and possible action on Award of Contract 24-18 Mission Square Dumpster Enclosure Construction***

The Engineering Department received bids on Project 24-18 Mission Square Dumpster Enclosure Construction on May 2, 2024. This project involves the construction two dumpsters: one at Mission Square and another behind the Community Center. Staff held an informational meeting for the Mission Square stakeholders on January 30, 2024, to get their input on the enclosure location and aesthetics. Attached with this memo is the invitation to the informational meeting and PowerPoint presentation presented at the meeting.

The bids received are as follows:

Contractor	Base Bid
Highway Landscapers, Inc	$84,985.00
Milbach Construction Services, Inc.	$97,015.41
RJM Construction, LLC	$101,045.00

Based off the bid costs, the estimated cost to construct the Mission Square dumpster enclosure is $48,798 and the estimated cost to construct the Community Center Dumpster Enclosure is $36,187.

Funding for the dumpster enclosures construction is from the capital projects budget. From this budget $70,000 is allocated for Public Works Projects, and $37,000 for Parks and Recreation Projects.

Staff's recommendation is to award the contract to Highway Landscapers, Inc in the amount of $84,985.00.

Attachments:

- Project 24-18 Bid Tab
- Mission Square Public Information Meeting Invite 01-18-2024 (Template)
- Public Information Meeting PowerPoint Presentation

DE PERE

Project 24-18
Mission Square Dumpster Enclosure Construction

				BIDDER NO. 1		BIDDER NO. 2		BIDDER NO. 3	
				Highway Landscapers, Inc.		Milbach Construction Services, Co.		RJM Construction LLC	
ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	AMOUNT BID	UNIT PRICE	AMOUNT BID	UNIT PRICE	AMOUNT BID
STREET AND DRAINAGE									
SD-01	Unclassified Excavation - Mission Square	LS	1	$4,490.00	$4,490.00	$8,392.97	$8,392.97	$4,500.00	$4,500.00
SD-02	Unclassified Excavation - Community Center	LS	1	$3,190.00	$3,190.00	$7,435.19	$7,435.19	$3,800.00	$3,800.00
SD-03	Provide 24" Concrete Curb and Gutter	LF	65	$120.00	$7,800.00	$61.68	$4,009.20	$75.00	$4,875.00
SD-04	Provide 8-Inch Concrete Pavement	SY	110	$160.00	$17,600.00	$207.84	$22,862.40	$130.50	$14,355.00
SD-05	Provide Thickened Concrete Edge	LF	50	$40.00	$2,000.00	$34.69	$1,734.50	$7.50	$375.00
SD-06	Provide 6" Concrete Sidewalk	SY	11	$125.00	$1,375.00	$176.10	$1,937.10	$90.00	$990.00
SD-07	Drilled Tie Bars (Existing Sidewalk, Driveway, and Curb and Gutter)	EA	20	$9.00	$180.00	$12.39	$247.80	$7.50	$150.00
SD-08	Landscaping Restoration	LS	1	$1,500.00	$1,500.00	$782.75	$782.75	$1,800.00	$1,800.00
SPECIAL CONSTRUCTION									
SC-01	Provide Dumpster Enclosure Construction - Mission Square	LS	1	$24,850.00	$24,850.00	$26,620.00	$26,620.00	$38,200.00	$38,200.00
SC-02	Provide Dumpster Enclosure Construction - Community Center	LS	1	$17,500.00	$17,500.00	$20,755.00	$20,755.00	$29,500.00	$29,500.00
SC-03	Provide Bollards	EA	5	$900.00	$4,500.00	$447.70	$2,238.50	$500.00	$2,500.00
			TOTAL AMOUNT BID:		**$84,985.00**		**$97,015.41**		**$101,045.00**

CITY OF DE PERE

Public Works Department

925 S. Sixth Street, De Pere, WI | 920-339-4060 | www.deperewi.gov/publicworks

January 18, 2024

«ownmail1»
«ownmail2»
«ownmail3»
«ownmail4»

Re: Public Informational Meeting
Mission Square Garbage & Recycling Collection
Parcel:«PARCELID», «LOCATION»

Dear Property Owner:

Please join City staff to discuss collection of garbage & recycling for the Mission Square area. The purpose of this meeting is to discuss the City's plans to convert from carts to dumpsters for garbage and recycling collection. The City will need to construct a dumpster enclosure in the area shown on the attached aerial. This location was selected because of the access needed for a private garbage hauler to be able to access the dumpsters without having parked cars obstructing access.

The informational meeting will be held on Tuesday January 30, 2024, at 6:00 P.M. at the Municipal Service Center located at 925 S. Sixth Street in De Pere. A short presentation will be given regarding the City's plans including discussion of charging property owners for these services as well as the timeline to implement the plans. After the presentation, City staff will address any questions or comments. Your feedback at this meeting will influence the direction of this project, which we hope to implement in 2024.

If you have any questions or require additional information, please feel free to contact me.

Sincerely,

DEPARTMENT OF PUBLIC WORKS

Scott J. Thoresen, P.E.
Director of Public Works

Cc: Mayor Boyd
Larry Delo, City Administrator
Dan Lindstrom, Development Services Director
Alderpersons

Mission Square
Dumpster Enclosure Discussion
1-30-2024

Purpose of Meeting

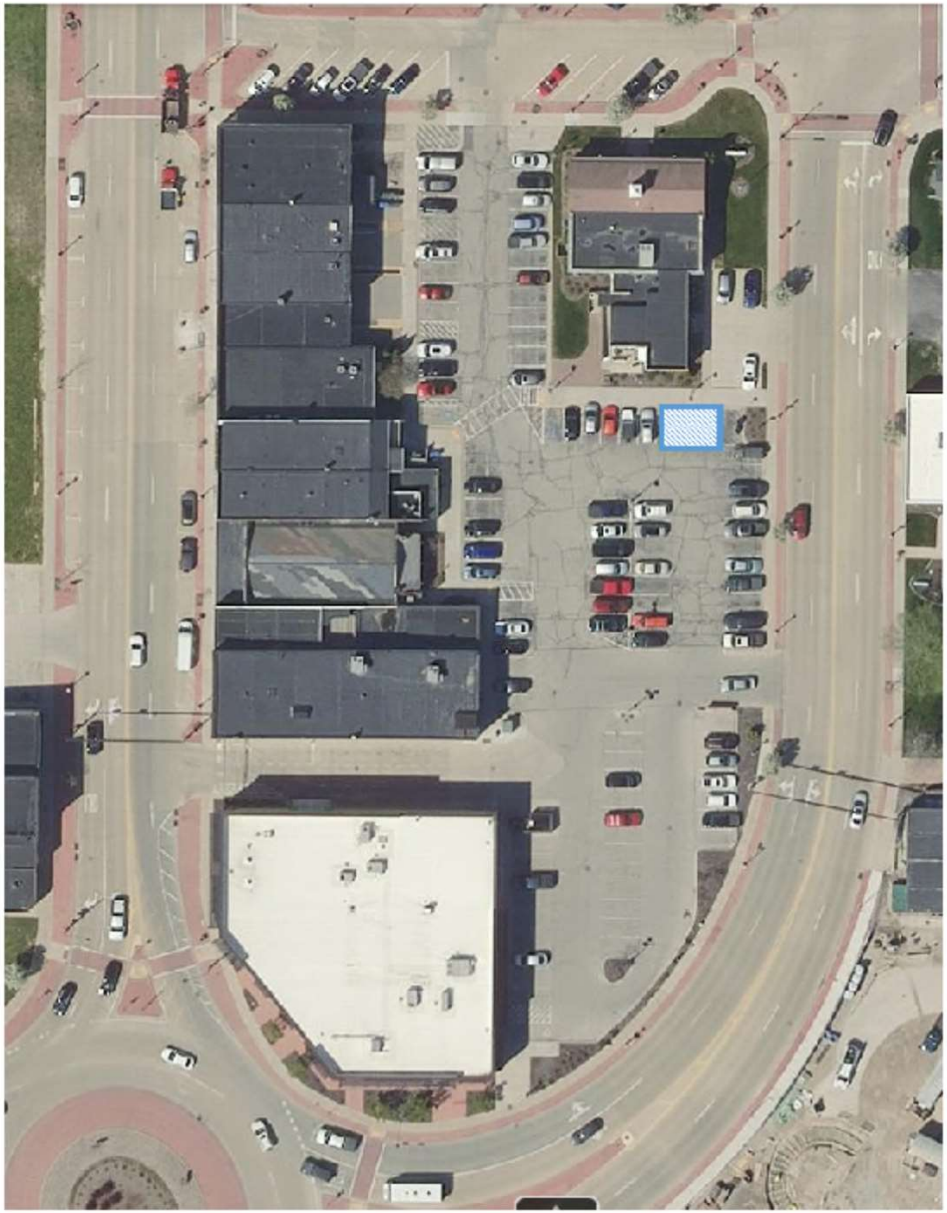
- Dumpster enclosure requirements
- Discuss possible dumpster enclosure locations
- Dumpster enclosure will be similar to Nicolet Square, Marquette Square, 400 Block Main Ave
- Timeline for building enclosures and implementing use of dumpster collection
- Creation of Recyclable and Garbage Common Collection Service District Ordinance
- Annual Assessments

Dumpster Enclosure Requirements

- Similar to Nicolet Square, Marquette Square, and 400 Block Main Ave
- The City will provide dumpster enclosure
- City will administer garbage and recycling collection
- City will provide area for storage of grease containers if necessary
- Property owner may opt out if their property allows for building of enclosures per City ordinance

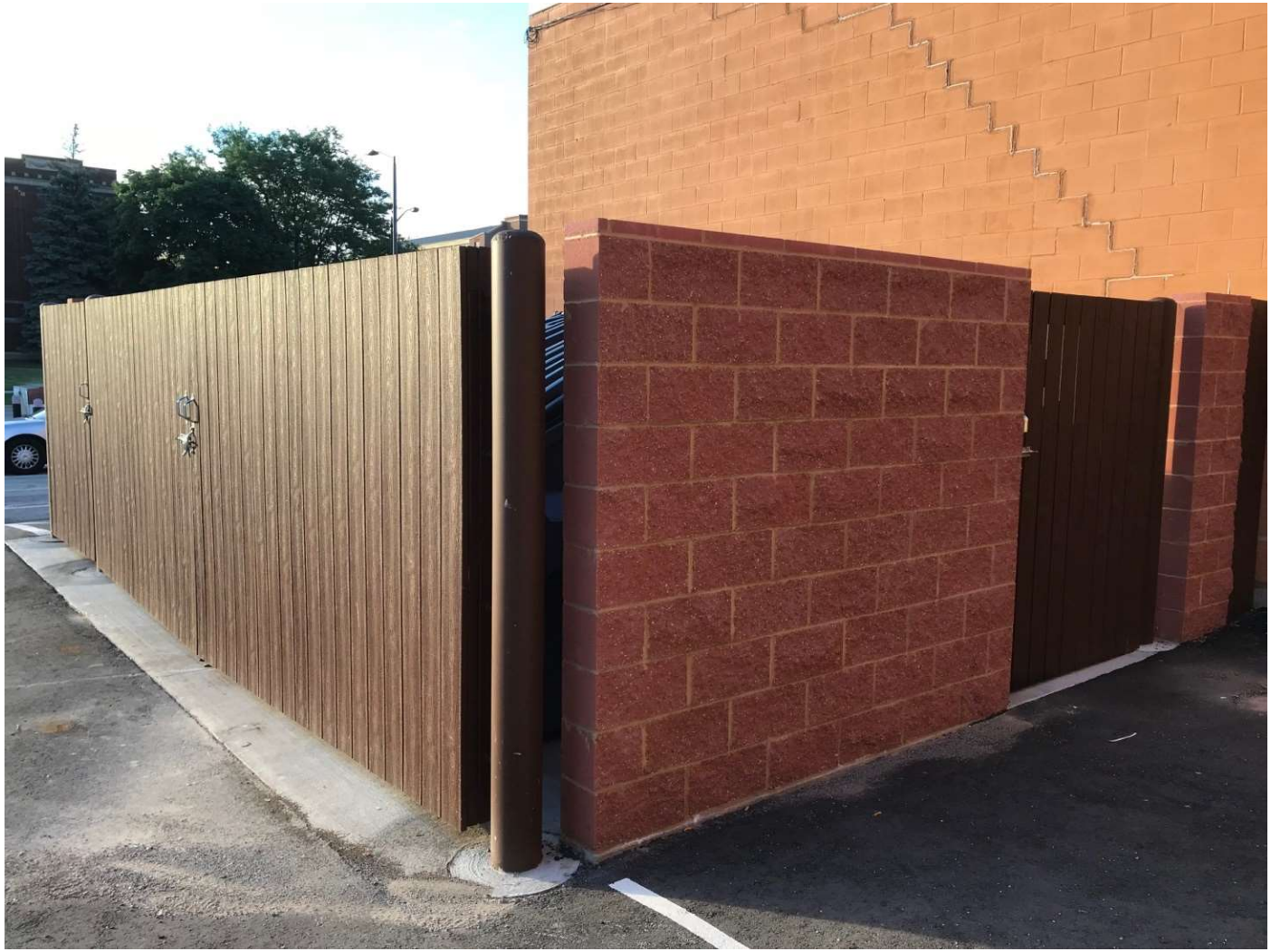
Enclosure Locations

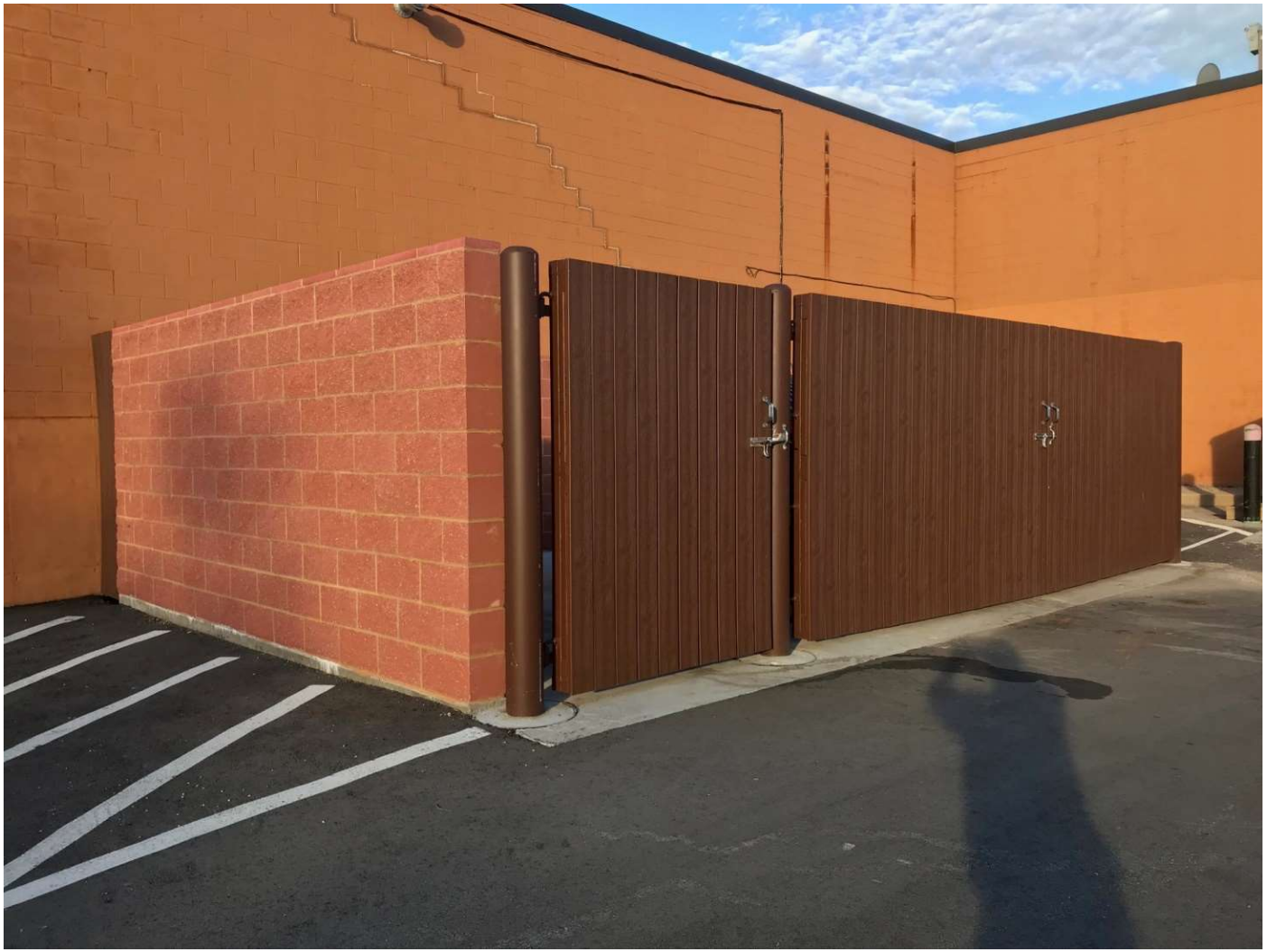
- Need to agree on location
- Enclosure will potentially require loss of parking stalls



Proposed dumpster location

Nicolet Square Enclosures



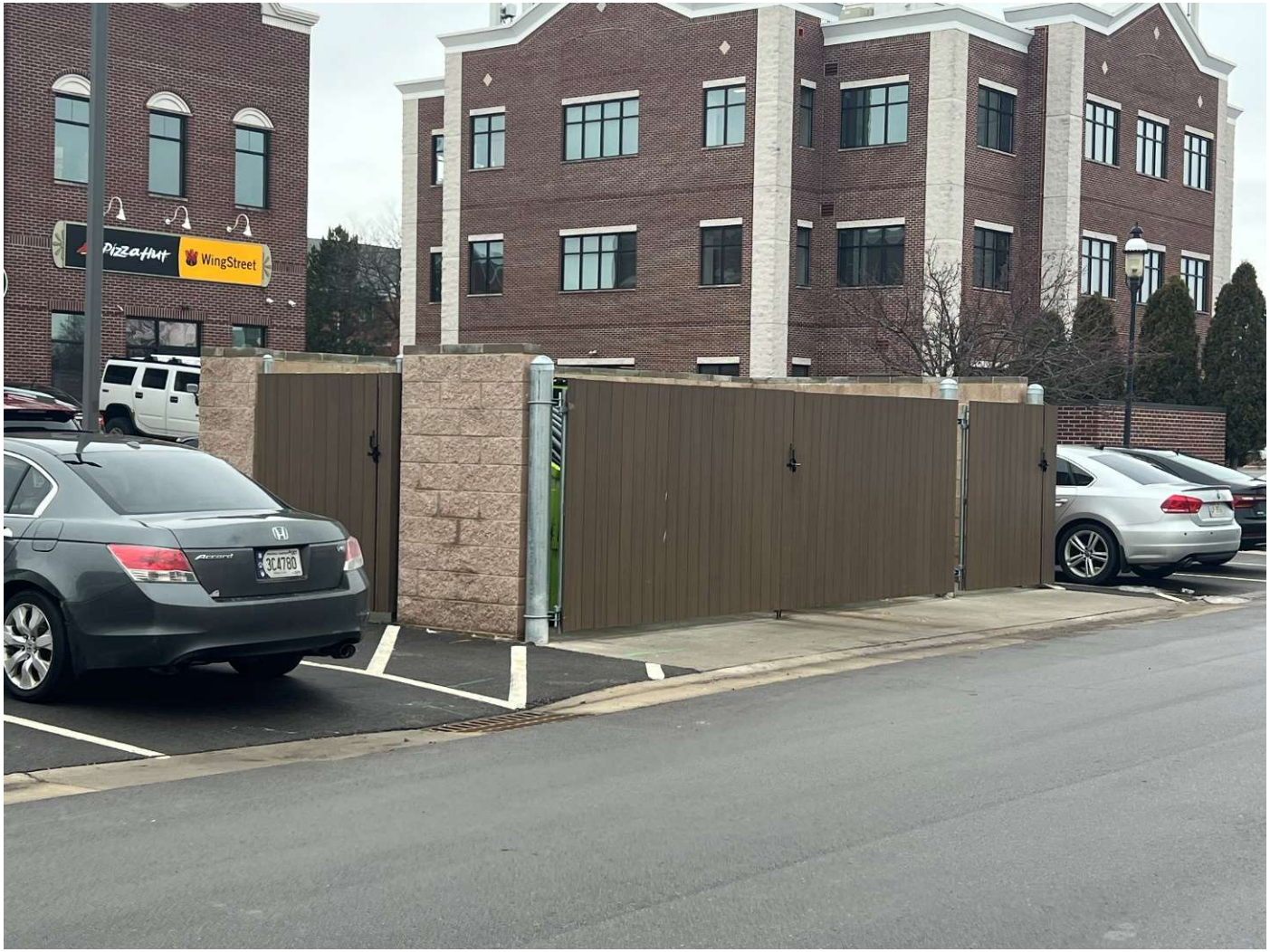


Marquette Square Enclosures


No Rubbish Items Placed Outside Of Dumpsters
ALL CARDBOARD MUST BE BROKE DOWN


Associated
ATM
No Rubbish Items Placed Outside Of Dumpsters
ALL CARDBOARD MUST BE BROKE DOWN

400 Main Avenue Alley Enclosures


Pizza Hut
WingStreet
3CA780


REID STREET CROSSING
Allstate
Infinity
HAIR SALON
AJP-3976

Mission Square Enclosures Timeline

- Stakeholder meeting January 30, 2024
- City will bid construction of enclosures in early 2024
- Construct enclosures summer/fall 2024
- Collection services to begin by 12/1/24
- City to collect all polycarts by 12/31/24

Creation of Ordinance

- Similar to Sec. 82-12. Nicolet Square, Marquette Square, and 400 Block Main Ave Recyclable and Garbage Common Collection Service District

Annual Assessment

- Calculated annually
- 1st assessment will be on 2025 tax bill

2024 Assessment For Dumpster Collection Services

2024 ASSESSMENTS FOR DUMPSTER COLLECTION SERVICES

PARCEL ID	OWNER	COMMERCIAL COLLECTION RATE	FIXED MONTHLY COSTS	COMMERCIAL COLLECTION RATE MONTHLY COSTS	FIXED & COMMERCIAL COLLECTION RATE MONTHLY COSTS	2024 TOTAL ANNUAL ASSESSMENT
WD-906	PHE WI LLC	1.115	$ 12.11	$ 1.39	$ 13.50	$ 161.98
WD-907	GAVIC HOLDINGS LLC	6.770	$ 12.11	$ 69.85	$ 81.96	$ 983.53
WD-908	313 MAIN IN DE PERE LLC	1.115	$ 12.11	$ 1.39	$ 13.50	$ 161.98
WD-909	LIFE CHURCH GREEN BAY INC	6.770	$ 12.11	$ 69.85	$ 81.96	$ 983.53
WD-910	LIFE CHURCH GREEN BAY INC	1.115	$ 12.11	$ 1.39	$ 13.50	$ 161.98
WD-911	TILKENS HOLDING LLC	6.770	$ 12.11	$ 69.85	$ 81.96	$ 983.53
WD-912	NICK BROTHERS PARTNERSHIP	6.770	$ 12.11	$ 69.85	$ 81.96	$ 983.53
WD-913	MIRHASHEMI INC	6.770	$ 12.11	$ 69.85	$ 81.96	$ 983.53
WD-915	MANNING RONALD & MARY PFUTZENREUTER JT REV	1.115	$ 12.11	$ 1.39	$ 13.50	$ 161.98
WD-917	SAKS HOLDINGS LLC	6.770	$ 12.11	$ 69.85	$ 81.96	$ 983.53
WD-918	CONNECTIVE PROPERTIES LLC	1.115	$ 12.11	$ 1.39	$ 13.50	$ 161.98
WD-920	SAKS HOLDINGS LLC	6.770	$ 12.11	$ 69.85	$ 81.96	$ 983.53
WD-921	ABTS INVESTMENTS LLC	1.115	$ 12.11	$ 1.39	$ 13.50	$ 161.98
WD-922	DENNIS M & CLAUDIA D LARSON	1.115	$ 12.11	$ 1.39	$ 13.50	$ 161.98
WD-923	SAKS HOLDINGS LLC	6.770	$ 12.11	$ 69.85	$ 81.96	$ 983.53
WD-925	BLACK PUCK REALTY LLC	1.115	$ 12.11	$ 1.39	$ 13.50	$ 161.98
WD-931	AJANGO PROPERTIES LLC	1.115	$ 12.11	$ 1.39	$ 13.50	$ 161.98
ED-857	UNION HOTEL CORP	6.770	$ 12.11	$ 69.85	$ 81.96	$ 983.53
ED-850	THE LEE BUILDING CORP C/O MICHAEL L SAVOLT	6.770	$ 12.11	$ 69.85	$ 81.96	$ 983.53
ED-848	SERA K PROPERTIES LLC	1.115	$ 12.11	$ 1.39	$ 13.50	$ 161.98
ED-847	STARRY DEVELOPMENT LLC	1.115	$ 12.11	$ 1.39	$ 13.50	$ 161.98
ED-842	WADE CONARD	6.770	$ 12.11	$ 69.85	$ 81.96	$ 983.53
ED-840	THE LEE BUILDING CORP	6.770	$ 12.11	$ 69.85	$ 81.96	$ 983.53
ED-837	FIT FAMILY LLC	6.770	$ 12.11	$ 69.85	$ 81.96	$ 983.53
ED-836	FIT FAMILY LLC	1.115	$ 12.11	$ 1.39	$ 13.50	$ 161.98
WD-884	SCHLEIS PROPERTIES LLC	6.770	$ 12.11	$ 69.85	$ 81.96	$ 983.53
WD-885	LANCE & SHANNA KOLTZ	1.115	$ 12.11	$ 1.39	$ 13.50	$ 161.98
WD-886	LANCE & SHANNA KOLTZ	6.770	$ 12.11	$ 69.85	$ 81.96	$ 983.53
WD-887	FORMULATE INFINITY HOMES LLC	6.770	$ 12.11	$ 69.85	$ 81.96	$ 983.53
WD-888	417 MAIN LLC	1.115	$ 12.11	$ 1.39	$ 13.50	$ 161.98
WD-889	JAMES KROPP	6.770	$ 12.11	$ 69.85	$ 81.96	$ 983.53
WD-288	CHEDDAR HOUSE LLC	1.115	$ 12.11	$ 1.39	$ 13.50	$ 161.98

Questions???

City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE:	**May 13, 2024**
DEPARTMENT:	**Public Works**
FROM:	**Scott Thoresen**
SUBJECT:	**Discuss PSC Final Water Rate Case Approval**

At the September 19, 2023 Council meeting, the Council approved hiring Onward Accounting & Consulting LLC to assist the City with applying for a PSC conventional water rate application. Onward Accounting & Consulting applied with the PSC on December 18, 2023, for approval to increase water rates. The PSC approved an overall rate increase of 9.44% over the City?s current rates. Attached is the PSC final decision on the water rate increase. The new rates will go into effect June 1, 2024. The City?s last rate increase approved by the PSC went into effect January 1, 2021.

The intent of this memo is to just inform the BOPW of the PSC final water rate approvals. There is no action required by the BOPW or Council because the PSC is the governing body that regulates the water utility rates.

ATTACHMENTS:

- 1610-WR-106 Rate Implementation Letter De Pere 4-30-2024 (PDF)

Public Service Commission of Wisconsin

Summer Strand, Chairperson
Kristy Nieto, Commissioner
Marcus Hawkins, Commissioner

4822 Madison Yards Way
P.O. Box 7854
Madison, WI 53707-7854

April 30, 2024

Ms. Pamela R. Manley, Finance Director/Treasurer
De Pere Water Department
335 S. Broadway
De Pere, WI 54115-2526

Re: Application of the City of De Pere, Brown County, Wisconsin, as a Water Public Utility, for Authority to Adjust Water Rates — 1610-WR-106

Dear Ms. Manley:

On April 23, 2024, the Public Service Commission (Commission) issued its Final Decision in Docket 1610-WR-106 for new rates and rules for the De Pere Water Department (Utility). On April 24, 2024, the Utility filed a letter stating it has adopted the rates and rules authorized by the Commission and will make the rates effective for service beginning June 1, 2024.

The Commission has placed the new rates and rules on file as Amendment 48. Attached is a copy of the Amendment for the Utility's records. Also attached is a sheet that indicates the schedules that have been amended, deleted, or have remained unchanged as authorized by the Commission's Final Decision. Refer to this sheet in updating the Utility's copy of the rate file.

The Utility must make the current rates and rules available for public inspection and review at the Utility's office(s) and all bill payment stations pursuant to Wis. Admin. Code § PSC 185.22.

The Utility should mark the old rates and rules as superseded and keep them in a separate file. Pursuant to Wis. Admin. Code § PSC 185.19, the Utility must keep a file of its previous rates and rules permanently.

If you have any questions, please contact me.

Sincerely,

Andrew Fisher
Public Utility Rate Analyst
Public Service Commission of Wisconsin
Division of Water Utility Regulation and Analysis
(608) 266–3905 | Andrew.Fisher@wisconsin.gov

ALF:DL:02010915

Docket 1610-WR-106

De Pere Water Department

Authorized Water Rates and Rules

Docket 1610-WR-106

De Pere Water Department

Water Rate File Changes

Amended

F-1
Upf-1
Mg-1
W-1
W-2
Am-1
OC-1
Mpa-1
Ug-1
Sg-1
BW-1
R-1
Cz-1
X-1
X-2
X-3

Deleted

PWAC-1

RATE FILE

Sheet No. 1 of 1
Schedule No. F-1
Amendment No. 48

Public Service Commission of Wisconsin

De Pere Water Department

Public Fire Protection Service

Public fire protection service shall include the use of hydrants for fire protection service only and such quantities of water as may be demanded for the purpose of extinguishing fires within the service area. This service shall also include water used for testing equipment and training personnel. For all other purposes, the metered or other rates set forth, or as may be filed with the Public Service Commission shall apply.

Under Wis. Stat. § 196.03(3)(b), the municipality has chosen to have the utility bill the retail general service customers for public fire protection service.

Quarterly Public Fire Protection Service Charges:

⅝ - inch meter:	$	26.46	3 - inch meter:	$	393.00
¾ - inch meter:	$	26.46	4 - inch meter:	$	663.00
1 - inch meter:	$	66.18	6 - inch meter:	$	1,329.00
1¼ - inch meter:	$	97.92	8 - inch meter:	$	2,115.00
1½ - inch meter:	$	132.39	10 - inch meter:	$	3,174.00
2 - inch meter:	$	213.00	12 - inch meter:	$	4,233.00

Customers who are provided service under Schedules Mg-1, Ug-1, or Sg-1 shall also be subject to the charges in this schedule according to the size of their primary meter. Customers who are provided service under Schedule Am-1 are exempt from these charges for any additional meters.

Billing: Same as Schedule Mg-1.

RATE FILE

Sheet No. 1 of 1
Schedule No. Upf-1
Amendment No. 48

Public Service Commission of Wisconsin

De Pere Water Department

Private Fire Protection Service - Unmetered

This service shall consist of permanent or continuous unmetered connections to the main for the purpose of supplying water to private fire protection systems such as automatic sprinkler systems, standpipes, and private hydrants. This service shall also include reasonable quantities of water used for testing check valves and other backflow prevention devices.

Quarterly Private Fire Protection Service Demand Charges:

2 - inch or smaller connection:	$	16.50
3 - inch connection:	$	31.20
4 - inch connection:	$	51.00
6 - inch connection:	$	102.00
8 - inch connection:	$	165.00
10 - inch connection:	$	249.00
12 - inch connection:	$	330.00
14 - inch connection:	$	411.00
16 - inch connection:	$	492.00

Billing: Same as Schedule Mg-1.

RATE FILE

Sheet No. 1 of 1
Schedule No. Mg-1
Amendment No. 48

Public Service Commission of Wisconsin

De Pere Water Department

General Service - Metered

Quarterly Service Charges:

⅝ - inch meter:	$	33.00	3 - inch meter:	$	192.00
¾ - inch meter:	$	33.00	4 - inch meter:	$	291.00
1 - inch meter:	$	54.00	6 - inch meter:	$	513.00
1¼ - inch meter:	$	72.00	8 - inch meter:	$	744.00
1½ - inch meter:	$	90.00	10 - inch meter:	$	1,092.00
2 - inch meter:	$	132.00	12 - inch meter:	$	1,440.00

Plus Volume Charges:

First	50,000	gallons used each quarter:	$8.18 per 1,000 gallons
Next	450,000	gallons used each quarter:	$7.60 per 1,000 gallons
Over	500,000	gallons used each quarter:	$6.75 per 1,000 gallons

Billing: Bills for water service are rendered quarterly and become due and payable upon issuance following the period for which service is rendered. A late payment charge of 1 percent per month will be added to bills not paid within 20 days of issuance. This late payment charge will be applied to the total unpaid balance for utility service, including unpaid late payment charges. The late payment charge is applicable to all customers. The utility customer may be given a written notice that the bill is overdue no sooner than 20 days after the bill is issued. Unless payment or satisfactory arrangement for payment is made within the next 10 days, service may be disconnected pursuant to Wis. Adm. Code ch. PSC 185.

Combined Metering: Volumetric meter readings will be combined for billing if the utility for its own convenience places more than one meter on a single water service lateral. Multiple meters placed for the purpose of identifying water not discharged into the sanitary sewer are not considered for utility convenience and shall not be combined for billing. This requirement does not preclude the utility from combining readings when metering configurations support such an approach. Meter readings from individually metered separate service laterals shall not be combined for billing purposes.

RATE FILE

Sheet No. 1 of 1
Schedule No. W-1
Amendment No. 48

Public Service Commission of Wisconsin

De Pere Water Department

Wholesale Water Service

Wholesale water service to the Town of Lawrence shall be provided at the following rate:

General Service

Volume Charge: $ 9.00 per 1,000 gallons

Billing: Same as Schedule Mg-1.

EFFECTIVE: June 1, 2024
PSCW AUTHORIZATION: 1610-WR-106

RATE FILE

Sheet No. 1 of 1
Schedule No. W-2
Amendment No. 48

Public Service Commission of Wisconsin

De Pere Water Department

Wholesale Water Service

Wholesale water service to the Ledgeview Sanitary District No. 2 shall be provided at the following rate:

Public Fire Protection Service

Service Charge: $ 2,145.70 per quarter ($8,582.80 annually)

General Service

Volume Charge: $ 9.00 per 1,000 gallons

Billing: Same as Schedule Mg-1.

EFFECTIVE: June 1, 2024
PSCW AUTHORIZATION: 1610-WR-106

RATE FILE

Sheet No. 1 of 1
Schedule No. Am-1
Amendment No. 48

Public Service Commission of Wisconsin

De Pere Water Department

Additional Meter Rental Charge

Upon request, the utility shall furnish and install additional meters to:

A. Water service customers for the purpose of measuring the volume of water used that is not discharged into the sanitary sewer system; and

B. Sewerage service customers who are not customers of the water utility for the purpose of determining the volume of sewage that is discharged into the sanitary sewer system.

The utility shall charge a meter installation charge of $70.00 and a quarterly rental fee for the use of this additional meter.

Quarterly Additional Meter Rental Charges:

⅝ - inch meter:	$	11.00
¾ - inch meter:	$	11.00
1 - inch meter:	$	18.00
1¼ - inch meter:	$	24.00
1½ - inch meter:	$	30.00
2 - inch meter:	$	44.00

This schedule applies only if the additional meter is installed on the same service lateral as the primary meter and either:

A. The additional meter is ¾-inch or smaller if the metering configuration is the Addition Method; or

B. The additional meter is 2-inch or smaller for all other metering configurations.

If the additional meter is larger than 2-inch or larger than ¾-inch and installed in the Addition Method, each meter shall be treated as a separate account and Schedule Mg-1 rates shall apply.

Billing: Same as Schedule Mg-1.

RATE FILE

Sheet No. 1 of 1
Schedule No. OC-1
Amendment No. 48

Public Service Commission of Wisconsin

De Pere Water Department

Other Charges

Payment Not Honored by Financial Institution Charge: The utility shall assess a $25.00 charge when a payment rendered for utility service is not honored by the customer's financial institution. This charge may not be in addition to, but may be inclusive of, other such charges when the payment was for multiple services.

Billing: Same as Schedule Mg-1.

RATE FILE

Sheet No. 1 of 1
Schedule No. Mpa-1
Amendment No. 48

Public Service Commission of Wisconsin

De Pere Water Department

Public Service

Metered Service
Water used by the City of De Pere on an intermittent basis for flushing sewers, street washing, flooding skating rinks, drinking fountains, etc., shall be metered and billed according to the rates set forth in Schedule Mg-1.

Unmetered Service
Where it is impossible to meter the service, the utility shall estimate the volume of water used based on the pressure, size of opening, and the period of time the water is used. The estimated quantity shall be billed at the volumetric rates set forth in Schedule Mg-1, excluding any service charges.

Billing: Same as Schedule Mg-1.

RATE FILE

Sheet No. 1 of 1
Schedule No. Ug-1
Amendment No. 48

Public Service Commission of Wisconsin

De Pere Water Department

General Water Service - Unmetered

Service may be supplied temporarily on an unmetered basis where the utility cannot immediately install a water meter, including water used for construction. Unmetered service shall be billed the amount that would be charged to a metered residential customer using 10,000 gallons of water quarterly under Schedule Mg-1, including the service charge for a ⅝-inch meter. If the utility determines that actual usage exceeds 10,000 gallons of water quarterly, an additional charge for the estimated excess usage shall be made according to the rates under Schedule Mg-1.

This schedule applies only to customers with a 1-inch or smaller service connection. For customers with a larger service connection, the utility shall install a temporary meter and charges shall be based on the rates set forth under Schedule Mg-1.

Billing: Same as Schedule Mg-1.

RATE FILE

Sheet No. 1 of 1
Schedule No. Sg-1
Amendment No. 48

Public Service Commission of Wisconsin

De Pere Water Department

Seasonal Service

Seasonal customers are general service customers who voluntarily request disconnection of water service and who resume service at the same location within 12 months of the disconnection, unless service has been provided to another customer at that location in the intervening period. The utility shall bill seasonal customers the applicable service charges under Schedule Mg-1 year-round, including the period of temporary disconnection.

Seasonal service shall include customers taking service under Schedule Mg-1, Schedule Ug-1, or Schedule Am-1.

Upon reconnection, the utility shall apply a charge under Schedule R-1 and require payment of any unpaid charges under this schedule.

Billing: Same as Schedule Mg-1, unless the utility and customer agree to an alternative payment schedule for the period of voluntary disconnection.

RATE FILE

Sheet No. 1 of 1
Schedule No. BW-1
Amendment No. 48

Public Service Commission of Wisconsin

De Pere Water Department

Bulk Water

All bulk water supplied from the water system through hydrants or other connections shall be metered or estimated by the utility. Utility personnel or a party approved by the utility shall supervise the delivery of water.

Bulk water sales are:

A. Water supplied by tank trucks or from hydrants for the purpose of extinguishing fires outside the utility's service area;

B. Water supplied by tank trucks or from hydrants for purposes other than extinguishing fires, such as water used for irrigation or filling swimming pools; or,

C. Water supplied from hydrants or other temporary connections for general service type applications, except that Schedule Ug-1 applies for water supplied for construction purposes.

A service charge of $70.00 and a charge for the volume of water used shall be billed to the party using the water. The volumetric charge shall be calculated using the highest volumetric rate for residential customers under Schedule Mg-1. In addition, for meters that are assigned to bulk water customers for more than 7 days, the applicable service charge in Schedule Mg-1 will apply after the first 7 days.

The water utility may require a reasonable deposit for the temporary use of its equipment under this and other rate schedules. The deposit(s) collected shall be refunded upon return of the utility's equipment. Damaged or lost equipment shall be repaired or replaced at the customer's expense.

Billing: Same as Schedule Mg-1.

RATE FILE

Sheet No. 1 of 1
Schedule No. R-1
Amendment No. 48

Public Service Commission of Wisconsin

De Pere Water Department

Reconnection Charges

The utility shall assess a charge to reconnect a customer, which includes reinstalling a meter and turning on the valve at the curb stop, if necessary. A utility may not assess a charge for disconnecting a customer.

During normal business hours:	$70.00
After normal business hours:	$140.00

Billing: Same as Schedule Mg-1.

RATE FILE

Sheet No. 1 of 1
Schedule No. Cz-1
Amendment No. 48

Public Service Commission of Wisconsin

De Pere Water Department

Water Lateral Installation Charge

The utility shall charge a customer for the actual cost of installing a water service lateral from the main through curb stop and box if these costs are not contributed as part of a subdivision development or otherwise recovered under Wis. Stats. Chapter 66.

Billing: Same as Schedule Mg-1.

RATE FILE

Sheet No. 1 of 10
Schedule No. X-1
Amendment No. 48

Public Service Commission of Wisconsin

De Pere Water Department

Water Utility Operating Rules

Compliance with Rules

All persons now receiving water service from this water utility, or who may request service in the future, shall be considered as having agreed to be bound by the rules and regulations as filed with the Public Service Commission of Wisconsin.

Establishment of Service

Application for water service may be made in writing on a form furnished by the water utility. The application will contain the legal description of the property to be served, the name of the owner, the exact use to be made of the service, and the size of the service lateral and meter desired. Note particularly any special refrigeration, fire protection, or water-consuming air-conditioning equipment.

Service will be furnished only if (1) the premises have a frontage on a properly platted street or public strip in which a cast iron or other long-life water main has been laid, or where the property owner has agreed to and complied with the provisions of the water utility's filed main extension rule, (2) the property owner has installed or agrees to install a service lateral from the curb stop to the point of use that is not less than 6 feet below the surface of an established or proposed grade and meets the water utility's specifications, and (3) the premises have adequate piping beyond the metering point.

The owner of a multi-unit dwelling has the option of being served by individual metered water service to each unit. The owner, by selecting this option, is required to provide interior plumbing and meter settings to enable individual metered service to each unit and individual disconnection without affecting service to other units. Each meter and meter connection will be treated as a separate water utility account for the purpose of the filed rules and regulations.

No division of the water service lateral to any lot or parcel of land shall be made for the extension and independent metering of the supply to an adjoining lot or parcel of land. Except for duplexes, no division of a water service lateral shall be made at the curb for separate supplies for two or more separate premises having frontage on any street or public service strip, whether owned by the same or different parties. Duplexes may be served by one lateral provided (1) individual metered service and disconnection is provided and (2) it is permitted by local ordinance.

Buildings used in the same business, located on the same parcel, and served by a single lateral may have the customer’s water supply piping installed to a central point so that volume can be metered in one place.

The water utility may withhold approval of any application where full information of the purpose of such supply is not clearly indicated and set forth by the applicant property owner.

RATE FILE

Sheet No. 2 of 10
Schedule No. X-1
Amendment No. 48

Public Service Commission of Wisconsin

De Pere Water Department

Water Utility Operating Rules

Reconnection of Service

Where the water utility has disconnected service at the customer's request, a reconnection charge shall be made when the customer requests reconnection of service. See Schedule R-1 for the applicable rate.

A reconnection charge shall also be required from customers whose services are disconnected (shut off at curb stop box) because of nonpayment of bills when due. See Schedule R-1 for the applicable rate.

If reconnection is requested for the same location by any member of the same household, or, if a place of business, by any partner of the same business, it shall be considered as the same customer.

Temporary Metered Service, Meter, and Deposits

An applicant for temporary water service on a metered basis shall make and maintain a monetary deposit for each meter installed as security for payment for use of water and for such other charges which may arise from the use of the supply. A charge shall be made for setting the valve and furnishing and setting the meter. See Schedule BW-1 for the applicable rate.

Water for Construction

When water is requested for construction purposes or for filling tanks or other such uses, an application shall be made to the water utility, in writing, giving a statement of the amount of construction work to be done or the size of the tank to be filled, etc. Payment for the water for construction may be required in advance at the scheduled rates. The service lateral must be installed into the building before water can be used. No connection with the service lateral at the curb shall be made without special permission from the water utility. In no case will any employee of the water utility turn on water for construction work unless the contractor has obtained permission from the water utility.

Customers shall not allow contractors, masons, or other persons to take unmetered water from their premises without permission from the water utility. Any customer failing to comply with this provision may have water service discontinued and will be responsible for the cost of the estimated volume of water used.

Water Utility Operating Rules

Use of Hydrants

In cases where no other supply is available, permission may be granted by the water utility to use a hydrant. No hydrant shall be used until the proper meter and valve are installed. In no case shall any valve be installed or moved except by an employee of the water utility.

Before a valve is set, payment must be made for its setting and for the water to be used at the scheduled rates. Where applicable, see Schedule BW-1 for deposits and charges. Upon completing the use of the hydrant, the customer must notify the water utility to that effect.

Operation of Valves and Hydrants and Unauthorized Use of Water - Penalty

Any person who shall, without authority of the water utility, allow contractors, masons, or other unauthorized persons to take water from their premises, operate any valve connected with the street or supply mains, or open any fire hydrant connected with the distribution system, except for the purpose of extinguishing fire, or who shall wantonly damage or impair the same, shall be subject to a fine as provided by municipal ordinance. Utility permission for the use of hydrants applies only to such hydrants that are designated for the specific use.

Refunds of Monetary Deposits

All money deposited as security for payment of charges arising from the use of temporary water service on a metered basis, or for the return of a hydrant valve and fixtures if the water is used on an unmetered basis, will be refunded to the depositor on the termination of the use of water, the payment of all charges levied against the depositor, and the return of the water utility's equipment.

Service Laterals

No water service lateral shall be laid through any trench having cinders, rubbish, rock or gravel fill, or any other material which may cause injury to or disintegration of the service lateral, unless adequate means of protection are provided by sand filling or such other insulation as may be approved by the water utility. Service laterals passing through curb or retaining walls shall be adequately safeguarded by provision of a channel space or pipe casing not less than twice the diameter of the service connection. The space between the service lateral and the channel or pipe casing shall be filled and lightly caulked with an oakum, mastic cement, or other resilient material and made impervious to moisture.

In backfilling the pipe trench, the service lateral must be protected against injury by carefully hand tamping the ground filling around the pipe. There should be at least 6 inches of ground filling over the pipe, and it should be free from hard lumps, rocks, stones, or other injurious material.

RATE FILE

Sheet No. 4 of 10
Schedule No. X-1
Amendment No. 48

Public Service Commission of Wisconsin

De Pere Water Department

Water Utility Operating Rules

Service Laterals (continued)

All water service laterals shall be of undiminished size from the street main into the point of meter placement. Beyond the meter outlet valve, the piping shall be sized and proportioned to provide, on all floors, at all times, an equitable distribution of the water supply for the greatest probable number of fixtures or appliances operating simultaneously.

Replacement and Repair of Service Laterals

The service lateral from the main to and through the curb stop will be maintained and kept in repair and, when worn out, replaced at the expense of the water utility. The property owner shall maintain the service lateral from the curb stop to the point of use.

If an owner fails to repair a leaking or broken service lateral from the curb to the point of metering or use within such time as may appear reasonable to the water utility after notification has been served on the owner by the water utility, the water will be shut off and will not be turned on again until the repairs have been completed.

Abandonment of Service

If a property owner changes the use of a property currently receiving water service such that water service will no longer be needed in the future, the water utility may require the abandonment of the water service at the water main. In such case, the property owner may be responsible for all removal and/or repair costs, including the water main and the utility portion of the water service lateral.

Charges for Water Wasted Due to Leaks

See Wis. Admin. Code § PSC 185.35 or Schedule X-4, if applicable.

Thawing Frozen Service Laterals

See Wis. Admin. Code § PSC 185.88 or Schedule X-4, if applicable.

Curb Stop Boxes

The curb stop box is the property of the water utility. The water utility is responsible for its repair and maintenance. This includes maintaining, through adjustment, the curb stop box at an appropriate grade level where no direct action by the property owner or occupant has contributed to an elevation problem. The property owner is responsible for protecting the curb stop box from situations that could obstruct access to it or unduly expose it to harm. The water utility shall not be liable for failure to locate the curb stop box and shut off the water in case of a leak on the owner's premises.

RATE FILE

Public Service Commission of Wisconsin

De Pere Water Department

Water Utility Operating Rules

Installation of Meters

Meters will be owned, furnished, and installed by the water utility or a utility-approved contractor and are not to be disconnected or tampered with by the customer. All meters shall be so located that they shall be protected from obstructions and permit ready access for reading, inspection, and servicing, such location to be designated or approved by the water utility. All piping within the building must be supplied by the owner. Where additional meters are desired by the owner, the owner shall pay for all piping. Where applicable, see Schedule Am-1 for rates.

Repairs to Meters

Meters will be repaired by the water utility, and the cost of such repairs caused by ordinary wear and tear will be borne by the water utility.

Repair of any damage to a meter resulting from the carelessness of the owner of the premises, owner's agent, or tenant, or from the negligence of any one of them to properly secure and protect same, including any damage that may result from allowing a water meter to become frozen or to be damaged from the presence of hot water or steam in the meter, shall be paid for by the customer or the owner of the premises.

Service Piping for Meter Settings

Where the original service piping is installed for a new metered customer, where existing service piping is changed for the customer's convenience, or where a new meter is installed for an existing unmetered customer, the owner of the premises at his/her expense shall provide a suitable location and the proper connections for the meter. The meter setting and associated plumbing shall comply with the water utility's standards. The water utility should be consulted as to the type and size of the meter setting.

Turning on Water

The water may only be turned on for a customer by an authorized employee of the water utility. Plumbers may turn the water on to test their work, but upon completion must leave the water turned off.

Sprinkling Restrictions and Emergency Water Conditions

Where the municipality has a policy regarding sprinkling restrictions and/or emergency water conditions, failure to comply with such may result in disconnection of service.

See Wis. Admin. Code § PSC 185.37.

RATE FILE

Sheet No. 6 of 10
Schedule No. X-1
Amendment No. 48

Public Service Commission of Wisconsin

De Pere Water Department

Water Utility Operating Rules

Failure to Read Meters

Where the water utility is unable to read a meter, the fact will be plainly indicated on the bill, and either an estimated bill will be computed or the minimum charge applied. The difference shall be adjusted when the meter is again read, that is, the bill for the succeeding billing period will be computed with the gallons or cubic feet in each block of the rate schedule doubled, and credit will be given on that bill for the amount of the bill paid the preceding period. Only in unusual cases shall more than three consecutive estimated or minimum bills be rendered.

If the meter is damaged (see Surreptitious Use of Water) or fails to operate, the bill will be based on the average use during the past year, unless there is some reason why the use is not normal. If the average use cannot be properly determined, the bill will be estimated by some equitable method.

See Wis. Admin. Code § PSC 185.33.

Complaint Meter Tests

See Wis. Admin. Code § PSC 185.77.

Inspection of Premises

During reasonable hours, any officer or authorized employee of the water utility shall have the right of access to the premises supplied with service for the purpose of inspection or for the enforcement of the water utility's rules and regulations. Whenever appropriate, the water utility will make a systematic inspection of all unmetered water taps for the purpose of checking waste and unnecessary use of water.

See Wis. Stat. § 196.171.

Vacation of Premises

When premises are to be vacated, the water utility shall be notified, in writing, at once, so that it may remove the meter and shut off the water supply at the curb stop. The owner of the premises shall be liable for prosecution for any damage to the water utility's property. See "Abandonment of Service" in Schedule X-1 for further information.

Deposits for Residential Service

See Wis. Admin. Code § PSC 185.36.

RATE FILE

Sheet No. 7 of 10
Schedule No. X-1
Amendment No. 48

Public Service Commission of Wisconsin

De Pere Water Department

Water Utility Operating Rules

Deposits for Nonresidential Service

See Wis. Admin. Code § PSC 185.361.

Deferred Payment Agreement

See Wis. Admin. Code § PSC 185.38 or Schedule X-4, if applicable.

Dispute Procedures

See Wis. Admin. Code § PSC 185.39.

Disconnection and Refusal of Service

See Wis. Admin. Code § PSC 185.37.

The following is an example of a disconnection notice that the utility may use to provide the required notice to customers.

DISCONNECTION NOTICE

Dear Customer:

The bill enclosed with this notice includes your current charge for water utility service and your previous unpaid balance.

You have 10 days to pay the water utility service arrears or your service is subject to disconnection.

If you fail to pay the service arrears or fail to contact us within the 10 days allowed to make reasonable deferred payment arrangement or other suitable arrangement, we will proceed with disconnection action.

To avoid the inconvenience of service interruption and an additional charge of (amount) for reconnection, we urge you to pay the full arrears IMMEDIATELY AT ONE OF OUR OFFICES.

If you have entered into a Deferred Payment Agreement with us and have failed to make the deferred payments you agreed to, your service will be subject to disconnection unless you pay the entire amount due within 10 days.

If you have a reason for delaying the payment, call us and explain the situation.

RATE FILE

Public Service Commission of Wisconsin

De Pere Water Department

Water Utility Operating Rules

Disconnection and Refusal of Service (continued)

DISCONNECTION NOTICE (continued)

PLEASE CALL THIS TELEPHONE NUMBER, (telephone number), IMMEDIATELY IF:

1. You dispute the notice of delinquent account.
2. You have a question about your water utility service arrears.
3. You are unable to pay the full amount of the bill and are willing to enter into a deferred payment agreement with us.
4. There are any circumstances you think should be taken into consideration before service is discontinued.
5. Any resident is seriously ill.

Illness Provision: If there is an existing medical emergency in your home and you furnish the water utility with a statement signed by either a licensed Wisconsin physician or a public health official, we will delay disconnection of service up to 21 days. The statement must identify the medical emergency and specify the period of time during which disconnection will aggravate the existing emergency.

Deferred Payment Agreements: If you are a residential customer and you are unable to pay the full amount of the water utility service arrears on your bill, you may contact the water utility to discuss arrangements to pay the arrears over an extended period of time.

This time payment agreement will require:

1. Payment of a reasonable amount at the time the agreement is made.
2. Payment of the remainder of the outstanding balance in monthly installments over a reasonable length of time.
3. Payment of all future water utility service bills in full by the due date.

In any situation where you are unable to resolve billing disputes or disputes about the grounds for proposed disconnection through contacts with our water utility, you may make an appeal to the Public Service Commission of Wisconsin by calling (800) 225-7729.

(WATER UTILITY NAME)

Water Utility Operating Rules

Collection of Overdue Bills

An amount owed by the customer may be levied as a tax as provided in Wis. Stat. § 66.0809.

Surreptitious Use of Water

When the water utility has reasonable evidence that a person is obtaining water, in whole or in part, by means of devices or methods used to stop or interfere with the proper metering of the water utility service being delivered, the water utility reserves the right to estimate and present immediately a bill for unmetered service as a result of such interference, and such bill shall be payable subject to a 24-hour disconnection of service. If the water utility disconnects the service for any such reason, the water utility will reconnect the service upon the following conditions:

A. The customer will be required to deposit with the water utility an amount sufficient to guarantee the payment of the bills for water utility service.

B. The customer will be required to pay the water utility for any and all damages to water utility equipment resulting from such interference with the metering.

C. The customer must further agree to comply with reasonable requirements to protect the water utility against further losses.

See Wis. Stat. §§ 98.26 and 943.20.

Repairs to Mains

The water utility reserves the right to shut off the water supply in the mains temporarily to make repairs, alterations, or additions to the plant or system. When the circumstances will permit, the water utility will give notification, by newspaper publication or otherwise, of the discontinuance of the water supply. No credit will be allowed to customers for such temporary suspension of the water supply.

See Wis. Admin. Code § PSC 185.87.

Duty of Water Utility with Respect to Safety of the Public

It shall be the duty of the water utility to see that all open ditches for water mains, hydrants, and service laterals are properly guarded to prevent accident to any person or vehicle, and at night there shall be displayed proper signal lighting to ensure the safety of the public.

Water Utility Operating Rules

Handling Water Mains and Service Laterals in Excavation Trenches

Contractors must call Digger's Hotline and ensure a location is done to establish the existence and location of all water mains and service laterals as provided in Wis. Stat. § 182.0175. Where water mains or service laterals have been removed, cut, or damaged during trench excavation, the contractors must, at their own expense, cause them to be replaced or repaired at once. Contractors must not shut off the water service laterals to any customer for a period exceeding 6 hours.

Protective Devices

A. Protective Devices in General: The owner or occupant of every premise receiving water supply shall apply and maintain suitable means of protection of the premise supply and all appliances against damage arising in any manner from the use of the water supply, variation of water pressure, or any interruption of water supply. Particularly, such owner or occupant must protect water-cooled compressors for refrigeration systems by means of high and/or low pressure safety cutout devices. There shall likewise be provided means for the prevention of the transmission of water ram or noise of operation of any valve or appliance through the piping of their own or adjacent premises.

B. Relief Valves: On all "closed systems" (i.e., systems having a check valve, pressure regulator, reducing valve, water filter, or softener), an effective pressure relief valve shall be installed at or near the top of the hot water tank or at the hot water distribution pipe connection to the tank. No stop valve shall be placed between the hot water tank and the relief valve or on the drain pipe. See applicable plumbing codes.

C. Air Chambers: An air chamber or approved shock absorber shall be installed at the terminus of each riser, fixture branch, or hydraulic elevator main for the prevention of undue water hammer. The air chamber shall be sized in conformance with local plumbing codes. Where possible, the air chamber should be provided at its base with a valve for water drainage and replenishment of air.

Cross-Connections

Every person owning or occupying a premise receiving municipal water supply shall maintain such municipal water supply free from any connection, either of a direct or of an indirect nature, with a water supply from a foreign source or of any manner of connection with any fixture or appliance whereby water from a foreign supply or the waste from any fixture, appliance, or waste or soil pipe may flow or be siphoned or pumped into the piping of the municipal water system.

See Wis. Admin. Code § NR 811.06.

RATE FILE

Sheet No. 1 of 1
Schedule No. X-2
Amendment No. 48

Public Service Commission of Wisconsin

De Pere Water Department

Water Main Extension Rule

Water mains will be extended for new customers on the following basis:

A. Where the cost of the extension is to immediately be collected through assessment by the municipality against the abutting property, the procedure set forth under Wis. Stat. § 66.0703 will apply, and no additional customer contribution to the utility will be required.

B. Where the municipality is unwilling or unable to make a special assessment, the extension will be made on a customer-financed basis as follows:

1. The applicant(s) will advance as a contribution in aid of construction the total amount equivalent to that which would have been assessed for all property under paragraph A.

2. Part of the contribution required in paragraph B.1. will be refundable. When additional customers are connected to the extended main within 10 years of the date of completion, contributions in aid of construction will be collected equal to the amount which would have been assessed under paragraph A. for the abutting property being served. This amount will be refunded to the original contributor(s). In no case will the contributions received from additional customers exceed the proportionate amount which would have been required under paragraph A., nor will it exceed the total assessable cost of the original extension.

C. When a customer connects to a transmission main or connecting loop installed at utility expense within 10 years of the date of completion, there will be a contribution required of an amount equivalent to that which would have been assessed under paragraph A.

RATE FILE

Sheet No. 1 of 1
Schedule No. X-3
Amendment No. 48

Public Service Commission of Wisconsin

De Pere Water Department

Water Main Installations in Platted Subdivisions

Application for installation of water mains in regularly platted real estate development subdivisions shall be filed with the utility.

If the developer, or a contractor employed by the developer, is to install the water mains (with the approval of the utility), the developer shall be responsible for the total cost of construction.

If the utility or its contractor is to install the water mains, the developer shall be required to advance to the utility, prior to the beginning of the construction, the total estimated cost of the extension. If the final costs exceed estimated costs, an additional billing will be made for the balance of the cost due. This balance is to be paid within 30 days. If final costs are less than estimated, a refund of the overpayment will be made by the water utility.

City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE:	**May 13, 2024**
DEPARTMENT:	**Engineering**
FROM:	**Eric Rakers**
SUBJECT:	**Consideration and possible action on applying for a Wisconsin Department of Natural Resources Urban Nonpoint Source and Storm Water Management Grant Program***

ATTACHMENTS:

- 2024 0513 CI_BOPW-WDNR Grant (PDF)
- UNPS_SAMPLE_GOVERNMENTAL_RESPONSIBILITY_RESOLUTION(2) (PDF)
- 2024 0311 CI_BOPW-WDNR Grant (PDF)
- 2024 0311 Pond_Location_Map (PDF)

CITY OF DE PERE
MEMO

To: Honorable Mayor Boyd
Members of the Board of Public Works
From: Eric P. Rakers, P.E., City Engineer
Date: May 13, 2024

RE: **Consideration and possible action on resolution for the Wisconsin Department of Natural Resources Urban Nonpoint Source and Storm Water Management Grant Program***

At the March 11th, 2024, Board Meeting, the BOPW approved staff submitting for a storm water grant for the construction of a pond off Honey Court under the Urban Nonpoint Source and Storm Water Management Grant Program. The grant was submitted and received by the WDNR. The WDNR contacted staff and requested specific resolution language that needs to be included with the grant to receive additional points for the scoring process.

The memo from the March 11th meeting has been included along with the map of the location for background information.

Staff recommends approval of the attached resolution for signature by the Mayor which will be submitted to the WDNR and included with the grant scoring for the Urban Nonpoint Source and Storm Water Management Grant Program.

SAMPLE GOVERNMENTAL RESPONSIBILITY RESOLUTION FOR URBAN NONPOINT SOURCE AND STORMWATER GRANTS

WHEREAS, _____ is interested in acquiring a
(governmental unit applicant)
Grant from the Wisconsin Department of Natural Resources for the purpose of implementing measures to control agricultural or urban storm water runoff pollution sources (as described in the application and pursuant to ss. 281.65 or 281.66, Wis. Stats., and chs. NR 151, 154 and 155); and

WHEREAS, a cost-sharing grant is required to carry out the project:

THEREFORE, BE IT RESOLVED, that THEREFORE: _____
(applicant)

- HEREBY AUTHORIZES _____, _____ to act on
(position title) (department)

  behalf of _____ to:
(applicant)

**** Please note: Following tasks are required to be listed in Governmental Responsibility Resolution:***

- Sign and submit an application to the State of Wisconsin Department of Natural Resources for any financial aid that may be available;
- Sign a grant agreement between the local government (applicant) and the Department of Natural Resources;
- Sign and submit reimbursement claims along with necessary supporting documentation;
- Sign and submit interim and final reports and other documentation as required by the grant agreement;
- Sign and submit an Environmental Hazards Assessment Form, if required; and
- Take necessary action to undertake, direct and complete the approved project.

BE IT FURTHER RESOLVED that _____ shall comply with all state
(applicant)
And federal laws, regulations and permit requirements pertaining to implementation of this project and to fulfillment of the grant document provisions.

Adopted this _____ day of _____, 20__.

I hereby certify that the foregoing resolution was duly adopted by _____ at a legal meeting on _____ day of _____, 20__.

Authorized Signature: _____ Title: _____
(Signature of the governmental unit's executive officer, e.g., Village President, City Mayor, County Board Chair, etc.)

IMPORTANT NOTE: *The DNR expects the individual in the position authorized by this resolution to become familiar with the applicable grant program's procedures for the purpose of taking the necessary actions to undertake, direct, and complete the approved project. This includes acting as the primary contact for the project, submitting required materials for a complete grant application, fulfilling the requirements of the grant agreement, carrying out acquisition or development project (e.g., obtaining required permits, noticing, bidding, following acquisition guidelines, etc.), and closing the grant project (e.g., submitting final report, grant reimbursement forms and documentation, and organization of project files for future monitoring of compliance).*

CITY OF DE PERE
MEMO

To: Honorable Mayor Boyd
Members of the Board of Public Works
From: Eric P. Rakers, P.E., City Engineer
Date: March 11, 2024

RE: **Consideration and possible action on applying for a Wisconsin Department of Natural Resources Urban Nonpoint Source and Storm Water Management Grant Program***

Staff is requesting approval to submit a grant to construct a pond off Honey Court. This pond will treat storm water from existing development that discharges to the Fox River via a storm sewer on Cook Street. The pond construction will assist the City in meeting the required TSS and phosphorous reduction required as part of our MS4 permit with the WDNR.

The Wisconsin Department of Natural Resources (WDNR) offers construction grants under the Urban Nonpoint Source (UNPS) and Storm Water Management Grant Program. The UNPS grant period is two years. The deadline to submit the grant for UNPS construction projects beginning in 2025 is April 15, 2024. Grant funding may be up to $150,000 for construction projects. The grant is a 50% cost share where the City would be required to fund the project and request reimbursement once the project is completed. Projects eligible for construction grants include:

- Construction of structural urban best management practices (BMPs) including detention, wet, infiltration, or wetland basins, or infiltration trenches.
- Engineering design and construction services for BMPs installation.
- Land acquisition and easement purchase, including appraisal cost.
- Storm sewer rerouting and removal of structures.
- Streambank and shoreline stabilization.

The City received the revised WPDES Permit No WI-S050075-3 for storm water runoff in 2019. Requirements of this permit are based on established pollutant allocations for Total Maximum Daily Loads (TMDL's) to the lower Fox River. The permit requires the City to continue to implement post construction storm water management practices to reduce pollutant loads to the Lower Fox River. Staff proposes to submit a grant application for the construction of a wet detention pond off Honey Court and Cook Street. This location was included in the City's most recent Storm Water Management Plan.

Staff recommends approval for the preparation and submittal of an application to be signed by the City Engineer for the Urban Nonpoint Source and Storm Water Management Grant Program.

CITY OF DE PERE

Public Works - Engineering Department

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City of De Pere, Wisconsin

Request For Board of Public Works Action

MEETING DATE:	**May 13, 2024**
DEPARTMENT:	**Engineering**
FROM:	**Eric Rakers**
SUBJECT:	**Discussion on 2025 Gap Sidewalk Orders**

ATTACHMENTS:

- 2024 0513 CI_BOPW_2025_Gap_Sidewalk (PDF)

CITY OF DE PERE
MEMO

To: Honorable Mayor Boyd
Members of the Board of Public Works
From: Chase K Kuffel, PE, Assistant City Engineer
Date: May 13, 2024

RE: Discussion on 2025 Gap Sidewalk Orders

Annually, Engineering Staff reviews vacant parcels throughout the City for the installation of sidewalks. The purpose of this item is to inform the Board of Public Works that there will be no gap sidewalk installation orders for 2025.

Background

On September 12, 2016, the Board of Public Works approved the following policy regarding sidewalk installation:

> "*Concrete sidewalks shall be constructed in the right-of-way as set forth herein where the following conditions exist:*
>
> 1. *Along the streets adjacent to a lot on which a building is constructed;*
> 2. *At least 80% of the lots are developed or 80% of the frontage is on lots that are developed, per side of the street; or*
> 3. *On all streets in subdivisions after it has been ten (10) or more years since the acceptance of the first building permit for the subdivision phase."*

Once the Board of Public Works issues an order for sidewalk installation, property owners are given until June 30th of the following year to complete the installation work. Had there been gap sidewalks to order this year, sidewalk installation would need to be completed by June 30, 2025. If sidewalk installation is not completed by this date, the City would then construct the sidewalk and charge the installation costs back to the property owners.

Discussion

Based on the September 12, 2016 guidance, no parcels were identified as being required to have sidewalk installed in 2025. Recently constructed subdivisions like Honeysuckle Acres 4th Addition (2020), Pine Trail Crossing (2018), and Southbridge Estates 1st Addition (2018) are now completely built.

Garrity's Glen South Subdivision (2019), is nearing the threshold for requiring sidewalk installation on the following blocks:

1. The east side of Lawrence Drive from County Clare Road to Garroman Drive – 13 of 17 parcels have sidewalks installed or have active building permits (76%)
2. The north side of Garroman Drive from Lawrence Drive to Ballyvaughan Road – 5 of 7 parcels have sidewalks installed or have active building permits (71%)
3. Both sides of Tipperary Trail from Garroman Drive to Ballyvaughan Road are less than 50% built.

Subdivisions where utility and street construction were completed in 2023 will be given a full year to develop prior to evaluating if gap sidewalks should be installed. The following subdivisions had utility and street construction completed last year:

1. Kingston Preserve
2. Mystic Creek
3. Waterview Heights 5th Addition