



11333 N. Cedarburg Road
Mequon, WI 53092
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www.cityofmequonwi.gov

Public Works Department

Joint Mequon-Thiensville Bike and Pedestrian Way Commission
Thursday, August 14, 2025
9:00 AM
North Conference Room

Agenda

1. Call to Order, Roll Call
2. Approval of Meeting Minutes
Action requested: review and approve
 - a. July 10, 2025 Minutes
3. Resident Communications

Citizens wishing to address the Commission on any matter not on the agenda may do so at this time. If you desire to be heard on agenda items, you may be heard when that item is considered on the agenda. The time limitation is FIVE minutes. Please state your name and address.

4. Discussion/Action Items
 - a. WisDOT STH181 from County Line to Mequon Road Pavement Marking Update
 - b. M-T Bike and Pedestrian Way Master Plan Project Prioritization Discussion
5. Other Business
6. Adjourn

Dated: /s/ *Kenneth Maciolek*, Chair

Notice is hereby given that a majority of other governmental bodies may be in attendance at this meeting to gather information about a subject over which they have decision making responsibility, although they will not take any formal action relative thereto at this meeting. Persons with disabilities requiring accommodations for attendance at this meeting should contact the City Clerk's Office at 262-236-2914 twenty-four (24) hours in advance of the meeting.

Any questions regarding this agenda may be directed to the Engineering Office at 262-236-2934, Monday through Friday, 8:00 am – 4:30 pm.



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Public Works Department

**Joint Mequon-Thiensville Bike and Pedestrian Way Commission
Thursday, July 10, 2025
9:00 AM
North Conference Room**

Minutes

1. Call to Order, Roll Call

Present:

Chair Kenneth Maciolek
Vice Chair Jim Doornek
Commissioner Ron Heinritz
Commissioner Rob Holyoke
Commissioner John Liegeois

Absent:

Alderman Gregg Bach
Commissioner Kristin Wade

Also present were Assistant City Engineer Cole McCaw, Engineering intern Nikhil

2. Approval of Meeting Minutes

a. June 12, 2025 Minutes

RESULT: **Approved [Unanimous]**

MOVED BY: Holyoke

SECONDED BY: Commissioner Heinritz

AYES: Maciolek, Doornek, Heinritz, Holyoke, Liegeois

3. Resident Communications

Clint Sergi resides at 512 Parkcrest Dr., Thiensville sat in to observe

4. Discussion/Action Items

- a. WisDOT STH181 from County Line to Mequon Road Pavement Marking
 - a. WisDOT STH181 from County Line to Mequon Road Pavement Marking

Attachment: 07-10-25_Minutes (10560 : July 10, 2025 Minutes)

Commissioner Holyoke made a motion to bring to the Common Council the committee would like to continue to determine the significant costs related to the maintenance portion of having a Buffered Bike Zone. The motion was seconded by Commissioner Doornek and passed unanimously.

b. M-T Bike and Pedestrian Way Master Plan Project Prioritization Discussion

The Committee and Cole discussed making the 2025-2026 priority projects listing into short term, medium term and long-term projects. It was discussed that #4 - The completion of Swan Road side path to Mequon Road project could be moved to a longer-term project. As well as #6 - the completion of Buntrock Road sidewalk from Mequon to Division Road (East side). There was also discussion to make #5 - Wauwatosia Road buffered bike lane (County Line to Mequon Road) to be a priority. There were no motions made on the master plan discussion.

The Committee discussed the agenda topics out of order from the originally posted agenda. No motions was made.

5. Other Business

Commissioners confirmed the next meeting will be held as scheduled on August 14, 2025

RESULT: **Approved [Unanimous]**
b. M-T Bike and Pedestrian Way Master Plan Project Prioritization Discussion
RESULT: **Voice Acclamated [Unanimous]**

5. Other Business

Commissioners confirmed the next meeting will be held as scheduled on August 14, 2025

6. Adjourn

a. Motion to Adjourn at 10:24
RESULT: **Approved by Voice Acclamation [Unanimous]**
MOVED BY: Commissioner Heinritz
SECONDED BY: Commissioner Doornek

AYES: Maciolek, Doornek, Heinritz, Holyoke, Liegeois

Respectfully Submitted,

Kristine Hoeft



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Office of Engineering

TO: Joint Mequon-Thiensville Bike and Pedestrian Way Commission
FROM: Cole McCraw, Assistant City Engineer
DATE: August 14, 2025
SUBJECT: WisDOT STH181 from County Line to Mequon Road Pavement Marking Update

Background

The Commission recently requested discussion for the upcoming WisDOT project on Wauwatosa Road (STH 181) from County Line Road to Mequon Road (STH 167).

Project information can be found on the WisDOT website:

<https://wisconsindot.gov/Pages/projects/by-region/sc/181ozauk/default.aspx>

Chair Maciolek reached out to the WisDOT project manager informing them of the Bikeway Master Plan and the plan's recommendation for Wauwatosa Road (STH 181). The email correspondence is attached for reference.

For reference, the adopted M-T Bike and Pedestrian Master Plan recommends the following for Wauwatosa Road:

Wauwatosa Road/STH 181

Extents: Pioneer Rd to Mequon Rd

Add cycle track or buffered bike lane. This portion of Wauwatosa Rd is a locally-owned connecting highway.

Extents: Mequon Rd (STH 67) to County Line Rd

Include a cycle track or buffered bike lane as part of planned road reconstruction. This portion of Wauwatosa Rd is State-owned.

Extents: Highland Rd to Donges Bay Rd

Install 5 ft sidewalks on both sides of the street.

Planning Considerations:

- *Wauwatosa Rd is a State-owned State Trunk Highway south of Mequon Rd. It is a locally-owned connecting highway north of Mequon Rd. While there is more local control over the locally-owned connecting highway portion, there is still some State coordination needed for improvements to a locally-owned connecting highway. More information on connecting highways can be found here: <https://wisconsindot.gov/Pages/projects/data-plan/plan-res/connecting.aspx>*

According to WisDOT, the cycle track recommendation was not be possible to implement into the project at that point in design. However, adding the buffered bike lane is possible with an

additional agreement with the City for future maintenance of the markings.

Analysis

The WisDOT project manager confirmed that the buffered bike lane would be possible to implement with the project, and they have drafted a pavement marking plan showing the buffered bike lane. This draft plan is attached for reference.

The State-Municipal Maintenance Agreement (SMMA) was provided by WisDOT and brought to the August 12th Common Council meeting for approval. The resolution is attached for reference.

Fiscal Impact

The City would be financially responsible for future maintenance of the markings. Staff will request a WisDOT maintenance agreement pending this body's recommendation. Staff will also need to assess future maintenance costs and feasibility of performing future maintenance work. If the Department of Public Works does not have the ability to perform future maintenance, potentially due to lack of necessary equipment, the City may need to hire a contractor to perform this work in perpetuity.

Remarking the white lines, chevrons, bike symbols, and arrows will cost an estimated \$60,000 to \$80,000 for epoxy material. Paint material is approximately half the cost, but also has a reduced lifespan.

Recommendation

There is no recommendation for this item.

Attachments:

Res 4224 (PDF)

2025-06-24 Wauwatosa Road Pavement Marking WisDOT correspondence (PDF)

2729-07-00 PM (draft 90%) (PDF)



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 Mequon, WI 53092
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 Office of Engineering

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TO: Common Council
FROM: Kristen Lundeen, Director of Public Works/City Engineer
DATE: August 12, 2025
SUBJECT: RESOLUTION 4224 A Resolution Authorizing Execution of a Permit Application with the Wisconsin Department of Transportation for the Maintenance of Pavement Markings and Symbols on a Buffered Bicycle Lane Along Wauwatosa Road Between Mequon Road and Knightsbridge Drive

Background

The City of Mequon and Wisconsin Department of Transportation (WisDOT) have an executed State/Municipal Maintenance Agreement (SMMA) for Wauwatosa Road (STH 181) south of Mequon Road to County Line Road. The road is owned by WisDOT, but the City is required to maintain sidewalks, pedestrian refuge islands, landscaping features, pavement markings at unsignalized intersections and mid-block crossings and the retaining wall at Mourning Dove Lane. See the attached SMMA for reference.

During the public information process for the Wauwatosa Road project, the Chair of the Joint Mequon-Thiensville Bike & Pedestrian Way Commission contacted WisDOT regarding the recently adopted Bicycle & Pedestrian Way Plan. The plan recommends a buffered bike lane or cycle track on Wauwatosa Road between County Line Road and Mequon Road. The Chair further indicated that given the speed and volume of traffic on Wauwatosa Road, some additional facility is needed to provide safer cycling.

Analysis

WisDOT responded to the Chair's request with the following (in part):

The purpose of the referenced project is to address the deteriorating pavement condition and decreasing ride quality along WIS 181, outdated traffic signal equipment and drainage maintenance concerns, as well as evaluating improvements to multi-modal accommodations. For this high-speed, high volume State Trunk Highway arterial with 10-foot paved shoulders, we saw the need for both bicycle and pedestrian connectivity.

At the time of scoping in 2020 and 2021, cost-benefit analysis conducted by WisDOT's OAPM (Office of Asset and Performance Management at WisDOT Central Office) determined the facility did not have operational or safety justification to add bike slip lanes at intersections where they don't currently exist or widen the roadway in the segment in the north where the shoulder drops completely. As a result, the project was scoped to perpetuate the 10-foot existing

Attachment: Res 4224 (10558 : WisDOT STH181 from County Line to Mequon Road Pavement Marking)

shoulders as bike accommodations and add sidewalk to eliminate gaps along the west side of STH 181 between Donges Bay Road and Mequon Road. Real estate acquisition began in 2024 and is still ongoing for this sidewalk with several parcels still pending. Right-of-way should be complete by this November.

However, much has changed in the past few years, and national guidance has shifted regarding higher speed/higher volume roadways, with the recommendation to increase protection in the form of separation as speeds and car volumes increase. The Multimodal Unit has been relying largely on the Federal Highway Administration (FHWA)'s Bikeway Selection Guide, which has preferred facilities based on land use types, speeds, and car traffic volumes. Based on the 45mph and 9,100 Annual Average Daily Traffic (AADT) from County Line Rd to Donges Bay, FHWA would recommend a 10-foot shoulder, given this area would be characterized as 'rural' due to land uses and building densities. From Donges Bay to Mequon Rd, based on the 45mph and 11,700 AADT, FHWA would recommend a separated bike lane or shared use path, given this stretch of STH 181 would be characterized as 'suburban.'

If this project were in the scoping phase today, given SEWRPC Vision 2050 designates the corridor for an Enhanced Bicycle Facility and the Mequon Thiensville Master Plan designates the corridor for a cycle track or buffered bike lane, the recommendation would be to consider a separated facility for this project and complete a new cost benefit analysis to determine if there would be sufficient mobility benefit to achieve a separated facility at state cost. Because of the current 90%-point in design, adding a cycle track would not be possible given that additional right-of-way would need to be acquired which would delay the project significantly. The existing pavement is in severe distress, and an additional delay would be problematic for the roadway. Emergency pavement repairs were performed in the summer of 2023 in the northbound lanes (asphalt resurfacing near Donges Bay), and again in March 2025.

Since the existing facility has a 10-foot shoulder from County Line Road to Knightsbridge Drive, we likely do have the space to accommodate a buffered bike lane with additional pavement striping. A buffered bike lane could be achieved by creating a painted hatched buffer space and a marked bike lane, which increases awareness for motorists about the presence of bicyclists. With a 10-foot shoulder, we could likely achieve a 4-foot buffer space and 6-foot bike lane. As a result, we are proposing to revise the pavement marking to provide a buffered bike lane and have completed a draft design for this revised marking (attached). While the project could install these markings, an agreement for the City of Mequon to maintain the markings would be needed and will be submitted under separate cover.

The application attached to this memo is the referenced agreement. As this agreement obligates the City to future maintenance (pavement marking) costs not identified in the original SMMA, the agreement is before the Common Council for approval.

Fiscal Impact

There is no cost for the initial installation of the pavement markings, as they will be incorporated into the WisDOT project. Reapplication of the pavement markings in the future will be the responsibility of the City. Please note that this type of striping is beyond the capabilities of the Department of Public Works equipment, and therefore would likely be contracted as a part of the City's Annual Road Program, as necessary.

Recommendation

A recommendation is forthcoming from the Public Works Committee on August 12, 2025.

Attachments:

2729-07-70 STH181 CMequon CountyLineRd-MequonRd SMMA (PDF)

SE-45-BIKE 1 STH 181 City of Mequon bike lane marking and signing 6-16-25 (PDF)

COMMON COUNCIL
OF THE
CITY OF MEQUON

RESOLUTION 4224

A Resolution Authorizing Execution of a Permit Application with the Wisconsin Department of Transportation for the Maintenance of Pavement Markings and Symbols on a Buffered Bicycle Lane Along Wauwatosa Road Between Mequon Road and Knightsbridge Drive

RECITALS

A. The 2025 Mequon Thiensville Bike + Pedestrian Master Plan identifies Wauwatosa Road as a North-South Corridor and recommends adding a cycle track or buffered bike lane to address missing or substandard connections between the existing network.

B. The Wisconsin Department of Transportation evaluated improvements to multi-modal accommodations. For this high-speed, high volume State Trunk Highway arterial with 10-foot paved shoulders, WisDOT identified the need for both bicycle and pedestrian connectivity.

C. The Wisconsin Department of Transportation will include pavement markings to designate a 4-foot buffer space and 6-foot bike lane as a part of its pending construction project.

D. The Wisconsin Department of Transportation will bear the cost for installation as a part of the construction project, pending an agreement for the City of Mequon to maintain the pavement markings.

BASED UPON THE FOREGOING RECITALS, IT IS RESOLVED by the Common Council of the City of Mequon, Wisconsin that:

1. The Wisconsin Department of Transportation Application/Permit for Bike Lane Marking and Signing, in the form attached hereto is approved subject to any clerical, technical and/or legal changes deemed necessary and appropriate by the City Attorney.

2. The Mayor and the City Clerk are authorized and directed to execute and deliver the same.


Approved by: Andrew Nerbun, Mayor

Date Approved: August 12, 2025

I certify that the foregoing Resolution was adopted by the Common Council of the City of Mequon, Wisconsin, at a meeting held on August 12, 2025.

Caroline Fochs, City Clerk

Attachment: Res 4224 (10558 : WisDOT STH181 from County Line to Mequon Road Pavement Marking)

	STATE/MUNICIPAL	Date: August 12, 2024
	<u>MAINTENANCE</u>	ID: 2729-07-70
	AGREEMENT	Road Name: STH 181 Limits: County Line Rd to Mequon Rd County: Ozaukee

The signatory **City of Mequon**, hereinafter called the Municipality, through its undersigned duly authorized officers or officials, hereby requests the State of Wisconsin Department of Transportation, hereinafter called the State, to initiate and affect this agreement to include the associated maintenance responsibilities hereinafter described.

The authority for the Municipality to enter into this agreement with the State is provided by Section 84.07(1) of the Statutes. Wisconsin statutes, Wisconsin Administrative Code, and State policy serve as the defining documents for State Highway maintenance responsibilities.

DESCRIPTION OF FACILITY:

Facility description upon completion of State project – As determined by project ID 2729-07-70

This request shall constitute agreement between the Municipality and the State; is subject to the terms and conditions that follow (pages [2] – [3]); is made by the undersigned under proper authority to make such request for the designated Municipality and upon signature by the State, delivery to the Municipality. The initiation and signature of the agreement will be subject to all the applicable federal and state regulations. No term or provision of neither the State/Municipal Maintenance Agreement nor any of its attachments may be changed, waived or terminated orally but only by an instrument in writing executed by both parties to the State/Municipal Maintenance Agreement.

Signed for and in behalf of the City of Mequon (Please sign in blue ink)	
Name (print) <i>Andrew Neubun</i>	Title <i>Mayer</i>
Signature <i>[Handwritten Signature]</i>	Date <i>9/20/2024</i>
Signed for and in behalf of the State (Please sign in blue ink)	
Name Brian Roper	Title WisDOT SE Region Maintenance Chief
Signature Brian A. Roper	Date 10.16.24

Attachment: Res 4224 (10558 : WisDOT STH181 from County Line to Mequon Road Pavement Marking)

TERMS AND CONDITIONS:

1. In order to guarantee the Municipality's foregoing agreements to maintain the facility to State standards, the Municipality, through its above duly authorized officers or officials, agrees and authorizes the State to set off and withhold General Transportation Aids or monies otherwise due and payable by the State to the municipality, as determined by the State, for any maintenance the State must perform to the facility should the Municipality fail to comply with the agreement.
2. The State will not install any additional items, not necessitated for the safe and efficient flow of traffic, to a state highway facility without the Municipality agreeing to maintain those items. The State is responsible for maintaining any given highway facility under the State's jurisdiction including:
 - (a) The energy, operation, repair and replacement of traffic signals and associated street lighting required for the signalized intersections within the limits of this agreement for:
 1. Signalized intersections: County Line Road, Donges Bay Road, Mequon Road
 - (b) Signing and pavement marking necessitated for the safe and efficient flow of traffic except those items listed in #3.
 - (c) Drainage elements including curb and gutter, stormwater inlets, and storm sewer as well as street sweeping.
 - (d) Permitting authority of utilities and access control on all State Trunk, US, and Interstate Highways.
 - (e) Mowing of the following specified limits.
 1. STH 181 (County Line Road to Knights Bridge Dr.)
3. The Municipality shall at its own cost and expense maintain all portions within the specified limits of this agreement that lie within its jurisdiction for such maintenance through statutory requirements in a manner satisfactory to the State and shall make ample provision for such maintenance each year to include:
 - (a) Maintain sidewalks, pedestrian refuge islands and landscaping features, refer to attachment A.
 - (b) Remove snow and ice from sidewalks, and pedestrian refuge islands.
 - (c) Maintain clear right-of-way of all encroachments.
 - (d) Maintain crosswalk pavement markings at unsignalized intersections and mid-block crossings. The municipality shall obtain a permit with the State (contact Traffic Operations Unit (signing and marking)).
 - (e) Maintain signs and pavement markings not necessary for the safe and efficient movement of traffic (no parking signs, wayfinding signs, etc.). The municipality shall obtain a permit with the State (contact Traffic Operations Unit (signing and marking)).
 - (f) Maintain and accept responsibility for the following as applicable to this agreement:
 1. Retaining Walls: Located in NW quadrant at Mourning Dove Lane. Damages to walls caused by normal plowing operations or vehicle crashes shall be repaired or removed by the Municipality within 48 hrs.
 2. Grass: mowing, weed control, litter removal where landscaping was approved by permit, refer to Attachment B., from Knights Bridge Dr. to Mequon Rd. Note that the in Highway Right of Way Permit extends to N. Port Washington Road, beyond the limits of this improvement project.
 3. Landscaping: removal and replacement of dead plant material, pruning, watering; as permitted within the defined limits in the Work in Highway Right of Way Permit (Attachment B).
 4. Other: Utilities; Sanitary sewer and water.

4. The Municipality, within the specified limits, agrees to:
 - (a) Prohibit angle parking.
 - (b) Regulate parking along the highway. The Municipality will file a parking declaration with the State.
 1. Regulate or prohibit all parking at locations where and when the pavement area usually occupied by parked vehicles will be needed to carry active traffic in the street.
5. The Municipality will coordinate with the State to obtain any necessary Work on Right-of-Way Permits for maintenance performed on or within the state highway facility or state right-of-way.
6. The State or Municipality may request an amendment to this agreement to include specific features later requested by the Municipality throughout the design process.
7. Upon completion of construction project, 2729-07-70, the Municipality will assume all afore mentioned maintenance responsibilities.

APPLICATION/PERMIT FOR BIKE LANE MARKING AND SIGNING

Wisconsin Department of Transportation
DT2500 5/2011 s.86.07(2) Wis. Stats.

When approved, this permit documents the terms and conditions for use by the Municipality for installation and/or maintenance of bike lane marking and signing on highways under the jurisdiction of the Wisconsin Department of Transportation. The applicant must obtain this approved permit prior to marking and signing the bike lane.

Submit the completed application to the WisDOT Regional Office that has maintenance jurisdiction of the state trunk highway in the county where the marking will be located. A single application will be made for each continuous bike lane segment.

Applicant – Municipality City of Mequon		County Ozaukee
Mailing Address 11333 N. Cederburg Road Mequon, Wis 53092		Area Code – Telephone Number 262-236-2913 FAX Number
Type of Project <input checked="" type="checkbox"/> Improvement Project Agreement <input type="checkbox"/> Maintenance Permit <input type="checkbox"/> Retrofit Agreement		Project ID <input checked="" type="checkbox"/> Yes, Project # <u>2729-07-70</u> <input type="checkbox"/> No <input type="checkbox"/> N/A
Location: On Highway / Local Street Name STH 181	Intersecting Street From: W. County line road	To: Mequon Road
Type of Bike Lane Marking (design/dimensions) <input checked="" type="checkbox"/> Other (attach detail & reason)	(material) <input type="checkbox"/> Paint <input checked="" type="checkbox"/> Epoxy <input type="checkbox"/> Preformed Plastic <input type="checkbox"/> Preformed Thermoplastic <input type="checkbox"/> Other, (specify)	Speed Limit 45 mph
Operational Features <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Edge Line <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Symbols <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Words <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Signs	Description/Type of Marking and Signing project id 2729-07-70 - bike lane with symbols and arrows and R3-17 bike lane signing	
Reasons for Bike Lane Marking and Signing		

Marking and Signing Installation Conditions

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. By entering into this agreement, the Municipality agrees to the terms and cost arrangements in this policy document. 2. The design, installation and operation shall comply with Chapter 9 of the Wisconsin Manual of Uniform Traffic Control Devices. 3. During the installation and/or maintenance, the permittee shall follow all pertinent provisions for work zone traffic control as provided in Part 6 of the Wisconsin Manual of Uniform Traffic Control Devices. 4. The permittee shall coordinate the installation with the WisDOT Regional Office and other right-of-way users (i.e., utilities, adjacent property owners, etc.), unless other arrangements have been made. 5. The permittee shall repair any damage to the pavement and/or right-of-way caused by installation or maintenance | <ol style="list-style-type: none"> 6. The permittee shall notify WisDOT after layout of the authorized work has been completed, but prior to the installation of any markings. 7. Permitted facilities shall be located as defined within this permit. Any part of the facility found to be otherwise located shall be subject to correction by and at the cost of the applicant to such extent as the WisDOT Regional Office may specify. 8. The permittee should be aware that future upgrading of the highway will remove the permitted marking and signing. A future permit will be needed to replace the marking and signing. 9. Right of way permit |
|--|---|

It is understood and agreed that approval is subject to the applicant's full compliance with the pertinent Statutes, as well as any codes, rules, regulations, and permit requirements of other jurisdictional agencies. The applicant shall also comply with all permit conditions, superimposed notes, and detail drawings, which may be added by WisDOT. Any alteration of this form by the applicant is prohibited and may be cause to revoke this permit.

The undersigned certifies that he/she is authorized to sign this application on behalf of the named unit of government.

X

 (Authorized Representative) (Title) (Date)

Approved for the Wisconsin Department of Transportation

Permit Number = Region (NC, NE, NW, SE, or SW) – County Number – Three-digit, consecutive permit number

Permit Number SE-45-Bike 1	X
	(Regional Authorized Representative) (Area Code - Telephone Number) (Date)

Attachment: Res 4224 (10558 : WisDOT STH181 from County Line to Mequon Road Pavement Marking)

INDEMNIFICATION

The Applicant shall save and hold the State, its officers, employees, agents, and all private and governmental contractors and subcontractors with the State under Chapter 84 Wisconsin Statutes, harmless from actions of any nature whatsoever (including any by Applicant itself) which arise out of, or are connected with, or are claimed to arise out of or be connected with any of the work done by the Applicant, or the construction or maintenance of facilities by the Applicant, pursuant to this permit or any other permit issued by the State for location of property, lines or facilities on highway right-of-way, (1) while the Applicant is performing its work, or (2) while any of the Applicant's property, equipment, or personnel, are in or about such place or the vicinity thereof, or (3) while any property constructed, placed or operated by or on behalf of Applicant remains on the State's property or right-of-way pursuant to this permit or any other permit issued by the State for location of property, lines or facilities on highway right-of-way; including without limiting the generality of the foregoing, all liability, damages, loss, expense, claims, demands and actions on account of personal injury, death or property loss to the State, its officers, employees, agents, contractors, subcontractors or frequenters; to the Applicant, its employees, agents, contractors, subcontractors, or frequenters; or to any other persons, whether based upon, or claimed to be based upon, statutory (including, without limiting the generality of the foregoing, worker's compensation), contractual, tort, or whether or not caused or claimed to have been caused by active or inactive negligence or other breach of duty by the State, its officers, employees, agents, contractors, subcontractors or frequenters; Applicant, its employees, agents, contractors, subcontractors or frequenters; or any other person. Without limiting the generality of the foregoing, the liability, damage, loss, expense, claims, demands and actions indemnified against shall include all liability, damage, loss, expense, claims, demands and actions for damage to any property, lines or facilities placed by or on behalf of the Applicant pursuant to this permit or any other permit issued by the State for location of property, lines or facilities on highway right-of-way in the past or present, or that are located on any highway or State property or right-of-way with or without a permit issued by the State, for any loss of data, information, or material; for trademark, copyright or patent infringement; for unfair competition or infringement of personal or property rights of any kind whatever. The Applicant shall at its own expense investigate all such claims and demands, attend to their settlement or other disposition, defend all actions based thereon and pay all charges of attorneys and all other costs and expenses of any kind arising from any such liability, damage, loss, claims, demands and actions.

Any transfer, whether voluntary or involuntary, of ownership or control of any property constructed, placed or operated by or on behalf of the Applicant that remains on the State's property or right-of-way pursuant to this permit shall not release Applicant from any of the indemnification requirements of this permit, unless the State is notified of such transfer in writing. Any acceptance by any other person or entity, whether voluntary or involuntary, of ownership or control of any property constructed, placed or operated by or on behalf of the Applicant that remains on the State's property or right-of-way pursuant to this permit, shall include acceptance of all of the indemnification requirements of this permit by the other person or entity receiving ownership or control.

Notwithstanding the foregoing, a private contractor or subcontractor with the State under Chapter 84 Wisconsin Statutes, that fails to comply with sections 66.047 and 182.0175 Wisconsin Statutes (1985-1986), remains subject to the payment to the Applicant of the actual cost of repair of intentional or negligent damage by the contractor or subcontractor to any property, lines or facilities placed by or on behalf of the Applicant pursuant to this permit or any other permit issued by the State for location of property, lines or facilities on highway right-of-way, and remains subject to payment to the Applicant for losses due to personal injury or death resulting from negligence by the contractor or subcontractor.

Notwithstanding the foregoing, if the State, or its officers, employees and agents, fail to comply with sections 66.047 and 182.0175 Wisconsin Statutes (1985-1986), the State or its officers, employees and agents, remain subject to the payment to the Applicant of the actual cost of repair of willful and intentional damage by the State, or its officers, employees and agents, to any property, lines or facilities placed by or on behalf of the Applicant pursuant to this permit or any other permit issued by the State for location of property, lines or facilities on highway right-of-way, and remain subject to payment to the Applicant for losses due to personal injury or death resulting from negligence by the State, its officers, employees and agents.

No indemnification of private contractors or subcontractors with the State under Chapter 84 Wisconsin Statutes, shall apply in the event of willful and intentional damage by such private contractors or subcontractors to the property, lines and facilities of the Applicant located on the highway right-of-way pursuant to this permit or any other permit issued by the State for the location of property, lines or facilities on highway right-of-way.

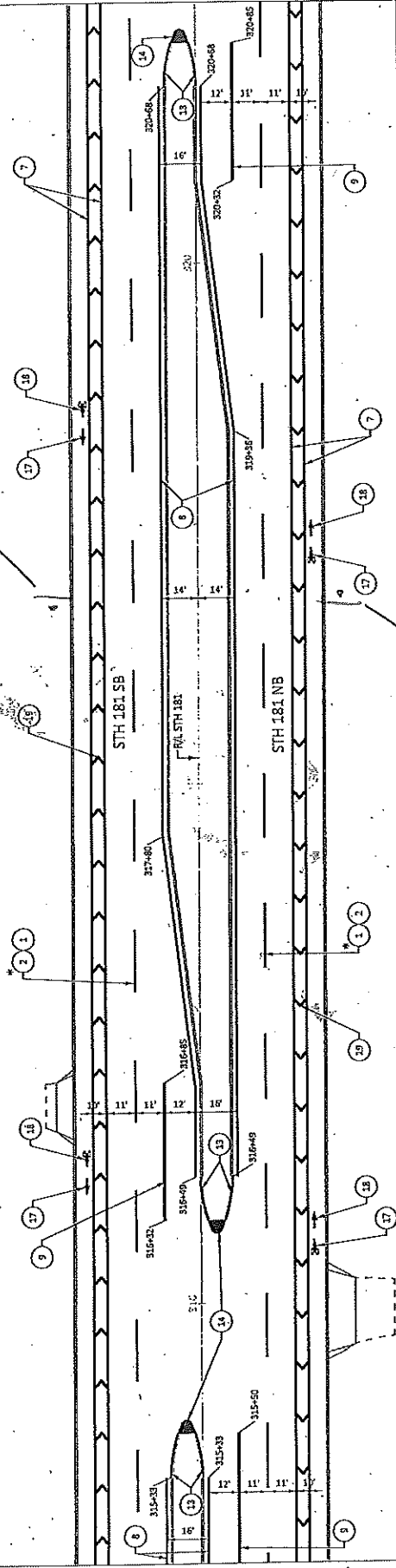
2

MATCH LINE 321+00



NOTE: PROPOSED LINENWORK IS SCREENED FOR CLARITY

R3-17



- LEGEND**
- 1 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (22.5 FT LINE 37.5 FT STOP)
 - 2 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (22.5 FT LINE 37.5 FT STOP)
 - 3 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (9 FT LINE 9 FT STOP)
 - 4 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (9 FT LINE 9 FT STOP)
 - 5 MARKING LINE GROOVED WET REF EPOXY 10-INCH (DASHED WHITE) (9 FT LINE 9 FT STOP)
 - 6 MARKING LINE GROOVED BLACK EPOXY 10-INCH (DASHED BLACK) (9 FT LINE 9 FT STOP)
 - 7 MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
 - 8 MARKING LINE GROOVED WET REF CONTRAST EPOXY 10-INCH (WHITE)
 - 9 MARKING STOP LINE EPOXY 18-INCH (WHITE)
 - 10 MARKING STOP LINE EPOXY 18-INCH (WHITE) * SEE "PERMANENT LONGITUDINAL PAVEMENT MARKINGS" STANDARD DETAIL DRAWING
 - 11 MARKING WORD EPOXY (WHITE)
 - 12 MARKING ARROW EPOXY TYPE 2 (WHITE)
 - 13 MARKING CURB EPOXY (YELLOW)
 - 14 MARKING ISLAND NOSE EPOXY (YELLOW)
 - 15 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
 - 16 MARKING YIELD LINE EPOXY 18-INCH (WHITE)
 - 17 MARKING ARROWS (BIKE LANE ARROW)
 - 18 MARKING SYMBOLS (BIKE LANE SYMBOL)
 - 19 MARKING DIAGONAL 12-INCH (WHITE)

PROJECT NO: 2729-07-70	COUNTY: OZAUKEE	HWY: STH 181	SHEET
FILE NAME: W:\PROJECTS\2729-07-70\2729-07-70-PAV.DWG	DATE: 6/2/2013 10:42 AM	PLT SCALE: 1"=40' FT	NO: 07/2013/PAV.DWG
PAVEMENT MARKING		PLT SCALE: 1"=40' FT	

Attachment: Res 4224 (10558 : WisDOT STH181 from County Line to Mequon Road Pavement Marking)

NOTE: PROPOSED LINENWORK IS SCREENED FOR CLARITY

2

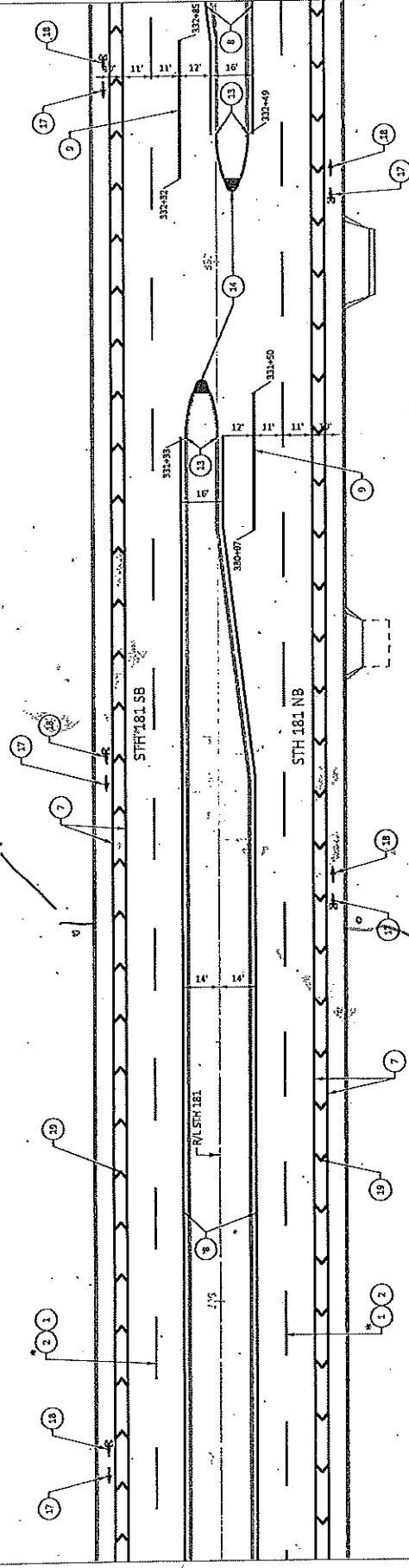
MATCH LINE 333+00

2



R3217

R3217



LEGEND

- 1 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (22.5 FT LINE 37.5 FT SKIP)
- 2 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (22.5 FT LINE 37.5 FT SKIP)
- 3 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (9 FT LINE 9 FT SKIP)
- 4 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (9 FT LINE 9 FT SKIP)
- 5 MARKING LINE GROOVED WET REF EPOXY 20-INCH (DASHED WHITE) (9 FT LINE 9 FT SKIP)
- 6 MARKING LINE GROOVED BLACK EPOXY 20-INCH (DASHED BLACK) (9 FT LINE 9 FT SKIP)
- 7 MARKING LINE EPOXY 6-INCH (WHITE)
- 8 MARKING LINE EPOXY 6-INCH (YELLOW)
- 9 MARKING LINE GROOVED WET REF CONTRAST EPOXY 20-INCH (WHITE)
- 10 MARKING STOP LINE EPOXY 2-INCH (WHITE)
- 11 MARKING WORD EPOXY (WHITE)
- 12 MARKING ARROW EPOXY TYPE 2 (WHITE)
- 13 MARKING CURB EPOXY (YELLOW)
- 14 MARKING ISLAND NOSE EPOXY (YELLOW)
- 15 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- 16 MARKING YIELD LINE EPOXY 2-INCH (WHITE)
- 17 MARKING ARROWS (BIKE LANE ARROW)
- 18 MARKING SYMBOLS (BIKE LANE SYMBOL)
- 19 MARKING DIAGONAL 2-INCH (WHITE)

* SEE "PERMANENT LONGITUDINAL PAVEMENT MARKINGS" STANDARD DETAIL DRAWING

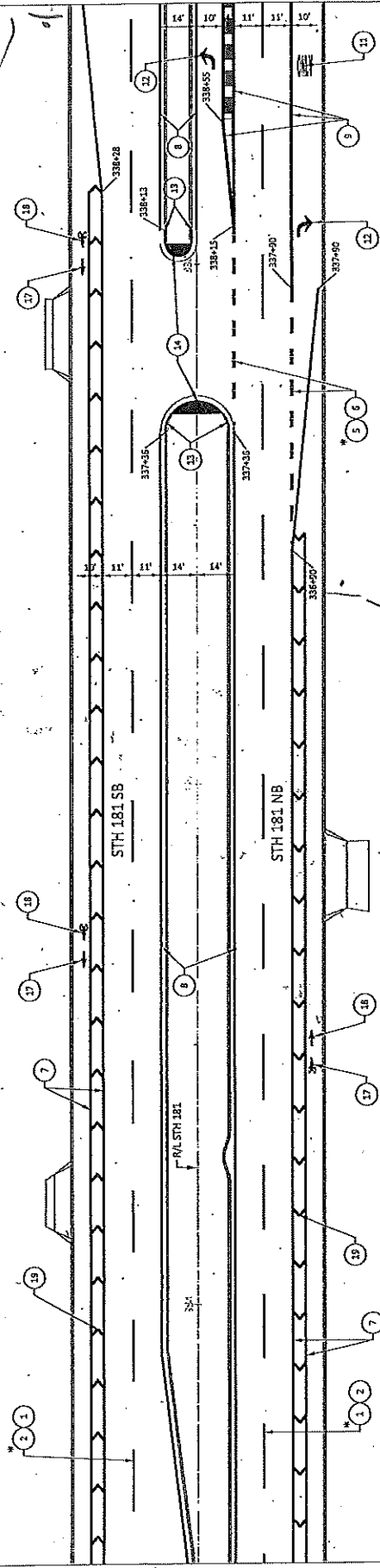
PROJECT NO: 2729-07-70	COUNTY: DZAUKEE	PAVEMENT MARKING	SHEET
FILE NAME: \\N:\PROJECTS\2729-07-70\2729-07-70-PAVEMENT MARKING-PLAN\DWG	PLANT DATE: 6/27/2023 10:52 AM	PLANT BY: WANG, WANG, HONG	PLANT SCALE: 1/8"=1'-0"
PROJECT NAME: LAYOUT MARK - PLAN	PLANT DATE: 6/27/2023 10:52 AM	PLANT BY: WANG, WANG, HONG	PLANT SCALE: 1/8"=1'-0"
HWY: STH 181			E

2

MATCH LINE 339+00



R3-17
+ Ahead



NOTE: PROPOSED LINEWORK IS SCREENED FOR CLARITY

- LEGEND**
- 1 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (14.5 FT LINE 37.5 FT SKIP)
 - 2 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (14.5 FT LINE 37.5 FT SKIP)
 - 3 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)
 - 4 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP)
 - 5 MARKING LINE GROOVED WET REF EPOXY 10-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)
 - 6 MARKING LINE GROOVED BLACK EPOXY 10-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP)
 - 7 MARKING LINE EPOXY 6-INCH (WHITE)
 - 8 MARKING LINE EPOXY 6-INCH (YELLOW)
 - 9 MARKING LINE GROOVED WET REF CONTRAST EPOXY 10-INCH (WHITE)
 - 10 MARKING STOP LINE EPOXY 18-INCH (WHITE)
 - 11 MARKING WORD EPOXY (WHITE)
 - 12 MARKING ARROW EPOXY TYPE 2 (WHITE)
 - 13 MARKING CURB EPOXY (YELLOW)
 - 14 MARKING ISLAND NOSE EPOXY (YELLOW)
 - 15 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
 - 16 MARKING YIELD LINE EPOXY 18-INCH (WHITE)
 - 17 MARKING ARROWS (BICE LAINE ARROW)
 - 18 MARKING SYMBOLS (BICE LAINE SYMBOL)
 - 19 MARKING DIAGONAL 12-INCH (WHITE)

* SEE PERMANENT LONGITUDINAL PAVEMENT MARKINGS STANDARD DETAIL DRAWING

2

MATCH LINE 339+00

EE

SHEET

WISDOT/ROAD-PRCT 42

PLOT SCALE: 1"=50 FT

PLOT NAME:

PLOT DTB: YARD, VANG, WENG

PLOT DATE: 6/27/2013 10:52 AM

COUNTY: OZAUKEE

HWY: STH 181

PROJECT NO: 2725-07-70

FILE NAME: R:\PROJECTS\2009\07\2725-07-70\SPRINT\PAVEMENT MARKING LAYOUT\NAME - P113

Attachment: Res 4224 (10558 : WisDOT STH181 from County Line to Mequon Road Pavement Marking)

2

MATCH LINE 395+00

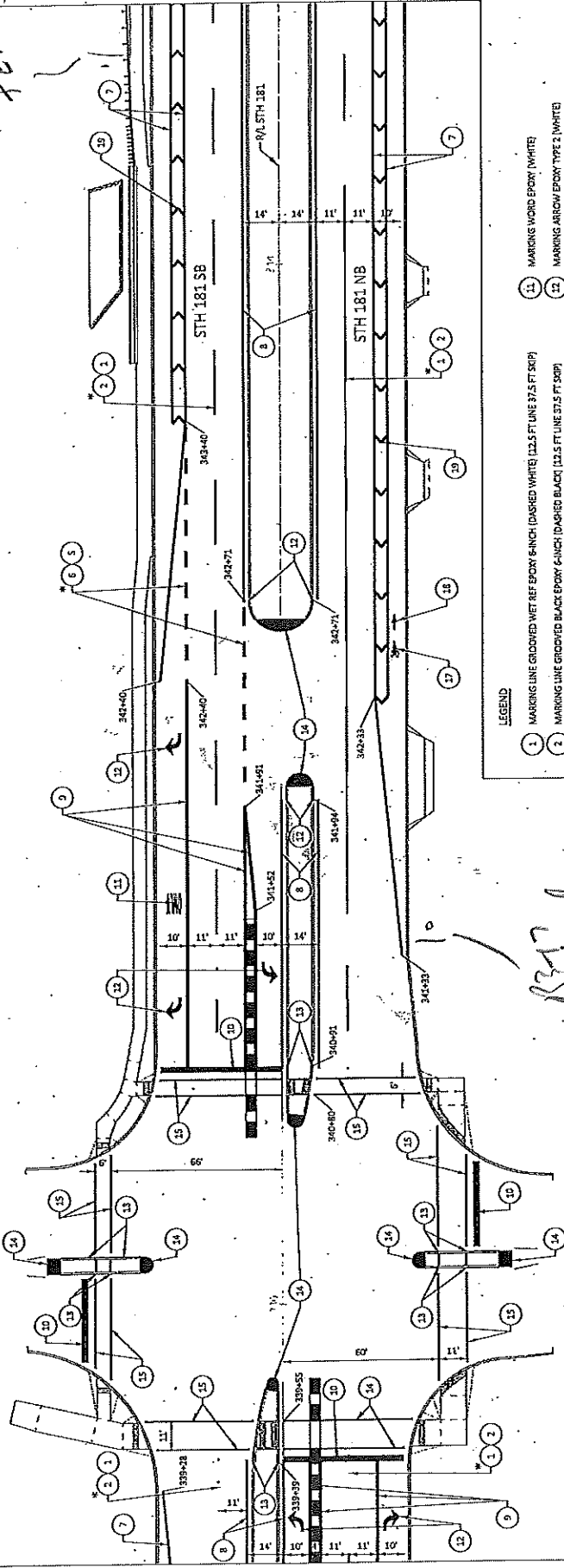


*R3-10
+ EMD*

W DONGES
BAY RD

W DONGES
BAY RD

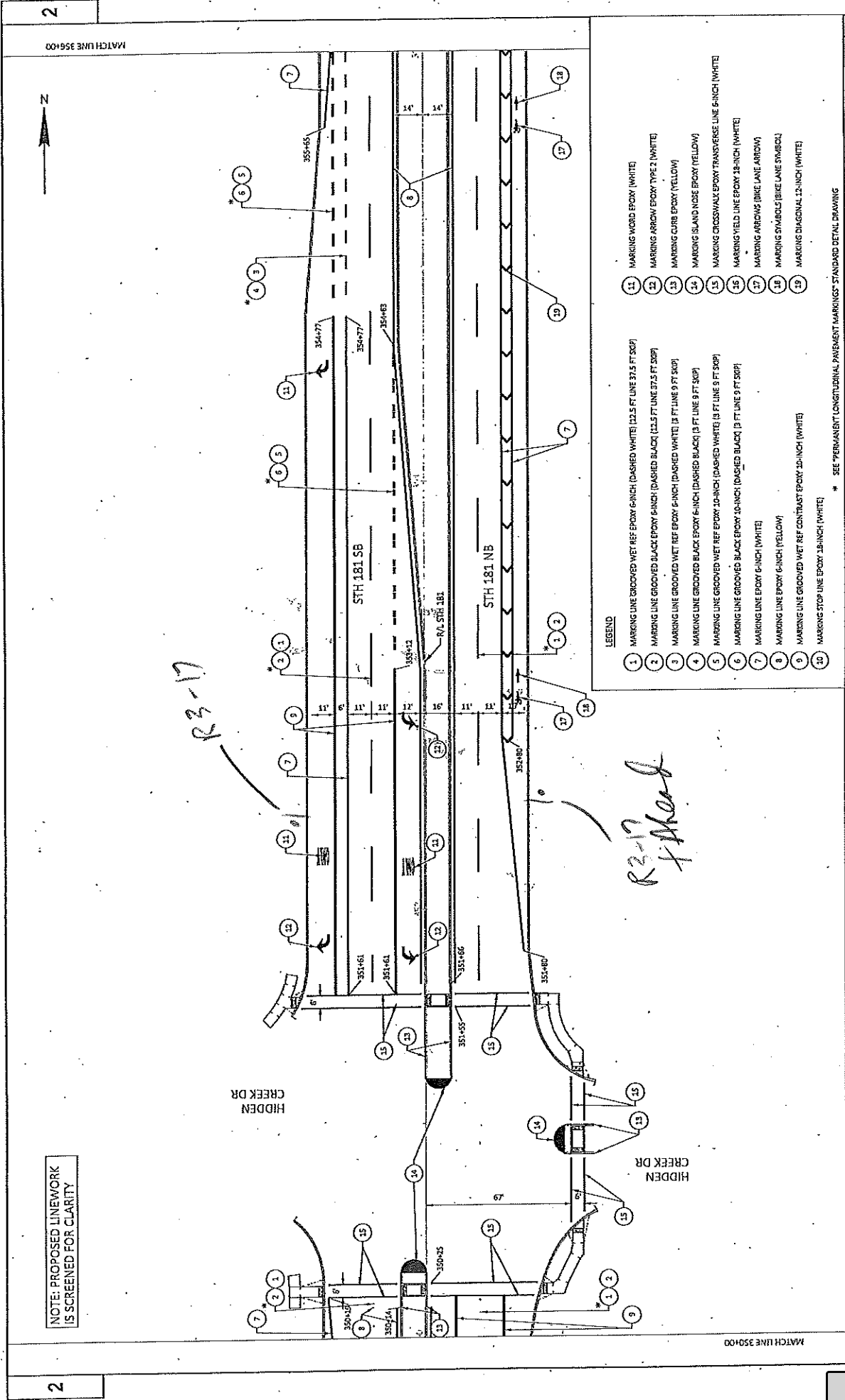
NOTE: PROPOSED LINEWORK
IS SCREENED FOR CLARITY



- LEGEND**
- 1 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (22.5 FT LINE 37.5 FT SKIP)
 - 2 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (22.5 FT LINE 37.5 FT SKIP)
 - 3 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)
 - 4 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP)
 - 5 MARKING LINE GROOVED WET REF EPOXY 10-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)
 - 6 MARKING LINE GROOVED BLACK EPOXY 10-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP)
 - 7 MARKING LINE EPOXY 6-INCH (WHITE)
 - 8 MARKING LINE EPOXY 6-INCH (YELLOW)
 - 9 MARKING LINE GROOVED WET REF CONTRAST EPOXY 10-INCH (WHITE)
 - 10 MARKING STOP LINE EPOXY 18-INCH (WHITE)
 - 11 MARKING WORD EPOXY (WHITE)
 - 12 MARKING ARROW EPOXY TYPE 2 (WHITE)
 - 13 MARKING CURB EPOXY (YELLOW)
 - 14 MARKING ISLAND NOSE EPOXY (YELLOW)
 - 15 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
 - 16 MARKING YIELD LINE EPOXY 18-INCH (WHITE)
 - 17 MARKING ARROWS (BIKE LANE ARROW)
 - 18 MARKING SYMBOLS (BIKE LANE SYMBOL)
 - 19 MARKING DIAGONAL 12-INCH (WHITE)
- * SEE PERMANENT LONGITUDINAL PAVEMENT MARKINGS STANDARD DETAIL DRAWING

2

PROJECT NO: 2729-07-70	COUNTY: OZAUKEE	PAVEMENT MARKING	SHEET
FILE NAME: W:\DOT\377000\SHEETS\PAV\2729-07-70\PAV.MXD	PLOT BY: WANG, WANG, NSUG	PLOT NAME:	WISDOT\GORDON.PWC24
DATE: 6/27/2013 10:24 AM	PLOT DATE: 6/27/2013 10:24 AM	PLOT SCALE: 1"=60' FT	

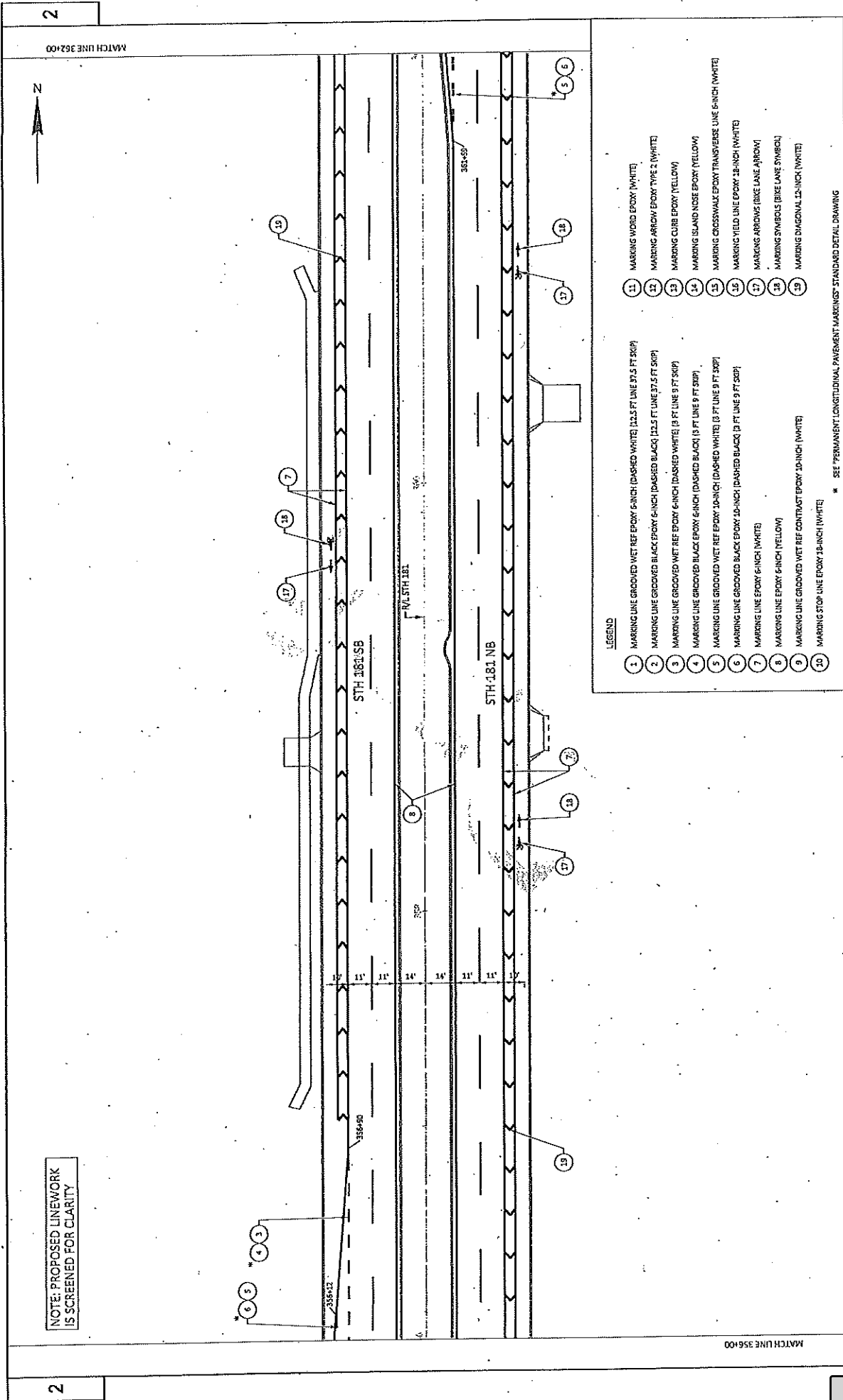


NOTE: PROPOSED LINENWORK IS SCREENED FOR CLARITY

- LEGEND**
- 1 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (22.5 FT LINE 37.5 FT STOP)
 - 2 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (22.5 FT LINE 37.5 FT STOP)
 - 3 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (9 FT LINE 9 FT STOP)
 - 4 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (9 FT LINE 9 FT STOP)
 - 5 MARKING LINE GROOVED WET REF EPOXY 10-INCH (DASHED WHITE) (9 FT LINE 9 FT STOP)
 - 6 MARKING LINE GROOVED BLACK EPOXY 10-INCH (DASHED BLACK) (9 FT LINE 9 FT STOP)
 - 7 MARKING LINE EPOXY 6-INCH (WHITE)
 - 8 MARKING LINE EPOXY 6-INCH (YELLOW)
 - 9 MARKING LINE GROOVED WET REF CONTRAST EPOXY 30-INCH (WHITE)
 - 10 MARKING STOP LINE EPOXY 30-INCH (WHITE)
 - 11 MARKING WORD EPOXY (WHITE)
 - 12 MARKING ARROW EPOXY TYPE 2 (WHITE)
 - 13 MARKING CURB EPOXY (YELLOW)
 - 14 MARKING ISLAND NOSE EPOXY (YELLOW)
 - 15 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
 - 16 MARKING YIELD LINE EPOXY 18-INCH (WHITE)
 - 17 MARKING ARROWS (BIKE LAKE ARROW)
 - 18 MARKING SYMBOL (BIKE LAKE SYMBOL)
 - 19 MARKING DIAGONAL 12-INCH (WHITE)

PROJECT NO: 2729-07-70	COUNTY: OZAUKEE	HWY: STH 181	SHEET
FILE NAME: H:\PROJECTS\2729-07-70\SETUP\PLAN\2729-07-70-PAV.DWG	DATE: 6/27/2013 10:23 AM	PLT BY: WANG, WANG, HENG	1 OF 6 FT
LAYOUT NAME: PAVE	PROJECT NAME:	PLT SCALE: 1"=100'	WISDOT CROSS SECT 42

Attachment: Res 4224 (10558 : WisDOT STH181 from County Line to Mequon Road Pavement Marking)



NOTE: PROPOSED LINWORK IS SCREENED FOR CLARITY

- LEGEND**
- 1 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) [12.5 FT LINE 30.5 FT SKIP]
 - 2 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) [12.5 FT LINE 37.5 FT SKIP]
 - 3 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) [9 FT LINE 9 FT SKIP]
 - 4 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) [9 FT LINE 9 FT SKIP]
 - 5 MARKING LINE GROOVED WET REF EPOXY 10-INCH (DASHED WHITE) [9 FT LINE 9 FT SKIP]
 - 6 MARKING LINE GROOVED BLACK EPOXY 10-INCH (DASHED BLACK) [9 FT LINE 9 FT SKIP]
 - 7 MARKING LINE EPOXY 6-INCH (WHITE)
 - 8 MARKING LINE EPOXY 6-INCH (YELLOW)
 - 9 MARKING LINE GROOVED WET REF CONTRAST EPOXY 10-INCH (WHITE)
 - 10 MARKING STOP LINE EPOXY 18-INCH (WHITE)
 - 11 MARKING WORD EPOXY (WHITE)
 - 12 MARKING ARROW EPOXY TYPE 2 (WHITE)
 - 13 MARKING CURB EPOXY (YELLOW)
 - 14 MARKING SLAND ANGLE EPOXY (YELLOW)
 - 15 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
 - 16 MARKING YIELD LINE EPOXY 18-INCH (WHITE)
 - 17 MARKING ARROWS (BLUE LANE ARROW)
 - 18 MARKING SYMBOLS (BLUE LANE SYMBOL)
 - 19 MARKING DIAGONAL 12-INCH (WHITE)
- * SEE PERMANENT LONGITUDINAL PAVEMENT MARKINGS STANDARD DETAIL DRAWING

PROJECT NO: 2729-07-70 COUNTY: OZAUKEE HWY: STH 181 SHEET: 1 OF 1
 FILE NAME: N:\PROJECTS\27290706\GHEP\PLAN\02501-PAVING LAYOUT\NAME-PM17 PLOT DATE: 6/2/2023 10:33 AM PLOT NAME: PAVING MARKS SHEET 42
 MATCH LINE 356+00 MATCH LINE 356+00

2

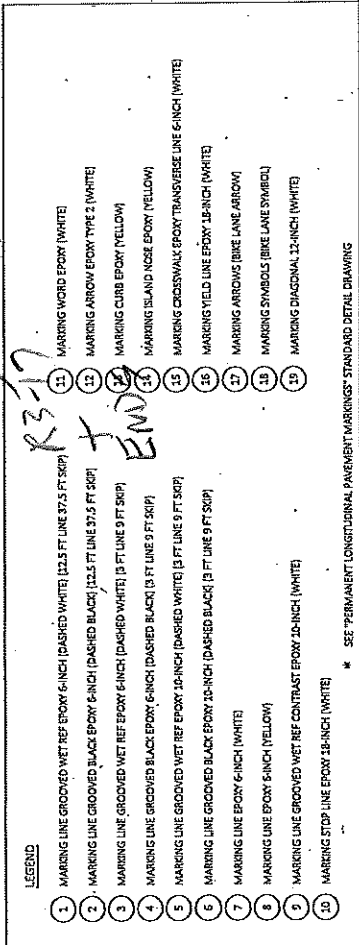
MATCH LINE 368+00



N ESSEX DR

N ESSEX DR

R3-17



LEGEND

- 1 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) [12.5 FT LINE 37.5 FT SKIP]
- 2 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) [12.5 FT LINE 37.5 FT SKIP]
- 3 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) [9 FT LINE 9 FT SKIP]
- 4 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) [9 FT LINE 9 FT SKIP]
- 5 MARKING LINE GROOVED WET REF EPOXY 18-INCH (DASHED WHITE) [9 FT LINE 9 FT SKIP]
- 6 MARKING LINE GROOVED BLACK EPOXY 18-INCH (DASHED BLACK) [9 FT LINE 9 FT SKIP]
- 7 MARKING LINE EPOXY 6-INCH (WHITE)
- 8 MARKING LINE EPOXY 6-INCH (YELLOW)
- 9 MARKING LINE GROOVED WET REF CONTRAST EPOXY 18-INCH (WHITE)
- 10 MARKING STOP LINE EPOXY 18-INCH (WHITE)
- 11 MARKING WORD EPOXY (WHITE)
- 12 MARKING ARROW EPOXY TYPE 2 (WHITE)
- 13 MARKING CURB EPOXY (YELLOW)
- 14 MARKING ISLAND NOSE EPOXY (YELLOW)
- 15 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- 16 MARKING YIELD LINE EPOXY 18-INCH (WHITE)
- 17 MARKING ARROWS (BIKE LANE ARROW)
- 18 MARKING SYMBOLS (BIKE LANE SYMBOL)
- 19 MARKING DIAGONAL 12-INCH (WHITE)

* SEE PERMANENT LONGITUDINAL PAVEMENT MARKINGS STANDARD DETAIL DRAWING

NOTE: PROPOSED LINENWORK IS SCREENED FOR CLARITY

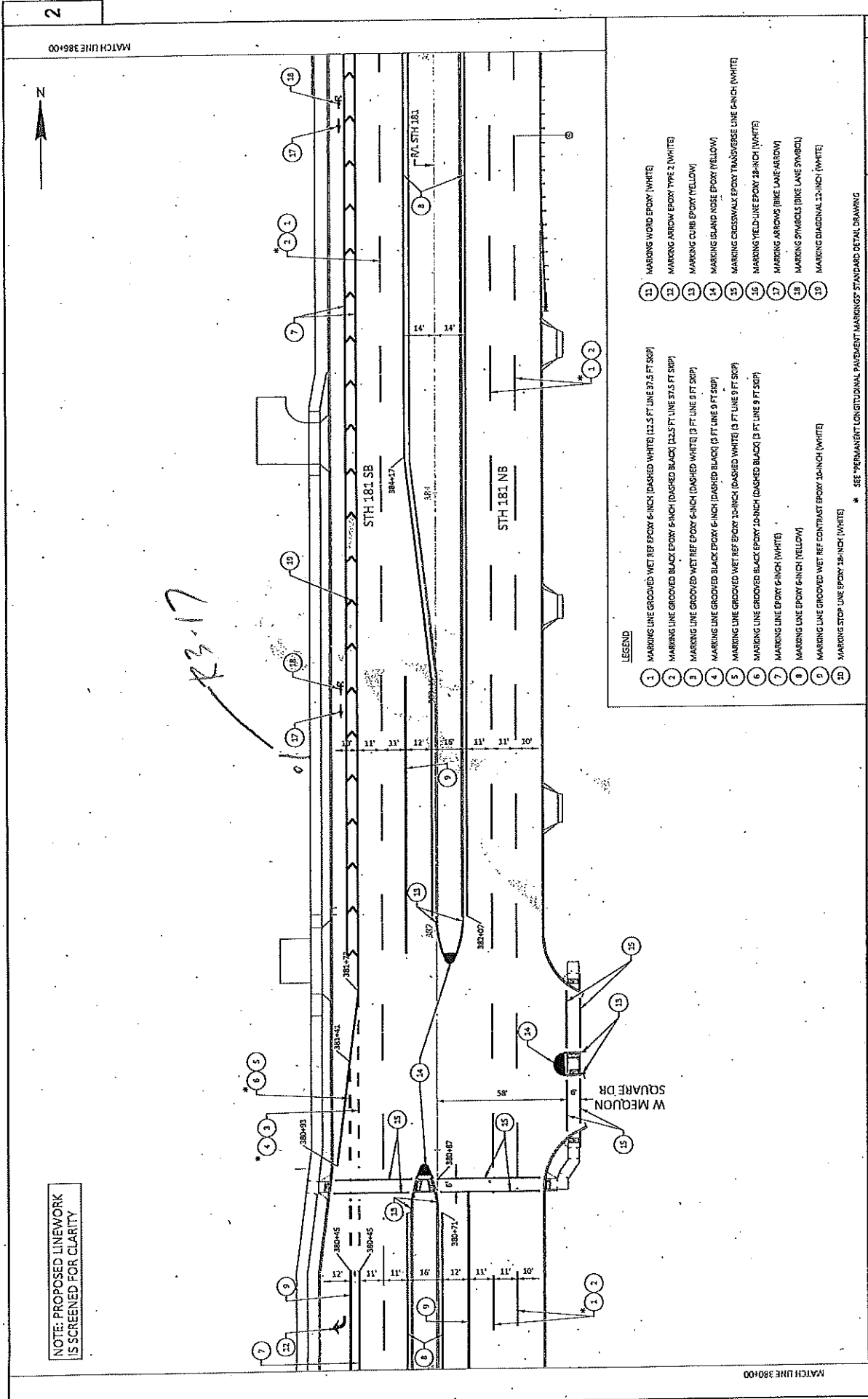
2

MATCH LINE 362+00

PROJECT NO: 2729-07-70
 COUNTY: OZAUKEE
 HWY: STH 181
 SHEET: E1

FILE NAME: N:\PROJECTS\272907\07\08\ASPECT\PLAN\2729-07-70-PAK.DWG
 LAYOUT NAME: PH18
 PLOT DATE: 6/27/2013 2:03:38 AM
 PLOT BY: YANG, WANG, HENG
 PLOT NAME: PAVEMENT MARKING
 PLOT SCALE: 1 IN=40 FT
 SHEET: 1 OF 43

Attachment: Res 4224 (10558 : WisDOT STH181 from County Line to Mequon Road Pavement Marking)



Attachment: Res 4224 (10558 : WisDOT STH181 from County Line to Mequon Road Pavement Marking)



RE: 2729-07-00/20/70 STH 181 West Allis - Cedarburg, County Line Road to Mequon Road, Ozaukee and Milwaukee Counties - RE: Wauwatosa Road Improvements

From Heydel, Tom - DOT <Tom.Heydel@dot.wi.gov>

Date Tue 6/24/2025 12:53 PM

To Villaca, Martin - DOT <Martin.Villaca@dot.wi.gov>

Cc Kristen Lundeen <KLundeen@cityofmequonwi.gov>; Levy, Andrew J - DOT <Andrew.Levy@dot.wi.gov>; Cole McCraw <CMcCraw@cityofmequonwi.gov>; DeGrado, Alena - DOT <alena.degrado@dot.wi.gov>; McElmeel, Timothy J - DOT <Timothy.McElmeel@dot.wi.gov>; Schmitz, Kiley - DOT <kiley.schmitz@dot.wi.gov>; LeVeque, Joshua - DOT <Joshua.LeVeque@dot.wi.gov>; Yang, Neng - DOT <Neng.Yang@dot.wi.gov>; Herrick, Richard - DOT <Richard.Herrick@dot.wi.gov>; Ken Maciolek <seniorbikeboy@gmail.com>; Martens, Karen L - DOT <Karen.Martens@dot.wi.gov>

Martin

You have stated it correctly. WisDOT will install buffered bike lanes and bike symbols as part of a construction project; but we don't maintain them. Municipality has to agree to maintain them before we can include them with the project

Same holds true for crosswalk marking at unsignalized locations
At signalized locations we maintain 2-6" crosswalk lines

Tom

From: Villaca, Martin - DOT <Martin.Villaca@dot.wi.gov>

Sent: Tuesday, June 24, 2025 12:50 PM

To: Cole McCraw <CMcCraw@cityofmequonwi.gov>; Heydel, Tom - DOT <Tom.Heydel@dot.wi.gov>; Martens, Karen L - DOT <Karen.Martens@dot.wi.gov>

Cc: Kristen Lundeen <KLundeen@cityofmequonwi.gov>; Levy, Andrew J - DOT <Andrew.Levy@dot.wi.gov>; DeGrado, Alena - DOT <alena.degrado@dot.wi.gov>; McElmeel, Timothy J - DOT <Timothy.McElmeel@dot.wi.gov>; Schmitz, Kiley - DOT <kiley.schmitz@dot.wi.gov>; LeVeque, Joshua - DOT <Joshua.LeVeque@dot.wi.gov>; Yang, Neng - DOT <Neng.Yang@dot.wi.gov>; Herrick, Richard - DOT <Richard.Herrick@dot.wi.gov>; Ken Maciolek <seniorbikeboy@gmail.com>

Subject: RE: 2729-07-00/20/70 STH 181 West Allis - Cedarburg, County Line Road to Mequon Road, Ozaukee and Milwaukee Counties - RE: Wauwatosa Road Improvements

Cole – My understanding is WisDOT maintains lane lines, edge lines, stop bars, etc., on State Highways. However, for special markings such as crosswalks and buffered bike lanes, WisDOT installs them at our expense, but subsequent maintenance of these types of markings would be the responsibility of the municipality. Also, we can further refine/evaluate if the markings are only needed between Donges Bay and Mequon Road (1 mile), or if they are needed from County Line to Mequon Road (2 miles). I think the draft marking plan we sent had the entire 2-mile corridor.

Tom, Karen, can you clarify or elaborate on the City's question about maintenance of the crosswalk and bike markings?

Thanks,

Martin B. Villaca, P.E.

Project Manager

(262) 548-6456 cell (414) 750-0426

martin.villaca@dot.wi.gov

Wisconsin Department of Transportation

141 NW Barstow ST.

Waukesha, WI 53187

From: Cole McCraw <CMcCraw@cityofmequonwi.gov>**Sent:** Tuesday, June 24, 2025 12:32 PM**To:** Villaca, Martin - DOT <Martin.Villaca@dot.wi.gov>**Cc:** Kristen Lundeen <KLundeen@cityofmequonwi.gov>; Levy, Andrew J - DOT <Andrew.Levy@dot.wi.gov>;DeGrado, Alena - DOT <alena.degrado@dot.wi.gov>; McElmeel, Timothy J - DOT<Timothy.McElmeel@dot.wi.gov>; Schmitz, Kiley - DOT <kiley.schmitz@dot.wi.gov>; LeVeque, Joshua - DOT<Joshua.LeVeque@dot.wi.gov>; Yang, Neng - DOT <Neng.Yang@dot.wi.gov>; Herrick, Richard - DOT<Richard.Herrick@dot.wi.gov>; Heydel, Tom - DOT <Tom.Heydel@dot.wi.gov>; Martens, Karen L - DOT<Karen.Martens@dot.wi.gov>; Ken Maciolek <seniorbikeboy@gmail.com>**Subject:** Re: 2729-07-00/20/70 STH 181 West Allis - Cedarburg, County Line Road to Mequon Road, Ozaukee and Milwaukee Counties - RE: Wauwatosa Road Improvements**CAUTION:** This email originated from outside the organization.

Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Martin,

Thank you for your response. You mentioned "an agreement for the City of Mequon to maintain the markings would be needed and will be submitted under separate cover."

The City does not maintain pavement markings elsewhere on state highways. Can you clarify if or why this is needed?

Thanks,
Cole

**Cole McCraw, PE**

Assistant City Engineer

City of Mequon

11333 N. Cedarburg Rd. | Mequon, WI 53092

262-236-2957 | cmccraw@cityofmequonwi.gov[City Website](#) | [Facebook](#)

Please Note: The City of Mequon is transitioning its website and email addresses to cityofmequonwi.gov. Emails sent to/from the City's prior ci.mequon.wi.us addresses will forward to the new cityofmequonwi.gov domain through January 31, 2026. Please update your records accordingly.

From: Villaca, Martin - DOT <Martin.Villaca@dot.wi.gov>

Sent: Thursday, June 12, 2025 2:00 PM

To: Ken Maciolek <seniorbikeboy@gmail.com>

Cc: Cole McCraw <CMcCraw@cityofmequonwi.gov>; Kristen Lundeen <KLundeen@cityofmequonwi.gov>; Levy, Andrew J - DOT <Andrew.Levy@dot.wi.gov>; DeGrado, Alena - DOT <alena.degrado@dot.wi.gov>; McElmeel, Timothy J - DOT <Timothy.McElmeel@dot.wi.gov>; Schmitz, Kiley - DOT <kiley.schmitz@dot.wi.gov>; LeVeque, Joshua - DOT <Joshua.LeVeque@dot.wi.gov>; Yang, Neng - DOT <Neng.Yang@dot.wi.gov>; Herrick, Richard - DOT <Richard.Herrick@dot.wi.gov>; Heydel, Tom - DOT <Tom.Heydel@dot.wi.gov>; Martens, Karen L - DOT <Karen.Martens@dot.wi.gov>

Subject: 2729-07-00/20/70 STH 181 West Allis - Cedarburg, County Line Road to Mequon Road, Ozaukee and Milwaukee Counties - RE: Wauwatosa Road Improvements

Dear Ken:

Thank you again for connecting regarding the referenced project, as well as the Joint Mequon-Thiensville Bike and Pedestrian Master Plan, which I understand was approved in March, 2025. The purpose of the referenced project is to address the deteriorating pavement condition and decreasing ride quality along WIS 181, outdated traffic signal equipment and drainage maintenance concerns, as well as evaluating improvements to multi-modal accommodations. For this high-speed, high volume State Trunk Highway arterial with 10-foot paved shoulders, we saw the need for both bicycle and pedestrian connectivity.

I submitted the new Master Plan and concerns to our Multimodal Unit for additional review, as the referenced Pavement Replacement project originally was scoped in 2020 and 2021. At the time of scoping in 2020 and 2021, cost-benefit analysis conducted by WisDOT's OAPM (Office of Asset and Performance Management at WisDOT Central Office) determined the facility did not have operational or safety justification to add bike slip lanes at intersections where they don't currently exist or widen the roadway in the segment in the north where the shoulder drops completely. As a result, the project was scoped to perpetuate the 10-foot existing shoulders as bike accommodations and add sidewalk to eliminate gaps along the west side of STH 181 between Donges Bay Road and Mequon Road. Real estate acquisition began in 2024 and is still ongoing for this sidewalk with several parcels still pending. Right-of-way should be complete by this November.

However, much has changed in the past few years, and national guidance has shifted regarding higher speed/higher volume roadways, with the recommendation to increase protection in the form of separation as speeds and car volumes increase. The Multimodal Unit has been relying largely on the FHWA's Bikeway Selection Guide, which has preferred facilities based on land use types, speeds, and car traffic volumes. Based on the 45mph and 9,100 AADT from County Line Rd to Donges Bay, FHWA would recommend a 10ft shoulder, given this area would be characterized as 'rural' due to land uses and building densities. From Donges Bay to Mequon Rd, based on the 45mph and 11,700 AADT, FHWA would recommend a separated bike lane or shared use path, given this stretch of STH 181 would be characterized as 'suburban.'

If this project were in the scoping phase today, given SEWRPC Vision 2050 designates the corridor for an Enhanced Bicycle Facility and the Mequon Thiensville Master Plan designates the corridor for a cycle track or buffered bike lane, the recommendation would be to consider a separated facility for this project and complete a new cost benefit analysis to determine if there would be sufficient mobility benefit to achieve a separated facility at state cost. Because of the current 90%-point in design, adding a cycle track would not be possible given that additional right-of way would need to be acquired which would delay the project significantly. The existing pavement is in severe distress and an additional delay would be problematic for the roadway. Emergency pavement repairs were performed in the summer of 2023 in the northbound lanes (Asphalt resurfacing near Donges Bay) , and again in March 2025.

Since the existing facility has a 10ft shoulder from County Line Rd to Knightsbridge Dr, we likely do have the space to accommodate a buffered bike lane with additional pavement striping. A buffered bike lane could be achieved by creating a painted hatched buffer space and a marked bike lane, which increases awareness for motorists about the presence of bicyclists. With a 10ft shoulder, we could likely achieve a 4ft buffer space and 6ft bike lane. As a result, we are proposing to revise the Pavement marking to provide a buffered bike lane and have completed a draft design for this revised marking (attached). While the project could install these markings, an agreement for the City of Mequon to maintain the markings would be needed and will be submitted under separate cover. Input for the City on the attached plan sheets also is welcome.

Thank you again for taking time to discuss the corridor with me and providing the Mequon Thiensville Master Plan.

Sincerely,

Martin B. Villaca, P.E.

Project Manager

(262) 548-6456 cell (414) 750-0426

martin.villaca@dot.wi.gov

Wisconsin Department of Transportation
141 NW Barstow ST.
Waukesha, WI 53187

From: Ken Maciolek <seniorbikeboy@gmail.com>
Sent: Friday, May 16, 2025 11:59 AM
To: Villaca, Martin - DOT <Martin.Villaca@dot.wi.gov>
Cc: Cole McCraw <cmccraw@ci.mequon.wi.us>
Subject: Wauwatosa Road Improvements

CAUTION: This email originated from outside the organization.
Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Martin:

Nice talking to you today. As I mentioned, I am the Chairman of the Joint Mequon-Thiensville Bike and Pedestrian Way Commission. Our Commission provides advice to the Mequon Common Council and Village of Thiensville Board of Trustees on the implementation of a master plan for trails and ways of travel accessible to bicycles and pedestrians. In March, 2025, both Mequon and Thiensville approved the updated master plan. The final plan is attached below.

Under the master plan, Wauwatosa Road is one of our north-south connectors for bicycle travel. On page 46 of the plan, Graef recommends a buffered bike lane or cycle track on Wauwatosa Road between County Line Road and Mequon Road. We bring this to your attention as you continue your planning for road improvements on that stretch of Wauwatosa Road. Given the speed and volume of traffic on Wauwatosa, we believe that some additional bicycling facility is needed to provide safer bicycle travel.

Per your request, I am also attaching a copy of the article that appeared in the Ozaukee News Graphic regarding the proposed improvements to Wauwatosa Road.

Thank you for taking the time to discuss this matter with me. Feel free to contact me or our Assistant City Engineer, Cole McCraw (262-236-2957) for more information.

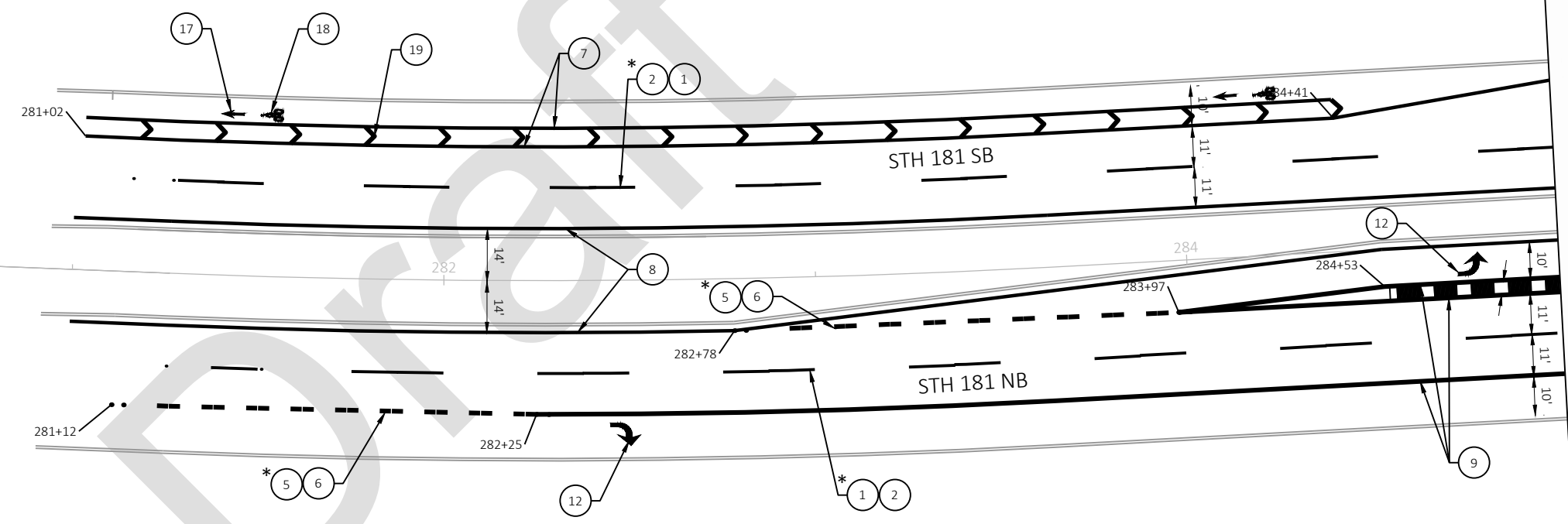
Ken Maciolek
414-719-5909

Sent from my iPad

NOTE: PROPOSED LINEWORK IS SCREENED FOR CLARITY



MATCH LINE 285+00



LEGEND

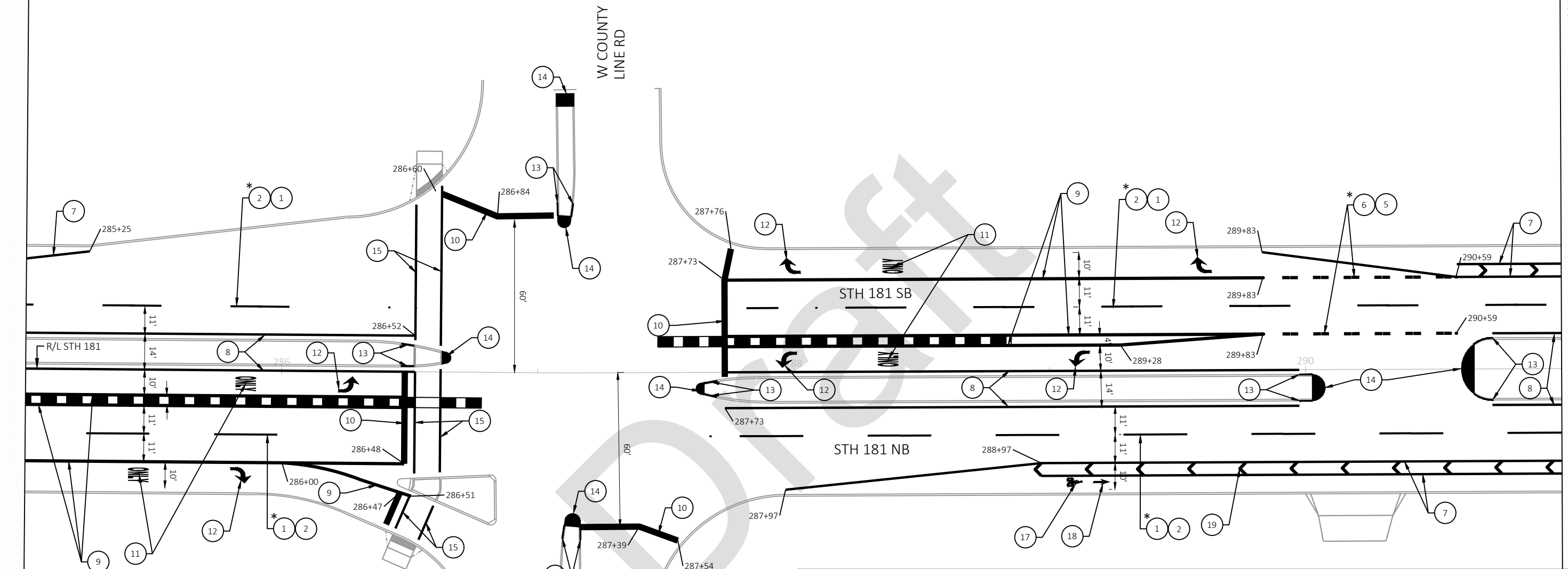
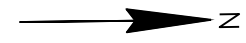
- | | |
|--|---|
| 1 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP) | 11 MARKING WORD EPOXY (WHITE) |
| 2 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (12.5 FT LINE 37.5 FT SKIP) | 12 MARKING ARROW EPOXY TYPE 2 (WHITE) |
| 3 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP) | 13 MARKING CURB EPOXY (YELLOW) |
| 4 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP) | 14 MARKING ISLAND NOSE EPOXY (YELLOW) |
| 5 MARKING LINE GROOVED WET REF EPOXY 10-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP) | 15 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE) |
| 6 MARKING LINE GROOVED BLACK EPOXY 10-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP) | 16 MARKING YIELD LINE EPOXY 18-INCH (WHITE) |
| 7 MARKING LINE EPOXY 6-INCH (WHITE) | 17 MARKING ARROWS (BIKE LANE ARROW) |
| 8 MARKING LINE EPOXY 6-INCH (YELLOW) | 18 MARKING SYMBOLS (BIKE LANE SYMBOL) |
| 9 MARKING LINE GROOVED WET REF CONTRAST EPOXY 10-INCH (WHITE) | 19 MARKING DIAGONAL 12-INCH (WHITE) |
| 10 MARKING STOP LINE EPOXY 18-INCH (WHITE) | |

* SEE "PERMANENT LONGITUDINAL PAVEMENT MARKINGS" STANDARD DETAIL DRAWING

PROJECT NO: 2729-07-70	HWY: STH 181	COUNTY: OZAUKEE	PAVEMENT MARKING	SHEET	E
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Attachment: 2729-07-00 PM (draft 90%) (10558 : WisDOT STH181 from County Line to Mequon Road Pavement Marking)

NOTE: PROPOSED LINEWORK IS SCREENED FOR CLARITY



MATCH LINE 285+00

MATCH LINE 291+00

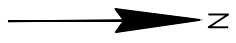
LEGEND

1 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)	11 MARKING WORD EPOXY (WHITE)
2 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (12.5 FT LINE 37.5 FT SKIP)	12 MARKING ARROW EPOXY TYPE 2 (WHITE)
3 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)	13 MARKING CURB EPOXY (YELLOW)
4 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP)	14 MARKING ISLAND NOSE EPOXY (YELLOW)
5 MARKING LINE GROOVED WET REF EPOXY 10-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)	15 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
6 MARKING LINE GROOVED BLACK EPOXY 10-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP)	16 MARKING YIELD LINE EPOXY 18-INCH (WHITE)
7 MARKING LINE EPOXY 6-INCH (WHITE)	17 MARKING ARROWS (BIKE LANE ARROW)
8 MARKING LINE EPOXY 6-INCH (YELLOW)	18 MARKING SYMBOLS (BIKE LANE SYMBOL)
9 MARKING LINE GROOVED WET REF CONTRAST EPOXY 10-INCH (WHITE)	19 MARKING DIAGONAL 12-INCH (WHITE)
10 MARKING STOP LINE EPOXY 18-INCH (WHITE)	

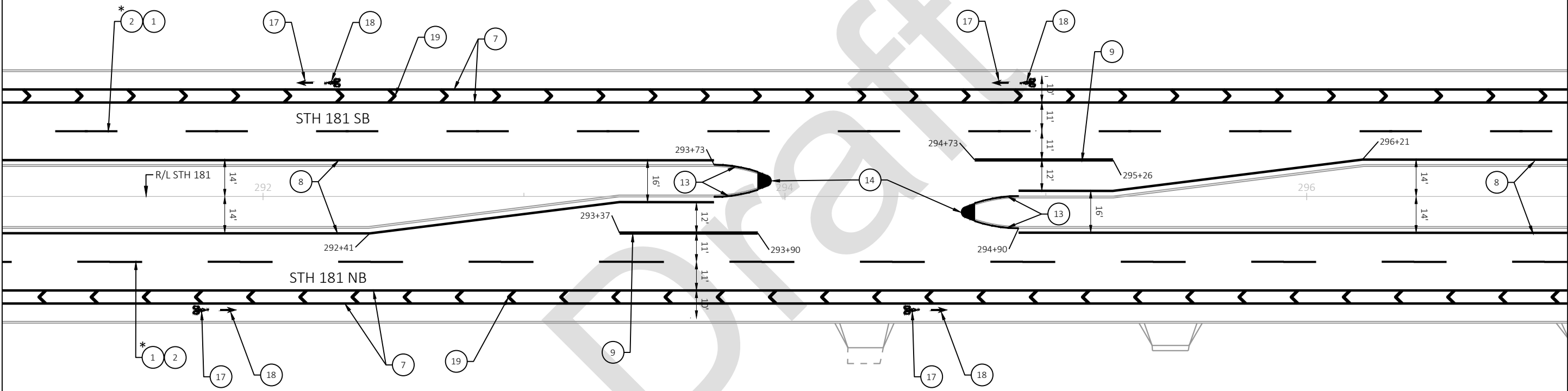
* SEE "PERMANENT LONGITUDINAL PAVEMENT MARKINGS" STANDARD DETAIL DRAWING

Attachment: 2729-07-00 PM (draft 90%) (10558 : WisDOT STH181 from County Line to Mequon Road Pavement Marking)

NOTE: PROPOSED LINEWORK IS SCREENED FOR CLARITY



MATCH LINE 297+00



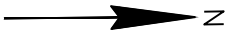
MATCH LINE 291+00

LEGEND

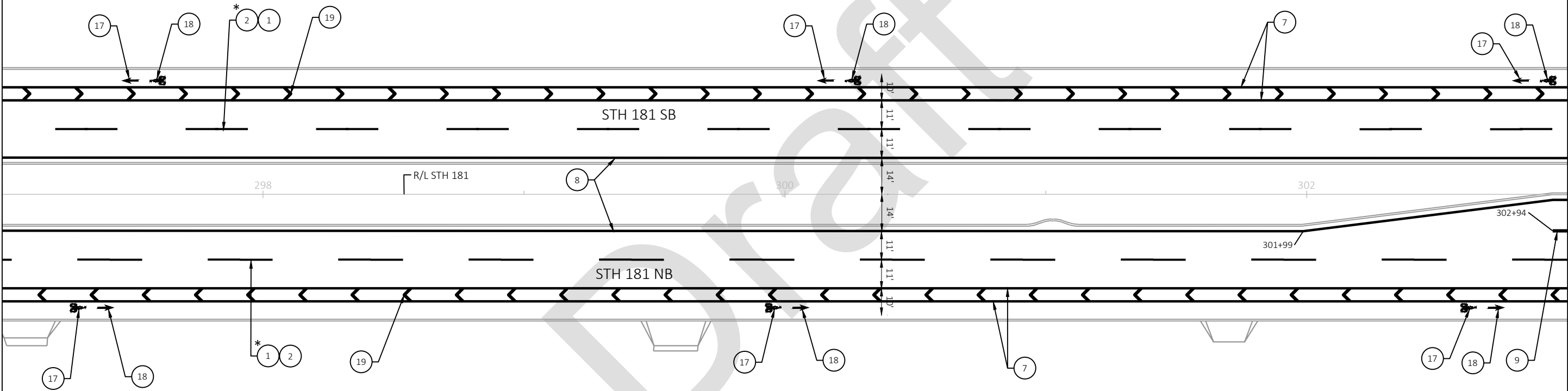
1 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)	11 MARKING WORD EPOXY (WHITE)
2 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (12.5 FT LINE 37.5 FT SKIP)	12 MARKING ARROW EPOXY TYPE 2 (WHITE)
3 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)	13 MARKING CURB EPOXY (YELLOW)
4 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP)	14 MARKING ISLAND NOSE EPOXY (YELLOW)
5 MARKING LINE GROOVED WET REF EPOXY 10-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)	15 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
6 MARKING LINE GROOVED BLACK EPOXY 10-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP)	16 MARKING YIELD LINE EPOXY 18-INCH (WHITE)
7 MARKING LINE EPOXY 6-INCH (WHITE)	17 MARKING ARROWS (BIKE LANE ARROW)
8 MARKING LINE EPOXY 6-INCH (YELLOW)	18 MARKING SYMBOLS (BIKE LANE SYMBOL)
9 MARKING LINE GROOVED WET REF CONTRAST EPOXY 10-INCH (WHITE)	19 MARKING DIAGONAL 12-INCH (WHITE)
10 MARKING STOP LINE EPOXY 18-INCH (WHITE)	

* SEE "PERMANENT LONGITUDINAL PAVEMENT MARKINGS" STANDARD DETAIL DRAWING

NOTE: PROPOSED LINEWORK IS SCREENED FOR CLARITY



MATCH LINE 303+00



MATCH LINE 297+00

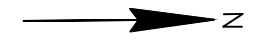
LEGEND

① MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)	⑪ MARKING WORD EPOXY (WHITE)
② MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (12.5 FT LINE 37.5 FT SKIP)	⑫ MARKING ARROW EPOXY TYPE 2 (WHITE)
③ MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)	⑬ MARKING CURB EPOXY (YELLOW)
④ MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP)	⑭ MARKING ISLAND NOSE EPOXY (YELLOW)
⑤ MARKING LINE GROOVED WET REF EPOXY 10-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)	⑮ MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
⑥ MARKING LINE GROOVED BLACK EPOXY 10-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP)	⑯ MARKING YIELD LINE EPOXY 18-INCH (WHITE)
⑦ MARKING LINE EPOXY 6-INCH (WHITE)	⑰ MARKING ARROWS (BIKE LANE ARROW)
⑧ MARKING LINE EPOXY 6-INCH (YELLOW)	⑱ MARKING SYMBOLS (BIKE LANE SYMBOL)
⑨ MARKING LINE GROOVED WET REF CONTRAST EPOXY 10-INCH (WHITE)	
⑩ MARKING STOP LINE EPOXY 18-INCH (WHITE)	

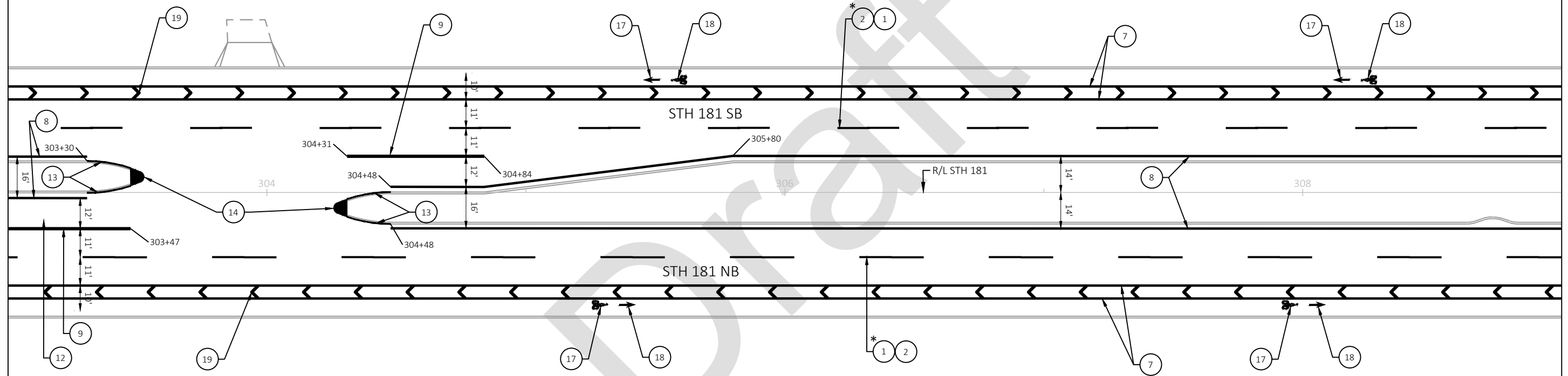
* SEE "PERMANENT LONGITUDINAL PAVEMENT MARKINGS" STANDARD DETAIL DRAWING

Attachment: 2729-07-00 PM (draft 90%) : WisDOT STH181 from County Line to Mequon Road Pavement Marking

NOTE: PROPOSED LINEWORK IS SCREENED FOR CLARITY



MATCH LINE 309+00



MATCH LINE 303+00

LEGEND

1 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)	11 MARKING WORD EPOXY (WHITE)
2 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (12.5 FT LINE 37.5 FT SKIP)	12 MARKING ARROW EPOXY TYPE 2 (WHITE)
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6 MARKING LINE GROOVED BLACK EPOXY 10-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP)	16 MARKING YIELD LINE EPOXY 18-INCH (WHITE)
7 MARKING LINE EPOXY 6-INCH (WHITE)	17 MARKING ARROWS (BIKE LANE ARROW)
8 MARKING LINE EPOXY 6-INCH (YELLOW)	18 MARKING SYMBOLS (BIKE LANE SYMBOL)
9 MARKING LINE GROOVED WET REF CONTRAST EPOXY 10-INCH (WHITE)	19 MARKING DIAGONAL 12-INCH (WHITE)
10 MARKING STOP LINE EPOXY 18-INCH (WHITE)	

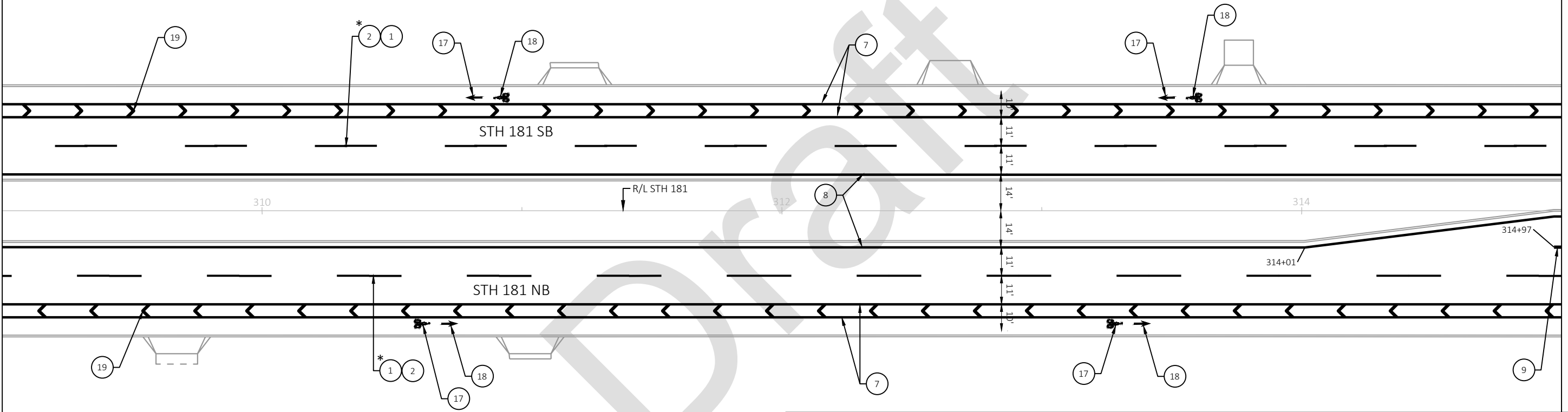
* SEE "PERMANENT LONGITUDINAL PAVEMENT MARKINGS" STANDARD DETAIL DRAWING

Attachment: 2729-07-00 PM (draft 90%) (10558 : WisDOT STH181 from County Line to Mequon Road Pavement Marking)

NOTE: PROPOSED LINEWORK IS SCREENED FOR CLARITY



MATCH LINE 315+00



MATCH LINE 309+00

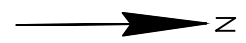
LEGEND

- 1 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
- 2 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (12.5 FT LINE 37.5 FT SKIP)
- 3 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)
- 4 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP)
- 5 MARKING LINE GROOVED WET REF EPOXY 10-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)
- 6 MARKING LINE GROOVED BLACK EPOXY 10-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP)
- 7 MARKING LINE EPOXY 6-INCH (WHITE)
- 8 MARKING LINE EPOXY 6-INCH (YELLOW)
- 9 MARKING LINE GROOVED WET REF CONTRAST EPOXY 10-INCH (WHITE)
- 10 MARKING STOP LINE EPOXY 18-INCH (WHITE)
- 11 MARKING WORD EPOXY (WHITE)
- 12 MARKING ARROW EPOXY TYPE 2 (WHITE)
- 13 MARKING CURB EPOXY (YELLOW)
- 14 MARKING ISLAND NOSE EPOXY (YELLOW)
- 15 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- 16 MARKING YIELD LINE EPOXY 18-INCH (WHITE)
- 17 MARKING ARROWS (BIKE LANE ARROW)
- 18 MARKING SYMBOLS (BIKE LANE SYMBOL)
- 19 MARKING DIAGONAL 12-INCH (WHITE)

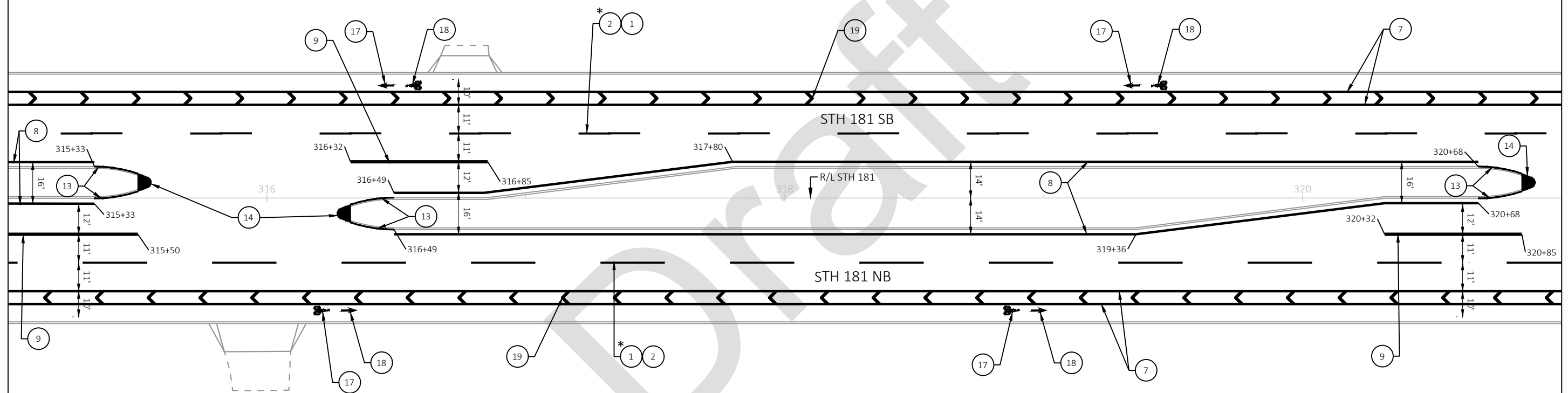
* SEE "PERMANENT LONGITUDINAL PAVEMENT MARKINGS" STANDARD DETAIL DRAWING

Attachment: 2729-07-00 PM (draft 90%) (10558 : WisDOT STH181 from County Line to Mequon Road Pavement Marking)

NOTE: PROPOSED LINEWORK IS SCREENED FOR CLARITY



MATCH LINE 321+00



MATCH LINE 315+00

LEGEND

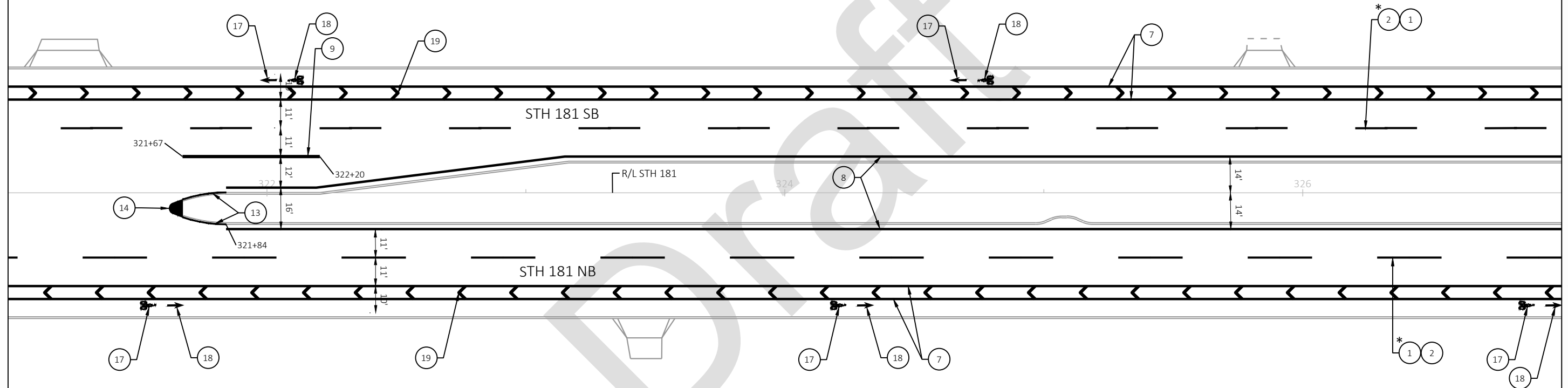
1 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)	11 MARKING WORD EPOXY (WHITE)
2 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (12.5 FT LINE 37.5 FT SKIP)	12 MARKING ARROW EPOXY TYPE 2 (WHITE)
3 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)	13 MARKING CURB EPOXY (YELLOW)
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8 MARKING LINE EPOXY 6-INCH (YELLOW)	18 MARKING SYMBOLS (BIKE LANE SYMBOL)
9 MARKING LINE GROOVED WET REF CONTRAST EPOXY 10-INCH (WHITE)	19 MARKING DIAGONAL 12-INCH (WHITE)
10 MARKING STOP LINE EPOXY 18-INCH (WHITE)	

* SEE "PERMANENT LONGITUDINAL PAVEMENT MARKINGS" STANDARD DETAIL DRAWING

NOTE: PROPOSED LINEWORK IS SCREENED FOR CLARITY



MATCH LINE 327+00

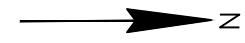


LEGEND

- | | |
|--|---|
| 1 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP) | 11 MARKING WORD EPOXY (WHITE) |
| 2 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (12.5 FT LINE 37.5 FT SKIP) | 12 MARKING ARROW EPOXY TYPE 2 (WHITE) |
| 3 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP) | 13 MARKING CURB EPOXY (YELLOW) |
| 4 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP) | 14 MARKING ISLAND NOSE EPOXY (YELLOW) |
| 5 MARKING LINE GROOVED WET REF EPOXY 10-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP) | 15 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE) |
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| 7 MARKING LINE EPOXY 6-INCH (WHITE) | 17 MARKING ARROWS (BIKE LANE ARROW) |
| 8 MARKING LINE EPOXY 6-INCH (YELLOW) | 18 MARKING SYMBOLS (BIKE LANE SYMBOL) |
| 9 MARKING LINE GROOVED WET REF CONTRAST EPOXY 10-INCH (WHITE) | 19 MARKING DIAGONAL 12-INCH (WHITE) |
| 10 MARKING STOP LINE EPOXY 18-INCH (WHITE) | |

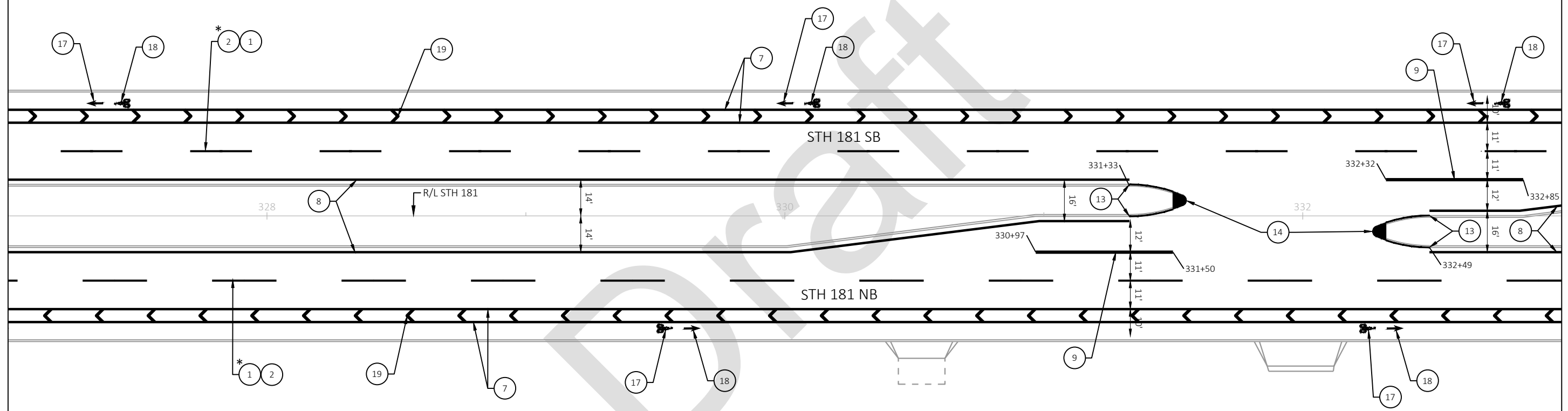
* SEE "PERMANENT LONGITUDINAL PAVEMENT MARKINGS" STANDARD DETAIL DRAWING

NOTE: PROPOSED LINEWORK IS SCREENED FOR CLARITY



MATCH LINE 333+00

MATCH LINE 327+00

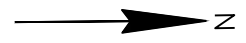


LEGEND

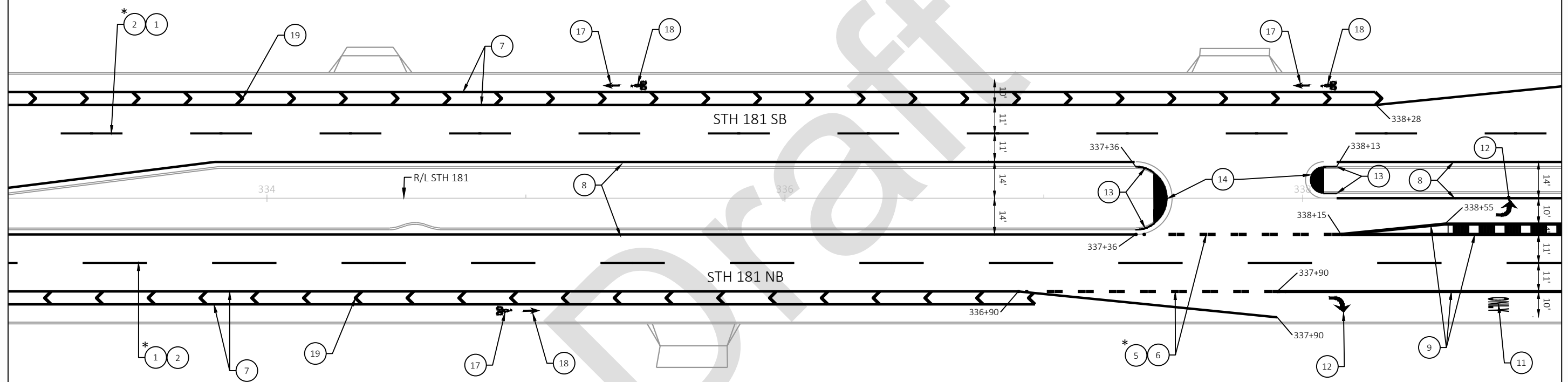
- 1 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
- 2 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (12.5 FT LINE 37.5 FT SKIP)
- 3 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)
- 4 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP)
- 5 MARKING LINE GROOVED WET REF EPOXY 10-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)
- 6 MARKING LINE GROOVED BLACK EPOXY 10-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP)
- 7 MARKING LINE EPOXY 6-INCH (WHITE)
- 8 MARKING LINE EPOXY 6-INCH (YELLOW)
- 9 MARKING LINE GROOVED WET REF CONTRAST EPOXY 10-INCH (WHITE)
- 10 MARKING STOP LINE EPOXY 18-INCH (WHITE)
- 11 MARKING WORD EPOXY (WHITE)
- 12 MARKING ARROW EPOXY TYPE 2 (WHITE)
- 13 MARKING CURB EPOXY (YELLOW)
- 14 MARKING ISLAND NOSE EPOXY (YELLOW)
- 15 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- 16 MARKING YIELD LINE EPOXY 18-INCH (WHITE)
- 17 MARKING ARROWS (BIKE LANE ARROW)
- 18 MARKING SYMBOLS (BIKE LANE SYMBOL)
- 19 MARKING DIAGONAL 12-INCH (WHITE)

* SEE "PERMANENT LONGITUDINAL PAVEMENT MARKINGS" STANDARD DETAIL DRAWING

NOTE: PROPOSED LINEWORK IS SCREENED FOR CLARITY



MATCH LINE 339+00



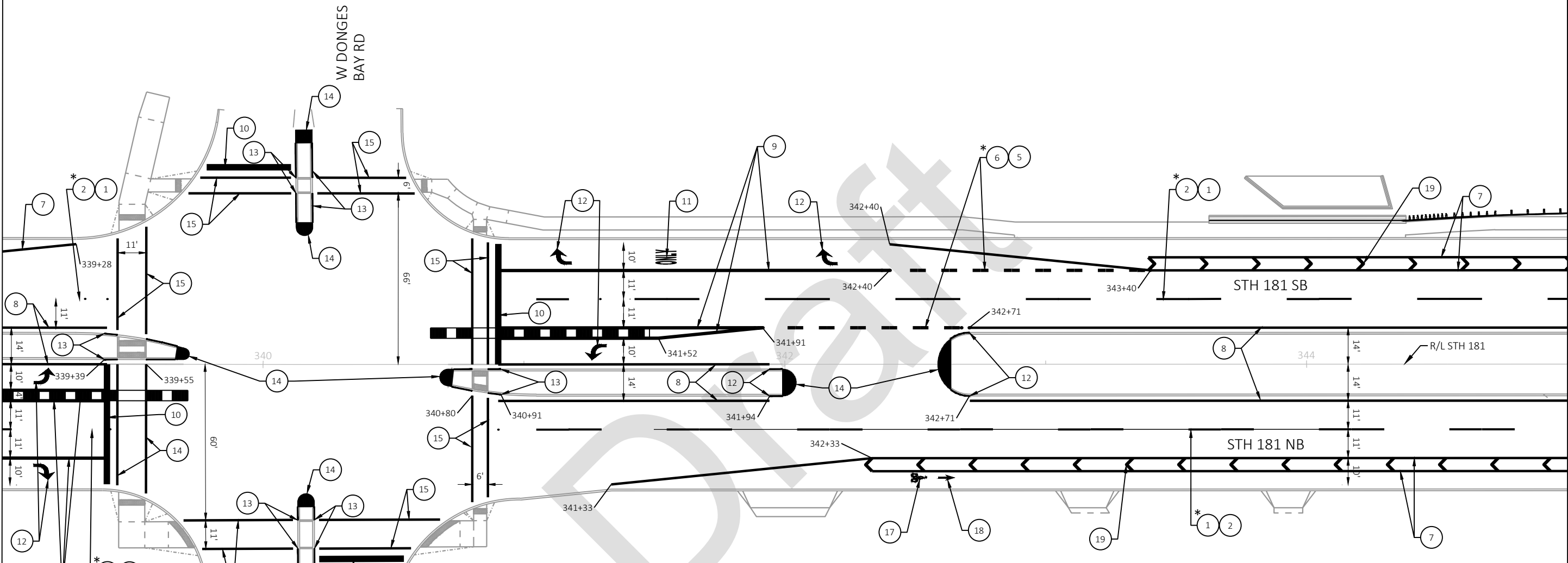
MATCH LINE 333+00

LEGEND

- | | |
|--|---|
| 1 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP) | 11 MARKING WORD EPOXY (WHITE) |
| 2 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (12.5 FT LINE 37.5 FT SKIP) | 12 MARKING ARROW EPOXY TYPE 2 (WHITE) |
| 3 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP) | 13 MARKING CURB EPOXY (YELLOW) |
| 4 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP) | 14 MARKING ISLAND NOSE EPOXY (YELLOW) |
| 5 MARKING LINE GROOVED WET REF EPOXY 10-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP) | 15 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE) |
| 6 MARKING LINE GROOVED BLACK EPOXY 10-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP) | 16 MARKING YIELD LINE EPOXY 18-INCH (WHITE) |
| 7 MARKING LINE EPOXY 6-INCH (WHITE) | 17 MARKING ARROWS (BIKE LANE ARROW) |
| 8 MARKING LINE EPOXY 6-INCH (YELLOW) | 18 MARKING SYMBOLS (BIKE LANE SYMBOL) |
| 9 MARKING LINE GROOVED WET REF CONTRAST EPOXY 10-INCH (WHITE) | 19 MARKING DIAGONAL 12-INCH (WHITE) |
| 10 MARKING STOP LINE EPOXY 18-INCH (WHITE) | |

* SEE "PERMANENT LONGITUDINAL PAVEMENT MARKINGS" STANDARD DETAIL DRAWING

NOTE: PROPOSED LINEWORK IS SCREENED FOR CLARITY



LEGEND

1 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)	11 MARKING WORD EPOXY (WHITE)
2 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (12.5 FT LINE 37.5 FT SKIP)	12 MARKING ARROW EPOXY TYPE 2 (WHITE)
3 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)	13 MARKING CURB EPOXY (YELLOW)
4 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (3 FT LINE 9 FT SKIP)	14 MARKING ISLAND NOSE EPOXY (YELLOW)
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7 MARKING LINE EPOXY 6-INCH (WHITE)	17 MARKING ARROWS (BIKE LANE ARROW)
8 MARKING LINE EPOXY 6-INCH (YELLOW)	18 MARKING SYMBOLS (BIKE LANE SYMBOL)
9 MARKING LINE GROOVED WET REF CONTRAST EPOXY 10-INCH (WHITE)	19 MARKING DIAGONAL 12-INCH (WHITE)
10 MARKING STOP LINE EPOXY 18-INCH (WHITE)	

* SEE "PERMANENT LONGITUDINAL PAVEMENT MARKINGS" STANDARD DETAIL DRAWING

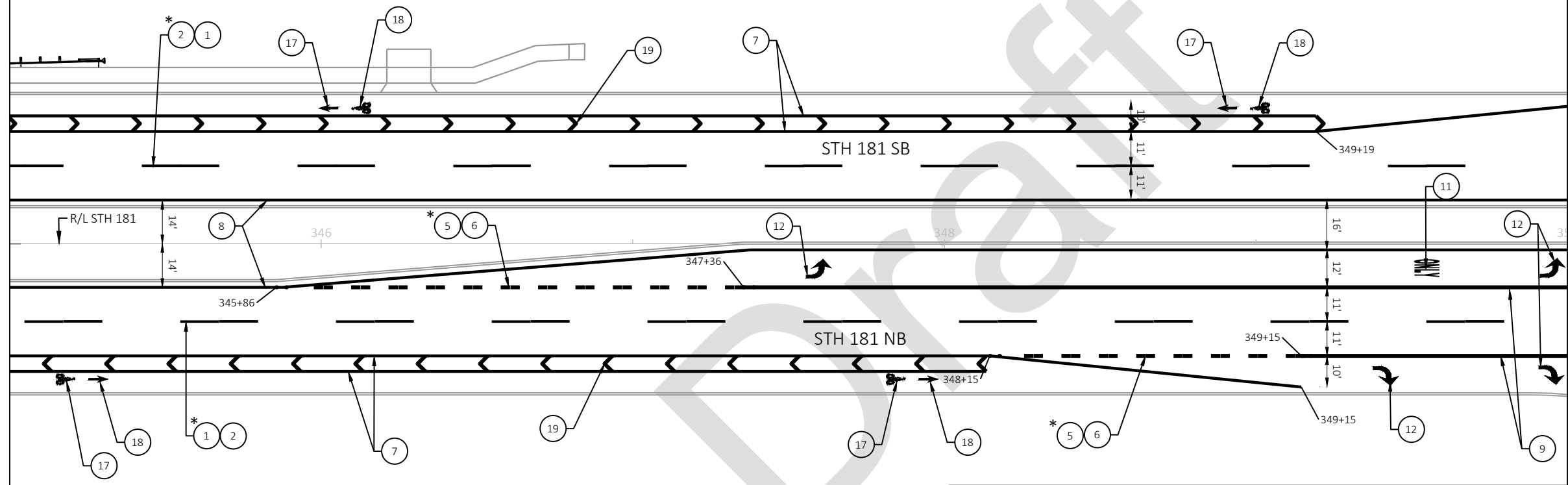
MATCH LINE 339+00

MATCH LINE 345+00

NOTE: PROPOSED LINEWORK IS SCREENED FOR CLARITY



MATCH LINE 350+00



MATCH LINE 345+00

LEGEND

- 1 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
- 2 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK) (12.5 FT LINE 37.5 FT SKIP)
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- 17 MARKING ARROWS (BIKE LANE ARROW)
- 18 MARKING SYMBOLS (BIKE LANE SYMBOL)
- 19 MARKING DIAGONAL 12-INCH (WHITE)

* SEE "PERMANENT LONGITUDINAL PAVEMENT MARKINGS" STANDARD DETAIL DRAWING

PROJECT NO: 2729-07-70

HWY: STH 181

COUNTY: OZAUKEE

PAVEMENT MARKING

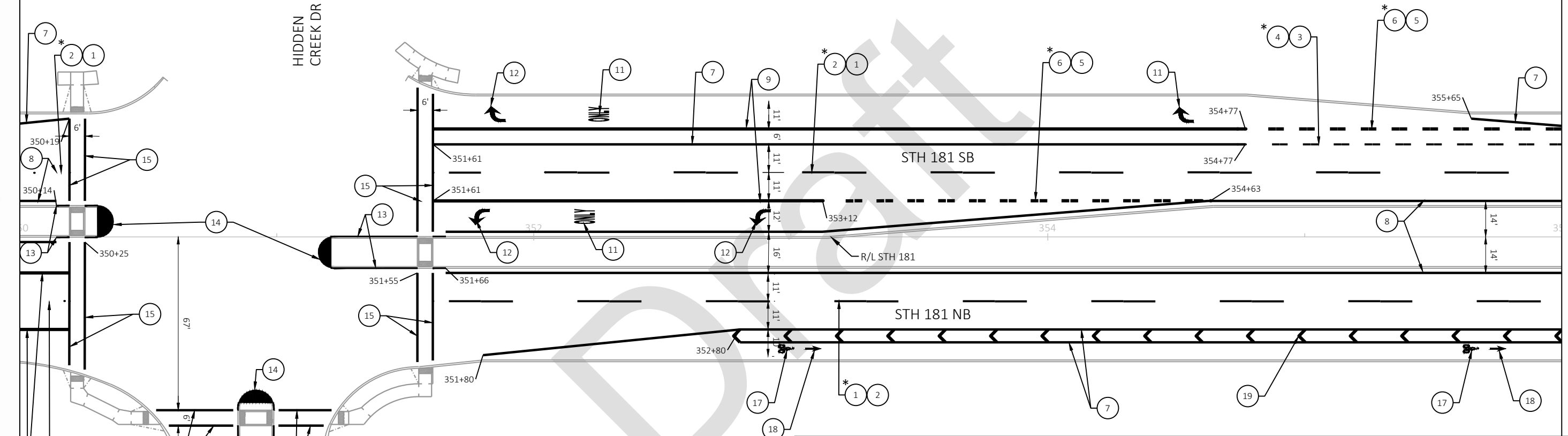
SHEET

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NOTE: PROPOSED LINEWORK IS SCREENED FOR CLARITY



MATCH LINE 356+00



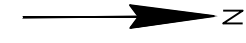
LEGEND

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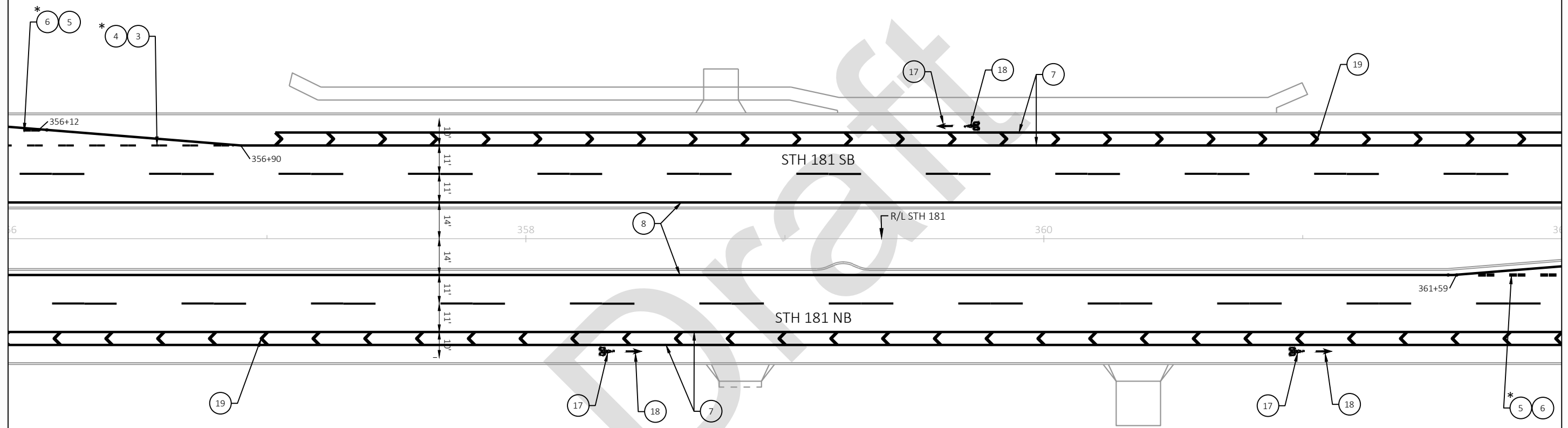
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Attachment: 2729-07-00 PM (draft 90%) (10558 : WisDOT STH181 from County Line to Mequon Road Pavement Marking)

NOTE: PROPOSED LINEWORK IS SCREENED FOR CLARITY



MATCH LINE 362+00



MATCH LINE 356+00

LEGEND

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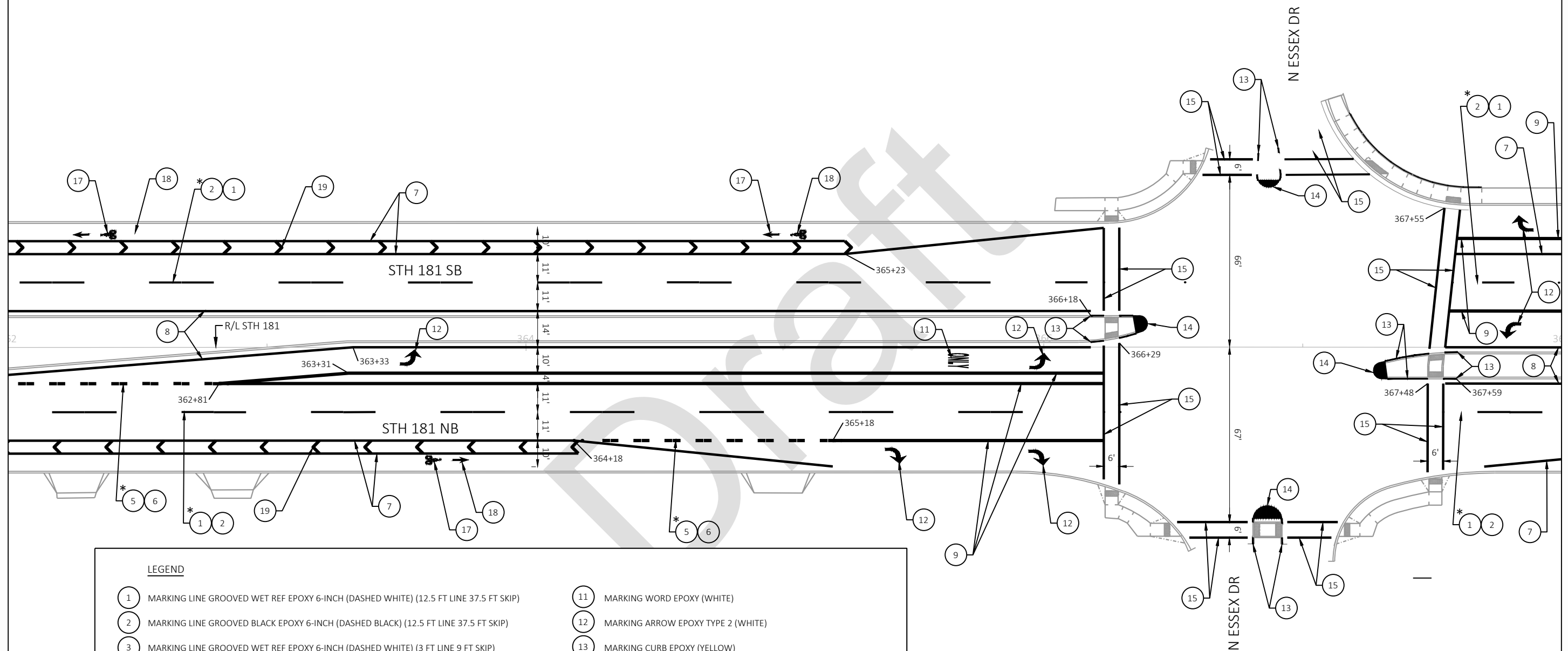
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Attachment: 2729-07-00 PM (draft 90%) : WisDOT STH181 from County Line to Mequon Road Pavement Marking

NOTE: PROPOSED LINEWORK IS SCREENED FOR CLARITY



MATCH LINE 368+00



LEGEND

- | | |
|--|---|
| 1 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP) | 11 MARKING WORD EPOXY (WHITE) |
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PROJECT NO: 2729-07-70

HWY: STH 181

COUNTY: OZAUKEE

PAVEMENT MARKING

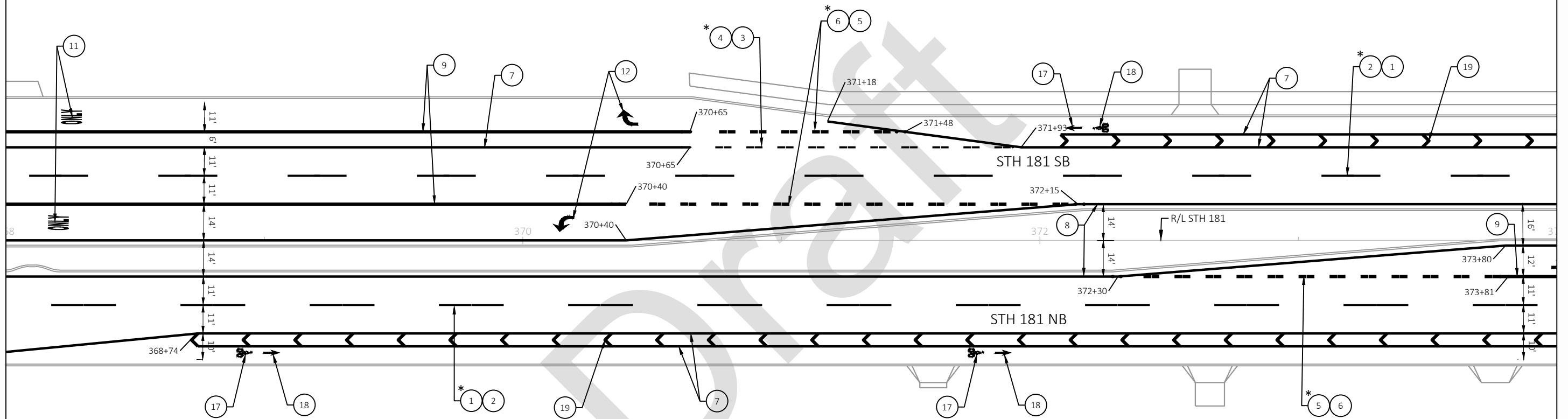
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NOTE: PROPOSED LINEWORK IS SCREENED FOR CLARITY



MATCH LINE 374+00



MATCH LINE 368+00

LEGEND

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PROJECT NO: 2729-07-70

HWY: STH 181

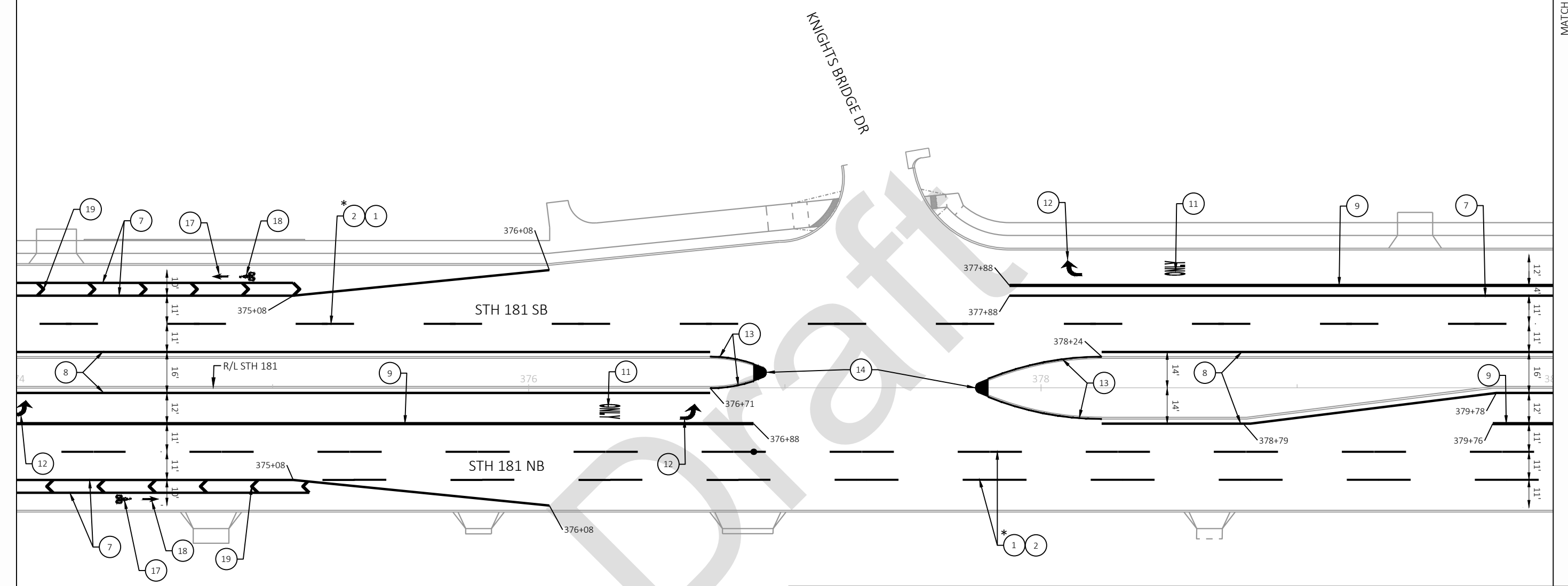
COUNTY: OZAUKEE

PAVEMENT MARKING

SHEET

E

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MATCH LINE 374+00

MATCH LINE 380+00

LEGEND

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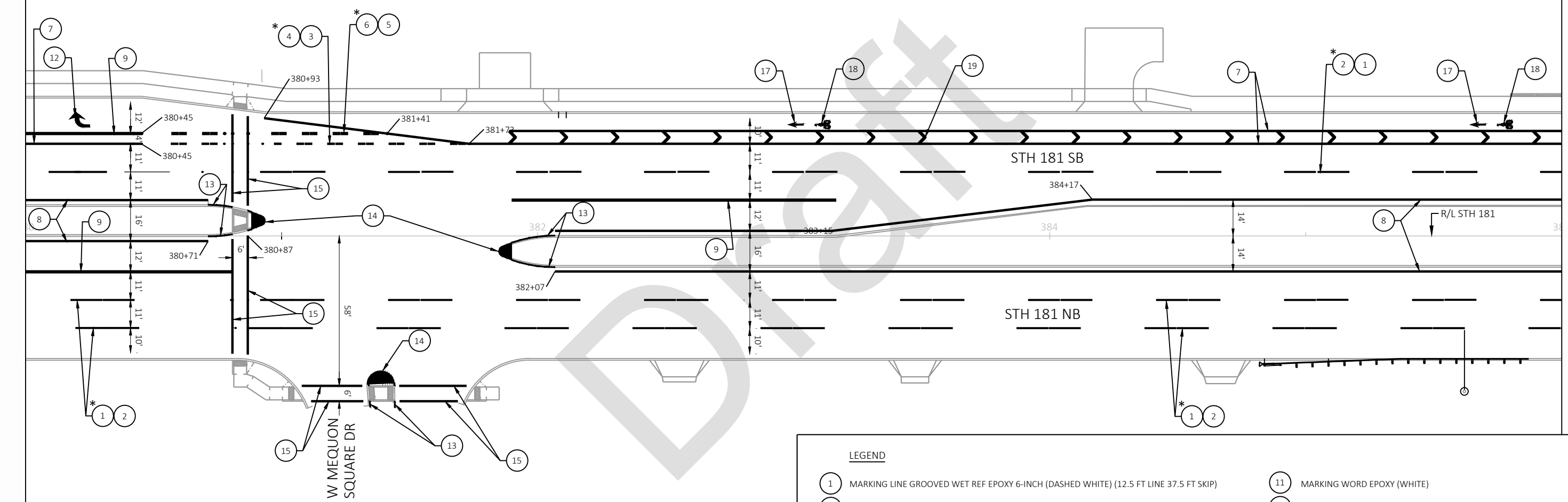
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MATCH LINE 386+00



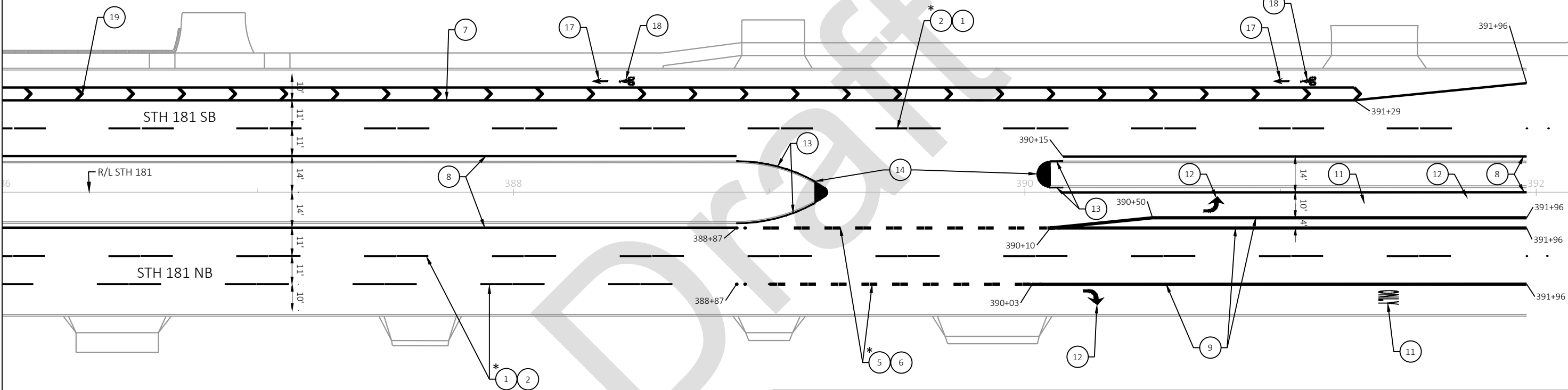
MATCH LINE 380+00

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MATCH LINE 386+00

Attachment: 2729-07-00 PM (draft 90%) (10558 : WisDOT STH181 from County Line to Mequon Road Pavement Marking)



11333 N. Cedarburg Road
 Mequon, WI 53092-1930
 Phone: 262-242-3100
 Fax: 262-242-9655

www.cityofmequonwi.gov

Office of Engineering

TO: Joint Mequon-Thiensville Bike and Pedestrian Way Commission
FROM: Cole McCraw, Assistant City Engineer
DATE: August 14, 2025
SUBJECT: M-T Bike and Pedestrian Way Master Plan Project Prioritization Discussion

Background

The Bikeway Master Plan appeared on the Public Works and Common Council agenda for adoption on March 11th, 2025. Given the plan was adopted as recommended, the plan development and approval for the master plan is now completed. The M-T Bikeway Commission can now consider using the plan to prioritize recommendations for the City and Village.

Prioritization discussions first began at the April meeting.

The report can be found on the City website below:

Final Draft Report: <https://www.cityofmequonwi.gov/media/24566>

Final Draft Report Appendices: <https://www.cityofmequonwi.gov/media/24571>

Analysis

Per City Ordinance, the defined purpose of the Joint M-T Bike and Pedestrian Way Commission is as follows:

The commission shall advise the common council and the Thiensville Village Board regarding the creation of, revisions to and implementation of a city- and village-wide master plan for bike and pedestrian ways and trails accessible to bicyclists, pedestrians and participants in other silent sports.

Also, in the City Ordinance and relating to the master plan, the commission has the following powers and duties:

- (1) Advise the common council and Thiensville Village Board regarding creation, revisions to and implementation of a city- and village-wide master plan for bike and pedestrian ways and ancillary services throughout the city and the Village of Thiensville.*
- (2) Set priorities for new bike and pedestrian ways or enhancements of existing routes in the master plan.*
- (3) Identify and prioritize critical gaps in bike and pedestrian ways.*

Staff recommends creating a separate recommendation list for each community.

The Commission discussed the following tentative schedule for prioritization.

Work Plan

- ~~April 10 – Discuss projects and priority ranking.~~
- Summer 2025
 - Discuss projects and priority ranking.
 - ~~2024 Annual Report of Commission activities~~
 - Discuss and create overall priority list and vote to approve the Mequon priority list and the Thiensville priority list.
- Other 2025 items:
 - Discussion on steps to take to reestablish the Ozaukee Interurban Trail Advisory Committee

After the priority list is created, the Commission may review and revise the list annually, or on a case-by-case basis.

The list of corridors recommended for improvements is found attached to this memo. Commissioner Doornek provided an updated scoring sheet with additional information which can be discussed and considered.

Fiscal Impact

This item is for information and discussion only and does not carry a fiscal impact.

Approximate costs for some common improvements can be found in the GRAEF study.

Recommendation

This item is for discussion only and no formal action is recommended. Staff recommends that the Commission discuss prioritization of project areas based on the decided criteria.

Attachments:

- 2025-2029 Street Five Year Plan (PDF)
- Street Corridor List (PDF)
- MT master plan corridors -facility keys (PDF)
- MT master plan corridors - notes (PDF)
- MT master plan corridors (PDF)

- 2025
- 2026
- 2027
- 2028
- 2029

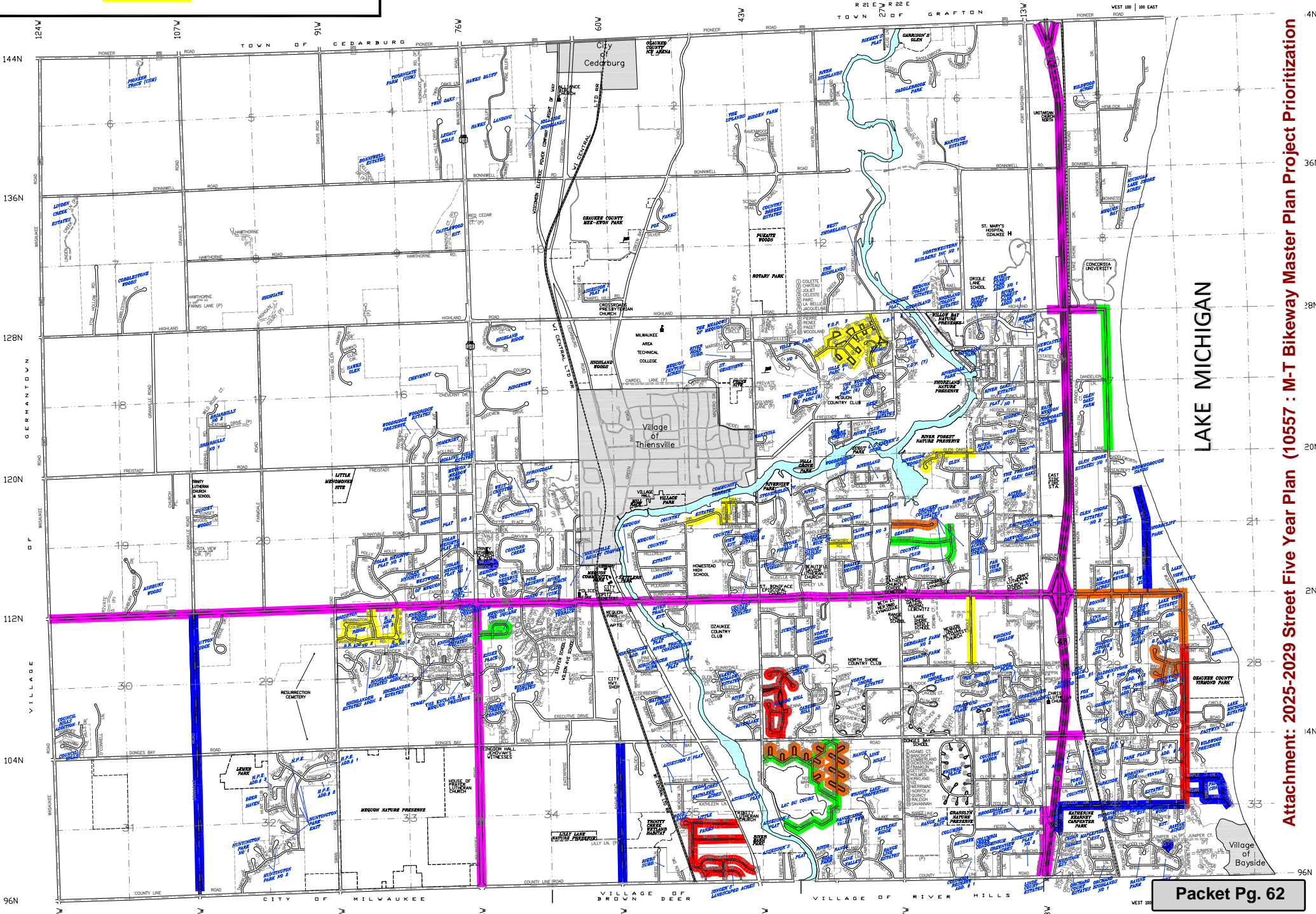
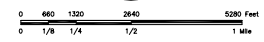
WisDOT

CITY OF MEQUON

5 YEAR PLAN 2025-2029



4.b.a



LAKE MICHIGAN

Attachment: 2025-2029 Street Five Year Plan (10557 : M-T Bikeway Master Plan Project Prioritization

Packet Pg. 62

North South Corridors

<u>Corridor</u>
Swan Road
Wauwatosa Rd / STH 181
Buntrock Avenue
Cedarburg Road / STH 57
Green Bay Road
River Road
Range Line Road
Port Washington Road / CTH W
Lake Shore Drive (with Zedler Lane)
Ozaukee Interurban Trail (OIT)

East West Corridors

<u>Corridor</u>
Highland Road
Freistadt Road
Riverview Drive
Division Street
West Mequon Neighborhoods Bicycle Boulevard
Mequon Road
Mequon Road
Donges Bay Road
County Line Road

Spot Improvements

<u>Location</u>
OIT WE Energies Facility Safety Improvements
OIT Donges Bay Road Crossing
River Road Bridge
Donges Bay Road Bridge
Mequon Road Bridge
Mequon Road / Cedarburg Road Intersection Crosswalks
Mourning Dove Lane

Abbreviation	Description
PS	Paved Shoulder
BL	Bike lane
BBL	Buffered Bike Lane
SW	Sidewalk
SUP	Shared use path
BB	Bike Boulevard
EPS	Expanded Paved Shoulder

Notes
(1)- Bonniwell, Pioneer, Granville, Wasaukee, & Farmdale roads were ranked on plan but not included.
(2) Port to lakeshore volume drops to 2000
(3) This segment provides an alternative to improving the segment of Mequon rd. from Swan to Cedarburg rd. The Division street segment should be prioritized regardless of which alternative is selected. The segment of Cedarburg rd from Mequon to Division is also a consideration. See page 47 of report.
(4) This segment provides an alternative to improving the segment of Freistadt rd. from River rd to the OIT trail.
(5) Segment needs additional segmentation
(6) Map depicts OIT to Range line as recommended route - No bridge on County line.
(7) Public survey ranking was by corridor name only, not segmented.
(8) Willowbrook east of Wauwatosa planned for 2025
(9) Evaluated at 4/10/25 commission meeting for potential high prioritization
(10) The scope of this item requires further clarification to include RR crossing maze hazard.
(11) Graef recommends designated signage on all segments
(12) From Mequon 5 yr. road plan
(13) Requires coordination with OIT advisory committee & other communities.
(14) signage improvements needed

Community	Direction/Spot improvement	Corridor (See note 1)	Segment	Identified as high use corridor	Recommended bike route (note 11)	Safety Bike Crash inc. #	Future road work planned?	Public survey rank (note 7)	Speed (mph)	Traffic volume (vpd)	Existing Facility	Recommended facility (GRAEF)	Existing facility meets rec.	Feasibility	Cost	Overall Ranking		
GRAEF REPORT PAGE#				31	53	22	note 12	10	43	43	17	49	na					
M	E-W	County Line Road	Wasaukee Rd to Cedarburg rd.	N	N	#17	>5YR S	13	40	4000	4'PS	none	Y					
M	E-W		River rd. to Port Washington		note 6	none	>5YR S		30	1200	none	PS	N					
M	E-W	Donges Bay Road	Wasaukee Rd to Lemke park	Y	Y	none	>5YR S	7	40	4200	none	PS	N					
M	E-W		Lemke park to Wauwatosa			2	>5YR S		40	3900	9' SUP	none	Y					
M	E-W		Wauwatosa to Cedarburg			5,13,14,15	>5YR S		35	3900	5' PS	SUP	N					
M	E-W SI		Milw. River bridge			na	na		NR	na	na	na	y	N				
M	E-W		River rd to Lake Shore			20,32	>5YR S		7	30	1200	4' PS	SUP	N				
M	E-W		Freistadt Road			Wausakee to Granville	N		N	none	>5YR S	NR	45	2200	na	PS	N	
M	E-W	Granville to OIT		none	>5YR S	NR		35		3400	4' PS	OK	Y					
T	E-W	OIT to River Rd (note 4)		Y	Y	7	VOT?	6	25	?	SW	SUP	N					
M	E-W & N-S	River rd. to Fieldwood to Highland		N	Y	none	>5YR S	6	25-35	1800	5'PS	none	y					
M	E-W	Highland Road	OIT to Rotary Park Shore Dr	v	Y	6	>5YR S	4	40	7700	3.5' PS	SUP	N					
M	E-W		Rotary Park to Maplecrest In.		none	>5YR S		35-40	9100	3.5' PS	SUP	N						

Attachment: MT master plan corridors (10557 : M-T Bikeway Master Plan Project Prioritization

Community	Direction/Spot improvement	Corridor (See note 1)	Segment	Identified as high use corridor	Recommended bike route (note 11)	Safety Bike Crash inc. #	Future road work planned?	Public survey rank (note 7)	Speed (mph)	Traffic volume (vpd)	Existing Facility	Recommended facility (GRAEF)	Existing facility meets rec.	Feasibility	Cost	Overall Ranking	
GRAEF REPORT PAGE#				31	53	22	note 12	10	43	43	17	49	na				
M	E-W	Highland Road	Maplecrest In. to Port Wash. rd.	Y	Y	none	>5YRS	4	35	9100	3.5' PS & 8'SUP	SUP	Y				
M	E-W		Port Wash to LS drive			23,24	DOT ?		35	?	MIXED	?	?				
M	E-W		Wasaukee Rd to Swan Rd	Y	Y	none	DOT ?		45	12,000	2'-3' PS	BL	N				
M	E-W	Mequon Road	Swan to Wauwatosa (note 3)			none	DOT 2025		40	12000	none	BL	N				
M	E-W		Wauwatosa to OIT (note 3)	N	N	#3, #4, #11	DOT ?		40	17000	5' SW	SUP	N				
M	E-W		OIT to RR			#19, #28	DOT 2025?	1	40	23000 (note 2)	5' SW	SUP	N				
M	E-W		RR to Lakeshore N	Y	Y	none	2027		35	2,000	3.5' PS	BL?	N				
M	E-W		RR to Lakeshore S			none	2027		35	2,000	1.5' PS	SUP + EPS	N				
M	E-W SI		Milw. River bridge			none	DOT?		40	23,000	5' SW	BBL	N				
M	N-S & E-W SI		Mequon / Cedarburg Intersection			#12,	DOT?		40M/30C	32000	na	pg. 42	NA				
M	E-W		Mequon rd. alternate - Swan to	West Mequon Neighborhoods Swan to Buntrock	Y	Y	none	>5YRS (note 8)	NR	25	NA	none	BB	N			note (9)

Attachment: MT master plan corridors (10557 : M-T Bikeway Master Plan Project Prioritization

Community	Direction/Spot improvement	Corridor (See note 1)	Segment	Identified as high use corridor	Recommended bike route (note 11)	Safety Bike Crash inc, #	Future road work planned?	Public survey rank (note 7)	Speed (mph)	Traffic volume (vpd)	Existing Facility	Recommended facility (GRAEF)	Existing facility meets rec.	Feasibility	Cost	Overall Ranking		
GRAEF REPORT PAGE#				31	53	22	note 12	10	43	43	17	49	na					
M-T		Cedarburg (note 3)	Division Street			none	>5YR S VOT?	18	25	NA	none	SW + BL	N			note (9)		
T	E-W	Riverview Drive (note 4)	Freistadt to Main st.	N	Y	none	VOT?	NR	25	NA	none	BB	N			note (9)		
M	E-W SI	Mourning Dove Lane		N	Y	none	na	NR	na	na	none	SUP	N					
M	N-S	Buntrock Avenue	Mequon to curve	N	Y?	none	>5YR S	20	25	1200	none	SW + BL	N			note (9)		
T	E-W		curve to Main			#9	VOT?		25	1200	SW	BL	N				note (9)	
M-T	N-S	Cedarburg Road/Main st.	County line to Westfield	Y	Y	none	>5YR S	2	45	9900	4' PS	8' PS +SUP	N					
M			Westfield to Mequon	N	N	none	>5YR S		45/30	9900	4' PS	none	Y					
M			Mequon to Division (note 3)	Y	Y	none	>5YR S		30	11600	5'SW	SUP	N					
T			Division to north VOT	N	N	none	VOT?		30	11600	5'SW	none	Y					
M			north VOT to Pioneer			none	>5YR S		45	5500	4' PS	none	Y					
T	N-S	Green Bay Road	Main to Riverview		N	9	VOT?	5	25	5300	5' SW	none	Y?					
T			Riverview to Heidel		Y	none	VOT?		25	5300?	5' SW	none	Y					
M-T			Heidel to Highland	N	Y	8	VOT + M		35	5300?	4' PS	SW or SUP	N					

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Community	Direction/Spot improvement	Corridor (See note 1)	Segment	Identified as high use corridor	Recommended bike route (note 11)	Safety Bike Crash inc, #	Future road work planned?	Public survey rank (note 7)	Speed (mph)	Traffic volume (vpd)	Existing Facility	Recommended facility (GRAEF)	Existing facility meets rec.	Feasibility	Cost	Overall Ranking	
GRAEF REPORT PAGE#				31	53	22	note 12	10	43	43	17	49	na				
M			Highland to Pioneer		N	6	>5YRS		35	5300?	none	none	Y?				
M	N-S	Lake Shore Drive	Zedler to Mequon Rd	Y	Y	none	2026	11	35	1650	1.5'PS	SUP + EPS	N			note (9)	
M			Mequon to Glen Oaks	Y	y	none	>5YRS		30	1000?	2.5'PS	EPS	N				
M			Glen Oaks to Highland	Y	y	none	2028		30	1000?	3.5'PS	EPS	N				
M			Highland to Pioneer	N?	N?	21,23	>5YRS		35-40	760	3.5'PS	none	?				
M-T	N-S	Ozaukee Interurban Trail (OIT) (note 5)	County Line Rd to Pioneer Rd	Y	Y	none	note 13	3	na	na	SUP	note 13	na				
M	N-S SI		Donges Bay Road Crossing					NA									
M	N-S SI		WE Energies Facility (note10)					NA									
M	N-S	Port Washington Road / CTH W)	County line to Katherine	N?	Y	none	>5YRS	8	35	16000	5'BL + SUP	none	y (note 14)				
			Katherine to Zedler			none	>5YRS		35	10000	5'BL	none					
			Zedler to Winding Hollow	Y		none	>5YRS		35	12000	3.5'BL (CURB)	none	y?				
			Winding Hollow to Glen Oaks			#25,#26,#27	>5YRS		35	15000	2' BL (CURB)	EBL + SUP	N				

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Community	Direction/Spot improvement	Corridor (See note 1)	Segment	Identified as high use corridor	Recommended bike route (note 11)	Safety Bike Crash inc, #	Future road work planned?	Public survey rank (note 7)	Speed (mph)	Traffic volume (vpd)	Existing Facility	Recommended facility (GRAEF)	Existing facility meets rec.	Feasibility	Cost	Overall Ranking
GRAEF REPORT PAGE#				31	53	22	note 12	10	43	43	17	49	na			
			Glen Oaks to Highland	Y		none	>5YR S		45	12000	4' BL	5' SW	N			
			Highland to Pioneer	N	N	none	>5YR S		45	8700	4' BL	none	y			
M	N-S	Range Line Road	County line to Donges Bay	N	Y	none	>5YR S	10	30	3100	1.5' PS	none ?	?			
			Donges Bay to Mequon			none	>5YR S		30	3300	1.5' PS	SUP	N			
M-T	N-S	River Road	Freistadt Rd to Highland Rd	Y	y	none	>5YR S VOT?	12	30	970	5'PS	OK	Y			
M-T	N-S SI	River Road Bridge		N	N			NA								
M	N-S	Swan Road	County Line to Donges Bay	N	N	na	>5YR S		45	1300	none	none				
			Donges Bay Rd to Daventry	Y	Y	na	>5YR S	14	45	1800	9'SUP	OK				
			Daventry to Mequon	Y	Y	na	>5YR S		45	1800	none	SUP				*
		Wauwatosia Rd	County Line to Donges Bay	N	Y		DOT?		45	9100	12' PS	BL	N			
			Donges Bay to Mequon	N	Y		DOT?		45	11500	12' PS	BL + SW(E)	N			

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M	N-S	GRAEF REPORT PAGE# / STH 181		31	53	22	note 12	10	43	43	17	49	na			
			Mequon to Highland	N	Y	none	>5YRS		35-40	9700	2.5' PS	BL + SW (EW)	N			
			Highland to Pioneer	N	Y		>5YRS		40	7300	2.5' PS	BL + SW (EW)	N			