



WIS 113
Madison – Lodi
Knutson Drive to WIS 19
Project 5420-02-02/72

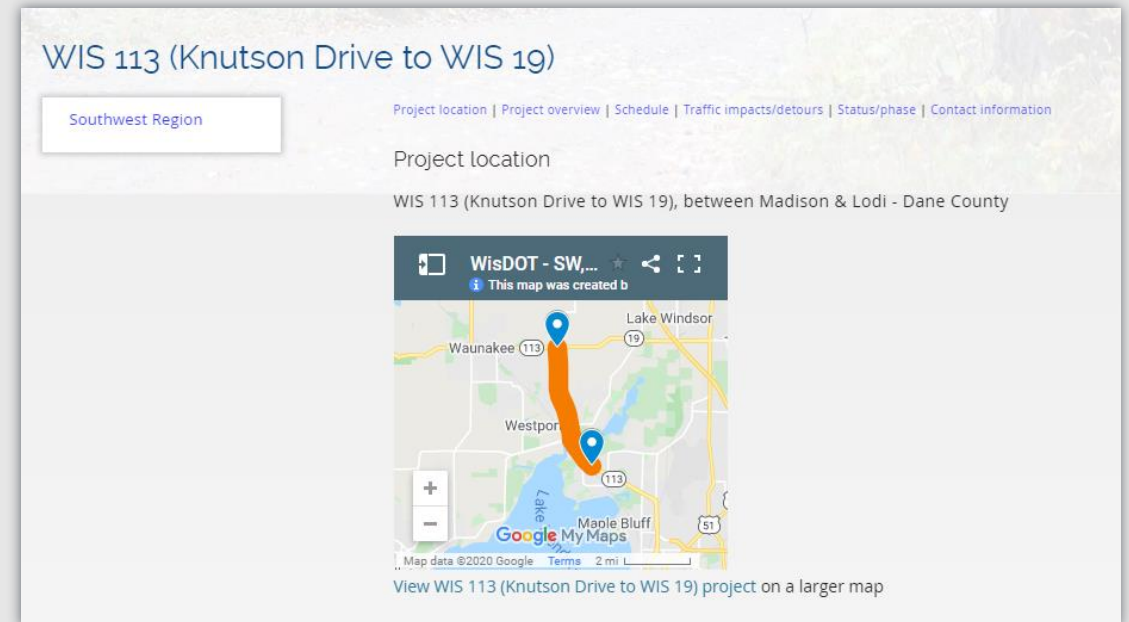
Public Involvement Meeting

February/March 2021

Project website

<https://wisconsindot.gov/Pages/projects/by-region/sw/wis113-westport/default.aspx>

- WisconsinDOT.gov
 - Projects and Studies
 - SW Region
 - Design Projects
 - Dane County



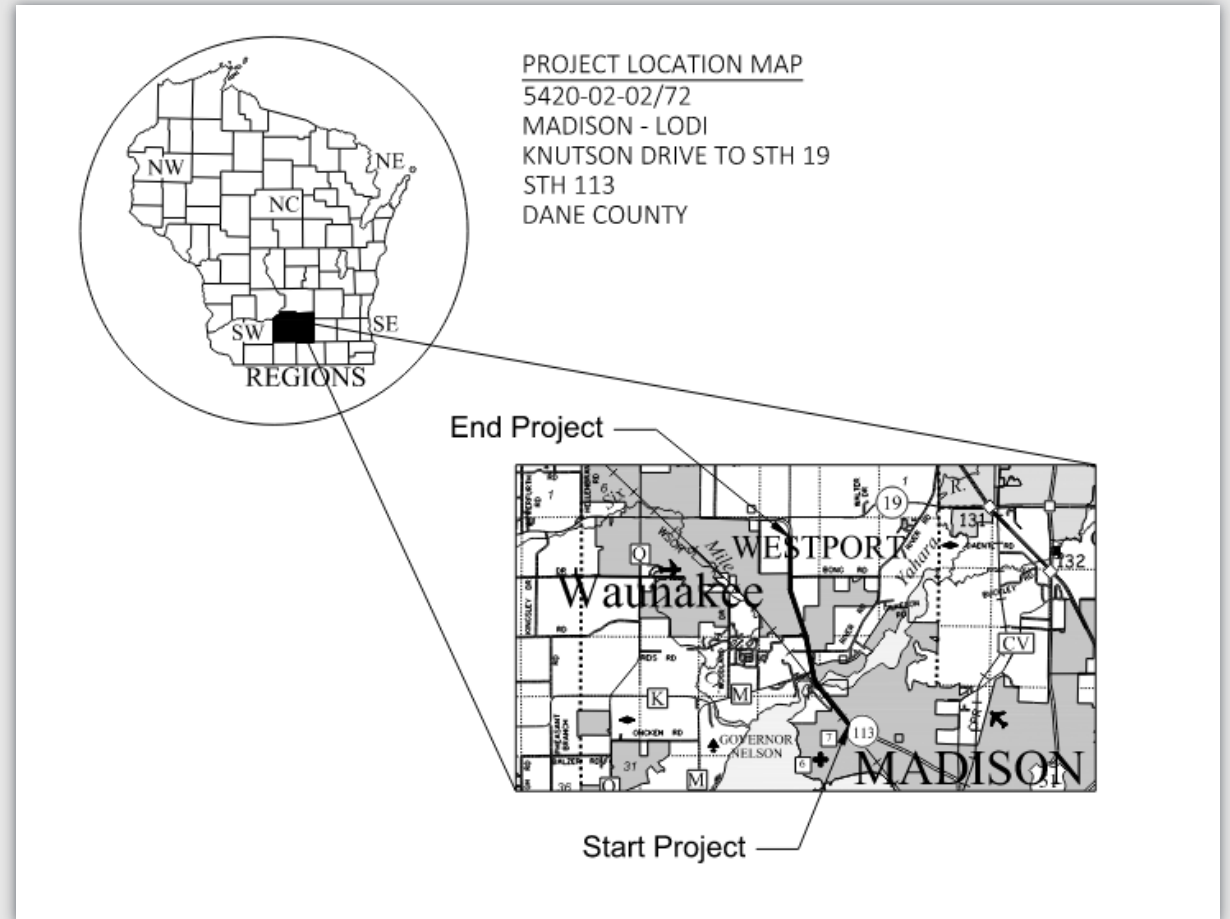
Presentation agenda

1. Project location
2. Project purpose and need
3. Proposed improvements
4. Traffic impacts
5. Project schedule
6. Contact information



Project location

- 5.31 miles WIS 113
- City of Madison and Town of Westport, Dane County
- Knutson Drive to WIS 19



Project purpose and need

Pavement deterioration and roadway safety

- Last rehabilitated in 2004, the existing asphalt pavement has poor ride quality with significant longitudinal cracking and heaving
- Non-Americans with Disabilities Act (ADA) compliant curb ramps



Project purpose and need

Pavement deterioration and roadway safety

- Arboretum Drive / Bong Road intersection
 - Improve operations for side roads
 - Improve safety, particularly with reduction of severe and right-angle crashes



Project purpose and need

Pavement deterioration and roadway safety

- Arboretum Drive / Bong Road intersection
 - Operations
 - Traffic on stop-controlled side roads experience delay and queuing, especially during morning and evening peak hours
 - Minimal gaps available for side street traffic to enter WIS 113, can result in higher risk decision-making
 - Safety
 - 87% of reported crashes from 2015 to 2019 were injury crashes
 - Trends: rear-end crashes with WIS 113 northbound or southbound left turning vehicles; right-angle crashes
 - Contributing factors: high speed, failure to stop for left turning vehicles, failure to stop at the side street stop signs



Project alternatives

- Alternative 1: No-Action
- Alternative 2: Pavement restoration (resurfacing)
- Alternative 3: Pavement replacement (preferred)



Alternative 1

No-Action

If no improvements are completed, the roadway pavement will continue to deteriorate. A No-Action alternative will not address the identified needs and is not preferred.

Alternative 2

Pavement restoration (resurfacing)

Since the underlying base layers are in poor condition, a resurfacing project would deteriorate before the pavement design life is reached. This option would not maximize the **taxpayers' investment, and therefore is not preferred.**



Alternative 3

Pavement replacement

A pavement replacement option would consist of the removal of the existing pavement and replacement with new base aggregate layers for drainage and a new pavement driving surface. Because the underlying base layers are in poor condition, the replacement of the road base is warranted. This option maximizes **the taxpayers' investment, and therefore is the preferred alternative.**



Arboretum Drive / Bong Road Intersection alternatives

- Alternative 1: No-Action
- Alternative 2: Traffic signals
- Alternative 3: Single-lane roundabout (preferred)



Intersection alternative 1

No-Action

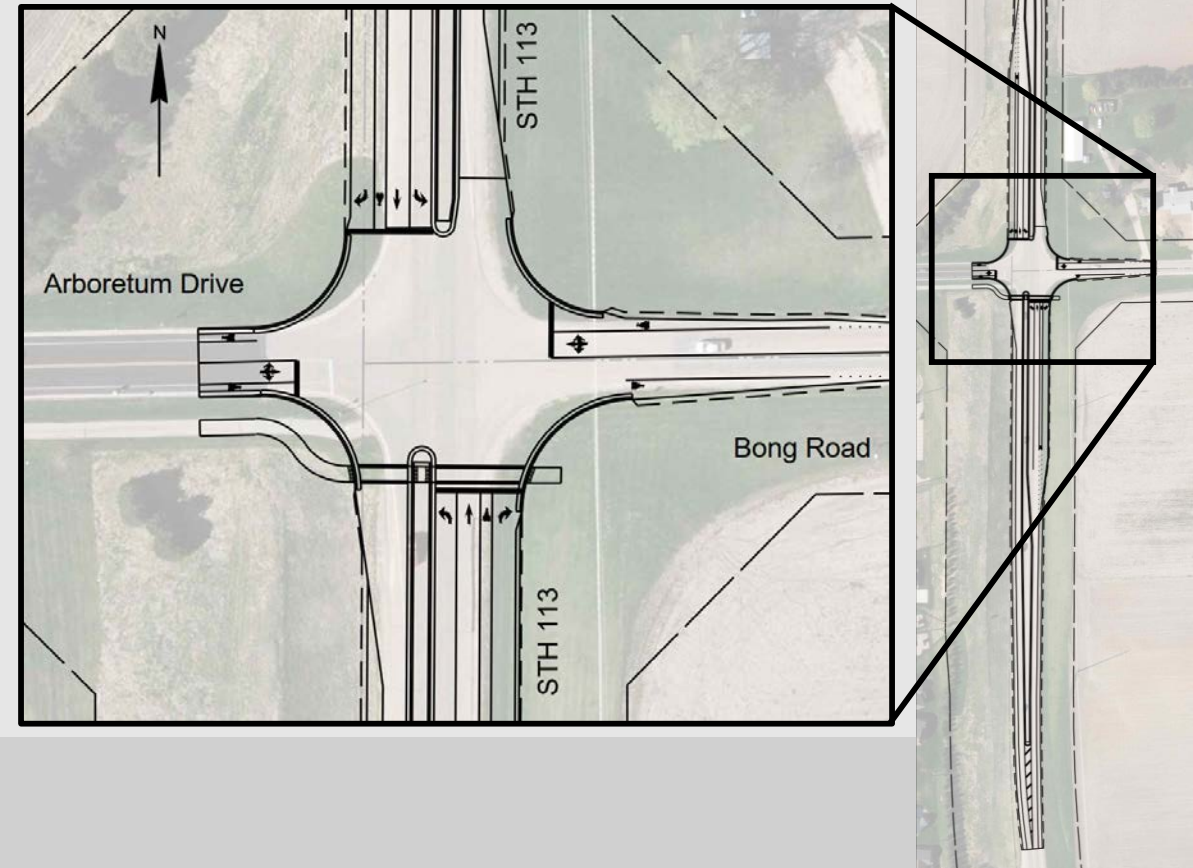
- If no improvements are completed, the WIS 113 and Arboretum Drive/Bong Road intersection will continue to experience high crash rates with increased likelihood of injuries or fatalities.
- Congestion will also increase as traffic grows, which will result in longer delays and potentially risky decision-making.
- A No-Action alternative will not address the identified needs and is not preferred.



Intersection alternative 2

Traffic signals

- Adds dedicated right turn and left turn lanes on WIS 113
- Adds a median separating northbound and southbound WIS 113 traffic
- Bicycle lanes included on all approaches



Intersection alternative 2

Traffic signals

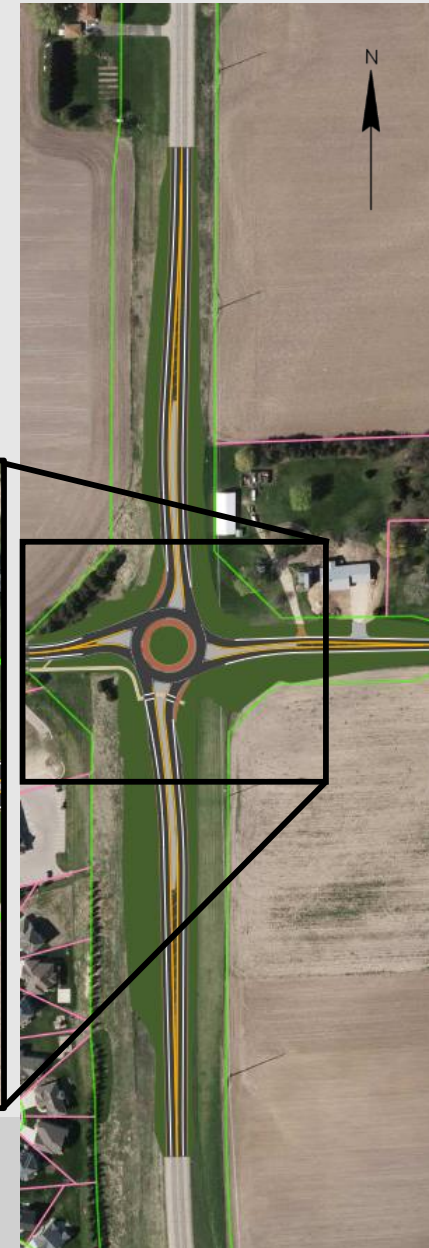
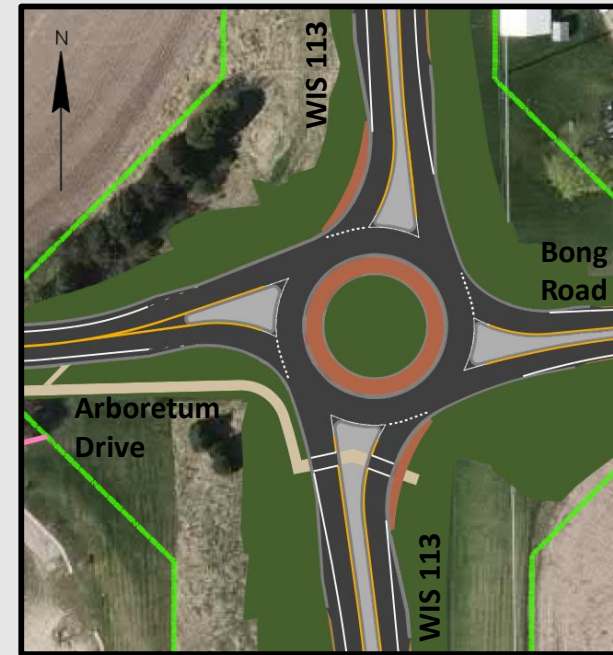
- Improved safety performance compared to existing conditions; however, due to high speeds on WIS 113, the severity of crashes could still be high.
- Traffic operations are also expected to be improved over existing conditions; however, queue lengths are expected to be longer during peak periods compared to the roundabout alternative.
- Construction cost is estimated to be higher than the roundabout alternative due to extensive approach work needed for the new turn lanes.
- **This option would not maximize the taxpayers' investment, and therefore is not preferred.**



Intersection alternative 3

Single-lane roundabout (preferred)

- Single-lane entries with a bike ramp connecting to Arboretum Drive and a crosswalk on south leg of WIS 113
- Roundabouts eliminate right angle (T-bone) crashes and reduce injury severity
 - Crash types between opposing directions are typically sideswipes
 - Slower operating speeds
 - Replacing a stop sign and/or traffic signal with a roundabout yields a 38% reduction in fatal and injury crashes *(Source: UW TOPS Lab Safety Study, 2013)*



Intersection alternative 3

Single-lane roundabout (preferred)

- Improved safety performance compared to existing conditions, and less severe crashes compared to the traffic signal alternative.
- Traffic operations are also expected to be improved over existing conditions, with less queuing than the traffic signal alternative and less off-peak delay.
- Construction cost is estimated to be lower than the traffic signal alternative.
- **This option maximizes the taxpayers' investment, and therefore is the preferred alternative.**



Proposed improvements

Design overview

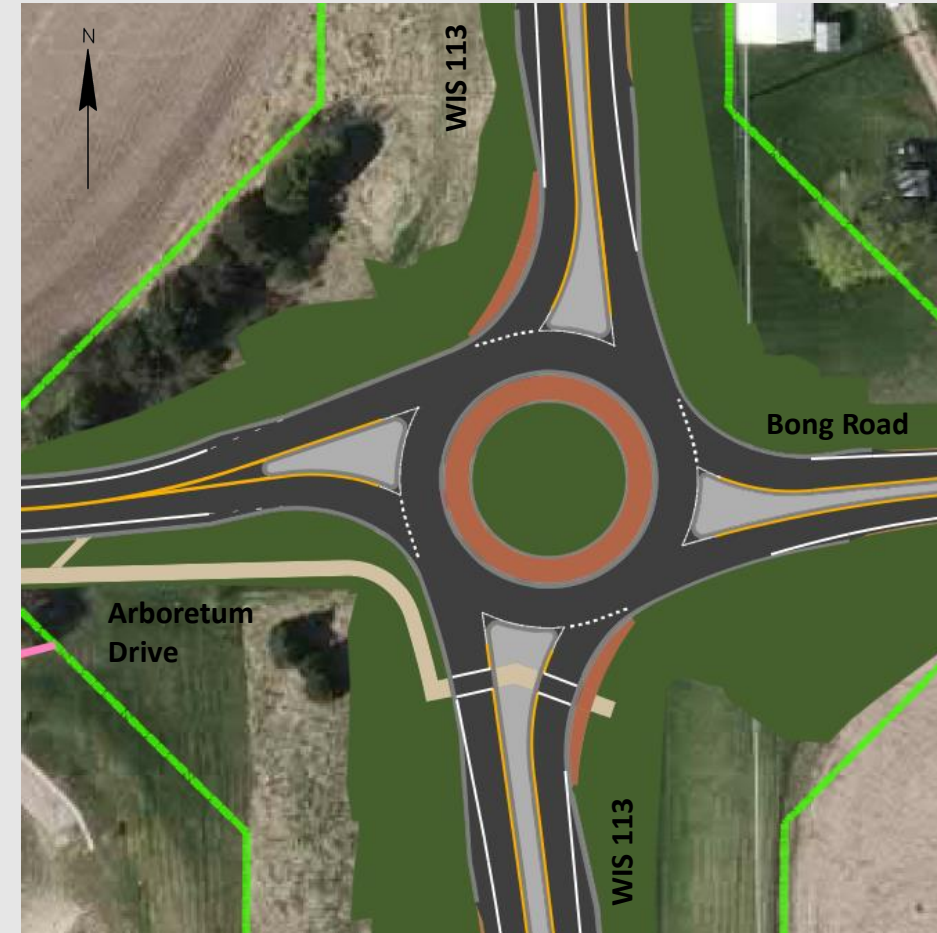
- Pavement structure
 - Remove existing asphaltic pavement and underlying aggregate
 - Replace with two 12-inch aggregate layers over geogrid material
 - Replace with 6-inches Hot Mix Asphalt (HMA)
- Structure repairs on WIS 113 northbound bridge over the Yahara River
- New monotube traffic signals and offset left-turn lanes at WIS 113 and River Road intersection
- Curb ramp reconstruction
- New pavement markings and shoulder aggregate



Proposed improvements

Design overview – roundabout

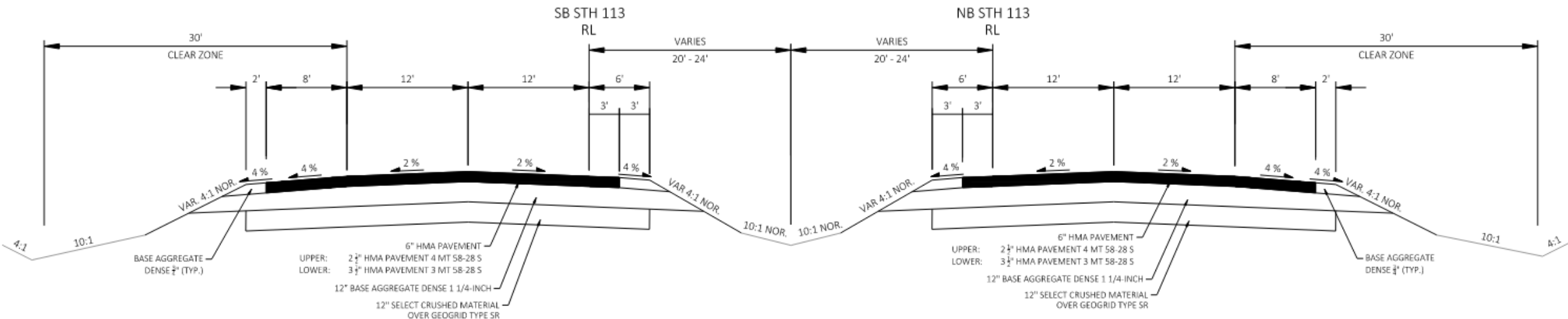
- Single lane approaches
- Bicycle ramp connecting to Arboretum Drive bicycle lane and crosswalk on south leg of WIS 113
- Grading for future path around intersection
- Accommodates Oversized, Overweight (OSOW) vehicles on WIS 113
- Asphalt pavement
- Improvements contained within existing right of way



Proposed improvements

Typical section – 4-lane

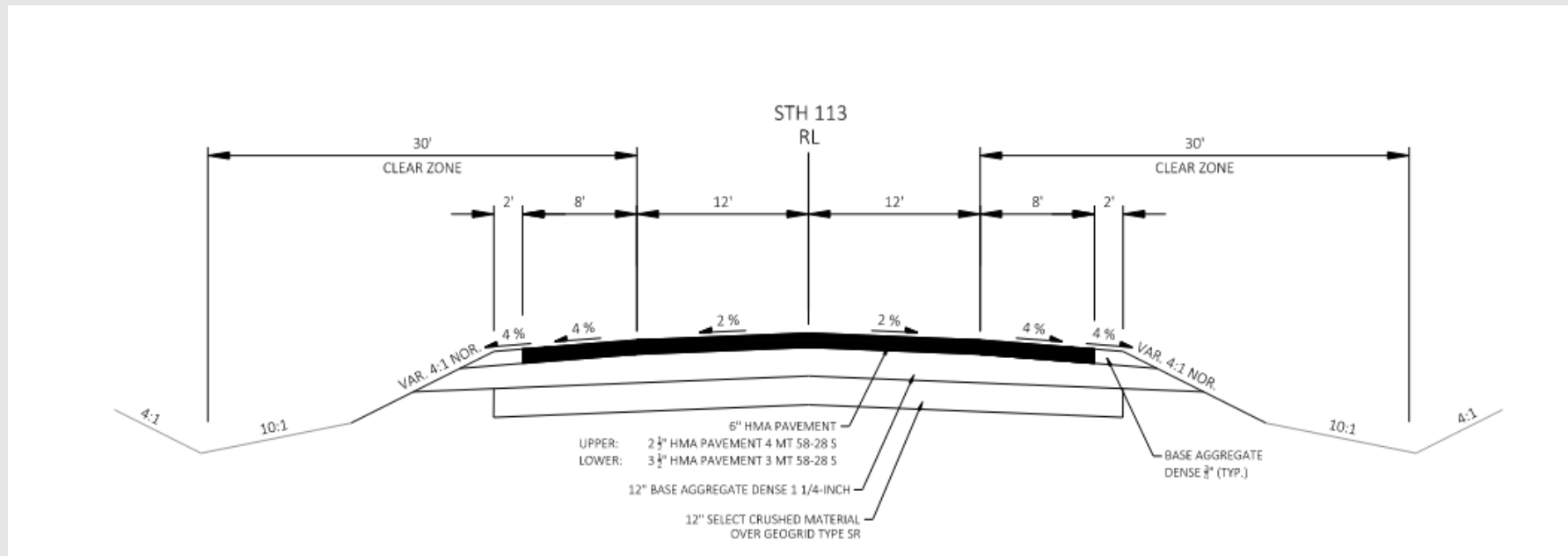
- Knutson Road to Kennedy Drive
 - Existing lane and shoulder widths to remain



Proposed improvements

Typical section – 2-lane

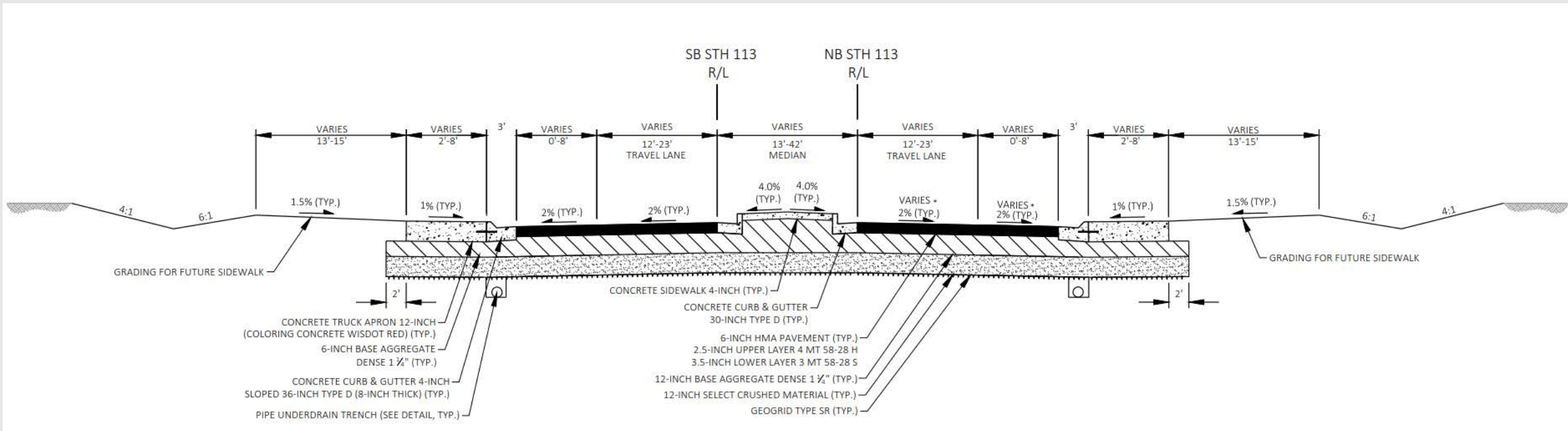
- Kennedy Drive to Arboretum Drive/Bong Road roundabout
- Arboretum Drive/Bong Road roundabout to WIS 19
 - Existing lane and shoulder widths to remain



Proposed improvements

Typical section – Arboretum Drive/Bong Road roundabout

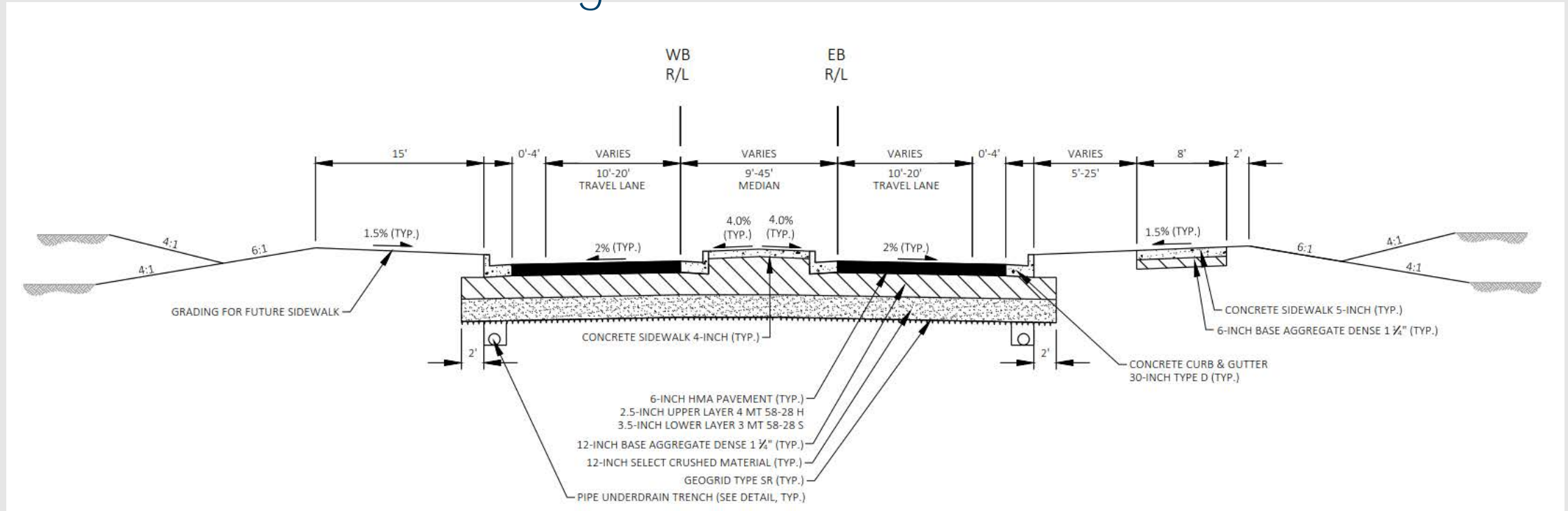
- WIS 113



Proposed improvements

Typical section – Arboretum Drive/Bong Road roundabout

- Arboretum Drive and Bong Road



Traffic impacts

- Staging with lane closures from Knutson Drive to County M
- WIS 113 closure from County M to WIS 19
 - Posted detour will follow state highways
 - Local access will be maintained
- Business and residential access always maintained
- Pedestrian accommodations for sidewalk closures



Project schedule

- Environmental Document Spring 2021
- 60% Preliminary Plans May 2022
- Design Study Report May 2022
- 90% Plans May 2024
- Final Plans Approved August 2024
- Project Letting November 2024
- Construction Summer 2025
 - Project could be advanced to 2023 if funding becomes available



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