PURPOSE & NEED AND LAYOUT HISTORY

This project is to regain the long term pavement strength, improve the ride, reduce maintenance costs, update guardrails, and add left turn lanes to improve safety.

November 2017
An Intersection control evaluation report was completed for the TH 212 and TH 23 intersection. Four intersection alternatives were investigated:

1. Signal control and modification to intersection geometry to remove southbound-to-westbound channelized right-turn, remove second northbound thru lane (retaining only one thru lane), add southbound exclusive left turn and install left-turn phasing for the northbound and southbound left-turns.
2. Same as Alternative 1 except the southbound-to-westbound channelized right-turn would remain.
3. Single-lane roundabout with northbound-to-eastbound right turn bypass lane.
4. Same as Alternative 1 except for minor changes including a single southbound thru lane.

The ICE report identified alternative #4 as the preferred alternative.

December 2017
Layout developed based on the preferred alternative identified in the ICE report. The intersection was designed to accommodate a WB-67 design vehicle for right turn movements and maintain a 4' separation for concurrent left turns of WB-62 design vehicles.

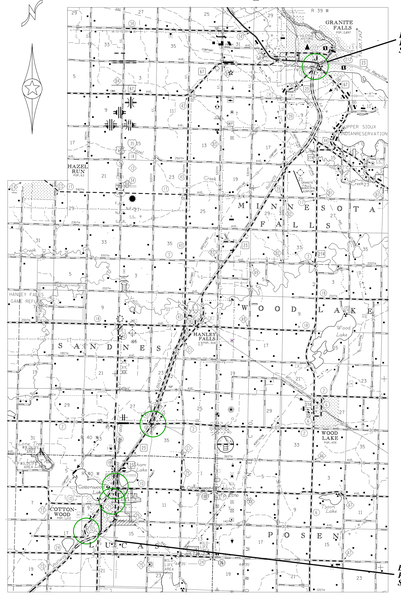
March 2018
Updated the layout per MnDOT comments received. Changes to the layout include:
- Extended the reconstruction of TH 23 SB to match up with TH 23 NB reconstruction limit
- Modified intersection geometrics at CR 39 / TH 67 intersection to match existing conditions
- Revised the sidewalk configuration on the east side of TH 23 from the bridge to the TH 23 / TH 212 intersection to include a 10' boulevard
- Updated pedestrian crossings at the TH 212 / TH 23 intersection per Central Office ADA comments
- Revised the EB TH 212 west intersection approach lane dimensions to match existing conditions
- Added anticipated temporary easement limits at the 13th Avenue and Granite Street intersection

*Note: A temporary easement will be required for the ADA ramps at the 13th Avenue and Granite Street intersection from the Cenex property.

LEGEND

- ROADWAYS (INCLUDING TURN LANES)
- RAISED MEDIAN & CURBS
- PAVED SHOULDERS
- GRAVEL SHOULDERS
- CONCRETE SIDEWALK
- GRAVEL ENTRANCES/DRIVEWAYS
- BRIDGE/CULVERT
- OBLIBERATE ROADWAY
- PROPOSED SIGNAL
- PRELIMINARY CONSTRUCTION LIMITS
- EXISTING R/W
- EXISTING CONTROLLED ACCESS

Index Map



Level 2 LAYOUT APPROVAL

Programmed Letting Date 01-24-2020

Prepared By ____ District Design or Preliminary Design Engineer ____ 20__

Reviewed By ____ District Traffic Engineer ____ 20__

Approved By ____ Transportation District Engineer ____ 20__

I HEREBY CERTIFY THAT THIS LAYOUT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF MINNESOTA.

REV. 02/05/18. LTS. NO. 48185. SHA. F.

LAYOUT No.__1__ COPY No.__1__
T.H. 23, VICINITY OF COTTONWOOD, MINNESOTA
FROM 0.4 MILES N. OF CSAH 24
TO 0.4 MILES S. OF GRANITE FALLS
Project No. 8823-00 (GRANITE FALLS SE)
By SRF CONSULTING GROUP, INC.
Recommended ____ Approved As Noted ____

The alignment and grades shown are acceptable as shown unless noted.

Staff Approval Date ____

The traffic values shown are acceptable.

District Traffic Engineer ____ Prepared Date 06.04.18

S.P. 8203-150 T.H. 23 A.C. 7.813171 PFMS Activity 1140
S.P. ____ T.H. ____ A.C. ____ PFMS Activity ____
S.P. ____ T.H. ____ A.C. ____ PFMS Activity ____
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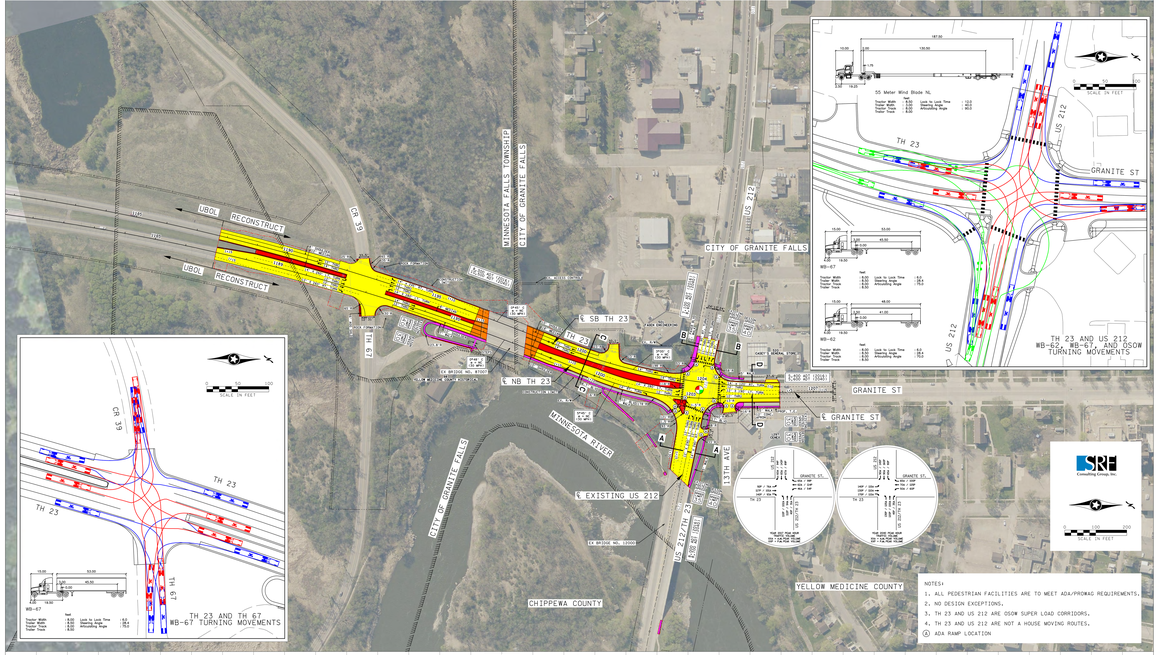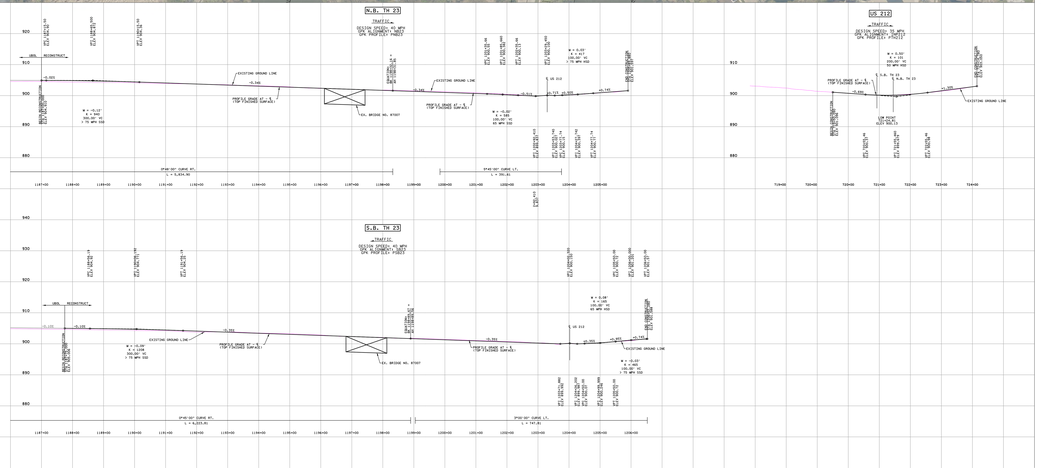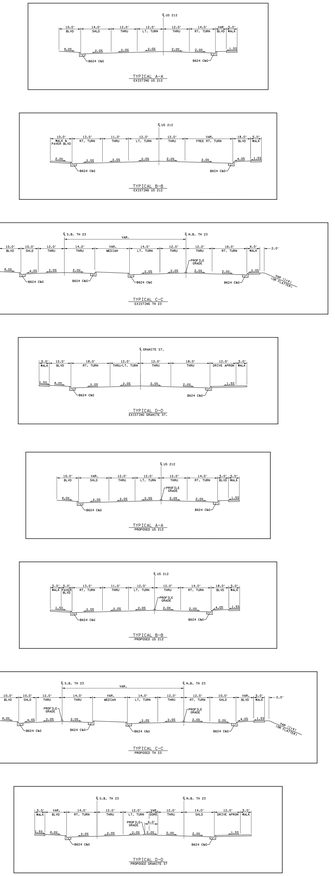
DESIGN FILE: P4203150.L02.dgn
DATE: MARCH 2017