



MARSHALL
CULTIVATING THE BEST IN US

FEASIBILITY REPORT

Project ST-004 **Halbur Road Reconstruction Project**

November 15, 2021



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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision, and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

By: Jason R. Anderson, P.E. Digitally signed by Jason R. Anderson,
P.E.
Date: 2021.11.18 08:51:58 -06'00'

Jason R. Anderson, P.E.
Registration No. 53322

FEASIBILITY REPORT

PROJECT ST-004 HALBUR ROAD RECONSTRUCTION PROJECT

CITY OF MARSHALL, MINNESOTA

1.0 SCOPE

This Feasibility Report, as authorized by the City Council, covers the following proposed improvements: reconstruction and utility replacement on Halbur Road from Michigan Road to Erie Road (County Road 33). Sanitary sewer and storm sewer utilities will be replaced. Watermain is not proposed to be replaced under this project. Other items of work included in this project are pavement removal, aggregate base, concrete surfacing, curb and gutter and other minor work.

2.0 BACKGROUND / EXISTING CONDITIONS

Street

City records indicate that this street was originally constructed in 1978. The original pavement section does not meet the City's current standards for thickness and load rating. The existing pavement surface is beginning to show its age with considerable cracking. There are numerous patches due to pavement degradation. There are several areas with significant surface drainage issues.

The existing street width is 43-FT as measured from back of curb to back of curb. Currently, the existing segment of Halbur Road is wide enough to accommodate two travel lanes with parallel parking on both sides of the street. There is currently no sidewalk on Halbur Road and no potential sidewalk connections on Michigan Road or Erie Road.

Utilities

The existing watermain Halbur Road is 8" polyvinyl chloride pipe (PVC) between Michigan Road and Erie Road. The 8" PVC in this project area is in acceptable condition and is not proposed for replacement under this project.

The existing sanitary sewer main along Halbur Road is 8" vitrified clay pipe (VCP). The properties in this segment are served by this sanitary sewer main. The age and condition of the sewer in these segments make this sewer a good candidate for replacement with this project.

There are limited segments of separate existing storm sewer. There are currently two catch basins at the approximate center of the segment of Halbur Road. These two catch basins drain into a structure to the west that connects with a 24" main that runs along the west side of Halbur Road between Michigan Road and the catch basins. These connections drain into a 36" storm sewer main that outlets into the stormwater pond to the west. There are two other existing catch basins on Halbur Road at the intersection of Erie Road. These two catch basins drain into a 33" storm sewer main that runs to the west and outfalls into the stormwater pond. The storm sewer mains in this area are reinforced concrete pipe (RCP). There is also an 8" tile line that runs adjacent to the 24" storm sewer main on the west side between Michigan Road and the midpoint of the Halbur Road segment. The project is proposed to include replacement of the catch basins but not the storm sewer mains or tile line.

3.0 PROPOSED IMPROVEMENTS

Street

A concrete pavement section will be proposed and discussed in this feasibility report. Staff is proposing a street section comprised of 7" of concrete surfacing and 6" of Class 5 aggregate base. A geotextile fabric will be placed on the subgrade prior to the placement of the aggregate base. A 6" perforated drain tile shall be installed at the back of the curb below the aggregate base to provide subsurface drainage for the street section.

The proposed roadway will be 36-FT travel way (as measured from back of curb to back of curb) on Halbur Road. The project proposes two 11-FT travel lanes and two 5-FT shoulders. The proposed segment of Halbur Road will be 7-FT narrower than the existing street. Truck turning movements were done using CAD drafting software to verify that trucks were able to exit driveways without hitting the proposed curb. It is the opinion of staff that the proposed road widths will be adequate to serve the corridor. No sidewalk is proposed to be included with this project.

Utilities

The proposed utility improvements include replacing existing VCP sanitary sewer and existing storm sewer catch basins. No watermain will be replaced with this project.

The sanitary sewer system improvements will include replacing all manholes, sewer main, and sewer services along Halbur Road. The VCP main will be replaced with 8" PVC main. All sewer services will be replaced to the right-of-way (ROW) with a minimum 4" pipe size.

The existing storm sewer main along the west side of Halbur Road will be left in place. The catch basins and catch basin leads under Halbur Road would be replaced under this project. A hydraulic study will

be completed to verify the capacity of the existing catch basins and determine if additional catch basins would be required to reduce street flooding during large storm events.

4.0 STATEMENT OF PROBABLE COST

The estimated costs to complete the proposed improvements are shown below. The estimated construction costs include a 10% allowance for contingencies and a 16% allowance for administrative and engineering costs. The unit prices for each item of work used in determining the estimated cost of construction is based on previous projects similar in nature and is subject to change.

<i>Street and Curb and Gutter</i>	<i>\$560,000.00</i>
<i>Sanitary Sewer Replacement</i>	<i>\$146,000.00</i>
<i>Storm Sewer Replacement</i>	<u><i>\$22,000.00</i></u>
<i>Subtotal Estimated Construction Cost</i>	<i>\$728,000.00</i>
<i>Contingencies (10%)</i>	<u><i>\$73,000.00</i></u>
<i>Total Estimated Construction Cost</i>	<i>\$801,000.00</i>
<i>Estimated Engineering, & Administration (16%)</i>	<u><i>\$128,000.00</i></u>
<i>Total Estimated Project Cost</i>	<u><i>\$929,000.00</i></u>

5.0 PROPOSED ASSESSMENTS

The adjacent properties will not be assessed for sanitary sewer main improvements. All costs for sanitary sewer main will be paid by the City of Marshall Wastewater Department. Sanitary sewer service lines and connection points to the main will be assessed to the adjacent property owners according to current sanitary sewer assessment procedures.

Costs for the street replacements will be partially assessed to the adjacent property owners in accordance with the most recent Special Assessment Policy and partially funded by the Wastewater Department, MMU, and Surface Water Management Utility fund.

A preliminary assessment roll showing the estimated assessments for each benefiting parcel, City Participation, and utility participation will be prepared at a later date for consideration by the City Council in accordance with the most recent Special Assessment Policy.

6.0 FEASIBILITY/CONDITIONS/QUALIFICATIONS

The proposed improvements as described in this report are necessary, cost-effective, and feasible from an engineering standpoint. The feasibility of this project is contingent upon the findings of the City Council pertaining to project financing and public input.

7.0 PROPOSED PROJECT SCHEDULE

The following is the anticipated schedule for the project, assuming the City Council elects to proceed with the proposed improvements.

December 14, 2021	Public Hearing on Improvement/Order Plans & Specs
January 11, 2022	Approve Plans & Specs/Authorize Call for Bids
January 14 - February 2, 2022	Advertise for Bids
February 2, 2022	Bid Opening Date
February 8, 2022	Award Contract
April 18, 2022	Notice to Proceed
May 2022	Begin Construction
September 13, 2022	Public Hearing on Assessment/Adopt Assessment
September 2022	End Construction

APPENDIX



DESIGNED BY: J.L.D.
DRAWN BY: J.L.D.
APPROVED BY: _____
SCALE: 1"=##'

DATE	REVISIONS	INIT.



MARSHALL

ENGINEERING DEPARTMENT
344 WEST MAIN STREET
MARSHALL, MINNESOTA
56258

Halbur Road Reconstruction Project
Project Area

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.	
DATE 00/00/21	LICENSE NO. 53322

CITY PROJECT NO. ST-004	DATE 11/4/2021
STATE AID PROJECT NO.	SHEET NO. 1 OF 1

EXISTING PHOTOS









DESIGNED BY: J.L.D.
DRAWN BY: J.L.D.
APPROVED BY: _____
SCALE: 1"=##'

DATE	REVISIONS	INIT.



MARSHALL

ENGINEERING DEPARTMENT
344 WEST MAIN STREET
MARSHALL, MINNESOTA
56258

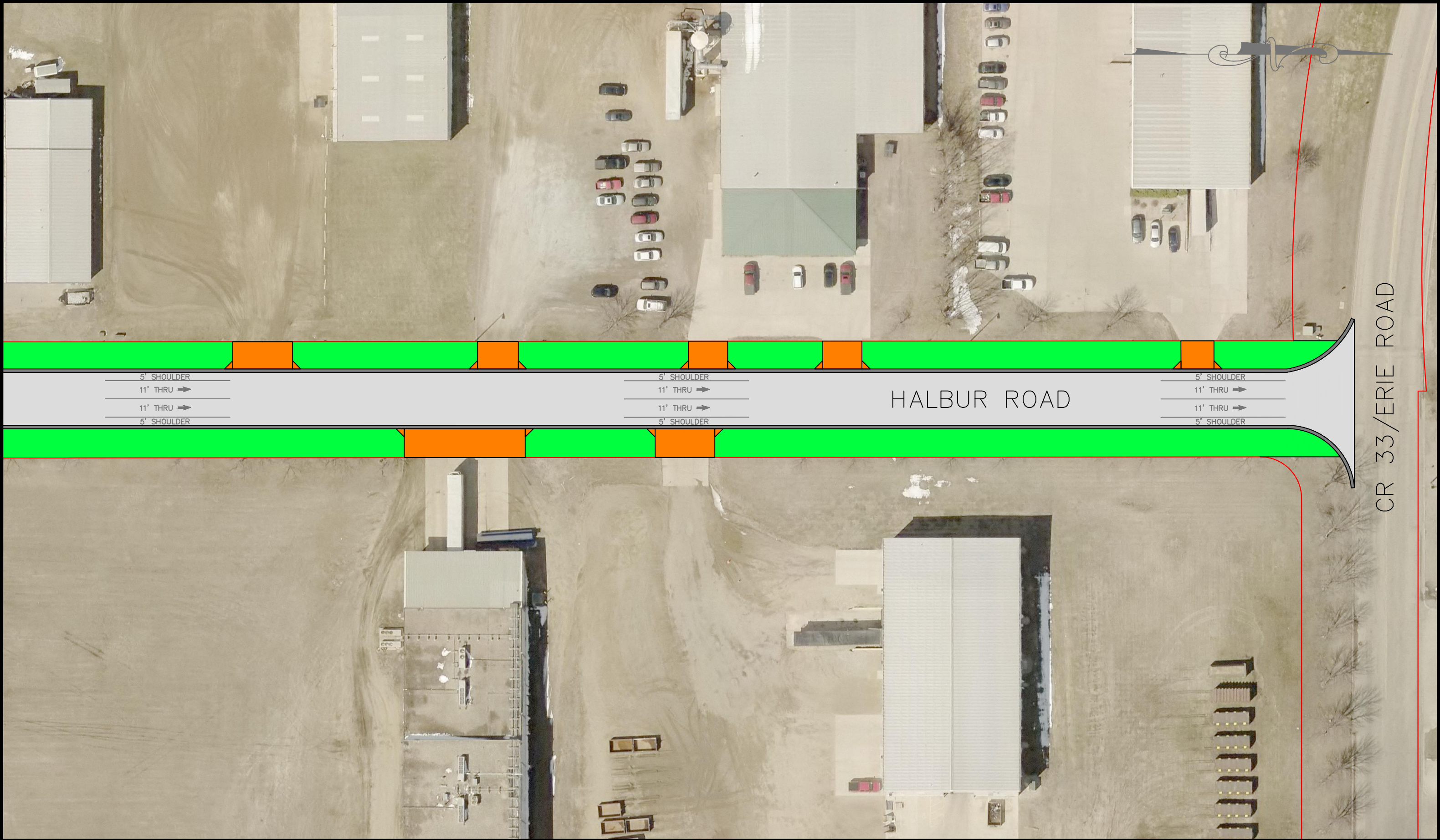
HALBUR ROAD RECONSTRUCTION

CONCEPT LAYOUT


I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

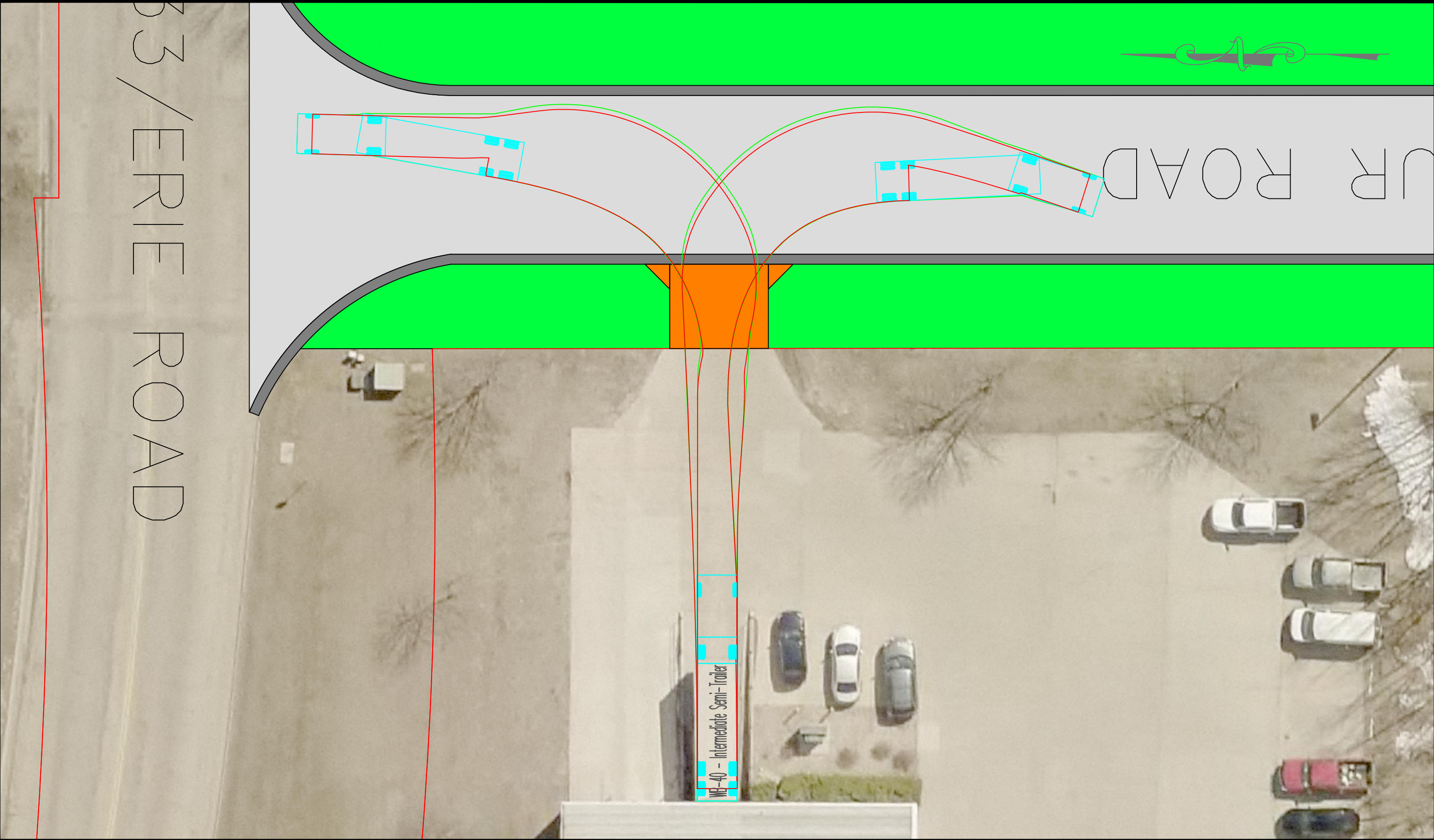
DATE 00/00/21 LICENSE NO. 53322


CITY PROJECT NO. ST-004	DATE 10/28/2021
STATE AID PROJECT NO.	SHEET NO. 1 OF 4

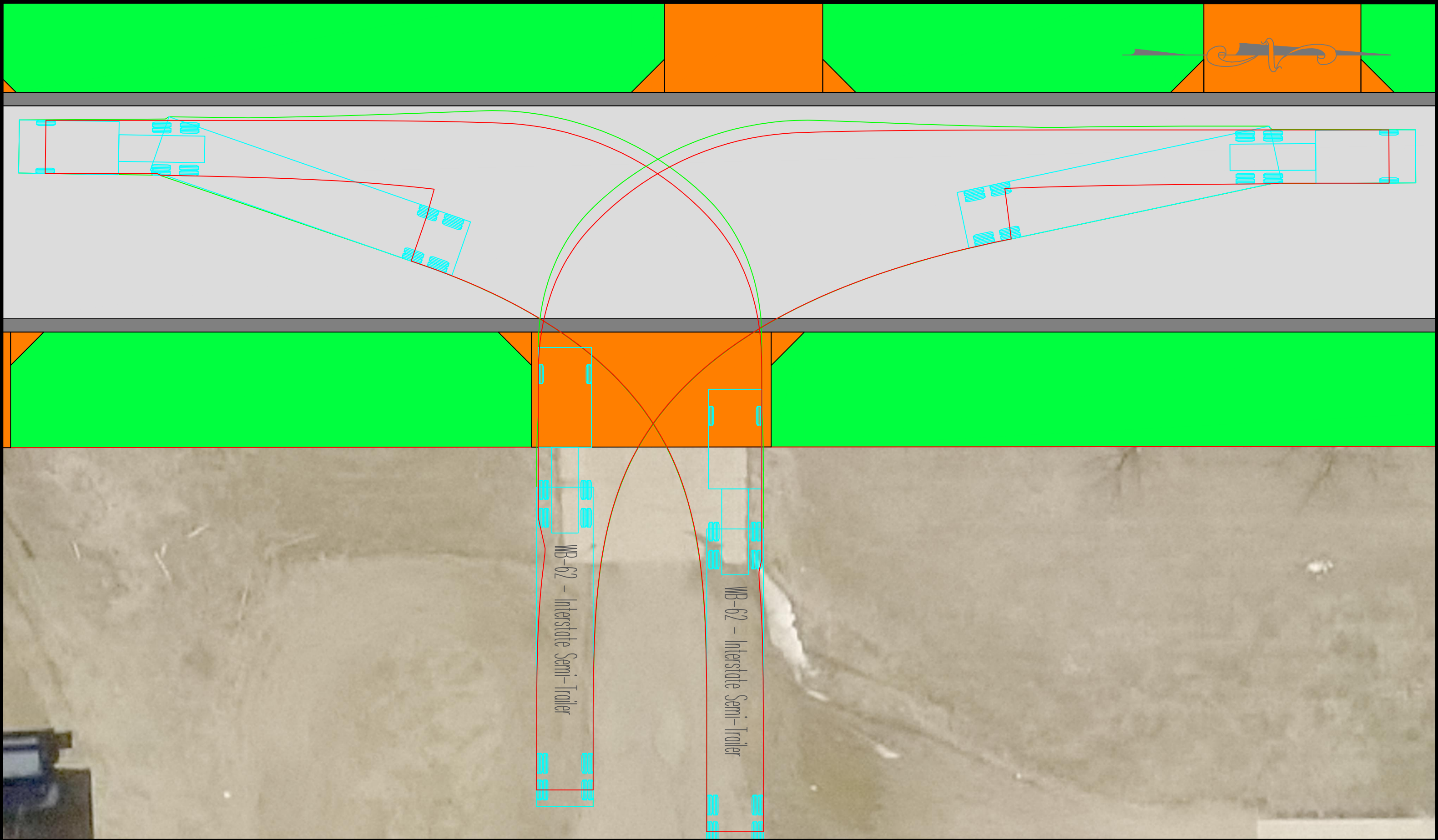



CR 33/ERIE ROAD

DESIGNED BY: J.L.D.	DATE	REVISIONS	INIT.	 <p>ENGINEERING DEPARTMENT 344 WEST MAIN STREET MARSHALL, MINNESOTA 56258</p>	HALBUR ROAD RECONSTRUCTION	I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. DATE 00/00/21 LICENSE NO. 53322	CITY PROJECT NO. ST-004	DATE 10/28/2021
DRAWN BY: J.L.D.					CONCEPT LAYOUT		STATE AID PROJECT NO.	SHEET NO. 2 OF 4
APPROVED BY:								
SCALE: 1"=##'								



DESIGNED BY: J.L.D.	DATE	REVISIONS	INIT.	 MARSHALL	ENGINEERING DEPARTMENT 344 WEST MAIN STREET MARSHALL, MINNESOTA 56258	HALBUR ROAD RECONSTRUCTION	I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. DATE <u>00/00/21</u> LICENSE NO. <u>53322</u>	CITY PROJECT NO. ST-004	DATE 10/28/2021
DRAWN BY: J.L.D.					VEHICLE TRACKING - WB-40 TRUCK	STATE AID PROJECT NO.		SHEET NO. 3 OF 4	
APPROVED BY:									
SCALE: 1"=##'									



DESIGNED BY: J.L.D.	DATE	REVISIONS	INIT.	 MARSHALL	ENGINEERING DEPARTMENT 344 WEST MAIN STREET MARSHALL, MINNESOTA 56258	HALBUR ROAD RECONSTRUCTION	I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. DATE <u>00/00/21</u> LICENSE NO. <u>53322</u>	CITY PROJECT NO. ST-004	DATE 10/28/2021
DRAWN BY: J.L.D.					VEHICLE TRACKING - WB-62 TRUCK	STATE AID PROJECT NO.		SHEET NO. 4 OF 4	
APPROVED BY:									
SCALE: 1"=##'									