

**PLYMOUTH CO.**

PCC CURB AND GUTTER  
NHSN-003-1(102)--2R-75

LETTING DATE  
11-16-2021



**Highway Division**

PLANS OF PROPOSED IMPROVEMENT ON THE

**PRIMARY ROAD SYSTEM  
PLYMOUTH COUNTY  
PCC CURB AND GUTTER**

IA 3 Near 1st Ave. NE in Le Mars

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.14 of the Specifications.



H Sheets

REVISIONS

TOTAL

PROJECT IDENTIFICATION NUMBER

20-75-003-010-00

PROJECT NUMBER

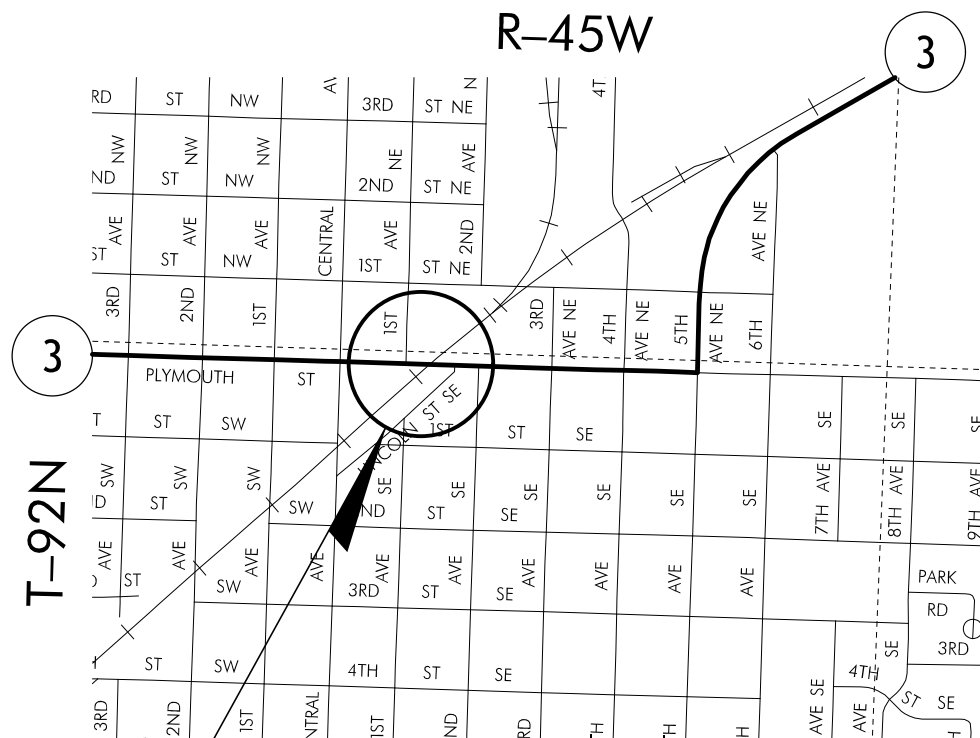
NHSN-003-1(102)--2R-75

R.O.W. PROJECT NUMBER

NHSN-003-1(103)--2R-75

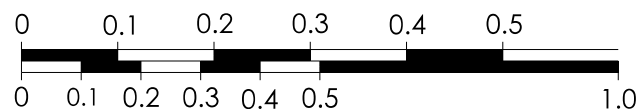
**INDEX OF SHEETS**

No.	DESCRIPTION
<b>A Sheets</b>	<b>Title Sheets</b>
A.1	Title Sheet
<b>B Sheets</b>	<b>Typical Cross Sections and Details</b>
B.1 - 3	Typical Cross Sections and Details
<b>D Sheets</b>	<b>Mainline Plan and Profile Sheets</b>
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2	IA 3
<b>E Sheets</b>	<b>Side Road Plan and Profile Sheets</b>
* E.1	1st Ave. NE
<b>G Sheets</b>	<b>Survey Sheets</b>
G.1	Survey Information
G.2	Control Point Vicinity Map
G.2	Horizontal & Vertical Control Coordinate Listing
<b>J Sheets</b>	<b>Traffic Control and Staging Sheets</b>
* J.1	Traffic Control Plan
* J.1	Staging Notes Stage
* J.2	Signing & Symbols
<b>U Sheets</b>	<b>500 Series, Mod.Stds. and Detail Sheets</b>
U.1 - 2	500 Series, Modified Standards and Detail Sheets
<b>W Sheets</b>	<b>Mainline Cross Sections</b>
W.1	Cross Sections Legend & Symbol Information Sheet
W.2 - 7	Mainline Cross Sections
<b>X Sheets</b>	<b>Side Road Cross Sections</b>
X.1 - 3	Side Road Cross Sections
	* Color Plan Sheets



Part of Town of Le Mars  
Project Location

SCALE IN MILES



SCALE IN KILOMETERS

**DESIGN DATA URBAN**

2022	AADT	6800	V.P.D.
2042	AADT	7800	V.P.D.
20--	DHV	--	V.P.H.
	TRUCKS	6	%
	Total Design ESALs	--	

**INDEX OF SEALS**

SHEET NO.	NAME	TYPE
A.1	X	Primary Signature Block
X	X	X

**PRELIMINARY PLANS**

Subject to change by final design.

D5 PLAN - Date: 06-04-2021

FILE NO.

ENGLISH

DESIGN TEAM **J1a \ Fullarton**

PLYMOUTH COUNTY

PROJECT NUMBER

**NHSN-003-1(102)--2R-75**

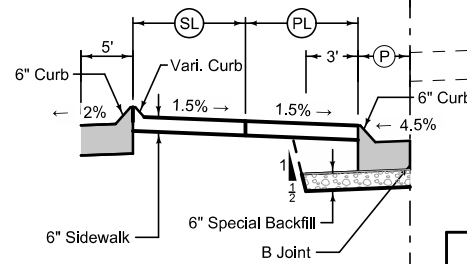
SHEET NUMBER

**A.1**

**8" Curb and Gutter**

Transverse: C at 15' spacing

2_Curb_04-21-20					
STATION TO STATION	SL Feet	PL Feet	P Feet	Curb Type See PV-102	
IA 3					
551+94.96 - 552+10.00	9.00	--	4.08	6" Std.	
552+10.00 - 552+30.80	9.00	0.00 - 2.08	4.08 - 2.0	6" Std.	



STATION TO STATION	A Feet	L Feet	R Feet
IA 3			
551+75.00 - 551+94.96	--	--	27.00 - 25.00
551+94.96 - 552+10.00	51.92 - 50.42	26.92	25.00 - 23.50
552+10.00 - 552+30.80	50.42 - 47.92	26.92	23.50 - 21.00
552+30.80 - 552+90.00	47.92 - 42	26.92 - 21.00	21.00
552+90.00 - 553+08.00	42.00	21.00	21.00
553+08.00 - 553+59.00	42.00 - 47.10	21.00	21.00 - 26.10
553+59.00 - 553+78.00	47.10 - 50.90	21.00 - 22.90	26.10 - 28.00
553+78.00 - 554+34.00	--	22.90 - 28.50	--

**6" Curb and Gutter**

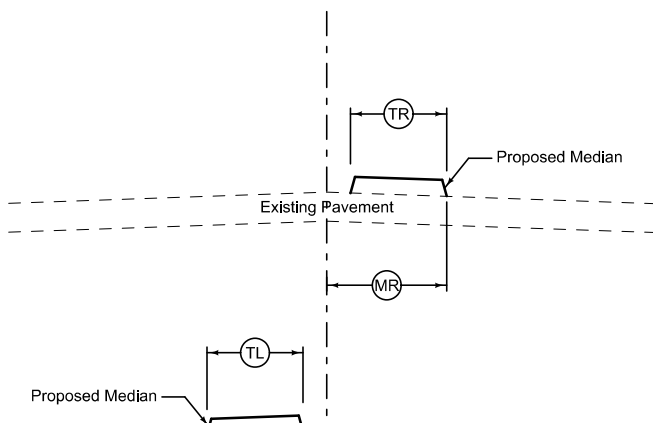
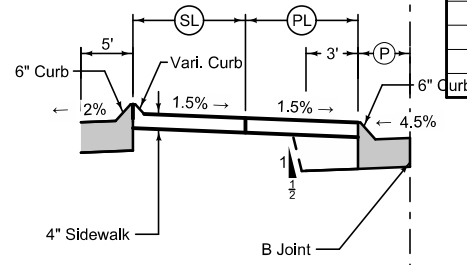
Transverse: C at 15' spacing

2_Curb_04-21-20					
STATION TO STATION	P Feet	PR Feet	SR Feet	E Feet	Curb Type See PV-102
IA 3					
551+75.00 - 551+98.50	2.0	0.00 - 2.35	7.80	--	6" Std.
551+98.50 - 552+00.00	2.0	2.35 - 2.50	7.80	7.2	6" Std.
552+00.00 - 552+24.00	2.0	2.50 - 7.42	7.80 - 7.32	7.20 - 4.68	6" Std.
552+24.00 - 552+30.00	2.0	7.42 - 9.25	7.32 - 7.20	4.68 - 4.05	6" Std.
552+30.00 - 552+34.91	2.0	9.25 - 9.74	7.20	4.05 - 0.00	6" Std.

**6" Curb and Gutter**

Transverse: C at 15' spacing

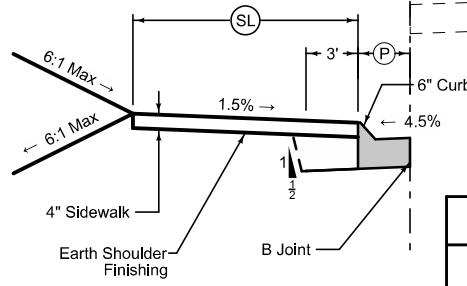
2_Curb_04-21-20					
STATION TO STATION	SL Feet	PL Feet	P Feet	Curb Type See PV-102	
IA 3					
552+30.80 - 552+90.00	9.00	2.08 - 8.00	2.0	6" Std.	
552+90.00 - 553+17.88	9.00	8.00	2.0	6" Std.	



**6" Curb and Gutter**

Transverse: C at 15' spacing

2_Curb_04-21-20					
STATION TO STATION	SL Feet	PL Feet	P Feet	Curb Type See PV-102	
IA 3					
553+17.88 - 553+34.86	9.00 - 6.00	8.00	2.0	6" Std.	
553+25.00 - 553+59.00	6.00	9.75	2.0	6" Std.	
553+59.00 - 554+00.00	6.00	9.75 - 5.65	2.0	6" Std.	
554+00.00 - 554+34.00	6.00 - 8.25	5.65 - 0.00	2.0	6" Std.	



Doweled On Median					
STATION TO STATION	ML Feet	TL Feet	MR Feet	TR Feet	
IA 3					
551+85.00 - 552+25.00	--	--	8.00	5.00	
552+25.00 - 552+91.00	--	--	8.00	5.00 - 16.00	
552+91.00 - 553+50.00	8.00	8.00	8.00	8.00	
553+50.00 - 554+60.00	8.00	16.00 - 5.00	--	--	
554+60.00 - 555+20.00	8.00	5.00	--	--	

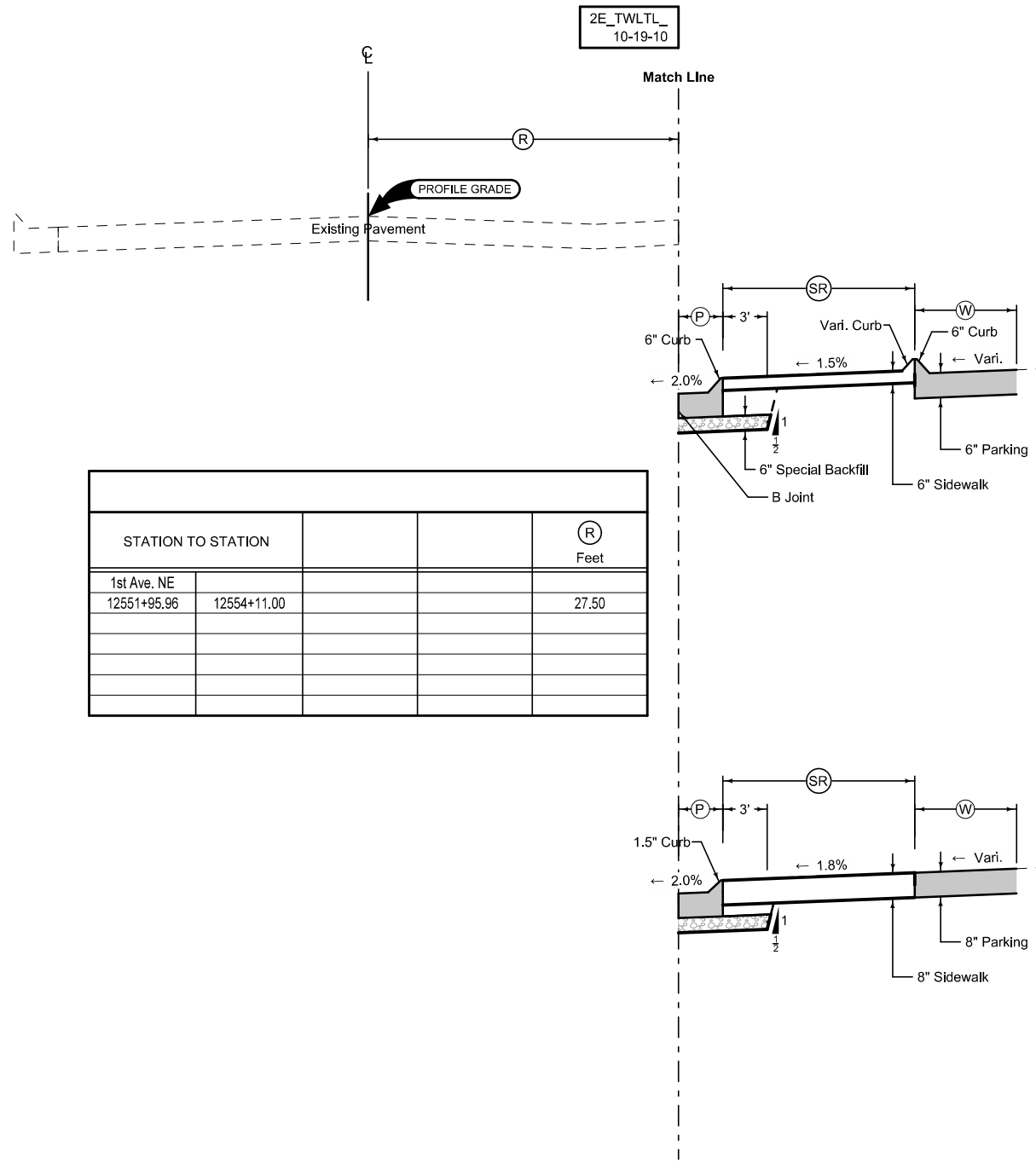
**6" Curb and Gutter**

Transverse: C at 15' spacing

2_Curb_04-21-20					
STATION TO STATION	PR Feet	SR Feet	P Feet	Curb Type See PV-102	
IA 3					
552+34.91 - 552+35.00	9.74 - 9.75	7.20	2.0	6" Std.	
552+35.00 - 552+95.00	9.75	7.20	2.0	6" Std.	
552+95.00 - 553+08.00	9.75 - 9.32	7.20	2.0	6" Std.	
553+08.00 - 553+78.00	9.32 - 0.00	7.20	2.0	6" Std.	

See Tab 100-24 or 100-25 for pavement quantities.  
See Tab 112-9 for shoulder quantities.

2E\_TWLTL\_10-19-10



STATION TO STATION		(R) Feet
1st Ave. NE		
12551+95.96	12554+11.00	27.50

**8" Curb and Gutter**

Transverse: C at 15' spacing

STATION TO STATION		(SR) Feet	(P) Feet	(W) Feet	Curb Type See PV-102
1st Ave. NE					
12551+95.96	12552+52.00	10.00	2.5	5.0	6" Std.
12553+02.00	12553+20.00	10.00	2.5	5.0	6" Std.
12553+20.00	12553+59.00	10.00	2.5	12.50	6" Std.
12553+59.00	12554+11.00	10.00	2.5	5.0	6" Std.

**8" Curb and Gutter**

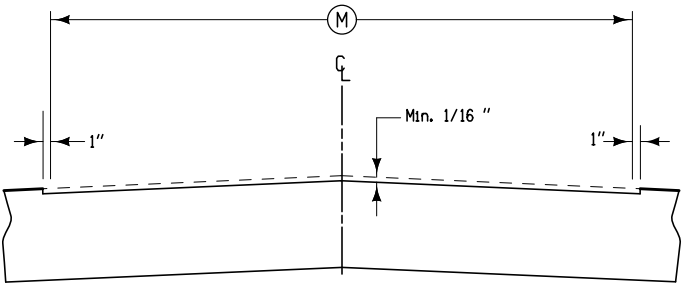
Transverse: C at 15' spacing

STATION TO STATION		(SR) Feet	(P) Feet	(W) Feet	Curb Type See PV-102
1st Ave. NE					
12552+52.00	12553+02.00	10.00	2.5	5.0	6" Std.

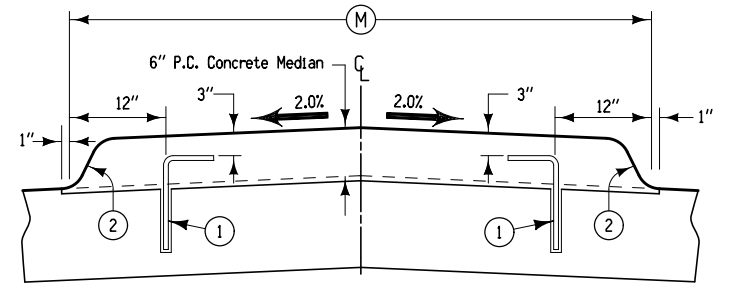
See Tab 100-24 or 100-25 for pavement quantities.  
See Tab 112-9 for shoulder quantities.

**1st Ave. NE**

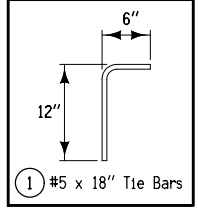
6149  
04-17-07



Details of Milling



Details of Median Placement



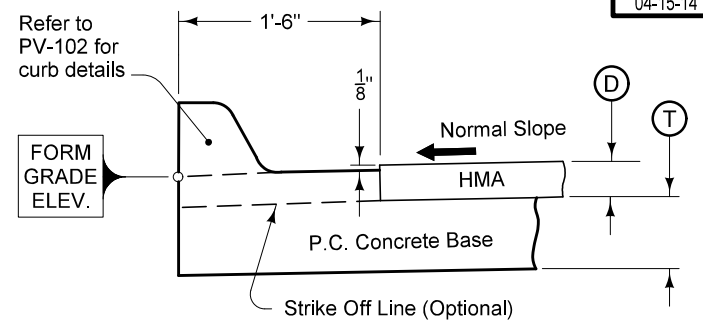
① #5 x 18" Tie Bars

② 6" Standard Curb

DOWELED MEDIAN WITH STANDARD CURB

Notes:  
 This section may be appropriately modified in areas specifically designated by the Engineer.  
 Use "C" joints in the doveled median and match the location of all transverse and longitudinal joints to the joints in the existing pavement.  
 Place tie bars at 24" C-C longitudinal spacing between joints in existing pavement. Drill 3/4" holes for tie bars and epoxy to new pavement. See Tabulation 112-5 for additional details. Epoxy material shall be as specified in Materials IM491.11, appendix C.

6133  
04-15-14



Refer to PV-102 for curb details

FORM GRADE ELEV.

- ⓓ Depth of HMA
- Ⓣ Thickness specified for P.C. Concrete Base

P.C. CONCRETE BASE WITH STANDARD CURB

### SURVEY SYMBOLS

- CU Back of Curb
- SWK Sidewalk
- RET Retaining Walls
- FCL Chain Link and Security Fence
- SI Sign
- IN Storm Sewer Intake
- TSG Traffic Signal
- TDC Tree Deciduous
- SHR Shrub
- CON Concrete or A/C Slab
- LUM Luminaire
- TEV Evergreen Tree
- MH Utility Access (Manhole)
- EP Edge of Paved Roads (ML or SR)
- ENP Edge Paved Entrance & Park Lot
- ENU Edge Unpaved Entrance & Parking
- BLD Building or Foundation
- FWD Wood Fence
- GP Guard Post (Less Than 4 Posts)
- FLG Flag Poles
- FHD Fire Hydrants
- EW Edge of Water
- BNK Stream Bank
- HDG Hedge Row
- BRG Bridge
- GDL Guard Rail Steel
- GU Gutter In Front of Curb
- S Soil Sampling Site (Wetlands)
- EB Electrical Box
- FHD Fire Hydrants
- GV Gas Valve
- IN Storm Sewer Intake
- PIP Pipe Culvert
- PPA Power Pole Co. 1
- TCB Traffic Signal Box
- TPD Telephone Pedestal
- UB Utility Box
- WV Water Valve

### UTILITY LEGEND

- W City of Le Mars  
Richard Sudtelgte  
1298 18th Steet SW  
Le Mars, IA 51031  
(712) 546-5555  
rsudtelgte@lemarsiowa.com
- E1 MidAmerican Energy Company  
John Roest  
924 Lincoln St SW  
Le Mars, IA 51031  
(712) 548-6198  
jthroest@midamerican.com
- E3 Exit Reality  
No Information Provided

### PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)	Existing Utilities
SHADING		
Design Color No.		
Yellow	(4)	Highlight for Critical Notes or Features
Red	(3)	Delineates Restricted Areas
Lavender	(9)	Temporary Pavement Shading
Gray, Light	(48)	Proposed Pavement Shading
Gray, Med	(80)	Proposed Granular Shading
Gray, Dark	(112)	Proposed Grade and Pave Shading "In conjunction with a paving project"
Brown, Light	(236)	Grading Shading
Tan	(8)	Proposed Sidewalk Shading
Blue, Light	(230)	Proposed Sidewalk Landing Shading
Pink	(11)	Proposed Sidewalk Ramp Shading

### PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Ground Line Profile
Blue	(1)	Proposed Profile and Annotation
Magenta	(5)	Existing Utilities
Blue, Light	(230)	Proposed Ditch Grades, Left
Black	(0)	Proposed Ditch Grades, Median
Rust	(14)	Proposed Ditch Grades, Right

- Reference Point
- Station
- Survey Line
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- HighTension Cable Guardrail
- Sheet Pile
- Pavement Removal
- Clearing & Grubbing Area

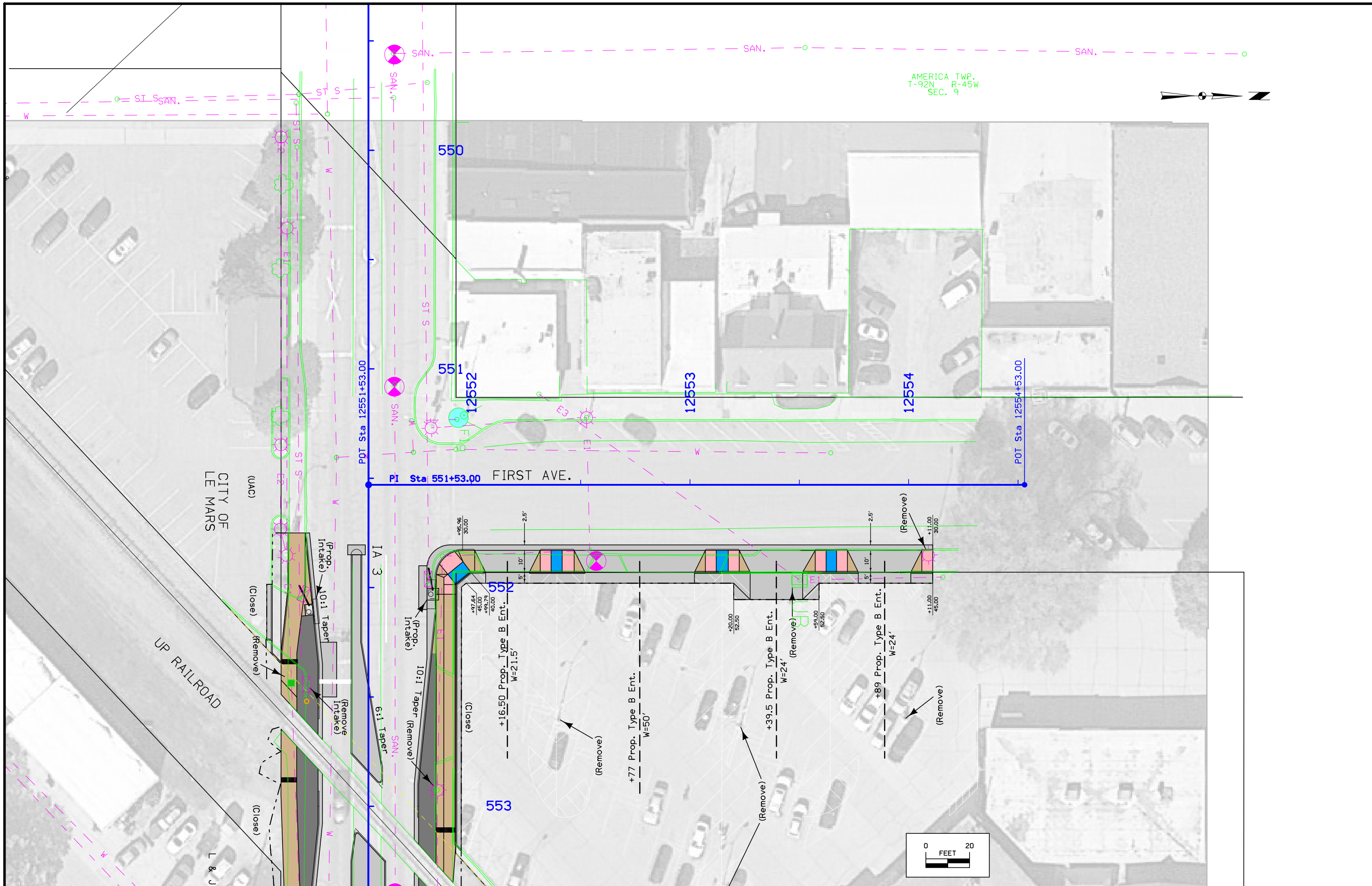
### RIGHT-OF-WAY LEGEND

- Proposed Right-of-Way
- Existing Right of Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Easement (Temporary)
- Easement
- Access Control
- Property Line

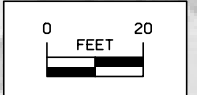
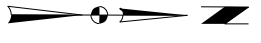
## PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES D, E, F, & K)





AMERICA TWP.  
T-92N R-45W  
SEC. 9



## Survey Information

**Plymouth County**  
**NHSN-003-1(102)--2R-75**  
**Location: Near 1<sup>st</sup> Ave NE in Le Mars**  
**Type of Work: PCC Curb and Gutter**  
**Project Directory: 7500301020**  
**PIN: 20-75-003-010**  
**Sap-780.2**

### Horizontal Control

The project coordinate system for this survey is Iowa RCS Zone 4 (U.S. Survey Feet). This survey control is relative to laRTN reference stations. laRTN Reference Station coordinate are relative to the National Reference Station network datum NAD83 (2011) for Epoch 2010.00. Coordinates were determined by using concurrent 6-hour static measurements and post processing connecting vectors.

### Alignment Information

The horizontal alignment for this survey is provided by District 3 ROW.

### Party Personnel

Jason Page- Party Chief  
Paul Harry- Party Chief  
John Hahn- Assistant Party Chief

### Date(s) of Survey

Begin Date 08/18/2020  
End Date 09/22/2020

### General Information

Measurement units for this survey are US survey feet. Project datum and control information is provided by Design Survey Office. This project is a Full DTM without Photo control.

### Vertical Control

The vertical datum is NAVD88. Vertical Control was established on 3 monuments designated as points FENO1, CP1, and 077. These monuments are expected to hold vertical reasonably well. Datum was transferred from Iowa RTN reference stations to the projects monuments by using concurrent 6-hour static measurements and post processing connecting vectors. Geoid g2012bu2 was used in processing.

This survey observed 1 Plymouth County Control Monument with published NAVD88 heights to compare to local ground control:

Plymouth County GPS monument designated 077 has a published Elev. of 1328.84  
Survey Elev. = 1328.88



## CONTROL POINT VICINITY MAP

This map is a guide to the vicinity of the primary project control points  
Primary control is for use with RTK base stations and for RTN validation.  
Future surveys will use primary project control to establish temporary  
control as needed for construction or other surveying applications.

HORIZ. DATUM: NAD83(2011) EPOCH 2010.00

VERT. DATUM: NAVD88

1a. Regional Coordinate System Zone 4

Coordinate listing from next sheet will be used with 1aRTN for monument  
recovery. No other reference ties are given.

HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING

HORIZ. DATUM: NAD83(2011) EPOCH 2010.00

VERT. DATUM: NAVD88

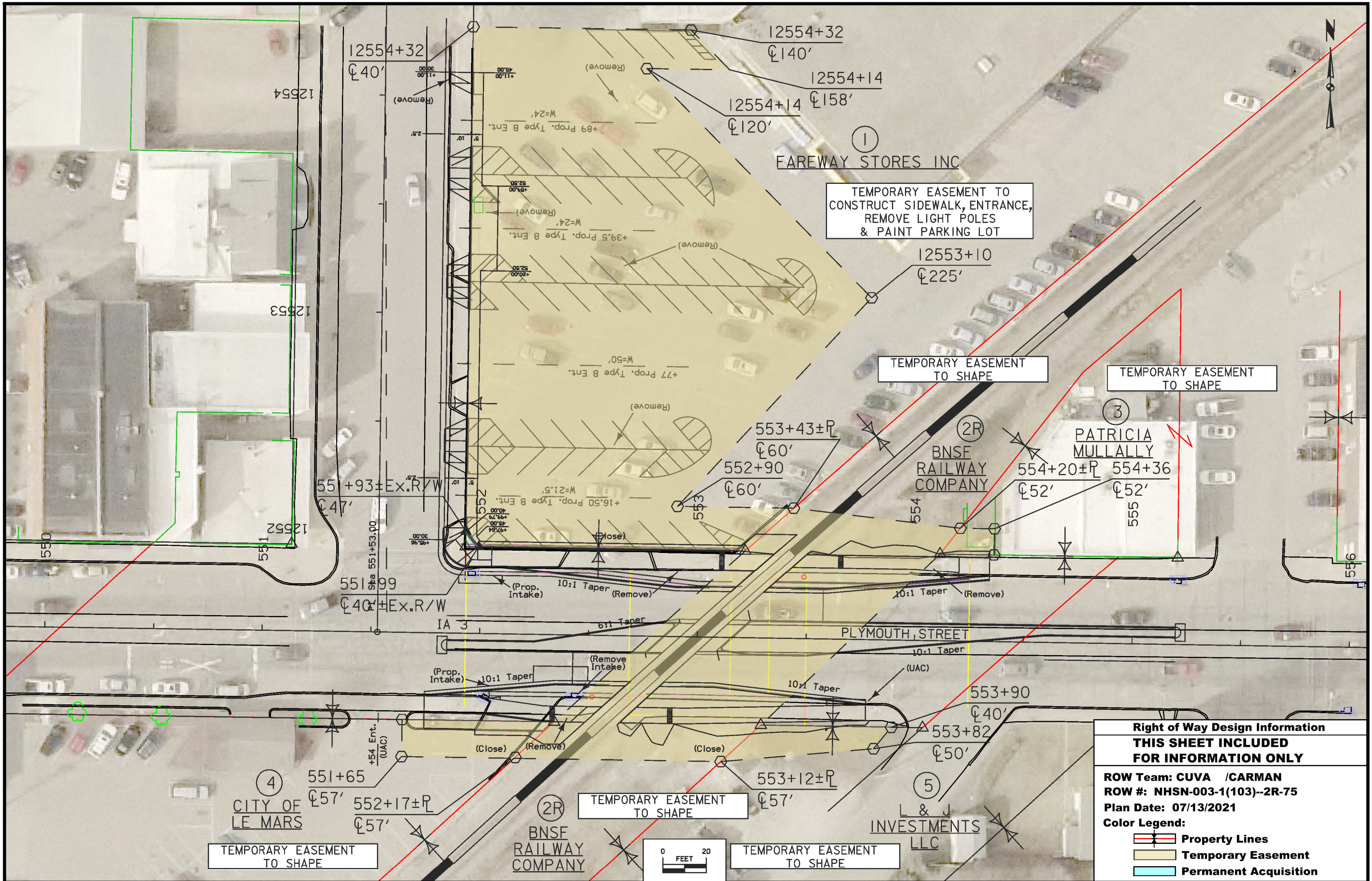
1a. Regional Coordinate System Zone 4

Project Control Marks are Bench Marks

Point Name	Northing	Easting	Elevation	Feature Definition-Description
FENO1	8697055.812	14142454.52	1231.482	FENO SET MON 45FT W OF CL OF 1ST AVE SE 30FT N OF CL OF 1ST ST SE 25FT SW OF PP
CP1	8700876.362	14148126.03	1222.944	CP CM 165FT WSW FIELD ENT TO RR TRACKS 55FT NNE OF CL HWY 3 32FT SSE OF S RR RAIL
77	8692239.65	14145003.4	1328.879	CP COUNTY GPS MON 35FT W OF CL OF 7TH AVE SE 25FT N OF CL 12TH ST SE 22FT SW OF FIRE HYDRANT



NO ACCESS RIGHTS ARE TO BE ACQUIRED ON THIS PROJECT.



<b>Right of Way Design Information</b>	
<b>THIS SHEET INCLUDED FOR INFORMATION ONLY</b>	
ROW Team: CUVA /CARMAN	
ROW #: NHSN-003-1(103)--2R-75	
Plan Date: 07/13/2021	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition

**TRAFFIC CONTROL PLAN**

Traffic on IA 3 and 1st Ave. NE shall be maintained at all times.

**Fareway:**

- A. Access to Fareway shall be maintained at all times.
- B. South entrance along IA 3 shall not be closed until entrance at Sta. 12552+77 along 1st Ave. NE is constructed and parking lot is repainted.

Sidewalk will be closed during construction.

**PEDESTRIAN PATH CLOSURES**

Refer to TC-601.

\*Assumes 6 foot wide barricade.

Closures may need to be removed and re-established.

Location	Side	Type III Barricades*	Remarks
		No.	
IA 3			
NW corner of intersection with 1st Ave. NE	Lt.	1	
East side of entrance at Sta. 551+54.	Rt.	1	
Sta. 553+80	Rt.	1	
Sta. 554+40	Lt.	1	
1st Ave. NE 12554+15	Rt.	1	

**COORDINATED OPERATIONS**

Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

Project	Type of Work
Railroad	Railroad Crossing

**STAGING NOTES**

**STAGE 1 - IA 3 (Plymouth St. NE), south side**

**Construction:**

- A. Remove east intake.
- B. Extend storm sewer pipe and relocate west intake.
- C. Reconstruct south side curb and gutter, sidewalk.
- D. Fill depression in road near east intake.

**Traffic:**

- A. Maintain traffic on IA 3 (one lane each direction).
- B. Maintain normal traffic on 1st Ave. NE and Fareway entrances.

**STAGE 2 - 1st Ave. NE**

**Construction:**

- A. Reconstruct curb and gutter, sidewalk, and parking lot.
- B. Repaint Fareway parking lot north of entrance at Sta. 12552+16.50.

**Traffic:**

- A. Maintain normal traffic on IA 3.
- B. Maintain Fareway south entrance access.
- C. Maintain traffic on 1st Ave. NE (one lane each direction).
- D. Close all Fareway entrances along 1st Ave. NE. and parking lot in repainted area.

**STAGE 3 - IA 3 (Plymouth St. NE), north side**

**Construction:**

- A. Extend storm sewer pipe and relocate intake.
- B. Reconstruct curb and gutter, sidewalk, and parking lot curb and gutter.
- C. Reconstruct intersection return with pedestrian ramp.
- D. Repaint south row of the Fareway parking lot next to IA 3.

**Traffic:**

- A. Maintain traffic on IA 3 (one lane each direction).
- B. Close Fareway south entrance.
- C. Maintain normal traffic on 1st Ave. NE.

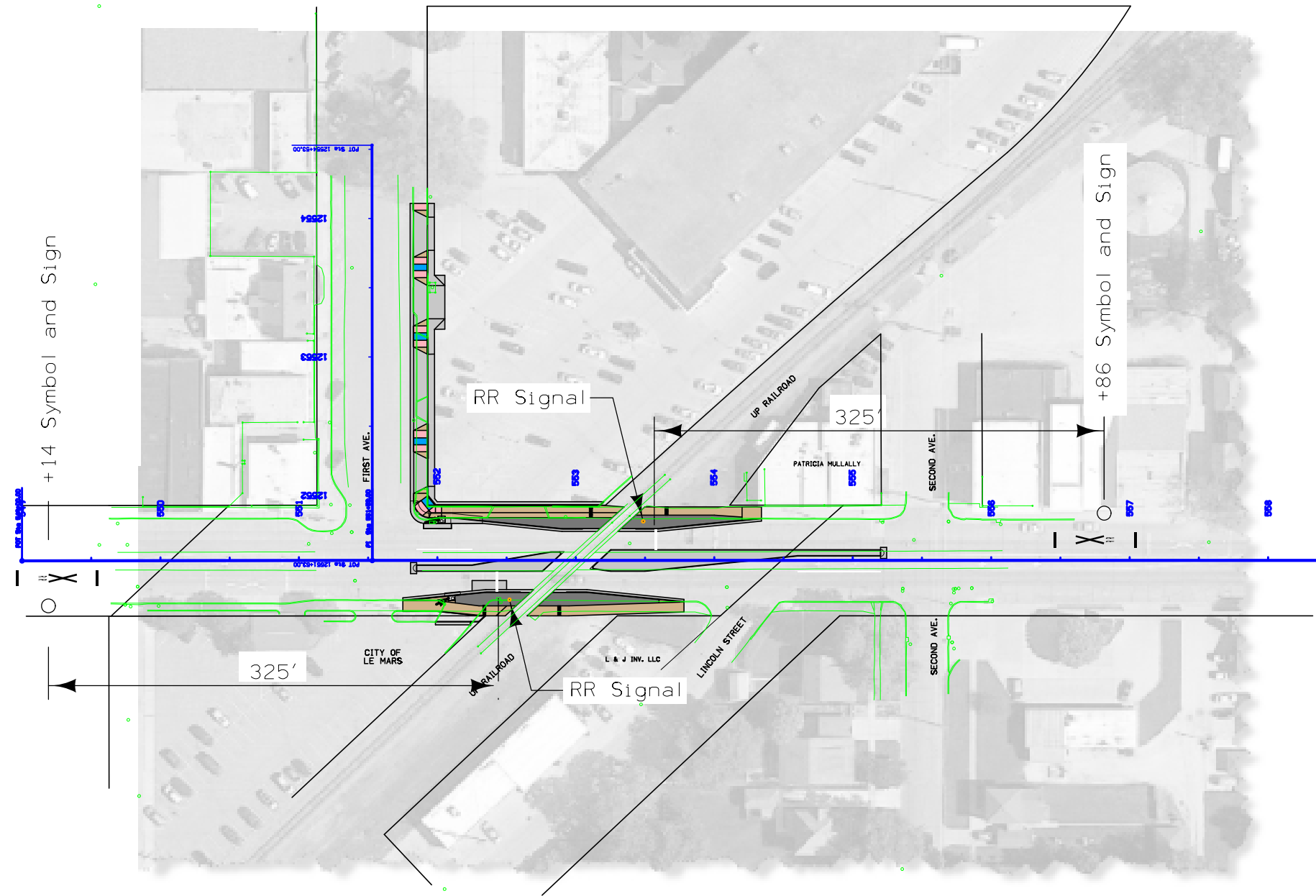
**STAGE 4 - IA 3 (Plymouth St. NE), median**

**Construction:**

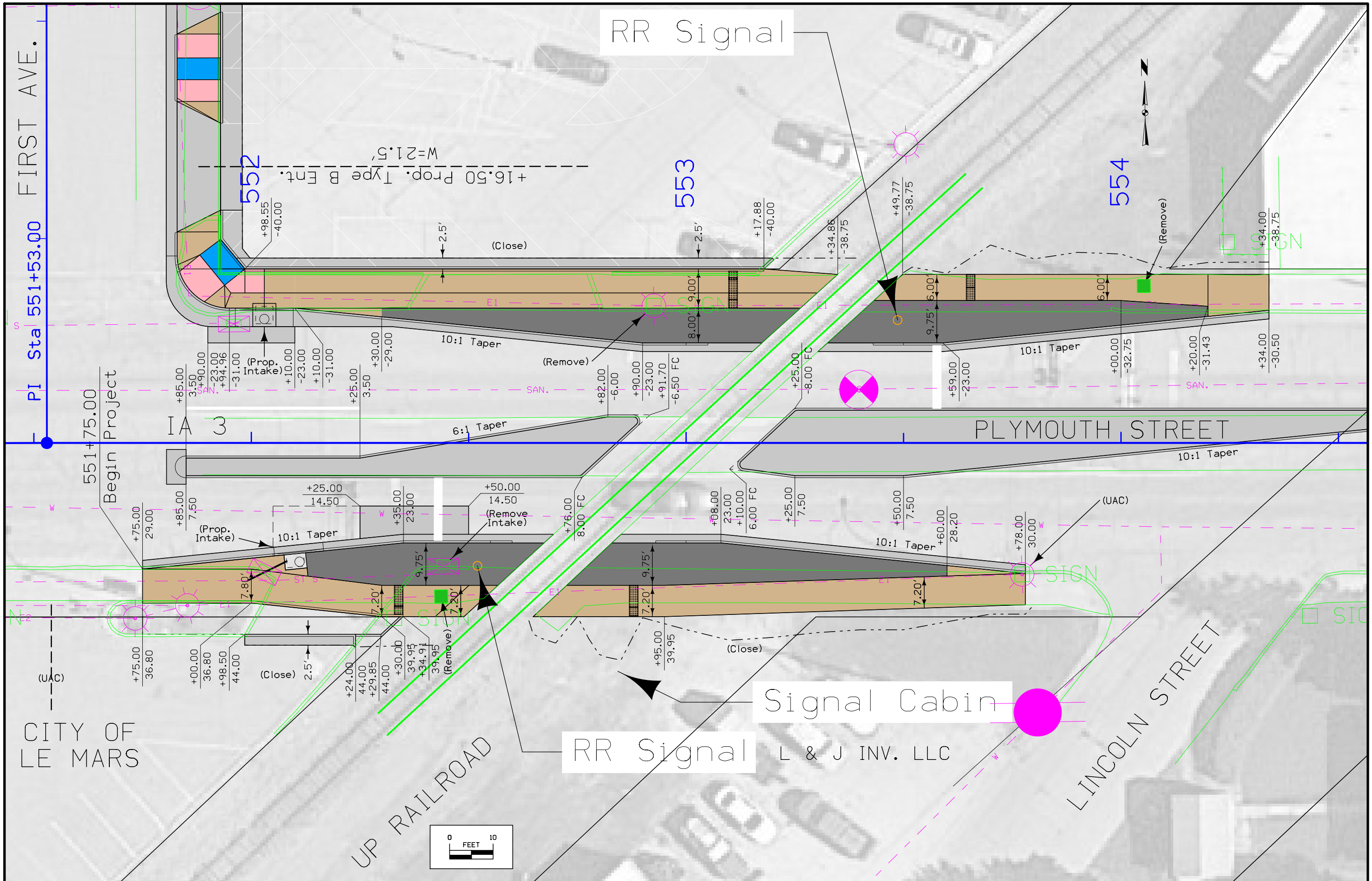
- A. Construct doweled on Median.

**Traffic:**

- A. Maintain traffic on IA 3 (alternating one lane each direction).
- B. Maintain normal traffic on 1st Ave. NE.



SIGNS AND SYMBOLS



RR Signal

RR Signal

Signal Cabin

PI Sta 551+53.00

CITY OF LE MARS

J1a \ Fullarton

PLYMOUTH

NHSN-003-1(102)--2R-75

U.1



