

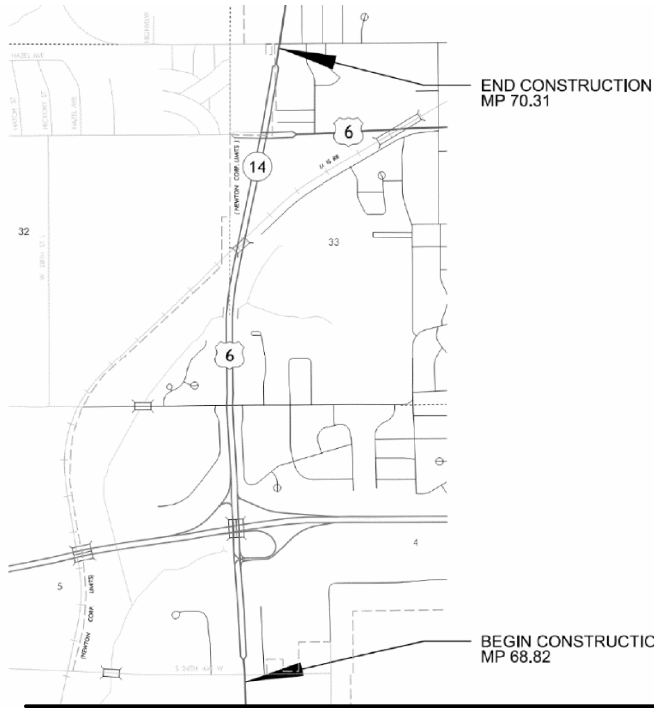


PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
JASPER COUNTY
Unknown Pavement - Grade and Replace
In Newton, I-80 to 0.25 mi N of 4th Ave

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



INDEX OF SEALS			
SHEET NO.	NAME	TYPE	BID QUANTITY SHEETS
A.1	X	Primary Signature Block	X
X	X	X	X

PRELIMINARY PLANS

Subject to change by final design.

D2 PLAN - Date: X

FIELD EXAM CHECKLIST

- 1 - Duration of project?
- 2 - Speed Limit
- 3 - Speed Limit during construction
- 4 - Is sight distance a problem?
- 5 - Patching quantities-full depth, partial depth, and surface.
- 6 - Does patching need to be done in the project area or do the construction limits need to be extended?
Who will provide locations of patches by milepost?
- 7 - Are rumble strips going to be placed with this project or a separate project?
- 8 - Leveling and strengthening locations and lengths (i.e. station to station).
- 9 - Areas of haul-outs.
- 10 - Any survey needed? (culvert extensions, safety dikes,right turn lanes,horizontal curves, ext...)
- 11 - Do any of the utilities need to be relocated (power/telephone poles) either permanently or temporarily for construction?
- 12 - Names and addresses of affected utility companies.
- 13 - Locations of entrances to be reshaped.
- 14 - Are there existing drainage problems?

FIELD EXAM CHECKLIST

- 15 - Note any special features not shown on plan.
- 16 - Note condition of existing culverts.
- 17 - Names of affected special events.
- 18 - Locations of mailboxes to be relocated to a minimum of 8' from the pavement edge.
- 19 - Number and location of EF joints.
- 20 - Disposition of bridge handrail and guardrail, including posts.
- 21 - Inventory of existing guardrail.
- 22 - Remove & Reinstall Signs - District Maintenance or by the Contractor?
- 23 - Longitudinal joint repair locations (station to station).
- 24 - Locations and quantities of engineering fabric to be placed over random cracks.
- 25 - Tabulation of adjustment of fixtures.
- 26 - Clearing and grubbing quantities - by unit or by area?
- 27 - Resurfacing Projects - Is District Survey able to preserve Section Corners & Points?
If "no", then add these items under Construction Survey.

FIELD EXAM CHECKLIST

Contractor furnish borrow? (Yes) / (No)

Full depth patches to be PCC? (Yes) / (No)

Full depth PCC patches to be doveled? (Yes) / (No)

Soils to determine and provide tabulation of subdrains? (Yes) / (No)

Pollution Prevention Plan required? (Yes) / (No)

Field Office? (Yes) / (No)

Construction Survey and or Point Preservation by DOT or Contractor? See Dist. 1 Surveyor for this (DOT) / (Contractor).

Survey by Office of Design? (Yes) / (No)

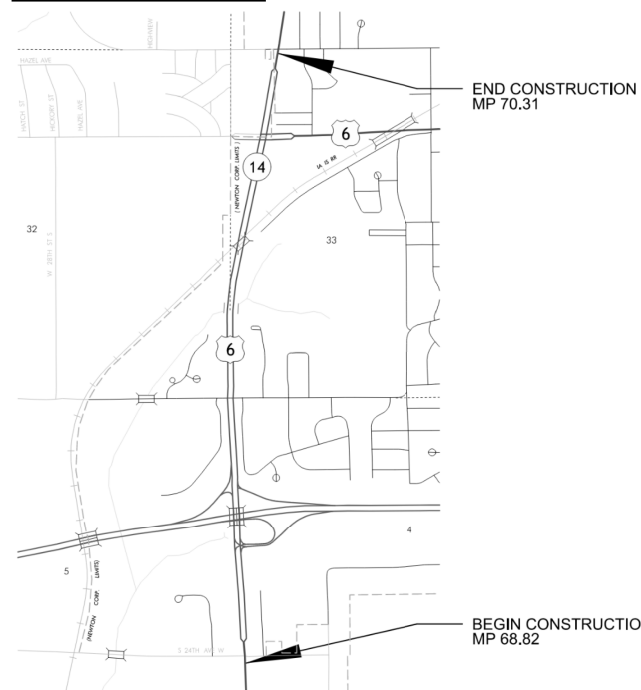
Pavement markings for turn lanes as determined by the District? (Yes) / (No)

Any RWIS or Traffic Recorder Sites within project limits? (Yes) / (No)

TO OFFICE: District 1
ATTENTION: Allison Smyth
FROM: Benjamin Adey
OFFICE: District 1
FOLDER: pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5001402024\Concept\D0Submittal\
SUBJECT: FY 2026 3R Concept Statement - **FINAL**

DATE: January 19, 2024
COUNTY: Jasper
PROJ. NO.: NHSX-014-4(074)--3H-50
PIN: 24-50-014-030

PROJECT LOCATION:



PROJECT DATA:

ROUTE: IA 14
LENGTH: 1.49 miles
PLANNING CLASSIFICATION: Principal Arterial
MAINTENANCE SERVICE LEVEL: B
NHS ROUTE: No
TRAFFIC:
Jasper County:
2026: 3,200 ADT with 11% Trucks
2046: 3,700 ADT with 10% Trucks

PURPOSE AND NEED:

This section of IA 14 is showing signs of deterioration and needs replacement.

FEASIBLE ALTERNATIVES:

Option 1: 3" HMA Resurfacing for \$1,609,345 (20-year design)
Option 2: PCC Reconstruction for \$8,296,075 (40-year design)

RECOMMENDATIONS:

District 1 recommends proceeding with a PCC reconstruction for an estimated cost of \$8,296,075. The rural portion of the project from S 24th Avenue to north of S 12th Avenue will be constructed as a 24-ft wide PCC section with 10-ft effective outside shoulders (6-ft paved and 4-ft granular) and 6-ft paved inside shoulders. The pavement cross-slopes for this section will be 2% towards the median for the inside lane and 2% towards the outside ditch for the outside lane. From north of S 12th Avenue to N 4th Avenue, the raised median will remain. The pavement section in this area will be a 24.5-ft wide PCC section. The inside lane will be 12.5-ft wide with a 6-inch standard curb. The outside shoulder will be 10-ft effective (6-ft paved and 4-ft granular). The pavement cross-slope for this section will be revised so that the inside lane has a 2% cross-slope, and the outside lane has a 3% cross slope. Both lanes will drain away from the median. Where possible, the existing median intakes and storm sewer will be removed. The existing foreslope and median grading will be used as constructed. At the south end of the project, the transition from a four lane section to a two lane section will be cleaned up with this project such that the South 24th Avenue intersection is a traditional two lane intersection.

FUNDS PROGRAMMED:

Project is planned to be let on 10-19-2027 and will be funded with 3R Funds.

PROJECT IMPACTS:

Designed by: District 1

Design Impact	Assistance Requested (Y/N)	Remarks
ADA:	N	
Agreements/Notification Letters:	N	Newton will be invited to incorporate work into the project.
Bridges and Structures:	N	
Consultant:	N	
Contracts:	N	
Design/Methods:	N	
Location and Environment:	N	
Maintenance: Newton	N	Newton Maintenance will provide a list of deficient culverts by April 5, 2024.
Project Management:	Y	
Railroad:	N	
RCE: Marshalltown	N	
Right of Way:	N	
Soils:	N	
Survey/Photogrammetry:	N	
Systems Planning:	N	
Traffic and Safety:	N	
Utilities:	N	
Other:		

Cc: C. Purcell
M. Dell
M. A. Swenson
D. L. Newell
W. A. Sorenson
M. E. Ross
C. C. Poole
D. Stokes
K. K. Patel
C. Brakke
J. Bartholomew
D. Blue
S. Nielsen
M. Nop
V. Brewer
J. Vortherms
S. Nixon
D. Matulac
B. Ellis

M. J. Kennerly
J. S. Nelson
J. Hart
K. Olson
D. E. Sprengeler
A. A. Welch
B. E. Azeltine
S. J. Gent
M. Collins
E. Engle
N. Cuva
D. L. Maifield
E. D. Gansen
W. W. Musgrove
J. Garton
S. Ebel
S. Passick
G. Kretlow
C. Wilson

K. D. Nicholson
B. Beavers
K. Brink
J. W. Laaser-Webb
E. C. Wright
J. Harris
B. D. Hofer
S. Anderson
J. Ellis
T. Quam
M. Buttz
B. Smith
D. Heeren
M. Ortiz-Pagan
J. Becker
D. Skogerboe
B. Adey
A. Swisher
R. Dykstra

CONCEPT ANALYSIS & SUPPORTING DATA:

Necessary supporting data may be linked in the analysis to ProjectWise.
Date of Field Review: January 16, 2024

Attendees: Jeremy Vortherms and Ben Adey from District 1, Dustin Skogerboe and Jacob Imming from Marshalltown Construction and Ronnie Dykstra from Newton Maintenance

PAVEMENT:

Existing Conditions:
The existing pavement is showing signs of deterioration and needs replacement.

Pavement History & PMIS Data:
See attached PMIS sheets.

Pavement Design & dTIMS Recommendation:
From dTIMS:

Direction	Ref. Loc. To Ref. Loc.	Existing Pavement	Year Built	dTIMS Recommendation
Both	58.30 to 69.23	PCC	2030	PRI_MAJ_REHAB_STR1
Both	58.30 to 69.23	PCC	2030	PRI_RECON
Both	58.30 to 69.23	PCC	2030	PRI_THIN_SURF

Subdrains:
New subdrain will be installed with this project.

Patching/Curb Repairs:
No patch tabs will be needed.

ADA/Sidewalk/Trails:
There is no sidewalk or trail located within the project limits.

SAFETY:

3R Design Criteria:

Acceptable Values for 3R Roadway Features						Project Values
Design Element	Freeway	Non-Freeway				
Regulatory Speed (mph)	65/55	55	45	35	25	55
Minimum Vertical Curve (mph)	65/55	35	25	15	5	35
Maximum Horizontal Curve (degrees)	3	6	8	14	28	6
Maximum Gradient	3%	6%	7%	10%	13%	6%
Lane Width (feet)	12	12	11	11	11	12
Parking Lane Width (feet)	--	--	8	8	8	N/A
Shoulder Width (feet)	10/6	6	4	4	2	10/6
Foreslopes	3:1	3:1	3:1	--	--	3:1
Transverse Slopes	6:1	6:1	6:1	--	--	6:1
Horizontal Clearance (feet)						26
Bridge Width	Approach Lanes + Shoulder Width			Approach Lanes + Offset		
Vertical Clearance - Over NHS (feet)	16.5	16.5	16.5	16.5	16.5	16'-05
Vertical Clearance - Over Local (feet)	14.5	14.5	14.5	14.5	14.5	N/A

(Document design decisions and/or mitigation efforts when criteria are not met.)

Crash Analysis:

See attached ICAT quick report with 5-year crash history summary.

Corridor Crash History:

Over the 5-year period from 2018 through 2022, the project limits had a total of 40 crashes. There were no fatalities, one suspected serious injury, four suspected minor injuries and 8 possible/unknown injury within the project limits over this period. Of the 25 crashes, two were related to winter driving conditions and 6 were related to an animal.

Intersection Crash History:

22 of the 40 crashes within the project limits were intersection related (55%).

Intersection Analysis:

No additional turn lanes are warranted.

Railroads:

There is one grade separated railroad crossing (607967D) located within the project limits. This crossing will not be impacted by this project.

Additional Safety & Operation Considerations:

No additional safety or operation considerations will be considered with this project.

STRUCTURES and DRAINAGE:

Bridges: (from Scoping Tool or SIIMS)

FHWA No.	Maint. No.	Size/Type	Year Built	BDO/Rehab Year	Bridge Rail Height	End Post Type	Vertical Clearance	Future Projects
30610	5069.4R014	232'-0 x 32'-0 Continuous I-Beam Bridge	1962	1970 - Bridge Deck Overlay, 2012 - Bridge Deck Replacement & Deck Joint Replacement.	34"	B	16'-05	None
30620	5069.4L014	232'-0 x 32'-0 Continuous I-Beam Bridge	1962	'1985 - Bridge Deck Overlay, 2011 - Bridge Deck Replacement, approaches, Deck Joints Replacement. 2011 - Retrofit abutment & Joint to semi-integral replacements.	34"	B	17'-10	None

The railroad crossing within the project limits is signed as 14'-4" of clearance. This project will not change the clearance height listed.

Culverts/Pipes:

Newton Maintenance will provide a review of the culverts and pipes within their respective areas of the project limits.

Guardrail:

The guardrail for 5069.4R014 and 5069.4L014 will be updated with this project.

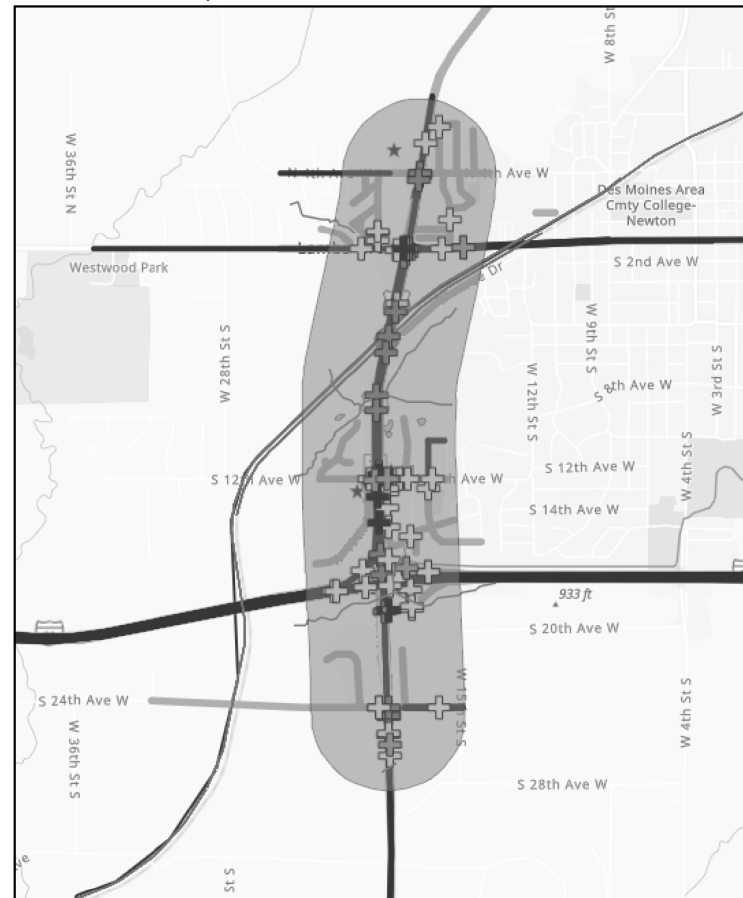
Drainage District:

Project is not located within a drainage district, so no coordination will be needed.

PROJECT IMPACTS:

Impacts Map:

The project area includes an RPA, 2 railroad crossings, 4 active rail lines, transmission line, a trail, 5 LUST Sites, a conservation and rec lands, and 4 wetlands. The waterways within the project area include 2 stream watersheds, a floodplain and 25 streams.



Environmental:

No clearing and grubbing is anticipated to be done as a part of this project. No impacts to wetlands, parks, historic/cultural resources, etc. have been identified.

TSMO/Traffic Control:

During construction, IA 14 traffic will be maintained using TC-61 for two-lane, two-way operations. Local detours may be required during intersection reconstructions. Construction at the I-80 and IA 14 interchange will be staged to maintain access during construction.

ROW:

No ROW acquisition is anticipated with this project.

Agreements/Notification Letters:

Traffic will be maintained during construction so no detour agreement will be needed. Newton will be invited to include work with this project.

Project Coordination:

No other DOT projects within the vicinity have been identified.

Previous Projects List:

Project Number	Project Type	Year
Reference Location 58.30 to 69.23		
FN-14-4(11)—21-50	9" PCC	1972
MP-14-1(702)58—76-50	2" HMA	1999
STPN-14-4(45)—2J-50	4" HMA	2005

FEASIBLE ALTERNATIVES & RECOMMENDATION:

FEASIBLE ALTERNATIVES:

Option 1: 3" HMA Resurfacing for \$1,609,345 (20-year design)

Option 2: PCC Reconstruction for \$8,296,075 (40-year design)

RECOMMENDATIONS:

District 1 recommends proceeding with a PCC reconstruction for an estimated cost of \$8,296,075. The rural portion of the project from S 24th Avenue to north of S 12th Avenue will be constructed as a 24-ft wide PCC section with 10-ft effective outside shoulders (6-ft paved and 4-ft granular) and 6-ft paved inside shoulders. From north of S 12th Avenue to N 4th Avenue, the raised median will remain. The pavement section in this area will be a 24.5-ft wide PCC section. The inside lane will be 12.5-ft wide with a 6-inch standard curb. The outside shoulder will be 10-ft effective (6-ft paved and 4-ft granular). The foreslopes and medians will be used as constructed.

FUNDS PROGRAMMED:

Project is planned to be let on 10-19-2027 and will be funded with 3R Funds.

Development Schedule:

D00 – Pre-Design Concept	12-29-2023
TE0 – Desktop Review	02-02-2024
U00 – Preliminary Utility Review	02-02-2024
W00 – Preliminary Wetland Review	02-02-2024
D01 – Survey Plan and Photogrammetry	03-07-2025
D02 – Design Field Exam	05-02-2025
D03 – Plans for Preliminary Bridge	06-06-2025
B02 - Drainage Design	09-05-2025
D05 – Plans to Right of Way	10-03-2025
P09 – Public Information Meeting	03-04-2026
DM5 – Design Methods Turn-in	06-29-2027
D08 – Final Grade and Pave Plans	08-02-2027
L03 – Letting-Combination Grade and Pave	10-19-2027

Estimate Items Report

Version D00-HMA Resurfacing
Project PRJ-55726 PHASE-1

Item Number	Item Description	Units	Quantity	Cost Used	Suggested Cost	Line Total	Estimator Notes
HMA Resurfacing				SubTotal:		\$1,609,344.82	
2214-5145150	PAV'T, SCARIFICATION	SY	60,000.000	\$5.00	\$2.01	\$300,000.00	
2303-1042500	HMA HT INTERMEDIATE, 1/2"	TON	5,000.000	\$50.76	\$50.76	\$253,783.50	
2303-1043502	HMA HT SURF, 1/2", FRIC L-2	TON	5,000.000	\$28.82	\$28.82	\$144,097.00	
2303-1258284	ASPH BINDER, PG 58-28H	TON	600.000	\$704.66	\$704.66	\$422,793.72	
2527-9263112	PAINTED PAV'T MARK,HIGH-BUILD WATERBORNE	STA	1,000.000	\$19.13	\$19.13	\$19,126.50	
2527-9270111	GROOVE CUT - PAV'T MARK	STA	1,000.000	\$30.52	\$30.52	\$30,520.60	
2528-8445110	TRAFFIC CONTROL	LS	1.000	\$18,507.47	1.15%	\$18,507.47	
2533-4980005	MOBILIZATION	LS	1.000	\$89,640.51	5.57%	\$89,640.51	
2548-0000100	MILLED SHLD RUMBLE STRIP, HMA SURF	STA	400.000	\$22.52	\$22.52	\$9,006.56	
PCT-999	UNQUANTIFIED	% of Project	1,609,344.810	20.00%		\$321,868.96	
				Total:		\$1,609,344.82	

Estimate Items Report

Version D00-PCC Reconstruction
Project PRJ-55726 PHASE-1

Item Number	Item Description	Units	Quantity	Cost Used	Suggested Cost	Line Total	Estimator Notes
PCC Reconstruction				SubTotal:		\$8,296,074.88	
2102-0425070	SPECIAL BACKFILL	TON	45,000.000	\$18.58	\$18.58	\$836,100.00	
2111-8174100	GRANULAR SUBBASE	SY	74,000.000	\$9.29	\$9.29	\$687,460.00	
2121-7425010	GRANULAR SHLD, TYPE A	TON	9,000.000	\$30.82	\$30.82	\$277,380.00	
2122-5190010	PAVED SHLD, PCC, 10"	SY	21,000.000	\$54.50	\$54.50	\$1,144,500.00	
2123-7450000	SHLD CONSTRUCTION, EARTH	STA	400.000	\$254.45	\$254.45	\$101,780.00	
2301-1003100	STD/S-F PCC PAV'T, QM-C CL 3, 10"	SY	42,000.000	\$59.09	\$59.09	\$2,481,780.00	
2502-8212034	SUBDRAIN, LONGITUDINAL, (SHLD) 4"	LF	7,900.000	\$8.13	\$8.13	\$64,227.00	
2502-8221303	SUBDRAIN OUTLET, DR-303	EA	20.000	\$348.25	\$348.25	\$6,965.00	
2510-6745850	RMVL OF PAV'T	SY	60,000.000	\$7.93	\$7.93	\$475,800.00	
2527-9263112	PAINTED PAV'T MARK,HIGH-BUILD WATERBORNE	STA	400.000	\$36.49	\$36.49	\$14,596.00	
2527-9270111	GROOVE CUT - PAV'T MARK	STA	400.000	\$41.54	\$41.54	\$16,616.00	
2528-8445110	TRAFFIC CONTROL	LS	1.000	\$68,027.81	0.82%	\$68,027.81	
2533-4980005	MOBILIZATION	LS	1.000	\$452,965.69	5.46%	\$452,965.69	
2548-0000200	MILLED SHLD RUMBLE STRIP, PCC SURF	STA	160.000	\$54.14	\$54.14	\$8,662.40	
PCT-999	UNQUANTIFIED	% of Project	8,296,074.880	20.00%		\$1,659,214.98	
				Total:		\$8,296,074.88	

PIN/SID: **S0014-122823-02**
I-80 to 0.25 mi N of 4th Avenue
IA 14 (LRS 68.93 to 69.26)

Scope BY: **Benjamin.Adey@iowadot.us**

Nearest Reference Posts:
From: **68.78 (14N-69)**
To: **69.12 (14N-69)**



PRIORITY

- 61 OVERALL PRIORITY

65 Bridge (2)

60 Pavement (4)

88 Traffic (38)

30 Safety (52)

94 Freight (58)

30 Road Class (38)
- 66 OVERALL MOBILITY

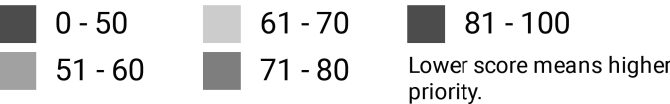
Crashes (41)

Traffic Incidents (11)

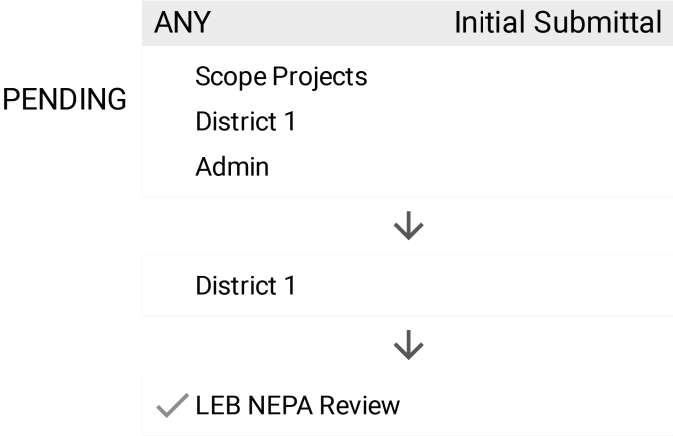
INRIX (Delay) (undefined)

County Road Density (1)

Access Locations (0)



Approval Stages



GEOMETRY



<https://iowadotprojectpriorities.com/#pin=S0014-122823-02>

PROJECT

Program Funding
3R No Description

Project Purpose
Pavement

Description: **I-80 to 0.25 mi N of 4th Avenue**

District / District Priority: **1 / 1**

Level of Study Required: **To Letting**

Operation Report (IJR/IOR) Required: **Unknown**

Work Group(s)
1000-Pavement-New/Replace

Work Code(s)
1034-Unknown Pavement - Grade and Replace

Budget Range Min / Budget Range Max (1,000's):
\$4025 / \$4025

Desired Fiscal Year / Desired Month: **2028 / Oct**

Traffic Critical? / Outside Services Expected:
Unknown / Unknown

Project Development Completed By: **District**

L RTP NEEDS & RISKS

(Percentage of Project Within Identified Need Area)

Capacity: **n/a**

Condition: **0.2%**

Resiliency: **n/a**

PNR Candidates: **1**

Total Bottlenecks: **n/a**

Operations: **n/a**

PCR: **n/a**

Super 2: **n/a**

Bridges: **1**

Total Freight Bottlenecks: **n/a**

PIN/SID: **S0014-122823-02**
I-80 to 0.25 mi N of 4th Avenue
IA 14 (LRS 68.93 to 69.26)

Scope BY: **Benjamin.Adey@iowadot.us**

Nearest Reference Posts:
From: **68.78 (14N-69)**
To: **69.12 (14N-69)**



ROW / OLE

Anticipated Range of ROW Required: 0 Acres	Residential/Commercial Relocation Needed?: No
Potential Threatened & Endangered Species?: Unknown	Known Archaeological Site?: Unknown
Known Historical Site?: Unknown	Levies Affected?: No
Concurrence Point Process?: No	Environmental Classification: Programmatic Categorical Exclusion

VALUE OF IMPROVEMENTS

No Value of Improvements

IMPACT

*Disclaimer: This information does not supplement traditional impact analysis and likely does not show all resources such as **regulated streams and wetlands**. The project will be reviewed by LEB to identify any environmental resources.

Location

☒ **Railroad Crossings (2)**

☒ **Active Rail Lines (4)**

☒ **RPA (1)**

☒ **Transmission Lines (1)**

☐ 5 Year Program (2023 Pts) (0)

☐ 5 Year Program (2024) (0)

☐ 5 Year Program (2026 Pts) (0)

☐ 5 Year Program (2027) (0)

☐ Rail Crossing Projects (0)

☐ Major Pipelines (0)

☐ Maintenance Garages (0)

☒ **Trails (1)**

☐ Cell Towers (0)

☐ 5 Year Program (2023) (0)

☐ 5 Year Program (2025 Pts) (0)

☐ 5 Year Program (2026) (0)

☒ **Construction History (36)**

☐ Runways (0)

☐ MPO (0)

☒ **Abandoned Rail Lines (2)**

☐ Rest Areas (0)

☐ 5 Year Program (2024 Pts) (0)

☐ 5 Year Program (2025) (0)

☐ 5 Year Program (2027 Pts) (0)

☒ **Historic Rail Lines (30)**

Environmental

☐ Loess Hills (0)

☐ Environmental Hotspots (0)

☐ Parks (0)

☒ **Wetlands (NWI) (4)**

☒ **LUST Sites (5)**

☒ **Conservation & Rec Lands (1)**

☐ WMA (0)

☐ T&E (0)

☐ Public Lands (0)

☐ Wildlife Refuges (0)

Route

☒ **Park and Ride (1)**

☐ LRTP Super-2 Corridors (0)

☒ **LRTP Condition (21)**

☐ LRTP Flood Resiliency (0)

☐ LRTP Freight Bottlenecks (0)

☒ **LRTP Bridges (2)**

☒ **LRTP Operations (2)**

☒ **LRTP Pedestrian Safety (15)**

☒ **LRTP PCR Targeted Corridors (2)**

☒ **LRTP Capacity (6)**

☒ **LRTP Park & Ride (176)**

☒ **LRTP Bicyclist Safety (15)**

☐ LRTP Bottlenecks (All) (0)

Safety

☐ SICL Intersections (0)

☒ **Minor Injury Crashes (9)**

☐ Fatal Crashes (0)

☒ **PDO Crashes (71)**

☒ **Major Injury Crashes (2)**

☒ **Unknown Crashes (10)**

Traffic

☒ **LOSC (Existing) (1)**

☐ LOS F (Existing) (0)

☐ LOS D (Existing) (0)

☐ LOS E (Existing) (0)

Waterway

☐ Topeka Shiner Streams (0)

☐ NRI (0)

☒ **Stream Watersheds (2)**

☐ Previous Flooding Events (0)

☐ Outstanding Iowa Waters (0)

☒ **Floodplains (1)**

☐ TMDL Watersheds (0)

☐ Historic Flooding Events (1997-2015) (0)

☐ Paddling Routes (0)

☐ Public Lakes Watersheds (0)

☒ **Streams (25)**

COST & BUDGET

Cost of Crashes	
Total Fatal Crashes	0
Fatal Cost Value	\$9,880,798
Total Fatal Cost	\$0
Total Disabling Injury Crashes	1
Disabling Injury Cost Value	\$532,379
Total Disabling Injury Cost	\$532,379
Total Evident Injury Crashes	3
Evident Injury Cost Value	\$194,713
Total Evident Injury Cost	\$584,138
Total Possible Injury Crashes	5
Possible Injury Cost Value	\$110,666
Total Possible Injury Cost	\$553,329
Total PDO Crashes	32
PDO Cost Value	\$18,239
Total PDO Cost	\$583,645
Comprehensive Cost of Crashes	\$2,253,489.421
Crash Data Years	Jan 2019 - Dec 2023
Passenger Cost of Congestion	
\$281,079	
Commercial Cost of Congestion	
\$64,866	

printed on 01/03/2024

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FILE NO.	ENGLISH	DESIGN TEAM Vortherms/Adey/Hauber	JASPER COUNTY	PROJECT NUMBER NHSX-014-4(074)--3H-50	SHEET NUMBER A.12
3:54:59 PM	6/4/2025	DHAUBER	pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5001403024\DistrictDesign\CADD Files\500144074_A01.dgn		



Iowa Crash Analysis Tool
Quick Report
2018-2022

Crash Severity	40
Fatal Crash	0
Suspected Serious Injury Crash	1
Suspected Minor Injury Crash	4
Possible/Unknown Injury Crash	5
Property Damage Only	30

Property/Vehicles/Occupants	
Property Damage Total (dollars):	186,267.00
Average (per crash dollars):	4,656.68
Total Vehicles:	74.00
Average (per crash):	1.85
Total Occupants:	106.00
Average (per crash):	2.65

✕



Iowa Crash Analysis Tool
Quick Report
2018-2022

Major Cause			40
Animal	6	Ran traffic signal	3
Ran stop sign	1	Failed to yield to emergency vehicle	0
FTYROW: At uncontrolled intersection	0	FTYROW: Making right turn on red signal	1
FTYROW: From stop sign	6	FTYROW: From yield sign	2
FTYROW: Making left turn	0	FTYROW: From driveway	0
FTYROW: From parked position	0	FTYROW: To pedestrian	0
FTYROW: Other	1	Drove around RR grade crossing gates	0
Disregarded RR Signal	0	Crossed centerline (undivided)	0
Crossed median (divided)	0	Traveling wrong way or on wrong side of road	0
Aggressive driving/road rage	0	Driving too fast for conditions	1
Exceeded authorized speed	0	Improper or erratic lane changing	0
Operating vehicle in an reckless/erratic/care...	1	Followed too close	4
Passing: On wrong side	0	Passing: Where prohibited by signs/markings	0
Passing: With insufficient distance/inadequa...	0	Passing: Through/around barrier	0
Passing: Other passing	0	Made improper turn	0
Driver Distraction: Manual operation of an e...	0	Driver Distraction: Talking on a hand-held d...	0
Driver Distraction: Talking on a hands free ...	0	Driver Distraction: Adjusting devices (radio...	0
Driver Distraction: Other electronic device ...	0	Driver Distraction: Passenger	0
Driver Distraction: Unrestrained animal	0	Driver Distraction: Reaching for object(s)/f...	1
Driver Distraction: Inattentive/lost in thou...	1	Driver Distraction: Other interior distracti...	0
Driver Distraction: Exterior distraction	0	Ran off road - right	2
Ran off road - straight	0	Ran off road - left	0
Lost control	1	Swerving/Evasive Action	0
Over correcting/over steering	0	Failed to keep in proper lane	0
Failure to signal intentions	0	Traveling on prohibited traffic way	0
Vehicle stopped on railroad tracks	0	Other: Vision obstructed	0
Other: Improper operation	0	Other: Disregarded warning sign	0
Other: Disregarded signs/road markings	0	Other: Illegal off-road driving	0
Downhill runaway	0	Separation of units	0
Towing improperly	0	Cargo/equipment loss or shift	0
Equipment failure	0	Oversized load/vehicle	0
Other: Getting off/out of vehicle	0	Failure to dim lights/have lights on	0
Improper backing	0	Improper starting	0
Illegally parked/unattended	0	Driving less than the posted speed limit	0
Operator inexperience	0	Other	5
Unknown	3	Not reported	0
Other: No improper action	1		



Iowa Crash Analysis Tool
Quick Report
2018-2022

Time of Day/Day of Week															
	12 AM to 2 AM	2 AM to 4 AM	4 AM to 6 AM	6 AM to 8 AM	8 AM to 10 AM	10 AM to Noon	Noon to 2 PM	2 PM to 4 PM	4 PM to 6 PM	6 PM to 8 PM	8 PM to 10 PM	10 PM to 12 AM	Not reported		
Day of Week														Total	
Sunday	0	0	0	0	1	0	2	0	1	1	0	0	0	5	
Monday	0	0	0	0	0	1	0	2	0	0	0	0	0	3	
Tuesday	0	0	1	1	0	0	1	1	0	1	1	0	0	6	
Wednesday	0	0	0	1	0	1	0	2	0	3	0	1	0	8	
Thursday	1	0	0	1	0	0	0	0	0	0	0	0	0	2	
Friday	0	1	0	1	2	1	2	0	4	1	2	0	0	14	
Saturday	0	0	0	0	0	1	1	0	0	0	0	0	0	2	
Total	1	1	1	4	3	4	6	5	5	6	3	1	0	40	

Manner of Crash Collision	40	Surface Conditions	40
Non-collision (single vehicle)	7	Dry	28
Head-on (front to front)	0	Wet	8
Rear-end (front to rear)	7	Ice/frost	0
Angle (oncoming left turn)	3	Snow	1
Broadside (front to side)	19	Slush	1
Sideswipe (same direction)	2	Mud/dirt	0
Sideswipe (opposite direction)	0	Water (standing or moving)	0
Rear to rear	0	Sand	0
Rear to side	0	Oil	0
Not reported	2	Gravel	0
Other	0	Not reported	2
Unknown	0	Other	0
		Unknown	0

Fixed Object Struck			74
Bridge overhead structure	0	Bridge pier or support	0
Bridge/bridge rail parapet	0	Curb/island/raised median	0
Ditch	1	Embankment	0
Ground	0	Culvert/pipe opening	0
Guardrail - face	1	Guardrail - end	0
Concrete traffic barrier (median or right sid...	0	Other traffic barrier	0
Cable barrier	0	Impact attenuator/crash cushion	0
Utility pole/light support	2	Traffic sign support	0
Traffic signal support	0	Other post/pole/support	0
Fire hydrant	0	Mailbox	0
Tree	0	Landscape/shrubbery	0
Snow bank	0	Fence	0
Wall	0	Building	0
Other fixed object	0	None (no fixed object struck)	70



Iowa Crash Analysis Tool
Quick Report
2018-2022

Driver Age/Driver Gender					
Driver Age - 5 year Bins	Female	Male	Not reported	Unknown	Total
< 14	0	0	0	0	0
= 14	0	0	0	0	0
= 15	0	2	0	0	2
= 16	1	2	0	0	3
= 17	1	2	0	0	3
= 18	0	3	0	0	3
= 19	1	2	0	0	3
= 20	0	2	0	0	2
>= 21 and <= 24	4	2	0	0	6
>= 25 and <= 29	3	3	0	0	6
>= 30 and <= 34	1	2	0	0	3
>= 35 and <= 39	2	2	0	0	4
>= 40 and <= 44	1	3	0	0	4
>= 45 and <= 49	3	2	0	0	5
>= 50 and <= 54	1	3	0	0	4
>= 55 and <= 59	1	7	0	0	8
>= 60 and <= 64	2	5	0	0	7
>= 65 and <= 69	1	0	0	0	1
>= 70 and <= 74	2	2	0	0	4
>= 75 and <= 79	1	0	0	0	1
>= 80 and <= 84	1	0	0	0	1
>= 85 and <= 89	1	0	0	0	1
>= 90 and <= 94	0	1	0	0	1
>= 95	0	0	0	0	0
Not reported	0	0	0	0	0
Unknown	0	0	2	0	2
Total	27	45	2	0	74

Drug/Alcohol Related		40
Drug		0
Alcohol (< Statutory)		0
Alcohol (Statutory)		0
Drug and Alcohol (< Statutory)		0
Drug and Alcohol (Statutory)		0
Refused		0
Under Influence of Alcohol/Drugs/Medications		0
None Indicated		40

Alcohol Test Given		74
None		72
Blood		0
Urine		0
Breath		0
Vitreous		0
Refused		0
Not reported		2

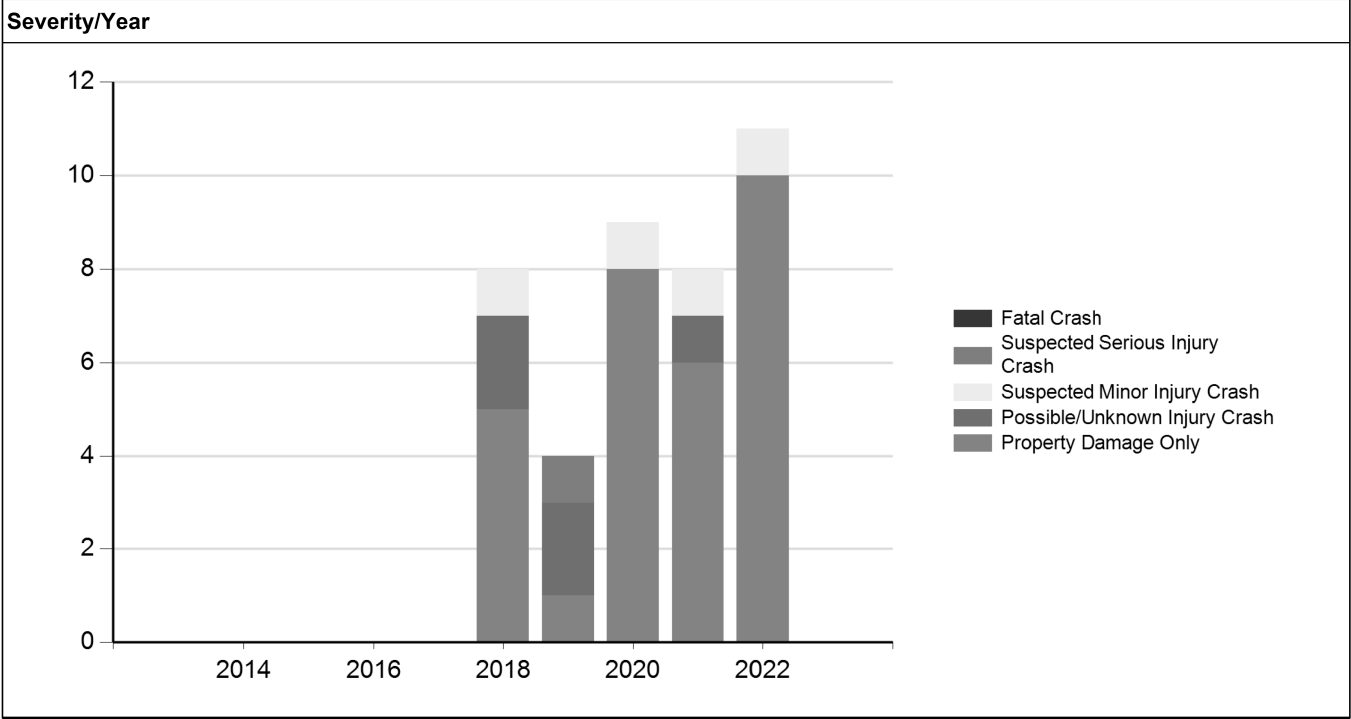
Drug Test Given		74
None		72
Blood		0
Urine		0
Breath		0
Vitreous		0
Refused		0
Not reported		2

Drug Test Result		74
Negative		0
Cannabis		0
Central Nervous System depressants		0
Central Nervous System stimulants		0
Hallucinogens		0
Inhalants		0
Narcotic Analgesics		0
Dissociative Anesthetic (PCP)		0
Prescription Drug		0
Not reported		74
Other		0



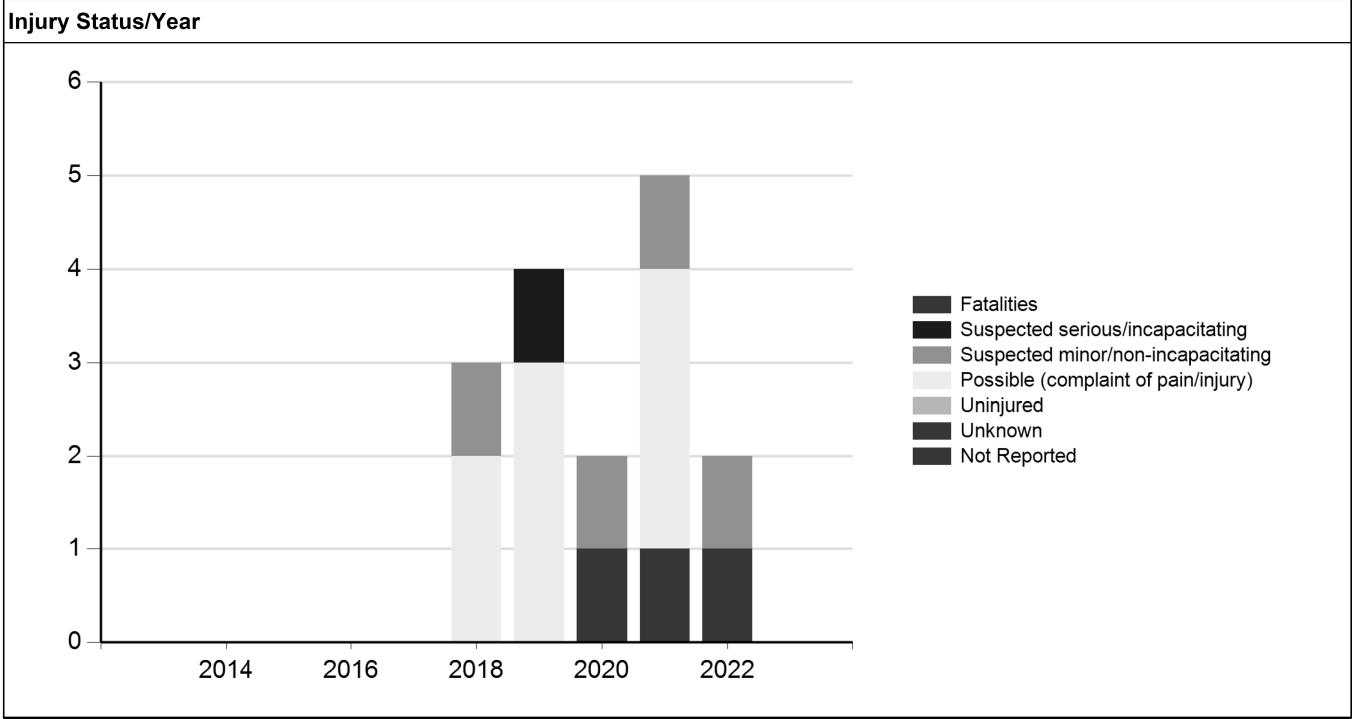
Iowa Crash Analysis Tool
Quick Report
2018-2022

Crash Severity - Annual							
Crash Year	Fatal Crash	Suspected Serious Injury Crash	Suspected Minor Injury Crash	Possible/Unknown Injury Crash	Property Damage Only	Total	
2013	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0
2016	0	0	0	0	0	0	0
2017	0	0	0	0	0	0	0
2018	0	0	1	2	5	8	
2019	0	1	0	2	1	4	
2020	0	0	1	0	8	9	
2021	0	0	1	1	6	8	
2022	0	0	1	0	10	11	
2023	0	0	0	0	0	0	
Total	0	1	4	5	30	40	



Iowa Crash Analysis Tool
Quick Report
2018-2022

Injury Status - Annual								
Crash Year	Fatalities	Suspected serious/incapacitating	Suspected minor/non-incapacitating	Possible (complaint of pain/injury)	Uninjured	Unknown	Not Reported	Total
2013	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0
2016	0	0	0	0	0	0	0	0
2017	0	0	0	0	0	0	0	0
2018	0	0	1	2	0	0	0	3
2019	0	1	0	3	0	0	0	4
2020	0	0	1	0	0	0	1	2
2021	0	0	1	3	0	0	1	5
2022	0	0	1	0	0	0	1	2
2023	0	0	0	0	0	0	0	0
Total	0	1	4	8	0	0	3	16





Meeting the following criteria

Jurisdiction: Statewide
Year: 2018, 2019, 2020, 2021, 2022
Map Selection: Yes
Filter: None

Analyst Information

ICAT (074)



PMIS Section Report

PMIS Key: 01431058 30069 2350

National Highway System: Y County: 50 Begin Milepost: 058 30 Direction: 1
Tested Section: Route: 14 End Milepost: 069 23 PMIS Year: 2022
Section Description: From NCL Monroe North To South JCT IA 14/US 6

Location:	Construction:	Surface:
District:	Constructed: 1972	Type:
Total Lanes: 2	Resurfaced: 2005	Multi Surface: N
Median: N	Surface Treatment: / AC	Width (ft): 25
Urban Area Code: 829	Pavement Type: 3	Thickness (in): 12
City Number: 5482	Speed Limit: 55	Widened Drive Lane:

Shoulders and Curb (Left/Right):	Planning:	Subdrains:
Type: PG / PG	Planning Class: 3	Project Number: FN-14-4(36)21-50
Width (ft): 10 / 10	Special Section:	Percentage: 92
Thickness (in): /	PCI:	Multiple Subdrain
Tied: Y / Y	Program Year:	
Curb and Gutter: Y / N	Program Comments:	
Curb:	PIN:	
Dropoff		

Field Survey:	Relative Indexes:	Road Rater:
Structural Number:	IRI:	Average Struct Rating: 8.32
IRI: 171. /	Crack and Patch:	Average K Rating: 104
Friction: 55 / 53	RDR:	Thickness (in): 12
FWD Test Date:	RPI:	80% Structural Rating: 6.68
Road Rater Test Date:	Coverage (%) 97	Ave Struct Rating At Joints:
		Relative Strength Ratio:

Crack and Patch:			High	Medium	Low
Default:	Rut Depth: 0.18	LCrack	0	14	1,572
Provider:	Faulting: /	LCr WP	0	9	4,737
Test Date: 6/13/2021 12:00:00 AM	PatchA (Bad): 1,199	TCrack	0	1	510
	PatchA (Good): 262	AlligC	0	0	107
	Patches: 50	DCrack	0	0	
		Jspall	0	0	

Construction:

	Year	Project Number	Type	Surface	(in)	Base	(in)	SubBase	(in)
1	2005	STPN-14-4(45)--2J-50		AAC	2	AAC	2		
2	1999	MP-14-1(702)58--76-50	V	AAC	2				
3	1972	FN-14-4(11)--21-50		PCC	9				
4									
5									
6									
7									
8									

	Agg Source	Agg Type	Class	Removal	(in)	Remarks
1	FERGUSON	C.LST.		SCR	2	
2	SULLY MINE	C.LST.				
3	FERGUSON	C.LST.	3			GND 1993
4						
5						
6						
7						
8						

Asphalt Age Rating:

Agg Rating:

Maintenance:

Service Level:	C
Maintenance District:	1
Area:	
Garage:	
Fed Func Class:	3
Concurrent Routes:	/

Traffic Count:

Year:	2021
AADT:	4,097
Trucks:	523
Percent Trucks:	13

ESALS:

Predicted Lifetime:
Annual:
Accum Since Resurf:
Accum Since Constr:
Percent Life Used:

Kmpoints:

Base Rec Begin:
Base Rec End
Trav Way Begin:
Trav Way End:
BR Route:
Length:

Coordinates:

Begin X:
End X:
Begin Y:
End Y:

Longitude / Latitude:

Begin LONG:
End LONG:
Begin LAT:
End LAT:

Base Records:

Begin Sequence:	2021
End Sequence:	4097

National Highway System: Y		County: 50	Begin Milepost: 070 31	Direction: 1
Tested Section:		Route: 14	End Milepost: 070 96	PMIS Year: 2022
Section Description: From N JCT IA 14/US 6 North to N 4th Avenue in Newton				

Location:		Construction:		Surface:	
District:		Constructed:	1965	Type:	
Total Lanes:	2	Resurfaced:	2005	Multi Surface:	Y
Median:	N	Surface Treatment:	/ AC	Width (ft):	24
Urban Area Code:	829	Pavement Type:	3	Thickness (in):	13.5
City Number:	5482	Speed Limit:	35	Widened Drive Lane:	

Shoulders and Curb (Left/Right):		Planning:		Subdrains:	
Type:	PG / PG	Planning Class:	3	Project Number:	
Width (ft):	10 / 10	Special Section:		Percentage:	
Thickness (in):	/	PCI:		Multiple Subdrain	
Tied:	N / Y	Program Year:			
Curb and Gutter:	Y / N	Program Comments:			
Curb:		PIN:			
Dropoff					

Field Survey:		Relative Indexes:		Road Rater:	
Structural Number:		IRI:		Average Struct Rating:	6.43
IRI:	203. /	Crack and Patch:		Average K Rating:	208
Friction:	11 / 43	RDR:		Thickness (in):	13.5
FWD Test Date:		RPI:		80% Structural Rating:	4.72
Road Rater Test Date:		Coverage (%)	100	Ave Struct Rating At Joints:	
				Relative Strength Ratio:	

Crack and Patch:				High	Medium	Low
Default:	Rut Depth: 0.13	LCrack	0	10	239	
Provider:	Faulting: 0.3 /	LCr WP	0	54	299	
Test Date: 7/7/2021 12:00:00 AM	PatchA (Bad): 422	TCrack	0	10	164	
	PatchA (Good): 0	AlligC	0	0	0	
	Patches: 4	DCrack	0	0		
		Jspall	2	24		

Construction:						
	Year	Project Number	Type	Surface (in)	Base (in)	SubBase (in)
1	2005	STPN-14-4(45)--2J-50		AAC 2	AAC	3
2	1965	NA		PCC 9		
3						
4						
5						
6						
7						
8						

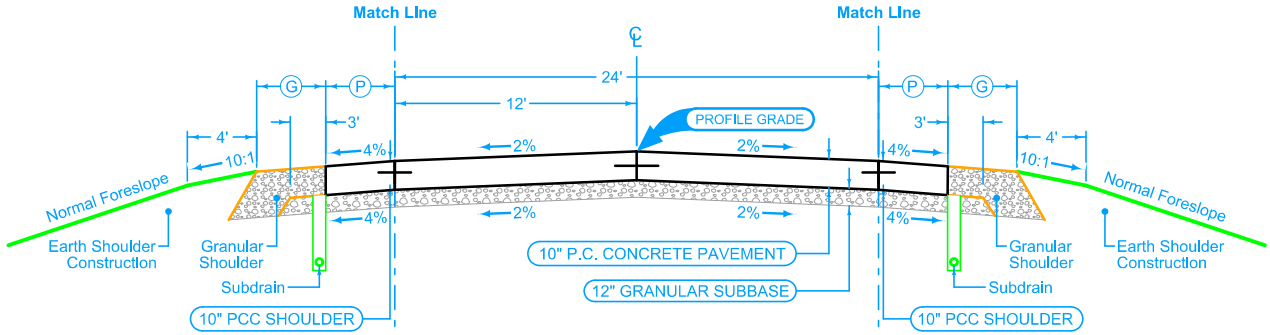
	Agg Source	Agg Type	Class	Removal (in)	Remarks
1	FERGUSON	C.LST.			
2					
3					
4					
5					
6					
7					
8					

Asphalt Age Rating:		Agg Rating:	
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Maintenance:		Traffic Count:		ESALS:	
Service Level:	B	Year:	2021	Predicted Lifetime:	
Maintenance District:	1	AADT:	3,076	Annual:	
Area:		Trucks:	388	Accum Since Resurf:	
Garage:		Percent Trucks:	13	Accum Since Constr:	
Fed Func Class:	3			Percent Life Used:	
Concurrent Routes:	/				

Kmpoints:		Coordinates:		Longitude / Latitude:	
Base Rec Begin:		Begin X:		Begin LONG:	
Base Rec End		End X:		End LONG:	
Trav Way Begin:		Begin Y:		Begin LAT:	
Trav Way End:		End Y:		End LAT:	
BR Route:					
Length:					

Base Records:	
Begin Sequence:	2021
End Sequence:	3076

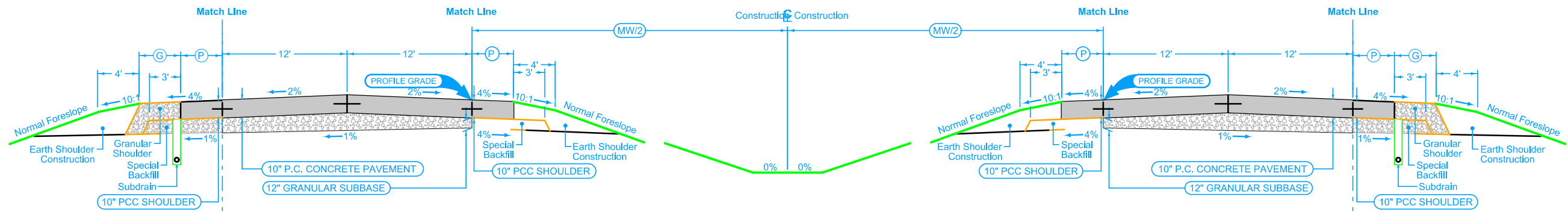


Full Depth PCC Combination Shoulder

STATION TO STATION		P Feet	G Feet
735+00	735+97.21	6	4
593+67.60	603+00	6	4

Full Depth PCC Combination Shoulder

STATION TO STATION		P Feet	G Feet
735+00	735+97.21	6	4
593+67.60	603+00	6	4

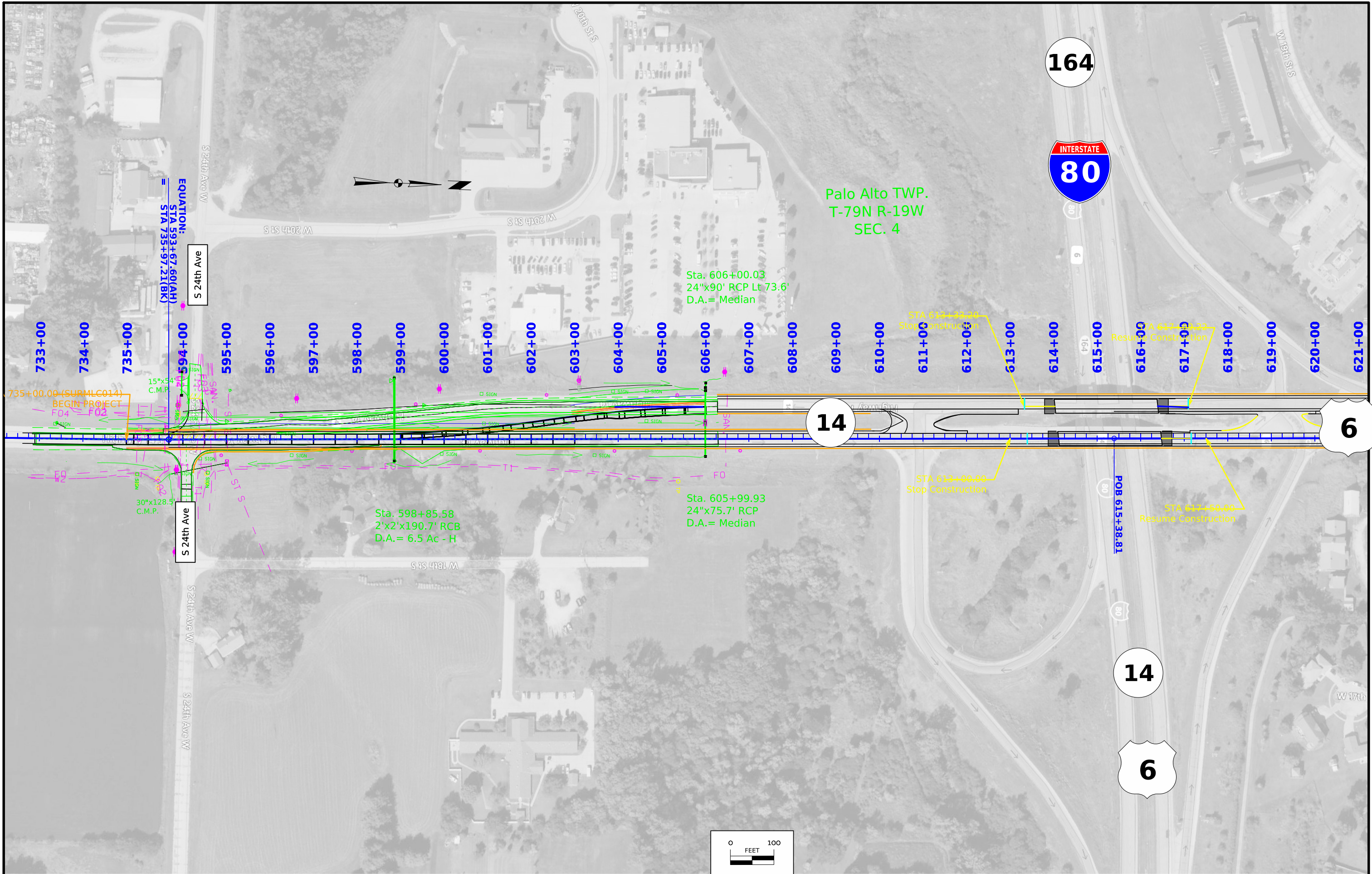


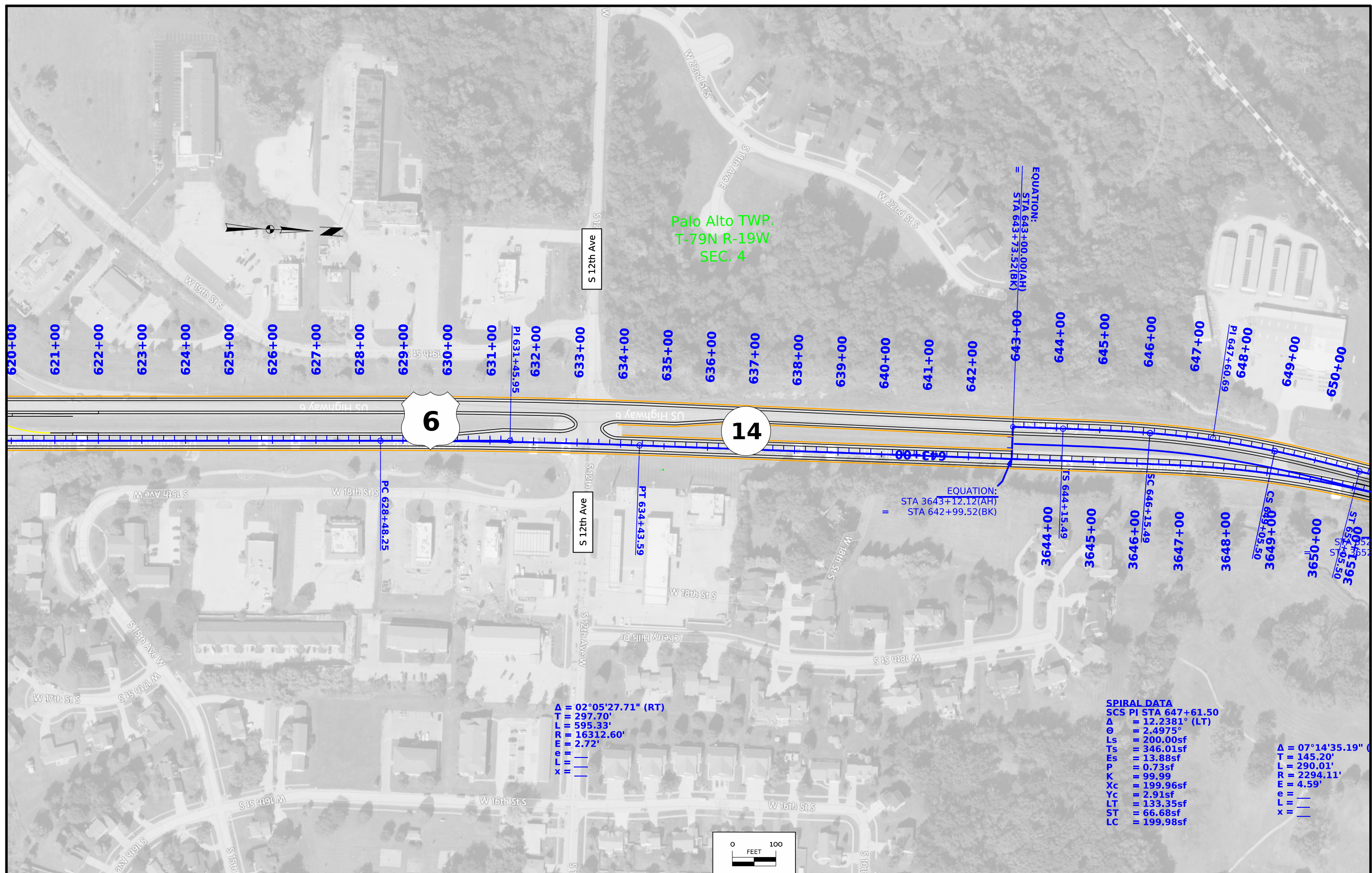
Direction of Travel	BEGIN STATION	END STATION	(MW) Feet
SB	605+50	613+35	
SB	617+10	620+55	
SB	625+50	632+46	

Direction of Travel	BEGIN STATION	END STATION	(MW) Feet
SB	605+50	613+35	
SB	617+10	632+46	

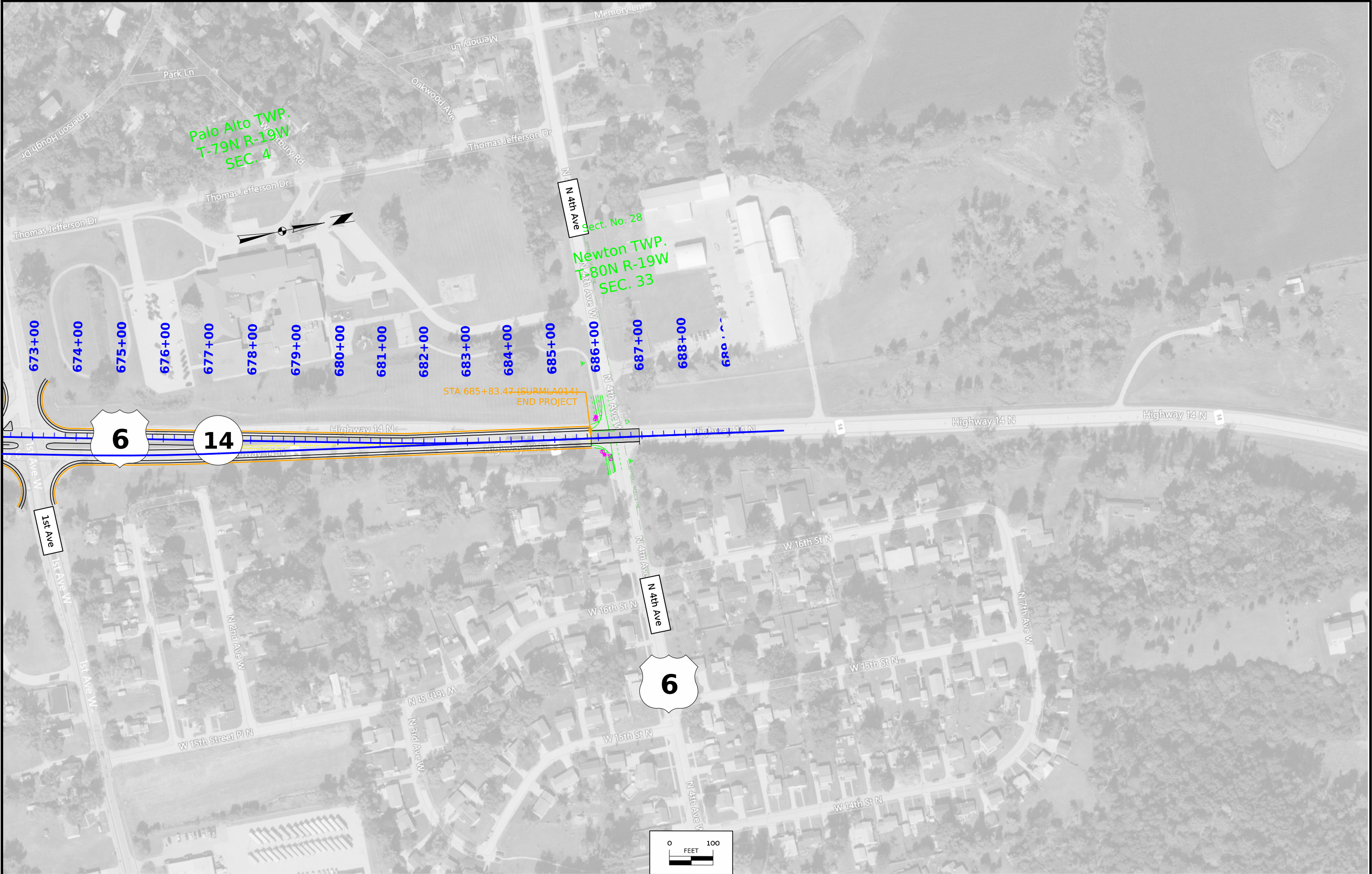
Direction of Travel	BEGIN STATION	END STATION	(MW) Feet
NB	603+00	613+44	
NB	617+20	634+00	

Direction of Travel	BEGIN STATION	END STATION	(MW) Feet
NB	603+00	613+44	
NB	617+20	632+50	





FILE NO.	ENGLISH	DESIGN TEAM Vortharms/Adey/Hauber	JASPER COUNTY	PROJECT NUMBER NHSX-014-4(074)--3H-50	SHEET NUMBER D.2	
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Removal of Pavement Detail

