



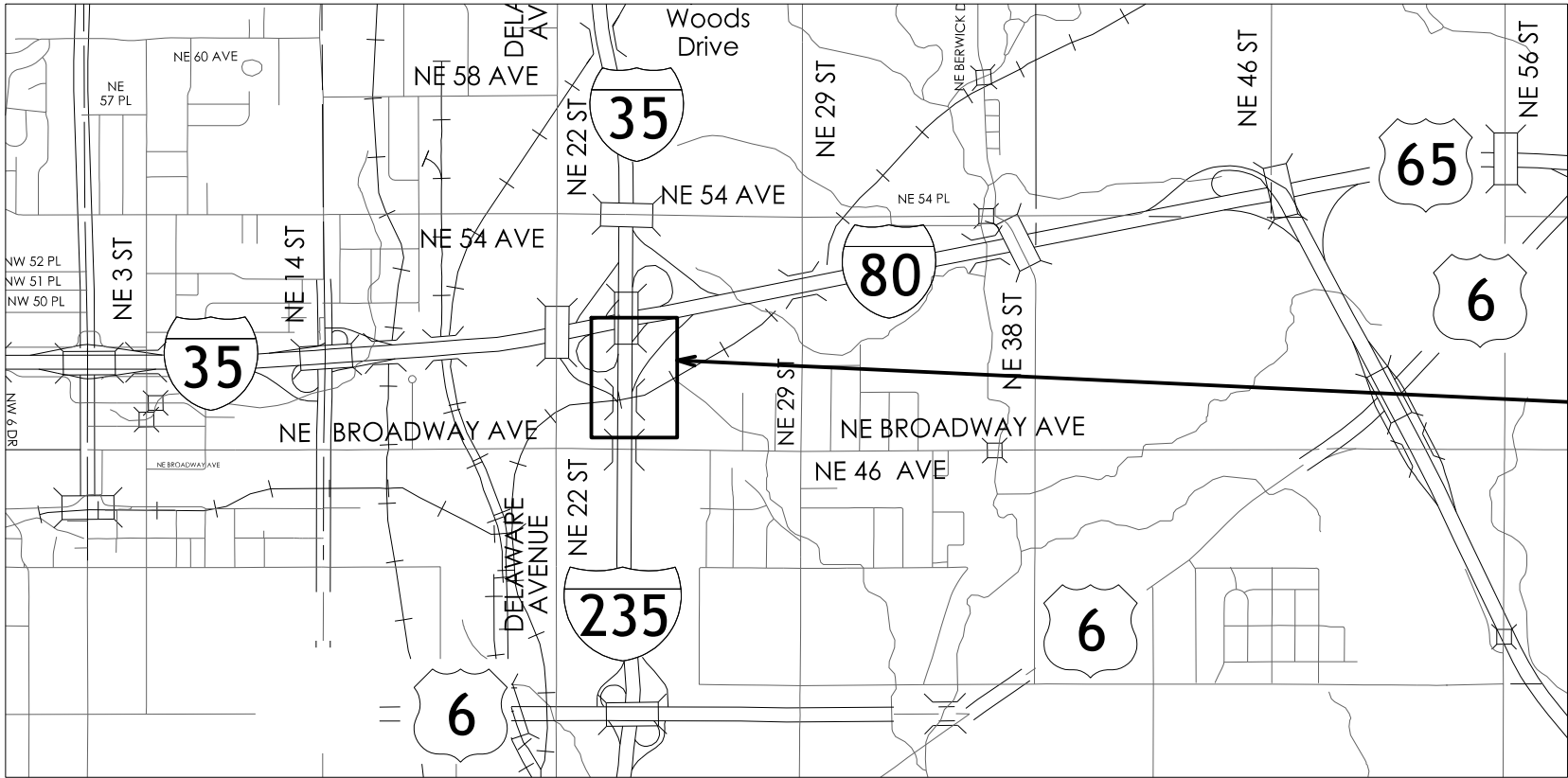
PLANS OF PROPOSED IMPROVEMENT ON THE
INTERSTATE ROAD SYSTEM
POLK COUNTY
ITS Infrastructure

NE I-35/80/235 Interchange to W US 65 Interchange

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



PROJECT LOCATION

REVISIONS

TOTAL	
6	
PROJECT IDENTIFICATION NUMBER	
10-77-035-010-05	
PROJECT NUMBER	
ITS-080-4(100)138--25-77	
R.O.W. PROJECT NUMBER	
IMN-080-4(092)138--0E-77	

INDEX OF SHEETS

No.	DESCRIPTION
A Sheets A.01	Title Sheet Title Page
C Sheets C.01	Quantities and General Information Project Description, Estimated Project Quantities, Reference Notes, Standard Road Plans
C.02	Listing of ITS Work
J Sheets J.01	Traffic Control Plan Traffic Control Plan
N Sheets N.01 N.02	ITS Plan Overview Map and Legend ITS Plan Sheet

ITS DESIGN



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Sarah Sutfin

10/07/2025
Date

SARAH SUTFIN
Printed or Typed Name

My license renewal date is December 31, 2026

Pages or sheets covered by this seal: A.01, C.01-C.02, J.01, N.01-N.02

PROJECT DESCRIPTION		100-1D 10-18-05
ITS-080-4(100)138--25-77 PROJECT SUMMARY		
ITS INFRASTRUCTURE PROJECT IN POLK COUNTY, IOWA.		
THIS PROJECT INVOLVES INSTALLING ITS INFRASTRUCTURE (E.G. CONDUIT, HANDHOLES, AND COMMUNICATION CABLE) FOR A SENSOR SITE ON I-235 AROUND THE NORTHEAST MIXMASTER.		

ESTIMATED PROJECT QUANTITIES (1 DIVISION PROJECT)						100-1A 07-15-97
Item No.	Item Code	Item	Unit	Total	As Built Qty.	
1	2518-0000010	ITS CONSTRUCTION SURVEY	LS	1		
2	2518-0000080	ITS HANDHOLE, 30x17x24	Each	1		
3	2518-0002200	ITS CONDUIT, HDPE, 2 INCH PLOWED	LF	150		
4	2518-0004200	ITS CONDUIT, RIGID STEEL, 2 INCH	LF	5		
5	2528-8445110	TRAFFIC CONTROL	LS	1		
6	2533-4980005	MOBILIZATION	LS	1		
7	2599-9999009	('LINEAR FEET' ITEM) CABLE, REMOVAL	LF	850		
8	2599-9999009	('LINEAR FEET' ITEM) REINSTALL CABLE	LF	750		

STANDARD ROAD AND ITS PLANS			105-4 MODIFIED
The following Standard Road Plans apply to construction work on this project.			
Number	Date	Title	
ITS-101	04-18-2023	ITS Handholes	
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)	
TC-202	04-18-23	Work Within 15 ft of Traveled Way	
TC-402	04-18-23	Work Within 15 ft of Traveled Way	
TC-418	04-18-23	Lane Closure on Divided Highway	

ESTIMATE REFERENCE INFORMATION (1 DIVISION PROJECT)			100-4A 10-29-02
Item No.	Item Code	Description	
1	2518-0000010	ITS CONSTRUCTION SURVEY	
2	2518-0000080	ITS HANDHOLE, 30x17x24	
3	2518-0002200	ITS CONDUIT, HDPE, 2 INCH PLOWED	
4	2518-0004200	ITS CONDUIT, RIGID STEEL, 2 INCH	
		REFER TO THE DEVELOPMENTAL SPECIFICATIONS FOR INTELLIGENT TRANSPORTATION SYSTEMS.	
-	-	-	
5	2528-8445110	TRAFFIC CONTROL	
6	2533-4980005	MOBILIZATION	
-	-	-	
7	2599-9999009	('LINEAR FEET' ITEM) CABLE, REMOVAL	
		MATERIALS, CONSTRUCTION, METHOD OF MEASUREMENT, AND BASIS OF PAYMENT shall be per Developmental Specifications for Intelligent Transportation Systems.	
-	-	-	
8	2599-9999009	('LINEAR FEET' ITEM) REINSTALL CABLE	
		MATERIALS	
		RS422 Serial communication Cable, XHHW Copper Wire, No. 14 AWG and Tracer Wire previously removed.	
		CONSTRUCTION	
		- Cable shall be installed continuously from device cabinet through the conduit/raceway system to sensor device location. Intermediate splicing of cable shall not be allowed. Coil 50' of sensor cable in HH1-2 and HH1-1, and dispose of the remaining cable.	
		METHOD OF MEASUREMENT	
		Linear feet shown in the contract documents.	
		BASIS OF PAYMENT	
		1. Per linear foot.	
		2. Payment is full compensation for:	
		-The installation of all cable per the contract documents.	
		-Furnishing all labor, tools, equipment, consumable items, and other incidental items necessary to meet the requirements of the contract documents.	
-	-	-	

LISTING OF ITS REMOVALS							
No.	ITS Device Name(s)	Device Type	Sheet Number	Station / Offset (Approx.)	Location	(100) Removals, as per plan	Removals by Others
1	I-235 NB TO I-80 EB RAMP @ STA 33549+00	SENSOR	N.02	33549+00, 5' LT	I-235 NB TO I-80 EB RAMP	Remove (and reinstall) existing cabling for the existing sensor. Abandon existing conduit in place to sensor.	Sensor, radio and solar equipment. The overhead sign and truss will be removed by the (086) signing project.

LISTING OF HANDHOLE WORK					
HANDHOLE LABEL	SHEET NUMBER	HANDHOLE TYPE	EXISTING/ PROPOSED	EASTING	NORTHING
HH1-1	N.02	ITS Handhole, 48x30x36	EXISTING	-	-
HH1-2	N.02	ITS Handhole, 30x17x24	PROPOSED	600764.1	1619985.8

LISTING OF CONDUIT WORK									
CONDUIT RUN	LOCATION		SHEET NUMBER	EXISTING/ PROPOSED	CONDUIT LENGTH (ft)	2 IN. CONDUIT PLOWED (LF)	2 IN. CONDUIT RSC (LF)	CABLE REMOVAL (LF)	REINSTALL CABLE (LF)
	FROM	TO							
1A	HH1-1	HH1-2	N.02	PROPOSED	140	140			700
1B	HH1-2	DMDSA05	N.02	PROPOSED	10	10	5		50
1C	HH1-1	DMDS87	N.02	EXISTING	170			850	
					Total	150	5	850	750

LISTING OF
ITS
WORK

SYSTEMTIME

SYSTEMDATE

USERNAME

DGNSPEC

108-25 10-21-14												
511 TRAVEL RESTRICTIONS												
Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
			Covered under (085) contract.									

108-23A
08-01-08

TRAFFIC CONTROL PLAN

1. Contractor shall adhere to the Traffic Control Notes in the IMN-NHS-080-4(085)138--03-77 project. Work Restrictions and Allowable Lane Closures will be subject to the notes shown in IMN-NHS-080-4(085)138--03-77.

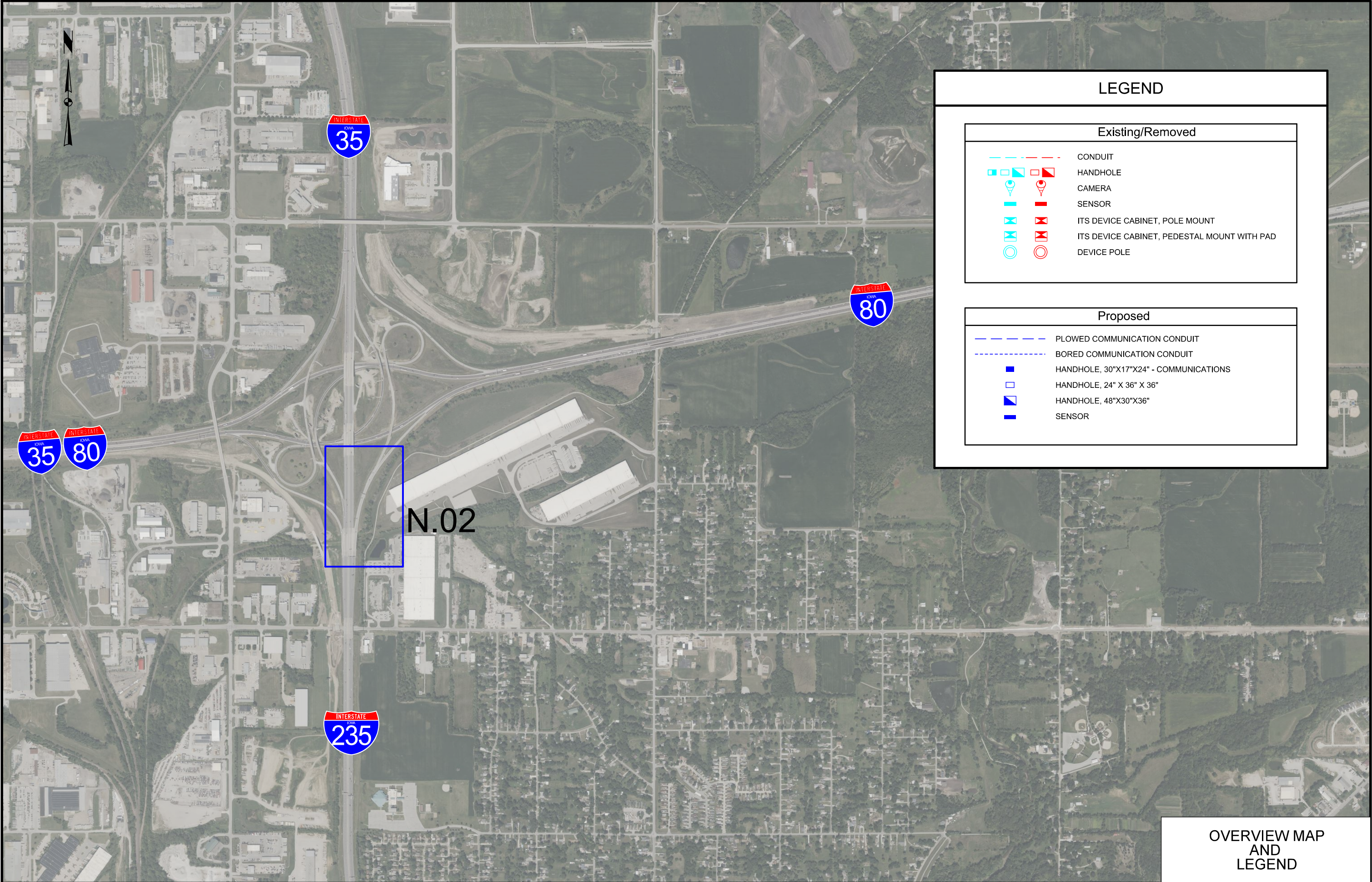
111-01
04-17-12

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
IMN-NHS-080-4(085)138--03-77	Grade and Pave
IM-080-4(086)138-13-77	Traffic signs
IM-NHS-080-4(87)139--03-77	Bridge Replacement
IM-NHS-080-4(88)139--03-77	Bridge Widening

FILE NO.	ENGLISH	DESIGN TEAM	IOWA DOT/HDR	POLK COUNTY	PROJECT NUMBER	ITS-080-4(100)138--25-77	SHEET NUMBER	J.01
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LEGEND

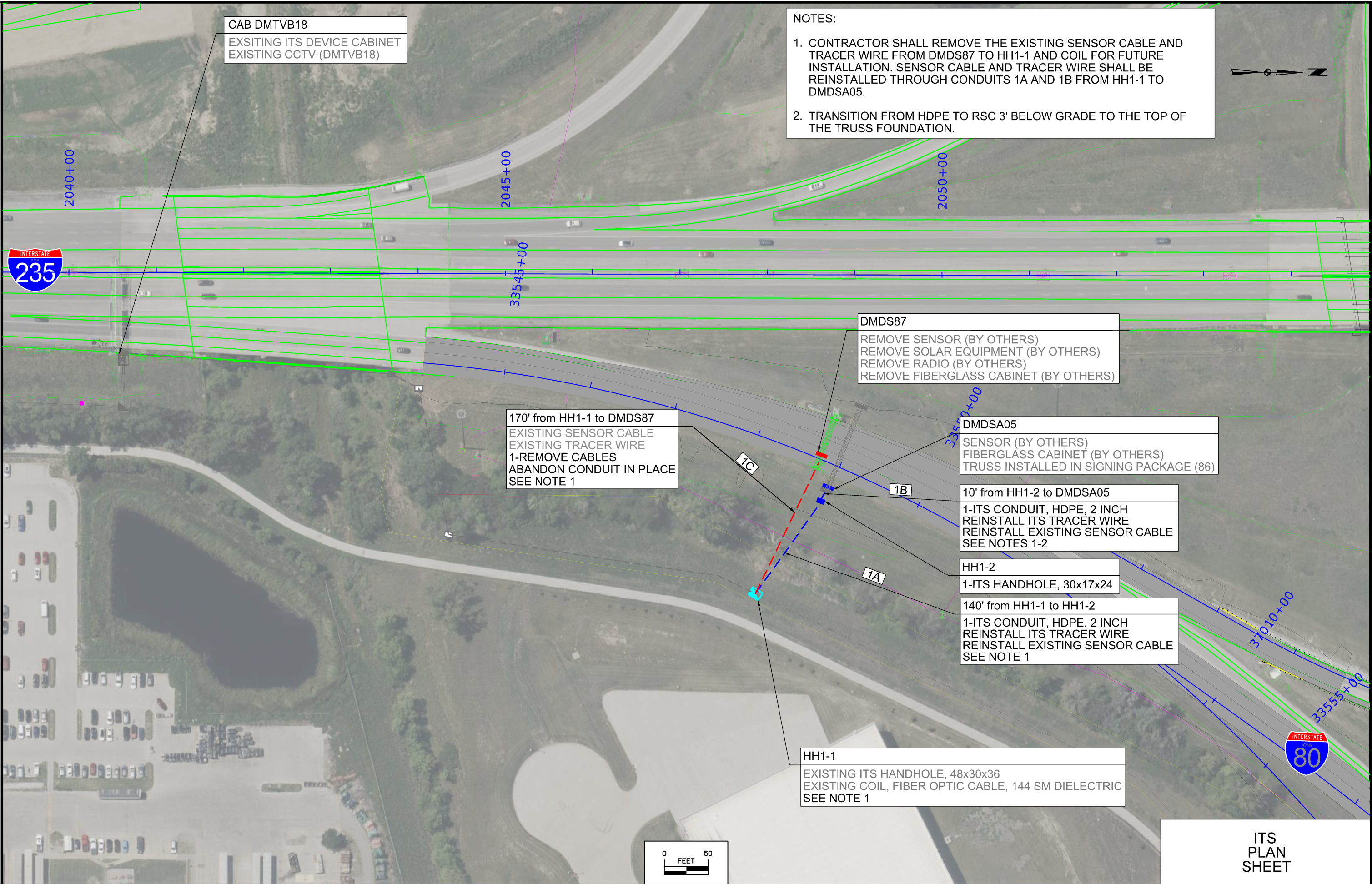
Existing/Removed

- CONDUIT
- HANDHOLE
- CAMERA
- SENSOR
- ITS DEVICE CABINET, POLE MOUNT
- ITS DEVICE CABINET, PEDESTAL MOUNT WITH PAD
- DEVICE POLE

Proposed

- PLOWED COMMUNICATION CONDUIT
- BORED COMMUNICATION CONDUIT
- HANDHOLE, 30"x17"x24" - COMMUNICATIONS
- HANDHOLE, 24" X 36" X 36"
- HANDHOLE, 48"x30"x36"
- SENSOR

OVERVIEW MAP
AND
LEGEND



CAB DMTVB18
EXSITING ITS DEVICE CABINET
EXISTING CCTV (DMTVB18)

NOTES:

1. CONTRACTOR SHALL REMOVE THE EXISTING SENSOR CABLE AND TRACER WIRE FROM DMDS87 TO HH1-1 AND COIL FOR FUTURE INSTALLATION. SENSOR CABLE AND TRACER WIRE SHALL BE REINSTALLED THROUGH CONDUITS 1A AND 1B FROM HH1-1 TO DMDSA05.
2. TRANSITION FROM HDPE TO RSC 3' BELOW GRADE TO THE TOP OF THE TRUSS FOUNDATION.

170' from HH1-1 to DMS87
EXISTING SENSOR CABLE
EXISTING TRACER WIRE
1-REMOVE CABLES
ABANDON CONDUIT IN PLACE
SEE NOTE 1

DMS87
REMOVE SENSOR (BY OTHERS)
REMOVE SOLAR EQUIPMENT (BY OTHERS)
REMOVE RADIO (BY OTHERS)
REMOVE FIBERGLASS CABINET (BY OTHERS)

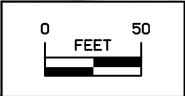
DMDSA05
SENSOR (BY OTHERS)
FIBERGLASS CABINET (BY OTHERS)
TRUSS INSTALLED IN SIGNING PACKAGE (86)

10' from HH1-2 to DMDSA05
1-ITS CONDUIT, HDPE, 2 INCH
REINSTALL ITS TRACER WIRE
REINSTALL EXISTING SENSOR CABLE
SEE NOTES 1-2

HH1-2
1-ITS HANDHOLE, 30x17x24

140' from HH1-1 to HH1-2
1-ITS CONDUIT, HDPE, 2 INCH
REINSTALL ITS TRACER WIRE
REINSTALL EXISTING SENSOR CABLE
SEE NOTE 1

HH1-1
EXISTING ITS HANDHOLE, 48x30x36
EXISTING COIL, FIBER OPTIC CABLE, 144 SM DIELECTRIC
SEE NOTE 1



ITS
PLAN
SHEET