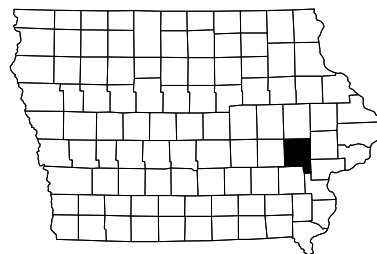


INDEX OF SHEETS	
	105-3 10-18-05
NO.	DESCRIPTION
A Sheets	Title Sheets
*A.1	Title Page
A.2	Location Map Sheet
*A.3	Legend and Symbol Information Sheet
C Sheets	Quantities and General Information
C.1	Project Description, Estimated Project Quantities, Estimate Reference Information
C.2	Estimate Reference Information, Index of Tabulations, Listing of Handhole Work
C.3	Listing of Handhole Work, Listing of Conduit and Fiber Work
C.4	Listing of Conduit and Fiber Work, Listing of Cabinet Work, Listing of Pole and Device Locations, Standard Road Plans
C.5	General Notes, Listing of Power Locations
CE Sheets	Pollution Prevention Plan
CE.1 - CE.2	Pollution Prevention Plan
J Sheets	Traffic Control
J.1	Traffic Control Plan and Coordinated Operations
N Sheets	Fiber Optic Infrastructure
*N.1 - N.35	ITS Fiber Installation
U Sheets	Detail Sheets
U.1	Type IV Handhole Details
U.2	FOR27 Handhole Details
U.3 - U.5	Handhole Connection Details
U.6	Cabinet Mounting Details
U.7	Footing Details
U.8	Meter Pedestal Details
U.9	Power Installation Details
U.10	Power Connection Details
U.11	Cabinet Layout Details
U.12	Camera Lowering Device Pole Foundation Details
U.13	Camera Lowering Device Pole Details
U.14 - U.15	SP43 Site Plans (By Others)
U.16 - U.43	Storm Water Site Map

* COLOR PLAN SHEETS



Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

INTERSTATE ROAD SYSTEM

JOHNSON COUNTY

FIBER OPTIC INSTALLATION

I-80/I-380/US 218 Interchange near Iowa City
 FRA CROSSING NO. 608011W

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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

For Project Location Map
 Refer to Sheet A.2

REVISIONS

TOTAL
100
PROJECT IDENTIFICATION NUMBER
02-52-080-010
PROJECT NUMBER
ITS-080-6(413)239--25-52
R.O.W. PROJECT NUMBER
IMN-080-6(236)239--0E-52

INDEX OF SEALS		
SHEET NO.	NAME	TYPE
A.1	Charles Alan Miller	Primary Signature Block

LICENSED PROFESSIONAL ENGINEER

CHARLES ALAN MILLER

18604

IOWA

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.

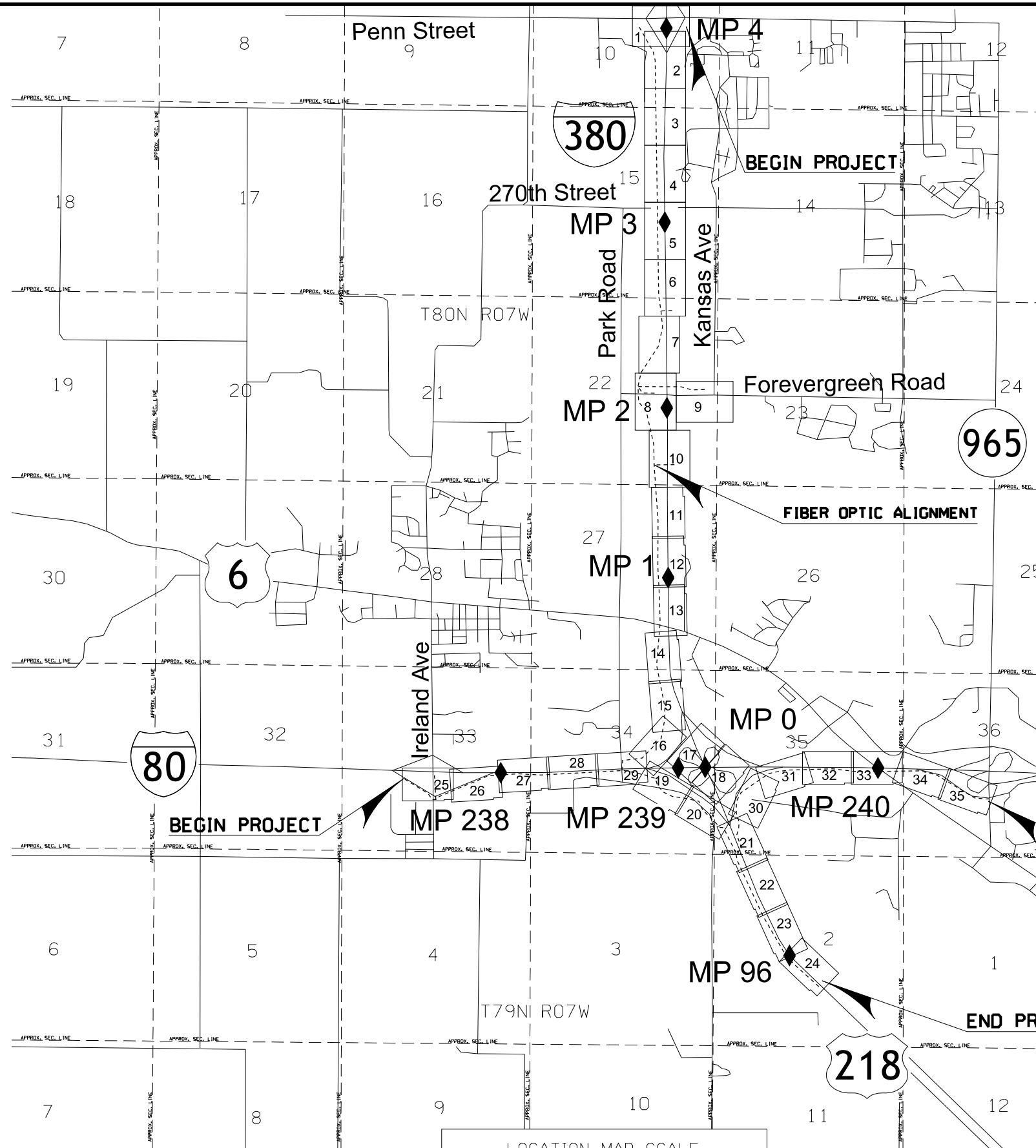
Charles Alan Miller 1/30/2018
 Signature Date

Charles Alan Miller
 Printed or Typed Name

18604
 License Number

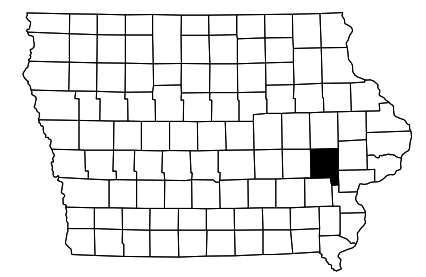
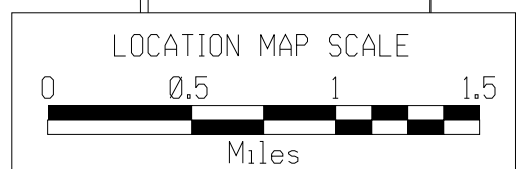
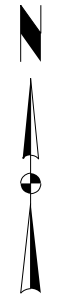
My license renewal date is December 31, 2018

Pages or sheets covered by this seal: A.1-A.3, C.1-C.5, CE.1-CE.2, J.1, N.1-N.35, U.1-U.13, U.16-U.43



LEGEND

- PLAN SHEET #
- RELOCATED FIBER ALIGNMENT



PROJECT LOCATION MAP

FILE NO.	ENGLISH	DESIGN TEAM	DALE\HNTB	JOHNSON	COUNTY	PROJECT NUMBER	ITS-080-6(413)239--25-52	SHEET NUMBER	A.2
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STANDARD SYMBOLS

- Interstate Highway Symbol
- U.S. Highway Symbol
- Iowa Highway Symbol
- County Road Highway Symbol
- Evergreen Tree
- Deciduous Tree
- Fruit Tree
- Shrub (Bushes)
- Timber
- Hedge
- Stump
- Swamp
- Rock Outcrop
- Broken Concrete
- Revetment (Rip Rap)
- Cemetery
- Grave
- Cave
- Sink Hole
- Board Fence
- Chain Link or Security Fence
- Wire Fence
- Terrace
- Earth Dam or Dike (Existing)
- Earth Dam or Dike (Proposed)
- Tile Outlet
- Edge of Water
- Existing Drainage
- Proposed Drainage
- Right of Way Rail or Lot Corner
- Concrete Monument
- Well
- Windmill
- Beehive Intake
- Existing Intake
- Proposed Intake
- Existing Utility Access (Manhole)
- Proposed Utility Access (Manhole)
- Fire Hydrant
- Water Hydrant (Rural)
- Septic Tank
- Cistern Symbol
- L.P. Gas Tank (No Footing)
- Underground Storage Tank
- Latrine
- Luminaire

- Traffic Signal
- Traffic Signal with Luminaire
- Telephone Pedestal
- Television Pedestal
- Telephone Pole
- Telephone Pole (Second Company)
- Telephone Pole (Third Company)
- Telephone Pole (Fourth Company)
- Telephone Pole (Fifth Company)
- Power Pole
- Power Pole (Second Company)
- Power Pole (Third Company)
- Power Pole (Fourth Company)
- Power Pole (Fifth Company)
- Electrical Highline Tower (Metal or Concrete)
- Power Riser Pole
- Telegraph Pole
- Satellite TV Dish
- Existing Water Line
- Existing Water Line (Second Company)
- Existing Sanitary Sewer Line
- Existing Telephone Line
- Existing Telephone Line (Second Company)
- Existing Fiber Optics Telephone Line
- Existing Storm Sewer Line

- Existing Gas Line
- Existing High Pressure Gas Line
- Existing Gas Line (Second Company)
- Existing High Pressure Gas Line (Second Company)
- Existing Power Line
- Existing Power Line (Second Company)
- Cable Television Line
- Guardrail (Beam or Cable)
- Guard Post (one or two)
- Guard Post (over two)
- Filler Pipe
- Gas Valve
- Water Valve
- Speed Limit Sign
- Mile Marker Post
- Sign
- Water Hook Up
- Radio Tower
- Electric Box
- Traffic Signal Control Box
- Rail Road Signal Control Box
- Telephone Switch Box

UNIQUE SYMBOLS FOR THIS PROJECT

EXISTING	PROPOSED	DESCRIPTIONS
		Iowa DOT Plowed Conduit
		Iowa DOT Bored Conduit
		Power Conduit
		Existing Iowa DOT/ICN Fiber
		Iowa DOT Handhole, Type II
		Iowa DOT Handhole, Type F0R27
		Iowa DOT Handhole, Type IV
		Iowa DOT Handhole, Misc.
		ICN Handhole
		Iowa DOT Traffic Camera
		Iowa DOT Traffic Sensor
		Meter Pedestal
		Iowa DOT ITS Device Cabinet, Pole Mount
		Iowa DOT ITS Device Cabinet, Ground Mount
		Iowa DOT Device Pole
		Iowa DOT Lighting Control/DMS Cabinet
		Clearing and Grubbing Project Limits (To be completed by others - Let 7/18/2017)

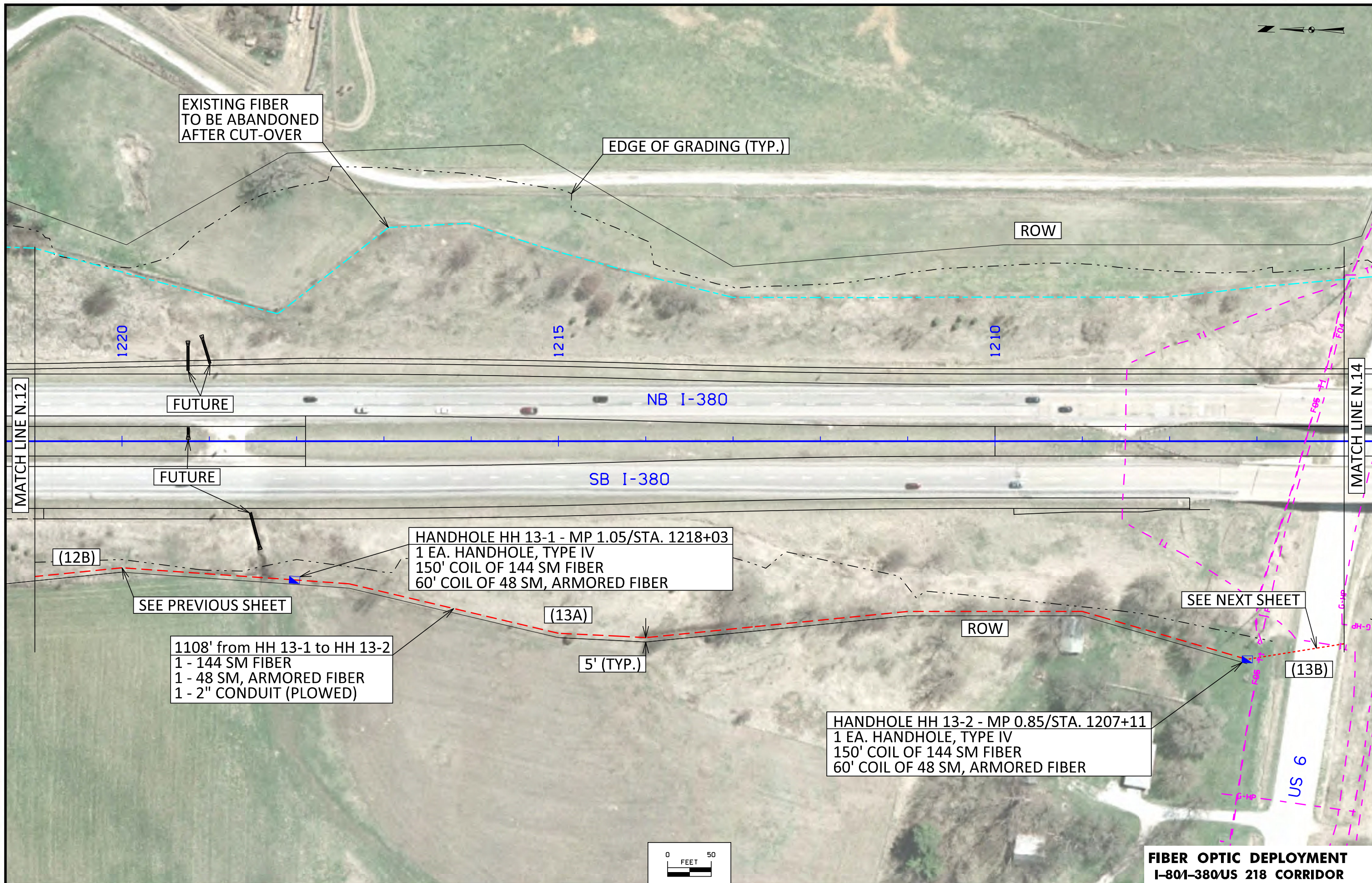
ABBREVIATIONS

DOT	Department of Transportation
ITS	Intelligent Transportation Systems
NEC	National Electric Code
OTDR	Optical Time Domain Reflectometer
TCP	Traffic Control Plan
ROW	Right of Way
HH	Handhole
ICN	Iowa Communications Network
NTS	Not to Scale

UTILITY CONTACTS

Company	Name	Street	City, State, Zip	Phone
Iowa Communications Network (ICN)	Tim Flickinger	400 East 14Th Street	Des Moines, Ia 50319	515-725-4699
Iowa DOT ITS	Jason Dale	800 Lincoln Way	Ames, Ia 50010	515-239-1995
Iowa DOT District 06	Steve Flockhart	5455 Kirkwood Blvd Sw	Cedar Rapids, Ia 52404	319-364-0235
Iowa DOT Maintenance Garage	Tim Zeimet	2600 Coralridge Ave	Coralville, Ia 52241	319-626-2386
Iowa Network Services (INS)	Jeff Klocko	4201 Corporate Drive	West Des Moines, Ia 50266	515-830-0445
Central Iowa Power Cooperative	Duke Dusheck	1400 Hwy 13	Cedar Rapids, Ia 52406	
Centurylink	Steven Parker	2103 E University Ave 1St Floor	Des Moines, Ia 50317	515-265-0968
Linn County Rural Electric Cooperative	Kim Colberg	5695 Rec Drive	Marion, Ia 52302-0069	319-377-1587
MidAmerican Energy Company	Jennifer Kinney	602 D Avenue Nw	Cedar Rapids, Ia 52405-3822	319-298-5156
South Slope Cooperative Communications	Mark Ditch	970 N Front Street	North Liberty, Ia 52317	319-626-2211
City of North Liberty	Ryan Hejar	3 Quail Creek Circle	North Liberty, Ia 52317	319-626-5711
Iowa DOT - TMC	Bonnie Castilla			515-237-3300

LEGEND AND SYMBOL INFORMATION SHEET



EXISTING FIBER
TO BE ABANDONED
AFTER CUT-OVER

EDGE OF GRADING (TYP.)

ROW

1220

1215

1210

MATCH LINE N.12

FUTURE

NB I-380

FUTURE

SB I-380

MATCH LINE N.14

HANDHOLE HH 13-1 - MP 1.05/STA. 1218+03
1 EA. HANDHOLE, TYPE IV
150' COIL OF 144 SM FIBER
60' COIL OF 48 SM, ARMORED FIBER

(12B)

SEE PREVIOUS SHEET

SEE NEXT SHEET

1108' from HH 13-1 to HH 13-2
1 - 144 SM FIBER
1 - 48 SM, ARMORED FIBER
1 - 2" CONDUIT (PLOWED)

(13A)

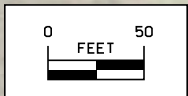
ROW

5' (TYP.)

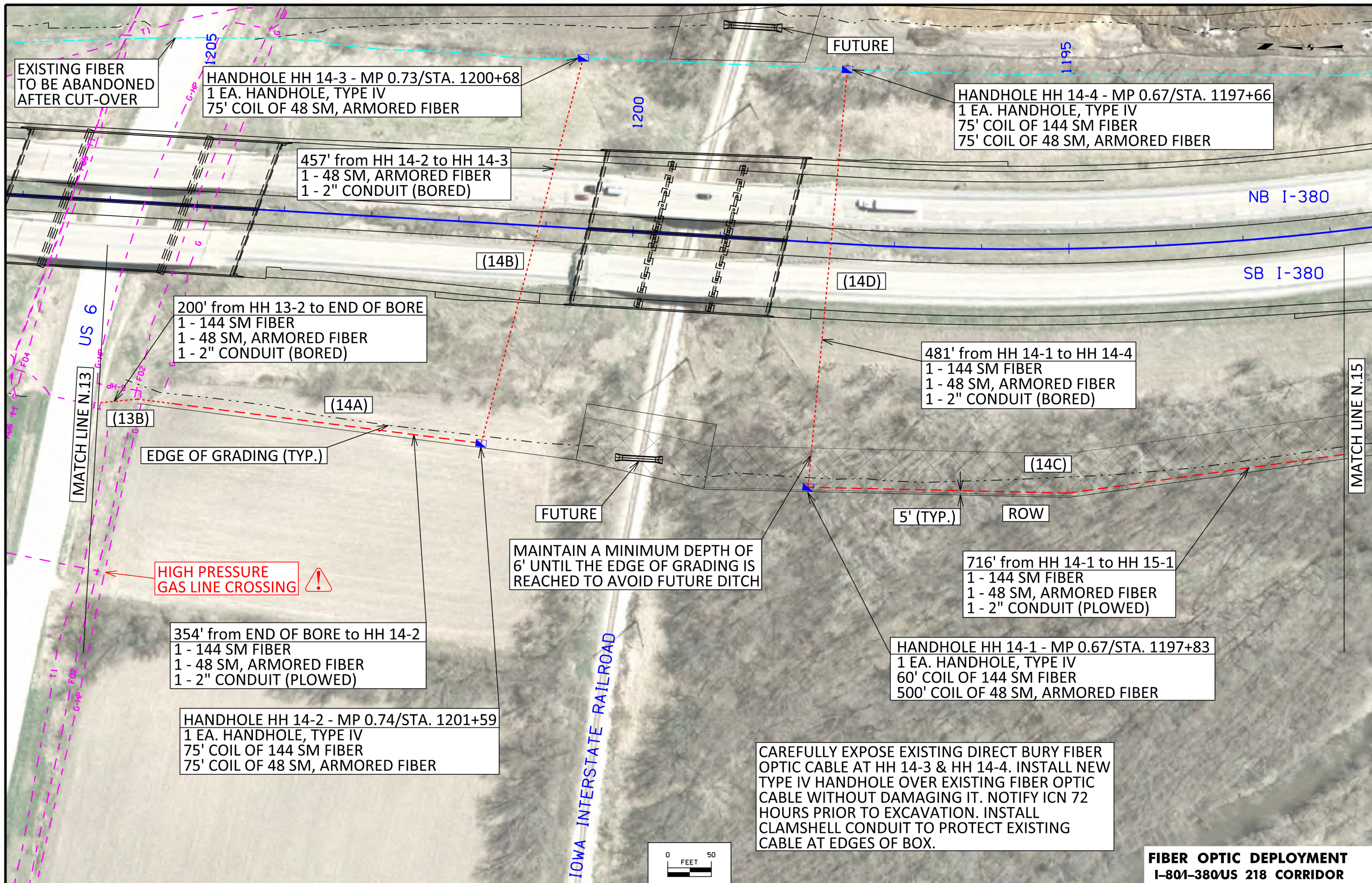
(13B)

HANDHOLE HH 13-2 - MP 0.85/STA. 1207+11
1 EA. HANDHOLE, TYPE IV
150' COIL OF 144 SM FIBER
60' COIL OF 48 SM, ARMORED FIBER

US 6



**FIBER OPTIC DEPLOYMENT
I-801-380US 218 CORRIDOR**



EXISTING FIBER TO BE ABANDONED AFTER CUT-OVER

HANDHOLE HH 14-3 - MP 0.73/STA. 1200+68
1 EA. HANDHOLE, TYPE IV
75' COIL OF 48 SM, ARMORED FIBER

HANDHOLE HH 14-4 - MP 0.67/STA. 1197+66
1 EA. HANDHOLE, TYPE IV
75' COIL OF 144 SM FIBER
75' COIL OF 48 SM, ARMORED FIBER

457' from HH 14-2 to HH 14-3
1 - 48 SM, ARMORED FIBER
1 - 2" CONDUIT (BORED)

200' from HH 13-2 to END OF BORE
1 - 144 SM FIBER
1 - 48 SM, ARMORED FIBER
1 - 2" CONDUIT (BORED)

481' from HH 14-1 to HH 14-4
1 - 144 SM FIBER
1 - 48 SM, ARMORED FIBER
1 - 2" CONDUIT (BORED)

EDGE OF GRADING (TYP.)

MAINTAIN A MINIMUM DEPTH OF 6' UNTIL THE EDGE OF GRADING IS REACHED TO AVOID FUTURE DITCH

HIGH PRESSURE GAS LINE CROSSING

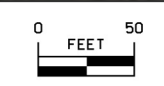
354' from END OF BORE to HH 14-2
1 - 144 SM FIBER
1 - 48 SM, ARMORED FIBER
1 - 2" CONDUIT (PLOWED)

716' from HH 14-1 to HH 15-1
1 - 144 SM FIBER
1 - 48 SM, ARMORED FIBER
1 - 2" CONDUIT (PLOWED)

HANDHOLE HH 14-2 - MP 0.74/STA. 1201+59
1 EA. HANDHOLE, TYPE IV
75' COIL OF 144 SM FIBER
75' COIL OF 48 SM, ARMORED FIBER

HANDHOLE HH 14-1 - MP 0.67/STA. 1197+83
1 EA. HANDHOLE, TYPE IV
60' COIL OF 144 SM FIBER
500' COIL OF 48 SM, ARMORED FIBER

CAREFULLY EXPOSE EXISTING DIRECT BURY FIBER OPTIC CABLE AT HH 14-3 & HH 14-4. INSTALL NEW TYPE IV HANDHOLE OVER EXISTING FIBER OPTIC CABLE WITHOUT DAMAGING IT. NOTIFY ICN 72 HOURS PRIOR TO EXCAVATION. INSTALL CLAMSHELL CONDUIT TO PROTECT EXISTING CABLE AT EDGES OF BOX.



FIBER OPTIC DEPLOYMENT
I-80I-380US 218 CORRIDOR