

PLANS OF PROPOSED IMPROVEMENTS FOR  
**2010**  
**JOHNSTON PD FIBER CONNECTION TO DES MOINES**

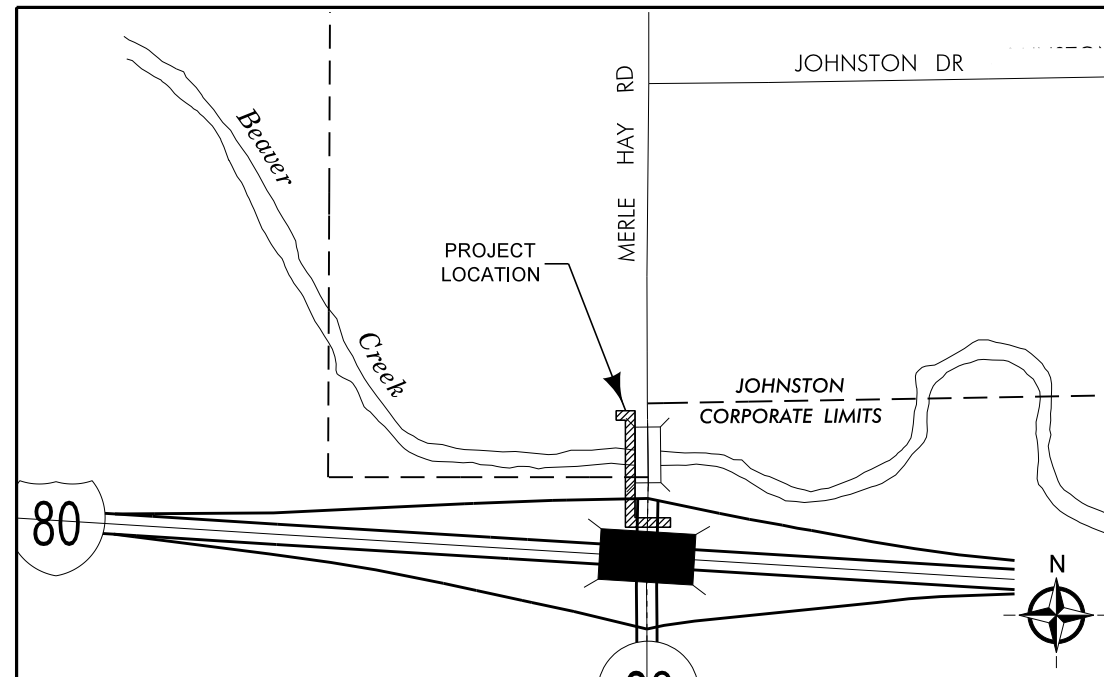
MERLE HAY ROAD  
JOHNSTON, IOWA

CITY C.I.P. NO. 56PD2011

LOCATION MAP

NOT TO SCALE

URBAN STANDARD DETAILS FOR PUBLIC IMPROVEMENTS		
ALL STANDARD DETAILS SHALL BE CONSIDERED APPLICABLE TO CONSTRUCTION WORK ON THIS PROJECT. THE FOLLOWING DETAILS ARE BROUGHT TO THE CONTRACTOR'S ATTENTION:		
FIGURE NO.	NAME	DATE
8010.14	PRECAST CONCRETE HANDHOLE	01-01-1998



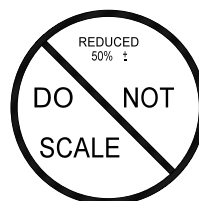
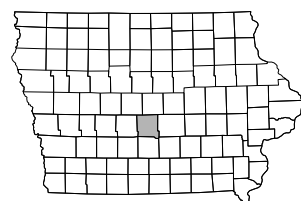
THE STATEWIDE URBAN DESIGN SPECIFICATIONS  
& THE CITY OF JOHNSTON SUPPLEMENTAL SPECIFICATIONS  
SHALL APPLY TO CONSTRUCTION WORK ON THIS PROJECT.

OWNER:  
CITY OF JOHNSTON

C/O DAVE CUBIT  
6400 NW BEAVER DRIVE  
JOHNSTON, IA 50131  
PHONE: (515) 278-0822  
FAX: (515) 727 8092

ENGINEER:  
FOTH

C/O MOLLY LONG  
8191 BIRCHWOOD COURT, SUITE L  
JOHNSTON, IA 50131  
PHONE: (515) 254-1393  
FAX: (515) 254-1642



**Foth Infrastructure & Environment, LLC**  
8191 Birchwood Court, Suite L  
Johnston, IA 50131-2931  
Phone: 515-254-1393 Fax: 515-254-1642



INDEX OF SHEETS		105-3 07-21-87
NO.	DESCRIPTION	
A.01	TITLE SHEET	
C.01	ESTIMATE OF QUANTITIES AND GENERAL INFORMATION	
J.01	TRAFFIC CONTROL DETAILS	
N.01	TRAFFIC SIGNAL SHEETS	

	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.	
	MOLLY D. LONG License Number: 16929 My license renewal date is DECEMBER 31, 2011. Pages or sheets covered by this seal:	DATE
	ALL SHEETS.	

ESTIMATED ROADWAY QUANTITIES					100-0A 10-28-97	
Item No.	Item	Unit	Total	As Built Quan.		
1	72 STRAND SM DRY CORE FIBER	LF	1010			
2	1C #10 TRACER WIRE	LF	90			
3	PULL ROPE	LF	90			
4	2" PVC CONDUIT	LF	85			
5	SPLICE ENCLOSURE	EACH	1			
6	FIBER TERMINATION	EACH	12			
7	FIBER SPLICE	EACH	4			
8	FIBER PATCH CORD	EACH	4			
8	REPAIR EXISTING HANDHOLE CASTING	LS	1			
10	TRAFFIC CONTROL	LS	1			
11	MOBILIZATION	LS	1			

ESTIMATE REFERENCE INFORMATION		100-4 10-29-02	
Item No.	Description	Item No.	
1,2	Wire and Fiber Optic Cable: Refer to plan sheets for locations. Measurement: The engineer will the amount of linear feet of each type of wire/cable installed. Payment: the contractor will be paid the contract unit price for each type of wire/cable installed.	8	Fiber Patch Cord: Refer to plan sheets for locations and Measurement: The engineer will count the number of fiber patch cords supplied and installed. Payment: The contractor will be paid the contract unit price for the number of fiber patch cords supplied and installed.
4	Conduit: Refer to Tabulation HH-COND for locations and details. Measurement: The engineer will measure the amount of each type of conduit installed. Payment: The contractor will be paid the contract unit price for each type of conduit installed.		
6	Fiber Termination: Refer to plan sheets for locations and details. Measurement: The engineer will count the number of fiber terminations performed. Payment: The contractor will be paid the contract unit price for the number of fiber terminations performed.		
7	Fiber Splice: Refer to plan sheets for locations and details. Measurement: The engineer will count the number of fiber terminations performed. Payment: The contractor will be paid the contract unit price for the number of fiber terminations performed.		

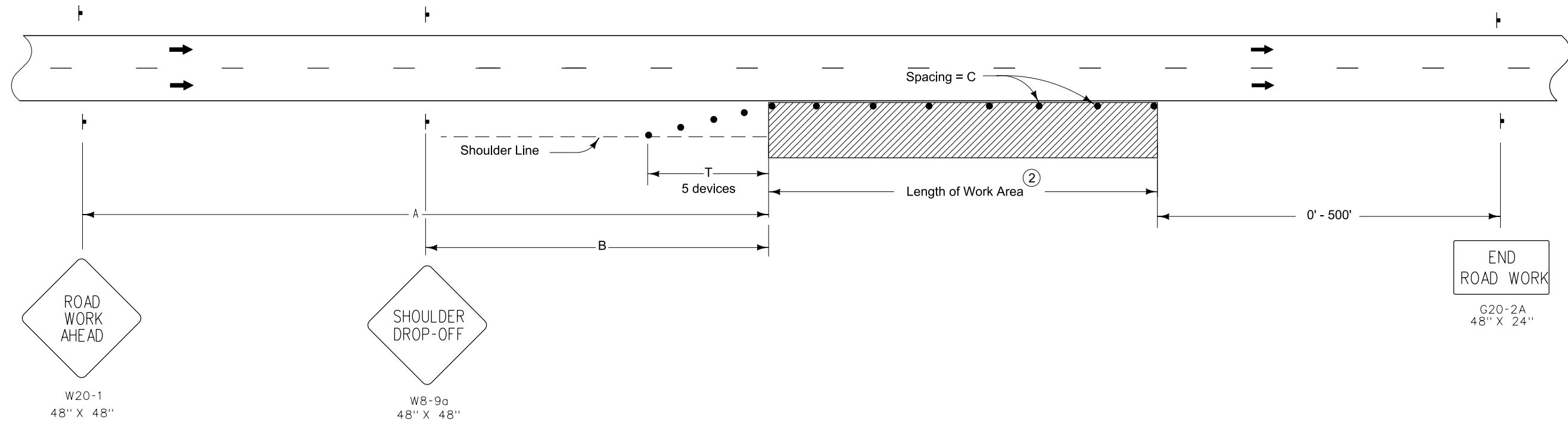
PROJECT DESCRIPTION		100-1D 10-15-2005	
FIBER INSTALLATION PROJECT FOR JOHNSTON POLICE DEPARTMENT FIBER CONNECTION TO DES MOINES ON MERLE HAY ROAD.			
THIS PROJECT INVOLVES INSTALLATION OF CONDUIT AND FIBER CABLE IN ORDER TO CONNECT JOHNSTON AND DES MOINES FIBER.			
CONDUIT AND FIBER WILL BE INSTALLED ALONG MERLE HAY ROAD NEAR THE I-35/80 WESTBOUND RAMPS.			
SPlicing AND TERMINATIONS WILL OCCUR IN THE JOHNSTON COMMUNITY SCHOOLS ADMINISTRATION BUILDING, THE FIBER CABINET AT THE CORNER OF 62ND AVENUE AND MERLE HAY ROAD, THE TYPE III HANDHOLE AT THE BIKE TRAIL, AND IN JOHNSTON CITY HALL.			

GENERAL NOTES			
1. ALL QUANTITIES SHOWN IN THE PLANS AND SPECIFICATIONS ARE FOR INFORMAL AND ESTIMATING PURPOSES ONLY. THE CONTRACTORS BID SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIAL NECESSARY TO PROVIDE A COMPLETE AND FUNCTIONAL FIBER INSTALLATION IN CONFORMANT WITH THE PLANS AND SPECIFICATIONS.			
2. THE PLAN LOCATIONS OF UNDERGROUND UTILITIES, WHEN SHOWN ARE APPROXIMATELY ONLY, IN ADDITION, A PORTION OF UTILITY INFORMATION MAY NOT HAVE BEEN PROVIDED. ALL UTILITIES SHALL BE LOCATED AND MARKED PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING UTILITIES. THE CONTRACTOR SHALL ALSO CONTACT ANY AND ALL UTILITIES AND LOCAL GOVERNMENT AGENCIES NOT PARTICIPATING IN LOCATION SERVICES.			
3. LOCATION OF CONDUIT SYSTEMS ON THE PLANS BY THE ENGINEER HAS BEEN PERFORMED WITHOUT WITHOUT FULL CONSIDERATION OF EXISTING GROUND UTILITIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ANY CONFLICTS WITH EXISTING UTILITIES AT SITES IN THE FIELD PRIOR TO INITIATION FO CONSTRUCTION AT THAT SITE. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE ENGINEER UPON DETERMINATION OF ANY UTILITY CONFLICT.			
4. ABOVE GROUND RISERS SHALL BE RIGID STEEL CONDUIT. ALL OTHER CONDUIT SHALL BE RIGID P.V.C. CONDUIT (SCHEDULE 40 OR AS APPROVED), OR HDPE. REFER TO SPECIAL PROVISIONS.			
5. ROADWAY GEOMETRICS REPRESENT AS-BUILT FEATURES.			
6. ALL WORK SHALL INCLUDE RESTORATION ON ANY DISTURBED AREAS TO PRE-CONSTRUCTION CONDITIONS (OR BETTER) AS DIRECTED BY THE ENGINEER.			
7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR ANY EXISTING CONDUIT, CONDUCTORS, OR OTHER FACILITIES DAMAGED DURING CONSTRUCTION. ALL EXISTING INFRASTRUCTURE REMOVED OR DAMAGED BY THE CONTRACTOR SHALL BE REPLACED IN KIND BY THE CONTRACTOR, WITH NO ADDITIONAL COMPENSATION.			
8. THE CONTRACTOR SHALL NOT DISTRUB ANY EXISTING UTILITIES EXCEPT AS SPECIFICALLY DEFINED WITHIN THE SCOPE OF WORK FOR THIS CONTRACT. WHRE WORK AFFECTS OR IS AFFECTED BY THE EXISTING UTILITIES, THE WORK SHALL BE COORDINATED WITH THE UTILITY COMPANY AND/OR OWNER. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE PROJECT ENGINEER.			
9. UTILITY COMPANIES WHOSE FACILITEIS ARE SHOWN ON THE PLANS OR KNOWN TO BE WITHIN THE CONSTRUCTION LIMITS SHALL BE NOTIFIES BY THE CONTRACTOR OF THE STARTING CONSTRUCTION DATE.			

GENERAL NOTES			
10. ALL FIBER CABLE SHALL BE SINGLE MODE, DRY CORE FIBER CABLES WITH THE FIBER COUNT AS SPECIFIED ON THE PLANS.			
11. COIL 30 FEET OF FIBER CABLE IN EACH HANDHOLE AND JUNCTION BOX. COIL 100 FEET OF FIBER CABLE IN EACH SPLICE HANDHOLE/JUNCTION BOX.			
12. ANY AND ALL IMPROVEMENTS, SUCH AS ASPHALT OR CONCRETE PAVEMENTS, CURBS, GUTTERS, WALKS DRAINAGE DITCHES, CULVERTS, DRAIN TILES, EMBANKMENTS, SHRUBS, TREES, GRASS, SOD, ETC., IF DAMAGED, SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.			
13. THE CONTRACTOR SHALL BORE UNDER ANY EXISTING ASPHALT OR CONCRETE PAVEMENT, STRUCTURE, ETC.			
14. THE MINIMUM BENDING RADIUS OF CONDUIT SYSTEM SHALL BE THE LARGER OF THE MANUFACTURE'S RECOMMENDATIONS OR NATIONAL ELECTRIC CODE (NEC) REQUIREMENTS.			
15. THE CONTRACTOR MAY BORE OR HORIZONTALLY DRILL IN LIEU OF TRENCHING AT THE CONTRACTOR'S EXPENSE.			
16. MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF ALL APPLICABLE SECTIONS INCLUDING BUT NOT LIMITED TO SECTION 2523 AND 2525, OF THE IOWA DEPARTMENT OF TRANSPORTATION ENGLISH STANDARD SPECIFICAITONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES "2001" PLUS CURRENT SPEELEMENT SPECIFICATONS AND SPECIAL PROVISIONS.			
17. A DURABLE TAG READING "FIBER OPTIC CABLE CITY OF JOHNSTON" SHALL BE ATTACHED TO EACH FIBER CABLE IN EACH HANDHOLE, JUNCTION BOX AND CABINET.			
18. PRIOR TO WORK WITH ANY JOHNSTON SCHOOLS EQUIPMENT (PULL BOXES, HANDHOLES, BUILDINGS, ETC.) CONTRACTOR SHALL CONTACT MR. TONY SPARKS AT LEAST 48 HOURS IN ADVANCE OF WORK.			
19. THE CONTRACTOR IS NOT TO DISBURB THE EXISTING TRAFFIC PATTERNS MORE THAN NECESSARY FOR THE PROPER EXECUTION OF THE WORK.			
20. CONTINUOUS FIBER CABLING SHALL BE INSTALLED BETWEEN EX. HH2 AND EX. HH8.			
21. CONTRACTOR MUST COORDINATE WITH JOHNSTON SCHOOLS, TONY SPARKS, BEFORE ANY FIELD SPlicing OR FIBER TERMINATIONS ARE PERFORMED.			
22. CONTRACTOR SHALL TIE IN TRACER WIRE TO THE TRACER WIRE SYSTEM IN THE EXISTING HANDHOLE BY THE BIKE TRAIL.			

PROJECT NO: 10J002.03 PROJECT DATE: 10/02/2010 CAD DATE: 10/18/2011 9:02:59 AM CAD FILE: X:\DM\IE\2010\10J002-03\CAD\Plans\10J002-03_C01.sht		DESIGNED BY: M.LONG CHECKED BY: M.LONG DRAWN BY: E.GREEN	
NO	DATE	BY	REVISION DESCRIPTION

JOHNSTON PD FIBER CONNECTION TO DES MOINES MERLE HAY ROAD CITY OF JOHNSTON CONTRACT NUMBER: 56PD2011		ESTIMATED PROJECT QUANTITIES	SHEET NO. C.01
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LEGEND

Traffic Sign

42" Channelizer or Vertical Panel

Work Area

Direction of Traffic

SPEED LIMIT (mph)	A	B	C <sup>②</sup>	T
40 or less	500'	250'	40'	100'
45 - 50	700'	350'	80' ①	200'
55 - 60	1500'	500'	100' ①	200'
65 - 70	1500'	500'	100' ①	230'

When a pavement edge drop-off exists, install a SHOULDER DROP-OFF sign.

Pavement edge drop-offs greater than a nominal 10 inches will not be allowed during non-working hours.

Shoulder edge drop-offs shall be mitigated according to Article 1107.08.K2 of the Standard Specifications.

① When the length of a pavement edge drop-off is 1000 feet or less, the temporary fillet requirement of Article 1107.08 of the Standard Specifications does not apply.

Space devices at 40 feet.

② For work areas less than 200 feet long, use channelizers spaced at 20 foot centers or use a vehicle with an amber revolving light or amber strobe light.

Possible Contract Item:  
Traffic Control

STANDARD ROAD PLAN

REVISIONS: Changed shoulder signs, general note, and title. Updated signs.

APPROVED BY DESIGN METHODS ENGINEER

SHOULDER CLOSURE (MULTI-LANE)

REVISION	
3	04-20-10
TC-402	
SHEET 1 of 1	

NO	DATE	BY	REVISION DESCRIPTION





TABULATION OF UTILITIES

102-13  
02-23-93

Where public utility fixtures are shown as existing on the plans or encountered within the construction area, it shall be the responsibility of the contractor to notify the owners of those utilities prior to the beginning of any construction. The Contractor shall afford access to these facilities for necessary modification of services. Underground facilities, structures and utilities have been plotted from available surveys and records, and therefore their locations must be considered approximate only. It is possible there may be others, the existence of which presently not known or shown. It is the Contractor's responsibility to determine their existence and exact location and to avoid damage thereto. No claims for additional compensation will be allowed to the Contractor for any interference or delay caused by such work.

The Contractor is required to utilize the utility One-Call service at (800) 292-8989 at least 48 hours prior to excavating anywhere on the project.

The following utility companies are known to have facilities on the project:

- City of Johnston  
Dept. of Public Works  
Mr. Dave Cubit  
6400 N.W. Beaver Drive  
Johnston, IA 50131-0410  
(515)278-0822 (office)  
(515)727-8092 (fax)  
dcubit@c.i.johnston.ia.us

Johnston Community School District  
Mr. Tony Sparks - IT  
P.O. Box 10  
5608 Merle Hay Road  
Johnston, IA 50131  
(515) 278-0470 (office)  
(515) 278-5884 (fax)
- City of Johnston  
Water Works  
Mr. Thorpe  
6400 N.W. Beaver Drive  
Johnston, IA 50131-0410  
(515)278-0822 (office)  
(515)727-8092 (fax)  
dcubit@c.i.johnston.ia.us

Johnston Community School District  
Director of Buildings & Grounds  
Mr. Tim Kline  
P.O. Box 10  
5608 Merle Hay Road  
Johnston, IA 50131  
(515) 278-0470 (office)  
(515) 278-5884 (fax)
- MediaCom  
Mr. Nick Smith  
2205 Ingersoll Avenue  
Des Moines, IA 50312-5229  
(515)202-9480 (mobile)  
(515)246-2252 (office)  
(515)246-2211 (fax)  
nicksmith@mediacomcc.com

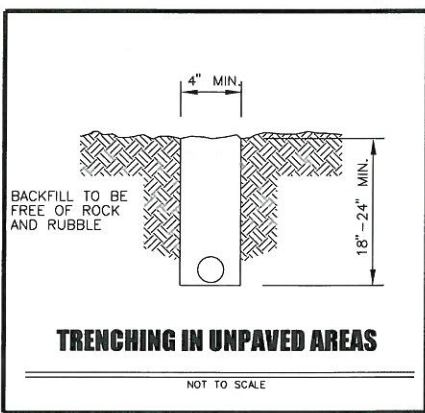
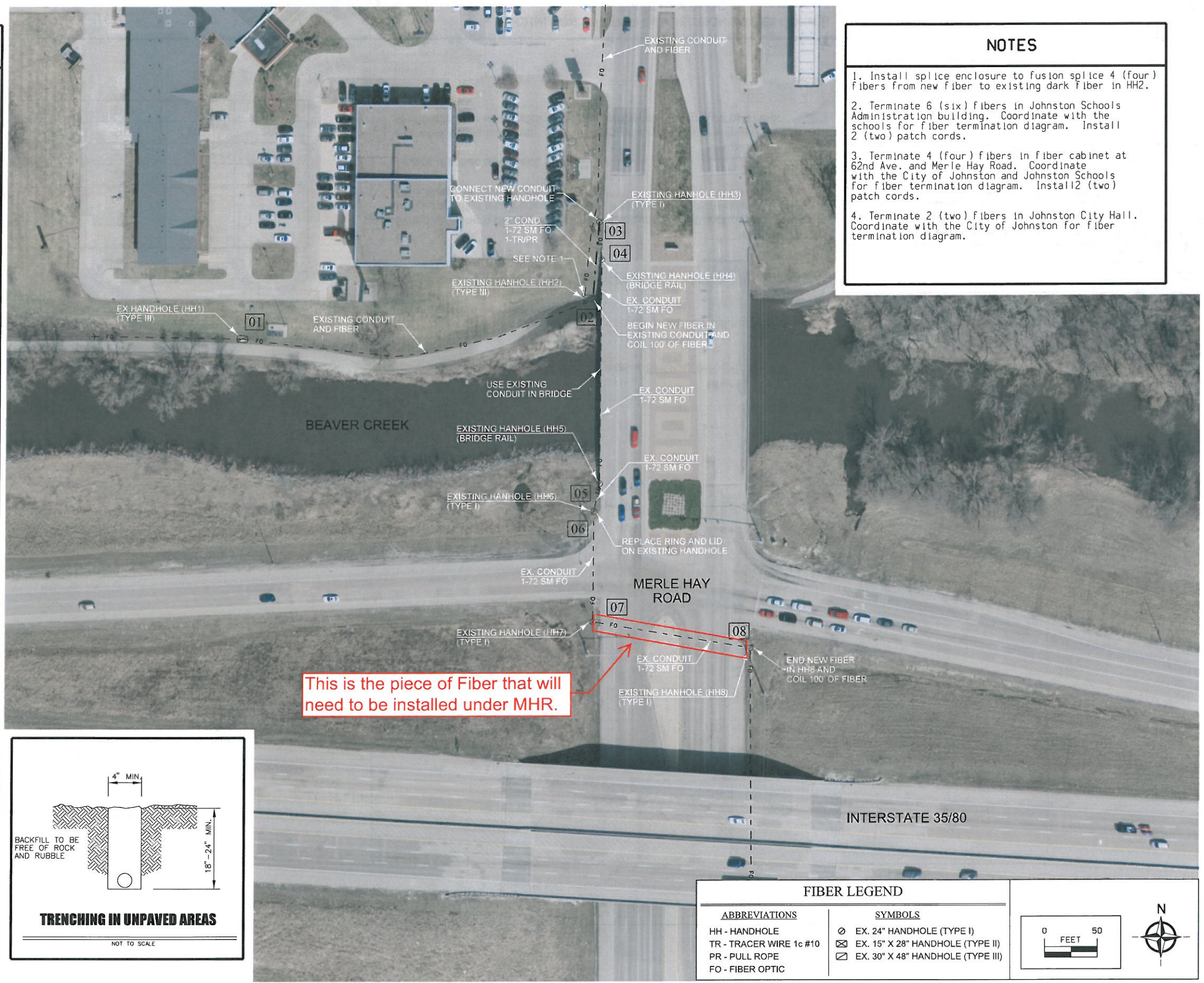
Iowa Communications Network (ICN)  
Mr. Kent Freise  
400 East 14th Street  
Grimes State Office Bldg.  
Des Moines, Iowa 50319  
(515)725-4725 (office)  
(515)229-2046 (mobile)  
(515)725-4694 (fax)  
Kent.Freise@iowa.gov
- Mid-American Energy  
Ms. Dawn Martino  
10510 Douglas Avenue  
Urbandale, IA 50322-2015  
(515)252-6597 (office)  
(515)252-6463 (fax)  
dmmartino@midamerican.com

Qwest Communications  
Ms. Jeri Overlie  
2103 East University Avenue  
Des Moines, IA 50317-5252  
(515)263-7260 (office)  
(515)263-7235 (fax)  
jeri.overlie@qwest.com
- McLeod USA  
Mr. Tim Flickinger  
3690 109th Street  
Urbandale, IA 50322-8101  
(515)309-1134 (office)  
(515)309-1202 (fax)  
timothy.flickinger@mcleodusa.com

IOWA 1-CALL# 1-800-292-8989

NOTES

1. Install splice enclosure to fusion splice 4 (four) fibers from new fiber to existing dark fiber in HH2.
2. Terminate 6 (six) fibers in Johnston Schools Administration building. Coordinate with the schools for fiber termination diagram. Install 2 (two) patch cords.
3. Terminate 4 (four) fibers in fiber cabinet at 62nd Ave. and Merle Hay Road. Coordinate with the City of Johnston and Johnston Schools for fiber termination diagram. Install 2 (two) patch cords.
4. Terminate 2 (two) fibers in Johnston City Hall. Coordinate with the City of Johnston for fiber termination diagram.



**FIBER LEGEND**

ABBREVIATIONS	SYMBOLS
HH - HANDHOLE	Ø EX. 24" HANDHOLE (TYPE I)
TR - TRACER WIRE 1c #10	⊠ EX. 15" X 28" HANDHOLE (TYPE II)
PR - PULL ROPE	⊠ EX. 30" X 48" HANDHOLE (TYPE III)
FO - FIBER OPTIC	