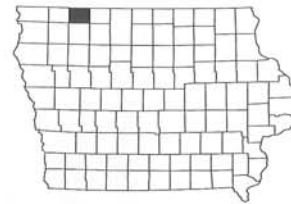
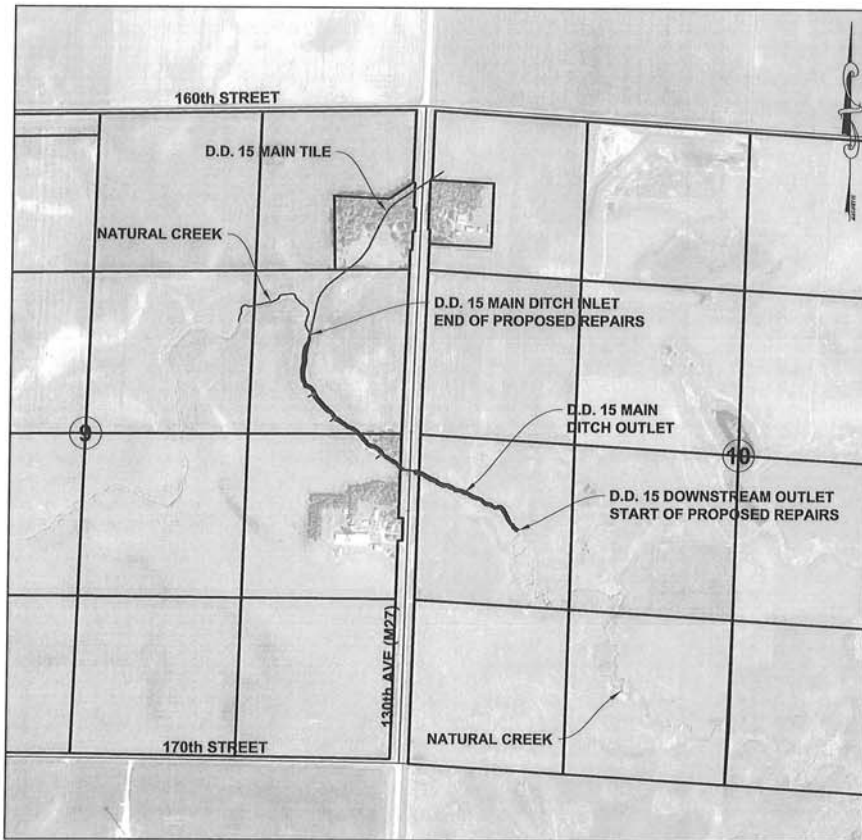


2021 DRAINAGE DISTRICT No. 15 MAIN DITCH/OUTLET REPAIR

Dickinson County, Iowa

Vicinity Map
Not to Scale



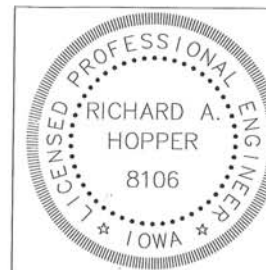
BOARD OF SUPERVISORS:

William Leupold
Steve Clark
Tim Fairchild
Kim Wermersen
Jeffery Thee

Lori Pederson, Auditor
Jordan Moyer, Drainage Clerk

INDEX OF SHEETS

SHEET A.01 - TITLE
SHEET A.02 - SITE PLAN
SHEETS D.01-D.04 - PLAN & PROFILE



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.

Richard A. Hopper Date: 03/26/2021
Richard A. Hopper, P.E.
License number 8106
My license renewal date is December 31, 2021
Pages or sheets covered by this seal:
A.01, A.02, D.01 - D.04

JACOBSON-WESTGARD
& ASSOCIATES, INC.
505 E. 30th Street
Des Moines, IA 50319
PHONE: (515) 281-2647 Toll Free (866) 215-2288
Fax: (515) 281-2648
www.jacobson-westgard.com
Professional Surveyors - LAND SURVEYING
CONSULTING ENGINEERS



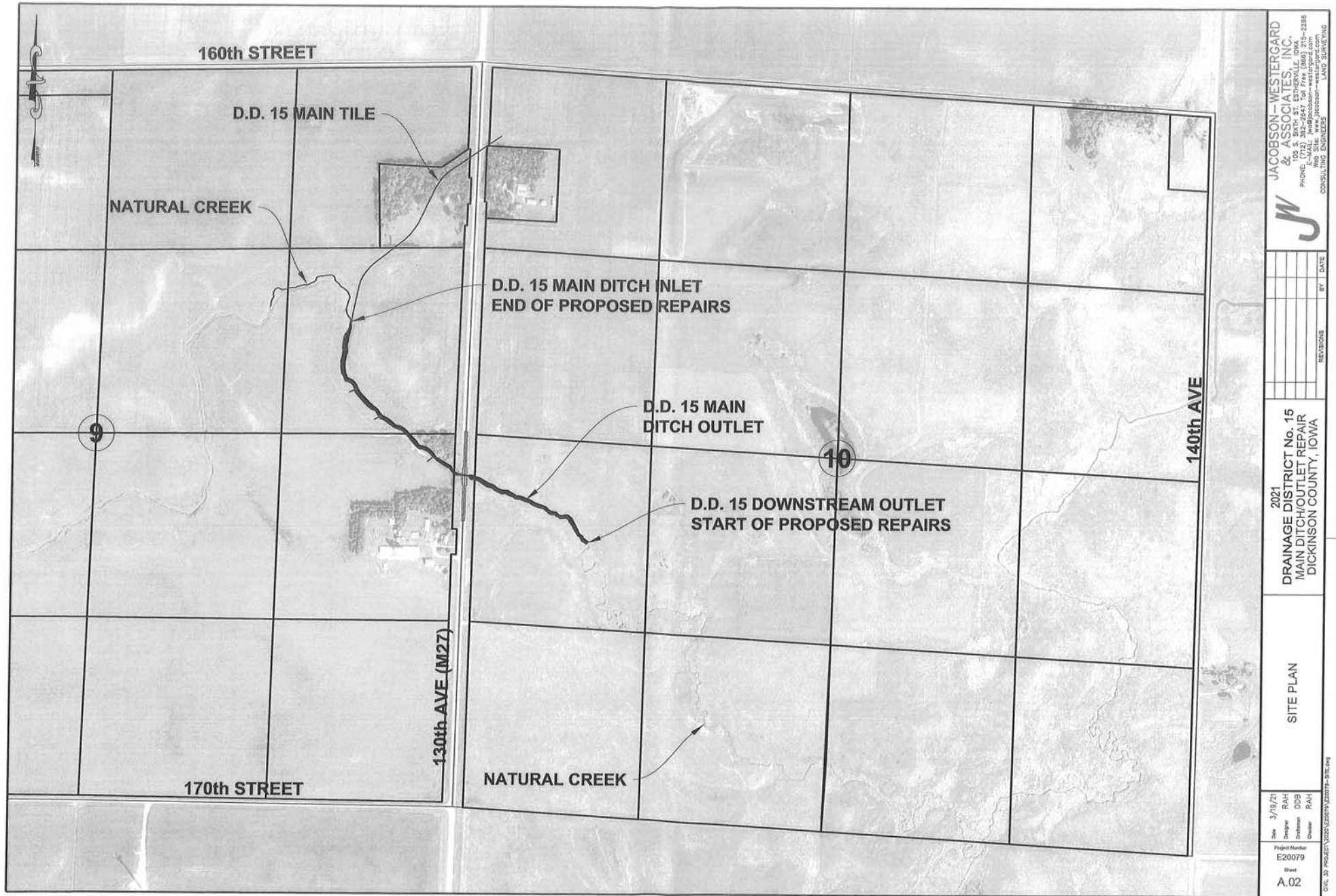
REVISIONS	BY	DATE

2021
DRAINAGE DISTRICT No. 15
MAIN DITCH/OUTLET REPAIR
DICKINSON COUNTY, IOWA

TITLE

Date	3/19/21
Designer	RAH
Checker	DOB
Project Number	E20079
Sheet	A.01

Civil 3D PROJECT 2020/03/19/21 E20079 - 01.dwg



JACOBSON-WESTERGARD
& ASSOCIATES, INC.
605 E. 30th St. Suite 100
Des Moines, IA 50319
PHONE: (515) 281-2447 Tel. Free (866) 215-2286
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www.jacobson-westergard.com
Web Site: www.jacobson-westergard.com
CONSULTING ENGINEERS

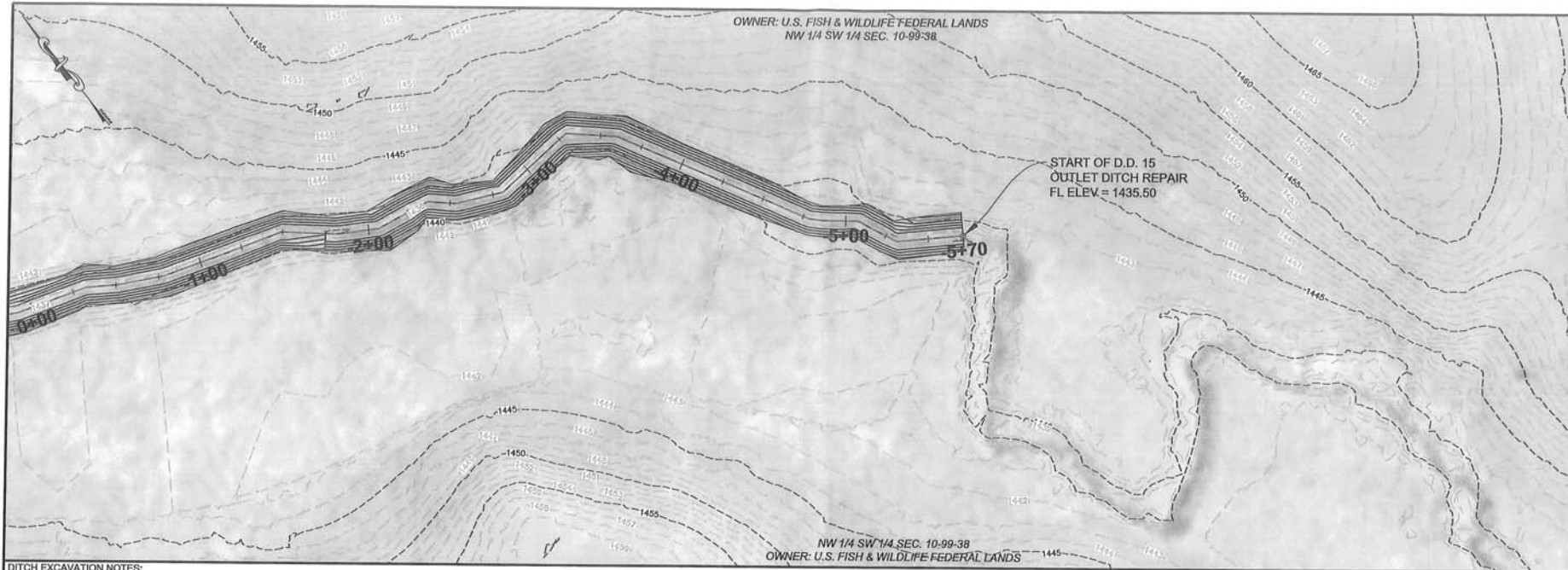


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2021
DRAINAGE DISTRICT No. 15
MAIN DITCH/OUTLET REPAIR
DICKINSON COUNTY, IOWA

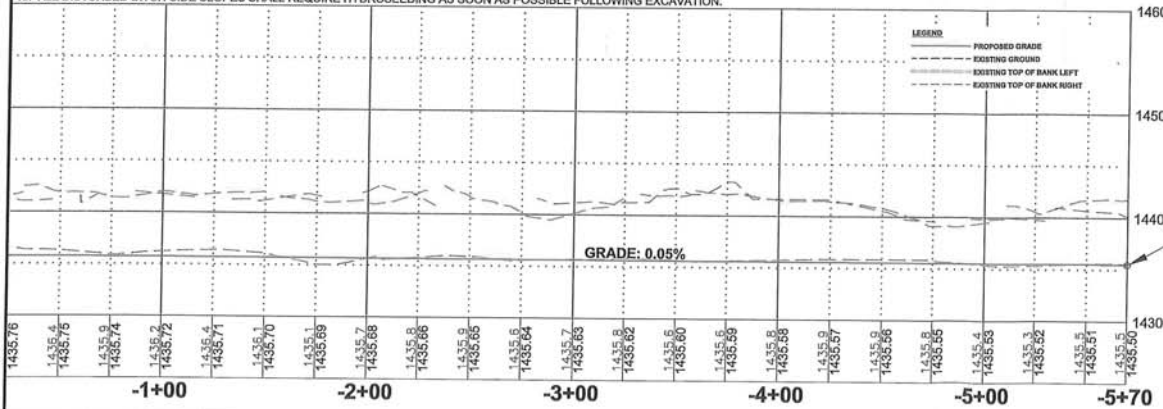
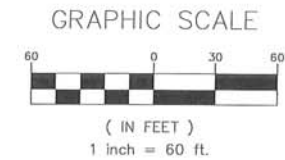
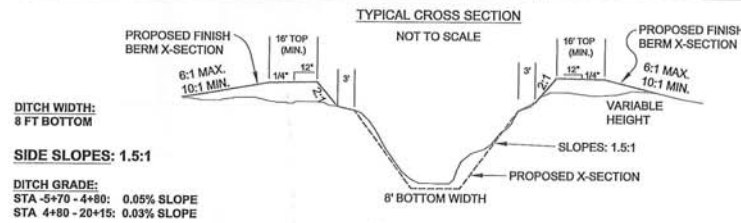
SITE PLAN

Date: 3/19/21
Designer: BAH
Checker: DJS
Project Number: E20079
Sheet: A.02



DITCH EXCAVATION NOTES:

1. EXCAVATION INCLUDES THE REMOVAL OF SPOILS FROM ALL STRUCTURES IN THE PROPOSED OPEN DITCH.
2. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ALL "ONE-CALL" REQUIREMENTS FOR THIS PROJECT.
3. CONTRACTOR REQUIRED TO ACQUIRE AND CARRY SPECIAL USE PERMIT FOR WORK ON FEDERAL LANDS AND MUST NOTIFY ED MEENDERING (PH: 515-928-2523) OR CHRIS LARUE (PH: 712-330-4543) A MINIMUM OF TWO DAYS PRIOR TO WORK.
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5. CONTRACTOR SHALL SEED ALL DISTURBED GROUNDS OUTSIDE OF DITCH SLOPES ON FEDERAL LANDS WITH BROME GRASSES FOLLOWING EXCAVATION AND LEVELING.
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13. ALL DISTURBED DITCH SIDE SLOPES SHALL REQUIRE HYDROSEEDING AS SOON AS POSSIBLE FOLLOWING EXCAVATION.



STA -5+70 - OUTLET DITCH
START PROPOSED REPAIRS
-MATCH EXISTING GROUND
DITCH FL ELEV = 1435.50

**JACOBSON-WESTERGARD
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1000 E. 12th St., Suite 200, Des Moines, IA 50319
 PHONE: (515) 281-2847 Tel. Fax (515) 281-2288
 E-MAIL: jacobson@jacobson-westergard.com
 WWW: www.jacobson-westergard.com

2021

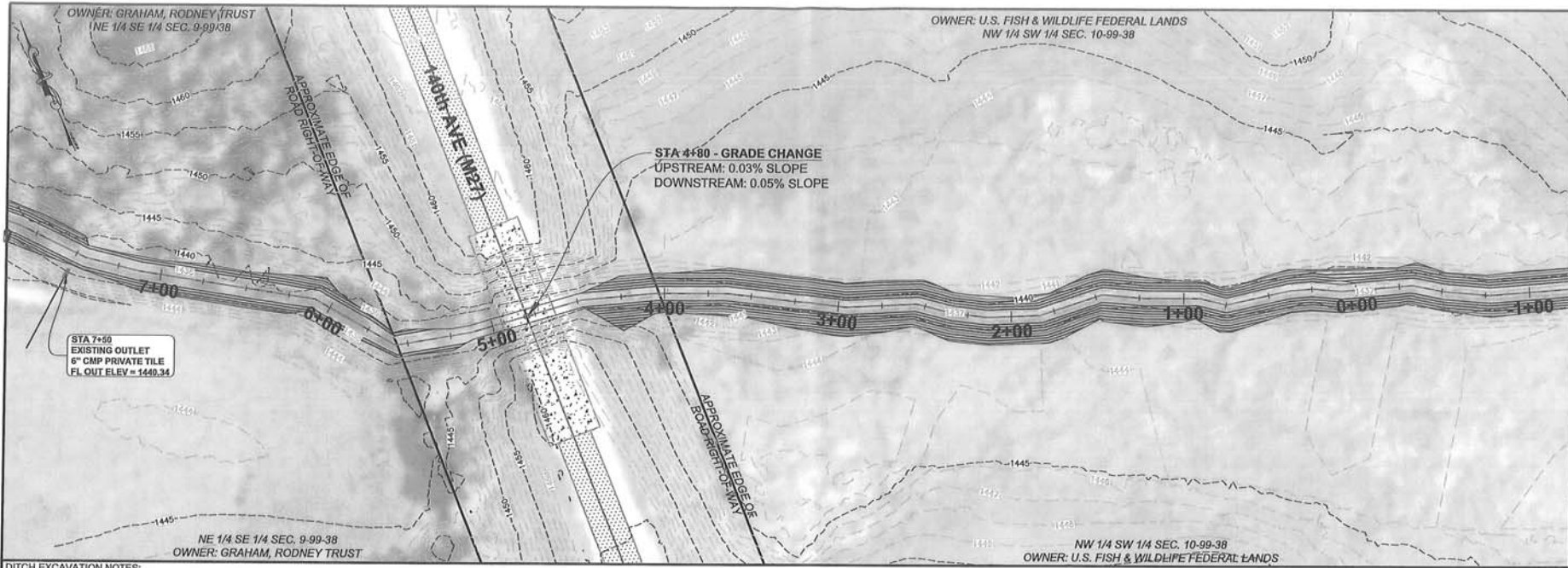
REVISIONS

NO.	DESCRIPTION	BY	DATE

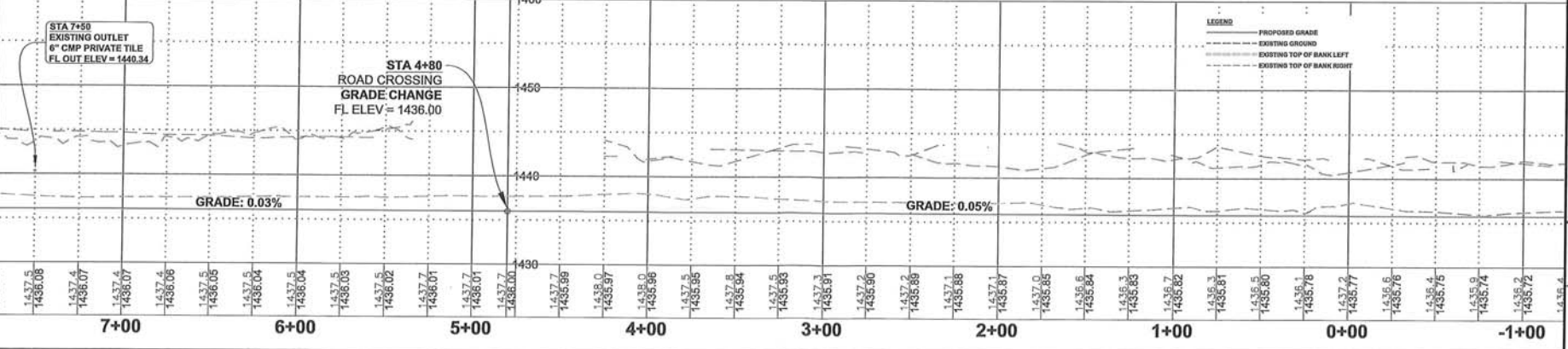
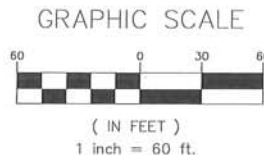
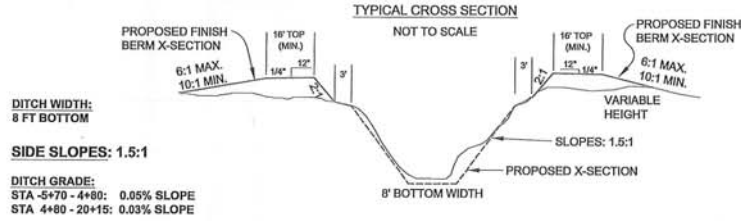
DRAINAGE DISTRICT No. 15
MAIN DITCH/OUTLET REPAIR
DICKINSON COUNTY, IOWA

PLAN & PROFILE

Drawn: 3/19/21
 Designer: RAH
 Checker: DOB
 Project Number: E20079
 Sheet: D.01



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JACOBSON-WESTERGARD & ASSOCIATES, INC.
305 S. 30TH ST., ESTHLEIGH, IA 52007
PHONE: (712) 382-2647, Toll Free (866) 215-2288
FAX: (712) 382-2647, Toll Free (866) 215-2288
WWW.JACOBSON-WESTERGARD.COM
LAND SURVEYING

2021

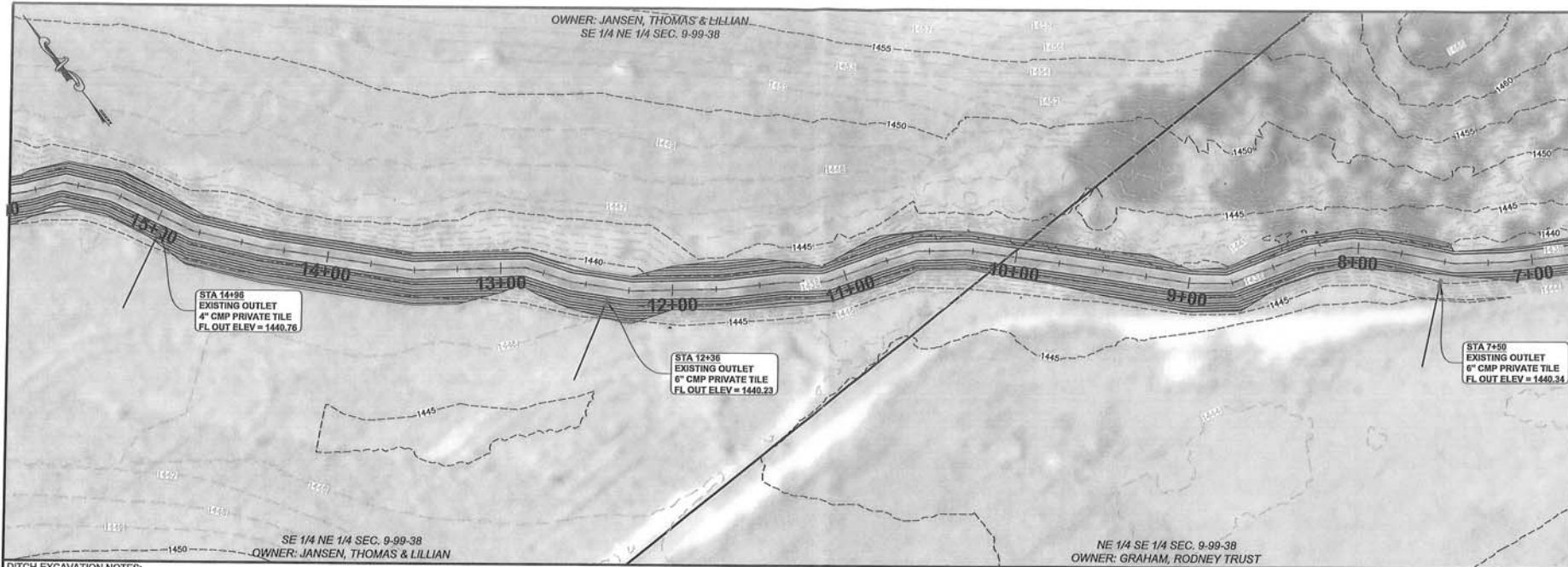
DRAINAGE DISTRICT No. 15
MAIN DITCH/OUTLET REPAIR
DICKINSON COUNTY, IOWA

PLAN & PROFILE

Date: 3/19/21
Designed: RAH
Checked: DDB
Created: RAH

Project Number: E20079
Sheet: D.02

Scale: 1" = 60' H, 1" = 10' V



DITCH EXCAVATION NOTES:

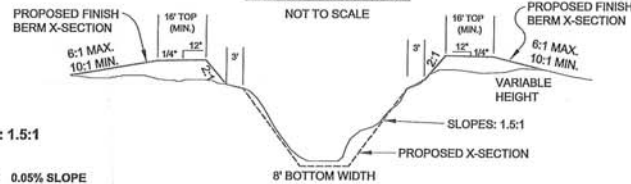
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DITCH WIDTH:
8 FT BOTTOM

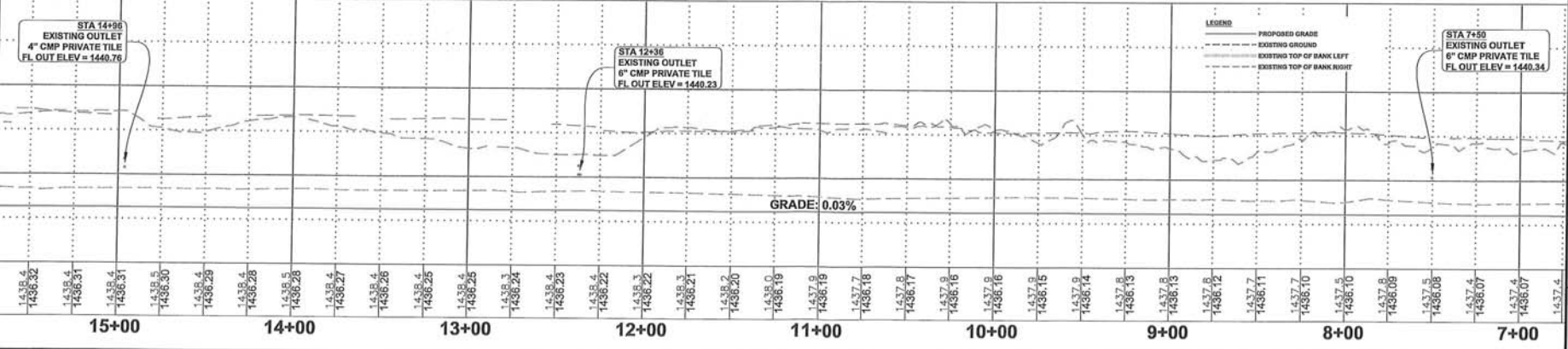
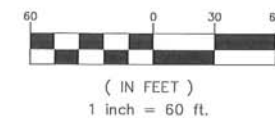
SIDE SLOPES: 1.5:1

DITCH GRADE:
STA 5+70 - 4+80: 0.05% SLOPE
STA 4+80 - 20+15: 0.03% SLOPE

TYPICAL CROSS SECTION



GRAPHIC SCALE



JACOBSON-WESTERGARD & ASSOCIATES, INC.
205 S. 30TH ST. ESTHLE, IOWA 52007
PHONE: (712) 362-2647 Toll Free (888) 215-2298
FAX: (712) 362-2647
WWW.JACOBSON-WESTERGARD.COM
LAND SURVEYING CONSULTING ENGINEERS

2021

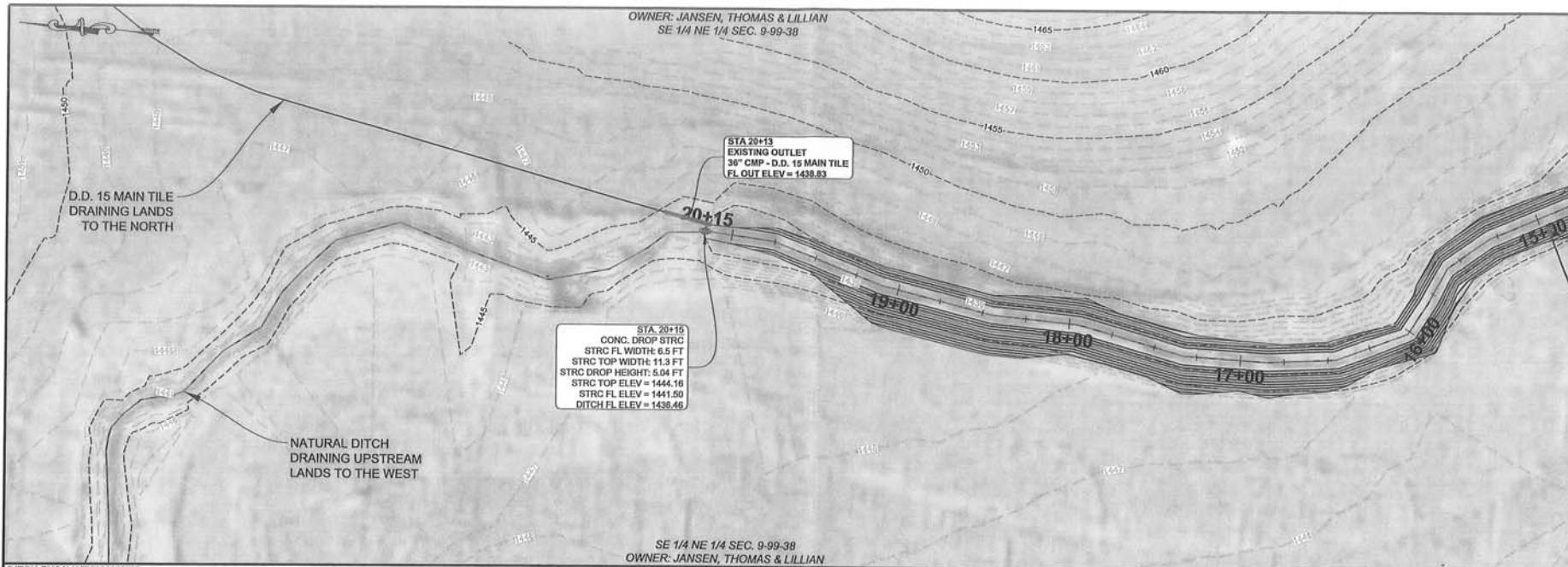
DRAINAGE DISTRICT No. 15
MAIN DITCH/OUTLET REPAIR
DICKINSON COUNTY, IOWA

PLAN & PROFILE

Date: 3/19/21
Designed: RAH
Checked: DDB
Created: RAH

Project Number: E20079
Sheet: D.03

Civil 3D PROJECT: 20201000079 E20079 - 01.dwg



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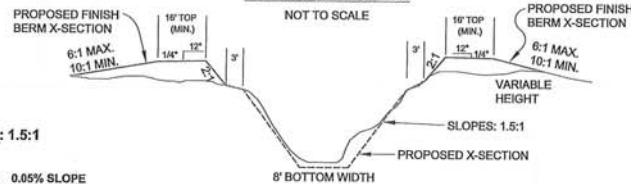
DITCH WIDTH:
8 FT BOTTOM

SIDE SLOPES: 1.5:1

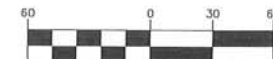
DITCH GRADE:
STA -5+70 - 4+80: 0.05% SLOPE
STA 4+80 - 20+15: 0.03% SLOPE

TYPICAL CROSS SECTION

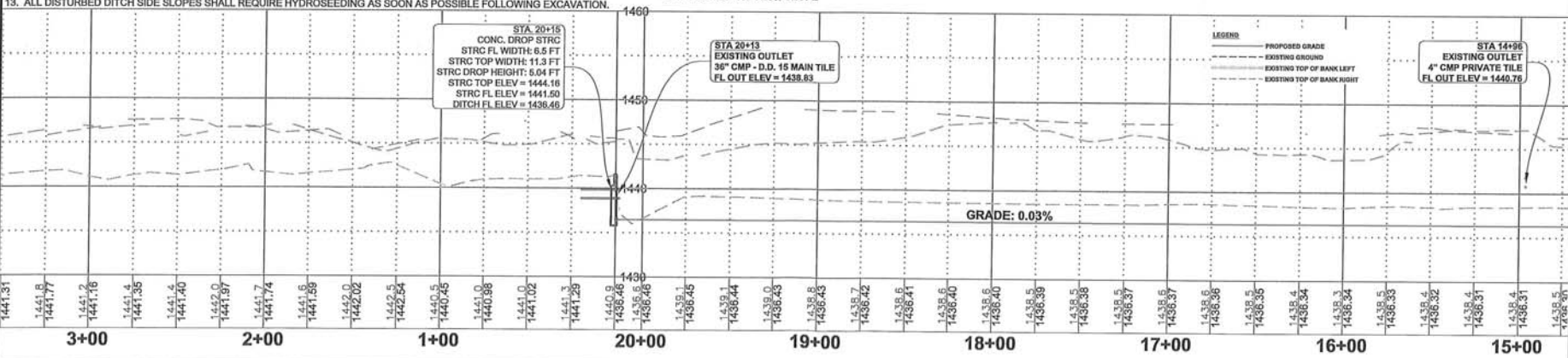
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GRAPHIC SCALE



1 inch = 60 ft.



JACOBSON - WESTERGARD
& ASSOCIATES, INC.
103 S. 98TH ST. ESTHERVILLE, IOWA
PHONE: 563-333-2288
FAX: 563-333-2288
E-MAIL: jacobson@westergard.com
www.jacobson-westergard.com
CONSULTING ENGINEERS LAND SURVEYING



REVISIONS	BY	DATE

2021
DRAINAGE DISTRICT No. 15
MAIN DITCH/OUTLET REPAIR
DICKINSON COUNTY, IOWA

PLAN & PROFILE

Date	3/19/21	RAH	RAH	DB	RAH
Project Number	E20079				
Sheet	D.04				

ENC. 30 PROJECT 020079 (2021) E20079-D.04.dwg