

HARDIN COUNTY, IOWA

2016



**COMPLETION REPORT
ON
REPAIRS AND
IMPROVEMENTS
TO
DRAINAGE DISTRICT NO. 34,
HARDIN COUNTY,
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

LEE O. GALLETINE, P.E.

DATE

LICENSE NUMBER: 15745

MY LICENSE RENEWAL DATE IS DECEMBER 31, 20 16

PAGES OR SHEETS COVERED BY THIS SEAL:
SHOWN ON TABLE OF CONTENTS

RYKEN

ENGINEERING & LAND SURVEYING, INC.

739 Park Avenue
Ackley, IA. 50601
Phone: 641-847-3273
Fax: 641-847-2303

OFFICE LOCATIONS

103 East State Street, Ste 430
Mason City, IA 50401
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Fax: 641-423-1659

511 Bank Street
Webster City, IA 50595
Phone: 515-832-1876
Fax: 515-832-1932

Licensed and Insured for over 50 years

Ryken@RykenEng.com
www.RykenEng.com

**Completion Report for Repairs and Improvements to
Drainage District No. 34
Hardin County, Iowa**

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Completion Report for Repairs and Improvements to Drainage District No. 34 Hardin County, Iowa

PROJECT TIMELINE: The Hardin County Board of Supervisors, acting as District Trustees, requested Ryken Engineering to investigate and report concerning repair and improvement of the main tiles of Drainage District No. 34. As a result, Ryken Engineering generated an Engineer's Report concerning repairs dated October 18, 2012 and an Engineer's Report concerning improvements dated July 16, 2013. Said reports summarized past improvements and repairs, investigating the necessity and feasibility of repairing or improving the main tiles, and presenting opinion of construction costs associated with said repair and improvement. Hearings concerning said reports were conducted. As a result of the hearings, the Trustees authorized Ryken Engineering to proceed with completion of project plans and specifications and proceed with a bid letting.

Ryken Engineering completed the authorized plans and specifications and a bid letting date of March 5, 2014 was set. The project was advertised and bids were received for spot repairs, open ditch construction, and roadway box culvert construction from contractors. The following bids were received:

- | | |
|--|--------------------------|
| 1. Hands On Excavating, LLC of Radcliffe, Iowa | Total Bid = \$170,914.26 |
| 2. Weidemann, Inc. of Dows, Iowa | Total Bid = \$223,266.00 |
| 3. Gehrke, Inc. of Eldora, Iowa | Total Bid = \$258,839.00 |
| 4. Con-Struct Inc. of Marshalltown, Iowa | Total Bid = \$285,630.00 |

The District Trustees identified Hands On Excavating as the lowest responsible bidder and awarded the project. The contract was signed on April 9, 2014. Construction activities were started during the first week of June 2015. Weather and working conditions for this type of construction were favorable and the contractor worked until the first week of August 2015, when the open ditch was constructed, the main tiles repaired, and the only work remaining was site cleanup and seeding. During the third week of August 2015, an extremely large rain event passed through the area and washed away a significant amount of soil at the upper end of the newly constructed open ditch. On June 24, 2016, the contractor returned to the site and completed reconstruction of the upper end of the open ditch. This was approximately 1 week before the June 30, 2016 contract completion date.

PROJECT DEVIATIONS: - This project followed the authorized plans and specifications (for reference, see as-built plans included in Appendix A) with the following deviations affecting the project cost:

1. It was anticipated that the drainage district would construct the roadway box culvert crossing and the secondary road fund would reimburse the Drainage District. Prior to construction, the County Engineer requested that the roadway box culvert be removed from the project and the County Engineer be allowed to construct the roadway box culvert as a separate project that was designed and let by the County Engineer's office. This resulted in a decrease to the total project of \$122,128.66
2. It was anticipated that both existing main tiles would be within the limits of excavation for the main open ditch and that there wouldn't be any private tile encountered which would require outletting into the main open ditch. During construction, both of these proved not to be the case and the contractor was required to perform additional excavation to remove one of the existing main tiles and to outlet three private tiles into the main open ditch. This resulted in an increase to the total project of \$3,250.00
3. As indicated above, a large rain event caused severe erosion at the upper end of the open ditch after construction. As a result, said erosion was repaired with material supplied by the contractor at no cost. The only costs charged by the contractor were equipment and operator hours. This resulted in an increase to the total project of \$3,520.00
4. There were differences between bid quantities/pipe sizes and actual installed quantities/pipe sizes in some items (i.e. HDPE tile, exploratory excavation, open ditch construction, etc). This resulted in a decrease to the total project of \$666.70

FINAL PROJECT COSTS: - The final project costs for construction (for reference, see final pay estimate included in Appendix B) and engineering (not including repair report) are estimated at \$83,660.20 which is approximately \$103,000 below those costs presented at the above mentioned improvement hearing. These costs may vary depending upon any damage claims already paid or brought forth at the completion hearing. Pending no claims, the costs are as detailed below:

Project Bid by Contractor	\$170,914.26
Decreased Box Culvert (Item #1 above)	-\$122,128.66
Main Tile Removal/Private Tile Outlets (Item #2 above)	+\$ 3,250.00
Upper Open Ditch Repair (Item #3 above)	+\$ 3,520.00
Adjusted Project Quantities (Item #4 above)	-\$ 666.70
<u>Engineering</u>	<u>+\$ 28,771.30</u>
TOTAL PROJECT COST	\$ 83,660.20

The total cost is below those contained in the above mentioned Engineer's Report, but so is the entire scope of work. It should be noted that the above costs do not include any administrative costs, legal costs, interest on construction warrants, or damage claims.

PENDING ITEMS: - As of the writing of this report, this project is complete (including all punchlist items) in general accordance with the authorized plans and specifications and lien waivers for suppliers and subcontractors have been submitted by the general contractor (for reference, see Appendix C). After the completion hearing, final payment needs to be authorized by the District Trustees.

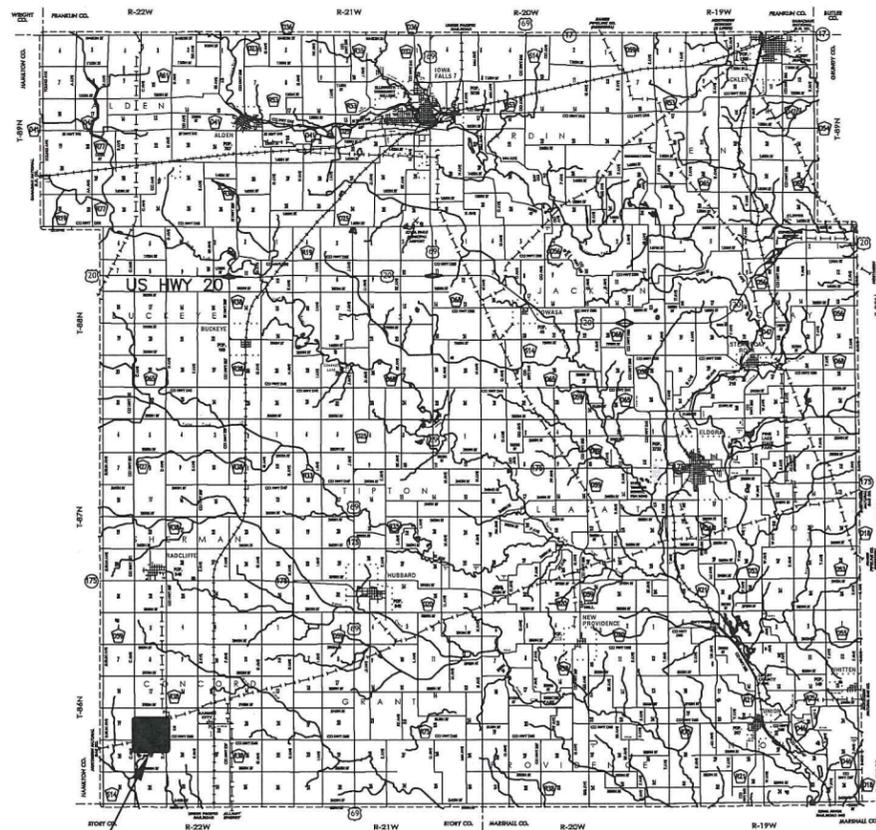
It is my recommendation that the project be accepted. I also recommend that the entire project be walked and reviewed in the spring and just prior to the expiration of the contract warranty period for any warranty items that may need to be remedied by the contractor. It should be noted that if the Trustees decide to exercise this recommendation, there are no engineering fees included in the above Final Project Costs to cover this service.

Finally, the County Engineer has indicated that they will be constructing the box culvert road crossing, but no date for this construction has been determined. It is our recommendation that the District Trustees contact the County Engineer to determine what date said construction is to occur and to ensure that it is completed as authorized by the District Trustees.

DRAINAGE DISTRICT 34 AS BUILT CONSTRUCTION OF OPEN MAIN DITCH HARDIN COUNTY, IOWA 2014



CALL BEFORE YOU DIG!
1-800-292-8989
www.iowaonecall.com



PROJECT LOCATION
HARDIN COUNTY VICINITY MAP
NOT TO SCALE

GOVERNING STANDARDS AND SPECIFICATIONS:
THE PLANS AND SPECIFICATIONS PREPARED BY RYKEN ENGINEERING SHALL GOVERN. ALL WORK SHALL COMPLY WITH THE DETAILS AND SPECIFICATIONS REFERENCED. CONTRACTOR SHALL CONTACT ONE-CALL TO OBTAIN UTILITY LOCATES PRIOR TO STARTING CONSTRUCTION.

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED OR INCREASED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

NOTE:
ALL ELEVATIONS SHOWN ON THESE PLANS ARE BASED ON NGVD 88. FOR CONVERSION TO OTHER PROJECT DATUMS, SEE "BENCHMARKS" ON PAGE 9.



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PLAN AND PROFILE	
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4	MAIN TILE OUTLETS AND LATERAL 1 TILE OUTLETS
5	RCB ROAD CROSSING
SECTIONS	
6	CROSS SECTIONS (STA 2+00 TO 4+50)
7	CROSS SECTIONS (STA 5+00 TO 7+50)
8	CROSS SECTIONS (STA 8+00 TO 9+00)
DETAILS	
9	TYPICAL CROSS SECTION



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.

Lee O. Gallentine P.E. Sept 23, 2016
LEE O. GALLETINE, P.E. DATE

P.E. LICENSE NUMBER: 15745
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2016
PAGES OR SHEETS COVERED BY THIS SEAL: 1-9

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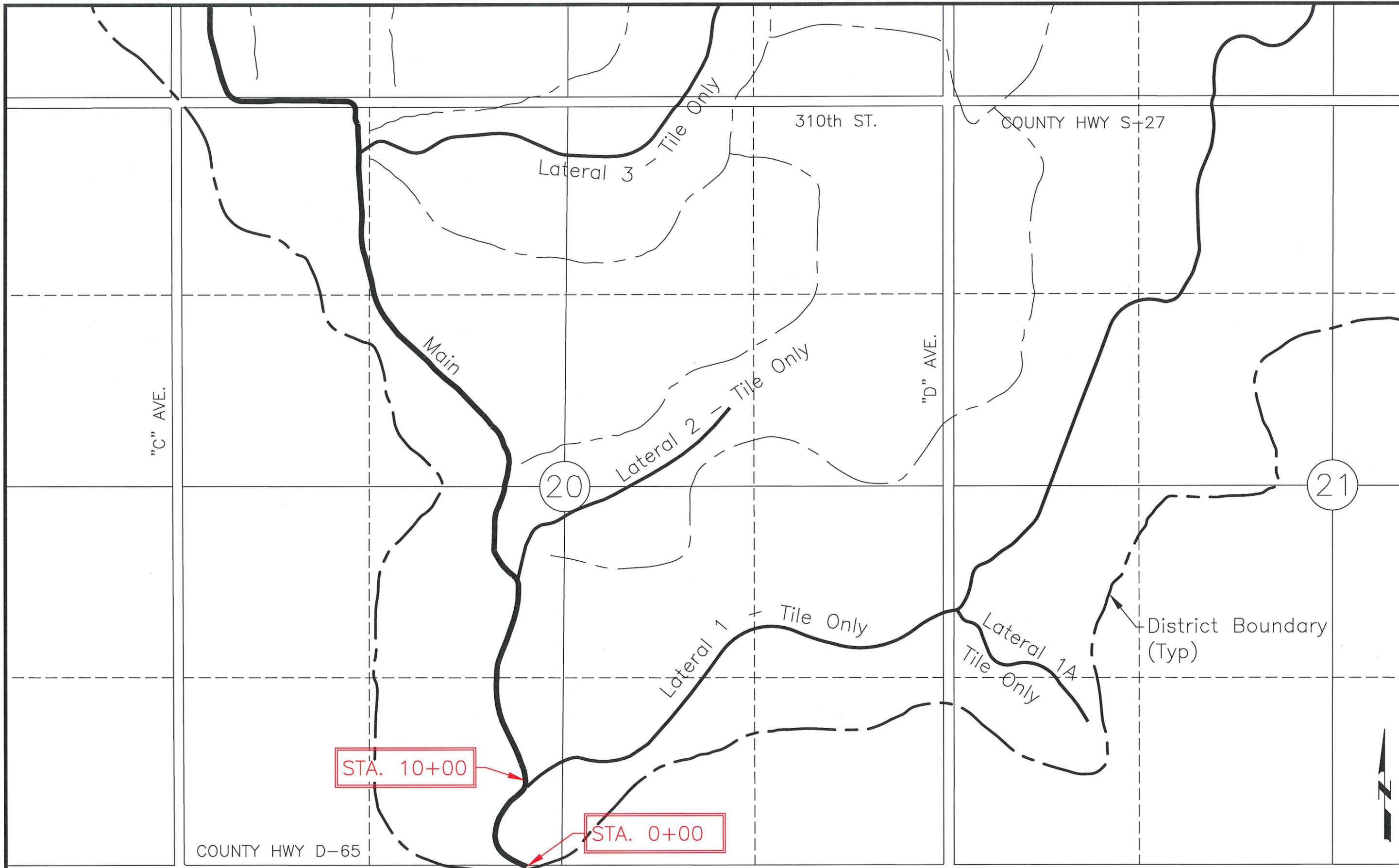
RYKEN ENGINEERING
ACKLEY, WEBSTER CITY, & MASON CITY, IOWA

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PROJECT:
DD34 OPEN MAIN DITCH
HARDIN COUNTY, IOWA
2014

SHT. NAME:
AS BUILT COVER

SHT. NO.:
1 OF 9



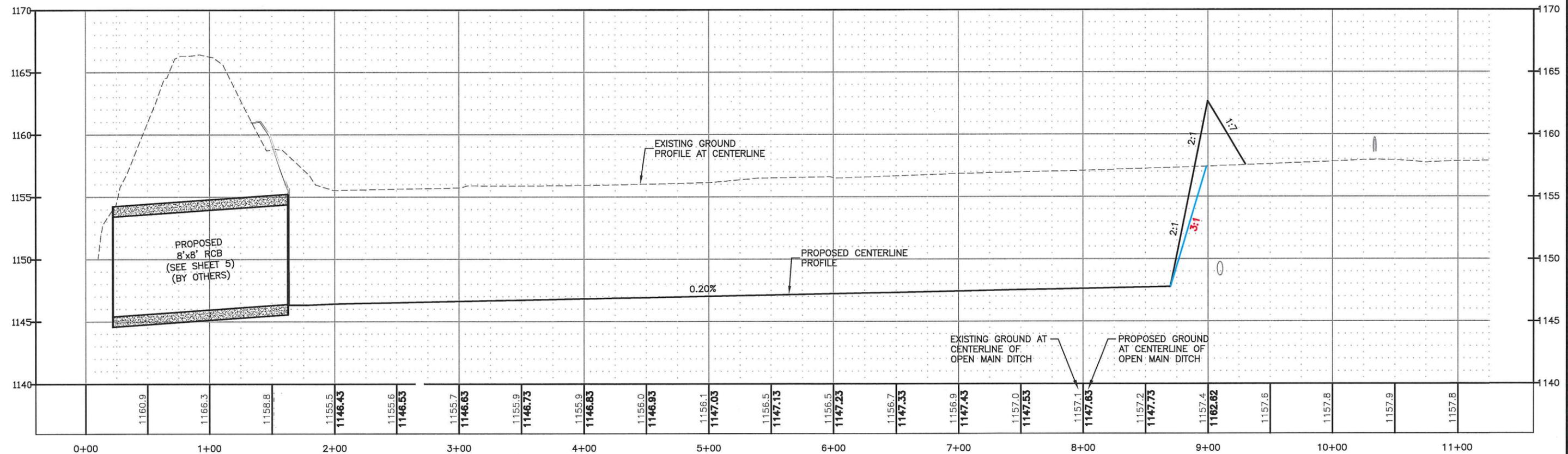
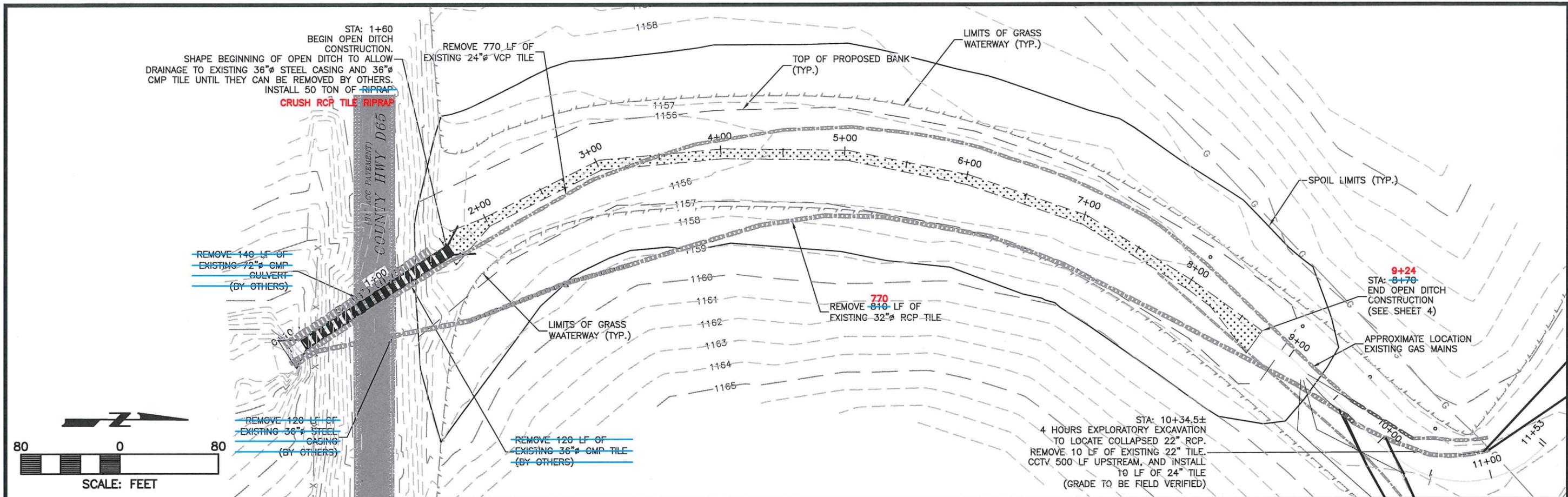
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 HARDIN COUNTY, IOWA
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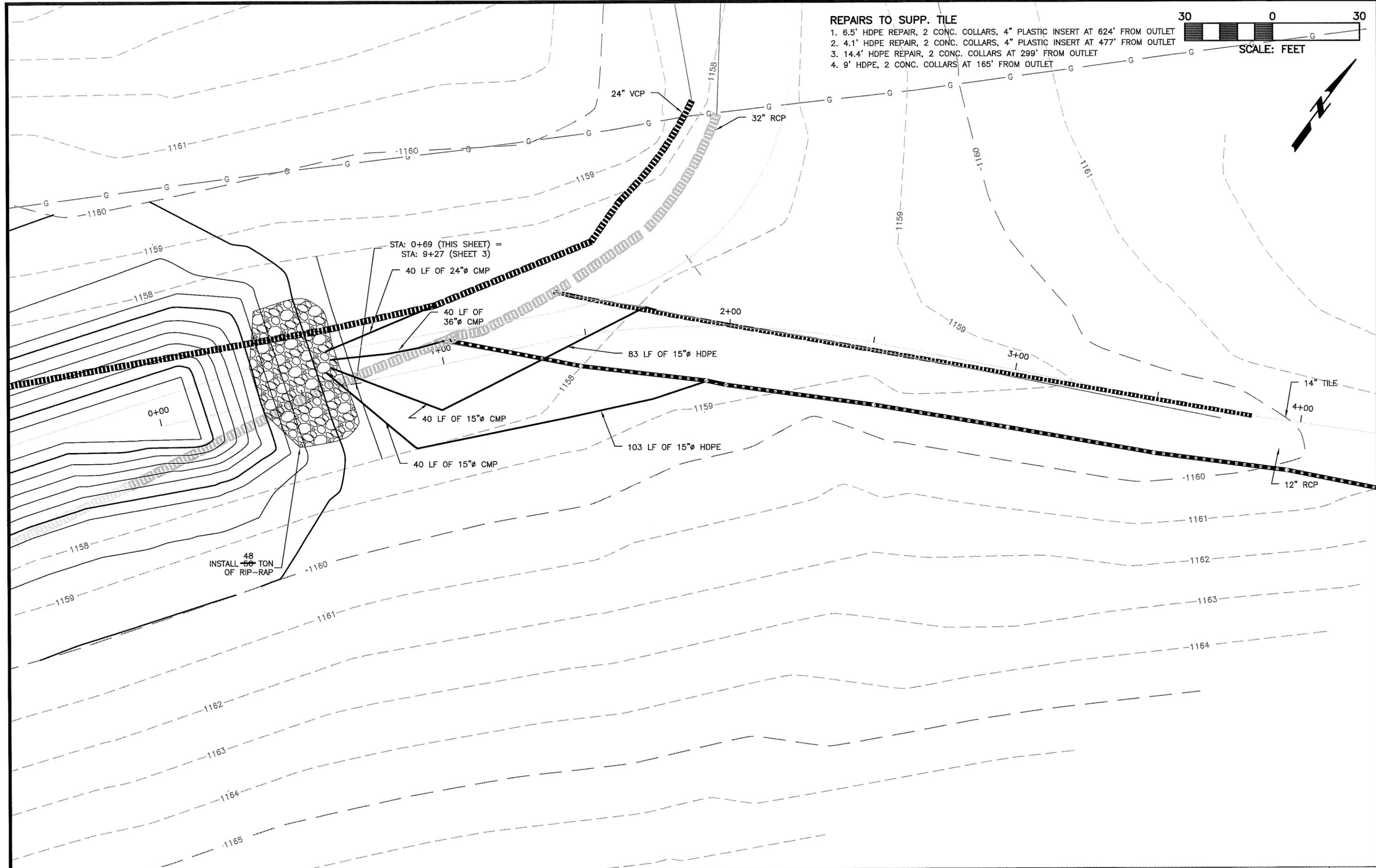
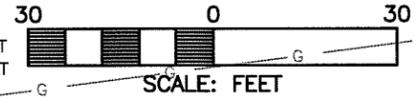
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 HARDIN COUNTY, IOWA
 2014

SHEET NAME: AS BUILT PLAN AND PROFILE OPEN MAIN DITCH

SHEET NO.: 3 OF 9

REPAIRS TO SUPP. TILE

1. 6.5' HDPE REPAIR, 2 CONC. COLLARS, 4" PLASTIC INSERT AT 624' FROM OUTLET
2. 4.1' HDPE REPAIR, 2 CONC. COLLARS, 4" PLASTIC INSERT AT 477' FROM OUTLET
3. 14.4' HDPE REPAIR, 2 CONC. COLLARS AT 299' FROM OUTLET
4. 9' HDPE, 2 CONC. COLLARS AT 165' FROM OUTLET



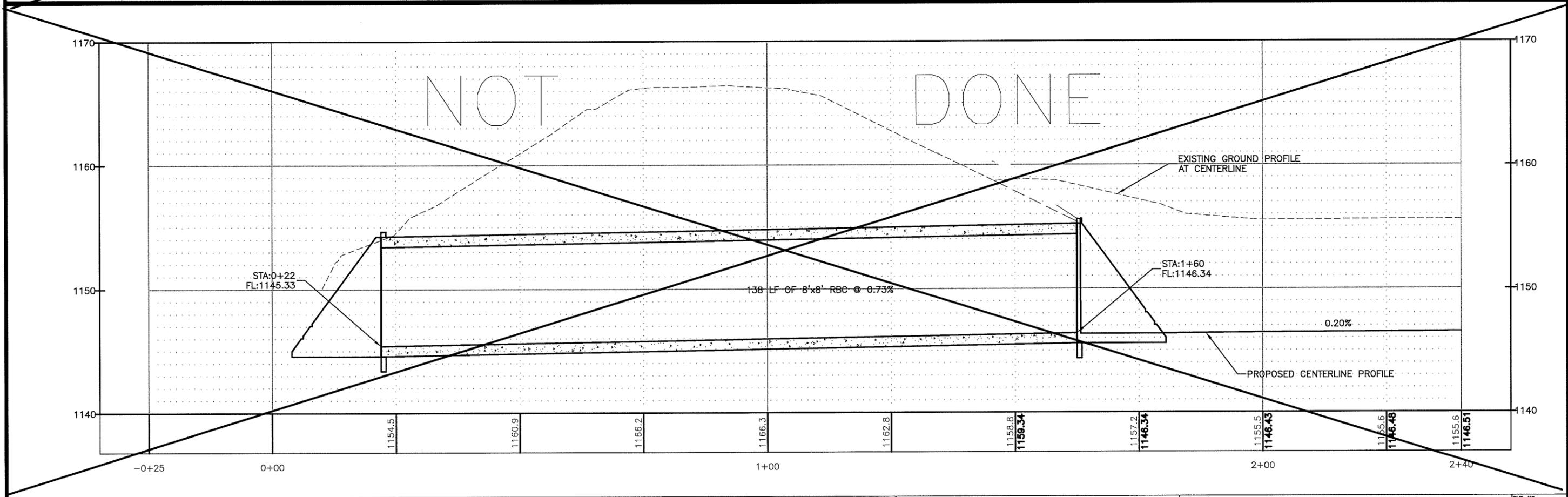
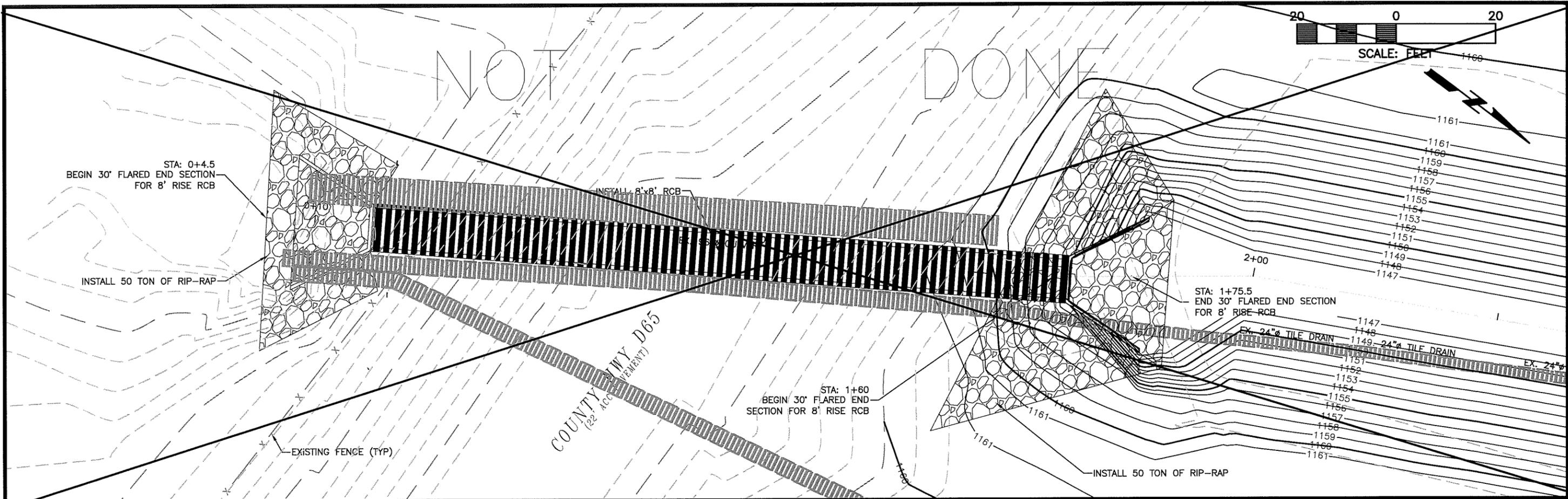
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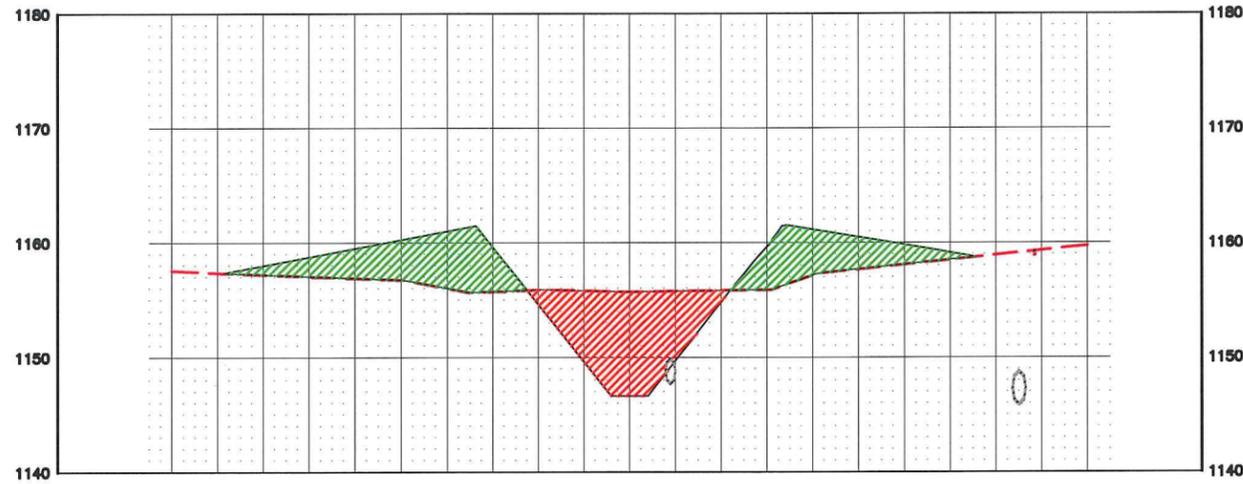
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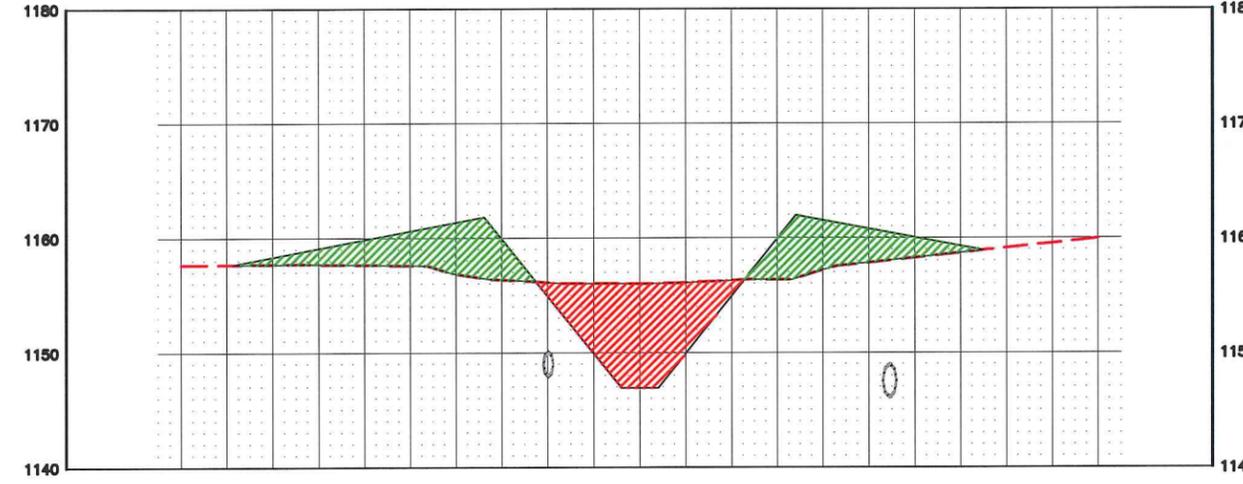
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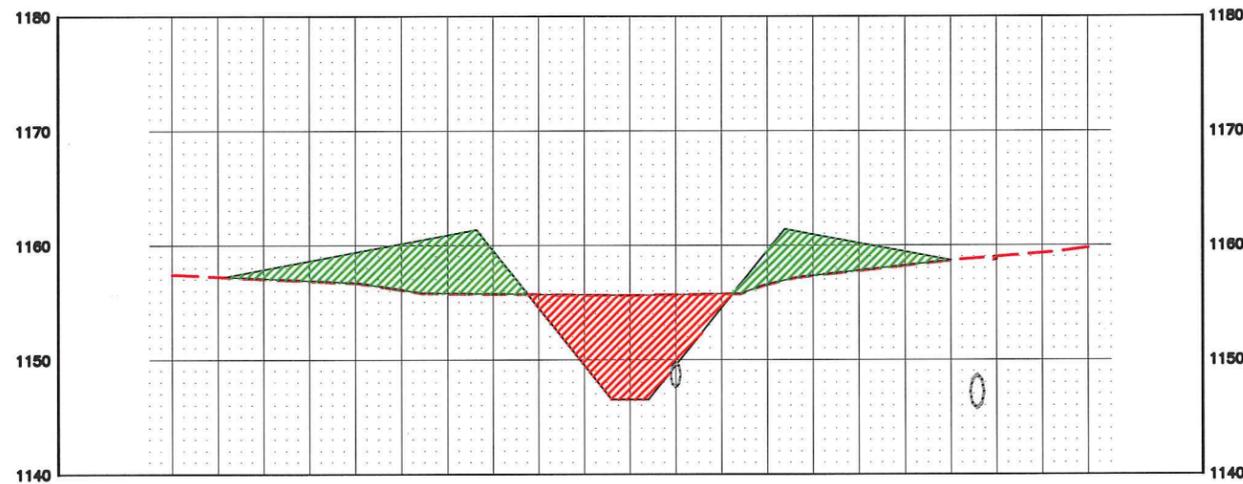
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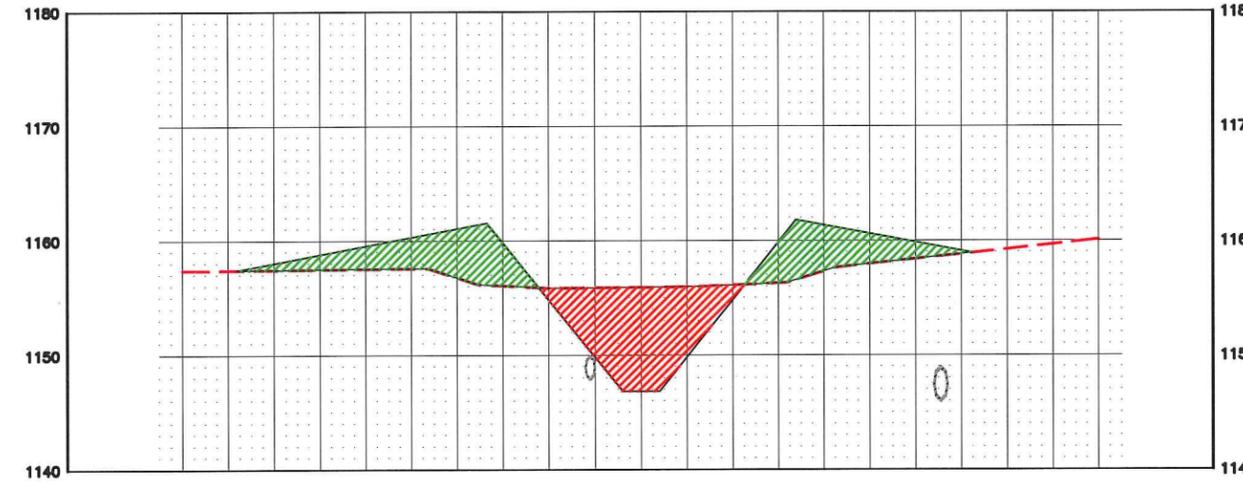
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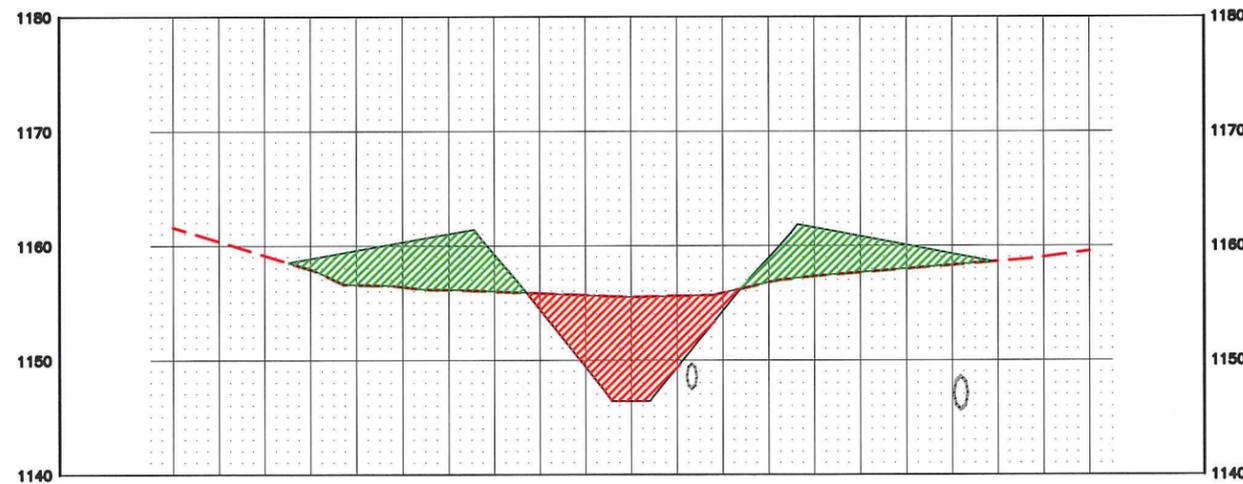
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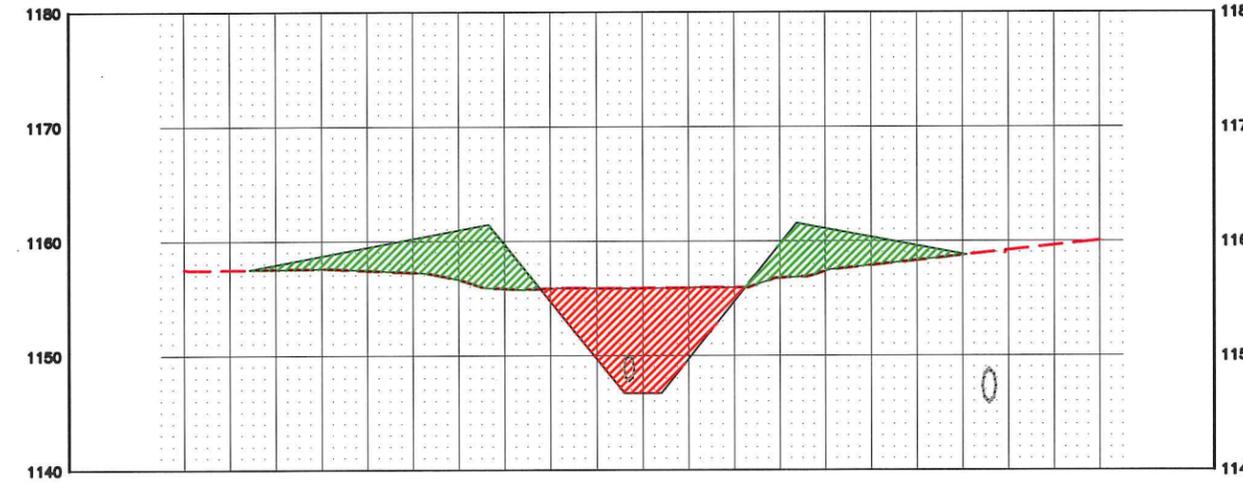
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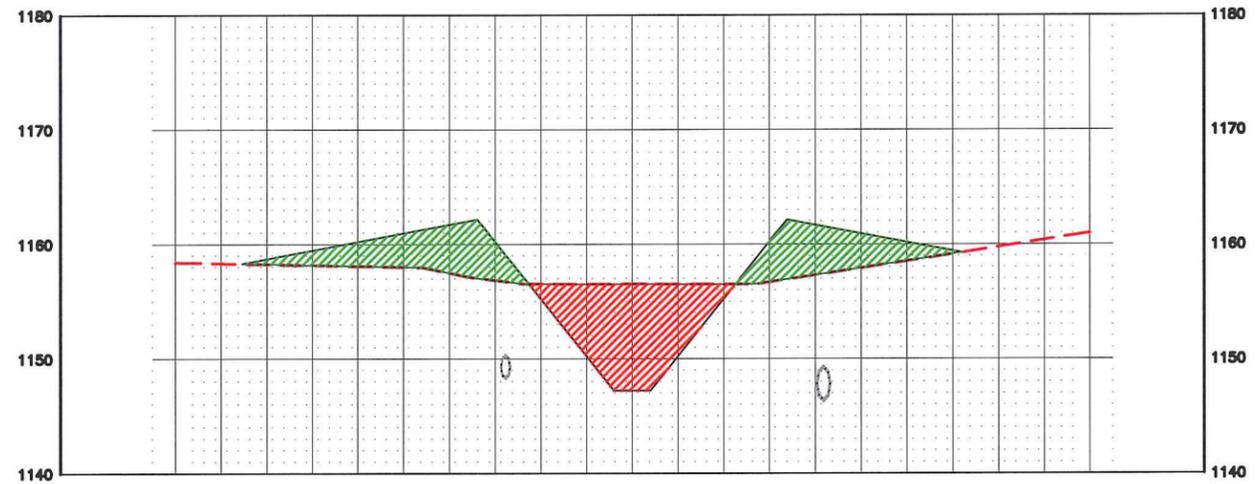
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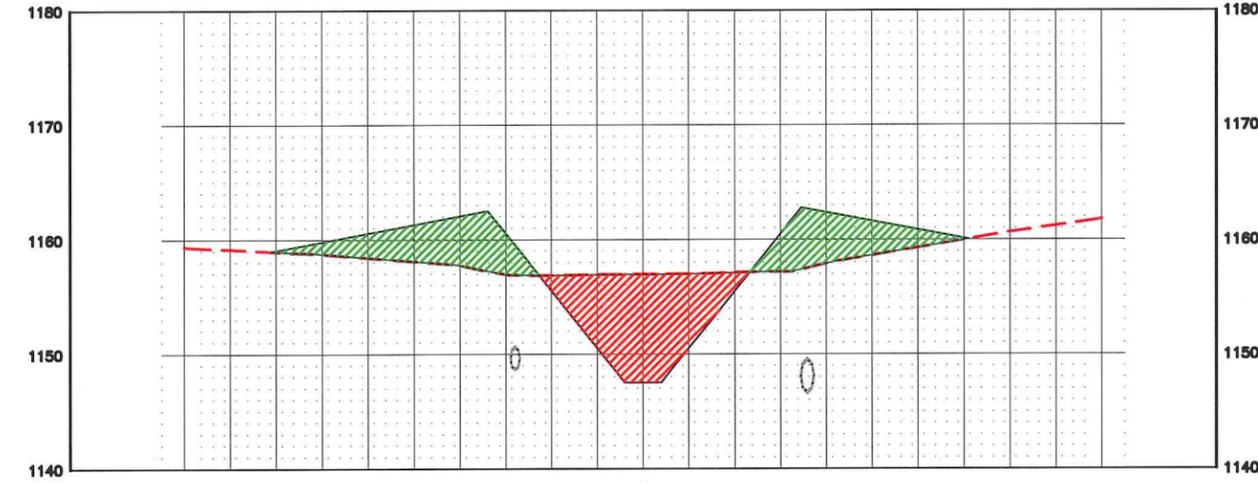
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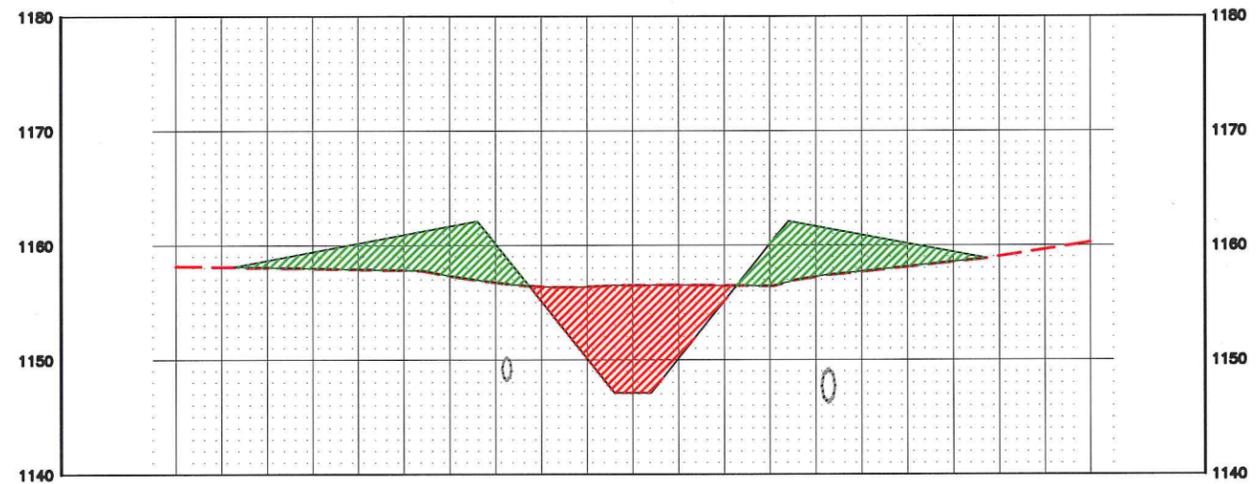
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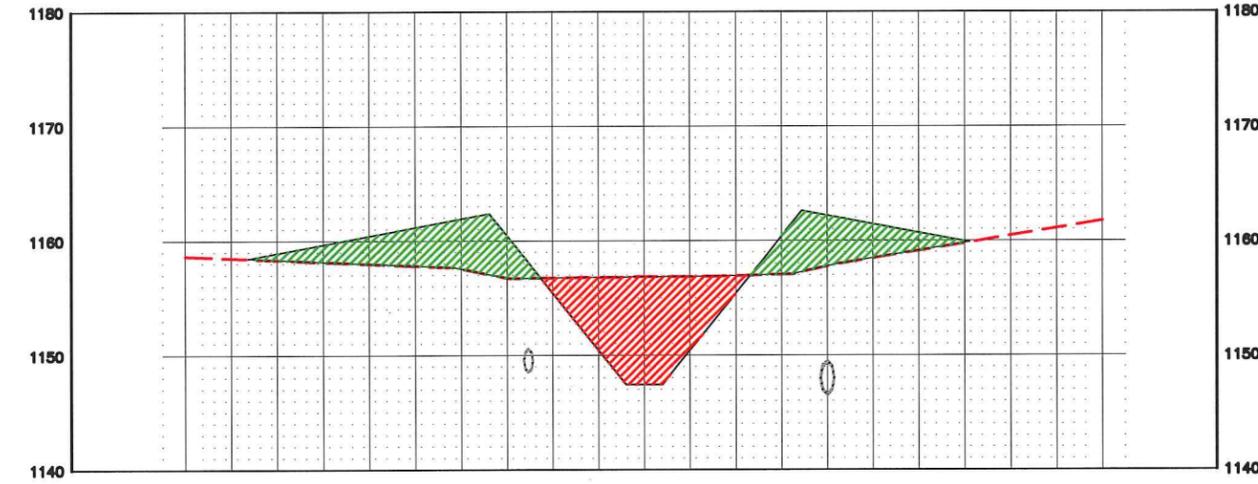
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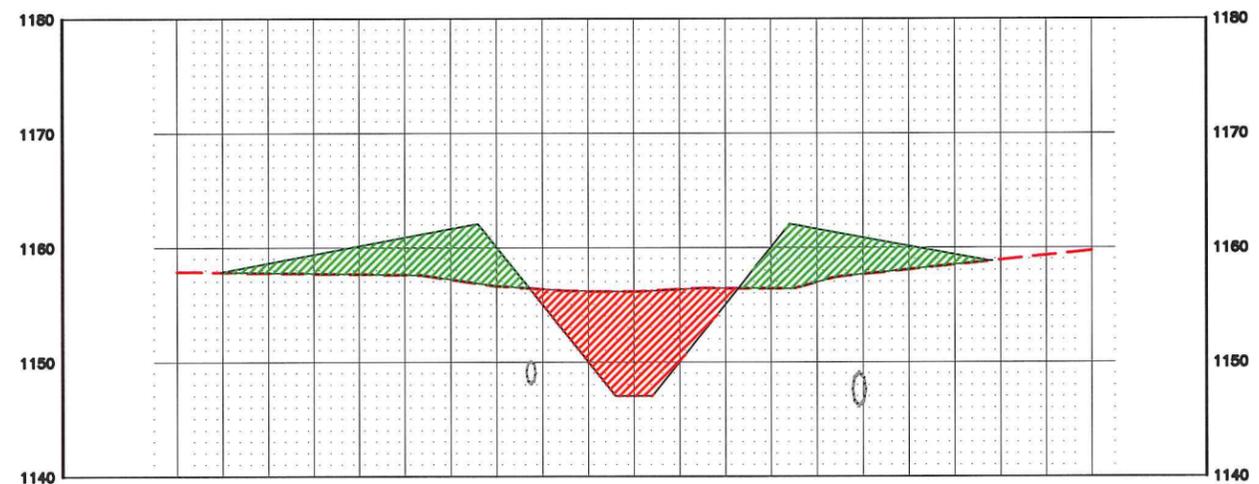
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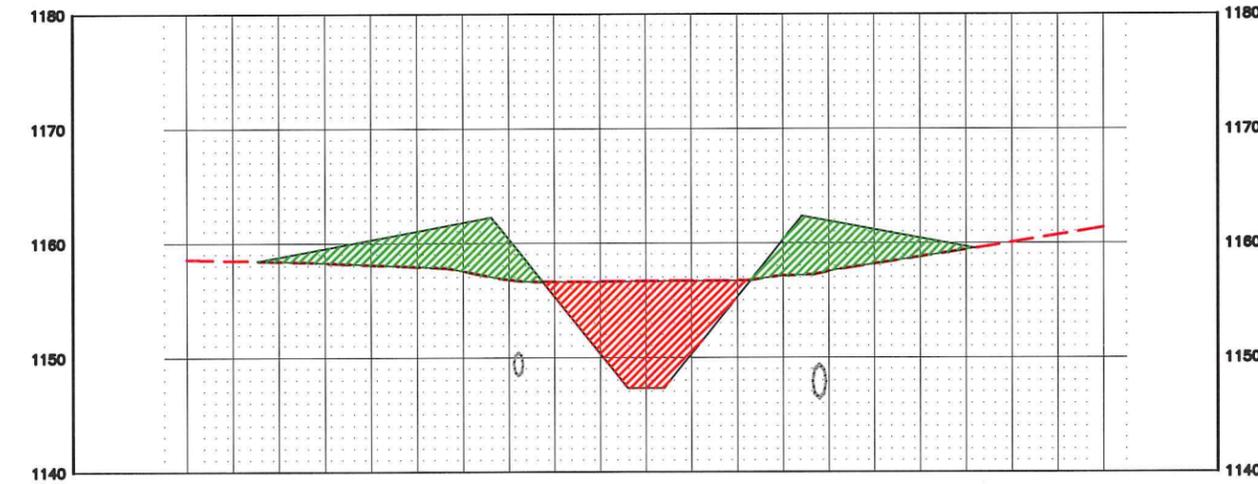
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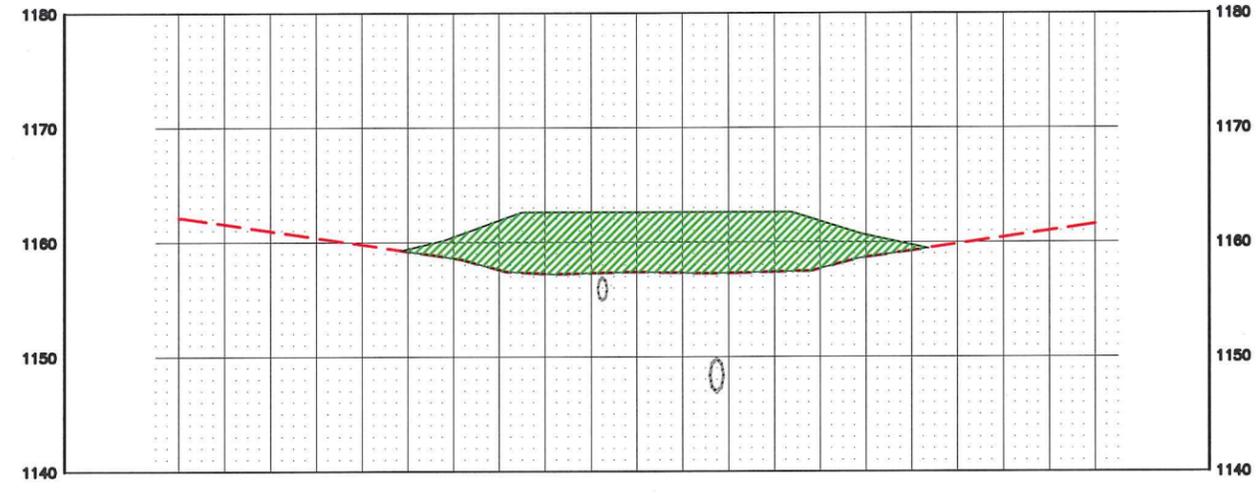
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PROJECT: DD34 OPEN MAIN DITCH
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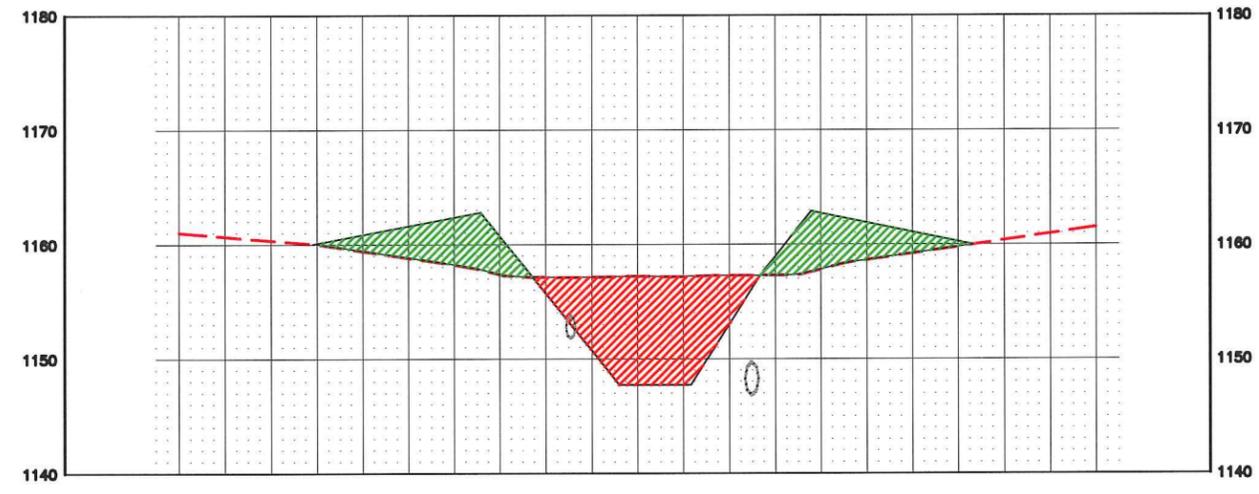
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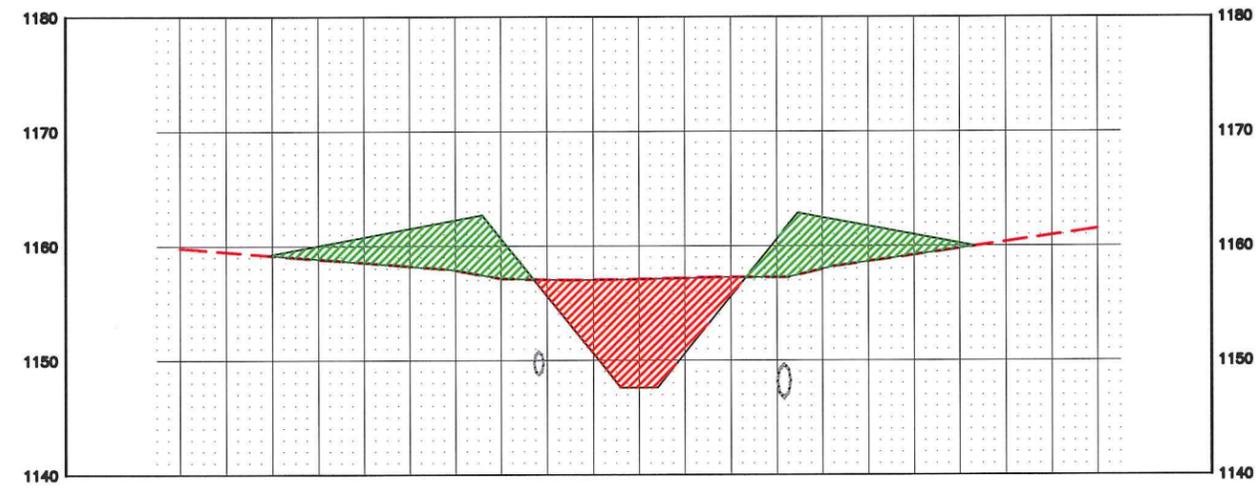
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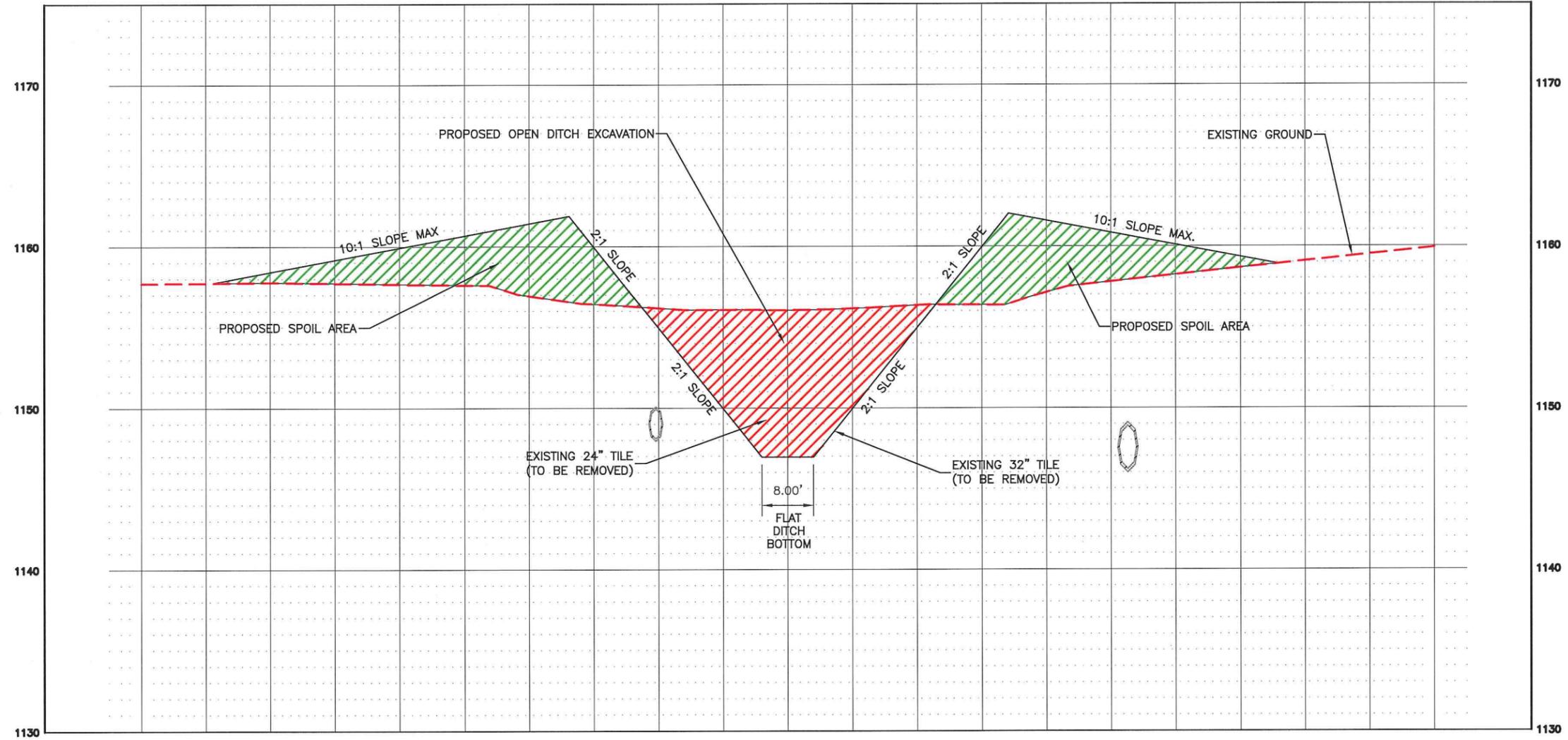
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 HARDIN COUNTY, IOWA
 2014

SHT. NAME:
 CROSS SECTIONS

SHT. NO.:
 8 OF 9

TYPICAL CROSS SECTION



BENCHMARKS:

HARDIN COUNTY GPS MONUMENT NO. 8013
 D.D. 34 ELEVATION = 142.78 (2001)
 N.G.V.D. 88 ELEVATION = 1189.25

PAY ESTIMATE NO. 3 (FINAL)
CONSTRUCTION OF OPEN MAIN DITCH
DRAINAGE DISTRICT 34

Project No. 6428

Date: 8/29/16

CONTRACTOR
Hands On Excavating, LLC
12676 290th Street
Radcliffe, IA 50230

OWNER
Hardin County Supervisors acting as
Trustees of Drainage District 34
1215 Edgington Ave., Suite 1
Eldora, Iowa 50627

ENGINEER
Ryken Engineering
739 Park Avenue
Ackley, IA 50601

Item No.	Description	Estimated Quantity	Unit	Installed Quantity	Unit Price	Extended Price
Open Ditch Division						
1	Open Ditch Construction	7.1	STA	8.4	\$ 1,761.00 *	\$ 14,792.40
2	Permanent seeding	7.5	STA	8.4	\$ 500.00 *	\$ 4,200.00
3*	36"Ø Steel Casing Removal	120	LF		\$ 8.34	\$
4*	36"Ø CMP Tile Removal	120	LF		\$ 8.34	\$
5	32"Ø RCP Tile Removal	770	LF	770	\$ 4.00 *	\$ 3,080.00
6	24"Ø VCP Tile Removal	770	LF	770	\$ 4.00 *	\$ 3,080.00
7	14"Ø Tile Removal	145	LF	145	\$ 4.50 *	\$ 652.50
8	12"Ø Tile Removal	160	LF	160	\$ 4.50 *	\$ 720.00
9	32"Ø CMP Outlet with Rodent Guard	40	LF	40	\$ 55.00 *	\$ 2,200.00
10	24"Ø CMP Outlet with Rodent Guard	40	LF	40	\$ 35.00 *	\$ 1,400.00
11	15"Ø CMP Outlet with Rodent Guard	40	LF	40	\$ 25.00 *	\$ 1,000.00
12	12"Ø CMP Outlet with Rodent Guard	40	LF	40	\$ 20.00 *	\$ 800.00
13	15"Ø HDPE Tile	350	LF	185	\$ 23.00 *	\$ 4,255.00
14	12"Ø HDPE Tile	50	LF	50	\$ 20.00 *	\$ 1,000.00
15	Exploratory Excavation	8	HR	8	\$ 120.00 *	\$ 960.00
16	Rip-Rap	50	TN	48	\$ 35.00 *	\$ 1,680.00
17	15"Ø CMP Surface Drain	4	LOC	3	\$ 700.00 *	\$ 2,100.00
18**	Add'l Excavation for Tile Removal	1	LS	1	\$ 2,500.00	\$ 2,500.00
19**	Outletting Private Tile	3	LOC	3	\$ 250.00	\$ 750.00
20**	Open Ditch Repair	1	LS	1	\$ 3,520.00	\$ 3,520.00
Roadway Division						
101*	8' x 8' RCB	138	LF		\$ 892.16	\$
102*	Flared End Section for 8' Rise RCB	2	EA		\$ 3,195.00	\$
103*	72"Ø CMP Culvert Removal	140	LF		\$ 7.86	\$
104*	Rip-Rap	100	TN		\$ 34.30	\$
105*	Permanent Seeding	0.2	AC		\$ 500.00	\$
106*	ACC Pavement Removal & Replacement	106	SY		\$ 91.70	\$
Repair Division						
201	32"Ø RCP Tile Removal	40	LF	9	\$ 11.00	\$ 99.00
202	22"Ø RCP Tile Removal	10	LF	35	\$ 22.00	\$ 770.00
203	32"Ø HDPE Tile	40	LF	9	\$ 50.00 *	\$ 450.00
204	24"Ø HDPE Tile	10	LF	35	\$ 40.00 *	\$ 1,400.00
205	Exploratory Excavation	4	HR	4	\$ 120.00	\$ 480.00
206	CCTV Existing 22" Tile	500	LF	1000	\$ 3.00	\$ 3,000.00

I have reviewed the work claimed to be completed by the Contractor as reflected above and recommend payment of \$ **\$ 5,488.89** to the Contractor.

TOTAL WORK COMPLETED TO DATE	\$ 54,888.90
10% RETENTION	\$ -
AMOUNT DUE LESS RETENTION	\$ 54,888.90
PREVIOUSLY PAID	\$ 49,400.01
AMOUNT DUE AT THIS TIME	\$ 5,488.89

Lee Gallentine, Project Engineer

UNCONDITIONAL WAIVER AND RELEASE UPON PAYMENT

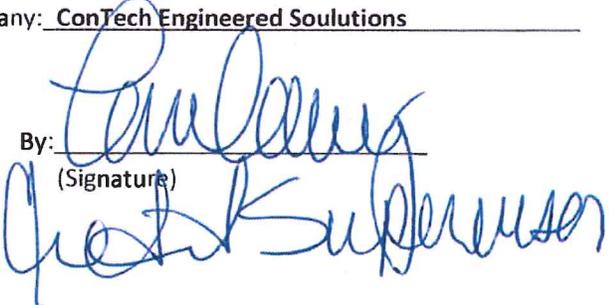
TO WHOM IT MAY CONERN:

Whereas the undersigned Contech Engineered Solutions
has been paid and has received payment in the amount of \$12,887.50 for labor,
services, equipment and/or material furnished to Hands On Excavating LLC for the job know as
Drainage Ditch #48 Repair located in the
city/county of Garden City, Hardin County, State of Iowa.

The undersigned does hereby release any right to lien on the above referenced job to the following extent. This release covers a complete payment for labor, services, equipment or materials furnished through the date signed below, and does not cover items furnished after this date.

Dated this 19 day of Oct, 2015

Company: ConTech Engineered Souldtions

By: 
(Signature)

****Lien Waivers need to be returned before next payment will be processed****

Please Return to:
Hands On Excavating LLC
12676 290th ST
Radcliffe, Ia 50230