### AGENDA

### REGULAR DRAINAGE MEETING Wednesday, April 29, 2020 9:30 AM Large Conference Room

County Buildings are closed to the public due to Covid-19 concerns, this meeting will be open to the public via conference call only. The meeting date and time will remain the same. You may call at that time to access the hearing by following the instructions below: To access the meeting call: 1-(312)-626-6799, when prompted enter meeting ID code: 662 016 552 You can also access the meeting online at: https://zoom.us/j/662016552

- 1. Open Meeting
- 2. Approve Agenda
- 3. Approve Claims For Payment

Documents:

#### PAYABLES-DRAINAGE PUBLICATION 05\_01\_20.PDF

4. Approve 2020 Assessments

Documents:

#### 2020 DRAINAGE ASSESSMENTS.PDF

5. DD 22 WO 176 - Discuss W Possible Action - Update & Pay Estimate #6

Documents:

#### PN 8712-PAY ESTIMATE 6 TO DD 22.PDF

6. DD 22 WO 276 - Discuss W Possible Action - Update

Documents:

DD 22 WO 276.PDF DD 22 WO 276 -6532.4 - DRAINAGE INVESTIGATION SUMMARY.PDF

 DD 22 WO 176 - Discuss W Possible Actions - Crop Damages 2020-5 & Update DD 22 WO 176 - Claim for Crop Damages 2020-5 was submitted by Terry Swenson for damages done during tile repair. Also included is DD 22 Crop Damage Exhibit from CGA.

Documents:

DRAINAGE CLAIM FOR DAMAGES 2020-5 TERRY SWENSON DD 22.PDF HARDIN DD 22 MAIN TILE REPAIRS 2019 CROP DAMAGE 04\_24\_20.PDF 8. DD 52 WO 215 - Discuss W Possible Action - Investigation & Repair Summary

Documents:

DD 52 WO 215 INVESTIGATION SUMMARY 04\_24\_20.PDF DD52 WO215-REPAIR SUMMARY - PARTIAL 04\_24\_20 .PDF

9. DD 26 Lat 4 WO 82 - Discuss W Possible Action - Investigation Summary / Update

Documents:

#### DD26 LAT4 INVESTIGATION 010919.PDF

10. DD 68 WO 293 - Discuss W Possible Action

DD 68 - DD 68 - Nick Hoversten reports intake is sucking dirt on N side of 110th St. in parcel #892106400003 (Thielke Farms) just west of acreage/house site owned by Jeff Hoversten.

Documents:

#### DD 68 WO 293.PDF DD 68 WO 293 MAP.PDF

 DD Big 4 Main - WO 292 - Discuss W Possible Action DD Big 4 Main WO 292 - Nick Hoversten reports intake is sucking in dirt on Main DD tile, in west edge of parcel, right on property line with Hudspeths.

Documents:

DD BIG 4 MAIN - WO 292.PDF DD BIG 4 MAIN WO 292 MAP.PDF

- 12. Other Business
- 13. Adjourn Meeting



# Hardin County

Drainage Claims with Pay Date of 5/1/2020

Description	Vendor	Amount
DD 26 Lat 4 WO 82 - Tile Investigation	Adam Seward	300.00
DD 25 WO 209 - Crop Dmge Claim 2020-2 Revised	Alvin C Clark	600.88
DD 25 WO 209 - Crop Damge Claim 2020-2 Revised	David A Fincham	600.88
DD 48 WO 237 -Parts, labor & equipment	Honey Creek Land Improvement, LLC	13,835.00
DD 128 WO 279- Labor & Equipment	Honey Creek Land Improvement, LLC	652.50
DD 143 - WO 241 - Legal Prof Srvcs, Review Eng Rpt	The Davis Brown Law Firm	1,045.00
DD Big 4 Lat 4 WO 195 - Beaver dam removal	Adam Seward	350.00

## 2020 Drainage Assessments

		Amount				
District	Fund#	Needed	Am	ount Levied	% Levied	Waivers
DD DD JT H-F 5-75	51214	\$ 12,180.41	\$	15,000.00	149.192%	10 Year
DD DD34	51058	\$ 22,436.90	\$	25,000.00	9.969%	10 Year
DD DD JT H-S 35-1	51236	\$ 5,786.42	\$	9,000.00	27.302%	10 Year

Approved Date

Lance Granzow, Chairperson

Renee McClellan, Supervisor

BJ Hoffman, Supervisor

Project Description:	Main Tile Repairs to Drainage District 22 Faci Hardin County, Iowa Project Nos. DD-6532.2 and 8712		
Date of Contract:	August 16, 2018	Estimate: No. 6	
Completion Date:	9/1/2019 - Updated to 12/1/2019 per Change	Order #6 - Updated to 11/30/2020 per Change Order #11	
Contractor:	Gehrke, Inc. Eldora, IA	Owner: Hardin County Trustees of Drainage District 22	
Base Contract Price	\$549,332.50	Construction Completed ( See Attached Tab)	\$557,587.50
Approved Equivalen	#1 -\$442.00		
Change Order #2	\$1,184.00	Total Amount Earned	\$557,587.50
Change Order #3	-\$17,992.00		
Change Order #4	\$0.00	Less 2% Retainage	\$11,151.75
Change Order #5	\$1,749.00	(Note Retainage %	
Change Order #6	\$0.00	Reduced per CO #11)	
Change Order #7	\$1,650.00		
Change Order #8	\$3,150.00	Subtotal	\$546,435.75
Change Order #9	\$360.00		
Change Order #10	-\$1,896.00	Less Previous Payment	\$519,542.59
Change Order #11	\$0.00		
Change Order #12	\$20,492.00	AMOUNT DUE THIS ESTIMATE	\$26,893.16
Total Contract Amo	unt \$557,587.50		

Requested by Contractor:

111ml

Recommended by Engineer:

Heather A. Thomas

Clapsaddle-Garber Associates, Inc.

Approved by Owner:

Hardin County Supervisors

Prepared by: Clapsaddle-Garber Associates Marshalltown, Iowa 50158

Vine Pargident 4-22-2020 Title 4/22/2020
Project Engineer 4/22/2020

Title

Title

Date

CGA Project No. 8712.06 January 13, 2020

CONSTRUCTION PROGRESS REPORT

Tabulati	on of Construction Quantities							
Main Tile	e Repairs to Drainage District 22 Facilities							
Hardin C	County, Iowa							
Period E	Inding: April 20, 2020							
				Ac	justed Co	ontract		npleted
ltem	Description	Unit	Unit Bid		Quantity	Amount	Quantity	Amoun
No			Price					
1A	30" Ø RCP Tile, Perforated - For Tile Replacement	LF	\$53.00	""	6,155	\$326,215.00		\$326,2
2A	30" Ø RCP Tile Road Crossing, Perforated - For Tile Replacement	LF	\$46.00	""	200	\$12,880.00	280	\$12,8
3A	CCTV Inspection Of Roadway Crossing Tile - For Tile Replacement	LF	\$3.00		0	\$0.00	-	
4A	Connection To Road Crossing Tile To Remain - For Tile Replacement	Each	\$400.00	""	0	\$0.00	-	
5A	Removal And Disposal Of Supplemental Tile - For Tile Replacement	LF	\$6.50		6,435	\$41,827.50	6,435	\$41,8
6A	24" Ø RCP Tile, Perforated - For Spot Repairs	LF	\$78.00	** *** , *** !!!	564	\$43,992.00		\$43,9
7A	18" Ø RCP Tile, Perforated - For Spot Repairs	LF	\$67.00	*** ""	521	\$34,907.00	521	\$34,9
8A	18" Ø RCP Tile Road Crossing, Perforated - For Spot Repairs	LF	\$134.50		50	\$6,725.00	50	\$6,7
9A	24" X 18" RCP Wye - For Spot Repairs	Each	\$600.00	*	1	\$600.00	1	\$6
10A	24" X 18" RCP Reducer - For Spot Repairs	Each	\$800.00		0	\$0.00	-	¢40.0
11A	Type 2 Concrete Collar - For Spot Repairs	Each	\$358.00	* ** *** """ """ , , , , , """	53 4	\$18,974.00	53	\$18,9 \$18,9
12A 13A	Connection To Existing Structure Private Tile Connection	Each Each	\$2,000.00 \$500.00		26	\$8,000.00 \$13,000.00	26	\$8,0 \$13,0
13A 14A	Intake, 30" Ø Circular Area	Each	\$300.00 \$1,000.00		<u></u> 5	\$13,000.00	<u>∠</u> 6 5	
	Intake, 30 Ø Circular Area Intake, 12" Ø Hickenbottom	Each	\$1,000.00		5	\$5,500.00	5	<u>\$5,0</u> \$5,5
	Intake, 12 Ø Hickenbottom	Each	\$525.00		2	\$1,050.00	2	
17A	Cleanup, Shaping, And Permanent Seeding	Lacii	\$8,300.00		<u> </u>	\$8,300.00	1	\$8,3
18A	Seeding Warranty	LS	\$300.00		1	\$300.00	1	φ <u>,</u> \$3
400	18" Ø RCP Tile with Rock Bedding, Perforated - For Spot Repairs	LF	\$67.00		22	\$1,474.00		\$1,4
401	18" X 18" RCP Wye with Rock Bedding - For Spot Repairs	Each	\$800.00		1	\$800.00	1	\$8
402	Type 2 Concrete Collar - For Spot Repairs	Each	\$358.00		3	\$1,074.00	3	\$1,C
600	2 Year Maintenance Bond	LS	\$5,000.00		1	\$5,000.00	1	\$5,0
CO1	Exploratory Excavation	HR	\$300.00	^,"""	7.83	\$2,349.00	7.83	\$2,3
CO2	Septic Repair	LS	\$1,650.00	~		\$1,650.00		\$1,6
CO3	Private Tile Replacement, 6" Dual Wall Tile	LF	\$9.00	~~~	350	\$3,150.00		\$3,1
CO4	3-inch Bedding Rock	Tons	\$24.00	"	15	\$360.00	15	\$3
CO5	12" Dia. Dual Wall HDPE Tile w/ Rock, Perforated	LF	\$241.00		60	\$14,460.00	60	\$14,4
	Total					\$557,587.50		\$557,58
-	* dependence association of the second second second for the second of the							
	*denotes quantity adjustment made in Approved Equivalent #1							
	** denotes quantity adjustment made in Change Order #2							
*** denotes quantity adjustment made in Change Order #3								
	denotes quantity adjustment made in Change Order #5							
	^^ denotes quantity adjustment made in Change Order #7							
	^^^ denotes quantity adjustment made in Change Order #8							
	denotes quantity adjustment made in Change Order #9							
	"" denotes quantity adjustment made in Change Order #10							
	""" denotes quantity adjustment made in Change Order #12							
Prepared	by							
Clapsadd	le-Garber Associates, Inc.							
Marshallto	own, Iowa							PN 87



Date:	10/21/2019	
Work Order #:	WO0000276	
Drainage District:	DDs\DD 22 (51045)	
Sec-Twp-Rge:	<u>19-88-22</u> <b>Qtr Sec:</b> NE1/4	
Location/GIS:	88-22-19-400-002	
Requested By:	Randy Silvest	
Contact Phone:	(641) 640-0171	
Contact Email:		
Landowner (if different):		
Description: Repair labor, materia	DD 22 Lat 1 - Randy Silvest stopped in to report directly north of his house. He reports the sinkh in center of wetland area, Lat 1 runs directly the reports the sinkhole. He reports the sinkhole is was mowing this past week. He requests furthe and to be contacted by Engineer.	ole is 6' to 8' across and 3' deep ough this wetland where he dry and was discovered while he
Repaired By:		Date:
Please reference wor	k order # and send statement for services to:	Hardin County Auditor's Office Attn: Drainage Clerk 1215 Edgington Ave, Suite 1 Eldora, IA 50627 Phone (641) 939-8111 Fax (641) 939-8245
		Date:
••		

Drainage District:

#22 – Hardin County, IA

### **Investigation Summary:**

- Landowner in the NE¼ of Section 19 (T88N R22W) reported a sinkhole in his wetland area nearby where he believes Lateral 1 of DD22 to run.
- Visual observation discovered a sinkhole with two locations that appeared to be taking in soil in nearby proximity to each other. CGA probed the area with a 4' tile probe and was unable to hit/locate the tile line. The sinkhole is consistent with what we would expect to find with a tile line that has a wide joint or damaged tile and is taking soil from both sides of the tile.

### Contractor Time and Materials (spent while CGA was on-site):

None recorded as only visual observation was performed.

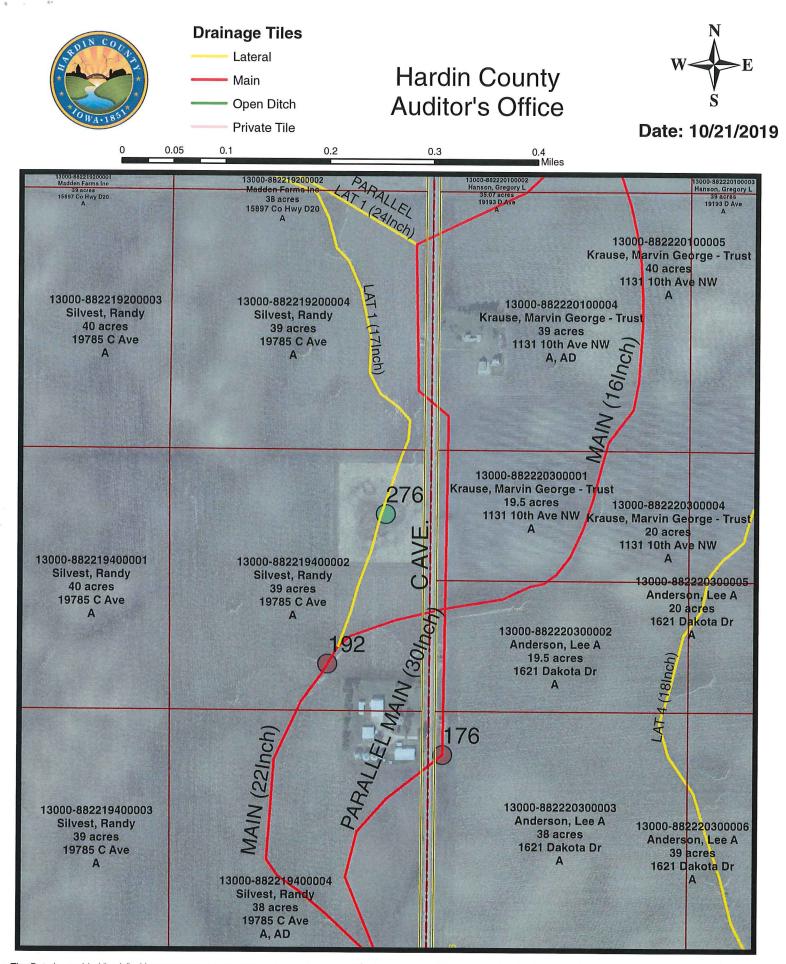
### Additional Actions Recommended:

We recommend this be spot repaired through the lottery process.





Date:	10/21/2019			
Work Order #:	WO00000276			
Drainage District:	DDs\DD 22 (51045)			
Sec-Twp-Rge:	19-88-22	Qtr Sec:	NE1/4	
Location/GIS:	88-22-19-400-002			
Requested By:	Randy Silvest			
Contact Phone:	(641) 640-0171			
Contact Email:				
Landowner (if different):				
Description: Repair labor, materia	directly north of his h in center of wetland reports the sinkhole. was mowing this pas and to be contacted	house. He i area, Lat 1 He report: t week. He by Enginee	reports the sink runs directly th s the sinkhole is requests furthe er.	t a sinkhole in his wetland area, hole is 6' to 8' across and 3' deep brough this wetland where he s dry and was discovered while he er investigation and repair this fall,
Repaired By:				Date:
Please reference wor	k order # and send st	atement fo	or services to:	Hardin County Auditor's Office Attn: Drainage Clerk 1215 Edgington Ave, Suite 1 Eldora, IA 50627 Phone (641) 939-8111 Fax (641) 939-8245
Approved:				Date:
				<i>butc.</i>



The Data is provided "as is" without warranty or any representation of accuracy, timeliness or completeness. The burden for determining accuracy, completeness, timeliness, merchantability and fitness for or the appropriateness for use rests solely on the requester. Hardin County makes no warranties, express or implied is to the use of the Data. There are no implied warranties of merchantability or fitness for a particular purpose. The requester acknowledges and accepts the limitations of the Data, including the fact that the Data is dynamic and is in a constant state of maintenance, correction and update. Cadastral Data represents land ownership, but does not define it. This Data does not replace a legal survey.

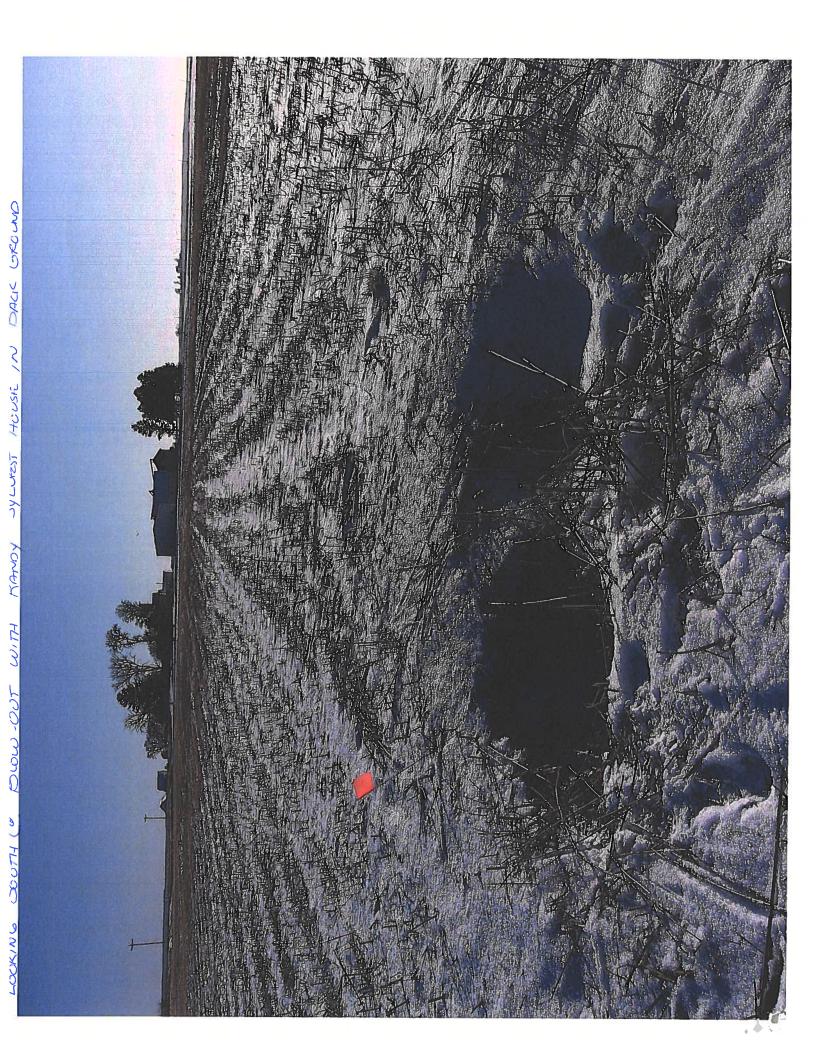
# Inspector's Project Diary

CGA PN:	Days Charged		Report	Proj. 1	Mgr. √
Contractor:	Onarget		No. Date: /2/11/	19	
Superintendent:	Weather Co		Precip.:	Temp. Hi:	0
	CLEAR, SNC		<i>z</i> ""	Temp. Low:	0
NSPECTOR:		Contractor:			
Time Arrived: 3:00 Ti	me Left: <u>3/ /5</u>	Time Arrived:	and m	Time Left:	
1. General Remarks and Work					
DRUCK UP TO MARKED	BUNGUT IN	CRP FIRL	D N. OF	RANDY SY	Luist
louse. Forna double E	BLOW-OUT, PROBA	BLY CAUS	step By 4	UDE JUIN	5
V TIJE. PRUBED down		-	· · · · · · · · · · · · · · · · · · ·		
THE TRADED COWN	TIN LUIH HO	tes, aidi	UT HIT	1102.	
5405 BLOCO OUT (# 879) Or	ULAT I USE	JUB # 653	Z.3 DDZ	2	
REPAIR ASP, ACCESS @	NE CORNER A		ans "e" A		
		THEAD		tuz.	
2. Changes or Extra Work Order	red:				
	cu.				
2 Test Convelor T					
3. Test Samples Taken:					
4. Visitors to Site:					
5 Other Mark Cross - Dail 14					
5. Other Work Crews or Project (	utilities, subcontractors	s, etc.) and Wo	rk Done:		
6. Attachments (total sheets attac	:hed 0 ):				
	/				
			-		

Clapsaddle-Garber Associates, Inc. Consulting Engineers P.O. Box 754 Marshalltown, IA 50158

By: Inspector

Distribution: Project Mgr. (Original), Inspector (Copy) Form 9753



	Hardin County Drainage Claim for Damages
Claim #	020- 5 District # 00 22 Work Order # 176 + 192 APR 2 2 2020
Township	Buckeye Section 30 Twp 88 Rge 32 CHARDEN COUNTY AUDIT
Parcel Tax IDS	88223020002
Name	Terry Swenson
Address	13797-220+57.
	Radelisse ## 50230
Phone	515 669 3483
Email Address	teswen @ gmail.com
Landowner (if	f different) Dave and Annette Buceney
Claim Type:	CA Crop Damage
	Crop Year Crop Year
	Type of Crop Type of Crop
	# Acres Damaged3 # Acres Damaged
	Yield Per Acre Yield Per Acre
	Fence Damage
	U Outlet Damage
	Other:
	Desired Compensation – Please note if payment should be split between landlord/tenant.
	Monetary Payment payment to trant only
	Repair of Damages
	□ Other:
	Claimant SignatureDave
	For Office Use Only
	Unit Value \$/bushel Unit Value \$/bushel
	Crop Damages (Verified Acres X Yield X Unit Value) \$ \$
	Total Amount Approved \$
	Approved Signature Date

# Main Tile Repairs – Drainage District No. 22 Hardin County, Iowa 2018-2020

### **Crop Damage**

Crop damaged was incurred by 5 property owners on this project. Crops impacted were beans and corn. The following table shows which property owners were impacted, which type of crops were impacted, and the number of acres impacted:

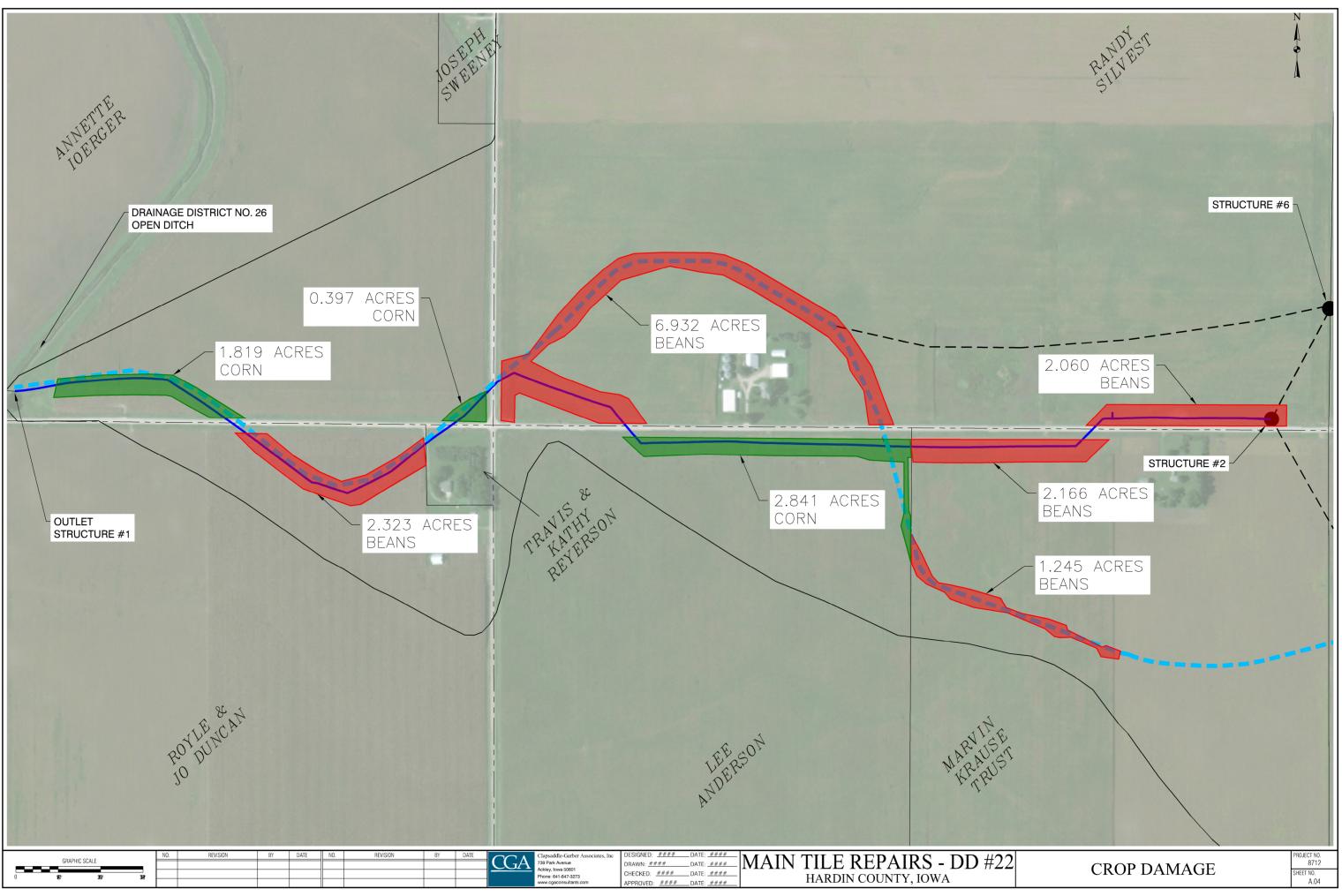
Property Owner	Corn Damage (Acres)	Bean Damage (Acres)
Annette loerger	2.216	
Royle & Jo Duncan		2.323
Randy Silvest		8.992
Lee Anderson	2.841	
Marvin Krause Trust		3.411

An exhibit showing the areas of the loss of crops is attached.

Respectfully Submitted,

Heather ann Thomas 04/28/20

Heather Ann Thomas, PE



Adwg\Record Dwgs\8\*12 - Crop Damag.dwg - CROP DAMAGE - 12-16-19 - 4:29pm - GTJ



Date:	7/3/2018			<u></u>
Work Order #:	WO00000215			
Drainage District:	Drainage Districts \DD 52 (51078)			
Sec-Twp-Rge:	33-87-21	Qtr Sec:	NE	
Location/GIS:	87-21-33-276-004			
Requested By:	Tracy Below			
Contact Phone:	(641) 485-3396			
Contact Email:	·			
Landowner (if different):	Piel Manufacturing Co	)		
Description: Repair labor, material	out of the intake west crop. Please call him v	t of apartm	ents. The area is ι	neer, Taylor Roll, that water is boiling inder water and he is losing his hay the loop.
Repaired By:				Date:
Please reference work	c order # and send stat	ement for	services to:	Hardin County Auditor's Office Attn: Drainage Clerk 1215 Edgington Ave, Suite 1 Eldora, IA 50627 Phone (641) 939-8111 Fax (641) 939-8245
				Date:
				Date:

### Drainage District:

#52 Lateral 3

## Investigation/Repair Summary:

- During previous investigation in the NE¼ of Section 33, Township 87 North, Range 21 West, it was determined that removing the roots and replacing a stretch of the existing tile at its current location was insufficient to ensure a long-term solution to the root infiltration as a result of close proximity to the Aus trees.
- Per the recommended actions of the previous investigation summary, the trees and woody brush were cut down. Some of said stumps were chipped, while others were not. However, sprouts on these stumps showed signs of reemergence and regrowth.
- The woody brush and limbs that were felled had been stacked/pushed to the east side of the building, but had not been removed from the site. Some of these branches also showed signs of reemergence and regrowth.
- None of the tree stumps or woody brush showed signs of having been treated with stump killer to prevent reemergence and regrowth.

## Contractor Time and Materials (spent while CGA was on-site):

None recorded as CGA was not on-site when work was performed.

### Additional Actions Recommended:

- All stumps of trees and woody brush needs to be treated to prevent regrowth immediately.
- At the direction of the Trustees, the remaining brush needs to be removed from site or burned on-site.
- Repair affected tile in the area as needed.
- Area may need to be sprayed to kill additional regrowth.



Inspector's Project Diary Project: DO 52 HARDIN Days Report Proj. Mgr. √ CGA PN: 5212.L NA Charged: No. 1 Contractor: NA Date: 9/27/ 19 LEE GAUNTIME Superintendent: Weather Conditions: Temp. Hi: 70 ° Precip.: CLOUDY, RAIN TRACE " ° وی Temp. Low: 7 **INSPECTOR:** Contractor: Time Arrived: 12:00 NooN Time Left: 12: 20 Time Arrived: NA Time Left: NA 1. General Remarks and Work Accomplished: ARRIVED @ DD52 @ QUANSET BLOG. SITE THAT WAS SURROUNDED BY AUSTREES. TREES HAD BEEN OUT DOWN, SOME REASTERLY STUMPS HAD BEEN CHIPPED WITH STUMP GRINDER. No VISIBLE EVIDENCE OF TREE HERBICIDE USED To KILL ROOTS, Some TREES HAD 6" SPROUTS COMING OUT OF REMAINS OF TREES. ALSO LIMBS LEFT ON GROUND HAD SPROUTED AND STANTING TO ROOT. AUSTREES ARE VERY AGRESSIVE AND HEARTY AND TAKE LOTS OF POISON TO KIN. TREE LOGS AND TOPS ARE PUSHED UP EAST OF QUALSET BLOGS. ACTION : POISON ALL STUMPS AND NEW GROWTH AND PICK UP ALL LIMB LOGS AND STICKS. (2) REPAIR TILE IN HAY FIELD 2. Changes or Extra Work Ordered: 3. Test Samples Taken: 4. Visitors to Site: 5. Other Work Crews or Project (utilities, subcontractors, etc.) and Work Done: 6. Attachments (total sheets attached \_0\_):

Clapsaddle-Garber Associates, Inc. Consulting Engineers P.O. Box 754 Marshalltown, 1A 50158

Inspector Distribution: Project Mgr. (Original), Inspector (Copy) Form 9753





NEW AUSSTREE GROWING





### NEW AUSSTRIER GROWING NEXT TO 2X4 WOOD







LIMB LOG NEET TO HAYFIRD SPROUTING

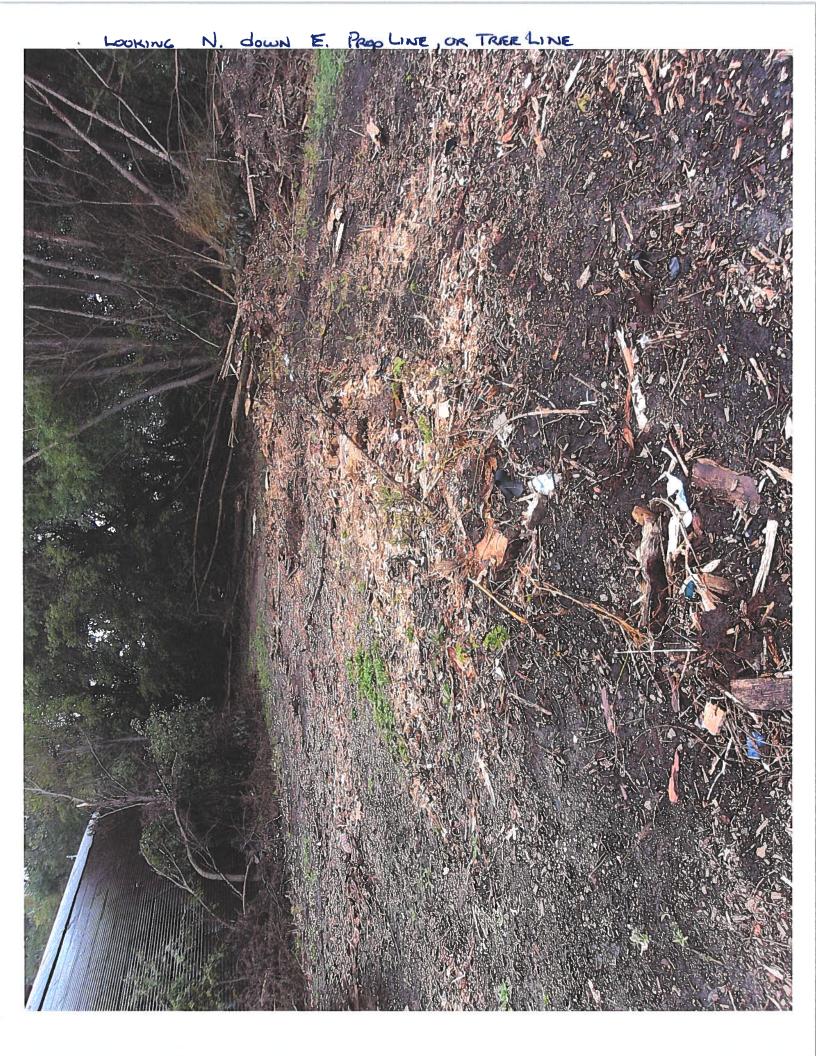


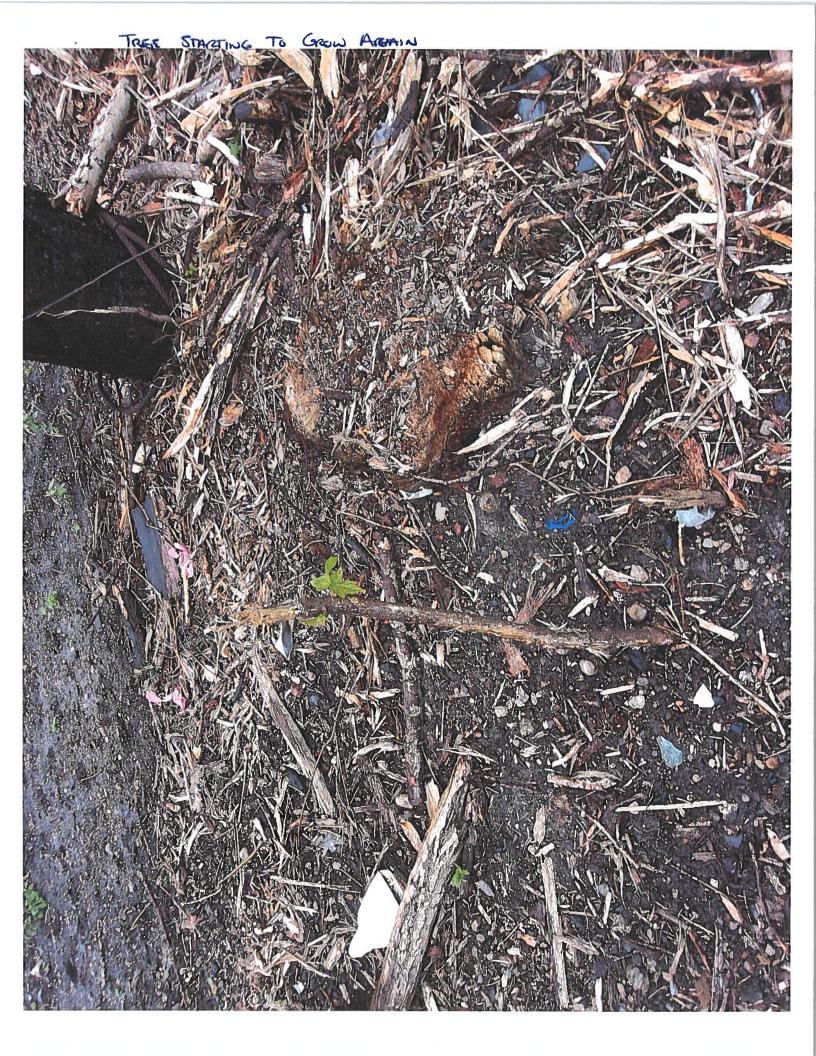




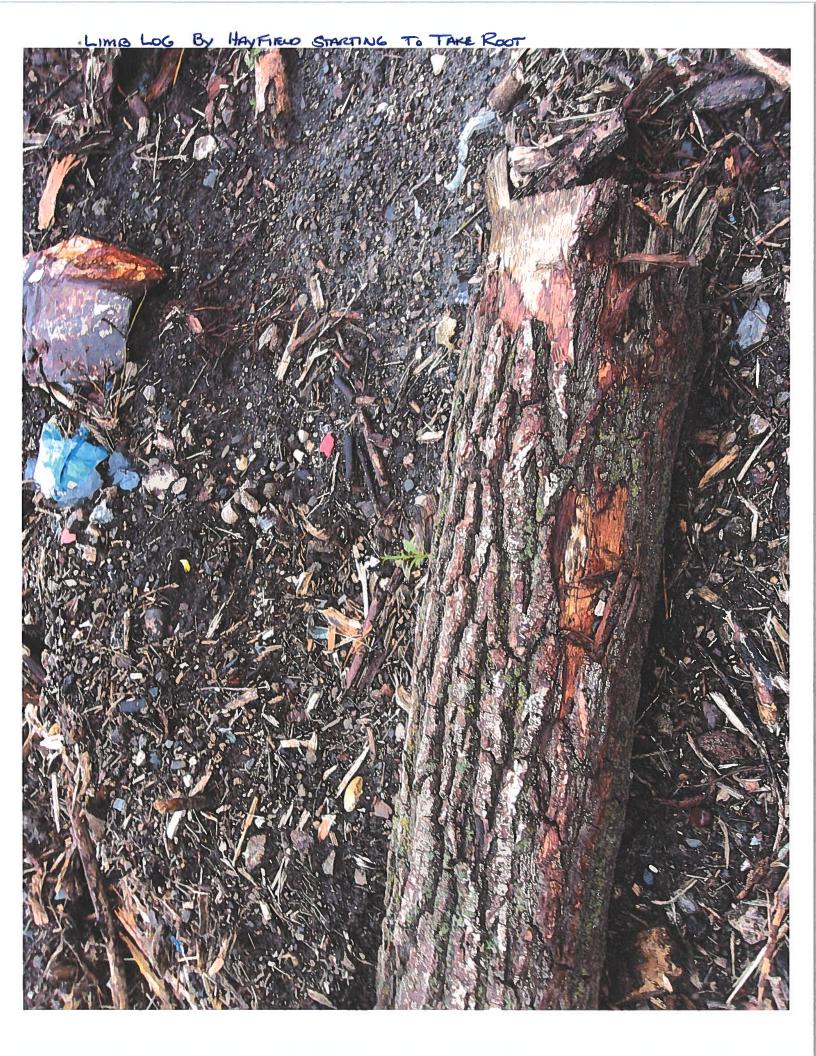
BIG WINDROW OF TREE BUTLOGS AND TOPS

















Date:	7/3/2018	
Work Order #:	WO00000215	
Drainage District:	Drainage Districts \DD 52 (51078)	
Sec-Twp-Rge:	33-87-21 Qtr Sec: NE	
Location/GIS:	87-21-33-276-004	
<b>Requested By:</b>	Tracy Below	
Contact Phone:	(641) 485-3396	
Contact Email:		
Landowner (if different):	Piel Manufacturing Co	
Description: Repair labor, material	DD 52 Lat 3 - Tracy Below spoke with County I out of the intake west of apartments. The are crop. Please call him with updates and keep h	a is under water and he is losing his hav
Repaired By:		Date:
Please reference work	order # and send statement for services to:	Hardin County Auditor's Office Attn: Drainage Clerk 1215 Edgington Ave, Suite 1 Eldora, IA 50627 Phone (641) 939-8111 Fax (641) 939-8245
For Office Use Only		
Approved:		Date:

#### Drainage District:

#52 Lat 3

#### **Repair Summary:**

- After the removal of the Aus trees, whose roots affected drainage of the Lateral 3 tile in the NE% of Section 33, Township 87 North, Range 21 West, the repair to the damaged tile in the area was able to be completed.
- Excavated at repair location as identified on previous report where roots had impacted drainage, removing soil within existing trench (where tile was previously removed) along with additional 12-inch single wall HDPE tile that was found to be damaged. Soil that had infiltrated into the Lateral 3 tile (while the excavation was left open) was manually removed. Roots were not found in the original tile in either direction of the repair areas.
- Due to landowner concerns about lack of drainage with non-perforated tile, the non-perforated dual wall HDPE was manually perforated to allow groundwater infiltration into the tile prior to installation.
- Lateral 3 tile was repaired with rock bedding and backfill, 12-inch dual wall HDPE, and 3/4 concrete collars at connections to original tile. An 8-inch VCP private tile encountered during the repair was connected to the Lateral 3 tile with an 8-inch single wall HDPE tile, split band couplers, HDPE Tee and concrete collars at the connections.
- All excavations were filled with on-site soil.

### Contractor Time and Materials (spent while CGA was on-site):

See attached Tabulated Contractor Time and Materials Sheet.

### Additional Actions Recommended:

Additional grading may need to be completed once the freeze-thaw cycle has occurred. Also, the contractor and landowner should be contacted to coordinate seeding within the repair area.



Materials	
Time and I	
Contractor	
Tabulated Co	

Date	Totals	12/5/2019	12/6/2019	12/12/2019	12/13/2019	12/14/2019
Workman (hrs)	62 1/2	1	7 1/2	∞	26	20
Mini Excavator (hrs)	46 1/2		5	7	21	13 1/2
Tracked skidloader (hrs)	24 1/2		S	1	10 1/2	∞
1" Clean Bedding Rock	Yes					
Concrete Collars	Yes					
12" Dual Wall HDPE Tile (ft)	98				86	12
12"x12"x8" HDPE Tee (ea)	1				1	
12" Split Band Coupler (ea)	4				3	1
8" Single Wall HDPE Tile (ft)	6 1/2				6 1/2	
8" Split Band Coupler (ea)	1		HALL AND			



#### Drainage District:

#26 Lateral 4

#### **Investigation Summary:**

- Tenant in SW¼ NW¼ Section 20, Township 88 North, Range 22 West reported wet spot in field and stated he had been farming for 25 years and the reported wet area had not been a problem spot until the 2010/2011 project when the Supplemental Lateral 4 tile was constructed.
- CGA visually searched area and found a wet spot with standing beans that measured approximately 0.3 acres. The location is just west of the Supplemental Lateral 4 tile that was installed, as shown on the attached map.
- CGA searched as-built files from the Supplemental Lateral 4 tile and found that no private tile was recorded or connected to the Supplemental Lateral 4 tile in this area at the time of construction.
- CGA reviewed historical photos of this area from 1971-2017 (attached) and noted that the wet spot first appeared on aerial photography in the spring of 2016. It also appeared in aerial photos from 2017 and was visually confirmed in the field in 2018. No observable wet spots were there in prior years including the reviewed 2013, 2014, and 2015 aerials.
- On-site visual inspection, reviewing historical aerials, and reviewing as-built information was unable to determine the cause for the wet spot; however, confirmed its presence.
- CGA considers it a possibility that a private tile didn't get hooked up during the 2011 project. Aerial photography doesn't show any resulting wet spots until a few years later which we would typically expect to show up sooner after construction. Tile witching is not conclusive investigation and has been known to have false positive readings in areas where water may have established subsurface drainage paths without tile; however, CGA field staff did indicate crossing witching wires at the northwest edge of the wet spot.

#### Contractor Time and Materials (spent while CGA was on-site):

None, as only visual observation was performed.

### Additional Actions Recommended:

We recommend sharing these findings with the landowner / tenant and asking if they have any knowledge of a private tile in this area. If they do, we recommend that the private tile be connected to the Supplemental Lateral 4 tile.

If landowners have no knowledge of private tile in the area, we recommend the District Trustees' consider the following options:

-Excavate said wet spot to identify source of water and connect private tile, if found. If no private tile is found, it may be possible that the surface was not put back to pre-construction topography and there could be a hump trapping surface water from draining to the area directly or nearly above the original tile. Pre-construction subsurface drainage patterns were disrupted and may not have reestablished themselves.

-Continue to monitor the area to see if the wet spot persists next year or the site begins to form subsurface drainage paths that may have been disturbed / interrupted by construction.



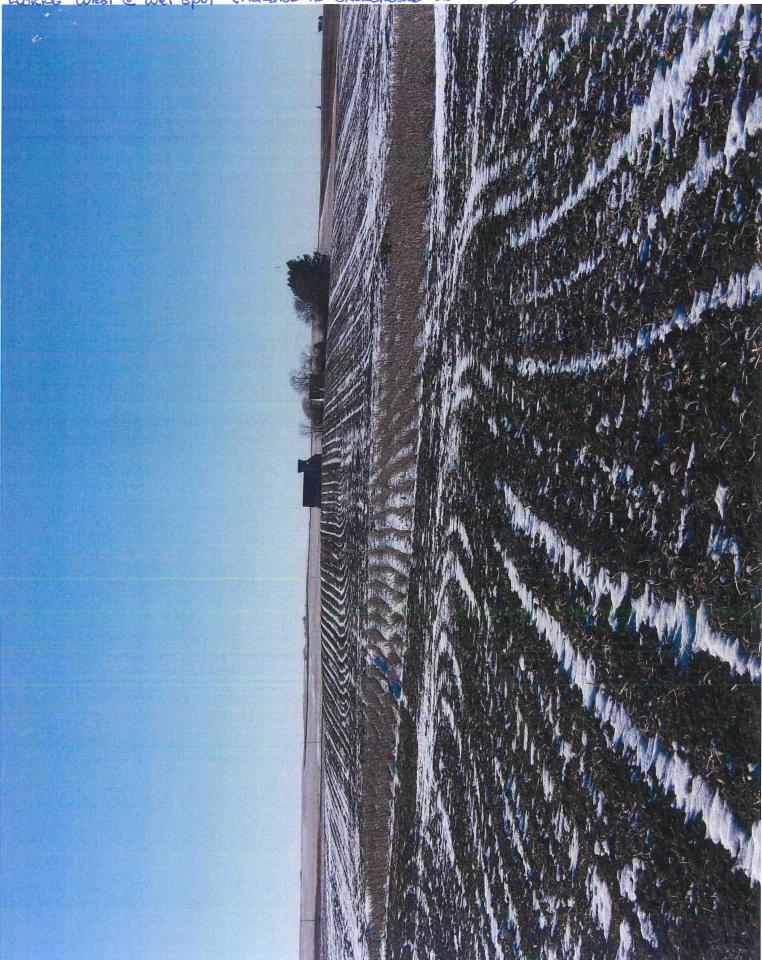
CONSTRUCTION ENGINEERING OBSERVATION REPORT	DATE:	12/14/18
PROJECT NUMBER:	DAYS OF WEEK:	SMTWTES
COUNTY, ROUTE, ROAD:	SHEET NO.	OF
LOCATION: E. OF HOUSE #19414 ON C AVE.	SUNNY, CALM, 38°,	MELTING SNOW, FROZEN 55 0026" dirt.

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUE NAME, ITEM NO. AND LOCATION

× × × ×	
WIRE WITCH THE POSSIBLE	
	× / ×
	×
Wer -	· · · · · · · · · · · · · · · · · · ·
	/ ×
STANDING.	
BEANS	/
SHOTS 70000-70012 40965	
Top PE	<u> </u>
1 440 P 440	0408 Top 18" VCp
	/
	/
SHOT WET AREA WITH STANDING BEANS,	
# 70000-70012, WET AREA IS WEST	////////
OF BOTH NEW + OLD MAINS, NO	Hill
RIVATE THE CONDUCTIONS SHOWN IN JOB.	/
USED ZWIRE WITCH TO LOCATE POSSIBLE	
THE IN NW COR OF WET Spot.	
· · · · · · · · · · · · · · · · · · ·	
I Certify that the work described in this report was incorporated into this	s contract unless otherwise noted.
Observer's Signature: Date Prepa	
Reviewed by: Heather and Thomas X Engine	16/19/16
	Date Reviewed 12/24/18

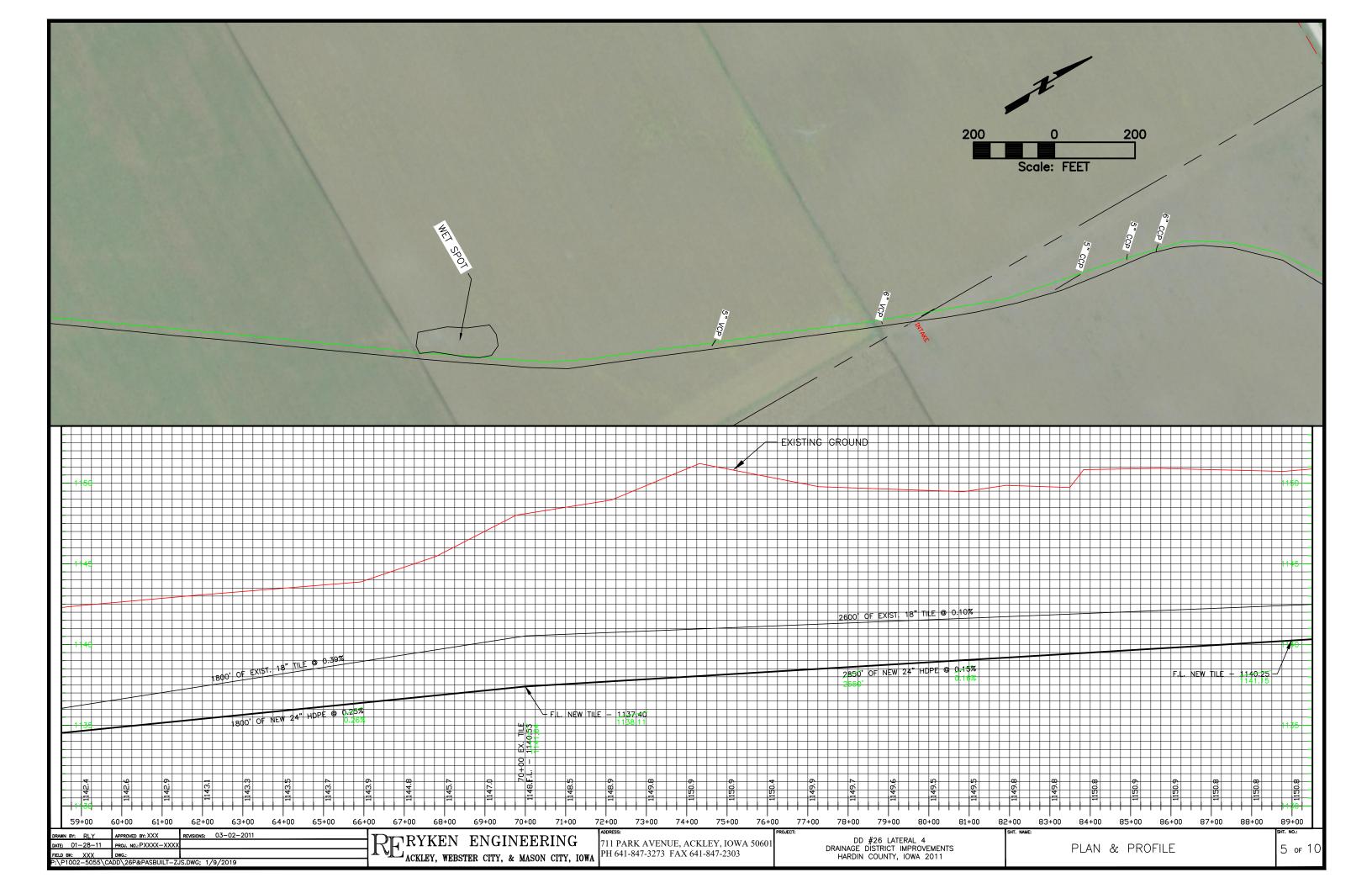
Users\Ryken Standard Forms and Procedures\Company Forms\Construction Engineering Observation Report (1)





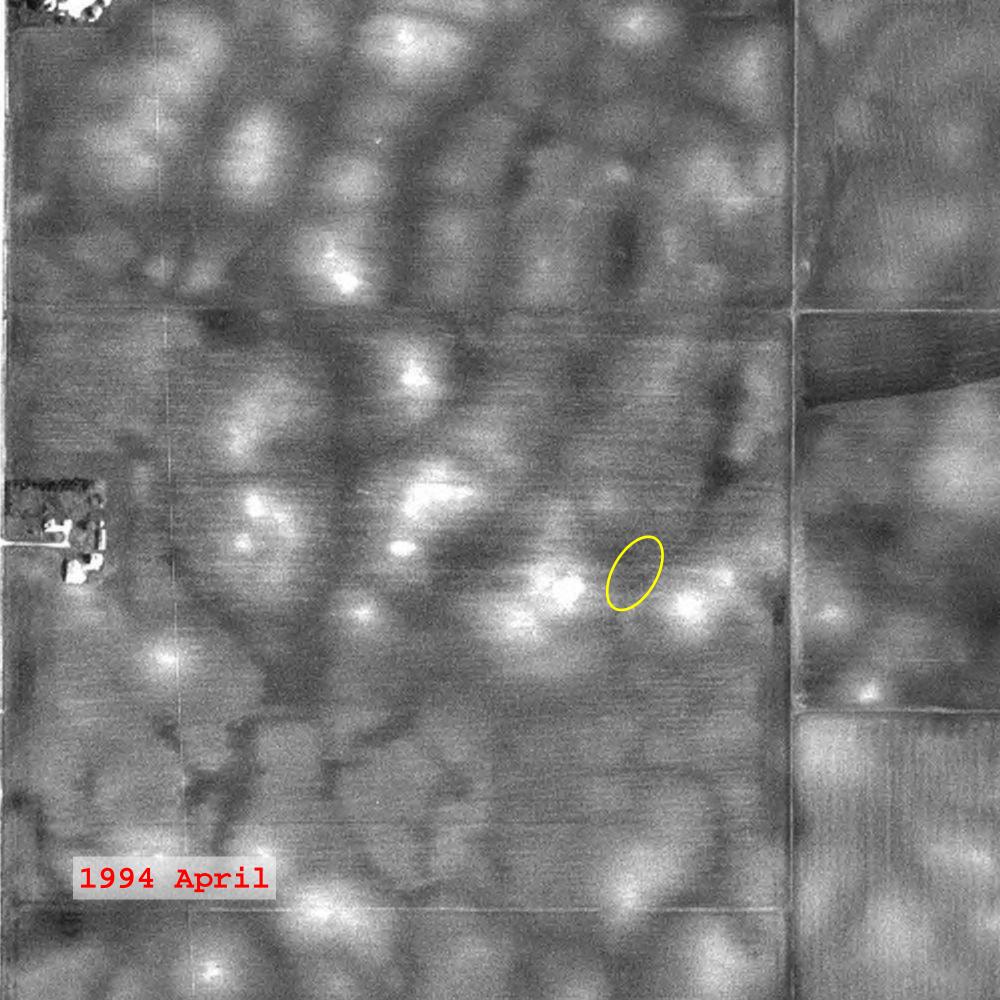


















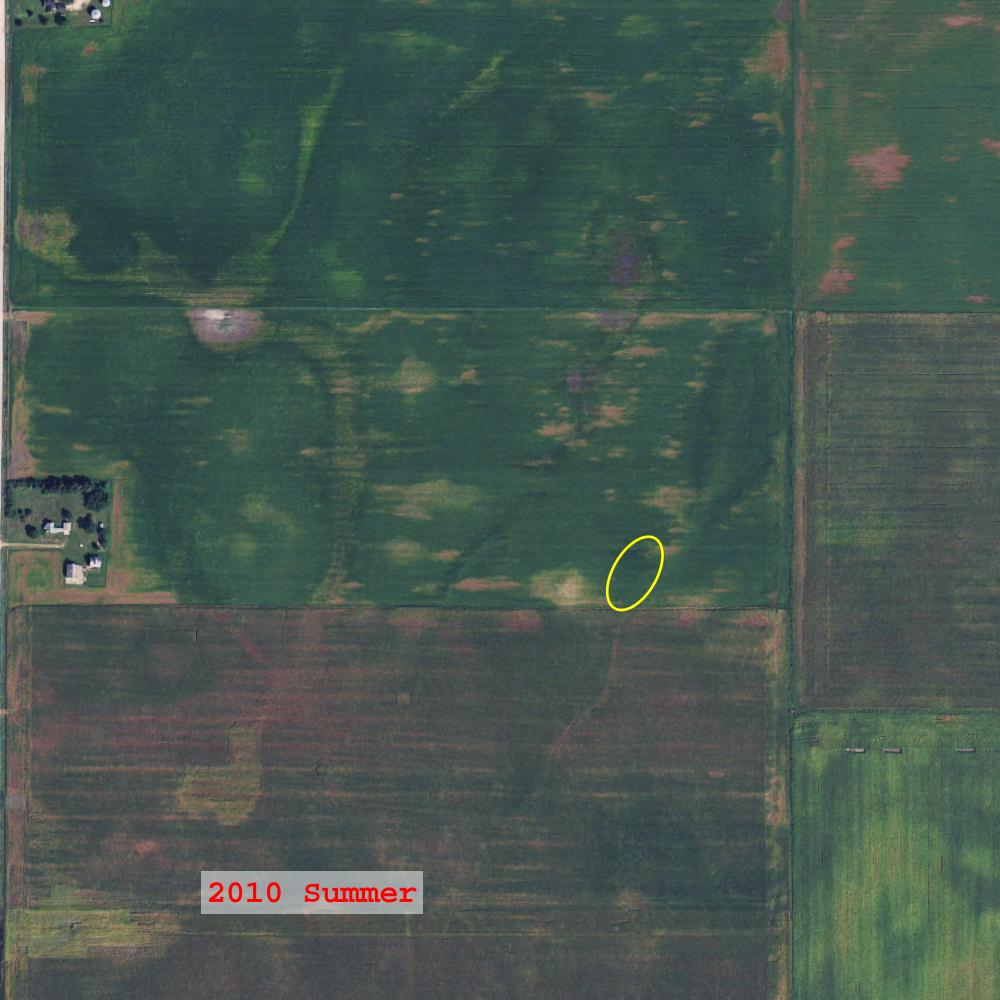


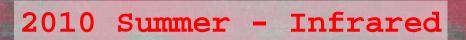
























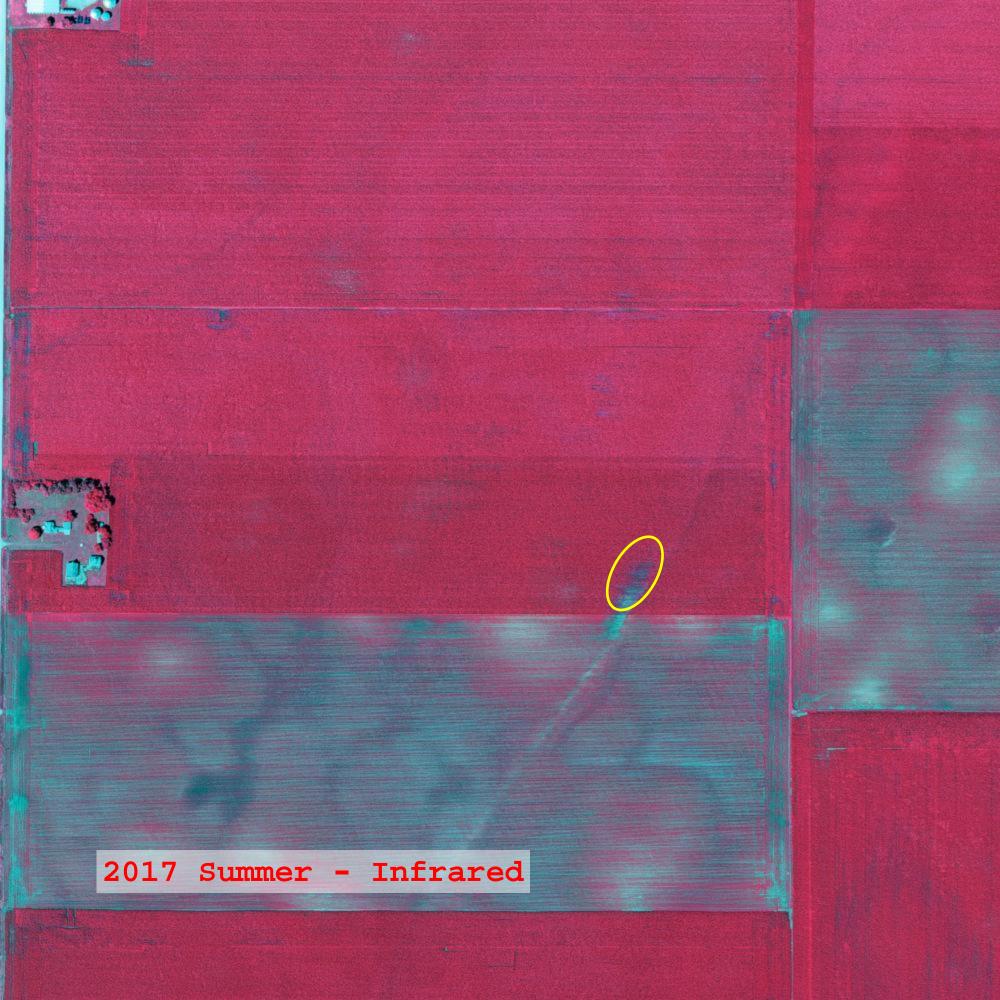












Sec-Twp-Rge: 20-88-22



### Hardin County Drainage

Drainage Districts \DD 26 (51049)\DD 26 Lat 4 (51050) WO00000082

Begin Date:	5/27/2015	Requested By:	Randy Silvest / Jim Vierkandt
Status:	On Hold - On Hold	Email:	Randy (641) 640-0171
Description:	Tile problem on 190th between C & D Avenues. Paul would also like to look at the option of extending the	Phone:	(515) 689-4737
•2	old tile out from the manholes. (Combined with original WO81 also.)	Landowner:	Lee Anderson
		GIS #	88-22-20-300-003

	Expenses:					Contract/Estim	ate:
Date	ExpenseCode	Vendor	Description		Amount	Description	Amount
8/7/2015	Engineering	Ryken Engineering Co	8/7/2015 DD 26 LAT 4 ENGINEERING		\$1,146.25		
8/7/2015	Engineering	Ryken Engineering Co	8/7/2015 DD 26 LAT 4 ENGINEER		\$465.00		
				Total:	\$1,611.25		

Notes:

#### Note

6/3/15-BOS approve to CCTV as fall project when crops are out. Tina to contact Paul of decision.

BOS agreed to follow up when Don Etler's investigation is complete. A landowner information meeting will be held at that time to discuss both items. This is considered an improvement & trustees want landowner input... 6/4/15-Tina spoke with Paul. Ok with waiting until fall.

7/2/15-Working on engineers report.

7/29/2015-Landowners request to install perm access pts for future CCTV inspections & maintenance. Engineers opinion that this would be considered a repair and not an improvement. A 24" intake is adequate to CCTV equip to access. If Trustees want, CCTV could be performed between structures 1 & 2. Summary shows 2 different methods. #1 estimated at \$1,000-\$2,000. #2 estimated at \$4,000-\$5,000. If manholes installed, estimated at \$8,000-\$10,000.

8/5/15-BOS agree to table any actions until discussed with landowners during their information meeting and once Don Etler's investigation report is done.

12/9/15-BOS approve Williams Excavation & Howe Sanitation to CCTV while out in the area for DD 22. Etlers prelim opinion to wait and see if new tile will be installed. Paul concerned that this could take years while he has poor drainage. Etler to examine Ryken Engineer Report and will notify Trustees of final opinion.

10/11/17-BOS set landowner meeting for 10/25/17 at 1:00 pm.

6/10/15-BOS approve Ryken to prepare engineers report for improvements to re-connect old tile from manholes along 190th. The report will be discussed at Don Etler's information meeting. The BOS also asks Lee to seek legal advice re: installing manholes every 2000' also requested by Peterson, to see if should handle as repair or improvement and how to proceed. Lee also to prepare cost estimated to install these manholes.

12/15/15-Etler submitted recommendation.

12/23/15-BOS accepted report. No action taken.

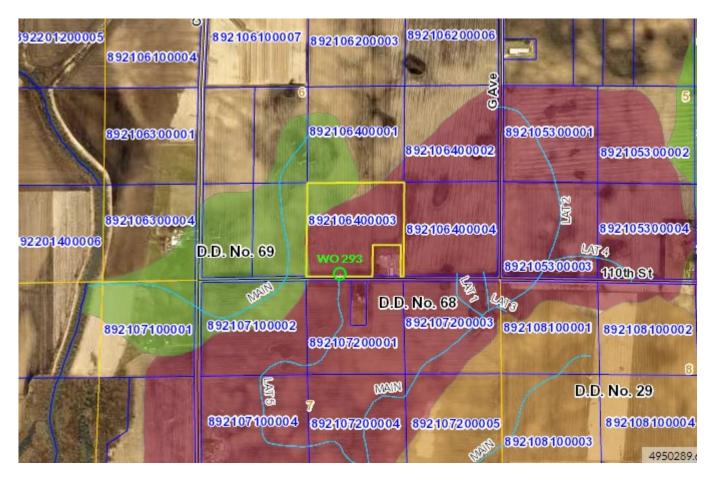
8/8/18-Paul Peterson requested proj be put on hold. Thomas stated that calculations have been performed but no formal report. Est'd approx \$1,200 has been charged but not billed & to complete the report would cost add'I \$3,000. Tile is flowing and working. BOS agree to place proj on hold & not do report until landowners request.

12/4/18-Randy Silvest stated east of the hill (east of Marvin Krause's place GIS 882220100005), there has been a wet spot. He's been farming it for 25 years and never had a problem until the 2010/2011 project. He would like it looked at.



# Drainage Work Order Request For Repair Hardin County

Date:	4/28/2020			
Work Order #:	WO0000293			
Drainage District:	DDs\DD 68 (51098)			
Sec-Twp-Rge:	06-89-21	Qtr Sec:		
Location/GIS:	89-21-06-400-003			
Requested By:	Nick Hoversten			
Contact Phone:	(515) 290-5806			
Contact Email:				
Landowner (if different):	Thielke Farms			
Description: Repair labor, material	#892106400003 (Thie Hoversten.		lirt on N side of 110th St. in parcel age/house site owned by Jeff	
Repaired By:			Date:	
Please reference work	c order # and send sta	tement for services to:	Hardin County Auditor's Office Attn: Drainage Clerk 1215 Edgington Ave, Suite 1 Eldora, IA 50627 Phone (641) 939-8111 Fax (641) 939-8245	
For Office Use Only				
Approved:			Date:	





# Drainage Work Order Request For Repair Hardin County

Date:	4/28/2020			
Work Order #:	WO00000292			
Drainage District:	DDs\Big 4 Main (5119	93)		
Sec-Twp-Rge:	05-88-22	Qtr Sec:		
Location/GIS:	88-22-05-200-001			
Requested By:	Nick Hoversten			
Contact Phone:	<u>(</u> 515) 290-5806			
Contact Email:				
Landowner (if different):				
Description:	-	Hoversten reports intake is su on property line with Hudspe	ucking in dirt on Main DD tile, in west ths	
Danair lahar matarial	a and aquinmant.			
Repair labor, material	s and equipment:			
Repaired By:			Date:	
······································				
Please reference work	order # and send stat	tement for services to:	Hardin County Auditor's Office	
			Attn: Drainage Clerk	
			1215 Edgington Ave, Suite 1	
			Eldora, IA 50627	
			Phone (641) 939-8111	
			Fax (641) 939-8245	
For Office Use Only				
Approved:			Date:	

