

AGENDA
REGULAR DRAINAGE MEETING
February 5, 2020 9:30 AM

1. Open Meeting
2. Approve Agenda
3. Approve Minutes

Documents:

[01-22-2020 - DRAINAGE MINUTES - DD 55 DD55-3 CREP WETLANDS
MTG.PDF](#)
[01_29_2020 - DRAINAGE MINUTES.PDF](#)

4. DD 86 - Public Hearing On Engineer's Report On Main Tile Repairs To Reconvene
DD 86 - Public Hearing was recessed on January 22, 2020 to reconvene to February 5th at the Regular Drainage Meeting. New Supplement to the Engineer's Report has been submitted.

Documents:

[DD 86 ENGINEERS REPORT.PDF](#)
[6789.3 - DD 86 SUPP ENGINEERS REPORT.PDF](#)

5. DD 9 - Discuss W/ Possible Action - ROW Easement

Documents:

[DD NO. 9 TILE LINE EASEMENT - DRAFT 12312019 \(002\).PDF](#)

6. DD 25 - WO 1 - Discuss W Possible Action - Update Project 6501 RR Crossing
DD 25 - WO 1 - Clapsaddle-Garber Assoc. will provide an update on communication with the Railroad regarding Project 6501 RR Crossing.
7. DD 25 - Discuss W Possible Action - Crop Damage Claim

Documents:

[DD 25 - CROP DAMAGES -JASON MARTIN- 01-27-20.PDF](#)

8. DD H-S 35-1 WO 240 - Discuss W Possible Action - Repair Summary

Documents:

[DD35-1 WO240 REPAIR SUMMARY.PDF](#)

9. DD 36 - WO 268 - Discuss W Possible Action - Investigation Summary

Documents:

[DD 36 - WO 268 INVESTIGATION SUMMARY 01_28_20.PDF](#)

10. DD 154 - WO 277 - Discuss W Possible Action - Investigation Summary

Documents:

[DD 154 - WO 277 INVESTIGATION SUMMARY 01_31_20.PDF](#)

11. DD 55-3 Lat 10 - WO 284 Discuss W Possible Action
Active beaver dam reported on open drainage ditch.

Documents:

[DD 55-3 LAT 10 WO 284.PDF](#)

[DD 55-3 LAT WO 284 MAP - 02_03_20.PDF](#)

[DD 55-3 LAT 10 WO 284 MAP 2.PDF](#)

12. DD 165 -Discuss W Possible Action - Acknowledge Receipt Of Petition For Private Trustee Management

Documents:

[DD 165 - PETITION FOR PRIVATE TRUSTEE MANAGEMENT 01_27_20.PDF](#)

13. Other Business

14. Adjourn Meeting

REGULAR DRAINAGE MEETING
DD 55 & DD 55-3 CREP Wetlands Meeting
January 22, 2020 1:00 PM

1/22/2020 - Minutes

1. Open Meeting

Hardin County Drainage District Board of Trustees Chairperson, Lance Granzow, opened the meeting. Also present were Trustee Renee McClellan; Trustee BJ Hoffman; Mike Bourland, P.E. of Iowa Department of Agriculture and Land Stewardship; Lee Gallentine of Clapsaddle-Garber Associates and Drainage Clerk, Denise Smith.

2. Approve Agenda

Motion by Granzow to approve the agenda, second by McClellan. All ayes. Motion carried.

3. DD 55 & DD 55-3 - Discuss W Possible Action - CREP Wetland Project

Bourland introduced the project: the land is currently owned by the Stolee family, and is located just outside of Radcliffe. the wetland project does have a number of tiles that will flow into the wetland, all of those tiles are private tile and not district tile. The DNR records show this as DD 5 but upon investigation, those district tile were never installed. The tile to the south was put in by the Stolee family, and there is no district tile affected by the wetland area.

Bourland references the map and shows the line representing the water level in the wetland, and then references the 100 year storm balance. The dike will have a steel sheetpile to allow the water to flow over, there will be internal berms that allow the flow of the water to slow down and improve nitrate removal. The wetland will have an open area called a sediment forebay to allow for clean-out. Some of the 100 year storm balance may flow onto the neighbor to the north, which are relatives to the Stolees and an agreement has been reached with them for this, those areas will be filled with excess topsoil removed from the basin.

There is an 18" tile that daylight and goes under the road, and in speaking with engineer, Dean Anderson, from the designing firm WHKS, Anderson states there is a 1' difference in elevation so that the culvert that goes under the road is 1' higher than the 100 year storm balance. Gallentine asked if there was just a culvert in this location or a culvert and a tile, Gallentine noted that the tile in this area was the outlet for DD 143 in Radcliffe.

Bourland stated that they would intercept tile and lay it a flatter grade, so it would be daylighted into the wetland, but it would all be private tile. Bourland stated that it would be the responsibility of the landowner to maintain the wetland, both the Stolees and the neighbors to the north have signed easements with the Soil and Water Conservation Districts and the Attorney General has gone through the abstract. The landowners have entered a contract with FSA and CRP.

Bourland stated that since the wetland lies in within the drainage district, he wanted to make sure that they accommodate any concerns the Trustees may have.

Gallentine stated that there are no Drainage District facilities being modified and the only impact is the one tile outlet, and the foot freeboard at the 100 year flood, that would address that concern. Granzow stated that would address Tom Stolee's concern about the golf course draining onto his land, and this wetland will address that water flow. Gallentine noted that this is a full flow structure, the only difference in the water that comes in from the water that goes out, will be a reduction in the nitrates. Gallentine noted that this is a benefit for the district, in that it is downstream from DD 143 district facility and it is upstream from the open ditch district facility.

Bourland state that the hazelnut trees nearby will remain in place, there will be some native grasses and brome surrounding the wetland, there are some acres of existing vegetation that will not be touched. It will be a very attractive area. There will be some clearing of the trees in the very southeast corner. Bourland noted that there is an annual CRP payment for 15 years, then there is a one time easement payment from their department to make up for what the land is worth and giving up the right to farm it in perpetuity.

Hoffman stated it is amazing that there are 2 wetland projects within 15 miles of each other. Gallentine stated he has no concerns at all about the project. Bourland stated that there are 9 projects all together that they will be bidding, three of which are in Hardin County. The pre-bid meeting for this project will be February 3rd, then the bid opening for these projects will be February 26th, each project will be bid individually, although the meetings will be held at the same time.

There is some discussion that there will be a new main as reinforced concrete pipe and there was some discussion about encasing the main in rock, so the rock will be bid as an alternate. Bourland noted that as they bid projects this time of year, they receive very competitive bids, summer bids do not receive near the attention that the early year bids receive. If costs for the total project are less than \$50,000, a hearing will not be required.

Once the bids are received back, Smith can notify landowners for a Landowner Meeting to discuss the project costs. Smith will coordinate with Bourland that he can attend or call in to the landowner Meeting.

4. Other Business

The Trustees, acting as County Supervisors, had some discussion with Bourland about the damaged bridge upstream of Pine Lake, that was recently damaged when the farm equipment went off the road at the bridge site. The Supervisors stated that it would be an ideal area for a dam and wetland construction. The previous County Engineer had drawn up some plans for the project, which the DNR reviewed, however no one entity wanted to assume the lead role on the project. It was discussed that Upper Pine Lake is undersized for the watershed.

Bourland noted that a recent project in Buena Vista County, is right about 5,000 acres and that is about the largest size Bourland's group will usually address, anything over 4,000 acres can be difficult and complex. Pine lake has water quality issues that may be addressed by adding additional wetlands. McClellan stated that the Supervisors catch a lot of grief over the water quality of Pine Lake, and the poor water quality was due to chemical runoff. Hoffman noted some issues arise from legacy phosphorous that is in the sandstone/limestone of Pine Lake, which doesn't help water quality, but a collaborative effort to help the watershed itself would be of great benefit.

Granzow noted that the DNR was interested in the project and thinks they would still be interested. Hoffman noted that many influential people, including Senators Sweeney and Grassley, were interested, but due to lack of funding it was a back burner project. Granzow stated now that the bridge has been damaged, it may be a perfect time to look at the project again and replace the bridge with a dam, but the project needs a lead person, and it is out of the County Engineer's expertise and would need a civil engineer. Hoffman noted a hydrology report may be needed, and the area has already been surveyed. It was discussed that most of the landowners were in favor, one may not have been in favor, but the landowner stated he could live with the results. Bourland said he would be happy to look into it.

5. Adjourn Meeting

Motion by Hoffman to adjourn. Second by Granzow. All ayes. Motion carried.

REGULAR DRAINAGE MEETING
January 29, 2020 9:30 AM

1/29/2020 - Minutes

1. Open Meeting

Hardin County Drainage District Chairperson, Lance Granzow opened the meeting. Also present were Trustee Renee McClellan; Trustee BJ Hoffman; Landowner Curt Groen; Lee Gallentine of Clapsaddle-Garber Associates, and Drainage Clerk, Denise Smith

2. Approve Agenda

Hoffman motioned to approve the agenda. Second by McClellan. All ayes. Motion Carried.

3. Approve Minutes

Motion by Hoffman to approve the minutes to Regular Drainage Meeting dated 01-22-2020 and DD 86 Hearing on Engineer's Report Minutes dated 01-22-2020. Second by McClellan. All ayes. Motion carried.

4. Approve Claims For Payment

Motion by Hoffman to approve the Claims for Payment with pay date of Friday, January 31, 2020. All ayes. Motion carried.

DD 22 - WO 176&192 Pay Estimate No. 5, Gehrke, Inc., \$101,760.79

5. DD 22 - WO 176 & 192 Comb. - Discuss W Possible Action - Change Orders 7-12

Heather Thomas of CGA provided an update on change orders to project WO 176 & 192 Combined:

Change Order 7: was a septic repair, that the Trustees authorized up to \$4,000 to repair on the Reyerson property, the actual cost was only \$1,650.

Change Order 8: was a private tile repair, it was authorized that up to 400" of tile to be installed, only 350' were installed, so that came in at \$3,150.

Change Order 9: was bedding rock approved by Trustees, came in way under the 100 tons authorized, only 15 tons of rock were used, so that came in at \$360.00.

Change Order 10: Miscellaneous quantity adjustments, and taking out some of the CC televising in the roads, and fewer than expected private tile connections, so that came in with a net deduct of -\$1,896.00.

Change Order 11: Clarifying completion dates and authorizing that 2 year maintenance bond agreement will become effective this spring as soon as they finish punchlist items, and extra work that was approved through November 30th.

Change Order 12: was for overflow connections at Structures 4 & 5, those come to an addition of \$20,492.00

The original bid by Gehrke was \$549,332.50, with the added overflow connections, total costs were over \$8,255.00, and with an extra \$20,500 additional costs for the overflow connection, this project came in pretty close to the original bid. Total cost was \$557,587.50.

Thomas stated that they met with Mr. Randy Silvest, and addressed his concerns, that were discussed in a previous meeting, some of his concerns were valid and will be addressed in the spring as punch list items. One of Silvest's concerns was the intake in the ditch was too far out in his field, Thomas did measure from the center of the roadbed and found the intake within 26' to 27' from the center of the road bed, so it is in the ditch right of way. Thomas stated they would revisit it in the spring to verify. Thomas stated there were some issues Silvest raised that were more personal preference type items. One of those items was an area where the contractor had done some surface re-shaping, and eliminated some ponding, and Silvest wants it put back to the pond, Thomas stated the contractor will do that and they will work through the issues in the spring. Thomas felt the contractor left it in a better state than what they found it in.

The pay estimate included in claims was to release \$101,760.79 and reduces retainage down to 2% of construction which still exceeds remaining work left, such as seeding. It is Thomas's recommendation to approve Pay Estimate No. 5 and Change Orders 7 through 12. The Trustees appreciate the detailed explanation and the customer service CGA and Gehrke have provided to the landowners on this project.

Motion by McClellan to approve the Pay Estimate No. 5 listed in today's claims and to approve Change Orders 7 through 12. Second by Hoffman. All ayes. Motion carried.

6. DD 22 - WO 276 - Discuss W Possible Action - Investigation Summary

DD 22 - WO 276 - Thomas stated there is a sinkhole in Randy Silvest's wetland, and district tile goes through that area. Thomas stated CGA did go out and probed and were not able to locate it within 4' of the surface. The sinkhole leads them to believe that a joint has separated and is sucking from both sides of the pipe. CGA recommends to submit this to the lottery for a spot repair.

Motion by Hoffman to add WO 276 to the lottery system. Second by McClellan. All ayes. Motion carried.

7. DD 143 - WO 167 - Discuss W Possible Action - Surveyor's Report & Engineer's Supplemental Report

The Trustees had tasked Smith with scouting locations for the DD 143 Hearing on the Surveyor's Report & Engineer's Supplemental Report. Smith spoke with Radcliffe Mayor Taylor Roll, who stated that the City Hall would seat as many people as the Fire Station or the golf course, and would be available most days or evenings with some exceptions. The Radcliffe Elementary School would hold up to 125 people with table and bench style seating, no projector or sound system is available at this location, they are available Monday, March 16th or Tuesday, March 17th they are on Spring Break and the cafeteria would be available for a day or evening meeting, they have building maintenance the rest of that week and the cafeteria would be unavailable. Smith spoke with Thomas Creighton, EMA Coordinator, and the Emergency Operations Center building is available and would seat 50-60 people, and is available most days and evenings the 3rd week in March, except the evening of the 17th as they have commission meetings that evening.

Discussion centered around availability of a sound system, ability to record the meeting and ability to have a projector on site. Hoffman is unavailable March 16 & 17. Hoffman stated we could plan for the capability to record at the EOC building, and seat more people than the large conference room at the Courthouse, his preference would be to hold it at the EOC. McClellan had concerns about holding meetings in many different locations as it makes logistics for scheduling and attendance difficult. Granzow stated he would like to hold the meeting during business hours, he would invite written comments from those unable to attend the meeting be submitted to the drainage clerk.

Motion by Hoffman to conduct the DD 143 Public Hearing on March 25th at 11:00 AM at the Hardin County Emergency Operations Center. Second by McClellan. All ayes. Motion carried.

8. DD 34 - WO 189 -Discuss W Possible Action - Repair Summary

DD 34 - WO 189 - Smith spoke with Hands On Excavating to confirm seeding had been done on this project. Hands On confirms that final grading and seeding is complete. It had been discussed to add this to the agenda at the end of January/beginning of February to hold a landowners meeting for review of Repair Summary.

Motion by Hoffman to hold the DD 34 Landowners Meeting on February 12, 2020 at 10:00 Am in the Large Conference Room at the Courthouse. Second by McClellan. All ayes. Motion carried.

9. Discuss W Possible Action - 2020 Private Trustee Election Canvass

Smith presented the 2020 Private Trustee Election Canvass conducted on Tuesday, January 21, 2020, for review and approval.

Motion by Hoffman to approve the 2020 Private Trustee Election Canvass as certified in the canvass as conducted on January 21, 2020. Second by McClellan. All ayes. Motion carried.

10. DD 165 - Discuss W Possible Action - Petition For Private Trustee Control

DD 165 submitted a request for Private Trustee Control. Smith stated that she can verify the number of landowners in the district and that the names submitted constitute a majority of landowners. Once a majority is verified, Smith can draft a letter notifying landowners that all current work orders in the district would cease until

such time as an election is held. Landowners would need to have 3 judges and 2 clerks to conduct the election and a location. Smith can let landowners know that this information would need to be returned to the Supervisors acting as Trustees so we can begin the election process.

Hoffman motioned to acknowledge the DD 165 petition and for Smith to verify landowners majority, return with that information at next regular drainage meeting and to start the election proceedings process. Second by McClellan. All ayes. Motion carried.

11. Other Business

Smith informed the Trustees that postcards were mailed for Private Drainage Trustee Meeting on February 19 @ 12:30 pm and postcards were mailed for DD 122 & DD 8 for landowner feedback on tile function and flow for warranty review, feedback is due on or before May 1, 2020, warranty expires June 27, 2020.

12. Adjourn Meeting

Motion by Granzow to adjourn. All ayes. Motion carried.



**ENGINEER'S REPORT
ON REPAIRS
TO MAIN TILE
DRAINAGE DISTRICT
NO. 86
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. GALLENTINE, P.E.	DATE
	LICENSE NUMBER: 15745 MY LICENSE RENEWAL DATE IS DECEMBER 31, 2020 PAGES OR SHEETS COVERED BY THIS SEAL: SHOWN ON TABLE OF CONTENTS	

	CLAPSADDLE-GARBER ASSOCIATES OFFICE LOCATIONS	Project Office 739 Park Avenue Ackley, IA 50601 Phone: 641-847-3273 Fax: 641-847-2303
	16 East Main Street, PO Box 754 Marshalltown, IA 50158 1523 S. Bell Avenue, Suite 101 Ames, IA 50010 5106 Nordic Drive Cedar Falls, IA 50613 739 Park Avenue Ackley, IA 50601 511 Bank Street Webster City, IA 50595	

Engineer's Report on Repairs to Main Tile, Drainage District No. 86 Hardin County, Iowa

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Engineer's Report on Repairs to Main Tile, Drainage District No. 86 Hardin County, Iowa

1.0 INTRODUCTION

- **SCOPE OF WORK** – The Hardin County Board of Supervisors, acting as District Trustees, requested Clapsaddle-Garber Associates to investigate and report concerning repairs to the Main tile of Drainage District No. 86. This report will summarize the history of repairs, investigate the necessity and feasibility of said repairs, and present opinions of probable construction costs associated with said repairs. At the Landowner Meeting held on July 17, 2019, the preliminary results of the investigation for Work Order #252 were discussed and reviewed by the District Trustees. For reference, a copy of the meeting minutes is included in Appendix A and a copy of the Investigation Summary for Work Order #252 (as discussed at the July 17, 2019 Landowner Meeting) is included in Appendix B. As a result of this meeting, the District Trustees requested Clapsaddle-Garber Associates to move ahead with an investigation and report concerning repairs to the Main tile.
- **LOCATION** – The area of investigation for Work Order #252 was the portion of the Main tile downstream from Dago Lake. After said Landowner Meeting, additional detailed investigation was performed on the very lower portion of the Main tile. Said lower portion is located in Section 13, Township 89 North (T89N), Range 21 West (R21W), Hardin County, Iowa. Specifically, the downstream limit of the detailed investigation was at the current outlet of Main tile, approximately 100 feet south of Ellis Avenue and approximately 100 feet east of Sarah Avenue. Going upstream, the tile proceeds west generally paralleling Ellis Avenue for approximately 800 feet. It then turns south and goes south for approximately 200 feet where it crosses the former C&NW railroad. It then continues south, with the upstream limit of the investigation ending approximately 300 feet south of said railroad. For reference, a map showing the limits of detailed investigation is included in Appendix D and a map showing the limits of investigation for said Investigation Summary is included in Appendix C.

2.0 PARTIAL DISTRICT HISTORY – The following is a summary of the partial history of Drainage District No. 86 as obtained from the Hardin County Auditor's drainage minutes and records.

1909, Aug. 30	Application for establishment of Drainage District.
1915, Dec. 15	Petition for Drainage District.
1916, Apr. 6	Preliminary Engineer's Report by J.H. Farrington.
1916, May 16	Publication of Notice for hearing on establishment of Drainage District.
1916, Jun. 5	Claim for damages by Chicago & Northwestern Railway Company.
No Date	Memorandum agreement between Illinois Central Railroad Company and District Trustees.
1916, Jun. 20	Supplementary Engineer's Report by J.H. Farrington.
1916, Jun. 27	Agreement with Chicago & Northwestern Railway Company and District Trustees.
1916, Jun. 30	Publication of Notice to Contractors for construction of Drainage District facilities.
1916, Jul. 25	Contract for tile bond with Eldora Pipe and Tile Co. for \$1,869.95
1916, Jul. 27	Contract for Construction of Drains with Ole Johnson for \$2,335.00
1916, Oct. 7	Appointment of Commission to inspect and classify lands within Drainage District.
1917, May 9	Termination of J.H. Farrington.
1917, Jun. 4	Report by landowner that "the intake at upper end of main is too high and allows "Daga Lake" to overflow mainly as had as before tile was laid".
1917, Jul. 30	Letter by Drainage Engineer W.S. Porter concerning the investigation of Drainage District facilities. It recommends extending tile from the east side of lake an additional 75 feet and making elevation of new tile the same as what drains into lake.
1917, Oct. 29	Resignation of one of the members of the Commissioners to assessment of benefits.
1917, Oct. 29	Appointment of Commission to inspect and classify land within Drainage District.
1918, Jan. 2	Appraisers report on assessments of benefits was filed.
1918, Jan. 24	Publication of Assessments of Benefits.
1918, Jun. 18	Objections in behalf of Chicago & Northwestern Railway Company "to the location and establishment of drainage district".
1953, Oct. 19	Bill of indebtedness for repair located in NW¼ Section 24, T89N, R21W.
1953, Nov. 12	Bill of indebtedness for repair located in NW¼ Section 24, T89N, R21W.
1954, Jan. 13	Bill of indebtedness for repair located in NW¼ Section 24, T89N, R21W.

1954, May 12	Request for repair located in Section 13, T89N, R21W – “Outlet should be extended and Rock channel filled. Probably a joint Project check up with Mr. King”.
1960, Jun. 6	Bill of indebtedness for inspection of outlet.
1963, Oct. 22	Request for repair located Section 23, T89N, R21W – “north of Rock island railroad east of small lake” – “inlet need possible work”.
1965, Dec. 7	Bill of indebtedness for repair.
1966, Apr. 4	Bill of indebtedness for “Re-lay county drain above bulkhead on McClure Property in Iowa falls south of Ellis Ave. per agreement” in Section 13, T89N, R21W.
1967, Apr. 25	Request for repairs located NW¼ NW¼ Section 24, T89N, R21W.
1967, May 2	Bill of indebtedness for repair.
1967, May 9-11	Bill of indebtedness for repair.
1973, Jun. 13	Request for repair of 3 blowouts.
1973, Jun. 27	Bill of indebtedness for repair.
1973, Nov. 29	Bill of indebtedness for repair.
1974, Feb. 28	Request of repair of 3 broken tile located in Section 23, T89N, R21W.
1974, Aug. 1	Bill of indebtedness for repair.
1974, Oct. 21	Request for repair – “Haul dirt on ... repaired last spring” located in Section 23, T89N, R21W.
1974, Oct. 21-22	Bill of indebtedness for repair.
1976, Nov. 15	Request for repair – “Fix blow out” located Section 23, T89N, R21W.
1979, Jul. 30	Request for repair – “Repair tile between tracks” located in Section 24, T89N, R21W.
1979, Aug. 6	Bill of indebtedness for repair.
1979, Oct. 18-19	Bill of indebtedness for repair.
1984, Jun. 9	Request for repair – “Outlet of Daga Lake is tipped on east side of Pond” located in Section 23, T89N, R21W.
1984, Sept. 12	Request for repair – “Main line tile is broken in road ditch @ intersection at NW Cor. Sec. 35”
1984, Dec. 4	Bill of indebtedness for repair of broken tile located in Section 23, T89N, R21W.
1992, Oct. 28	Approval of repair of tile that is exposed located in Section 23, T89N, R21W.
1993, Nov. 10	Approval of request for repair tile “blowout” located in NE¼ NE¼ Section 23, T89N, R21W.
1994, Apr. 13	Approval of request for repair of broken tile.
1997, Jun. 29	Request for repair “Main Tile blocked” Section 13, T89N, R21W.

1997, Jul. 16	Approval of request for repair "Tile plugged with roots south of railroad".
1998, Oct. 28	Approval of request for repair "approx. 5 breaks in this tile line" located in Section 23, T89N, R21W.
1999, Jun. 25	Request for repair – "Main line is plugged" Section 13, T89N, R21W.
1999, Jul. 2	Bill from Hydro-Klean – "Jet cleaned 16" field tile line approx. 600' "
2007, Apr. 4	Request for repair "plugged 16" county tile on the south side of Georgetown Rd." located in Section 24, T89N, R21W.
2008, May 7	Request for repair – "2 blowouts" located in NE¼ Section 23, T89N, R21W.
2008, Jun. 18	Request for repair – "large pond in middle of property" located in Section 23, T89N, R21W.
2017, Feb. 27	Request for repair – "tile area has progressively turned into a stream" due to tree roots plugging tile located in Section 24, T89N, R21W.

- 3.0 INVESTIGATION –A field investigation for the detailed investigation area was performed. Said investigation was limited to locating Main tile (including GPS survey), noting the general condition of the tile, and noting the extent that tree roots had invaded the tile and are restricting drainage. For reference, a copy of the Project Dairy with pictures is included in Appendix E.

A field investigation was also performed for the portion of the Main tile downstream of Dago Lake, including the detailed investigation area. Said investigation was limited to noting the existence of trees along the assumed Main tile route. For reference, a copy of the Investigation Summary for Work Order #252 is included in Appendix B.

The remaining investigation was limited to review of the district history. Said review shows that there have been several repairs since the district was originally constructed. Some of the noteworthy ones include:

- In 1997 and 1999, landowners reported that the Main tile was plugged and full of tree roots in
- In 1966, the main tile upstream of the bulkhead south of Ellis Avenue was relaid per “the agreement”.

- 4.0 DISCUSSION AND CONCLUSIONS – Based on the above, it is obvious that the Main tile has a history of tree roots invading the tile. This is especially true in or near areas that haven’t been actively maintained by private landowners, such as railroad right of way. This has a detrimental impact on the drainage capacity of the Main tile as the tree roots not only reduce the cross-sectional area of the tile, they also cause drainage to slow, which encourages siltation of the tile.

Also, the following key items from the investigation should be noted:

- It appears that the Main tile south of the former C&NW railroad tracks is severely plugged with trees roots for approximately 190 feet and is not draining. Instead, this area is relying solely on overland drainage through an existing beehive intake when the tile becomes surcharged.
- It appears that the Main tile under the former C&NW railroad tracks is not severely plugged with tree roots as it is draining.
- There are over 200 trees within 50 feet of the assumed Main tile route downstream of Dago Lake.
- The 1966 “agreement” was not investigated as to ownership of the resulting pipe or the current users of the same as it appears to be draining.

If repairs are not performed, the Main tile will not properly drain any of the land upstream of the former C&NW railroad tracks due to its current tree root infested state. In addition, there are several locations downstream of Dago Lake that have trees close enough to the Main tile to likely impede drainage. When combined, these issues will probably prevent or hinder crop production on a portion of the upstream area which is the majority of the district.

5.0 REPAIR METHODS – To repair the existing Main tile, the following options are the most straightforward available:

Partial Tree Removal, Root Cutting, and Tile Lining

- For the portion of the Main tile south of the former C&NW railroad tracks that is severely plugged with tree roots, remove trees as needed to access the Main tile.
- For the portion of the Main tile south of the former C&NW railroad tracks that is severely plugged with tree roots, remove tree roots from the existing Main tile by either jetting cleaning or mechanical cutting.
- For the portion of the Main tile south of the former C&NW railroad tracks that is severely plugged with tree roots, prevent roots from infiltrating the Main tile again by installing a CIPP liner. Typically, existing private and district tile could be reinstated after the lining has been completed.
- For reference, the detailed location of the proposed work near the C&NW railroad tracks is shown on the map included in Appendix F.
- For the remainder of the Main tile between Dago Lake and the former C&NW railroad tracks, verify the Main tile route and remove any trees within 50' of the Main tile.
- For reference, the assumed Main tile route is shown on the map included in Appendix C and further information concerning these trees is included in the copy of the Investigation Summary for Work Order #252 included in Appendix A.

Full Tree Removal and Partial Tile Replacement

- For the portion of the Main tile south of the former C&NW railroad tracks that is severely plugged with tree roots, remove trees within 50' of the Main tile.
- For the portion of the Main tile south of the former C&NW railroad tracks that is severely plugged with tree roots, remove and replace the existing Main tile with replacement Main tile of equal or comparable size. Typically, the replacement Main tile would be in the same location as the existing Main tile in order to locate and reconnect private and district tile.
- For reference, the detailed location of the proposed work near the C&NW railroad tracks is shown on the map included in Appendix F.
- For the remainder of the Main tile between Dago Lake and the former C&NW railroad tracks, verify the Main tile route and remove any trees within 50' of the Main tile.
- For reference, the assumed Main tile route is shown on the map included in Appendix C and further information concerning these trees is included in the copy of the Investigation Summary for Work Order #252 included in Appendix A.

With the above-mentioned repair methods, the following should be noted:

- Due to history of trees in the vicinity, the Full Tree Removal and Partial Tile Replacement option would use gasketed pipe to slow future root infiltration.
- The Full Tree Removal and Partial Tile Replacement option would use rock bedding and backfill for strength due to soil cover and soil characteristics.
- In the area of pipe replacement, the Full Tree Removal and Partial Tile Replacement option would require future monitoring for additional tree growth and root infiltration.
- It is assumed that for the Full Tree Removal and Partial Tile Replacement option, the existing tile is in good enough physical condition to withstand jetting and root cutting and no spot repairs are needed.

- In the area of pipe lining, the Partial Tree Removal, Root Cutting, and Tile Lining option would not allow drainage of the adjacent soil.
- The Partial Tree Removal, Root Cutting, and Tile Lining option would require installation of 2 access manholes in the area of repair.
- The Partial Tree Removal, Root Cutting, and Tile Lining option would only require removal of trees to allow installation of the access manholes.
- For the Full Tree Removal and Partial Tile Replacement option, the pipe sizes used are those that are currently manufactured that most closely meet or exceed the current Main tile size.
- All of the above options would only remove obstructions in the Main tile at locations of proposed tile replacement or tile lining. Any obstructions at other locations would remain in the existing Main tile.
- Repairs have historically been viewed as not having an impact on jurisdictional wetlands. As such, individual landowners should consult with applicable staff at the Hardin County NRCS office to verify the existence of said jurisdictional wetlands and that there will be no impact on them.

Per Iowa Code Chapter 468.126, any of the above actions that do not increase capacity would be considered a repair. As such, Subsection 1, paragraph c of Chapter 468.126 states "If the estimated cost of the repair does not exceed fifty thousand dollars, the board may order the work done without conducting a hearing on the matter. Otherwise, the board shall set a date for a hearing. . ." The opinion of probable construction cost contained in the next section of this report exceeds said \$50,000 limit. Therefore, a hearing will be required. Per Iowa Code Chapter 468.126.1.g, the right of remonstrance does not apply to the proposed repairs.

6.0 **OPINIONS OF PROBABLE CONSTRUCTION COSTS** – Using the above methods of repair, an itemized list of project quantities and associated opinions of probable construction cost for each option were compiled and are included in Appendices G and H of this report. A summary of said costs are as follows:

REPAIR METHOD	DRAINAGE COEFF.	CONSTRUCTION COST
Partial Tree Removal, Root Cutting, and Tile Lining	Existing	\$93,940.63
Full Tree Removal and Partial Tile Replacement	Existing	\$93,006.25

It should be noted that said costs include materials, labor, and equipment supplied by the contractor to complete the necessary repair and include applicable engineering, construction observation, and project administration fees by Clapsaddle-Garber Associates. However, said costs do not include any interest, legal fees, county administrative fees, crop damages, other damages, previous repairs, engineering fees to date, wetland mitigation fees, or reclassification fees (if applicable). As always, all costs shown are opinions of Clapsaddle-Garber Associates based on previous lettings on other projects. Said costs are just a guideline and are not a guarantee of actual costs.

- 7.0 OWNERSHIP AND CLASSIFICATIONS – Any and all information concerning ownership of lands and classifications of said lands within Drainage District No. 86 can be obtained from the Hardin County Auditor's office.

It should be noted that Iowa Code Chapter 468.65 states "When, after a drainage . . . district has been established . . ." and ". . . a repair . . . has become necessary, the board may consider whether the existing assessments are equitable as a basis for payment of the expense of . . . making the repair . . ." and "If they find the same to be inequitable in any particular . . . they shall . . . order a reclassification . . ." Based on this, it is our opinion that a reclassification may be required if the repair were to move forward.

- 8.0 RECOMMENDATIONS – There is a definite need to perform one of the above-mentioned actions. The repair would remove the identified current and future restrictions and impediments to the Main tile and extend the serviceable lifespan of the same. Therefore, it is recommended that the Hardin County Board of Supervisors, acting as District Trustees, should take action to accomplish the following:

- Approve the Engineer's Report as prepared by Clapsaddle-Garber Associates.
- Hold the required hearing on the proposed repairs.
- Adopt one of the recommendations of the Engineer's Report.
- Direct plans and specifications for the proposed repairs be prepared by Clapsaddle-Garber Associates.
- Proceed with receiving bids from interested contractors by Clapsaddle-Garber Associates.
- Award contract to the lowest responsible contractor.
- If desired or required by Iowa Code, proceed with reclassification proceedings.

DD 86 LANDOWNER MEETING MINUTES

JULY 17, 2019

7/17/2019 - Minutes

1. Open Meeting

Hardin County Board of Supervisors Chairperson, Renee McClellan, opened the meeting. Also present were Supervisors Lance Granzow and BJ Hoffman; Landowner John Nissley; Lee Gallentine and Zeb Stanbrough with Clapsaddle-Garber Associates (CGA); Drainage Clerk, Becca Junker.

2. Approve Agenda

Granzow moved, Hoffman seconded to approve the agenda as provided. All ayes. Motion carried.

3. Approve Claims For Payment

Hoffman moved, Granzow seconded to approve the claims for payment with pay date of Friday, July 19, 2019. All ayes. Motion carried.

DD 22- Construction Phase Clapsaddle-Garber Assoc 456.7

DD 78 - Investigation of ponding Clapsaddle-Garber Assoc 365.2

DD 86 - Inv. outlet structure, trees and siltation Clapsaddle-Garber Assoc 352.2

DD 9 - Hearing for Eng Rpt & Supp Eng Rpt for Main Clapsaddle-Garber Assoc 1118.8

DD 38 - Finalization of repair to lat 4 Clapsaddle-Garber Assoc 308.7

DD 52 - Communicating with Shawn Piel The Davis Brown Law Firm 40

DD HF 5-75 - Notice of Public Hearing Times Citizen 97.76

4. Introductions/Attendance

Introductions were made and attendance verified.

5. Explanation Of Investigation Report

Nissley explained he was representing Grove Revocable Trust, he went on to say that there was work done in this district a few years ago and he is concerned with the talk of another project. He went on to express his concerns over the investigation report saying, "friend of Monarch pond landowner reported", Granzow clarified that although the friend spoke, the owner was also present at the meeting. The meeting was turned over to Gallentine who explained his findings from the investigation report. Gallentine explained that there is already restricted drainage in the Main tile because of the trees. CGA's suggestion is to have all the trees within 50' of the Main tile downstream of Dago Lake be removed, following the removal of trees it is recommended to find out the condition of the tile. He went on to explain that his estimated cost for tree removal is between \$25,000- \$40,000, which is low enough that neither a hearing nor an engineer's report would be required.

Granzow then asked what it would cost to cut and dig the trees and replace the tile. Gallentine explained that it is in the railroad right of way so by the time the trees are removed, and the pipe is replaced it could easily be \$80-\$100 per foot plus the fees from the railroad. McClellan asked if Canadian National was easier to deal with and Gallentine explained that they have a new point of contact that he has not worked with yet. He further went on to say that there is no way to give a firm estimated cost without doing an engineer's report.

6. Comments/Discussion

None.

7. Possible Action

Hoffman moved, McClellan seconded to instruct CGA to further investigate and create an engineers report, prioritizing areas for concern by televising in reverse. All ayes. Motion carried.

8. Other Business

None.

9. Adjourn Meeting

Hoffman moved, Granzow seconded to adjourn the meeting. All ayes. Motion carried.



Drainage Work Order Request For Repair Hardin County

Date: 4/29/2019

Work Order #: WO00000252

Drainage District: DDs\DD 86 (51114)

Sec-Twp-Rge: _____ Qtr Sec: _____

Location/GIS: _____

Requested By: Aaron Matthews

Contact Phone: _____

Contact Email: _____

Landowner (if different): _____

Description: DD 86 - Outlet structure on Matthews property is becoming washed out with ponding
probelms

Repair labor, materials and equipment: _____

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:

86

Investigation Report:

- Friend of Monarch pond landowner reported erosion around Monarch pond outlet structure and siltation from adjoining properties located in NW¼ of Section 24, Township 89 North, Range 21 West.
- Met with friend, visually observed Monarch pond area, and found the following:
 - Erosion of Monarch pond outlet/district tile inlet appears to be solely affecting decorative field stone in area and does not appear to be endangering district facility.
 - Sand washing onto Monarch pond property is from surface water south of railroad tracks and from field to the west (both are within district boundaries).
- Visually searched area along Main tile route downstream (to end of mapped Main tile) and upstream (to Dago Lake) and found the following trees to be within approximately 50' of assumed Main tile route.
 - 20 - Maples (less than 6"Ø)
 - 1 - Maple (5'Ø or larger)
 - 40 - Box Elders and Mulberries (less than 12"Ø) in Railroad Right of way
 - 3 - Cottonwood (30"Ø or larger)
 - 1 - Elm (12"Ø)
 - 5 - Elms and Ash (less than 12"Ø)
 - 14 - Box Elders and Honeysuckle Brush (less than 15"Ø)
 - 31 - Box Elders (20"Ø)
 - 15 - Box Elders and Elderberry Brush (less than 6"Ø)
 - 24 - Box Elders and Ash (20"Ø)
 - 50 - Box Elders and Ash (less than 15"Ø)

Said trees appear to be impeding drainage as there are intakes downstream of Georgetown Road that are full of stagnant water and surrounded by siltation (evidence of overflow).

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

None as only investigation was performed

Additional Actions Recommended:

All the trees listed above are the species that typically have major negative impacts on the capacity of district tile. It is CGA's opinion that they already have restricted the drainage the Main Tile and will fully plug it if allowed to continue to grow. Therefore, it is our recommendation that the Main tile route be verified, all trees within 50' of the Main tile downstream of Dago Lake be removed, and the drainage capacity of the Main tile reinstated. It is our opinion that the cost of verifying the Main tile route and removing these trees would be between \$25,000-\$40,000. This cost is low enough that neither a hearing nor an engineer's report would not be required. However, the extent of restriction in the Main tile and appropriate corrective actions cannot be identified until the trees are removed. Therefore, an opinion of probable construction cost cannot be generated for this portion of the recommended work.

Also based on the above, the siltation of concern is carried by surface water between private landowners and is not a district issue.



CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

4/25/19

DAYS OF WEEK:

S M T W T F S

SHEET NO.

1 OF 2

PROJECT NUMBER:

6789,3

COUNTY, ROUTE, ROAD:

DD86

LOCATION:

MONARCH LAKE

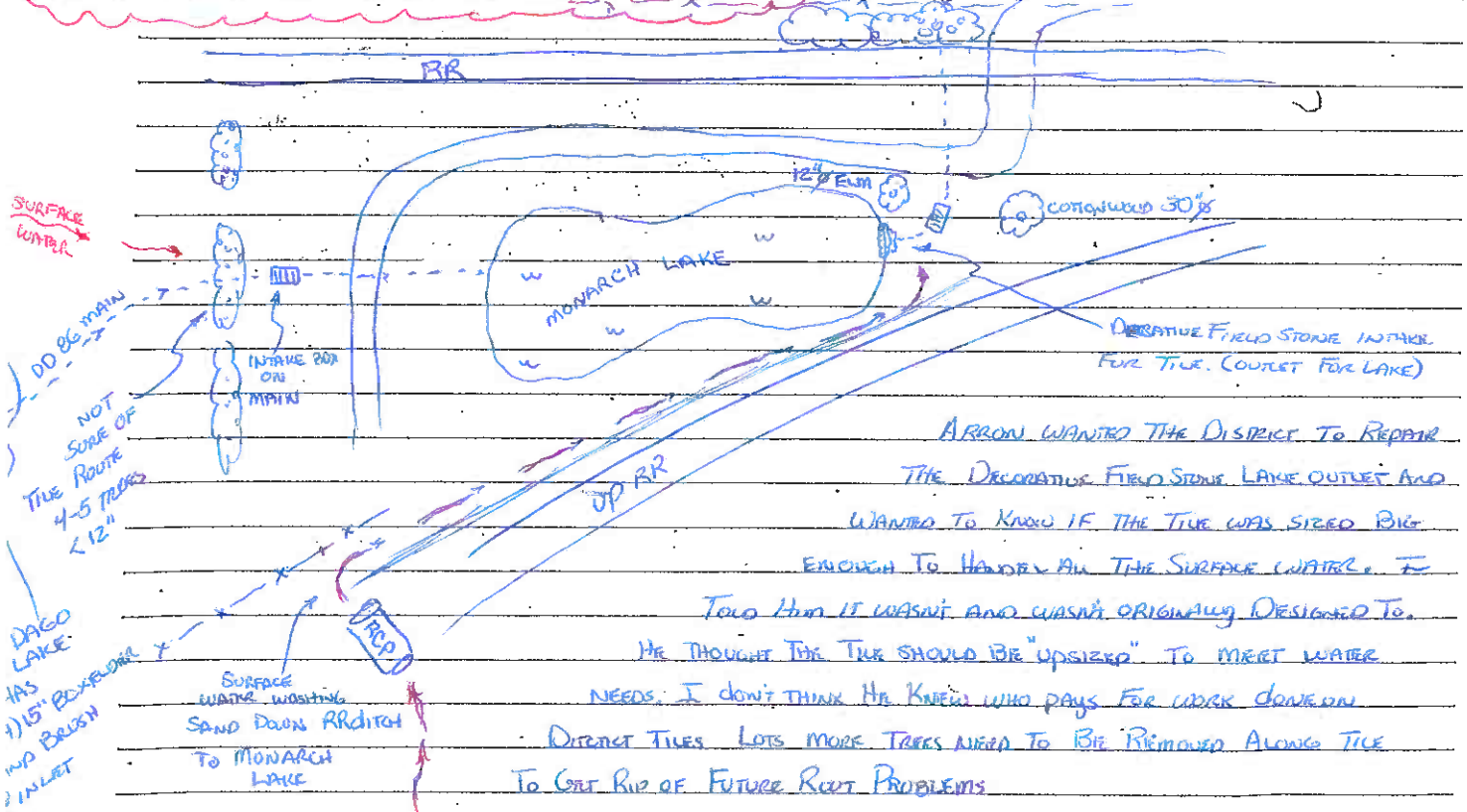
RAIN, 60°, WIND FROM NW

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

11:00 A.M. MET WITH ARON MATTHEWS
@ MONARCH LAKE. HE WAS VERY CONCERNED ABOUT
THE SURFACE WATER COMING OFF THE RR DITCH ON
SOUTH SIDE OF MONARCH LAKE AND WASHING SAND IN. ALSO
LOTS OF SURFACE WATER COMING FROM WEST FARM FIELD.

ARON DIDN'T THINK WE NEEDED TO TAKE BOB EXPL. MUDNEY
THE ERM + COTONWOOD OUT @ E. END OF LAKE
(SOME DEAD
40' < 12")

* 200+ TREES NEED REMOVED FROM DAGO LAKE TO OUTLET



ARON WANTED THE DISTRICT TO REPAIR
THE DECORATIVE FIELDSTONE LAKE OUTLET AND
WANTED TO KNOW IF THE TILE WAS SIZED BIG
ENOUGH TO HANDLE ALL THE SURFACE WATER. I

TOLD HIM IT WASN'T AND WASN'T ORIGINALLY DESIGNED TO.
HE THOUGHT THE TILE SHOULD BE "UPSIZED" TO MEET WATER
NEEDS. I DON'T THINK HE KNEW WHO PAYS FOR WORK DONE BY
DISTRICT TILES. LOTS MORE TREES NEED TO BE REMOVED ALONG TILE
TO GET RID OF FUTURE ROOT PROBLEMS

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

Date Prepared:

4/25/19

Reviewed by:

Engineer

Date Reviewed

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

DAYS OF WEEK:

S M T W T F S

SHEET NO.

2 OF 2

PROJECT NUMBER:

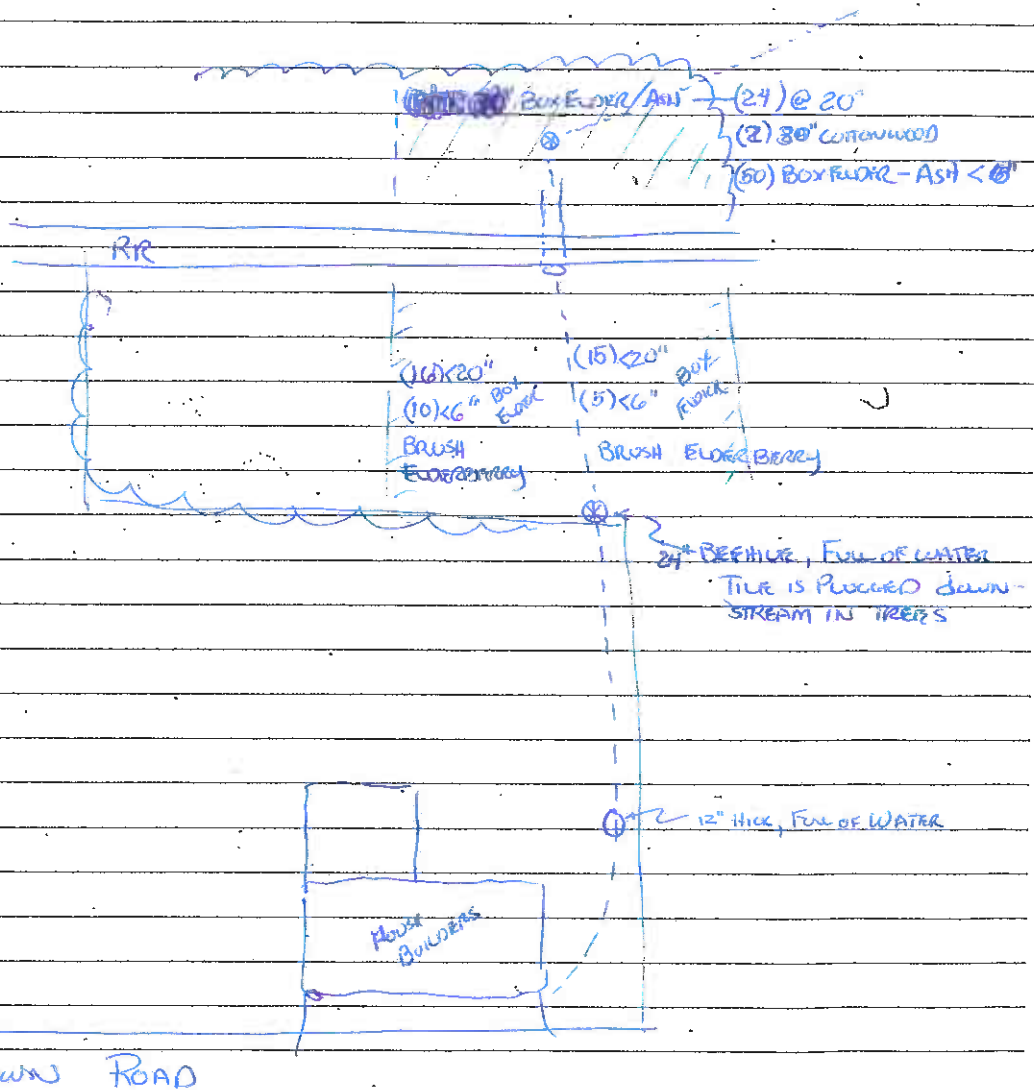
67893

COUNTY, ROUTE, ROAD:

DD 86

LOCATION:

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



I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

[Signature]

Date Prepared:

4/25/13

Reviewed by:

☐ Engineer

Date Reviewed

DAGO LAKE INLET (DD86 OLD MAIN) (14) 15" BOX ELDER AND HONEYSUCKLE BRUSH NEEDS REMOVED



LOOKING WEST FROM MONARCH TO DAGO LAKE



Looking East @ Monarch Lake Tule Route (5) Trees Need Removed (Not Cedar Trees)



INTAKE ON TILE @ E. END OF MONARCH LAKE



Looking W. From INTAKE



SURFACE DRAINAGE From S. RR @ MONARCH LAKE



LOOKING E. ON N. R/W RR @ S. EDGE MONARCH PROP.



Looking upstream From Georgetown Road



11E ROUTE 1

Looking upstream From S. Side RR To Georgetown Road



Looking downstream @ RR mainline, surface Turb drains into DD86 tile



Looking upstream @ Tile Route towards Georgetown, Bee Hive is @ the Turn to East



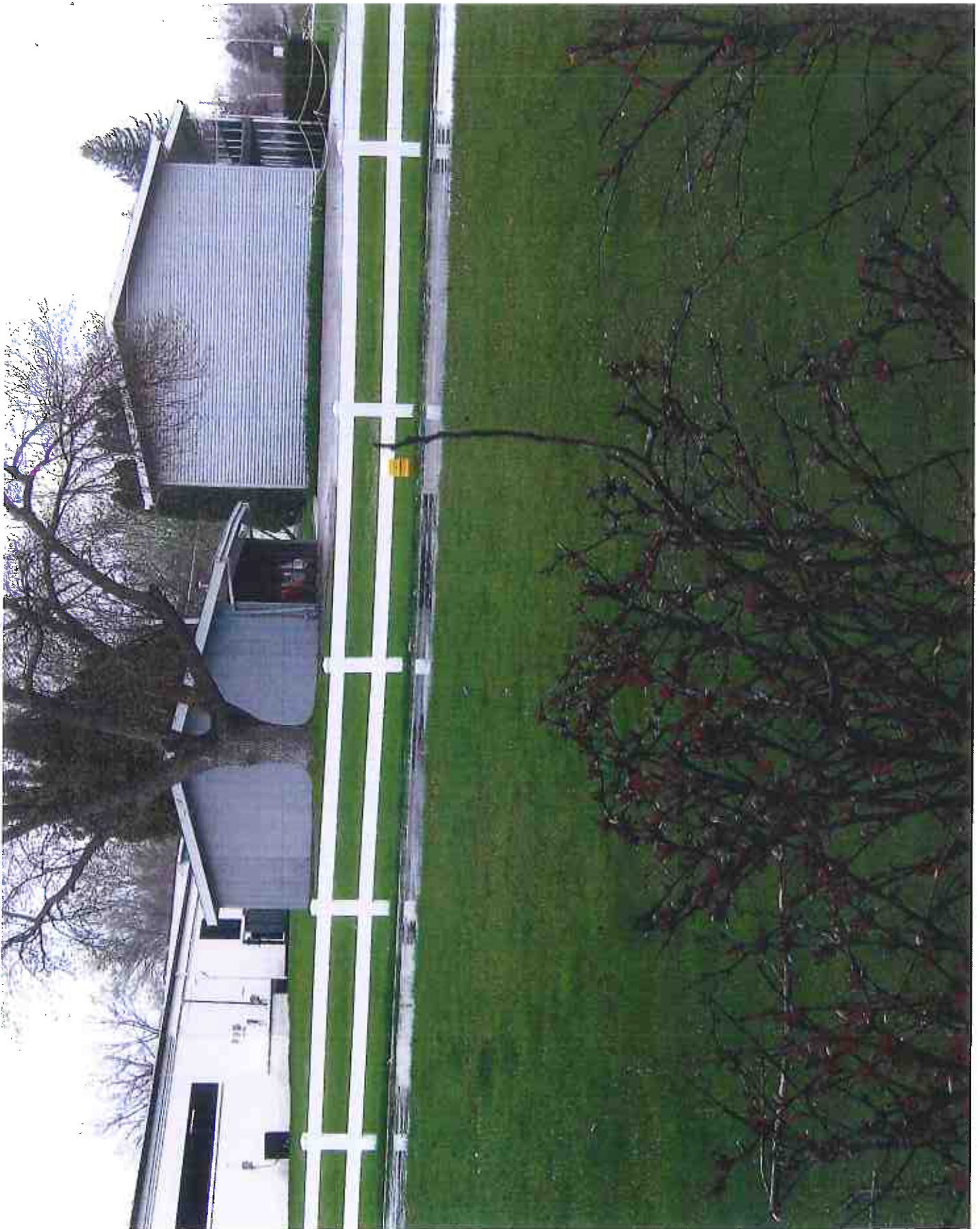
Looking Easterly From BEEHIVE TO OUTLET IN CITY STORM SEWER



CITY STORM SEWER OUTLET



Looking upstream from City Storm Sewer Outlet



BEEHIVE INTAKE IS IN TREES SOMEWHERE 90+ TREES IN THE R/W N. OF RR



Looking downstream from trees



TILE ROUTE
↓

Looking upstream From where Surface water Dumps into TIE (in Standing on it)



Looking upstream towards Georgetown Rd.



Looking downstream From S R/w spur RR



TILE ROUTE MARKED WITH BROKEN TILE



TILE ROUTE WITH CHARDS IN TREE ROOTS



TILE CHARDS THRU ELDERBERRY BRUSH



TILE REPAIR PIECES DISCARDED



BREEZIE OVERFLOWING @ NE COR OF GEORGETOWN ADD.



TILE HAS BEEN PARTIALLY PLUGGED FOR SOME TIME
LOOKING DOWN STREAM, NOTE ALL SEDIMENT SAND BLOWN OUT OF INTAKE



LOOKING @ NEW TILE UPSTREAM TOWARDS GEORGETOWN RO.



Looking downstream @ NE cor. of Georgetown AOD.



12" HICK INTAKE FULL OF WATER, SWIRLING



Looking downstream From SE Cor Georgetown AOD.



LOOKING W. @ TILE ROUTE ON N. SIDE GEORGETOWN RD.



Looking upstream @ RR @ N. Side Monarch Lake, 40± <12"Ø trees in RR R/W



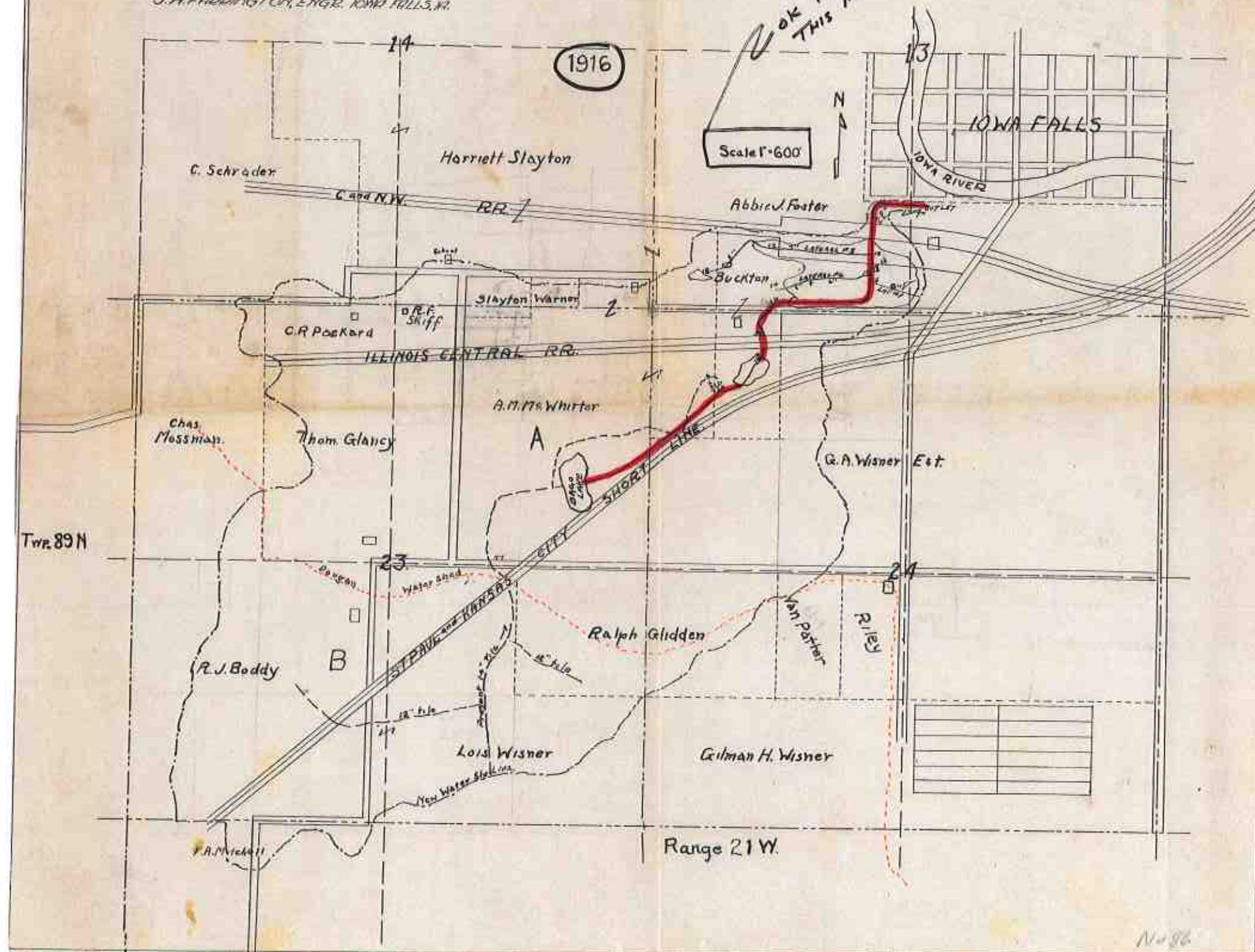
TREES IN RR R/W



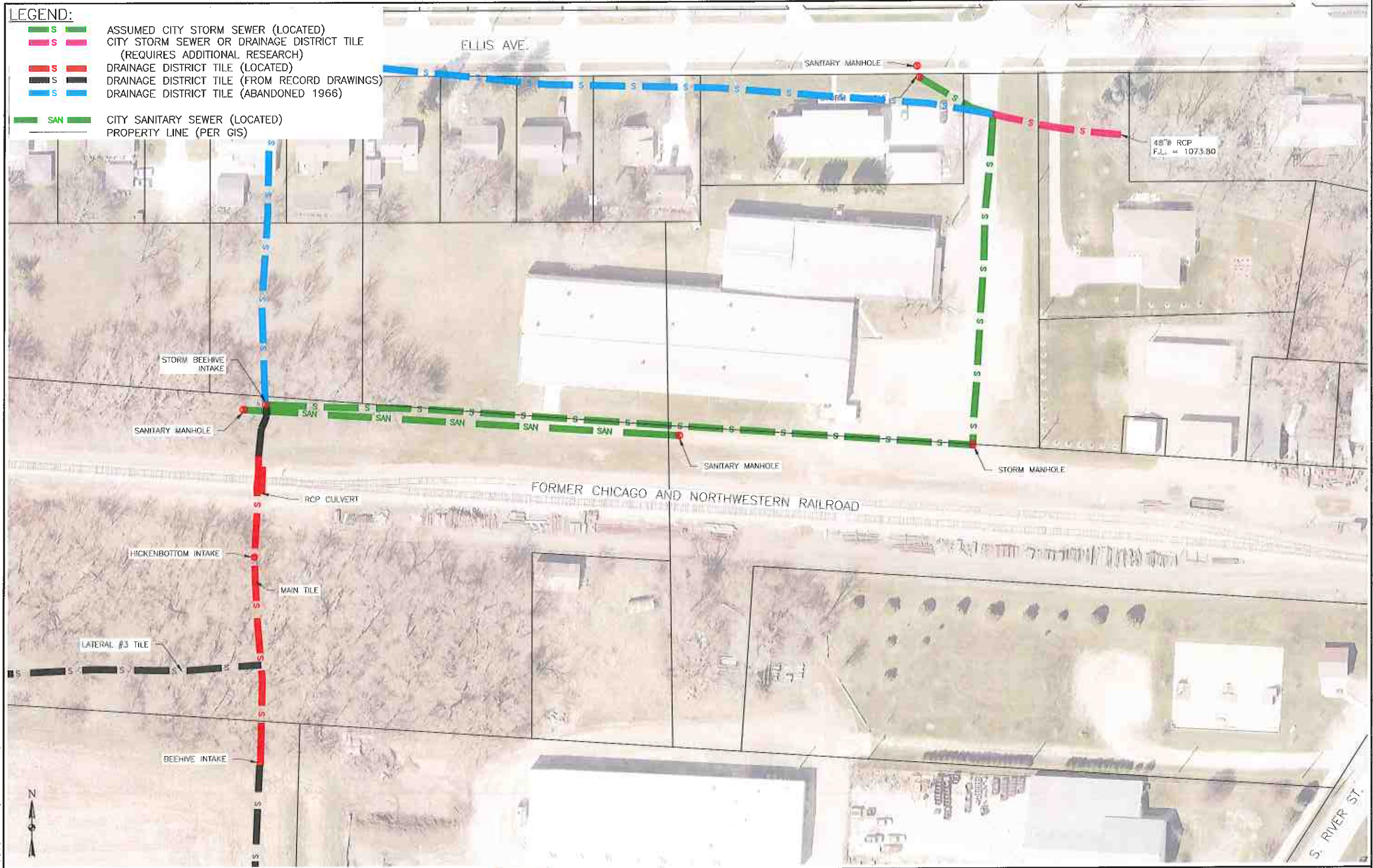
Looking downstream with 5' Ø maple that needs removed



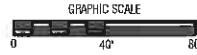
**PLAT OF
BUCKTON**
DRAINAGE DISTRICT NO. 86
HARDY COUNTY, IA.
J. H. FARRINGTON, ENGR. IOWA FALLS, IA.



Investigation
Limits for
WO #252



J:\7893_1-20\dwg\Topographic\7893.DWG - Plan - 12-02-19 - 2:42pm - ZJB43



NO.	REVISION	BY	DATE	NO.	REVISION	BY	DATE



Chapdelo-Garber Associates, Inc.
Toll Free (800) 940-7081
www.cgaconsultants.com

DESIGNED: ZJS DATE: 2019-11-04
DRAWN: ZJS DATE: 2019-11-04
CHECKED: JLG DATE: 2019-11-04
APPROVED: JLG DATE: 2019-11-04

DRAINAGE DISTRICT #86
HARDIN, IOWA

DETAILED INVESTIGATION MAP

PROJECT NO.
6789.3
SHEET NO.
1

Project Diary

Project: Main Tile Repairs Drainage District No.			
CGA PN: <u>6789.3</u>	Days Charged: <u>NA</u>	Report No. <u>1</u>	Proj. Mgr. <input checked="" type="checkbox"/> <u>LEE GALINTINE</u>
Contractor: <u>NA</u>		Date: <u>9/26/19</u>	
Superintendent: <u>NA</u>	Weather Conditions: <u>CLEAR</u>	Precip.: <u>0"</u>	Temp. Hi: <u>48</u> ° Temp. Low: <u>75</u> °
INSPECTOR: Time Arrived: <u>8:30</u> Time Left: <u>2:00</u>		Contractor: Time Arrived: Time Left:	
<p>1. General Remarks and Work Accomplished: <u>SET X ON CPT # 3380, INTO SEC. COR. 3414. WENT TO OUTLET @ 48" RCP # 3478. PUT IN TILE LOCATOR UPSTREAM TOWARDS MH 3475. GOT WITH GPS TO # 3474, WENT NEXT TO BEEHIVE # 3487. PUT IN LOCATOR DOWNSTREAM (E.) TO # 3485. FOUND WHERE TILE CAME IN ON W. SIDE OF RR CASING 8' S. OF MH # 3487. TRIED TO LOCATE UP TILE LINE, COULD ONLY GET 2' ±, MUST BE ELBOW. WENT NEXT TO HIGH INTAKE ON CLAY TILE @ 3491, LOCATED WITH CABLE N. + S. AND ALSO PROBED TILE TO BEEHIVE McDOWELL SET @ # 3503 E. WENT NEXT TO MH # 3513, LOCATED W. + N. TO CONNECTION (BLIND) @ 3512 WITH 48" RCP. GOT MAG READING @ POSSIBLE MH LID @ 3512. (UNDER NEW HMA ROAD) FOR AG PRODUCTS. TILE @ MH 3487 IS RUNNING 8" DEEP TO OUTLET. BEEHIVE INTAKE @ 3503 IS FULL TO GROUND EL.</u></p> <p>ACTION: <u>① TV RCP FROM 3487 DOWNSTREAM (CABLE RAN INTO BLOCKAGE @ 3485)</u> <u>② CLEAN AND, OR REPLACE TILE FROM 3495 - 3503</u> <u>③ REMOVE ALL TREES IN TILE ROUTE.</u></p>			
<p>2. Changes or Extra Work Ordered:</p> <p><u>④ CLEAN MH # 3513, STICKS AND LOGS IN MH BLOCKING FLOW</u> <u>⑤ NEED SURFACE INTAKE TO PICK UP WATER ALONG SURFACE SWALE ROUTE. (CITY)? ESPECIALLY IN PARKING LOT AREA</u></p>			
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 <u>0</u>):			

RANDY B, CRIS S.

By: [Signature]
Inspector
Distribution: Project Mgr. (Original), Inspector (Copy)
Form 9753

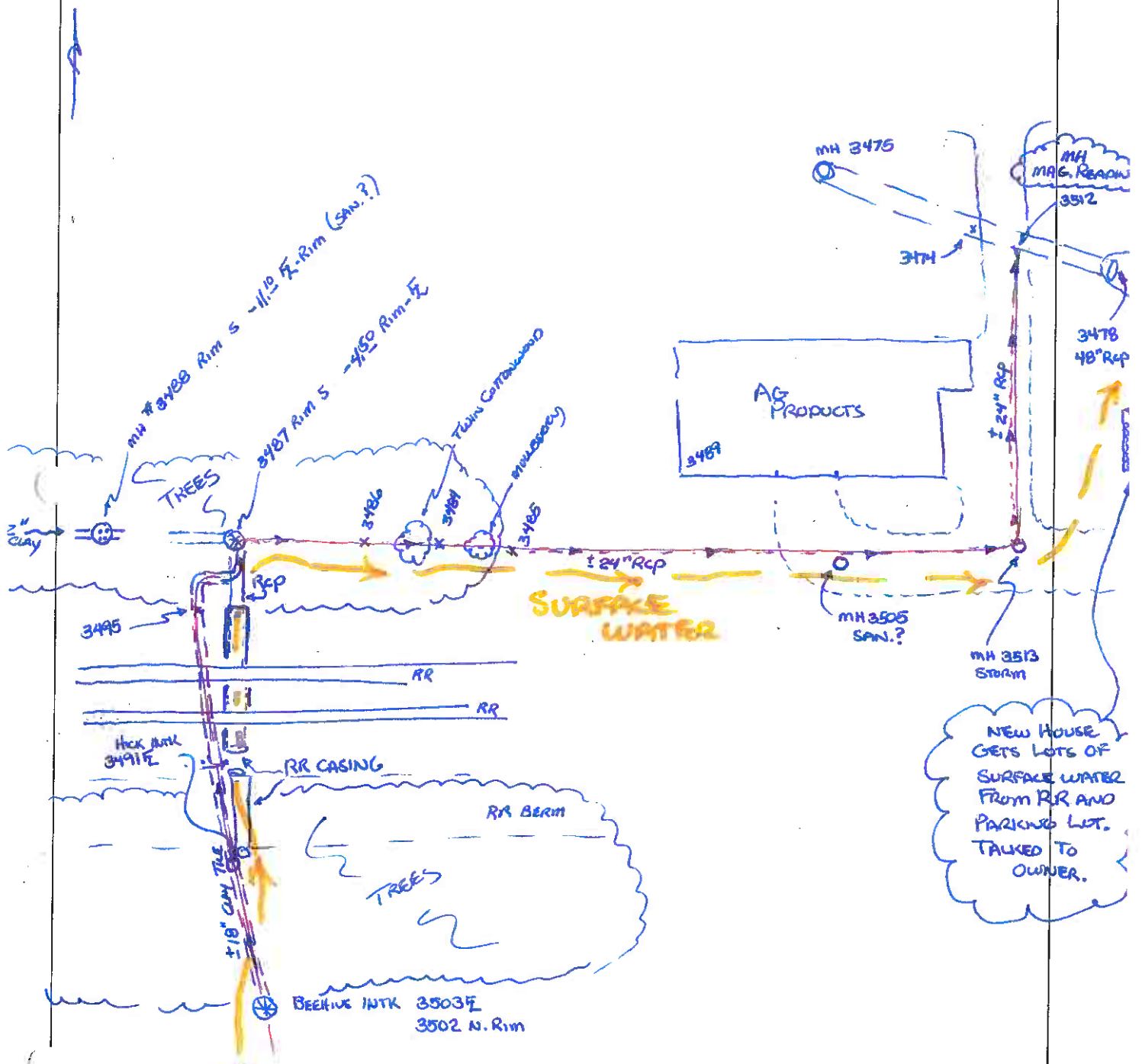
Project Diary (continued)

CGA PN: 6789.3

Report
No. 1

Date: 9/26/19

1. General Remarks and Work Accomplished (Continued):



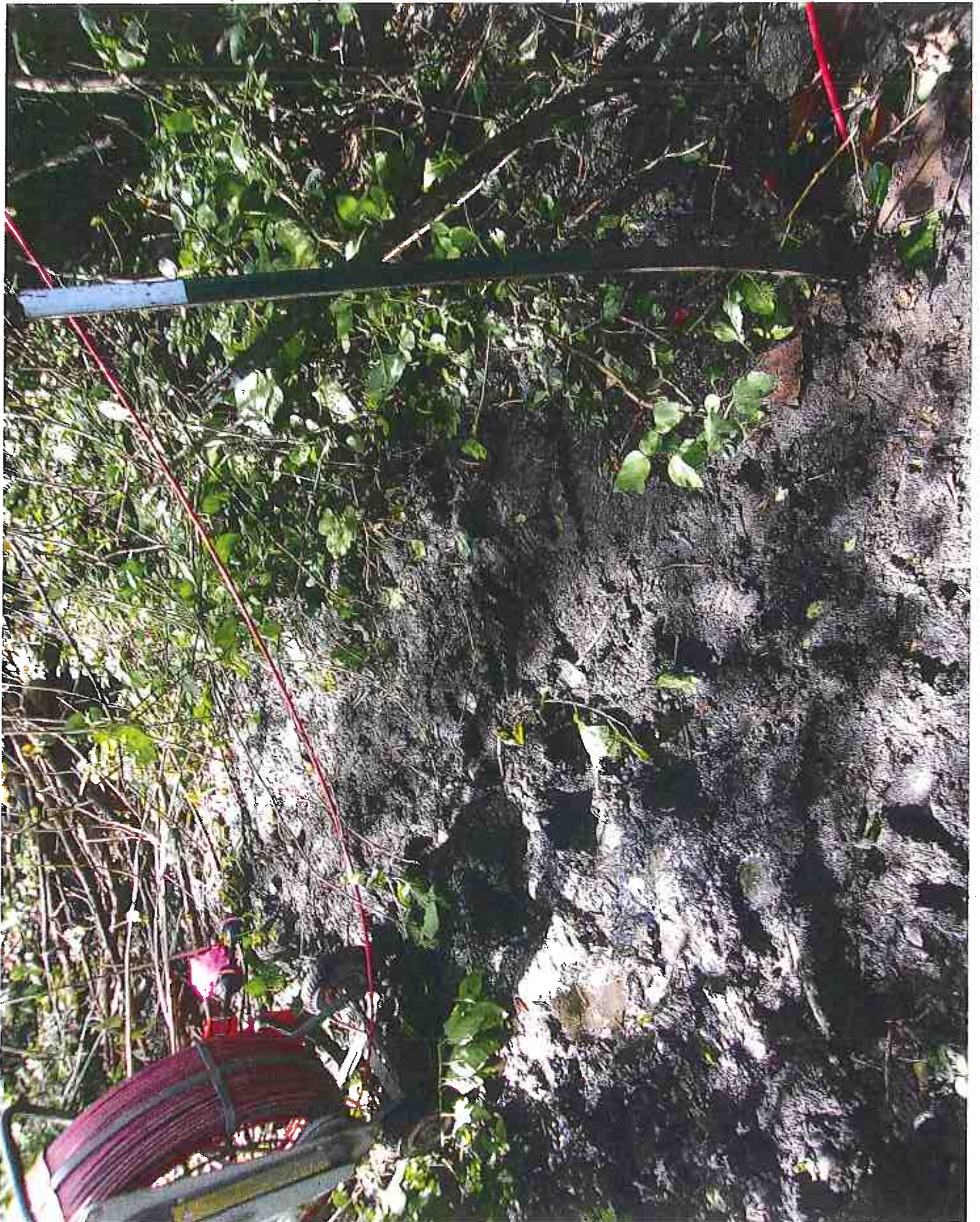
6789 dd86 9-26-19RB

3477,3651680.440,4983104.455,1078.355,TOP RCP OUTLET
3478,3651680.313,4983105.608,1073.799,FL RCP
3479,3651354.081,4982314.182,1086.545,FL CASING
3480,3651355.160,4982314.183,1089.612,TOP CASING
3481,3651364.616,4982315.482,1091.678,TOP RR RAIL
3482,3651369.515,4982315.581,1091.676,TOP RR RAIL
3483,3651379.609,4982315.031,1089.631,TOP RCP
3484,3651433.008,4982441.711,1088.871,GS STORM LOCATE
3485,3651431.455,4982473.316,1089.120,GS STORM LOCATE
3486,3651433.578,4982388.504,1088.327,GS STORM LOCATE
3487,3651436.488,4982317.765,1087.828,S RIM BEEHIVE
3488,3651431.921,4982296.898,1088.592,S RIM MH
3489,3651456.960,4982549.944,1088.684,BLDG COR E-N
3490,3651297.162,4982307.748,1087.020,GS 1'E OF HICK INTK/TILE
3491,3651297.027,4982307.497,1085.007,FL CLAYTILE
3492,3651360.122,4982309.657,1090.503,GS TILE LOCATE
3493,3651347.395,4982310.398,1086.973,GS TILE LOCATE
3494,3651376.522,4982311.324,1089.935,EOG TILE LOCATE
3495,3651389.767,4982311.278,1089.232,GS TILE LOCATE
3496,3651275.255,4982308.771,1088.404,GS TILE LOCATE
3497,3651275.184,4982308.284,1088.482,GS PROBED TILE
3498,3651249.013,4982309.842,1089.084,GS PROBED TILE -3.0
3499,3651235.237,4982310.759,1089.114,GS PROBED TILE -3.0
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3501,3651184.503,4982315.255,1088.984,GS PROBED TILE -3.0
3502,3651109.137,4982314.245,1088.881,N RIM BEEHIVE
3503,3651108.629,4982313.740,1085.078,FL TILE
3504,3651101.068,4982315.033,1089.399,GS TREELN
3505,3651407.060,4982698.344,1088.055,N RIM MH -11.5FL
3506,3651420.308,4982970.309,1084.316,GRAV STORMLOCATE
3507,3651463.129,4982973.477,1084.120,GRAV STORMLOCATE
3508,3651510.313,4982976.162,1085.181,EOA STORMLOCATE
3509,3651565.740,4982979.843,1085.831,HMA STORMLOCATE
3510,3651610.135,4982981.047,1085.829,HMA STORMLOCATE
3511,3651650.538,4982985.129,1085.340,HMA STORMLOCATE
3512,3651694.518,4982988.143,1084.778,HMA STORMLOCATE
3513,3651397.016,4982969.243,1085.472,N RIM MH-5.4FL

San. Sewer @ *3488



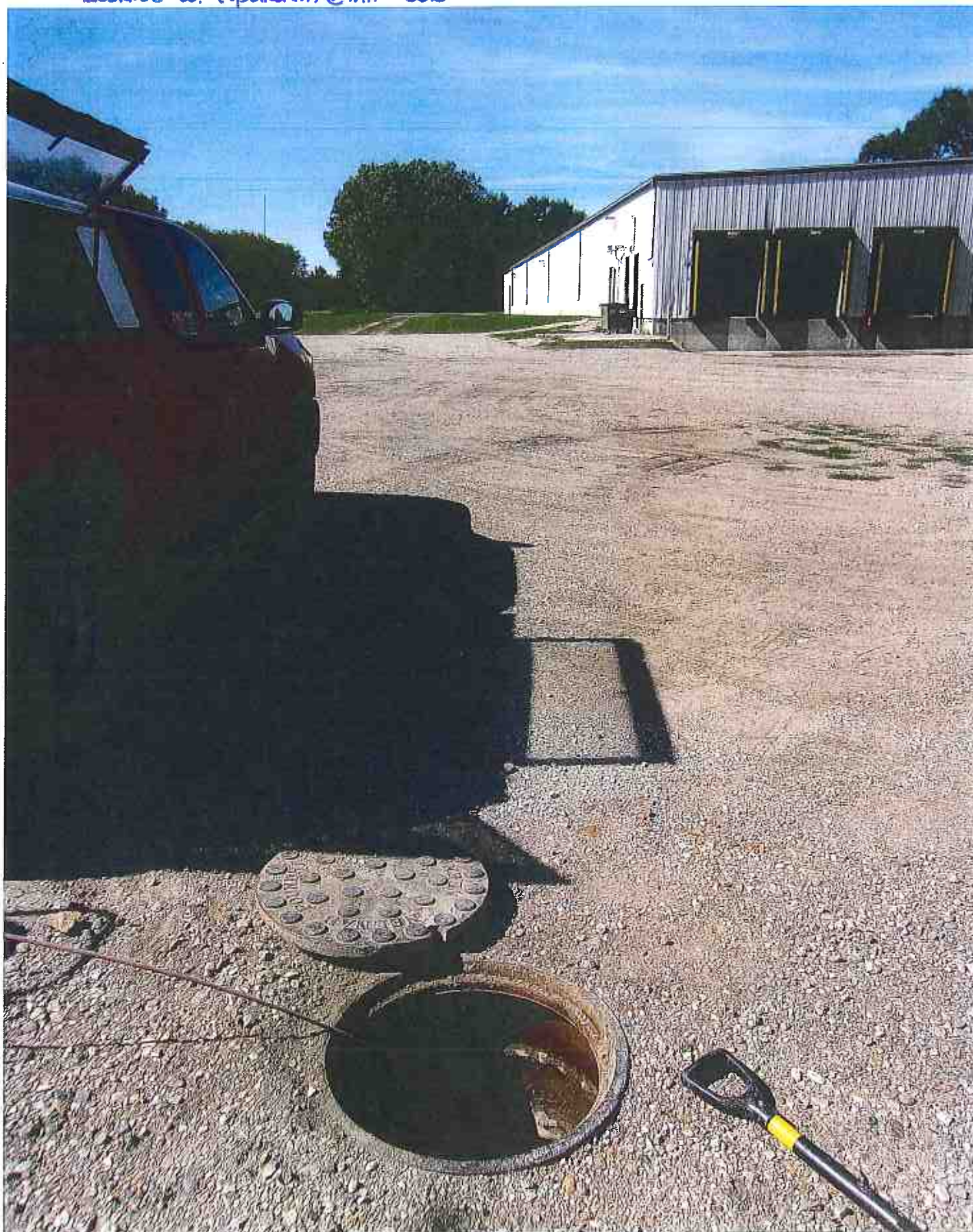
Looking S. (upstream) @ Hicc Intake on Clay Tive @ #3491



Looking N. (upstream) @ Hick Intake on Clay Twp #8491



Looking W. (upstream) @ MH # 3513



Looking N. (downstream) @ MH. #3513



Looking E. on RCP Route (Outlet @ Reel)



Looking upstream on RCP Route



LOOKING E. (downSTREAM) IN MH #3487



LOOKING @ DD68 OUTLET @ SIDE OF RR CASING



Looking WEST From MH#3487



MA # 3487 DD 68 OUTLET



Looking South (upstream) @ MH #3487. Note: Our Tile Outlet on Rt. Side.

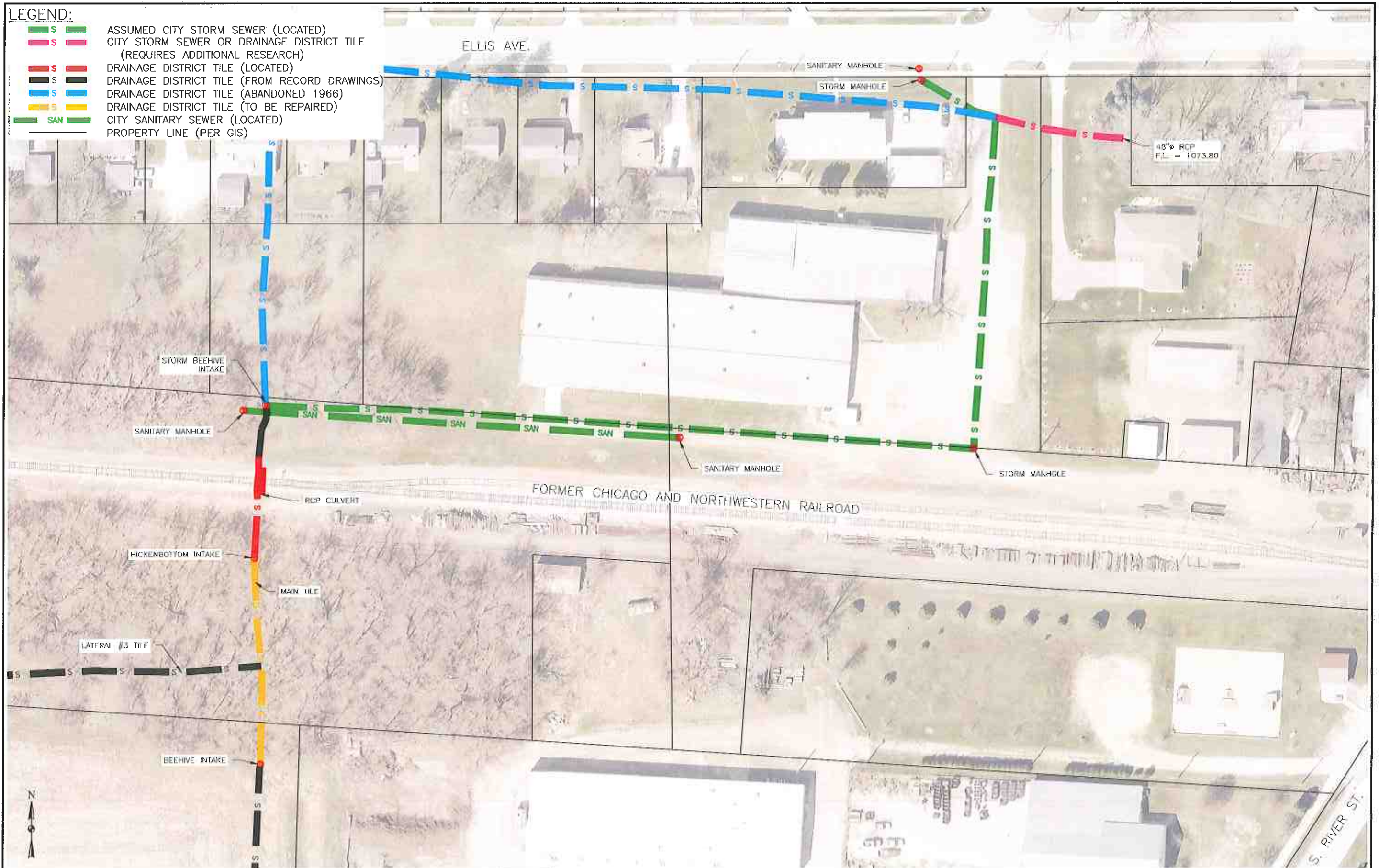


MH. #3488 SAN.?



LEGEND:

- S— ASSUMED CITY STORM SEWER (LOCATED)
- S— CITY STORM SEWER OR DRAINAGE DISTRICT TILE (REQUIRES ADDITIONAL RESEARCH)
- S— DRAINAGE DISTRICT TILE (LOCATED)
- S— DRAINAGE DISTRICT TILE (FROM RECORD DRAWINGS)
- S— DRAINAGE DISTRICT TILE (ABANDONED 1966)
- S— DRAINAGE DISTRICT TILE (TO BE REPAIRED)
- SAN— CITY SANITARY SEWER (LOCATED)
- PROPERTY LINE (PER GIS)



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NO.	REVISION	BY	DATE	NO.	REVISION	BY	DATE



DESIGNED: ZJS DATE: 2019-11-04
 DRAWN: ZJS DATE: 2019-11-04
 CHECKED: JLG DATE: 2019-11-04
 APPROVED: JLG DATE: 2019-11-04

DRAINAGE DISTRICT #86

HARDIN, IOWA

DETAILED REPAIR MAP

PROJECT NO.
6789.3
 SHEET NO.
1



By: Z.J.S.

Date: 11/8/2019

Checked By: L.O.G.

Date: 12/2/2019

Engineer's Opinion of Probable Construction Cost

Project: Main Tile **Repair** for D.D. #86

Location: Section 13, T90N, R22W Hardin County, Iowa

PARTIAL TREE REMOVAL, ROOT CUTTING, AND TILE LINING	ITEM #	DESCRIPTION	Unit Cost	Units	Quantity	Units	Total Cost
		DISTRICT CONSTRUCTION COSTS					
	1	ROOT CUTTING (18")	\$ 15.00	LF	190	LF	\$ 2,850.00
	2	CIPP TILE LINING (18")	\$ 100.00	LF	190	LF	\$ 19,000.00
	3	LATERAL 3 REINSTATEMENT	\$ 500.00	EA	1	EA	\$ 500.00
	4	PRIVATE TILE REINSTATEMENT	\$ 500.00	EA	2	EA	\$ 1,000.00
	5	INTAKE STRUCTURE (ACCESS FOR LINING)	\$ 4,000.00	EA	2	EA	\$ 8,000.00
	6	INTAKE REMOVAL	\$ 500.00	EA	2	EA	\$ 1,000.00
	7	TREE REMOVAL (FOR ACCESS)	\$ 3,000.00	LS	1	LS	\$ 3,000.00
	8	TILE LOCATE (FROM DAGO LAKE TO START OF LINING)	\$ 5,000.00	LS	1	LS	\$ 5,000.00
	9	TREE REMOVAL (FROM DAGO LAKE TO START OF LINING)	\$ 25,000.00	LS	1	LS	\$ 25,000.00
			CONSTRUCTION SUBTOTAL		\$ 65,350.00		
			Contingency (15%)		\$ 9,802.50		
			CONSTRUCTION TOTAL		\$ 75,152.50		
			Engr. & Const. Observation (25%)		\$ 18,788.13		
			TOTAL COST		\$ 93,940.63		



By: Z.J.S.

Date: 11/8/2019

Checked By: L.O.G.

Date: 12/2/2019

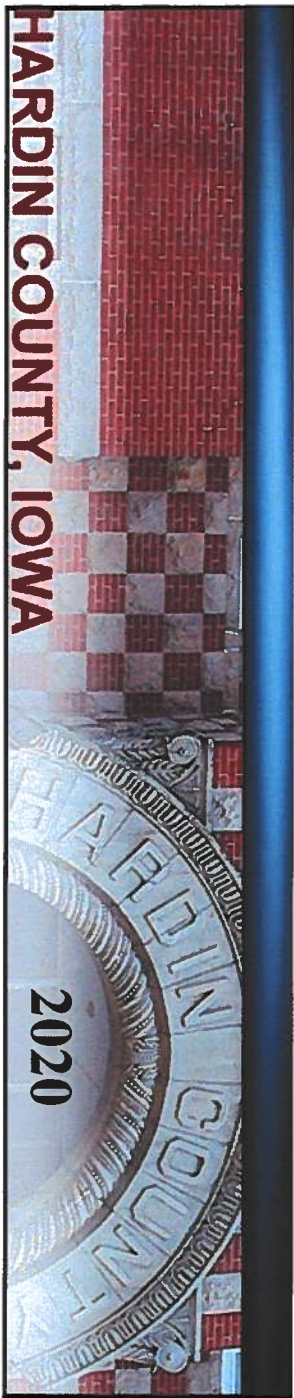
Engineer's Opinion of Probable Construction Cost

Project: Main Tile Repair for D.D. #86

Location: Section 13, T90N, R22W Hardin County, Iowa

FULL TREE REMOVAL AND
PARTIAL TILE REPLACEMENT

ITEM #	DESCRIPTION	Unit Cost	Units	Quantity	Units	Total Cost
DISTRICT CONSTRUCTION COSTS						
101	18" DUAL WALL PPE TILE WITH ROCK BEDDING	\$ 75.00	LF	190	LF	\$ 14,250.00
102	LATERAL 3 CONNECTION	\$ 1,500.00	EA	1	EA	\$ 1,500.00
103	PRIVATE TILE CONNECTION	\$ 1,500.00	EA	2	EA	\$ 3,000.00
104	INTAKE STRUCTURE	\$ 2,000.00	EA	2	EA	\$ 4,000.00
105	TILE REMOVAL	\$ 5.00	LF	190	LF	\$ 950.00
106	INTAKE REMOVAL	\$ 500.00	EA	2	EA	\$ 1,000.00
107	TREE REMOVAL (FOR 100' AT REPLACEMENT)	\$ 10,000.00	LS	1	LS	\$ 10,000.00
108	TILE LOCATE (FROM DAGO LAKE TO START OF REPLACEMENT)	\$ 5,000.00	LS	1	LS	\$ 5,000.00
109	TREE REMOVAL (FROM DAGO LAKE TO START OF REPLACEMENT)	\$ 25,000.00	LS	1	LS	\$ 25,000.00
CONSTRUCTION SUBTOTAL						\$ 64,700.00
Contingency (15%)						\$ 9,705.00
CONSTRUCTION TOTAL						\$ 74,405.00
Engr. & Const. Observation (25%)						\$ 18,601.25
TOTAL COST						\$ 93,006.25



SUPPLEMENT TO
ENGINEER'S REPORT
ON REPAIRS
TO MAIN TILE
DRAINAGE DISTRICT
NO. 86
HARDIN COUNTY,
IOWA



	<p>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</p> <p><i>Lee O. Gallentine</i>, P.E. LEE O. GALLENTINE, P.E. DATE: <i>10/25/2020</i></p> <p>LICENSE NUMBER: 15745 MY LICENSE RENEWAL DATE IS DECEMBER 31, 2020 PAGES OR SHEETS COVERED BY THIS SEAL: SHOWN ON TABLE OF CONTENTS</p>
--	--

CLAPSADDLE-GARBER ASSOCIATES OFFICE LOCATIONS

16 East Main Street, PO Box 754 | Marshalltown, IA 50158
1523 S. Bell Avenue, Suite 101 | Ames, IA 50010
5106 Nordic Drive | Cedar Falls, IA 50613
739 Park Avenue | Ackley, IA 50601
511 Bank Street | Webster City, IA 50595

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

CGA
ENGINEERS - LAND SURVEYORS

**Supplement to Engineer's Report on Repairs
to Main Tile, Drainage District No. 86
Hardin County, Iowa**

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Opinion of Probable Construction Costs – Full Tree Removal and Open Ditch Installation	App. J

**Supplement to Engineer's Report on Repairs
to Main Tile, Drainage District No. 86
Hardin County, Iowa**

1.0 INTRODUCTION

- SCOPE OF WORK – The Hardin County Board of Supervisors, acting as District Trustees, requested Clapsaddle-Garber Associates to investigate and report concerning repairs to the Main tile of Drainage District No. 86. At the hearing held on January 22, 2020, the original Engineer's Report was discussed and reviewed by the District Trustees along with comments received by landowners. As a result, the District Trustees requested Clapsaddle-Garber Associates to move ahead with this supplement for an additional option for the detailed investigation area.

REPAIR METHOD – To repair the issues discussed in the original report for the detailed study area, there are several options, but the following is one that was discussed at the above mentioned hearing:

Full Tree Removal and Open Ditch Installation

- For the portion of the Main tile south of the former C&NW railroad tracks that is severely plugged with tree roots, remove trees within 50' of the Main tile.
- For the portion of the Main tile south of the former C&NW railroad tracks that is severely plugged with tree roots, remove and replace the existing Main tile with an open ditch. Typically, an open ditch would be in the same location as the existing Main tile in order to locate and outlet private and district tile.
- For reference, the detailed location of the proposed work near the C&NW railroad tracks is shown on the map included in Appendix I.
- For the remainder of the Main tile between Dago Lake and the former C&NW railroad tracks, verify the Main tile route and remove any trees within 50' of the Main tile.

With the above-mentioned repair methods, the following should be noted:

- The above option would involve taking of right of way.
- In the area of open ditch installation, the above option would require future monitoring for additional tree growth and beaver activity.
- The above option would only remove obstructions in the Main tile at the location of proposed open ditch installation. Any obstructions at other locations would remain in the existing Main tile.
- Repairs have historically been viewed as not having an impact on jurisdictional wetlands. As such, individual landowners should consult with applicable staff at the Hardin County NRCS office to verify the existence of said jurisdictional wetlands and that there will be no impact on them.

Per Iowa Code Chapter 468.126, any of the above actions that do not increase capacity would be considered a repair. As such, Subsection 1, paragraph c of Chapter 468.126 states "If the estimated cost of the repair does not exceed fifty thousand dollars, the board may order the work done without conducting a hearing on the matter. Otherwise, the board shall set a date for a hearing. . . ." The opinion of probable construction cost contained in the next section of this report exceeds said \$50,000 limit. Therefore, a hearing will be required. Per Iowa Code Chapter 468.126.1.g, the right of remonstrance does not apply to the proposed repairs.

OPINION OF PROBABLE CONSTRUCTION COSTS – Using the above method of repair, an itemized list of project quantities and associated opinion of probable construction cost for this option was compiled and are included in Appendix J of this report. A summary of said cost is as follows:

REPAIR METHOD	DRAINAGE COEFF.	CONSTRUCTION COST
Full Tree Removal and Open Ditch Installation	Existing	\$81,578.13

It should be noted that said costs include materials, labor, and equipment supplied by the contractor to complete the necessary repair and include applicable engineering, construction observation, and project administration fees by Clapsaddle-Garber Associates. However, said costs do not include any interest, legal fees, county administrative fees, crop damages, other damages, previous repairs, engineering fees to date, wetland mitigation fees, right of way acquisition, or reclassification fees (if applicable). As always, all costs shown are opinions of Clapsaddle-Garber Associates based on previous lettings on other projects. Said costs are just a guideline and are not a guarantee of actual costs.

- RECOMMENDATIONS – There is a definite need to perform one of the repairs from the original report or this supplement. The repair would remove the identified current and future restrictions and impediments to the Main tile and extend the serviceable lifespan of the same. Therefore, it is recommended that the Hardin County Board of Supervisors, acting as District Trustees, should take action to accomplish the following:
- Approve the Supplement to Engineer’s Report as prepared by Clapsaddle-Garber Associates.
 - Hold the required hearing on the proposed repairs.
 - Adopt one of the recommendations of the Original Report or Supplement to Engineer’s Report.
 - Direct Clapsaddle-Garber Associates to prepare plans and specifications for the proposed repair.
 - Direct Clapsaddle-Garber Associates to proceed with receiving bids from interested contractors.
 - Award contract to the lowest responsible contractor.
 - If desired or required by Iowa Code, proceed with reclassification proceedings.

LEGEND:

- ASSUMED CITY STORM SEWER (LOCATED)
- CITY STORM SEWER OR DRAINAGE DISTRICT TILE (REQUIRES ADDITIONAL RESEARCH)
- DRAINAGE DISTRICT TILE (LOCATED)
- DRAINAGE DISTRICT TILE (FROM RECORD DRAWINGS)
- DRAINAGE DISTRICT TILE (ABANDONED 1966)
- DRAINAGE DISTRICT TILE (TO BE CONVERTED TO OPEN DITCH)
- CITY SANITARY SEWER (LOCATED)
- PROPERTY LINE (PER GIS)



GRAPHIC SCALE

0 40' 80'

NO.	REVISION	BY	DATE	NO.	REVISION	BY	DATE

CGA

Chicago-Garner Association, Inc.
Toll Free 800.542.7981
www.cganet.org

DESIGNED	DATE	DRAWN	DATE	CHECKED	DATE	APPROVED	DATE
ZJS	2019.11.04	ZJS	2019.11.04	JOG	2019.11.04	JOG	2019.11.04

DRAINAGE DISTRICT #86

HARDIN, IOWA

DETAILED REPAIR MAP

PROJECT NO. 6789.3
SHEET NO. 1



Engineer's Opinion of Probable Construction Cost
Project: Main Tile **Repair** for D.D. #86
Location: Section 13, T90N, R22W Hardin County, Iowa

By: Z.J.S.
Date: 1/23/2020
Checked By: L.O.G.
Date: 1/27/2020

FULL TREE REMOVAL AND OPEN DITCH INSTALLATION						
ITEM #	DESCRIPTION	Unit Cost	Units	Quantity	Units	Total Cost
DISTRICT CONSTRUCTION COSTS						
201	OPEN DITCH CONSTRUCTION	\$ 30.00	LF	190	LF	\$ 5,700.00
202	LATERAL 3 OUTLET	\$ 1,500.00	EA	1	EA	\$ 1,500.00
203	PRIVATE TILE OUTLET	\$ 1,500.00	EA	2	EA	\$ 3,000.00
204	FLARED END SECTIONS	\$ 1,500.00	EA	2	EA	\$ 3,000.00
205	REVEMENT	\$ 40.00	TN	40	TN	\$ 1,600.00
206	TILE REMOVAL	\$ 5.00	LF	190	LF	\$ 950.00
207	INTAKE REMOVAL	\$ 500.00	EA	2	EA	\$ 1,000.00
208	TREE REMOVAL (FOR 100' AT REPLACEMENT)	\$ 10,000.00	LS	1	LS	\$ 10,000.00
209	TILE LOCATE (FROM DAGO LAKE TO START OF REPLACEMENT)	\$ 5,000.00	LS	1	LS	\$ 5,000.00
210	TREE REMOVAL (FROM DAGO LAKE TO START OF REPLACEMENT)	\$ 25,000.00	LS	1	LS	\$ 25,000.00
CONSTRUCTION SUBTOTAL						\$ 56,750.00
Contingency (15%)						\$ 8,512.50
CONSTRUCTION TOTAL						\$ 65,262.50
Engr. & Const. Observation (25%)						\$ 16,315.63
TOTAL COST						\$ 81,578.13

TILE LINE EASEMENT AGREEMENT
(Recorder's Cover Sheet)

Preparer Information:

Ryan L. Haaland, Davis Brown Law Firm, 2605 Northridge Parkway, Ames, IA 50010
(515) 288-2500

Return Document to:

[Insert]

Name of Grantor:

Ronald Sailer & Catherine Sailer, 302 W. Ionia, PO Box 371, Radcliffe, IA 50230

Name of Grantee

Trustees of Drainage District No. 9, Hardin County, Iowa

Legal Description:

See Exhibit A

TILE LINE EASEMENT AGREEMENT

This Tile Line Easement Agreement ("Agreement") is made as of the ____ day of _____, 20__, by and between Ronald Sailer & Catherine Sailer, husband and wife (collectively, "Grantor"), and the Trustees of Drainage District No. 9, Hardin County, Iowa, (collectively, "Grantee").

RECITALS

A. Grantor is the titleholder of real property legally described on Exhibit A, which is attached hereto and incorporated herein by this reference (the "Sailer Property").

B. Pursuant to Iowa Code Section 468.1 et seq., the Board of Supervisors of Hardin County, Iowa established Drainage District No. 9, Hardin County, Iowa on or about _____ (the "District").

C. Grantor has agreed to grant Grantee the right to construct a tile drainage line across a portion of the Sailer Property, with a point of terminus on the eastern boundary of the Sailer Property (the "Point of Terminus") to discharge at the surface near an existing drainage tile within the established District (the "Point of Discharge").

D. All rights, privileges, and burdens created or imposed upon Grantee shall likewise bind and inure to the benefit of the successors-in-interest, assigns, and mortgagees of Grantee.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

ARTICLE I GRANT

1.1 Grant. Grantor hereby grants to Grantee a perpetual, non-exclusive easement on, over, across, and through portions of the Sailer Property for purposes of installing, constructing, maintaining, repairing, and replacing a tile drainage line which shall be 10 foot in width, 5 feet on each side of the center line as-built, from the Sailer Property up to the Point of Terminus (the "Easement Area") to discharge at the surface near an already existing drainage tile at the Point of Discharge.

1.2 Maintenance. Grantee, at its sole cost and expense, shall install, maintain, and repair, as necessary, the drainage tile on the Sailer Property, and shall repair the damage to the Easement Area caused by such installation, maintenance, or repair. The tile line installed by Grantee shall at all times be the sole and separate property of Grantee. Grantee shall, upon completion of any construction, reconstruction, repair, or maintenance of any portion of the Easement Area, or land appurtenant thereto, restore such portion of the Easement Area or such appurtenant areas in a good and workmanlike manner, and in a condition comparable to its condition before construction, reconstruction, maintenance, repair, or alteration.

1.3 Erection of Structures Prohibited. Grantor shall not erect or construct any building, structure or other improvement in the Easement Area which will interfere with the operation of the tile drainage line without obtaining Grantee's prior written approval.

1.4 Change of Grade Prohibited. Grantor shall not change the grade, elevation or contour of any part of the Easement Area in a manner that materially obstructs or impedes the operation of the tile drainage line without obtaining Grantee's prior written approval.

1.5 Right of Access. Grantee and its agents, contractors, and representatives (the "Related Persons") shall have the right to enter onto the Easement Area in order to repair, replace or fix the drain tile line.

1.6 Indemnification. Subject to Section 1.7, below, as part of the consideration for the easement rights granted herein, Grantee hereby agrees to defend, indemnify, and hold Grantor harmless from any and all claims, lawsuits, demands, liabilities, damages, losses, costs and expenses, including, without limitation, reasonable attorneys' fees, asserted against or incurred by Grantor due to any injury occurring to persons or property and arising from or related to the use of the Easement Area by Grantee or any Related Person, except to the extent caused by Grantor's intentional, reckless, or negligent acts, or the intentional, reckless, or negligent acts of Grantor's tenants, invitees, licensees, contractors, agents, and representatives.

1.7 Future Connections. As part of the consideration of this Agreement, Grantor and Grantee agree that Grantor shall be permitted to connect his future or existing private tile line to the tile line constructed by Grantee, subject to the prior written consent of Grantee, which shall not be unreasonably withheld. Grantor shall bear the cost related to any future connection as contemplated by this Section 1.7, and shall hold Grantee harmless therefrom.

ARTICLE II MISCELLANEOUS

2.1 Enforcement. Any party to this Agreement may enforce it against another party by seeking injunctive relief, specific performance, or any other remedy available at law or in equity. The parties agree that, in the event of a default by any party under the terms of this Agreement, the other parties will be irreparably harmed and such parties' damages will be extremely difficult or impossible to ascertain or quantify with precision. The parties specifically agree that, in the event of a default by any party under the terms of this Agreement, the other parties shall be entitled to specific performance to enforce the terms of this Agreement, including, without limitation, the right to obtain a temporary or permanent injunction without the requirement of a bond, in addition to any other remedy that may be available at law or in equity. In the event of litigation to enforce or interpret the terms of this Agreement, the prevailing party shall be entitled to recover its costs of litigation, including, without limitation, reasonable attorney's fees.

2.2 Binding Effect. This Agreement shall run with the land, and shall inure to the benefit of, and be binding upon, the parties hereto, their tenants and their respective heirs, personal representatives, successors, mortgagees, and assigns.

2.3 Entire Agreement. This Agreement constitutes the entire Agreement and understanding between the parties relating to the subject matter hereof, superseding all earlier agreements or representations, oral or written.

2.4 Amendment. Any change or amendment to this Agreement shall be effective only if it is in writing and signed by all of the parties to this Agreement, and properly recorded.

2.5 Waiver. Any failure, forbearance, delay, or omission to exercise any rights under this Agreement in the event of a breach of any term of this Agreement shall not be deemed to be a waiver by any party of such term or any subsequent breach of the same or any other term, or of any rights of any party under the terms of this Agreement.

2.6 Severability. If any provision of this Agreement, or the application of it to any circumstance, is found to be invalid, the remainder of the provisions of this Agreement, or the application of such provision to other circumstances than those to which it is found to be invalid, as the case may be, shall not be affected. Moreover, if such invalidity is based upon its scope or breadth, a court of competent jurisdiction shall be empowered to reform such provision(s) to make the same effective to the fullest scope or breadth permitted by law.

2.7 Governing Law. This Agreement shall be construed in accordance with the State of Iowa.

2.8 Headings. The article and section headings in this Agreement are for convenience only, shall in no way define or limit the scope or content of this Agreement, and shall not be considered in any construction or interpretation of this Agreement or any part thereto.

2.9 Constructive Notice. The parties shall take all reasonable steps necessary to insure that their respective successors, assignees, transferees, and occupants have knowledge of all the terms and conditions of this Agreement.

2.10 Construction of Terms. Words and phrases herein, including the acknowledgment hereof, shall be construed as in the singular or plural number, and as masculine, feminine or neuter gender, according to the context.

[End of Agreement; Signature Pages to Follow]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

GRANTOR: Ronald Sailer

GRANTOR: Catherine Sailer

(Signature)

(Signature)

STATE OF IOWA)
) SS:
COUNTY OF HARDIN)

This instrument was acknowledged before me on the ____ day of _____, 20__
by Ronald Sailer and Catherine Sailer, husband and wife.

_____, Notary Public

[Signature Page Continues on Next Page]

GRANTEE: Trustees of Drainage District No. 9, Hardin County, Iowa

By

Name _____

Title _____

STATE OF IOWA)

) SS:

COUNTY OF HARDIN)

This instrument was acknowledged before me on the ____ day of _____, 20__
by _____ as _____ for Trustees of
Drainage District No. 9, Hardin County, Iowa.

_____, Notary Public

EXHIBIT A

LEGAL DESCRIPTION OF THE SAILER PROPERTY

*The South Twenty-nine (29) acres of the Southeast Quarter (SE1/4) of the Northeast Quarter (NE1/4), AND The Northeast Quarter (NE1/4) of the Southeast Quarter (SE1/4), all in Section One (1), Township Eighty-eight (88) North, Range Twenty-two (22) West of the 5th P.M., Hardin County, Iowa, **except** existing railroad in the Southeast Corner of the said NE1/4 of the SE1/4.*

Hardin County Drainage Claim for Damages

Claim # _____ District # DD 25 Work Order # 209 + 001
Township Concord Section 35 - 27 Twp 86 Rge 22 Qtr Sec 27
Parcel Tax IDS 86-22-27-100-004 - W0209 86 22 35

86-22-35-100-001 - W01

Name Jason Martin

Address 17714 260th St Hubbard IA 50122

Phone 641 485 9330

Email Address jasonmar@netins.net

Landowner (if different) Dennis Starleaf, Lee Coburn

Claim Type

☒ Crop Damage

Crop Year 2014
Type of Crop Bean

Acres Damaged .5 acres CGA Reports .54 Acres
Yield Per Acre 50bu

Unit Value \$ 9.00 /bushel

Crop Year 2014
Type of Crop Corn

Acres Damaged 1.5 acres CGA reports .14 acres
Yield Per Acre 190bu

Unit Value \$ 3.80 /bushel

☐ Fence Damage

☐ Outlet Damage

☐ Other: _____

Desired Compensation

☐ Monetary Payment

☐ Repair of Damages

☐ Other: _____

Total Amount Claimed

Crop Damages (Acres X Yield X Unit Value) \$ 225 \$ 1083

Other Damages (Fence, Outlet, Etc) \$ _____

Claimant Signature Jason Martin Date 1-15-20

For Office Use Only

Total Amount Approved \$ _____

Approved Signature _____ Date _____



Drainage Work Order Request For Repair

Hardin County

Date: 12/11/2018

Work Order #: WO00000240

Drainage District: Drainage Districts \DD H-S 35-1 (51236)

Sec-Twp-Rge: 36-86-22 **Qtr Sec:** NE NW

Location/GIS: 86-22-36-100-004

Requested By: Paul Herbrechtsmeier

Contact Phone: (515) 893-2244

Contact Email: _____

Landowner (if different): _____

Description: DD H-S 35-1 Lat 1 - Blowout in tile near north fenceline. Crops are out. Access from windmill road. Has flagged.
(3/2016 blowout near this one with confusion as two tiles are out there...private & district. Might want to verify that it's DD tile first.)

Repair labor, materials and equipment: _____

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:** _____



Hardin County Auditor's Office

0 0.035 0.07 0.14 0.21 0.28 Miles



Date: 12/11/2018



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.

Drainage District:

H-S 35-1, Lateral 1

Investigation/Repair Summary:

- Landowner in the SE¼ NW¼ Section 36, Township 86 North, Range 22 West reported a blowout/sinkhole near the north property fence line.
- Visual observation found said blowout/sinkhole with no tile visible, and approximately 4-feet of cover over the tile. Later visual observation found wide joint in 12-inch VCP Lateral 1 tile allowing soil to flow into said joint
- Excavation found the VCP tile with a broken top section and wide joint between the 12-inch VCP tile and a 12-inch single wall HDPE tile previous repair. This and several other VCP tile sections in the immediate area were found to have sunken below the original flowline.
- Removed the single wall HDPE tile and sunken VCP tiles. These sections were found to have 2-3 inches of mud in the flowline.
- Repaired with 12-inch dual wall HDPE, rock bedding and backfill, and ¾ concrete collars at each end of repair joining to the existing VCP tile. Excavation was 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:

Due to weather conditions during the repair, the area may need to be leveled in the spring after the freeze/thaw cycles of the winter. Also, if additional reports of restricted drainage are received, investigation into the extent of mud infiltration may be necessary.



Tabulated Contractor Time and Materials

Date	Totals	12/4/2019	12/5/2019
Workman (hrs)	12.5	3.5	9
Skidloader (hrs)	7	2	5
Mini Excavator (hrs)	7	2	5
1" Clean Rock (ton)	6.9		6.9
3/4 Concrete Collar (ea.)	2		2

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

12/18/18

PROJECT NUMBER:

6852.4

COUNTY, ROUTE, ROAD:

H-S 35-1

LOCATION:

DAYS OF WEEK:

S M T W T F S

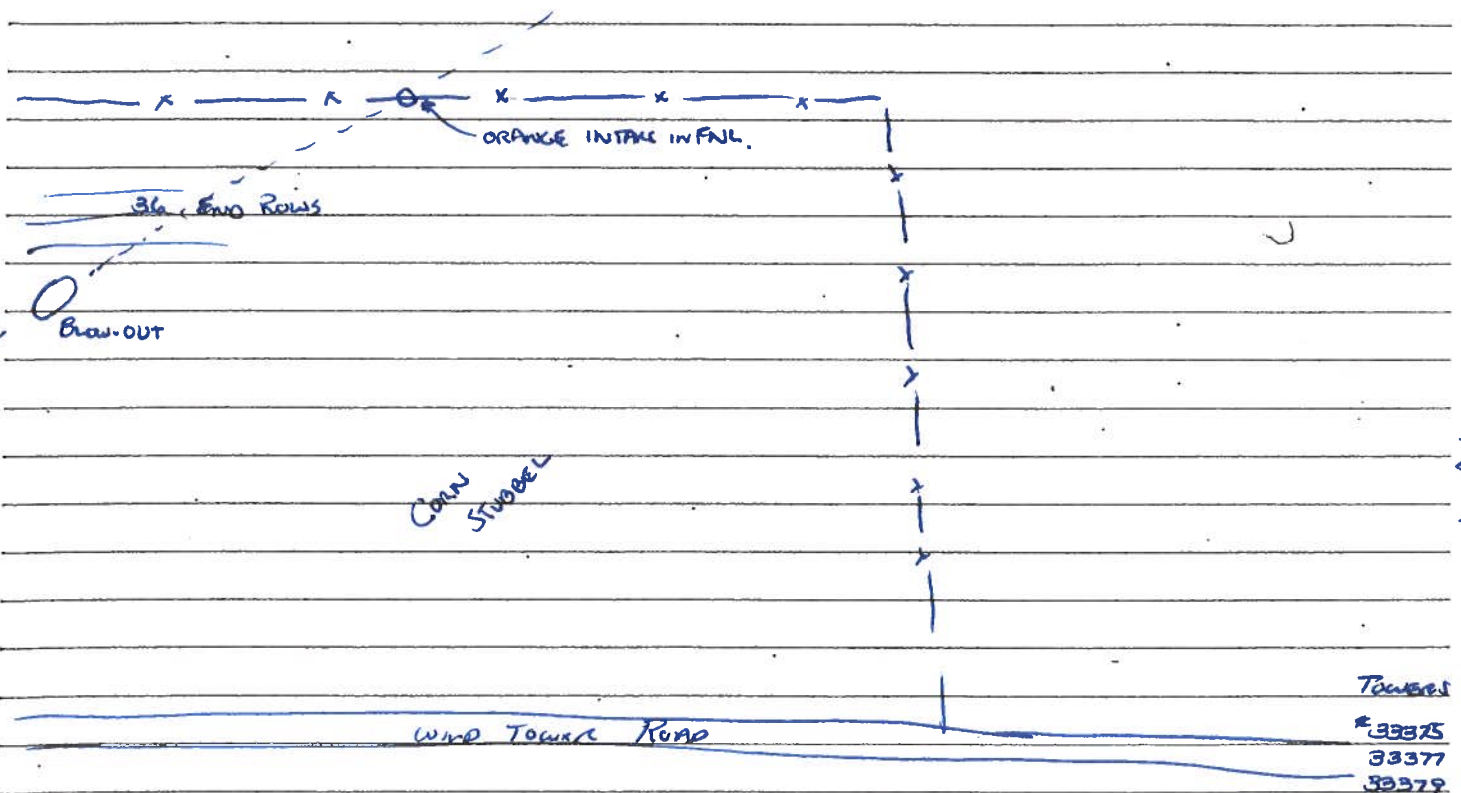
SHEET NO.

1 OF 1

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

Sunny, 38°, Breezy from SW.

drove in on Wind Tower Road, called PAUL H. AND GOT DIRECTION
To Hole, He met me @ Bow-out. Put LATH/FLAG @ Hole., Tile HAS
4' COVER IN CORN STUBBLE. COULD NOT SEE TILE. Repair ASAP.



I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

[Signature]

Date Prepared:

12/18/18

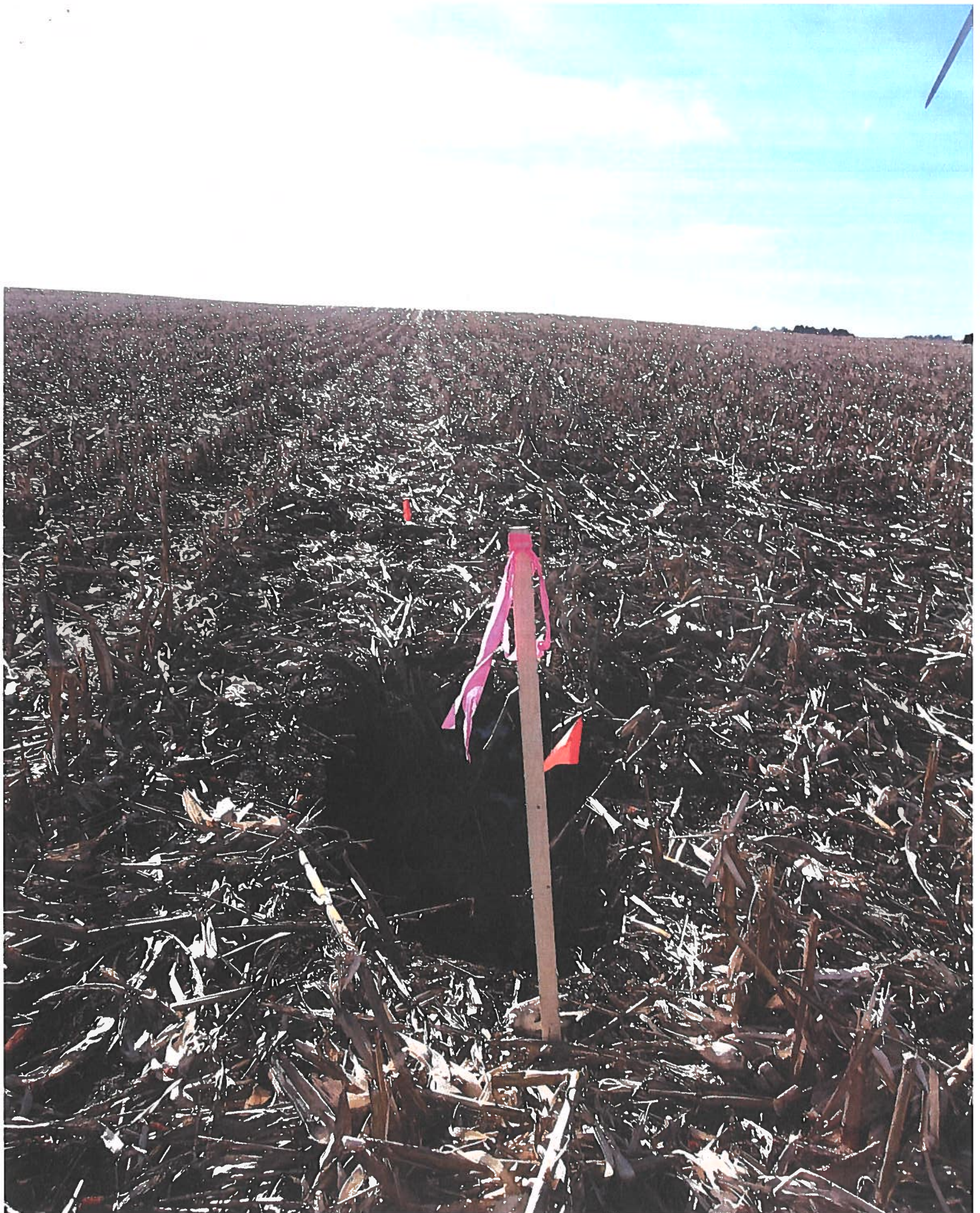
Reviewed by:



Engineer

Date Reviewed

LOOKING SOUTH



CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

12/4/2019

DAYS OF WEEK:

S M T W T F S

SHEET NO.

1 OF 2

PROJECT NUMBER:

WO # 240
6852.4 DD# H-S 35-1

COUNTY, ROUTE, ROAD:

HARDIN COUNTY # H-S

LOCATION: 35-1 LATERAL #1
TILE BLOWOUT REPAIR ON LATERAL #1 IN SE 1/4 NW 1/4

36-86-22 SOUTH OF 330th ST
BETWEEN CAVE & HAVE & NORTH OF GRAVEL LANE

TO WIND TOWERS @ 33375, 33377, & 33379 HAVE JOB# DD SH 1-35. SURVEY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB

NAME, ITEM NO. AND LOCATION

MID 40'S TO LOW 30'S
SUNNY WITH LIGHT WINDS

10:30 A.M. OBSERVER AND SEWARD CREW FINISHED A TILE REPAIR
AND HEADED TO INVESTIGATE THIS TILE BLOWOUT REPAIR.

11:10 A.M. OBSERVER ARRIVED ON SITE. OBSERVER LOOKED
AT TILE BLOWOUT REPAIR AREA. OBSERVER FOUND
A 8.0' N-S X 6.0' E-W TILE BLOW OUT 3.7' ± DEEP
WITH WHAT APPEARS TO BE EAST EDGE OF 12" CLAY TILE
EXPOSED THAT IS SUCKING SOIL AND UNABLE TO SEE
WEST EDGE OF ANY TILE TO WEST.

11:24 A.M. PICTURE # 2442 SEE PICTURE FOR DETAILS.

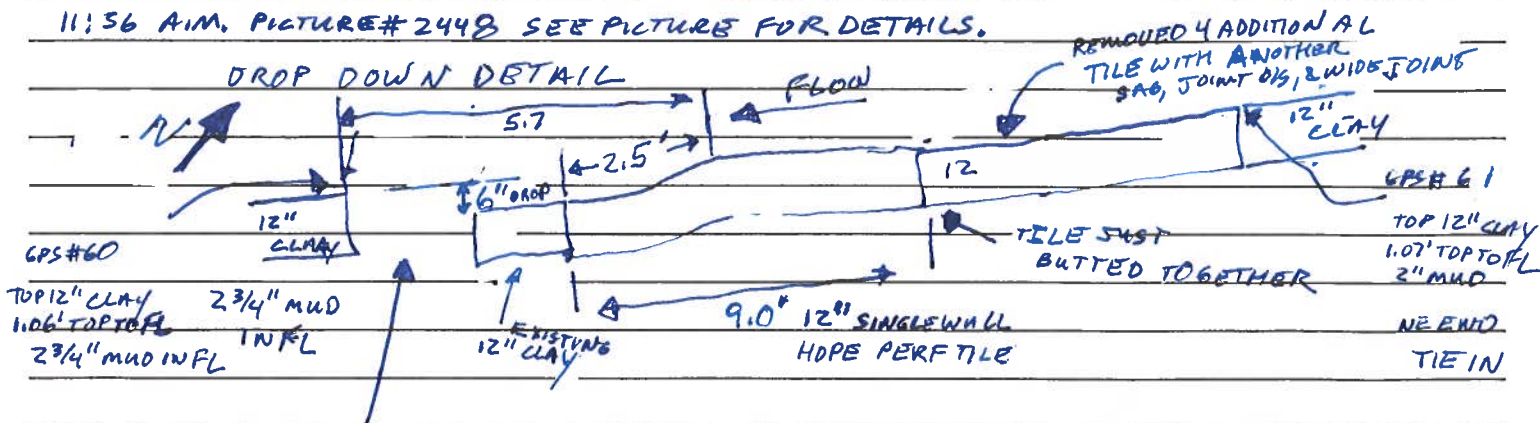
11:25 A.M. PICTURE # 2443 SEE PICTURE FOR DETAILS.

11:25 A.M. ADAM AND JEFF ARRIVED ON SITE WITH CASE TR 340
TRACKED SKIDLOADER & TAKEUCHI TB 145 MINI EXCAVATOR
ON SITE FOR EQUIPMENT

11:35 A.M. CREW STARTED EXCAVATING AT TILE BLOW OUT
& REMOVED ONE SECTION OF 12" CLAY TILE WITH TOP
SECTION BROKE OUT.

11:51 A.M. PICTURE # 2446 & PICTURE # 2447 SEE PICTURE FOR DETAILS

11:56 A.M. PICTURE # 2448 SEE PICTURE FOR DETAILS.



EXISTING 12" CLAY TILE BROKE & DROPPED DOWN

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

Dean Penning

Date Prepared:

12/4/2019

Reviewed by:

Engineer

Date Reviewed

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

12/4/2019

DAYS OF WEEK:

S M T W T F S

SHEET NO.

2 OF 2

PROJECT NUMBER: WO # 240
6852.4 DD# H-535-1

COUNTY, ROUTE, ROAD: HARDIN COUNTY # H-5
35-1 LATERAL #1

LOCATION: TILE BLOWOUT REPAIR ON LATERAL #1 IN SE 1/4 NW 1/4
36-86-22 SOUTH OF 330th ST

BETWEEN GAVER HAVES & NORTH BE GRAVEL LANE
TO WIND TOWERS @ 33375, 33377, & 33379 HAVE JOB# DDSH H-35. SURVEY

MID 40'S TO LOW 30'S
SUNNY WITH LIGHT WINDS

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

12:01 P.M. PICTURE # 2449 & 12:18 P.M. PICTURE # 2452 SEE PICTURE FOR DETAILS,

12:37 P.M. PICTURE # 2453 & 12:47 PICTURE # 2454 SEE PICTURE FOR DETAILS,

1:00 P.M. ADAM LEFT SITE TO GET MATERIAL

FOR TILE REPAIR,

1:27 P.M. PICTURE # 2457 SEE PICTURE FOR DETAILS

1:30 P.M. JEFF & TAKEUCHI TB145 MINI EXCAVATOR LEFT
SITE AFTER CLEANING UP BOTTOM OF TRENCH AND
HEADED TO ANOTHER TILE REPAIR.

QUANTITIES

12/4/2019

OPERATOR #1 (ADAM) 1 1/2 HOURS

OPERATOR #2 (JEFF) 2 HOURS

CASE TR 340 TRACKED SKID LOADER 2 HOURS

TAKEUCHI TB145 MINI EXCAVATOR 2 HOURS

5:00 P.M. SETUP GPS BASE TO SHOOT TILE REPAIR BUT WHEN
CHECKED INTO MAG NAIL IN BOX CULVERT FOUND ELEVATION
3.14' HIGHER. CHECKED & SHOT HARDIN COUNTY GPS MONUMENT # 8033.

6:00 P.M. OBSERVER LEFT SITE. ELEVATION ISSUE SO OBSERVER
WILL WAIT TILL DAY LIGHT TO MORROW TO CHECK A FEW
THINGS BEFORE SHOOTING ANYTHING NEW

NOTE WITH HARDIN COUNTY GPS MONUMENT # 8033 BEING WITHIN 0.02'
IT SUGGESTS 3.14' ELEVATION ERROR WITH GPS # 34 MAG NAIL
IN BOX CULVERT HEAD WALL. REHOT ORIGINAL GPS # 34
& SHOT AS GPS # 58.

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

Dean Penning

Date Prepared:

12/4/2019

Reviewed by:

Engineer

Date Reviewed

PICTURE # 2442. IS LOOKING AT TOP OF 12" CLAY TILE EXPOSED
IN TILE BLOWOUT HOLE THAT APPEARED TO BE SUCKING
SOIL DOWNSTREAM TO SW WITH TILE TO NE NOT EXPOSED
YET.



N
↑



N
↑

PICTURE # 2443 IS LOOKING NORTH AT 8.0' N-S X 6.0' E-W X
3.7' DEEP TILE BLOWOUT IN FIELD 593' ± NORTH OF NORTH GRAVEL
LAWE EDGE FOR WIND TOWERS E-W, 133' SOUTH OF 1/4-1/4 FENCE E-W & 741' ±
WEST OF 1/2 MILE FENCE N-S

PICTURE# 2444 IS LOOKING NW SHOWING EXISTING CLAY
TILE EXPOSED WHERE TILE WAS EXPOSED IN BOTTOM
OF SINKHOLE WITH TOP OF TILE BROKE TO EAST OF EXPOSED CLAY TILE.



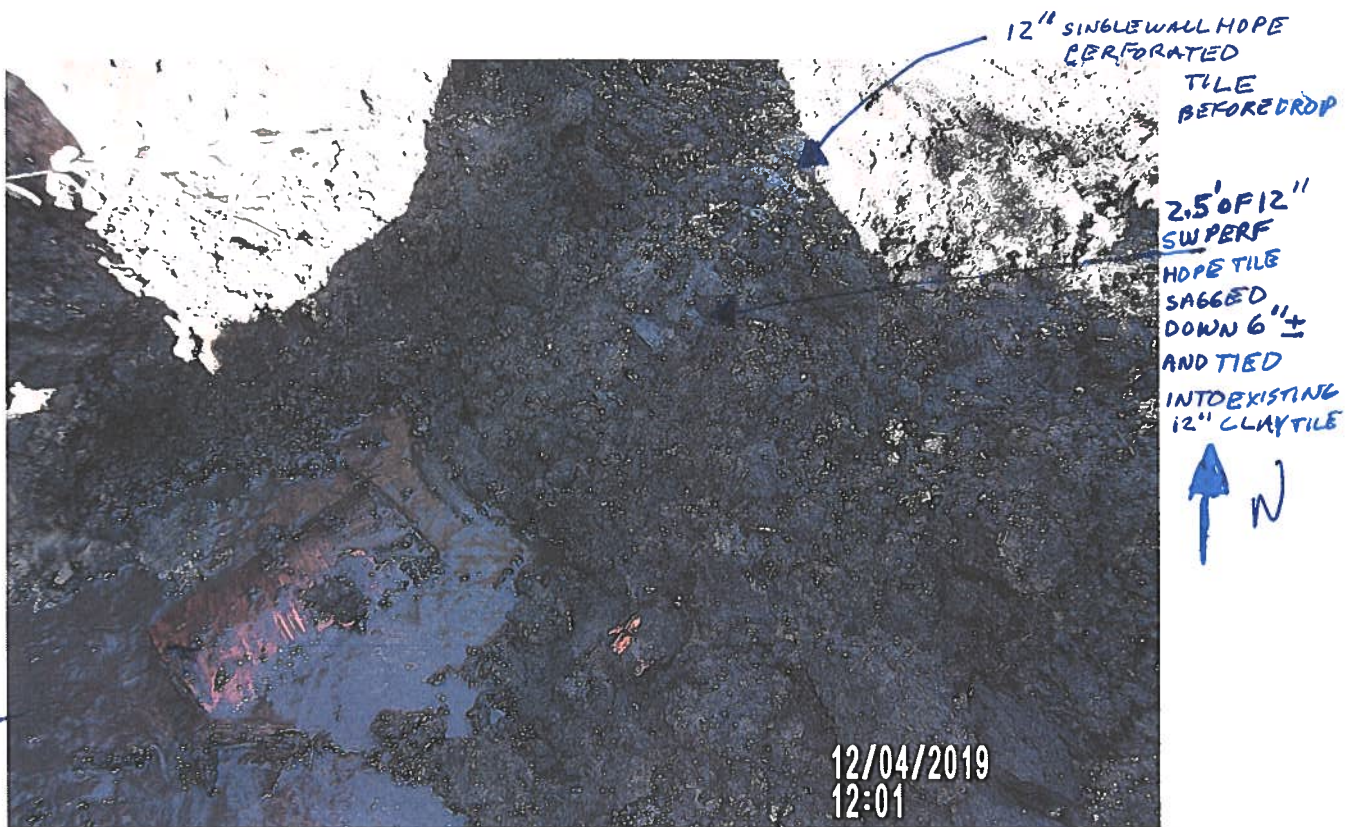
PICTURE# 2445 IS LOOKING SW AT SW END TIE IN
SHOWING 2 3/4" MUD IN FLOW LINE, NEXT JOINT SLIGHT OFFSET
BUT TILE IN GOOD SHAPE, SINCE DOWN STREAM OFFSET (NOT LIP UP)

PICTURE # 2446 IS LOOKING SW INSIDE EXISTING 12" CLAY TILE
ON WEST SIDE OF REPAIR GPS#60 (1.06' TOPTO FL) 3.5'± DEEP,
TILE HAS 2¾" MUD IN FLOWLINE



PICTURE # 2447 IS LOOKING NW SHOWING EXPOSED 8" CLAY TILE
THAT IS FULL OF MUD TO NE (UPSTREAM) AT TILE BLOWOUT (TOP SECTION)
BROKE OUT. DOWNSTREAM TO SW HAS 2¾" MUD IN FLOW LINE,

PICTURE #2448 IS LOOKING NE ON EAST END OF REPAIR SHOWING SLIGHT SAG IN CLAY TILE THAT WILL BE REMOVED WITH 4 ADDITIONAL CLAY TILE.



12" CLAY
TILE
DROPPED

DOWN 6" WITH SINGLE WALL TILE BUTTED INTO 12" CLAY TILE

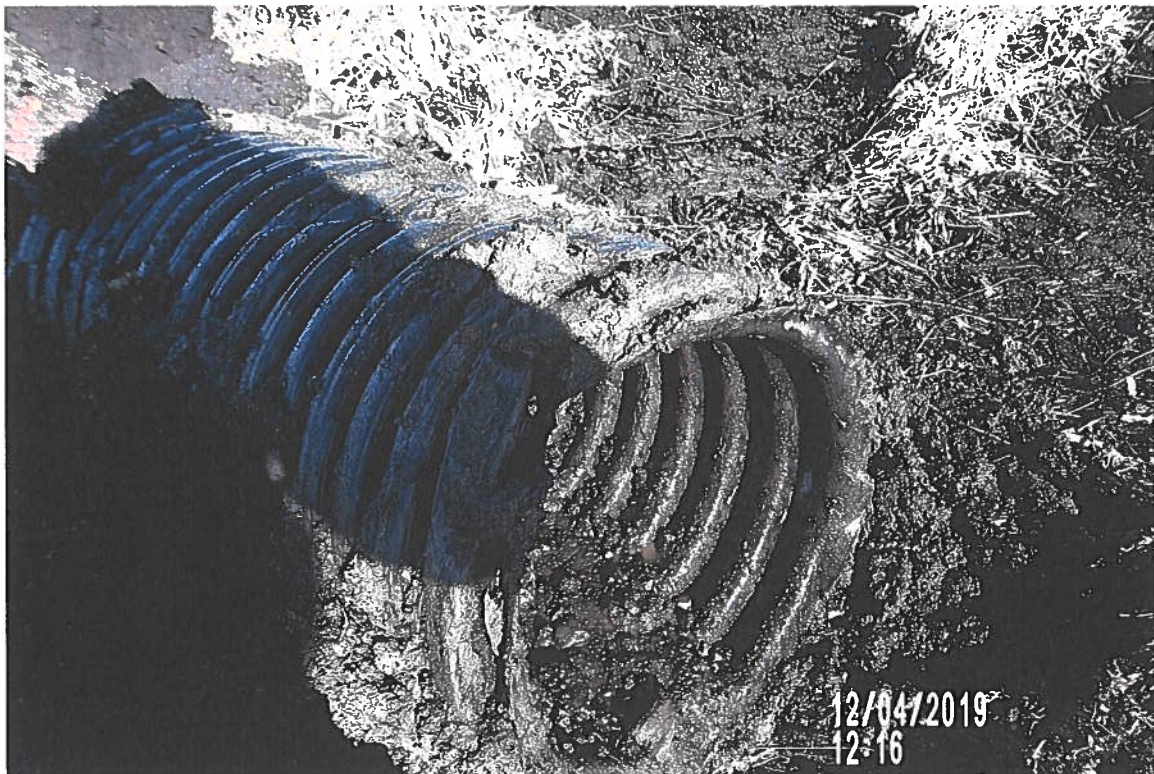
PICT #2449 IS LOOKING NORTH SHOWING EXISTING 12" CLAY TILE
TILE DROPPED DOWN 6"

PICTURE# 2450 IS LOOKING NE SHOWING BROKE OUT TILE
 & DROP DOWN AREA IN TILE BLOW OUT AREA
 WHERE SINGLE TILE BUTTED INTO EXISTING 12" CLAY DROPPED DOWN 6",
 12" SW PERFORATED TILE BEFORE
 DROP DOWN



12" SW PERF
 TILE DROP
 DOWN 6"

EXISTING 12"
 CLAY TILE

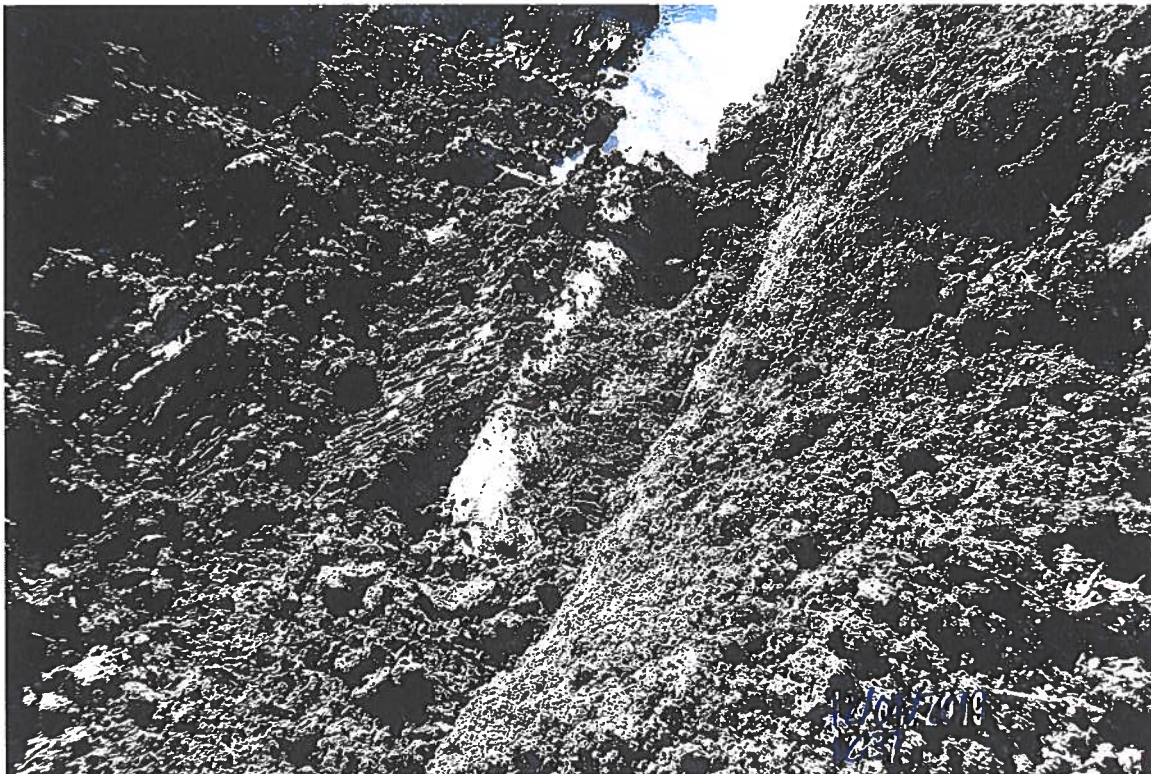


PICTURE# 2451 SHOWING 12" SINGLE WALL PERFORATED TILE
 IN DROP DOWN AREA FOR PREVIOUS REPAIR

PICTURE # 2452 . SHOWING PERFORATIONS ON THE 9.0' OF
 12" SINGLE WALL HDPE TILE THAT LATERAL #1 WAS REPAIRED WITH
 AT SOMETIME. WEST 2.5' OF THIS TILE DROVE DOWN SEVERELY AND TIED INTO
 EAST END OF EXISTING 12" CLAY TILE THAT HAD SAGGED DOWN 6" COMPARED TO EXISTING



12" CLAY
 TILE TO
 WEST
 DOWNSTREAM.



12/04/2019
 12:17

PICTURE # 2453 IS LOOKING SW SHOWING 4 SECTIONS OF
 CLAY TILE THAT WILL BE REPLACED DUE TO A SLIGHT SAG &
 ONE WITH AN OFFSET/WIDE JOINT ON EAST END OF REPAIR.

PICTURE# 2454 IS LOOKING NE INSIDE 12" CLAY TILE
ON NE END TIE IN OF REPAIR, HAD 2" MUCK IN FLOW
LINE BUT RAN SHOVEL UP & REMOVED AS FAR AS
SHOVEL COULD REACH



GPS# 61 TOP EXISTING 12" CLAY
1.02' TOP TO FL

GPS# 60
TOP EXISTING
12" CLAY
1.06' TOP TO FL



PICTURE# 2457 IS LOOKING NE SHOWING TRENCH EXCAVATED
DOWN FOR 4" OF ROCK UNDER TILE 16.2 LF OF REPAIR

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

12/5/2019

DAYS OF WEEK:

S M T W T F S

PROJECT NUMBER:

WO # 240
6852.4 DD# H-535-1

SHEET NO.

1 OF 2

COUNTY, ROUTE, ROAD: HARDIN COUNTY # H-5

LOCATION: TILE BLOWOUT REPAIR AN LATERAL #1 IN SE 1/4 NW 1/4
36-86-22 SOUTH OF 330+6 ST

LOW 50'S TO MID 20'S
SUNNY WITH LIGHT WINDS

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

7:50 A.M. OBSERVER LEFT OFFICE FOR SITE.

8:30 A.M. ARRIVED ON SITE WITH NO CREW ON SITE. OBSERVER SET
GPS BASE ON HARDIN COUNTY GPS MONUMENT #8011.

9:00 A.M. OBSERVER CHECKED INTO GPS# 58 (ORIGINAL GPS#34 MADE IN BOX CULVERT)
WITH GOOD ON HORIZONTAL POSITION & VERTICAL POSITION.

9:10 A.M. OBSERVER TRIED FINDING ORIGINAL GPS#33 1/2" IRON ROD
SW ROW @ BIN SITE ON EAST SIDE OF 6 AVE SOUTH 330+6 STREET
OBSERVER FOUND 1/2" IRON ROD (ORIGINAL GPS#34) IT SUGGESTED
3.14' LOW TOO. RESHOT ORIGINAL GPS#34 AS GPS#59 NOW

NOTE: ALL ELEVATIONS FROM GPS# 35 TO GPS# 57 NEED TO BE RAISED

By 3.14' ON THIS JOB

9:40 A.M. JEFF ARRIVED ON SITE AND WAS UNLOADING EQUIPMENT
AND STARTED LEVELING DISTURB ROCK ON 33375, 33377, 33379
H AVENUE WINDMILL ROAD & LEVELED OFF FIELD TO
REPAIR AREA FROM WIND TOWER ROAD

10:20 A.M. ADAM ARRIVED ON SITE WITH PICKUP AND TRIPLE
AXLE DUMP TRAILER WITH 6.9 TONS OF ROCK.

10:50 A.M. CREW STARTED TO REPAIR TILE BY CLEANING AS
FAR AS UPSTREAM AND DOWNSTREAM INTO TILE WITH SPADE
TO REMOVE MUCK FROM FLOW LINE AND CLEAN AROUND
SW & NE END OF REPAIR IN PREPARATION FOR 3/4
CONCRETE COLLAR.

11:59 A.M. PICTURE #2467 & 12:08 P.M. PICTURE #2470 SEE PICTURE FOR DETAILS.

12:13 P.M. PICTURE #2471 & 12:24 P.M. PICTURE #2472 SEE PICTURE FOR DETAILS.

12:26 P.M. PICTURE #2473 & 12:27 PICTURE #2474 SEE PICTURE FOR DETAILS.

1:20 P.M. ADAM & OBSERVER HEADED TO ANOTHER JOB TO LOOK

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

Dean Penning

Date Prepared:

12/5/2019

Reviewed by:

Engineer

Date Reviewed

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

12/5/2019

DAYS OF WEEK:

S M T W T F S

SHEET NO.

2 OF 2

PROJECT NUMBER: WO # 240
6852.4 DD# H-535-1

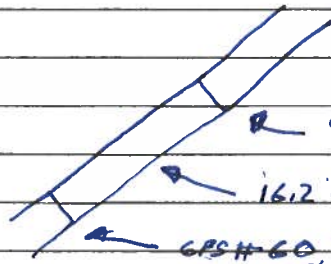
COUNTY, ROUTE, ROAD: HARDIN COUNTY # H-5

LOCATION: TILE BLOWOUT REPAIR ON LATERAL #1 IN SE 1/4 NW 1/4
36-86-22 SOUTH OF 330th ST

BETWEEN GAVE & HAVE & NORTH DE GRAVEL LANE
TO WIND TOWERS @ 33375, 33377, & 33379 HAVE

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

UT THAT JOB



603.4' ± NORTH OF NORTH EDGE
OF WIND TOWER LANE
122.4' ± SOUTH FENCE E-W
729.3' ± WEST OF FNL N-S

CPS # GPS# 61 TOP 12" CLAY 1.07' TOP TO FL 3.3' DEEP

16.2 LF OF 12" HDPE NON PERFORATED DUAL WALL TILE

CPS # GPS# 60 TOP 12" CLAY 1.04' TOP TO FL 3.5' DEEP

133.5' ± SOUTH FENCE E-W

741.2' ± WEST OF FNL N-S

572.8' NORTH OF NORTH EDGE

CPS 70

GRAVEL WIND TOWER LANE GPS# 71

33375, 33377, 33379 H. AVE
WIND TOWER GRAVEL
LANE

2:20 PM ADAM & OBSERVER BACK ON SITE

2:45 PM JEFF WAS DONE WITH DRESSING UP BACK FILL
IN FIELD

2:52 PM PICTURE # 2477 & PICTURE # 2478 & 2:55 PM PICTURE # 2479
SEE PICTURE FOR DETAILS.

12/5/2019, QUANTITIES

OPERATOR 1 ADAM 4 HOURS

OPERATOR 2 JEFF 5 HOURS

CASE TR 340 TRACKED SKIDLOADER 5 HOURS

TAKEUCHI TB 145 MINI EXCAVATOR 5 HOURS

ROCK 6.9 TONS

16.2 LF OF 12" HDPE DW NON PERFORATED TILE

12-601B BAGS OF ALLSTAR CONCRETE

AIR JORDAN SHIRT OVER JOINT

1- 2.0' x 3.5' 6" x 6" WIRE MESH
1- 1.5' x 3.5' 6" x 6" WIRE MESH

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

Dean Penning

Date Prepared:

12/5/2019

Reviewed by:

Engineer

Date Reviewed

PICTURE #2467 IS LOOKING NE SHOWING 16.2 LF OF 12" HDPE DUAL WALL NONPERFORATED TILE IN PLACE WITH ROCK TAMPED IN UNDER AND AROUND TILE TO TOP OF TILE.



GPS#60
TOP 12" CLAY
TILE
1.06' TOP TO FL



GPS#61
TOP 12" CLAY
TILE
1.07' TOP TO FL

PICTURE #2470 IS LOOKING SW SHOWING 16.2 LF OF 12" HDPE DUAL WALL NONPERFORATED TILE IN PLACE WITH ROCK TAMPED IN UNDER AND AROUND TILE TO TOP OF TILE.

PICTURE # 2471 IS LOOKING WE SHOWING AIR JORDAN SHIRT OVER
 NE TIE IN CONNECTION JOINT (CONTRACTOR DID NOT HAVE FABRIC ON SITE) & 1.5' X 3.5' 6" X 6"
 WIRE MESH OVER TIE IN CONNECTION BEFORE 3/4 COLLAR
 POURED



PICTURE # 2472 IS LOOKING NORTH SHOWING GENERATOR
 & CONCRETE MIXER USED TO MIX UP CONCRETE FOR
 COLLARS FOR TIE IN CONNECTIONS

PICTURE # 247.3 IS LOOKING SW SHOWING $\frac{3}{4}$ CONCRETE COLLAR
POURED FOR NE TIE CONNECTION WITH ROCK TAMPED ON
TO TOP OF TILE OVER ENTIRE REPAIR EXCEPT FOR
COLLAR AREAS



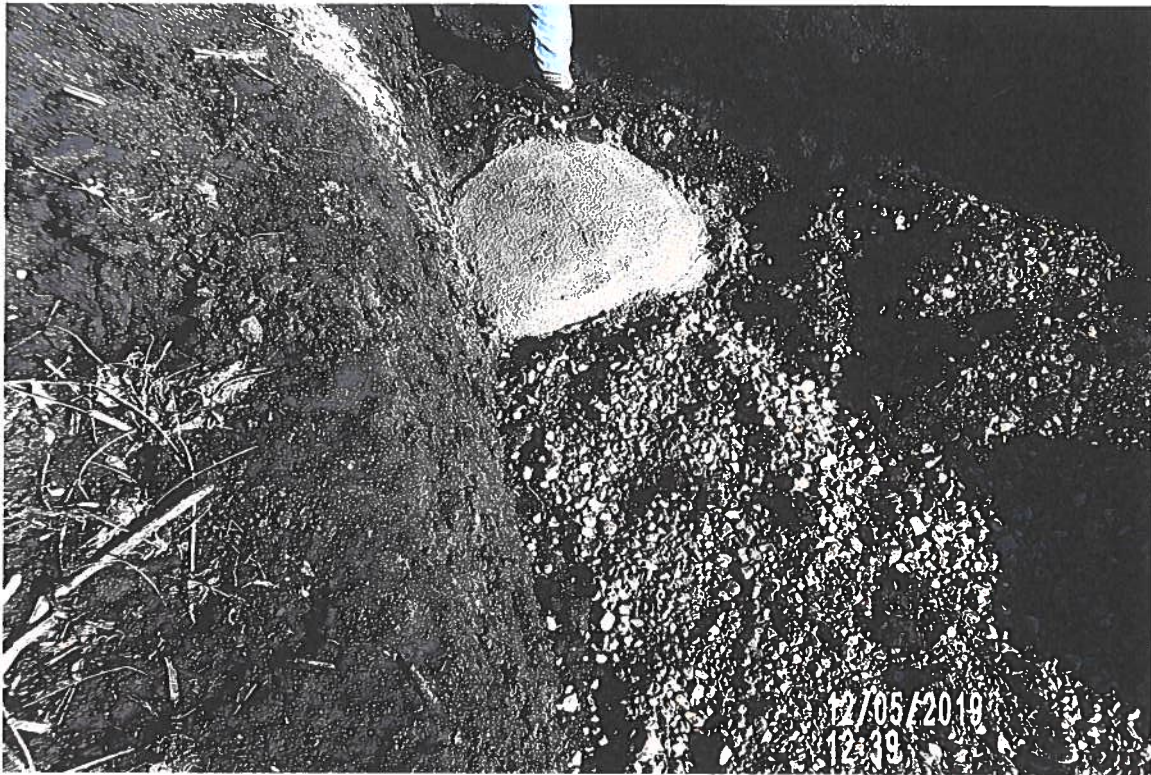
N
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N
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PICTURE # 2474 IS LOOKING NE SHOWING AIR JORDAN'S SHIRT
OVER SW TIE IN CONNECTION JOINT (CONTRACTOR DID NOT HAVE FABRIC
ON SITE & 2.0' X 3.5' 6" X 6" WIRE MESH OVER TIE IN CONNECTION
BEFORE $\frac{3}{4}$ COLLAR PAURED).

PICTURE# 2475 IS LOOKING NE SHOWING $\frac{3}{4}$ CONCRETE COLLAR
POURED FOR NE TIE IN CONNECTION (6- 60LB BAGS OF ALLSTAR
CONCRETE USED FOR COLLAR).



PICTURE# 2476 IS LOOKING NE SHOWING $\frac{3}{4}$ CONCRETE COLLAR
POURED FOR SW TIE IN CONNECTION (6- 60LB ALLSTAR
CONCRETE BAGS USED FOR COLLAR)

PICTURE#2477 IS LOOKING NE SHOWING FIELD AROUND
TRENCH BACKFIELD & DRESSED UP



PICTURE# 2478 IS LOOKING SOUTH SHOWING TRACKS
FROM REPAIR AREA TO WIND TOWER GRAVEL LANE

PICTURE # 2479 IS LOOKING EAST SHOWING
WINDTOWER GRAVEL LAWE & FIELD DRESSED
UP AS BEST AS POSSIBLE WITH CONDITIONS



6852 DDSH1-35 12-5-2019dp

1,3539442.886,4960067.539,1126.475,OLD CONC INTK BASE
2,3539432.475,4960166.666,1129.516,FNL N S
3,3539436.921,4960065.474,1123.799, TOP CLAYTILE
4,3539444.380,4960049.114,1128.268,GS TILLE LOCATE
5,3539475.470,4959976.811,1128.539,GS TILLE LOCATE
6,3539514.198,4959891.368,1129.237,GS TILLE LOCATE
7,3539560.099,4959787.837,1129.555,GS TILLE LOCATE
8,3539603.308,4959696.768,1129.922,GS TILLE LOCATE
9,3539651.144,4959594.525,1129.649,GS TILLE LOCATE
10,3539678.287,4959534.780,1129.980,GS TILLE LOCATE
11,3539428.218,4960083.244,1128.049,GS TILLE LOCATE
12,3539401.692,4960141.190,1128.524,GS TILLE LOCATE
13,3539374.837,4960201.557,1128.974,GS TILLE LOCATE
14,3539334.442,4960288.097,1129.040,GS TILLE LOCATE
15,3539291.282,4960389.700,1127.625,GS TILLE LOCATE
16,3539253.849,4960471.424,1127.075,GS TILLE LOCATE
17,3539213.907,4960564.163,1126.922,GS TILLE LOCATE
18,3539172.159,4960658.340,1127.357,GS TILLE LOCATE
19,3539130.215,4960754.084,1128.168,GS TILLE LOCATE
20,3539086.724,4960852.610,1127.953,GS TILLE LOCATE
21,3539043.444,4960950.587,1127.842,GS TILLE LOCATE
22,3539000.718,4961048.195,1129.303,GS TILLE LOCATE
23,3539313.650,4960407.279,1128.297,FNL E W
24,3543300.743,4959786.742,1137.784,fl 12"vcp
25,3543468.362,4959903.583,1135.631,fl 16"vcp
26,3543494.398,4959937.277,1140.089,GS TILLE LOCATE
27,3543519.300,4959968.145,1140.386,GS TILLE LOCATE
28,3543547.015,4960004.606,1140.796,GS TILLE LOCATE
29,3543580.107,4960045.387,1141.051,GS TILLE LOCATE
30,3543607.407,4960080.528,1141.388,GS TILLE LOCATE
31,3543629.221,4960107.501,1141.564,GS TILLE LOCATE
32,3543652.318,4960136.347,1135.936,fl 16"vcp
33,3543897.580,4957548.062,1152.661,cpt 1 12 IR
34,3544613.087,4957471.926,1150.679,smag
35,3543388.634,4959803.352,1137.127,GS TILLE LOCATE lat
36,3543432.962,4959859.970,1136.967,GS TILLE LOCATE
37,3543431.862,4959860.924,1136.823,int
38,3543391.024,4959807.203,1136.967,GS TILLE LOCATE lat
39,3543180.794,4959461.937,1139.314,GS TILLE LOCATE
40,3543218.777,4959545.827,1139.298,GS TILLE LOCATE
41,3543244.992,4959602.836,1139.313,GS TILLE LOCATE
42,3543289.865,4959678.081,1139.110,GS TILLE LOCATE
43,3543291.727,4959601.771,1141.082,FENCE E-W
44,3543289.972,4959721.505,1138.536,FENCE E-W
45,3543289.103,4959937.074,1138.641,FENCE E-W
46,3543288.305,4960158.841,1141.717,FENCE N-S&W
47,3543208.027,4960158.702,1142.110,FENCE N-S
48,3543576.016,4960157.394,1141.574,FENCE N-S
49,3543698.142,4960157.202,1141.183,FENCE N-S
50,3543469.338,4959904.811,1133.879, TOP 16" VCP
51,3543469.965,4959906.210,1136.851,GS
52,3543466.527,4959900.756,1133.846, TOP 16" VCP
53,3543459.380,4959892.515,1136.988,GS
54,3543521.015,4959970.450,1137.381,GS LATERAL N

ELEVATION SHOULD BE 1155.807
ELEVATION SHOULD BE 1153.829

ROD HEIGHT ISSUE AT GPS #33 & #34
RAISE ELEVATION BY 3.14'
#34 TO #57

SEE BACK FOR ADDITIONAL

ADD HEIGHT ISSUE AT GPS #33 & #34
ELEVATIONS 3.14' HIGHER
#34 TO #57

6852 DDSH1-35 12-5-2019dp

55,3543300.624,4959786.608,1135.789,TOP 12" CLAY TILE CONC PLUG
56,3543651.279,4960135.392,1134.178,TOP 16" CLAY TILE
57,3543649.641,4960133.221,1138.518,GS ABOVE TILE
58,3544613.121,4957471.932,1153.829,MAG (ORIGINAL GPS 34)
59,3543897.516,4957548.106,1155.807,IR 12 (ORIGINAL GPS 33)
60,3543157.217,4959418.124,1138.977,TOP 12" CLAY TILE 1.06'TOPTOFL
61,3543168.247,4959429.932,1139.026,TOP 12" CLAY TILE 1.07'TOPTOFL
62,3543177.649,4959438.796,1142.324,GS
63,3543150.354,4959410.120,1142.450,GS
64,3543290.714,4959424.040,1145.891,FNL E-W
65,3543289.211,4959937.094,1141.640,FNL E-W
66,3543288.284,4960158.895,1144.688,FNL W&N-S
67,3543244.970,4959602.828,1142.463,GS ORIGINAL GPS 41
68,3543431.908,4959860.812,1139.897,GS INTAKE ORIGINAL GPS 37
69,3543431.687,4959861.033,1136.429,FL 6" INTAKE
70,3542564.453,4959398.817,1150.021,N EDGE EOG WINDTOWER DRIE
71,3542562.538,4960161.447,1147.620,N EDGE EOG WINDTOWER DRIE
72,3542587.480,4960161.194,1148.050,FNL N
8011,3539544.190,4946944.550,1153.580,GPS MON
8011_GNSS,3539544.190,4946944.550,1153.580,Autonomous Setup
8030,3539343.013,4962837.866,1147.784,HC GPS MON 8030



Drainage Work Order Request For Repair

Hardin County

Date: 8/15/2019

Work Order #: WO00000268

Drainage District: DDs\DD 36 (51061)

Sec-Twp-Rge: _____ **Qtr Sec:** _____

Location/GIS: _____

Requested By: Renee McClellan

Contact Phone: _____

Contact Email: _____

Landowner (if different): _____

Description:

Reported blowout 0.5 mile W of "shortcut to hubbard"

Repair labor, materials and equipment: _____

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:** _____



Hardin County Drainage

DDs\DD 36 (51061)

WO000000268

Work Order Detail

Begin Date: 8/15/2019
Status: Completed - Completed
Description: Reported blowout 0.5 mile W of "shortcut to hubbard"

Requested By: Renee McClellan
Email:
Phone:
Landowner:
GIS #:
Sec-Twp-Rge:

Contractor:

Expenses:			Contract/Estimate:	
Date	ExpenseCode	Vendor	Description	Amount
Notes:				
8/7/19 - McClellan reported blowout during DD regular meeting. Hoffman moved, granzow seconded to have the drainage clerk create a WO and have CGA verify that the tile is district tile and go from there.				
8/8/19- Junker sent a map to Gallentine to confirm that the area was where the Trustees were talking about during the meeting because she was not present. Waiting on response.				
9/10/19 Gallettine went to investigate and everything was draining.				



Hardin County Auditor's Office



Date: 8/8/2019

0 0.1 0.2 0.4 0.6 0.8 Miles



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.

Drainage District:

#106 Lateral 3

Investigation Summary:

- An unknown repair in the SE¼ NE¼ of Section 9 Township 87 North, Range 21 West was reported to have taken place in the north road ditch of State Highway 175.
- Visual observation found freshly disturbed soil from what appears to have been an excavation near the assumed route of Lateral 3. The presumed excavation had pieces of VCP clay tile strewn within the soil of said excavation.
- It appears that a repair may have been completed given said pieces of tile in the soil and signs that a pond which previously occupied the area to the north was recently drained.

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

None recorded as only visual observation was performed.

Additional Actions Recommended:

The tenant for the property should be asked what they know of the situation and if more details of the presumed repair are needed, the following actions should be considered:

- Contacting IDOT to find out which contractor/company did the repair and the details of the same to see if it was completed in accordance with the standards of the District Trustees.

Or

- The repair area needs to be excavated to find out what work was done and to see if it was completed in accordance with the standards of the district trustees.



CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

8/21/19

DAYS OF WEEK:

S M T W T F S

SHEET NO.

OF

PROJECT NUMBER:

6753.1

COUNTY, ROUTE, ROAD:

DD 106 HARDIN Co.

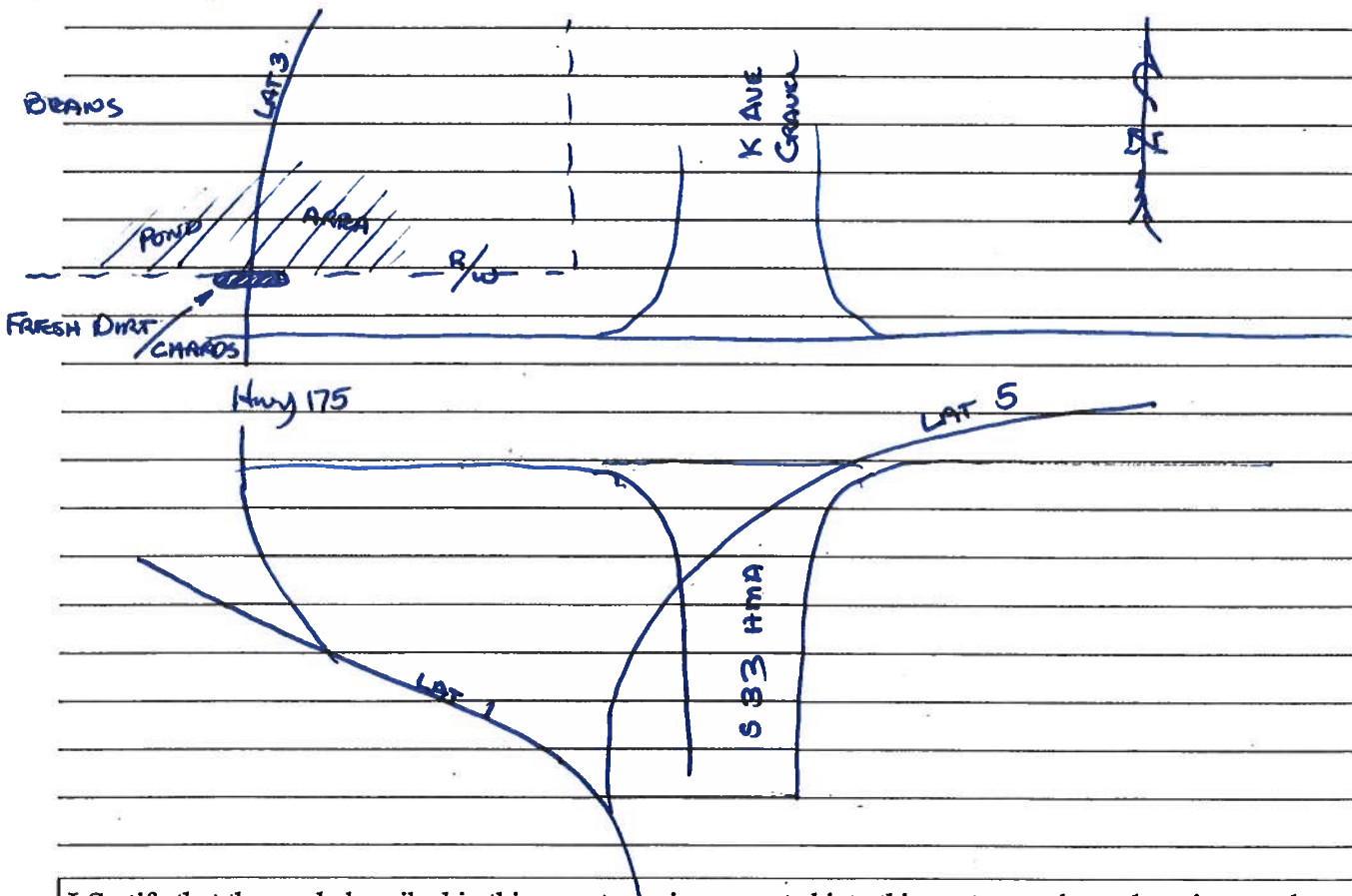
LOCATION:

Hwy 175, W. OF STREET TO HUBBARD

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

Cloudy, 75°, calm, damp conditions

DROVE TO INTERSECTION OF Hwy 175 AND HUBBARD BLACKTOP STREET LAT
S33, WALKED ALONG N. R/W OF Hwy. FOUND FRESHLY DUG
TILE REPAIR DIRT WITH OLD VGP CHARDS OF 12"±, KEPT WALKING
TO 1/2 MILE POINT OF LAT 1. DID NOT SEE ANY OTHER TILE HOUSES OR
REPAIRS. THE PLACE OF THE FRESH DIRT WAS @ LAT 3 (MOST LIKELY) ROUTE.
LOOKS LIKE A POND OF WATER WAS SETTING THERE WITH CORN STALKS
PILED UP @ R/W GRASS DRAIN LINE.



I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

[Signature]

Date Prepared:

8/21/19

Reviewed by:



Engineer

Date Reviewed

FRESH DIRT WITH 12" ± BROKEN VEP CHADS



RCP UNDER 175 W. OF TUR XING





Drainage Work Order Request For Repair

Hardin County

Date: 10/24/2019

Work Order #: WO00000277

Drainage District: DDs\DD 154 (51171)

Sec-Twp-Rge: 29-86-21 **Qtr Sec:** Parcel B in SW SW

Location/GIS: 86-21-29-300-007

Requested By: Roger Woolworth

Contact Phone: (515) 290-9187

Contact Email: mrwizard@netins.net

Landowner (if different): _____

Description: DD 154- Landowner Roger Woolworth emailed photos of ponding on his property, and references flooding out of the drainage ditch after recent 1-1/2" of rain. He questions if ditch/ground is cut wrong creating the ponding of water. Landowner request investigation and repair if this is a district tile issue.

Repair labor, materials and equipment: _____

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 Tiles

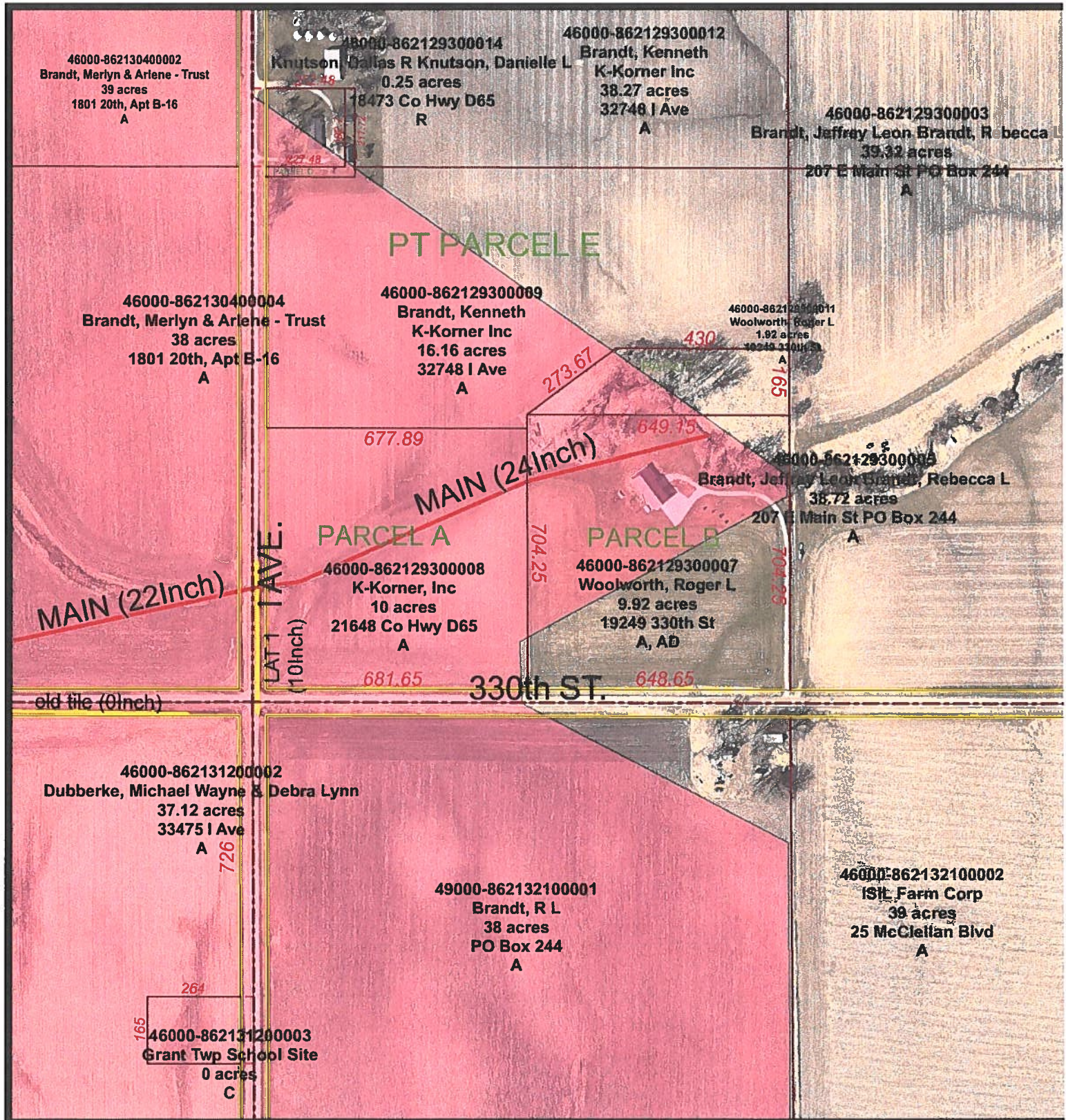
- Lateral
- Main
- Open Ditch
- Private Tile

Hardin County Auditor's Office



Date: 10/21/20

0 0.0425 0.085 0.17 0.255 0.34 Miles



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Drainage District:

#154

Investigation/Repair Summary:

- Landowner in the SW¼ SW¼ Section 29, Township 86 North, Range 21 West reported overland flow and ponding of water on the property, providing photographs of said problems.
- Met with the landowner, whose main concern was surface water from upstream of his property flowing overland on his acreage.
- Visual observation of the general condition of the area found the following:
 - Several trees appear to be within 50-feet of the assumed Main tile route.
 - Overland flow of water runs through the acreage and not towards that of the old creek bed to the north.
 - A concrete Missouri stream crossing at the east edge of the district (downstream of the Main tile outlet) is 1.2-feet higher than the flowline of the Main tile outlet.

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

None recorded as only visual observation was performed.

Additional Actions Recommended:

- After verifying the exact Main tile route, CGA recommends removing and treating all trees and woody brush within 50-feet of the same to prevent root infiltration.
- Contact and work with the downstream landowner of the Missouri crossing to lower the elevation of said crossing in order to allow for the free flow of water from the Main tile outlet.
- If the Main tile outlet does not have a rodent guard, install one.

The above recommendations will help to ensure continued drainage of the District but will not necessarily alleviate all the concerns stated by the landowner. If the District Trustees desire, they may direct CGA to undertake research to see if the original construction of the District included overland drainage beyond the Main tile and restore the same. If it did not include such, an improvement project could be initiated to do so.



Denise Smith

From: Becca Junker
Sent: Monday, October 21, 2019 3:20 PM
To: Denise Smith
Subject: FW: Property Drainage

Becca



BECCA JUNKER
PAYROLL AND EMPLOYEE
BENEFITS MANAGER

HARDIN COUNTY AUDITOR'S OFFICE
1215 EDGINGTON AVENUE OFFICE: 641.939.8113
ELDORA, IOWA 50627 FAX: 641.939.8245

[HTTP://WWW.HARDINCOUNTYIA.GOV](http://www.hardincountyia.gov)

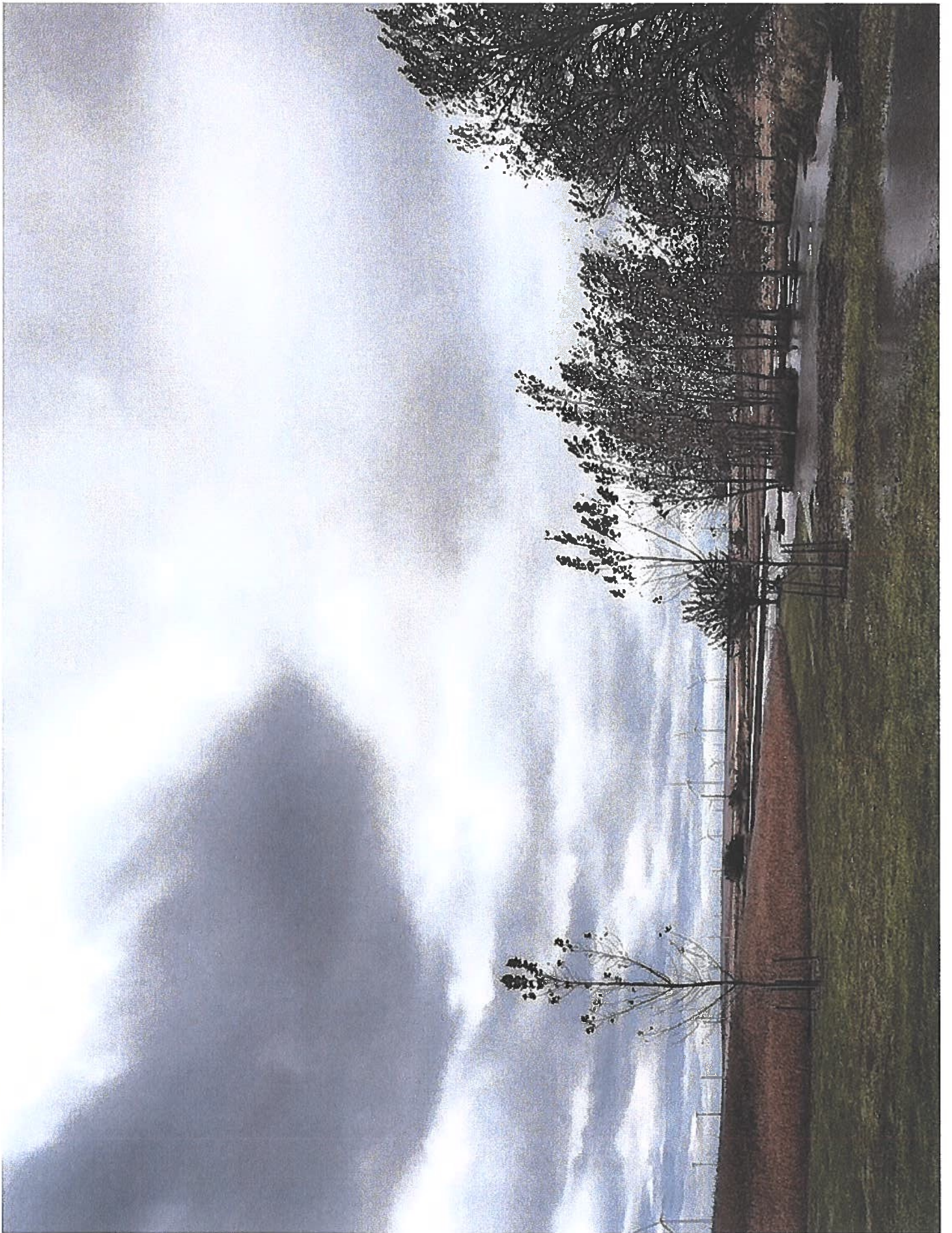
From: R Woolworth <mrwizard@netins.net>
Sent: Monday, October 21, 2019 3:07 PM
To: Tina Schlemme <TSchlemme@hardincountyia.gov>
Subject: Property Drainage

I am enclosing some pictures from this mornings rain of 1 1/2", we have talked before about the drain tile that is on the north side of my property. I would assume that because Hardin County allows field drainage tiles to drain to the ditches this is what happens? I thought the drainage ditch on the north side of the property was to catch all of this drainage, why is it backing up on the yard? Is the ground cut wrong allowing this, how can I get this to stop? I do not want to get a bill for your guys to come out here but I need to know what the options are for me to get this fixed. As you can see from the first picture the corn, bean stubble and water level was up to the area between those 2 new trees.









CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

12/10/19

DAYS OF WEEK:

S M T W T F S

SHEET NO.

OF

PROJECT NUMBER:

6902

COUNTY, ROUTE, ROAD:

DD 154 HARDIN

LOCATION:

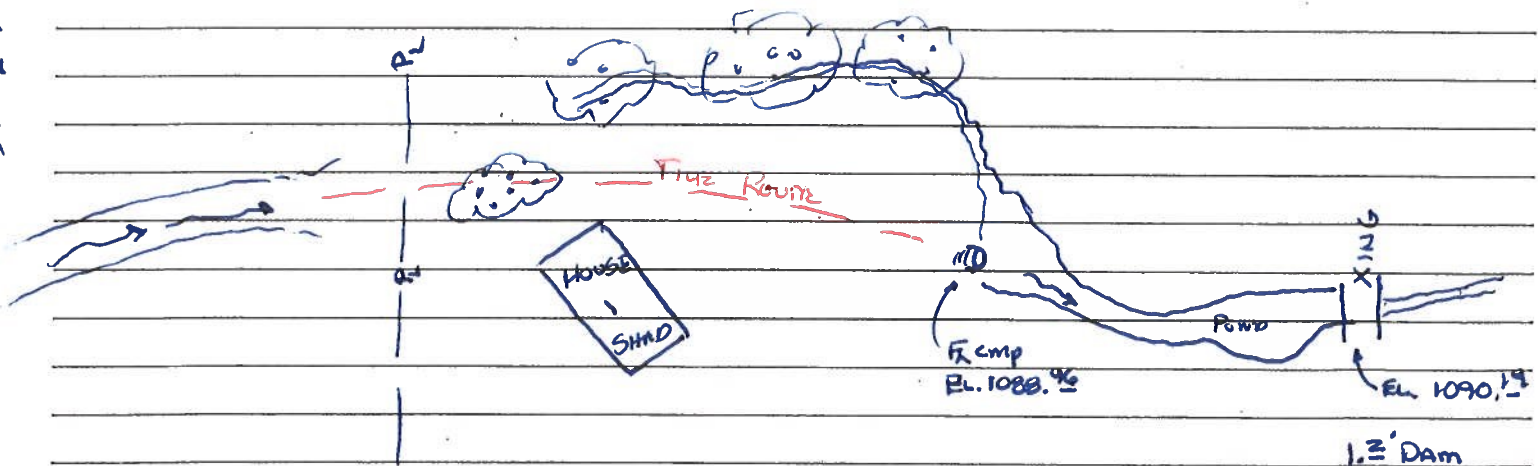
19249 330th St. Sec. 29-86-21

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

Cloudy, Windy, Flurries, 19°

MET WITH ROGER WOOLWORTH @ 11:30 A.M. @ HIS HOUSE. HE SHOWED ME DD 154 OUTLET, HIS NEIGHBORS TO THE EAST CONC. MISSOURI XING, AND OLD DAY CREEK AND FIELD TO WEST. HIS CONCERN IS MAINLY SURFACE WATER FROM WESTERN FIELD NOT GOING INTO THE OLD DAY CREEK THOWAG BUT IS GOING INTO HIS MOWER LAWN. ON TOP OF THAT THE MISSOURI XING DOWNSTREAM SLOWS DOWN WATER SO WATER PILES UP ON HIS PROPERTY. HE DIDN'T THINK THAT WAS MUCH OF A PROBLEM, BUT I DISAGREE SINCE E. OF CREEK TO EAST OF CONC. XING IS 2' LOWER. ALSO TILE OUTLET IS 1/2 UNDERWATER WITH POOL W. OF XING. ACTION TO IMPROVE DRAINAGE: ① RESHAPE SURFACE SWALE IN FIELD TO WEST AND ROGERS WEST PROPERTY TO DRAIN TO OLD CREEK BED. ② LOWER MISSOURI XING TO 1/2' BELOW E. OF DD 154 OUTLET. ③ FIND TILE ROUTE AND MAKE SURE INVASIVE SPECIES OF TREES ARE TAKEN OUT 50' LT + RT OF TILE.

★ ON CPT 8030, GPS MON. ✓ BOLL OK!, SHOT XING, OUTLET, AND GS @ SWALE. ALSO BND. CORNERS. SHOTS @ 73-85



I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

[Signature]

Date Prepared:

12/10/19

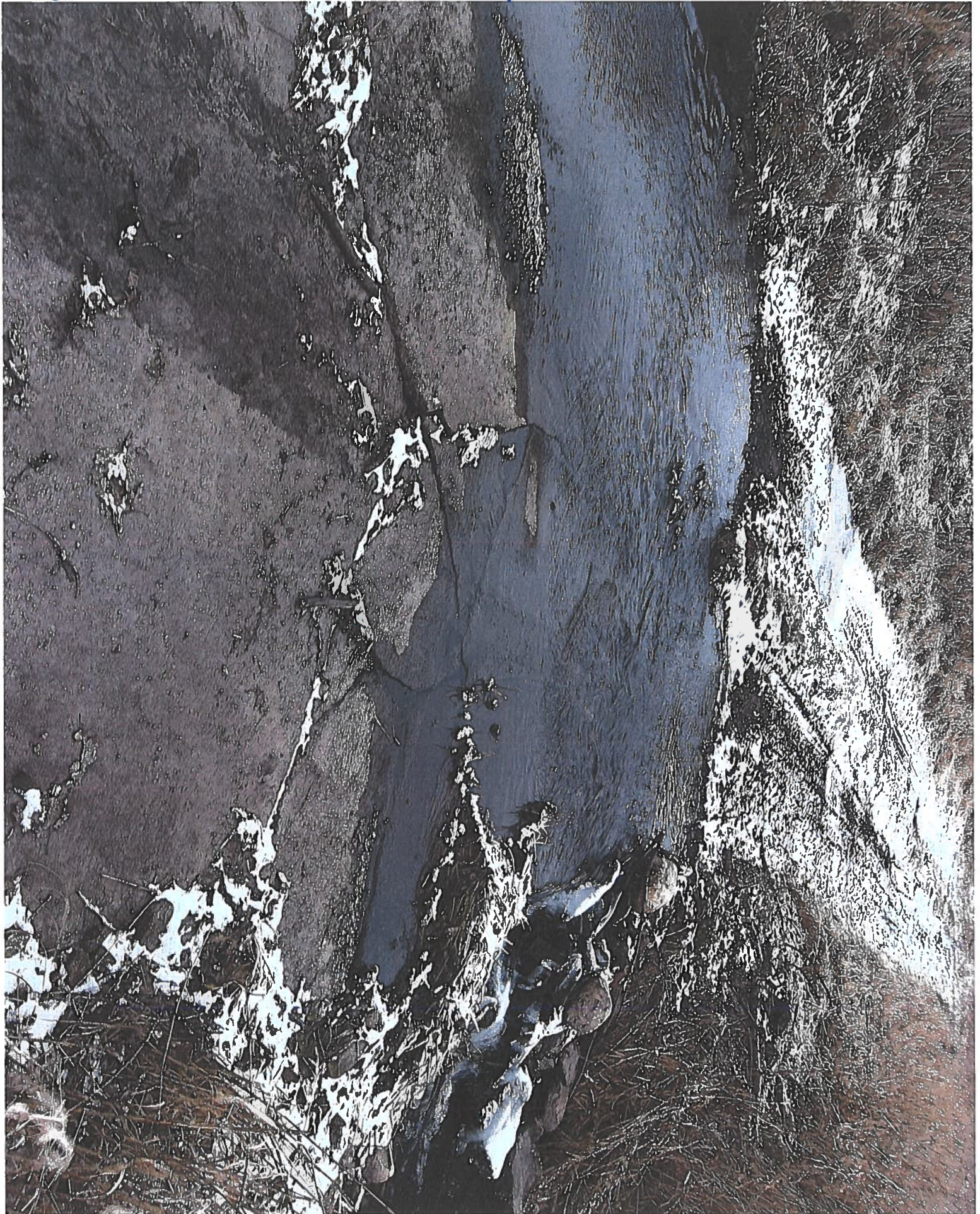
Reviewed by:



Engineer

Date Reviewed

LOOKING N. @ FARM XING, BACKING UP WATER



Looking West From Conc. Field Xing



Looking W. @ DD154 CMP Outlet



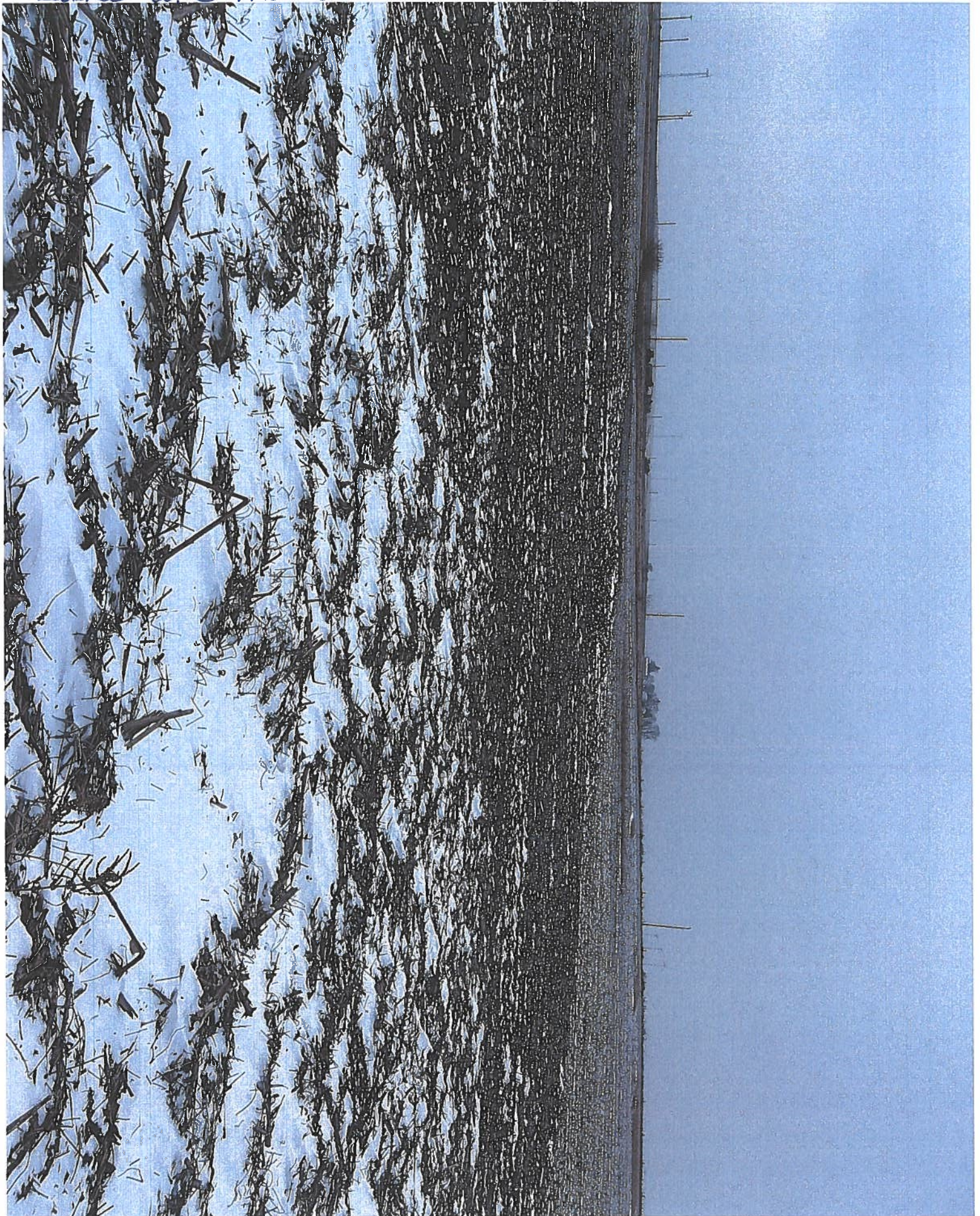
00134 Cmp OUTLET, 1/2 SUBMERGED



GROUP OF COTTONWOOD TREES PROBABLY ON TIRE LINE



LOOKING W @ FARM SWALE OR THE ROUTE



6902 dd154 12-10-19RB

73,3545114.953,4968870.450,1090.186,CL CONC XING
74,3545137.068,4968642.347,1088.962,FL CMP
75,3545136.992,4968641.871,1091.294,TOP CMP
76,3545136.933,4968641.950,1090.423,WATER LEVEL
77,3545104.684,4968205.507,1099.485,GS
78,3545133.432,4968204.976,1098.582,GS
79,3545149.787,4968203.952,1098.415,GS TILEROUTE?
80,3545168.171,4968203.509,1098.625,GS
81,3545199.934,4968204.522,1098.464,GS
82,3545233.516,4968207.440,1099.162,GS
83,3545242.250,4968352.961,1095.810,FL OLD CREEK
84,3545127.752,4968456.109,1102.204,BLD COR
85,3545158.738,4968497.323,1102.183,BLD COR
8011,3539544.190,4946944.550,1153.580,GPS MON
8011_GNSS,3539544.190,4946944.550,1153.580,Autonomous Setup
8030,3539343.013,4962837.866,1147.784,HC GPS MON 8030



Drainage Work Order Request For Repair

Hardin County

Date: 2/3/2020

Work Order #: WO00000284

Drainage District: DDs\DD 55-3 (51085)

Sec-Twp-Rge: _____ **Qtr Sec:** _____

Location/GIS: _____

Requested By: Lee Gallentine reported

Contact Phone: _____

Contact Email: _____

Landowner (if different): _____

Description:

DD 55-3 Lat 10 - CGA staff working in area report active beaver damn in ditch just north of highway, west of Hardin Co. Conservation ground in old RR ROW. Same site as closed WO 165, Contractor Williams removed beaver dam in 2017.

Repair labor, materials and equipment: _____

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
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For Office Use Only

Approved: _____ **Date:** _____



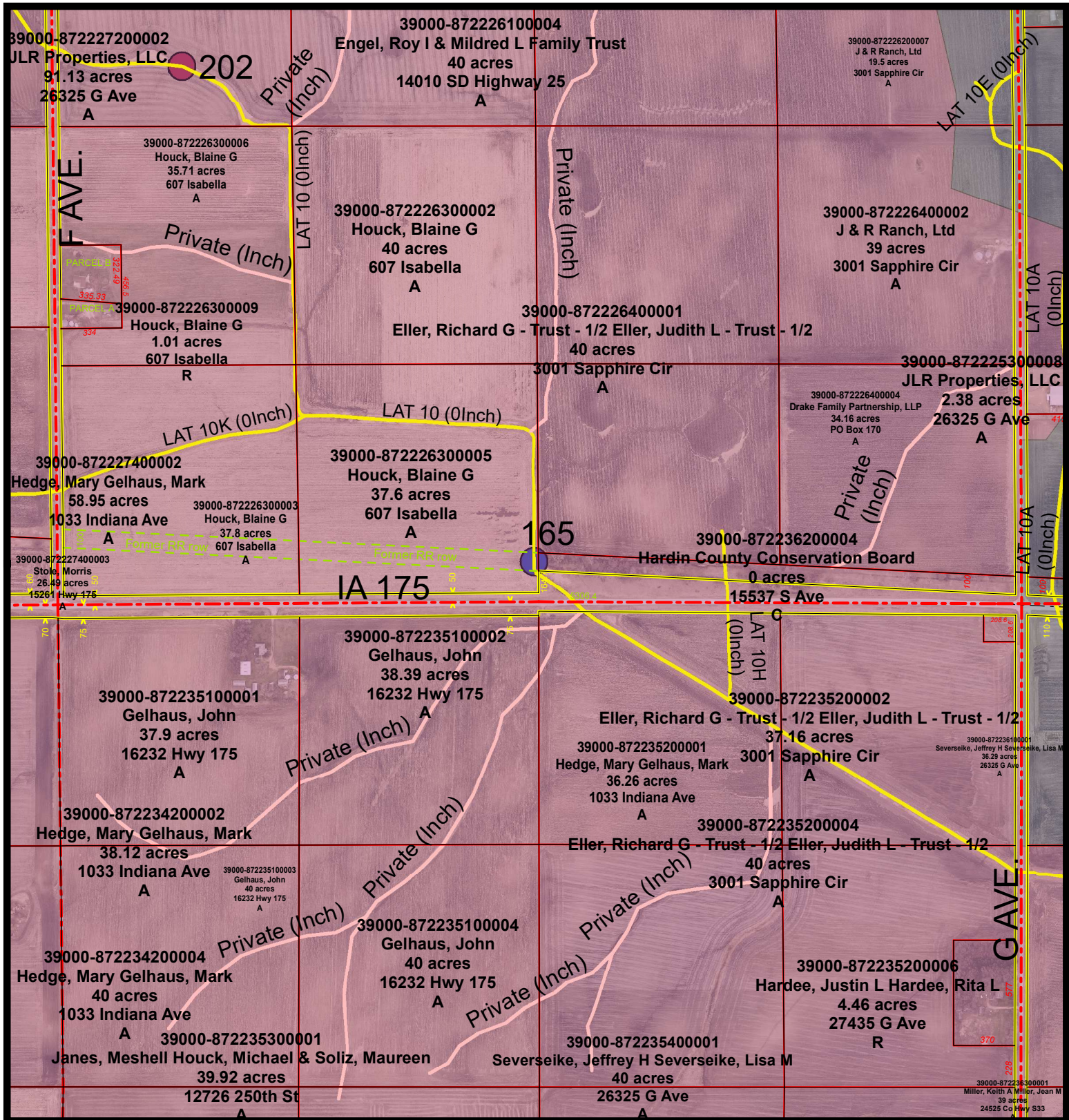
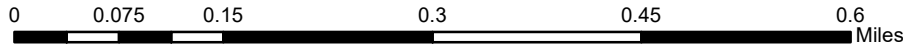
Drainage Tiles

- Lateral
- Main
- Open Ditch
- Private Tile

Hardin County Auditor's Office



Date: 2/3/2020



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PETITION

FILED

JAN 27 2020

To the Honorable Board of Supervisors,

)
)
)

Drainage District

Hardin County, Iowa

No. ~~100~~ 165

HARDIN COUNTY AUDITOR

We, the undersigned petitioners, respectfully state that we are owners of land within Hardin County Drainage District No. ¹⁶⁵~~100~~, more particularly described and defined in the permanent drainage record of said district on file in the office of the County Auditor, Hardin County, Iowa. We request that said Drainage District be placed under the control and management of a board of three trustees to be elected by the persons owning land in the district, as defined in Code of Iowa §468.500.

Norman (Richard) Norman for

R Family Farms, LLC

Doro Stelling

Kenny Stelling

Lennell Ruper

Bill Stelling