

**SURVEYOR'S REPORT
ON THE
RECONSTRUCTION OF THE
WILLIAM BROCKMAN REGULATED DRAIN
March 1, 2023**

BASIS FOR THIS REPORT

This drain was placed #25 on the priority list of regulated drains at public meetings held on February 11, 2019 and March 14, 2022.

HISTORY AND DESCRIPTION

Petition for new drain filed by William Brockman, viewers appointed	C.R.B. P pages 106-107	May 7, 1903
Partial report of drainage commissioners and engineer	C.R.B. P pages 112-113	June 1, 1903
Complete viewers report, hearing date set	C.R.B. P page 142	July 1903
Hearing continued	C.R.B. P page 153	August 6, 1903
Hearing date set	C.R.B. P Page 167	September 1903
Hearing held, remonstrances filed, viewers appointed	C.R.B. P pages 173-174	October 9, 1903
Viewers report, commissioners establish drain	C.R.B. P pages 198-202	October 26, 1903
Final viewers report	C.R.B. P pages 218-220	November 21. 1903
Contract for construction	C.R.B. P page 260	February 5, 1904

This regulated drain, located in Clifty Township, is a combination of two tile lines and open ditch located in Sections 14 & 23-T9N-R7E. This drainage system is located at the headwaters of Little Sand Creek. The original drainage system is shown on the attached watershed map as field located in 2019. The William Brockman drain consists of 2,025 feet of open ditch and the tile portion contains 6,405 feet of 12" tile on the west line and 3,631 feet of 12" tile on the east line.

In 1976, the lower portion of both the east and west lines were replaced with 12" clay tile by the property owners, Marvin, Roger, and Bruce Glick. The exact footage replaced is unknown at this time.

In 1999, 1000' of 12' plastic tile was installed by Romine Tile Service near the upper end of the east line and paid for by the Glicks.

In 2001, 1020' of 12" plastic tile was installed by Romine Tile Service near the upper end of the west line and paid for by the Glicks also.

CURRENT CONDITIONS

The open ditch portion of the drain is clear of trees on both sides with the exception of a length approximately 700 feet on the lower end on the east side adjacent to CR 50N. The open ditch has been maintained by Marvin, Roger, and Bruce Glick.

The original 1904 12" clay tile still exists on the upper end of the west line across the O'Connor property (DLOC Properties LLC) and that section has multiple large tile holes.

The 1976 12" clay tile installed by the Glicks is beginning to develop small tile holes.

Considerable acreage has been privately tiled by the Glicks and connected to both the west and east lines as well as the open ditch.

The current two 12" clay tiles are undersized to adequately drain all affected land.

CHARACTER OF WATERSHED

The watershed is predominately row crop in use. There are scattered homesteads and single family residences within the watershed. There are a few wooded areas with the remainder of the watershed being farm ground.

The watershed consists of a mix of Brookston, Fincastle, Miami, and Whitaker soils. The Brookston is classified as a very poorly drained soil. The Fincastle and Whitaker soils are classified as somewhat poorly drained and the Miami soil is classified as a well drained soil.

The total watershed consists of 1,378.5 acres and the area in the watershed that is drained by the two tile lines only is delineated as the upper watershed and consists of 536.9 acres.

STATUS OF DRAIN FUND

Currently there has been no drain fund established for this drain.

RECONSTRUCTION PLAN

Whereas the current system consists of two lines, I recommend the drain be reconstructed in two phases as follows:

PHASE I

OPEN DITCH AND WEST LINE

- A. Maintain the open ditch by excavating, clearing and spraying as necessary to provide an outlet for the west and east tile lines and also for any private tiles outletting into the open ditch.
- B. Reconstruct the entire west line from the existing outlet to the north side of CR 200N using approximately:
 - 1. 3,600 feet of 18" perforated dual wall pipe
 - 2. 975 feet of 15" perforated dual wall pipe
 - 3. 1,900 feet of 12" perforated dual wall pipe

PHASE II

EAST LINE

- A. Reconstruct the entire east line from the existing outlet to the east side of CR 1050E using approximately:
 - 1. 2,500 feet of 18" perforated dual wall pipe
 - 2. 1,200 feet of 15" perforated dual wall pipe

RIGHT-OF-WAY

I recommend the standard 75' right-of-way on each of the two tile lines and open ditch.

EXPENSES, COSTS, BENEFITS, AND EXPENSES

EXPENSES

For the purpose of this report, any expenses to the affected area shall be included under the head of COSTS.

COSTS

I recommend Phase I and Phase II reconstruction be done on a five year reconstruction schedule. I estimate the reconstruction cost of Phase I to be \$150,000. I estimate the reconstruction cost of Phase II to be \$92,000.

BENEFITS

The reconstructed drain will make the agricultural property more productive in raising of agricultural products.

The reconstructed drain will provide additional capacity for connection of additional private tiles.

The reconstructed drain will increase property values within the area.

The reconstructed drain will improve the drainage on CR 200N, CR 100N, and CR 1050E.

DAMAGES

I recommend that no damages be allotted to any properties within the affected area for the following reasons:

1. Work on the open ditch and installation of the tile is planned when there are no crops in the field, so there will be no crops damaged.
2. The disturbance to the properties will be minimal, and the current use of each property can be continued after reconstruction.
3. The reconstructed tile will be installed within the existing right-of-way.

ESTIMATED COST OF PERIODIC MAINATENACE

The estimated cost of periodic maintenance is \$1,000 per year

AFFECTED AREA

As mentioned previously, the watershed total acreage is 1,378.5 acres, with 536.9 acres of the watershed drained by the two tiles.

Attached is a map of the watershed as currently delineated and the existing drain. Also attached is an assessment schedule for consideration by the drainage board for Phase I Reconstruction. The entire watershed, 1,378.5 acres, is shown under a maintenance assessment for maintenance of the open ditch and tile. The area drained by the two tiles, 536.9 acres is shown under a reconstruction assessment for Phase I.

Respectfully submitted on this 13th day of March 2023.



E. R. Gray III RLS
Bartholomew County Surveyor

attachments