

Drain: CURVES LOWER Drain #: 168
Improvement/Arm: _____
Operator: J. LIVINGSTON Date: 3-15-04
Drain Classification: Urban/Rural Year Installed: 1908

GIS Drain Input Checklist

- Pull Source Documents for Scanning JL
- Digitize & Attribute Tile Drains JL
- Digitize & Attribute Storm Drains _____
- Digitize & Attribute SSD _____
- Digitize & Attribute Open Ditch _____
- Stamp Plans _____
- Sum drain lengths & Validate JL
- Enter Improvements into Posse _____
- Enter Drain Age into Posse JL
- Sum drain length for Watershed in Posse JL
- Check Database entries for errors JL

**Gasb 34 Footages for Historical Cost
Drain Length Log**

Drain-Improvement: CHARLES LOWER

Drain Type:	Size:	Length	Length (DB Query)	Length Reconcile	N/A/APPlicable	
					Price:	Cost:
TILE	8"	300'	300'		2 ⁰⁰ "/lf	600 ⁰⁰
	10"	894'	894'		3 ⁰⁰ "/lf	2682 ⁰⁰
	12"	2306'	2306'		4 ⁰⁰ "/lf	9224 ⁰⁰
	15"	900'	900'		5 ⁰⁰ "/lf	4500 ⁰⁰
	16"	860'	860'		5 ⁵⁰ "/lf	4730 ⁰⁰
	18"	2293'	2293'		6 ⁵⁰ "/lf	14904 ⁵⁰

Sum: 7553' 7553' \$36,640⁵⁰

Final Report: 7553'

Comments:



SURVEYOR'S OFFICE

Hamilton County

Kenton C. Ward, Surveyor

773-6110 Ext. 19

Noblesville, Ind. 46060 February 24, 1983

TO: Hamilton County Drainage Board

RE: Charles Lower Drain

Attached is a drain map, drainage shed map and an assessment roll for the Charles Lower Drain. This drain is located in Sections 5,6,7 & 8 of Township 20 North, Range 4 East in Jackson Township.

The drain was first constructed as the Thomas DeVaney Drain by the order of the Circuit Court in 1882. This drain consisted of a Main Ditch 6252 feet in length. An Arm 1 1600 feet in length, Arm 2 1700 feet in length and an Arm 3 4200 feet in length.

In 1908 the lower or open portion of the DeVaney Drain was tiled. This was done by an order of the Commissioners as the Harry Binkley Drain and it consisted of 1500 feet.

In 1918 the drain was again reconstructed by order of the Circuit Court. This was done as the Pearl A. Lower and Charles E. Lower Drain. This consists of adding 1400 feet to the original Main DeVaney Drain and retiling the main drain. The following is a breakdown of the length of drain as it is now.

Thomas DeVaney	Main	400ft
	Arm 1	1600ft
	Arm 2	1700ft
	Arm 3	4200ft
 Charles Lower		<u>7553ft</u>
	TOTAL	15,453ft

The last assessment on the drain was made in 1960.

On October 21, 1968, Mrs Audrey Kassebaum requested that the drain be placed on a maintenance program. A hearing for this purpose was held on June 7, 1971.

At that time a proposed maintenance cost of \$1.00 per acre, \$3.00 minimum was rejected and the proposal was tabled by the Board. (see DB record Book 1, page 70 & 72)

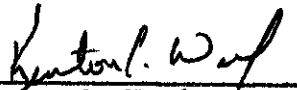
Presently, the drain is once more on the classification list at number thirty (30) for maintenance.

On February 10, 1983, an inspection was made on this drain. At that time the drain was found to be in good condition. Because of this I recommend that the drain be placed on a maintenance program at \$2.00 per acre, \$6.00 minimum. With 484.4 acres in the drainage shed, the total yearly assessment would be \$1012.94.

I also recommend that two breathers be installed as shown on the attached work order.

A hearing should be set for May 2, 1983 at 1:30pm.

KCW/no


Kenton C. Ward
County Surveyor

No. 18249

In the matter of the Petition
of Paul A. Lower & Chas. F.
Lower, for the Construction of
a drain.

State of Indiana)
Hamilton County) ss

IN THE HAMILTON CIRCUIT COURT.

IN THE Matter of THE PETITION
OF PEARL A. LOWER & CHARLES
E. LOWER FOR THE CONSTRUCTION
OF A DRAIN.

Report of Drainage Commissioners and Engineer,

To the Honorable Judge of the Hamilton Circuit Court.

We the undersigned Commissioners of drainage and Engineer, To whom
was referred the above entitled petition for drainage of certain lands,
in Jackson Township, Hamilton County, Indiana.

Would respectfully report that we met on the line of said proposed
Drain on the (14)th day of Feb, 1918. Qualified and proceeded to view
and lay out said drain and to view the lands affected thereby.

That we further report that said proposed is practicable, that the
same when completed will improve the public health, and will reclaim
certain lands, and will be of public utility, and will benefit several
highways, also that the cost of construction and repairs damages and
expense of effecting said drain will be less than the benefits to the
lands effected by said drainage.

That we have definitely determined the best and cheapest method of ef-
fecting drainage of said lands, we have fixed the route, location, and
character of said proposed work and fixed the same by meter and bounds
courses, distances, descriptions and guides, and bench marks, including
Arms and branches so as to provide for a complete out let for the drai-
nage of said lands effected by said proposed work; that we have divid-
ed the ditch and branches into sections of not more than 100 feet,
in length by setting stakes at each 100 feet.

And we have assessed the benefits and damages as they may be to each separate tract of land, and to each corporation and Township effected, That we have fixed the beginning and outlet so as to secure the best results, and we have run the line of said ditch so as to secure the best results and cause the least injury to the lands effected.

LOCATION.

Began at a point 60 rods North and 30 rods east of the center of Section 7, Township 20 North Range 4 east, Hamilton County, Indiana,

Run thence east to Station 1 plus 24; Thence on 14 degrees 20 minutes curve, to the right 314 feet to Station 4 plus 38; Thence South to Station 12; Thence South 20 degrees east to Station 13; Thence South 28 degrees 30 minutes east to Station 14; Thence South 85 degrees east to Station 15; Thence east to Station 16; Thence North 77 degrees east to Station 21 plus 50; Thence North 56 degrees east to Station 28; Thence North 28 degrees east to Station 30; Thence North 15 degrees east to Station 35; Thence South 86 degrees east to Station 38; Thence North 55 degrees east to Station 41; Thence east to Station 49 plus 65; Thence North 59 degrees east to Station 52; Thence North 50 degrees east to Station 56; Thence North 63 degrees east to Station 57; Thence South 48 degrees east to Station 58; Thence South 24 degrees east to Station 59 plus 35; Thence South 48 degrees east to Station 65 plus 20; Thence South 25 degrees east to Station 70 plus 75; Thence South 48 degrees east to Station 74 plus 45; Thence South 80 degrees east to Station 75 plus 53, and terminate in Little Cicero Creek about 9 Rods North and 9 Rods east of Center Section 8, Township 20, Range 4 east.

The work will be staked out by the engineer and his stakes must be carefully preserved, and followed, The digging of each and every portion of the ditch must begin at its outlet, or its junction with another tile drain and proceed toward its upper end.

The ditch to be dug along one side of the line of Survey Stakes, and sufficient distance from it, to not disturb the stakes, and shall be out in a straight, and neat manner, In taking out the last draft, the blade of the spade must not go deeper than the grade line.

The ditch must be dug accurately and truly to grade at the depths indicated by the figures given by the engineer, measured from the grade stakes, The laying of the tile must begin at the lower end and proceed up stream, The tile must be laid as closely as practicable, and in line free from irregular cracks, the piece being turned about until the upper closes, unless there is sand or fine silt which is likely to run into the tile, in which case the lower edge must be laid close and the upper side covered with clay or other suitable material,

When in making turns or by other unavoidable reasons, a crack of one fourth inch or more is necessarily left, it must be securely covered with broken pieces of tile or by other indestructible material, junctions with branch lines must be carefully and securely made, After the tile have been laid, and inspected by the engineer or his representative, they must be covered with the earth excavation from the trench, or borrowed clay or soil, where said trench does not afford sufficient material, the filling shall be to the full depth of the trench, and in no case less than Two feet in depth over the tile in New cuts.

= 2 =

And where said drain is in an open channel the filling shall be to a depth of not less than Two feet above the top of the tile, for the full width of said open channel, In no case must the tile be covered with sand with out other material being first used and in no case will boulders or heavy rock be allowed in the filling, that may in time come in contact with the tile, The ditch contractor must assume all risks from stones and caving-in of ditch, and when each drain is completed it must be free from sand and mud before it will be received and paid for in full, In case it is found impracticable, by reason of bad weather or unlooked for trouble in digging the ditch or properly laying the tile, to complete the work at the time specified in the contract, the time may be extended as may be mutuly agreed upon by the engineer and contractor, The contractor shall use all necessary precaution to secure his work from injury while he is constructing the drain, all tile and other materials used in the construction of this drain and the tributaries thereto, included in the requirments of these specifications, shall be first class in every respect and subject to riggid inspection by the engineer.

The engineer shall have authority to lay out and direct the work, and to inspect and supervise the same during the construction, and completion to see that it is properly done in accordance with the specifications and contract, and his instructions shall be fully carried out.

CONCRETE WORK.

The concrete for all the concrete work to be done under these specifications shall be a mixture of One part Portland Cement to Five parts good clean, sharp sand and gravel, the sand and gravel to be of a grade approve by the engineer, Each batch of concrete shall be mixed thoroughly while dry until it presents an even shade of coloring throughout, then continuing the mixing, water sufficient shall be added to make a moderately wet mortar.

Unyielding forms shall be built for the purpose of moulding the concrete into shape, The mortar to be placed in the forms while still in a wet condition and spaded so as to make a homogenous construction, and as soon as the concrete has set sufficiently to bear its own weight said forms shall be removed and any defect in said construction shall be immediately repaired.

Said ditch to consist of One row of 8, inch tile from Station 0, to Station 3, One row of 10, inch tile from Station 3, to Station 11, plus 94, One row of 12, inch tile from Station 11, plus 94, to Station 35, One row of 15, inch tile from Station 35 to Station 44, One row of 16, inch tile from Station 44, to Station 52, plus 60, and One row of 18, inch tile from Station 52, plus 60, To Station 60, plus 53, and from Station 60, plus 53, to Station 75, plus 53,

the drain now consist of One row of 18, inch tile, Said tile being in needed repair at Stations 61, to 63, 68, plus 16, to 68 plus 36, 72 to 72 plus 32, 74 plus 16 to 74 plus 25, or near such Stations, being in all about 300 lineal feet; said repairs to consist of removing the old tile, and replacing same with first class New 18, inch tile.

Also said ditch shall consist of 3 catch Basins to be located as follows, One at Station 12 plus 22, and One at Station 37 plus 35, and One at Station 52 plus 60.

~~The headwall now at Station 75 plus 53 shall be repaired and shall have wings constructed at each end of said wall, Said wings to be 6 feet in length 7 feet high and 16 inch thick at bottom and 10 inch thick at top, and shall be set, at angles of 45 degree from face of wall, Said wall wings and catch Basins to be built of concrete in accordance with the specifications for concrete, and plans attached hereto. Said Catch Basins to be 3 feet in diameter and supplied with gratted Iron Cover, securely fastened to Basins.~~

The fall of the established grade is as follows,

From Station 0 to Station 1, 70/100 per 100 feet,

"	"	1	"	"	3,	40/100	"	"	"
"	"	3	"	"	40,	10/100	"	"	"
"	"	40	"	"	60,	35/100	"	"	"
"	"	60	"	"	73+50,	38/100	"	"	"
"	"	73+50	"	"	75+53,	30/100	"	"	"

The length of the entire ditch including what is known as the Binkley Drain is 7553 feet; And the Binkley Drain is hereby made a part of this Drain.

On that portion from Station 60 plus 53 to Station 75 plus 53 where there are repairs to be made, the contractor will be required to borrow dirt sufficient to fill the channel full, to the full length and width of the washout and including all excavation made in making such repairs.

Profile or Tabulated sheet.

Sta.	HubCut.	Cu.Yds	Sta.	HubCut.	Cu.Yds.
0	3.20		51	4.85	35
1	4.20	20	52	5.15	37
2	4.00	22	53	4.55	36
3	3.50	18	54	4.35	33
4	4.10	21	55	4.37	32
5	3.78	22	56	4.55	33
16	5.23	26	57	4.54	34
7	5.88	31	58	4.17	32
8	5.98	33	59	4.09	31
9	5.78	33	60	4.22	31
10	5.78	32	61	3.84	30
11	4.48	29	61+50		16
12	6.00	30	62	3.52	16
13	5.26	41	63	3.90	28
14	4.90	37	64		
15	4.90	36	65		
16	5.00	37	66		
17	5.20	38	67		
18	5.20	38	68	4.22	3
19	5.00	38	69		
20	4.80	36	70		
21	4.60	35	71		
22	4.70	34	72	3.66	7
23	6.33	35	73		
24	5.61	41	74	3.22	4
25	5.61	42	75	4.95	5
26	5.56	41			
27	5.61	41			
28	5.75	42			
29	5.86	44			
30	6.31	45			
31	6.41	47			
32	5.91	46			
33	6.11	44			
34	5.78	44			
35	4.58	38			
36	4.68	34			
37	4.63	34			
38	4.73	35			
39	4.53	34			
40	4.38	33			
41	4.33	32			
42	4.35	32			
43	4.05	31			
44	4.20	30			
45	4.18	31			
46	4.45	32			
47	4.50	33			
48	4.60	34			
49	4.60	34			
50	4.55	34			
Total Cubic Yards					2,171.00

Estimated Cost of Construction including,
 Material, labor, hauling, etc,
 Necessary for completion of work
 in accordance with plans & specifications,

Main Ditch \$ 2,449.50

Estimated Expenses, including,
 Attorneys Fee
 Recording & releasing
 Legal Printing
 Superintending Construction
 Court Expenses &
 Contingency fund

Total 368.50

We claim for services, Expenses & mileage, to date for,
 Clark Coffin, Drainage Commissioner, 8.00
 W.L.Devaney, Viewer 8.00
 J. S. Shannon, Engineer & helpers \$ 67.

Total \$ 2,884.50

No.	NAMES	DESCRIPTION OF LANDS	Section	Township	Range	ACRES ASSESSED		ACRES BENEFITED		AMOUNT OF ASSESSMENT		TOTALS	
						Acres	Hun.	Acres	Hun.	\$	Cts.	\$	Cts.
	Paul C. & Chas. T. Lower	SW NE	7	204				38		551	00		
		SE NE	7	204				40		400			
		S2S2 N2 NE	7	204				19		230	50	1181	50
	J. A. Malott	N ³ / ₄ NE NE	7	204				30		190			
		pt E N ³ / ₄ NW NE	7	204				5		35			
		pt SE SE	6	204				40		120		340	
	Sarah E Fox	pt E ² W ² SE	6	204				35		105			
	Sarah Jenkins	pt N ² NW NW	8	204				7		21			
	Henry D Bower	pt NW NW	8	204				42	50	382	50		
		SW NW	8	204				21	50	73	50	456	
	John W. Warren	pt SE NW	8	204				35		170			
		pt SW NE NW	8	204				5		50		220	
	Ruth Cotton	pt NE NE SE	7	204				2		16			
	J. T. Sweat	pt NE NE SE	7	204				1		8			
	Cora W Sweat	pt NE NE SE	7	204				1		8			
	Christina Mathews	pt NE SE	7	204				20		200			
	Cora A. Rice	E pt NW SE	7	204				13		130			
	Paulinda Hussar	pt N NW SE	7	204				6		60			
	Sebastian Jarret	pt S. NE SE	6	204				10		30			
	Jackson Township	Benefit to Pub Highways											
		1- N & S W. line NE	7	204				10		10			
		1- E & W. S. line NE	7	204				50		50			
		1- N & S. W. line NW ¹ / ₄	8	204				40		40			
		1- E & W S. line SE ¹ / ₄	6	204				10		10		110	

STATE OF INDIANA

SS

HAMILTON COUNTY

We the undersigned viewers and engineers to whom was referred the above entitled petition for report after being duly sworn upon oath say that we have personally examined the whole line and route of the proposed ditch that the assessments herein made and reported are correct, Just and equitable to all parties therein named as interested That no other lands will be benefited or injured by said proposed Drain; that the above and foregoing report is true in substance and in fact as we verily believe.

Clark Coffin
.....

W L Devaney
.....
VIEWERS.

J. S. Shannon
.....
ENGINEER.

Subscribed and sworn to before me this ... day of ... 1918

.....
CLERK.

In the Matter of
the Harry A. Binkley
et al, Drain.

Report of County
Surveyor.

Report examined & certified
correct and complete, and
High Court, County of Hamilton,
Ohio, in case of
Harry A. Binkley et al
Filed Jan. 18 - 1908.

Wm. K. Carter

FRED. D. HYNES,

OB 18 188

STATE OF INDIANA, HAMILTON COUNTY, SS:

IN THE MATTER OF THE

HARRY A. BINKLEY, ET AL,

DRAIN.

REPORT OF HUGH JOHNSON, COUNTY SURVEYOR.

~~*****~~

TO HONORABLE BOARD OF COMMISSIONERS, HAMILTON COUNTY, INDIANA:-

The undersigned Surveyor of Hamilton County, to whom was referred the above entitled petition for drainage on the 20th day of December, 1907, would respectfully report that on the 14th day of January, 1908, as directed by the mandate and order of the Auditor of said county, I made all the necessary surveys and made personal inspection of the real estate described in the petition and all other lands likely to be affected by the proposed work and that I would respectfully report as follows:-

That the drainage as proposed in said petition is practicable, that the same when constructed will improve the public health, and will be of public utility, that said proposed drainage will benefit three public highways and one public school grounds in Jackson Township said county and state.

That the cost of construction and expenses of effecting said proposed drainage will be less than the benefits to the owners of the lands likely to be effected by said proposed drainage.

I would further respectfully represent and show to the Board that the said proposed drain will not exceed two miles in length and will not cost to exceed three hundred dollars exclusive of the tile that may be used therein, and that I am not interested in said proposed drainage, and that I am not in any way related to any of the parties likely to be effected thereby.

LOCATION.

Beginning at a point 6 rods north west of the south east corner of the north east quarter of the north west quarter of section 8, township 20, north range 4 east, run thence south east following in the channel of the now existing open drain known as the Thos. DeVaney ditch, to station 13 plus 50, thence east a distance of 150 feet terminating in Cicero creek at a point 100 feet north and 130 feet east of the center of Section 8, township 20, north range 4 east.

REQUIREMENTS.

The ditch to consist of one row of 18 inch drain tile from station 0 to station 14 plus 90 and one row of 20 inch sewer tile from station 14 plus 90 to station 15 plus 00 or terminus.

STONE WALL.

At station 15 to be constructed a stone wall 16 feet by 6 feet by 2 feet as shown on attached drawing. Said wall to be built from rock faced range rubble laid up in mortar made from one part Portland cement and three parts of clean sharp sand and so constructed to receive the tile at proper grade two feet above the base of the wall.

CONNECTING BOX.

At station 0 to be constructed a connecting box in line of ditch to receive four rows of 7 inch tile and one row of 8 inch tile which are already in place and connect same to one row of 18 inch tile herein before specified. The dimensions of said box to be 4 feet wide and 3 feet long and 2 and 1/2 feet deep inside measurements. The same to be constructed of concrete made of one

part Portland cement to three parts clean sharp sand, said box to have walls 6 inches in thickness and floor in bottom four inches thick and to be covered with a concrete slab four inches thick and of sufficient dimensions to entirely cover said box. Said lid or cover to be made of concrete of the same kind and quality as above mentioned and to be reinforced with wire laid lengthwise and crosswise in slab. Slab to be made in suitable forms and let stand until concrete is thoroughly set before placing on box.

LAYING TILE, FILLING DITCH, DEADENING ETC.

All tile used in the construction of the ditch shall be first class tile and be subject to inspection and approval of Superintendent in charge of the work, and to be laid in the ditch in a true line with joints well matched and at proper grade as shown by profile hereto attached and marked "EXHIBIT B" and to be left uncovered until inspected by the Superintendent of construction after the same has been accepted to be covered with earth to the depth of 24 inches level across, where the ditch runs in the old channel and where ditch is in/new cut the trench to be filled full and well tamped.

All trees are to be ~~be~~ deadened and bushes grubbed for a distance of twenty feet on each side of the ditch. All work to be done in a first class and workmanlike manner and to the full satisfaction of the Superintendent in charge of the construction.

GENERAL SPECIFICATIONS.

Length of ditch-----1500 feet.

ESTABLISHED GRADE.

From Station 0 to station 13 -----38/100 feet.

From station 13 to station 15-----30/100 feet.

ESTIMATED COST.

175 cubic yards excavation-----\$ 43.00

1490 feet 18 inch drain tile-----397.50

10 feet 20 inch sewer tile-----10.00

Concrete connecting box-----10.00

Stone retaining wall 16 X 6 X 2 (ft.)-----30.00

Laying tile and filling ditch etc., -----50.00

Total-----\$540.50

Tile Drain

wall

Creek

NE

Top view

12 ft.

Tile ditch

Front Elevation

18 in. tile

24 in.

12'

Base of wall
Total length 16 ft

8 ft.

8 ft.

South End

Plan Stone Retaining Wall

Binkley Ditch

South End

4'

PROFILE PAPER.

No. of Station.	Depth of Cut.	Width on Top.	Width in Bottom.	No. of Cubic Yards to be Removed.	Price per Cubic Yard.	Total Cost per Station.
0	3.50			4		<i>Connecting Box (concrete)</i>
1	3.37			12		
2	5.33			12		
3	4.92			10		
4	4.72			9		
5	4.53			10		
6	4.55			10		
7	4.83			9		
8	4.74			9		
9	4.62			9		
10	4.76			9		
11	4.51			8		
12	5.16			7		
13	4.89			6		
14	4.59			21		
15	4.29			33	<i>stone wall</i>	

No.	NAMES.	DESCRIPTION OF LANDS.	Section	Tp.	Range	Acres Assessed		Acres Benefited		Amt. of Assessm't		Totals	
						A	Hun.	A	Hun.	\$	Cts.	\$	Cts.
1	Harvey A Binkley	pt SE ✓	NW	8	20	4	35			82	95		
	do	pt NE	NW	8	20	4	10			17	78		
	do	pt NW	NW	8	20	4	25			44	45		
	do	Sw	NW	8	20	4	40			71	08	216	26
2	S. J. Jenkins	pt NW ✓	NW	8	20	4	9					16	00
3	J B Malloth	SE ✓	SE	6	20	4	40			65	10		
	do	pt NE	NE	7	20	4	30			48	82		
	do	pt NW	NE	7	20	4	10			16	28	130	20
4	W N Smith	SE #	NE	7	20	4	40			65	50		
	do	Sw	NE	7	20	4	40			43	20		
	do	pt NE	NE	7	20	4	10			16	38		
	do	pt NW	NE	7	20	4	10			11	05	136	13
5	Sebastian Gust	pt NE ✓	SE	6	20	4	4					4	74
6	Geo W Fox	pt SW ✓	SE	6	20	4	35			41	47		
	do	pt NW	SE	7	20	4	10			17	78	59	25
7	Geo Rice	pt NW ✓	SE	7	20	4	15					26	66
8	Chester Matthews	pt NE	SE	7	20	4	15					26	66
9	Sarah E Barnett	pt SW	NE	8	20	4	1					5	00
10	L W Cotton	pt NE	SE	7	20	4	4					7	11
11	Jackson Twp	School Ground	pt NW	NW	8	20	4	1		2	37		
	do	highway	Edw	Edw	7	20	4			8	00		
	do	"	W S	bit	7	20	4			8	00		
	do	"	Edw	"	7	20	4			8	00	26	37

6 5499

South Bend Ind.

Sept 18th 1908

Gentlemen. I thought
I would write you concerning
the ditch tax. I have never
received any notice as to the am-
ount of any tax or when or how
they were to be paid. I never
knew until a little while back
that the covering of the ditch
had been granted please let
me know by return mail
Yours Respectfully

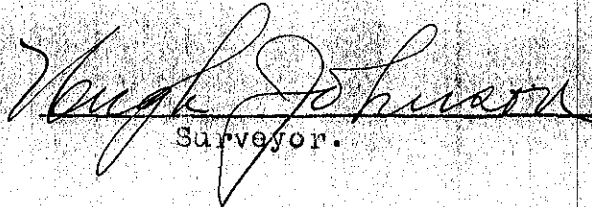
Christena Mathews
209 N. Jackson St.
So. Bend. Ind.

State of Indiana,

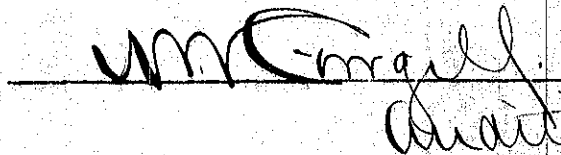
ss:

Hamilton County,

The undersigned Surveyor of Hamilton County, Indiana, to whom was referred the above entitled petition for drainage, after being first duly sworn upon my oath say, that I have made a personal inspection of each tract of land as above set out in this report, and that I have examined the whole line and route of the proposed drain and that no other lands will be benefited than those set out in this report, and that no damages have been awarded to any person on account of said proposed drain, and that the above report is true in substance and in fact as I verily believe.


Surveyor.

Subscribed and sworn to before me this the 18th day of Jan., 1908.


Notary.