

Reconnaissance Survey
of the
Historic
Chenango Canal

Within the Boundaries of Broome County

Conducted by
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Introduction

The Chenango Canal, which connected Utica and Binghamton, is an important historic resource within New York State. Known for its engineering, it played a major role in opening the Chenango Valley to development. A reconnaissance survey is an important first step in preserving this significant historic resource.

This reconnaissance survey was undertaken to determine the presence and condition of canal related structures associated with the Chenango Canal within the boundaries of Broome County, New York. The condition of many of the resources associated with the historic transportation system, abandoned over one hundred and twenty-five years, ago was unknown. This study documents what is extant, and where. The study was sponsored by the Broome County Planning Department and funded in part by the Preservation League of New York State and the New York State Council on the Arts through a Preserve New York Grant.

It will provide the Planning Department with a complete inventory of the canal remnants within Broome County, and will serve as the basis for the evaluation of these assets in a meaningful context. A reconnaissance survey is a powerful land-planning tool, as well as a valuable addition to the archives of the historical society.

Methodology

The 1838 As Built maps (plates 139 - 164) of the Chenango Canal drawn for the New York State Canal Commission under the direction of P.R. Root, C.E., and hereafter referred to as the 1838 Root maps, were used as the basic reference point for the study. The maps, completed the year after the opening of the canal, were used to identify the path of the prism through Broome County and to identify the canal related structures (i.e. prism, locks, aqueducts, culverts, waste weirs and feeder dams) originally associated with the transportation system. These maps were then compared to current county tax maps to establish the canal's path and identify the location of canal related structures. Complicating the process was the fact that there was no scale on the microfilmed 1838 Root maps. Since the length of a lock is known to be 90 feet, this was used as a scale when working with these maps. For clarity, the sides of the canal are always referred to as east and west even when the canal briefly turns in an east to west direction as it makes its way through the county.

Once the canal's route was established, the field reconnaissance was begun, starting at the Chenango County border and progressing south to the confluence of the Chenango and Susquehanna Rivers, which was the terminus of the canal. Photographs were taken to document current conditions. In some cases thick underbrush made photographic documentation difficult.

As each canal structure was located and documented, it was categorized as a structure, remnant or trace. The importance of the canal has been acknowledged at the National Register of Historic Places with the **Multiple Property Listing of the Historic and Engineering Resources of the Chenango Canal**. Any artifact retaining enough integrity to be classified as a structure was considered a candidate for the National Register.

When the field reconnaissance was complete, the data was evaluated and charted. From this information recommendations were formulated. The recommendations include suggestions for interpretative centers, hiking trails and canal parks.

History of the Chenango Canal – A Brief Summary

The unbelievable success of the Erie Canal, opened in 1825, brought a clamor from the residents of the Chenango Valley for the construction of a similar canal to connect this hinterland area with the Erie Canal and the rest of the state. South of the Cherry Valley Turnpike the road system was very limited and the area was cut off from the commercial hubs of the state. Subsistence farming was the backbone of the economy before the construction of the Chenango Canal.

Broome county residents, fearful of being left on the periphery of the state's growing economy, supported a state subsidy for the construction of the canal. It took local supporters until 1833 to get the legislation passed to authorize construction of the Chenango Canal and then it was another year before the actual construction was begun. John B. Jervis was appointed chief engineer for the canal and under his direction construction contracts were let to a number of private companies. Each independent contractor hired his own work force, often turning to Scottish and Irish immigrants. Although construction was slow, disjointed and often forced to a halt by labor disputes, inflation and even bankruptcy of the contractors, the Chenango Canal has been described as the best constructed canal in the entire New York State system.

Its route within Broome County was approximately 14 miles long and included 9 locks, 2 aqueducts, 2 culverts, 4 waste weirs and a guard lock. The Chenango Canal officially opened on May 6, 1837. With much fanfare, the canal opened up transportation from Utica to Binghamton, cutting travel time from eleven days to just four. For the first time goods could readily be shipped out and merchandise could easily be shipped in from the commercial centers of Albany and New York City. This accessibility helped the local farmers, and at the same time allowed entirely new business to develop. The villages along the canal's route grew and prospered, while Binghamton increasingly became the center for banking and wholesale distribution of dry goods and hardware.

For 41 years the canal served the citizens along its route. But during that time constant repairs made the canal a financial burden for the state. Competition from the railroad rendered the canal obsolete. History proclaims the Chenango Canal a complete failure, but for the towns and villages along its route it held many benefits. It was the Chenango Canal that allowed industry to develop in the villages. It facilitated the exchange of goods and ideas between isolated communities and the urbanized commercial centers to the east, and it led to the growth and prosperity of the villages along its course.

The canal officially closed on May 1, 1878. Subsequently most of the route was deeded, by an act of the New York State legislature, back to the private property owners on either side of its banks. After its closing, the canal was filled in and/or experienced succession growth, and generally lost its identity as a once active and important highway between Binghamton and Utica.

The Chenango Canal within the Boundaries of Broome County

The Chenango Canal entered the Town of Fenton, Broome County from the Town of Greene, Chenango County in a north to south direction. The canal parallels the Chenango River but is situated some distance from it in a wooded area. As the canal enters Broome County from the north it is located about equal distant between the Chenango River and NYS Route 79. The canal prism is filled with water at this location. Within the wooded area the canal curves to the west following the curve of the Chenango River. The tow path is on the west side of the prism. This survey follows the path of the canal from the Chenango County border south to its terminus, documenting remnants of the canal along the way. Broome County tax map numbers are used to identify properties crossed by the canal.



Looking north along the tow path into Chenango County.
Trees and brush are growing on the tow path. Water fills the prism.



Looking south along the tow path from the property line

057.04-1-3.112

The canal is well preserved as it passes through the woodlands and farm fields of this 43 acre farm. The property owner maintains the tow path as a farm road.



Looking north from the pasture gate



Behind the barn the canal prism has been dammed and the prism is dry to the south



Lock 106 is located in a pasture near the farm's west property line. The outline of the wide waters located on the north side of the canal is clearly visible from the lock. The farmhouse located on the knoll above the lock dates from the period of the construction of the canal.



Looking south from the north end of Lock 106



Looking at the west wall of Lock 106 from the south end.



Looking south across the prism choked with brush.

057.04 - 1 - 3.112

South of Lock 106 the canal prism is a wetland.

057.04 – 1 – 2

The tow path has been destroyed on the north side of the driveway associated with this property. On the south side of the driveway the prism and tow path are present.

057.04 - 1 - 1

Both the tow path and prism have been destroyed south of the driveway associated with this property. The canal path is no longer visible as it crosses several narrow properties before it enters the road bed. It follows the road for several yards and then the path re-enters private property. The prism and tow path are no longer evident.

057.14-1-16

A waste weir, no longer extant, was located here.

The canal followed the east bank of the river. The land has been divided into many small lots which have been developed. The canal prism and tow path are no longer visible in this area. A bridge crossed the canal at Pigeon Hill Road, allowing access to the river bridge to Chenango Forks. No evidence of the bridge was located.

057.17 - 1 - 6

South of the NYS Route 79 bridge across the Chenango River, on the east side of River Road, the canal prism is again visible. This property once belonged to the lock tender, and his home, which has remained in the family, is located on Pigeon Hill Road, above the remains of Lock 107.



The canal hugs the base of the hill and the tow path follows the curve of the river.
The canal prism is overgrown but intact. The tow path is now River Road.



057.17 - 1 - 3

Remains of Lock 107 and the guard lock are located on this property, which is owned by the People of New York State. At its north end much of the lock has been filled and stone was scavenged from the west wall for a foundation. The east wall is well preserved. At the south end it is open and there is standing water in the lock.



Above, looking into the canal from the north end. Below, looking into the canal from the south.





Above - east wall. Below - west wall at the south end of the lock





Above - looking south down the water filled prism from the west wing wall of Lock 107.
Below - remains of the guard lock which allowed water from the river to feed the canal .



There was a state dam in the Chenango River adjacent to Lock 107. Water from the river could be diverted into the canal as needed by the guard lock. This feeder entered the canal just south of Lock 107. Remnants of the dam are visible on the east bank of the river from NYS Route 79 on the west bank. Only a few laid up stones remain on the west bank.



Water from the Chenango River entered the canal here, just south of Lock 107.



The guard lock seen from the west bank of the Chenango River.

057.17 - 1 - 4.1

Less water is retained in the canal and small trees are growing within the prism.



Looking north, the tow path is on the left.

068.01 - 1 - 8

Looking south, the prism is no longer filled with water, and brush is growing in the canal.



Looking south along the tow path the prism is on the left, the river is on the right.

068.01 - 1 - 7

River Road comes to a dead end at this property. The prism is intact, but dry.



Looking north

068.03 - 1 - 20

Once River Road comes to a dead end, the tow path becomes choked with brush with only a narrow path cut through it. The prism loses definition as it, too, becomes choked with brush.



Looking north,
the tow path is
on the left. On
the right, a
person is
standing in the
prism.

068.03 - 1 - 20

This 948 acre property is owned by the People of the State of New York and is operated as Chenango Valley State Park. Much of the canal has been retained within the park. As the canal veered away from the river, the tow path is again cleared and is maintained as a service road in the park.



Looking north there is only a narrow path along the former tow path.



Looking south the tow path is cleared and used as a service road within the park. Trees grow in the prism.



For a short distance, the prism has been filled and there is no trace of the canal. However, within a few hundred feet, the prism is again visible, although there are trees growing in it. The tow path is a well maintained service road.





Continuing south in the area of the golf course, the prism is again filled with water.



Looking north along the canal.



Looking north along the canal within Chenango Valley State Park,
in the area of the Chenango Valley Golf Course



South of the golf course, the canal is again dry and trees are growing in the prism.



Above - looking north. Below - looking south toward the main parking lot.



The farm bridges of Christopher Eldridge and John Rutherford, as well as a road bridge, a waste weir and lock 108 were located on this property. All have been removed. There is signage in the park that indicates the culvert, which carries the road over the outlet of Chenango Lake, was originally an aqueduct that carried the canal itself. There is no indication on the 1838 As Built Map that there was a culvert or aqueduct carrying the water from the outlet to the river at this location. There was, however, a waste weir indicated at this location.



Above - the east side of the road bridge associated with the canal.
Below - the west side of the bridge



At the southern end of the park property, the canal paralleled Rogers Road mid-way between the road and the river. A barely perceptible swale indicates its path.

079.14 - 1 - 1

South of Chenango Valley State Park, the canal's path crossed the rear yards of private homes on Rogers Road. The yards have been graded, and the canal prism is no longer visible.

079.18 - 2 - 13

The canal prism reappears as a brush filled depression at the south end of this property.



079.18 - 2 - 32
Looking north, the prism is mowed and clearly visible

079.18 - 2 - 32

The Town of Fenton owns the canal property that parallels Pleasant Valley Road. The tow path is adjacent to the river and the prism is cut into the base of the hill.



Above - looking north along the tow path. Below - the mowed prism.



079.18 - 2 - 80

As it curves away from the river around the base of a knoll, the canal remnants again cross private land. The prism and tow path are intact although covered in brush.



Above - looking south along the tow path into private property.
Below - looking into the prism



096.01 - 1 - 2.112

The canal's path took a west to east direction as it crossed this property. The aqueduct that carried the canal across Page Brook, and the adjacent lock 109 were both located on this property. The abutments that supported the aqueduct are still standing, but there are no remnants of the lock. Page Brook no longer flows in the same channel that it occupied when the canal was built and the remains of the aqueduct stand on dry ground in a wooded area.



Looking west -
The remains
of the aqueduct
are visible in the
center of the
photo.



Looking west -
the remains of the
east abutment.



Details of the east abutment





Above and below - the west abutment.
The west abutment is not as well preserved as the east.



096.01 - 1 - 2.111

After coming through lock 109 in a west to east direction, the canal made a wide arch across the open fields of this property and, near what is now Route 369, the canal again headed in a north south orientation. Under the proper conditions (i.e. a dusting of snow) a slight swale is still visible across the open fields. From this point south there is very little remaining of the historic Chenango Canal. The canal prism was located along the west side of Route 369 and followed the road.

096.14 - 1 - 1

The northeast corner of this lot was the west side of the tow path and the eastern edge of the property follows the tow path. The Chenango River has eroded the tow path at the southern end of the property. The canal followed the route of Route 369 from this property to the Village of Port Crane.



Looking south - the canal prism was located between the base of the hill and the river.
Route 369 has replaced the canal in this location.

Historically, the road was located on the east side of the canal. The road and the canal moved away from the river on the south side of Fenner Hill near the junction of Fenner Hill Road.



The swale of the canal prism is visible in the yard of this property on the west side of Route 369.

From this location, the road aligned with and became Canal Street in the Village of Port Crane. The bridge abutments for the road bridge are still visible on the banks of Osbourne Creek, but there are no remnants of the aqueduct that carried the canal over the creek. The abutments for the aqueduct would have been destroyed when the current road bridge was constructed. South of the creek the canal followed the alignment of Route 369.

113.06 - 2 - 1

The west property lines of this village lot was the edge of the Chenango Canal. (1171-426)

113.06 - 1 - 11

This was the location of lock 110. There is no visible evidence of the lock.

As the canal flowed south from the village, it was constructed on the narrow strip of land located between the river and the base of the Crocker Hill. This is now the site of Interstate Route 88. Lock 111 was located in this section of the canal. No remains of the lock were found.



Looking south along Route 88 toward Chenango Forks. The canal followed this path.

112.10 - 1 - 14

Remnants of the canal are again visible at the base of the hill below Dale Court and Ivan Lane. The canal made a sweeping curve around the base of the hill. The prism is choked with weeds and underbrush, but it is still evident.



Standing in the prism looking north. The tow path is on the left.

South of this small subdivision, the canal curved back to the east and followed the path of Arterial Highway for approximately 2000 feet before it curved further to the east making an arch that followed the eastern property lines of 112.17 - 1 - 49 and 112.17 - 1 - 50. Sinuous curves mark the path of the canal as it swept east and west, then east and west again crossing and recrossing the current path of the Arterial Highway. The eastern property lines of 128.02 - 1 - 10 and 128.02 - 1 - 11 mark the western slope of the tow path. The western curve would have passed through Port Dickinson Community Park on Chenango Street.

Entering the Village of Port Dickinson

As the canal gently curved east again its path followed the current path of the Brandywine Highway for approximately 1,100 feet before crossing the highway and entering a wooded area between the highway and the railroad tracks.

128.60 - 3- 4

The prism, although overgrown, is visible along the western property line.



This photo, looking north, shows the berm of the canal with the railroad bed visible at the upper right side of the photograph.

The canal gently curved to the west again crossing the Brandywine Highway. The canal formed the rear property lines of three properties facing Old State Road on the north side of the road. The property owners have been working to fill the prism and smooth out the contours found in their yards.



19 Old State Road - looking northeast from the backyard the, towpath is on the left. Debris fills the remains of the prism.

From this point south, to the its terminus at the Chenango River, there are no remnants of the canal. The canal turned south from this point and followed the present route of State Street through the City of Binghamton. Its gentle curve can be seen in the alignment of State Street where it curves away from the more direct line of West State Street.

Once the canal path crossed the railroad tracks, just north of Lewis Street, the route is nearly straight south until it makes its final gentle curve toward the confluence of the Susquehanna and Chenango Rivers. Lock 112 was located between Court and Henry Streets and Lock 113 was located between Hawley and Susquehanna Streets. Lock 114 was located in the river front park. Development in the city has destroyed all remnants of the canal within the municipal boundaries.



Looking north on State Street above Henry Street along the route of the canal.



Looking north on State Street near the southern end of the canal.



The canal curved across the area now defined by the cloverleaf. There was a widewaters here.



The canal ended at the confluence of the Susquehanna and Chenango Rivers.

Summary of Findings

As each canal structure located was evaluated to determine its degree of integrity. If the structure was intact, or nearly so, and could easily be recognized, it was designated a structure. If there were major sections of the structure intact it was considered remains. If minimal stone work was all that remained of the original structure the term trace was used to describe the artifact. Each structure was then evaluated for its eligibility for listing on the National Register.

Aqueducts

Location	Plate number	Rating/condition	National Register eligible
Page Brook, Town of Fenton	148	Remains	No
Osbourne Creek, Village of Port Crane	151	No remains	No

Guard Lock

Location	Plate number	Rating/condition	National Register eligible
Town of Fenton	141	Structure/good	Yes

Locks

Location	Plate number	Rating/condition	National Register eligible
Town of Fenton – Lock 106	140	Structure/fair	Yes
Town of Fenton – Lock 107	141	Structure/fair	Yes
Town of Fenton – Lock 108	146	No remains	-
Town of Fenton – Lock 109	148	No remains	-
Village of Port Crane – Lock 110	152	No remains	-
Town of Fenton – Lock 111	154	No remains	-
City of Binghamton – Lock 112	163	No remains	-
City of Binghamton – Lock 113	164	No remains	-
City of Binghamton – Lock 114	164	No remains	-

Culverts

Location	Plate number	Rating/condition	National Register eligible
Town of Fenton	140	No remains	-
Chenango Valley State Park	Not on 146	Excellent	Possibly
Town of Chenango – Phelps Creek	158	No remains	-

Waste Weirs

Location	Plate number	Rating/condition	National Register eligible
Town of Fenton	140	No remains	-
Town of Fenton	146	No remains	-
Town of Port Dickinson	158	No remains	-
City of Binghamton	164	No remains	-

Canal Prism

Location	Plate number	Rating/condition	National Register eligible
DeYoung Farm, Town of Fenton	139	Excellent	Yes
River Road, Town of Fenton	141-143	Good to excellent	Yes
Chenango Valley State Park	144-146	Good to excellent	Yes
Pleasant Valley Road/Markham property	147-148	Fair to good	Possibly
Dale Court, Town of Chenango	155	Fair	No
Hillcrest, Town of Chenango	159	Fair	No

There were 26 bridges built over the canal in Broome County – none remain.

Recommendations

There are two areas along the historic Chenango Canal corridor within Broome County that would lend themselves to development as interpretative parks. Both are in the Town of Fenton near the Chenango County line. The section of canal starting at the Chenango County line and ending at Lock 106 would lend itself to interpretation and would be a pleasant hiking trail. The feel of the remote transportation corridor of the mid-19th century is retained in this section because it is located away from the road and much of it is in a wooded area. This property spans the Chenango County line and abuts another large parcel on which the canal prism is also intact and filled with water. Lock 105 is located on an adjacent property. If access could be gained to all three properties the resulting one and one-quarter mile trail would connect Locks 105 and 106.

The second, and larger area, starts at the Route 79 bridge and continues south into Chenango Valley State Park. Along this segment of the canal there are two canal structures worthy of preservation and interpretation. They are Lock 107 and the adjacent guard lock, which is the only guard lock constructed on the Chenango Canal. The prism is intact for nearly two and one-quarter miles and much of it is still filled with water. The obvious advantages of developing this section of the canal for interpretation include the fact that most of it is already publicly owned and there is ample parking available in the park. Much of the two plus mile corridor is located within the park and there is little modern development to distract from the experience of interpreting the 19th century transportation system.

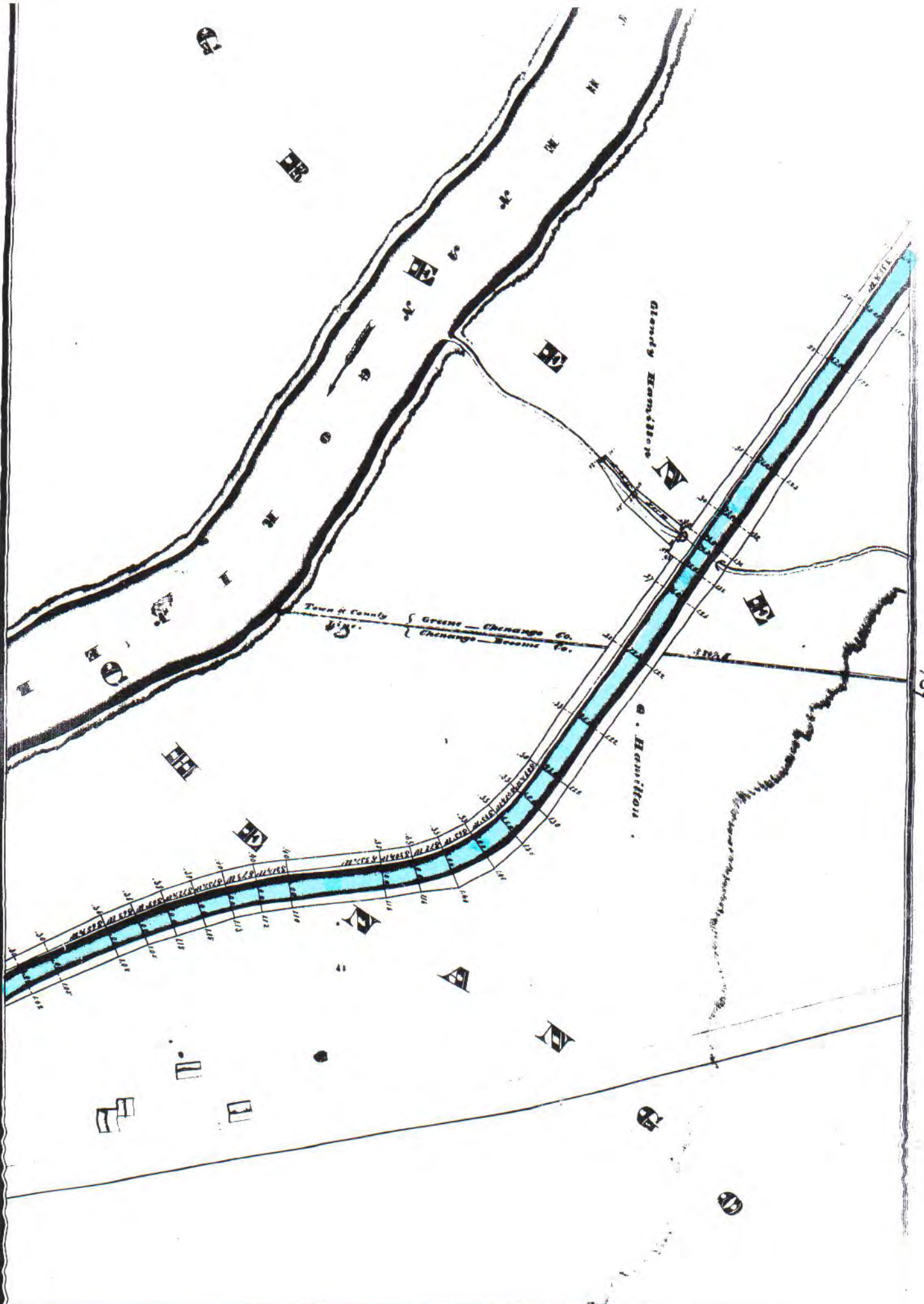
The only other extant canal feature of note, the remains of the Page Brook aqueduct, would be difficult to interpret given its location. The canal prism is no longer present on either side of the piers and the brook has changed course so that it no longer flows between them. Lacking context, its interpretative value is limited and its location, on private property far from the road, adds to the difficulty in utilizing the site for educational purposes.

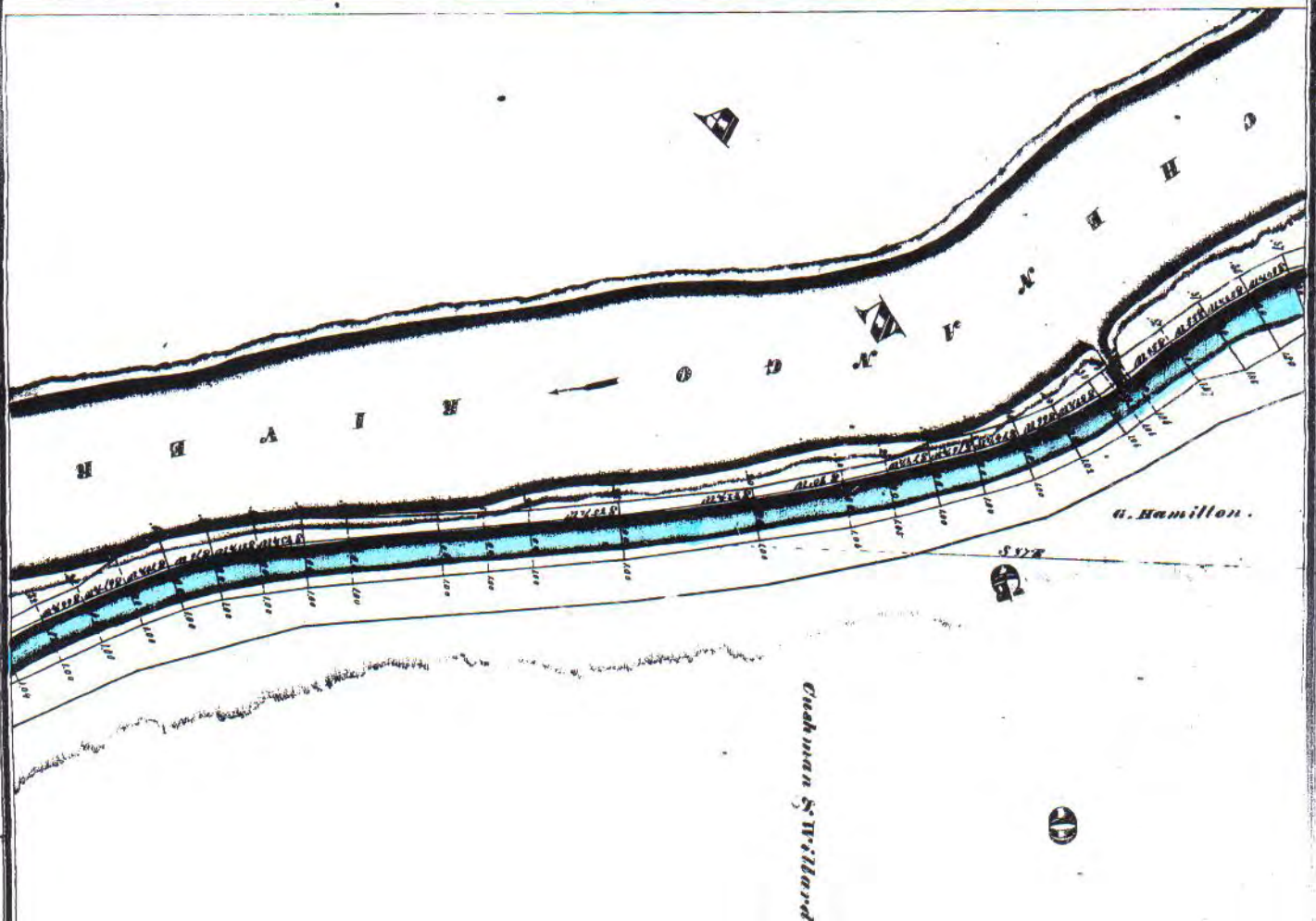
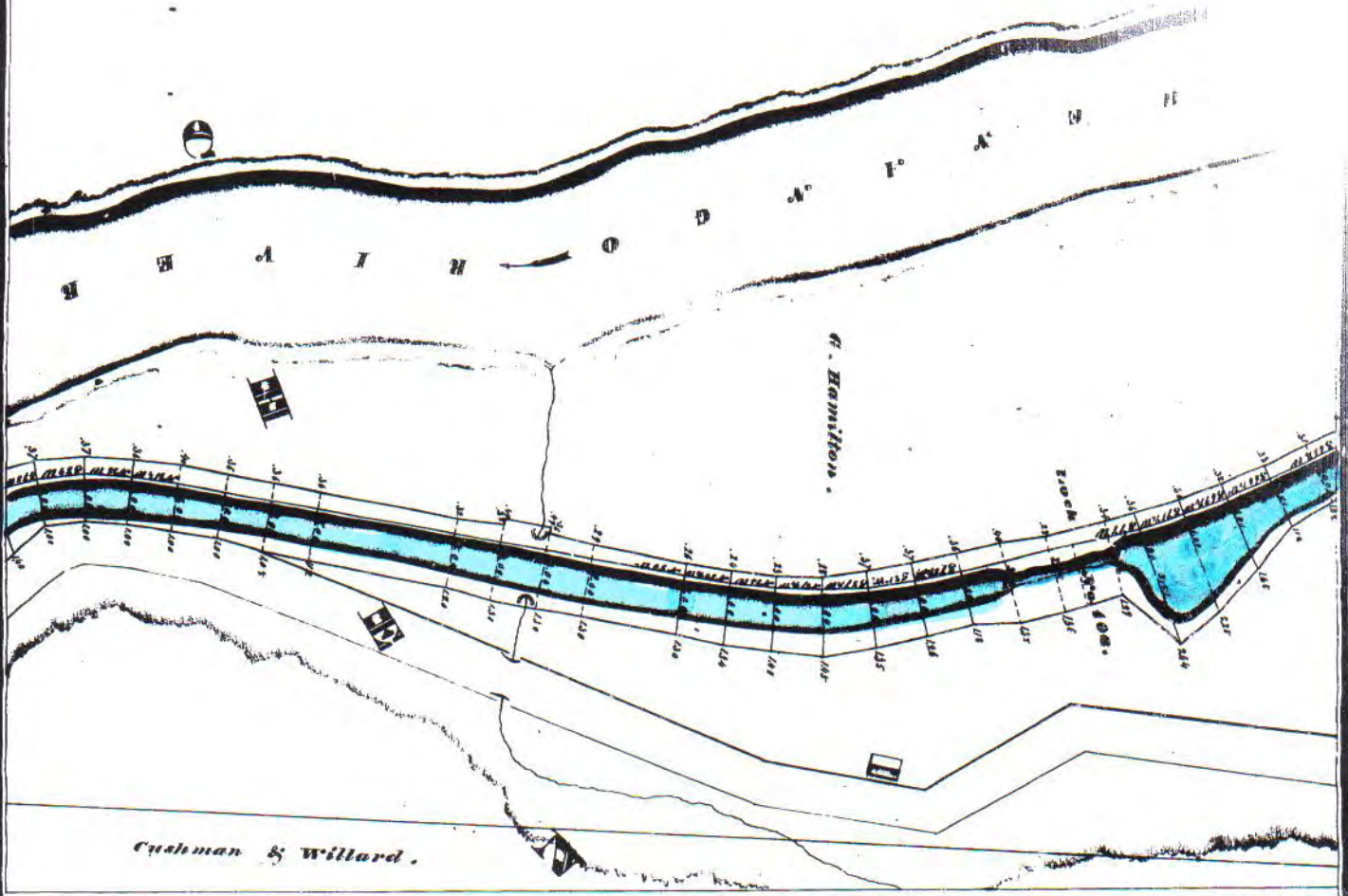
Although there are no artifacts left to interpret within the City of Binghamton, the park at the confluence of the Susquehanna and Chenango Rivers would be a convenient and natural site for educational panels to discuss the importance of the Chenango Canal in the development of the region and to describe the terminus of the canal at this location.

Bibliography

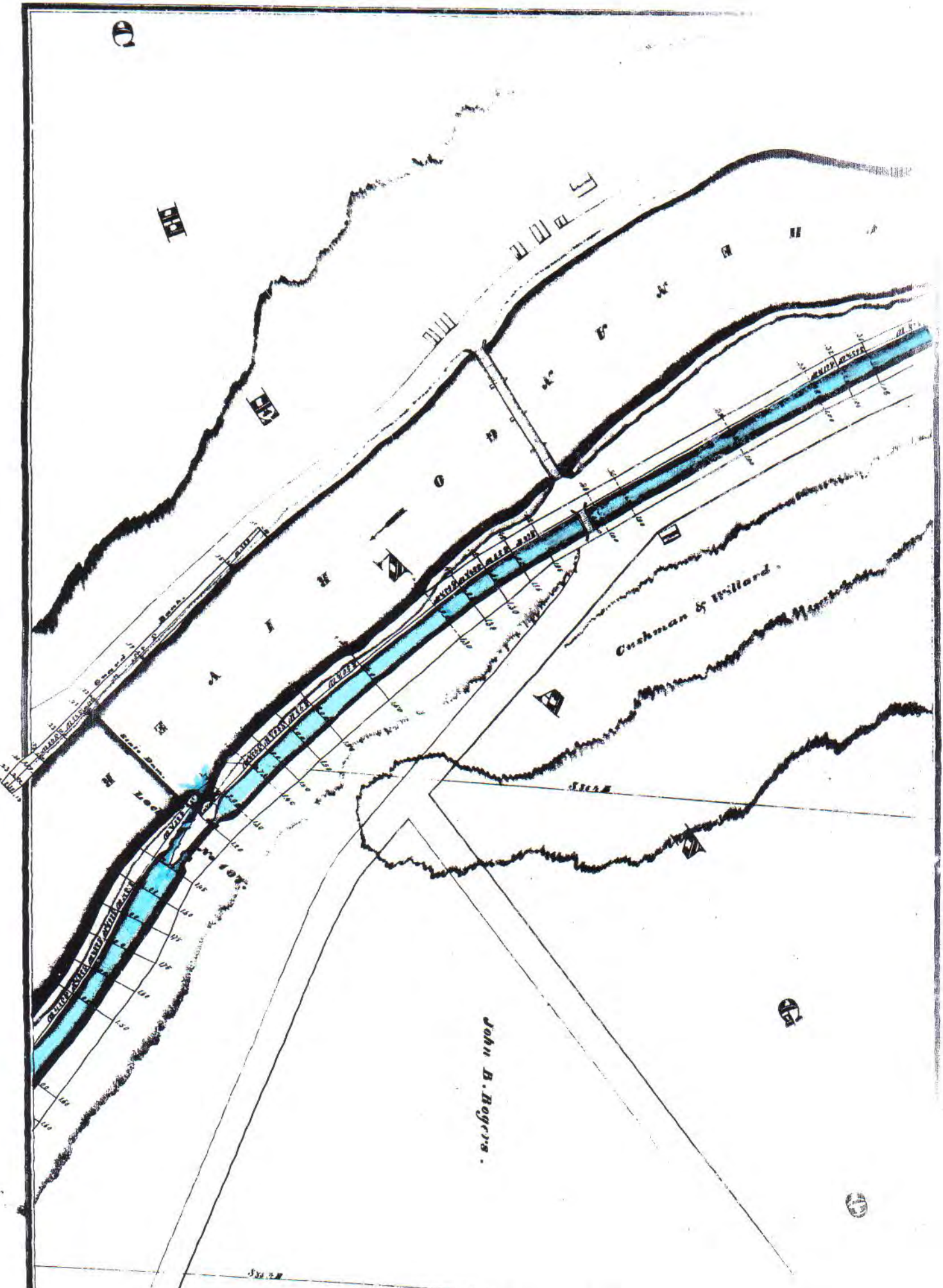
- Beyer, Barry K. The Chenango Canal. Rev. Ed. Norwich, NY: Chenango County Historical Society, 1977.
- Bothwell, Lawrence, Broome County Heritage: An Illustrated History. Woodland Hills, CA: Windsor Publications, Inc., 1983.
- Broome County Clerks Office, Book of Deeds: #, 387-251, 1052-1114, 1171-426, 1219-132, 1708-80, 1823-1012, 1957-307, 1980-177, 2138-478, 2158-140, 2188-535, 3876-251
- Contract Documents for Canal Enlargement and Repairs, 1836-1900. Series A1899, box 47, New York state Archives, Albany.
- Everts, Ensign & Everts, surveyors. Combination Atlas map of Broome County, New York. Philadelphia: Everts, Ensign & Everts Publishers, 1876.
- Highway Map Book 1. Reconstruction of the Port Crane-North Fenton Bridge, 1-12 RC 2410: sheet 7 of 8. March 18, 1935. Broome County Clerk's Office.
- Land Ownership Map, Broome County, New York, 1855 – microfiche.
- McFee, Michelle A. Limestone Locks and Overgrowth: the Rise and Descent of the Chenango Canal. Fleischmanns, NY: Purple Mountain Press, 1993.
- Measurements, Calculations, and Estimates for Construction of the Chenango Canal, 1833-1837. Series 1091, Box 1, New York State Archives, Albany.
- Root, C.E., P.R. Chenango Canal Maps, plates 139-164. Albany, NY: New York Canal Commission, 1838.
- Sanborn Fire Insurance Maps, Binghamton, NY, Sanborn Map Company, Inc. 1888.

Broome County GIS
2006 Aerial Photography of
Chenango Canal Route





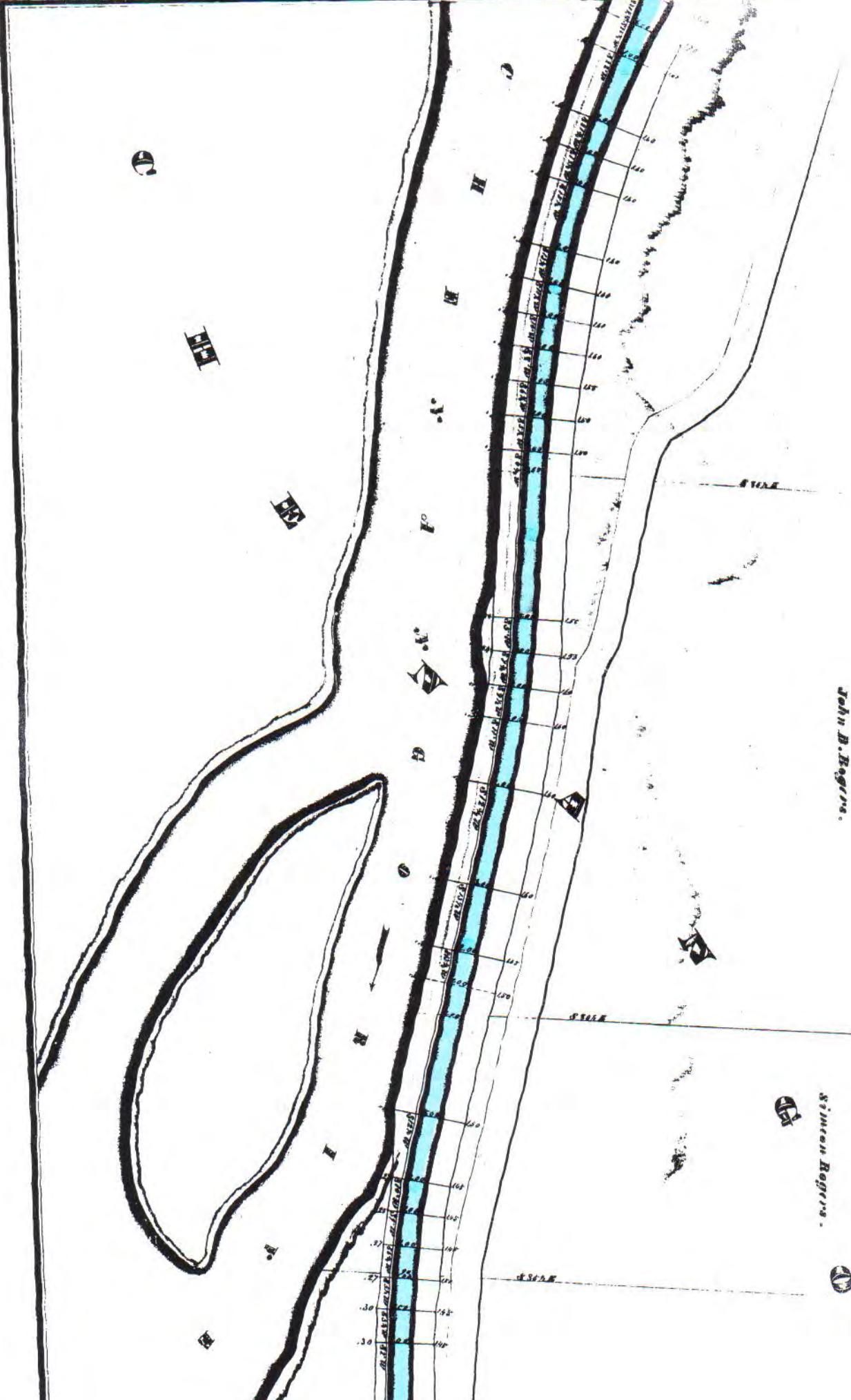
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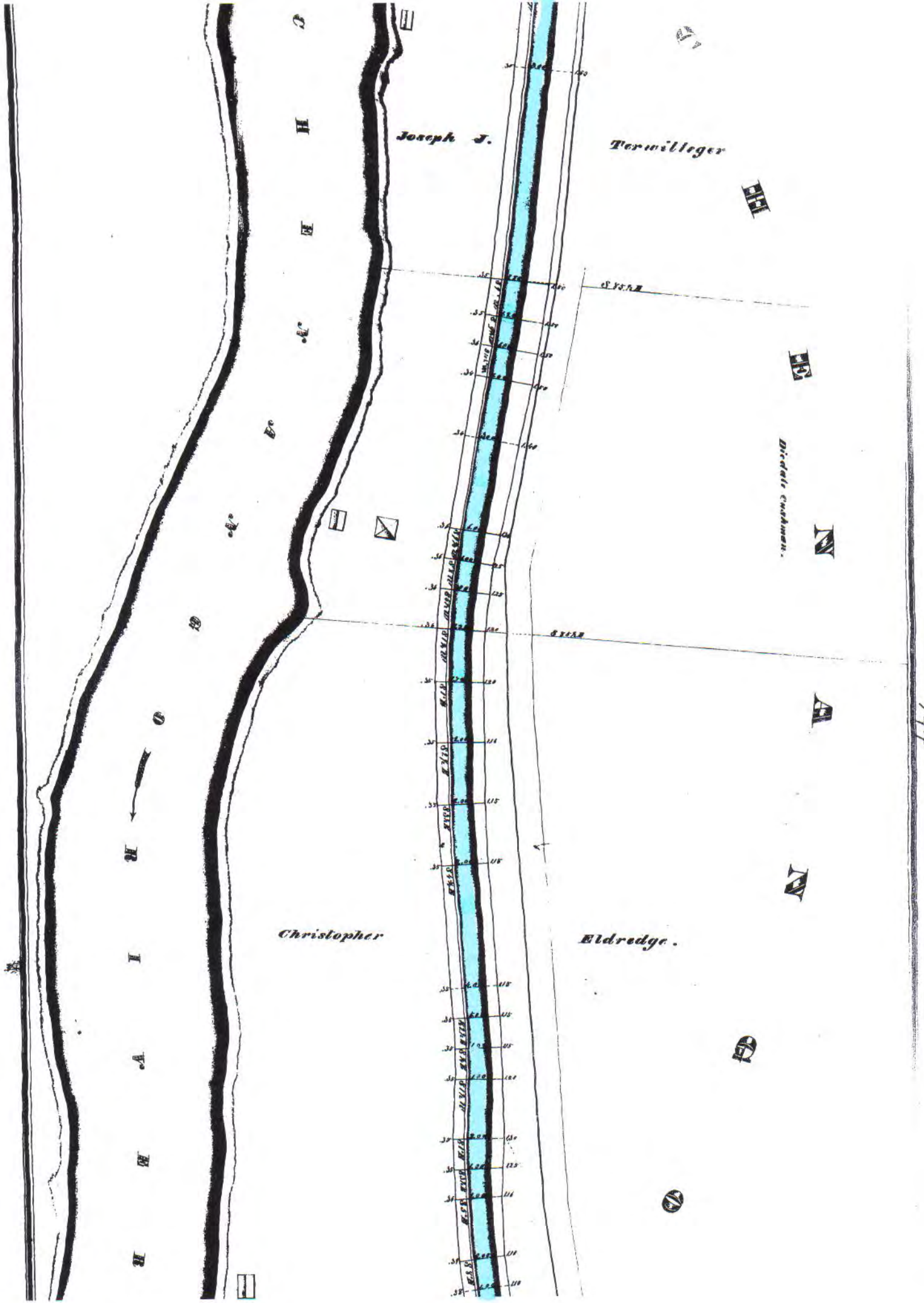
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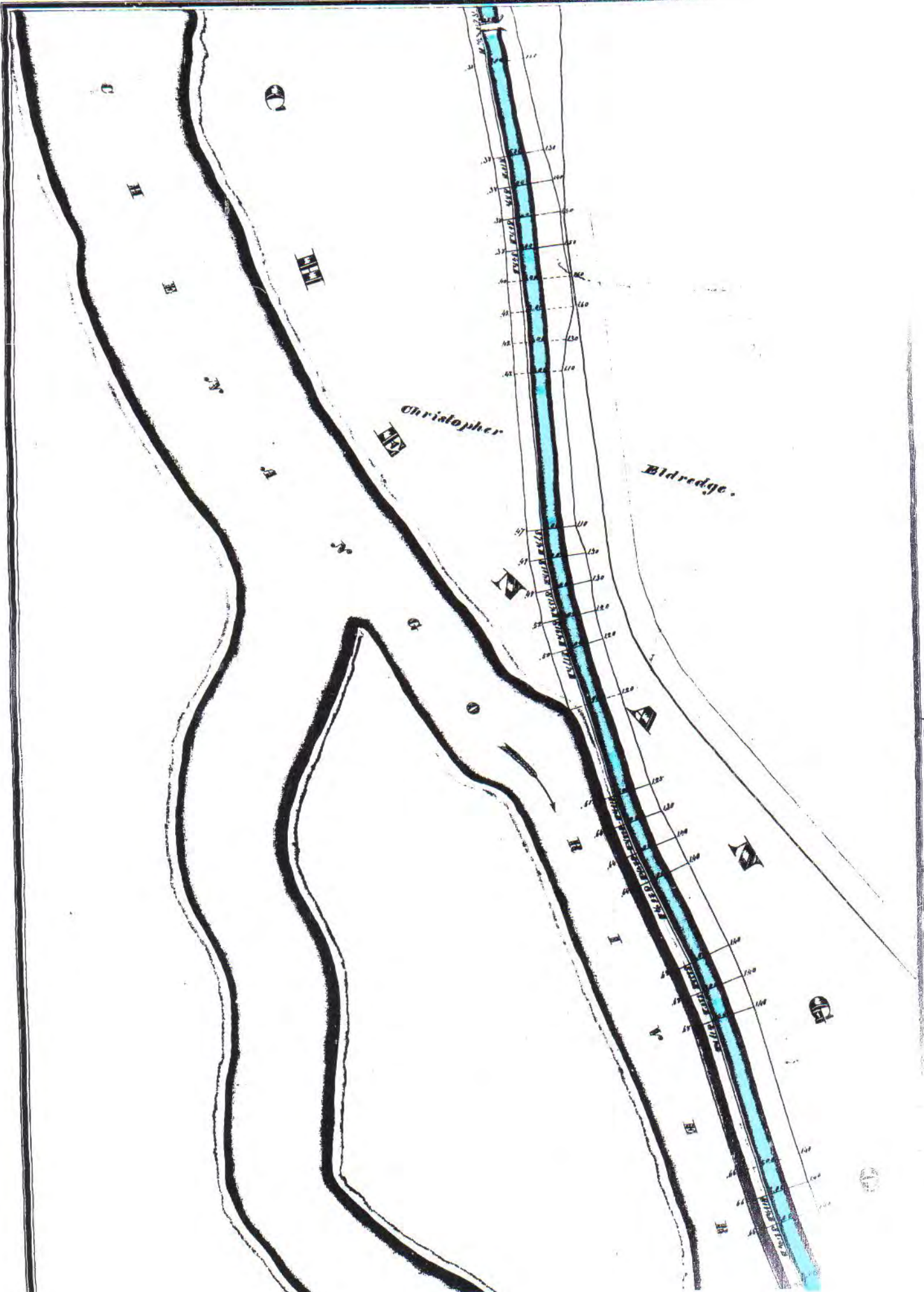


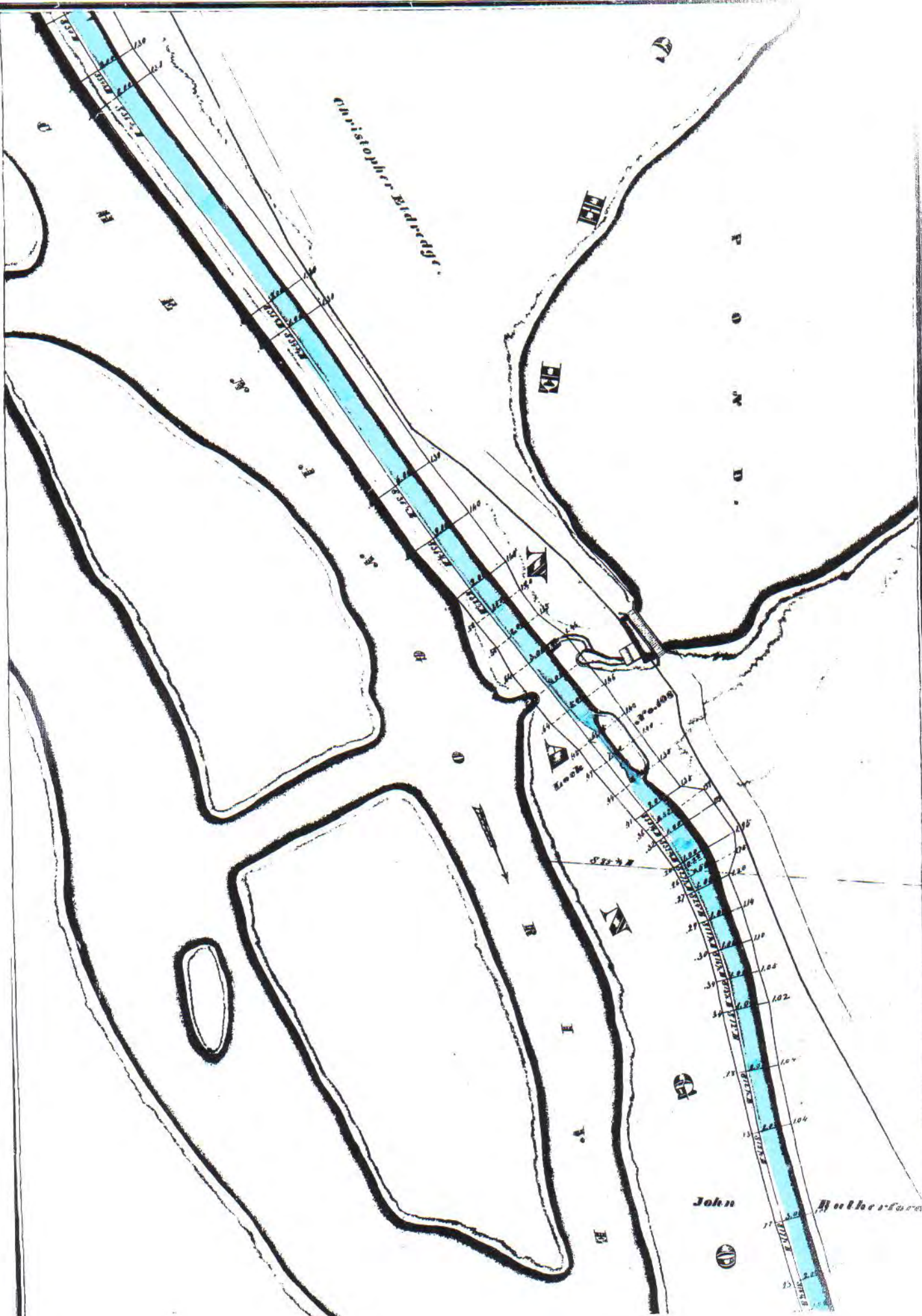
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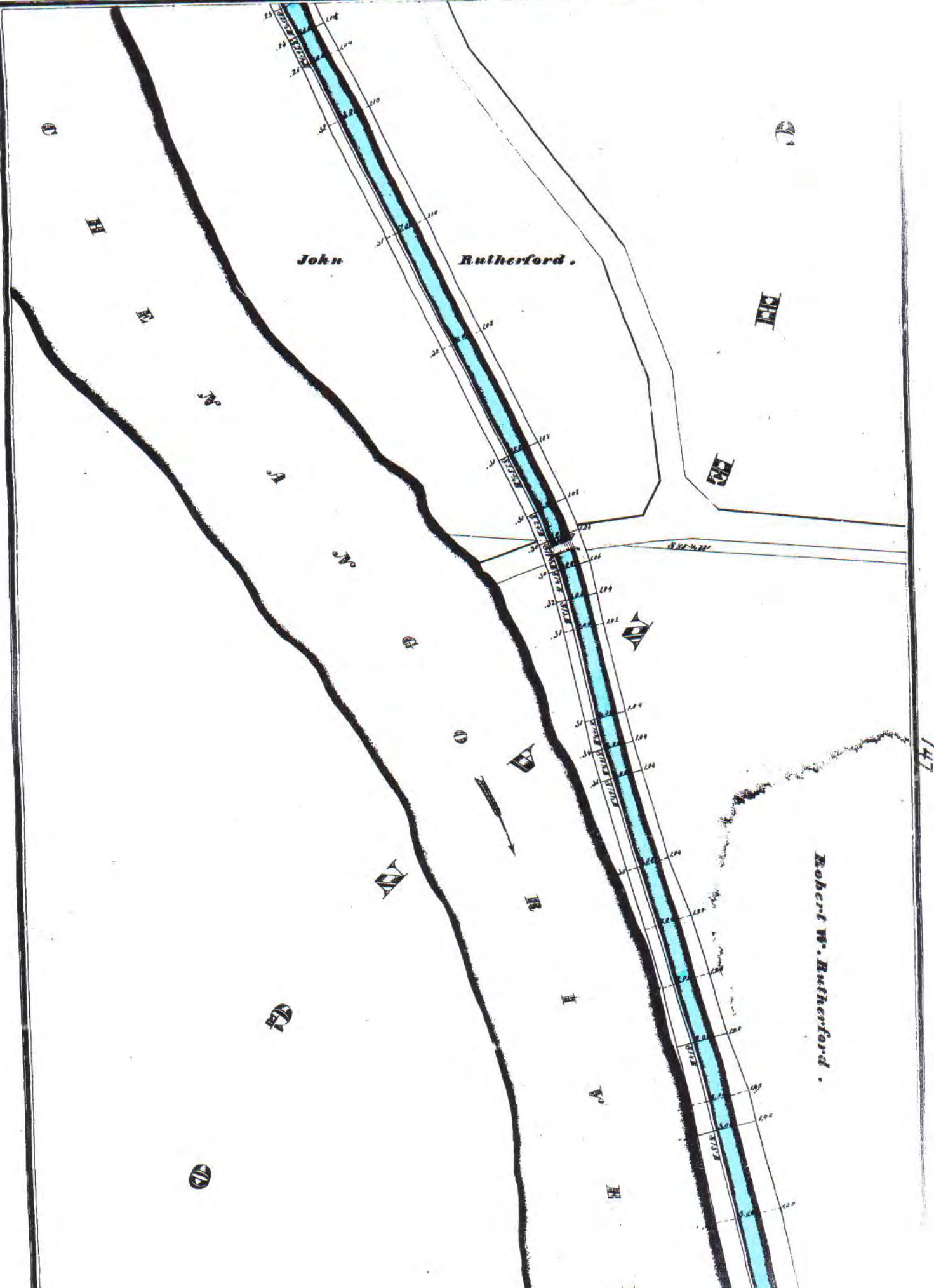


Christopher Eldredge.

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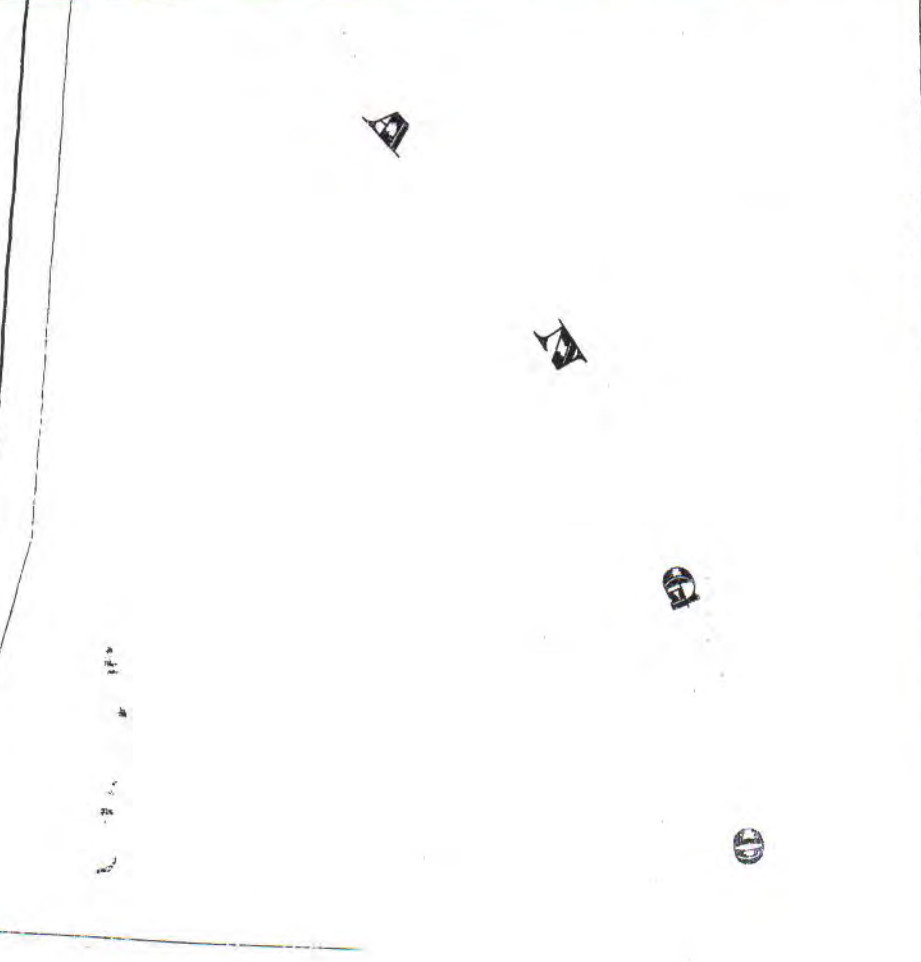
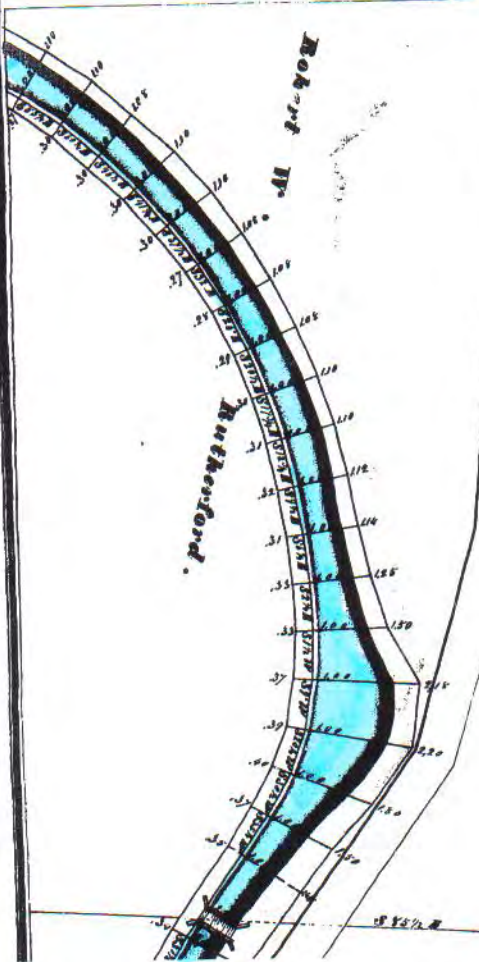


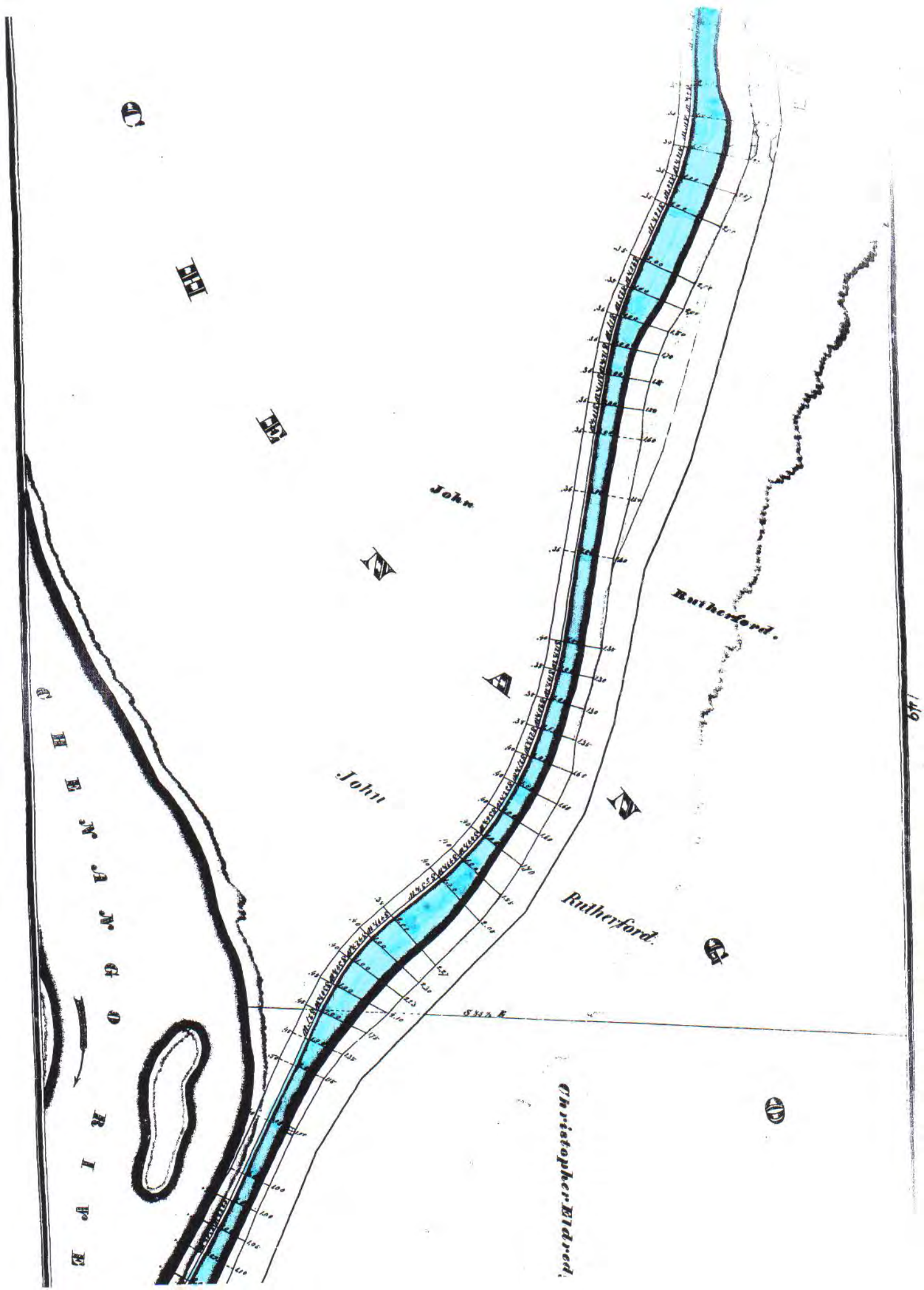
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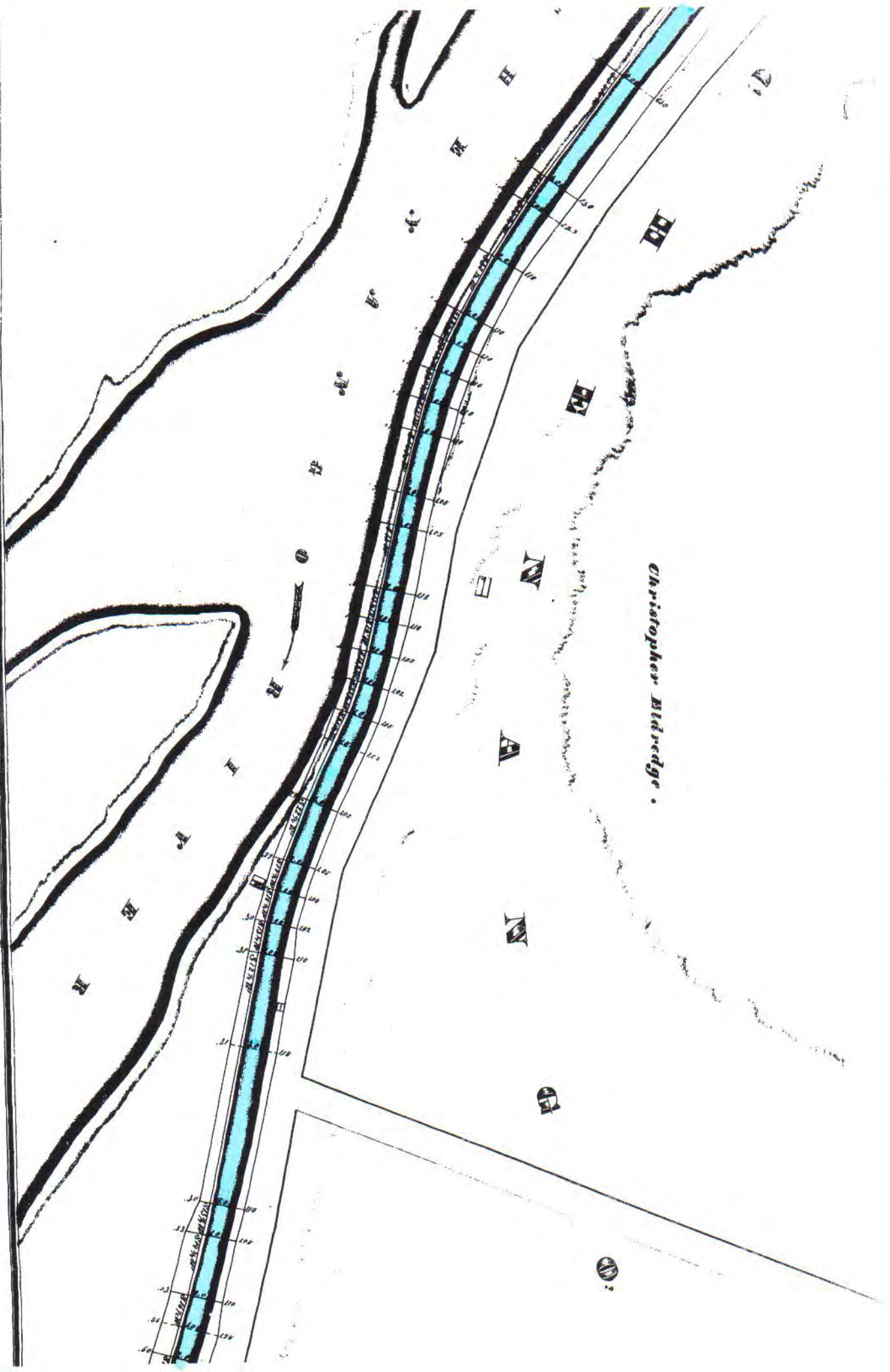
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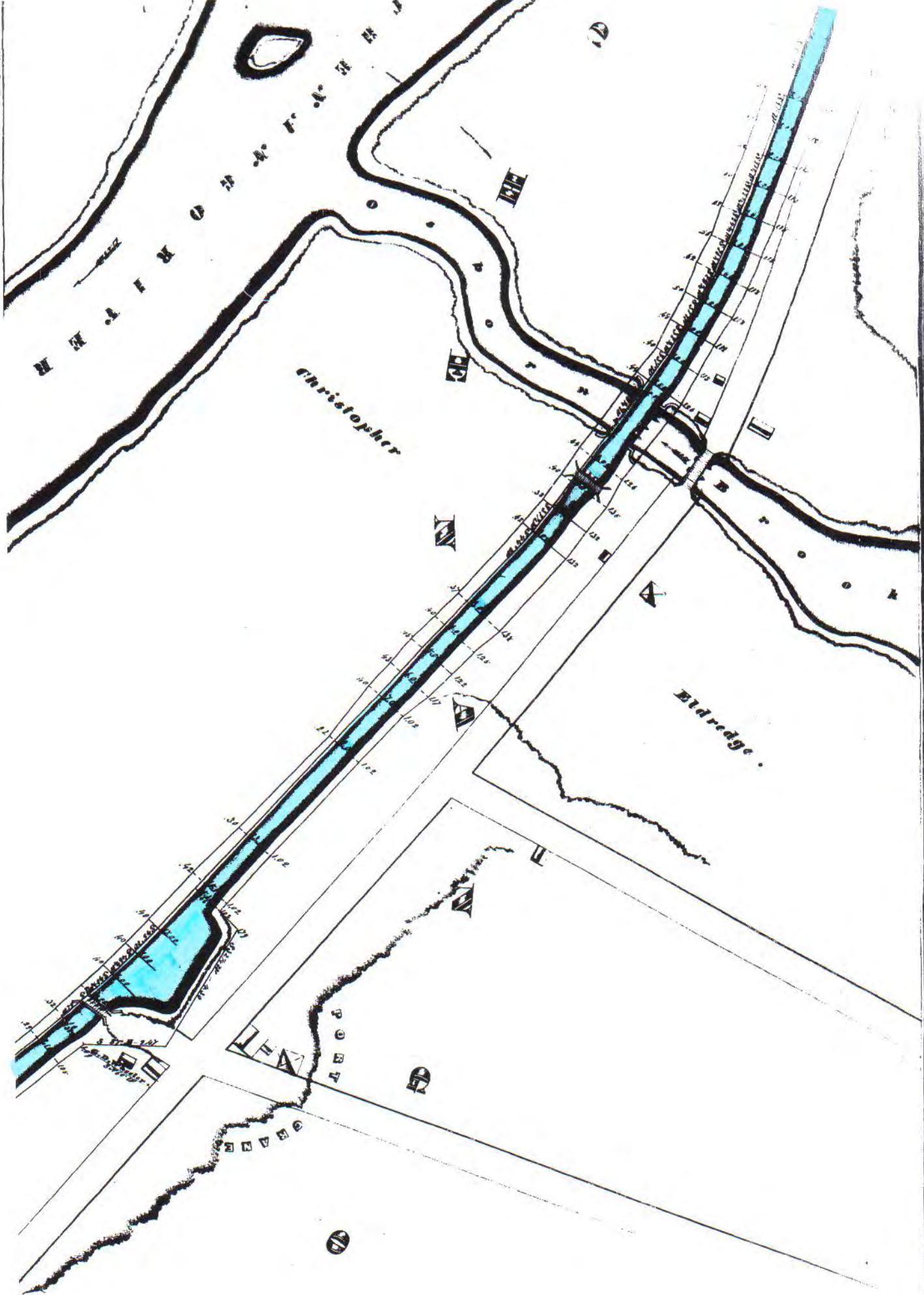
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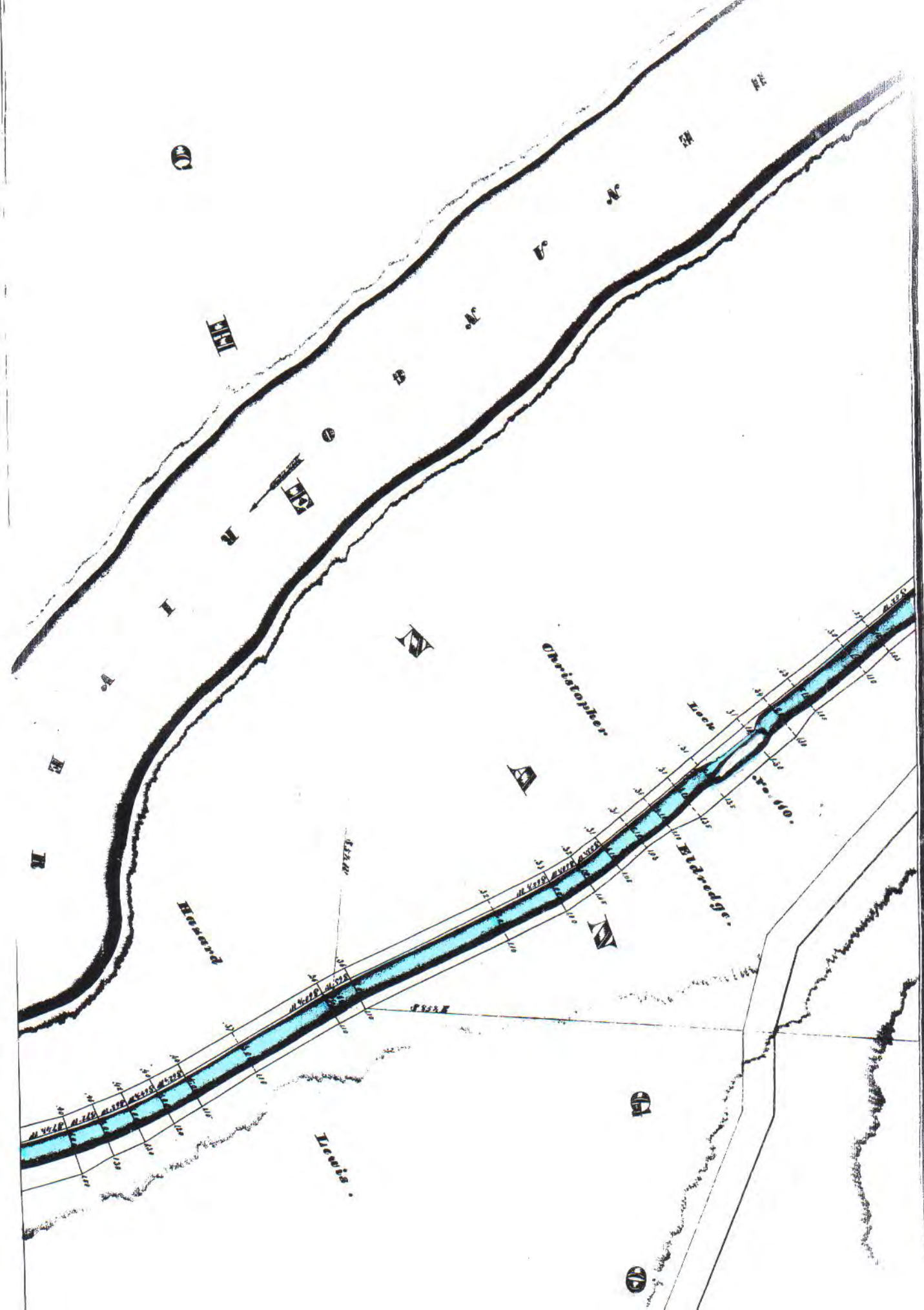
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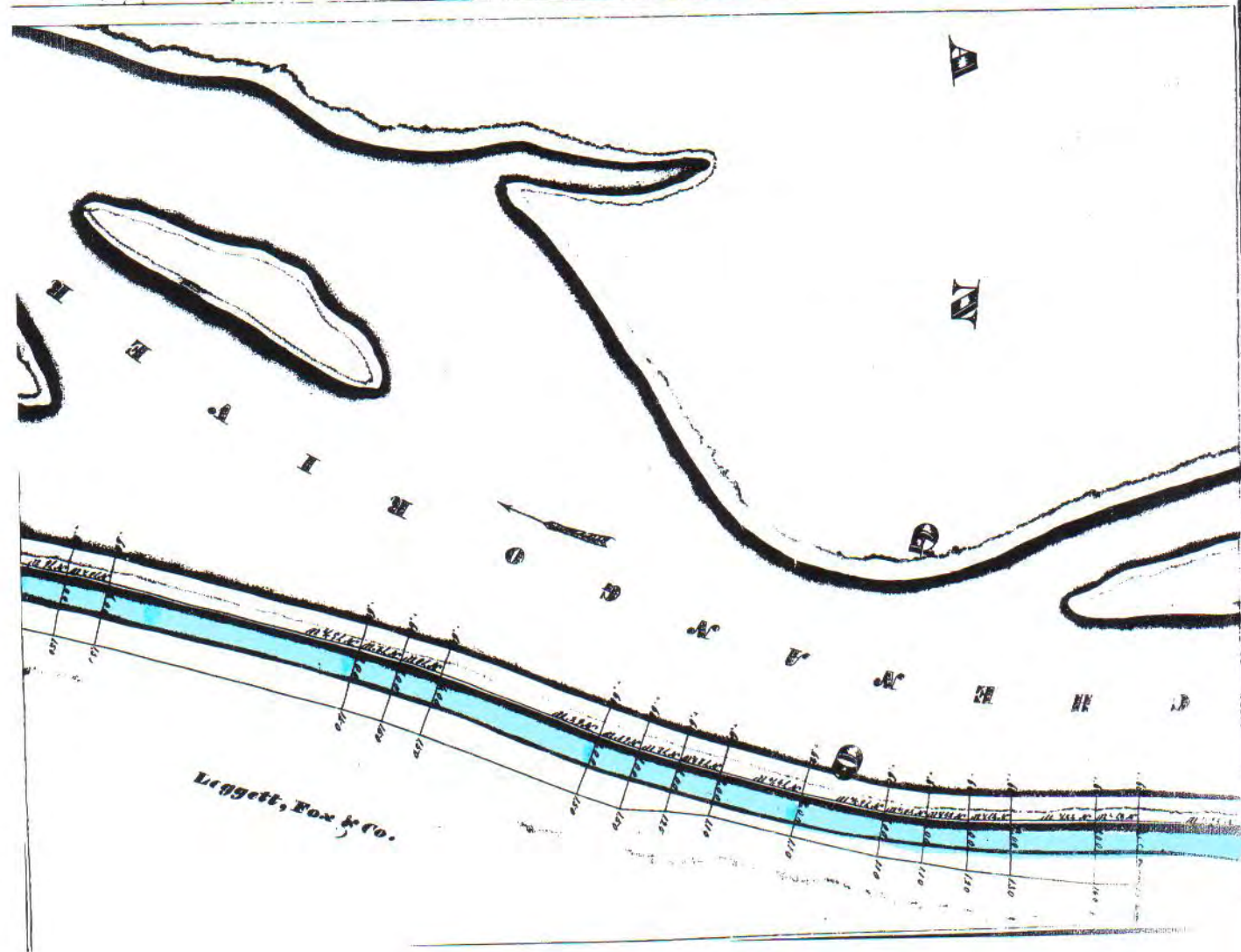
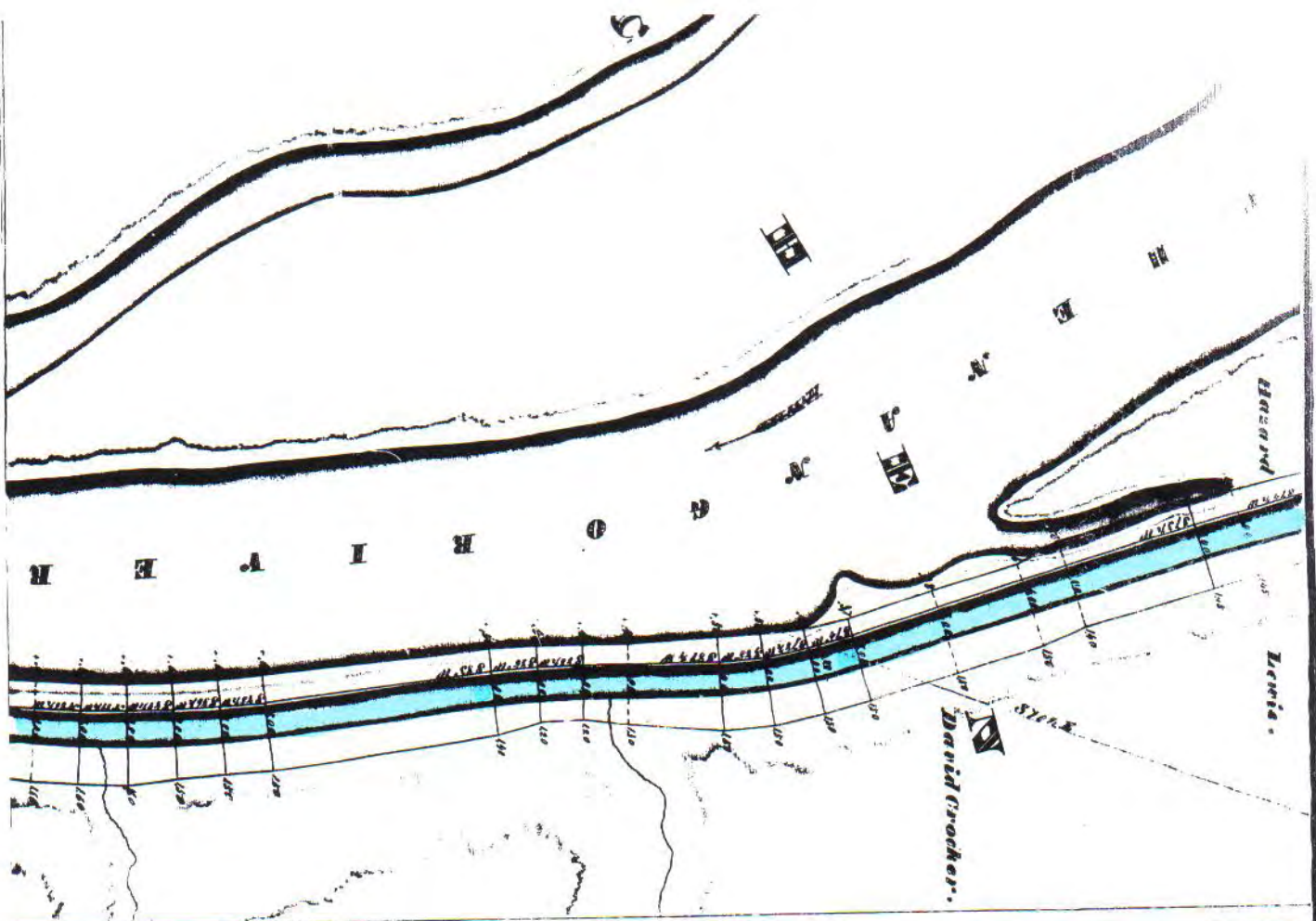


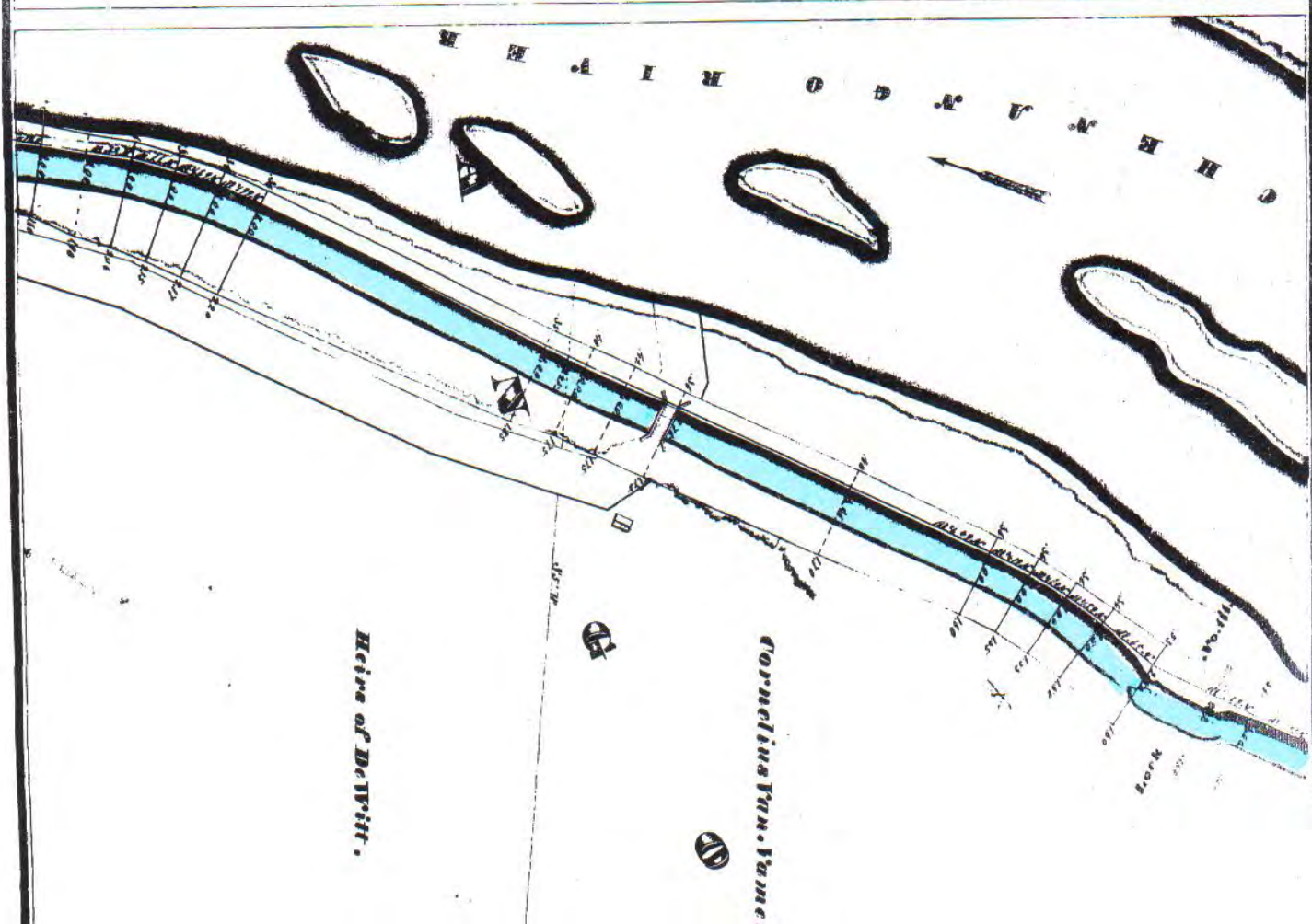
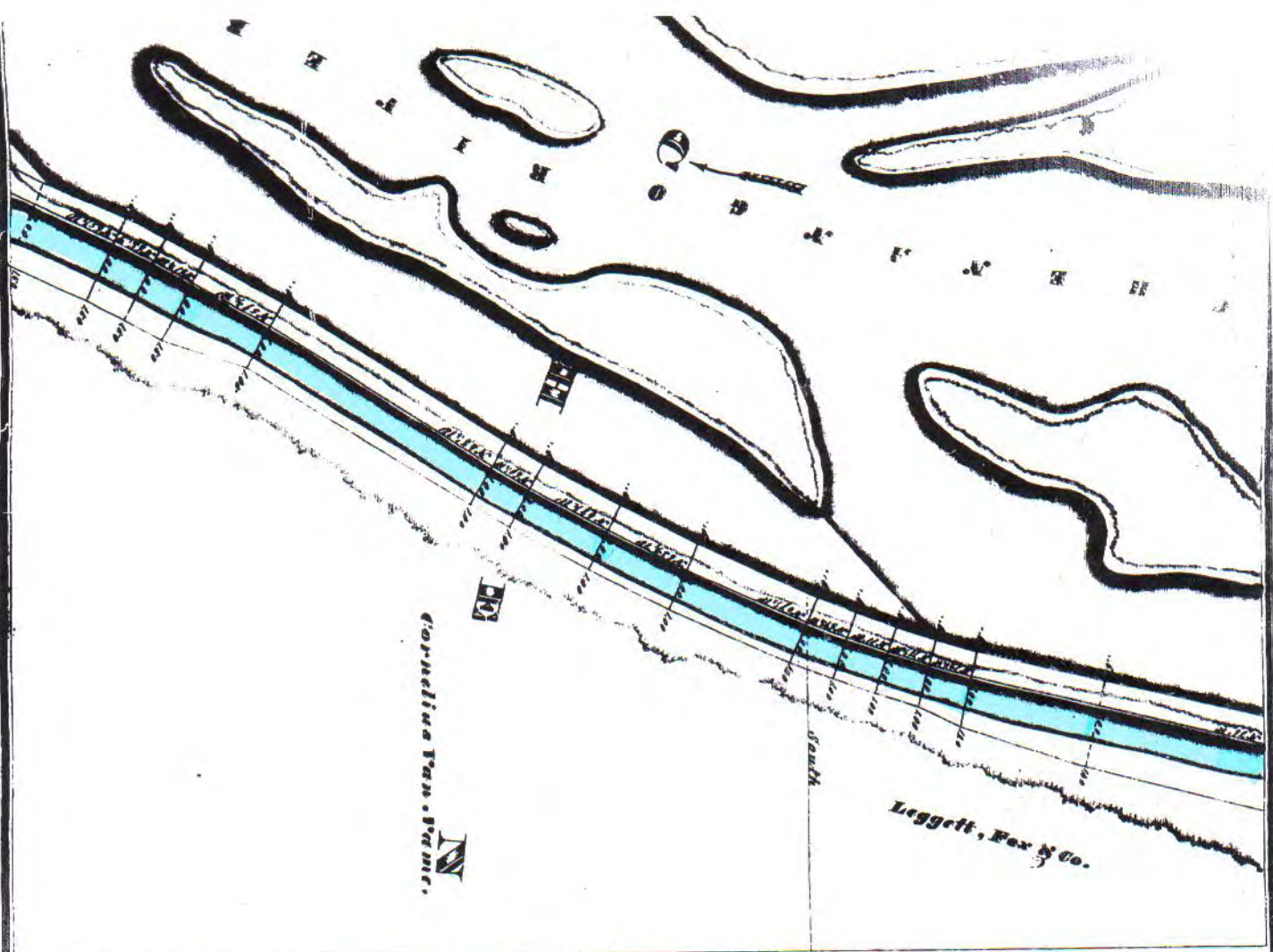


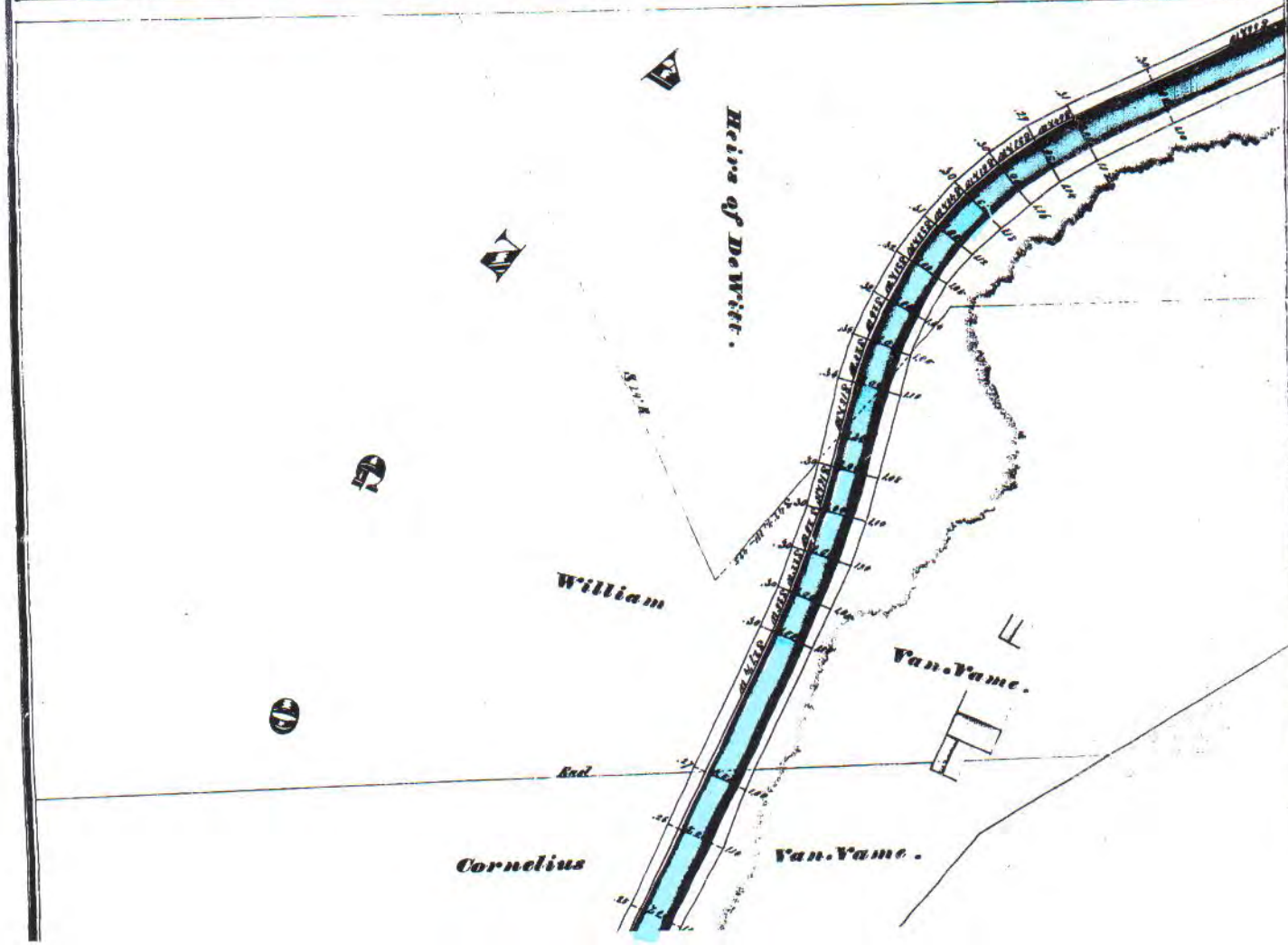
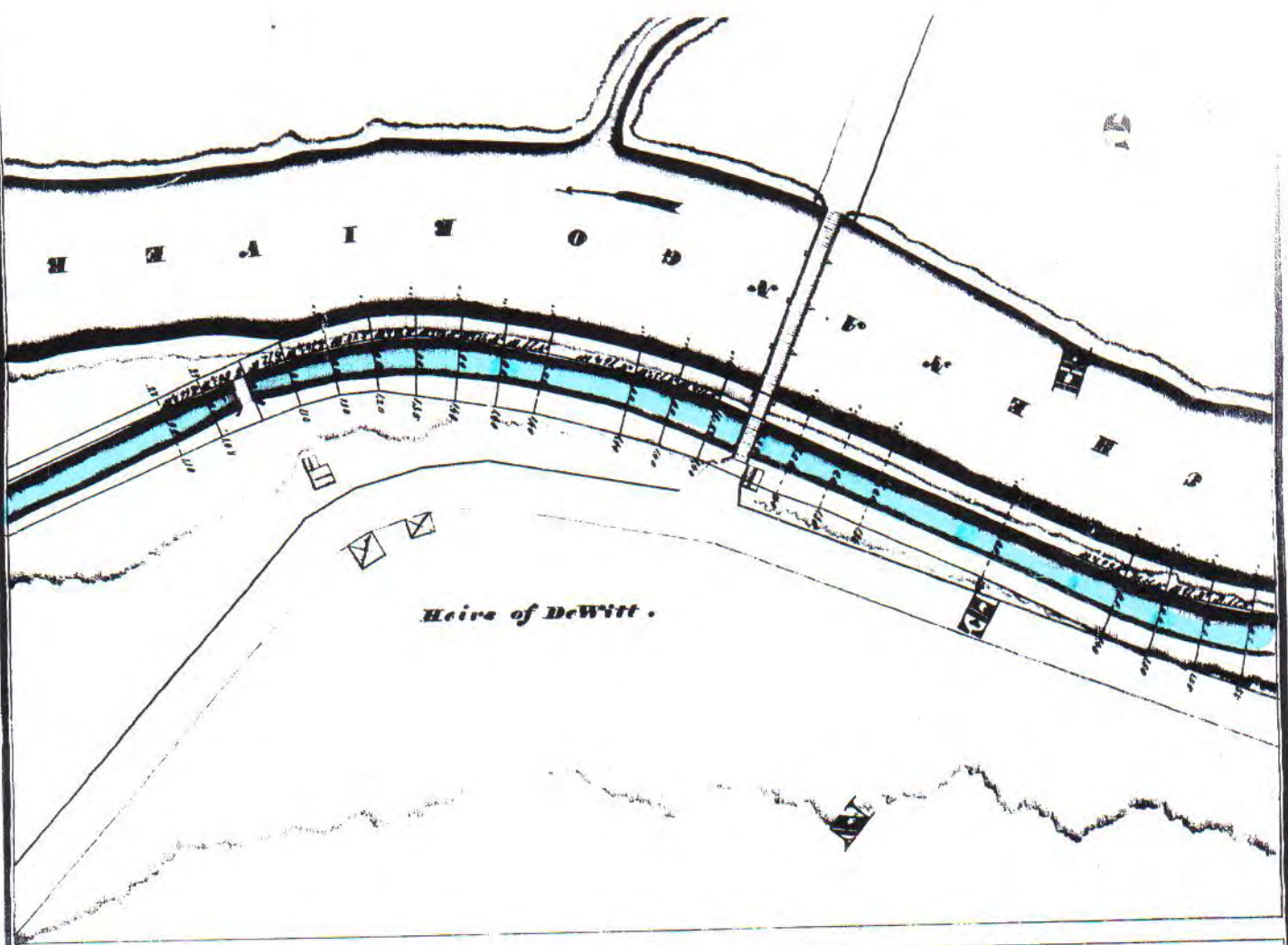


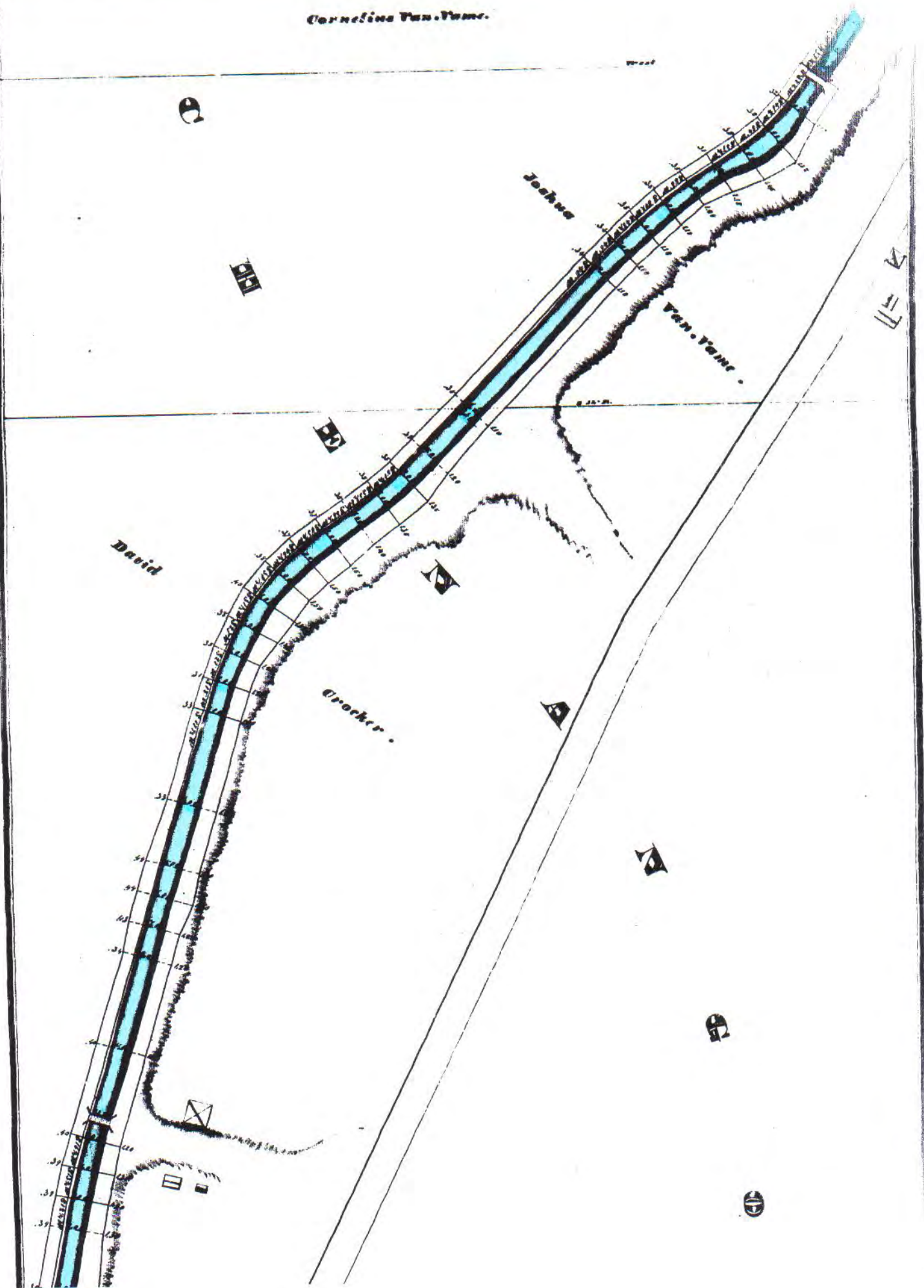


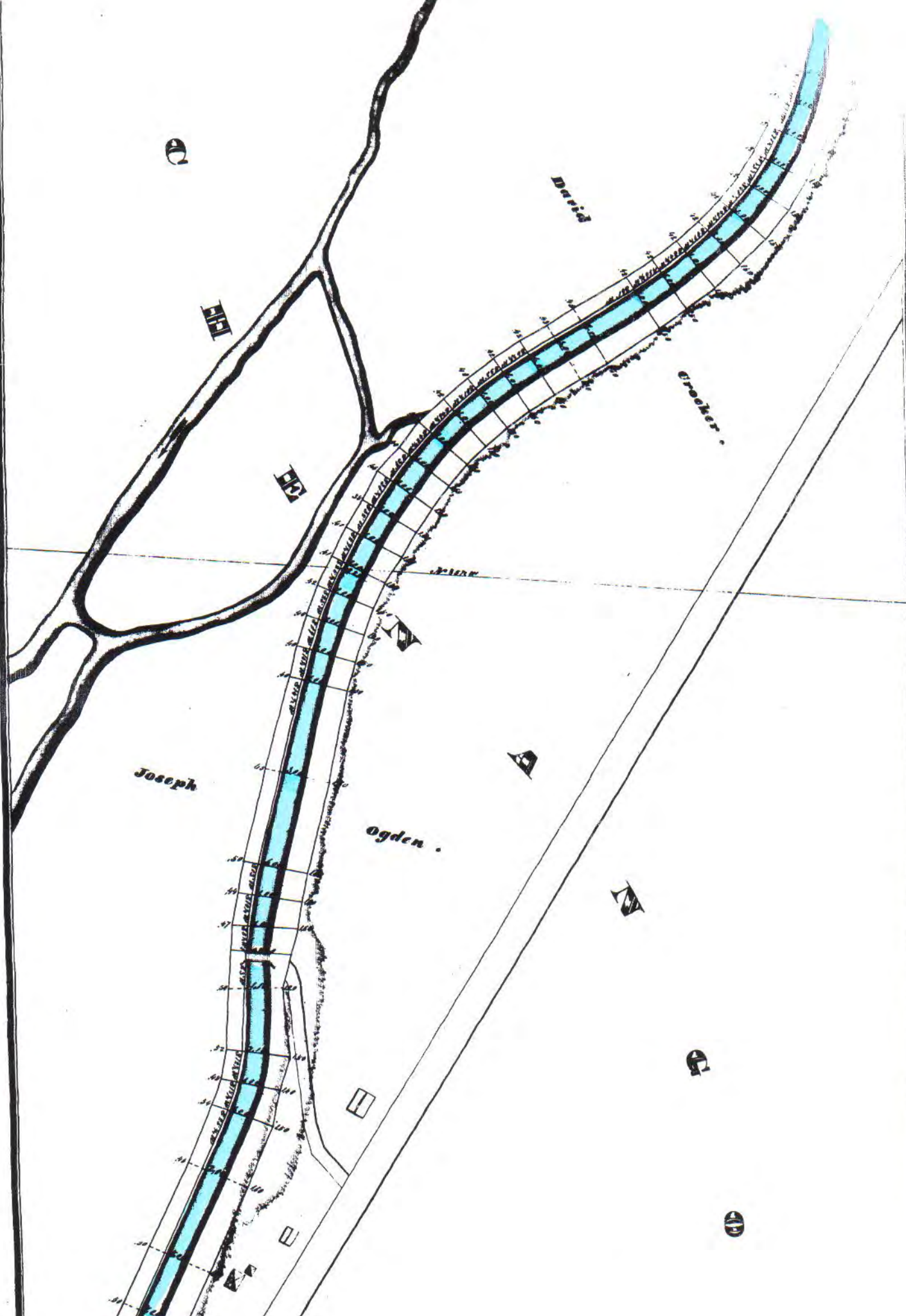












Joseph Ogden .

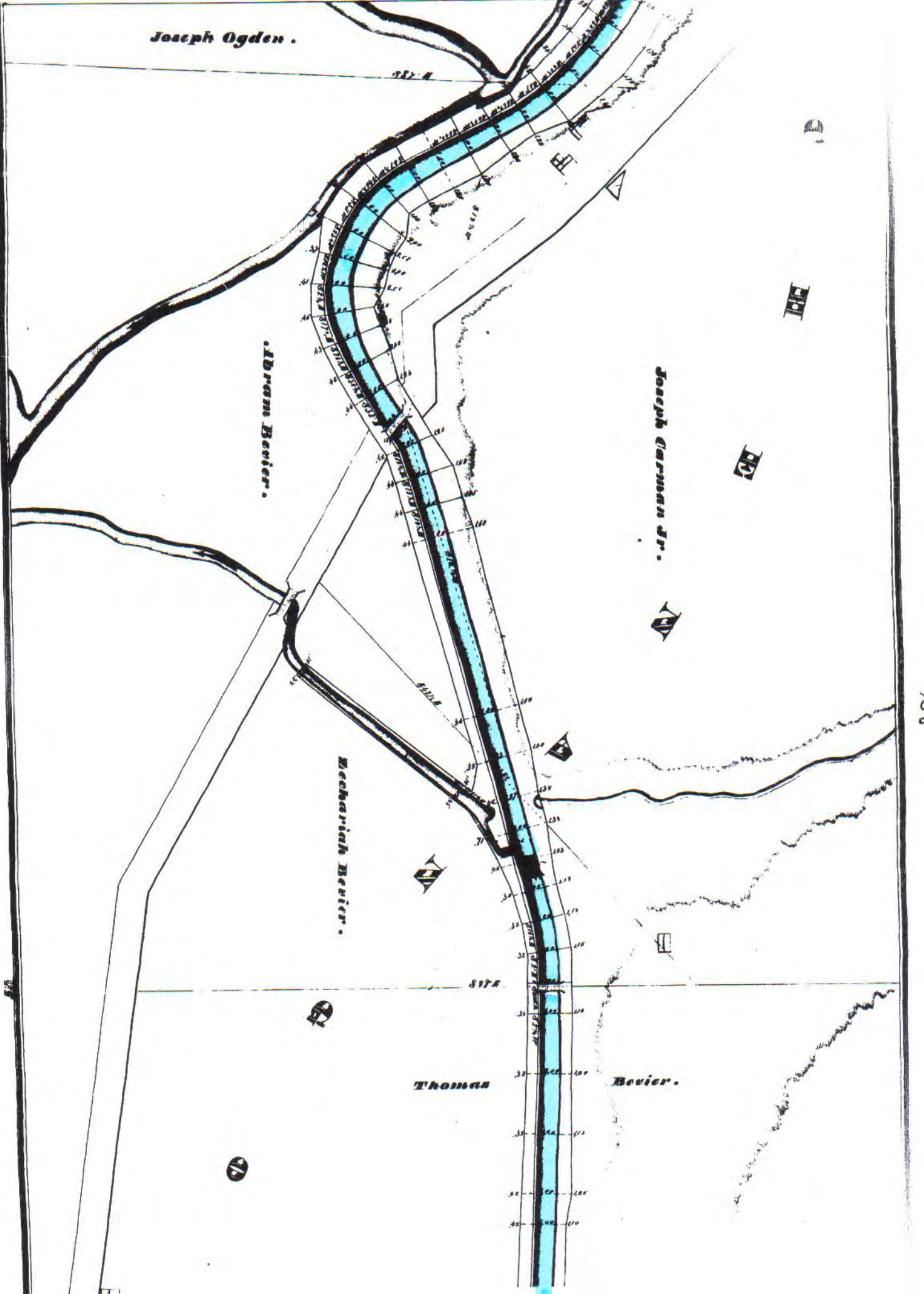
Abraham Hevier .

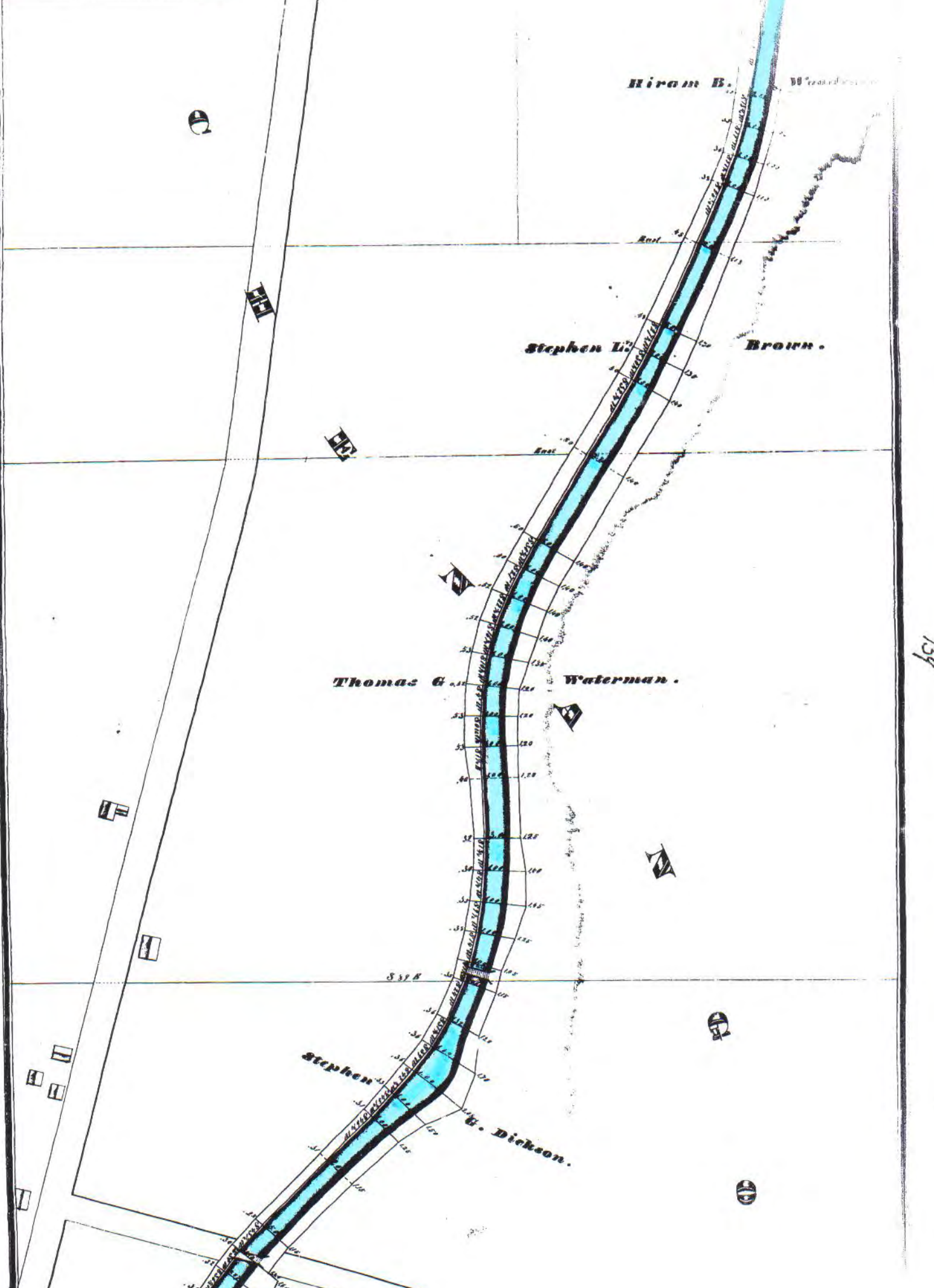
Joseph Garman Jr .

Zechariah Hevier .

Thomas

Hevier .





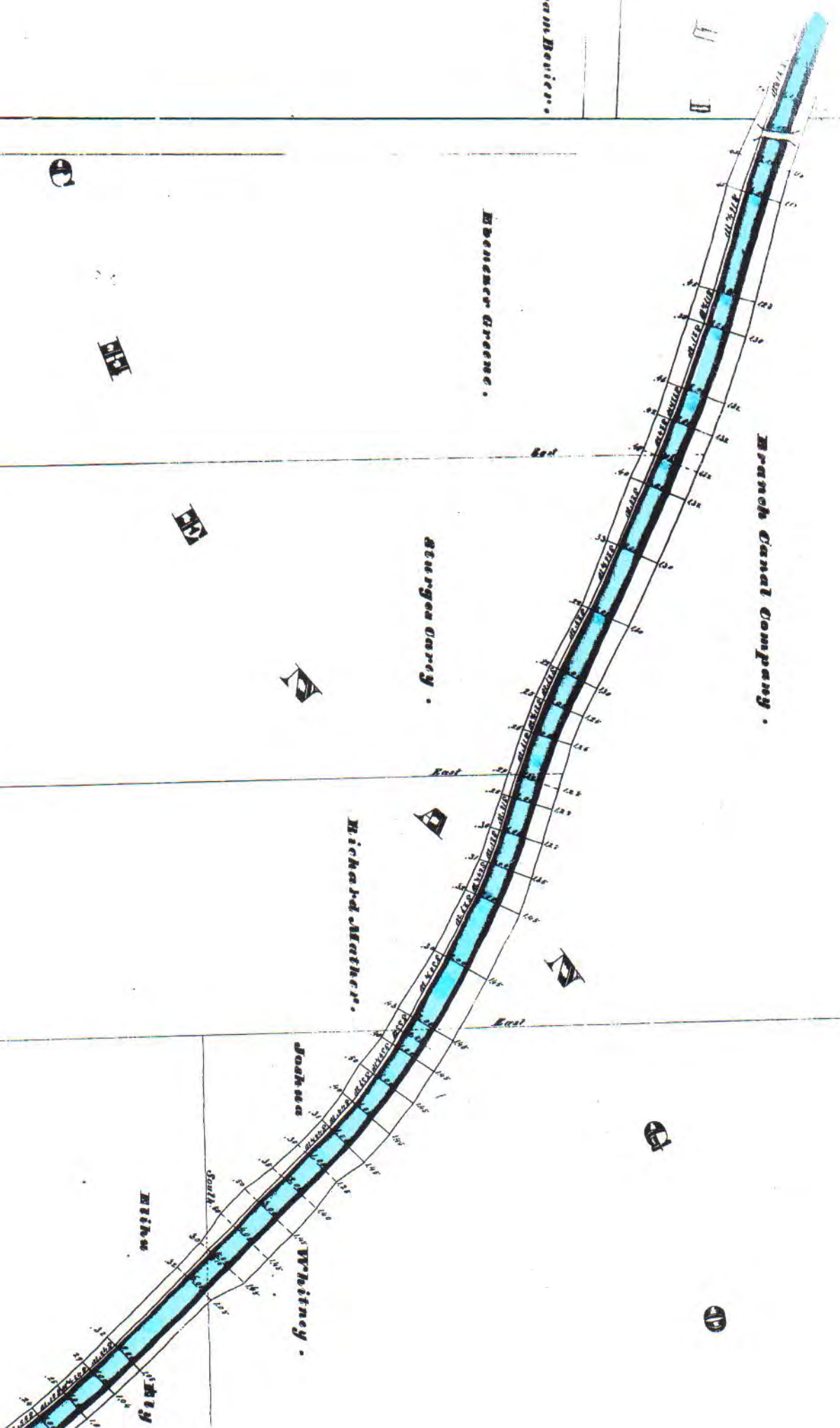
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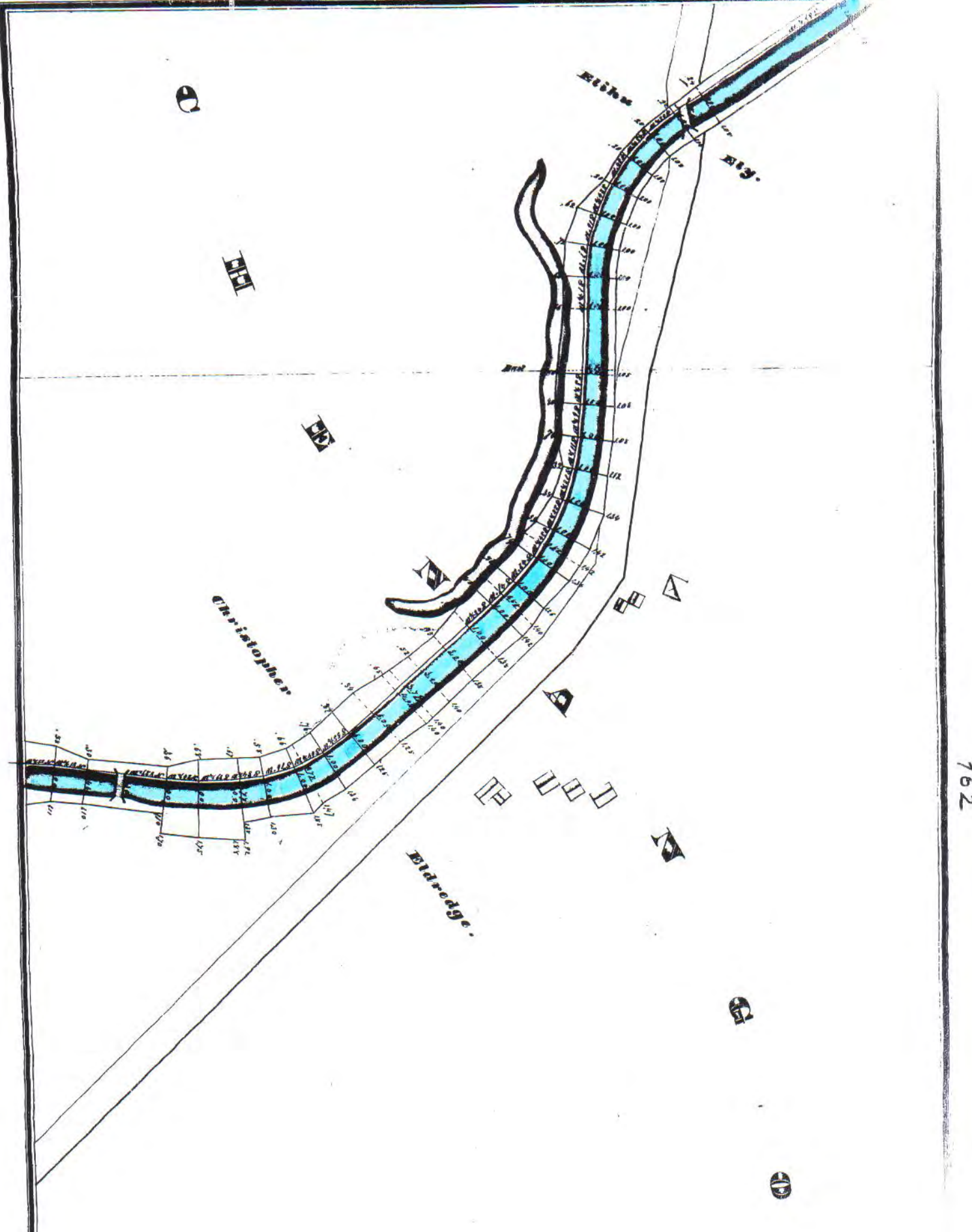
Stephen
G. Dickson.

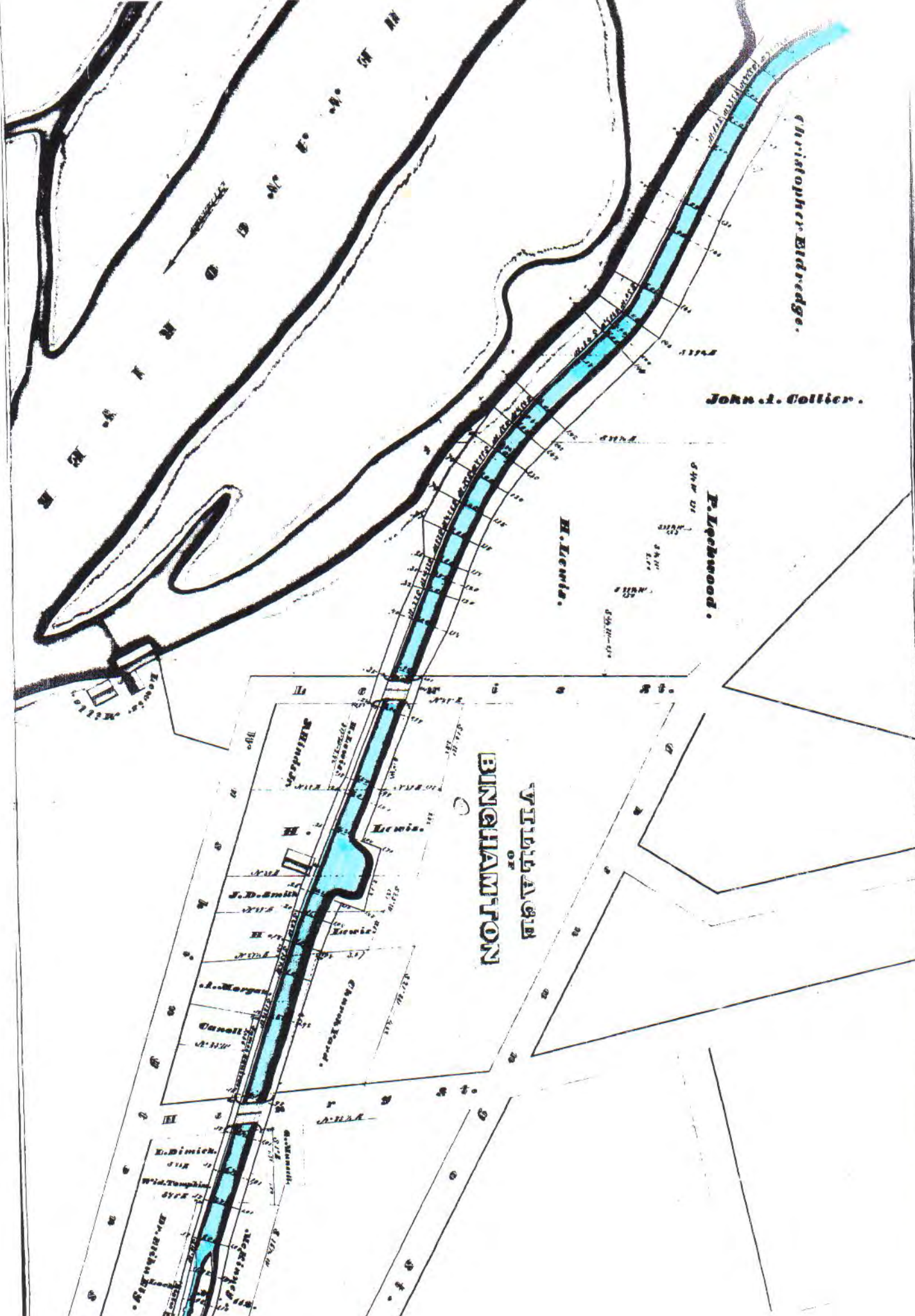
John
J. Collier.

Abram
Benier.









Christopher Bledsoe.

John A. Collier.

F. Leewood.

H. Lewis.

VILLAGE OF BINGHAMTON

Market Street

Chambers Street

E. Dimick
W. J. Tompkins
Dr. Richardson

J. D. Smith
Lewis

A. Morgan
Connell

