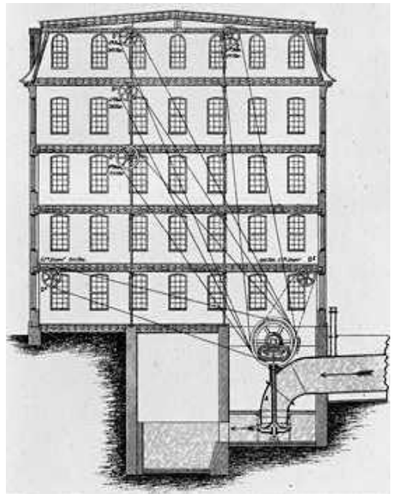
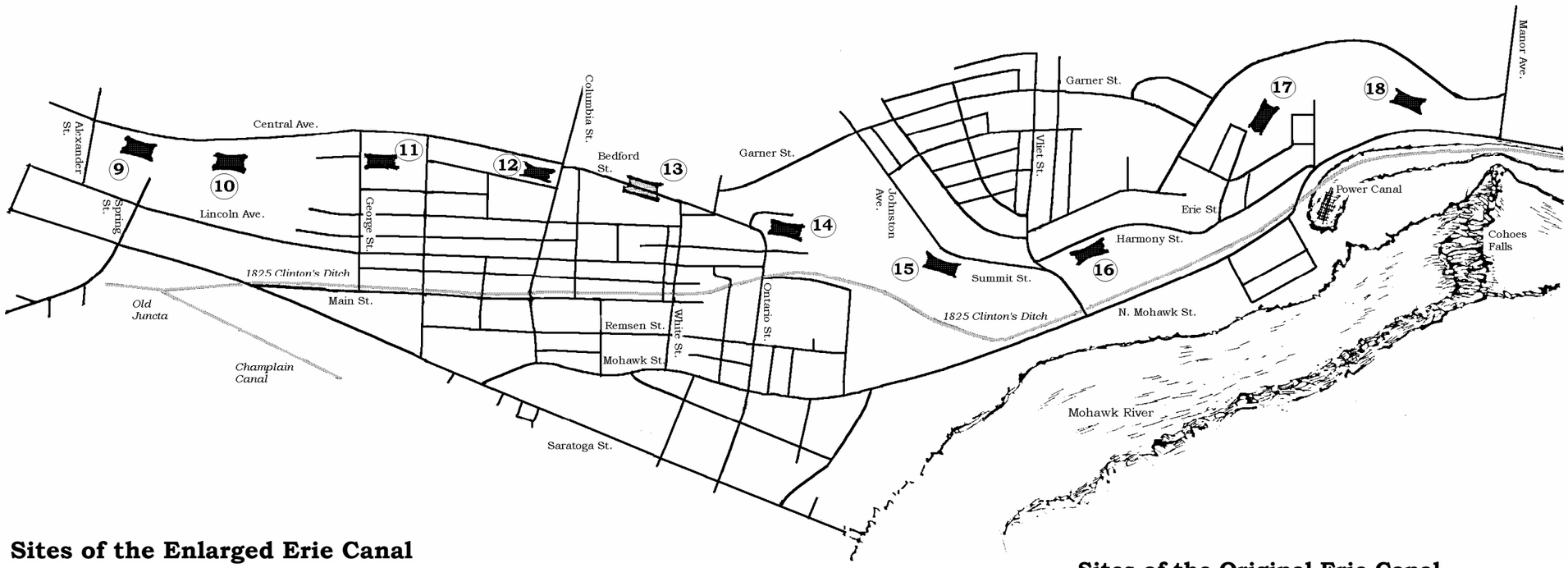
Self Guided Tour

The Erie Canal in Cohoes



Spindle City Historic Society

237-7999
www.spindlecity.net



Sites of the Enlarged Erie Canal

Lock 9 - In George Street Park, north of Alexander Street.

Lock 10 - Western wall visible in George Street Park. A towpath extends through the park to Lock 9 and Alexander Street.

Lock 11 - Northwest of the intersection of George Street and St. Rita's Place.

Lock 12 - West of Sandusky Street, partially under Central Ave. Firehouse.

Lock 13 - Buried under Bedford Street, south of High Street. No longer visible.

Lock 14 - East of Standish Street, connected by towpath to Lock 15.

Lock 15 - Southeast of the intersection of Vliet and Summit Streets. A section of the canal towpath, now a linear park, leads to the lock. There is also a section of well-preserved canal bed and canal prism to the south of the lock.

Lock 16 - Northeast of the intersection of Vliet and Harmony Streets, behind Harmony Mill #1.

Lock 17 - Near the intersection of John and Erie Sts. A former locktender's house, now a private residence, is located to the west of the lock. A well-preserved section of canal prism is evident to the north of the lock.

Lock 18 - West of North Mohawk Street, north of the intersection of North Mohawk and Church Sts. Individual listing on the National Register of Historic Places.

The Pick of the Locks

A selection of sites for shorter tours

Easiest Access -

- Lock 17
- Lock 18
- Lock 9

Best Canal Walks -

- Towpath between Locks 15 and 14, Vliet to Standish Sts.
- Towpath between Locks 10 and 9, George Street Park

Sites of the Original Erie Canal

Old Juncta - Junction of the Champlain and Erie Canals. Near the intersection of Main and Saratoga Sts.

Visible section of "Clinton's Ditch" southwest of the intersection of Vliet and N. Mohawk Sts. Later served as a power canal for Harmony Mill #2; now a park.

Old Erie Route - Sections follow Main and N. Mohawk Streets. Some structures on Main Street date from the early canal era.

Preserving Cohoes Canals & Locks

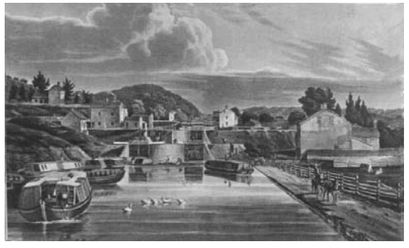
In March 2003, two Rockville Centre, New York 5th grade teachers, their 5th grade classes and their principals raised awareness about and funds for the Erie Canal in Cohoes.

These sites have great potential as an outdoor museum (where an important era of Cohoes' and the nation's history can be recalled). To find out more about how you can become involved in their promotion and restoration, please contact 518-237-5618 or cherniak@nycap.rr.com.

The Erie Canal - A Brief History

The original Erie Canal officially opened in 1825 (the section from Rome to Albany opened in 1823); work had begun on the canal in 1817. The 363-mile long Erie Canal traversed New York, connecting Albany and the Hudson River in the east with Buffalo and the Great Lakes in the west. It turned New York Harbor into America's number one port, caused the growth of numerous communities along its route, and shaped the social and economic development of the nation. Since Governor DeWitt Clinton of New York was the foremost advocate for construction of the original canal, it was nicknamed "Clinton's Ditch."

The canal prism (referring to the trapezoidal cross section of the canal) was 40' wide at the top and 28' wide at the bottom, and uniformly 4 feet in depth. The system had a total of 83 locks across the state, achieving a total ascent and descent of 675 feet. Nineteen of these locks were concentrated in Cohoes to surmount the Cohoes Falls. The canal also had 18 aqueducts to carry barges across rivers, large streams, and deep valleys, as well as numerous bridges spanning the canal to accommodate roads and farms divided by the waterway.



Painting of "Juncta" by John Hill, 1834 (NY Historical Society)

The Erie Canal soon became a great commercial success. Before the completion of the canal, it cost between $90 and $125 to ship a ton of cargo between Buffalo and New York City. Within the first ten years of the canal's existence, the cost had dropped to $4 per ton. Within a year of the opening of the canal, 2,000 boats, 9,000 horses and 8,000 men were employed in the transportation of goods on the canal. The canal made it possible for immigrants and New England's farmers to settle and develop the rich farmlands of the mid-western states of Ohio, Indiana and Illinois. These farmers would send their crops to eastern markets via the canal and receive manufactured goods in return. Since much of this trade was centered at New York City, this seaport soon became America's largest and most prosperous city.

Under best circumstances, it took ten days to travel from Albany to Buffalo, hauling from dawn to dusk at a speed of roughly 3 miles per hour. Locking through took approximately 15-20 minutes per lock. But this was rarely the case, especially in Cohoes, where it sometimes took several hours, causing considerable delay, frustration, and even fistfights.

The desire to increase tonnage transported on the canal and reduce delays gave impetus to a plan to enlarge the canal. Work was begun in 1836 on the enlarged Erie Canal, which opened in April 1842. Additional enlargements of the canal to the west of Cohoes continued into the 1860s. The enlarged Erie had double-chamber locks to permit barge travel in both directions, and was both wider (70' wide at the surface and 52' at the bottom) and deeper (7' deep) than the original canal. After the completion of this enlargement, boats that could carry up to 250 tons of cargo rapidly replaced earlier boats that could carry only 30 tons.

Looking south on the enlarged Erie Canal, showing Locks 14, 13 and 12, and the High Street and Columbia Street bridges. (Canal Society of NYS)

The enlarged canal was the largest hydraulic project of the 19th century. It was 350 miles long, with 72 lift locks; 10 of these (Locks 9 - 18) were in Cohoes, with Locks 7 and 8 straddling the Cohoes boundary. The locks in Cohoes provided a vertical lift of about 112 feet to carry boats around the Cohoes Falls, and represented the greatest concentration of locks along the Erie Canal. All of these locks had 10-foot lifts, except for Lock 18, which was 10.33 feet. Locks 3 through 18 of the enlarged Erie Canal were often referred to as "the Sixteens." Passage through "the Sixteens" was notoriously slow, often taking nearly a day because of the proximity of the series of locks.

The Bertha Bornt traveling through "the Sixteens", ca. 1890. (Sayer, Canal Society of NYS)

In 1905 New York State began constructing the Barge Canal system, which opened in 1918. It utilized the Hudson and Mohawk Rivers and other natural bodies of water as well as constructed segments. A series of locks in Waterford lifts boats from the Hudson River to the Mohawk. With the development of the Barge Canal, Cohoes was bypassed and ceased to be an active canal town.

The Canal's Impact in Cohoes

Postcard of Lock 14 of the enlarged Erie Canal, looking north.

Cohoes benefited greatly from the Erie Canal. While the excellent water power at Cohoes was a primary reason for the development of many large knitting mills, other important reasons for this development were the ease of shipping raw materials to Cohoes and finished products out of Cohoes. In fact, many of these mills were located on or near the canal for easy access.

In addition, construction brought many workers to the area and led to the building of new homes and shops. Since boats traveled only during the daytime, lodging had to be provided for the boatmen, stables were built, and taverns sprang up. A city began to form, and Cohoes was incorporated in 1870.

Postcard view of North Mohawk Street. Harmony Mill #3 is on the right, and Harmony Mill #2 is on the left. The waterway in front of Mill #2 is the original Clinton's Ditch, converted to a power canal for the mills.

The original Erie Canal also found a second life in Cohoes as a generator of power for industry. When "Clinton's Ditch" closed in 1841 to be replaced by the enlarged Erie Canal, the old canal property in Cohoes was transferred to the Cohoes Company, which converted much of it to power canals for the mills.

Many vestiges of the Canal Era still exist, key among them ten double locks of the enlarged Erie Canal, #9 through #18. Although much of the canal has been filled in, some sections of the canal bed, towpath, and prism remain, and several of the limestone locks are in very good condition, recalling this important aspect of the history that shaped Cohoes.

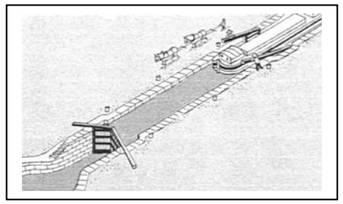
Few remnants of the original Clinton's Ditch exist in Cohoes. The only visible site is the former power canal on North Mohawk Street, now a park. Juncta, the original location of the junction of the Erie and Champlain Canals, is located near the intersection of Main and Saratoga Streets. Main Street, originally Canal Street, lies on the route of Clinton's Ditch.

How a Lock Works

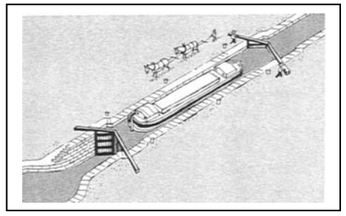
Canal locks are like elevators that move barges from one level of water to another. Water flows into and out of the lock chamber by the force of gravity. The high level of water flows into one end and is trapped between two sets of gates which are at the upper and lower end of the lock chamber.

Barges Moving Down

A barge at the upper elevation enters the lock chamber with the lower gates closed. The upper lock gates are then closed, confining the barge in the lock chamber. Water is let out of the chamber into the lower elevation. As the water in the lock chamber drops the boat is lowered to the same level as the water in the lower elevation. The lower lock gates are then fully opened and the barge can exit the chamber.

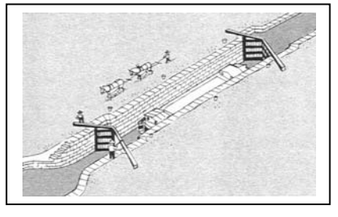


The four diagrams show this process. The upper elevation is to the upper right in each diagram and the lower elevation is to the lower left. The chamber gates are angled towards the upper elevation on both sides of the chamber to let the pressure of the water seal them.



Barges Moving Up

The water in the lock chamber starts at the same level as the lower water elevation. With the upper gates closed, the lock operator opens the lower gates to allow a barge from the lower elevation to enter the lock chamber. The lower lock gates are then closed and the barge is confined within the lock chamber.



Water is let into the lock chamber from the upper elevation. Since the lower lock gates are closed, the incoming water cannot escape from the lock chamber. The water flowing into the lock chamber rises until it reaches the same level as water in the upper elevation. The rising water lifts the boat. With the water level in the lock chamber now the same as in the upper elevation, the upper lock gates are fully opened to allow the boat to exit the lock chamber into the upper portion.