American Canal Society Canal Index

CANAL	STATUS	ACS
Illinois & Michigan Canal	Closed - Recreational parkway from Lamont to LaSalle	HAER

STATE/PROVINCE	COUNTIES:	LOCATION (Endpoints of Canal):	TOPOGRAPHIC MAPS:
Illinois	Cook, DuPage, Will, LaSalle, Grundy	Chicago - LaSalle, IL	

ENLARGEMENTS	DATES IN USE	LENGTH CANAL	LENGTH SLACKWATER	LENGTH TOTAL	LIFT LOCKS No./SIZE
	1848 - 1933	96 mi.		96 mi.	17/18'x100'
1	1871 - 1933	96 mi.		96 mi.	15/18'x100'
2					
3					
4					

HISTORICAL SIGNIFICANCE:

First suggested by Louis Joliet in 1673, urged by Congress in the 18th century, undertaken by Illinois after it became a state in 1818. Illinois & Michigan Canal Commission formed in 1828, to provide an all-water route from the Great Lakes to the Mississippi River. Engineer: Wm. Gooding, assisted by Ed. Talcott and Benjamin Wright. Construction begun 1836, completed 1848. As originally planned, a deep cut was to be built between Bridgeport and Lockport, allowing Chicago River and Lake Michigan water to flow south to Lockport and create a great mill site there. But, finances forced a higher summit level with two more locks at each end for a total of 17. In 1871, this summit level was dug deeper eliminating the two extra locks. The I &M Canal made Chicago the transportation hub that it is. Chicago was originally laid out as a canal town.

Average lock lift: 9 feet, ranging from 3.5 feet to 12.5 feet.
Year of highest toll: 1865, $ 302,000
Year of highest tonnage: 1882, 1,011,287 tons

Canal was restored by the CCC in the 1930's, but then was allowed to deteriorate. 7 miles at Chicago end was used as the route of the Stevenson Expressway. Canal became the route of the I &M Canal National Heritage Corridor, the nation's first.

PHYSICAL DESCRIPTION:

The canal ran for 96 miles from Bridgeport (Chicago) on the south branch of the Chicago River to LaSalle, IL on the Illinois River, a tributary of the Mississippi River. The canal had 15 locks (originally 17), 4 feeders (Calumet, DuPage, Kankakee, Fox), and 4 aqueducts (Aux Sable, Nettle Creek, Fox River, and Little Vermilion). The crossing of the DuPage River was originally planned as an aqueduct, but was built as a slack water crossing. The canal crossed the low divide between Lake Michigan and the Illinois River, connecting the Great Lakes to the Mississippi River system. Traffic was heavy, although restricted by seasonally low water in the Illinois River.

This was a towpath canal, although after 1871, travelled by an increasing number of steam tows. The summit level was fed by a pumping station at Chicago (a steam engine with four cast iron cylinder pumps, 54" diameter, 7' in length).

From Lockport to Lamont, the canal is cut through solid rock.

In 1933, the canal closed to navigation having been replaced by the Chicago Sanitary and Ship Canal and the Illinois Waterway which remain in service.

The canal route near Lockport and from Lock 5 at Brandon Road to LaSalle is the Illinois and Michigan Canal State Park.

There is little preventing the canal from being watered from Lock 5 at Brandon Road to Lock 15 at LaSalle. Some sections are watered.

NAMES & ADDRESSES OF GROUPS CONCERNED WITH CANAL'S PRESERVATION/RESTORATION:

I & M Canal Committee and Illinois Canal Society, 1109 Garfield Street, Lockport, IL 60441
Lewis University
Canal Corridor Association
I&M Canal State Trail
I&M Canal National Heritage Corridor

BIBLIOGRAPHICAL SUMMARY:

Putnam, James W.; "The Illinois & Michigan Canal, A Study in Economic History"; Chicago; Univ. of Chicago Press; 1918 (reissued 1972, Augustus Kelly, Clifton, NJ)

Lamb, John; "The Illinois & Michigan Canal"; Outdoor Illinois; April 1966

Lamb, John; "A Corridor in Time, 20th Anniversary Edition"; Lewis University; 2008

Lamb, John; "Historical Essays on the Illinois & Michigan Canal"; Lewis University; 2009 ISBN 0615319580

Ranney, Edward' "Prairie Passage"; The Illinois & Michigan Canal Corridor, Univ. of Illinois Press; 1998

Redd, Jim; "The Illinois and Michigan Canal, A contemporary Perspective in Essays and Photographs"; Southern Illinois University Press; 1993 ISBN 0-8093-1660-9

Vierling, Philip E., "Hiking the Illinois & Michigan Canal and Exploring its Environs, Vol. 1, LaSalle to the Fox River", 1986

See also the canal special collection on the web site for the Lewis University library.

UNPUBLISHED RECORDS, PHOTOS, DRAWINGS (CEHR, HAER, HABS. Local or Regional Historical Societies, Libraries, etc.):

Illinois State Archives,
Will County Historical Society
Lewis University Library, Canal & Regional History Special Collection (John Lamb collection)

EXISTING OR RECOMMENDED LANDMARK STATUS (CEHR, National Register, ETC.):

National Register: Will County, Joliet Vicinity, Towpath & Lock 1963
Will County, Lockport, Original I&M Canal Offices, 803 S. State Street. 1972

Investigation made by:	Date:
Original by: John M. Lamb, 1109 Garfield Street, Lockport, IL 60441 4/10/73	Revised 5/14/10
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Use additional pages for added information

Illinois and Michigan Canal Description

by David G. Barber

Revised: 11/13/13

Studying the Illinois and Michigan Canal can be confusing because it has changed over time. So what remains today is altered from earlier versions. This is particularly true on the Chicago end, in Joliet, at Channahon (Lock 6 area), at the Kankakee River, and in Ottawa. The following is a description of the I & M Canal as I understand it. This description will be updated when further information is found.

As originally planned, the canal was to cut through the ridge between the south branch of the Chicago River and the Des Plaines River and then lock downhill through fifteen locks to navigable water of the Illinois River at LaSalle. Steamboats would then carry commerce downstream to the Mississippi River. Lock numbering begins with the first planned lock at Lockport. However, the funds originally available did not allow for the cost of the deep cut planned through the summit ridge. Instead, a North Summit Lock was built at Bridgeport on the South Chicago River and the canal was built at a higher level for ten miles to a South Summit Lock (Jack's Lock) where the canal descended to the originally planned level. The summit level was watered by a pumping station at Bridgeport.

The location of Jack's Lock is unclear. But, best information puts it about 3,000 feet north, via towpath, of the Rte. 83 bridge. This location is interesting as topographic maps show the canal as entering a cutting at this location.

Apparently, a little beyond the South Summit Lock, the canal was joined by the Calumet Feeder in 1851 which brought water from the Little Calumet River at Blue Island. This feeder approximately follows the route of today's Cal – Sag Canal, but a little west.

In 1871, the summit level was lowered to the originally planned level, eliminating the two Summit Locks and allowing Lake Michigan and Chicago River water to flow by gravity to Lockport. The contract for this excavation was awarded to Sanger, Steel, & Co. in 1865. The work involved removal of rock, sixty feet wide and ten feet deep for ten miles. Construction of this deepening over six to seven years (while retaining the operation of the canal and its towpath) must have been an interesting story that I have not yet seen.

Once the canal regained the originally planned level, it proceeded into Lockport and then dropped through Locks 1 through 4. Locks 1 and 2 were planned to be hydraulic power sites using Lake Michigan water, but their capacity was limited until the summit level was deepened. Lock 1 was developed for hydraulic power, but Lock 2 was not. From Bridgeport through Lock 4, the towpath was on the right bank. The canal's headquarters was in Lockport in a building now the Will County Historical Society.

After Lock 4, the canal passes near the Joliet State Prison and the now demolished steel works and joined the Des Plaines River in the pool (Upper Basin) of Dam #1 just above the Jackson Street Bridge. The point of this joining was moved west when the sanitary canal was built through here. Lock 5 was at the Jackson Street Dam. Geo. A. Ogle & Co. maps of 1893 show that the towpath crossed the river on causeways and a bridge at the junction and proceeded down the right bank to a lock at the right end of the Jackson Street Dam. At the dam, boats locked down into a second river pool (Lower Basin) formed by a second dam just upstream of the Jefferson Street Bridge. (This dam is also shown on the Ogle maps.) Originally, this pool extended all the way across the river.

Boats then reentered a canal ditch and passing through a Guard Lock just north of the Jefferson Street Bridge. At the Jefferson Street Bridge, the towpath crossed the water to the left bank which it then followed for the rest of the canal. The canal then followed the right side of the river before angling away near Brandon Road.

In January, 1900, the Main Channel (later the Chicago Sanitary and Ship Canal) opened, connecting the South Chicago River to the Des Plaines with a wide channel and a dam complex at Lockport. This canal was much wider than the I & M and paralleled its first several miles. The original dam at Lockport ended in a fixed wall. Along the west side just before this wall was a "bear trap" gate and seven vertical gates that discharge water into a tailrace on the west side. The discharged water then flows south into the Des Plaines River. The "bear trap" was the south most structure and did the fine regulating. Just to the north were the seven vertical gates and then a further eight gate bays with fixed bulkheads for future use.

The original sanitary canal project included improvements at Joliet as follows:

1. Replacing of the Jackson Street Dam with a new one raising the height by two feet. This is reported to have increased the electric power generating potential at this site which was tapped by a power plant (Economy Light and Power) at the left end of the dam. The original power plant at this site was replaced by a new one at this time.

2. A wall was built separating the canal from the river on the right hand bank from Jefferson Street to the Jackson Street Dam and further north (maybe north of the Ruby Street Bridge). This is shown in photos. When this wall was built, it eliminated the need for the Guard Lock at Jefferson Street and it was removed. The Lock 5 at the Jackson Street Dam was rebuilt and raised in height by two feet at this time. The rebuilt lock was in operation by late April, 1899. The rebuild of Lock 5 included a bypass tunnel to supply water from north of the Jackson Street Dam to the level extending from Lock 5 to Lock 6 at Channahon.

3. Upstream of Jackson Street, a new towpath bridge was built across the river to maintain the towpath while allowing for the increased flows. This bridge is described as a fixed truss with a single road way 12 feet wide and a single towpath 6 feet (on the downstream side) with three spans, 624.3 feet total length.

4. With these changes, there would no longer be a need for the dam at Jefferson Street and its removal would have lowered the tailrace at the Jackson Street Dam further increasing the power generating potential there. The 1910 Ogle maps show no dam at Jefferson Street.

5. This project included new bridges at Jefferson Street and Cass Street. But apparently the Jackson Street and Ruby Street bridges were not rebuilt at that time.

In 1908, the Main Canal was extended two miles further south to a new power house. The dam at the power house included a lock, which still remains (but with a concrete bulkhead at its upper end. It was 22 feet wide and 130 feet long with a maximum lift of 41 feet. This improvement was to replace the I & M Canal route through Lockport and Locks 1 – 4 when the Cal-Sag Channel was built crossing the original canal. For a short period of time, this lock was the highest lift lock in the world.

In 1933, the Illinois Waterway opened on the Illinois River downstream of Lockport. This project introduced larger craft to the waterway and replaced the I & M Canal. It included several elements in the Joliet area as follows:

1. A larger lock was built at the Lockport power house dam east of the original lock, but the original lock remains out of service.

2. A dam and large lock were built at Brandon Road. This dam back flooded the I & M Canal through Joliet, submerging the 1900 divider wall (which may have been cut down) and all of the towpath. The navigation pool of the new dam at Brandon Road extended all the way to the Lockport Dam and eliminated the dam at Jackson Street including the raised Lock 5. Elimination of the drop here would have made the Economy Power and Light plant useless. When this dam was removed, the east abutment remains as does the west wall of Lock 5. From the Jackson Street Bridge, the upstream towpath side gate pocket of Lock 5 is visible including the straps on the top of the wall for the gate post hardware. The lower towpath gate pocket appears to have been replaced by the west bridge abutment. There is a ladder in the wall at the downstream end of the bridge abutment which might be in the pivot of the gate pocket.

3. Included in the Brandon Road Dam is a new concrete junction lock (new Lock 5?) of I & M Canal size next to Route US 6. This lock (now out of service) connects the pool covering the original canal upstream through Joliet to the rest of the canal downstream. Today, this lock has a “V” shaped concrete wall at the upstream gate pockets. Access to this lock is prohibited by Corps of Engineers signs, but it is visible from US 6.

4. All of the bridges crossing the river and canal through the Joliet were replaced with drawbridges.

Leaving the Brandon Road area, the canal diagonally crossed today's US 6 and proceeds for several miles away from the Des Plaines River to Lock 6. About a mile before Lock 6, the canal comes close to the DuPage River (on the right bank). Then the two separate until just after Lock 6. At this first close approach between the river and canal, there is mention of a feeder from the river to the canal, maybe with a lock on the connector. Such a feeder may have required a dam on the river, but none exists today. The 1893 Ogle maps show the river and canal waters mixing here.

After passing through Lock 6, the canal crosses the DuPage River in the pool of a dam that carries the towpath. It then enters Lock 7 and continues as canal. Next to Lock 7 is a feeder gate controlling flow from the river pool into the canal beyond Lock 7.

The 1875 and 1910 maps of Channahon show the dam as not being in line with the towpath between Locks 6 and 7. Rather, the dam is shown downstream along Bridge Street with a large basin between the dam and the towpath. This would have required a towpath bridge with clearance for boats across the pool between Locks 6 and 7. The present dam along the towpath was built by the CCC in the 1930s.

Two miles after Lock 7, the Des Plaines River on the left of the towpath is joined by the Kankakee River to form the Illinois River. As originally built, the mouth of the Des Plaines River was crossed by a multiple span masonry pier with wood trunk aqueduct carrying the four foot deep Kankakee Feeder from a State Dam, a couple of miles up the Kankakee to the main canal. This feeder entered on the towpath side and would have required a towpath bridge. In the 1870's, the feeder was rebuilt to make it navigable. This included raising the height of the State Dam, Guard Lock, and water depth in the feeder by two feet. This created a difference in water level between the feeder and main canal of two feet which was handled by a wooden lock on the feeder close to the main canal. The piers of the Kankakee Aqueduct were removed when the Illinois Waterway was built in the river in the early 1930s.

From the feeder junction, the canal proceeds through Dresden and Aux Sable to the Aux Sable Aqueduct and Lock 8. These are intact and in water. From Lock 8, the canal proceeds for a twenty mile long level to Lock 9 in Marseilles, crossing the Nettle Creek Aqueduct in Morris. Lock 9 is quickly followed by Lock 10. The canal in Marseilles is dry today.

After a further seven miles, the canal crosses the now dry Fox River Aqueduct and enters Ottawa. 0.9 miles after the aqueduct, was a junction with both the Lateral Canal going left through one lock to a basin in Ottawa and the Fox River Feeder coming in on the right from a dam four miles away at a site on the Fox River upstream of the village of Dayton. While both the Lateral Canal and the Fox River Feeder are filled in, a hydroelectric dam still exits on the Fox River just above Dayton. The canal dam was upstream of the present hydroelectric dam.

A map of the era shows the Lateral Canal was located along the east side of Canal Street. It continued for one block past Main Street where it reached the Hydraulic Basin. The basin extended east along the south side of Race Street to LaSalle Street. A raceway then continued east along the edge of Race Street to dump into the Fox River just before that river joins the Illinois. Today, Race Street is Woodward Memorial Drive. The Hydraulic Basin appears to be covered by the parking lot of a school. The lock site on the Lateral Canal was on the east side of Canal St., where it is crossed today by West Superior St..

About a mile and a half after leaving Ottawa, the canal locks down through Locks 11 and 12, which are a half mile apart. These locks are intact, although dry. After passing through Utica, the canal reaches the site of Lock 13 at about the 93.5 mile point. This lock was removed in the 1970s for unknown reasons as part of an effort to restore the canal. In the next two miles, the canal crosses the Little Vermillion Aqueduct and reaches Lock 14 (intact with gates) and Lock 15 (ungated and missing the lower towpath gate pocket) in LaSalle. Lock 15 is back flooded by the Illinois River and just before the end of the canal.

North of Lock 14, the canal is watered across the Little Vermillion Aqueduct and is the site of a canal boat ride

Illinois & Michigan Canal Structures

Revised: 11/13/13

Structure	Lift (feet)	Approx mileage	Location	Condition	Notes	GPS Coordinates	
Bridgeport Lock	8.0	0.0	Bridgeport on the Chicago River	Removed 1871	Eliminated when summit was lowered		
Bridgeport Guard Lock	?	0.0	Bridgeport on the Chicago River	Filled in	This was a wood crib lock added in the late 1800s when pumps were installed to increase the flow of water down the canal to Lockport for sanitary reasons. The construct of the Main Channel sanitary canal and the lock at the Lockport power house made this lock redundant. It is shown derelict to 1914 photos.		
		8*	Summit				
Jack's Lock	10.9	10 miles - about 3 miles above Lockport	At west end of summit	Removed 1871	Eliminated when summit was lowered	approx. 41E42'25.20"N 87E55'36.78"W	
Calumet Feeder - 17 miles* long			Completed 1852. This is about where the Cal-Sag Channel runs now.				
		17*	Des Plaines				
		21*	Athens				
		29*	Lockport				
Lock 1			Lockport	Intact		41E34'58.93"N	88E03'43.78"W
Lock 2				Intact	Below Lockport	41E43'05.92"N	88E04'10.51"W
Lock 2				Intact	Crossed by towpath trail	41E33'13.89"N	88E04'31.42"W
Lock4				Intact	Crossed by towpath trail	41E33'07.75"N	88E04'34.05"W
Crossing of the Des Plaines River		?			Towpath bridge over river at junction		
Des Plaines River Dam #1 & old Lock 5			Jackson Street		Lock was on right bank. The upper towpath gate pocket remains.		
		37*	Joliet				
Guard Lock and Dam #2			Jefferson St.	Removed 1899			
Junction Lock (modern Lock 5)			Brandon Road	Intact	Next to modern Brandon Road Lock. Has concrete upper gates.	41E30'18.86"N	88E06'12.37"W
jct. with DuPage River Feeder		44*			Details unknown		

Structure	Lift (feet)	Approx mileage	Location	Condition	Notes	GPS Coordinates
Lock 6		45.0	Channahon	Intact	Watered	41E25'23.26"N 88E13'44.04"W
DuPage River crossing		45.0	Channahon		Originally proposed as an aqueduct	41E25'19.21"N 88E13'43.52"W
Lock 7		45.0	Channahon	Intact	Watered	41E25'15.16"N 88E13'43.06"W
jct. with Kankakee Feeder - 4* miles long		47*			Feeder passed thru towpath	41E23'15.69"N 88E14'46.24"W
Dresden		50*				
Aux Sable		52*				
Aux Sable Aqueduct		53.0		Intact	Watered	41E23'46.40"N 88E19'54.59"W
Lock 8		53.2		Intact	Watered	41E23'45.06"N 88E19'54.59"W
		57*	Morris			
Nettle Creek Aqueduct		59.0	Morris	Intact		41E21'21.95"N 88E25'57.67"W
Lock 9		73.9	Marselles	Intact	Next to Broadway, Dry	41E19'31.83"N 88E41'49.18"W
		74*	Marselles			
Lock 10		74.1	Marselles	Intact	Near Pearl St., Dry	41E19'34.20"N 88E41'58.43"W
Fox River Aqueduct		81.0	Ottawa	Intact	Dry	41E21'08.85"N 88E49'39.98"W
jct with Fox River Feeder - 4 miles* long		81.9 ?	Ottawa	Filled in	Supplied water to the canal from a dam located on the Fox River above Dayton, about 8 river miles north of the canal.	Both of these waterways joined the main canal, opposite each other, about 4500 feet west of the Fox River Aqueduct where "Canal Streets" run north and south on both sides of the main east west canal. On the south, where there was a towpath bridge, there appear to be abutments. Junction was at 41E21'11.28"N 88E50'45.02"W
Lateral Canal		81.9 ?	Ottawa	Filled in	Ran south from the main canal to a basin that discharged into the river. Had a descending lock located just south of the main canal.	
		81*	Ottawa			
Lock 11	9.75	83.3		Intact		41E20'56.00"N 88E52'25.41"W
Lock 12	9.85	84.8		Intact		41E20'07.41"N 88E53'46.32"W
		91*	Utica			
Lock 13	6.40	approx. 93.5 miles		Reported to be removed prior to 1974. West end of south wall is visible in low water just east of a dike across the canal and 350 yards west of the Pecumsaugan Creek bridge.		41E20'12.15"N 89E02'58.72"W
Little Vermillion Aqueduct		94.7		Intact	Watered	41E19'39.43"N 89E05'00.20"W

Structure	Lift (feet)	Approx mileage	Location	Condition	Notes	GPS Coordinates
Lock 14	13.75	95.5	LaSalle	Intact	Watered, wooden gates	41E19'35.14"N 89E05'40.90"W
Lock 15	11.52	95.8	LaSalle	Intact	Watered, no gates	41E19'34.01"N 89E05'47.28"W
		96*	LaSalle			
Lateral Canal Lock	6.00		Ottawa	Filled in	Canal connected the main canal to a basin located between the canal and the Illinois River. The Lateral Canal ran along the east side of Canal Street to one block south of Main Street. At that point, the basin ran east along the south side of Race Street to LaSalle Street. East of La Salle St. a flume discharged east into the Fox River. Along the basin were canal maintenance shops. The basin is now the site of a school parking lot. Center of basin approx. 41E20'41.41"N 88E50'38.85"W. The lock was located on the east side of Canal Street where it today is crossed by West Superior St. 41E21'07.55"N 88E50'50.17"W	

Note: Mileages with * are from a mileage table