

ST. CLAIR RIVER, MICHIGAN.

LETTER

FROM

THE ACTING SECRETARY OF WAR,

TRANSMITTING,

WITH A LETTER FROM THE CHIEF OF ENGINEERS, REPORTS OF
EXAMINATION AND SURVEY OF CHANNEL IN ST. CLAIR RIVER,
MICHIGAN, BETWEEN RUSSELL ISLAND AND GRAND POINT.

JANUARY 6, 1908.—Referred to the Committee on Rivers and Harbors and ordered
to be printed with accompanying illustrations.

WAR DEPARTMENT,
Washington, December 23, 1907.

SIR: I have the honor to transmit herewith a letter from the Chief of Engineers, U. S. Army, dated 19th instant, together with copies of reports from Col. Chas. E. L. B. Davis, Corps of Engineers, dated April 22 and November 26, 1907, of a preliminary examination and survey, respectively, of channel between Russell Island and Grand Point in the St. Clair River, Michigan, made by him in compliance with the provisions of the river and harbor act of March 2, 1907.

Very respectfully,

ROBERT SHAW OLIVER,
Acting Secretary of War.

The SPEAKER OF THE HOUSE OF REPRESENTATIVES.

WAR DEPARTMENT,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, December 19, 1907.

SIR: I have the honor to submit herewith for transmission to Congress reports of April 22, 1907, and November 26, 1907, with maps, by Col. Chas. E. L. B. Davis, Corps of Engineers, on preliminary examination and survey, respectively, authorized by the river and harbor act approved March 2, 1907, of channel between Russell Island and Grand Point in the St. Clair River, Michigan.

The improvement contemplated has for its object the creation of an auxiliary channel for the convenience of local and general commerce. The plan recommended provides for a channel 300 feet wide and 20 feet deep at an estimated cost of \$100,000, including price of right of way.

I concur in the opinion of the district officer and the Board of Engineers for Rivers and Harbors that this locality is worthy of improvement in the manner indicated above.

Very respectfully,

A. MACKENZIE,
Brig. Gen., Chief of Engineers, U. S. Army.

The SECRETARY OF WAR.

PRELIMINARY EXAMINATION OF CHANNEL IN ST. CLAIR RIVER,
MICHIGAN, BETWEEN RUSSELL ISLAND AND GRAND POINT.

WAR DEPARTMENT,
UNITED STATES ENGINEER OFFICE,
Detroit, Mich., April 22, 1907.

GENERAL: Pursuant to instructions contained in Department letter of March 14, 1907, I have the honor to submit the following report on a preliminary examination of "channel between Russell Island and Grand Point in the Saint Clair River."

Russell Island is situated in the delta of the St. Clair River where the main stream divides into two branches, called the North channel and the South channel, the latter being the one used by commerce.

The channel is narrow at the head of the shoal extending north-easterly from Russell Island, and many collisions have occurred at this point. Mr. C. C. Smith, of Algonac, member of a firm of boat builders, writes me—

That the channel between the head of Russell Island and Walpole Island has been the scene of more dangers and collisions in the past ten years than any other spot on the St. Clair River. There have been several collisions at this point. The barge *Sage* was sunk there, the barge *Champion*, the steamer *Bethlehem*, and two or three others that I don't recall.

I have marked on the accompanying tracing^a the course of a steamer bound for Algonac. The full black lines show by the direction of arrows the present course of up-bound and down-bound vessels, the loop in the North channel being necessary in order that the vessel when leaving her wharf shall be headed in the proper direction. On the same tracing I have indicated the approximate location of the proposed channel, and show by dotted lines and direction of arrows the courses of up and down bound vessels through the new route. These courses will avoid the necessity of the loop, and the actual saving on each trip will be about 6,000 feet.

Mr. B. W. Parker, general manager of the White Star Line of steamers, in letter of March 11, 1907, writes me of their business for the season of 1906, as follows:

Our steamer *City of Toledo* made 217 landings at Algonac and carried to and by the town 90,237 people, the steamer *Greyhound* made 16 landings and carried 15,911 people, steamer *Tashmoo* made 182 landings and carried 137,421 people, and the

^a Not printed.

steamer *Owana* made 244 landings and carried 30,658 people; a total of 659 landings at the port of Algonac with our four steamers and carried passengers to and by the town to a total of 274,227 people.

The new proposed channel would mean a saving on the 659 trips of nearly 750 miles during the season, and would avoid the point where accidents are so liable to occur, thus greatly diminishing the chances of a collision with one of these passenger steamers with its attendant loss of many lives.

I append a copy of Mr. Parker's letter^a with his list^a of vessels that trade through the St. Clair River and would be likely to use the proposed new channel.

For reasons given I regard the improvement of this channel as worthy of being undertaken by the General Government provided it can be done at a reasonable cost, and to determine this point I recommend that a survey be made and an estimate of the cost of dredging a channel of proper width and depth, borings being made to determine the character of the material within the limits of depth. The estimated cost of such survey is \$800.

Very respectfully, your obedient servant,

CHAS. E. L. B. DAVIS,
Colonel, Corps of Engineers.

Brig. Gen. A. MACKENZIE,
Chief of Engineers, U. S. A.

[Second indorsement.]

BOARD OF ENGINEERS FOR RIVERS AND HARBORS,
Washington, D. C., April 29, 1907.

Respectfully returned to the Chief of Engineers, U. S. Army.

Based on the present information which is contained in the within report and its accompanying letter, it is believed that the proposed channel between Russell Island and Grand Point would be of considerable value to the navigation interests of St. Clair River, both in the saving of time and in lessening the dangers of collision, and the advisability of its construction would appear to hinge upon its probable cost. This the district officer states can be determined by a survey at an expense of \$800. The expenditure of this sum to secure further information on which to base a final opinion as to the advisability of the United States undertaking the improvement appears to be fully justified. The Board therefore recommends that the survey be authorized.

The number of vessels reported as likely to make use of the proposed channel if constructed is 123. It appears, however, that the greatest interest in this channel is confined to one navigation company which at one time contemplated creating the channel for its own use. It is recommended that these special interests be fully investigated and the advisability of their bearing a part of the expense of the work considered.

For the Board:

D. W. LOCKWOOD,
Colonel, Corps of Engineers,
Senior Member of the Board.

^aNot printed.

ST. CLAIR RIVER, MICHIGAN.

[Third indorsement.]

WAR DEPARTMENT,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, May 2, 1907.

Respectfully submitted to the Secretary of War.

This is a report on preliminary examination of channel between Russell Island and Grand Point in St. Clair River, Michigan, authorized by the river and harbor act of March 2, 1907.

Inviting attention to the report of the Board of Engineers for Rivers and Harbors, in the preceding indorsement, I recommend that a survey of the locality, as proposed, be authorized.

A. MACKENZIE,
Brig. Gen., Chief of Engineers, U. S. Army.

[Fourth indorsement.]

WAR DEPARTMENT,
May 3, 1907.

Approved as recommended by the Chief of Engineers.

ROBERT SHAW OLIVER,
Assistant Secretary of War.

SURVEY OF CHANNEL IN ST. CLAIR RIVER, MICHIGAN, BETWEEN
RUSSELL ISLAND AND GRAND POINT.

WAR DEPARTMENT,
UNITED STATES ENGINEER OFFICE,
Detroit, Mich., November 26, 1907.

GENERAL: In accordance with instructions contained in Department letter of May 9, 1907, I have the honor to submit the following report upon the survey of the "channel between Russell Island and Grand Point in the Saint Clair River."

The report upon the preliminary examination of this channel was submitted April 22, 1907, to which attention is respectfully invited.

During the month of June, 1907, 15 holes—3 in the South, or main, channel, 4 in the North channel, and 8 across the land, as shown on accompanying chart—were bored with a water jet, no drilling being necessary. The material was sand and clay in all of the holes except two of those on the island, in which a seam of gravel was struck at 18 feet and 12 feet, respectively, from the surface. The seam appeared to be about 4 feet thick, below which was mostly clay, there being but very little sand. No bowlders or hardpan were found in any of the holes.

Estimates have been made of the cost of securing channels of widths of 100, 200, and 300 feet with a uniform depth of 20 feet with side slopes of one and a half on one.

Estimates.

Channel width 20 feet deep.	Cubic yards.	Cost, 12 cents per cubic yard.
100	263, 638	\$31, 633
200	463, 297	55, 596
300	664, 112	79, 693

The main channel to the eastward of Russell Island being somewhat narrow, has been the scene of many collisions and a number of narrow escapes. The proposed cut would make a double channel for a distance of two and one-half miles, would relieve the present congested condition of the main channel and would materially lessen the dangers of navigation.

The navigation company that would be most directly benefited by the proposed cut is the White Star Line, operating three large passenger and freight steamers touching six times a day at Algonac. The proposed cut would do away with the long loop around the head of Russell Island, shown on the accompanying map, which these steamers, and other vessels stopping at Algonac, are now obliged to make. This turn right on the line of through traffic where the main channel narrows to less than 1,000 feet, is particularly dangerous, as in making this sharp turn the rudder chains are subjected to a very severe strain, the breaking of which might result in a collision with great loss of life, the White Star Line during the season of navigation carrying nearly 300,000 passengers. The *Tashmoo*, one of their steamers, has carried on several occasions her full licensed capacity of 3,500.

I recommend the excavation of a channel 300 feet in width and 20 feet deep, as shown on chart, costing approximately \$80,000. As 300 feet is the minimum width of dredged cuts in the main ship channel between Chicago, Duluth, and Buffalo, I recommend that width, as I think many down-bound vessels will find it to their advantage to use this channel. I recommend 20 feet depth because that is the depth at the St. Clair Flats Canal. The constant passage of vessels loaded to nearly the entire depth of water in the canal has been found to have a decided tendency to deepen the channel and in the soft material in the proposed cut I have no doubt the same tendency will be developed, so that the cost of maintenance will be merely nominal, not to exceed say 2 per cent per annum of the original cost.

In the letter of instructions my attention was invited to the recommendation of the Board of Engineers for Rivers and Harbors, that as the greatest interest in this channel is confined to one navigation company, which at one time contemplated making a channel for its own use, these special interests be investigated and the advisability of this company bearing part of the expense be considered.

This company having been approached on the subject took the ground that the new channel would be of advantage to commerce generally and did not think their company ought to contribute. After a good deal of deliberation on the subject, I have come to the conclusion that this new channel, by materially lessening the dangers of collisions, will contribute to the general safety of commerce as well as be of great advantage to the company referred to, and for this reason I have recommended a channel in location, width, and depth that will best subserve the interests of general traffic. A narrower and shorter channel of much less draft on the line of the Canoe Cut would answer the purposes of the White Star Line. The letter of the company is appended hereto.

After considerable delay I have succeeded in obtaining from the owners of the land through which the proposed cut is to be made an offer that seems to be reasonable, viz, the second one in the appended

letter of Mr. Burt D. Cady, an attorney of Port Huron, Mich., representing the property owners, and I recommend its acceptance. This will secure all the land between the Canoe Cut and the Grand Point Dredge Cut for the sum of \$10,000, not including the seven lots referred to by Mr. Cady.

I think it will be much better to take the whole of the small island between the cuts rather than the strip of land 500 feet wide, as future developments of lake traffic may require a further deepening and widening of this channel.

As to the reasonableness of the offer, I have to say that \$30,000 was offered a few years ago for all the portion of Russell Island above the Canoe Cut, containing about 131 acres, or at the rate of \$229 per acre. The area recommended for acceptance amounts to about 49 acres, which at the above figure would amount to \$11,221. The price offered does not therefore appear to me to be excessive. This \$10,000 for the land will bring the total estimate up to \$100,000, in round numbers, including about 10 per cent for contingencies.

Very respectfully, your obedient servant,

CHAS. E. L. B. DAVIS,
Colonel, Corps of Engineers.

Brig. Gen. A. MACKENZIE,
Chief of Engineers, U. S. A.

[Second indorsement.]

BOARD OF ENGINEERS FOR RIVERS AND HARBORS,
Washington, D. C., December 2, 1907.

Respectfully returned to the Chief of Engineers, U. S. Army.

In the within report the district officer submits plans for constructing a channel 20 feet deep connecting the North and South channels of St. Clair River between Herson Island and Russell Island, in the vicinity of Algonac, Mich. The cost of a channel 100 feet wide is estimated at \$31,633, one 200 feet wide at \$55,596, and one 300 feet wide at \$79,693. While either of the smaller channels proposed would probably serve the needs of the local passenger business to and from Algonac, in which one line of steamers is principally interested, the district officer believes that a channel 300 feet wide will be of some benefit to through commerce on the St. Clair River, and for this reason he recommends its adoption.

Under existing conditions vessels bound to or from Algonac must make a rather difficult turn at the head of Russell Island, directly on the main line of through traffic, where the channel narrows to less than 1,000 feet. The proposed cut would provide a route affording access to Algonac for both upstream and downstream traffic, obviating the necessity for making the turn at the head of Russell Island, which is not only dangerous for vessels bound to or from Algonac, but likewise involves equal risk of collision to vessels engaged in through commerce. Viewed as an improvement for the sole benefit of the local traffic at Algonac, the advisability of the work would appear doubtful, but the report of the district officer makes it clear that the provision of a channel suitable to the needs of general commerce will be a work fully justified by the measure of safety it will afford at this point to the constantly growing and often congested through navigation of the St. Clair River.

In view of the above, the Board recommends approval of the project contained within for excavating between Russell Island and Herson Island a channel 300 feet wide and 20 feet deep at a cost of approximately \$100,000, including 10 per cent for contingencies and \$10,000 to cover the cost of land needed for the necessary right of way.

For the Board:

D. W. LOCKWOOD,
*Colonel, Corps of Engineers,
Senior Member of the Board.*

LETTER OF THE WHITE STAR LINE.

WHITE STAR LINE,
Detroit, Mich., July 24, 1907.

DEAR SIR: Replying to your favor of the 23d:

We at one time did contemplate running a private channel between Herson Island and Russell Island. This channel was to be 160 feet wide by 12 feet deep. The earth from the same was to redeem about 40 acres of land, which we figured we could plat and sell, revenue of which would very nearly cover the expense of digging the channel. Due to a flaw in the title we dropped the matter.

As general aids to navigation, we believe this channel should be put through, and we don't believe that we should be called upon to contribute. A great deal of money is being wisely spent for the aids to navigation, wholly for the benefit of the coarse freighters and tramp ships, and, as the *City of Detroit* alone carried over seven and a half million people from this port in 1906, our four steamers carrying over one-half a million people, sincerely believe that some money should be spent for the aids to navigation of passenger steamers to lessen the liability of collision, and I know of no place on the lakes where a little money could be better spent to lessen the liability of collision than at the point mentioned. Perhaps not all the large down-bound ore carriers would use the new channel, but all the small freighters and passenger boats would, thereby lessening the liability of collision, of which there has been many in and about Russell Island, St. Clair River.

I do hope that there will be no delay in putting this channel through so that it will be ready for us before the rush of business of another excursion season.

May I have a copy of the proposed channel and very much oblige,

Yours, very truly,

B. W. PARKER,
General Manager.

Col. CHAS. E. L. B. DAVIS.

LETTER OF BURT D. CADY.

CADY AND CRANDALL,
ATTORNEYS AT LAW,
Port Huron, Mich., November 12, 1907.

SIR: On November 5 I wrote you stating that I would take up the question of reduction of price of land needed by the United States for dredging of channel for purposes of navigation across Russell Island with the several owners of the land. I have just been able to see them and am now authorized to make you the following propositions:

(1) We will accept \$4,000 for a strip 500 feet wide in the line of the proposed cut as shown on the accompanying sketch, with the understanding that the dirt taken from the cut will be deposited upon the adjoining land on both sides of said cut, the same to be spread as near a uniform level as possible.

(2) We will accept \$10,000 for all land between the two cuts—that is, between the Canoe Cut on the north and Grand Point Dredge Cut on the south, excepting seven lots 60 feet by 200 feet each, which we have sold, as is shown by the accompanying sketch.

I hope that these propositions will meet with your favorable consideration.

Very truly, yours,

BURT D. CADY.

Col. CHARLES E. L. B. DAVIS.

