

Premier Matheson's Text

# Causeway Proposals As Outlined In The House

The proposal of a causeway to the mainland was outlined in considerable detail to the Legislature Friday, February 25 by Premier A.W. Matheson. A report of his speech has already been published but parts referring to the causeway are here reproduced on the records of the House.

Now the answers of the causeway highway engineers prepared estimates on probable costs of providing rail communication with Prince Edward Island. These possibilities were considered (a) bridge, (b) causeway or (c) bridge.

He estimated expenditure at that time were approximately as follows:

Tunnel of steel and concrete cylinders laid on the bottom, seventy-eight million dollars; and through the ground, one hundred and sixty million dollars; driven through ground with no air pressure, eighty million dollars.

A causeway, forty-six million; and a bridge seventy-seven million.

I will be giving you figures later and it will give you some idea how these compare with present figures. These will be available to any members who want to see them because I think it is going to be a way of resolution we should have these available to all members of the House.

**RAIL SURVEY**

There is one other plan that I would like to make available to all: the Geological Map of the Maritime Provinces. It is from this map is prepared. Not by anyone in Prince Edward Island, prepared by the Federal Department of Railways and Resources. It shows very much the same story that is told in writing by the late Francis Bain. This will also be available for the information of honorable Members.

There is one other matter, when I was reading the report that I possibly neglected to mention and should come back to it now. Another radio address that was made by a member of the Federal House (and I am going to refer to three paragraphs only in this) and this is Mr. Neil A. Matheson.

If I have dwelt at length in this case of the proposal I have done so with only one purpose in mind. I want to assure all of you that nobody is trying to do anything that would be harmful to our Province. We are trying to help. That is the only reason any man should be in public life. That at least, has always been my view point and it still is my view point. Now that the people in Queens have enough trust in me to elect me as their member of Parliament, I have taken this project seriously. I have tried to do for my constituency and my Province since I came here as your representative two years ago.

I have raised the subject in the House of Commons for good reasons. First of all I believe in it and I believe we have a better chance now than we ever had before of getting something done about it.

This is according to the authorities that deal with the bridges and tunnels and airports around New York greater New York; also the important New York authorities responsible for the construction and operation of the Lincoln and Holland Tunnel. "The questions you ask in your letter are not in my opinion susceptible to answer without comprehensive study."

Now this is the chief engineer a man by the name of John N. Kyle. To my knowledge no one has ever attempted to design or construct an under water tunnel nine miles in length.

Mr. Kieckhafer referred to the subway in Toronto. The subway in Toronto, I had an opportunity of travelling over it within the past month, one end to the other with the engineer in charge of the construction of that subway. Now the subway is not a tunnel. It is practically on the surface. It is almost, in many places, completely open to a completely open in the northern part of the City, it is an open ditch all the way through.

Now I asked that engineer as well what his opinion was about a tunnel on Northumberland Strait with water on it; and he didn't think it was feasible in line with their experience in Toronto. But I will give you more information in conjunction with that later on.

Now as to the necessity you will say why should we bother about this? Why are we stirring up strife? Why are we worried?

Now I would like to present that to you by way of graphs and figures as well. These are not prepared by one individual; they are prepared by several.

**TRAFFIC INCREASING**

In 1941 thirty-five thousand automobiles crossed Borden and Tormentine. In 1942 with gas rationing and war the number was down to nine thousand. In 1943 ten thousand, in 1944 twelve thousand and let us go on up to 1947. 1947 there were thirty-seven thousand, 1948 nearly forty-six thousand, 1949 fifty-four thousand, 1950 sixty-four thousand, 1951 seventy-seven thousand, 1952 eighty-eight thousand, 1953 one hundred and three thousand, 1954 one hundred and four thousand and 1955 one hundred and twenty-three thousand.

Now with that trend, realizing that we can't start at 1941, at 1942 or 1943 we start at 1946 and follow that trend along until 1962 which is only six years hence. It is estimated on the same basis that we would have one hundred and eighty thousand vehicles crossing at Borden and Tormentine.

**EARLIEST DATE 1962**

"Now if the experience that has proven correct as far as Canso is concerned, by having the causeway, there has been a thirty per-

cent increase in traffic over the Canso Causeway since it was opened compared with the former means of transportation. If there was a corresponding increase if we had a causeway in Prince Edward Island in 1962, which would possibly be the earliest date, would be two hundred and forty thousand vehicles rather than one hundred and eighty thousand if we are carrying on the way we are.

"Now I think that most members of this House know when the present boat, that is the new boat, was built that boat carried all the traffic along. Last year with two boats in the Old Prince Edward Island working and the Abegweit as well, there were times when there were line ups at the piers.

"I came across one time last year on the Abegweit. Cars and trucks were lined up a way beyond the pier right scale in Borden. Now if this trend continues, and there is no reason why it shouldn't, we will need more than another boat.

"I will give you the cost of each of these as I go along. There is another I don't take into consideration in which I should. We all know that there are operating deficits on the car-ferry. From the report of the Canadian National Railway tabled each year we have been able to get from 1940 to 1953 a report on the operating deficits on the car-ferry.

**TUNNEL REJECTED**

"The possibility of a tunnel had been previously considered and rejected. At present day prices a tunnel is estimated to cost thirty-eight million dollars or more. The causeway approximately forty-five million.

"From the standpoint of automobile traffic the causeway was regarded as preferable to a tunnel. On the other hand there was the uncertainty of ice and tide and winter gales on the surface structure of this nature.

**FERRY DEFICITS**

"They started in 1940 at about four hundred thousand dollars; dropped in 1941 because there wasn't the traffic, went up in 1942 and 1943 and dropped again in 1945; went up considerably in 1946; slightly in 1947 and a great deal in 1948; with a slower increase in 1949 and 1950. The operating deficits were up to the point where the cost was over a million six hundred thousand dollars in last year's report.

"Now if we continue that line along to 1962, the operating cost to the Federal Government will be almost two and one-half million dollars. That is one price of which the people of Prince Edward Island only pay a share with the rest of Canada.

"Remember when I say operating costs I do not take into consideration the depreciation on the port facilities nor on the vessels. Estimating the port facilities around fifteen million and the life expectancy possibly forty years and the ferry (only one of them) worth about seven million dollars. I will show you that it cost actually more than that. With a life expectancy of twenty years the depreciation on these items alone would be about three-quarters of a million dollars.

"So by 1962 the total cost to the Government of Canada could well be over three million dollars for operating the service between Prince Edward Island and New Brunswick. The total deficit from 1933 to 1953 was fifteen and one-half million dollars calculated on the drafts from the same basis it is estimated that the deficit could be from 1953 to 1962, a period of ten years, over eighteen millions of dollars.

**HALIFAX BRIDGE**

"From the Board of Trade in Halifax, secretary of the Board. The example of the Halifax-Dartmouth Bridge in my opinion indicates the people will pay for the newest service available. The traffic over the Bridge has far exceeded expectations and the volume is substantially ahead of the best years of the Dartmouth Ferry Commission. People will use the service if it is available to them.

"I will make reference to the capital cost of the boat. There are the tabulated figures from which these graphs have been drawn. Before I do draft them I might refer to a report of Railways and Canals for the year ending March 31, 1929. It is rather interesting in light of the present day discussions. It may be rather long. But still, see how time changes the opinions in actual change.

"In accordance with recommendations from the Royal Commission on Maritime Claims the question of improving the communication between Prince Edward Island and the Mainland received very careful consideration by railway and departmental officials and as a result three and one-half million was voted at the last session of Parliament, in the estimates of the department to provide an additional ice-breaking car-ferry and facilities to accommodate the augmented services.

**HISTORY**

"In the early days traffic of course on Northumberland Strait was accommodated by steamer in summer and by small open boats in winter, which could on occasion be aided over by both passengers and crews. From the standpoint of business requirements such an arrangement meant a summer service only, with much inconvenience. They go on to tell about the continuous communication; the regular winter service; the breaking down of bulk shipments and smaller lots for shipments across the Strait.

"They go on to tell about the contract for 1913 for an ice breaker. As a result the steamer Prince Edward Island was put into commission in 1915 between Point du Chene and Summerside and between Pictou and Charlottetown. There are our essential direct connections with New Brunswick. A Prince Edward Island railway running between Sackville and Cape Tormentine was required as the necessary terminal provided to the

and the Earl Grey in 1909 five hundred and one thousand; Prince Edward Island in 1917 seven hundred and five thousand and the ad hoc bridge in 1929 eight hundred and the Charlottetown two million one hundred and seventy-seven thousand with additions that brought it up to two million one hundred and eighty-nine thousand. The total expenditure eight hundred and twenty-two thousand dollars. These are the boats that were used here.

"Now the Abegweit: the annual report from the Department of Transport from 1944 to 1949 inclusive set out the amount of money expended each year on the Abegweit. These amounts total seven million: six hundred and sixty-five thousand two hundred and twenty dollars—about seven million dollars.

**CAUSEWAY SKETCH**

"I have here as well a sketch "cross-section causeway" showing at its greatest depth: the top surface eighty feet. The base four hundred and eighty-four feet and showing tides for all that. Let us look at another area where adding to boats doesn't seem to help the situation at all.

"Take as example the Straits of Mackinaw; that is the Strait connecting North and South Michigan. For many years they had large boats there, six of them; six boats about the size and car carrying capacity of our ice breaker the Abegweit. They were not able to keep the traffic going in that section so they decided to build a

bridge—a high level bridge because the traffic wouldn't permit anything else—and that bridge which will be completed next year, now under way, will cost one hundred million dollars. The distance is eight miles. The situation is some what parallel to the Northumberland Strait.

"Now what are we going to do here. Are we going to build a bridge or are we going to get a tunnel or are we going to get a causeway.

**CAUSEWAY CHEAPEST**

"On the same basis a bridge could be built here I presume but the cost is much higher than any of the others. The solution at Mackinaw was governed largely by economic circumstances: the high level bridge with a one suspension span in the middle. The reason was, of course, the water is deep and the shipping is heavy and despite the high cost the bridge was built.

"In our case, the water averages about sixty feet and its greatest depth is eighty-five feet. That will be shown from the chart here. And the water traffic is not very heavy in the Northumberland Strait except for fishing boats.

"From the preliminary estimates that we have made (now remember I am using the word preliminary because it is not any way complete) it would appear that the causeway is the cheapest in the first costs and also the cheapest to maintain. That is the opinion of Mr. McCullough who I have already said designed and guided the Canso Causeway to its completion.

**ROCK**

"Now let us get this question around. The cost of a causeway will depend largely on the cost of rock. The geological maps in New Brunswick indicate an area around Cape Tormentine is founded on sandstone which might be close enough to the quality found at Wallace, Nova Scotia, to serve our purpose.

"The first active step toward causeway construction must be an investigation, possibly by means of the diamond drill, to determine the quality of rock near Cape Tormentine. No thought is being entertain-

ed, at the present time at least, of taking any of the fill from Prince Edward Island. Even the sandstone near Cape Tormentine is not durable enough for the exposed outer layer of the causeway. It is anticipated that at least the core of the causeway could be obtained from that site meaning that the rift-riff would be brought from greater distance with a corresponding increase in costs.

**THE COST**

The preliminary investigation and estimates of the cost are as follows:

Causeway rock fill, forty million tons, at a cost of forty million dollars.

Navigation Lock, five and a half million.

The lock gate and the swing bridge and the electrical system to operate that, another million and a half.

The administration building necessary for the construction there, sixty thousand dollars.

Railway eleven and a half miles. The railway would have to bend off somewhere around Malden and reach Borden about the present site.

The site proposed is from Cape Tormentine to Cape Tormentine and it could be built with the present boat running.

The Railway across, eleven and a half miles, would be one million dollars.

Highway, ten and a half miles, four hundred and seventy-five thousand.

Guard rails for the whole distance, two hundred and forty thousand.

Surveys, etc., seven hundred and fifty thousand, and contingencies four hundred thousand, making a total of fifty million dollars.

"I may say that Mr. McCullough estimated the cost of the Canso Causeway at twenty-two or twenty-three million dollars, and the cost has been about twenty million. I just want to point that out for information only. Of course there is one item unsettled yet, and that is the cost of the rock. The amount that they ask for would bring the estimate considerably above Mr.

McCullough's figure, but the final decision rests with the Exchequer Court of Canada in that respect.

The navigation locks, for the information of those that are worried about that — is near Prince Edward Island. Of course it would be when we are building it; but even if you had to build something on the other side for those in N.B. I don't think there would be any serious objection there, because they are very good friends and neighbours.

The causeway, like Canso, would be eighty feet wide on top, sloping two feet out for one foot down. The crown of the road would be twenty-five feet above low water. Canso is twenty-one feet and this road would carry a paved highway and one railway track.

**ICE PROBLEMS**

"Those who raise the question of ice flows are influenced by the fact that ice at the present time moves with current; with the causeway in place the current is reduced to a small flow to a shipping channel. Under these circumstances ice can be expected to form on both sides of the causeway in the same manner that it forms in a bay along the shore. The only motion

the ice has under those conditions would be up and down with the tide, unless influenced by wind.

Through normal weather conditions with the causeway in place there would be so much ice lying beside the causeway that the possibility of winds rafting across it is remote, because the ice lying beside the causeway will absorb the shock of the moving ice. That is an engineer's opinion on that particular point. If it does move, rising gradually to a height of 25 ft. below low water, or 15 feet above high water, it would take extremely strong winds to push ice up such

Continued on page 17

**THE CASE OF THE STICKY HAND!**

1. "JOHNNIE, TAKE YOUR STICKY HANDS OFF THE WALLPAPER!"

2. "NEVER MIND GRANNY IT'S THE NEW 'BURAWALL' KIND!"

3. "SEE, JUST A WIPE WITH A DAMP CLOTH AND IT'S AS GOOD AS NEW!"

4. "ISN'T IT WONDERFUL?" "YES AND IT'S GRAND IN THE BATHROOM TOO, WATER SPLASHES DON'T AFFECT IT!"

Wallpaper is now as practical as it's smart for ordinary dirt and finger-marks vanish like magic—with sponge and soapy water! Let us show you these new SUNWORTHY WALLPAPERS. You'll love the gay new patterns in your home.

**Sunworthy Waterfast**  
SEMI-TRIMMED WALLPAPERS  
**MOORE & McLEOD Limited**

SHOP AT **SHAMA'S** AND SAVE THURSDAY, FRIDAY AND ALL DAY SATURDAY

COD FILLETS, lb. . . . . 29c	Broken Pekoe TEA, lb. . . . . 79c
Smoked FILLETS, lb. 39c	York Pork & Beans 20 oz., 2 for 39c
FISH STICKS, pkg. . . . . 39c	Apple JUICE, 48 oz. tin . . . . . 33c
<b>MEAT DEPT.</b>	
BACON, sliced, lb. 45c	Tomato JUICE, 48 oz. tin . . . . . 37c
ROAST PORK, lb. 39c	Any Brand PEANUT BUTTER, 16 oz. . . . 43c
Rib Roast BEEF, lb. 39c	PLUM JAM, 24 oz. . . . . 35c
CORNED PORK, lb. 39c	Orange MARMALADE, 24 oz. . . . . 35c
PORK HOCKS, lb. 19c	Any Brand BABY FOOD, 3 tins . . . . . 29c
SPARE RIBS, 3 lbs. 49c	Radio PEAS, 20 oz., 2 tins . . . . . 39c
ROAST BEEF, lb. . . . . 47c	Woodbury's SOAP BATH, 3 for . . . . . 31c
<b>FRUIT &amp; VEGETABLE DEPARTMENT</b>	
McIntosh APPLES, 5 lb. bag . . . . . 35c	Large GRAPEFRUIT, 6 for . . . . . 49c
Large CELERY, each . . . . . 19c	Red Ripe TOMATOES, pkg. . . . . 29c
Washed CARROTS, 3 lbs. . . . . 25c	Sunkist ORANGES, 2 doz. . . . . 75c

25 LB. BAG  
**\$1.69**

3 PKGS.  
**69c**

Chocolate & White  
2 pkgs. **59c**

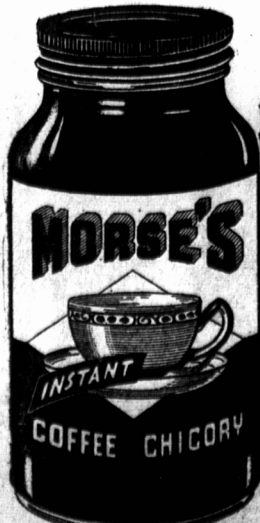
Dial 8224 211 Euston St. Free Delivery



**Try this Instant**

**A COFFEE THAT TASTES**

*different!*



**Save 10c**

No matter what brand you're using what brand you've tried, here's a new and different-tasting instant coffee you'll love! Try it now while your grocer is offering Morse's at a big saving! Always more economical, now a bigger saving than ever. Look for it...ask for it when you shop this week.

**J. E. MORSE & COMPANY LIMITED**  
HALIFAX • NOVA SCOTIA