



[SES. 1854-'55.

## REPORT

ON THE

# ATLANTIC & N. C. RAILROAD.

RALEIGH: W. W. HOLDEN, PRINTER TO THE STATE. 1854. RALEIGH, November 7th, 1854.

His Excellency David S. Reid:

SIR: I have the honor herewith to lay before you my report on the surveys of the Atlantic and North Carolina Railroad.

I have the honor to be your Excellency's most obedient servant, WALTER GWYNN,

### **REPORT.**

RALEIGH, OCTOBER 17, 1854.

#### His Excellency, David S. Reid:

SIR: I have the honor to submit the following report and estimates of the Atlantic and North Carolina Railroad, together with a map and profile of the road. The courses of Trent river to Trent bridge, Brice's creek, Newport river, and the position of the lakes, are laid down from maps and notes of surveys made by *Mr. Jonathan Price*, kindly furnished by R. S. Donnell Esq., of Washington.

In the discharge of the important duty entrusted to me of making the surveys of this railroad, I have acted in conformity with your verbal instructions, to survey any routes that those interested in particular localities at Newbern and Beaufort harbor might desire, and in strict compliance with the 38th section of the act of incorporation, which makes an appropriation of funds, and enacts that it shall be applied in "making a survey of the most practicable route for a railroad from the most eligible point in the harbor of Beaufort by Newbern, Trenton and Kinston, to the terminus of the North Carolina Railroad at or near Goldsborough."

In accordance with these requirements, the survey was commenced in the town of Goldsborough at the terminus of the North Carolina Railroad, thence it was conducted through Kinston, to a point a mile and a half from Trenton, with which place a connection will be formed by **a** 

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branch track, and thence by Newbern to Gallant's point, Beaufort and Shepherd's point on the harbor of Beaufort, and to Lennoxville on Core sound.

I would here take occasion to say that had I not been restrained by the charter, and confined to particular points, I should have taken a more direct route between Goldsborough and Newbern.

In passing Newbern two lines were run; first through the suburbs of the town: secondly, through George street; both lines crossing Trent river at Newbern. These lines are objectionable on account of the great length of the bridges across Trent river, being at points where they would be so much endangered by gales of wind, that it would be necessary to make open or uncovered bridges, thus exposing the timber to the action of the weather, and requiring a renewal of the bridges every six or seven years. With the view of avoiding these objections, I would recommend for the route of the railroad, a line skirting the bounds of Newbern, and crossing the Trent river near Claremont bridge, the position of which is established on the map before you; the cost of the road would remain about the same, while the length would be increased about half a mile. That, and a greater distance would be saved, however, on a more direct route from Goldsborough to Newbern, as heretofore indicated.

The length of the line as surveyed from Goldsborough to Gallant's point is 99 miles; to Beaufort 96.6 miles; to Lennoxville 100.36 miles; to Shepperd's point 95.84 miles, and the cost of these respective lines are \$1,687,899, \$1,743,690, \$1,754,047 and \$1,663,118.

Hence, it appears, taking Beaufort on the north side of the harbor, and Shepperd's point on the south, as the points of comparison, that the line to Shepperd's point is 3.76 miles shorter, and costs \$80,572 less than the line to Beaufort. By carrying out the various computations and making the comparison, which can be readily done, the length and cost of each line compared with that of the others can be ascertained.

I have given the length of the lines, as surveyed, which are only preliminary or experimental lines; an actual location will reduce the distance to Beaufort to about 98 miles and to Shephard's point 943 miles. The curvatures on each will not exceed 34 miles in length, described on radii not less than 2865 feet. The maximum grades are 36 feet going west, and 32 feet east. The grades are made out in tabular form, herewith annexed, exhibiting their character on all parts of the line. Ihave estimated for a single track and for a superstructure with a T rail weighing 60 pounds to the yard. The drains and culverts to be tressel work, to be replaced by brick or stone as soon as the track is sufficiently advanced to afford transportation for "the materials. The bridges will be built on the most substantial plan of wooden structures, resting on stone or brick abutments. The estimate also embraces warehouses, water stations, overseers' houses, workshops, 8 locomotives, 6 passenger cars, 3 baggage cars, 60 box cars, and 60 platform cars.

Gallant's point, the town of Beaufort and Lenoxville are all on the same side of the harbor. A road to Beaufort would pass near Gallant's point, and could be extended if required to Lennoxville, thus forming a continuous road, the distance from Gallant's point to Beaufort and from Beaufort to Lennoxville being links. But not so with regard to Shepperd's point which, as before described, lies on the south side of the harbor, and to reach it, I made a divergence from the line to Beaufort, commencing about 77 miles from Goldsborough, a little east of Slocum's creek. The divergence was made at this point to avoid a dense pocosin, not on account of any difficulty it presented in the construction of the road, but to save the time that would have been necessarily consumed in clearing an opening for the survey. From this point, the line, as surveyed, will be separate and distinct, forming no part of that to Beaufort. A connection could be very readily made between it and Carolina city, the site of a town laid out on Bogue sound, through which, to the main channel or harbor, Lieut. Maffit in his recent survey reports ten feet draft of water. On this route the road might also be carried across Bogue sound to the "Banks" adjoining port Macon, where there is a good and secure margin bordering on deep water.

The point of divergency above mentioned may be moved forward much nearer Newport river, or in other words, may be carried through the pocosin and made to fall on a curved line compassing the harbor and connecting the extreme points on each side, and this plan will be advisable if the views which I shall presently advance should be adopted. A greater length of road will thereby be made common to the two routes, the one leading to Beaufort, the other to Shepperd's point, and the aggregate cost of the work reduced. I have drawn this line on the map in blue ink; an examination of it will show that the road common to Beaufort and Shepperd's point will be about 884 miles; the distance to Beaufort 984 miles; to Shepperd's point 95 miles, and the aggregate distance to Beaufort and Shepperd's point 105 miles; the cost of which will be about \$1,850,000.

At Shepperd's point, the distance from the main channel is about 3,200 feet,—at the town of Beaufort 6,270 feet, and at Gallant's point 5,610 feet: the removal of a bar at the head of Lewis' thoronghfare, would reduce this distance to about 3,200 feet, the channel from the inlet to Lennoxville, has become obstructed by the formation of bars or "bulkheads," offering not more than six or seven feet water at low tide. During the war of 1812, this was an important point for the rendezvous of privateers. The well-known, daring and adventurous Captain Barns resorted to Lennoxville as a place of refuge as well as lookout, for which it is admirably adapted. There is no point in the vicinity which affords better protection, combined with as wide a range of observation and facility for getting under way, and giving chase to passing vessels.

The harbor of Beaufort is regarded by nautical men as one of the most accessible on our coast. In the sailing directions laid down on a chart, made under the direction of A. D. Bache, Esq., superintendent of the survey of the coast of the United States in 1851, it is stated that the harbor "affords shelter from all winds, and is easy of access. It can be entered with the wind from any point except N. & W., carrying 17 feet over the bar at mean low tide."

By the report of Lieut. Maffet, above referred to, which will be found in the appendix, it will be seen that the water has shoaled one foot in the last three years, owing to the widening of the channel, caused by the getties erected by the U. S. Government, for the protection of Fort Macon, which throws the current over against point Shackleford. I was in hopes to have had it in my power to lay before you the chart of Mr. Maffet's survey, but I am informed by the Secretary of the Navy, (who takes a zealous interest in this enterprize,) that it is not yet prepared, but he has kindly promised to send me one when it is completed, which I will lay before your Excellency as soon as recieved.

In confirmation of the recieved opinion as to the salubrity of the climate, which is proverbial in the eastern • part of the State, I beg leave to append a table, for which I am indebted to the politeness of the Surgeon General, collated from the sick reports on file in the medical departments at Washington city. This table exhibits the diseases prevalent at Fort Macon, during its occupancy by the United States troops, and reports

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but two deaths. I also annex a communication on the same subject, from Col. C. Q. Tompkins, late of the army, whose general intelligence and habits of observation entitle his opinions to much weight and consideration.

I have now to consider the most important provision of the act making the appropriation for this survey. I allude to that requiring it to be made "from the most eligible point in the harbor of Beaufort."

In the requirement to select "the most eligible point in the harbor" for the terminus of the road, I recognise the intention of the Legislature to locate the road so as to facilitate the carrying into effect the long cherished object of the State, to build up a commercial city at Beaufort harbor. But I do not so readily comprehend what may have been their views in regard to the "most eligible point."

Supposing, however, that I am not mistaken in the object of the Legislature, and looking to the vastness of the undertaking and the magnificence of the achievement, which is no less than turning the mighty stream of commerce with its concomitants of wealth, refinement and power into new and unaccustomed channels, an undertaking every way worthy of the State, it would be derogating from the grandieur of the conception to confine our pursuit of "the most eligible point" to a search for an isolated point in the harbor, where the deepest water might be found approaching nearest the shore; or to adopt that point, when found, unless it combined other and paramount considerations.

These being the controlling views of the subject, I have been unable to fix my mind upon any particular "point." One is as attractive to my eye as another; in each I perceive an element indispensible to the fullness of the grand and noble scheme before us. Anything short of a railroad encircling the whole harbor, following all its indentations and communicating with every point. strikes me as being irreconcilable with the object to be attained, and not in harmony with the spirit and intent of the law.

This enterprise, undertaken a few years ago, before rival cities had acquired their growth, would not have been fraught with the difficulties which now attend it. Then, to insure success, it would have been sufficient to keep pace with them; now, it is necessary not only to overtake them, but to outstrip them. The cities on the Atlantic have been built up by the slow and gradual accretions of time; beginning with a fisherman's hut, they have become great seats of commerce, and the abodes of man.

The harbor of Beaufort undoubtedly possesses many advantages, only a few of which have been adverted to here; but to make it the centre of a trade, now dispersed to other places, a city must be built up in a day, every thnig, Minerva like, must spring into existence in the full. perfection of matured vigor: whereas. warehouses. storehouses, and all the paraphrenalia of trade will have to be provided in as many months as in the old cities. years were employed on buildings.

To concentrate the capital, and to unite the energies of the greatest number of those personally interested on the terminus, it seems to me, is the proper policy to be pursued. I therefore advise a terminus that will benefit and embrace all points, promote harmony, and bring into activity the whole accumulated wealth, combine the energies, and stimulate the enterprise of all interested in the property bordering on the harbor; and to this end, I would recommend the immediate construction of the entire work: that is, of a road to the town of Beaufort, and also to Shepherd's point. Collateral branches from these lines to places on the harbor which they do not touch, 12

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will, in effect, make the whole harbor the *terminus*, and every point a terminal point.

But if it should not be thought advisable in the outset to incur the expense of completing the circle, and thus encompass the whole harbor, I would suggest, in conformity with the views I have expressed, that the arc of the circle, or the branch from the main stem of the road leading to the town of Beaufort, be first constructed. I recommend this as the policy best calculated to accomplish the object in view, or in the language of the Act of Assembly, as "the most eligible point on the harbor," for the reason, that while at all other points, towns and cities, exist only in prospective, there are centered at Beaufort a population of 1,661, engaged chiefly in commercial and maritime pursuits, who, being provided with dwellings, and possessed of wharf property, would direct the whole of their capital towards extending their business accommodations, and placing them on a scale commensurate with the increase of trade consequent on the completion of the Railroad.

The fact of there being other localities on the harbor, approximating the main channel more nearly, or that the branch Railroad to Beaufort is longer and costs more, is not, in my opinion, a sufficient argument in favor of constructing the road first to those localities, or against making Beaufort the first depository of the Railroad. For at Beaufort, as I have before observed, the outlay has already been made for dwellings, store-houses and wharf fronts: the only additional outlay required, would be for the fitting out to the channel. This would be an inconsiderable enterprise, and a small undertaking for *riparian* owners, possessed of dwellings, store-houses and town lots, compared to those which would be required to induce one to break up his domicil, and encounter, in the outset, some of the hardships and inconveniences of the emigrant, and the expenditures for a dwelling for his family, and the necessary buildings and wharfing for the transaction of business.

That the prospect of success at all the points on the harbor would justify the removal of business men from other places, and those expenditures in the commencement. I do not doubt. But time, in the case before us, is the great and essential element of success. This would be gained by selecting Beaufort for the first terminus. where the work is already more than half done. There the beginning would be prosperous, a successful and encouraging development would be at once made, inciting the rivalry of other places on the harbor now considered more eligible by those interested. They, too, would build, their success would animate others-until prosperity, the beacon of enterprise, would finally light up every point. The harbor would be crowded with shipping, a great city would spring up, an honor to the State and a testimonial of her wisdom and foresight.

In regard to the probable revenue of the road, I have no *data* upon which I could venture an opinion. The belief I entertain and have very partially expressed in the growth of a large commercial city at Beaufort harbor, is based upon the supposition of an extensive system of internal improvement, of which the railroad under consideration forms a prominent part, and would be materially affected by its failure. I have no doubt, however, of its ability to sustain itself in connection with existing works.

I ventured the opinion, in a report made some years since, that a copious source of income is the necessary consequence of the operations of a railroad; so far, this anticipatian has been everywhere realized, and will, I think, be so in this instance.

In conclusion, I take occasion to acknowledge the val-

uable services of Mr. W. A. Kuper, who conducted the surveys under my directions, and discharged his duties with intelligence, industry and fidelity.

I have the honor to be,

Your Excellency's very ob't serv't, WALTER GWYNN, Civil Engineer. Photomount Pamphlet Binder Gaylord Bros. Makers Syracuse, N. Y. PAT. JAN 21, 1908



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