

formation has been obtained of the topography, geology, and climate to enable you to form an intelligent opinion, and come to a wise and reliable judgment in determining the location for the Bridge.

So much for these points; let us now consider analytically the geometry of the case.

The line A. A'. is a section at Round Island. It begins on the northerly face of the Dunderberg mountain, at an elevation of one hundred and sixty feet above tide, and crosses to a projection of the southerly face of the prolongation of the range, forming at the River, St. Anthony's Nose, and passes over Round Island, somewhat to the south-ward of the centre of the island.

At an elevation of one hundred and fifty feet high above tide, level grade would strike the natural surface at two points on opposite sides of the river, five thousand three hundred and seventy-two feet (5372) apart.

Round Island is about ninety five feet high, at the highest point above high water and affords facilities for a tower and foundations, but is not wide enough in the direction of the axis to make anchorage upon; and the highest points are not in the axial lines, because if the centre of the Bridge was made to coincide with the summit, the axis would be thrown too far down the hill-side of the Dunderberg, or too high on the edge of the mountain on the east side of the river.

As before stated, westwardly of Round Island there is a marsh, connecting it with the right bank of the river. This marsh is deep, and soft; but the extent of the mud has not been ascertained by us. From various indications, my assistants report their belief that it is from forty to fifty feet deep.

The marsh is 1937 feet wide between the rocks on either side.

If two spans of a Suspension Bridge or any analogous system were built at this crossing, they must be, if equal in extent, each two thousand feet in the clear. It is possible however that spans of unequal length might be made at this place, one of which would be of less extent.

In any case, very heavy masonry in the approaches and abutments, would be required.