

Charlottetown.—There is no City datum ; although an approximate level for Low Water was obtained from a short series of tidal observations when the drainage system was put in ; and more recently, the tide levels established by this Survey in 1896 have been made use of. There is no Bench-mark to record and fix the Low-water datum of the charts. The Bench-marks established by this Survey have enabled a uniform datum to be used for the tidal observations of 1896 and 1901. By the instrumental levels taken last season, all the information extant with regard to extreme high and low tides, has been referred to these Bench-marks, which thus serve to fix permanently all the important tide levels ; and the datum adopted in 1901 for the Hillsborough bridge now under construction, has also been connected with them. They are as follows :—

Original Bench-mark of 1896. On Peake's building at the south-west corner of Queen and Water streets. The northern end of the sandstone window sill, next to the corner, on the front of the building facing on Queen street. Elevation, 100·00.

New Bench-mark, 1901. On a brick block at the south-west corner of Queen and King streets. The top of the sand stone plinth at the corner, on the side facing King street ; the level being the same as the joint between the sandstone foundation and the brickwork on the King street side of the block. Marked by an inverted broad arrow on the stone above the plinth, and the letters B. M. Elevation, 103·18.

(The elevation of this Bench-mark above the Hillsborough bridge datum is 108·49.)

	Feet.
Exceptional High Waters during gales ; being night tides on October 11-12 and on December 5, 1900, the latter being the higher of the two. Average level of three points marked at the time by the Harbour Master and by Mr. G. Handrahan.....	95·30
Top of cap of wharf beside the tide gauge, at the south-west corner of Connolly's wharf.....	94·09
Highest High Water recorded by the gauge in the season of 1896. Occurred November 6 ; level raised by a storm.....	93·90
Highest High Water recorded by the gauge during the season of 1901, from May 30 to November 15. Occurred on October 1.....	93·95
LOW WATER DATUM, based upon the average elevation of the lower of the two low waters in the day, at spring tides, during the two seasons of 1896 and 1901.....	84·80
Lowest Low Water recorded by the gauge in the season of 1896 ; a number of those in the early part of the season being lost on account of chokage when the tide was low. Occurred October 9.....	84·35
Lowest Low Water recorded by the gauge during the season of 1901, between the dates already given. Occurred October 29.....	84·00
Exceptional Low Water, as observed by the Engineers of the Hillsborough bridge ; 1901 May 20.....	83·03
Zero of the scale of the gauge in 1896.....	81·80
" " " in 1901, set one foot higher than in 1896.....	82·80
Level of the inlet of the tide column in 1901.....	78·03

Summerside, P. E. I.—A Bench-mark has lately been established here by Commander Tooker, R.N., to define a Low-water datum for the recent surveys made under his direction. As it is only attached to a pile wharf, however, it was deemed advisable to carry instrumental levels to one of the few masonry buildings in the town, for greater permanence.

The point chosen as a Bench-mark was at the north-east corner of Holman's block ; the joint between the stone foundation and the brick-work, at the top of the course which forms the door-step level all along the street front of the building.

	Feet.
Elevation adopted for the Bench-mark as above.....	100·00
Exceptional High Water. Night tide on October 11, 1900. Six points marked at different places in the harbour as the level reached by the water, were found to range in elevation from 90·07 to 90·31. Mean value.....	90·21
Highest High Water recorded by the gauge during the season of 1901, from July 12 to November 15. Level raised by a storm on November 14.....	87·60