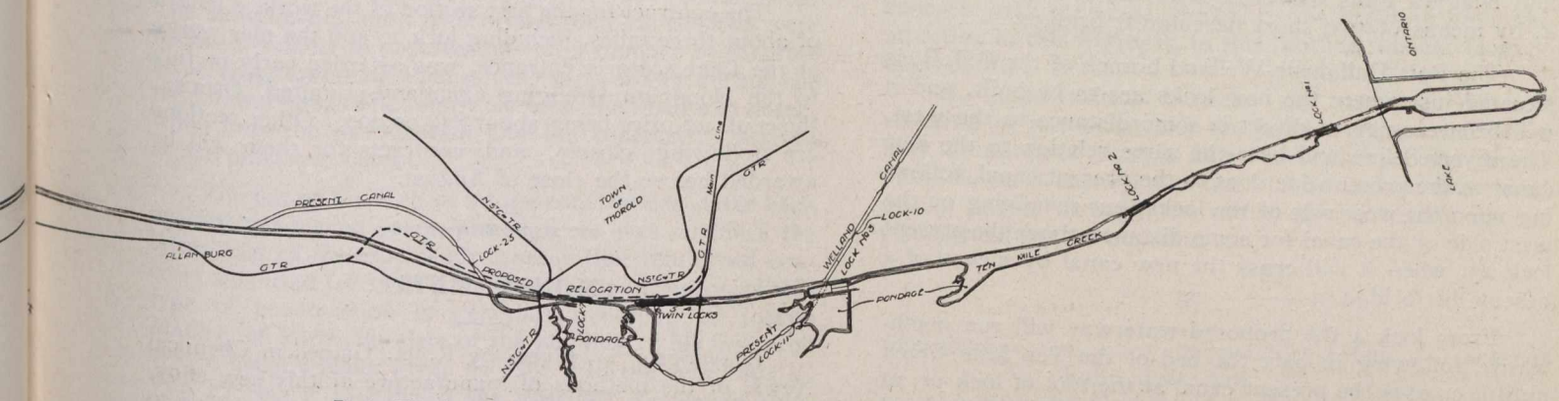
this scheme is not looked upon with favor by those interested. An alternative scheme to lay a pipe line from Lake Erie to the reservoirs of the different municipalities, through which clean water would be continuously pumped, is under consideration and appears to be the most feasible scheme available.

Allanburg is now the junction of the present and old



It is Equipped With Seven Lift Locks, Each 800 Feet in Length, With 46½ Feet Lift.

Welland Canals, and the water required for the latter, which is quite considerable, on account of the numerous power developments along it, is taken into the canal through a weir at this point.

In connection with the construction of the new canal, it is proposed to close the present old canal entirely between Allanburg and Marlatt's Bridge, near Thorold, first building a new weir at the head of lock 25 of the present canal, to supply the above mentioned water. A dam will then be thrown across the old canal at Allanburg, and the old bed of the canal between the dam and Marlatt's Bridge will be utilized as a dumping ground in which to place the material removed from the above water in widening the deep cut. This will form a very convenient dumping ground, and the old canal will become more self-contained, as at present the entrance works are situated at an inconvenient distance from the remainder of the canal.

If it is desired to continue navigation on the old canal, entrance may be had to it through lock 25 of the present canal (a little south of the town of Thorold) when the new canal is completed, by making a short cut through the bank separating the two waterways.

New Lock No. 7.

Between this point and Thorold will be located a pair of twin guard locks, just at the southerly limits of the town, and a short distance north of them will be located lock 7, the head of this lock being directly opposite the head of lock 24 on the present canal. Fig. 2 shows its general design. The portion of the present canal between locks 25 and 24, together with a pond of about 27 acres, formed by flooding the upper valley of the Ten Mile Creek, will be utilized as a regulating basin from which water to fill lock 7 will be drawn. This method of drawing water from a side pond, instead of directly from the canal above, avoids the formation of objectionable currents and surges in the canal and locks, and is the method adopted for filling all of the locks.

Below lock 7 will be a short reach of canal, with an adjacent pondage or regulating basin having a surface

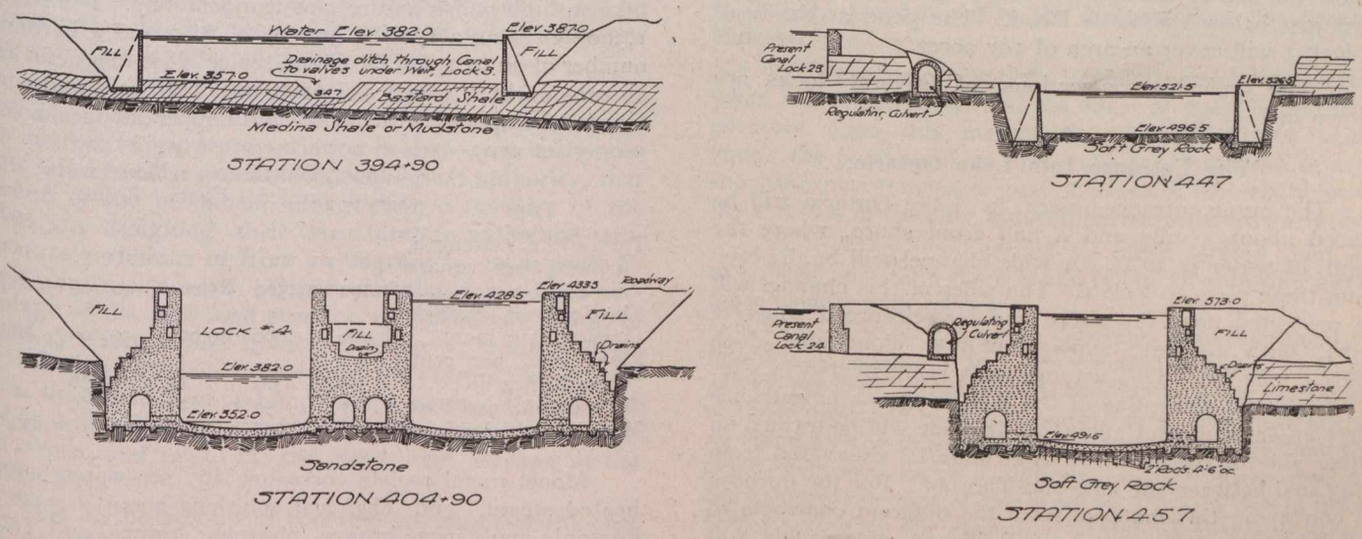


Fig. 3.—Typical Cross-Section of Earth-Works at Various Points.