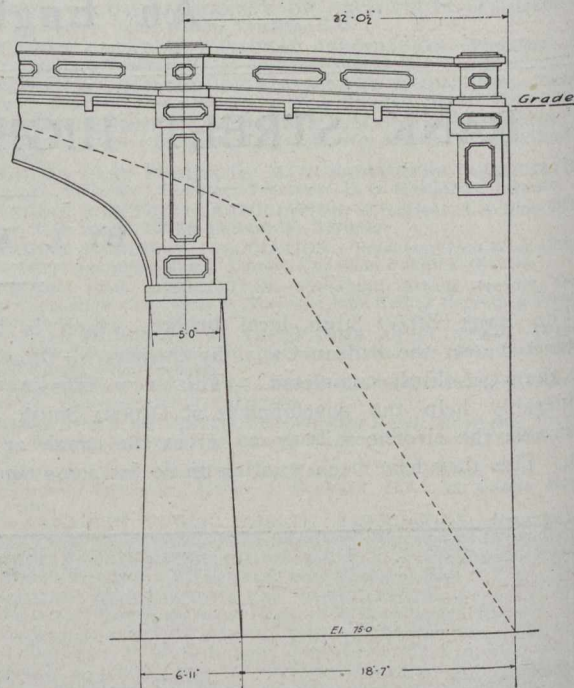
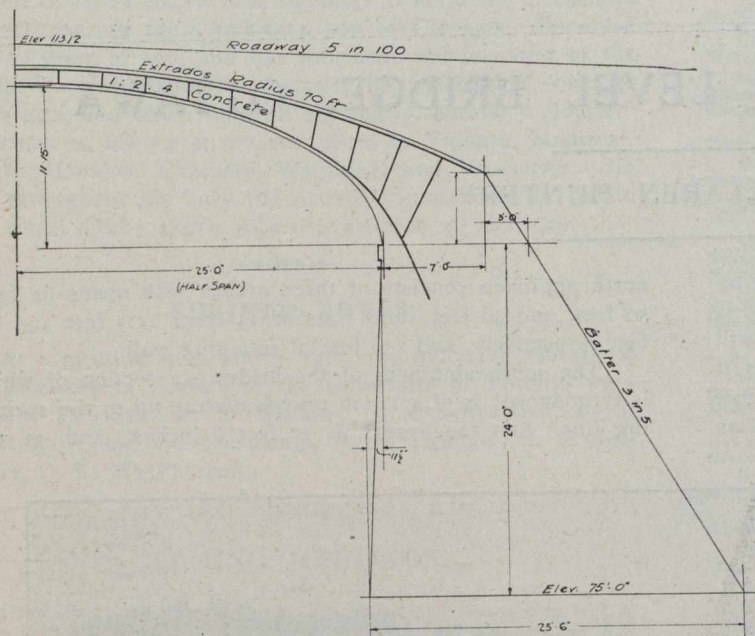


The roadway, which will have a grade of five per cent. on both approaches, will be 40 feet between walks, and will be paved with creosoted wood blocks. The sidewalks will both be eight feet in width, and conduits will be placed under them to accommodate the cables and wires of the different electrical companies, thus doing away with the unsightly

were kept constantly at work. A larger plant would have been difficult to handle, owing to lack of room at the site.

In concreting the arches, the concrete already mixed was hoisted with the derrick boxes to a temporary platform above the arch, and these emptied from it into wooden flumes which carry it to its place. Great care was taken to see that



South Abutment, Bank Street Bridge.

overhead wires. The ornamental lamp posts will be combined to carry the trolley wires of the electric railway and a cluster of four lights.

all the reinforcing was properly held in place among concreting.

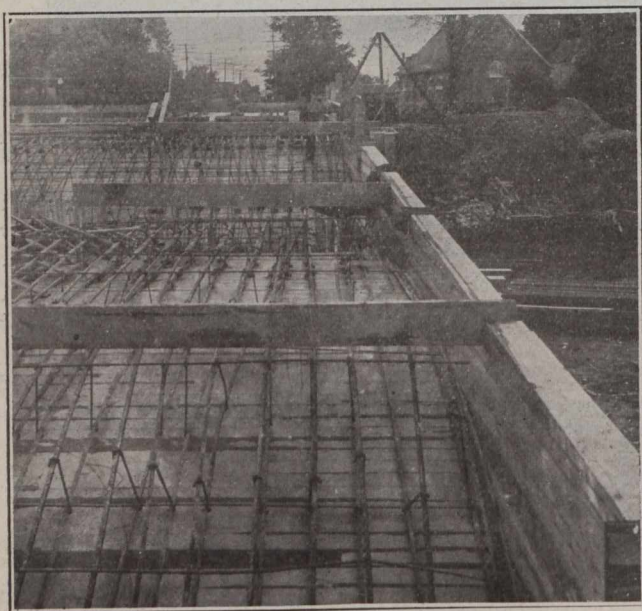
The total estimated cost of the bridge, including land damages, is \$130,000. Messrs. Jones and Girouard, of Ottawa, are the contractors.

Mr. S. D. Parker is the resident engineer on the works.

### PORTABLE MIXING PLANT.

The new piers and wharves of the Balboa terminals, Panama Canal, will be supported on concrete caissons, sunk to rock. A portable concrete mixer mounted on cribbing on a flat car so that the spout is 14 feet above the platform is coupled to a box car containing cement, and at the "flat's" other end are alternate cars of sand and crushed rock. Portable runways for wheelbarrows are laid along the tops of the cars. The train is moved ordinarily by an air winch which draws through stationary sheaves at the ends of the track a 5/8-inch hauling cable with connections to the ends of the train.

When the train has been "spotted" opposite a form which is ready the concrete is poured into it through a chute. As it falls from the chute it is caught on a circular wooden platform set over the inner shell, and distributed to the annular space by men with hoes. The placement is quite simple and proceeds at the rate of mixer output. As soon as the shell has been cast the train is moved to another form. The concrete is allowed to set for 24 hours and then the forms are removed and cleaned at a special platform for their storage, after which they are set up again on the operating platform. The caisson shell is allowed to harden for three days before removal to a storage yard. Each section of shell is six feet high, with an inside diameter of 5 feet 6 inches and a thickness of shell of one foot, and contains 4 3/4 cubic yards of concrete.



Top of Arches With Reinforcing Bars in Place.

The construction work is nearing completion, everything being completed excepting the main arch, which has the centering and reinforcements ready to receive the concrete. This will be done immediately milder weather is encountered.

During the summer months between sixty and eighty men were employed; the number varying with the particular work in hand. Two steam derricks and two Smith mixers