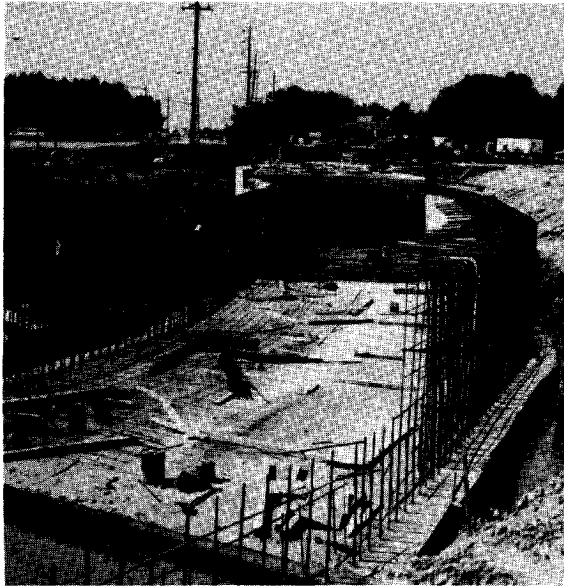




# REINFORCED CONCRETE UNCOMPLICATES MEANDERING CULVERT

For the group of developers known as the Elgin East Development Group (799081) Ontario Limited), time really was of the essence in building the Elgin East Culvert. The \$1.9 million culvert is integral to the new development area known as the Elgin East Community, which stretches between Yonge Street and Bayview Avenue on the west and east, and from Gamble Sideroad and Elgin Mills Road to the north and south.



Originally tendered as an option between precast concrete and reinforced poured-in place concrete, one requirement was that the 557-metre long, 2.5 by 7-metre box culvert be operable, in other words, that the contractors have a usable outfall, within seven weeks from start of construction. This was necessary due to the channelized concentrated water flow created by newly-constructed culverts built at the north end of the site crossing the CNR tracks.

time and, at a competitive price, the footings, base slab and 400 mm. high foundation walls that would accept normal day-to-day water flows," says Dennis Desjardins, Project Construction Manager, Cosburn Patterson Wardman Limited, consultants

for the trunk servicing as well as much of the site servicing for the community. "For the once in a hundred year flows, the contractor then continued work on the walls and roof. Scheduling on this culvert is very important, given that there are over 2,000 building

permits (mixed use) dependent on our completion. Choosing poured-in-place concrete let us proceed at the pace we had set out for ourselves."

Another reason for the choice of poured-in-place concrete concerned the culvert's five radii says Project Design Manager John Morris, also of Cosburn Patterson Wardman. "We were concerned about the integrity of alignment of other structural materials when going around curves. Poured-in-place concrete alleviated any worries we might have had. It's flexible and can accommodate curvilinear sections."

**Contractor:** Tacc Construction Co. Ltd.

**Sub Contractor:** Toronto Zenith Contracting (1982) Limited

**Engineer/Consultants:** Cosburn Patterson Wardman Limited

**Owner:** 799081 Ontario Limited. . . o/a Elgin East Development Group

## Should we be looking forward to the day when computers are solely responsible for detailing rebar?

An RSIO spokesman said recently that total computer detailing has not yet become feasible in the Canadian reinforcing steel industry. So far, he said, "The pros remain outweighed by the cons." The major disadvantage at the present time is the costs which would be involved.

advancing only at a slow pace.

In analyzing the job description of today's detailer, 25 to 30 percent of the work time is used on the actual physical drawings required. A sizeable portion of the time is applied to the task of making calculations. By feeding previously calculated numbers into the computer, results could be obtained almost instantly. The elimination of tedious calculations would be a plus, but the resulting time saved

would be only 12 to 17 percent. This is not sufficient to warrant the present high cost of computers and the training of personnel required to operate them.

These costs are being addressed by the reinforcing steel industry. As we head into the final decade of the twentieth century, computers are involved in almost every facet of life. While older detailers may resist the addition of computers in their work, the younger generation

embraces the concept eagerly. The detailers of the future have grown up with computers in the school systems.

According to our RSIO spokesman, it seems certain that computers will be involved in detailing in the next decade. Converting to computer detailing may, in the end, result in a higher level of efficiency, but a machine cannot duplicate a "hands-on" understanding of an experienced detailer.

Very few Canadian companies have made the switch to computer-aided detailing, and the new computer technology south of the border is