

City of Etobicoke Adds Computerized Map System

BY SUZANNE WINTROB

When there was a change to be made to a map, employees of the Etobicoke's public works department used to panic.

With one-quarter of a million different maps on file, accumulated over the last 75 years, the job of adding or deleting sewers or boundaries was an enormous task.

But beginning this month, these frustrated city workers can breathe a sigh of relief.

A \$250,000 computer aided design (CAD) system will soon be on-site where it will be used for a wide variety of mapping applications. These include road planning, co-ordination of road construction and repair projects and water and sewer services.

The equipment, developed by Intergraph Systems Ltd. of Mississauga, Ontario, will help Etobicoke, a municipality of Metro Toronto, create a sophisticated Land Records Information System (LRIS).

Part of LRIS will handle "cadastral" mapping, which allows computers to create extremely accurate maps that show information that cannot normally be seen by the eye, such as political ward boundaries, property lines, survey data and zoning regulations for individual parcels of land.

The department will receive five Intergraph workstations, joining the one already in use for several years.

Jerry Yee, Executive Director - Engineering for the City of Etobicoke, says that one particular map may have a multitude of versions. While one may be a basic map, the rest may be drawn in different scales. Others may show only the area's water mains, while some may show the water mains as well as the sewers.

"There is quite a lot of duplication," says Yee. "With this (new) system you can put the information in once and then withdraw it in any form you like."

He adds that when changes to a map must be made, they need only be made once.

"You don't have to redraw or erase on each of the old drawings," says Yee.

Traditionally, amending an old map would involve writing or drawing over top of the existing information while trying to find a spot to fit the new data. Some artists would end up drawing a new map altogether.

The new system consists of three InterPro 32 workstations and one InterPro 220 which look similar to advanced desktop computers. They have 19-inch colour monitors and separate keyboards.

The fifth workstation is an InterAct 220 that has two 19-inch colour monitors set side by side.

City employees at each workstation use computer mapping software to create base maps with accurate but general information such as road widths, creek and river paths, park boundaries and municipal borders.

Additional computer programs are then used to draw specific data ranging from building shapes on individual lots to underground patterns of sewer and water pipes.

Maps can be viewed on computer screens where whatever information is needed can be seen with unnecessary data left off the screen to reduce clutter. Paper copies can then be created using computer plotters.

Etobicoke's full CAD installation will be connected electronically to Metropolitan Toronto's Central Mapping Agency which operates compatible Intergraph equipment. There is extensive sharing of information with other municipalities. North York and the City of Toronto, both of which share borders with Etobicoke, also have compatible municipal CAD systems that connect to the Central Mapping Agency. ●

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