CADASTRAL MAPPING

Three sessions were held, the first was chaired by
Robert T. Aangeenbrug from the University of Kansas,
the second by Ron Domsch from the Wyandotte County Base
Mapping Project and the final session was a panel disc-
ussion chaired by the conference chairman.

William Huxhold presented a report on the interactive
computer graphics system of the City of Milwaukee. He
noted that three major applications were implemented in
18 months. The first of the applications involves
digitizing four different map series from three City
departments: Engineer's Quarter Section Maps, the
Official Map, the Tax Assessor's Plat page maps, and
the Planner's Land Use Quarter Section Maps. Another
application of the system is the use of the digitized
data for map updating the production of background
drawings for street paving plans; production of a
Quarter-Quarter base map for the Sewer Connection Atlas;
and a Half Section base map for the sewer system. The
most recently implemented application of the system is
thematic map design which produces color choropleth
maps. An application being developed is the Graphics
Inquiry Capability which uses a data base management
system to interactively retrieve data from a text data
base and display that information onto the parcel-based
map.

George Donatello presented "Property Appraisal Mapping:
Pinellas County, Florida". He noted that the Property
Appraiser Mapping Project involves 25 technicians work-
ing on photo interpretation, base preparation, owner-
ship compilation, digitizing, plotting and associated
data base creation. The size of the data base
(300,000 ownership parcels on 1200 map sheets), hard-
ware, software, "turnkey" operation, and budget have
caused some delays and results to be a little less than
had initially been expected. The Project is finally on
track; it is expected that it will take 2-3 years to
complete and implement all of the systems changes we
are now working on. The unique feature of the project
has been the financing and personnel that have been
provided through CETA Grants.

A presentation by H.T. Christie concluded the first
session. The effective digital mapping for a relative-

431

ly small city at a 1:1000 scale must be put in a context of schedule, budget and utility. A cost-effective approach in a local context he argued, is the principal means of getting and keeping local government support. Additionally the personal style and political effect-iveness of the technical manager must be applied to the city's management as well as its mapping team.

Kenneth Pyle's paper "Automated Land Records and Map-ping in Local Government--A Case Study in San Diego" examines current land records keeping systems, LIMS system design parameters, alternative systems and discusses organizational, funding and implementation plans. San Diego County's method of data input env-isioned for LIMS will utilize both a review of existing land records and County-wide survey operations which will establish a geographic land net based on engineer-ing calculations in lieu of digitized map data. The heart of the LIMS system will be a large central pro-cessing unit to which numerous peripheral devices or minicomputer systems can be connected. The land relat-ed data to be stored, determine that advanced data base management technology be specified. This data base management system must be capable of supporting up to 24 terminals as well as handling and outputting both graphic and text information.

William Barg discussed "Cadastral Aerial Mapping and a Permanent Parcel Numbering System--Tools for Local Government". He noted that a large portion of the financial structure of local government is based on the foundation of property assessments. The most important basic tool that can be provided to assist the assessor is cadastral aerial maps with a permanent parcel numbering system. A tax mapping system consists of at least three parts: (1) a graphical data base, the tax map, which shows the size and location of each parcel of land; (2) a register which provides information on land ownership, assessed value, source of title, taxes; and (3) a parcel numbering system which links the register data and graphic data. Computer assisted cartography and interactive graphics systems are applicable to map-ping and numbering programs, but it is mandatory that the needs of the users be subjected to a thorough cost/ benefit analysis.