



Sidwell personnel review computer print-out of Stephenson County's CAMRA program

## CAMRA PROGRAM REDUCES APPRAISAL COSTS

To Illinois assessors, the term quadrennial means hard work and long hours. The quadrennial referred to is the every-four-year, statewide reassessment of all property.

In Stephenson County, however, the 1979 quadrennial reassessment was considerably easier thanks to the use of a successful appraisal program known as CAMRA.

### CAMRA program designed by Sidwell

The CAMRA program (short for Computer Assisted Multiple Regression Analysis) was designed by Sidwell. Stephenson County Supervisor of Assessments, Shirley Smith, used the program to generate the values needed to compute new residential property assessments for all parcels in the county.

The CAMRA method uses the traditional market value approach to determine property value. It's actually a computerized version of the same process used by the assessor to determine new assessments. Both use recent sales to establish the difference in market value between, say, a two bedroom house and a three bedroom house. The added value of a garage or more desirable neighborhood can also be determined.

What makes the job tough is trying to compare a large number of property characteristics among hundreds of sales throughout the county. This is where the computer can help. Sidwell's CAMRA program stores all of the property characteristics from actual sales and assigns a dollar value to the most important ones.

### Individual characteristics affect selling price

Although a typical homebuyer bases his decision to buy on just a few property characteristics, the regression program is able to sort through scores of variables. And, by having access to all of the market data at essentially the same time, the CAMRA program is able to select the individual characteristics which affect the selling price. These variables—number of baths, type of construction, square footage, etc.—are assigned a dollar value and become the basis for establishing all assessments in the County.

### Computer computes market value

To establish a new assessment, information is gathered about a property's physical characteristics and fed to the computer. The program matches those property characteristics with similar ones in the data file and computes a total market value.

### County data file continually updated

One of the advantages of the CAMRA program is that once the data file has been established, it can be easily maintained. Since the initial program was installed in Stephenson County, the data file has been continually updated with new sales. This makes it easy to revalue new construction and remodeling projects on a continuing basis.

Because of the updating feature, the last quadrennial assessment in Stephenson County was completed in substantially less time and at less cost, than previous years.

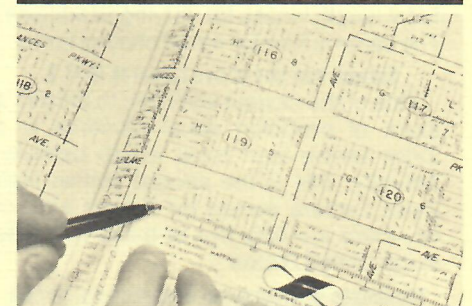
### Computer print-out shows complete data

The assessment figures were furnished to the Supervisor of Assessments' Office on an enlarged version of a property record card. This computer printed sheet contained complete information about the property and the factors used to establish its assessed value. As an aid to the Assessor, the program also listed three properties comparable to the one being valued.

### "We don't have to start from scratch"

Mrs. Smith reports, "The Sidwell program not only saved us time, it established a permanent system we can use to make assessments on an annual basis. We don't have to start from scratch every time the quadrennial comes around."

Mrs. Smith notes the appraisal program was made easier and more accurate due to the fact the County was already using a complete tax mapping and parcel numbering system provided by Sidwell.



## CHAMPAIGN ATLAS REVISED

The 1980 revised edition of the Champaign County, Illinois Tax Map Atlas is now available.

The two-volume atlas contains reduced size copies of all the official county tax maps. Information shown includes property boundary lines, dimensions, subdivision names and boundaries, subdivision lot and block numbers and new permanent parcel numbers.

The 11" x 17" atlas provides a convenient desk top reference for realtors, banks, lawyers and others who need accurate property information.

For more information on this and other county atlases, contact Mr. Harris, c/o The Sidwell Company.

## MANAGEMENT APPOINTMENTS

Sidwell's Board of Directors recently announced the following top management positions; Mr. R. L. Rex, President; Mr. William Barg, Executive Vice President; Mr. Ted Nunley, Jr., Vice President—Mapping Services; Mr. Robert Meiborg, Vice President—Aerial Services; Mr. Bruce Melling, Secretary-Treasurer and Controller; Mr. Jerry Johnson, Director of Marketing.



**Sidwell photographer mounts 12" focal length camera in airplane  
TWELVE INCH CAMERA INCREASES MAP ACCURACY**

The first critical step in aerial mapping is taking the photography.

In addition to overcoming the limitations of weather conditions and obscuring tree foliage, the photography must be taken with the right camera. Camera buffs recognize the need to use different focal length lenses for varying conditions. The same is true for aerial photography.

**Sidwell has two of five cameras in U.S.**

One of the newest additions to Sidwell's stock of precision aerial cameras is a Zeiss twelve inch focal length camera. Actually, this is the second twelve inch Zeiss camera owned by Sidwell and, in all, there are only five of these cameras in the United States.

**Minimizes photographic distortions of terrain**

What makes these cameras so special is their ability to minimize distortions caused by terrain differences. Simply put, flat ground produces few distortions on the aerial photograph. Photography of steeply rolling terrain, however, puts objects on the top of the hills closer to the camera and those in the valleys farther away from the camera. This makes many objects appear to be displaced from their true ground position.

There are several ways of solving this inherent problem. One is to use the photography in a stereoplotter. Another is to prepare differentially rectified ortho-photographs by scanning the aerial photo to remove image displacement. An effective, but less expensive, technique used extensively by Sidwell is to take the photography with a twelve inch focal length camera.

**Photographs taken from high altitude**

Using this camera, the photography is taken at twice the altitude needed for a conventional six inch focal length camera. The key here is that the higher altitude has a flattening effect on the photographed terrain. And, as mentioned earlier, photographs of level ground have fewer distortions.

Most of the hundreds of square miles of photography taken with Sidwell's twelve inch cameras is used to prepare aerial base maps for county tax mapping projects.

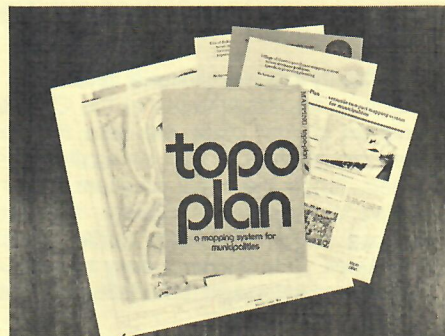
Although it's only one of many specialized pieces of equipment used by Sidwell, the twelve inch camera represents a cost saving means of producing accurate aerial photography.

**BROCHURE DESCRIBES UNIQUE MAPPING SYSTEM**

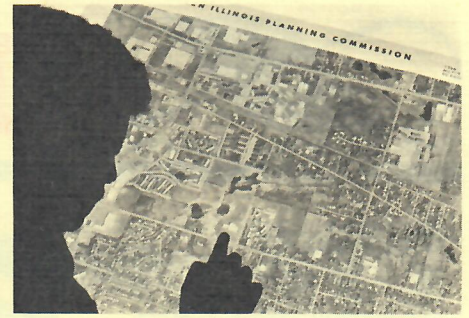
A cost effective mapping system called Topo Plan is described in a brochure available from Sidwell. Included are case studies of successful projects, sample map and details on scales and formats.

The mapping system has proven to be especially suited for municipal engineering projects. Many typical applications are described.

The versatile maps consist of a detailed aerial photo overlaid with complete contour information. The system is easily updated and provides a cost saving alternative to conventional topographic maps and field surveys.



For a free copy of the brochure, write Dept. MN, c/o The Sidwell Company.



**NIPC photo enlargement  
pinpoints flood hazard areas**

**PLANNING COMMISSION USES  
SIDWELL PHOTOGRAPHY**

Is your house in a flood hazard area? If you live in the six-county metropolitan Chicago area, you can easily tell thanks to new precision aerial photography taken for the Northeastern Illinois Planning Commission.

The Commission, or NIPC as it's called, contracted with Sidwell to take photographs at a scale of 1" = 2000', covering 3,719 square miles of Cook, DuPage, Kane, Lake, McHenry and Will Counties, Illinois.

**Maps show high water marks**

The photography is matched to the Commission's flood hazard maps which show the high water mark for all rivers and streams adjacent to residential areas. The photos clearly show all houses and other structures likely to be affected by high water.

**Each map covers four square miles**

In addition to 1" = 2000' scale photography, the Commission had Sidwell prepare 1,150 photo enlargements at a scale of 1" = 400'. Each reproducible 34" x 34" map sheet covers four sections or a four square mile area.

**Maps used for various projects**

Mr. Philip Vanaria, Jr., Chief of Graphics for NIPC, explained that the aerial enlargements are used as base maps for a number of different projects. One in particular is the periodic inventory of open space and land use patterns. The new photography clearly shows streets, subdivisions and commercial development and the extent of areas under cultivation. Encroachment on flood prone areas and valuable vacant city land is also easily spotted. According to Mr. Vanaria, aerial photography is really the only practical way of recording all the changes taking place. The aerial photography completed for NIPC is only part of the thousands of square miles Sidwell photographs annually.

**FOR FURTHER INFORMATION ON ANY SIDWELL MAPPING SERVICES . . .**

Write to The Sidwell Company, 28W240 North Avenue, West Chicago, IL 60185 or phone (312) 231-0206