

MAPPING OF ARTERIAL NETWORK AND ANALYSIS ZONES COMPLETED

Two major phases of the land use-transportation study which have been discussed in recent NEWSLETTERS are: (1) the data collection phase and (2) the coding of the data and key punching to IBM cards. An important part of the first phase is an inventory of the existing street and highway and transit systems of the Region and the preparation of network maps to represent these systems.

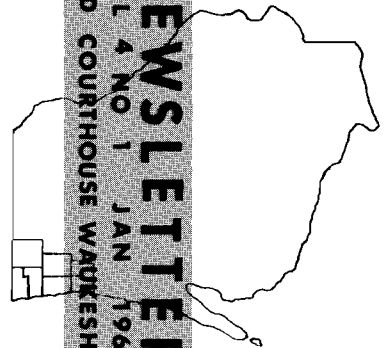
Use of Existing Classification System

Essential to the preparation of the arterial street and highway network maps is the identification of all streets and highways which serve or are intended to serve the through movement of fast or heavy traffic and which provide transportation between two or more zones within the Region. Freeways, expressways, and parkways as well as standard arterial streets are examples of such facilities. The study used the results of the 1958 statewide highway needs determination study, carried out under the direction of the Wisconsin State Legislature, as the basis for the necessary identification of these facilities. This statewide study included a functional classification of all streets and highways by use only (without regard to signed route designations, methods of financing or responsibility for maintenance). The classification was initiated at the city, village or

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NETWORK AND ZONAL MAPS — (continued from page 1)

town level and consolidated and edited at both the county and state levels. It, therefore, represents a broad consensus of experience and judgment on the functioning of the existing road network. Included in the regional arterial street and highway network were the state categories of major primaries (roads of countywide interest serving inter- and intra-county traffic) and primaries (roads which connect principal land use areas not served by major primaries and which together with the major primaries form a grid serving all areas of the Region). The primary function of the facilities included in the network is to efficiently move vehicular traffic.

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EDITORIAL COMMENT

The procedure by which modern day transportation planning is accomplished is highly complicated. In the land use-transportation study, the Commission is benefiting through the pioneering efforts of other studies; and it follows that those who come after us will benefit through the Commission's work. The important thing, however, is to insure, insofar as possible, that our study becomes more than just an 'academic exercise' to find its place beside other such studies, and remain just that: a study to be referred to - but never to have its findings and recommendations carried out.

In order to validate the entire planning process, to insure public acceptance and implementation of the recommended plans, the Commission has resolved to acquaint as many persons as possible with the techniques which are being used, so that, hopefully, confidence in the findings will exist in fact before the plan is completed. In the NEWSLETTERS an attempt will be made to describe as simply as possible some of the many phases of transportation planning. It is hoped that interest will thereby be generated along with a desire for more detailed knowledge about the work. This may be gained through the technical discussions in depth found in the bimonthly TECHNICAL RECORD. (See page 8)

NETWORK AND ZONAL MAPS — (continued)

Information Updated

Early in 1963, the arterial streets and highways originally designated as major primary or primary by the Wisconsin State Legislative Council were mapped. The resulting network was carefully reviewed by the urban and rural highway planning subcommittees of the SEWRPC Technical Coordinating and Advisory Committee and revised where necessary upon suggestion of the subcommittees. The resulting map served as the basis for diagramming the schematic arterial street and highway network. All transit lines including suburban and interurban bus and rail lines providing service on regular headways throughout the day were included in the transit network diagrams. (See page 4)

How the Network Maps Will Be Used

Alternate transportation proposals will be analysed on the basis of assignment of future traffic between analysis zones to the transportation systems represented by the mapped network diagram. The analysis will include an examination to determine if the traffic carrying capacity of the proposed system will be sufficient to meet the demand. It will also seek to determine which proposals will yield the most benefit to roadway users and taxpayers for every dollar spent on the system.

Traffic Analysis Zones

In order that the data from the origin-destination surveys can be grouped for analysis, the Region has been divided into what are termed "traffic analysis zones." The size of a zone depends upon the frequency of trips into and out of the zone. For example, in sparsely settled areas, a zone could comprise a whole township while a zone located in the central business district of a city could be as small as a city block. All land use data, as well as travel survey data, will be aggregated by these traffic analysis zones. (See page 4)

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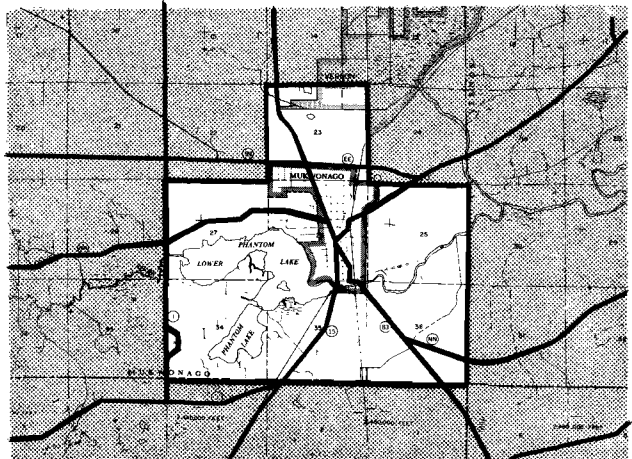
The Proceedings of the SEWRPC 3rd Annual Planning Conference have been distributed to all member units of government and to all libraries, both public and private within the Region. A limited number of copies are available for public distribution at \$1.00 per copy.

NETWORK AND ZONAL MAPS — (continued)

The Transportation Planning Process

Transportation planning is accomplished through a sequence of steps which seek to quantify the existing and future demand for transportation and the supply of transportation facilities available. Travel surveys are made to determine the origin and destination of all persons and trips within the Region, along with the purpose, time of day, and mode of travel used. These trips are then assigned to the existing transportation network, and the traffic volumes thus obtained are compared with measured volumes on the existing system in order to calibrate the constants used in the assignment procedure. Relationships are derived between trip ends and land use. Given some condition of future land use, these are then used to predict future trip ends. A future transportation system proposal can then be formulated which may include both improved existing facilities and new facilities considered likely to improve transportation service or to induce desired land use patterns. Assignment of future trips to such a proposed network is then made and the relationship of assigned volumes to existing and proposed network capacities analyzed. In this manner a practical and workable transportation system can be planned which will serve both present and future traffic demand.

SAMPLE OF ARTERIAL
NETWORK AND TRAFFIC
ANALYSIS ZONE



REGIONAL FACTS

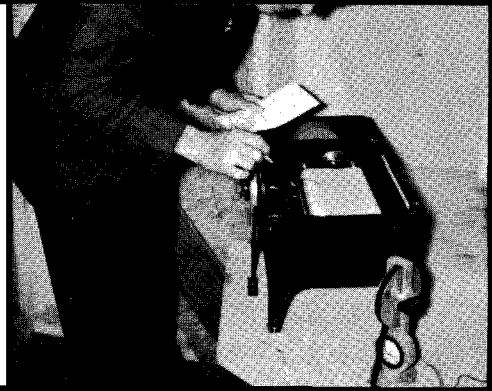
A detailed inventory of all existing park and open space facilities, both private and public within the Region, is nearing completion. This includes classification as to type of present use and mapping at a uniform scale. According to 1963 figures, county park acreage totaled 14,352 acres. Of this total 11,574 acres are located in Milwaukee County.

State and county areas in public ownership or under lease arrangement for recreation in 1963 total 128,063 acres and comprise 7.44 percent of the gross area of the seven-county Region. In the Region, Waukesha County has the largest portion of acreage devoted to recreation or wildlife with 9.52 percent. It is closely followed by Walworth County with 9.10 percent of the total county area in use for recreation. It should be pointed out here that present recreation facilities serve a Region which has 40 percent of the state's population and only 5 percent of the state's total land area and only 3 percent of the state's park and forest lands.

VITAL STATISTICS	REGION	PERCENT OF STATE
Land and Water Area (sq. mi.)	2,688	5%
Population (1960)	1,573,620	40%
Resident Employment (1960)	612,723	42%
Disposable Personal Income (1960)	\$3,572,000,000	46%
Retail Establishments (1960)	15,780	33%
Retail Sales (1960)	\$2,045,000,000	42%
Property Value (1960)	\$8,726,000,000	46%
Total Highway (miles) (1960)	8,740.45	8.9%
Total Vehicle Registration (1962 - 1963)	633,540	36.8%
Auto Vehicle Registration (1962 - 1963)	551,188	40%
State Parks & Forest Areas (acres) (1963)	12,546	3.02%

STREAM GAGING STATIONS

There are six stream gaging stations continuously recording the fluctuation in the discharge of four rivers within the Region: one on the Milwaukee, three on Root River, one on Oak Creek and one on Fox River.



A continuous recording gage, such as pictured above, provides information from which peak discharge, average and sustained low flows can be derived, and is absolutely essential in any watershed planning effort. The installation of five of the six gages within the Region by the U. S. Geological Survey in cooperation with the local units of government was coordinated by the SEWRPC. Recently a survey has been completed by the USGS at the request of the SEWRPC, outlining a comprehensive stream gaging network for the Kinnickinnic, Milwaukee and Menomonee River watersheds.



There are approximately 21 flood crest gages in the Region, recording only high water levels. The installation by the USGS of eight of these gages on the Fox River was coordinated by the SEWRPC in cooperation with the local units of government.

SEWRPC NOTES

Commission Structure - continued from preceding issues. The SEWRPC Executive Committee and Planning and Research Committee membership and responsibilities have been reviewed in previous issues of the NEWS-LETTER. In this issue we will describe the functions of the SEWRPC Administrative Committee, the Intergovernmental and Public Relations Committee and the Nominating Committee.

According to the Commission bylaws, adopted in 1961 and revised in 1963, the Administrative Committee "shall advise the Executive Committee on the administration of the Commission's personnel and budget, and act for the Commission on such administrative matters as may be delegated to it". Among such delegation is the Executive Committee authority to approve disbursements. With no bylaw restriction on size, the selection of the Administrative Committee is by the SEWRPC Chairman; and the present five-man Administrative Committee has served since the first appointment in January, 1961:

Milton F. LaPour, Committee Chairman	Racine County
Joseph Schmitz, Committee Vice-Chairman and SEWRPC Vice-Chairman	Washington County
Fortney Larson, SEWRPC Treasurer	Waukesha County
James Egan	Ozaukee County
John Voss	Walworth County

The first three members listed above also comprise the appointed financial subcommittee of the Executive Committee.

The Administrative Committee meets on call by the committee chairman.

The Intergovernmental and Public Relations Committee is a seven-man committee, plus the SEWRPC Treasurer. First consideration in appointments is to county board appointee members of the Commission. It is the responsibility of this committee to advise and assist the SEWRPC Chairman and the Executive Committee in the relations with the public and with local units of government within the Region. (continued)

SEWRPC NOTES — (continued)

Membership on this committee was revised, after the 1963 change in by-laws, to include all county board appointees as follows:

George C. Berteau, SEWRPC Chairman	Kenosha County
Ray F. Blank, Committee Chairman	Ozaukee County
Eugene Hollister	Walworth County
Fortney Larson, Treasurer - SEWRPC	Waukesha County
John P. Murphy	Milwaukee County
Wilfred Patrick	Racine County
George L. Schlitz	Kenosha County
Joseph Schmitz	Washington County

A Nominating Committee is appointed annually by the Chairman, with the approval of the Executive Committee, at least 30 days prior to the December quarterly meeting, for the purpose of nominating Commission members to be elected as officers at the December quarterly meeting. No incumbent officer may serve on the nominating committee.

In the future issues, the Commission's Technical Coordinating and Advisory Committee and subcommittee structure will be discussed.

NEW BIMONTHLY PUBLICATION: TECHNICAL RECORD

The first two issues of a new bimonthly Commission publication, the TECHNICAL RECORD, have been mailed to participating agencies, the SEWRPC Commissioners, Technical Coordinating and Advisory Committee members and libraries, as well as other interested planners and engineers throughout the country. Developed by the Commission to provide a concise historical record of the technical work accomplished in the regional land use-transportation study, the TECHNICAL RECORD is a digest containing technical articles written by staff personnel. As the study progresses, the authors will concentrate on describing methods, techniques and procedures applied in the study and in other Commission programs.

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SEWRPC NOTES — (continued)

The October - November issue provided an introduction to the Commission in general and to the land use-transportation study in particular. In the lead article, Kurt W. Bauer, Executive Director, described "Regional Planning In Southeastern Wisconsin," the need for such planning, and how the SEWRPC has been organized and is functioning to meet the need. Background information on the basic work programs, schedules and the current status of the regional land use-transportation study was supplied in an article by J. Robert Doughty, Study Director. Kenneth J. Schlager, Chief Systems Engineer, reported on the "Home Interview Survey Sample Selection," and Thomas A. Winkel, Urban Planning Engineer, presented an article on the "Truck and Taxi Survey Sample Selection" to round out the first issue.

The December - January issue recently released carries four informative articles covering initial work programs of the regional land use-transportation study. Richard B. Sheridan, Chief Transportation Planner, describes "Analysis Zones and Arterial Network" (an abstract of this article appears on page 1 of this issue of the NEWSLETTER). Two of the study's origin-destination surveys are described in separate articles by Sheldon W. Sullivan, Administrative Officer, "Conducting the Home Interview Survey," and Wade G. Fox, Chief of Cartography and Design, "Conducting the Postal Questionnaire Surveys." Also included in the December - January issue is the first of two articles on the land use inventory. Harlan E. Clinkenbeard, Land Use Planning Chief, discusses the use of "Aerial Photos in the Land Use Inventory. "

SEWRPC QUARTERLY MEETING NOTICE

The spring quarterly meeting has been scheduled for March 5, 1964, at 7:30 p.m. in the County Board Room of the Waukesha County Courthouse, 515 E. Moreland Blvd., Waukesha. The agenda will include a review of two reports which have recently been published: The Natural Resources of Southeastern Wisconsin and The Public Utilities of Southeastern Wisconsin.

AROUND THE REGION

New Publications

Menomonee Falls Village officials have recently released a booklet entitled There's a Future for Industry in Menomonee Falls, Wisconsin. This 48 page documentary, which took several years to complete, presents pictures, tables, graphs and text concerning the physical and economic climate of Menomonee Falls for industry. A mailing list has been compiled so that the booklet can be sent to firms which might be interested in locating in Menomonee Falls. The booklet is being distributed by the Village Commissioner, Menomonee Falls, Wisconsin, free of charge.

The Waukesha County Park and Planning Commission has published a Waukesha County Directory of Business and Industry, September, 1963. This directory should be of use to businessmen and industrialists and, as an inventory of all business and industry in the county, is an excellent reference which can be used in future analyses of industrial and commercial trends in Waukesha County. The directory is for sale through the Waukesha County Resource Agent at \$1.00 plus mailing charges.

New Positions

The position of County Zoning Administrator has been recently created in Kenosha County to administer the county zoning ordinance. Appointed to the new position is William Kavanaugh, former assessor and town building inspector from the Town of Salem, and a member of the town plan commission. Five out of eight towns are under the county zoning ordinance.

A Resource Agent has been named for Waukesha County. He is Arno Haering, who was formerly a planner with the Waukesha County Park and Planning Commission. The position has been created within the structure of the Waukesha County Extension Service and will be primarily concerned with industrial development.

New Ordinances

The City of Racine has recently adopted a new land division ordinance.

The Villages of Hartland and Pewaukee in Waukesha County have adopted new zoning ordinances.

QUESTION BOX

WHAT IS MEANT BY THE TERM "FUNCTIONAL CLASSIFICATION" OF STREET AND HIGHWAY SYSTEMS?

From a traffic standpoint, different streets perform different functions and should, therefore, have different design criteria and standards based upon a classification of these functions. The street pattern for any community should provide for at least three principal types of streets: arterial streets, collector streets and minor streets.

The arterial streets are those which interconnect the various areas of the community and form its major circulatory system, and their primary function is to move traffic quickly and safely. They should be of generous width, proper grade and alignment, adequate continuity and substantially paved. Direct access to these streets from adjacent property should be carefully controlled and intersections with other streets held to a minimum.

The collector streets are those which collect traffic from residential, commercial and industrial areas and carry this traffic to and from the arterial streets. Minor streets are those which serve only as a means of access to abutting property. They should be designed to discourage their use by fast, through traffic and should be discontinuous and lightly paved.

Note that two of these functions - traffic mobility and land access - are conflicting, and any design which attempts to combine these in a single street must necessarily be a compromise.

QUOTABLE QUOTE.....

"Though separated from adjacent development on a small scale, a freeway is, on a large scale, an integral part of the twentieth century community - the interurban region. It cannot be planned in isolation - as a line from A to B - but only as an intimate part of the growing arterial network, as part of a mesh with a future optimum density. Thinking in terms of areas rather than lines will prevent the highway planner from neglecting to protect and control adjacent land use. It will prevent him from neglecting to build, rebuild, or at least provide for a far reaching skeleton of feeder roads at the same time the freeway is constructed. Thinking in terms of a future freeway mesh will prevent the planner from choosing the path of least real estate resistance and most traffic service today - he will locate it so that it will augment and be augmented by future freeways, to be built 20 to 40 years hence. Thinking in terms of ultimate spacing will prevent putting freeways too close together or too far apart."

Man Made America - Chaos or Control? By: C. Tunnard and B. Pushkarev

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