

## **PRELIMINARY DRAFT**

### **SEWRPC Planning Report No. 15 (2<sup>nd</sup> Edition)**

#### **A Jurisdictional Highway System Plan for Walworth County**

## **Chapter IV**

### **APPLICATION OF JURISDICTIONAL CLASSIFICATION CRITERIA**

#### **INTRODUCTION**

The application of the criteria for jurisdictional highway classification as set forth in Chapter III of this report required an analysis for each segment of the arterial street and highway system of the trip lengths to be served by each segment, the existing and proposed land uses to be served by each segment, and of the operational characteristics of each arterial segment, including traffic volume. The specific procedure to establish the initial proposed jurisdictional classification of each arterial street and highway facility in Walworth County involved four steps.

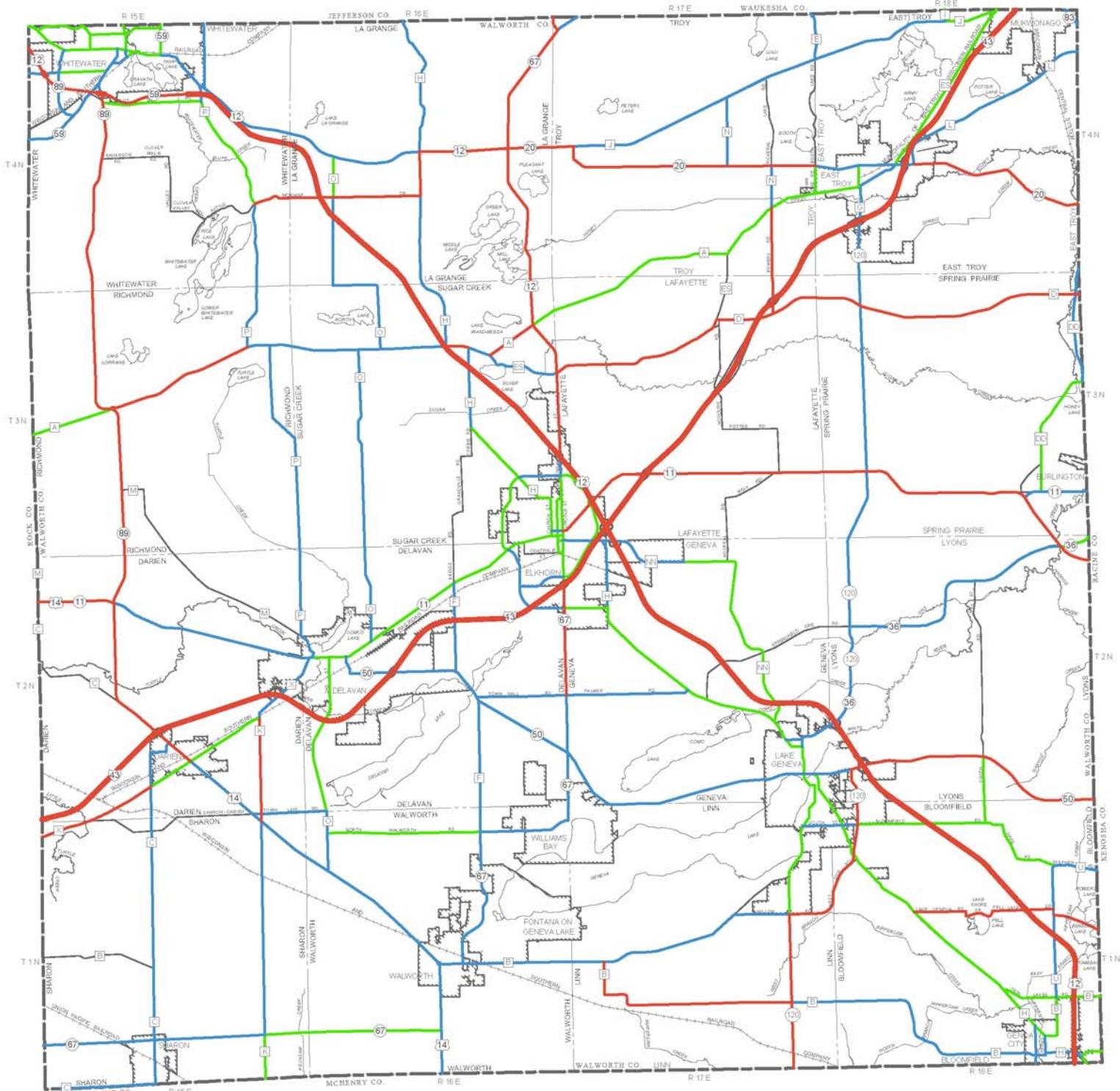
In the first step, each arterial facility was classified in terms of the trip service criterion of trip length. In the second step, each arterial facility was classified in terms of the land use criteria. In the third step, each arterial facility was classified in terms of traffic volume (one of the operational characteristics). In the fourth step, these three sets of jurisdictional classifications were combined and refined through the application of additional operational characteristics criteria, including system continuity and facility spacing, to produce a preliminary recommended jurisdictional highway system plan. The preliminary recommended jurisdictional classification of the arterial facilities was then further refined by staff and Committee consideration.

#### **TRIP SERVICE JURISDICTIONAL CLASSIFICATIONS**

Using the average trip length of the traffic which may be expected to occur on each segment of the arterial system, each segment of the arterial system was classified as a state trunk, county trunk, or local trunk arterial facility, in accordance with the previously established trip service criteria. The resulting classification is shown on Map 8.

Map 8

JURISDICTIONAL CLASSIFICATION OF THE ARTERIAL STREET AND HIGHWAY SYSTEM  
IN WALWORTH COUNTY BASED ON AVERAGE TRIP LENGTH: 2035



GRAPHIC SCALE  
0 1 2 3 MILES  
0 4,000 8,000 12,000 16,000 20,000 FEET

The classifications delineated by application of the trip service criteria generally reflect the relative level of service provided on the arterial street and highway system. Arterial facilities providing the highest level of service, characterized by free flow traffic conditions – that is, freeways – exhibit the longest average trip lengths, and were, therefore, classified into the highest trip service facility type. Similarly, the facilities providing the lowest level of service – that is, at-grade arterials in areas with high land use intensities – exhibited the shortest average trip lengths, and were, therefore, classified into the lowest trip service facility type.

### **LAND USE SERVICE JURISDICTIONAL CLASSIFICATION**

The jurisdictional classification for land use service was defined by first identifying the existing and future land uses to be connected and served including transportation terminals, recreational facilities, commercial centers, industrial centers, and institutional land uses. These land uses are shown on Map 9. The total arterial street and highway system was then classified, with those arterial facilities which best connected and served each of the state trunk land use areas delineated as potential state trunk highways. Those arterials which best interconnected with the potential state trunk highways and best connected and served the county trunk land use areas were then identified as potential county trunk highways, and the remaining arterial facilities were classified as local trunk arterial streets and highways, as shown on Map 9.

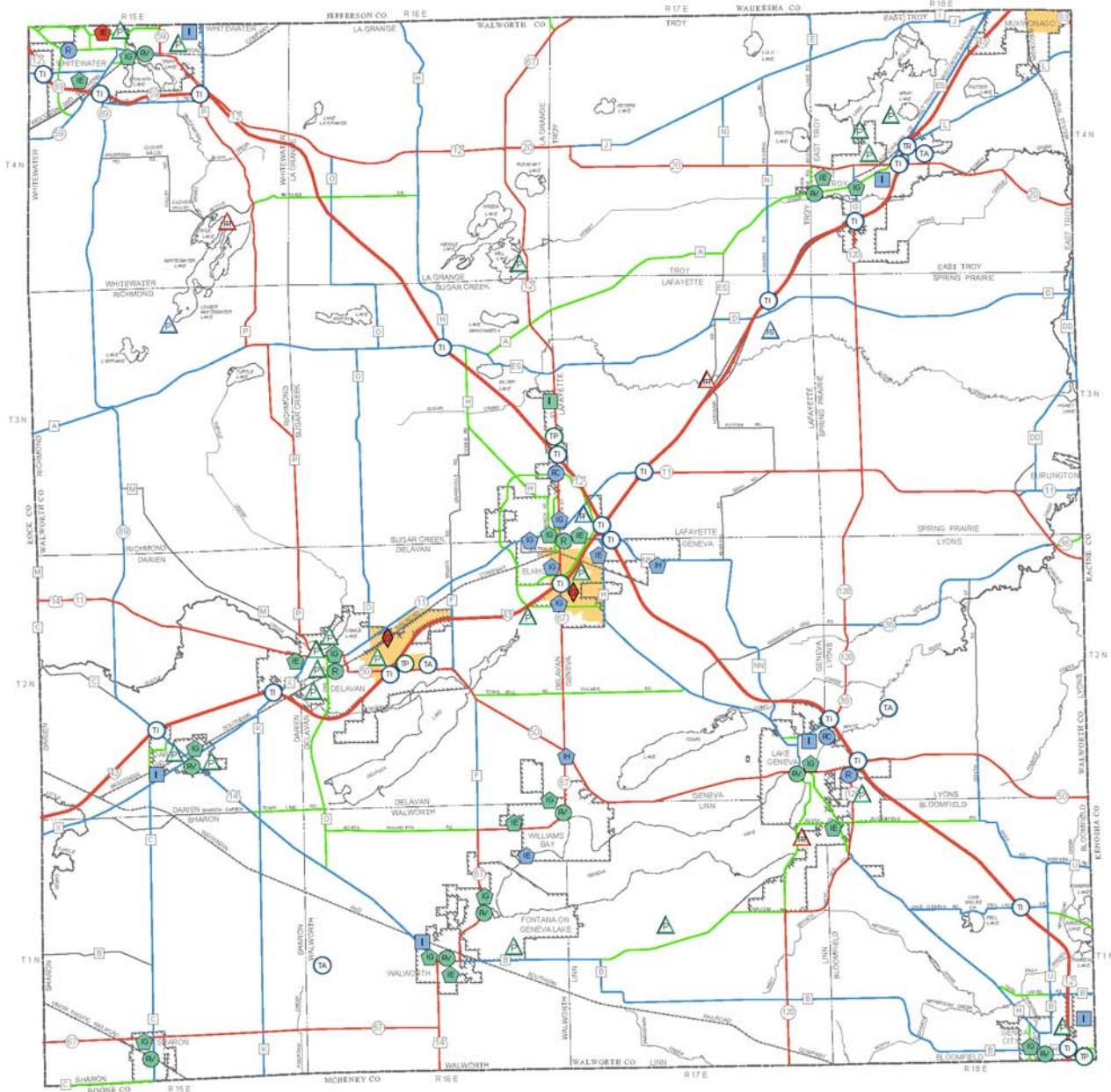
### **TRAFFIC VOLUME JURISDICTIONAL CLASSIFICATION**

The jurisdictional classification for traffic volume, one of the criteria for arterial facility operational characteristics, is shown on Map 10. Arterial facilities with the highest traffic volumes were classified as state trunk highways, facilities with intermediate volumes as county trunk highways, and facilities with the lowest traffic volumes as local arterials.

### **DEVELOPMENT OF THE JURISDICTIONAL HIGHWAY SYSTEM PLAN**

Through the procedures previously described, three separate groups of potential state trunk, county trunk, and local trunk arterial subsystems, or classifications, were established, one by application of the trip service criteria, one by application of the land use service criteria, and one using traffic volume (one of the operational characteristics criteria). A preliminary recommended jurisdictional highway system classification was then developed through joint consideration of these three arterial facilities,

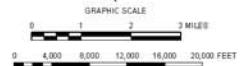
## Map 9

JURISDICTIONAL CLASSIFICATION OF THE ARTERIAL STREET AND HIGHWAY SYSTEM  
IN WALWORTH COUNTY BASED ON LAND USE: 2035

| LAND USE TYPE                   | TRANSPORTATION TERMINALS   | RECREATIONAL AREAS  | ECONOMIC ACTIVITY AREAS  |   |   |   | INSTITUTIONAL CENTERS  |
|---------------------------------|--|---|--|---|---|---|--|
|                                 |  |   | GENERAL PURPOSE CENTER   | RETAIL CENTERS  | OFFICE CENTERS  | INDUSTRIAL CENTERS  |  |
| I<br>(OF REGIONAL SIGNIFICANCE) | <span style="color:red;">TR</span> INTERCITY PASSENGER RAIL TERMINAL<br><span style="color:red;">TS</span> INTERCITY BUS PASSENGER TERMINAL<br><span style="color:red;">TT</span> TRUCK TERMINAL<br><span style="color:red;">TA</span> AIRPORT-COMMERCIAL<br><span style="color:red;">TS</span> SEAPORT-COMMERCIAL | <span style="color:red;">TP</span> PUBLIC PARK<br><span style="color:red;">TA</span> SPECIAL USE SITE<br><span style="color:red;">TP</span> NATURE STUDY SITE         | <span style="color:red;">RD</span> REGIONAL GENERAL PURPOSE CENTER       | <span style="color:red;">R</span> REGIONAL RETAIL CENTER  | <span style="color:red;">RO</span> REGIONAL OFFICE CENTER       | <span style="color:red;">RI</span> REGIONAL INDUSTRIAL CENTER       | <span style="color:red;">MC</span> MEDICAL COMPLEXES<br><span style="color:red;">UC</span> UNIVERSITIES, TECHNICAL COLLEGES<br><span style="color:red;">MC</span> MAJOR CULTURAL CENTERS                         |
| II<br>(OF COUNTY SIGNIFICANCE)  | <span style="color:red;">TI</span> FREEWAY INTERCHANGE<br><span style="color:red;">TA</span> GENERAL AVIATION AIRPORT<br><span style="color:red;">TP</span> PIPELINE TERMINAL<br><span style="color:red;">TR</span> RAPID TRANSIT STATION  | <span style="color:green;">PA</span> PUBLIC PARKS<br><span style="color:green;">CF</span> COUNTY FAIRGROUNDS<br><span style="color:green;">SP</span> SPECIAL USE SITE | <span style="color:green;">SG</span> SUB-REGIONAL GENERAL PURPOSE CENTER | <span style="color:green;">SR</span> SUB-REGIONAL RETAIL CENTER<br><span style="color:green;">CR</span> COMMUNITY RETAIL CENTER             | <span style="color:green;">SO</span> SUB-REGIONAL OFFICE CENTER | <span style="color:green;">SI</span> SUB-REGIONAL INDUSTRIAL CENTER | <span style="color:green;">H</span> HOSPITAL<br><span style="color:green;">CO</span> COUNTY COURTHOUSE, COUNTY OFFICE COMPLEX, STATE AND FEDERAL OFFICE BUILDINGS<br><span style="color:green;">C</span> COLLEGE |
| III<br>(OF LOCAL SIGNIFICANCE)  | <span style="color:green;">PR</span> PARK-RISE LOT   | <span style="color:green;">PU</span> PUBLIC PARKS   |  | <span style="color:green;">NR</span> NEIGHBORHOOD RETAIL CENTER<br><span style="color:green;">VS</span> "VILLAGE" RETAIL AND SERVICE CENTER |   | <span style="color:green;">LI</span> LOCAL INDUSTRIAL CENTER        | <span style="color:green;">CH</span> CITY OR VILLAGE HALL, MUNICIPAL COMPLEX<br><span style="color:green;">HS</span> HIGH SCHOOL   |

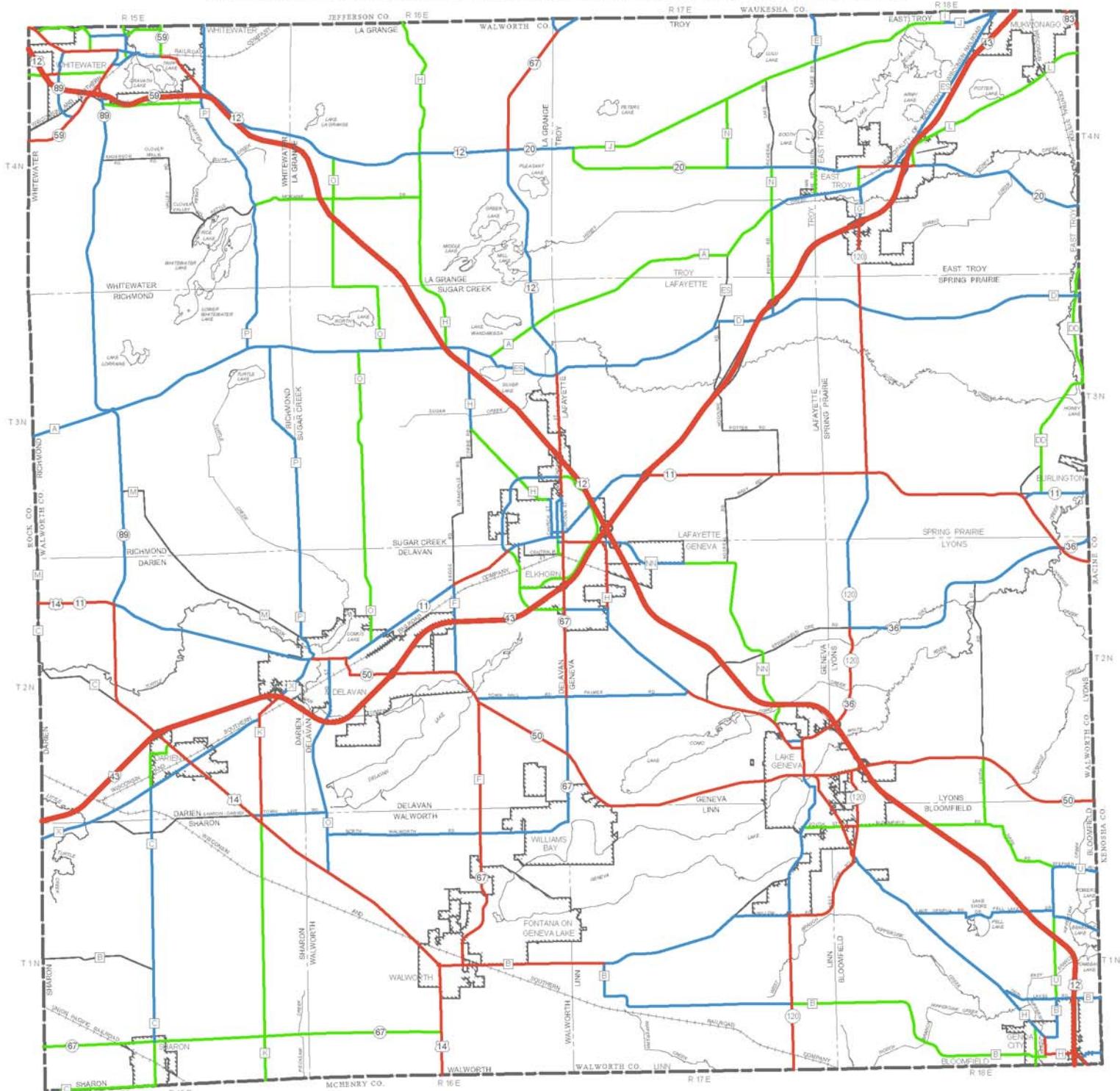
- FREEWAY FACILITY CONNECTING AND SERVING LAND USE TYPES OF REGIONAL SIGNIFICANCE
- SURFACE ARTERIAL FACILITY CONNECTING AND SERVING LAND USE TYPES OF REGIONAL SIGNIFICANCE
- SURFACE ARTERIAL FACILITY CONNECTING AND SERVING LAND USE TYPES OF COUNTY SIGNIFICANCE
- SURFACE ARTERIAL FACILITY CONNECTING AND SERVING LAND USE TYPES OF LOCAL SIGNIFICANCE
- AREAL EXTENT OF REGIONAL ECONOMIC ACTIVITY AREA

Application of the land use criteria alone resulted in the classification of the total arterial street and highway system into the three jurisdictional subsystems shown on this map. The pattern shown emphasizes the close relationship which exists between land use development and arterial highway needs. The land uses which are shown include transportation terminals, recreational areas, institutional centers, and economic activity centers—general purpose centers, retail centers, office centers and industrial centers.



Map 10

JURISDICTIONAL CLASSIFICATION OF THE ARTERIAL STREET AND HIGHWAY SYSTEM  
IN WALWORTH COUNTY BASED ON AVERAGE WEEKDAY TRAFFIC VOLUME: 2035



GRAPHIC SCALE  
0 1 2 3 MILES  
0 4,000 8,000 12,000 16,000 20,000 FEET

jurisdictional classifications, and the application of additional criteria relating to the operational characteristics of each facility, including system continuity, facility spacing, traffic mobility, and land access.

As shown on Map 11, the total arterial street and highway system was thus objectively and rationally classified into state trunk, county trunk, and local trunk subsystems, which are integral parts of the overall system and which are within themselves continuous, but which vary with respect to the types of trip lengths served, the types of land use areas served, and the degree of traffic mobility provided. The state trunk, county trunk, and local trunk subsystems shown on Map 11 thus constitute a preliminary recommended year 2035 Walworth County jurisdictional highway system plan. Map 12 shows the jurisdictional transfers that would need to occur to implement the plan over the next 25 years. Table 9 provides a comparison of the arterial and nonarterial street and highway mileage in Walworth County under existing year 2005 conditions and under the preliminary recommended year 2035 Walworth County jurisdictional highway system plan.

The Walworth County Jurisdictional Highway Planning Committee and Walworth County local governments requested during the preparation of the year 2035 regional transportation plan and the Walworth County comprehensive plan that certain existing or planned arterial facilities be given specific consideration with respect to their planned jurisdiction. Table 10 provides a summary of the preliminary recommended year 2035 Walworth County jurisdictional highway system plan response to these highway jurisdictional issues.

### **Public Reaction To Preliminary Recommended Year 2035 Walworth County Jurisdictional Highway System Plan**

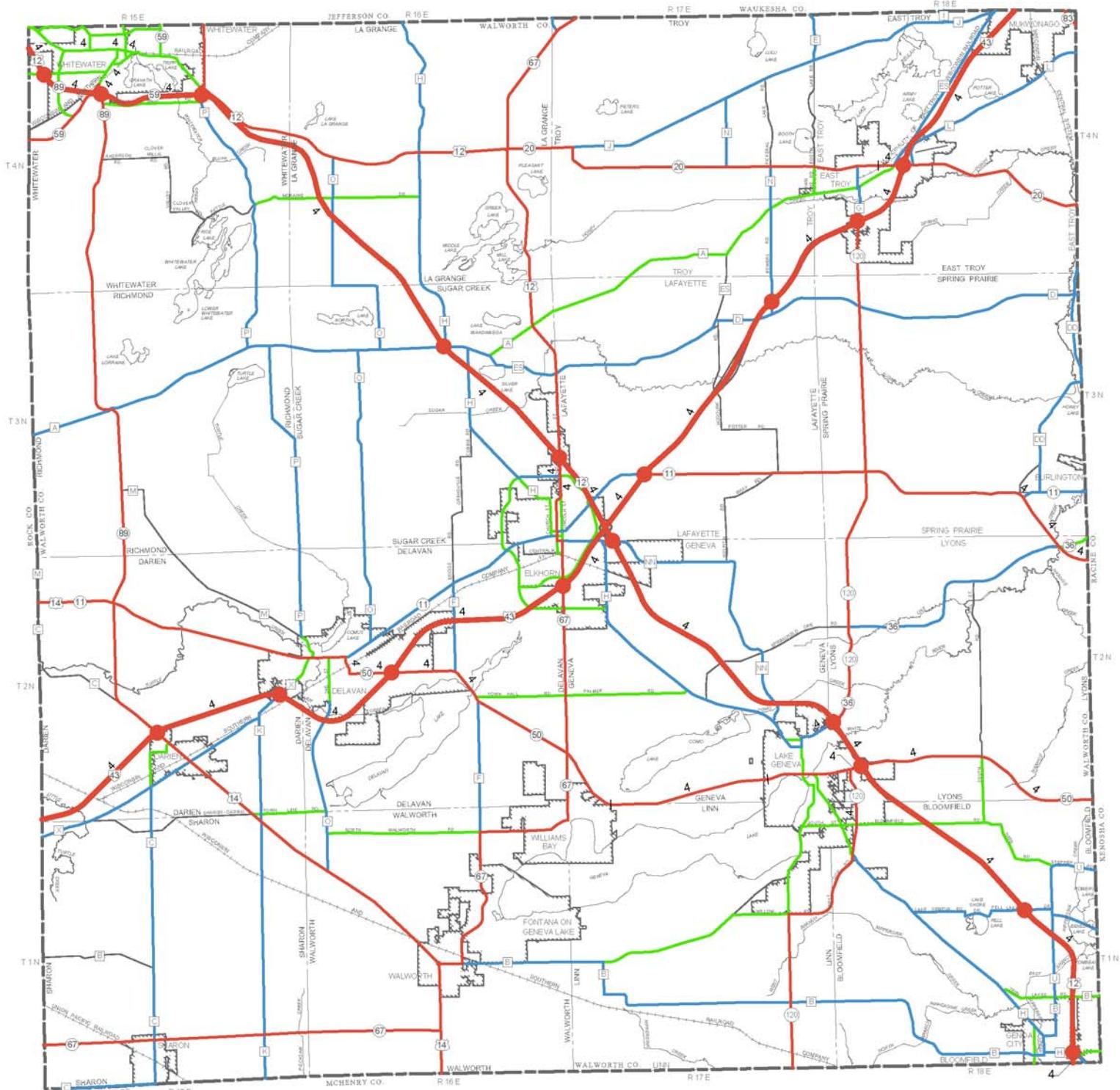
[Following the public meeting and hearing, the public reaction to the preliminary recommended year 2035 Walworth County jurisdictional highway system plan will be documented and provided to Committee members at a subsequent meeting.]

### **Final Recommended Year 2035 Walworth County Jurisdictional Highway System Plan**

[The final recommended year 2035 Walworth County jurisdictional highway system plan would be described in this section.]

Map 11

PRELIMINARY RECOMMENDED YEAR 2035 WALWORTH COUNTY JURISDICTIONAL HIGHWAY SYSTEM PLAN



**FREWAY**

— STATE TRUNK HIGHWAY

● INTERCHANGE

**STANDARD ARTERIAL**

— STATE TRUNK HIGHWAY

— COUNTY TRUNK HIGHWAY

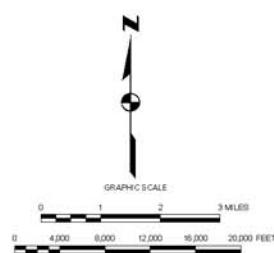
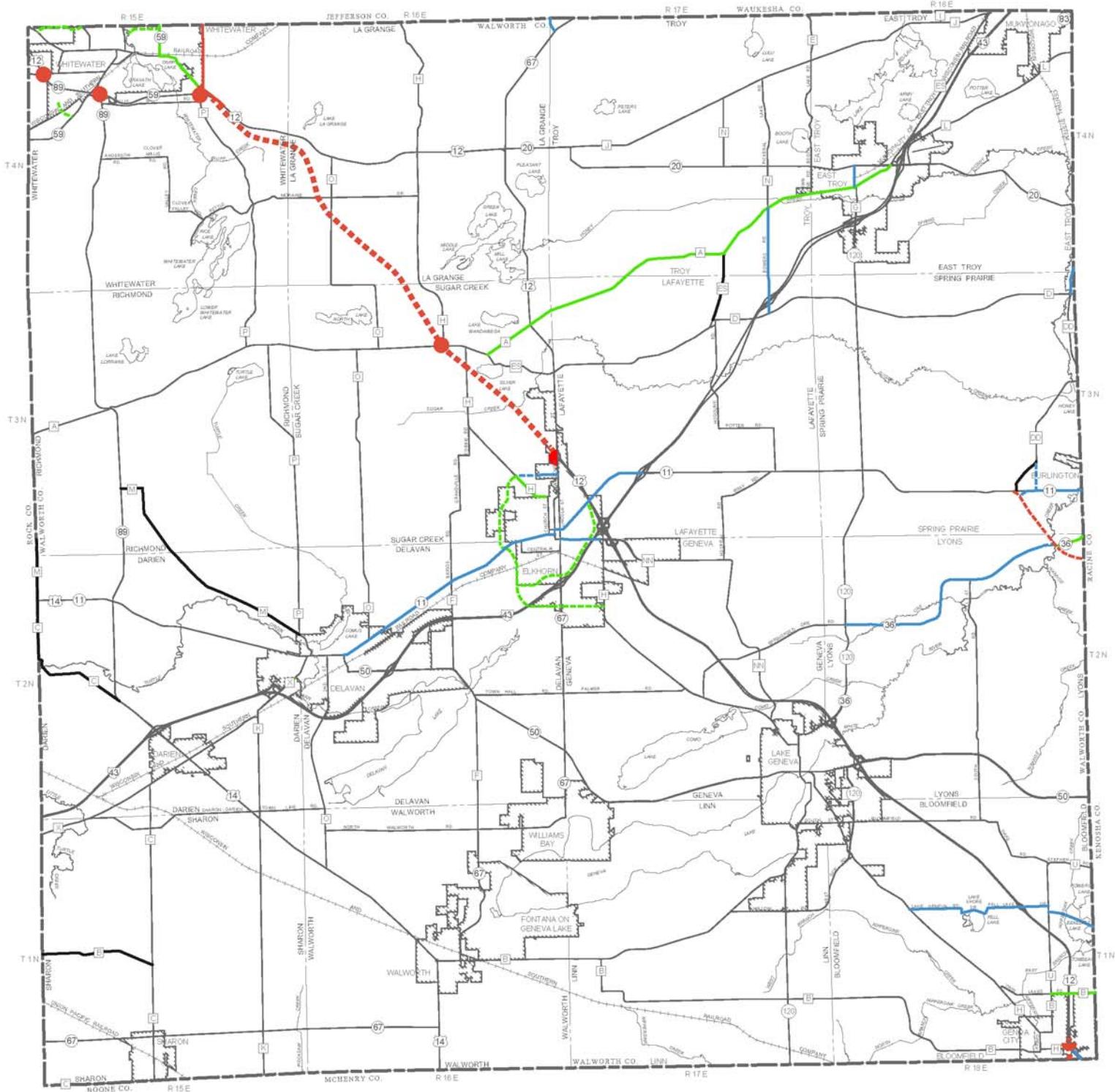
— LOCAL TRUNK HIGHWAY

4 NUMBER OF LANES  
(2 WHERE UNNUMBERED)



GRAPHIC SCALE  
0 1 2 3 MILES  
0 4,000 8,000 12,000 16,000 20,000 FEET

CHANGES IN JURISDICTIONAL RESPONSIBILITY UNDER THE PRELIMINARY  
RECOMMENDED YEAR 2035 WALWORTH COUNTY JURISDICTIONAL HIGHWAY SYSTEM PLAN



**Table 9**

**COMPARISON OF WALWORTH COUNTY STREET AND HIGHWAY MILEAGE UNDER EXISTING YEAR 2005  
CONDITIONS AND UNDER THE PRELIMINARY RECOMMENDED YEAR 2035 WALWORTH COUNTY JURISDICTIONAL  
HIGHWAY SYSTEM**

| Year | State <sup>a</sup><br>Arterial | County   |             |       | Local    |                    |       | Total    |                    |       |
|------|--------------------------------|----------|-------------|-------|----------|--------------------|-------|----------|--------------------|-------|
|      |                                | Arterial | Nonarterial | Total | Arterial | Nonarterial        | Total | Arterial | Nonarterial        | Total |
| 2005 | 213                            | 168      | 25          | 193   | 78       | 1,023              | 1,101 | 459      | 1,048              | 1,507 |
| 2035 | 211                            | 193      | 0           | 193   | 81       | 1,047 <sup>b</sup> | 1,128 | 485      | 1,047 <sup>b</sup> | 1,532 |

<sup>a</sup> Includes Interstate, United States, State Trunk and connecting highways under state jurisdiction.

<sup>b</sup> Does not include new nonarterial roadway constructed after existing year 2005.

Source: Wisconsin Department of Transportation and SEWRPC

**Table 10**

**PRELIMINARY RECOMMENDED WALWORTH COUNTY JURISDICTIONAL HIGHWAY SYSTEM PLAN  
 RESPONSE TO HIGHWAY JURIDICTONAL ISSUES IDENTIFIED DURING PREPAREDNESS OF THE YEAR 2035  
 REGIONAL TRANSPORTATION PLAN AND THE WALWORTH COUNTY COMPREHENSIVE PLAN**

**Issues Addressed**

| Facility   | Issue   | Recommendation in the Preliminary Recommended Year 2035 Walworth County Jurisdictional Highway System Plan |
|--|---|--|
| Briggs Road, Hazel Ridge Road, Granville Road, Sugar Creek Road, and Cobbie Road between STH 11 and CTH H  | Remain under local jurisdiction.  | Local jurisdiction as nonarterial.   |
| CTH H in the City of Lake Geneva   | Transfer to local jurisdiction.   | Local jurisdiction.  |
| CTH O between STH 11 and USH 12  | Remain under county jurisdiction.   | County jurisdiction.   |
| South Road and Mill Street between STH 50 and STH 36   | Remain under local jurisdiction.  | Local jurisdiction as nonarterial.   |
| STH 59 between Cox Road and the Jefferson County line, and Cox Road and Howard Road between the existing route of STH 59 and the Jefferson County line | STH 59 between Cox Road and the Jefferson County line be rerouted onto Cox Road and Howard Road between the existing route of STH 59 and the Jefferson County line. | Local jurisdiction for STH 59, and state jurisdiction for Cox Road and Howard Road.                        |
| Kettle Moraine Drive between CTH P and CTH H   | Remain under local jurisdiction.  | Local jurisdiction.  |
| N. Walworth Road between CTH O and CTH F   | Remain under local jurisdiction.  | Local jurisdiction.  |

**Issues Not Resolved**

| Facility  | Issue  | Recommendation in the Preliminary Recommended Year 2035 Walworth County Jurisdictional Highway System Plan   |
|---|--|--|
| STH 11 between IH 43 and STH 50   | Remain under state jurisdiction.   | County jurisdiction based on application of jurisdictional criteria.   |
| USH 12 between STH 67 and the City of Whitewater  | Transfer to county jurisdiction following the construction of the planned extension of the USH 12 freeway. | State jurisdiction based on it providing an east-west state trunk facility connecting the City of Whitewater to Racine County.   |
| Lake Geneva Highway, Clover Road, Lakeshore Drive, Orchid Drive, and Pell Lake Drive between CTH H and USH 12 | Remain under local jurisdiction.   | County jurisdiction based on application of jurisdictional criteria.   |
| CTH C and CTH K between USH 14 and STH 67   | Transfer either CTH C or CTH K to state jurisdiction.  | CTH C and CTH K to remain under county jurisdiction based on application of jurisdictional criteria.   |
| Howard Road between Cox Road and the Jefferson County line  | Remain under local jurisdiction.   | State jurisdiction based on it providing a more continuous route for STH 59 between USH 12 and the Village of Palmyra.   |
| CTH M between STH 89 and CTH P  | Remain under county jurisdiction.  | Local jurisdiction as nonarterial based on the facility not meeting the criteria to be functionally classified as an arterial, and the recommendation that nonarterial facilities be under local jurisdiction. |

## SUMMARY

The application of criteria for the jurisdictional classification required analysis of trip lengths to be served by each segment of the total arterial street and highway system, an inventory of existing and proposed land uses to be served by each segment of the arterial street and highway system, and the analysis of the operational characteristics, including traffic volume, of the arterial facilities. This procedure involved four major steps: classification of each arterial facility in terms of trip service criteria, classification of each arterial facility in terms of the land use criteria, classification of each arterial facility in terms of traffic volume (one of the operational characteristics), and the combining and refinement of these three sets of jurisdictional classifications through the application of additional operation characteristics criteria, including system continuity and facility spacing.

By comparing trip service, land use service, and operational characteristics, it was concluded that most of the arterial facilities logically should be classified into one of three jurisdictional categories: state trunk, county trunk, or local trunk. Some judgment was exercised in the case of facilities which did not clearly fall into one category or another.

\* \* \*

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