

PRELIMINARY DRAFT

**SEWRPC Planning Report No. 15 (2nd Edition)
A Jurisdictional Highway System Plan for Walworth County**

Revised Section of
Chapter IV

APPLICATION OF JURISDICTIONAL CLASSIFICATION CRITERIA

The following text is proposed to replace the text previously provided to the Committee under the heading, Final Recommended Year 2035 Walworth County Jurisdictional Highway System Plan, in Chapter IV, Application of Jurisdictional Classification Criteria. The revised section reflects the action of the Committee at its August 11, 2010, meeting in approving the preliminary recommended year 2035 Walworth County jurisdictional highway system plan as the final recommended plan, except for the preliminary recommended plan's recommendations to widen STH 50 between CTH F (north) and CTH F (south) from two to four traffic lanes, and to reserve right-of-way along STH 50 between CTH F (south) and STH 67 to accommodate possible future widening of the facility with additional lanes beyond the design year 2035 of the plan which would be further discussed at an October 13, 2010, meeting of the Committee.

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

Following review and consideration of the public comments received, the Walworth County Jurisdictional Highway Planning Committee at its August 11, 2010, meeting unanimously approved the preliminary recommended plan as the final recommended year 2035 Walworth County jurisdictional highway system plan with one exception. The Committee withheld action, and requested that further analyses and discussion occur, on two specific recommendations of the preliminary recommended year 2035 Walworth County jurisdictional highway system plan:

- The proposed widening of STH 50 between CTH F (north) and CTH F (south) from two to four traffic lanes; and
- The reservation of right-of-way along STH 50 between CTH F (south) and STH 67 to accommodate possible future widening of the facility with additional lanes beyond the design year 2035 of the plan.

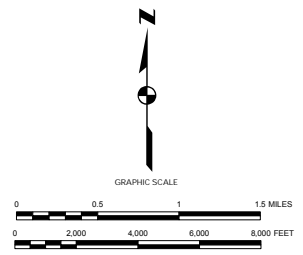
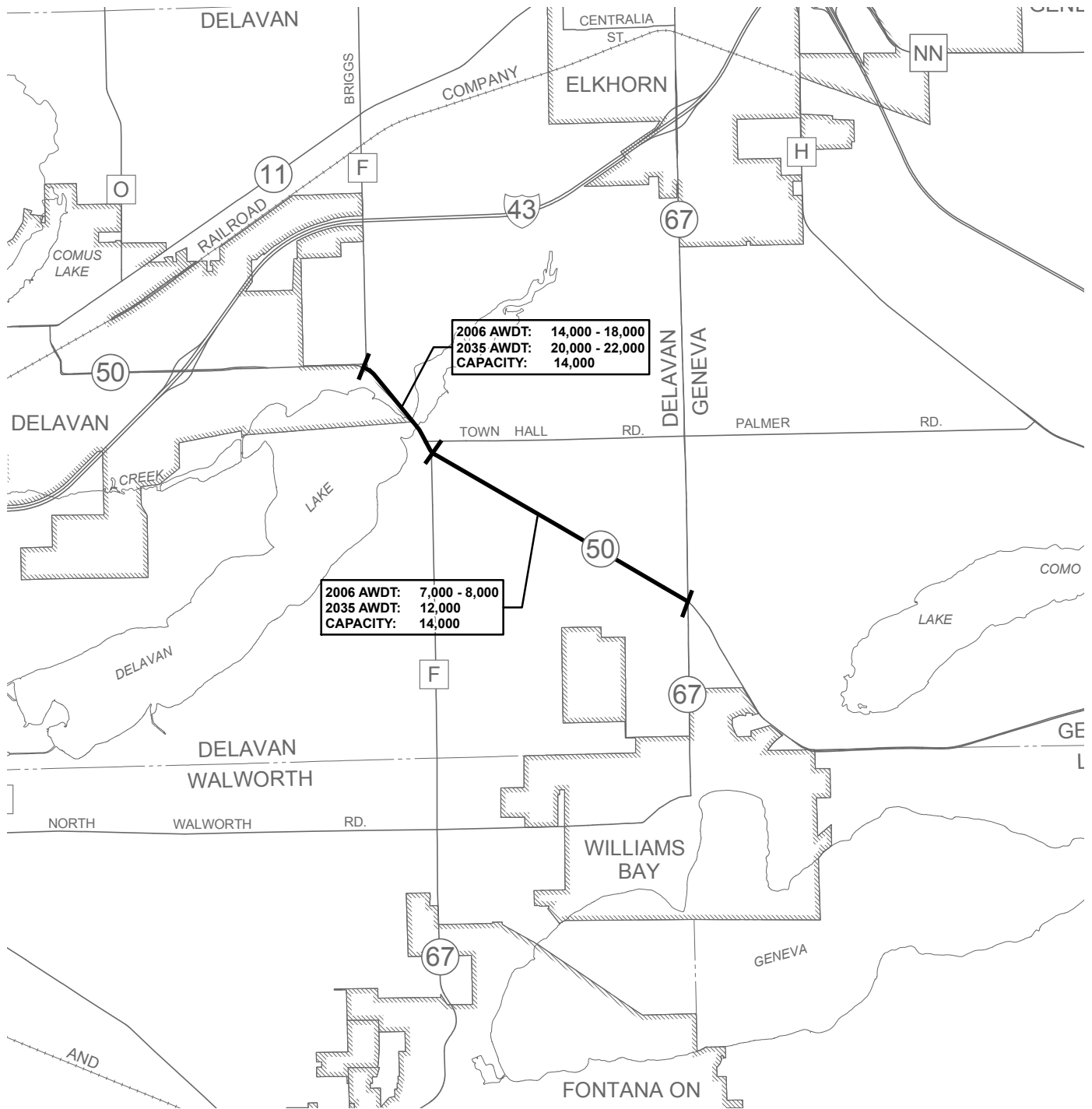
Specifically, the representative from the Town of Delavan and the Advisory Committee asked that Commission staff consider alternative routes that would potentially divert enough traffic from STH 50 between CTH F (north) and STH 67 to eliminate the need for widening with additional traffic lanes on this stretch of STH 50.

Consider Alternative Bypass Routes for STH 50 Between CTH F (North) and STH 67

The year 2035 regional transportation system plan and the preliminary recommended year 2035 Walworth County jurisdictional highway system plan recommends the provision of four traffic lanes on STH 50 between CTH F (north) and CTH F (south), based on the current year 2006 average weekday traffic volumes exceeding the design capacity of the existing two traffic lane facility. These plans also identify the segment of STH 50 between CTH F (south) and STH 67 as carrying probable future year 2035 average weekday traffic volumes which may be expected to approach, but not exceed, the design capacity of a two traffic lane arterial of 14,000 vehicles per average weekday, and therefore, recommends consideration for the reservation of right-of-way along this stretch of STH 50 to accommodate potential future improvement of this stretch of STH 50 to carry four traffic lanes beyond the design year 2035 of the plan. The forecast year 2035 traffic volumes are derived from projected travel based on the year 2035 regional land use plan.

STH 50 between CTH F (north) and CTH F (south) is generally a two traffic lane roadway approximately 24 feet wide with an auxiliary lane and curb and gutter on the north side of STH 50, and a paved three to four foot shoulder and a four foot gravel shoulder on the south side of STH 50. The current total paved width is about 33 to 40 feet. On the bridge over Delavan Lake, STH 50 is approximately 52 feet in width with two traffic lanes and two auxiliary lanes. The overall right-of-way width on this segment of STH 50 ranges from 66 to 85 feet. As shown on Map 1, the current year 2006 traffic volumes on this stretch of STH 50 ranged from 14,000 to 18,000 vehicles per average weekday, exceeding the 14,000 vehicles per average weekday design capacity of a two traffic lane arterial. Forecast year 2035 average weekday traffic

COMPARISON OF EXISTING YEAR 2006 AND FORECAST YEAR 2035 AVERAGE WEEKDAY TRAFFIC VOLUMES TO EXISTING ROADWAY DESIGN CAPACITY ON STH 50 BETWEEN CTH F (NORTH) AND STH 67



volumes on this stretch of STH 50 ranges from 20,000 to 22,000 vehicles per average weekday, also exceeding the 14,000 vehicles per average weekday design capacity of a two traffic lane arterial.

Between CTH F (south) and STH 67, STH 50 is generally a two traffic lane roadway approximately 24 feet wide with a paved three to four foot shoulder and a seven to nine foot gravel shoulder. The overall right-of-way on this segment of STH 50 ranges from 93 to 110 feet between CTH F (south) and a point about one-half mile southeast of CTH F (south), is 66 feet between a point about one-half mile southeast of CTH F (south) and a point about one-third mile northwest of STH 67, and ranges from 105 feet to 130 feet between a point about one-third mile northwest of STH 67 and STH 67. As shown on Map 1, the current year 2006 traffic volume on STH 50 between CTH F (south) and STH 67 ranges from 7,000 to 8,000 vehicles per average weekday. The forecast year 2035 average weekday traffic volumes for this segment of STH 50 is approximately 12,000 vehicles per average weekday. Thus, traffic volumes may be expected to approach, but not exceed, the design capacity of this stretch of STH 50 by the year 2035 design year of the plan.

Thus, consideration of provision of additional traffic lanes is warranted on STH 50 between its intersection with CTH F (north) and the intersection of CTH F (south) to alleviate the congestion expected under existing and future forecast year 2035 traffic volumes. Between CTH F (south) and STH 67, actions are warranted to reserve right-of-way to accommodate a possible future need to add traffic lanes beyond the design year 2035 of the plan.

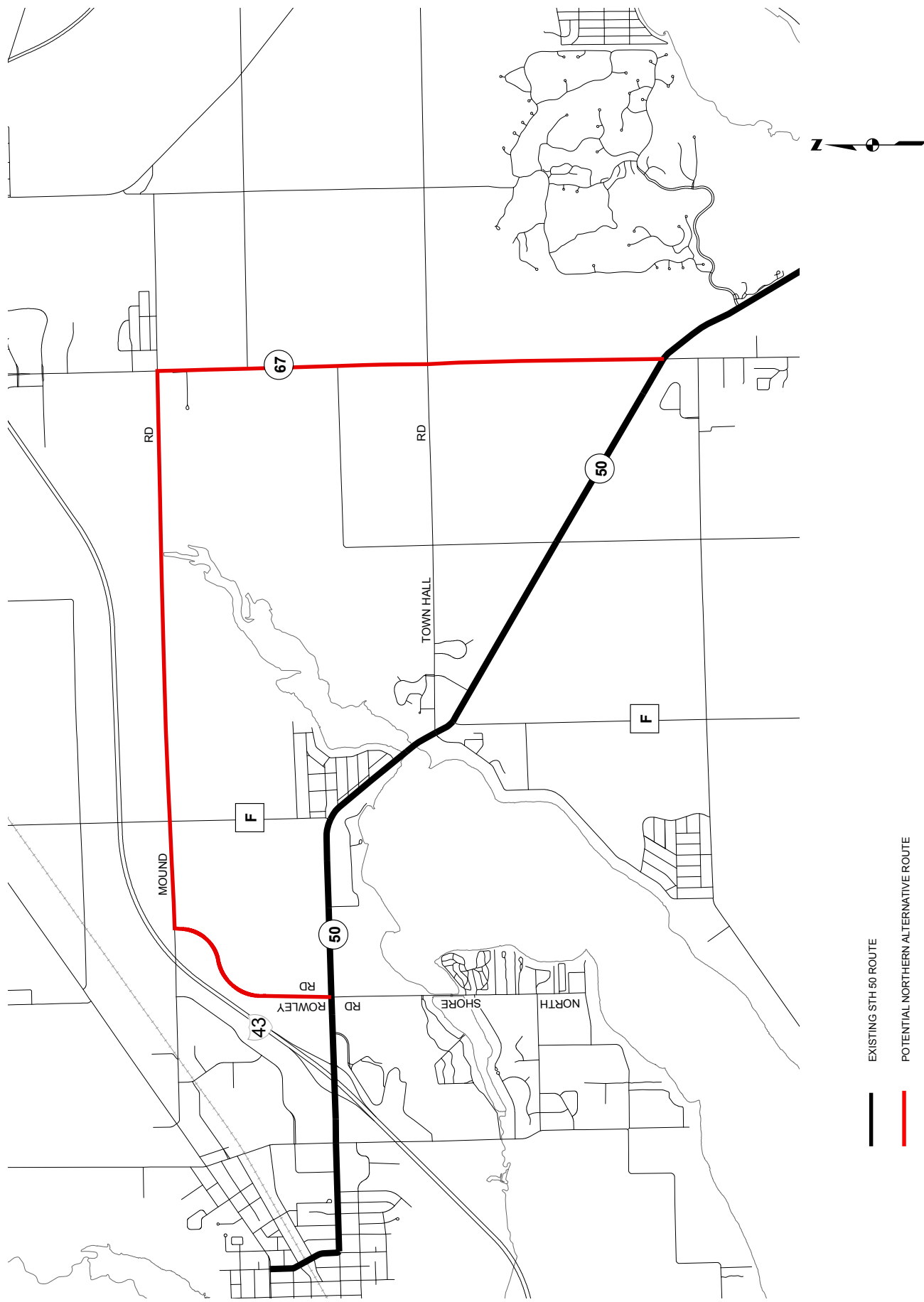
The Town of Delavan asked that alternative routes be considered to divert traffic from STH 50 to potentially eliminate the need for four traffic lanes on STH 50 between CTH F (north) and CTH F (south), and between CTH F (south) and STH 67. In response to this request, this analysis was completed which defines, tests, and evaluates alternative routes. Assessment of the potential of alternative routes to divert traffic from this stretch of STH 50 should begin with analysis of the origin and destination of the traffic on this segment of STH 50. The traffic on this segment of STH 50 between CTH F (north) and STH F 67 is predominately traffic travelling between the City of Delavan and the Lake Geneva area, and between the City of Delavan and the Walworth/Fontana area. In particular, travel to and from the City of Delavan on this segment of STH 50 is travel predominately to and from the downtown Delavan area and the commercial development east of IH 43.

Possible alternative routes north of STH 50 were identified, tested, and evaluated as Delavan Lake essentially precludes potential routes south of STH 50. One alternative route would use STH 67 and Mound Road and was suggested by the representative for the Town of Delavan on the Walworth County Jurisdictional Highway Planning Committee. This route would not be envisioned to be the route for STH 50, but rather an alternative roadway under local and county jurisdiction which could attract traffic from STH 50. This alternative route, as shown on Map 2, would be routed concurrent with STH 67 from its current intersection with STH 50 to Mound Road, then routed over Mound Road to a new intersection located east of IH 43, then routed over a new facility between Mound Road and Rowley Road, and then over Rowley Road to the intersection of STH 50 and North Shore Drive. The travel distance along this alternative route would be approximately 6.8 miles, as compared to a travel distance of approximately 4.2 miles over the existing route of STH 50 between STH 67 and North Shore Drive. While the posted speed limits are envisioned to be greater on STH 67 and Mound Road than along the existing route of STH 50 between STH 67 and North Shore Drive, the additional travel distance would result in an estimated travel time of 10.5 minutes, as compared to a travel time of 8.4 minutes over the existing route of STH 50 between STH 67 and North Shore Drive. The alternative route may be expected to only have limited potential to divert traffic—about 1,500 vehicles per average weekday—from STH 50 between North Shore Road and CTH F (south). This would not be sufficient traffic volume to eliminate the need for the provision of four traffic lanes on STH 50 between North Shore Road and CTH F (south). It was further suggested by the Town of Delavan representative on the Committee that the alternative route for STH 50 be established on STH 67 and Mound Road as a diversion route for truck traffic from STH 50. However, by law, WisDOT cannot restrict trucks from using facilities under its jurisdiction. In order to restrict trucks from utilizing STH 50, the existing route of STH 50 would have to be transferred to local and/or county jurisdiction.

Another alternative route for STH 50 considered was construction of STH 50 on a new alignment between North Shore Road and STH 67 located near and adjacent to its existing route (see Map 3). This alternative route would also include an additional lake crossing north of the existing crossing at STH 50. The realignment of STH 50 would need to be provided in close proximity to the existing route of STH 50 so that it would provide an alternative route, and traffic relief to, existing STH 50 between North Shore Road and CTH F (south). The travel distance along this alternative route would be approximately 4.8 miles, as compared to a travel distance of approximately 4.2 miles over the existing route of STH 50 between STH 67 and North Shore Drive. Assuming that the posted speed limits could be made greater on

Map 2

POTENTIAL NORTHERN ALTERNATIVE ROUTE OF STH 50 BETWEEN NORTH SHORE ROAD AND STH 67



- EXISTING STH 50 ROUTE
- POTENTIAL NORTHERN ALTERNATIVE ROUTE

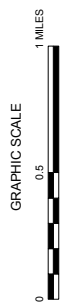
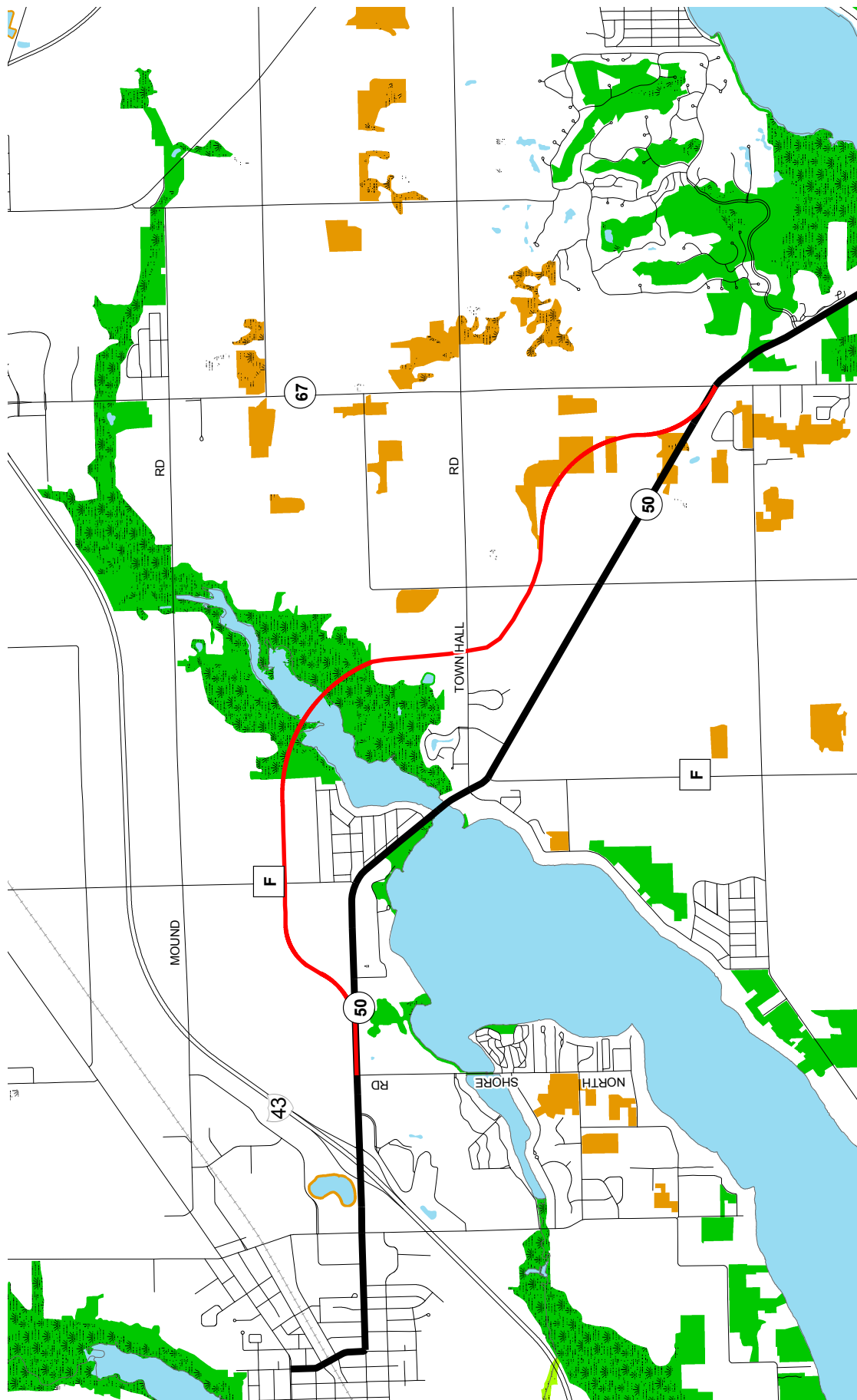
Source: SEWRPC

R:\H\map
08/26/2010
I:\Train\Work\K\HSP\WAL\HSP\MAP\STH 50 Mound Rd Alternative.mxd

GRAPHIC SCALE
0 0.5 1 MILES

Map 3

POTENTIAL REALIGNMENT OF STH 50 BETWEEN NORTH SHORE ROAD AND STH 67 NEAR EXISTING ALIGNMENT



- ENVIRONMENTAL CORRIDORS**
- PRIMARY ENVIRONMENTAL CORRIDOR
 - ISOLATED NATURAL RESOURCE AREA
 - SURFACE WATER
 - WETLAND

- EXISTING STH 50 ROUTE
- POTENTIAL REALIGNMENT ROUTE

R:\H\proj
08/26/2010
I:\Tran\Work\HSP\WAL\HSP\MAP\STH 50 Realignment\Alternative.mxd

Source: SEWRPC

the alternative bypass route than on the existing route of STH 50 between STH 67 and North Shore Drive, the estimated travel time over the alternative bypass route is estimated to be about 7.2 minutes, as compared to the 8.4 minutes estimated over the existing route of STH 50 between STH 67 and North Shore Drive. These potential savings in travel time are expected to result in this new route having the potential to divert enough traffic—about 10,000 vehicles per average weekday—from STH 50 between North Shore Road and CTH F (south) to potentially eliminate the need for the provision of four traffic lanes on STH 50 between North Shore Road and CTH F (south). However, the realignment would entail an additional crossing of Delavan Lake of significant length and cost, the location of a new roadway within a primary environmental corridor including wetland, and would likely require acquisition of the Lake Lawn Airport. This alternative should be dismissed due to its cost and environmental impacts to other alternatives.

It is the Commission staff recommendation that the Walworth County jurisdictional highway system plan recommend:

- Between CTH F (north) and CTH F (south)
 - Widen STH 50 to provide four traffic lanes; and
 - Wisconsin Department of Transportation to work with local governments to develop location and right-of-way of widened STH 50 to minimize acquisition of, and impacts on, existing residences and businesses.

- Between CTH F (south) and STH 67
 - Reserve right-of-way along STH 50 to accommodate future widening to four traffic lanes which may be needed beyond the plan design year 2035.

Currently, the Wisconsin Department of Transportation is conducting preliminary engineering and environmental study for the reconstruction of STH 50 between IH 43 and STH 67. The Department is considering a number of alternatives. At the conclusion of preliminary engineering and environmental impact study a determination would be made by the Department as to how this segment of STH 50 would be reconstructed, which could differ from the recommendations for this segment of STH 50 contained within the regional transportation plan and Walworth County jurisdictional highway system plan. The

recommendations contained within these plans are advisory and could be considered by WisDOT during preliminary engineering and environmental impact study for the reconstruction of STH 50 between IH 43 and STH 67.

Following Advisory Committee discussion of the STH 50 alternatives, the Advisory Committee recommendations with respect to STH 50 will be documented.

KRY/RWH/mlh/lgh
8/24/10
#153122 v1 - Wal Co JHSP Addl Section to Ch 4