

2.0 CORRIDOR CONDITIONS

Route 35 serves as one of the primary roadways meeting diverse needs in the Housatonic Valley. The two-lane, six-mile state roadway is the main link between Ridgefield and Danbury. Route 35 serves local traffic as well as traffic just passing through Ridgefield.

For the purposes of clearly presenting a wide range of proposed actions for this study, the corridor has been divided into eight logical segments in a south to north direction. Each segment is characterized by a localized development pattern and traffic characteristics. This report discusses existing conditions, issues, and opportunities for roadway operations, and recommended future improvements in the subsequent chapters for the segments listed below:

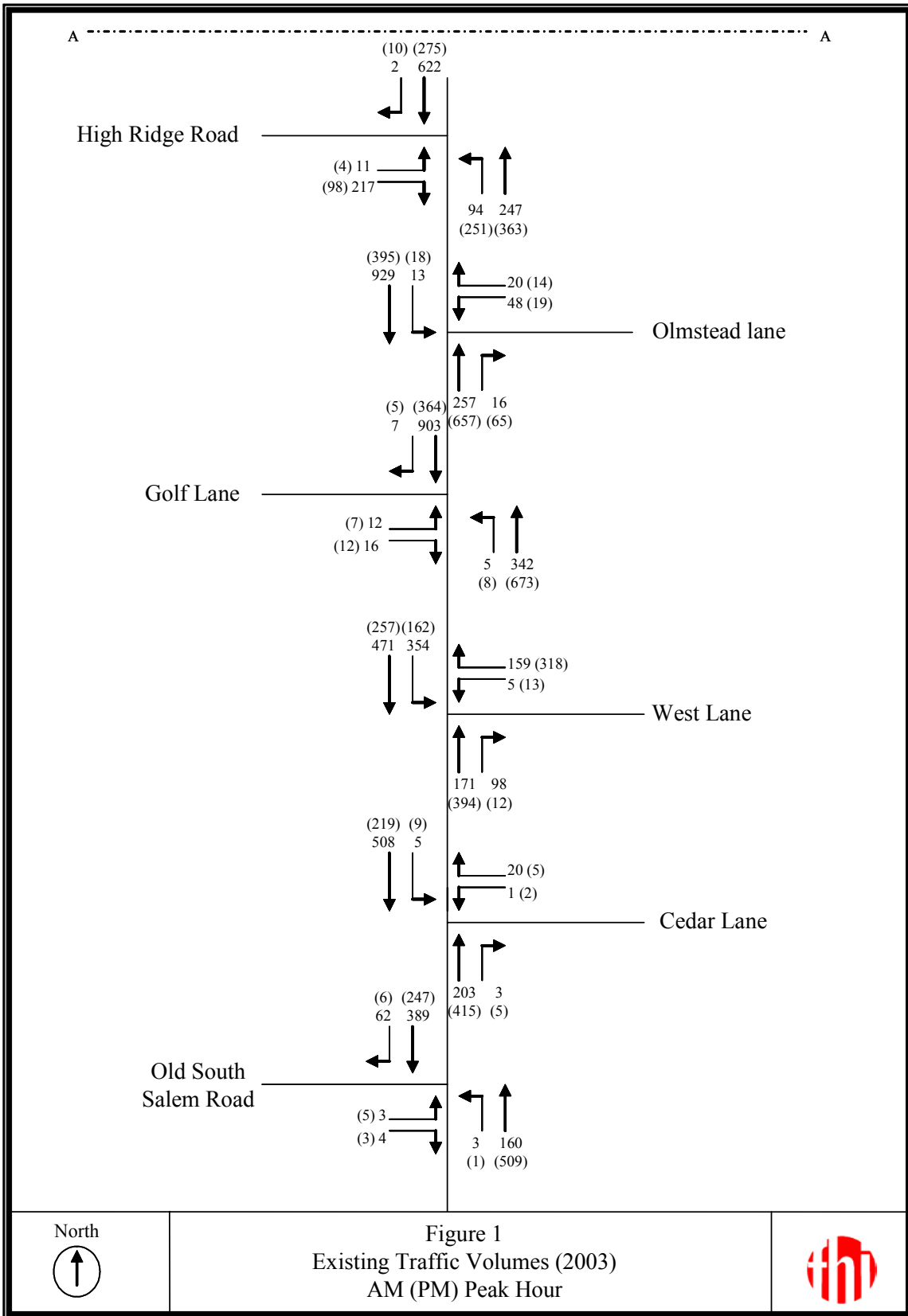
- New York State Line to Route 33
- Route 35/Route 33 Intersection
- Route 33 to Governor Street
- Ridgefield Center
- Prospect Street to Route 116
- Route 35/Route 116 Intersection
- Route 116 to Copps Hill /Farmingville Roads (Copps Hill Area)
- Copps Hill Road/Farmingville Road to Route 7

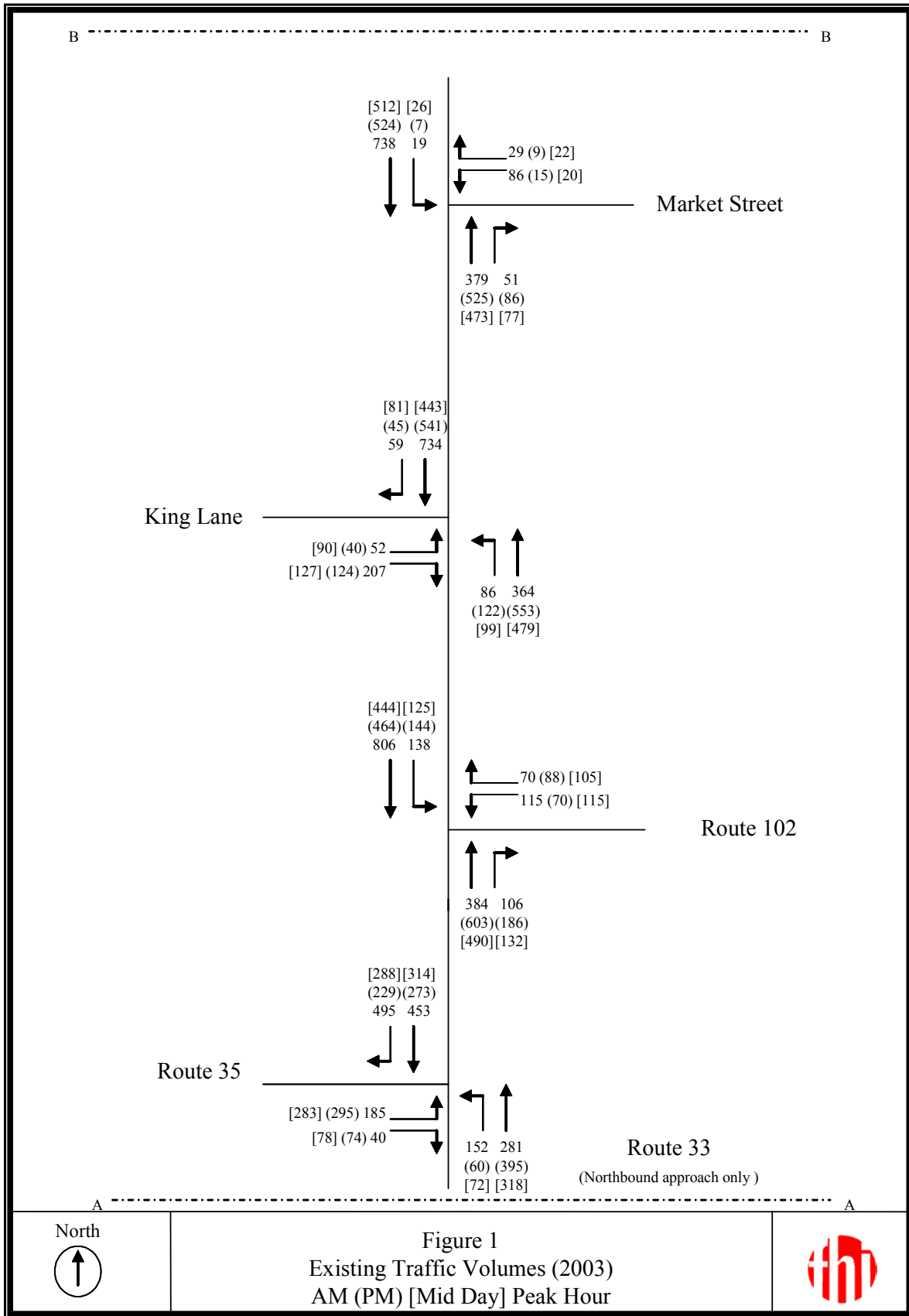
2.1 Existing Traffic Volumes

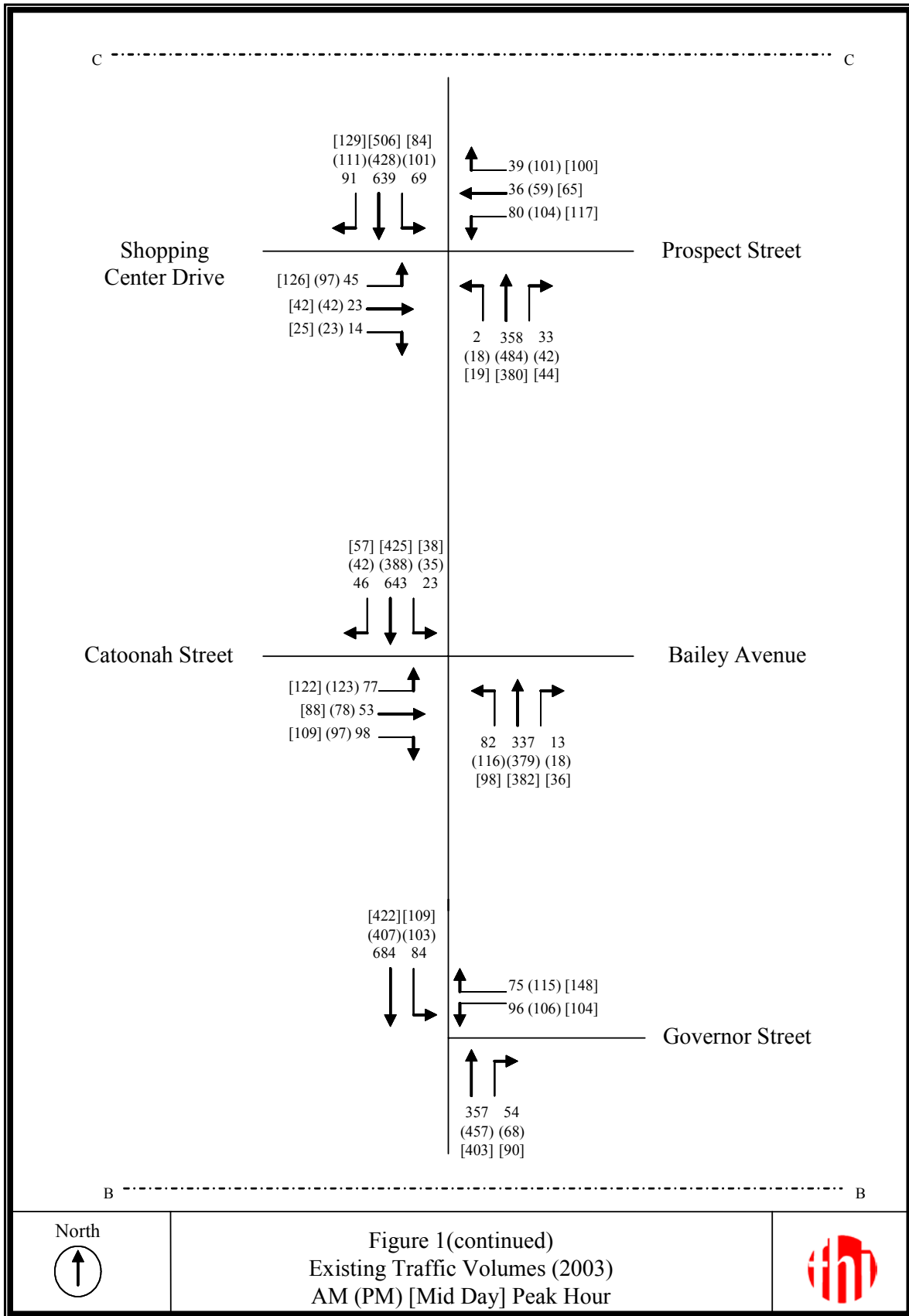
Traffic volume counts were collected in late spring of 2003 within the corridor study area as part of the effort to understand and assess traffic operations along the corridor and at key intersections. These included automatic traffic recorder (ATR) counts that represent a daily traffic volume on a section of road and peak hour turning movement counts that provide information about specific turn movements at an intersection.

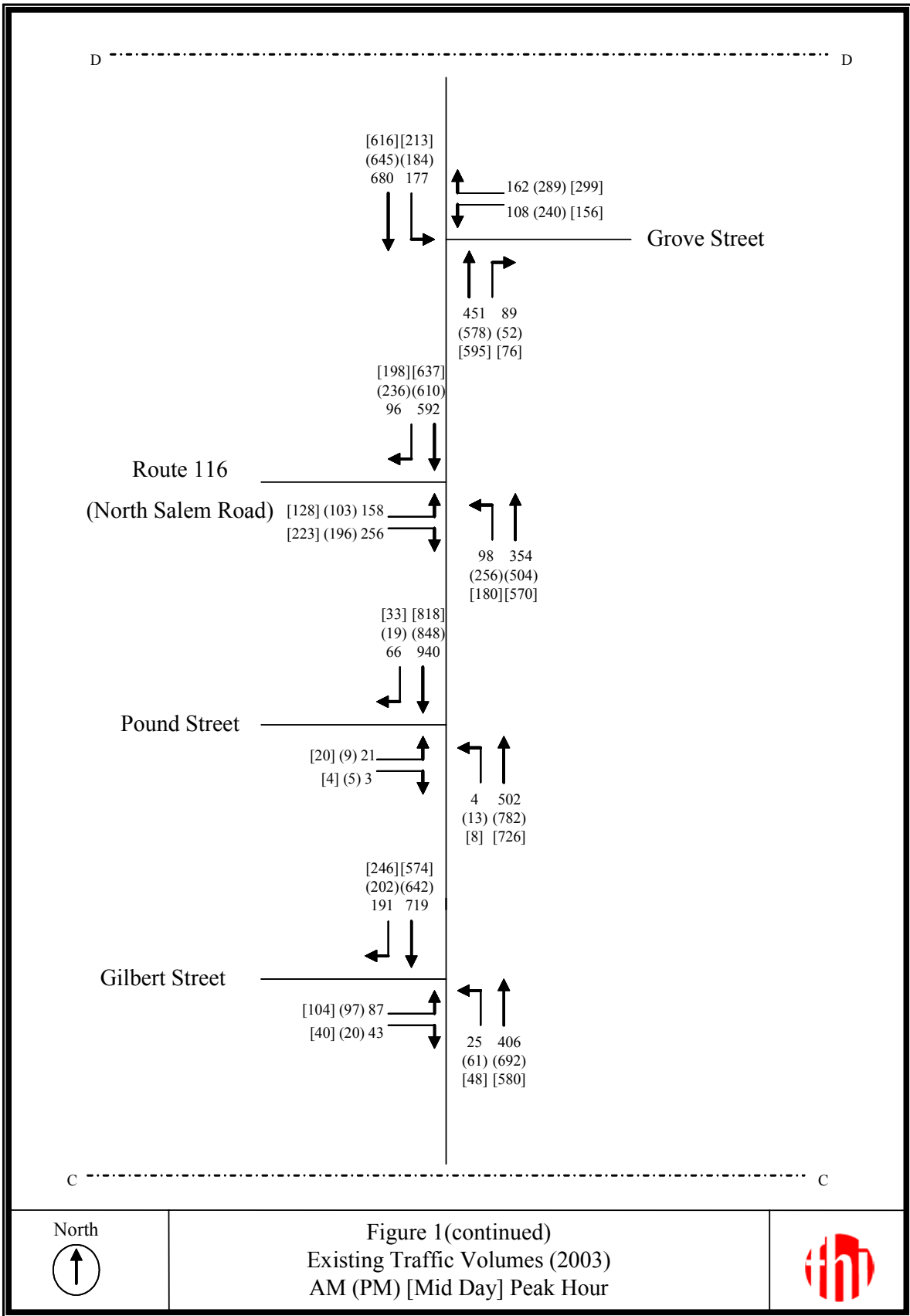
Automatic traffic recorder (ATR) counts were collected at three locations along the corridor: south of Prospect Street, south of Copps Hill Road/Farmingville Road, and south of Route 7. Daily traffic volumes along the corridor range from 10,500 to 14,300 vehicles per day (vpd). The ATR counts indicate a relatively even directional split (the ratio of volume of traffic traveling northbound versus volume of traffic traveling southbound).

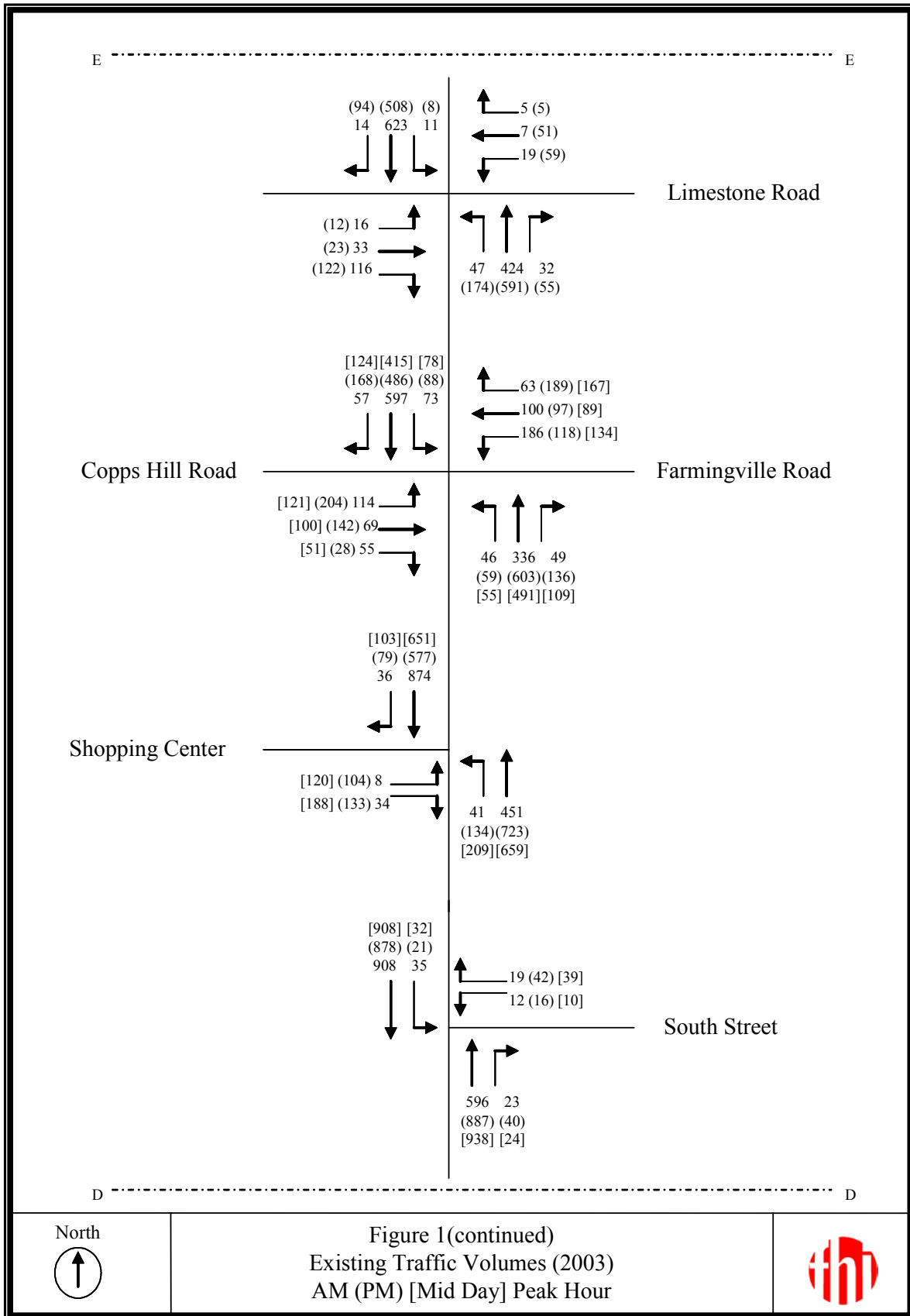
Peak hour turning movement count (TMC) data was collected at twenty-four intersections along the corridor during the weekday morning and afternoon peak period. TMC data was also collected during the Saturday mid day peak period between Ridgefield Center and the Copps Hill area. Figure 1 shows the existing peak hour TMC data.

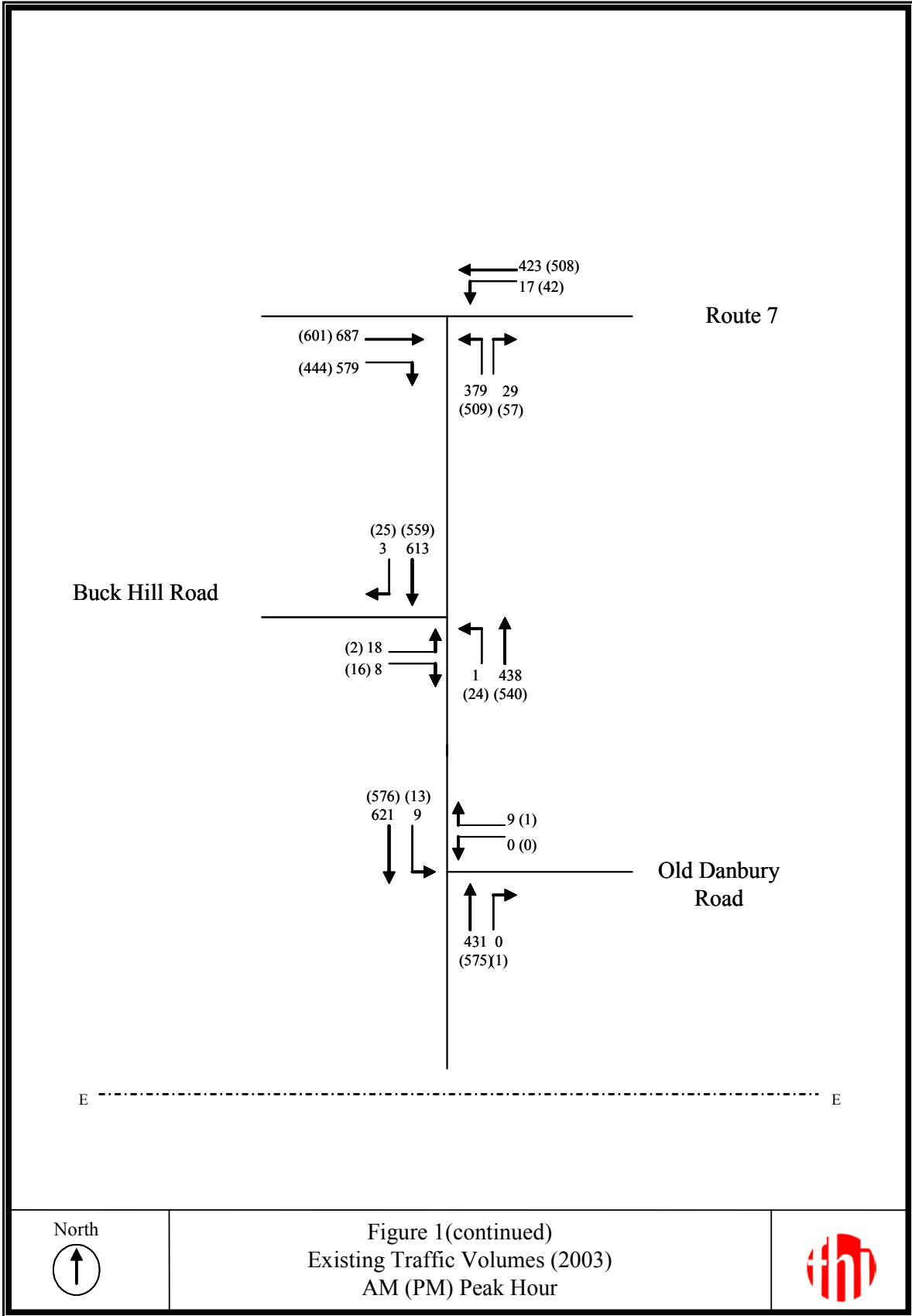












From review of the traffic data, the segments of Route 35 in the Copps Hill Area and Ridgefield Center are the concentrated areas of high traffic volumes and consequently are the most congested areas along the corridor.

The highest traffic volumes on Route 35 during the AM, PM, and Saturday peak hours were recorded in the Copps Hill Area between South Street and Copps Hill Shopping Center entrance. There were 1,435 vehicles (492 northbound and 943 southbound) recorded during the AM peak hour, 1,756 vehicles (857 northbound and 899 southbound) during the PM peak hour, and 1,808 vehicles (868 northbound, 940 southbound) during the Saturday mid day peak hour. The lowest traffic volumes were recorded at the southern end of the corridor just north of the New York state line with 556 vehicles (163 northbound and 393 southbound) recorded during the AM peak hour and 760 vehicles (510 northbound and 250 southbound) during the PM peak hour.

2.2 Capacity Analysis

Capacity analyses were performed to determine how roadway segments or intersections in the study corridor are operating. A capacity analysis generally provides one or two important pieces of information: a volume to capacity (v/c) ratio and/or a level of service (LOS). Volume represents the travel demand and capacity represents the amount of traffic the roadway or facility can accommodate under prevailing conditions. Thus, the v/c ratio for a roadway segment is a reflection of how the facility is accommodating the demand. Volume to capacity ratios that approach or exceed 1.0 indicate traffic congestion or poor operating conditions. The level of service (LOS) at an intersection divides the range of intersection operations into six letter grades, ranging from A to F, with A being the best and F the worst.

For intersections, the difference between the LOS grades reflects the amount of delay experienced by a motorist. LOS A describes operations with little or no delay. At LOS D, the influence of traffic congestion becomes more noticeable and is considered to be the greatest acceptable level of delay. At LOS E and LOS F delays are substantial. Intersection capacity analyses (LOS and v/c ratios) were performed at the 24 corridor study intersections for the AM, PM, and Saturday peak hours.

Intersection operation analyses were performed for the three peak hours (weekday AM and PM, and Saturday mid day) for the twenty-four intersections in the study area. Results from the analysis indicate that sixteen of the twenty-four (67%) intersections have one or more turning or through movements that operate at LOS E or LOS F during the AM, PM or Saturday mid day peak period, as shown in Figure 2. Though a turning or through movement operates at LOS E or F, it is possible that the overall intersection operates at a better LOS.

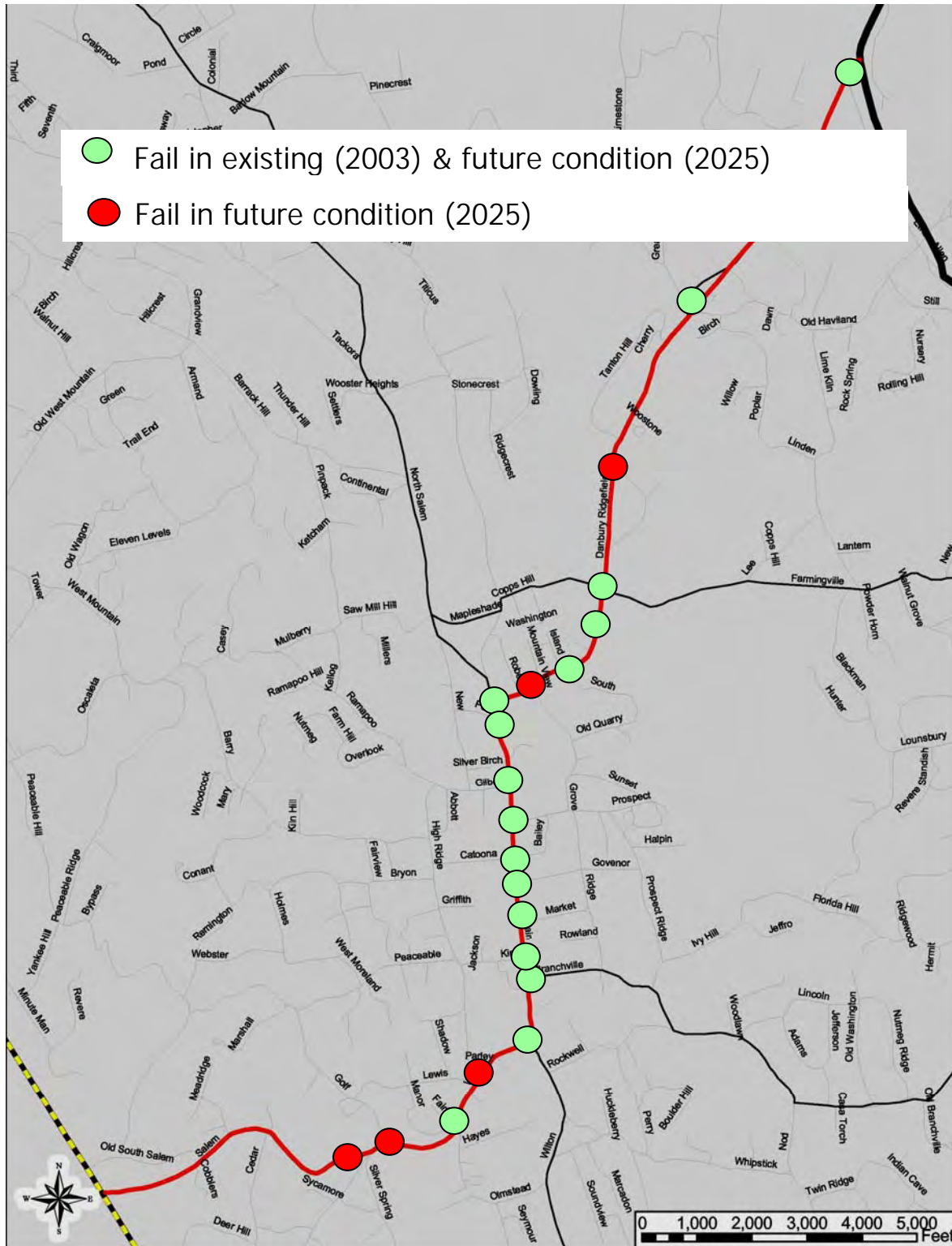
2.3 Future Traffic Conditions

Intersection operation analyses were also conducted to evaluate the effects of traffic growth on the transportation system expected by 2025. A review of the historical traffic

volume data indicates that a one percent (1%) growth rate per year is a reasonable assumption. In general, an intersection having a poor LOS under existing conditions will continue to function poorly or will deteriorate further if additional demand from future growth is added and if no improvements are made to the roadway, such as lane additions, restriping pavement, etc.

Results from the analyses indicate that twenty-one of the twenty-four (88%) intersections will have one or more critical movements that operate at LOS E or LOS F during the AM, PM or Saturday mid day peak period, also shown in Figure 2. In summary, traffic on the Route 35 corridor is expected to increase resulting in increased congestion and delay if roadway improvements are not implemented.

Figure 2: Analyzed Intersections With Critical Movements



2.4 Origin Destination Survey

On Tuesday, June 17th, 2003, an origin-destination (O-D) survey was carried out along Route 35 in Ridgefield. Survey cards were passed out to drivers at the intersection of Route 35 with Governor Street in the southbound direction during the AM, mid day, and PM peak periods. Drivers were asked to either return the survey card by mail or go online to the project website to respond.

The purpose of this survey was to obtain some empiric travel data from people traveling along Route 35 on a typical weekday. Information obtained from the surveys would help determine the percentage of through traffic on the Route 35 corridor as well as information relating to trip purpose and trip frequency.

Survey results indicated that the majority of traffic passing the survey point was “local” traffic as opposed to “through” traffic. Local traffic is defined as trips having one or both trip ends within the study area, while “through” traffic is defined as traffic which has neither trip end in the study area, but is just passing through. Of the total vehicles surveyed, 81% either began or ended their trip in Ridgefield and are thus considered local traffic. The remaining surveyed vehicles (19%) are considered to be through traffic.

Responses to the survey questions also provided information such as the city/town of the start and end of the trip, purpose of the trip, how often they traveled on Route 35, and the number of persons in the vehicle.



Summary of Origin and Destination Survey

- 19% of trips are thru trips
- 81% of trips start and/or end in Ridgefield
 - Ridgefield to Ridgefield (51%)
 - Ridgefield to Other (39%)
 - Other to Ridgefield (10%)
- 84% travel Route 35 daily
- Work related trips
 - 87% of AM
 - 31% of Mid day
 - 29% of PM
- 80% single occupancy