Traffic Impact Study

Steeplegate Mall Redevelopment
270 Loudon Road (NH Route 9)
Concord, New Hampshire

Prepared for:

Onyx Steeplegate Concord LLC *and*
Onyx Regal Concord, LLC
Needham, Massachusetts

July 2024
Revised May 2026

Prepared by:

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Dear Reviewer:

This letter shall certify that this Traffic Impact Study has been prepared under my direct supervision and responsible charge. I am a Registered Professional Engineer (P.E.) in the State of New Hampshire (NH P.E. No. 9822) and hold Certification as a Professional Traffic Operations Engineer (PTOE) from the Transportation Professional Certification Board, Inc. (TPCB), an independent affiliate of the Institute of Transportation Engineers (ITE) (PTOE Certificate No. 993). I am also a Fellow of the Institute of Transportation Engineers (FITE).

Sincerely,

VANASSE & ASSOCIATES, INC.

Jeffrey S. Dirk, P.E., PTOE, FITE
Managing Partner

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PREFACE

Vanasse & Associates, Inc. (VAI) has prepared this update to the July 2024 *Traffic Impact Study* (the "July 2024 TIS") that was prepared in support of the proposed redevelopment of the Steeplegate Mall and the adjacent Regal Concord movie theater located at 270 Loudon Road (NH Route 109) and 282 Loudon Road in Concord, New Hampshire, respectively. This updated TIS is responsive to the comments that were identified in the September 20, 2024 *Traffic Engineering Peer Review* letter that was prepared by VHB on behalf of the City of Concord concerning their review of the July 2024 TIS, as well as the comments that have been offered by the City of Concord Community Development Department (CDD) and the New Hampshire Department of Transportation (NHDOT). This updated TIS includes the following information:

- **Study Area** - The study area has been expanded to include all major intersections identified by the CCD and NHDOT for inclusion in this updated assessment;
- **Sight Distance Evaluation** - Sight line evaluations have been conducted at all study area intersections and recommendations have been provided where necessary to improve sight lines where a specific deficiency was identified;
- **Traffic Operations** – The traffic operations analysis has been expanded and refined, and includes a corridor traffic flow simulation for a portion of the NH Route 9 corridor at the request of the City and a formal Traffic Signal Warrants Analysis at specific intersections where the implementation of traffic signal control may be advantageous at the request of NHDOT;
- **Improvement Measures** - The transportation improvement program has been revised and expanded to include physical improvements to add capacity; traffic control improvements; traffic signal optimization to improve traffic flow; and pedestrian and bicycle improvements to facilitate trip-reduction opportunities; and
- **Trip Reduction and Post Occupancy Monitoring** – The elements of the Transportation Demand Management (TDM) program have been refined and expanded, and have been coupled with a Post-Occupancy Traffic Monitoring Program to validate the trip projections for the Project, define the need for traffic signal timing adjustments post-occupancy and to evaluate the success of the TDM program.

This updated TIS demonstrates the Project's compliance with the City's Site Plan Regulations and includes a comprehensive assessment of the transportation infrastructure that serves the Project site and the identification of improvement measures that are intended to off-set the predicted impact of the Project and address existing and long-term infrastructure needs.

EXECUTIVE SUMMARY

Vanasse & Associates, Inc. (VAI) has conducted a Traffic Impact Study (TIS) in order to determine the potential impacts on the transportation infrastructure associated with the proposed redevelopment of the Steeplegate Mall and the adjacent Regal Concord movie theater located at 270 Loudon Road (NH Route 9) and 282 Loudon Road in Concord, New Hampshire, respectively, to accommodate a mixed-use development (hereafter referred to as the "Project"). This study was prepared in consultation with the City of Concord, the Central New Hampshire Regional Planning Commission (CNHRPC) and the New Hampshire Department of Transportation (NHDOT), and was performed in accordance with: i) the NHDOT guidelines for the preparation of Traffic Impact Studies (TISs); ii) the standards of the Traffic Engineering and Transportation Planning Professions for the preparation of such reports; and iii) the scoping determinations issued by the NHDOT and the City of Concord.

This assessment has concluded the following with respect to the Project and the study area roadways and intersections:

1. Using trip-generation statistics published by the Institute of Transportation Engineers (ITE)[1] and with appropriate adjustments to account for internal trips, pass-by trips and divert-link trips, the completed Project, without consideration of the trips generated by the existing uses that are currently operating within the Project site, is expected to generate 21,520 new vehicle trips on an average weekday and 22,616 new vehicle trips on a Saturday (both two-way, 24-hour volumes), with 725 new vehicle trips expected during the weekday morning peak-hour, 1,488 new vehicle trips expected during the weekday evening peak-hour and 2,312 new vehicle trips expected during the Saturday midday peak-hour;

2. In comparison to the trips associated with the Steeplegate Mall as counted in July 2023 and inclusive of pass-by and divert-link trips, the Project is expected to result in 1,042 *additional* vehicle trips during the weekday morning peak-hour, 2,191 *additional* vehicle trips during the weekday evening peak-hour and 3,167 *additional* vehicle trips during the Saturday midday peak-hour;

[1] *Trip Generation*, 12th Edition; Institute of Transportation Engineers; Washington, DC; October 2025.

3. The Project will not result in a significant impact (increase) on motorist delays or vehicle queuing over Existing or anticipated future conditions without the Project (No-Build conditions), with the majority of the study area intersections shown to continue to operate at an overall level-of-service (LOS) D or better with the addition of Project-related traffic, where an LOS of "D" or better is generally defined as being representative of "acceptable" traffic operations. Pursuant to Section 32.08.19 of the City of Concord Site Plan Regulations, physical improvements or traffic control modifications have been identified for the study area intersections at which overall operations or specific movements have been identified to operate at or over capacity (i.e., LOS "E" or "F") with the addition of Project-related traffic (discussion follows);

4. Based on a review of motor vehicle crash information provided by the City of Concord Police Department and pursuant to Section 32.08.20 of the City of Concord Site Plan Regulations, recommendations for safety-related improvements have been identified at the study area intersections that were reported to have experienced an average of 10.0 or more reported motor vehicle crashes in an effort to enhance safety or to assist the City of Concord and NHDOT in advancing safety-related improvements (discussion follows);

5. The NH Route 106/Project site driveway intersection was found to meet the necessary warrants specified in the Manual on Uniform Traffic Control Devices (MUTCD)[2] to justify the installation of a traffic control signal under 2027 average-month Build traffic volume conditions in conjunction with the Project;

6. With the installation of a traffic control signal at the NH Route 106/Project site driveway intersection and geometric improvements along NH Route 106 and D'Amante Drive, all movements exiting the Project site will operate at LOS D or better during the peak hours, with the exception of left-turn movements exiting the north Project site driveway to NH Route 9, which are predicted to operate at capacity (LOS E/F) during the weekday evening and Saturday midday peak hours under 2027 Opening-Year Build and 2037 Build peak-month conditions; however, the resulting residual vehicle queue (up to eight (8) vehicles) can be contained within the Project site without inhibiting access or circulation, or the movement of vehicles along NH Route 9;

7. The addition of Project-related traffic to the approximately 1.6± mile segment of the NH Route 9 corridor between and including the intersections with D'Amante Drive and Hazen Drive was identified to increase travel times for motorists traveling along this roadway segment by between five (5) seconds and ten (10) minutes and 47 seconds during the peak periods. Accordingly, specific recommendations have been provided that are intended to reduce travel times and facilitate left-turn movements to and from NH Route 9 along this roadway segment; and

8. Lines of sight to and from the Project site driveway intersections with NH Route 9, NH Route 106 and D'Amante Drive were found to exceed or will be made to exceed the recommended minimum distances for safe and efficient operation.

In consideration of the above, it has been concluded that the Project can be accommodated within the confines of the existing transportation infrastructure in a safe and efficient manner with implementation of the recommendations that follow.

[2] *Manual on Uniform Traffic Control Devices (MUTCD)*; Federal Highway Administration; Washington, D.C.; 2009.

RECOMMENDATIONS

A detailed transportation improvement program has been developed that is designed to: i) provide safe and efficient access to the Project site; and ii) address any deficiencies identified at off-site locations evaluated in conjunction with this study pursuant to Section 32.08 of the City of Concord Site Plan Regulations. The following improvements have been recommended as a part of this evaluation to comply with Section 32.08 of the City of Concord Site Plan Regulations and, where noted, will be undertaken by the Project proponent and completed in conjunction with the Project subject to receipt of all necessary rights, permits, and approvals.

Project Access

Access to the Project site will be provided by way of six (6) driveways that will intersect NH Route 9 (two (2) driveways), NH Route 106 (one (1) driveway) and D'Amante Drive (three (3) driveways), with the driveways along NH Route 9 and NH Route 106 situated at the location of the existing driveways that serve the Project site. The three (3) driveways along D'Amante Drive will be configured as follows: the existing full access driveway that currently serves the Project site and intersects the north side of D'Amante Drive opposite the Shaw's driveway; a new full access driveway that will intersect the north side of D'Amante Drive opposite Triangle Park Drive; and a new driveway that will intersect the north side of D'Amante Drive opposite the Target driveway where exiting movements from the Project site will be restricted to right-turn only. The existing Project site driveway that intersects the north side of D'Amante Drive approximately 260 feet east of the Target driveway will be closed in conjunction with the Project. In addition, a new internal roadway network will be constructed that will connect the NH Route 9 south driveway, the NH Route 106 driveway and the D'Amante Drive driveway that is located opposite Triangle Park Drive that will ultimately be conveyed to the City of Concord as a public way.

The following recommendations are offered with respect to Project access, internal circulation, and parking, many of which are reflected on the Site Plans for the Project:

- The Project site driveways and internal circulating drives should be a minimum of 24 feet in width where two-way traffic is to be conveyed and a minimum of 20 feet in width for one-way travel, and designed to accommodate the turning and maneuvering requirements of delivery trucks (where delivery trucks are to be accommodated) and the largest anticipated responding emergency vehicle.

- A review of the auxiliary turn lane warrants for the installation of left- and right-turn lanes at the Project site driveway intersections indicates that left-turn lanes should be provided on the D'Amante Drive eastbound approaches to the Project site driveways located opposite Triangle Park Drive and the Target driveway. In addition, right-turn lanes should be provided on the NH Route 9 eastbound approach to the Project site driveway that is located opposite Carrier Place and on the D'Amante Drive westbound approach to the Project site driveway located opposite the Target driveway. The recommended turn lane installation and associated geometric improvements will be completed commensurate with the construction of the Project.

- Where perpendicular parking is proposed, the drive aisle behind the parking should be a minimum of 23 feet in order to facilitate parking maneuvers.

- A review of the warrants specified in the MUTCD[3] for the installation of a traffic control signal indicates that **the reinstallation of the traffic control signal at the NH Route 106/Steeplegate Mall (Project site) driveway intersection is warranted under 2027 average-month Opening-Year Build conditions**. As such, it is recommended that a traffic control signal be installed at this intersection to include upgrading/replacing the traffic signal poles, mast arms and appurtenances that were retained at the intersection, as necessary. Furthermore, NH Route 106 should be widened to accommodate two (2) travel lanes per direction from a point south of D'Amante Drive to a point north of the Project site driveway. Given that the completion and opening of specific components of the Project will likely be phased, the traffic signal equipment should be installed as a part of the initial construction of the Project and traffic volumes at the intersection should be monitored on an annual or more frequent basis in order to determine when the traffic volume thresholds are met that would justify (warrant) the activation of the traffic signal system. With the installation of a traffic signal control at the intersection and the widening of NH Route 106, all movements at the intersection are predicted to operate at LOS D or better during the peak-hours.

- Vehicles exiting the Project site at the unsignalized Project site driveways along NH Route 9 and D'Amante Drive should be placed under STOP-sign control.

- Appropriate signs ("One-Way" and "Do Not Enter") and pavement markings should be provided where one-way traffic is to be conveyed.

- All signs and pavement markings to be installed within the Project shall conform to the applicable standards of the MUTCD.[4]

- An internal sidewalk network should be developed that links the proposed buildings to parking areas and extends to the existing sidewalks along NH Route 9 and D'Amante Drive. Americans with Disabilities Act (ADA) compliant wheelchair ramps should be provided at pedestrian crossings that are to be constructed or modified in conjunction with the Project.

- Signs and landscaping to be installed as a part of the Project within intersection sight triangle areas should be designed and maintained so as not to restrict lines of sight.

- Existing vegetation located along the Project site frontage on D'Amante Drive should be removed or selectively trimmed and maintained as necessary so that no portion of the vegetation is located within the sight triangle areas of the Project site driveways.

- Snow accumulations (windrows) within sight triangle areas shall be promptly removed where such accumulations would impede sight lines.

[3]Federal Highway Administration, op. cit. 2.

[4]Federal Highway Administration, op. cit. 2.

Off-Site

Improvements have been identified at off-site intersections as required to demonstrate compliance with Sections 32.08.19 and 32.08.20 of the City of Concord Site Plan Regulations. Pursuant to the aforementioned sections of the Site Plan Regulations, the transportation improvement plan must identify physical improvements or traffic control modifications necessary to provide acceptable operating conditions (defined as LOS "D" or better) and that enhance safety at the study locations. With the implementation of the identified improvements, all movements at the study area intersections are anticipated to operate at LOS D or better during the peak hours in accordance with Section 32.08 of the City of Concord Site Plan regulations.

The following improvements will be undertaken by the Project proponent, subject to receipt of all necessary rights, permits and approvals, and corresponding to the identified schedule of implementation:

Physical Improvements

- ***Geometric Improvements***

  In an effort to improve traffic operations along the NH Route 106 and D'Amante Drive corridors and to provide safe and efficient access to the Project site, the Project proponent will design and construct the following geometric improvements commensurate with the construction or modification of the Project site driveway intersections:

  - ***NH Route 106*** – Widen NH Route 106 to accommodate two (2) travel lanes in each direction from a point south of D'Amante Drive to a point north of the Project site driveway and additional turn lanes at the NH Route 106/Steeplegate Mall Driveway and NH Route 106/D'Amante Drive intersections.
  - ***D'Amante Drive at the Target and Steeplegate Mall Driveways*** – Widen the D'Amante Drive approaches to the Target/Project site driveway intersection to provide an eastbound right-turn lane and a westbound left-turn lane.
  - ***D'Amante Drive at Triangle Park Drive*** – Reconstruct the intersection to accommodate the Project site driveway (north leg) and widen D'Amante Drive approaches to accommodate an eastbound left-turn lane and a westbound right-turn lane.
  - ***D'Amante Drive at the West Steeplegate Mall and Shaw's Driveways*** – Widen D'Amante Drive eastbound approach to accommodate right-turn lane.
  - ***NH Route 9 at the Shaw's Driveway*** – Extend the raised median along NH Route 9 to further reinforce the right-turn only operation of the Shaw's Driveway.
  - ***NH Route 9 at the North Steeplegate Mall Driveway*** – Widen the NH Route 9 southbound approach to accommodate an additional left-turn lane.

❖ ***Traffic Signal Equipment***

The Project Proponent will monitor traffic volumes and operating conditions at the NH Route 106/Steeplegate Mall Driveway intersection (Intersection 7) on an annual basis as a part of the Post-Occupancy Traffic Monitoring Program (discussion follows) to determine if the installation of a traffic control signal is warranted. The monitoring will follow the schedule defined for the Post-Occupancy Traffic Monitoring Program. To the extent that the installation of a traffic signal is found to be warranted and the installation is desirable to NHDOT, the Proponent will design and install a traffic control signal at the intersection subject to receipt of all necessary rights, permits and approvals.

To accompany the geometric improvements at the study area intersections defined above, the Project proponent will modify or upgrade the traffic signal systems and associated traffic signal equipment as may be necessary to accommodate the improvements, to include the installation of equipment to coordinate the proposed traffic signal at the NH Route 106/Project site driveway intersection with the existing traffic signal at the NH Route 106/D'Amante Drive intersection

❖ ***Traffic Signal Timing Improvements***

In an effort to off-set the predicted impact of the Project and to enhance safety at the study area intersections, the Project Proponent will design and implement optimal traffic signal timing, phasing and coordination (where appropriate) plans at the following intersections:

- NH Route 106 at Staniels Road and Josiah Barlett Road
- NH Route 9 at NH Route 106
- NH Route 9 at D'Amante Drive and Old Loudon Road
- NH Route 9 at the Steeplegate Mall and Carrier Place Driveway
- NH Route 9 at the Patriots Place and Harbor Freight Tools Driveways
- NH Route 9 at the Walmart Driveway
- NH Route 106 at Pembroke Road and North Pembroke Road
- NH Route 106 at Regional Drive and Smokey Bear Boulevard
- U.S. Route 3 at Old Turnpike Road and Black Hill Road
- NH Route 9 at Gully Hill Road and the Everett Arena West Driveway
- NH Route 9 at Gully Hill Road and the Everett Arena East Driveway
- NH Route 9 at Hazen Drive and Airport Road
- NH Route 9 at NH Route 132 and Canterbury Road
- NH Route 132 at Hazen Drive
- NH Route 132 at the I-393 Eastbound Ramps

The initial traffic signal timing improvements will be completed in conjunction with the geometric improvements at those intersections identified above, subject to receipt of all necessary rights, permits and approvals, or prior to the issuance of a Certificate of Occupancy for each of the following: i) any new commercial building that alone or in aggregate that exceeds 50,000 sf; ii) the Chick-fil-A restaurant; iii) the Costco Wholesale club; and iv) 300 residential units. The traffic signal timing at the subject intersections will

be revisited as a part of a Post Occupancy Traffic Monitoring Program (discussion follows) in order to determine if additional adjustments are necessary as the Project is constructed and occupied.

❖ ***Safety Improvements***

The following intersections were identified to have experienced an average of 10.0 or more reported motor vehicle crashes per year over the five-year review period that was evaluated as a part of this study:

- NH Route 9 at NH Route 106
- NH Route 9 at D'Amante Drive and Old Loudon Road
- NH Route 9 at the Walmart Driveway
- NH Route 9 at the I-93 Northbound Off-Ramp and Fort Eddy Road
- NH Route 9 at Gully Hill Road and Everett Arena West Driveway
- NH Route 9 at Gully Hill Road and Everett Arena East Driveway

In an effort to enhance safety at the subject intersections in accordance with Section 32.08.20 of the City of Concord Site Plan Regulations, the following safety-related improvements are recommended:

1. Review and adjust the "yellow" and "all-red" clearance intervals to comply with current traffic conditions and safety standards;
2. Review, replace and supplement existing signs and pavement marking at and on the approaches to the intersections; and
3. Test and repair the existing vehicle detection systems.

The recommended improvements will be completed by the Project proponent in conjunction with the geometric improvements that are to be completed at the intersections identified above or prior to the issuance of a Certificate of Occupancy for any new commercial building that alone or in aggregate that exceeds 50,000 sf, the Chick-fil-A restaurant, the Costco Wholesale club, or 300 residential units, whichever occurs first, subject to receipt of all necessary rights, permits and approvals.

Intersection Improvement Study

In addition to the physical improvements at the NH Route 106/Triangle Park Drive intersection that will be advanced as a part of the Project, the Project proponent will undertake an intersection improvement study (IIS) to identify potential future improvements. The IIS will include performing a formal Traffic Signal Warrants Analysis (TSWA) in accordance with the methodology outlined in the MUTCD[5] and evaluating geometric improvements, including the reconfiguration of the intersection as a modern roundabout. Conceptual improvement plans will be prepared for each of the improvement alternatives that are evaluated and preliminary cost estimates will be developed. The IIS will be provided to the City prior to the issuance of the first Certificate of Occupancy for any new commercial building that alone or in aggregate that exceeds 50,000 sf, the Chick-fil-A restaurant, the Costco Wholesale club, or 300 residential units, whichever occurs first. Upon selection of a preferred improvement strategy by the City, the Project

[5]Federal Highway Administration, op. cit. 2.

proponent will contribute a "fair-share" portion of the cost to design and construct the identified improvement measure defined based on the predicted increase in peak-hour traffic at the intersection that the Project represents over No-Build conditions.

NH Route 9 Corridor

The addition of Project-related traffic to the NH Route 9 corridor between Hazen Drive and D'Amante Drive corridor was shown to result in an increase in travel time of up to ten (10) minutes and 47 seconds during the peak periods and increased delay for left-turn movements which are already experiencing extended delay due to the large volume of conflicting traffic traveling along NH Route 9 during the peak periods. As mentioned previously, the Project proponent will design and implement optimal traffic signal timing, phasing and coordination (where appropriate) plans at the following intersection along the NH Route 9 corridor that will serve to reduce vehicle queuing and overall travel times along this segment of the NH Route 9 corridor and afford additional gaps to facilitate left-turn movements:

- NH Route 9 at Hazen Drive and Airport Road
- NH Route 9 at NH Route 132 and Canterbury Road
- NH Route 9 at D'Amante Drive and Old Loudon Road

Further improvements to corridor travel times could be achieved with the implementation of adaptive traffic control system (ATCS) technologies. To the extent that left-turn movements along the corridor continue to be problematic, consideration could also be given to access management strategies, including the installation of a center median and redirecting left-turn/U-turn movements to signalized intersections or midblock locations. An access management strategy would also serve to enhance safety for all roadway users.

Sight Distance Improvements

The following study area intersections were identified to have existing sight distance deficiencies on one or more approaches due to the presence of trees and vegetation:

- NH Route 106 at the Walmart driveway
- NH Route 106 at Pembroke Road and North Pembroke Road
- U.S. Route 3 at Old Turnpike Road and Black Hill Road

In an effort to improve sight distances at the subject intersections, the Project proponent will selectively trim or remove the existing trees and vegetation as necessary to improve sight lines. The sight line improvements will be completed prior to the issuance of a Certificate of Occupancy for any new commercial building that alone or in aggregate that exceeds 50,000 sf, the Chick-fil-A restaurant, the Costco Wholesale club, or 300 residential units, whichever occurs first, subject to receipt of all necessary rights, permits and approvals.

Transportation Demand Management

Public transportation services are provided within the study area by Concord Area Transit (CAT) and are accessible at the Project site. CAT operates fixed route bus service along NH Route 9 and D'Amante Drive by way of the Heights Route, with one stop located within the Project site and two (2) stops located along D'Amante Drive proximate to the Project site. CAT also provides Dial-a-Ride paratransit services to eligible people who cannot use fixed-route transit all or some of the time due to a physical, cognitive, or mental disability in compliance with the Americans with Disabilities Act (ADA). In an effort to encourage the use of alternative modes of transportation to single occupancy vehicles (SOVs), the following Transportation Demand Management (TDM) measures will be implemented as a part of the Project:

- A transportation coordinator, who may also have other duties and responsibilities, will be designated for the Project to coordinate the elements of the TDM program;
- The transportation coordinator will facilitate a ride matching program for residents and employees to encourage carpooling;
- Information regarding public transportation services, maps, schedules, and fare information will be posted in a central location and/or otherwise made available to residents and employees of the Project;
- A "welcome packet" will be provided to new residents and employees detailing available public transportation services, bicycle and walking alternatives, and commuter options available;
- Work-at-home accommodations will be provided to support telecommuting by residents of the Project that make take the form of a business office, meeting space and a collaboration area within the amenities area;
- Commercial tenants will be encouraged to offer specific amenities to discourage off-site trips which may include: including providing a breakroom equipped with a microwave and refrigerator; offering direct deposit of paychecks; on-site dry cleaning pick-up; and other such measures to reduce overall traffic volumes and travel during peak-traffic-volume periods;
- Pedestrian accommodations will be incorporated into the Project, and will include ADA-compliant wheelchair ramps at all pedestrian crossings that are to be constructed as a part of the Project and sidewalk connections to the existing sidewalks along NH Route 9 and D'Amante Drive; and
- Secure bicycle parking will be provided at appropriate locations within the Project site and will include weather protected bicycle parking.

In addition, the Project proponent will coordinate with CAT to design and locate a central bus stop (or stops) within the Project site that will include a bus pull-out and a shelter.

Post Occupancy Traffic Monitoring Program

The Project proponent will conduct Post-Occupancy Traffic Monitoring Program in order to validate the trip projections for the Project and to evaluate the success and refine the elements of the TDM program. The monitoring program will include the following:

i) Obtaining traffic volume information over a continuous seven day, weeklong period on the Project site driveways;

ii) Performing turning movement counts and vehicle classification counts at the following intersections (the "Monitored Intersections") during the weekday morning (7:00 to 9:00 AM), weekday evening (3:00 to 6:00 PM) and Saturday midday (11:00 AM to 2:00 PM) peak periods:

- NH Route 106 at Staniels Road and Josiah Barlett Road
- NH Route 9 at NH Route 106
- NH Route 9 at D'Amante Drive and Old Loudon Road
- NH Route 9 at the Steeplegate Mall and Carrier Place Driveway
- NH Route 9 at the Patriots Place and Harbor Freight Tools Driveways
- NH Route 9 at the Walmart Driveway
- NH Route 106 at Pembroke Road and North Pembroke Road
- NH Route 106 at Regional Drive and Smokey Bear Boulevard
- U.S. Route 3 at Old Turnpike Road and Black Hill Road
- NH Route 9 at Gully Hill Road and the Everett Arena West Driveway
- NH Route 9 at Gully Hill Road and the Everett Arena East Driveway
- NH Route 9 at Hazen Drive and Airport Road
- NH Route 9 at NH Route 132 and Canterbury Road
- NH Route 132 at Hazen Drive
- NH Route 132 at the I-393 Eastbound Ramps

iii) Performing a 12-hour (7:00 AM to 7:00 PM) turning movement count and vehicle classification count on an average weekday and a Traffic Signal Warrants Analysis (TSWA) at the NH Route 106/Steeplegate Mall Driveway intersection.

iv) Performing a survey of resident and employee commuting modes; and

v) Documenting the elements of the TDM program that have been implemented.

The monitoring program will commence with the issuance of a Certificate of Occupancy for any new commercial building that alone or in aggregate that exceeds 50,000 square feet (sf), the Chick-fil-A restaurant, the Costco Wholesale club, or 300 residential units, whichever occurs first, and will continue for a period not to exceed 1-year after the completion of the Project. The results of the monitoring program will be summarized in a report to be provided to the City of Concord and NHDOT within 2-months after the completion of the data collection effort. The report will document the following information:

- Traffic volumes associated with the constructed portions of Project;
- Traffic operations (i.e., motorist delays, vehicle queuing and LOS) at the Monitored Intersections;
- The results of the TSWA for the NH Route 106/Steeplegate Mall Driveway intersection;
- The elements of the TDM program that have been implemented; and
- Use of alternative modes of transportation to single-occupant vehicles by residents and employees of the Project.

If any of the following conditions are documented as a part of the monitoring program: i) the measured traffic volumes exceed the predicted traffic volumes for the constructed land uses as defined using trip-generation data published by the ITE for the appropriate land use(s) or empirical data (i.e., Costco Wholesale club or Chick-fil-A) by more than 10 percent on a regular and sustained basis during the monitoring period; ii) the overall directional distribution of Project-related traffic as measured at the Project site driveway varies by more than 10 percent from the directional distributions that form the basis of this assessment; or iii) one or more of the movements at the Monitored Intersections are identified to operate at LOS E or F; the Proponent will identify and undertake corrective measures in conjunction with the appropriate parties and subject to receipt of all necessary rights, permits and approvals. These measures may include without limitation:

- Traffic signal timing modifications and the Monitored Intersections;
- Sign and pavement marking improvements;
- On-site operation and management strategies that are designed to reduce overall and peak traffic volumes; and/or
- Expanding the elements of the TDM program.

The identified corrective measures, if any, will be documented in the Post-Occupancy Traffic Monitoring Report, and will identify the appropriate parties responsible for implementation (assumed to be the Proponent unless the corrective measure(s) are a part of a committed improvement project or plan that is scheduled to be implemented by others), required approvals, and the timeline for implementation. The status of implementation of the identified improvement measure(s) will be documented in the subsequent monitoring report.

With implementation of the aforementioned recommendations, safe and efficient access will be provided to the Project site and the Project can be accommodated within the confines of the existing transportation system.

INTRODUCTION

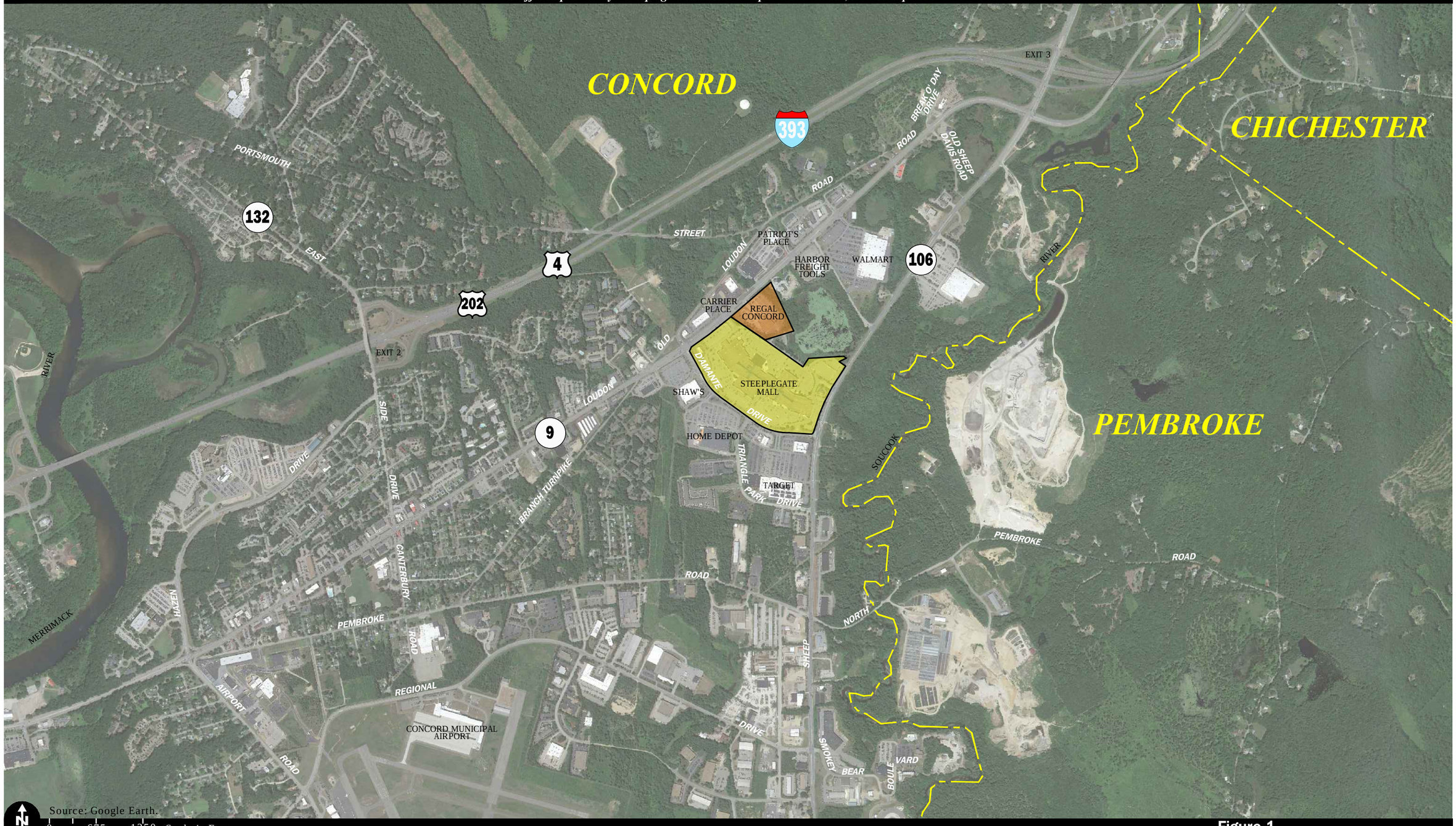
Vanasse & Associates, Inc. (VAI) has conducted a Traffic Impact Study (TIS) in order to determine the potential impacts on the transportation infrastructure associated with the proposed redevelopment of the Steeplegate Mall shopping center and the adjacent Regal Concord movie theater located at 270 Loudon Road (NH Route 9) and 282 Loudon Road in Concord, New Hampshire, respectively, to accommodate a mixed-use development (hereafter referred to as the "Project"). This study evaluates the following specific areas as they relate to the Project: i) access requirements; ii) potential off-site improvements; and iii) safety considerations; and identifies and analyzes existing traffic conditions and future traffic conditions, both with and without the Project, along Loudon Road (NH Route 9), Sheep Davis Road (NH Route 106) and D'Amante Drive, and at specific intersections located within the City of Concord and in the Towns of Loudon and Pembroke that were defined in consultation with the City of Concord and the New Hampshire Department of Transportation (NHDOT).

PROJECT DESCRIPTION

The Project will entail the redevelopment of the Steeplegate Mall shopping center and the adjacent Regal Concord movie theater located at 270 Loudon Road and 282 Loudon Road in Concord, New Hampshire, respectively, to accommodate a mixed-use development.

The Project site (Steeplegate Mall and Regal Concord) encompasses a total of approximately 61.2± acres of land that is bounded by commercial properties, a City of Concord wastewater treatment facility and areas of open and wooded space to the north; D'Amante Drive to the south; NH Route 106 to the east; and NH Route 9 to the west; and contains four (4) existing structures that include 543,939± square feet (sf) of retail space, a 5,110± sf restaurant, a 2,275± sf bank with a drive-through teller window and a 27,944± sf movie theater. Figure 1 depicts the Project site and the location of the Project in relation to the existing roadway network.

As proposed, the Project will entail the following primary elements: i) the demolition of the Regal Concord and the partial demolition of the Steeplegate Mall; ii) the continued use of approximately 70,191± sf of retail space (the existing Altitude Trampoline Park and Zoo Health Club), the 5,110± sf high-turnover sit-down restaurant (Applebee's) and the 2,275± sf bank with a drive-through teller facility (TD Bank) located within the Steeplegate Mall property; and iii) the construction of ten (10) new buildings that will include the following: a 606-unit multifamily residential community; 70,000± sf of additional retail space; a 3,319± sf bank with a drive-through



Source: Google Earth.

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Figure 1

Site Location Map

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teller facility; a 6,000± sf fast casual restaurant; a 5,351± sf Chick-fil-A restaurant with a drive-through facility; and a 170,000± sf Costco Wholesale club with an associated 11,000± sf internal Market Delivery Operation (MDO) facility and a 32-vehicle fueling position (vfp) fueling facility. When complete, the Project site will include a 606-unit multifamily residential community, 140,191± sf of retail space, two (2) banks with drive-through teller facilities (5,594± sf total), a 5,110± sf high-turnover sit-down restaurant, a 6,000± sf fast casual restaurant, a 5,351± sf Chick-fil-A restaurant and a 170,000± sf Costco Wholesale club with associated amenities (11,000± sf internal MDO facility and a 32-vfp fueling facility).

Access to the Project site will be provided by way of six (6) driveways that will intersect NH Route 9 (two (2) driveways), NH Route 106 (one (1) driveway) and D'Amante Drive (three (3) driveways), with the driveways along NH Route 9 and NH Route 106 situated at the location of the existing driveways that serve the Project site. The three (3) driveways along D'Amante Drive will be configured as follows: the existing full access driveway that currently serves the Project site and intersects the north side of D'Amante Drive opposite the Shaw's driveway; a new full access driveway that will intersect the north side of D'Amante Drive opposite Triangle Park Drive; and a new driveway that will intersect the north side of D'Amante Drive opposite the Target driveway where exiting movements from the Project site will be restricted to right-turn only. The existing Project site driveway that intersects the north side of D'Amante Drive approximately 260 feet east of the Target driveway will be closed in conjunction with the Project. In addition, a new internal roadway network will be constructed that will connect the NH Route 9 south driveway, the NH Route 106 driveway and the D'Amante Drive driveway that is located opposite Triangle Park Drive that will ultimately be conveyed to the City of Concord as a public way.

On-site parking will be provided in surface parking spaces and in parking garages located beneath the residential buildings such that the proposed parking supply will meet or exceed the number of parking spaces required for the Project pursuant to the decision of the City of Concord Zoning Board of Adjustment reducing the number of parking spaces required under Section 27-7-2, *Off-Street Parking Requirements*, of the Zoning Ordinance of the City of Concord.

STUDY METHODOLOGY

This study was prepared in consultation with the City of Concord and the NHDOT; was performed in accordance: i) the NHDOT guidelines for the preparation of Traffic Impact Studies (TISs); ii) the standards of the Traffic Engineering and Transportation Planning Professions for the preparation of such reports; and iii) the scoping determination issued by NHDOT and the City for the Project, and as amended by way of comments provided by the City, the City's independent review consultant VHB, and NHDOT on the July 2024 TIS and as subsequently discussed with the City and NHDOT on January 29, 2026; and was conducted in three distinct stages.

The first stage of the study involved an assessment of existing conditions in the study area and included an inventory of roadway geometrics, pedestrian and bicycle facilities, and public transportation services; observations of traffic flow; and the collection of daily and peak-period traffic counts.

In the second stage of the study, future conditions on the transportation system were projected and analyzed. Specific travel demand forecasts for the Project were assessed along with future demands on the transportation system that are expected due to growth independent of the Project. In accordance with NHDOT guidelines for the preparation of TISs, four future conditions were evaluated: 1) 2027 No-Build conditions *without* the Project; 2) 2027 Opening-Year Build conditions *with* the Project; 3) 2037 No-Build conditions *without* the Project; and 4) 2037 Build conditions (ten-year projection from opening-year) *with* the Project. The analyses conducted in stage two of the study identify existing or projected future roadway capacity and traffic safety issues.

The third stage of the study presents and evaluates measures to address roadway and intersection capacity issues and safety concerns, if any, identified in stages one and two of the study.

EXISTING CONDITIONS

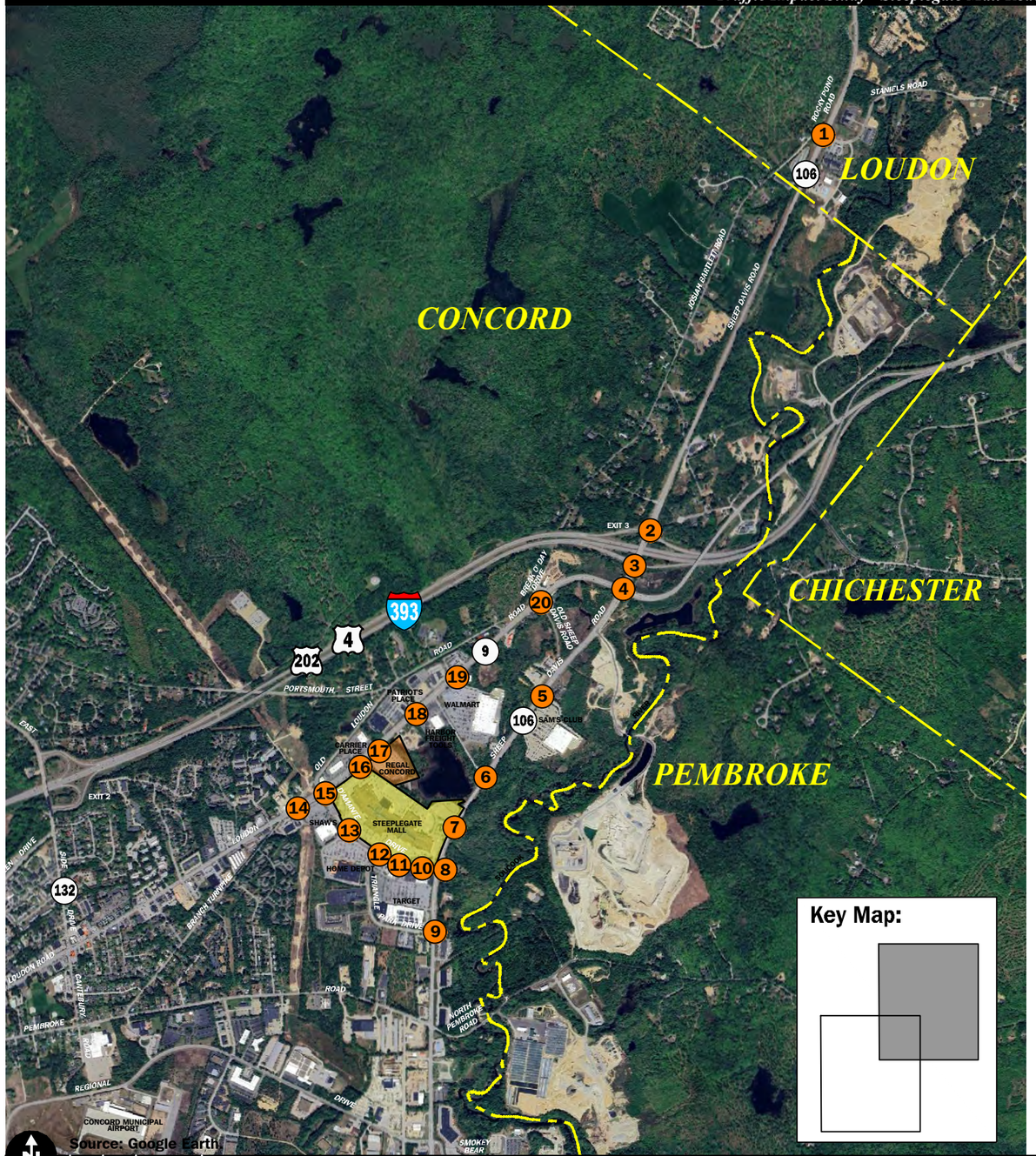
A comprehensive field inventory of existing conditions within the study area was conducted in July 2023 and in January and December 2024. The field investigation consisted of an inventory of existing roadway geometrics; pedestrian and bicycle facilities; public transportation services; traffic volumes; and operating characteristics; as well as posted speed limits and land use information within the study area. The study area that was assessed for the Project is consistent with the study area that was defined in the scoping determination issued by NHDOT and the City for the Project which was expanded upon based on comments provided by the City, the City's independent review consultant VHB, and NHDOT on the July 2024 TIS, and consisted of NH Route 9, NH Route 106 and D'Amante Drive, and 34 specific intersections located along these roadways and along Manchester Street (U.S. Route 3) and East Side Drive (NH Route 132) through which Project-related traffic will travel which are depicted on Figure 2.

The following describes the study area roadways.

ROADWAYS

Loudon Road (NH Route 9)

- Four-lane urban minor arterial roadway under City jurisdiction;
- Traverses a general northeast-southwest alignment (NH Route 9 is designated as an east-west route) and provides full access interchange with Interstate 93 (I-93) to the west of the Project site (Exit 14);
- Provides four (4) 11 to 12-foot wide travel lanes within the study area that are separated by a raised median north of the Shaw's driveway and south of Hazen Drive, and by a double yellow centerline between the Shaw's driveway and Hazen Drive, with 2 to 12-foot wide marked shoulders and additional turning lanes provided at major intersections;
- The posted speed limit is 30 miles per hour (mph) in the vicinity of the Project site;
- Sidewalks are generally provided along both sides of the roadway within the study area to the Walmart driveway where the sidewalk continues along the south side to Old Loudon Road;
- Bicycle lanes are generally provided along both sides of the roadway from Gully Hill Road (west) to NH Route 106;



Study Area Intersections:

1. Rocky Pond Road (NH Route 106) at Staniels Road and Josiah Bartlett Road
2. NH Route 106 at I-393 Westbound Ramps
3. NH Route 106 at I-393 Eastbound Ramps
4. Loudon Road (NH Route 9) at NH Route 106
5. NH Route 106 at Sam's Club Driveway
6. NH Route 106 at Walmart Driveway
7. NH Route 106 at Steeplegate Mall Driveway
8. NH Route 106 at D'Amante Drive
9. NH Route 106 at Triangle Park Drive
10. D'Amante Drive at East Steeplegate Mall Driveway
11. D'Amante Drive at Target Driveway
12. D'Amante Drive at Triangle Park Drive
13. D'Amante Drive at West Steeplegate Mall Driveway/Shaw's Driveway
14. NH Route 9 at Shaw's Driveway
15. NH Route 9 at D'Amante Drive/Old Loudon Road
16. NH Route 9 at Steeplegate Mall Driveway/Carrier Place Driveway
17. NH Route 9 at Regal Concord Driveway
18. NH Route 9 at Patriots Place Driveway/Harbor Freight Tools Driveway
19. NH Route 9 at Walmart Driveway
20. NH Route 9 at Break O' Day Drive/Old Sheep Davis Road

Figure 2N

Study Area Map

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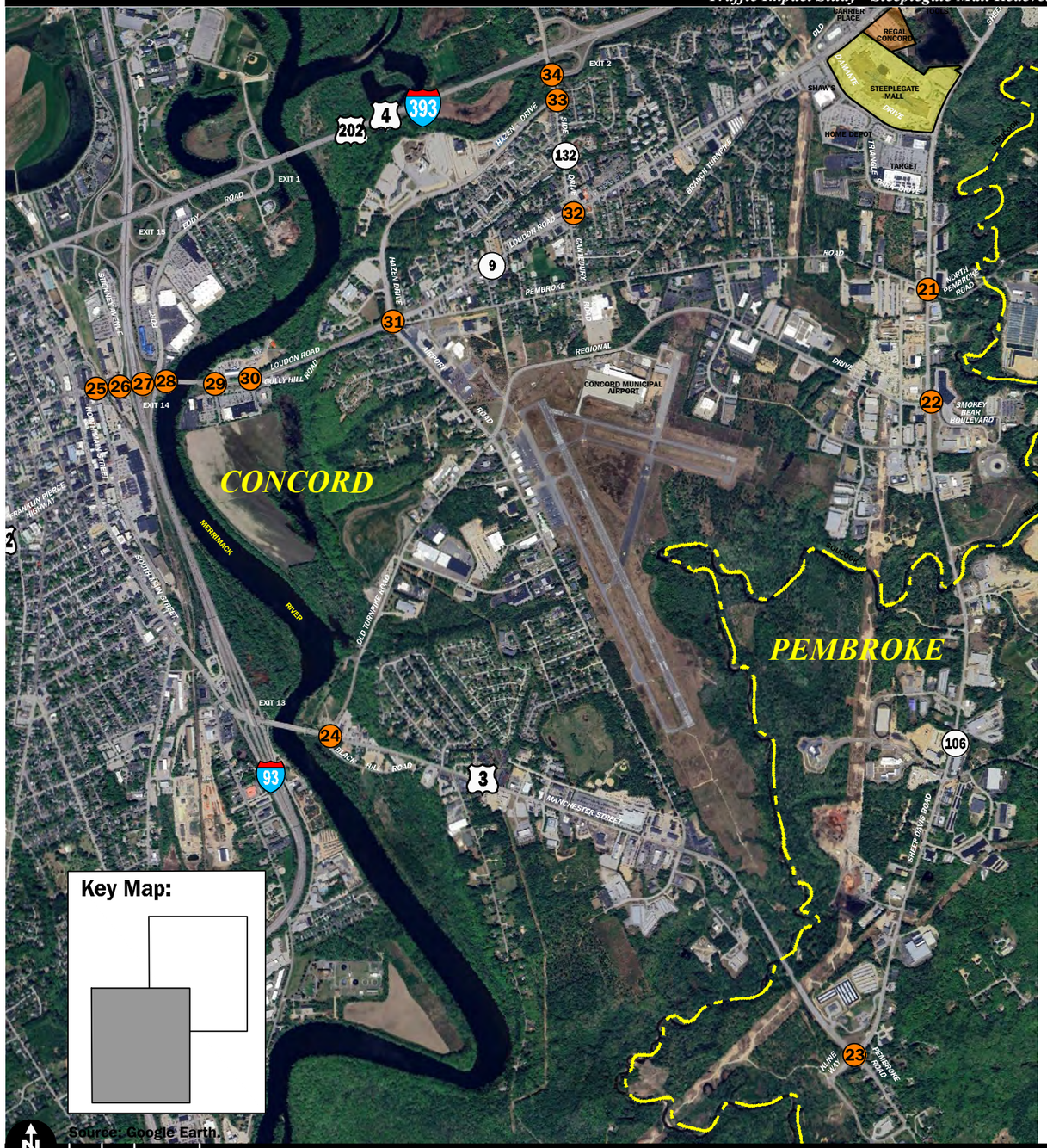

Study Area Intersections:

21. NH Route 106 at Pembroke Road and North Pembroke Road
22. NH Route 106 at Regional Drive and Smokey Bear Boulevard
23. Manchester Street (US Route 3) at Pembroke Road, NH Route 106, and Kline Way
24. US Route 3 at Old Turnpike Road and Black Hill Road
25. NH Route 9 at Stickney Avenue and Ralph Phil Marketplace Driveway
26. NH Route 9 at I-93 Southbound Ramps
27. NH Route 9 at I-93 Northbound On-Ramp
28. NH Route 9 at I-93 Northbound Off-Ramp and Fort Eddy Road
29. NH Route 9 at Gully Hill Road and Douglas N. Everett Arena West Driveway
30. NH Route 9 at Gully Hill Road and Douglas N. Everett Arena East Driveway
31. NH Route 9 at Hazen Drive and Airport Road
32. NH Route 9 at East Side Drive and Canterbury Road
33. East Side Drive at Hazen Drive
34. East Side Drive at I-393 Eastbound Ramps

Figure 2S

Study Area Map

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- Illumination is provided by way of streetlights mounted on wood poles;
- Land use within the study area consists of the Project site and residential and commercial properties.

NH Route 106

- Two lane urban minor arterial roadway under NHDOT jurisdiction;
- Traverses a general north-south alignment and provides a full access interchange with Interstate 393 (I-393) to the north of the Project site (Exit 3);
- Provides two (2) 11 to 12-foot wide travel lanes that are separated by a raised or painted median north of Triangle Park Drive and by a center-turn lane that accommodates left-turning vehicles in both directions to the south, with 1 to 12-foot wide marked shoulders and additional turning lanes provided at major intersections;
- The posted speed limit is 40 mph in the vicinity of the Project site;
- Sidewalks are not provided within the study area;
- Illumination is provided by way of streetlights mounted on steel poles;
- Land use within the study area consists of the Project site and residential and commercial properties.

D'Amante Drive

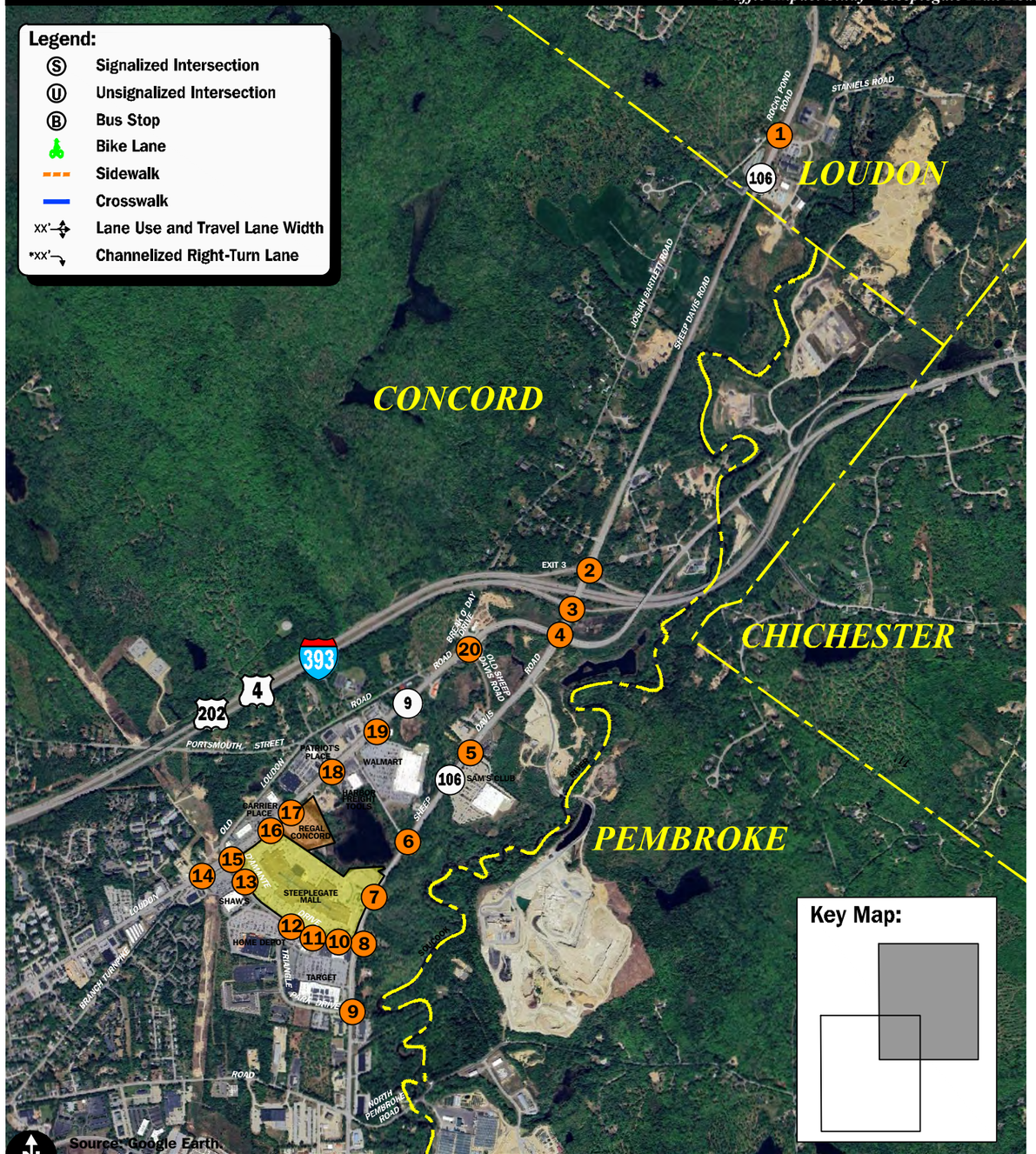
- Three to four-lane local access roadway under City jurisdiction;
- Traverses a general east-west alignment between NH Route 9 and NH Route 106;
- Provides two (2) 10 to 12-foot wide travel lanes in the eastbound direction and one (1) 11 to 17-foot wide travel lane in the westbound direction that are separated by a raised or painted median, with 1 to 2-foot wide marked shoulders and additional travel lanes provided at major intersections;
- The posted speed limit is 30 mph within the study area;
- A sidewalk is provided along the south side of the roadway;
- Illumination is provided by way of streetlights mounted on steel poles;
- Land use within the study area consists of the Project site and commercial properties.

INTERSECTIONS

Figure 3 summarizes the number of travel lanes, lane use and width, and traffic control at the study area intersections, as well as the location of sidewalks, crosswalks and bicycle facilities, as observed in July 2023 and in January and December 2024.

PEDESTRIAN AND BICYCLE FACILITIES

A comprehensive field inventory of pedestrian and bicycle facilities within the study area was undertaken in July 2023 and in December 2024. The field inventory consisted of a review of the location of sidewalks and pedestrian crossing locations along the study roadways and at the study



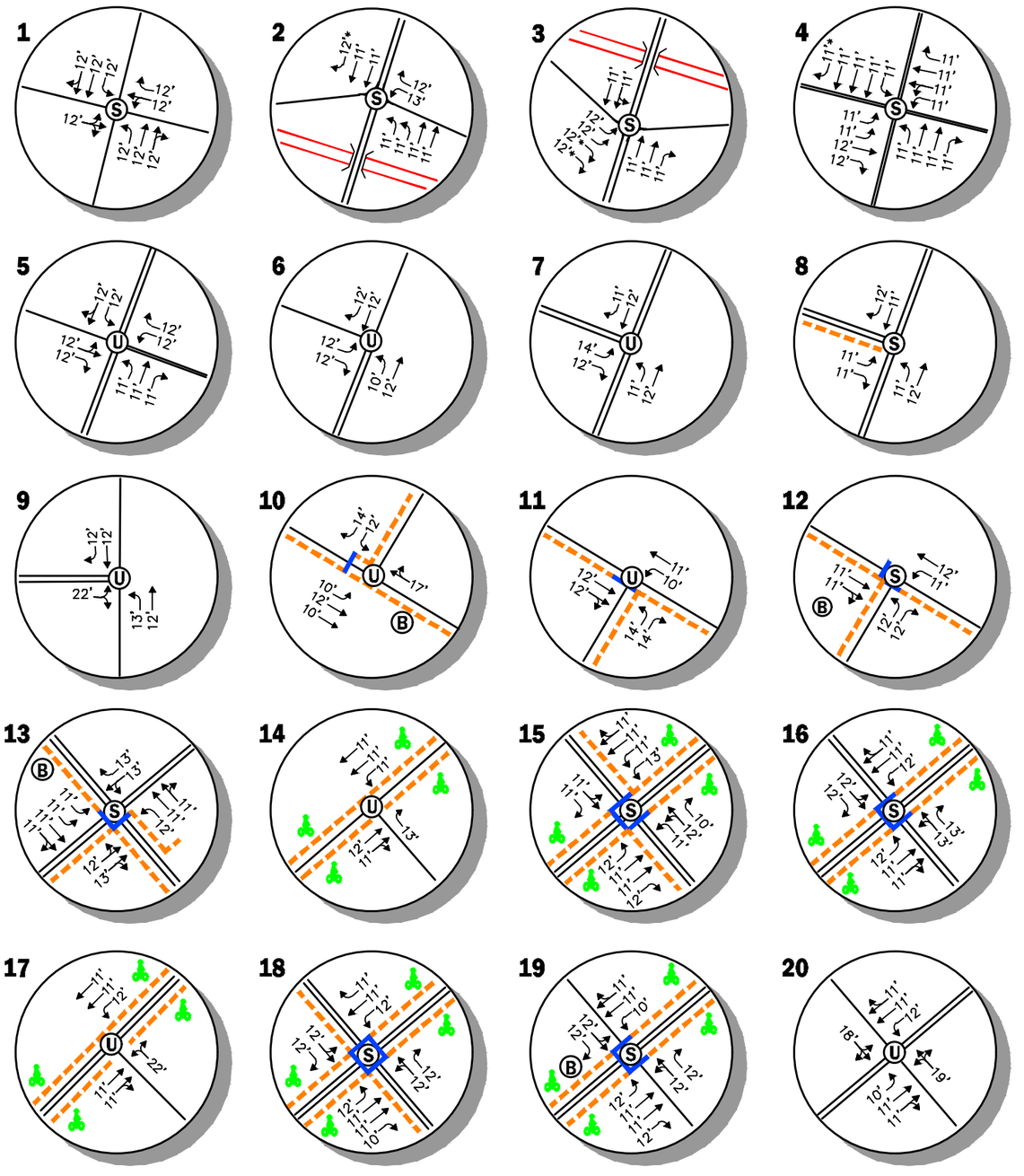


Figure 3N

Existing Intersection Lane Use, Travel Lane Width, and Pedestrian Facilities

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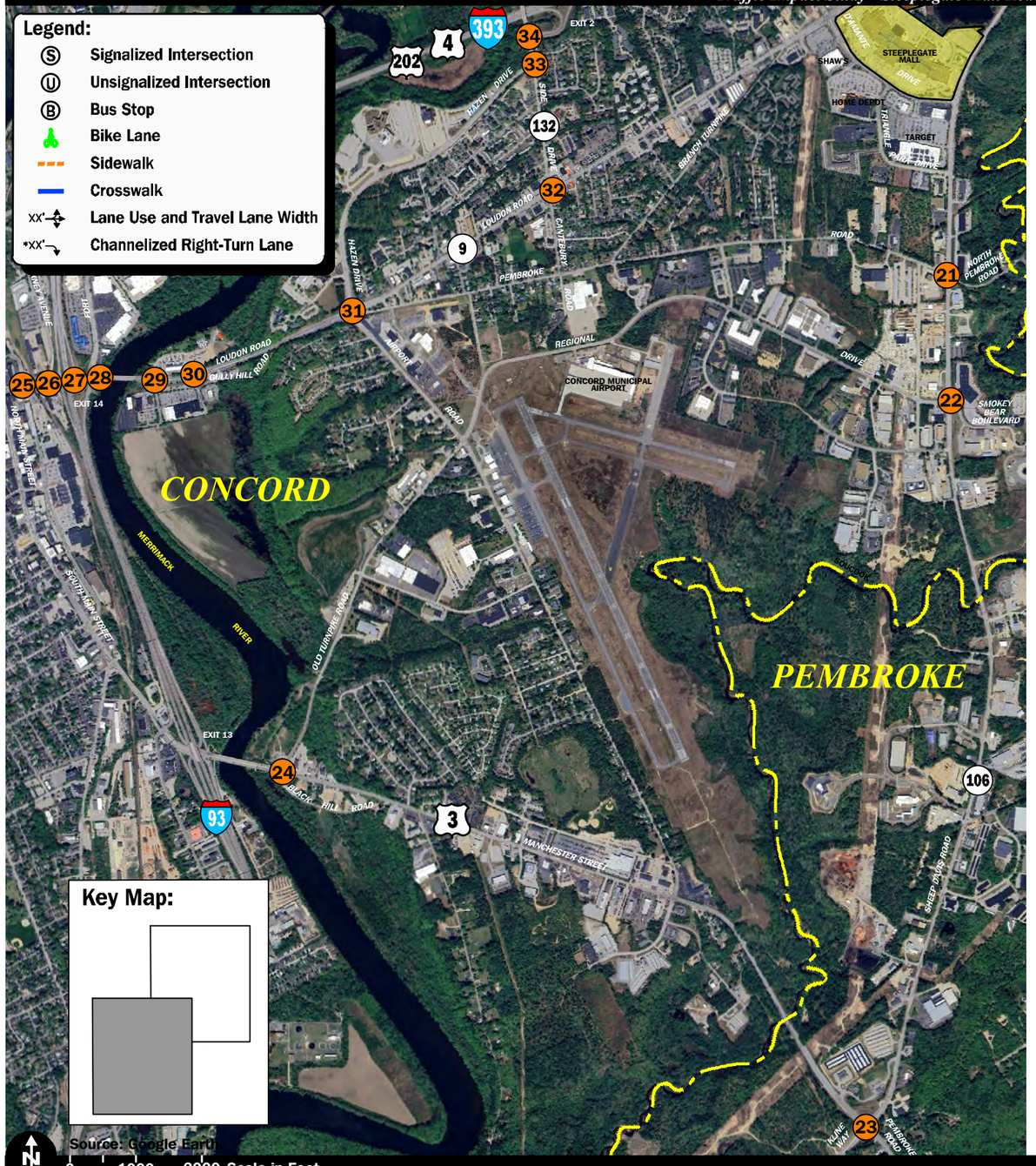

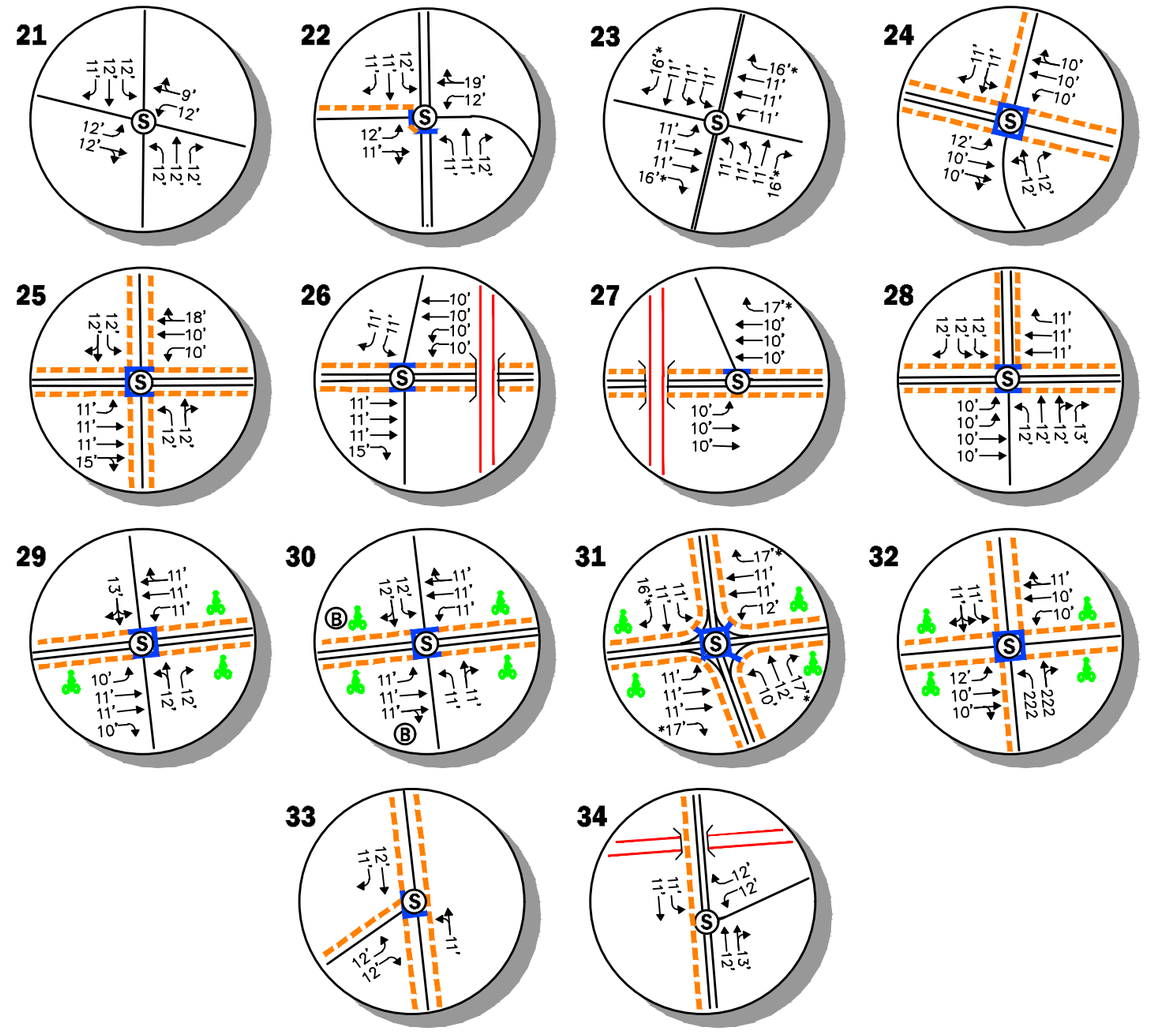

Figure 3S

Existing Intersection Lane Use, Travel Lane Width, and Pedestrian Facilities

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area intersections. As detailed on Figure 3, sidewalks are generally provided along one or both sides of NH Route 9, D'Amante Drive, NH Route 132, Canterbury Road, Triangle Park Drive and Regional Drive, with marked crosswalks generally provided for crossing one or more legs of the study area intersections where pedestrian infrastructure is present. Pedestrian traffic signal equipment and phasing (either exclusive or concurrent) are provided as a part of the traffic signal systems at the signalized study area intersections where crosswalks are provided.

Bicycle lanes are provided along NH Route 9 between NH Route 106 and Gully Hill Road (west). The remainder of the study area roadways generally provide sufficient width to accommodate bicycle travel in a shared traveled-way configuration (i.e., bicyclists and motor vehicles sharing the traveled-way) where marked bicycle lanes or other formal bicycle accommodations are not currently provided.[6]

PUBLIC TRANSPORTATION

Public transportation services are provided within the study area by the Concord Area Transit (CAT) and are accessible at the Project site. CAT operates fixed route bus service along NH Route 9 and D'Amante Drive by way of the Heights Route, with one stop located within the Project site and two (2) stops located along D'Amante Drive proximate the Project site. CAT also provides Dial-a-Ride paratransit services to eligible people who cannot use fixed-route transit all or some of the time due to a physical, cognitive, or mental disability in compliance with the Americans with Disabilities Act (ADA).

The public transportation schedules and fare information are provided in the Appendix.

TRAFFIC VOLUMES

In order to determine existing traffic-volume demands and flow patterns within the study area, automatic traffic recorder (ATR) counts, turning movement counts (TMCs) and vehicle classification counts were completed in July 2023 and in January and December 2024. The ATR counts were conducted on NH Route 9 and on NH Route 106 in the vicinity of the Project site on July 13th through 15th, 2023 (Thursday through Saturday, inclusive) and on July 22nd, 2023 (Saturday) in order to record weekday and Saturday traffic conditions along these roadways over an extended period, with weekday morning (7:00 to 9:00 AM) and evening (3:00 to 6:00 PM) peak-period TMCs performed at the study intersections on July 13th, 2023, January 18th, 2024 and December 5th, 2024 (all Thursdays), and during the Saturday midday peak period (11:00 AM to 2:00 PM) on July 15th, 2023, January 20th, 2024 and December 7th, 2024. These time periods were selected for analysis purposes as they are representative of the peak-traffic-volume hours for both the Project and the adjacent roadway network.

Traffic-Volume Adjustments

In order to evaluate the potential for seasonal fluctuation of traffic volumes within the study area, NHDOT weekday seasonal factors for Group 4 roadways ("Urban Highways") were reviewed.[7] Based on a review of this data, it was determined that traffic volumes for the months of January,

[6]A minimum combined travel lane and paved shoulder width of 14-feet is required to support bicycle travel in a shared traveled-way condition.

[7]NHDOT; Year 2019 Monthly Data, Group 4 Averages: Urban Highways.

July, and December are approximately 23 percent, 1 percent, and 22 percent below peak-month conditions, respectively, and, therefore, the raw traffic count data that forms the basis of this assessment was adjusted upward accordingly to represent peak-month (August) conditions in accordance with NHDOT standards.

In order to be consistent with the methodology that was used in the July 2024 TIS and as discussed with the City and NHDOT, the existing condition baseline traffic volumes were adjusted to account for the impact on traffic volumes and trip patterns resulting from the COVID-19 pandemic using traffic volume data collected at NHDOT Continuous Count Station No. 02099103 located on I-393. Table 1 summarizes the COVID-19 adjustments that were applied to the July 2023 and the January and December 2024 traffic count data based on a comparison of traffic count data from the subject count station for January, July and December 2019 to the data recorded in July 2023 and in January and December 2024.[8]

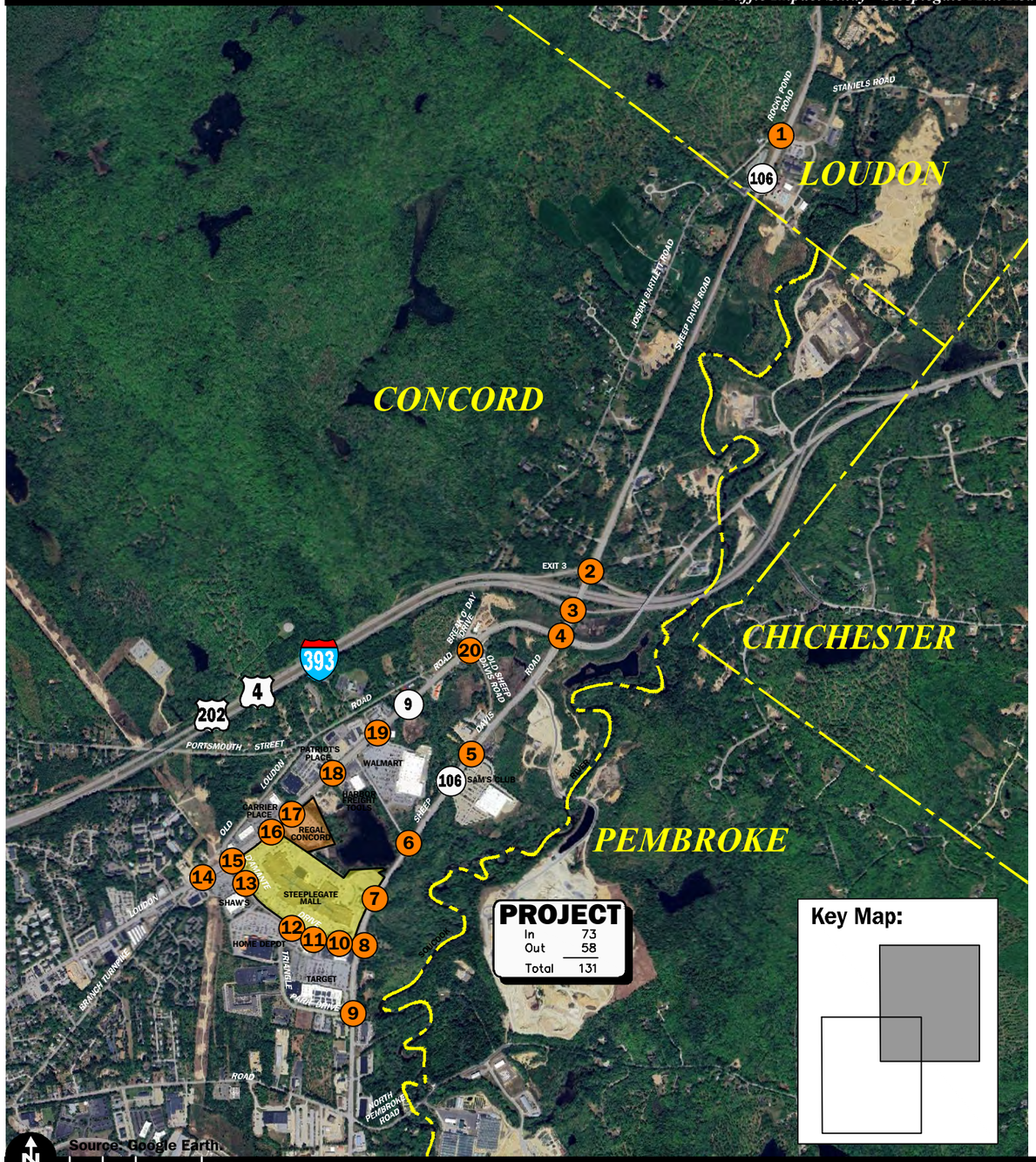
Table 1
COVID-19 ADJUSTMENT FACTORS

Time Period	July 2023	January 2024	December 2024
Average Weekday:	*1.023*	--	--
Weekday Morning Peak-Hour:	*1.095*	*1.148*	*1.089*
Weekday Evening Peak-Hour:	*1.031*	*1.075*	*1.017*
Saturday:	Adjustment Not Required	--	--
Saturday Midday Peak-Hour:	Adjustment Not Required	*1.065*	*1.050*

In addition to the seasonal and COVID adjustments (as required), the July 2023 traffic volumes were also adjusted to 2024 conditions by applying a general background traffic growth rate of 1.0 percent (discussed in further detail in the *General Background Traffic Growth* section of this report).

The 2024 Existing peak-month traffic volumes are summarized in Table 2, with the weekday morning, weekday evening and Saturday midday peak-month, peak-hour traffic volumes graphically depicted on Figures 4, 5 and 6, respectively. Note that the peak-hour traffic volumes that are presented in Table 2 were obtained from the aforementioned figures.

[8]NHDOT Permanent Count Station No. 62099056 was used in the July 2024 TIS to determine COVID-19 adjustment factors; however, that station does not provide sufficient data to produce an adjustment for the December 2024 traffic count data.



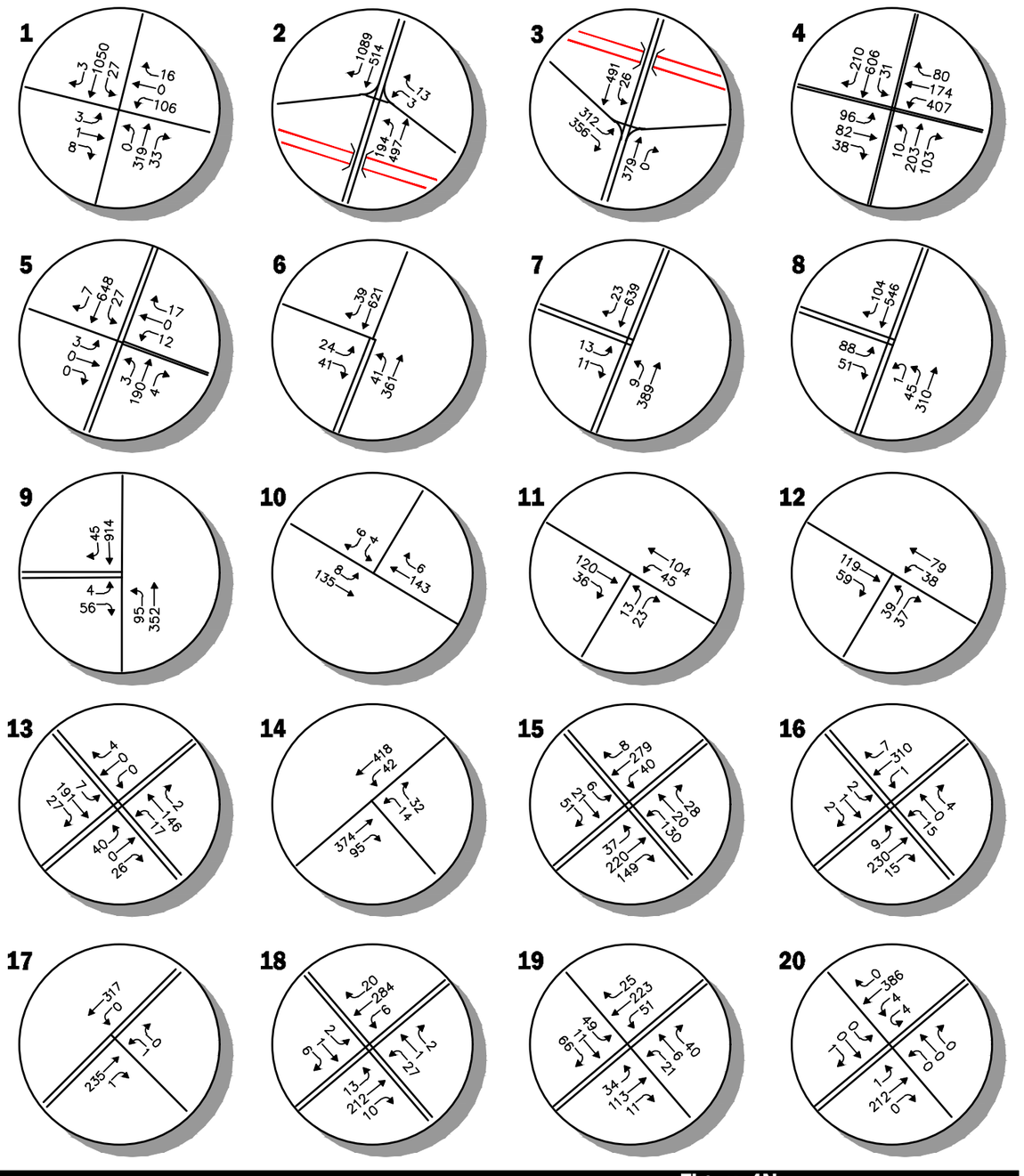


Figure 4N

2024 Existing
Peak-Month
Weekday Morning
Peak-Hour Traffic Volumes

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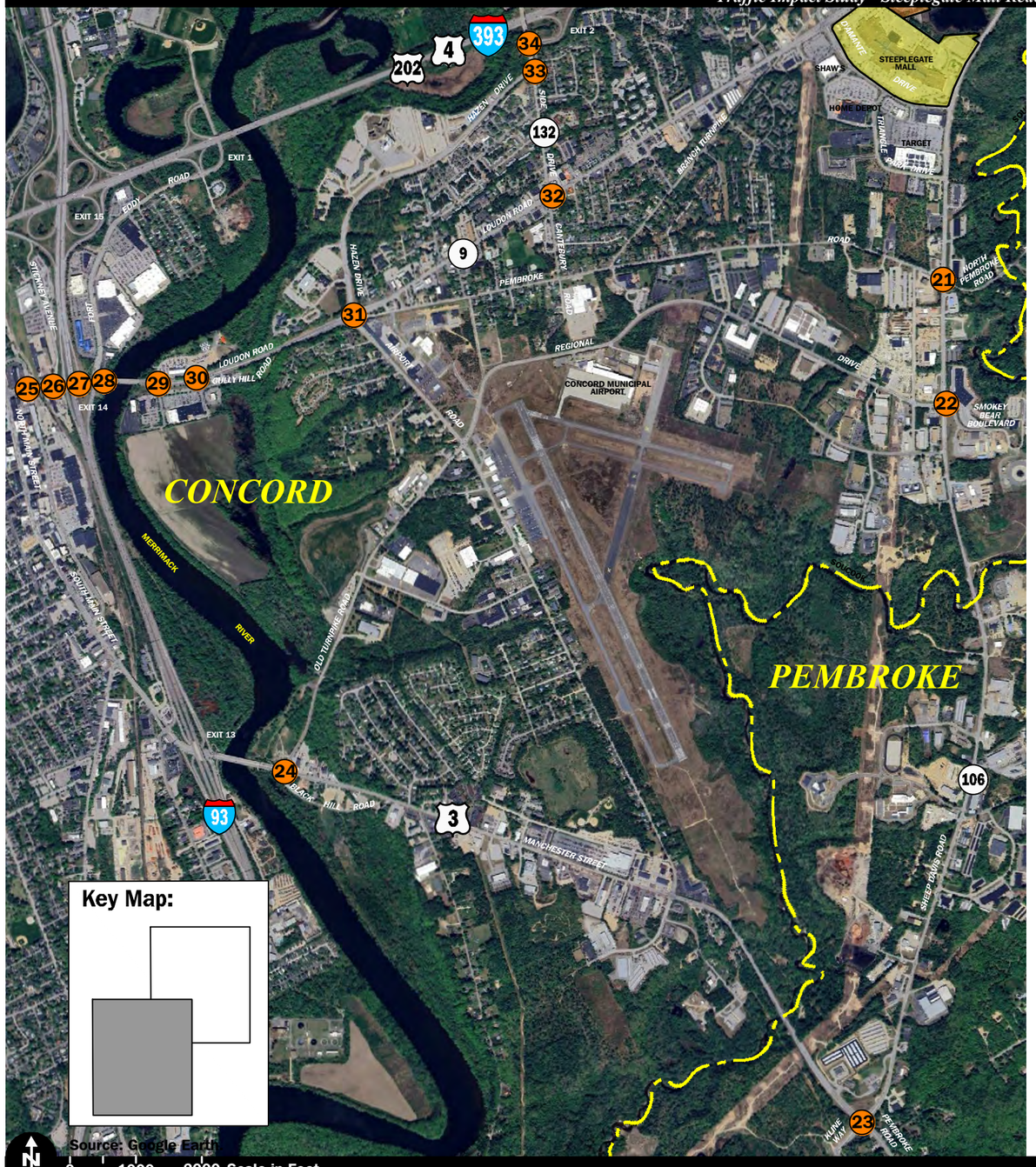

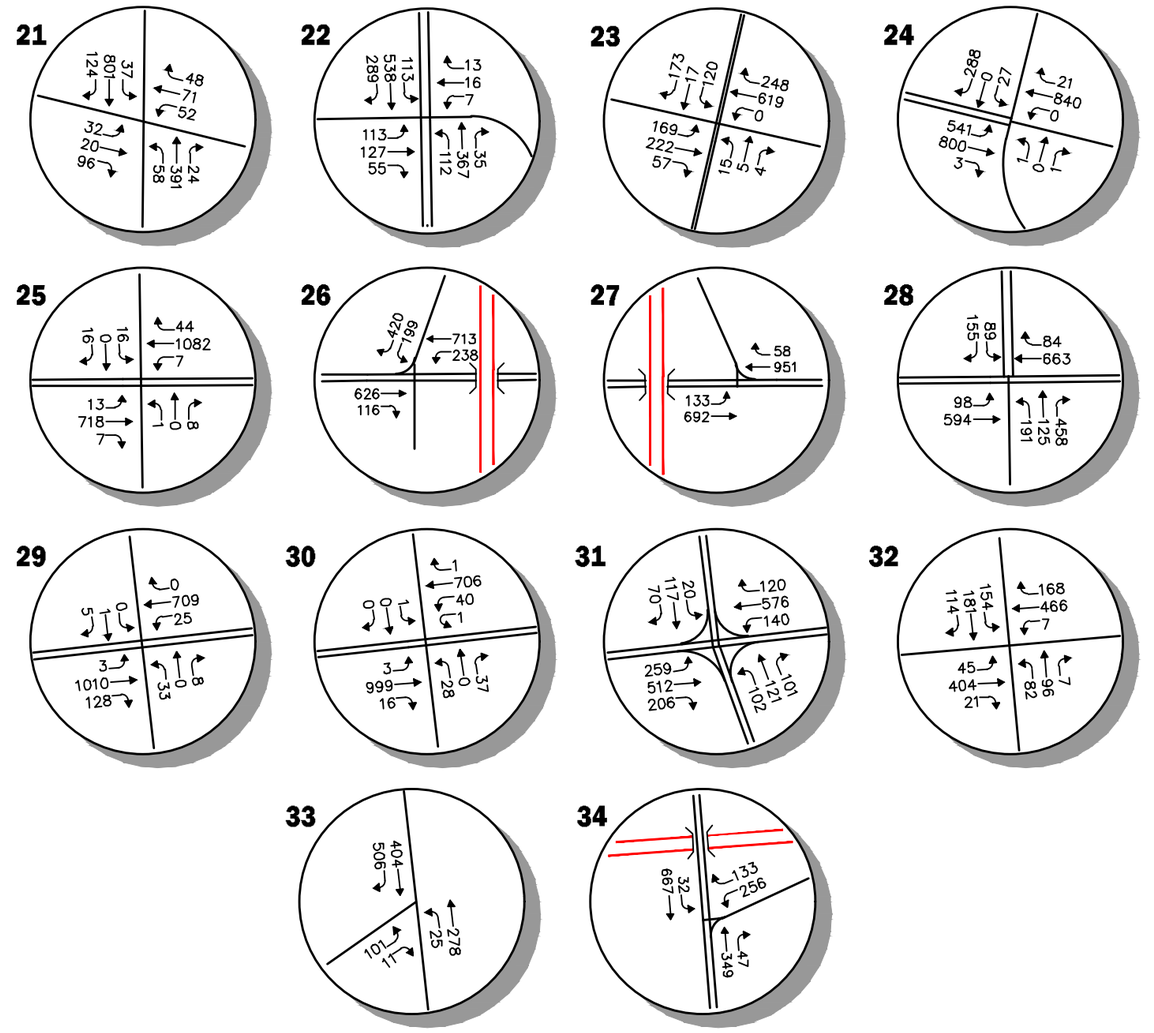

Figure 4S

2024 Existing
Peak-Month
Weekday Morning
Peak-Hour Traffic Volumes

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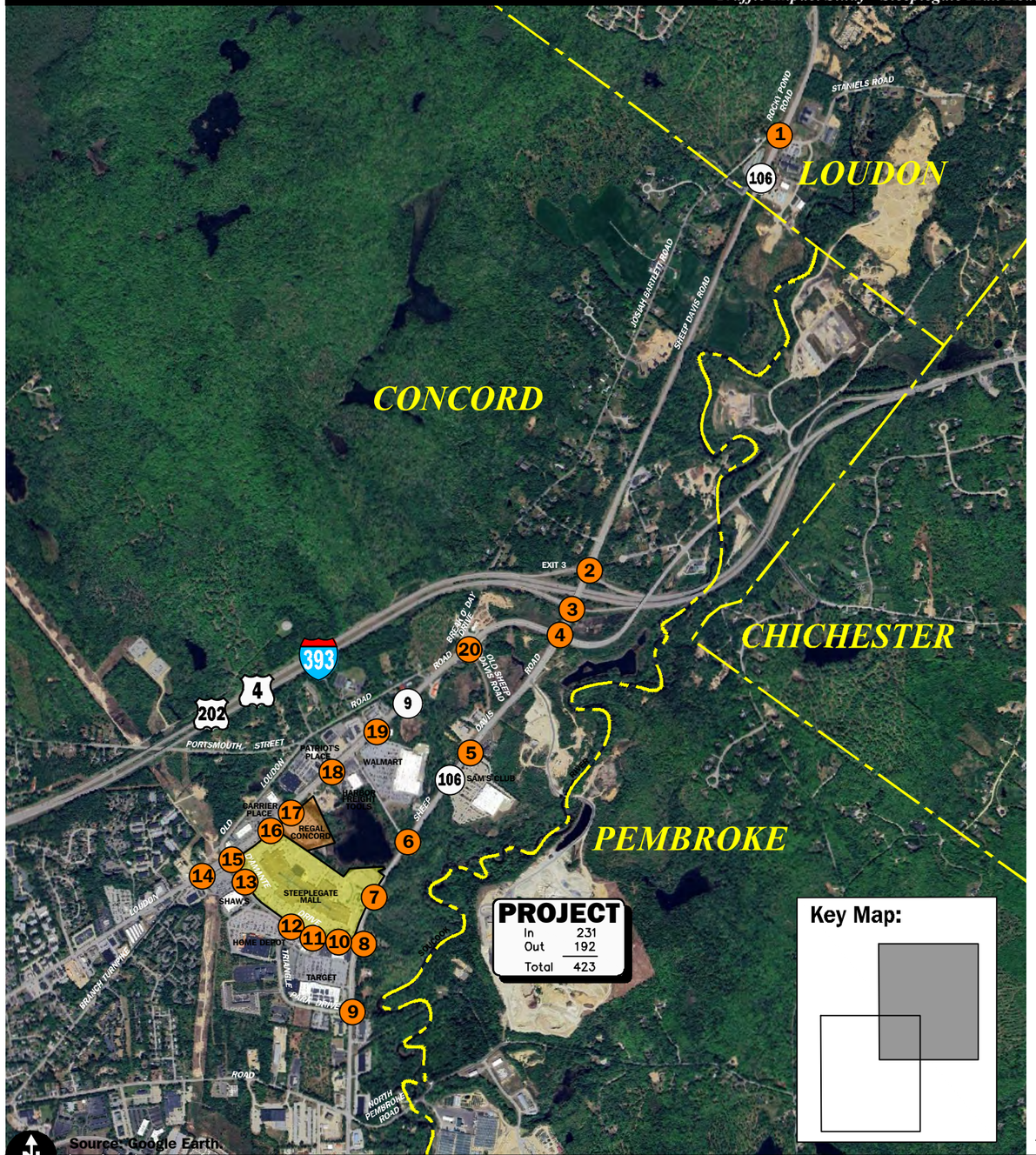

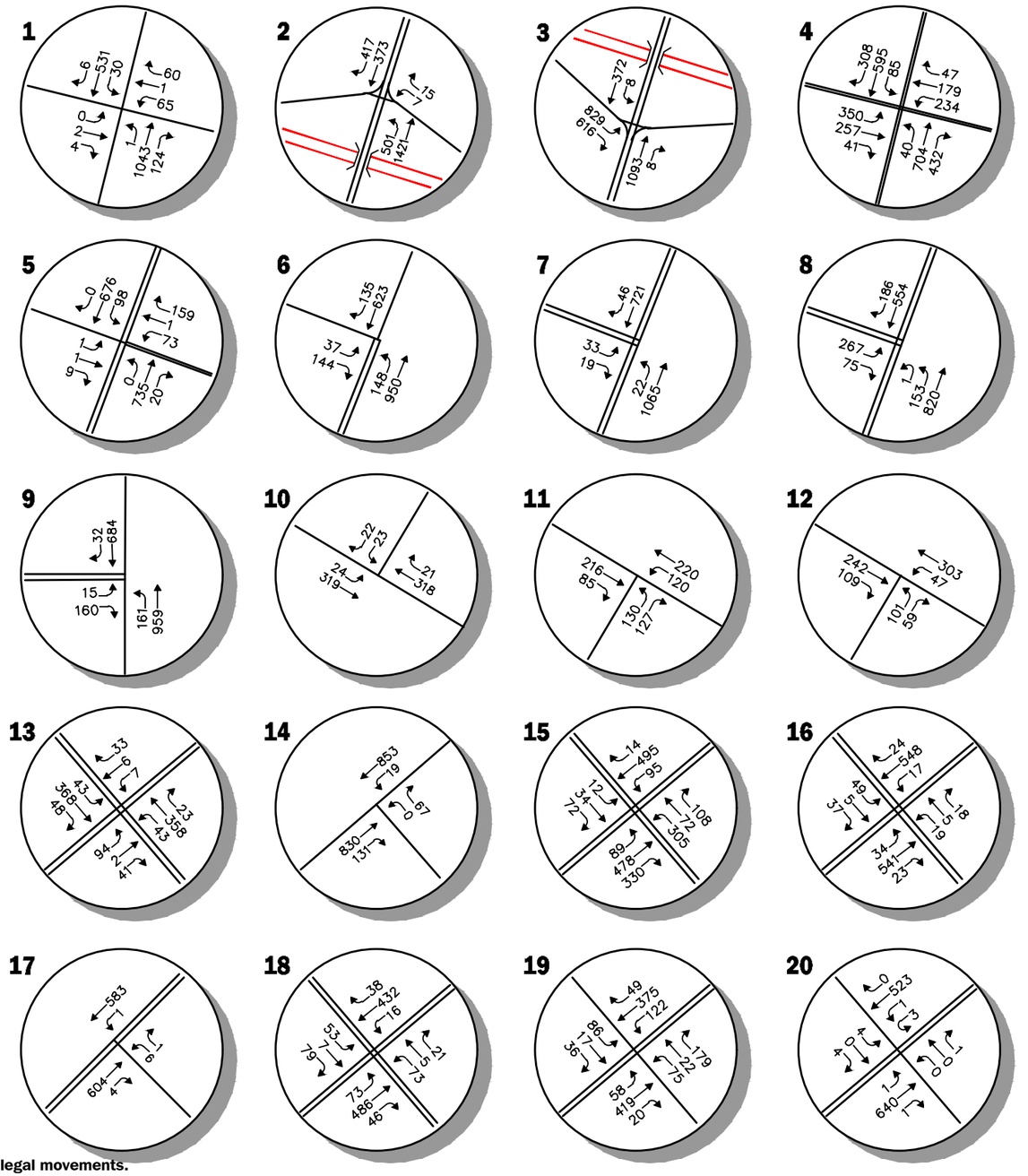

*Illegal movements.

Figure 5N

2024 Existing
Peak-Month
Weekday Evening
Peak-Hour Traffic Volumes

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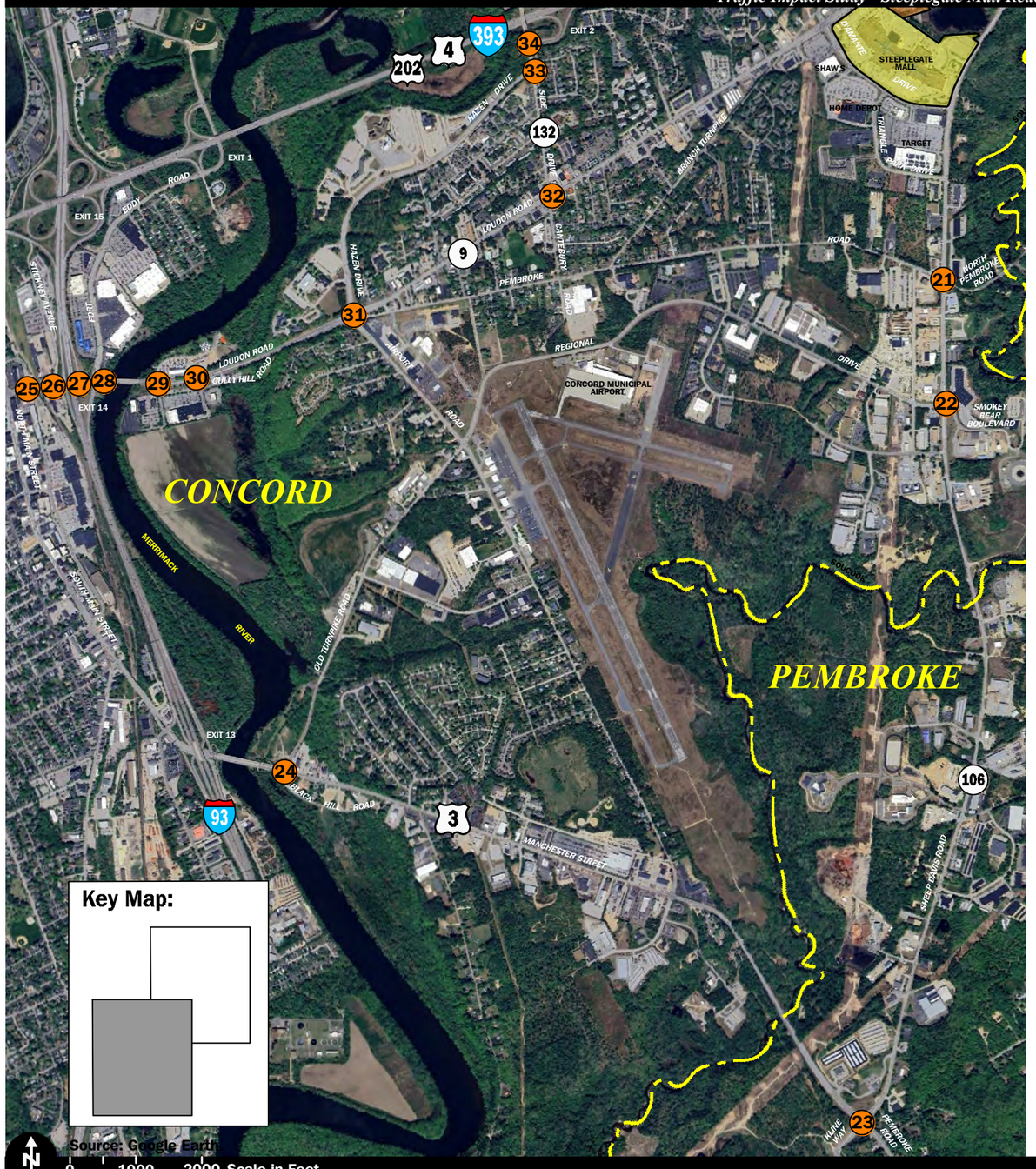

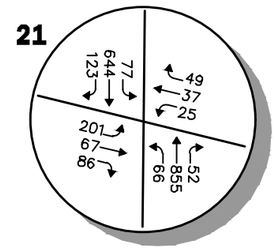

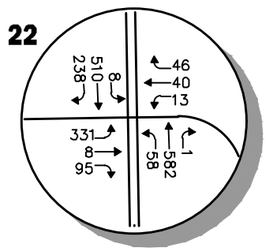

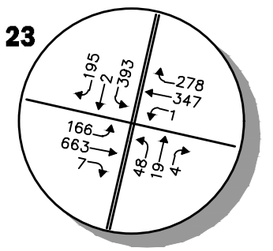

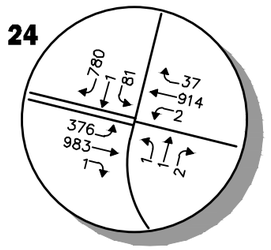

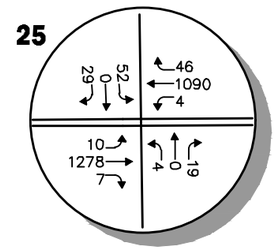

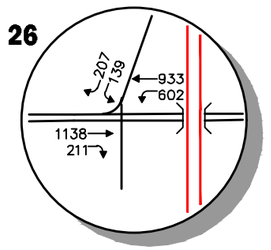

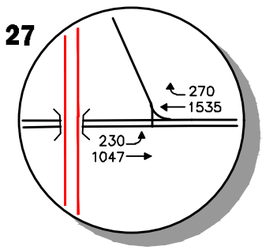

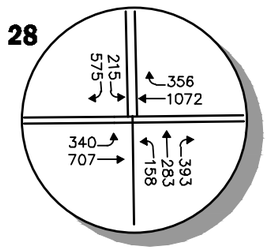

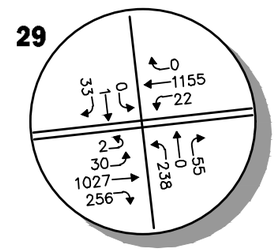

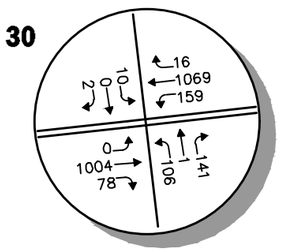

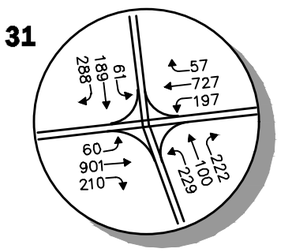

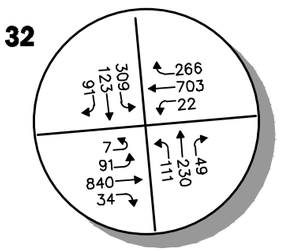

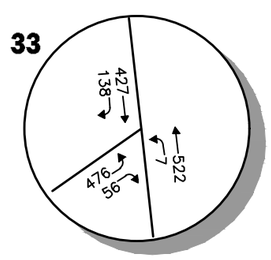

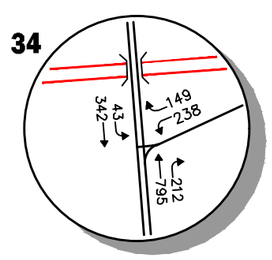

Figure 5S

2024 Existing
Peak-Month
Weekday Evening
Peak-Hour Traffic Volumes

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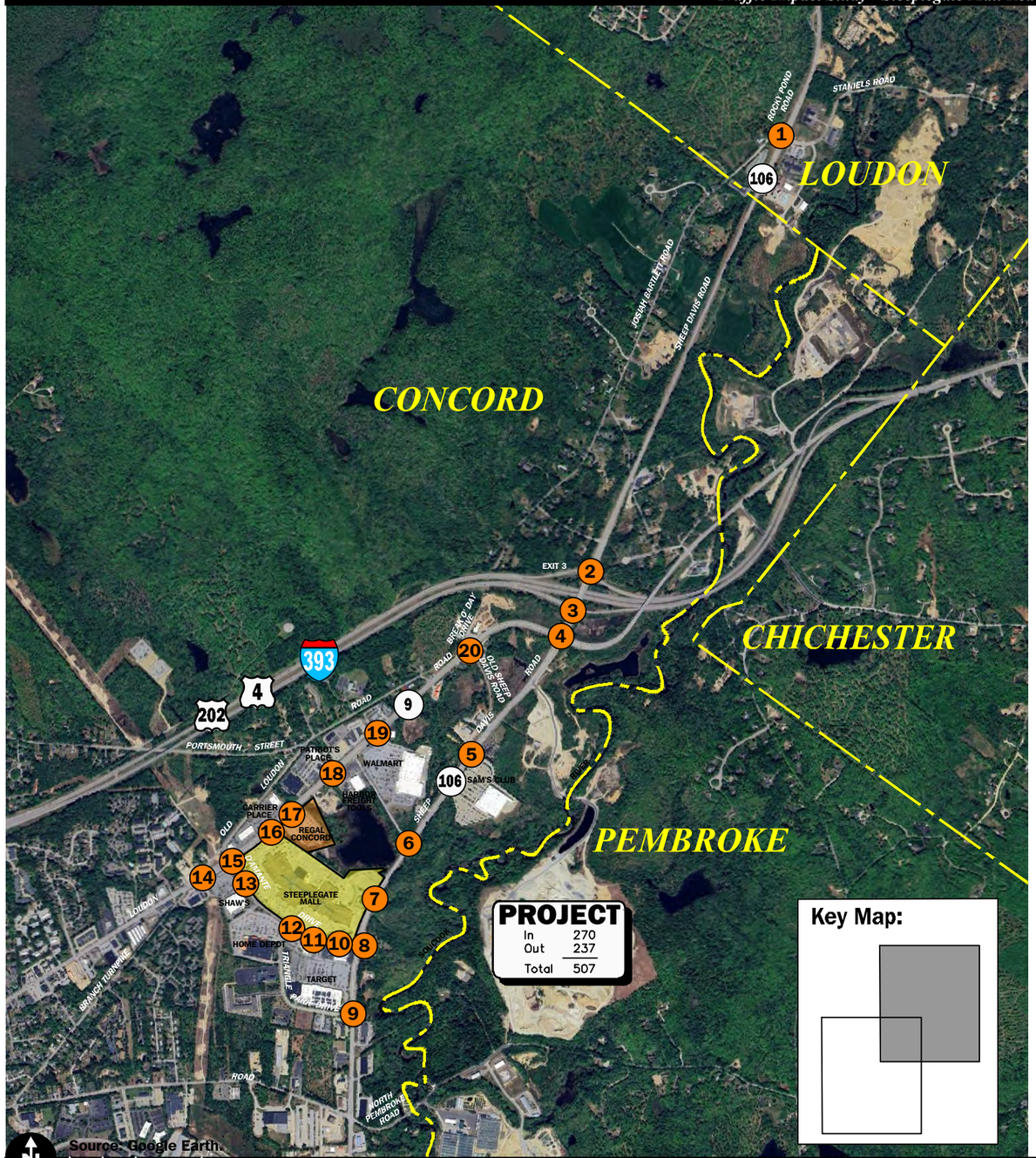

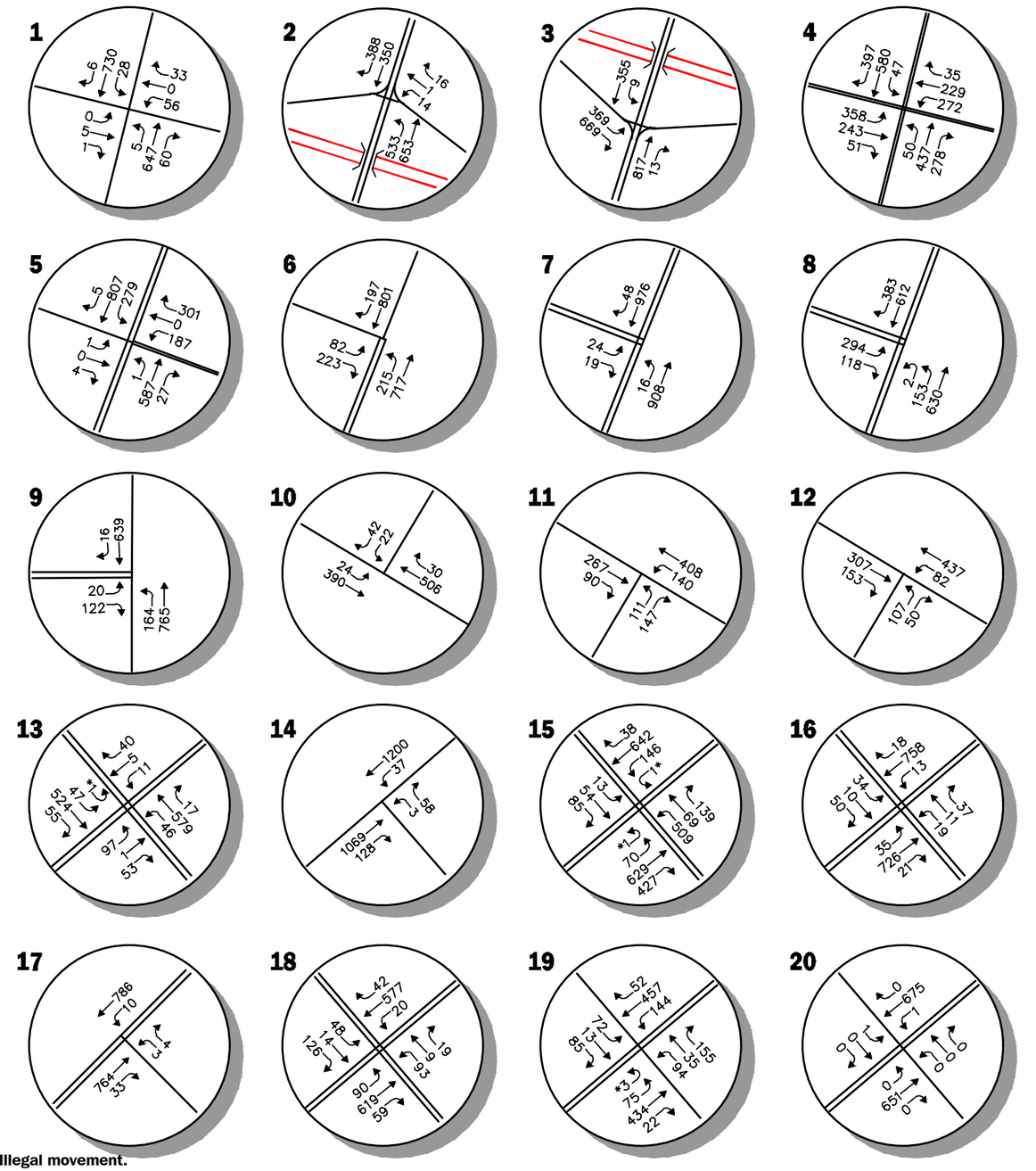

*Illegal movement.

Figure 6N

2024 Existing
Peak-Month
Saturday Midday
Peak-Hour Traffic Volumes

Vanasse & Associates inc

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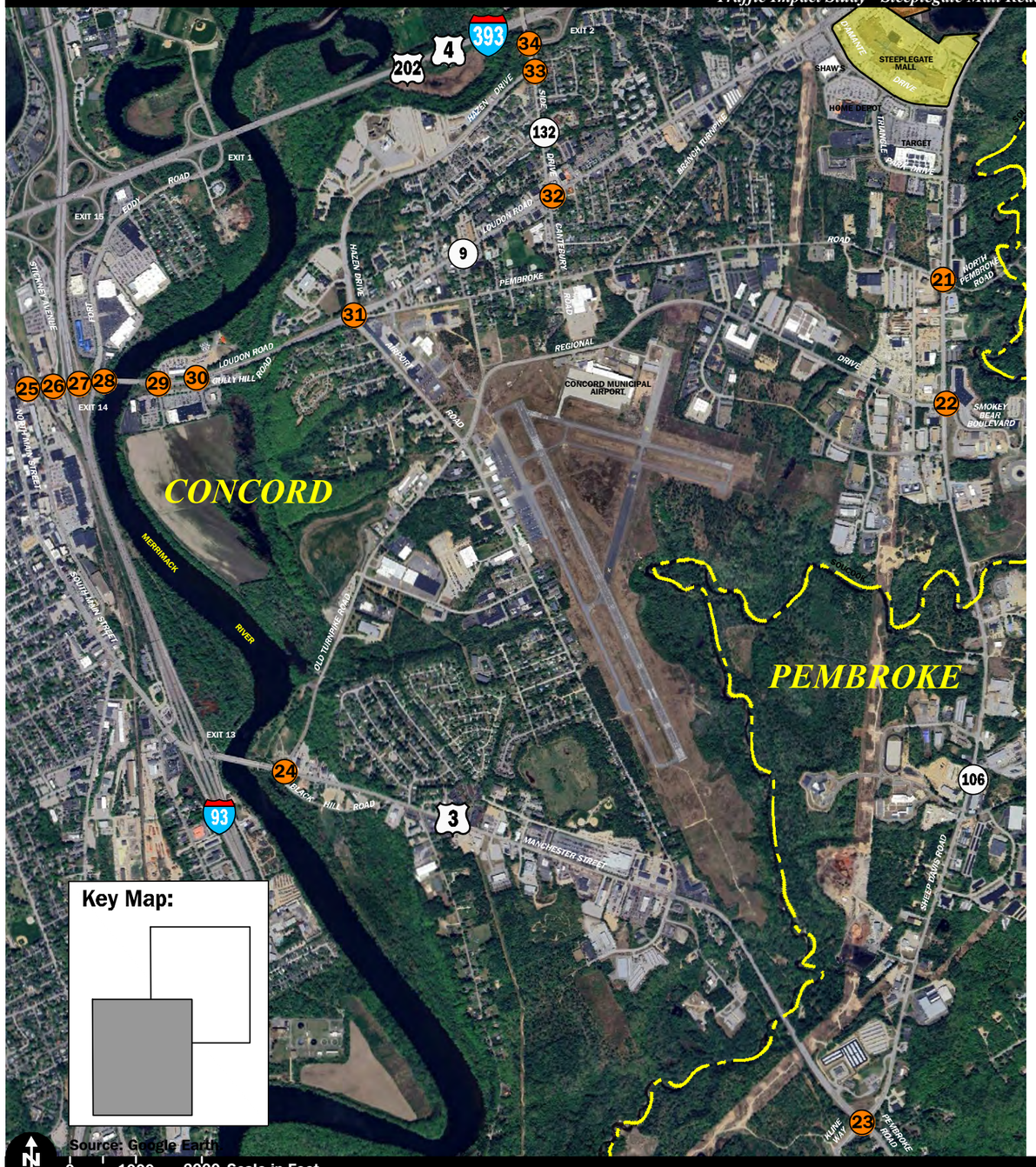

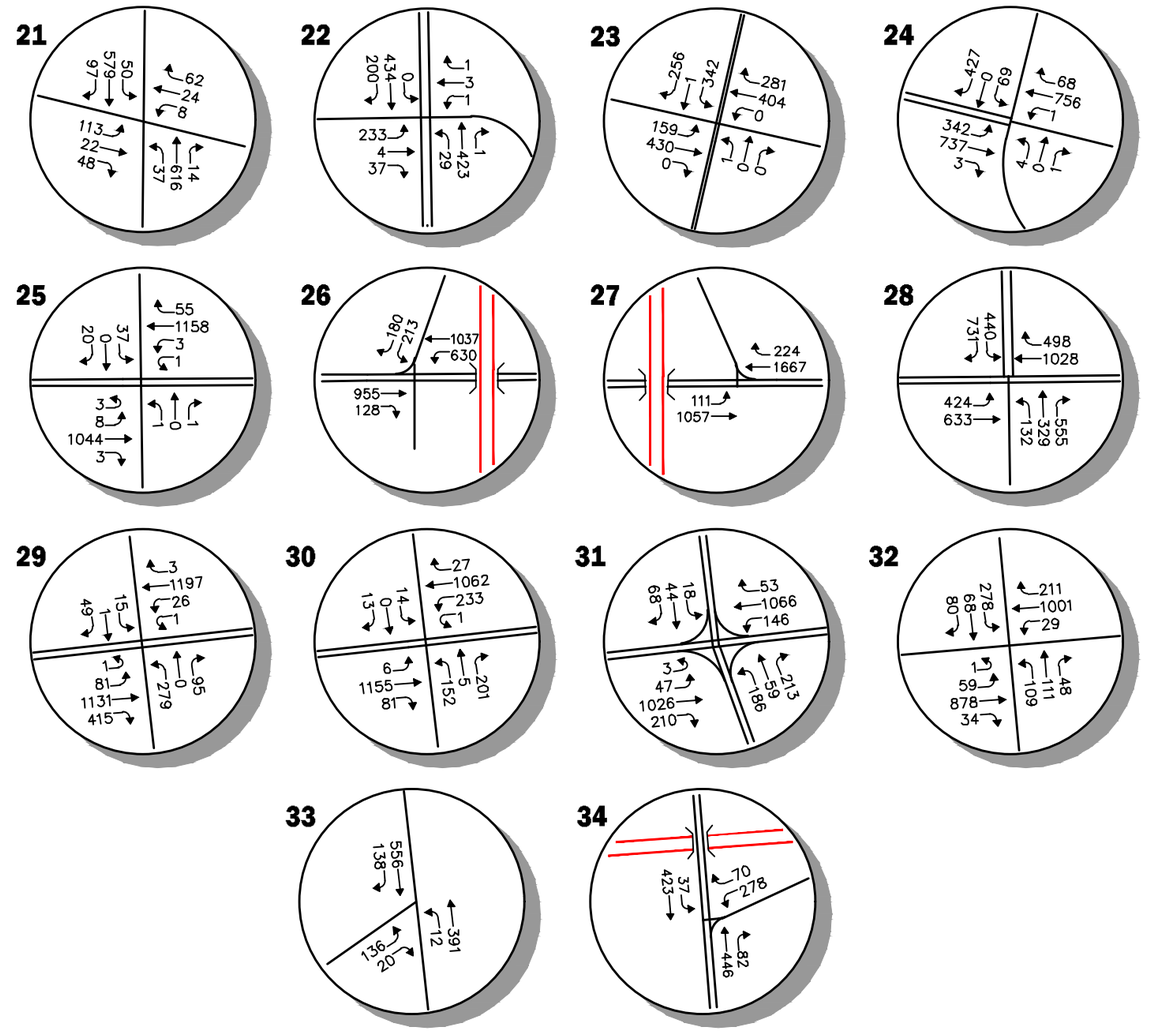

Figure 6S

2024 Existing
Peak-Month
Saturday Midday
Peak-Hour Traffic Volumes

Vanasse & Associates inc

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Table 2
2024 EXISTING PEAK-MONTH TRAFFIC VOLUMES

Location/Peak-Hour	AWT[a]	Saturday[b]	VPH[c]	K Factor[d]	Directional Distribution[e]
NH Route 9, west of Regal Concord:	11,890	11,850	--	--	--
Weekday Morning (8:00 – 9:00 AM)	--	--	538	4.5	59.1% WB
Weekday Evening (3:45 – 4:45 PM)	--	--	1,197	10.1	50.8% EB
Saturday Midday (11:45 AM – 12:45 PM)	--	--	1,587	13.4	50.3% EB
NH Route 106, north of D'Amante Drive:	16,280	12,470	--	--	--
Weekday Morning (8:00 – 9:00 AM)	--	--	1,074	9.0	63.2% SB
Weekday Evening (3:45 – 4:45 PM)	--	--	1,827	11.2	59.5% NB
Saturday Midday (11:45 AM – 12:45 PM)	--	--	1,919	15.4	51.8% SB

[a]Average weekday traffic in vehicles per day.
[b]Saturday traffic in vehicles.
[c]Vehicles per hour.
[d]Percent of daily traffic occurring during the peak-hour.
[e]Percent traveling in peak direction.
NB = northbound, SB = southbound, EB = eastbound, WB = westbound

As can be seen in Table 2, NH Route 9 in the vicinity of the Project site was found to accommodate approximately 11,890 vehicles on an average weekday and 11,850 vehicles on a Saturday (two-way, 24-hour volumes) under peak-month conditions, with approximately 538 vehicles per hour (vph) during the weekday morning peak-hour, 1,197 vph during the weekday evening peak-hour and 1,587 vph during the Saturday midday peak-hour.

NH Route 106 in the vicinity of the Project site was found to accommodate approximately 16,280 vehicles on an average weekday and 12,470 vehicles on a Saturday under peak-month conditions, with approximately 1,074 vehicles per hour (vph) during the weekday morning peak-hour, 1,827 vph during the weekday evening peak-hour and 1,919 vph during the Saturday midday peak-hour.

SPOT SPEED MEASUREMENTS

Vehicle travel speed measurements were performed on NH Route 9 and on NH Route 106 in the vicinity of the Project site in conjunction with the ATR counts. Table 3 summarizes the vehicle travel speed measurements.

Table 3
VEHICLE TRAVEL SPEED MEASUREMENTS

	NH Route 9		NH Route 106	
	Eastbound	Westbound	Northbound	Southbound
Mean Travel Speed (mph)	33	34	36	38
85th Percentile Speed (mph)	40	40	41	44
Posted Speed Limit (mph)	30	30	40	40

mph = miles per hour.

As can be seen in Table 3, the mean vehicle travel speed along NH Route 9 in the vicinity of the Project site was found to be 33 mph in the eastbound direction and 34 mph westbound. The measured 85th percentile vehicle travel speed, or the speed at which 85 percent of the observed vehicles traveled at or below, was found to be 40 mph in both the east and westbound directions, which is 10 mph above the posted speed limit (30 mph). The 85th percentile speed is used as the basis of engineering design and in the evaluation of sight distances and is often used in establishing posted speed limits.

The mean vehicle travel speed along NH Route 106 in the vicinity of the Project site was found to be 36 mph in the northbound direction and 38 mph southbound, with the measured 85th percentile vehicle travel speed found to be 41 mph in the northbound direction and 44 mph southbound, which is slightly above the posted speed limit (40 mph).

MOTOR VEHICLE CRASH DATA

A summary of the motor vehicle crash history for the study area intersections was provided by the Concord, Loudon and Pembroke Police Departments for the five-year period January 1, 2020 through December 31, 2024, inclusive, in order to examine overall motor vehicle crash trends occurring within the study area. The data is summarized by intersection, type, severity, roadway and weather conditions, and day of occurrence, where available and presented in Table 4.

As can be seen in Table 4, the following study area intersections were identified to have experienced an average of 10.0 or more reported motor vehicle crashes per year over the five-year review period:

- NH Route 9 at NH Route 106 (Intersection 4)
- NH Route 9 at D'Amante Drive and Old Loudon Road (Intersection 15)
- NH Route 9 at the Walmart Driveway (Intersection 19)
- NH Route 9 at the I-93 Northbound Off-Ramp and Fort Eddy Road (Intersection 28)
- NH Route 9 at Gully Hill Road and Everett Arena West Driveway (Intersection 29)
- NH Route 9 at Gully Hill Road and Everett Arena East Driveway (Intersection 30)

Table 4
MOTOR VEHICLE CRASH DATA SUMMARY[a]

	NH Rte. 106/ Staniels Rd./ Josiah Bartlett Rd.	NH Rte. 106/ I-393 WB Ramps	NH Rte. 106/ I-393 EB Ramps	NH Rte. 9/ NH Rte. 106	NH Rte. 106/ Sam's Club Dwy.	NH Rte. 106/ Walmart Dwy.	NH Rte. 106/ Steeplegate Mall Dwy.	NH Rte. 106/ D'Amante Dr.	NH Rte. 106/ Triangle Park Dr.	D'Amante Dr./ East Steeplegate Mall Dwy.	D'Amante Dr./ Target Dwy.	D'Amante Dr./ Triangle Park Dr.
Traffic Control Type[b]	S	S	S	S	U	U	U	S	U	U	U	S
Total	22	17	41	62	16	34	1	29	10	4	12	4
Average	4.40	3.40	8.20	12.40	3.20	6.80	0.20	5.80	2.00	0.80	2.40	0.80
Rate[c]	0.58	0.31	0.69	0.93	0.45	0.82	0.03	0.70	0.25	0.27	0.66	0.23
Type:												
Angle	2	2	5	4	0	1	0	2	0	1	3	0
Head-On	1	1	0	2	0	1	0	0	0	0	0	0
Rear-End	4	2	4	3	2	0	0	1	1	1	2	1
Sideswipe	8	0	0	1	1	0	0	0	0	0	0	0
Fixed Object	2	0	0	3	3	3	0	4	1	0	4	0
Pedestrian/Bicycle	0	1	0	0	0	0	0	0	0	0	0	0
Parked Vehicle	0	0	0	0	0	0	0	0	0	0	0	0
Animal Strike	3	0	1	0	0	0	0	0	0	0	0	0
Unknown/Other	2	11	31	49	10	29	1	22	8	2	3	3
Total	22	17	41	62	16	34	1	29	10	4	12	4
Conditions:												
Clear	4	7	20	26	4	22	0	17	5	0	0	2
Cloudy	4	1	5	4	2	1	1	4	0	0	0	0
Rain	1	0	2	4	0	2	0	0	0	0	0	0
Snow/Ice	0	1	1	1	1	2	0	0	1	0	0	0
Not Reported	13	8	13	27	9	7	0	8	4	4	12	2
Total	22	17	41	62	16	34	1	29	10	4	12	4
Lighting:												
Daylight	6	14	32	50	10	22	1	25	8	4	11	4
Dawn/Dusk	1	0	3	4	0	2	0	1	1	0	0	0
Dark (Road Lit)	0	2	6	7	1	4	0	3	1	0	1	0
Dark (Road Unlit)	2	0	0	1	0	1	0	0	0	0	0	0
Not Reported	13	1	0	0	5	5	0	0	0	0	0	0
Total	22	17	41	62	16	34	1	29	10	4	12	4
Day of Week:												
Monday through Friday	17	13	26	44	15	23	1	22	8	4	11	3
Saturday	0	1	7	11	1	6	0	4	2	0	1	0
Sunday	5	3	8	7	0	5	0	3	0	0	0	1
Not Reported	0	0	0	0	0	0	0	0	0	0	0	0
Total	22	17	41	62	16	34	1	29	10	4	12	4
Severity:												
Property Damage Only	18	14	29	50	14	30	1	24	7	4	11	4
Personal Injury	3	3	12	12	1	4	0	5	3	0	1	0
Fatality	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	1	0	0	0	1	0	0	0	0	0	0	0
Total	22	17	41	62	16	34	1	29	10	4	12	4

See notes at end of Table.

Table 4 (Continued)
MOTOR VEHICLE CRASH DATA SUMMARY[a]

	D'Amante Dr./ West Steeplegate Mall Dwy./ Shaw's Dwy.	NH Rte. 9/ Shaw's Dwy.	NH Rte. 9/ D'Amante Dr./ Old Loudon Rd.	NH Rte. 9/ Steeplegate Mall Dwy./Carrier Place Dwy.	NH Rte. 9/ Regal Concord Dwy.	NH Rte. 9/ Patriots Place Dwy./Harbor Freight Tools Dwy.	NH Rte. 9/ Walmart Dwy.	NH Rte. 9/ Break O' Day Dr./Old Sheep Davis Rd.	NH Rte. 106/ Pembroke Rd./ N Pembroke Rd.	NH Rte. 106/ Regional Dr./ Smokey Bear Blvd..	US Rte. 3/ NH Rte. 106/ Kline Way	US Rte. 3/ Old Turnpike Rd./ Black Hill Rd.
Traffic Control Type[b]	S	U	S	S	U	S	S	U	S	S	S	S
Total	23	5	69	44	39	41	123	34	26	11	21	33
Average	4.60	1.00	13.80	8.80	7.80	8.20	24.60	6.80	5.20	2.20	4.20	6.60
Rate[c]	1.06	0.13	1.62	1.64	1.60	1.52	4.16	1.42	0.56	0.28	0.49	0.51
Type:												
Angle	2	1	2	9	9	9	12	9	3	0	0	3
Head-On	0	0	1	2	2	2	2	2	0	0	0	1
Rear-End	1	1	5	8	8	8	10	8	3	1	0	0
Sideswipe	0	0	1	2	1	1	4	1	1	0	0	2
Fixed Object	6	0	4	1	5	6	10	4	1	3	0	1
Pedestrian/Bicycle	1	0	2	0	0	0	4	0	0	0	0	1
Parked Vehicle	0	0	0	0	0	0	0	0	0	0	0	0
Animal Strike	0	0	0	0	0	0	0	0	0	0	0	0
Unknown/Other	13	3	54	22	14	15	81	10	18	7	21	25
Total	23	5	69	44	39	41	123	34	26	11	21	33
Conditions:												
Clear	14	1	40	5	4	4	59	0	11	9	0	19
Cloudy	1	0	4	2	0	0	7	0	1	1	0	3
Rain	0	0	6	1	0	0	3	0	2	0	0	1
Snow/Ice	0	0	2	0	0	1	0	0	0	0	0	2
Not Reported	8	4	17	36	35	36	54	34	12	1	21	8
Total	23	5	69	44	39	41	123	34	26	11	21	33
Lighting:												
Daylight	20	4	51	32	27	30	92	23	24	9	0	18
Dawn/Dusk	0	0	1	4	4	4	7	4	0	2	0	3
Dark (Road Lit)	3	1	15	7	7	6	22	6	2	0	0	4
Dark (Road Unlit)	0	0	2	1	1	1	1	1	0	0	0	1
Not Reported	0	0	0	0	0	0	1	0	0	0	21	7
Total	23	5	69	44	39	41	123	34	26	11	21	33
Day of Week:												
Monday through Friday	19	5	50	37	37	36	91	32	24	10	0	30
Saturday	1	0	7	3	1	3	18	1	1	0	0	1
Sunday	3	0	12	4	1	2	14	1	1	1	0	2
Not Reported	0	0	0	0	0	0	0	0	0	0	21	0
Total	23	5	69	44	39	41	123	34	26	11	21	33
Severity:												
Property Damage Only	20	5	1	40	35	37	113	31	23	8	0	27
Personal Injury	3	0	10	4	4	4	9	3	3	3	0	6
Fatality	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	58	0	0	0	1	0	0	0	21	0
Total	23	5	69	44	39	41	123	34	26	11	21	33

See notes at end of Table.

Table 4 (Continued)
MOTOR VEHICLE CRASH DATA SUMMARY[a]

	NH Rte. 9/ Ralph Pill Marketplace/ Stickney Ave.	NH Rte. 9/ I-93 SB Ramps	NH Rte. 9/ I-93 NB On-Ramp	NH Rte. 9/ I-93 NB Off-Ramp/Fort Eddy Rd.	NH Rte. 9/ Gully Hill Rd. W/ Everett Arena	NH Rte. 9/ Gully Hill Rd. E/ Everett Arena	NH Rte. 9/ Hazen Dr./ Airport Rd.	NH Rte. 9/ NH Rte. 132/ Canterbury Rd.	NH Rte. 132/ Hazen Dr.	NH Rte. 132/ I-393 EB Ramps
Traffic Control Type[b]	S	S	S	S	S	S	S	S	S	S
Total	29	29	22	79	50	90	21	44	8	3
Average	5.80	5.80	4.40	15.80	10.00	18.00	4.20	8.80	1.60	0.60
Rate[c]	0.56	0.44	0.35	0.95	0.87	1.72	0.32	0.75	0.24	0.08
Type:										
Angle	4	3	2	5	5	9	1	1	0	0
Head-On	0	0	0	0	2	2	0	1	0	0
Rear-End	0	0	0	7	1	6	1	0	1	0
Sideswipe	0	1	1	2	1	3	1	0	0	0
Fixed Object	1	2	0	1	4	5	0	4	1	1
Pedestrian/Bicycle	0	0	0	3	0	0	0	1	1	0
Parked Vehicle	0	0	0	0	0	0	0	0	0	0
Animal Strike	0	0	0	0	0	0	0	0	0	0
Unknown/Other	24	23	19	61	37	65	18	37	5	2
Total	29	29	22	79	50	90	21	44	8	3
Conditions:										
Clear	15	16	10	48	23	38	14	30	6	2
Cloudy	4	3	2	2	1	7	1	6	0	0
Rain	2	1	2	5	4	6	1	2	1	1
Snow/Ice	1	2	0	0	2	2	0	1	0	0
Not Reported	7	7	8	24	20	37	5	5	1	0
Total	29	29	22	79	50	90	21	44	8	3
Lighting:										
Daylight	19	17	13	67	41	75	15	35	5	2
Dawn/Dusk	1	2	0	2	3	4	1	3	0	0
Dark (Road Lit)	9	5	5	8	6	11	3	6	2	1
Dark (Road Unlit)	0	0	0	2	0	0	1	0	1	0
Not Reported	0	5	4	0	0	0	1	0	0	0
Total	29	29	22	79	50	90	21	44	8	3
Day of Week:										
Monday through Friday	19	20	22	66	43	76	16	32	8	2
Saturday	6	7	0	9	4	10	4	7	0	0
Sunday	4	2	0	4	3	4	1	5	0	1
Not Reported	0	0	0	0	0	0	0	0	0	0
Total	29	29	22	79	50	90	21	44	8	3
Severity:										
Property Damage Only	25	24	19	70	43	79	15	34	8	2
Personal Injury	4	5	3	8	7	11	6	9	0	1
Fatality	0	0	0	1	0	0	0	1	0	0
Unknown	0	0	0	0	0	0	0	0	0	0
Total	29	29	22	79	50	90	21	44	8	3

[a]Source: Concord, Loudon and Pembroke Police Department records, 2020 through 2024.
[b]Traffic Control Type: S = signalized; U = unsignalized.
[c]Crash rate per million vehicles entering the intersection.

The remaining study area intersections experienced an average of fewer than 10.0 reported motor vehicle crashes per year over the five-year review period. The majority of the crashes were reported to have occurred on a weekday; under clear weather conditions; during daylight; and resulted in property damage only. The crash type (i.e., angle, rear-end, sideswipe, etc.) for the majority of the motor vehicle crashes could not be readily discerned from the data that was provided.

The NH Route 9/NH Route 16 intersection was found to have experienced a total of 62 reported motor vehicle crashes over the five-year review period, or an average of 12.4 crashes per year, the majority of which occurred on a weekday; under clear weather conditions; during daylight; and resulted in property damage only. Similarly, the NH Route 9/I-93 Northbound Off-Ramp/ Fort Eddy Road intersection was found to have experienced a total of 79 reported motor vehicle crashes over the five-year review period, or an average of 15.8 crashes per year, the majority of which occurred on a weekday; under clear weather conditions; during daylight; and resulted in property damage only.

It should be noted that the crash data provided by the Concord Police Department for the NH Route 9/D'Amante Drive/Old Loudon Road, NH Route 9/Walmart Driveway, NH Route 9/ Gully Hill Road/Everett Arena (West), and NH Route 9/Gully Hill Road/Everett Arean (East) intersections may include collisions that occurred within the parking lots of the adjacent commercial properties and are not related to conditions at the intersection. These intersection were reported to have experienced between 50 and 123 motor vehicle crashes over the five-year review period, or between 10.0 and 24.6 crashes per year, the majority of which of which occurred on a weekday; under clear weather conditions; during daylight; and resulted in property damage only.

Pursuant to Section 32.08.20 of the City of Concord Site Plan Regulations, specific recommendations have been provided at the study area intersections that were reported to have experienced an average of 10.0 or more reported motor vehicle crashes in an effort to enhance safety or that are intended to assist the City of Concord and NHDOT in advancing safety-related improvements (see *Recommendations*).

Two (2) motor vehicle crashes were reported at the study area intersections over the five-year review period which resulted in a fatality. One of the crashes was reported at the NH Route 9/ NH Route 132/Canterbury Road intersection and occurred at 4:45 PM on August 13, 2023. The crash involved an angle-type collision between a vehicle entering the roadway and a motorcyclist travelling along NH Route 9. The other fatal crash was reported at the NH Route 9/I-93 Northbound Off-Ramp/Fort Eddy Road intersection and occurred at approximately 11:04 AM on January 12, 2024. The crash involved a vehicle traveling westbound along NH Route 9 that was reported as traveling at an excessive speed that rear-ended another vehicle at the intersection causing a multi-vehicle collision.

The motor vehicle crash reports are provided in the Appendix.

FUTURE CONDITIONS

Traffic volumes in the study area were projected to the years 2027 and 2037, which reflect the anticipated opening-year of the Project and a ten-year planning horizon from opening-year, respectively, consistent with NHDOT TIS guidelines and the scoping determination issued by NHDOT and the City for the Project as amended on January 29, 2026 to reflect the updated commencement of the Project. The future condition traffic-volume projections incorporate identified specific development projects by others, as well as general background traffic growth as a result of development external to the study area and presently unforeseen projects. Anticipated Project-generated traffic volumes superimposed upon the 2027 and 2037 No-Build traffic volumes reflect the Build conditions with the Project.

FUTURE TRAFFIC GROWTH

Future traffic growth is a function of the expected land development in the immediate area and the surrounding region. Several methods can be used to estimate this growth. A procedure frequently employed estimates an annual percentage increase in traffic growth and applies that percentage to all traffic volumes under study. The drawback to such a procedure is that some turning volumes may actually grow at either a higher or a lower rate at particular intersections.

An alternative procedure identifies the location and type of planned development, estimates the traffic to be generated, and assigns it to the area roadway network. This procedure produces a more realistic estimate of growth for local traffic; however, potential population growth and development external to the study area would not be accounted for in the resulting traffic projections.

To provide a conservative analysis framework, both procedures were used, the salient components of which are described below.

Specific Development by Others

The City of Concord Planning Division and the Central New Hampshire Regional Planning Commission (CNHRPC) were contacted in order to determine if there were any projects planned within the study area that would have an impact on future traffic volumes at the study intersections. Based on this discussion, the following projects were identified for review in conjunction with this assessment:

- ***Senior Housing Development, 33 Old Loudon Road, Concord, New Hampshire.*** This project entails the construction of a 114-unit elderly housing development to be located at 33 Old Loudon Road, west of the Project site.

- ***Hospitality Venue, Break O' Day Drive, Concord, New Hampshire.*** This project entails the construction of a 45,000± sf charitable gaming hall to be located off Break O' Day Drive, north of the Project site.

- ***Multifamily Residential Development, 303 Sheep Davis Road, Concord, New Hampshire.*** This project entails the construction of a 48-unit multifamily residential development to be located at 303 Sheep Davis Road, north of the Project site.

- ***Workforce Housing, Pembroke Road, Concord, New Hampshire.*** This project entails the construction of a 123-unit workforce housing development to be located at Pembroke Road, south of the Project site.

- ***Raising Cane's Restaurant, 287 Loudon Road, Concord, New Hampshire.*** This project entails the construction of a 3,404± sf Raising Cane's Restaurant to be located at 287 Loudon Road to the northwest of the Project site.

- ***Credit Union, 285 Loudon Road, Concord, New Hampshire.*** This project entails the construction of a 2,466± sf bank with two (2) drive-through teller lanes to be located at 285 Loudon Road to the northwest of the Project site.

Traffic volumes associated with the aforementioned development projects by others were obtained from the traffic studies conducted for the specific developments,[9,10,11,12] or were developed using trip-generation statistics published by the Institute of Transportation Engineers (ITE),[13] and were assigned onto the study area roadway network based on existing traffic patterns where no other information was available. No other developments were identified at this time that are expected to result in an increase in traffic within the study area beyond the general background traffic growth rate.

General Background Traffic Growth

In order to determine general traffic growth trends in the area, NHDOT growth rates for Region E (Southeast Region) were reviewed.[14] This data indicates that traffic volumes have fluctuated over the 10-year period between 2014 and 2024, with an average traffic growth rate of 0.56 percent per year. In order to provide a prudent planning condition for the Project, a slightly higher 1.0 percent per year compounded annual background traffic growth rate was used in order to account for future traffic growth and presently unforeseen development within the study area.

[9] *Transportation Impact Assessment*, Proposed Senior Housing Development; VAI; March 2023.
[10] *Traffic Impact and Access Study*, Proposed Hospitality Venue; TFMoran, Inc.; February 28, 2023.
[11] *Traffic Study*, Proposed Multifamily Residential Development; VHB, Inc.; May 19, 2022.
[12] *Traffic Impact and Access Study*, Proposed Workforce Housing, TFMoran, Inc.; November 30, 2021.
[13] Institute of Transportation Engineers, op. cit. 1.
[14] NHDOT; 2014-2024 10-Year Growth Data, Region E Averages: Southeast Region.

Roadway Improvement Projects

The City of Concord, the Towns of Loudon and Pembroke, and NHDOT were contacted in order to determine if there were any planned future roadway improvement projects within the study area. Based on these discussions, the following roadway improvement projects were identified:

- ***NH Route 9/Break O' Day Drive/Old Sheep Davis Road Intersection.*** In conjunction with the Hospitality Venue project to be located off Break O' Day Drive, the proponent of the development has committed to signalizing the intersection and widening the Break O' Day Drive approach to provide a shared left-turn/through lane and a right-turn lane.

- ***NH Route 9/D'Amante Drive/Old Loudon Road Intersection.*** In conjunction with the Senior Housing Development project to be located at 33 Old Loudon Road, the proponent of the development has committed to implementing an optimized traffic signal timing and phasing plan at the intersection.

- ***Merrimack River Bridge Reconstruction, NH Route 9.*** The City of Concord has preliminary plans to reconstruct the NH Route 9 bridge over the Merrimack River between Fort Eddy Road and Gully Hill Road. In conjunction with the reconstruction of the bridge, the following improvements are also currently planned: the installation of marked crosswalks across the east leg of the NH Route 9/Fort Eddy Road intersection and the west leg of the NH Route 9/Gully Hill Road (west) intersection; the reconstruction of sidewalks and wheelchair ramps within the project area; and the installation and refreshment of guideline, lane-use, etc. pavement markings along NH Route 9.

- ***Bow-Concord Improvement Project, I-93, Concord, NH.*** NHDOT is currently in the preliminary design stage for an improvement project along the I-93 corridor from the Merrimack River in Concord into the Town of Bow. The project proposes to enhance safety, improve mobility, address operational deficiencies, and offer transportation choices for all roadways users along the corridor. Preliminary design plans are not yet available; however, the project includes improvements along the NH Route 9 corridor between North Main Street and the Fort Eddy Road (intersections 25 through 28 of this assessment). As design plans are not yet available for this project, no improvements were assumed to be completed in the future year conditions; however, based on NHDOT's anticipated timeline, improvements to the NH Route 9 corridor (Exit 14) are expected to be substantially complete by 2036.

The improvements associated with the NH Route 9/Break O'Day Drive/Old Sheep Davis, NH Route 9/D'Amante Drive/Old Loudon Road, and Merrimack River Bridge projects are reflected in the 2027 and 2037 future condition analyses (No-Build and Build). No other roadway improvement projects aside from routine maintenance activities were identified to be planned within the study area at this time.

No-Build Traffic Volumes

The 2027 and 2037 No-Build peak-month peak-hour traffic volumes were developed by applying the 1.0 percent per year compounded annual background traffic growth rate to the 2024 Existing peak-month peak-hour traffic volumes and then adding the traffic volumes associated with the identified specific development projects by others. The resulting 2027 No-Build weekday morning, weekday evening and Saturday midday peak-month, peak-hour traffic volumes are shown on

Figures 7, 8 and 9, respectively, with the corresponding 2037 No-Build peak-month, peak-hour traffic volumes shown on Figures 10, 11 and 12.

PROJECT TRAFFIC CHARACTERISTICS

Design year (2027 and 2037 Build) traffic volumes for the study area roadways were determined by estimating Project-generated traffic volumes and assigning those volumes on the study roadways.

As proposed, the Project will entail the following primary elements: i) the demolition of the Regal Concord and the partial demolition of the Steeplegate Mall; ii) the continued use of approximately 70,191± sf of retail space (the existing Altitude Trampoline Park and Zoo Health Club), the 5,110± sf high-turnover sit-down restaurant (Applebee's) and the 2,275± sf bank with a drive-through teller facility (TD Bank) located within the Steeplegate Mall property; and iii) the construction of ten (10) new buildings that will include the following: a 606-unit multifamily residential community; 70,000± sf of additional retail space; a 3,319± sf bank with a drive-through teller facility; a 6,000± sf fast casual restaurant; a 5,351± sf Chick-fil-A restaurant with a drive-through facility; and a 170,000± sf Costco Wholesale club with an associated 11,000± sf internal Market Delivery Operation (MDO) facility and a 32-vehicle fueling position (vfp) fueling facility. When complete, the Project site will include a 606-unit multifamily residential community, 140,191± sf of retail space, two (2) banks with drive-through teller facilities (5,594± sf total), a 5,110± sf high-turnover sit-down restaurant, a 6,000± sf fast casual restaurant, a 5,351± sf Chick-fil-A restaurant and a 170,000± sf Costco Wholesale club with associated amenities (11,000± sf internal MDO facility and a 32-vfp fueling facility). The residential units will be dispersed between three (3) buildings that will range in height from 48 feet to 59 feet 8-inches, or between 4 and 6 stories.

The following describes the methodology that was used to develop the anticipated traffic characteristics of the Project.

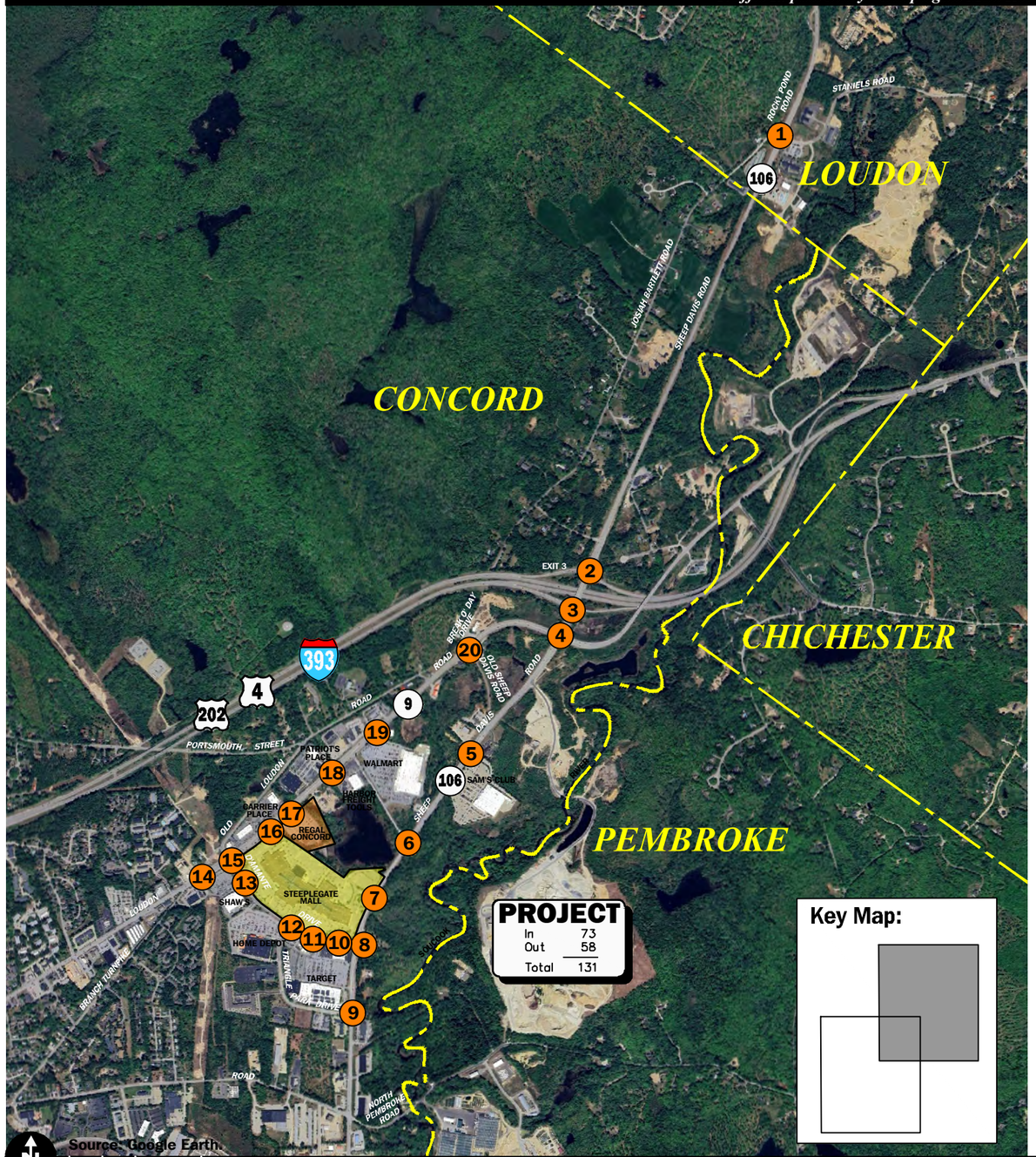
PROJECT-GENERATED TRAFFIC

In order to develop the traffic characteristics of the residential and general commercial (excluding Costco and Chick-fil-A) components Project, trip-generation statistics published by the ITE[15] for similar land uses as those proposed were used. ITE Land Use Codes (LUCs) 221, *Multifamily Housing (Mid-Rise)*; 821, *Shopping Plaza (40-150k) with Supermarket*; 912, *Drive-in Bank*; 930, *Fast Casual Restaurant*, and 932, *High-Turnover (Sit-Down) Restaurant*; were used to establish the base trip-generation calculations for the residential and general commercial components of the Project.

Costco Component

The traffic characteristics of the Costco component of the Project were developed using empirical trip rates derived from data collected at similar Costco locations that include MDO facilities and an accompanying fueling facility. The empirical trip rates were derived from data collected by

[15]Institute of Transportation Engineers, op. cit. 1.



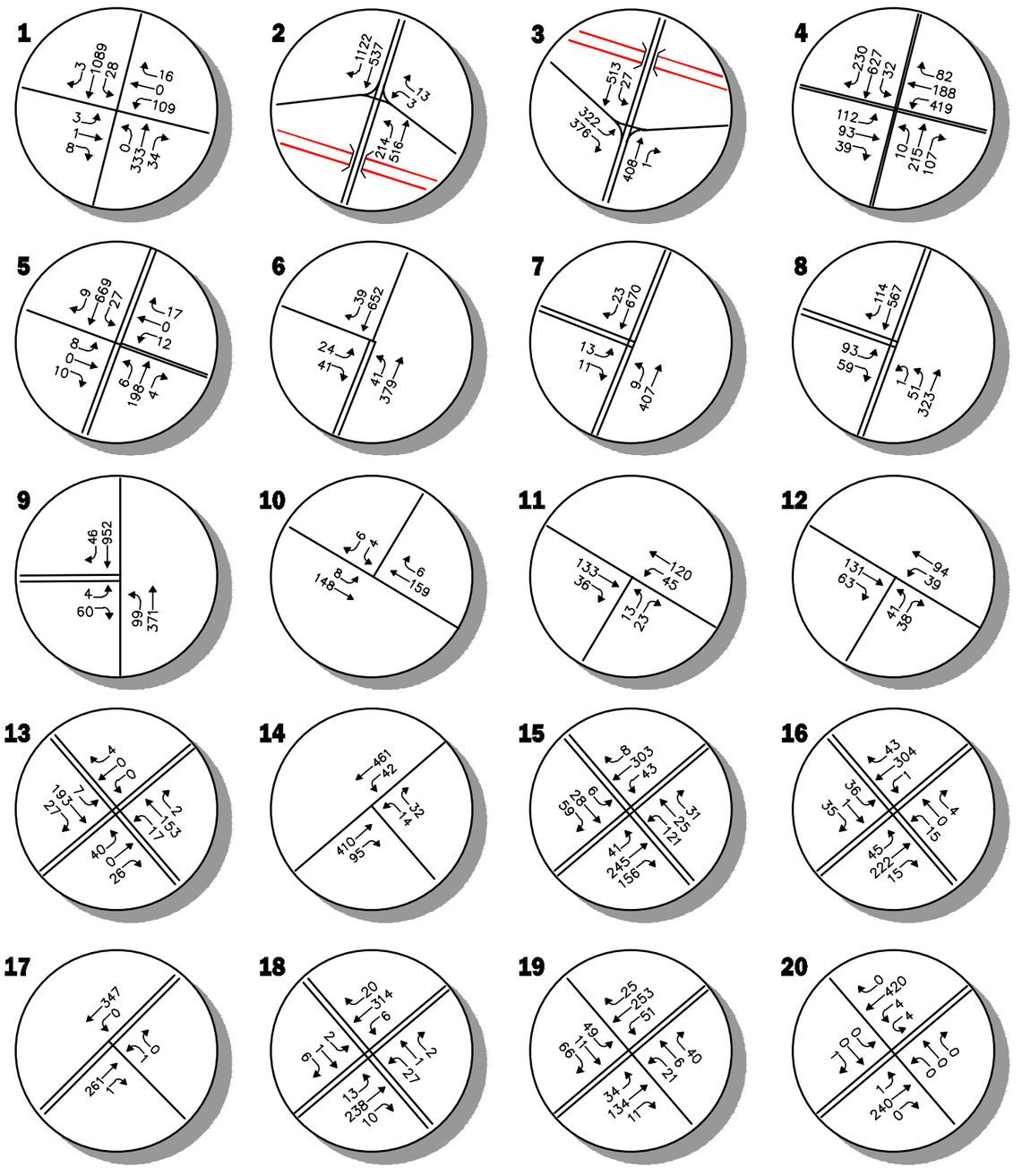


Figure 7N

2027 No-Build
Peak-Month
Weekday Morning
Peak-Hour Traffic Volumes

Vanasse & Associates inc

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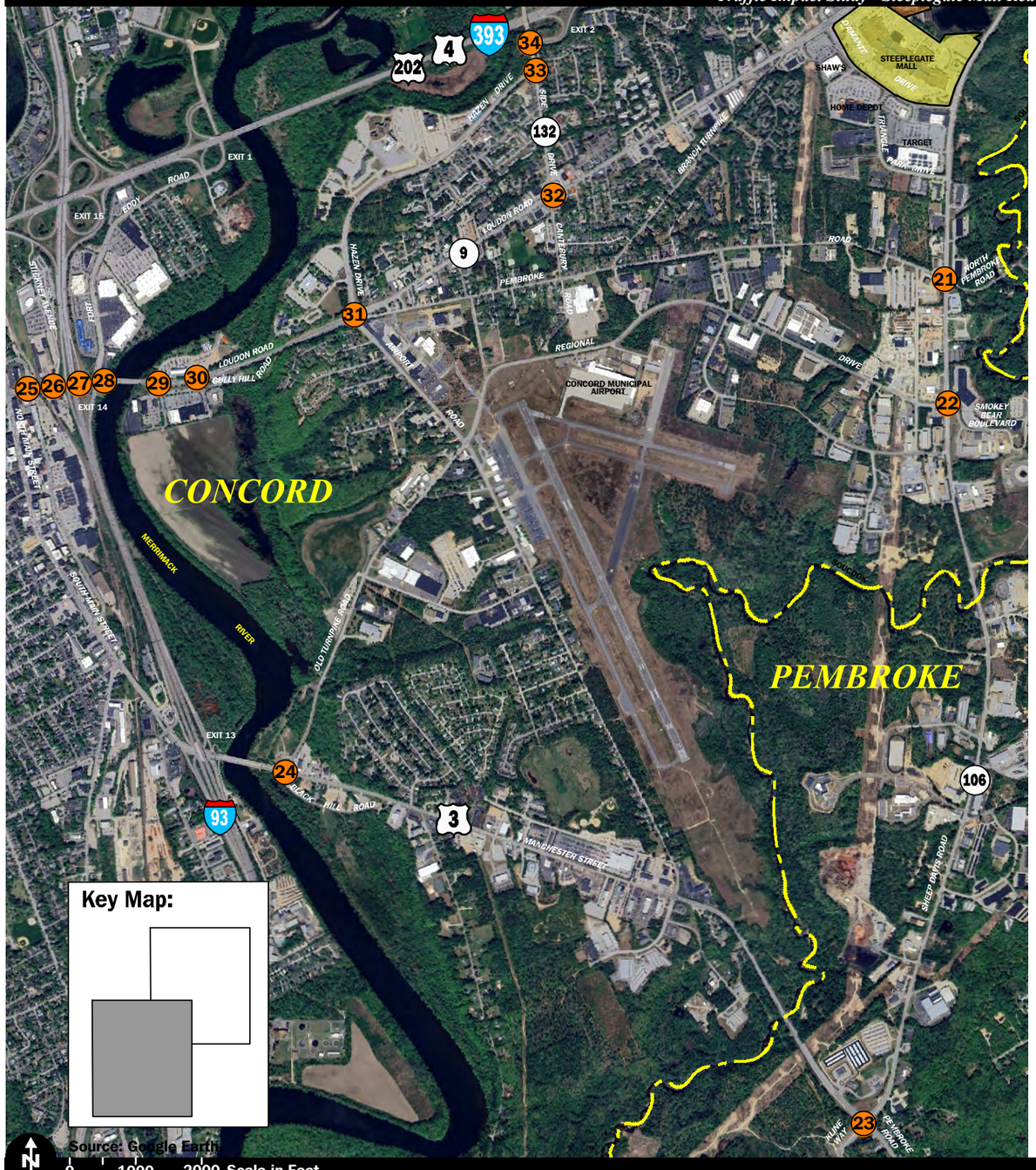

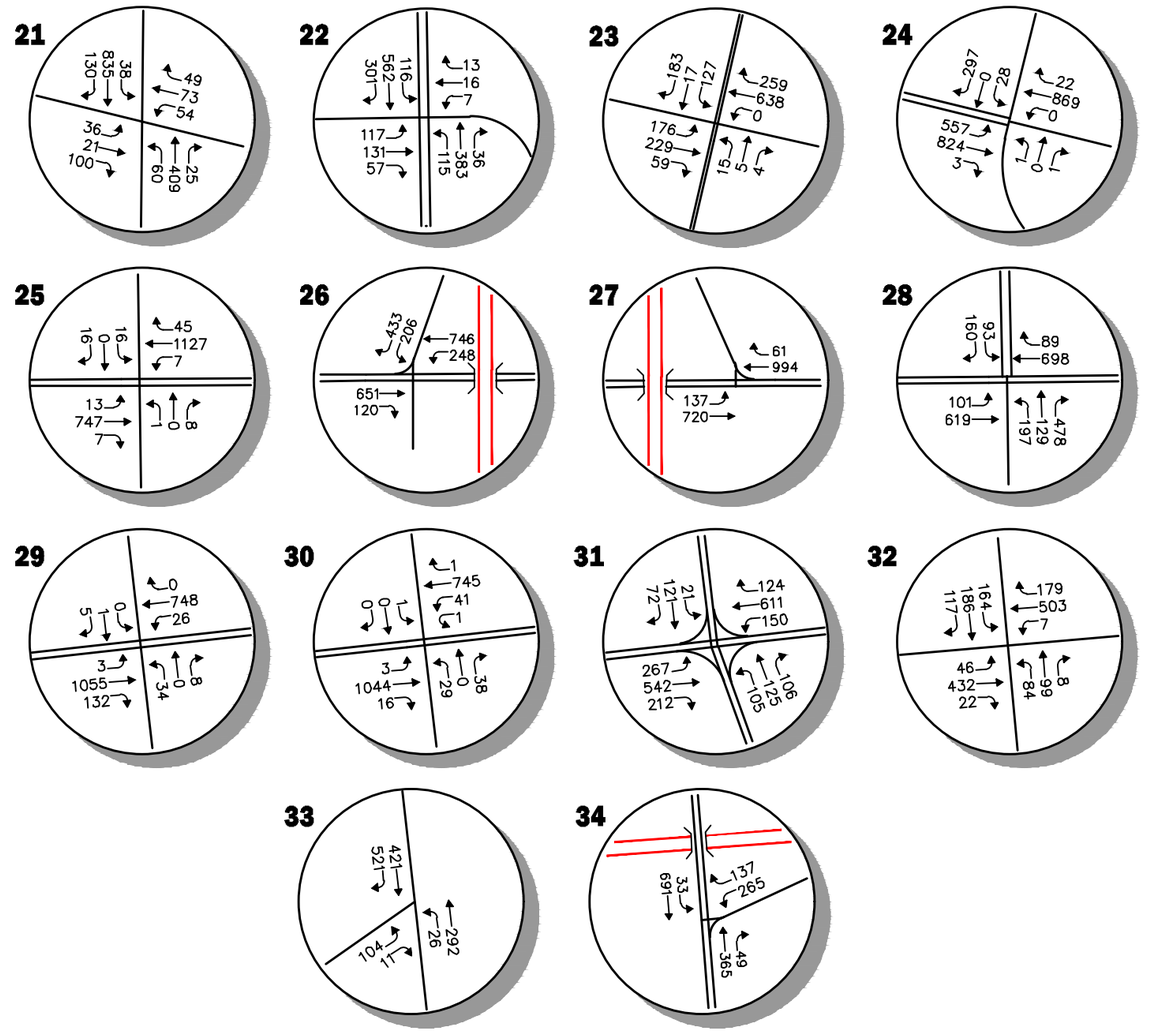

Figure 7S

2027 No-Build
Peak-Month
Weekday Morning
Peak-Hour Traffic Volumes

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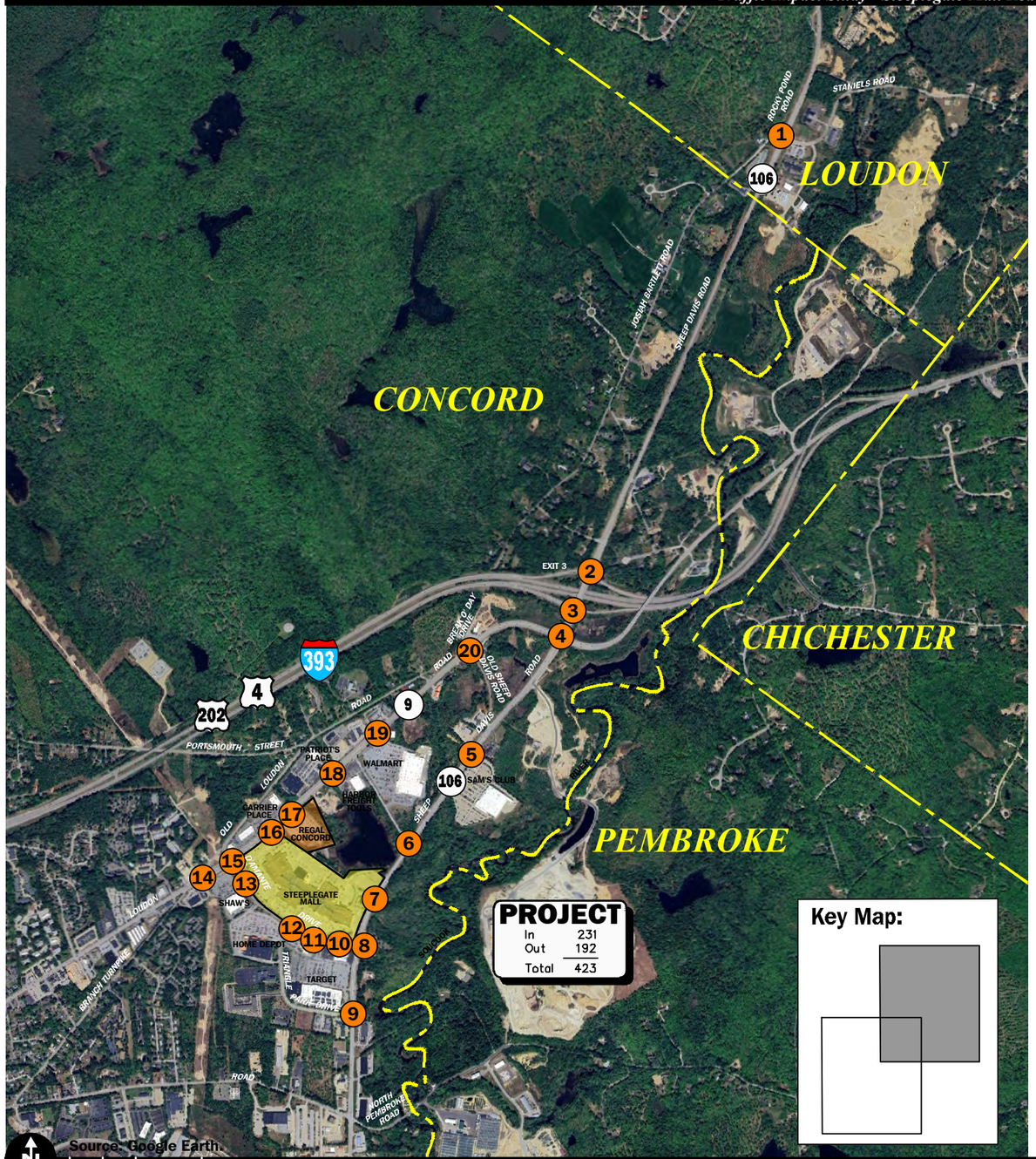

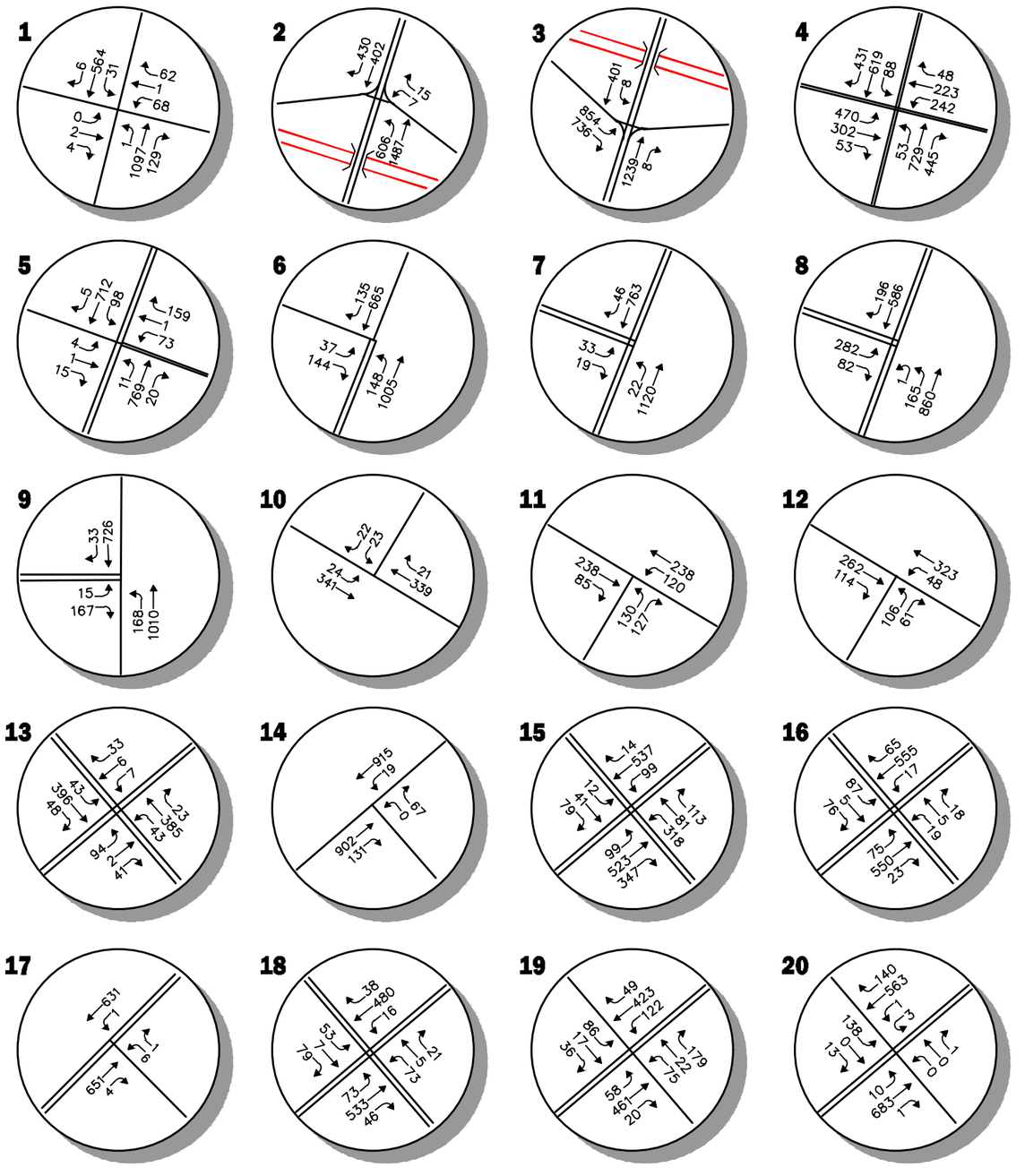

Figure 8N

2027 No-Build
Peak-Month
Weekday Evening
Peak-Hour Traffic Volumes

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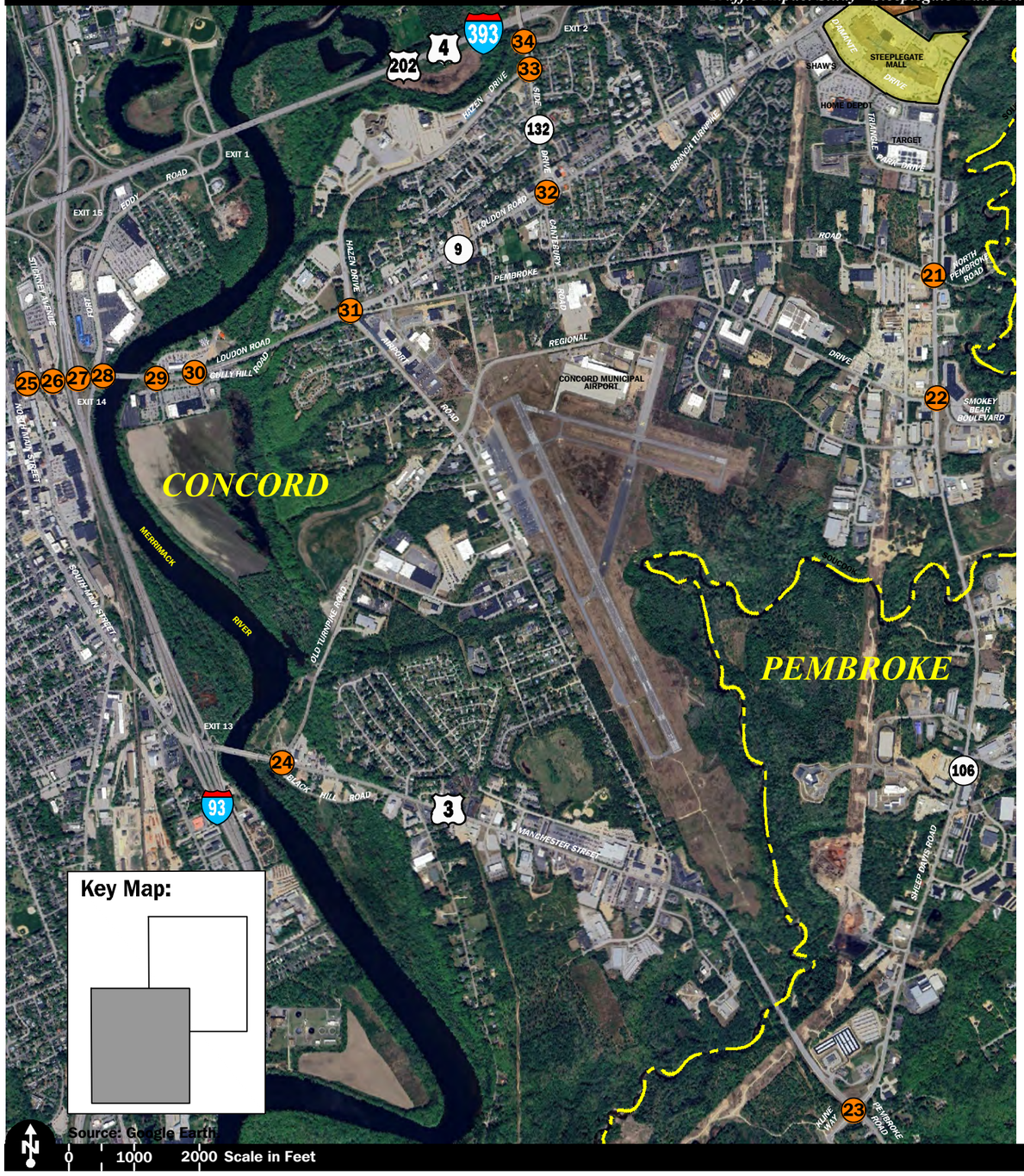

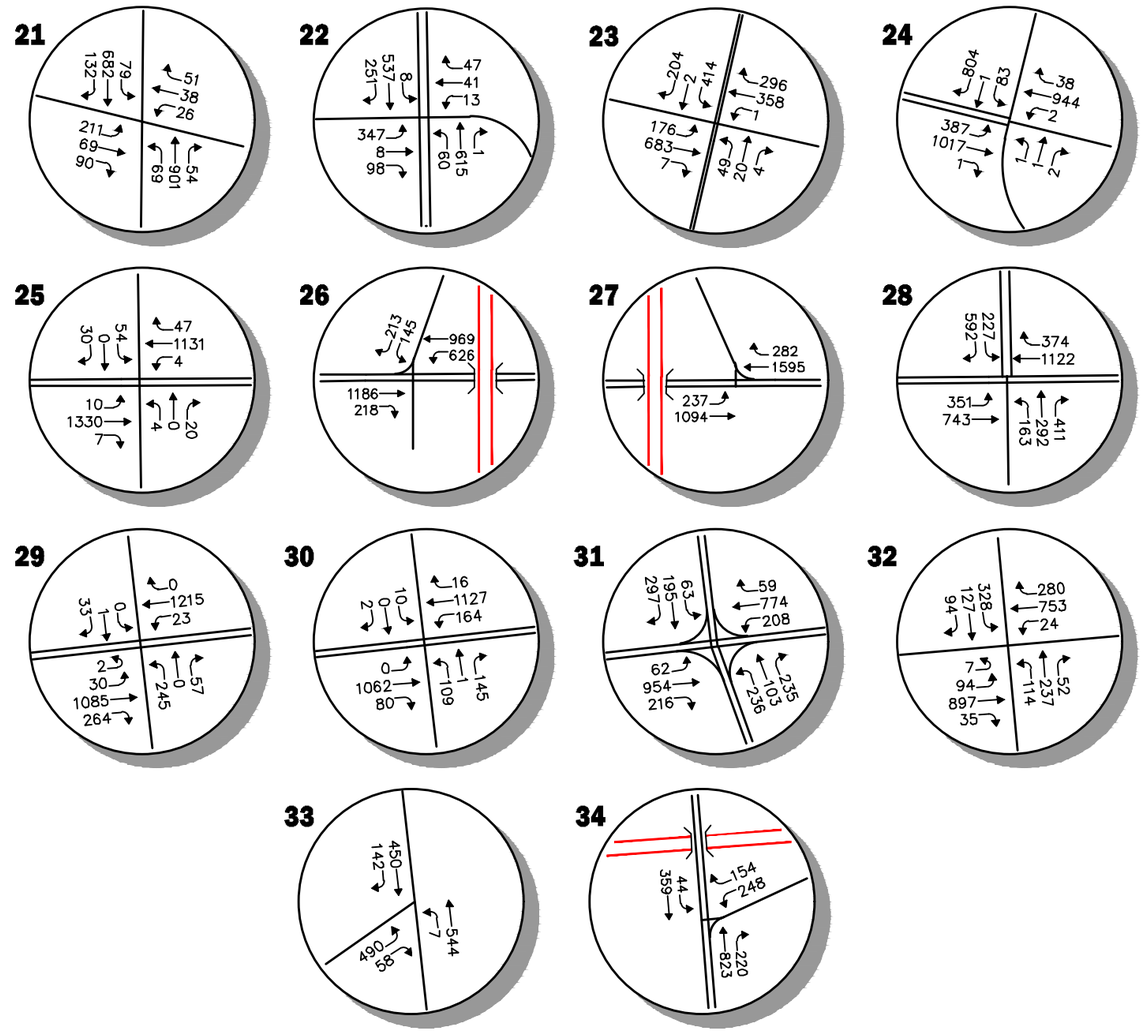

Figure 8S

2027 No-Build
Peak-Month
Weekday Evening
Peak-Hour Traffic Volumes

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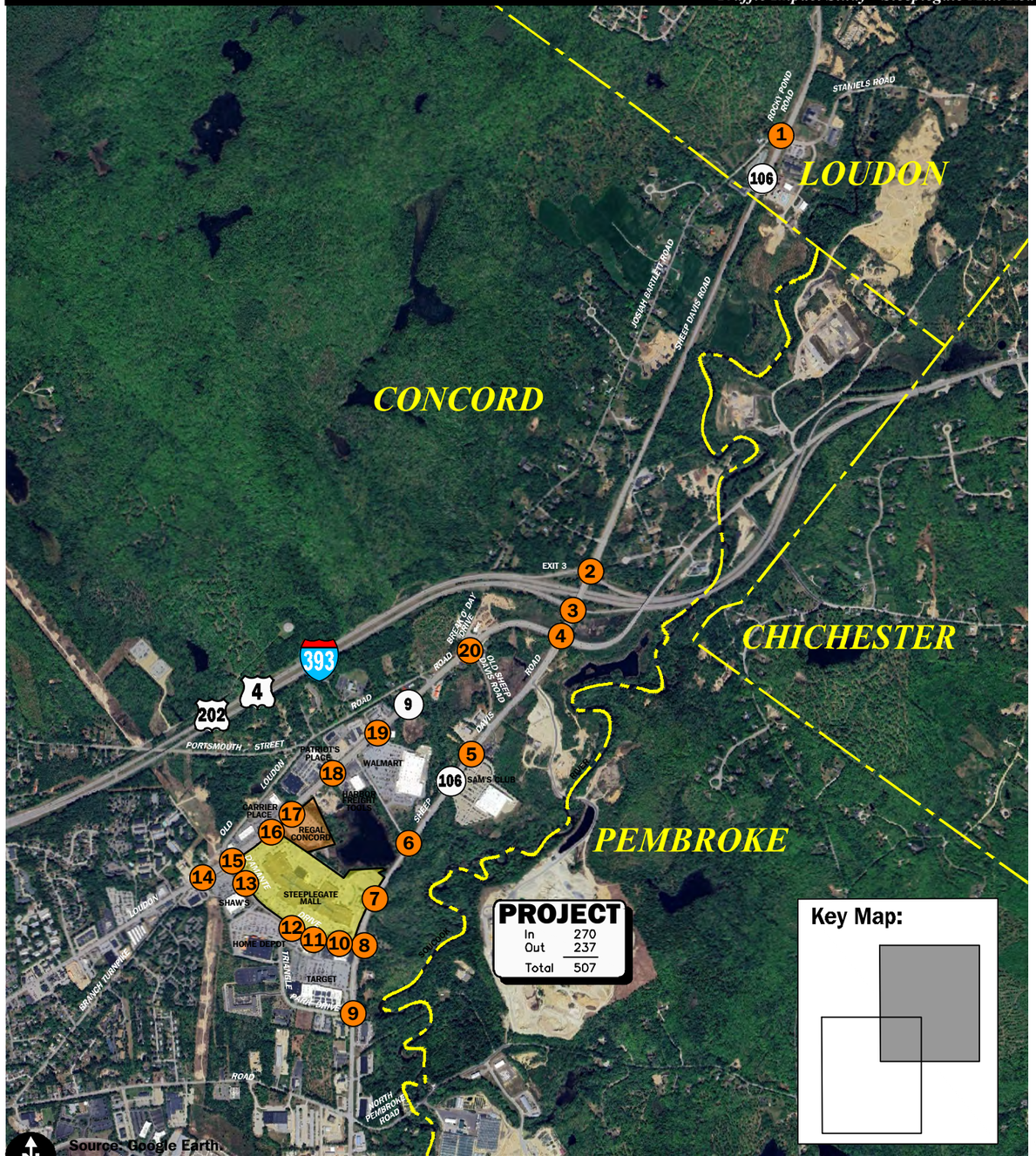

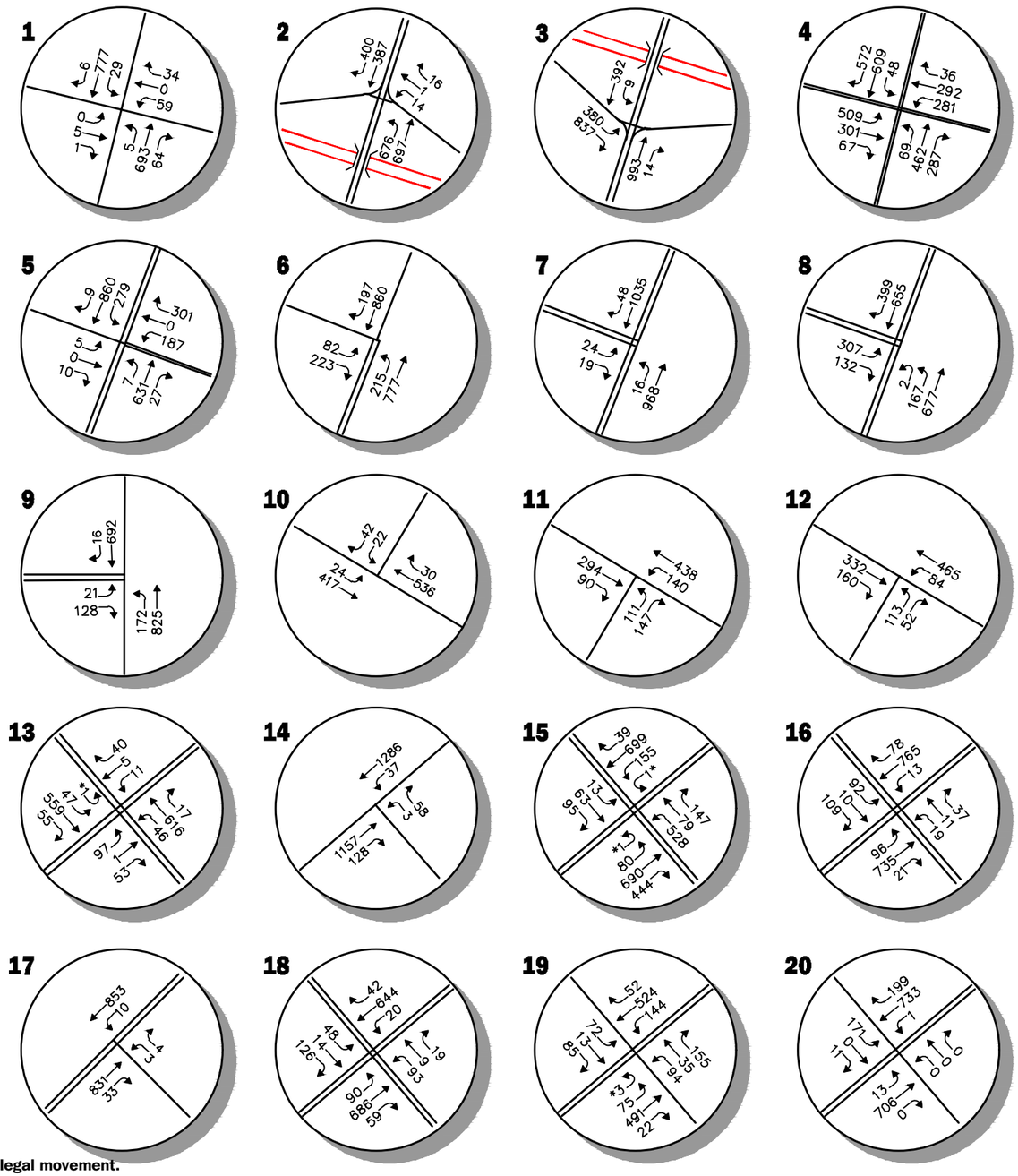

*Illegal movement.

Figure 9N

2027 No-Build
Peak-Month
Saturday Midday
Peak-Hour Traffic Volumes

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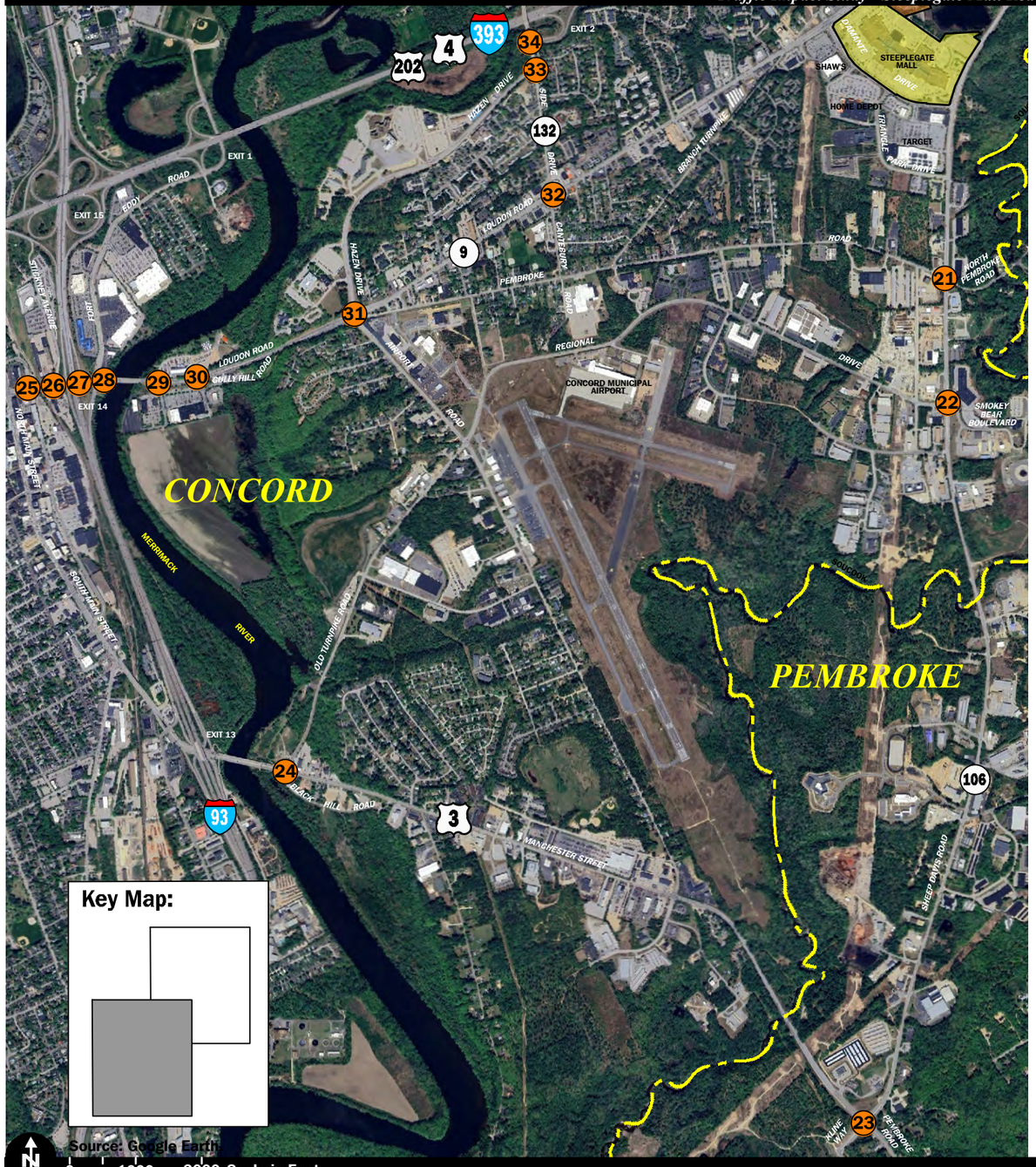

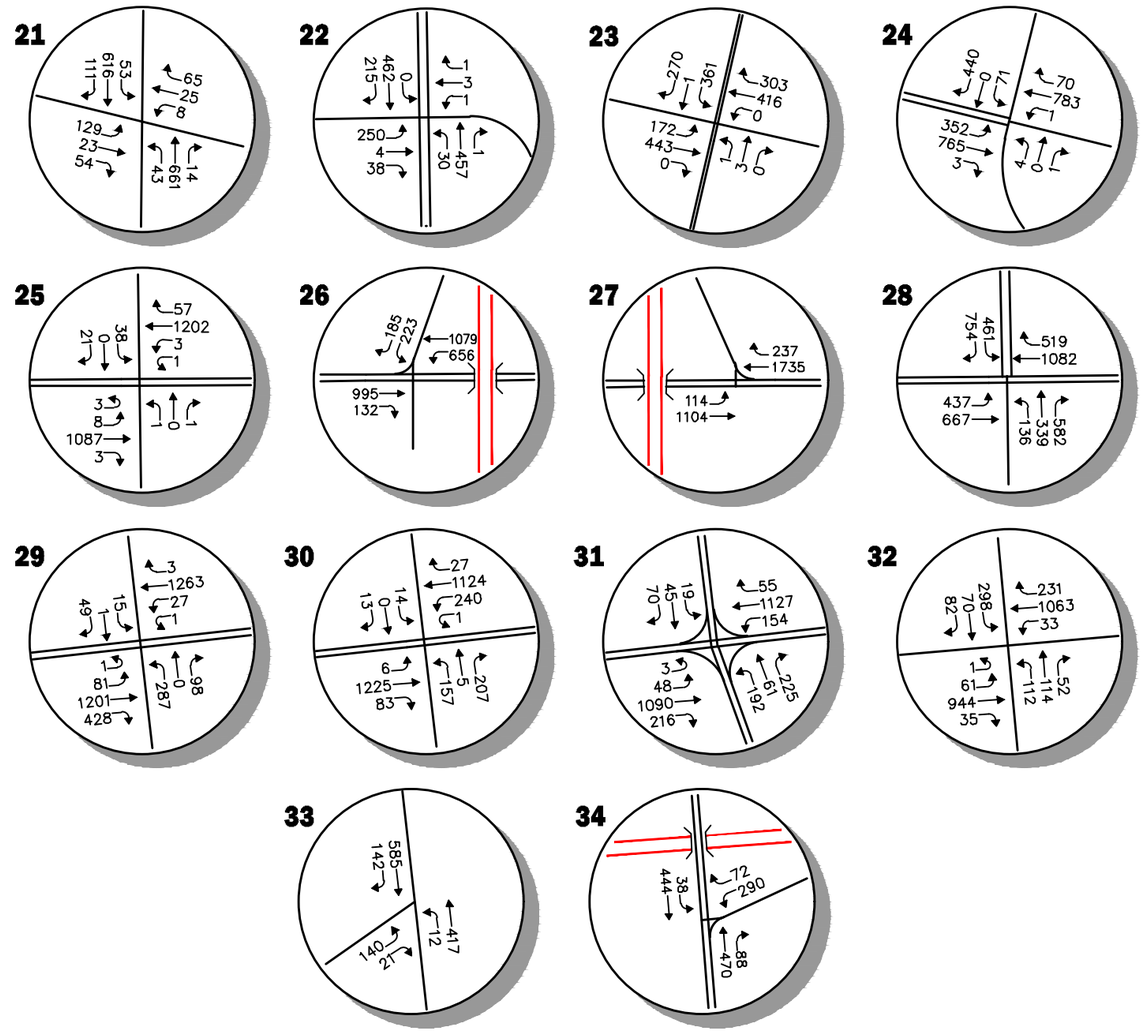

Figure 9S

2027 No-Build
Peak-Month
Saturday Midday
Peak-Hour Traffic Volumes

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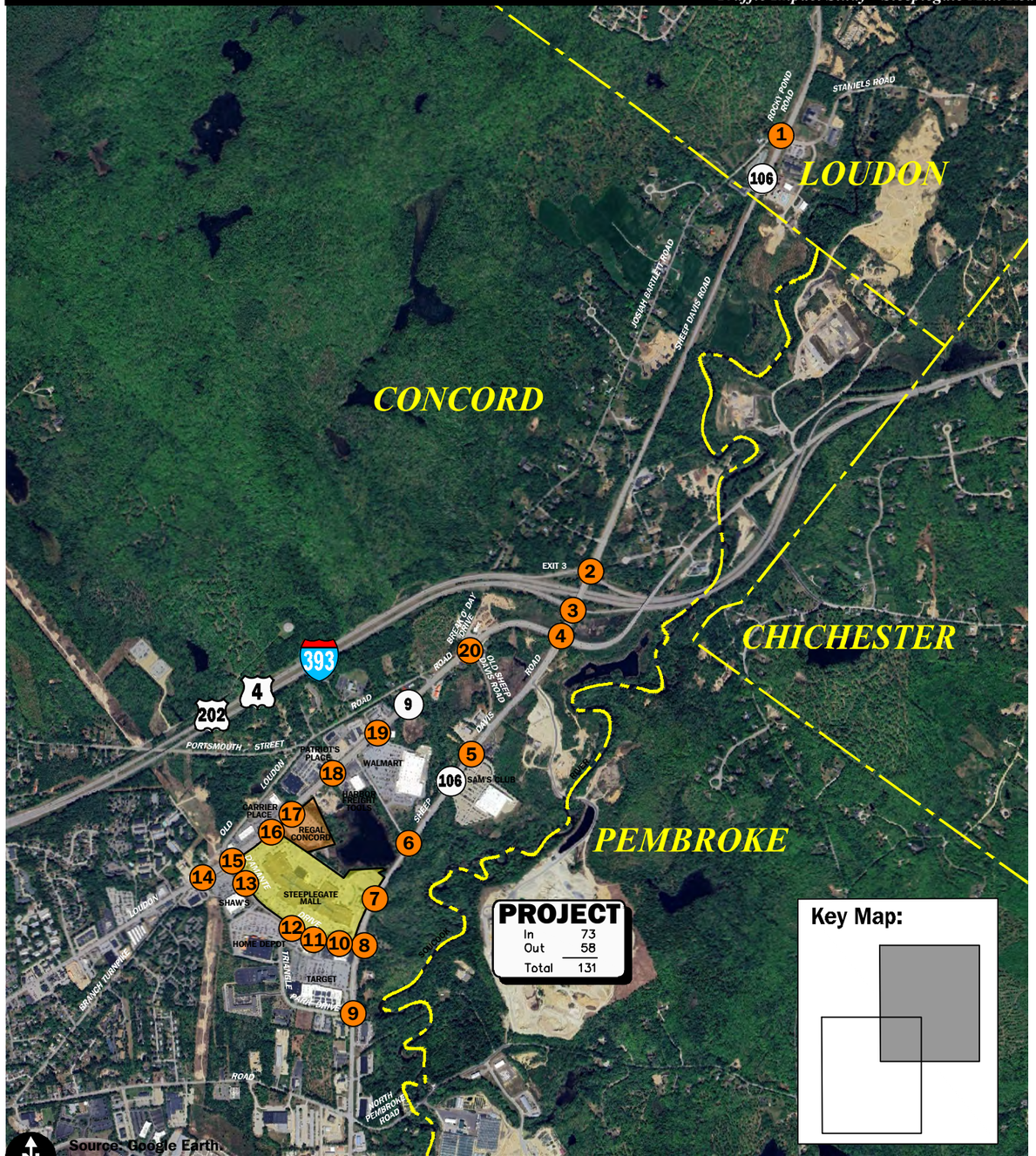

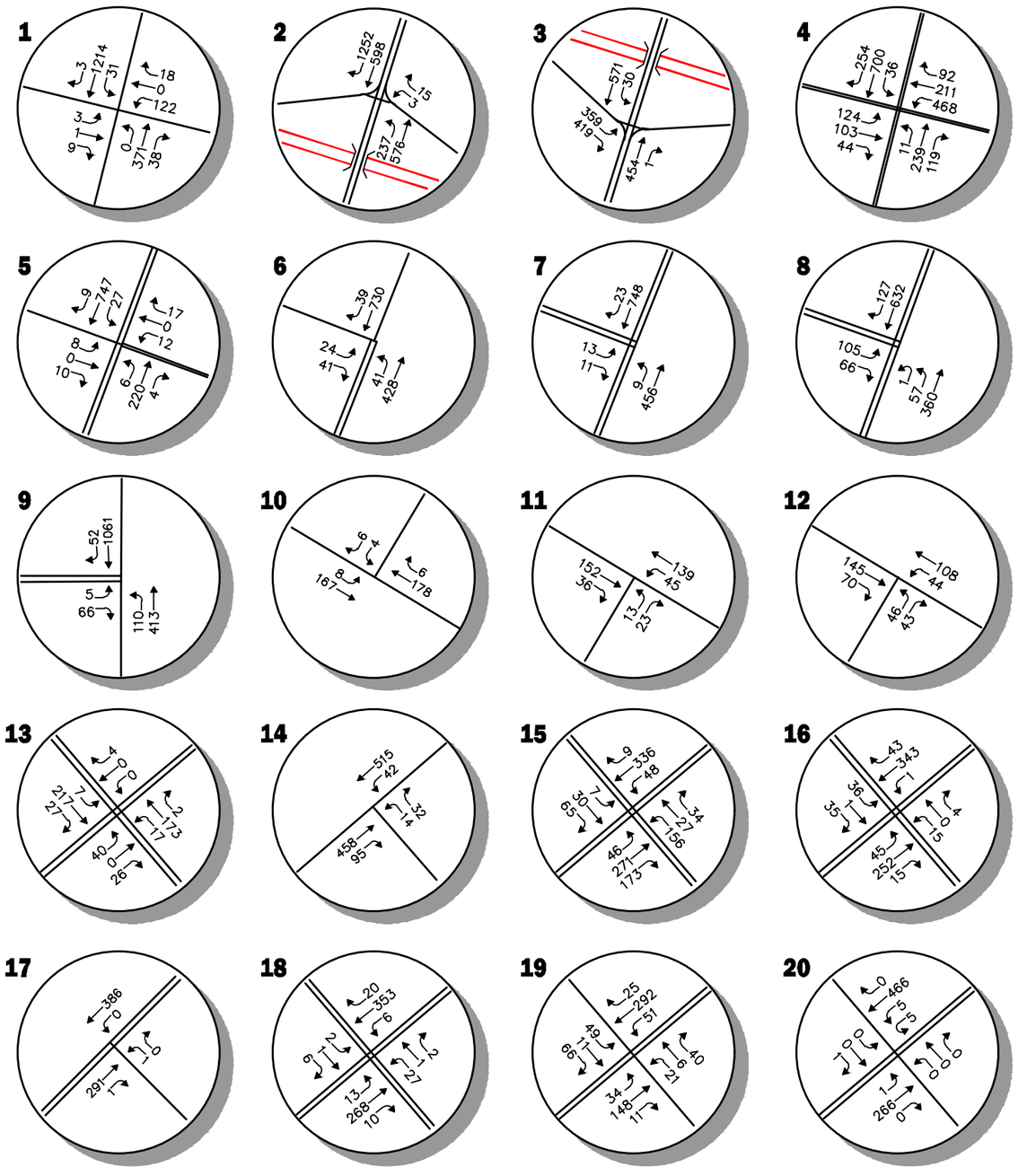

Figure 10N

2037 No-Build
Peak-Month
Weekday Morning
Peak-Hour Traffic Volumes

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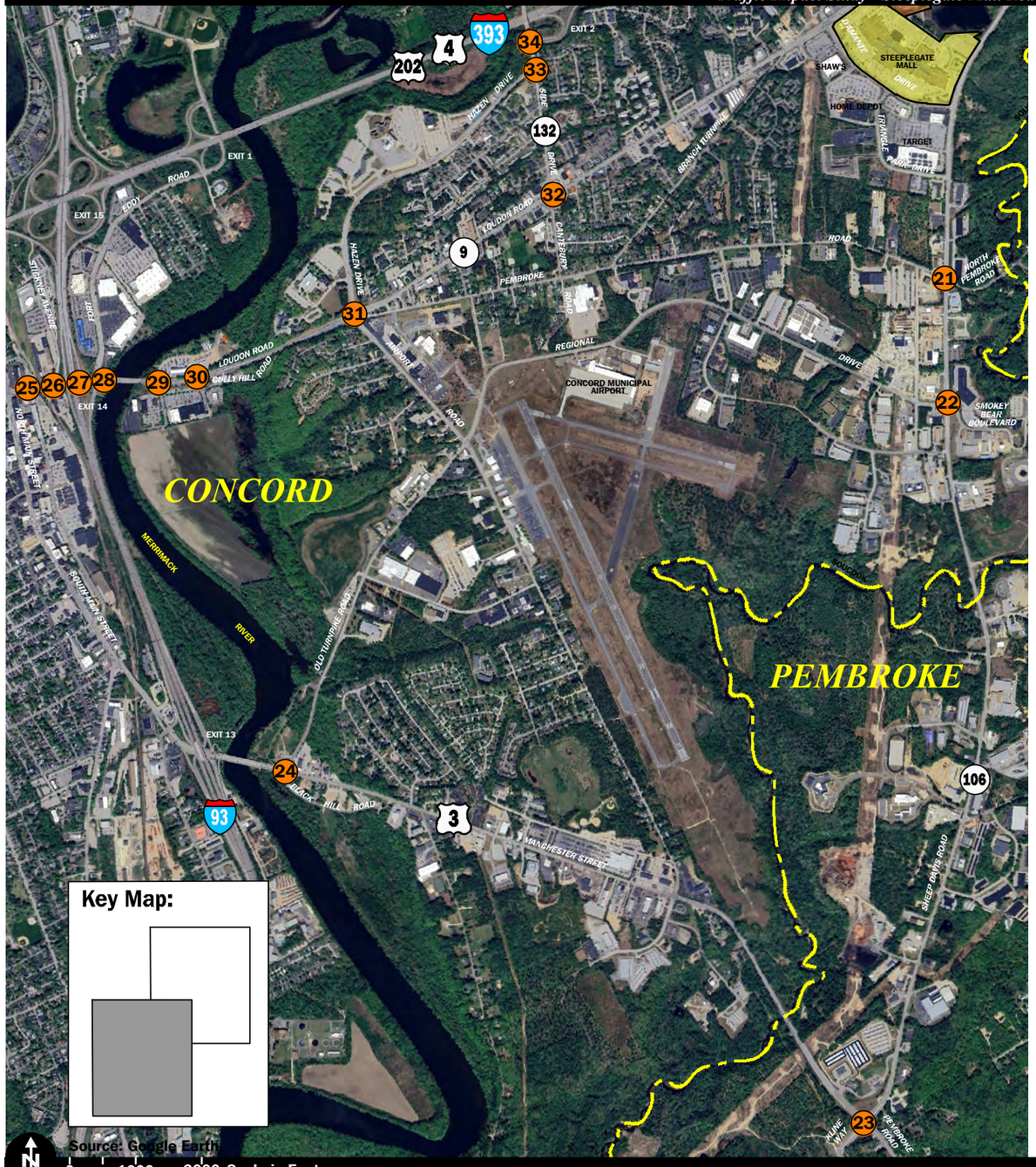

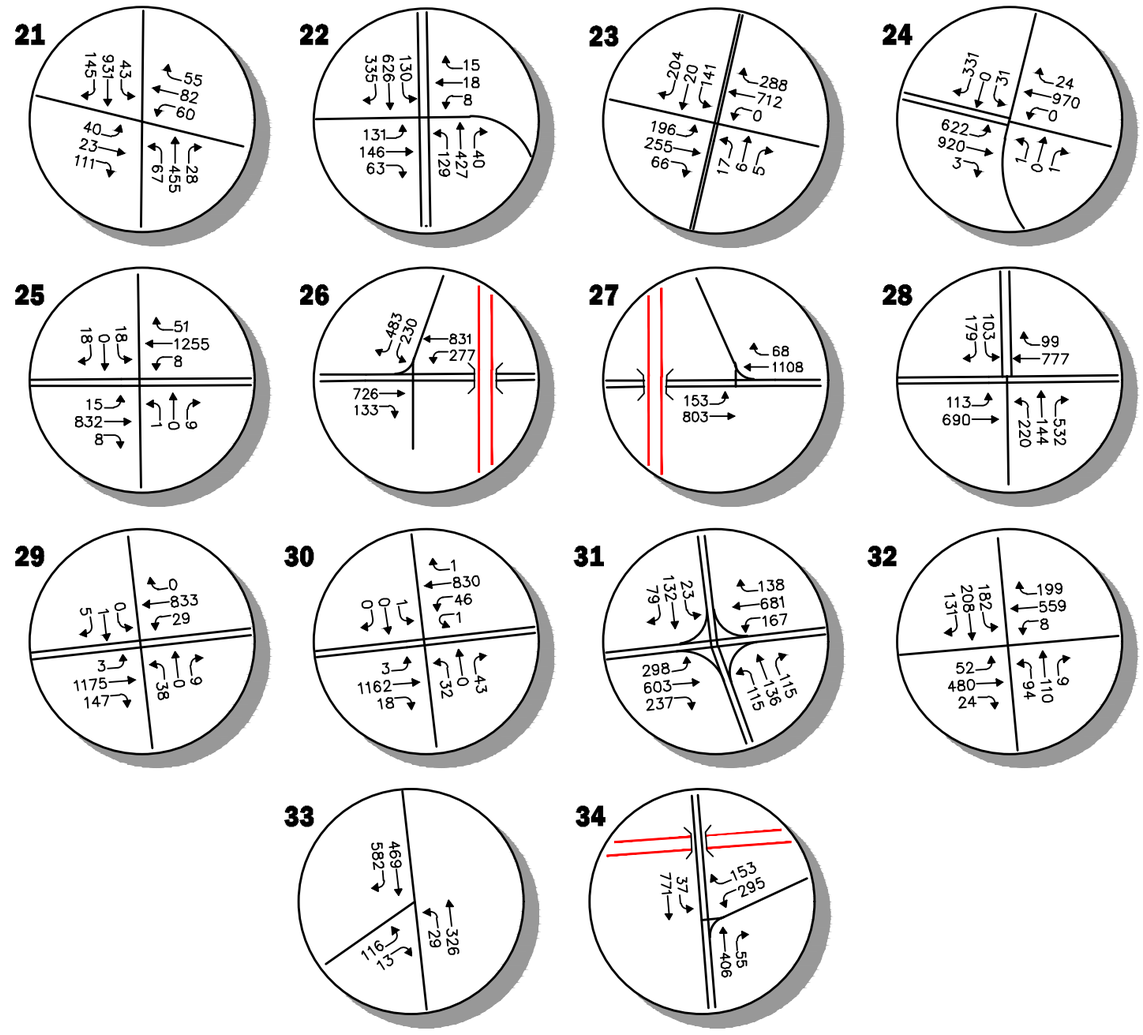

Figure 10S

2037 No-Build
Peak-Month
Weekday Morning
Peak-Hour Traffic Volumes

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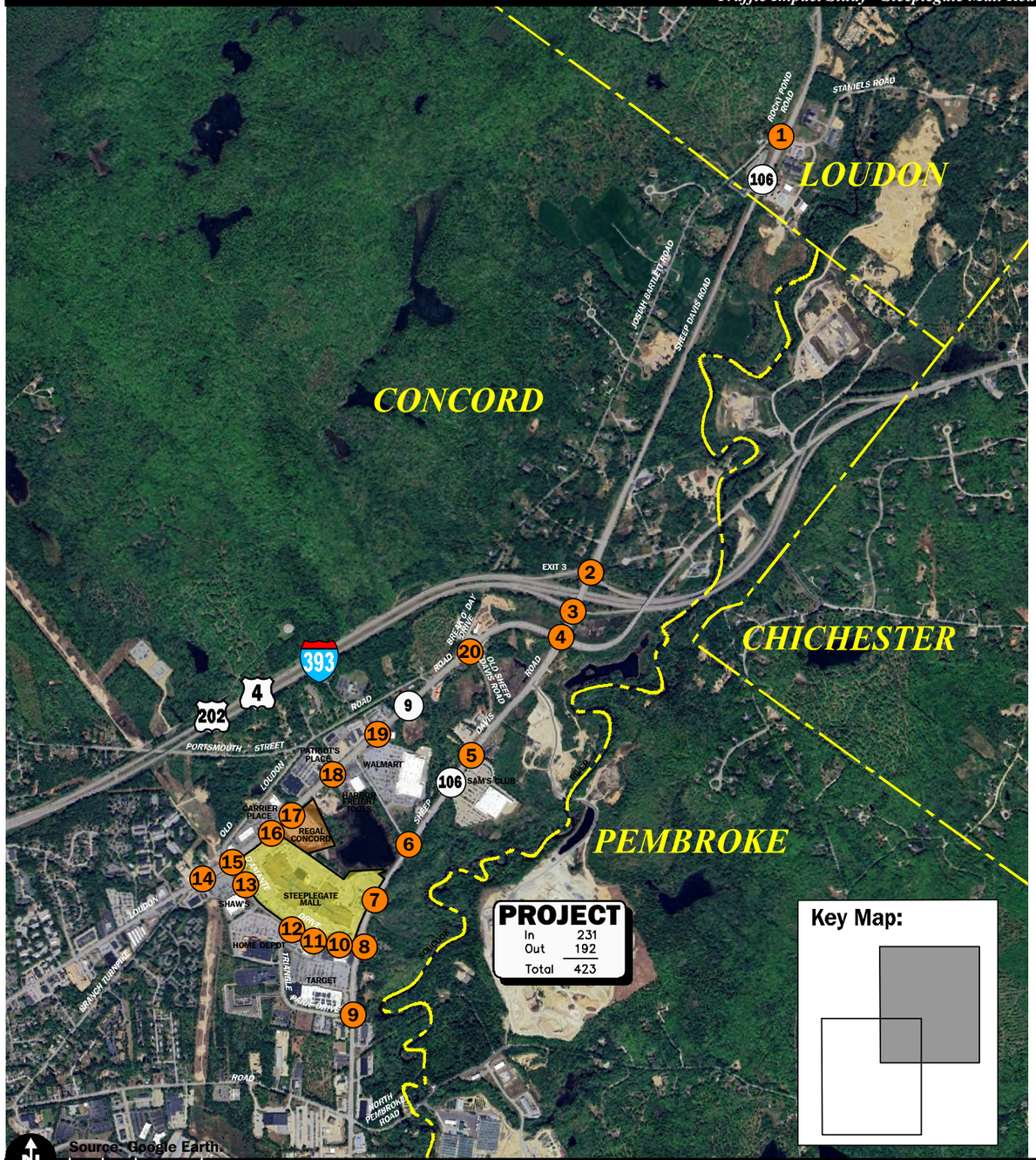

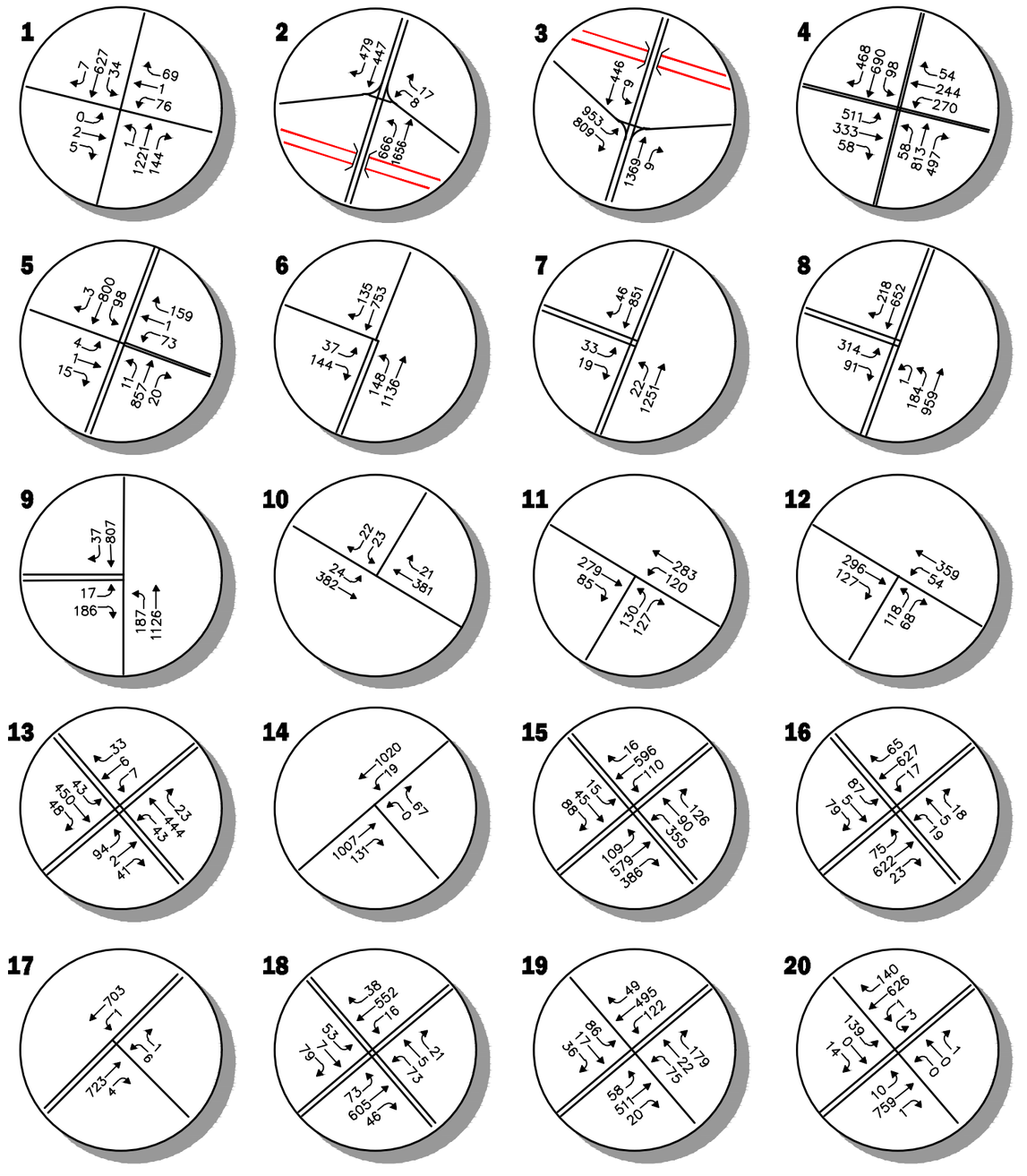

Figure 11N

2037 No-Build
Peak-Month
Weekday Evening
Peak-Hour Traffic Volumes

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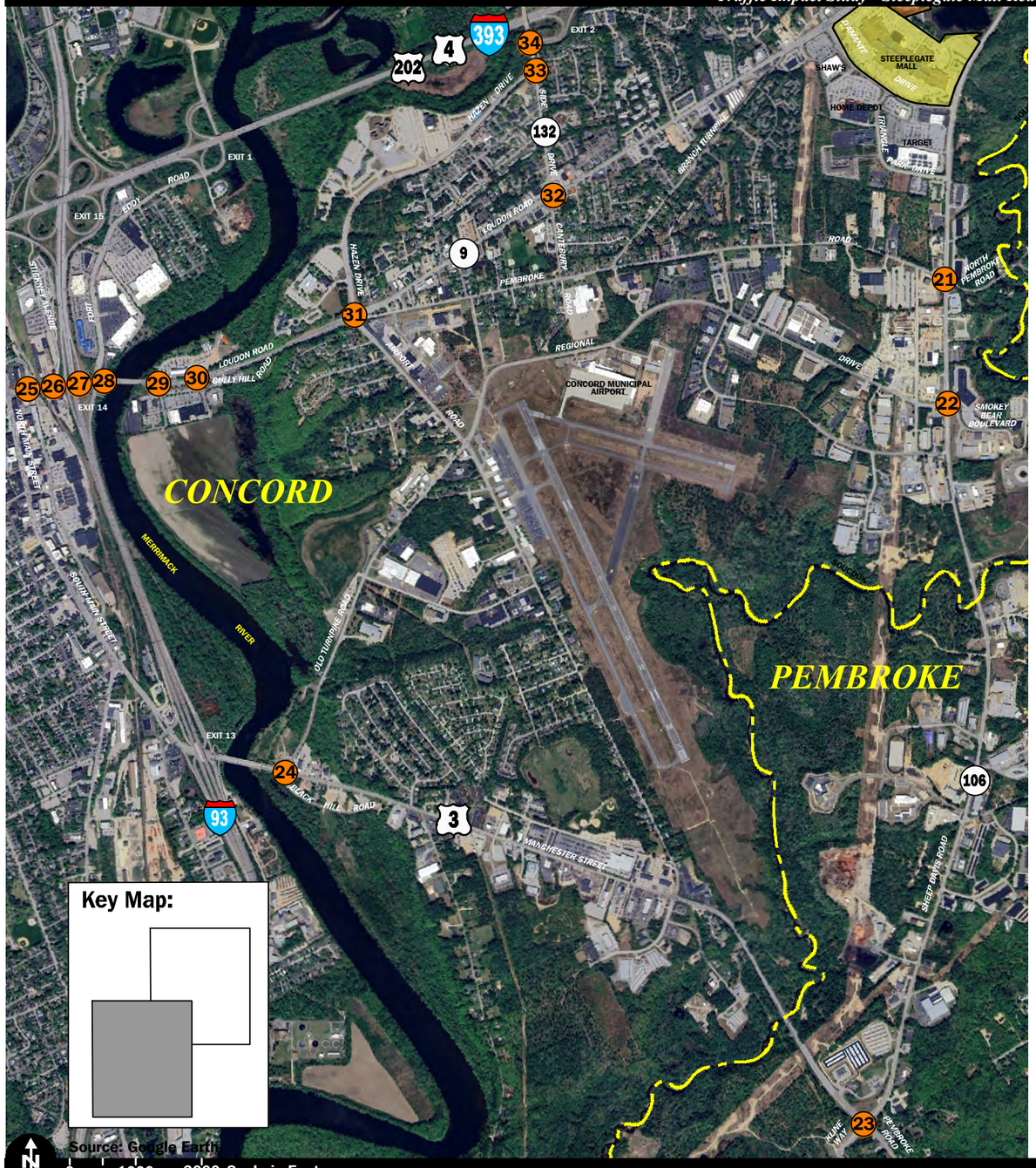

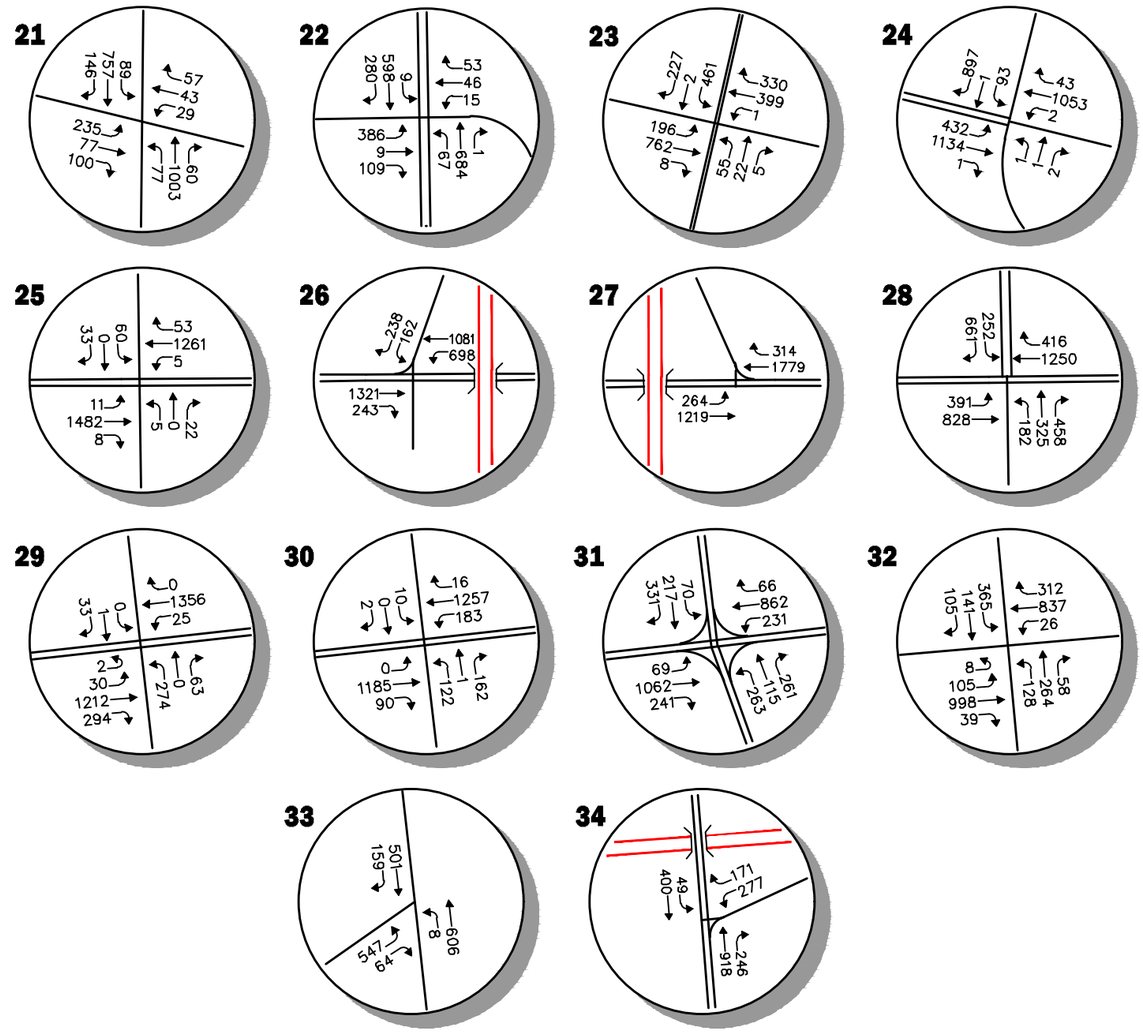

Figure 11S

2037 No-Build
Peak-Month
Weekday Evening
Peak-Hour Traffic Volumes

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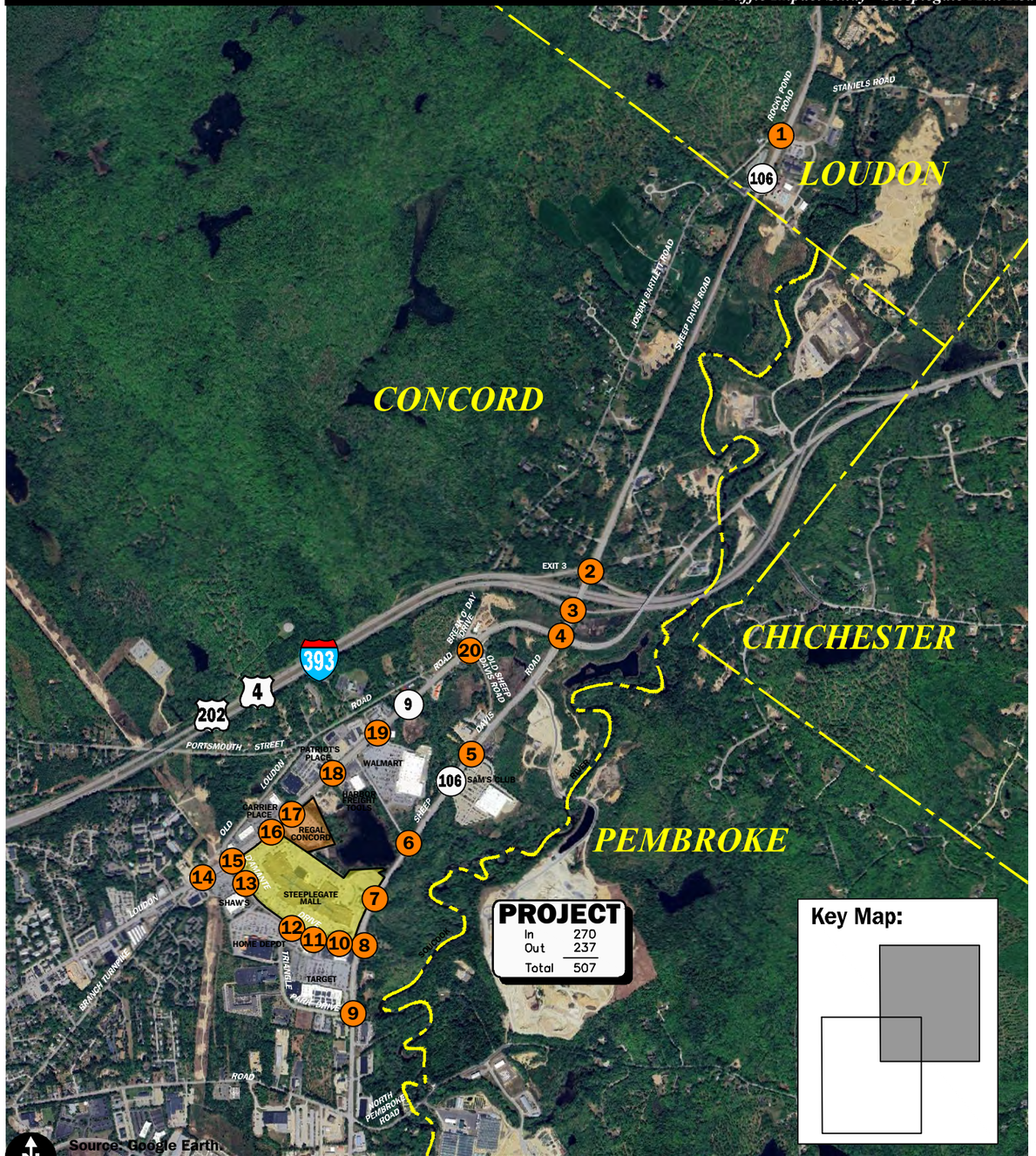

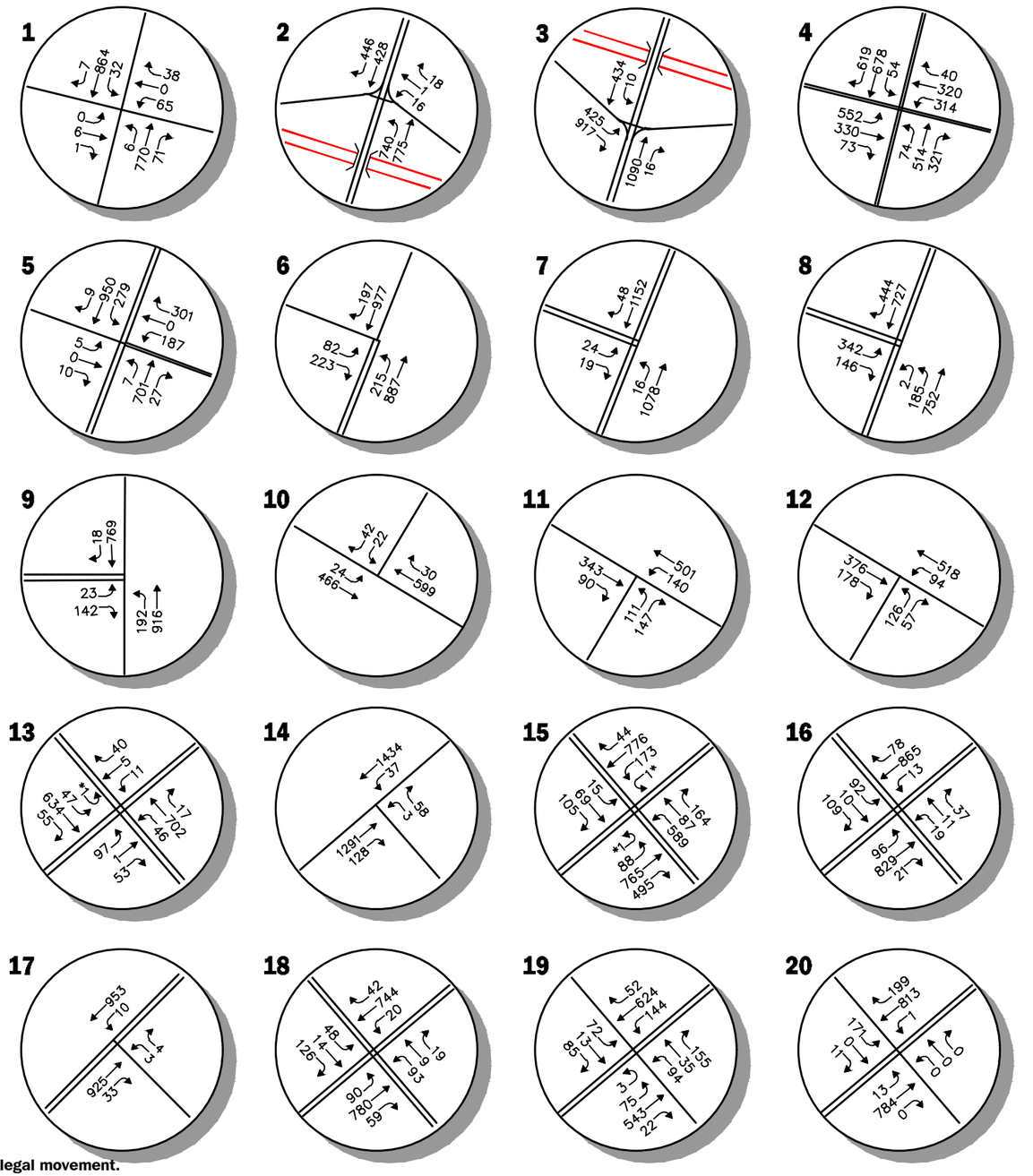

*Illegal movement.

Figure 12N

2037 No-Build
Peak-Month
Saturday Midday
Peak-Hour Traffic Volumes

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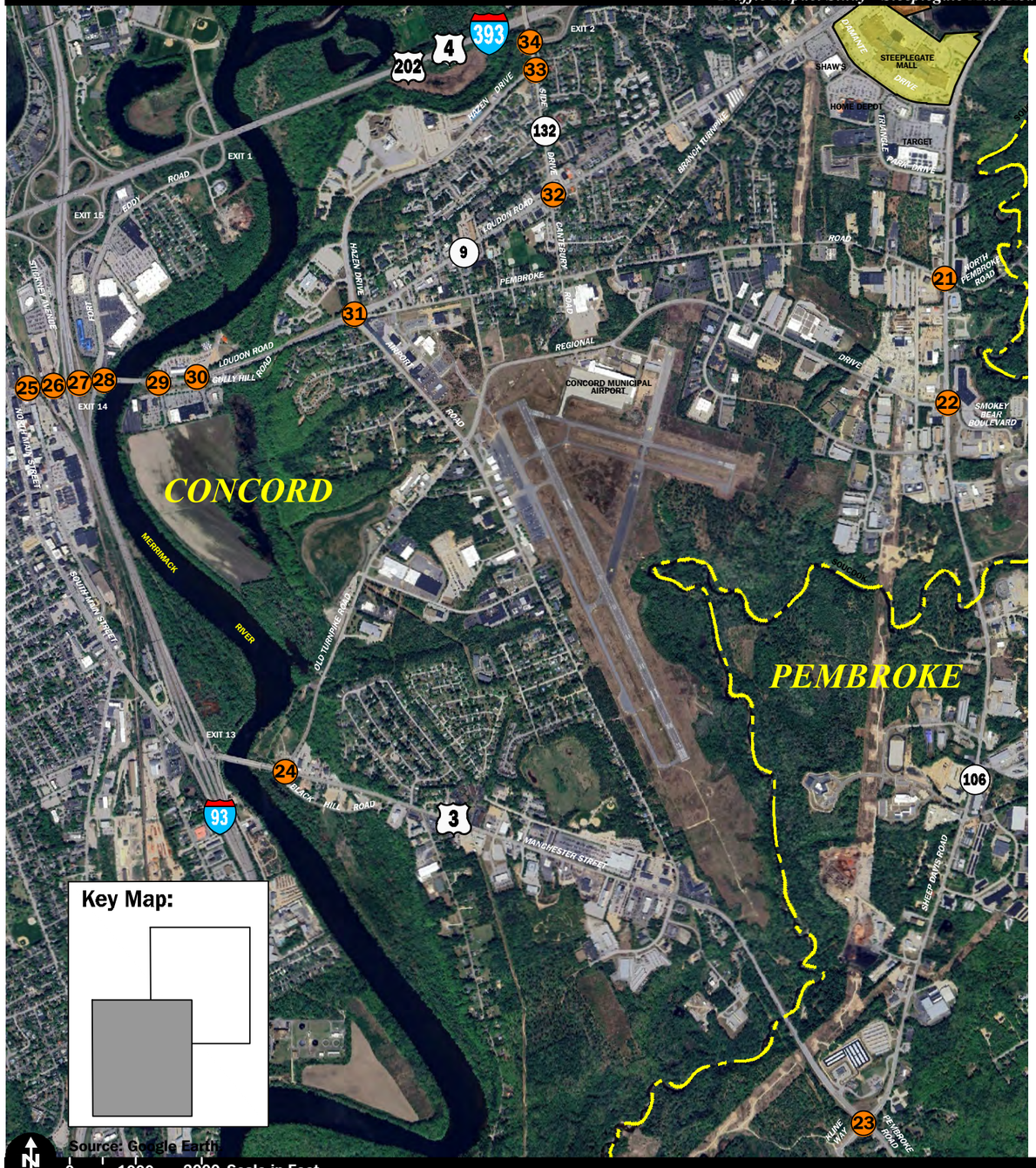

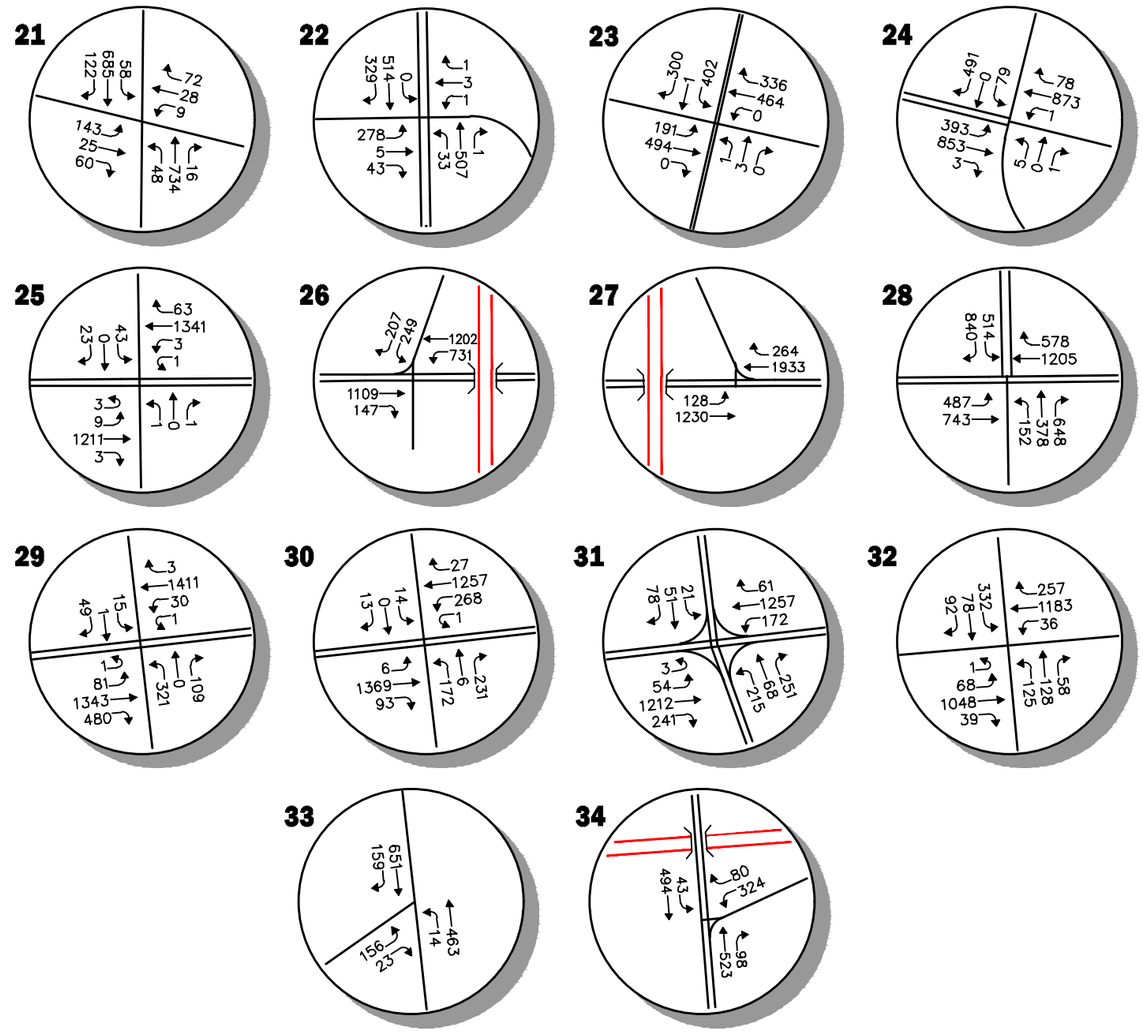

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Figure 12S

2037 No-Build
Peak-Month
Saturday Midday
Peak-Hour Traffic Volumes

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Kittleson & Associates, Inc. (Kittleson)[16] at 26 Costco Wholesale membership clubs with fueling facilities located in the United States and Canada, and included surveys of pass-by and divert-link trips. The MDO facility is a relatively new service being provided by Costco and operates as a 'last-mile' delivery for larger items purchased by members. Unlike a traditional 'last-mile' or package-delivery station, the number of trucks (approximately 10 trucks per day are expected at this location) and the associated staff (approximately two (2) to three (3) persons) are relatively small. Costco MDO data was provided by Kittleson for three (3) operating MDOs located in New York, Pennsylvania and Vermont. The data collected by Kittelson was compiled following the guidance offered by the ITE for empirical data collection. A memorandum describing the specific data collection process and the resulting trip rates is provided in the appendix.

Chick-fil-A Component

In order to develop the traffic characteristics of the Chick-fil-A restaurant component of the Project, traffic counts were performed at four (4) Chick-fil-A restaurants that are of similar size to the proposed restaurant and are located proximate to a major highway, consistent with the location of the Project site. The subject restaurants are located at 140 Providence Highway in Dedham, Massachusetts; 375 Washington Street in Woburn, Massachusetts; 1835 Washington Street in Hanover, Massachusetts; and 14 South Village Drive in Salem, New Hampshire.

The traffic counts were conducted during the weekday morning, weekday evening and Saturday midday peak hours, and were used to establish a trip rate (per 1,000 sf) that was then applied to floor area of the proposed restaurant (5,351 sf) to develop the base trip-generation calculations for the respective peak hours. The peak-hour trip rates per 1,000 sf were averaged for each peak-hour to arrive at the trip rates that were used to develop the peak-hour trip characteristics for the Chick-fil-A restaurant component of the Project. The trip calculations for the average weekday and Saturday were developed on a proportionate basis using the empirical trip rates derived for the weekday evening peak-hour and the trip rates from ITE Land Use Code (LUC) 934, *Fast-Food Restaurant with a Drive-Through Window*.

Internal Trips

A portion of the trips expected to be generated by the Project will consist of internal or dual-purpose trips. An internal trip in the case of the Project consists of a resident, customer and/or employee that patronizes more than one of the uses planned within a development and is common in mixed-use projects with appropriate accommodations to facilitate trips between uses. By way of example, a resident of the Project may patronize one or more of the retail stores, banks, restaurants or the Costco that will be located within the Project site without traveling on a roadway outside of the internal roadway network within the Project site. In order to account for this interaction, the multi-use trip-generation calculation methodology promulgated by the ITE[17] was applied to the base ITE trip-generation calculations for the constituent components of the Project.

Pass-By Trips

Not all of the trips expected to be generated by the commercial components of the Project will be new trips on the roadway network. A significant portion of these trips will consist of pass-by trips or vehicles already traveling along NH Route 9, NH Route 106 or D'Amante Drive for other

[16] *Costco Trip Generation Memorandum*, Concord NH Costco – Trip Generation Estimate; Kittleson & Associates, Inc.; March 11, 2026.

[17] Institute of Transportation Engineers, op. cit. 1.

purposes that will patronize the Project in conjunction with their trip and then continue to their original destination. These trips are not new trips on the roadway network as a result of the Project. Statistics published by the ITE[18] and information provided by Kittleson indicate that, on average, up to 40 percent of the trips generated by a retail use, up to 38 percent of the trips generated by a bank with a drive-through teller facility, up to 55 percent of the trips generated by a restaurant use, and up to 36 percent of the trips associated with a Costco Wholesale club may consist of pass-by trips. In accordance with the scoping determination issued by NHDOT for the Project, the ITE pass-by trip rate for the specific use and time period were applied to the base trip-generation calculations for the Project.

Divert-Link Trips

In addition to pass-by trips, a portion of the trips that are expected to be generated by the Costco Wholesale club component of the Project will consist of divert trips or vehicles already traveling along area roadways for other purposes that will divert from their intended route to patronize the Project in conjunction with their trip and then continue to their original destination. Similar to pass-by trips, diverted trips are not new trips on the area roadway network; however, they are new trips to the roadways immediately adjacent to the Project site. Based on a review of the data provided by Kittelson, up to 40 percent of the trips generated by a Costco Wholesale club with a fueling facility consist of trips that are diverted from area roadways. The diverted-link trip rates provided by Kittelson were applied to the base trip-generation calculations for the Costco Wholesale club component of the Project.

Table 5 summarizes the anticipated trip characteristics of the Project using the aforementioned methodology, with the detailed trip-generation calculations for each component of the Project provided in the Appendix.

[18]Institute of Transportation Engineers, op. cit. 1.

Table 5
TRIP-GENERATION SUMMARY

Time Period/Direction	Vehicle Trips													
	(A) Multifamily Community (606 units)[a]	(B) Retail Space (140,191 sf)[b]	(C) Bank with Drive Through Teller (5,594 sf)[c]	(D) Fast Casual Restaurant (6,000 sf)[d]	(E) High Turnover (Sit-Down) Restaurant (5,110 sf)[e]	(F) Costco Wholesale with Fuel Center (159,000 sf)[f]	(G) Proposed Costco MDO Facility (11,000 sf)[f]	(H) Chick-fil-A Restaurant (5,351 sf)[g]	(I = A+B+ C+D+E+ F+G+H) Total Trips	(J) Internal Trips[h]	(K = I-J) Total Net Trips	**(L) Total Pass-By Trips[i]**	**(M) Total Diverted-Link Trips[j]**	**(N =K-L-M) Total New Trips**
Average Weekday Daily:														
Entering	1,352	7,110	277	678	265	6,348	30	2,467	18,527	960	17,577	**4,928**	**1,889**	**10,760**
Exiting	1,352	7,110	277	678	265	6,348	30	2,467	18,527	960	17,577	**4,928**	**1,889**	**10,760**
Total	2,704	14,220	554	1,356	530	12,696	60	4,934	37,054	1,920	35,154	**9,856**	**3,778**	**21,520**
Weekday Morning Peak-Hour:														
Entering	57	298	32	6	25	198	12	50	678	73	605	**158**	**66**	**381**
Exiting	190	198	24	3	21	155	6	44	641	73	568	**158**	**66**	**344**
Total	247	496	56	9	46	353	18	94	1,319	146	1,173	**316**	**132**	**725**
Weekday Evening Peak-Hour:														
Entering	142	589	59	46	29	571	4	171	1,611	305	1,306	**400**	**163**	**743**
Exiting	79	614	59	40	18	618	8	177	1,613	305	1,308	**400**	**163**	**745**
Total	221	1,203	118	86	47	1,189	12	348	3,224	610	2,614	**800**	**326**	**1,488**
Saturday:														
Entering	1,303	6,514	242	588	267	6,992	30	2,703	18,639	924	17,715	**4,794**	**1,613**	**11,308**
Exiting	1,303	6,514	242	588	267	6,992	30	2,703	18,639	924	17,715	**4,794**	**1,613**	**11,308**
Total	2,606	13,028	484	1,176	534	13,984	60	5,406	37,278	1,848	35,430	**9,588**	**3,226**	**22,616**
Saturday Midday Peak-Hour:														
Entering	111	527	75	108	29	798	6	262	1,916	77	1,839	**496**	**185**	**1,158**
Exiting	107	548	72	88	28	797	9	263	1,912	77	1,835	**496**	**185**	**1,154**
Total	218	1,075	147	196	57	1,595	15	525	3,828	154	3,674	**992**	**370**	**2,312**

[a]Based on ITE LUC 221, *Multifamily Housing (Mid-Rise)*.
[b]Based on ITE LUC 821, *Shopping Plaza (40-150k) – Supermarket - Yes*.
[c]Based on ITE LUC 912, *Drive-in Bank.*
[d]Based on ITE LUC 930, *Fast Casual Restaurant.*
[e]Based on ITE LUC 932, *High-Turnover (Sit-Down) Restaurant.*
[f]Based on empirical trip generation rates provided by Kittleson & Associates, Inc.
[g]Based on traffic counts conducted at Chick-fil-A restaurants during the weekday morning, weekday evening and Saturday midday peak hours. Trip calculations for the average weekday and Saturday were developed on a proportionate basis using trip rates from ITE LUC 934, *Fast-Food Restaurant with Drive-Through Window.*
[h]Internal trips were developed using the multi-use trip generation calculation methodology promulgated by the ITE.
[i]Pass-by trip rates were obtained from ITE for the retail, bank and restaurant uses and from Kittleson & Associates, Inc. for the Costco Wholesale with Fuel Center.
[j]Diverted-link trip rates were obtained from Kittleson & Associates, Inc. and were applied to the Costco Wholesale with Fuel Center trip-generation only.

Project-Generated Traffic-Volume Summary

As can be seen in Table 5, using the aforementioned methodology, the Project is expected to generate approximately 21,520 new vehicle trips on an average weekday and 22,616 new vehicle trips on a Saturday (both two-way, 24-hour volumes), with 725 new vehicle trips (381 vehicles entering and 344 exiting) expected during the weekday morning peak-hour, 1,488 new vehicle trips (743 vehicles entering and 745 exiting) expected during the weekday evening peak-hour and 2,312 new vehicle trips (1,158 vehicles entering and 1,154 exiting) expected during the Saturday midday peak-hour.

Table 6 compares the traffic volumes associated with the Project to those of the Steeplegate Mall as counted in July 2023 during the weekday morning, weekday evening and Saturday midday peak-hour. Note that the traffic volumes for both the existing mall and the Project include pass-by and divert-link trips and represent the total volume of traffic as measured at the driveways serving the Project site.

Table 6
TRAFFIC VOLUME COMPARISON

	Vehicle Trips		
Time Period/Direction	(A) Proposed Mixed-Use Development[a]	(B) Existing Project Site-Related Traffic Volumes[b]	(A-B) Difference
Weekday Morning Peak-Hour:	1,173	131	+1,042
Weekday Evening Peak-Hour:	2,614	423	+2,191
Saturday Midday Peak-Hour:	3,674	507	+3,167

[a]See Column K of Table 5.
[b]Based on traffic counts conducted at the five (5) existing driveways to the Project site as counted in July 2023 and depicted on Figures 4, 5, and 6 for the weekday morning, weekday evening and Saturday midday peak hours, respectively.

Traffic Volume Comparison

As can be seen in Table 6, in comparison to the trips associated with the Project site as measured in July 2023, the Project is expected to result in 1,042 *additional* vehicle trips during the weekday morning peak-hour, 2,191 *additional* vehicle trips during the weekday evening peak-hour and 3,167 *additional* vehicle trips during the Saturday midday peak-hour.

TRIP DISTRIBUTION AND ASSIGNMENT

Separate trip-distribution patterns were developed for the residential, commercial and Costco Wholesale club components of the Project given the differing nature and purpose of the trips associated with these uses. For the residential component of the Project, the directional distribution was determined based on a review of Journey-to-Work data obtained from the U.S. Census for

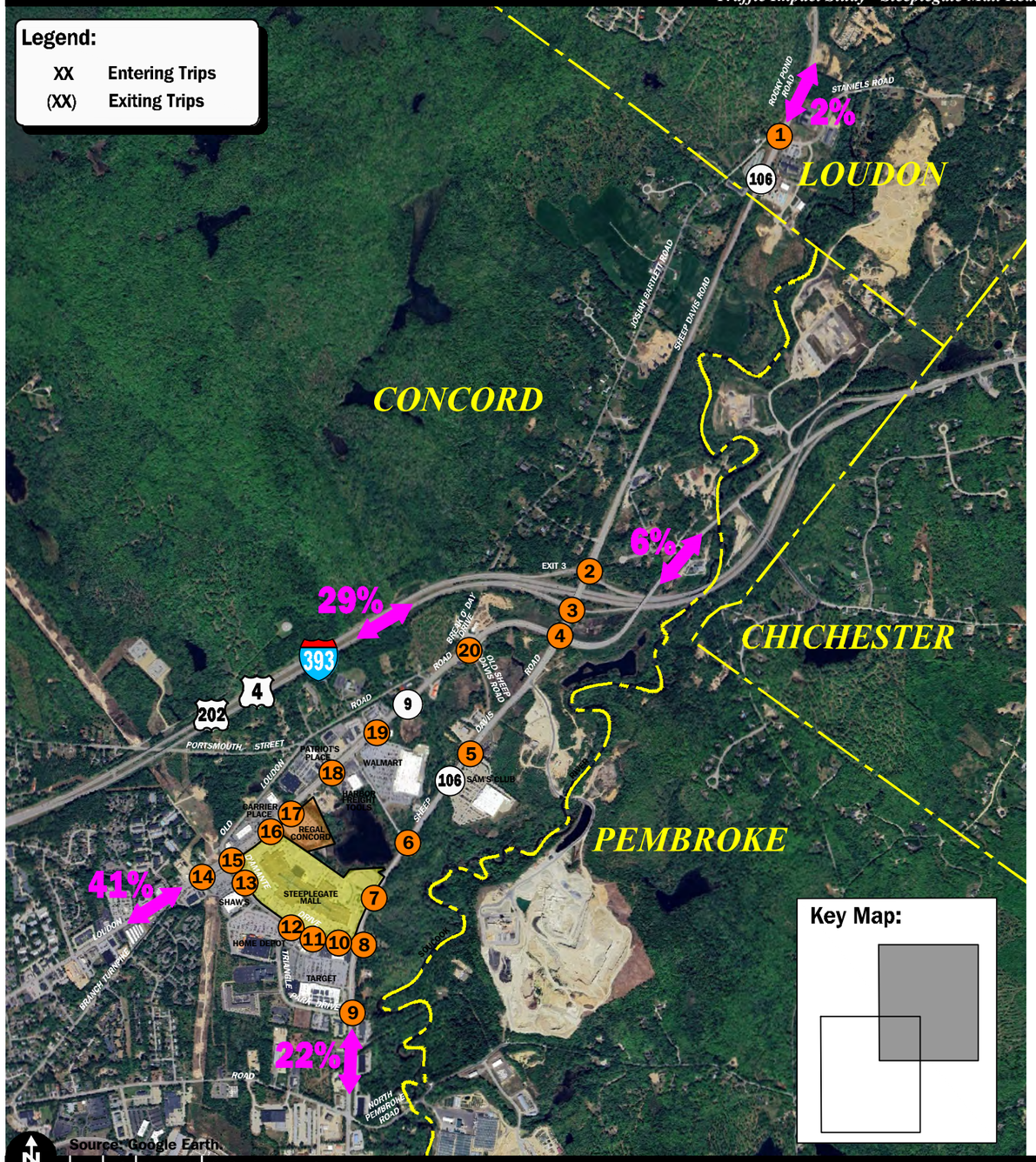
persons residing within the City of Concord and then refined based on existing traffic patterns within the study area. For the commercial and Costco Wholesale club components of the Project, the directional distribution was determined based on a review of existing traffic patterns within the study area.

The trip distribution pattern for the residential component of the Project is graphically depicted on Figure 13, with those for the commercial component shown on Figure 14 and those for the Costco Wholesale club component shown on Figure 15. Traffic volumes expected to be generated by the Project were assigned onto the study area roadway network as shown on Figures 16, 17 and 18 for the weekday morning, weekday evening and Saturday midday peak-hours, respectively. Detailed traffic volume networks depicting the component specific traffic volumes are provided in the Appendix.

FUTURE TRAFFIC VOLUMES – BUILD CONDITION

The 2027 Opening-Year and 2037 Build peak-month condition traffic volumes were developed by: i) removing of the traffic associated with the existing uses that occupy the Project site as counted in July 2023 (Colum B of Table 6) and based on a review of existing travel patterns within the study area; and ii) adding the traffic expected to be generated by the Project to the corresponding 2027 and 2037 No-Build peak-month, peak-hour traffic volumes, respectively. Traffic volume networks illustrating the removal of trips associated with the existing uses that occupy the Project site are provided in the Appendix.

The resulting 2027 Opening-Year Build condition weekday morning, weekday evening and Saturday midday peak-month, peak-hour traffic volumes are graphically depicted on Figures 19, 20, and 21, respectively, with the corresponding 2037 Build condition peak-month, peak-hour traffic volumes depicted on Figures 22, 23, and 24.



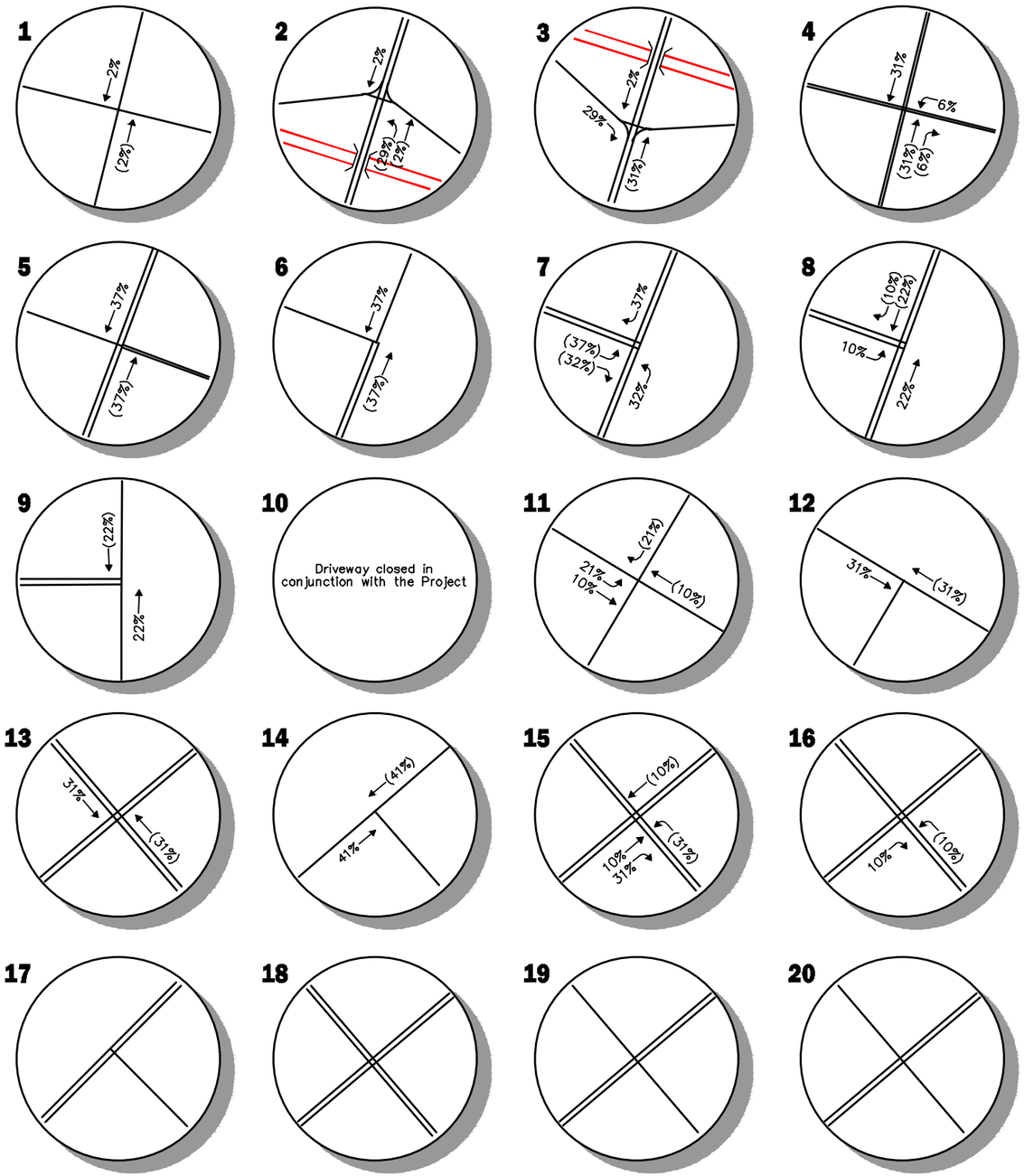


Figure 13N

Trip Distribution Map
Residential Component

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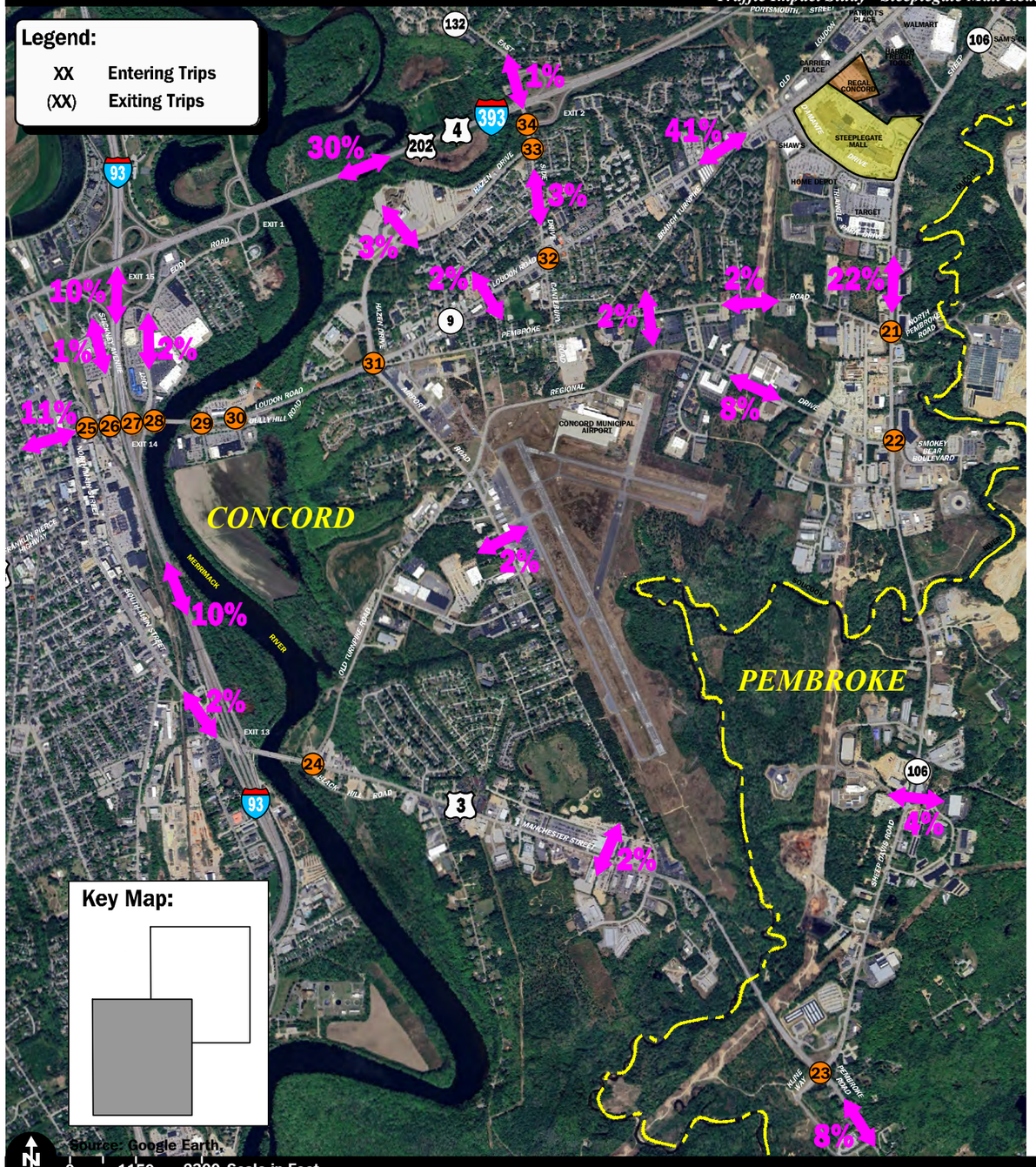

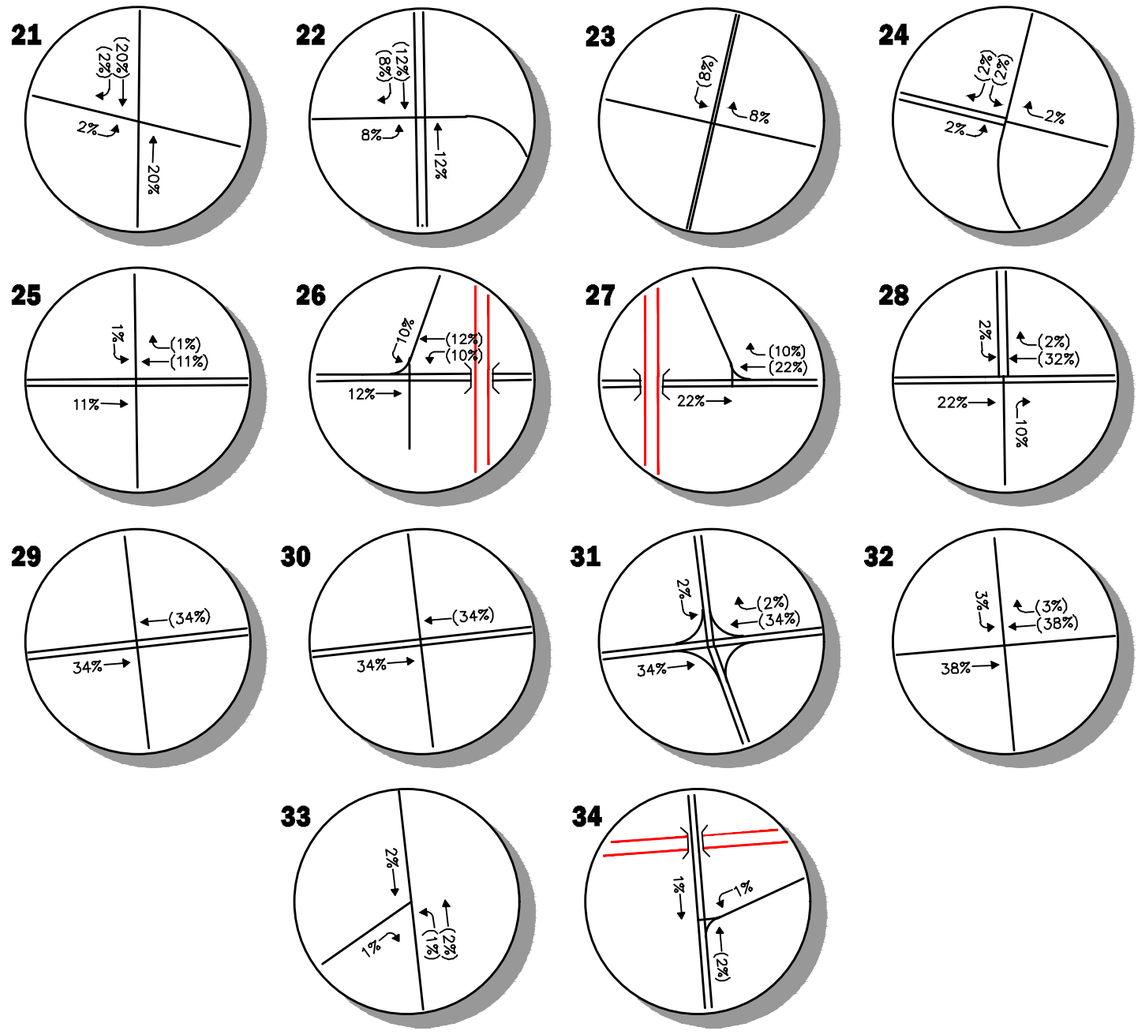

Figure 13S

Trip Distribution Map
Residential Component

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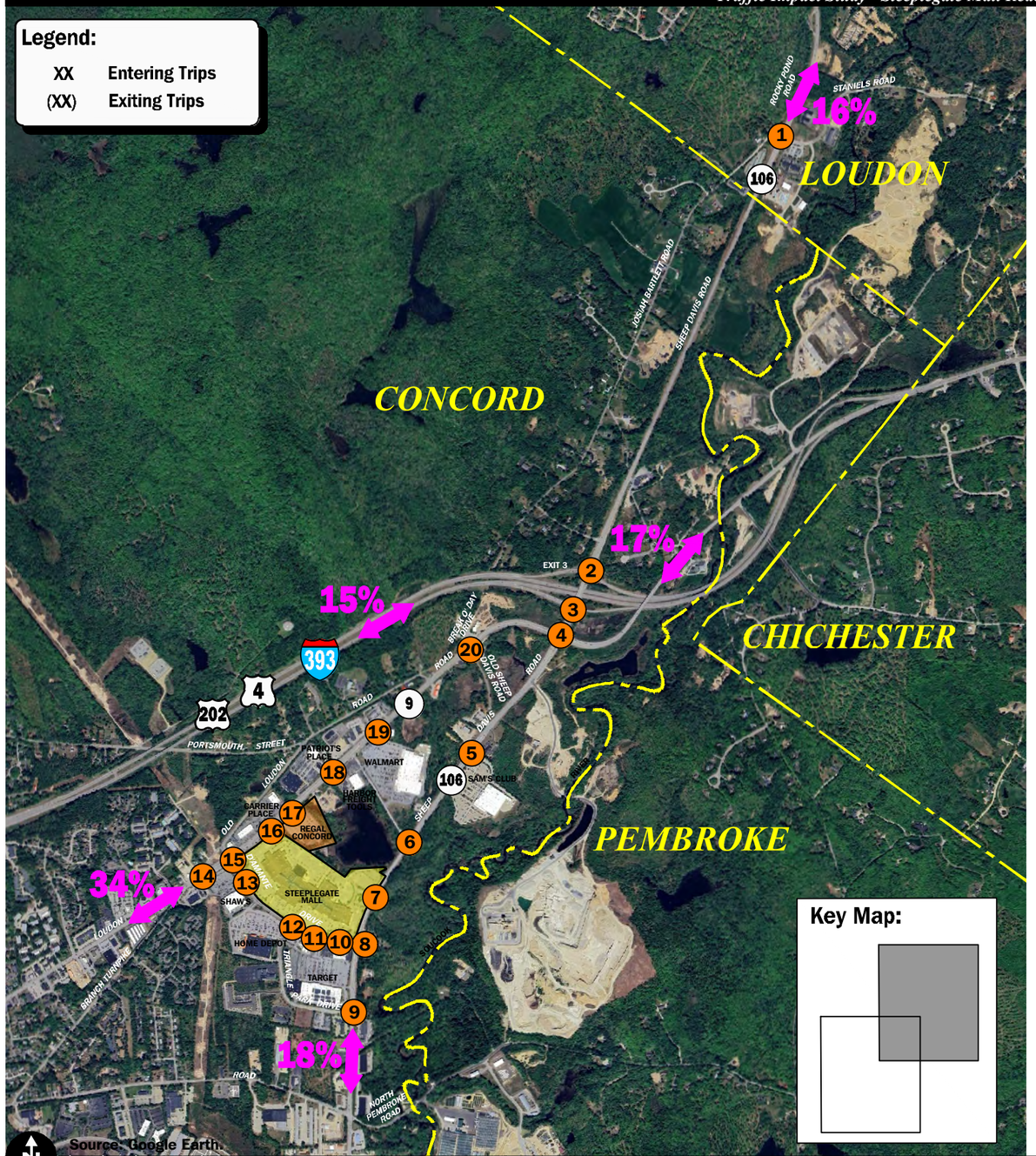

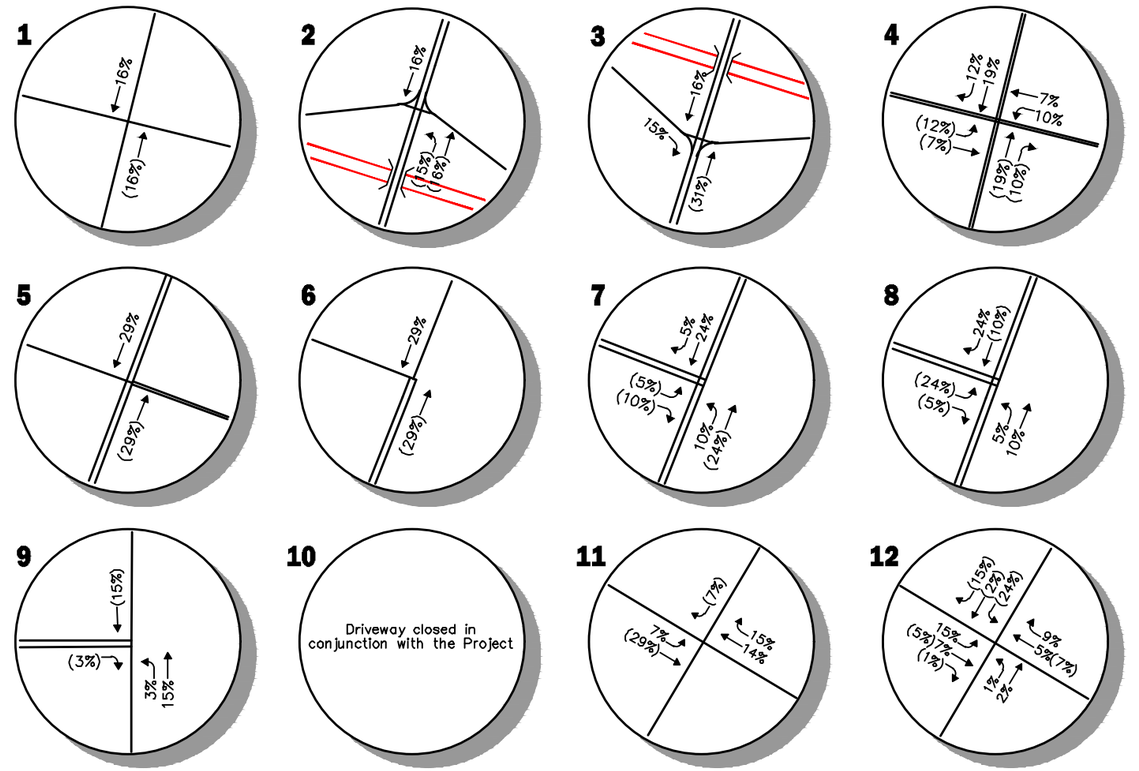

Figure 14N

Trip Distribution Map
Commercial Component

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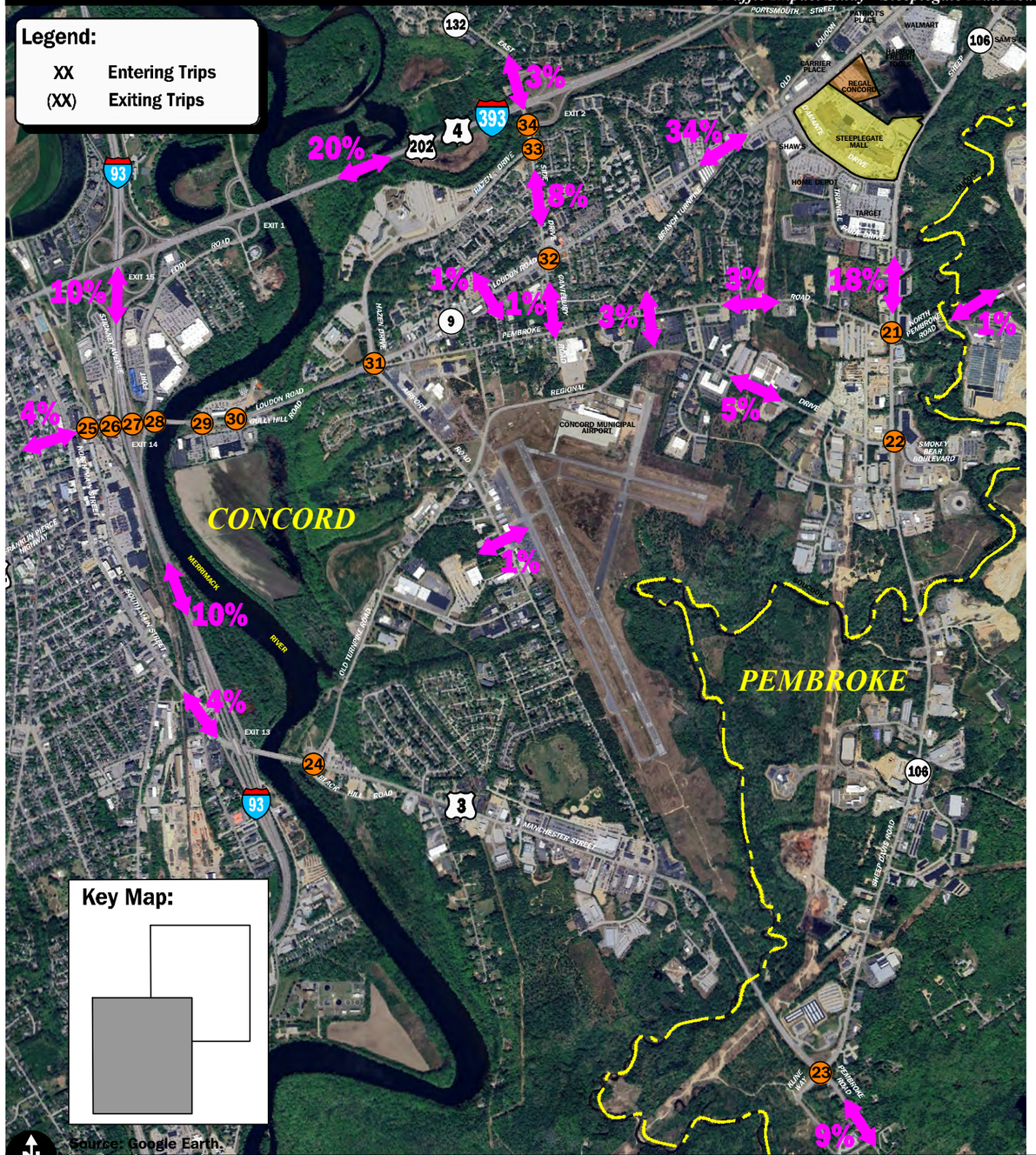

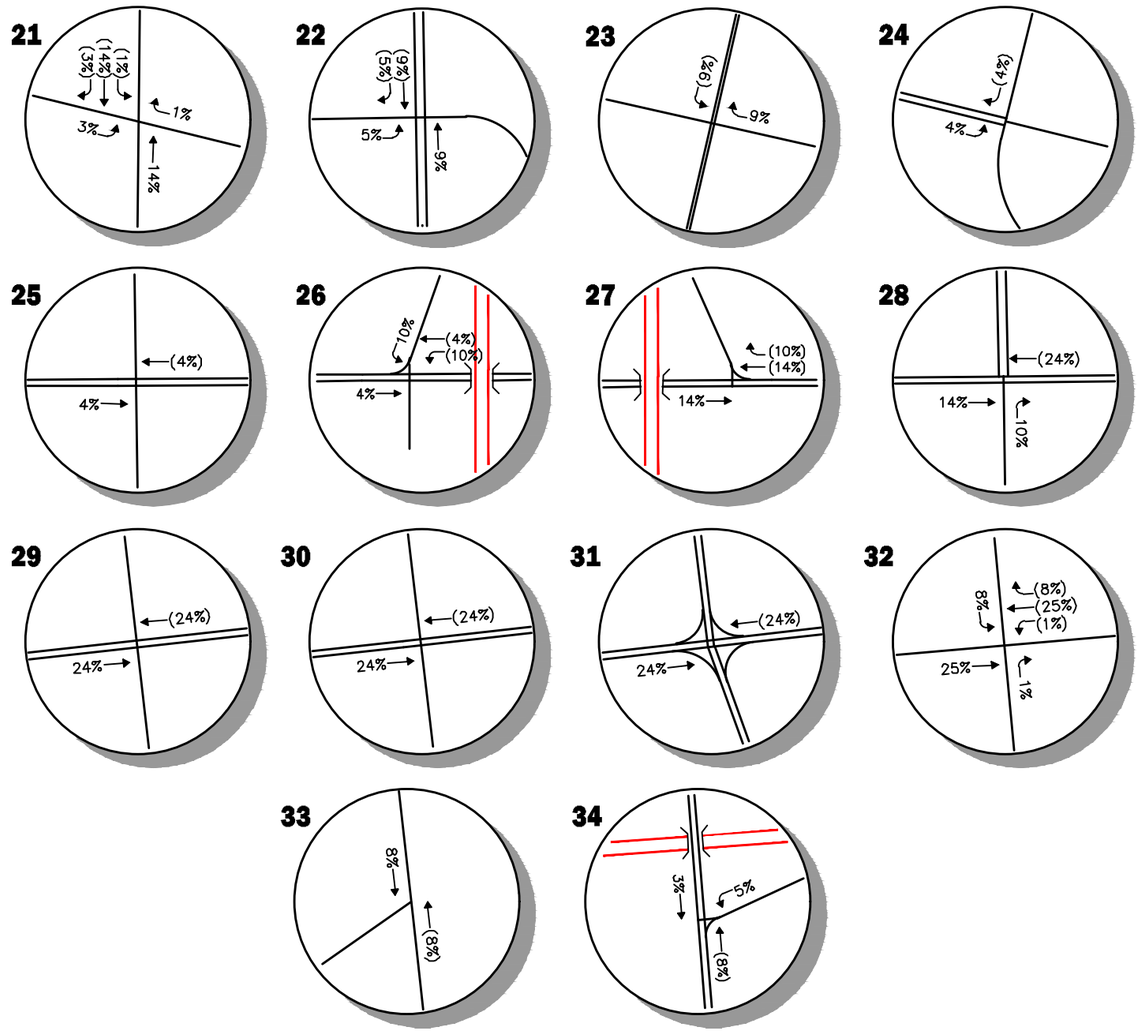

Figure 14S

Trip Distribution Map
Commercial Component

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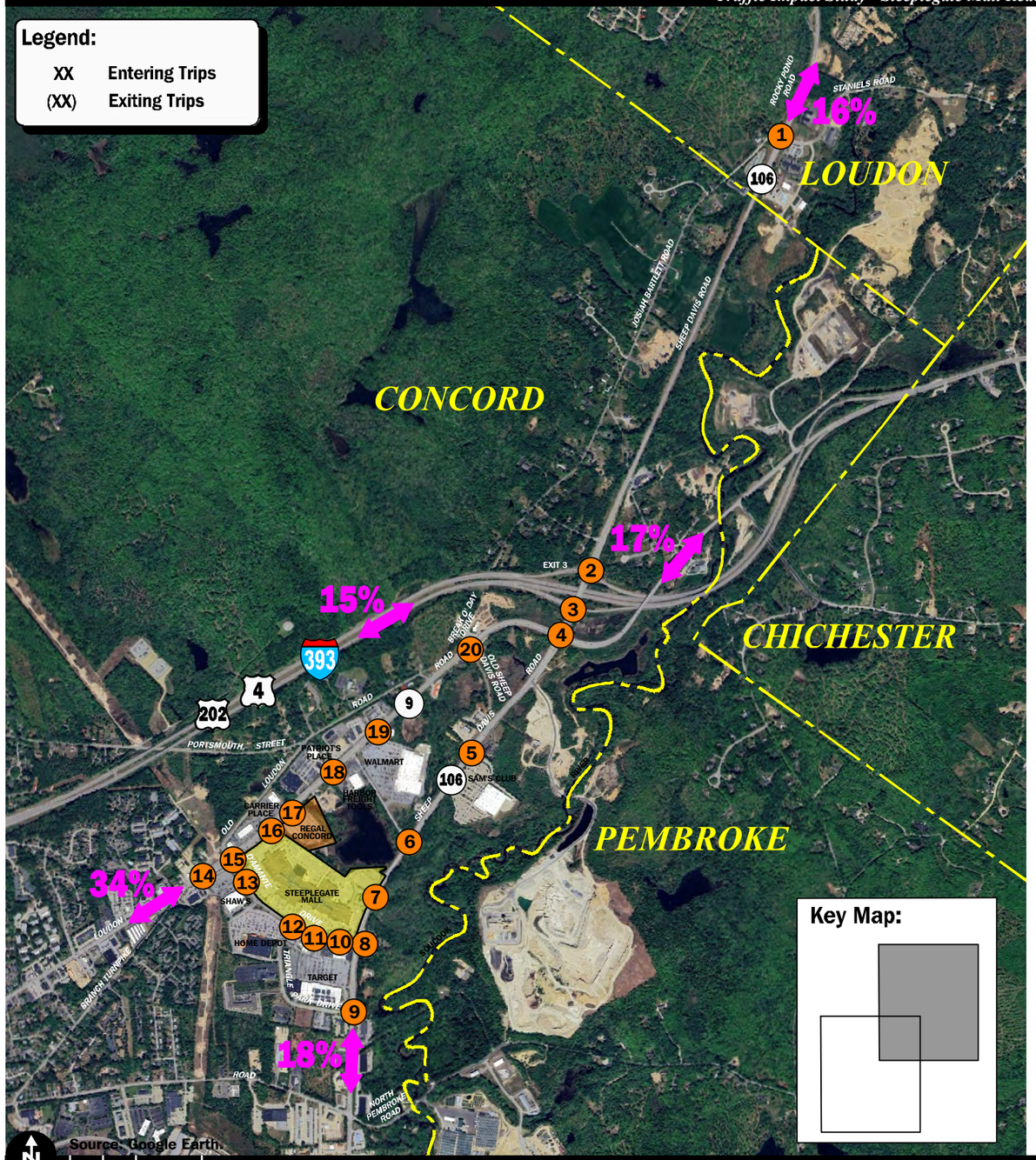

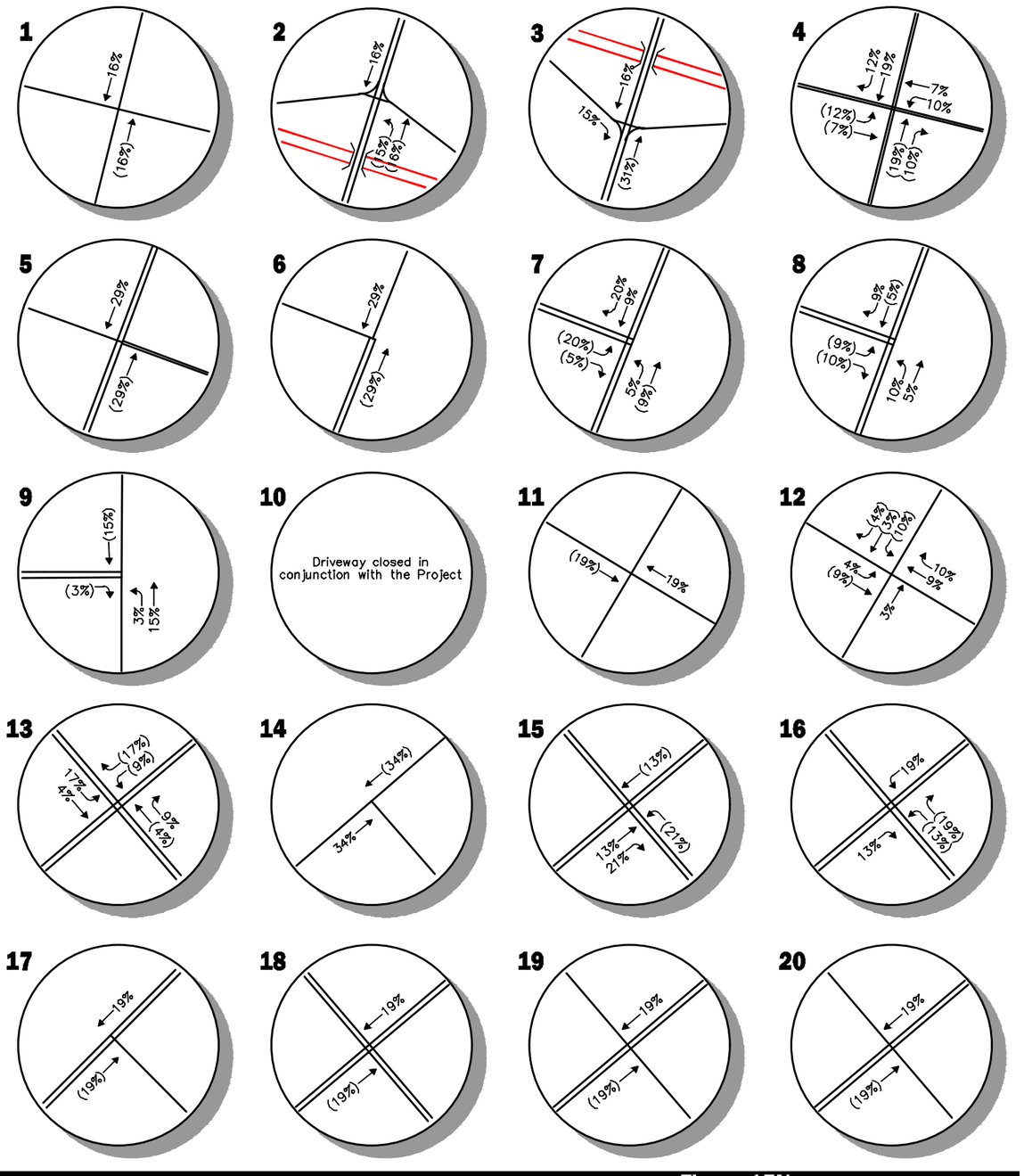

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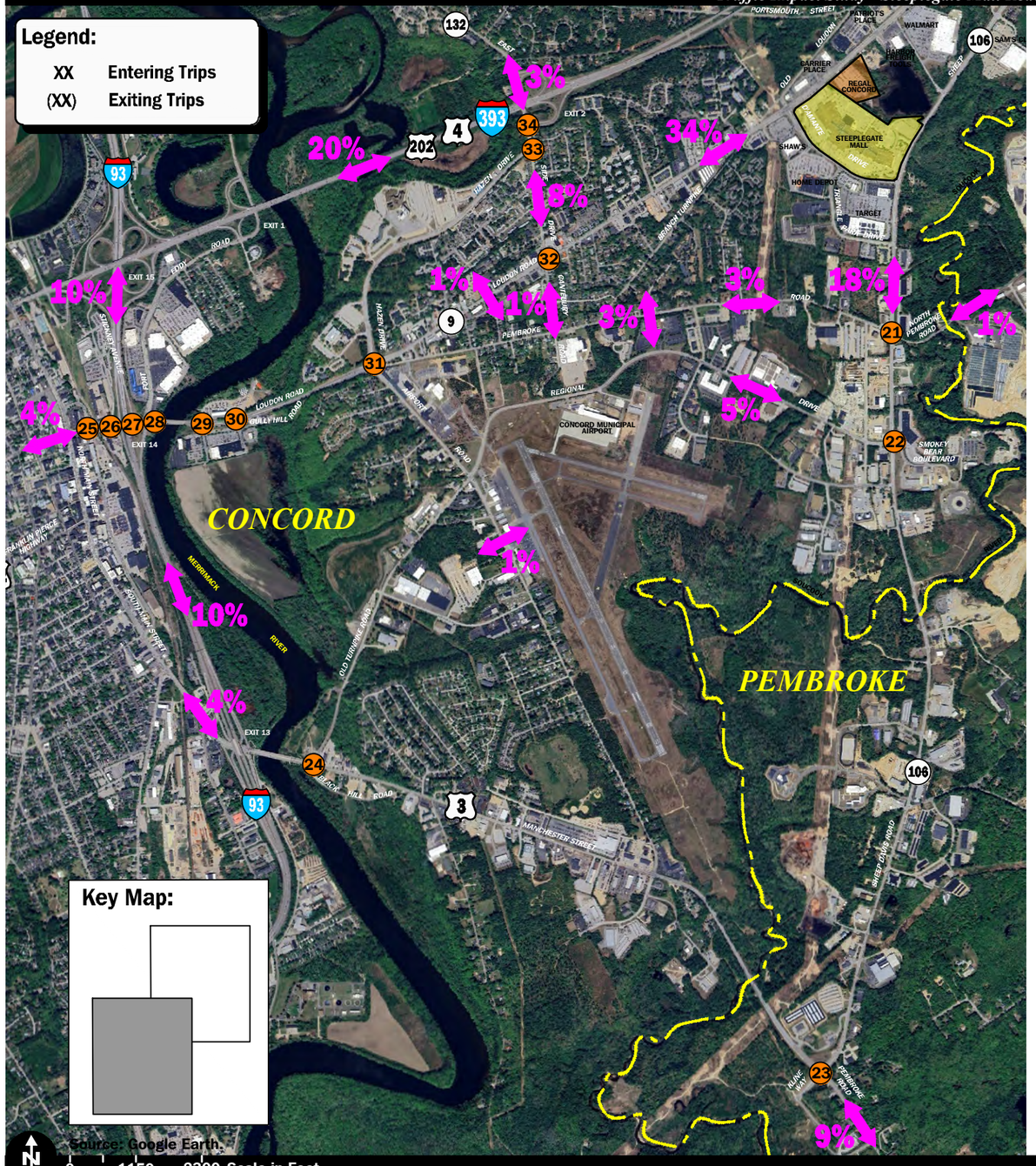

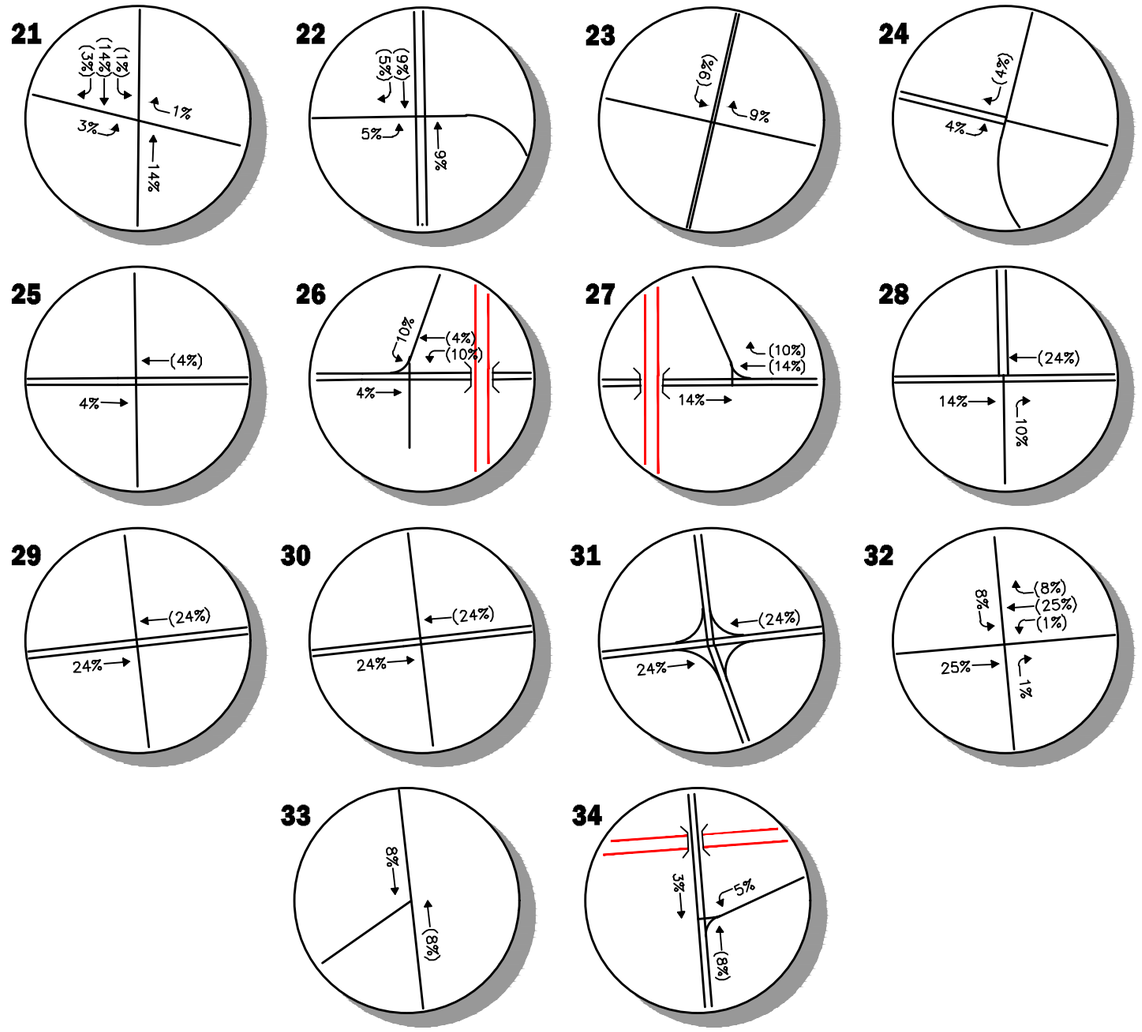

Figure 15S

Trip Distribution Map
Costco Component

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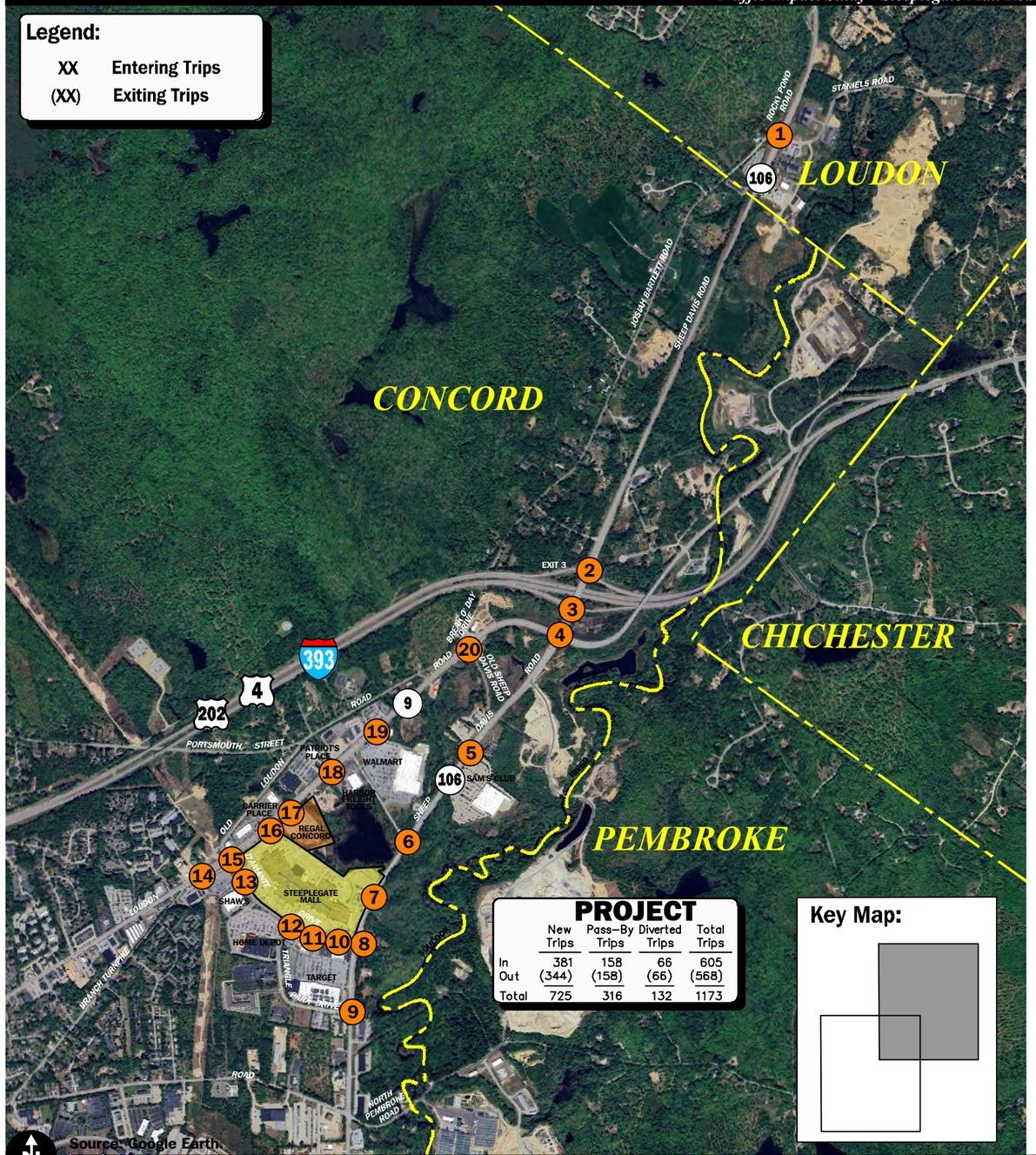

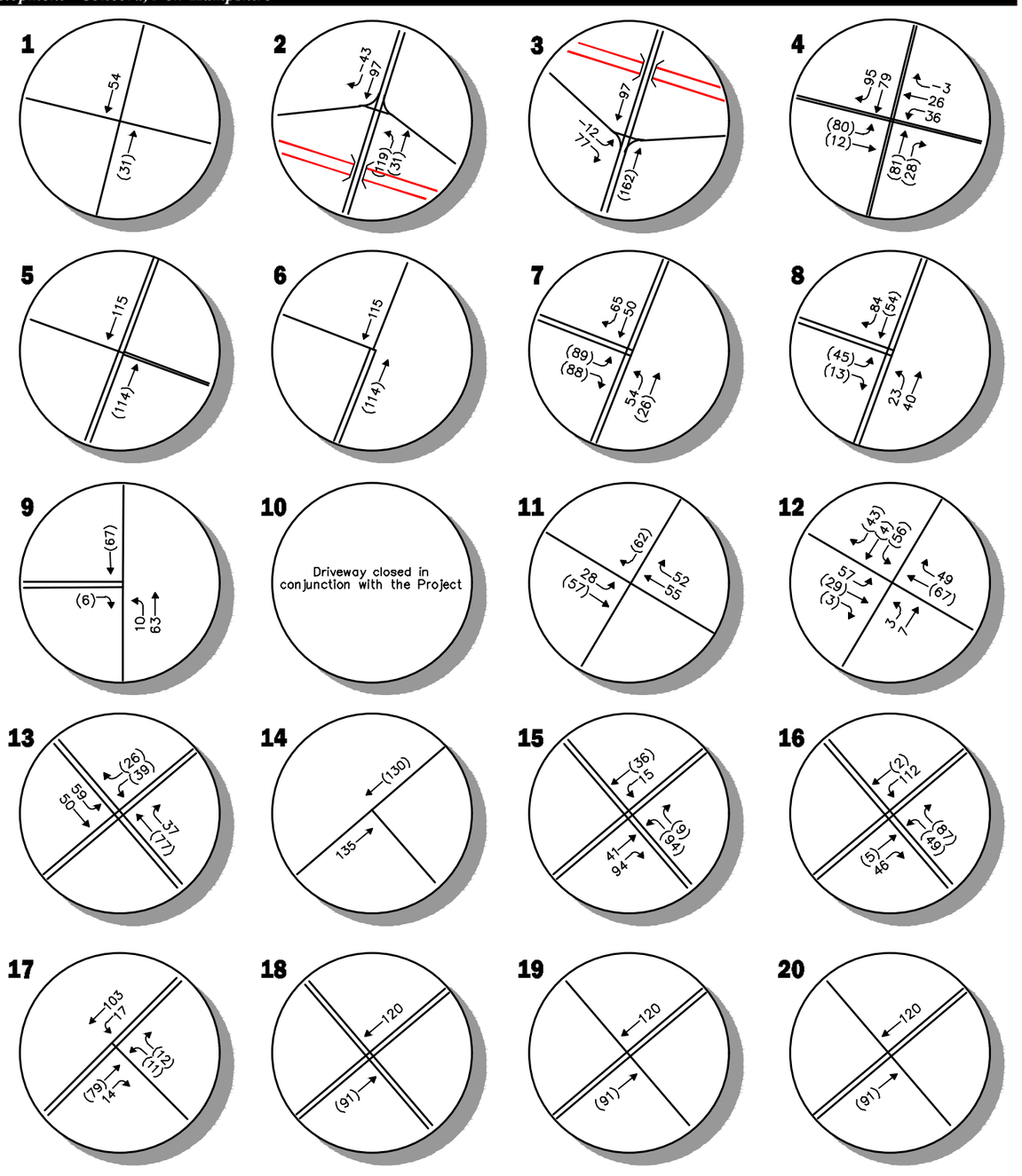

Figure 16N

Project-Generated Weekday Morning Peak-Hour Traffic Volumes

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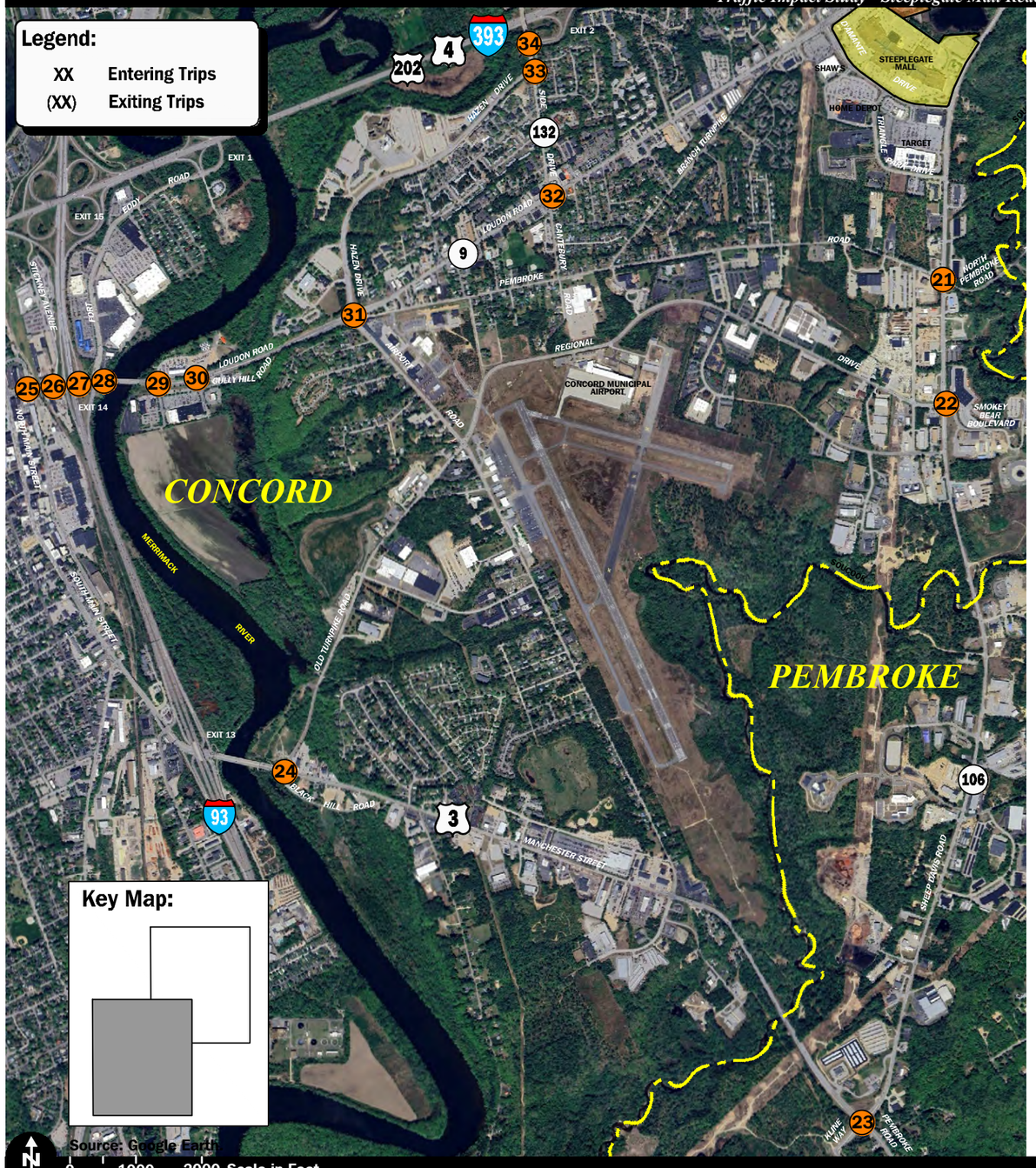

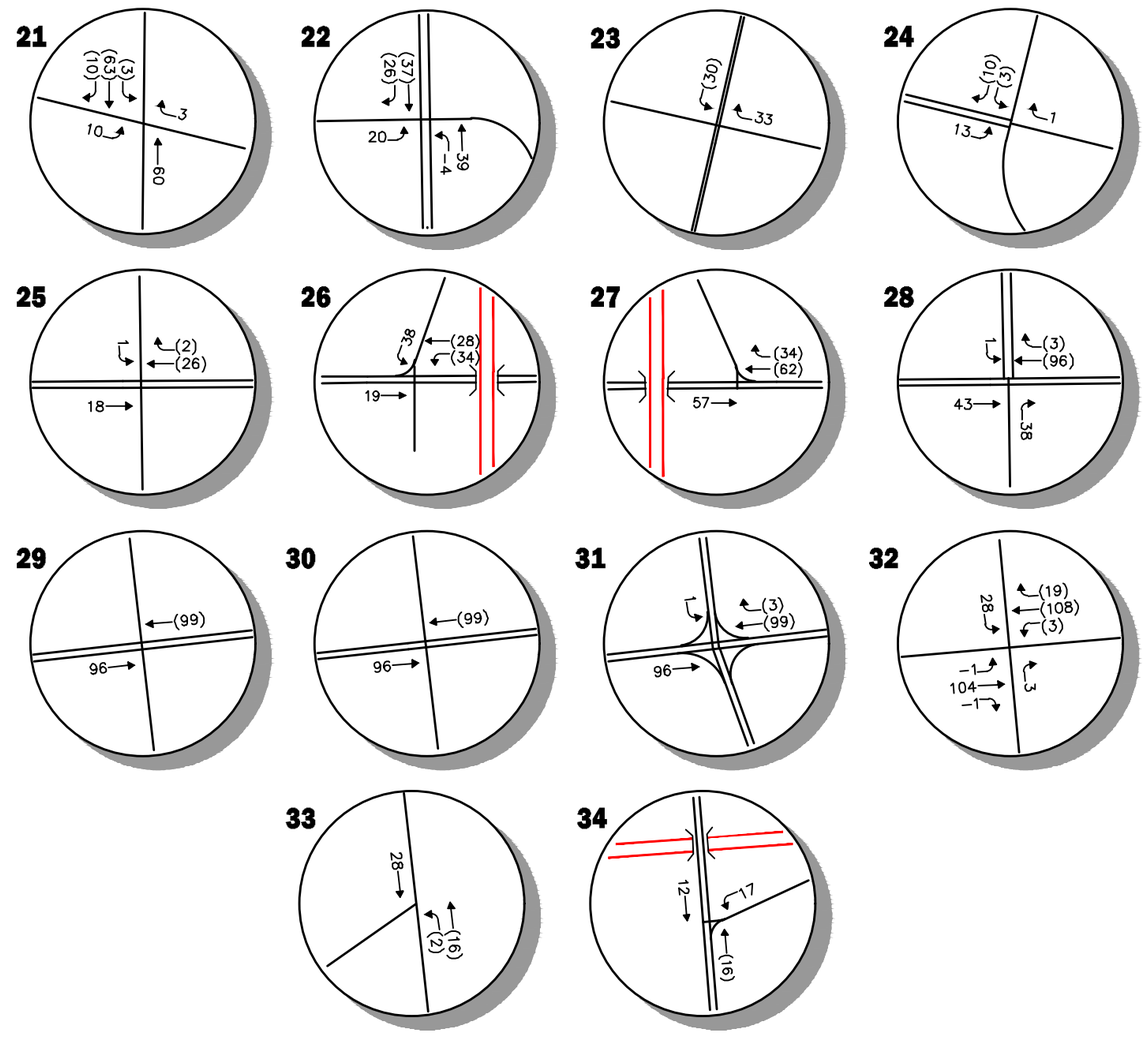

Figure 16S

Project-Generated
Weekday Morning
Peak-Hour Traffic Volumes

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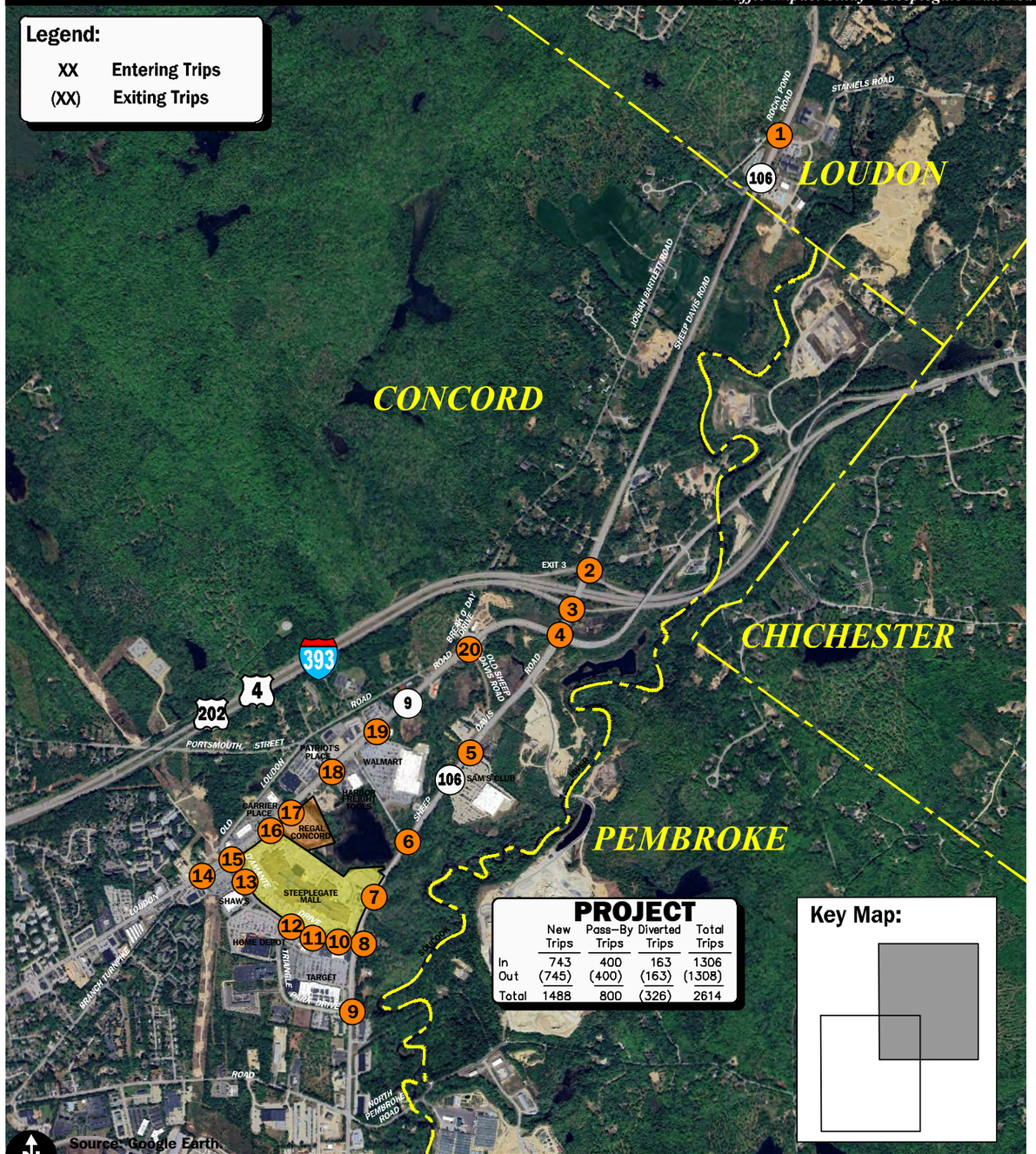

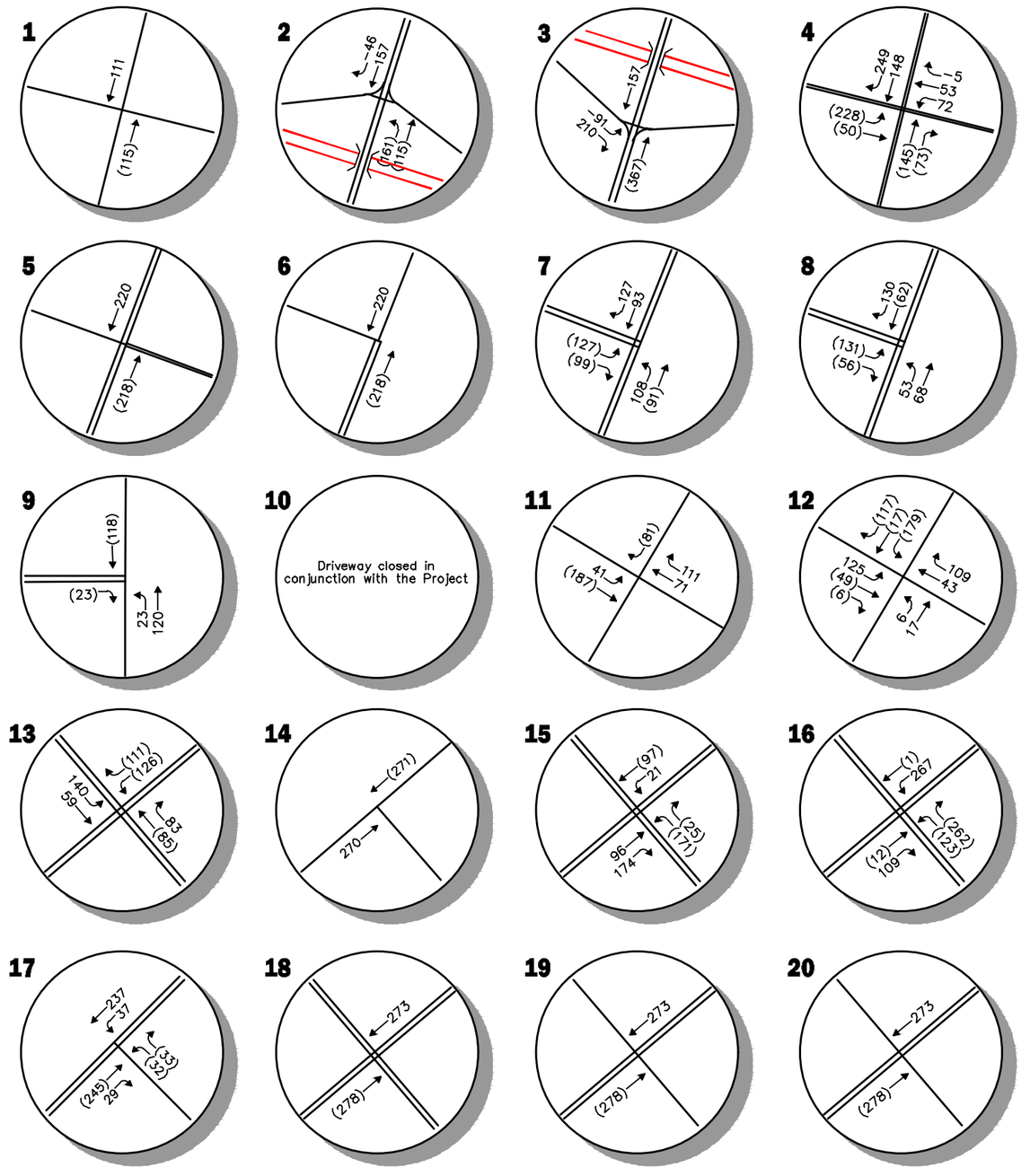

Figure 17N

Project-Generated
Weekday Evening
Peak-Hour Traffic Volumes

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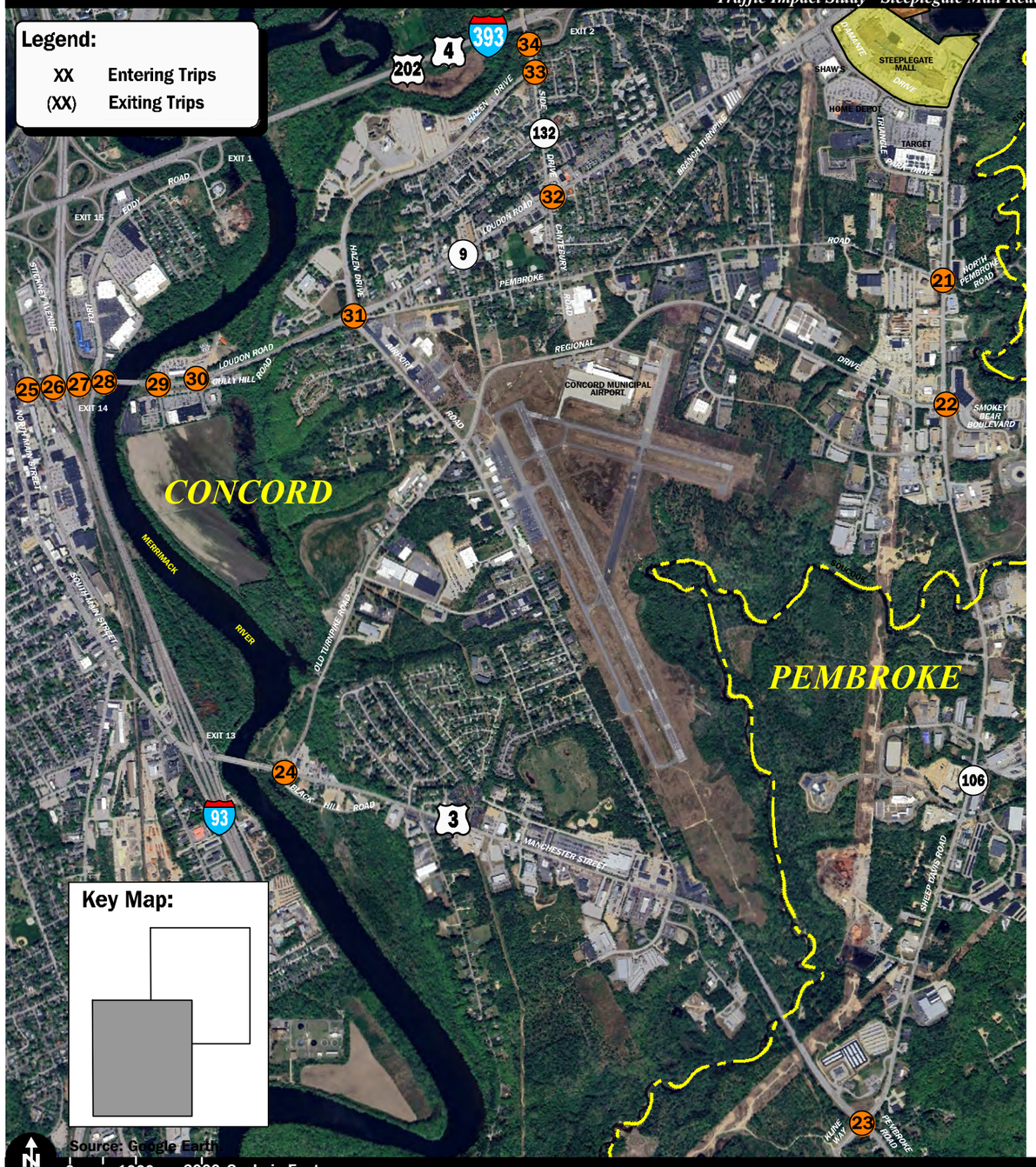

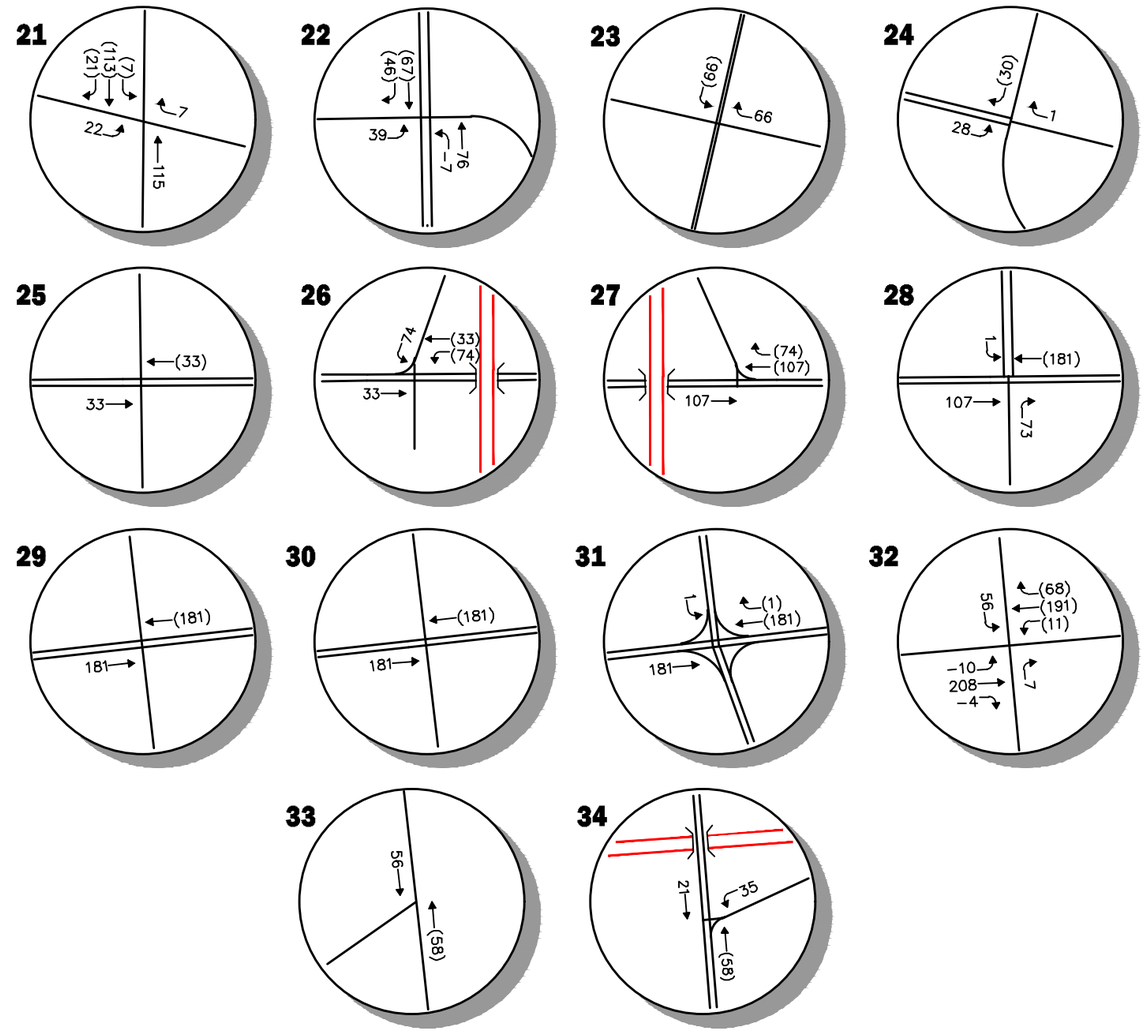

Figure 17S

Project-Generated
Weekday Evening
Peak-Hour Traffic Volumes

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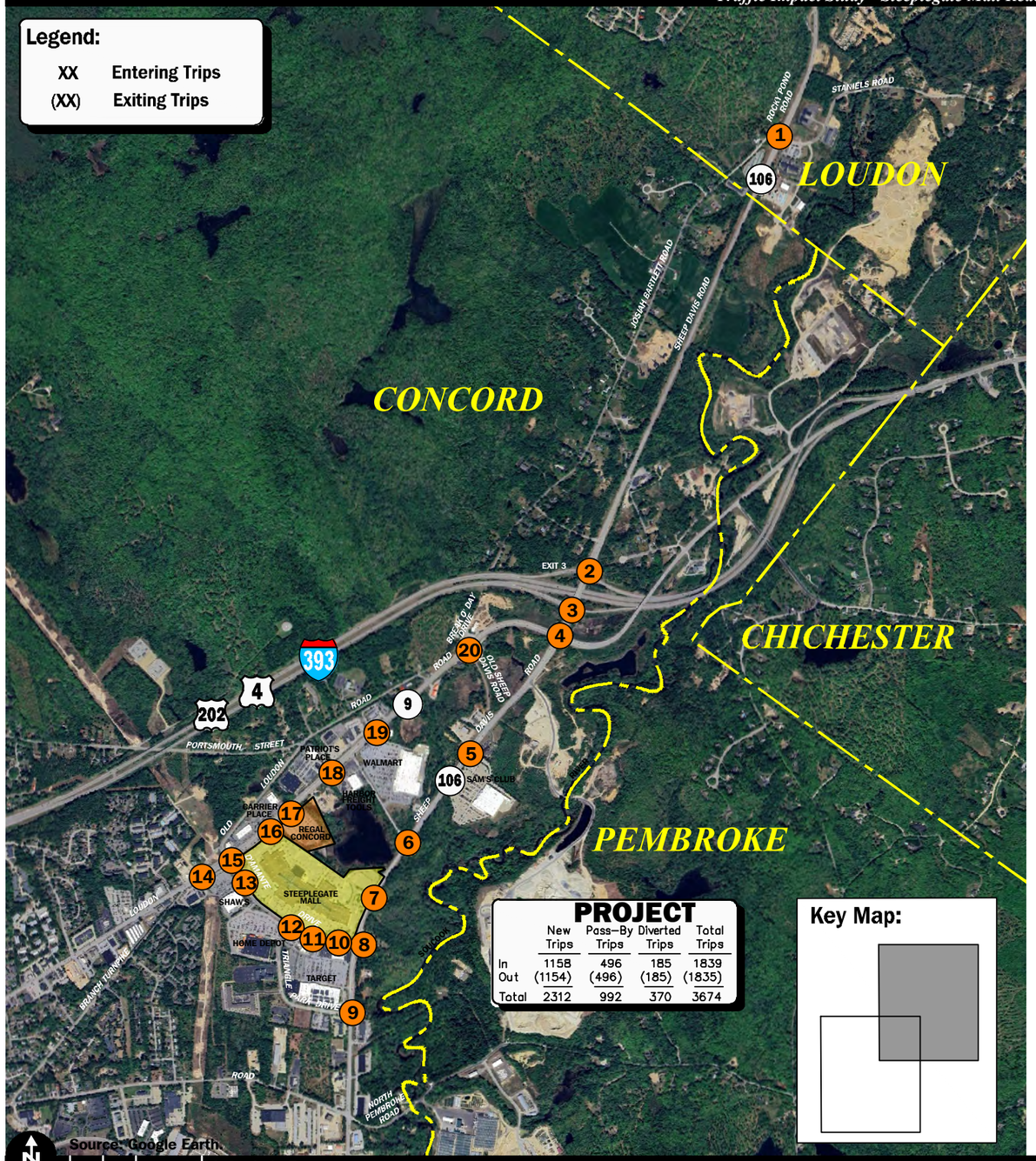

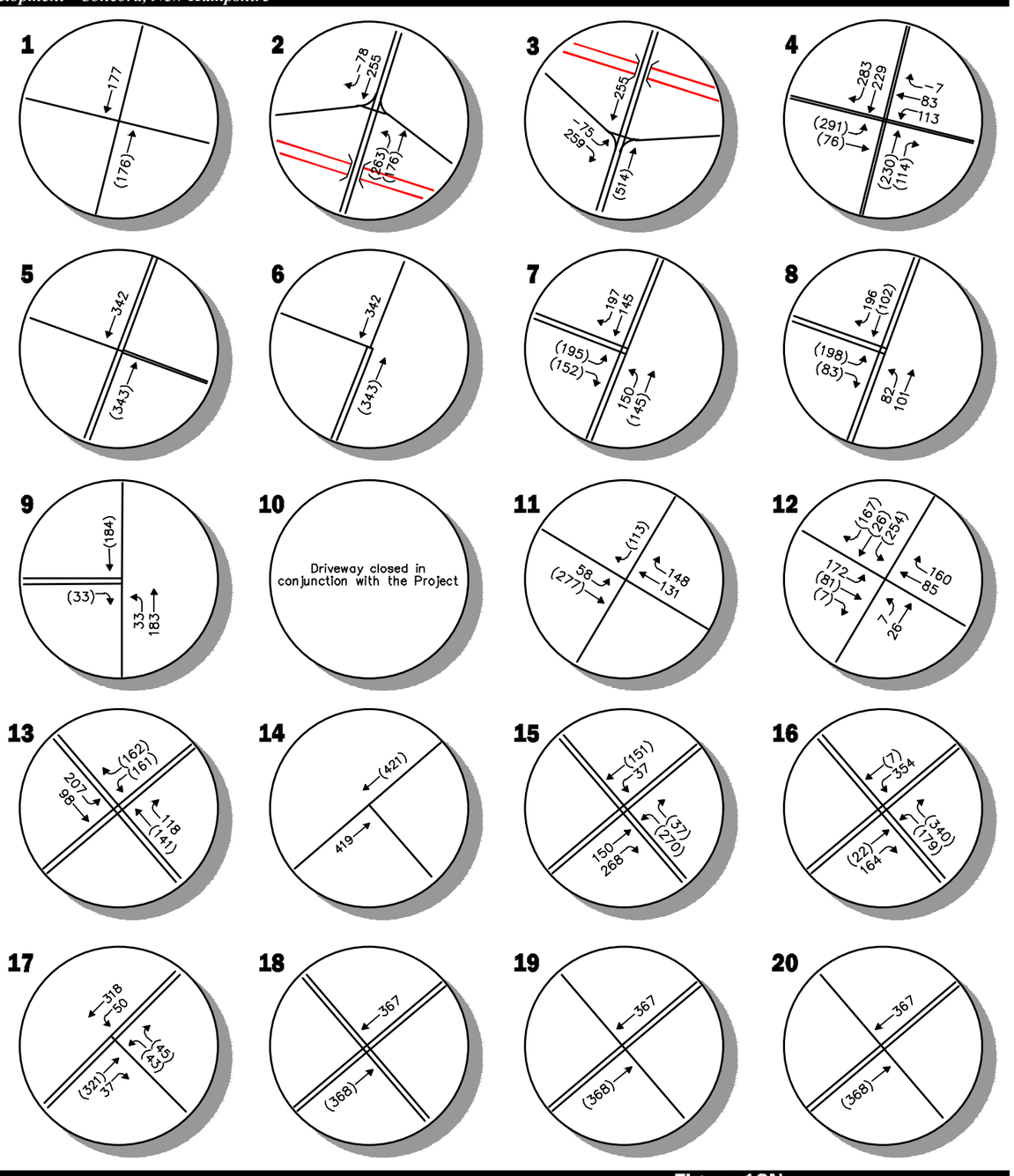

Figure 18N

Project-Generated
Saturday Midday
Peak-Hour Traffic Volumes

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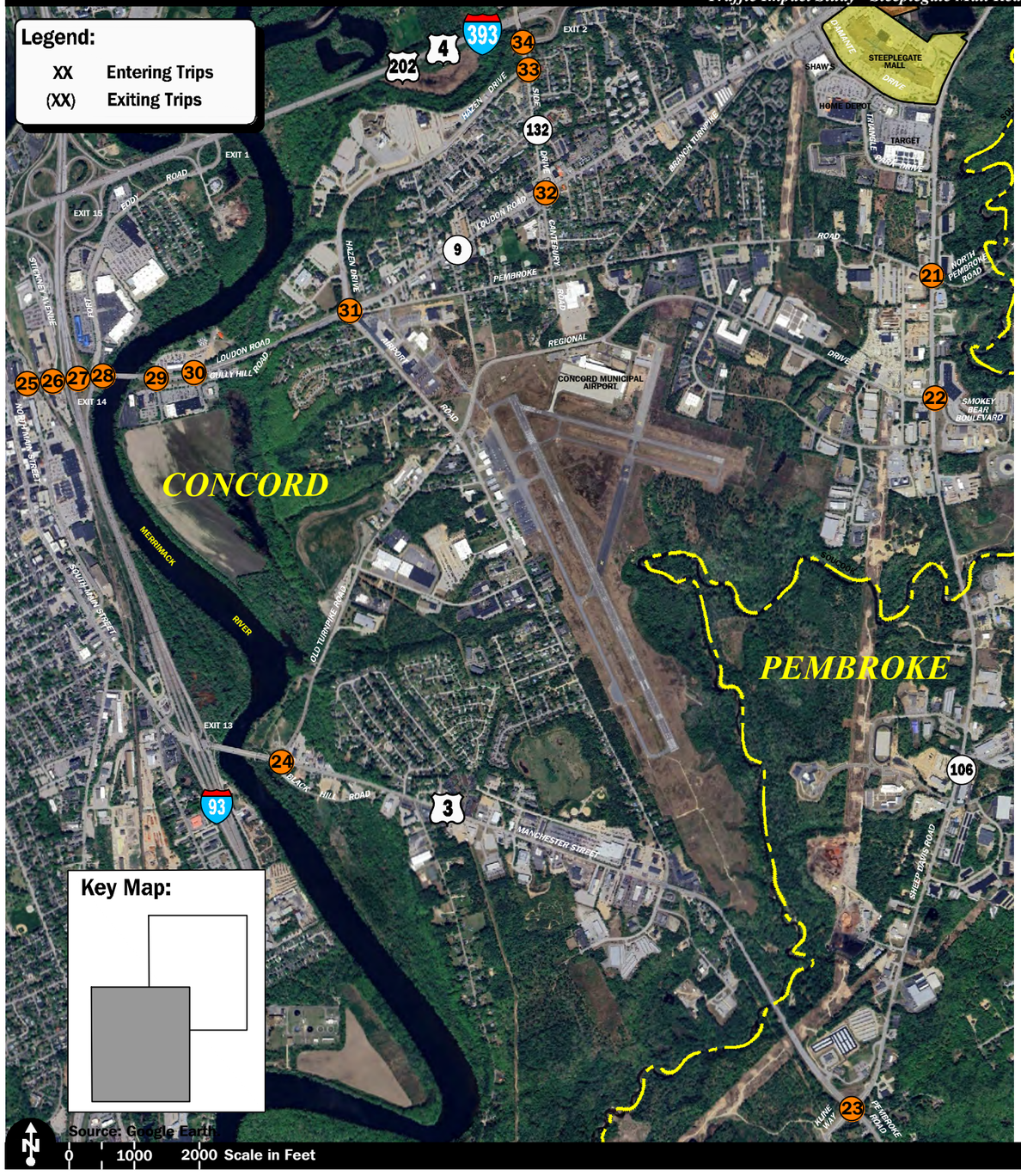

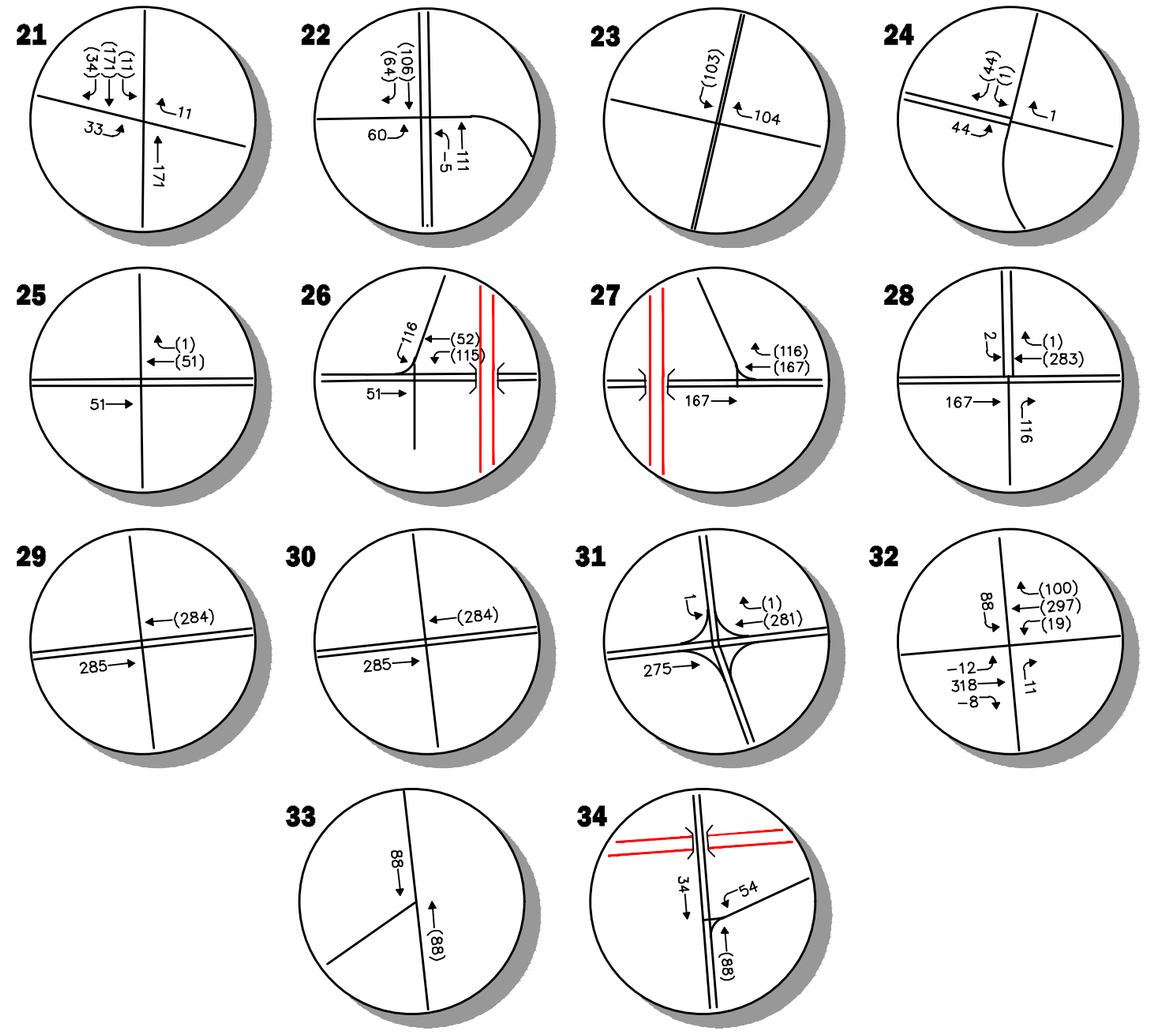

Figure 18S

Project-Generated
Saturday Midday
Peak-Hour Traffic Volumes

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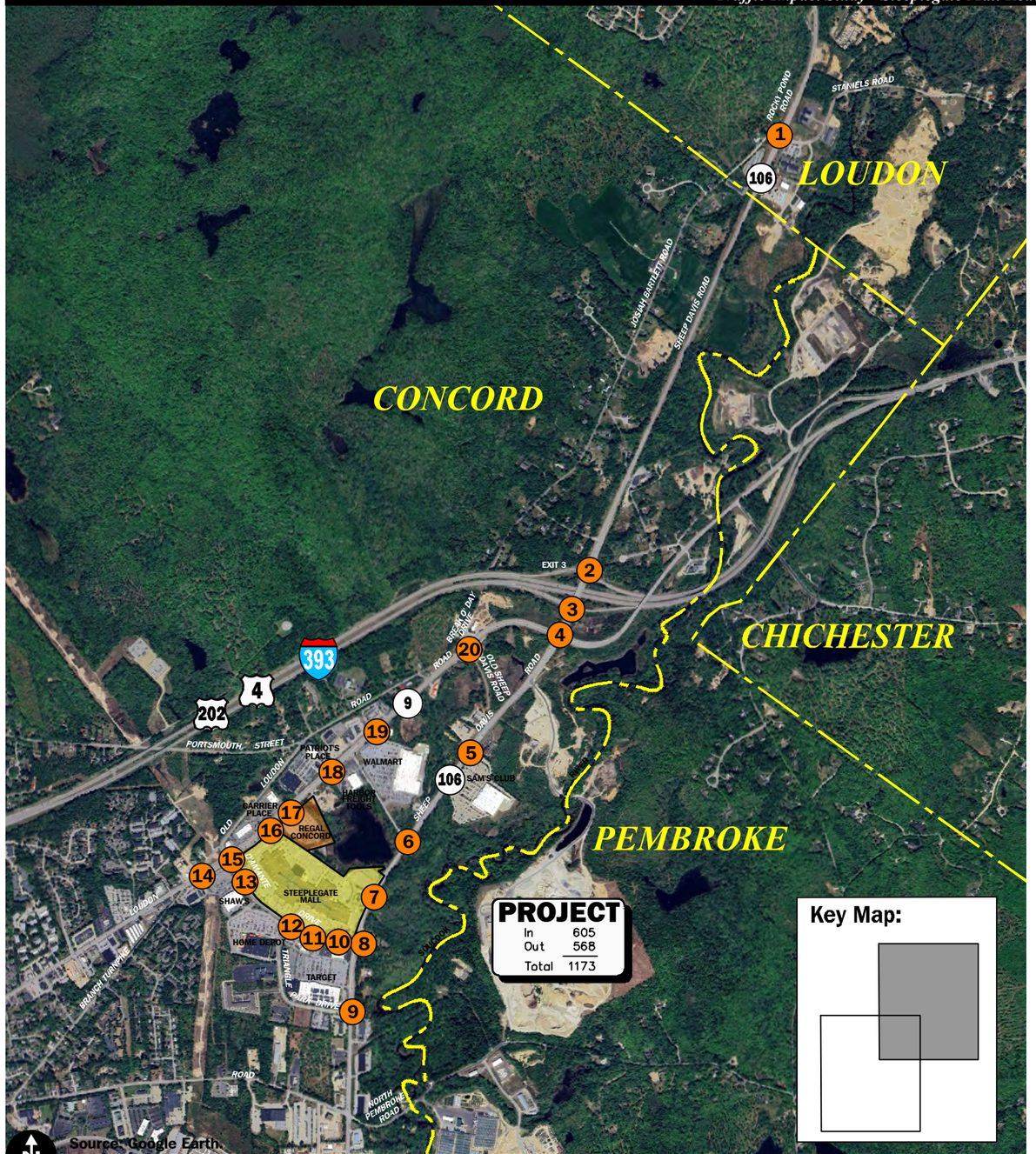

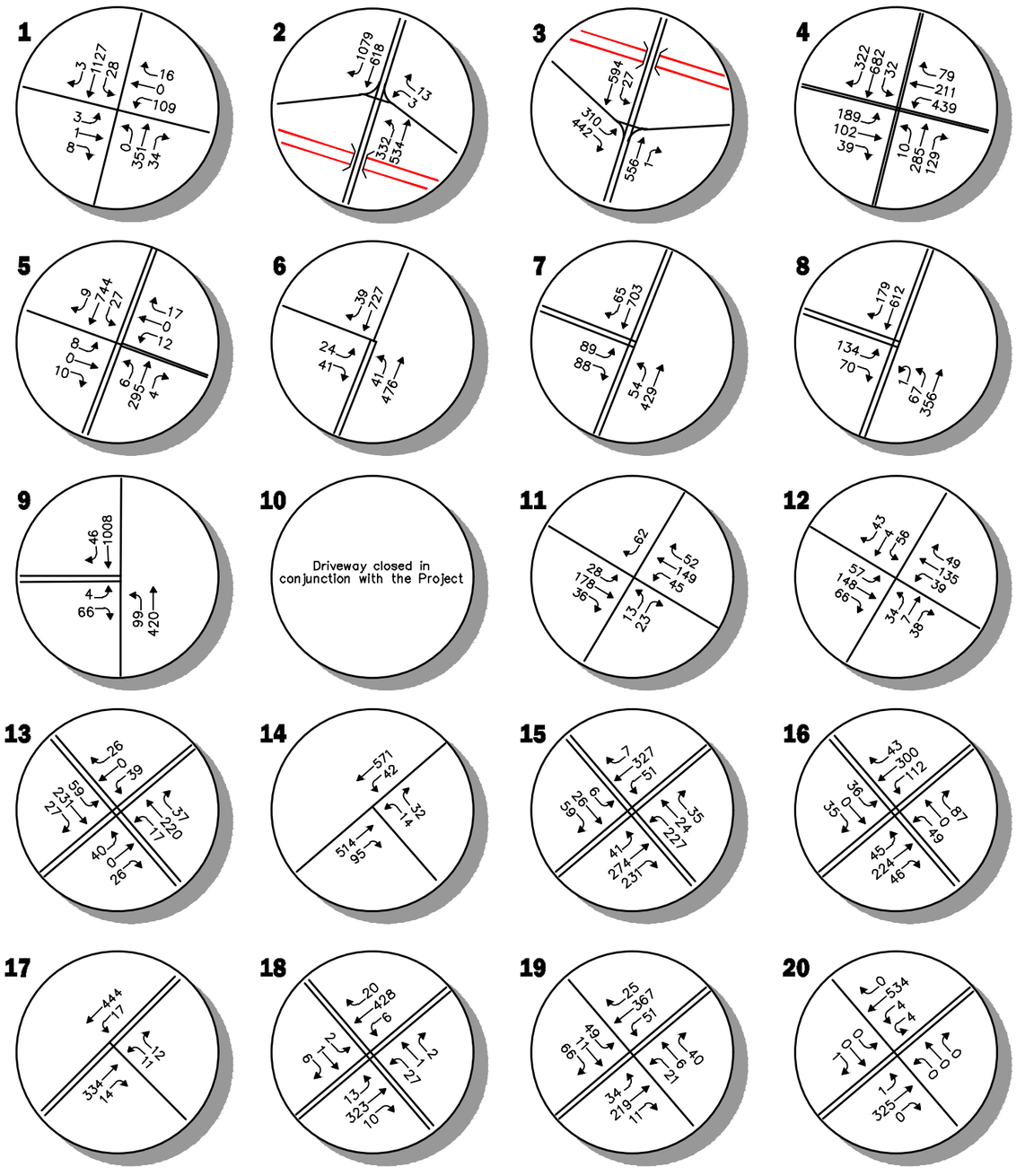

Figure 19N

2027 Opening-Year Build
Peak-Month
Weekday Morning
Peak-Hour Traffic Volumes

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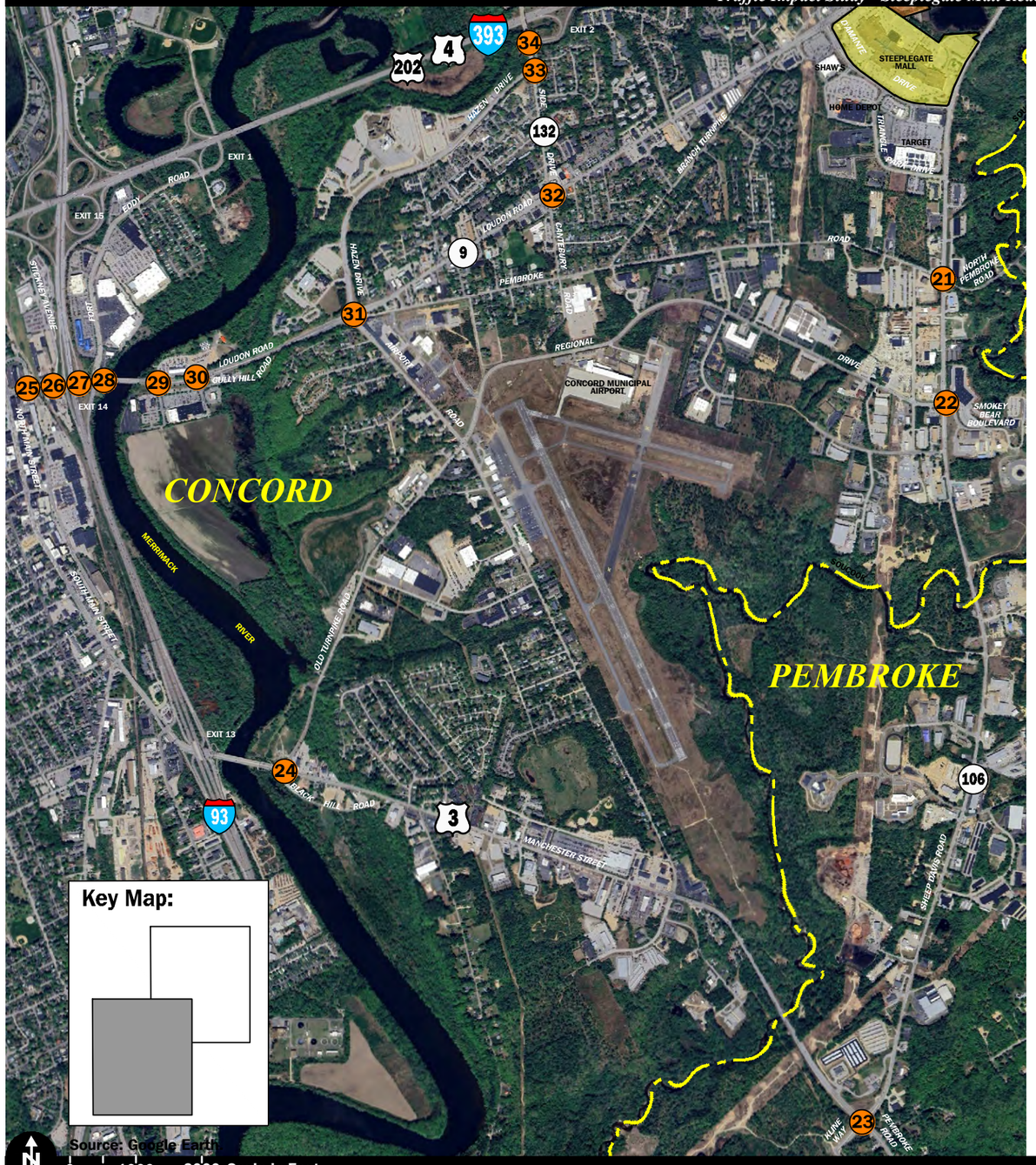

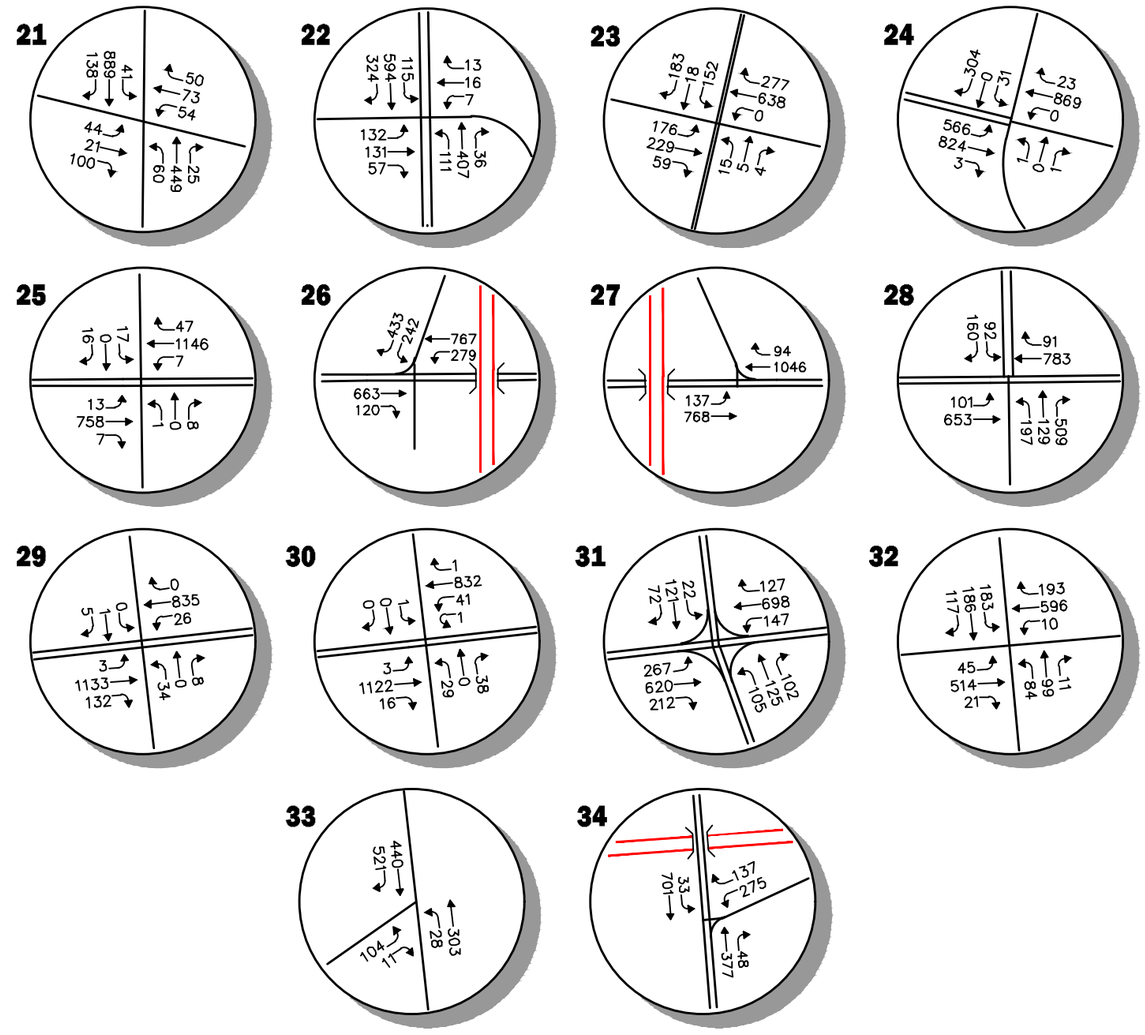

Figure 19S

2027 Opening-Year Build
Peak-Month
Weekday Morning
Peak-Hour Traffic Volumes

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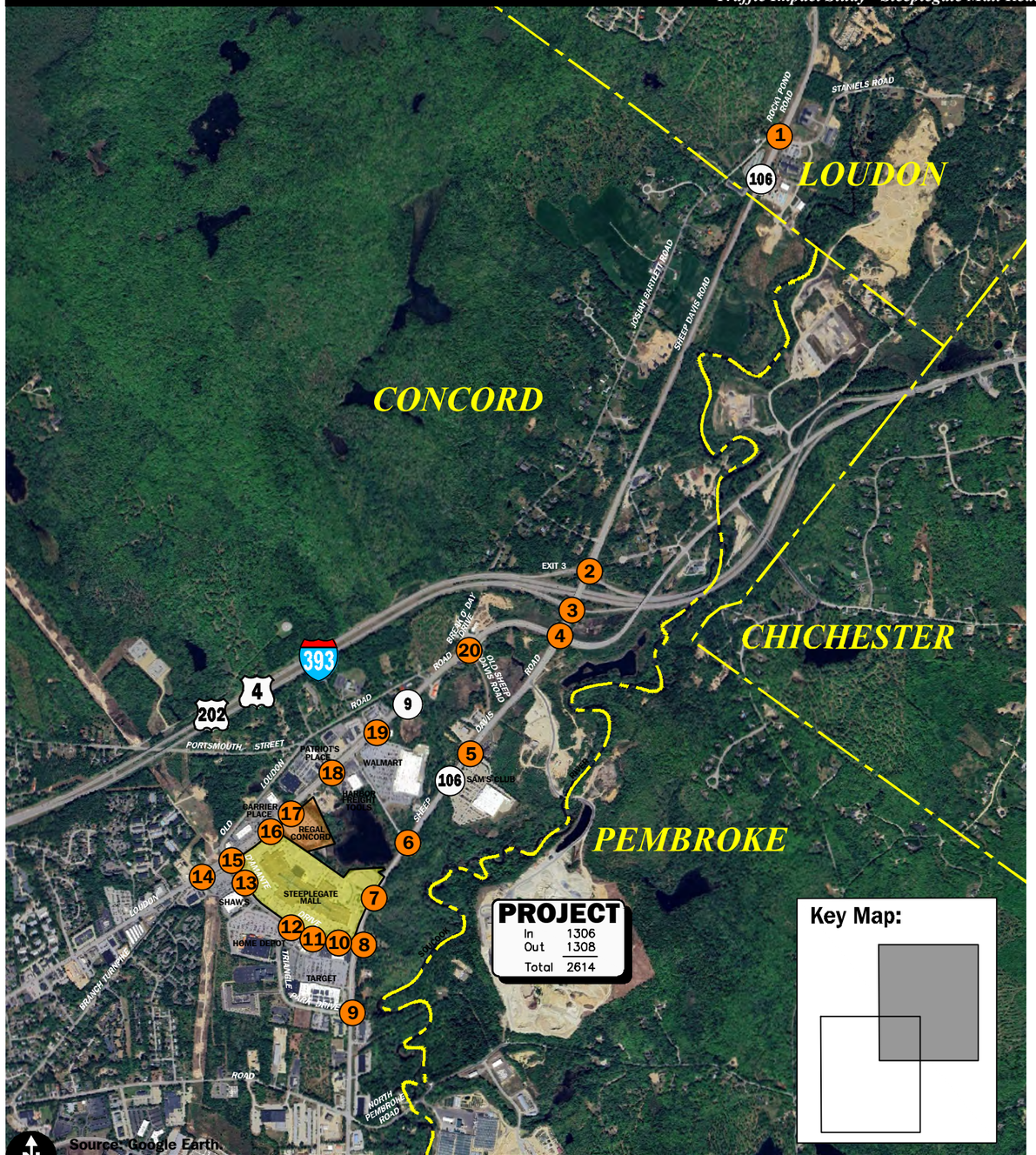

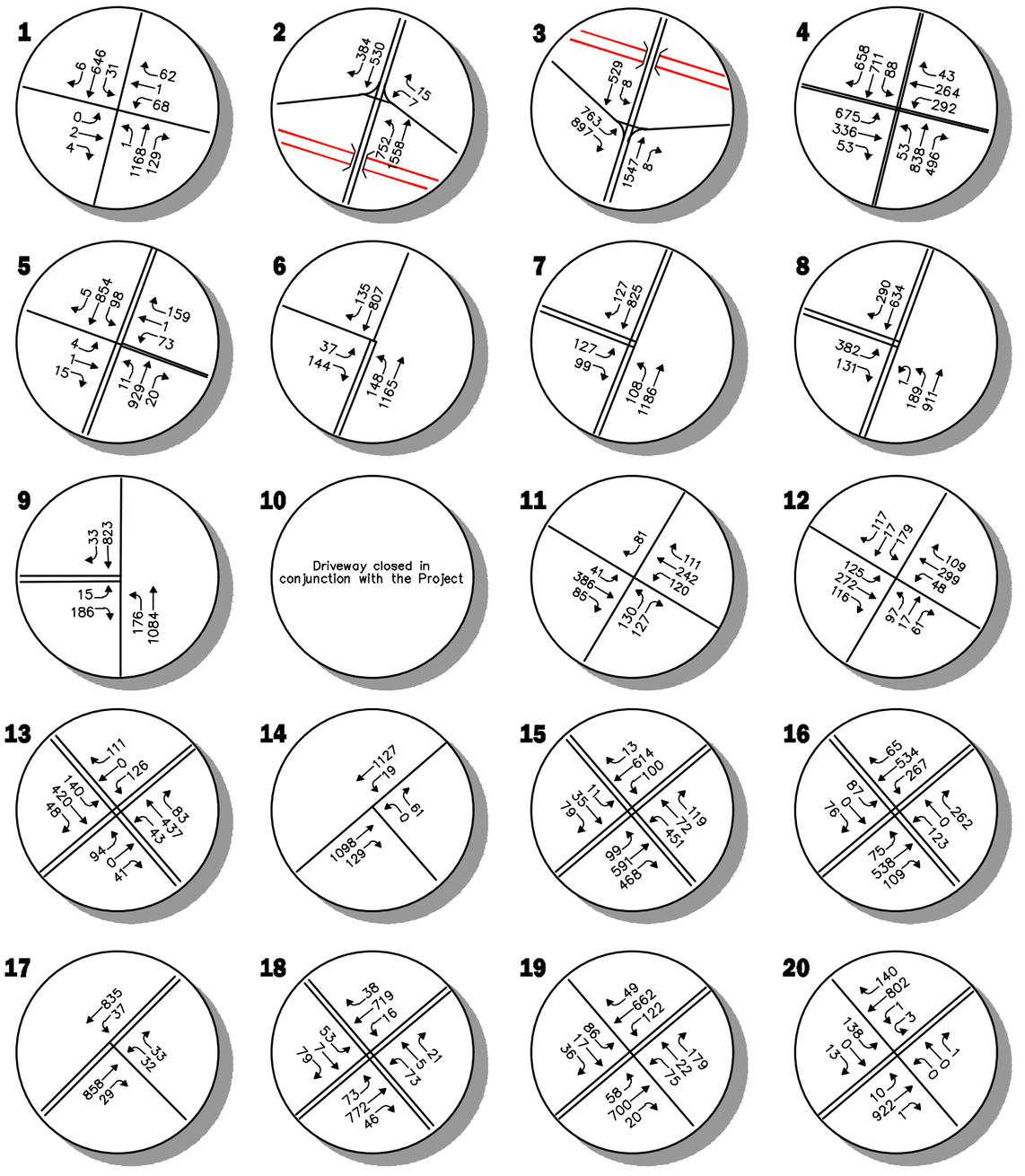

Figure 20N

2027 Opening-Year Build
Peak-Month
Weekday Evening
Peak-Hour Traffic Volumes

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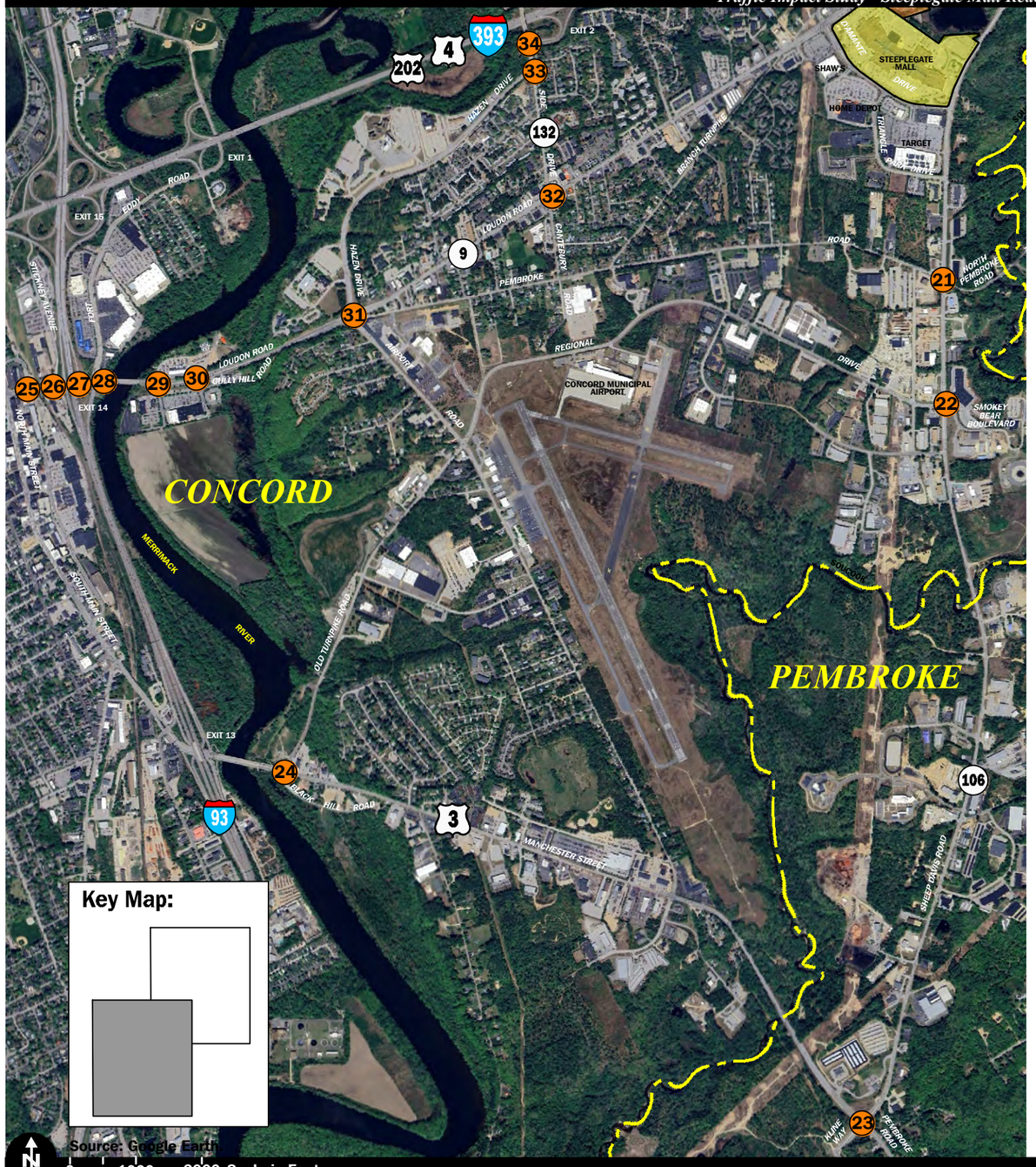

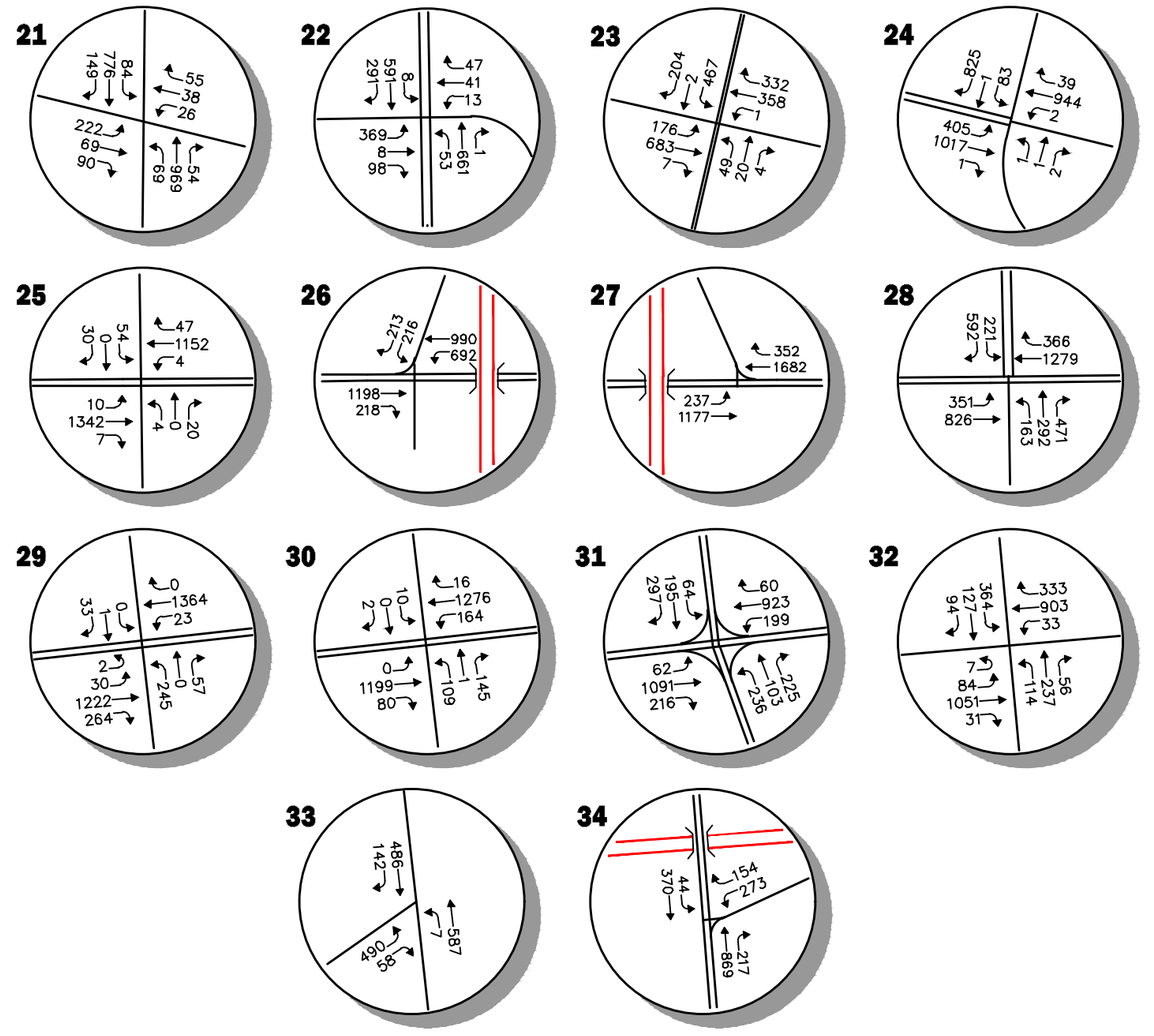

Figure 20S

2027 Opening-Year Build
Peak-Month
Weekday Evening
Peak-Hour Traffic Volumes

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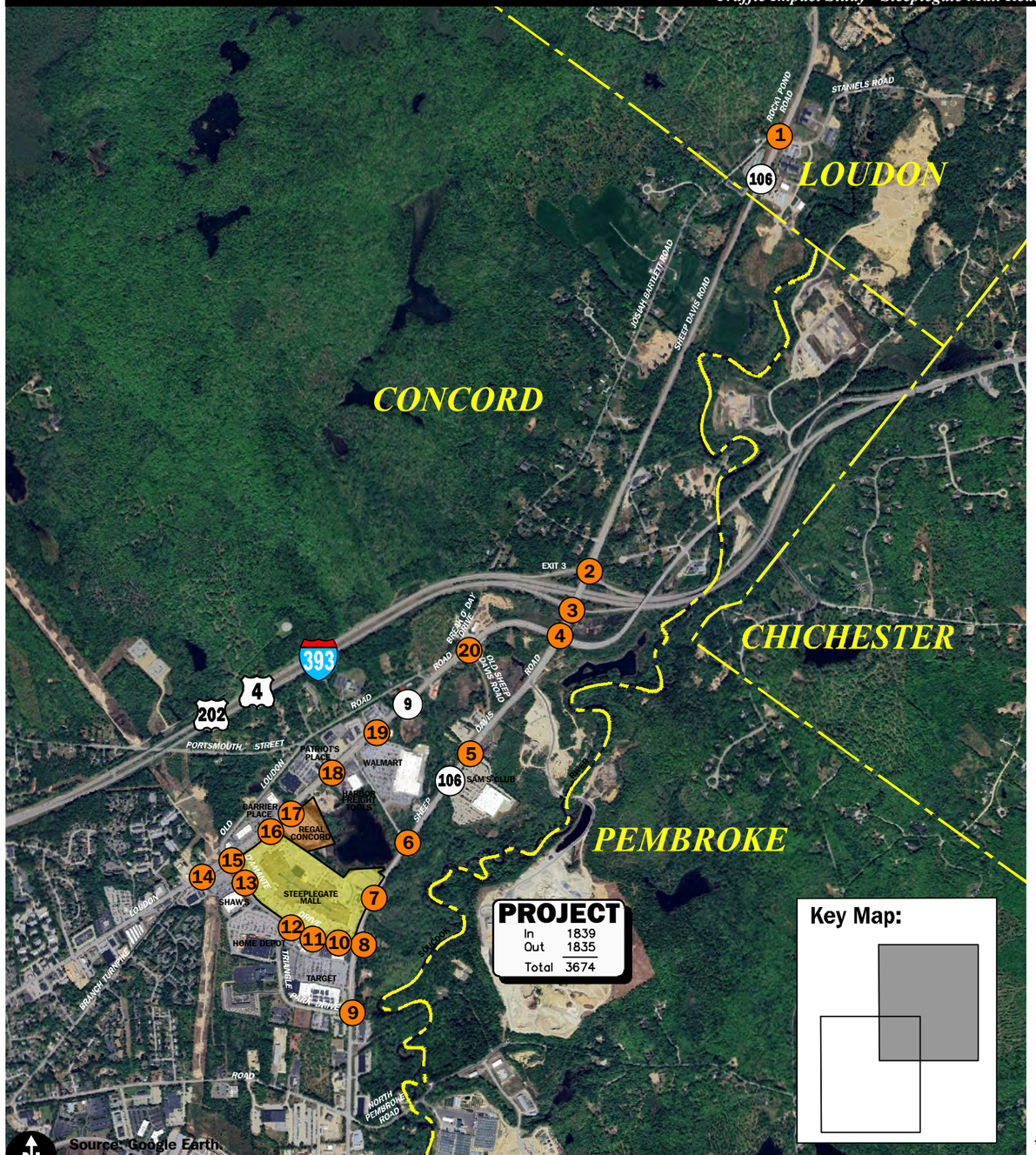

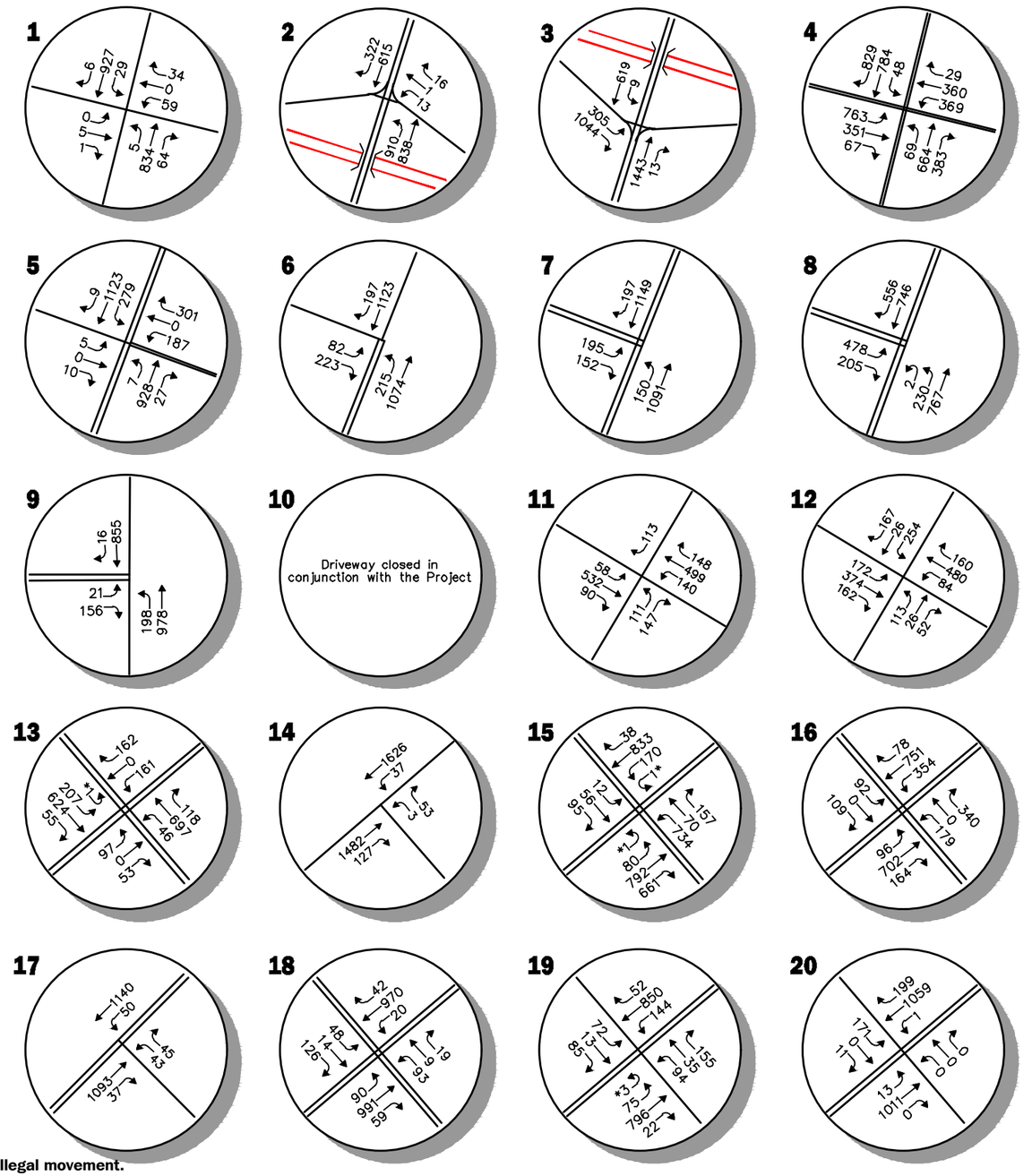

*Illegal movement.

Figure 21N

2027 Opening-Year Build
Peak-Month
Saturday Midday
Peak-Hour Traffic Volumes

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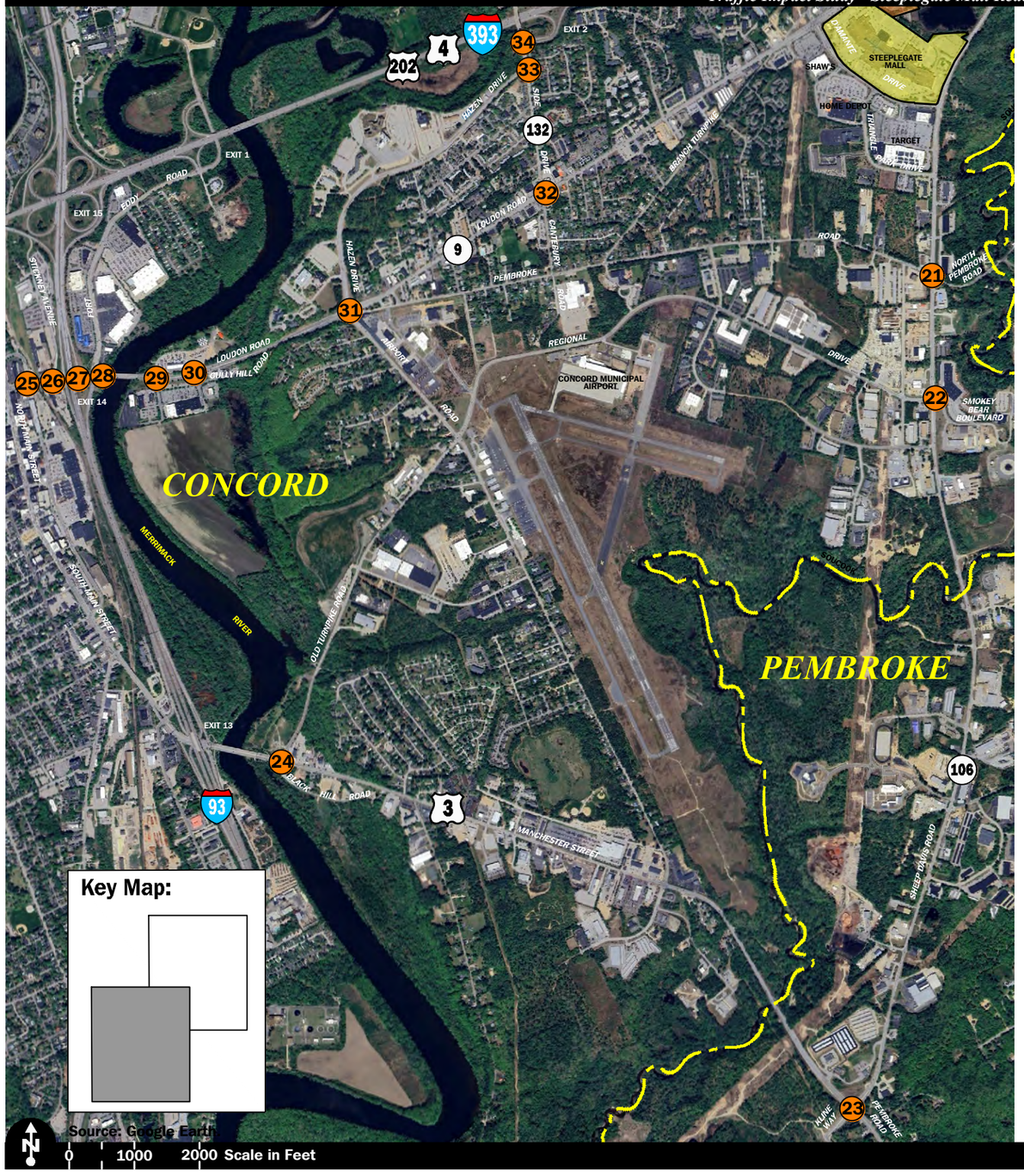

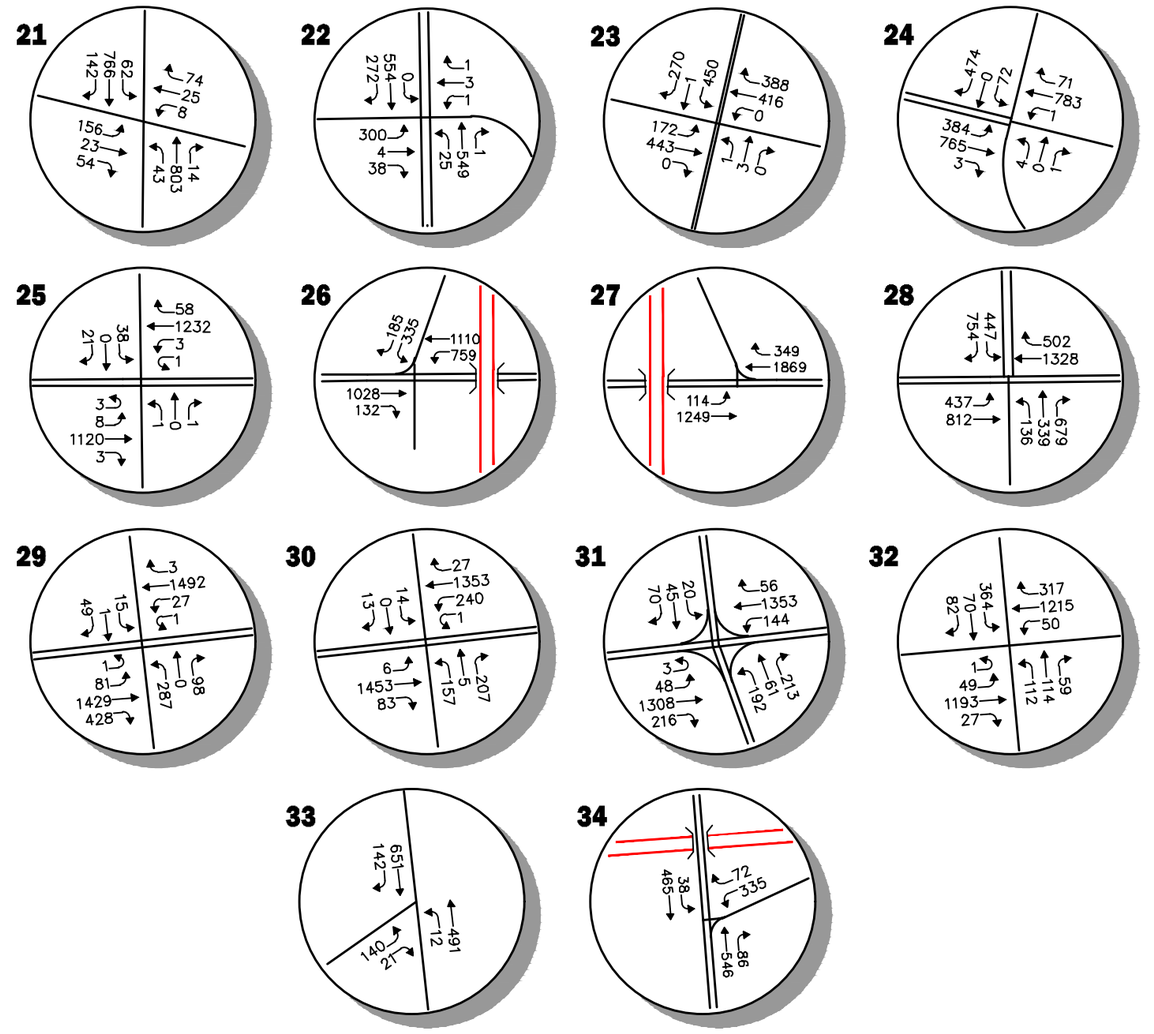

Figure 21S

2027 Opening-Year Build
Peak-Month
Saturday Midday
Peak-Hour Traffic Volumes

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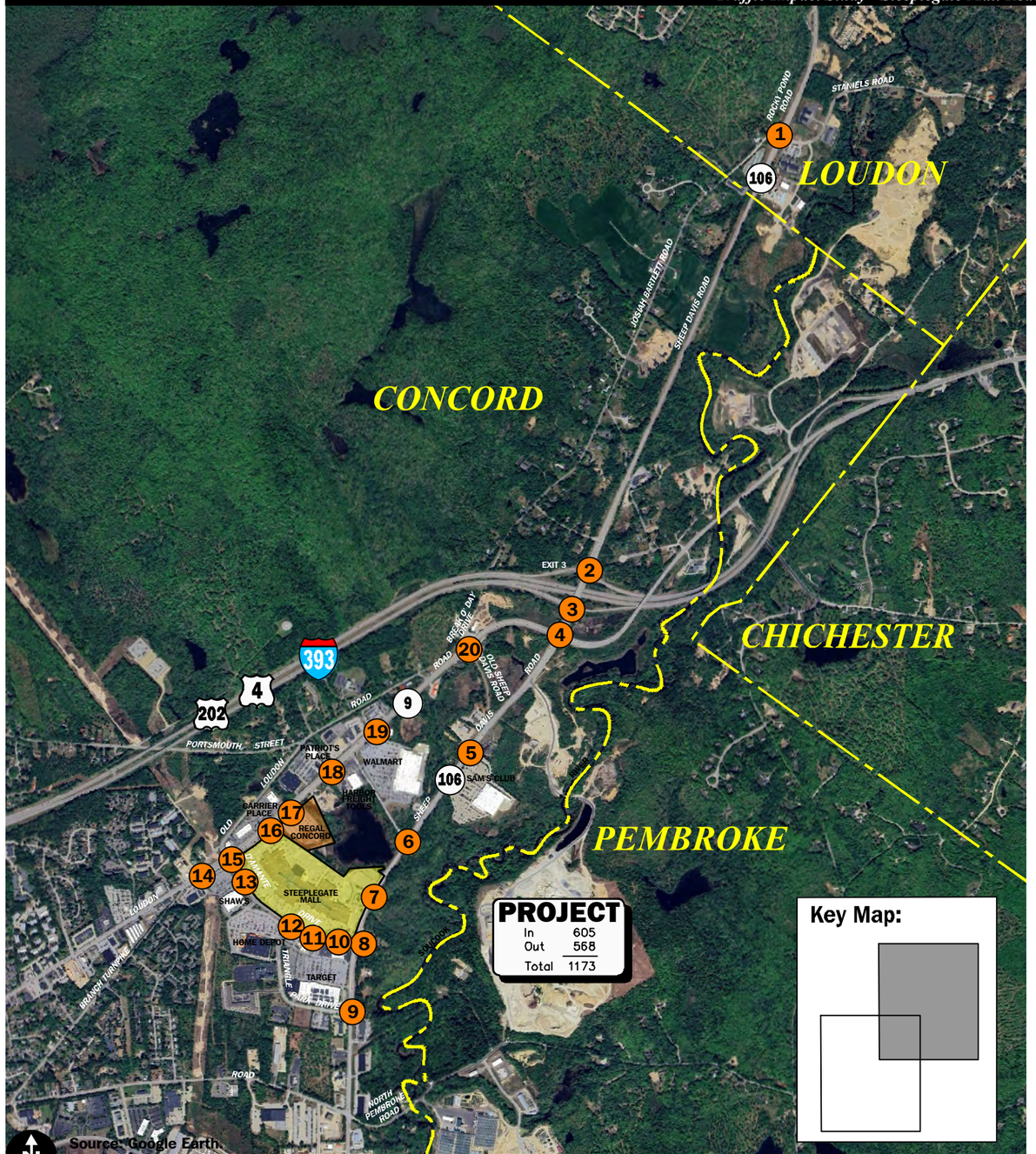

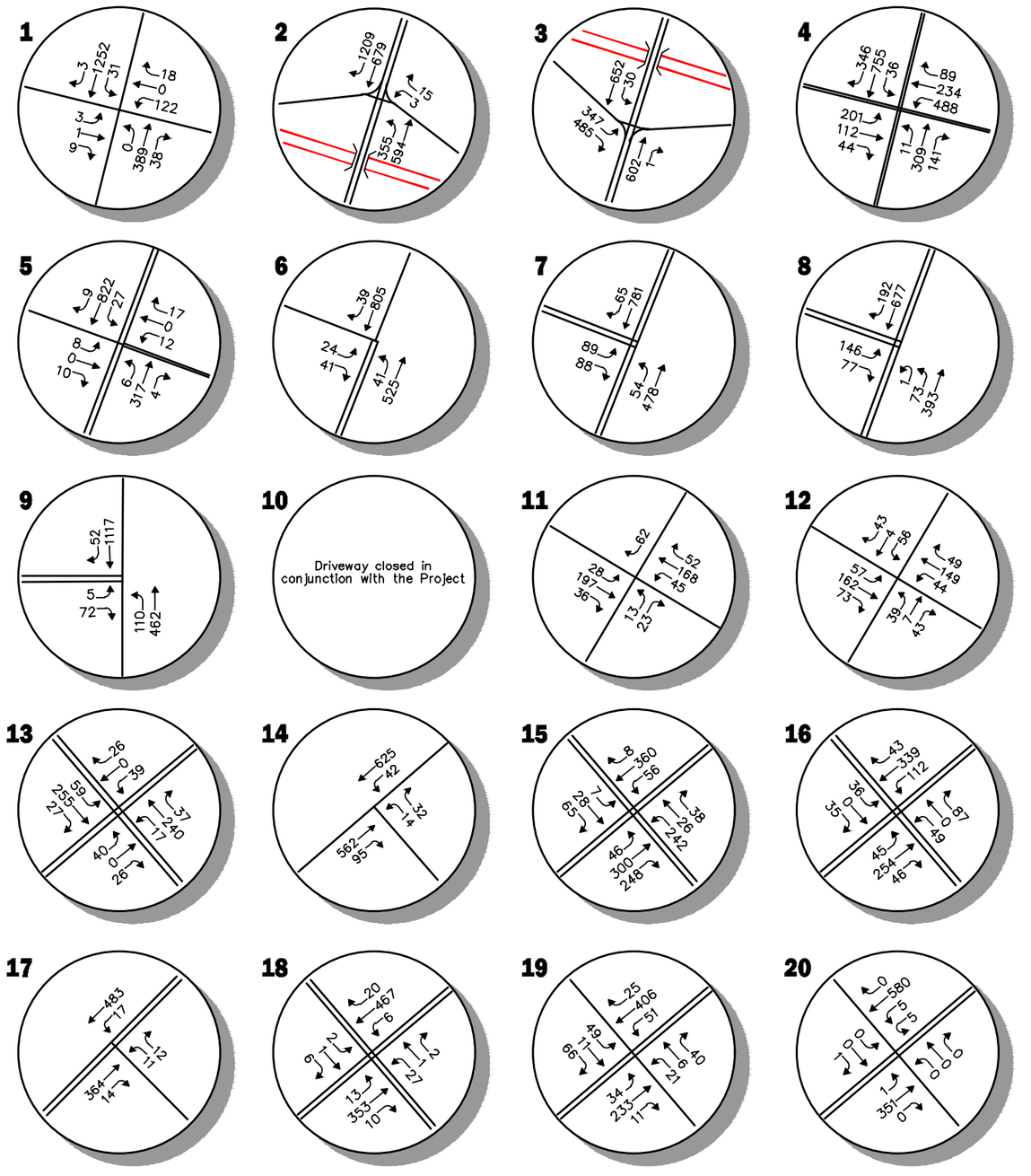

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Figure 22N

2037 Build
Peak-Month
Weekday Morning
Peak-Hour Traffic Volumes

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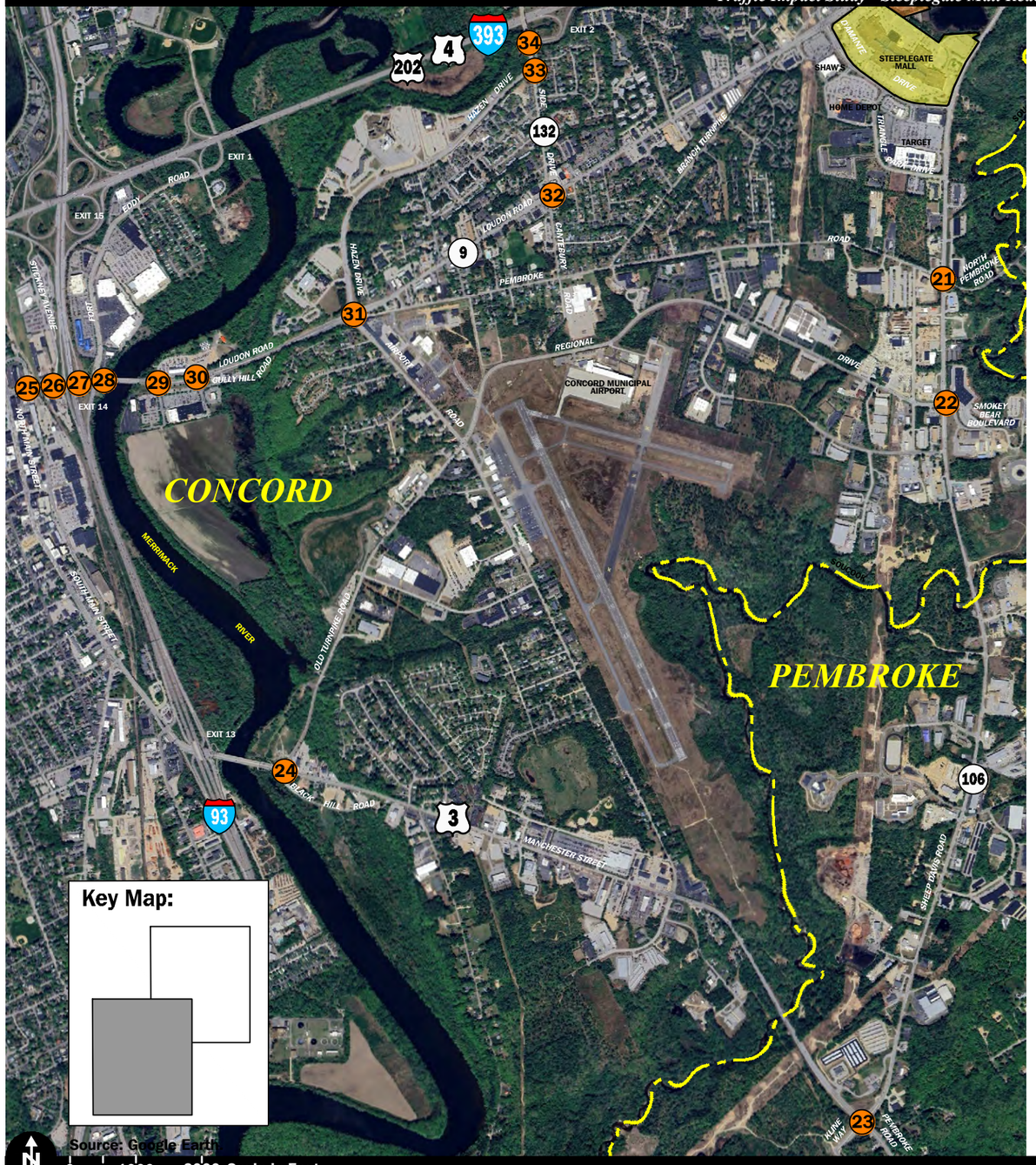

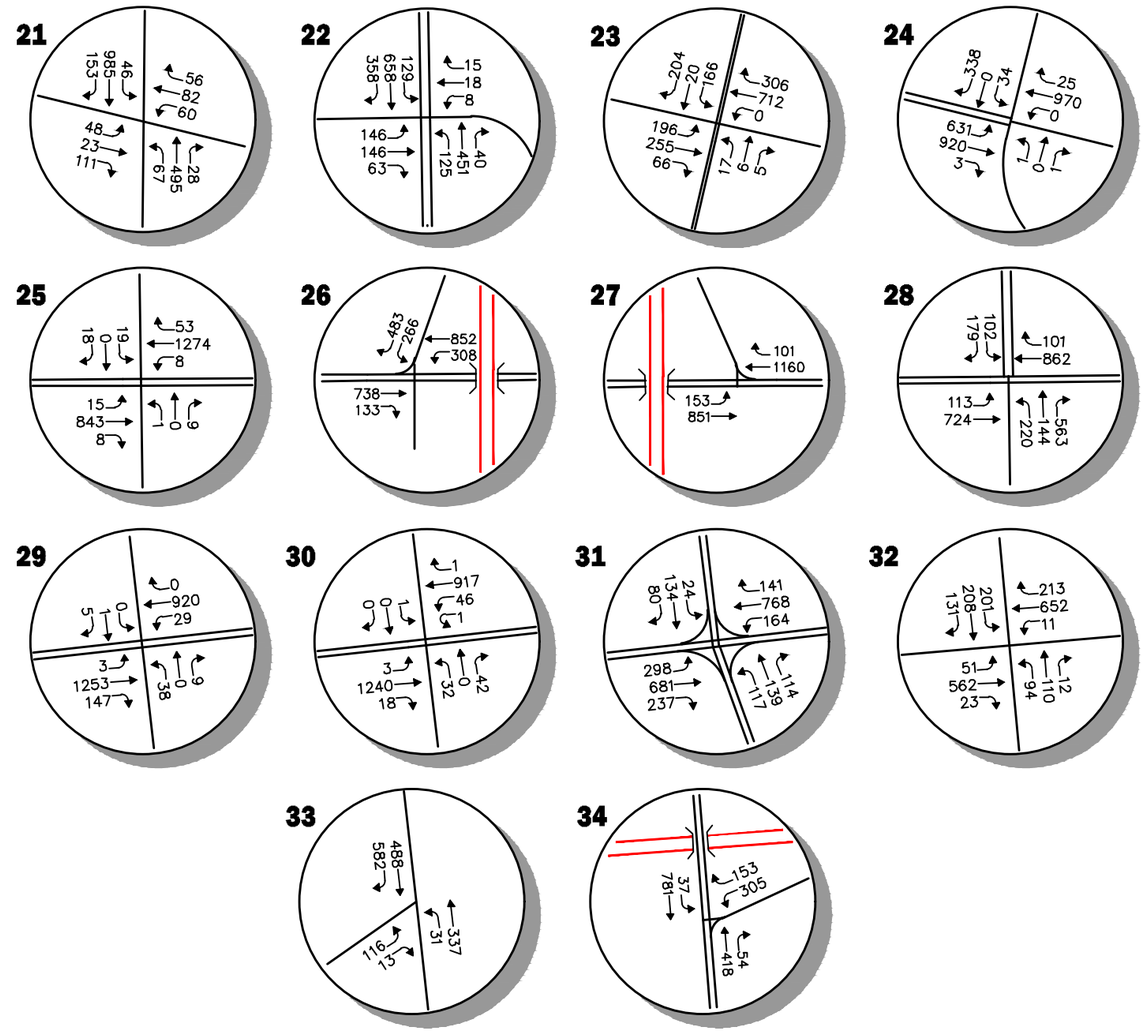

Figure 22S

2037 Build
Peak-Month
Weekday Morning
Peak-Hour Traffic Volumes

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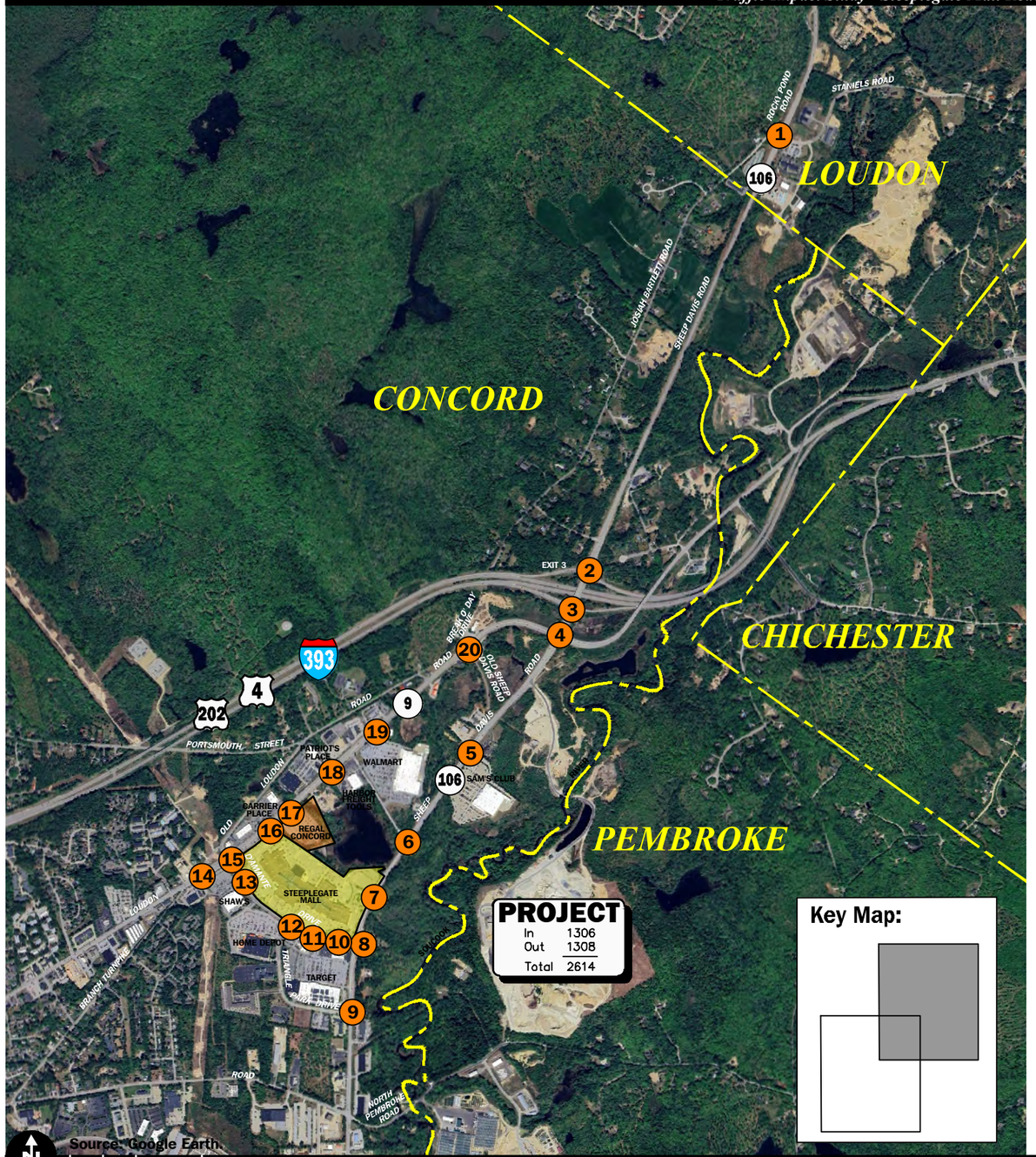

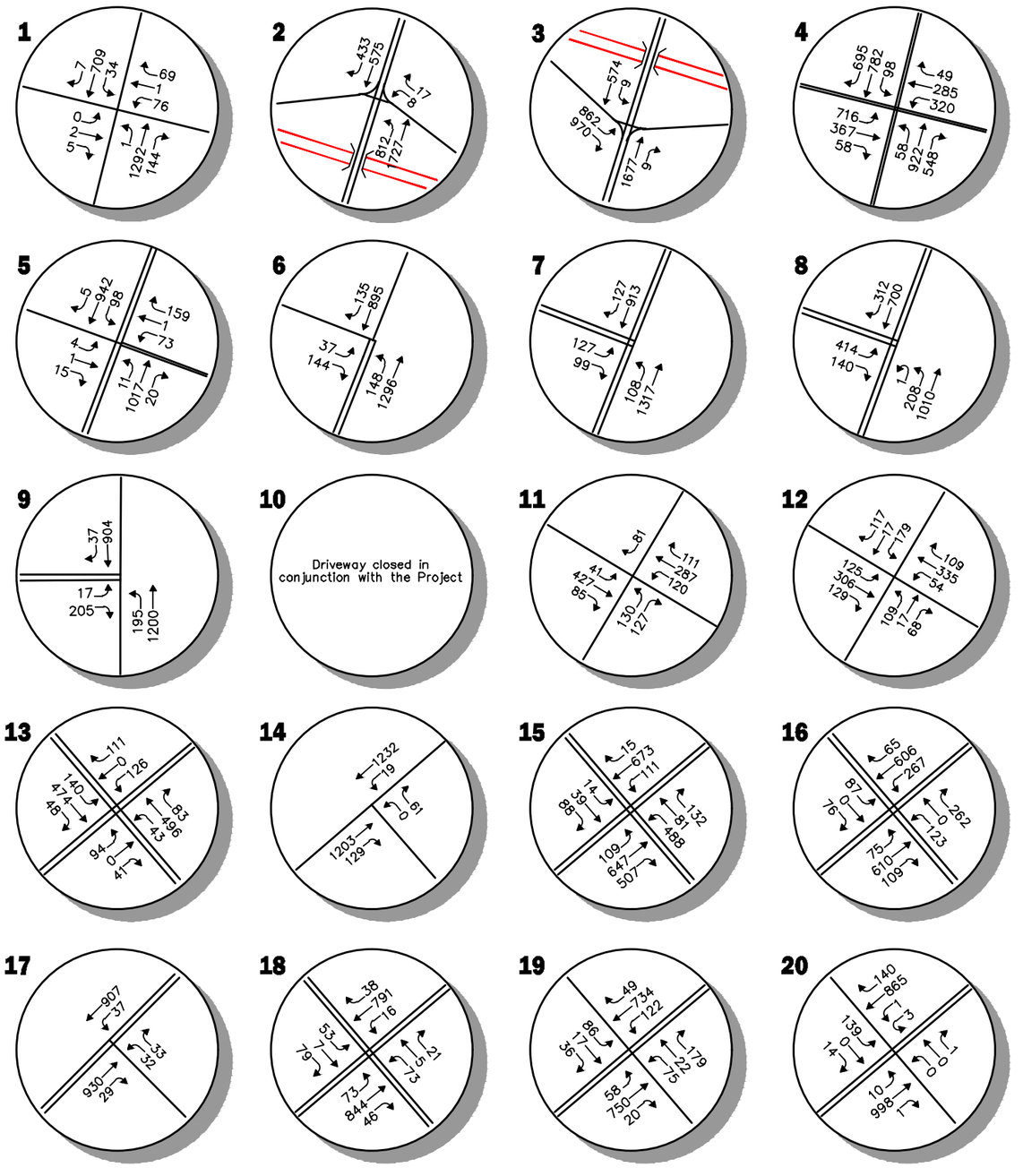

Figure 23N

2037 Build
Peak-Month
Weekday Evening
Peak-Hour Traffic Volumes

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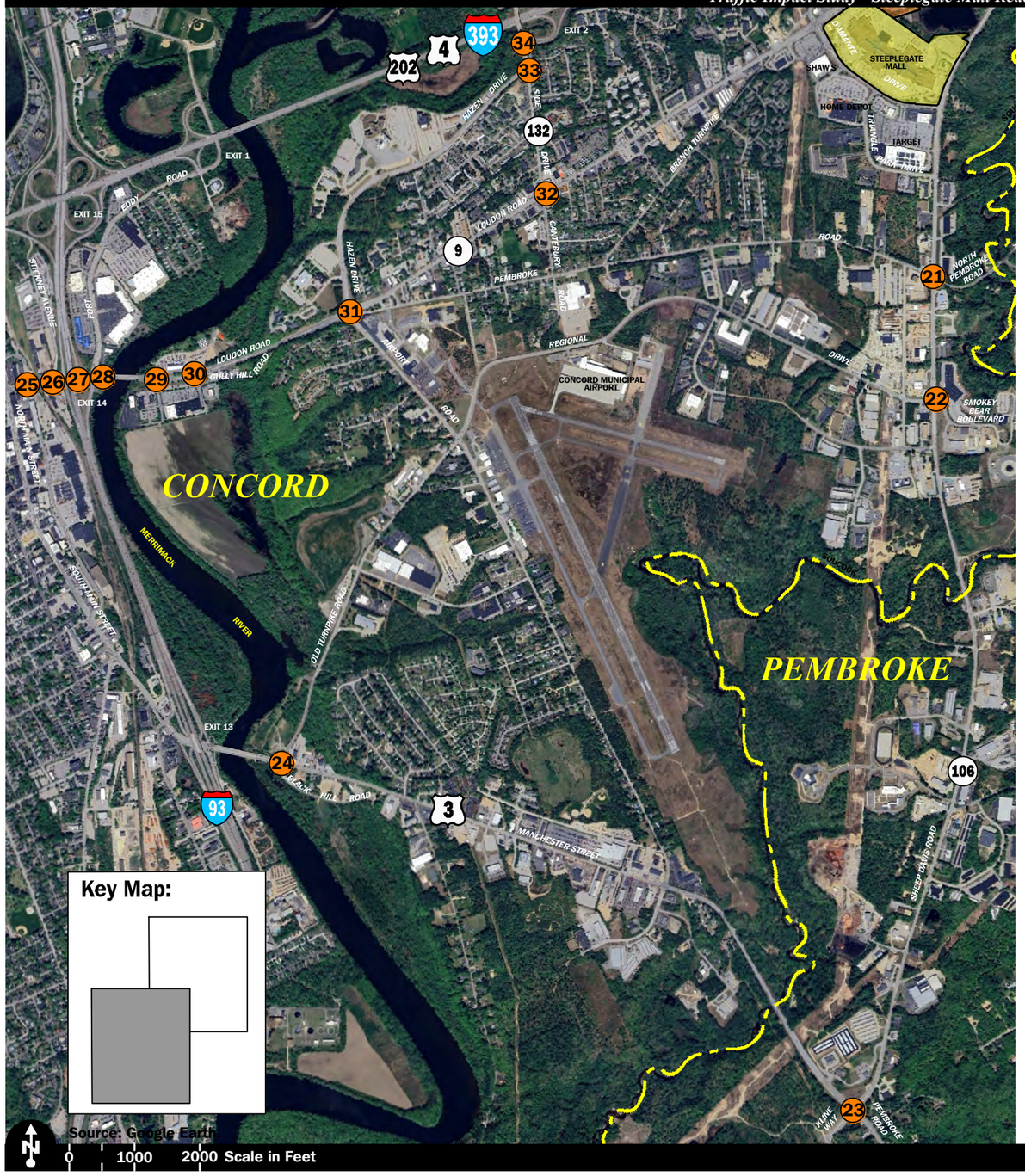

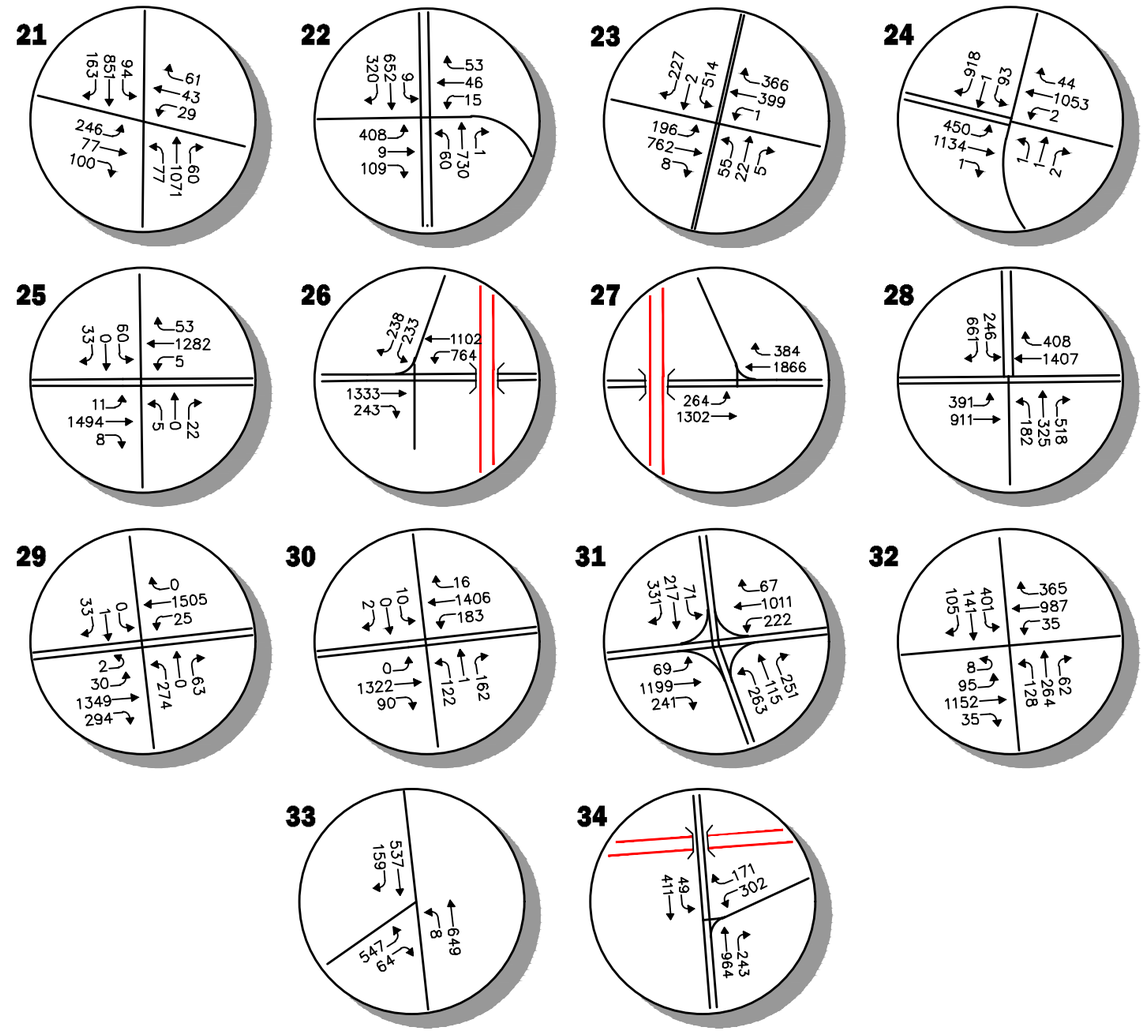

Figure 23S

2037 Build
Peak-Month
Weekday Evening
Peak-Hour Traffic Volumes

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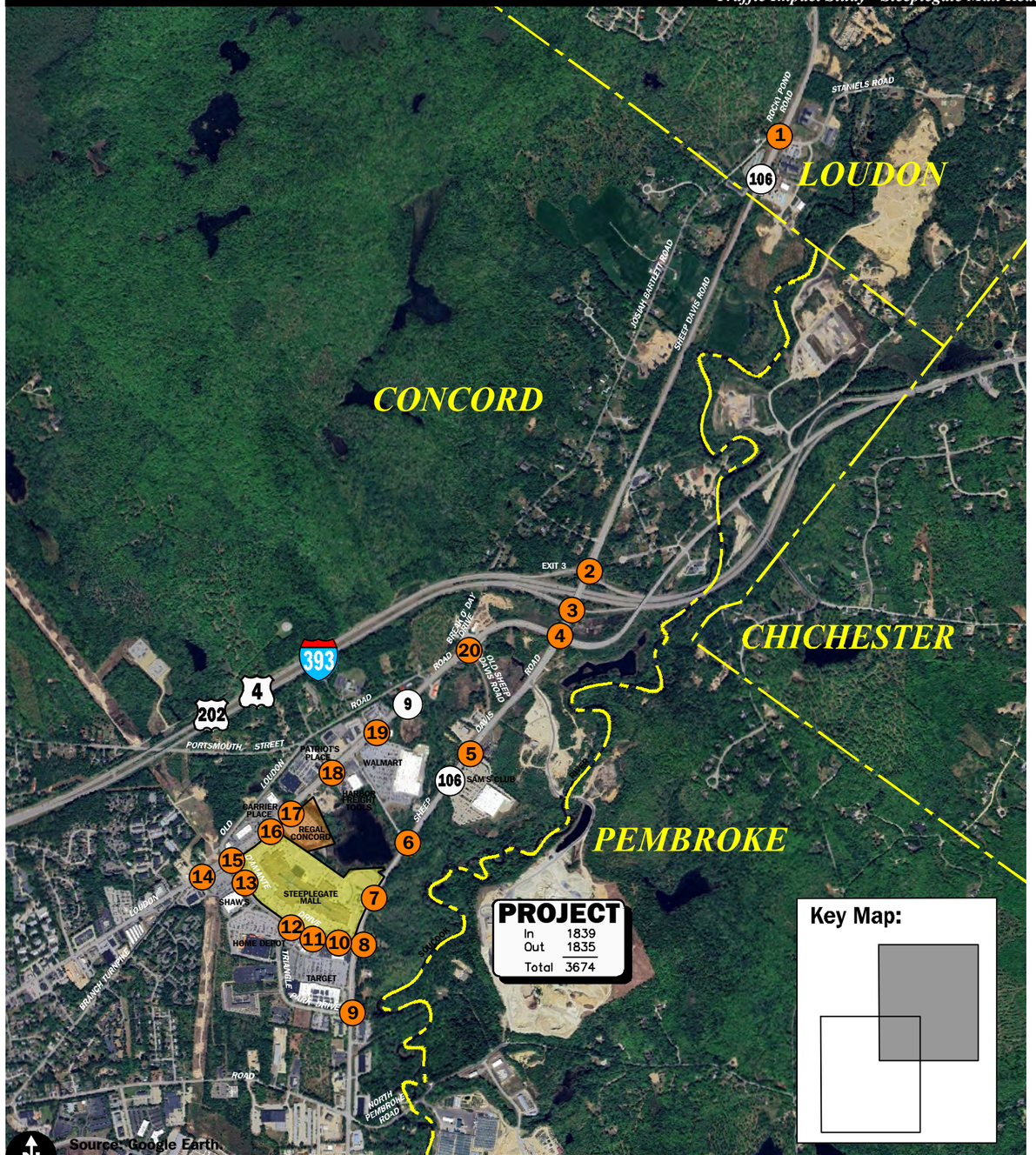

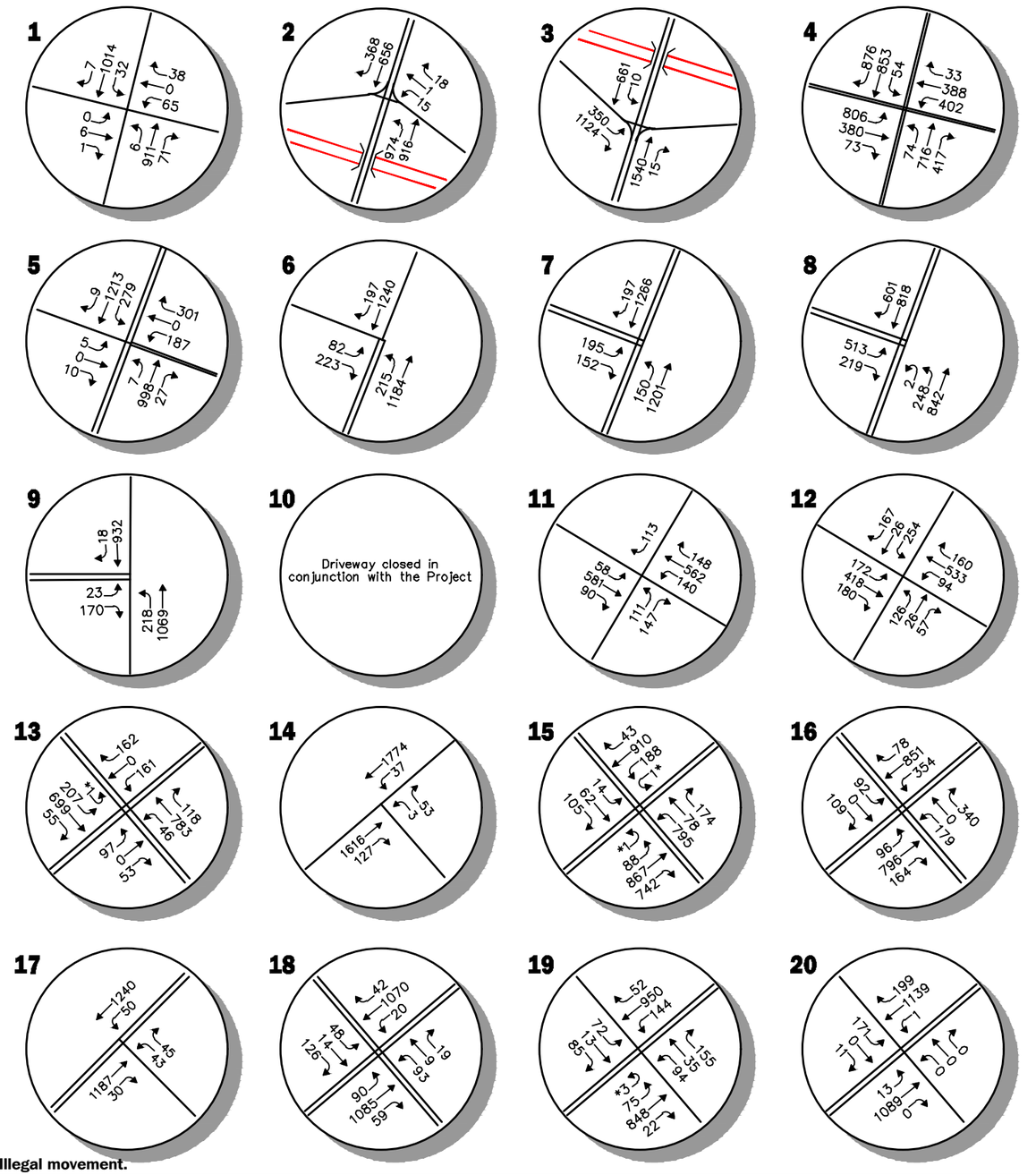

*Illegal movement.

Figure 24N

2037 Build
Peak-Month
Saturday Midday
Peak-Hour Traffic Volumes

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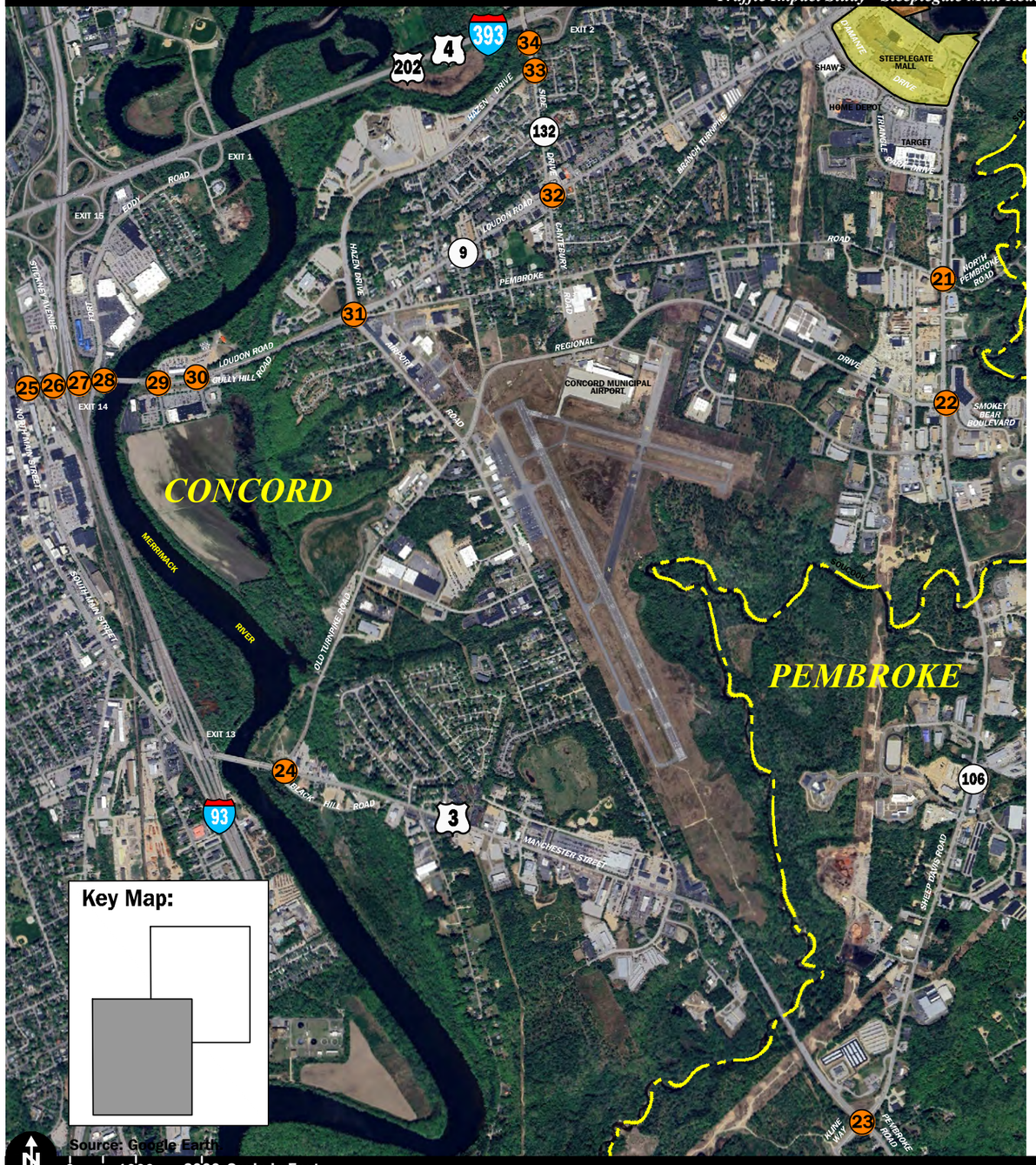

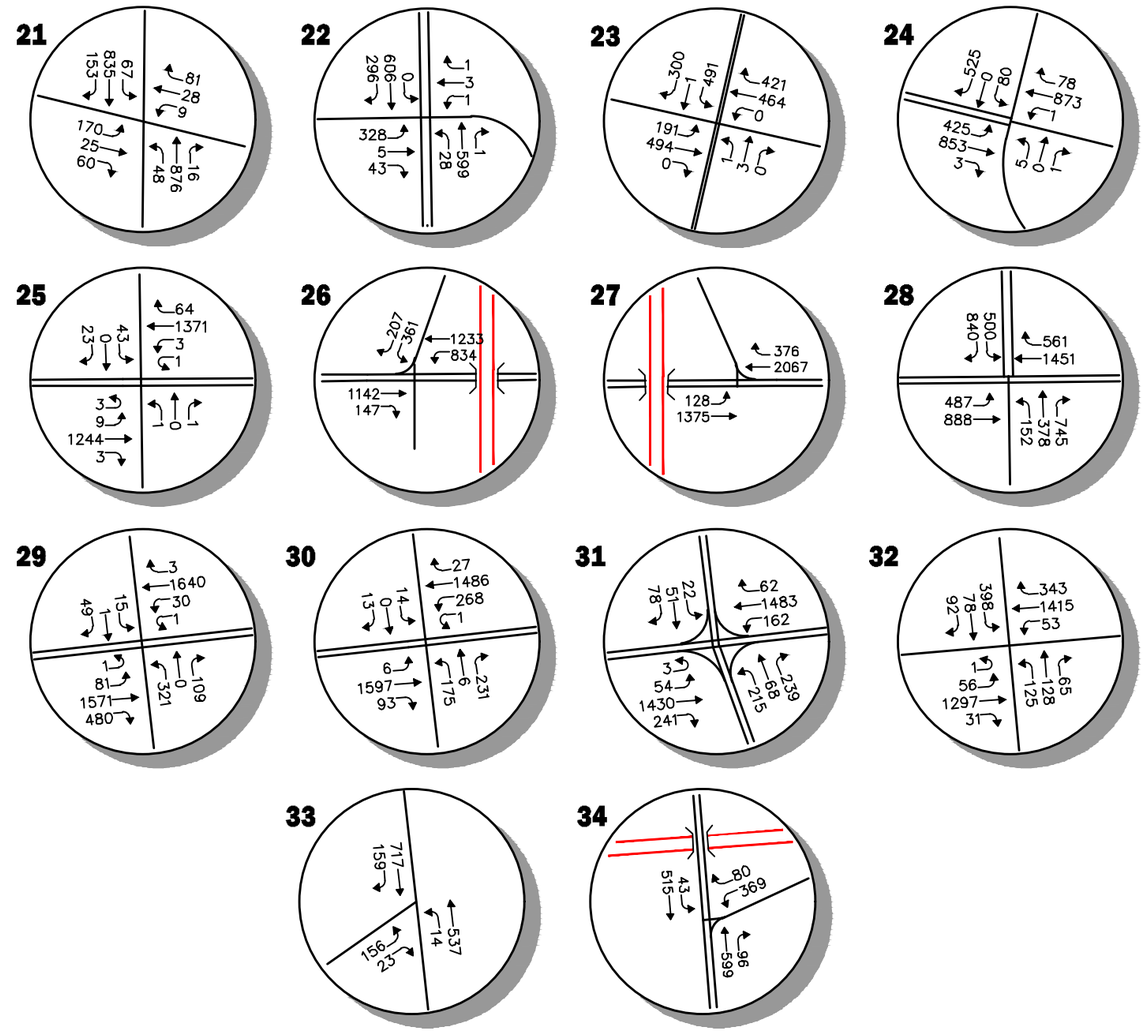

Figure 24S

2037 Build
Peak-Month
Saturday Midday
Peak-Hour Traffic Volumes

Vanasse & Associates inc

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AUXILIARY TURN LANE WARRANTS ANALYSIS

An auxiliary turn lane warrants analysis was conducted at the following Project site driveway intersections where turn lanes are not currently provided in accordance with the methodology and procedures outlined in *NCHRP Report 457*[19] published by the National Cooperative Highway Research Program (NCHRP):

- D'Amante Drive at the Target Driveway (Intersection 11)
- D'Amante Drive at Triangle Park Driveway (Intersection 12)
- D'Amante Drive at the West Steeplegate Mall Driveway and the Shaw's Driveway (Intersection 13)
- NH Route 9 at the Steeplegate Mall and Carrier Place Driveways (Intersection 16)
- NH Route 9 at the Regal Concord Driveway (Intersection 17)

The auxiliary turn lane warrants analysis was conducted under 2027 Opening-Year Build and 2037 Build peak-month, peak-hour traffic volume conditions and using the existing roadway and intersection geometry and the posted speed limit plus 5 mph or the measured 85th percentile vehicle travel speed along the intersecting roadway, whichever was higher.

Determination of the need for a left-turn lane of adequate storage length is a function of the volume of left-turning vehicles at the intersection under study and the magnitude of opposing or conflicting traffic volumes along the roadway. For a right-turn lane, the volume of right-turning vehicles at the intersection and the total volume of traffic on the same approach (advancing volume) are considered.

Table 7 summarizes the results of the auxiliary turn lane warrants analysis for the subject intersections with the detailed analysis presented in the Appendix.

[19] *NCHRP Report 457 – Evaluating Intersection Improvement: An Engineering Study Guide*, National Cooperative Highway Research Program; 2001.

Table 7
AUXILIARY TURN LANE WARRANTS ANALYSIS SUMMARY

Intersection	Left-Turn Lane Warranted?	Right-Turn Lane Warranted?
D'Amante Dr./Target Driveway (East Project site driveway)	**Yes**	**Yes**
D'Amante Dr./Triangle Park Dr. (Central Project site driveway)	**Yes**	**Yes**
D'Amante Dr./West Steeplegate Mall Driveway/ Shaw's Driveway (West Project site driveway)	--[a]	**Yes**
NH Rte. 9/Steeplegate Mall Driveway/Carrier Place Driveway (South Project site driveway)	--[a]	**Yes**
NH Rte. 9/Regal Concord Driveway (North Project site driveway)	--[a]	No

[a]Left-turn lanes are currently provided.

As shown on Table 7, based on a review of the auxiliary turn lane criteria under 2027 Opening-Year and 2037 Build conditions, provision of a left-turn lane on the D'Amante Drive eastbound approaches to the Project site driveway located opposite Triangle Park Drive (the central Project site driveway) and to the Project site driveway located opposite the Target driveway (the east Project site driveway) is *warranted*. As such, it is recommended that a left-turn lane be provided on the respective D'Amante Drive eastbound approaches. Left-turn lanes are currently provided on one or both approaches to the D'Amante Dr./West Steeplegate Mall Driveway/Shaw's Driveway (West Project site driveway), NH Rte. 9/Steeplegate Mall Driveway/Carrier Place Driveway (South Project site driveway) and NH Rte. 9/Regal Concord Driveway (North Project site driveway) intersections.

The criteria for the installation of a right-turn lane was found to be met for the following approaches: the D'Amante Drive westbound approach to the Project site driveway located opposite the Target driveway (the east Project site driveway); the D'Amante Drive westbound approach to the Project site driveway located opposite Triangle Park Drive (the central Project site driveway); the D'Amante Drive westbound approach to the Project site driveway located opposite the Shaw's Driveway (west Project site driveway); and the NH Route 9 eastbound approach to the Project site driveway located opposite Carrier Place (the south Project site driveway).

Based on the above analysis, the warranted turn lanes will be constructed at the identified Project site driveway intersections as a part of the Project subject to receipt of all necessary rights, permits and approvals.

TRAFFIC SIGNAL WARRANT ANALYSIS

A detailed Traffic Signal Warrants Analysis (TSWA) was performed following the methodology defined in the *Manual on Uniform Traffic Control Devices* (MUTCD)[20] for the following intersections:

- NH Route 106 at the Sam's Club Driveway (Intersection 5)
- NH Route 106 at the Walmart Driveway (Intersection 6)
- NH Route 106 at the Steeplegate Mall (Project site) Driveway (Intersection 7)

METHODOLOGY

The MUTCD establishes nine warrants or criteria to evaluate a location for the installation (or retention) of a traffic signal; however, satisfaction of a warrant in and of itself does not necessarily indicate that the installation of a traffic signal is the best traffic control solution. An engineering evaluation of the location in question should indicate that the establishment of traffic signal control will improve the overall safety and/or operation of the intersection. Table 8 lists the nine warrants used to evaluate an intersection for traffic signal control as presented in the MUTCD.

Table 8
TRAFFIC SIGNAL WARRANTS

Warrant No.	Description
1	Eight-Hour Vehicular Volume
2	Four-Hour Vehicular Volume
3	Peak-Hour
4	Pedestrian Volume
5	School Crossing
6	Coordinated Signal System
7	Crash Experience
8	Roadway Network
9	Intersection Near a Grade Crossing

[20]Federal Highway Administration, op. cit. 2.

Each of the nine traffic signal warrants listed in Table 8 were evaluated for the subject intersections, the results of which follow.

WARRANTS EVALUATION RESULTS

The traffic signal warrants listed in Table 8 were evaluated for the subject intersections under 2027 average-month Opening-Year Build traffic volumes[21] and with the following geometric conditions:

- **NH Route 106/Sam's Club Driveway:**
  - ***Design Speed:*** >40 mph
  - ***Geometry:***
    - *NH Route 106 Northbound:* One left-turn lane, one through travel lane and one right-turn lane
    - *NH Route 106 Southbound:* One left-turn lane, one through travel lane and one right-turn lane
    - *Sam's Club Driveway:* One left-turn/through lane and one right-turn lane
    - *WB Matthews Driveway:* One left-turn/through lane and one right-turn lane
- **NH Route 106/Walmart Driveway:**
  - ***Design Speed:*** >40 mph
  - ***Geometry:***
    - *NH Route 106 Northbound:* One left-turn lane and one through travel lane
    - *NH Route 106 Southbound:* One through lane and one right-turn lane
    - *Walmart Driveway:* One left-turn lane and one right-turn lane
- **NH Route 106/Steeplegate Mall (Project site) Driveway:**
  - ***Design Speed:*** >40 mph
  - ***Geometry:***
    - *NH Route 106 Northbound:* One left-turn lane and two through travel lanes
    - *NH Route 106 Southbound:* One through lane and one through/right-turn lane
    - *Steeplegate Mall (Project site) driveway:* One left-turn lane and one right-turn lane

Table 9 summarizes the results of the TSWA for the subject intersections, with the detailed TSWA worksheets and supporting materials provided in the Appendix. For approaches at the NH Route 106/Sam's Club Driveway and NH Route 106/Walmart Driveways where right-turn lanes are present, the traffic volumes in the right-turn lanes were reduced by 25 percent to reflect right-turn-on-red movements that would not be processed by or derive a benefit from the installation of a traffic control signal.

[21]Traffic volumes at the intersection were adjusted to average-month conditions, and *do not* include traffic volumes associated with background development projects by others.

Table 9
TRAFFIC SIGNAL WARRANTS ANALYSIS

		2027 Build Average-Month Conditions		
		NH Route 106/ Sam's Club Driveway	NH Route 106/ Walmart Driveway	NH Route 106/ Steeplegate Mall Driveway
Warrant No.	Description	Satisfied?	Satisfied?	Satisfied?
1	Eight-Hour Vehicular Volume	**Yes**	**Yes**	**Yes**
2	Four-Hour Vehicular Volume	**Yes**	**Yes**	**Yes**
3	Peak-Hour	*N/A*[a]	*N/A*[a]	*N/A*[a]
4	Pedestrian Volume	No	No	No
5	School Crossing	No	No	No
6	Coordinated Signal System	No	No	No
7	Crash Experience	No	No	No
8	Roadway Network	No	No	No
9	Intersection Near a Grade Crossing	No	No	No

[a]Warrant 3, Peak-Hour, is only applicable in instances where adjacent land uses attract or discharge a large volume of traffic in a brief period. As such, this warrant is not applicable for this analysis.

As can be seen in Table 9, the intersection of NH Route 106 at the Steeplegate Mall (Project site) driveway was found to satisfy Warrant 1, *Eight-Hour Vehicular Volume*, and Warrant 2, *Four-Hour Vehicular Volume*. As such, this analysis has indicated that the reestablishment of traffic signal control at the NH Route 106/Steeplegate Mall driveway intersection is warranted based on the predicted traffic volumes that are expected to occur at the time that the Project is constructed.

Under 2027 Build average-month conditions, the NH Route 106/Sam's Club Driveway and the NH Route 106/Walmart Driveway intersections were also found to satisfy Warrant 1, *Eight-Hour Vehicular Volume*, and Warrant 2, *Four-Hour Vehicular Volume*; however, satisfaction of the subject warrants was found to be dependent on the extent to which right-turn-on-red volumes are excluded from the traffic volumes on the driveway approaches. The installation of traffic control signals was not found to be warranted with the exclusion of all right-turn volumes on the driveway approaches. For the NH Route 106/Walmart Driveway intersection, the installation of a traffic control signal was not found to be warranted with right-turn-on-red reductions of greater that 25 percent for the driveway. Accordingly, it is recommended that traffic volumes and operating conditions at these intersections continue to be monitored.

TRAFFIC OPERATIONS ANALYSIS

Measuring existing and future traffic volumes quantifies traffic flow within the study area. To assess quality of flow, roadway capacity and vehicle queue analyses were conducted under Existing, No-Build, and Build traffic-volume conditions. Capacity analyses provide an indication of how well the roadway facilities serve the traffic demands placed upon them, with vehicle queue analyses providing a secondary measure of the operational characteristics of an intersection or section of roadway under study.

METHODOLOGY

Levels of Service

A primary result of capacity analyses is the assignment of level of service to traffic facilities under various traffic-flow conditions.[22] The concept of level of service is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition provides an index to quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Six levels of service are defined for each type of facility. They are given letter designations from A to F, with level-of-service (LOS) A representing the best operating conditions and LOS F representing congested or constrained operating conditions.

Since the level of service of a traffic facility is a function of the traffic flows placed upon it, such a facility may operate at a wide range of levels of service, depending on the time of day, day of week, or period of year.

[22]The capacity analysis methodology is based on the concepts and procedures presented in the *Highway Capacity Manual, 6th Edition;* Transportation Research Board; Washington, DC; 2016.

Signalized Intersections

The six levels of service for signalized intersections may be described as follows:

- *LOS A* describes operations with very low control delay; most vehicles do not stop at all.
- *LOS B* describes operations with relatively low control delay. However, more vehicles stop than LOS A.
- *LOS C* describes operations with higher control delays. Individual cycle failures may begin to appear. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
- *LOS D* describes operations with control delay in the range where the influence of congestion becomes more noticeable. Many vehicles stop and individual cycle failures are noticeable.
- *LOS E* describes operations with high control delay values. Individual cycle failures are frequent occurrences.
- *LOS F* describes operations with high control delay values that often occur with oversaturation. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Levels of service for signalized intersections are calculated using the operational analysis methodology of the 2000 *Highway Capacity Manual*[23] and implemented as a part of the Synchro® software. This method assesses the effects of signal type, timing, phasing, and progression; vehicle mix; and geometrics on delay. Level-of-service designations are based on the criterion of control or signal delay per vehicle. Control or signal delay is a measure of driver discomfort, frustration, and fuel consumption, and includes initial deceleration delay approaching the traffic signal, queue move-up time, stopped delay and final acceleration delay. Table 10 summarizes the relationship between level of service and control delay. The tabulated control delay criterion may be applied in assigning level-of-service designations to individual lane groups, to individual intersection approaches, or to entire intersections.

Table 10
LEVEL-OF-SERVICE CRITERIA
FOR SIGNALIZED INTERSECTIONS[a]

Level of Service	Control (Signal) Delay Per Vehicle (Seconds)
A	≤10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	>80.0

[a]Source: *Highway Capacity Manual*, Transportation Research Board; Washington, DC; 2000; page 16-2.

[23]*Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2000.

Unsignalized Intersections

The six levels of service for unsignalized intersections may be described as follows:

- *LOS A* represents a condition with little or no control delay to minor street traffic.
- *LOS B* represents a condition with short control delays to minor street traffic.
- *LOS C* represents a condition with average control delays to minor street traffic.
- *LOS D* represents a condition with long control delays to minor street traffic.
- *LOS E* represents operating conditions at or near capacity level, with very long control delays to minor street traffic.
- *LOS F* represents a condition where minor street demand volume exceeds capacity of an approach lane, with extreme control delays resulting.

The levels of service of unsignalized intersections are determined by application of a procedure described in the *Highway Capacity Manual, 7th Edition.*[24] Level of service is measured in terms of average control delay. Mathematically, control delay is a function of the capacity and degree of saturation of the lane group and/or approach under study and is a quantification of motorist delay associated with traffic control devices such as traffic signals and STOP signs. Control delay includes the effects of initial deceleration delay approaching a STOP sign, stopped delay, queue move-up time, and final acceleration delay from a stopped condition. Definitions for level of service at unsignalized intersections are also given in the *Highway Capacity Manual 7th Edition*. Table 11 summarizes the relationship between level of service and average control delay for two-way stop controlled and all-way stop controlled intersections.

Table 11
LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS[a]

Level-Of-Service by Volume-to-Capacity Ratio		Average Control Delay
v/c ≤ 1.0	v/c > 1.0	(Seconds Per Vehicle)
A	F	≤10.0
B	F	10.1 to 15.0
C	F	15.1 to 25.0
D	F	25.1 to 35.0
E	F	35.1 to 50.0
F	F	>50.0

[a]Source: *Highway Capacity Manual, 7th Edition*, Transportation Research Board; Washington, DC; 2023; page 20-6.

[24]*Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2023.

Rotaries

The rotary capacity analysis is based on the procedures described in the *aaTraffic Signalized* and *Unsignalized* Intersection Design and Research Aid (*aaSIDRA*).[25] The main features of the *aaSIDRA* method for rotary capacity estimation are the dependence of gap acceptance parameters on rotary geometry, circulating flows and entry lane flows, and the designation of approach lanes as controlling and otherwise that have different capacity characteristics. Provision of two-lane approaches tend to substantially increase rotary capacity. As a general rule, individual approach volumes exceeding 85 percent of the calculated capacity of that approach are considered over-saturated and indicate areas of concern.

The *aaSIDRA* analytical model calculates several components of delay. One of these, the average total delay component, produces level-of-service results based on the concepts described in the HCM. Using this level-of-service delay definition for rotaries results in criteria that are the same for signalized intersections. The delay ranges that define levels of service for rotaries are shown in Table 12.

Table 12
LEVEL-OF-SERVICE CRITERIA FOR ROTARIES

Level of Service	Control Delay Per Vehicle (Seconds)
A	≤ 10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F	>50.0

Source: aa*SIDRA 6.1 Users Guide;* Akcelik & Associates Pty Ltd; Greythorn, Victoria 3104, Australia; November 2012.

Vehicle Queue Analysis

Vehicle queue analyses are a direct measurement of an intersection's ability to process vehicles under various traffic control and volume scenarios and lane use arrangements. The vehicle queue analysis was performed using the Synchro® intersection capacity analysis software for unsignalized and signalized intersections, and using the *aaSIDRA* analytical model for rotaries, which are based upon the methodology and procedures presented in the 2010 *Highway Capacity Manual*. The Synchro® vehicle queue analysis methodology is a simulation based model which reports the number of vehicles that experience a delay of six seconds or more at an intersection. For signalized intersections, Synchro® reports both the average (50th percentile) and the 95th percentile vehicle queue. For unsignalized intersections and rotaries, Synchro® and *aaSIDRA*, respectively, report the 95th percentile vehicle queue. Vehicle queue lengths are a function of the capacity of the movement under study and the volume of traffic being processed by the intersection during the analysis period. The 95th percentile vehicle queue is the vehicle queue length that will be exceeded only 5 percent of the time, or approximately 3 minutes out of 60 minutes during the

[25] aaTraffic Signalized and Unsignalized Intersection Design and Research Aid, aaSIDRA 6.1 User Guide; Akcelik & Associates Pty Ltd; Greythorn, Victoria 3104, Australia; November 2012.

peak one hour of the day (during the remaining 57 minutes, the vehicle queue length will be less than the 95th percentile queue length).

Traffic Signal Timming and Adjustments

VAI obtained traffic signal timing, phasing and coordination plans from the NHDOT Bureau of Traffic and the City of Concord for the signalized intersections within the study area. The traffic signal timing information shown on these plans is reflected in the 2024 Existing conditions analysis and was held consistent under No-Build and Build conditions unless otherwise noted in the *Roadway Improvement Projects* section. The NHDOT traffic signal timing plans are provided in the Appendix. In addition, the peak-hour factors (PHFs) and heavy vehicles percentages (HV%) were applied consistent with the NHDOT Synchro® Inputs Checklist.[26]

ANALYSIS RESULTS

Level-of-service and vehicle queue analyses were conducted for 2024 Existing, 2027 No-Build, 2027 Opening-Year Build, 2037 No-Build and 2037 Build peak-month conditions for the study area intersections. The results of the intersection capacity and vehicle queue analyses are summarized in Tables 13 and 14, with the detailed analysis results presented in the Appendix.

[26] *Synchro Inputs Checklist*; NHDOT, Revised August 16, 2021. Under future-year conditions (2037), peak-hour factors that were found to be less than 0.90 under existing conditions were raised to 0.90 and heavy vehicle percentages were applied on a weighted average by approach.

Table 13
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
1. NH Route 106 at Josiah Bartlett Road and Staniels Road																				
Weekday Morning:																				
Josiah Bartlett Road EB LT/TH/RT	0.03	19.6	B	1/1	0.03	20.0	C	1/1	0.03	20.7	C	1/1	0.02	20.8	C	1/1	0.02	21.3	C	1/1
Staniels Road WB LT/TH	0.50	23.1	C	1/3	0.52	24.0	C	1/3	0.54	25.0	C	2/3	0.54	25.4	C	2/4	0.55	26.2	C	2/4
Staniels Road WB RT	0.01	19.6	B	0/0	0.01	20.0	B	0/0	0.01	20.6	C	0/0	0.01	20.8	C	0/0	0.01	21.2	C	0/0
NH Route 106 NB LT	0.0	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0
NH Route 106 NB TH/RT	0.23	7.6	A	1/3	0.24	7.6	A	1/3	0.25	7.7	A	1/3	0.25	7.5	A	1/4	0.25	7.5	A	1/4
NH Route 106 SB LT	0.76	83.9	F	1/1	0.83	105.8	F	1/2	0.85	114.7	F	1/2	0.87	124.6	F	1/2	0.89	134.7	F	1/2
NH Route 106 SB TH/RT	0.54	5.8	A	5/8	0.56	5.9	A	5/8	0.57	6.0	A	5/9	0.59	6.1	A	6/10	0.60	6.2	A	6/11
Overall	--	**9.0**	**A**	--	--	**9.6**	**A**	--	--	**9.7**	**A**	--	--	**10.0**	**B**	--	--	**10.2**	**B**	--
Weekday Evening:																				
Josiah Bartlett Road EB LT/TH/RT	0.02	23.5	C	1/1	0.02	23.9	C	1/1	0.02	24.7	C	1/1	0.01	25.7	C	1/1	0.01	26.4	C	1/1
Staniels Road WB LT/TH	0.37	25.9	C	1/3	0.39	25.2	C	1/3	0.41	27.5	C	1/3	0.45	29.0	C	1/3	0.45	29.8	C	1/3
Staniels Road WB RT	0.04	23.6	C	0/1	0.04	24.0	C	0/1	0.04	24.8	C	0/1	0.05	25.9	C	0/1	0.05	26.6	C	0/1
NH Route 106 NB LT	0.06	32.9	C	0/1	0.06	33.5	C	0/1	0.06	33.9	C	0/1	0.06	35.2	D	0/1	0.06	36.1	D	0/1
NH Route 106 NB TH/RT	0.59	8.6	A	4/10	0.62	8.9	A	4/11	0.64	9.1	A	5/13	0.68	9.9	A	9/14	0.70	10.3	B	10/15
NH Route 106 SB LT	0.89	135.7	F	1/2	0.94	159.9	F	1/2	0.97	174.5	F	1/2	0.70	66.3	E	1/2	0.71	70.8	E	1/2
NH Route 106 SB TH/RT	0.27	6.0	A	1/4	0.28	6.1	A	2/4	0.32	6.2	A	2/5	0.31	6.0	A	2/5	0.34	6.2	A	2/6
Overall	--	**11.1**	**B**	--	--	**11.6**	**B**	--	--	**11.8**	**B**	--	--	**11.0**	**B**	--	--	**11.2**	**B**	--
Saturday Midday:																				
Josiah Bartlett Road EB LT/TH/RT	0.04	19.2	B	1/1	0.04	19.7	B	1/1	0.04	21.6	C	1/1	0.05	20.1	C	1/1	0.05	21.9	C	1/1
Staniels Road WB LT/TH	0.32	20.9	C	1/2	0.34	21.6	C	1/2	0.35	23.6	C	1/2	0.37	22.1	C	1/2	0.39	24.2	C	1/2
Staniels Road WB RT	0.03	19.1	B	0/0	0.03	19.7	B	0/0	0.03	21.5	C	0/0	0.03	20.0	C	0/0	0.03	21.9	C	0/0
NH Route 106 NB LT	0.26	33.9	C	1/1	0.26	34.7	C	1/1	0.29	38.9	D	1/1	0.39	41.4	D	1/1	0.41	45.5	D	1/1
NH Route 106 NB TH/RT	0.41	7.9	A	2/6	0.44	8.0	A	2/6	0.49	8.1	A	3/8	0.48	8.3	A	3/7	0.53	8.5	A	3/9
NH Route 106 SB LT	0.79	88.6	F	1/1	0.85	112.1	F	1/2	0.92	143.5	F	1/2	0.90	131.0	F	1/2	0.95	153.7	F	1/2
NH Route 106 SB TH/RT	0.45	7.7	A	2/6	0.48	7.9	A	3/7	0.54	8.1	A	3/8	0.49	8.0	A	3/8	0.55	8.2	A	4/10
Overall	--	**10.2**	**B**	--	--	**10.8**	**B**	--	--	**11.1**	**B**	--	--	**11.4**	**B**	--	--	**11.6**	**B**	--

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
2. NH Route 106 at the Interstate 393 Westbound Ramps																				
Weekday Morning:																				
I-393 Westbound Off-Ramp WB LT	0.03	19.2	B	1/1	0.04	19.2	B	1/1	0.03	19.3	B	1/1	0.03	19.5	B	1/1	0.03	19.7	B	1/1
I-393 Westbound Off-Ramp WB RT	0.01	19.1	B	0/0	0.01	19.1	B	0/0	0.01	19.2	B	0/0	0.01	19.5	B	0/0	0.01	19.6	B	0/0
NH Route 106 NB LT	0.32	13.8	B	1/2	0.35	13.5	B	1/2	0.48	13.5	B	1/3	0.34	14.1	B	1/3	0.46	13.9	B	2/4
NH Route 106 NB TH	0.26	1.8	A	0/2	0.27	1.8	A	0/2	0.28	1.8	A	0/2	0.26	1.7	A	0/2	0.27	1.7	A	0/2
NH Route 106 SB TH	0.43	9.3	A	1/4	0.45	9.6	A	1/5	0.56	11.3	B	2/6	0.47	9.6	A	1/5	0.57	11.1	B	2/6
NH Route 106 SB RT	0.84	5.6	A	0/0	0.86	6.6	A	0/1	0.83	5.3	A	0/0	0.92	10.3	B	0/5	0.89	8.0	A	0/4
Overall	--	**6.4**	**A**	--	--	**6.9**	**A**	--	--	**7.2**	**A**	--	--	**8.7**	**A**	--	--	**8.2**	**A**	--
Weekday Evening:																				
I-393 Westbound Off-Ramp WB LT	0.06	18.2	B	1/1	0.06	18.7	B	1/1	0.06	19.6	B	1/1	0.06	19.5	B	1/1	0.06	20.6	C	1/1
I-393 Westbound Off-Ramp WB RT	0.01	18.0	B	0/0	0.01	18.5	B	0/0	0.01	19.4	B	0/0	0.01	19.3	B	0/0	0.01	20.4	C	0/0
NH Route 106 NB LT	0.51	12.7	B	1/5	0.60	13.7	B	1/6	0.72	15.9	B	2/9	0.65	14.8	B	2/7	0.79	18.8	B	9/10
NH Route 106 NB TH	0.59	3.1	A	0/5	0.61	3.3	A	0/6	0.63	3.4	A	0/7	0.67	3.7	A	0/7	0.69	3.9	A	0/8
NH Route 106 SB TH	0.34	11.1	B	1/3	0.38	11.6	B	1/3	0.49	12.7	B	2/4	0.41	11.9	B	2/4	0.50	12.7	B	2/5
NH Route 106 SB RT	0.28	0.5	A	0/0	0.29	0.5	A	0/0	0.26	0.4	A	0/0	0.33	0.6	A	0/0	0.29	0.5	A	0/0
Overall	--	**5.7**	**A**	--	--	**6.3**	**A**	--	--	**7.6**	**A**	--	--	**6.8**	**A**	--	--	**8.4**	**A**	--
Saturday Midday:																				
I-393 Westbound Off-Ramp WB LT/TH	0.13	17.7	B	1/1	0.13	18.7	B	1/1	0.14	20.9	C	1/1	0.12	19.2	B	1/1	0.12	21.0	C	1/1
I-393 Westbound Off-Ramp WB RT	0.02	17.2	B	0/0	0.02	18.1	B	0/0	0.02	20.3	C	0/0	0.01	18.8	B	0/0	0.01	20.4	C	0/0
NH Route 106 NB LT	0.54	12.4	B	1/5	0.65	13.6	B	2/7	0.89	24.9	C	4/12	0.70	15.0	B	2/9	0.96	34.9	C	4/13
NH Route 106 NB TH	0.28	2.2	A	0/2	0.29	2.1	A	0/2	0.34	2.1	A	0/3	0.32	2.1	A	0/2	0.37	2.1	A	0/3
NH Route 106 SB TH	0.37	11.5	B	1/3	0.41	12.3	B	1/3	0.57	13.5	B	2/5	0.44	12.6	B	1/4	0.61	13.8	B	2/6
NH Route 106 SB RT	0.28	0.4	A	0/0	0.29	0.5	A	0/0	0.23	0.4	A	0/0	0.32	0.5	A	0/0	0.26	0.4	A	0/0
Overall	--	**6.6**	**A**	--	--	**7.4**	**A**	--	--	**12.3**	**B**	--	--	**7.9**	**A**	--	--	**15.5**	**B**	--
3. NH Route 106 at the Interstate 393 Eastbound Ramps																				
Weekday Morning:																				
I-393 Eastbound Off-Ramp EB LT	0.35	9.1	A	1/2	0.36	9.3	A	1/2	0.36	10.2	B	1/3	0.37	9.6	A	1/3	0.37	10.7	B	1/3
I-393 Eastbound Off-Ramp EB RT	0.16	0.1	A	0/0	0.17	0.1	A	0/0	0.20	0.2	A	0/0	0.17	0.1	A	0/0	0.20	0.2	A	0/0
NH Route 106 NB TH	0.31	6.4	A	1/2	0.33	6.5	A	1/2	0.42	6.7	A	2/3	0.34	6.6	A	1/3	0.42	6.8	A	2/4
NH Route 106 NB RT	0.00	0.0	A	0/0	0.00	5.4	A	0/0	0.00	5.2	A	0/0	0.00	5.5	A	0/0	0.00	5.2	A	0/0
NH Route 106 SB LT/TH	0.44	7.0	A	1/3	0.45	7.1	A	2/3	0.50	7.1	A	2/4	0.47	7.2	A	2/3	0.50	7.2	A	2/4
Overall	--	**5.7**	**A**	--	--	**5.8**	**A**	--	--	**5.9**	**A**	--	--	**5.9**	**A**	--	--	**6.0**	**A**	--
Weekday Evening:																				
I-393 Eastbound Off-Ramp WB LT	0.69	17.2	B	5/8	0.73	19.0	B	6/8	0.68	19.0	B	5/7	0.80	21.5	C	7/9	0.74	20.1	C	6/8
I-393 Eastbound Off-Ramp WB RT	0.22	0.2	A	0/0	0.26	0.2	A	0/0	0.32	0.3	A	0/0	0.29	0.3	A	0/0	0.35	0.3	A	0/0
NH Route 106 NB TH	0.69	11.6	B	7/9	0.76	13.3	B	8/11	0.91	19.9	B	11/19	0.84	16.0	B	9/13	1.01	38.0	D	15/21
NH Route 106 NB RT	0.01	6.9	A	0/0	0.01	6.9	A	0/0	0.01	6.4	A	0/0	0.01	7.0	A	0/0	0.01	6.8	A	0/0
NH Route 106 SB LT/TH	0.28	8.1	A	2/3	0.30	8.2	A	2/3	0.39	8.2	A	3/4	0.31	8.3	A	2/3	0.45	9.0	A	3/4
Overall	--	**10.3**	**B**	--	--	**11.2**	**B**	--	--	**13.4**	**B**	--	--	**13.0**	**B**	--	--	**21.5**	**C**	--
Saturday Midday:																				
I-393 Eastbound Off-Ramp WB LT	0.36	11.5	B	1/3	0.40	13.4	B	2/3	0.39	17.4	B	2/3	0.44	14.4	B	2/4	0.43	17.6	B	2/3
I-393 Eastbound Off-Ramp WB RT	0.24	0.2	A	0/0	0.30	0.3	A	0/0	0.37	0.4	A	0/0	0.33	0.3	A	0/0	0.40	0.4	A	0/0
NH Route 106 NB TH	0.51	6.9	A	2/5	0.58	7.3	A	3/6	0.73	8.3	A	6/10	0.62	8.0	A	4/7	0.79	9.8	A	7/12
NH Route 106 NB RT	0.01	5.0	A	0/1	0.01	4.7	A	0/1	0.01	3.8	A	0/1	0.01	4.9	A	0/1	0.01	4.0	A	0/1
NH Route 106 SB LT/TH	0.27	5.8	A	1/2	0.28	5.6	A	1/2	0.38	5.1	A	2/3	0.28	5.8	A	1/3	0.38	5.3	A	2/4
Overall	--	**5.5**	**A**	--	--	**5.7**	**A**	--	--	**6.1**	**A**	--	--	**6.2**	**A**	--	--	**6.9**	**A**	--

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
4. NH Route 9 at NH Route 106																				
Weekday Morning:																				
NH Route 9 EB LT	0.23	29.6	C	1/2	0.27	30.5	C	1/3	0.44	33.3	C	2/5	0.28	31.7	C	1/3	0.45	34.9	C	2/5
NH Route 9 EB TH	0.36	30.8	C	2/4	0.41	31.9	C	2/5	0.44	33.8	C	2/6	0.42	33.2	C	2/6	0.46	35.6	D	2/6
NH Route 9 EB RT	0.03	28.5	C	0/0	0.03	29.2	C	0/0	0.03	30.6	C	0/0	0.03	30.2	C	0/0	0.03	32.1	C	0/0
NH Route 9 WB LT	0.57	26.6	C	4/10	0.58	27.5	C	4/10	0.62	30.2	C	5/11	0.61	29.3	C	5/12	0.65	32.0	C	5/13
NH Route 9 WB LT/TH	0.52	24.9	C	4/8	0.54	25.7	C	4/8	0.59	28.4	C	5/9	0.57	27.1	C	4/9	0.62	29.7	C	5/11
NH Route 9 WB RT	0.06	21.4	C	0/0	0.06	21.9	C	0/0	0.06	23.4	C	0/0	0.07	22.7	C	0/0	0.06	24.1	C	0/0
NH Route 106 NB LT	0.17	37.9	D	1/1	0.18	39.1	D	1/1	0.19	41.7	D	1/1	0.20	41.0	D	1/1	0.21	43.3	D	1/1
NH Route 106 NB TH	0.30	25.2	C	2/5	0.32	25.9	C	2/5	0.38	26.6	C	3/6	0.34	26.6	C	3/5	0.40	27.3	C	4/7
NH Route 106 NB RT	0.08	23.8	C	0/2	0.08	24.3	C	0/2	0.10	24.5	C	0/2	0.09	24.8	C	0/2	0.11	24.9	C	0/2
NH Route 106 SB LT	0.15	29.9	C	1/2	0.16	30.9	C	1/2	0.17	33.4	C	1/2	0.17	32.1	C	1/2	0.18	34.6	C	1/2
NH Route 106 SB TH	0.64	23.5	C	6/10	0.66	24.4	C	6/11	0.69	25.6	C	7/12	0.67	24.8	C	7/12	0.69	25.8	C	8/13
NH Route 106 SB RT	0.14	0.2	A	0/0	0.16	0.2	A	0/0	0.22	0.3	A	0/0	0.16	0.2	A	0/0	0.22	0.3	A	0/0
Overall	--	**22.5**	**C**	--	--	**23.2**	**C**	--	--	**24.3**	**C**	--	--	**24.2**	**C**	--	--	**25.2**	**C**	--
Weekday Evening:																				
NH Route 9 EB LT	0.68	41.7	D	5/9	0.88	52.3	D	7/14	1.49	277.3	F	16/22	1.11	118.5	F	10/16	1.64	343.6	F	17/24
NH Route 9 EB TH	0.92	71.1	E	7/17	1.04	101.7	F	10/21	1.37	233.3	F	14/24	1.33	217.1	F	14/24	1.54	311.0	F	17/27
NH Route 9 EB RT	0.03	34.2	C	0/0	0.04	32.7	C	0/0	0.04	39.7	D	0/0	0.04	38.8	D	0/0	0.04	41.4	D	0/0
NH Route 9 WB LT	0.53	37.6	D	4/7	0.52	37.5	D	4/7	0.66	44.3	D	6/10	0.61	42.5	D	5/9	0.69	47.0	D	7/11
NH Route 9 WB LT/TH	0.53	36.6	D	4/6	0.31	34.6	C	2/4	0.66	41.8	D	6/9	0.61	40.8	D	6/8	0.68	43.7	D	7/10
NH Route 9 WB RT	0.04	32.4	C	0/0	0.04	32.7	C	0/0	0.03	34.4	C	0/0	0.04	34.8	C	0/0	0.04	35.6	D	0/0
NH Route 106 NB LT	0.36	45.5	D	1/3	0.35	41.5	D	1/3	0.38	48.4	D	2/3	0.40	47.4	D	2/4	0.41	50.0	D	2/4
NH Route 106 NB TH	0.64	27.9	C	9/13	0.64	26.1	C	9/13	0.74	33.1	C	12/16	0.73	32.1	C	11/16	0.81	36.0	D	14/19
NH Route 106 NB RT	0.31	23.6	C	0/3	0.32	22.0	C	0/3	0.35	26.1	C	0/3	0.35	25.8	C	0/3	0.39	26.9	C	0/4
NH Route 106 SB LT	0.43	41.3	D	2/5	0.48	41.2	D	2/5	0.41	44.0	D	3/5	0.43	42.8	D	3/5	0.44	45.2	D	3/5
NH Route 106 SB TH	0.47	21.8	C	7/10	0.51	22.8	C	7/10	0.55	25.2	C	9/13	0.54	24.3	C	8/12	0.60	26.1	C	10/14
NH Route 106 SB RT	0.19	0.2	A	0/0	0.26	0.4	A	0/0	0.40	0.7	A	0/0	0.28	0.4	A	0/0	0.42	0.7	A	0/0
Overall	--	**30.4**	**C**	--	--	**33.4**	**C**	--	--	**79.1**	**E**	--	--	**54.0**	**D**	--	--	**95.4**	**F**	--
Saturday Midday:																				
NH Route 9 EB LT	0.57	32.5	C	4/7	0.85	45.6	D	6/13	1.46	260.4	F	16/25	0.97	66.9	E	8/16	1.62	335.4	F	18/28
NH Route 9 EB TH	0.71	39.0	D	5/13	0.93	66.2	E	7/18	1.24	176.6	F	13/24	1.07	107.2	F	10/21	1.41	251.7	F	16/28
NH Route 9 EB RT	0.03	28.0	C	0/0	0.05	29.9	C	0/0	0.05	36.2	D	0/0	0.05	32.3	C	0/0	0.05	38.8	D	0/0
NH Route 9 WB LT	0.53	31.2	C	4/8	0.58	32.7	C	5/9	0.71	41.5	D	7/14	0.63	36.2	D	6/11	0.76	47.1	D	8/17
NH Route 9 WB LT/TH	0.53	30.3	C	4/7	0.58	31.6	C	5/8	0.71	38.5	D	7/12	0.63	34.3	C	6/10	0.76	42.6	D	9/15
NH Route 9 WB RT	0.03	26.3	C	0/0	0.05	26.8	C	0/0	0.02	29.7	C	0/0	0.03	28.1	C	0/0	0.02	31.4	C	0/0
NH Route 106 NB LT	0.31	36.8	D	1/3	0.39	38.5	D	2/4	0.43	45.1	D	2/4	0.43	41.1	D	2/4	0.47	47.9	D	2/5
NH Route 106 NB TH	0.46	25.2	C	5/8	0.54	29.0	C	5/8	0.64	31.1	C	9/12	0.57	30.2	C	6/9	0.67	32.8	C	10/15
NH Route 106 NB RT	0.19	23.0	C	0/3	0.20	25.9	C	0/3	0.26	26.2	C	0/3	0.22	26.6	C	0/3	0.29	27.2	C	0/3
NH Route 106 SB LT	0.28	36.0	D	1/3	0.21	34.5	C	1/3	0.25	41.2	D	1/3	0.24	36.4	D	1/3	0.26	42.6	D	2/3
NH Route 106 SB TH	0.61	26.8	C	6/10	0.65	29.0	C	7/11	0.72	31.5	C	11/14	0.68	30.0	C	8/12	0.74	32.4	C	12/16
NH Route 106 SB RT	0.24	0.3	A	0/0	0.34	0.5	A	0/0	0.50	1.0	A	0/0	0.37	0.6	A	0/0	0.53	1.1	A	0/0
Overall	--	**25.3**	**C**	--	--	**30.2**	**C**	--	--	**73.6**	**E**	--	--	**37.6**	**D**	--	--	**91.5**	**F**	--

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
7. NH Route 106 at the Steeplegate Mall Driveway																				
Weekday Morning:																				
Steeplegate Mall Driveway EB LT									0.37	18.8	B	1/3					0.31	19.2	B	1/3
Steeplegate Mall Driveway EB RT									0.06	17.3	B	0/1					0.06	17.9	B	0/1
NH Route 106 NB LT									0.19	2.9	A	1/1					0.23	3.6	A	1/1
NH Route 106 NB TH									0.40	3.4	A	2/3					0.45	4.1	A	3/6
NH Route 106 SB TH									0.64	5.1	A	4/7					0.70	7.0	A	6/12
NH Route 106 SB RT									0.05	2.4	A	0/1					0.05	2.8	A	0/1
Overall									--	**6.0**	**A**	--					--	**7.1**	**A**	--
Weekday Evening:																				
Steeplegate Mall Driveway EB LT									0.76	42.3	D	2/5					0.76	44.1	D	2/5
Steeplegate Mall Driveway EB RT									0.07	24.6	C	0/2					0.07	25.6	C	0/2
NH Route 106 NB LT									0.34	2.7	A	1/1					0.39	3.1	A	1/1
NH Route 106 NB TH									0.93	17.1	B	12/28					1.01	32.3	C	24/33
NH Route 106 SB TH									0.63	4.1	A	4/8					0.70	5.0	A	6/10
NH Route 106 SB RT									0.09	1.8	A	0/1					0.09	1.8	A	0/1
Overall									--	**13.0**	**B**	--					--	**20.9**	**C**	--
Saturday Midday:																				
Steeplegate Mall Driveway EB LT									0.80	51.9	D	5/10					0.86	63.3	E	5/10
Steeplegate Mall Driveway EB RT									0.22	25.4	C	1/3					0.28	27.2	C	2/4
NH Route 106 NB LT									0.72	37.6	D	2/5					0.76	43.0	D	2/6
NH Route 106 NB TH									0.82	10.6	B	14/22					0.89	14.5	B	17/38
NH Route 106 SB TH									0.96	31.9	C	22/37					1.06	58.1	E	33/43
NH Route 106 SB RT									0.13	5.9	A	0/1					0.13	5.9	A	0/1
Overall									--	**23.5**	**C**	--					--	**36.1**	**D**	--
8. NH Route 106 at D'Amante Drive																				
Weekday Morning:																				
D'Amante Drive EB LT	0.31	16.2	B	1/2	0.33	16.3	B	1/3	0.38	16.7	B	1/4	0.36	18.2	B	1/3	0.40	18.7	B	2/4
D'Amante Drive EB RT	0.04	14.8	B	0/1	0.05	14.9	B	0/1	0.06	14.9	B	0/1	0.05	16.5	B	0/1	0.06	16.6	B	0/1
NH Route 106 NB UT/LT	0.13	3.6	A	1/1	0.16	3.8	A	1/1	0.25	5.4	A	1/1	0.18	3.7	A	1/1	0.28	5.4	A	1/2
NH Route 106 NB TH	0.31	4.1	A	2/3	0.33	4.3	A	2/4	0.38	5.7	A	2/5	0.34	4.1	A	2/4	0.39	5.5	A	2/5
NH Route 106 SB TH	0.54	5.3	A	3/7	0.56	5.6	A	4/8	0.63	8.1	A	5/10	0.60	5.9	A	4/9	0.67	8.5	A	5/12
NH Route 106 SB RT	0.07	3.4	A	0/1	0.08	3.5	A	0/1	0.13	4.6	A	0/1	0.09	3.3	A	0/1	0.13	4.4	A	0/1
Overall	--	**6.1**	**A**	--	--	**6.3**	**A**	--	--	**8.1**	**A**	--	--	**6.6**	**A**	--	--	**8.4**	**A**	--
Weekday Evening:																				
D'Amante Drive EB LT	0.61	25.0	C	4/7	0.62	25.2	C	4/7	0.70	26.2	C	6/10	0.65	25.3	C	5/8	0.74	27.3	C	7/11
D'Amante Drive EB RT	0.05	19.5	B	0/1	0.05	19.2	B	0/1	0.08	17.8	B	0/1	0.06	18.6	B	0/1	0.09	17.5	B	0/1
NH Route 106 NB UT/LT	0.46	7.6	A	1/4	0.54	9.2	A	2/5	0.84	32.3	C	3/9	0.71	17.2	B	2/8	1.13	116.8	F	5/12
NH Route 106 NB TH	0.82	14.7	B	11/24	0.87	18.4	B	13/26	1.00	42.3	D	18/33	0.94	27.9	C	15/32	1.06	62.0	E	24/38
NH Route 106 SB TH	0.54	7.7	A	5/11	0.57	8.5	A	6/12	0.67	12.4	B	8/17	0.66	10.5	B	7/15	0.75	15.4	B	10/22
NH Route 106 SB RT	0.13	5.3	A	0/1	0.14	5.5	A	0/1	0.20	7.5	A	0/2	0.15	6.1	A	0/1	0.22	8.1	A	0/2
Overall	--	**12.9**	**B**	--	--	**14.7**	**B**	--	--	**26.9**	**C**	--	--	**19.8**	**B**	--	--	**41.5**	**D**	--
Saturday Midday:																				
D'Amante Drive EB LT	0.58	18.5	B	4/8	0.66	25.2	C	5/8	0.86	34.6	C	10/15	0.70	26.2	C	6/9	0.85	33.8	C	10/17
D'Amante Drive EB RT	0.09	14.2	B	0/1	0.10	18.3	B	0/1	0.25	17.6	B	1/3	0.11	18.1	B	1/2	0.29	18.0	B	2/4
NH Route 106 NB UT/LT	0.63	14.2	B	2/6	0.65	14.4	B	2/7	1.74	378.4	F	8/11	0.91	50.2	D	3/10	2.73	822.0	F	8/14
NH Route 106 NB TH	0.69	12.1	B	7/15	0.68	11.7	B	8/17	0.87	24.2	C	15/24	0.76	14.7	B	10/24	0.93	31.1	C	17/28
NH Route 106 SB TH	0.64	11.0	B	6/13	0.63	10.6	B	7/15	0.80	19.9	B	13/22	0.71	13.3	B	9/19	0.87	24.9	C	15/25
NH Route 106 SB RT	0.25	7.4	A	0/2	0.26	7.2	A	0/2	0.36	11.1	B	0/2	0.29	7.9	A	0/2	0.39	11.2	B	0/2
Overall	--	**12.2**	**B**	--	--	**13.1**	**B**	--	--	**50.5**	**D**	--	--	**17.6**	**B**	--	--	**88.7**	**F**	--

See Unsignalized Intersection Level-of-Service and Vehicle Queue Summary (Table 14)

See Unsignalized Intersection Level-of-Service and Vehicle Queue Summary (Table 14)

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
12. Triangle Park Drive at D'Amante Drive																				
Weekday Morning:																				
D'Amante Drive EB LT	--	--	--	--	--	--	--	--	0.32	18.4	B	1/2	--	--	--	--	0.34	19.5	B	1/2
D'Amante Drive EB TH/RT	0.14	7.3	A	1/1	0.15	7.3	A	1/1	0.15	7.0	A	1/2	0.14	7.3	A	1/1	0.14	7.1	A	1/2
D'Amante Drive WB LT	0.23	16.0	B	1/1	0.24	16.2	B	1/1	0.26	18.2	B	1/1	0.20	15.9	B	1/1	0.22	17.7	B	1/2
D'Amante Drive WB TH	0.09	2.5	A	1/1	0.11	2.5	A	1/1	--	--	--	--	0.10	2.5	A	1/1	--	--	--	--
D'Amante Drive WB TH/RT	--	--	--	--	--	--	--	--	0.31	7.8	A	2/3	--	--	--	--	0.24	6.8	A	1/4
Triangle Park Drive NB LT	0.20	16.0	B	1/1	0.21	16.1	B	1/1	--	--	--	--	0.20	15.9	B	1/1	--	--	--	--
Triangle Park Drive NB LT/TH	--	--	--	--	--	--	--	--	0.28	18.0	B	1/1	--	--	--	--	0.27	17.7	B	1/2
Triangle Park Drive NB RT	0.03	7.9	A	0/1	0.03	8.0	A	0/0	0.03	9.3	A	0/1	0.03	7.9	A	0/1	0.03	9.1	A	0/1
Site Road #2 SB LT	--	--	--	--	--	--	--	--	0.33	18.4	B	1/2	--	--	--	--	0.32	18.1	B	1/2
Site Road #2 SB TH/RT	--	--	--	--	--	--	--	--	0.05	16.7	B	1/1	--	--	--	--	0.05	16.5	B	1/1
Overall	--	**8.1**	**A**	--	--	**7.9**	**A**	--	--	**11.0**	**B**	--	--	**7.9**	**A**	--	--	**10.9**	**B**	--
Weekday Evening:																				
D'Amante Drive EB LT	--	--	--	--	--	--	--	--	0.54	40.7	D	3/7	--	--	--	--	0.37	39.2	D	2/3
D'Amante Drive EB TH/RT	0.18	6.8	A	1/2	0.20	7.0	A	1/2	0.24	8.7	A	1/1	0.22	7.0	A	1/2	0.28	8.2	A	2/2
D'Amante Drive WB LT	0.28	33.5	C	1/2	0.29	33.5	C	1/2	0.30	33.9	C	1/2	0.31	33.4	C	1/2	0.33	34.0	C	1/3
D'Amante Drive WB TH	0.25	3.9	A	2/4	0.27	4.1	A	2/4	--	--	--	--	0.29	4.1	A	2/4	--	--	--	--
D'Amante Drive WB TH/RT	--	--	--	--	--	--	--	--	0.55	18.5	B	7/10	--	--	--	--	0.48	14.5	B	6/10
Triangle Park Drive NB LT	0.45	31.2	C	2/4	0.47	31.1	C	3/4	--	--	--	--	0.45	31.3	C	2/4	--	--	--	--
Triangle Park Drive NB LT/TH	--	--	--	--	--	--	--	--	0.53	27.9	C	3/4	--	--	--	--	0.63	32.5	C	3/5
Triangle Park Drive NB RT	0.05	18.5	B	0/1	0.05	18.2	B	0/1	0.05	14.5	B	0/1	0.05	18.4	B	0/1	0.06	15.0	B	0/1
Site Road #2 SB LT	--	--	--	--	--	--	--	--	0.71	35.2	D	4/6	--	--	--	--	0.67	34.5	C	3/6
Site Road #2 SB TH/RT	--	--	--	--	--	--	--	--	0.13	23.5	C	1/2	--	--	--	--	0.06	23.7	C	0/1
Overall	--	**11.4**	**B**	--	--	**11.4**	**B**	--	--	**21.4**	C	--	--	**10.9**	**B**	--	--	**18.6**	**B**	--
Saturday Midday:																				
D'Amante Drive EB LT	--	--	--	--	--	--	--	--	0.95	87.4	F	5/10	--	--	--	--	0.95	86.0	F	5/10
D'Amante Drive EB TH/RT	0.22	5.0	A	1/1	0.25	5.5	A	1/2	0.34	12.8	B	2/3	0.29	5.8	A	1/2	0.38	12.0	B	2/7
D'Amante Drive WB LT	0.43	38.3	D	2/4	0.44	38.3	D	2/4	0.46	38.8	D	2/4	0.47	38.2	D	2/4	0.50	39.0	D	2/4
D'Amante Drive WB TH	0,32	3.5	A	3/5	0.35	4.2	A	3/6	--	--	--	--	0.40	4.7	A	4/7	--	--	--	--
D'Amante Drive WB TH/RT	--	--	--	--	--	--	--	--	0.80	28.4	C	12/16	--	--	--	--	0.84	29.3	C	13/19
Triangle Park Drive NB LT	0.50	38.1	D	2/4	0.46	36.2	D	3/5	--	--	--	--	0.49	36.0	D	3/5	--	--	--	--
Triangle Park Drive NB LT/TH	--	--	--	--	--	--	--	--	0.53	28.7	C	3/7	--	--	--	--	0.65	34.8	C	4/8
Triangle Park Drive NB RT	0.03	22.7	C	0/1	0.04	21.5	C	0/1	0.04	14.0	B	0/1	0.04	20.7	C	0/1	0.04	14.8	B	0/1
Site Road #2 SB LT	--	--	--	--	--	--	--	--	0.86	49.9	D	7/14	--	--	--	--	0.97	76.3	E	7/14
Site Road #2 SB TH/RT	--	--	--	--	--	--	--	--	0.18	24.2	C	1/3	--	--	--	--	0.18	25.5	C	1/3
Overall	--	**10.7**	**B**	--	--	**10.8**	**B**	--	--	**31.6**	**C**	--	--	**11.0**	**B**	--	--	**34.6**	**C**	--

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
13. D'Amante Drive at Shaw's Driveway and West Steeplegate Mall Driveway																				
Weekday Morning:																				
Shaw's Driveway EB LT/TH/RT	0.03	14.3	B	0/1	0.03	14.3	B	0/1	0.03	15.4	B	0/1	0.03	14.4	B	0/1	0.03	16.2	B	0/1
West Steeplegate Mall Driveway WB LT/TH	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.43	17.8	B	1/1	0.00	0.0	A	0/0	0.24	17.3	B	1/1
West Steeplegate Mall Driveway WB RT	0.00	11.6	B	0/0	0.00	11.6	B	0/0	0.04	8.1	A	0/0	0.00	11.7	B	0/0	0.01	10.2	B	0/1
D'Amante Drive NB LT	0.14	16.8	B	1/1	0.14	16.9	B	1/1	0.17	21.5	C	1/1	0.14	16.9	B	1/1	0.15	19.3	B	1/1
D'Amante Drive NB TH	--	--	--	--	--	--	--	--	0.22	11.7	B	1/2	--	--	--	--	0.19	8.2	A	1/2
D'Amante Drive NB TH/RT	0.11	5.8	A	1/1	0.11	5.8	A	1/1	--	--	--	--	0.12	5.8	A	1/1	--	--	--	--
D'Amante Drive NB RT	--	--	--	--	--	--	--	--	0.03	10.9	B	0/1	--	--	--	--	0.03	7.6	A	0/1
D'Amante Drive SB LT	0.03	16.1	B	0/1	0.03	16.1	B	0/1	0.09	14.7	B	1/1	0.03	16.2	B	0/1	0.11	14.9	B	1/1
D'Amante Drive SB TH/RT	0.16	5.8	A	1/1	0.16	5.8	A	1/2	0.17	7.0	A	1/2	0.16	5.8	A	1/2	0.17	5.6	A	1/2
Overall	--	**7.8**	**A**	--	--	**7.7**	**A**	--	--	**11.4**	**B**	--	--	**7.7**	**A**	--	--	**9.3**	**A**	--
Weekday Evening:																				
Shaw's Driveway EB LT/TH/RT	0.31	32.0	C	1/2	0.31	32.0	C	1/2	0.06	26.0	C	0/1	0.31	32.0	C	1/2	0.06	26.0	C	0/1
West Steeplegate Mall Driveway WB LT/TH	0.10	30.8	C	1/1	0.10	30.8	C	1/1	0.55	31.3	C	3/5	0.10	30.8	C	1/1	0.55	31.3	C	3/5
West Steeplegate Mall Driveway WB RT	0.03	20.0	B	0/0	0.03	20.0	B	0/0	0.07	14.7	B	0/1	0.03	20.3	C	0/0	0.07	15.0	B	0/1
D'Amante Drive NB LT	0.29	37.0	D	1/2	0.29	37.2	D	1/2	0.29	30.3	C	1/2	0.29	37.9	D	1/2	0.29	31.7	C	1/2
D'Amante Drive NB TH	--	--	--	--	--	--	--	--	0.30	9.9	A	2/5	--	--	--	--	0.34	15.1	B	4/6
D'Amante Drive NB TH/RT	0.21	6.4	A	1/2	0.23	6.5	A	2/2	--	--	--	--	0.26	6.8	A	2/3	--	--	--	--
D'Amante Drive NB RT	--	--	--	--	--	--	--	--	0.06	10.8	B	1/1	--	--	--	--	0.06	34.7	C	1/1
D'Amante Drive SB LT	0.09	28.4	C	1/1	0.09	28.4	C	1/1	0.24	26.9	C	2/3	0.09	28.7	C	1/1	0.24	27.3	C	2/3
D'Amante Drive SB TH/RT	0.23	6.7	A	2/3	0.24	6.8	A	2/4	0.28	9.6	A	3/5	0.26	6.9	A	2/4	0.30	9.7	A	3/6
Overall	--	**12.7**	**B**	--	--	**12.5**	**B**	--	--	**15.4**	**B**	--	--	**12.2**	**B**	--	--	**17.9**	**B**	--
Saturday Midday:																				
Shaw's Driveway EB LT/TH/RT	0.37	36.6	D	1/2	0.37	36.6	D	1/2	0.08	27.7	C	0/1	0.37	36.6	D	1/2	0.08	27.8	C	0/1
West Steeplegate Mall Driveway WB LT/TH	0.10	34.9	C	1/1	0.10	34.9	C	1/1	0.65	37.2	D	4/6	0.10	34.9	C	1/1	0.66	37.5	D	4/6
West Steeplegate Mall Driveway WB RT	0.02	24.5	C	0/0	0.02	24.7	C	0/0	0.16	17.3	B	1/2	0.02	25.1	C	0/0	0.16	17.3	B	1/2
D'Amante Drive NB LT	0.34	44.0	D	1/2	0.34	43.7	D	1/2	0.34	35.9	D	1/2	0.34	43.2	D	1/3	0.34	35.4	D	1/2
D'Amante Drive NB TH	--	--	--	--	--	--	--	--	0.49	18.8	B	7/11	--	--	--	--	0.54	19.9	B	8/13
D'Amante Drive NB TH/RT	0.32	7.6	A	3/5	0.34	7.8	A	3/5	--	--	--	--	0.38	8.2	A	4/6	--	--	--	--
D'Amante Drive NB RT	--	--	--	--	--	--	--	--	0.09	22.9	C	1/2	--	--	--	--	0.10	20.8	C	1/2
D'Amante Drive SB LT	0.11	34.2	C	1/1	0.11	34.4	C	1/1	0.37	33.0	C	2/4	0.12	34.9	C	1/1	0.36	32.8	C	3/4
D'Amante Drive SB TH/RT	0.27	6.8	A	3/5	0.28	6.9	A	3/5	0.37	11.6	B	5/8	0.32	7.1	A	4/6	0.41	11.9	B	6/9
Overall	--	**13.4**	**B**	--	--	**13.2**	**B**	--	--	**20.5**	**C**	--	--	**12.9**	**B**	--	--	**20.5**	**C**	--

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
15. NH Route 9 at Old Loudon Road and D'Amante Drive																				
Weekday Morning:																				
Old Loudon Road EB LT/TH	0.27	25.7	C	1/1	0.34	27.1	C	1/2	0.27	26.6	C	1/2	0.32	27.1	C	1/2	0.32	27.5	C	1/2
Old Loudon Road EB RT	0.03	17.6	B	0/1	0.04	18.3	B	0/1	0.04	18.7	B	0/1	0.03	18.4	B	0/1	0.03	18.8	B	0/1
D'Amante Drive WB LT	0.29	19.7	B	1/3	0.29	20.6	C	1/3	0.41	20.5	C	2/5	0.31	20.5	C	1/3	0.38	19.4	B	2/5
D'Amante Drive WB LT/TH	0.28	19.6	B	1/3	0.28	20.5	C	1/3	0.39	20.3	C	2/5	0.30	20.5	C	1/3	0.37	19.3	B	2/5
D'Amante Drive WB RT	0.02	14.0	B	0/0	0.03	14.9	B	0/0	0.03	14.2	B	0/0	0.03	14.8	B	0/0	0.03	13.4	B	0/0
NH Route 9 NB LT	0.19	22.1	C	1/2	0.21	23.0	C	1/2	0.23	24.5	C	1/2	0.21	23.0	C	1/2	0.22	23.4	C	1/2
NH Route 9 NB TH	0.24	13.6	B	1/3	0.25	13.2	B	1/3	0.31	15.8	B	3/4	0.24	13.4	B	1/4	0.30	15.1	B	2/4
NH Route 9 RT	0.10	6.4	A	0/1	0.11	6.2	A	0/1	0.16	6.7	A	0/1	0.11	6.2	A	0/1	0.15	6.2	A	0/1
NH Route 9 SB LT	0.14	23.6	C	1/1	0.16	24.6	C	1/1	0.21	26.3	C	1/1	0.16	24.7	C	1/1	0.20	25.2	C	1/2
NH Route 9 SB TH/RT	0.34	15.6	B	1/4	0.35	15.4	B	2/4	0.43	18.2	B	3/5	0.35	15.7	B	2/5	0.42	17.5	B	2/6
Overall	--	**15.3**	**B**	--	--	**15.5**	**B**	--	--	**16.7**	**B**	--	--	**15.6**	**B**	--	--	**16.1**	**B**	--
Weekday Evening:																				
Old Loudon Road EB LT/TH	0.40	35.2	D	1/3	0.51	34.4	C	1/3	0.49	37.5	D	1/3	0.48	35.7	D	1/3	0.45	37.4	D	1/3
Old Loudon Road EB RT	0.04	24.5	C	0/1	0.05	22.5	C	0/1	0.05	25.2	C	0/1	0.05	24.3	C	0/1	0.05	25.9	C	0/1
D'Amante Drive WB LT	0.50	24.9	C	4/7	0.53	23.5	C	4/7	0.70	30.5	C	6/11	0.62	29.2	C	5/8	0.77	36.6	D	7/13
D'Amante Drive WB LT/TH	0.48	24.7	C	4/7	0.51	23.1	C	4/8	0.67	29.0	C	6/10	0.60	28.5	C	5/8	0.74	34.7	C	7/12
D'Amante Drive WB RT	0.08	14.6	B	0/1	0.09	14.3	B	0/1	0.09	14.8	B	0/1	0.09	15.8	B	0/1	0.10	16.4	B	0/1
NH Route 9 NB LT	0.47	33.2	C	2/5	0.50	30.3	C	2/4	0.52	34.0	C	2/5	0.57	35.8	D	2/5	0.60	38.6	D	3/5
NH Route 9 NB TH	0.50	22.0	C	5/8	0.53	19.9	B	5/7	0.59	22.2	C	6/9	0.57	22.0	C	6/8	0.62	23.4	C	7/9
NH Route 9 RT	0.21	8.1	A	0/1	0.22	7.2	A	0/1	0.31	8.1	A	1/2	0.25	8.5	A	0/1	0.36	9.0	A	1/2
NH Route 9 SB LT	0.22	29.9	C	1/2	0.27	28.8	C	1/2	0.24	30.2	C	1/2	0.26	30.2	C	1/2	0.27	32.2	C	1/2
NH Route 9 SB TH/RT	0.49	21.1	C	5/8	0.56	20.8	C	5/7	0.58	21.6	C	6/9	0.56	21.1	C	6/8	0.61	22.7	C	7/10
Overall	--	**20.9**	**C**	--	--	**19.7**	**B**	--	--	**21.9**	**C**	--	--	**22.0**	**C**	--	--	**24.0**	**C**	--
Saturday Midday:																				
Old Loudon Road EB LT/TH	0.55	44.3	D	2/4	0.67	48.5	D	2/4	0.62	46.5	D	2/3	0.70	50.9	D	2/4	0.66	49.0	D	2/4
Old Loudon Road EB RT	0.08	31.1	C	1/2	0.06	27.7	C	0/1	0.06	28.9	C	0/1	0.07	26.4	C	1/2	0.07	27.6	C	1/2
D'Amante Drive WB LT	0.65	32.5	C	7/12	0.74	34.4	C	7/12	0.96	61.3	E	10/18	0.81	38.8	D	8/14	1.04	83.1	F	12/20
D'Amante Drive WB LT/TH	0.64	32.0	C	7/12	0.72	32.9	C	7/11	0.91	50.3	D	10/17	0.78	36.2	D	8/14	0.99	68.8	E	11/20
D'Amante Drive WB RT	0.10	17.2	B	0/1	0.11	15.5	B	0/1	0.11	15.6	B	0/1	0.12	15.1	B	0/1	0.12	15.5	B	0/1
NH Route 9 NB LT	0.45	41.8	D	2/4	0.51	37.6	D	2/4	0.51	39.2	D	2/4	0.46	35.4	D	2/4	0.48	37.0	D	2/4
NH Route 9 NB TH	0.60	27.0	C	8/11	0.68	26.1	C	7/10	0.78	26.9	C	9/13	0.77	29.4	C	9/12	0.87	35.1	D	10/15
NH Route 9 RT	0.32	8/9	A	1/3	0.34	9.2	A	1/3	0.57	11.4	B	4/9	0.40	9.9	A	2/5	0.66	13.6	B	7/13
NH Route 9 SB LT	0.39	38.3	D	2/4	0.36	32.6	C	2/3	0.41	34.2	C	2/3	0.39	32.6	C	2/3	0.43	34.0	C	2/4
NH Route 9 SB TH/RT	0.62	25.8	C	10/12	0.67	23.6	C	8/11	0.79	27.9	C	10/14	0.79	28.7	C	9/12	0.90	36.6	D	12/17
Overall	--	**26.2**	**C**	--	--	**25.3**	**C**	--	--	**31.8**	**C**	--	--	**28.1**	**C**	--	--	**39.5**	**D**	--

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
16. NH Route 9 at Carrier Place Driveway and Steeplegate Mall Driveway																				
Weekday Morning:																				
Carrier Place Driveway EB LT/TH	0.06	18.4	B	1/1	0.27	20.2	C	1/1	0.23	19.2	B	1/2	0.27	19.9	B	1/1	0.26	19.8	B	1/1
Carrier Place Driveway EB RT	0.00	15.5	B	0/0	0.02	13.5	B	0/1	0.02	11.5	B	0/1	0.02	13.5	B	0/1	0.02	13.2	B	0/1
Steeplegate Mall Driveway WB LT/TH	0.15	18.8	B	1/1	0.12	19.2	B	1/1	0.28	19.4	B	1/2	0.12	19.0	B	1/1	0.32	20.1	C	1/2
Steeplegate Mall Driveway WB RT	0.00	15.6	B	0/0	0.00	16.2	B	0/0	0.05	9.5	A	0/1	0.00	16.0	B	0/0	0.05	10.0	A	0/1
NH Route 9 NB LT	0.10	18.7	B	1/1	0.26	18.3	B	1/1	0.21	17.4	B	1/2	0.21	18.0	B	1/1	0.20	18.0	B	1/2
NH Route 9 NB TH/RT	0.18	4.3	A	0/2	0.18	4.6	A	0/2	0.31	10.8	B	2/3	0.15	4.5	A	0/2	0.24	9.5	A	1/3
NH Route 9 SB LT	0.01	18.3	B	0/1	0.01	20.3	C	0/1	0.33	15.5	B	1/3	0.01	20.0	C	0/1	0.29	14.6	B	1/3
NH Route 9 SB TH/RT	0.20	4.4	A	0/2	0.25	6.6	A	1/3	0.29	8.7	A	2/3	0.25	6.5	A	1/3	0.25	6.8	A	1/3
Overall	--	**5.2**	**A**	--	--	**7.9**	**A**	--	--	**11.5**	**B**	--	--	**7.8**	**A**	--	--	**10.4**	**B**	--
Weekday Evening:																				
Carrier Place Driveway EB LT/TH	0.37	33.6	C	1/2	0.50	33.2	C	2/4	0.44	29.9	C	2/3	0.50	33.2	C	2/4	0.44	29.9	C	2/3
Carrier Place Driveway EB RT	0.02	24.2	C	0/1	0.06	21.7	C	1/1	0.05	19.3	B	1/1	0.08	21.8	C	1/1	0.06	19.3	B	1/1
Steeplegate Mall Driveway WB LT/TH	0.14	31.6	C	1/1	0.12	29.7	C	1/1	0.54	31.3	C	3/5	0.12	29.7	C	1/1	0.54	31.3	C	3/5
Steeplegate Mall Driveway WB RT	0.01	25.5	C	0/1	0.01	23.9	C	0/1	0.29	14.5	B	2/3	0.01	23.9	C	0/1	0.32	15.3	B	3/4
NH Route 9 NB LT	0.20	33.6	C	1/2	0.36	33.3	C	1/3	0.36	33.3	C	2/3	0.36	33.3	C	1/3	0.36	33.3	C	2/3
NH Route 9 NB TH/RT	0.27	6.3	A	3/5	0.28	7.3	A	3/5	0.49	18.7	B	5/8	0.32	7.5	A	3/6	0.53	18.7	B	6/9
NH Route 9 SB LT	0.14	26.1	C	1/1	0.14	28.6	C	1/1	0.72	30.4	C	7/9	0.14	30.8	C	1/1	0.70	28.8	C	6/6
NH Route 9 SB TH/RT	0.32	10.9	B	3/7	0.38	14.0	B	6/8	0.39	14.6	B	5/9	0.39	13.5	B	7/10	0.40	14.5	B	4/6
Overall	--	**11.7**	**B**	--	--	**14.6**	**B**	--	--	**20.2**	**C**	--	--	**14.1**	**B**	--	--	**19.9**	**B**	--
Saturday Midday:																				
Carrier Place Driveway EB LT/TH	0.41	40.9	D	1/2	0.56	39.3	D	2/4	0.51	32.8	C	2/4	0.56	39.3	D	2/4	0.51	32.8	C	2/4
Carrier Place Driveway EB RT	0.09	30.7	C	1/1	0.18	24.4	C	1/2	0.15	19.7	B	1/2	0.18	24.4	C	1/2	0.15	19.7	B	1/2
Steeplegate Mall Driveway WB LT/TH	0.25	39.1	D	1/2	0.15	33.8	C	1/2	0.69	38.9	D	4/7	0.15	33.8	C	1/2	0.69	38.9	D	4/7
Steeplegate Mall Driveway WB RT	0.02	32.0	C	0/1	0.02	27.9	C	0/1	0.40	14.9	B	4/6	0.03	28.0	C	1/1	0.41	15.2	B	4/7
NH Route 9 NB LT	0.22	38.5	D	1/2	0.41	36.6	D	2/4	0.41	36.5	D	2/4	0.41	36.6	D	2/4	0.41	36.6	D	2/4
NH Route 9 NB TH/RT	0.34	5.4	A	4/6	0.37	7.6	A	5/8	0.74	28.0	C	10/14	0.42	8.0	A	5/9	0.81	30.7	C	12/17
NH Route 9 SB LT	0.12	54.7	D	1/1	0.12	50.5	D	1/1	0.83	39.0	D	7/14	0.12	53.6	D	1/1	0.83	40.0	D	8/14
NH Route 9 SB TH/RT	0.37	2.9	A	1/4	0.48	8.9	A	4/5	0.54	10.9	B	7/12	0.53	8.9	A	8/10	0.59	11.0	B	7/15
Overall	--	**8.1**	**A**	--	--	**13.2**	**B**	--	--	**23.6**	**C**	--	--	**12.9**	**B**	--	--	**24.3**	**C**	--

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
18. NH Route 9 at Patriots Place Driveway and Harbor Freight Tools Driveway																				
Weekday Morning:																				
Patriots Place Driveway EB LT/TH	0.03	16.6	B	1/1	0.03	16.9	B	1/1	0.03	18.1	B	1/1	0.03	16.8	B	1/1	0.03	17.6	B	1/1
Patriots Place Driveway EB RT	0.01	16.5	B	0/0	0.01	16.8	B	0/0	0.01	18.0	B	0/0	0.01	16.7	B	0/0	0.01	17.5	B	0/0
Harbor Freight Tools Driveway WB LT/TH	0.27	17.8	B	1/1	0.27	18.2	B	1/1	0.29	19.5	B	1/1	0.27	18.1	B	1/1	0.28	19.0	B	1/1
Harbor Freight Tools Driveway WB RT	0.00	16.5	B	0/0	0.00	16.8	B	0/0	0.00	18.0	B	0/0	0.00	16.7	B	0/0	0.00	17.5	B	0/0
NH Route 9 NB LT	0.14	18.7	B	1/1	0.14	19.0	B	1/1	0.16	20.4	C	1/1	0.12	18.9	B	1/1	0.12	19.8	B	1/1
NH Route 9 NB TH	0.16	5.2	A	0/2	0.18	5.2	A	0/2	0.23	5.2	A	0/3	0.16	5.2	A	0/2	0.21	5.2	A	0/3
NH Route 9 NB RT	0.01	4.8	A	0/0	0.01	4.7	A	0/0	0.01	4.5	A	0/0	0.01	4.7	A	0/0	0.01	4.6	A	0/0
NH Route 9 SB UT/LT	0.05	18.1	B	1/1	0.05	18.4	B	1/1	0.06	19.5	B	1/1	0.05	18.3	B	1/1	0.05	19.0	B	1/1
NH Route 9 SB TH/RT	0.22	5.3	A	0/2	0.24	5.3	A	0/3	0.31	5.3	A	0/4	0.23	5.3	A	0/3	0.29	5.3	A	0/4
Overall	--	**6.7**	**A**	--	--	**6.6**	**A**	--	--	**6.3**	**A**	--	--	**6.5**	**A**	--	--	**6.4**	**A**	--
Weekday Evening:																				
Patriots Place Driveway EB LT/TH	0.36	30.9	C	1/2	0.36	30.9	C	1/2	0.36	30.9	C	1/3	0.36	30.9	C	1/2	0.36	30.9	C	1/3
Patriots Place Driveway EB RT	0.06	28.4	C	0/0	0.06	28.4	C	0/0	0.06	28.4	C	0/0	0.06	28.4	C	0/0	0.06	28.4	C	0/0
Harbor Freight Tools Driveway WB LT/TH	0.55	33.9	C	2/3	0.55	33.9	C	2/3	0.55	33.9	C	2/3	0.55	33.9	C	2/3	0.55	33.9	C	2/3
Harbor Freight Tools Driveway WB RT	0.02	28.2	C	0/0	0.02	28.2	C	0/0	0.02	28.2	C	0/0	0.02	28.2	C	0/0	0.02	28.2	C	0/0
NH Route 9 NB LT	0.35	43.9	D	2/3	0.35	42.5	D	2/3	0.35	32.9	C	2/3	0.35	43.9	D	2/3	0.35	32.9	C	2/3
NH Route 9 NB TH	0.25	8.9	A	1/5	0.28	12.7	B	1/6	0.40	13.9	B	3/11	0.29	8.1	A	1/6	0.40	10.4	B	3/12
NH Route 9 NB RT	0.03	7.5	A	0/0	0.03	7.7	A	0/0	0.03	7.8	A	0/1	0.03	5.9	A	0/0	0.03	5.9	A	0/1
NH Route 9 SB UT/LT	0.09	50.1	D	0/1	0.09	49.0	D	1/1	0.09	53.2	D	0/1	0.15	55.3	E	1/1	0.15	58.1	E	1/1
NH Route 9 SB TH/RT	0.28	13.6	B	2/8	0.31	13.5	B	2/8	0.45	17.8	B	6/12	0.33	12.2	B	3/8	0.47	16.8	B	5/13
Overall	--	**17.4**	**B**	--	--	**18.2**	**B**	--	--	**18.9**	**B**	--	--	**15.8**	**B**	--	--	**17.0**	**B**	--
Saturday Midday:																				
Patriots Place Driveway EB LT/TH	0.32	32.3	C	1/3	0.32	32.3	C	2/3	0.32	32.3	C	2/3	0.32	32.3	C	1/3	0.32	32.3	C	2/3
Patriots Place Driveway EB RT	0.09	30.3	C	0/1	0.09	30.3	C	0/1	0.09	30.3	C	0/1	0.09	30.3	C	0/1	0.09	30.3	C	0/1
Harbor Freight Tools Driveway WB LT/TH	0.58	36.7	D	3/4	0.58	36.7	D	3/4	0.58	36.7	D	3/4	0.58	36.7	D	3/4	0.58	36.7	D	3/4
Harbor Freight Tools Driveway WB RT	0.02	29.7	C	0/0	0.02	29.7	C	0/0	0.02	29.7	C	0/0	0.02	29.7	C	0/0	0.02	29.7	C	0/0
NH Route 9 NB LT	0.45	31.9	C	2/3	0.45	30.7	C	2/2	0.45	50.5	D	3/4	0.45	31.6	C	2/2	0.45	51.3	D	3/4
NH Route 9 NB TH	0.34	7.4	A	1/8	0.38	6.8	A	1/7	0.52	7.2	A	2/8	0.42	6.7	A	1/7	0.57	7.2	A	2/8
NH Route 9 NB RT	0.04	5.5	A	0/1	0.04	1.3	A	0/0	0.04	7.0	A	0/1	0.04	1.3	A	0/0	0.04	5.1	A	0/1
NH Route 9 SB UT/LT	0.13	28.4	C	1/1	0.14	28.3	C	1/1	0.19	37.4	D	1/1	0.14	30.3	C	1/1	0.18	39.1	D	1/1
NH Route 9 SB TH/RT	0.37	8.7	A	3/4	0.41	8.7	A	4/5	0.61	12.2	B	6/10	0.46	9.7	A	4/6	0.65	13.2	B	6/12
Overall	--	**14.3**	**B**	--	--	**13.5**	**B**	--	--	**14.6**	**B**	--	--	**13.4**	**B**	--	--	**14.6**	**B**	--

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
19. NH Route 9 at Walmart Driveway and Private Driveway																				
Weekday Morning:																				
Private Driveway EB LT/TH	0.33	16.7	B	1/2	0.34	17.1	B	1/2	0.35	18.3	B	1/2	0.34	17.2	B	1/2	0.35	18.4	B	1/2
Private Driveway EB RT	0.04	10.7	B	0/1	0.04	11.0	B	0/1	0.04	12.0	B	0/1	0.04	11.2	B	0/1	0.04	12.2	B	0/1
Walmart Driveway WB LT/TH	0.16	15.7	B	1/1	0.17	16.1	B	1/1	0.17	17.2	B	1/1	0.17	16.2	B	1/1	0.17	17.4	B	1/1
Walmart Driveway WB RT	0.02	10.5	B	0/1	0.02	10.8	B	0/1	0.02	11.7	B	0/1	0.02	10.9	B	0/1	0.02	11.9	B	0/1
NH Route 9 NB LT	0.18	16.2	B	1/1	0.18	16.6	B	1/1	0.19	17.8	B	1/1	0.16	16.7	B	1/1	0.17	17.9	B	1/1
NH Route 9 NB TH	0.10	7.3	A	1/1	0.11	7.3	A	1/1	0.18	7.3	A	1/2	0.11	7.2	A	1/1	0.16	7.1	A	1/2
NH Route 9 NB RT	0.01	7.0	A	0/0	0.01	6.9	A	0/0	0.01	6.7	A	0/0	0.01	6.8	A	0/0	0.01	6.6	A	0/0
NH Route 9 SB LT	0.25	16.4	B	1/1	0.26	16.7	B	1/1	0.27	17.9	B	1/2	0.25	16.9	B	1/1	0.26	18.0	B	1/2
NH Route 9 SB TH/RT	0.19	7.5	A	1/2	0.21	7.5	A	1/2	0.29	7.5	A	2/3	0.23	7.5	A	1/3	0.29	7.4	A	2/4
Overall	--	**10.3**	**B**	--	--	**10.2**	**B**	--	--	**9.9**	**A**	--	--	**10.1**	**B**	--	--	**9.9**	**A**	--
Weekday Evening:																				
Private Driveway EB LT/TH	0.59	35.5	D	2/4	0.59	35.5	D	2/4	0.59	35.5	D	2/4	0.59	35.5	D	2/4	0.59	35.5	D	2/4
Private Driveway EB RT	0.02	20.7	C	0/1	0.02	20.7	C	0/1	0.02	20.7	C	0/1	0.02	21.0	C	0/1	0.02	21.0	C	0/1
Walmart Driveway WB LT/TH	0.59	35.5	D	2/4	0.59	35.5	D	2/4	0.59	35.5	D	2/4	0.59	35.5	D	2/4	0.59	35.5	D	2/4
Walmart Driveway WB RT	0.18	18.7	B	1/1	0.21	18.9	B	1/2	0.31	19.7	B	2/3	0.20	19.2	B	1/2	0.30	20.0	B	2/3
NH Route 9 NB LT	0.34	32.2	C	1/2	0.34	37.7	D	1/2	0.34	40.2	D	1/2	0.31	42.9	D	1/2	0.31	40.9	D	2/2
NH Route 9 NB TH	0.30	9.3	A	3/5	0.33	9.9	A	3/6	0.50	11.9	B	5/11	0.32	8.0	A	3/6	0.47	10.5	B	5/12
NH Route 9 NB RT	0.02	9.7	A	0/1	0.02	9.7	A	0/1	0.02	9.8	A	0/1	0.01	9.5	A	0/1	0.01	9.5	A	0/1
NH Route 9 SB LT	0.49	31.0	C	3/4	0.49	31.0	C	3/4	0.48	30.8	C	3/4	0.47	31.1	C	2/4	0.47	31.1	C	3/5
NH Route 9 SB TH/RT	0.25	9.1	A	3/4	0.28	9.3	A	3/5	0.43	10.6	B	5/8	0.30	9.3	A	3/6	0.44	10.5	B	5/9
Overall	--	**16.9**	**B**	--	--	**16.9**	**B**	--	--	**16.5**	**B**	--	--	**16.3**	**B**	--	--	**15.9**	**B**	--
Saturday Midday:																				
Private Driveway EB LT/TH	0.52	34.6	C	2/3	0.52	34.6	C	2/3	0.52	34.6	C	2/4	0.52	34.6	C	2/3	0.52	34.6	C	2/4
Private Driveway EB RT	0.06	20.9	C	0/1	0.06	20.9	C	0/1	0.14	21.6	C	1/2	0.09	21.1	C	1/1	0.14	21.6	C	1/2
Walmart Driveway WB LT/TH	0.62	37.8	D	3/5	0.62	37.8	D	3/5	0.62	37.8	D	3/5	0.62	37.8	D	3/5	0.62	37.8	D	3/5
Walmart Driveway WB RT	0.11	18.5	B	0/1	0.14	18.8	B	1/1	0.25	19.7	B	2/3	0.17	19.1	B	1/2	0.25	19.8	B	2/3
NH Route 9 NB LT	0.37	50.9	D	2/4	0.37	51.5	D	2/4	0.37	48.1	D	2/4	0.37	53.0	D	2/4	0.37	48.6	D	2/4
NH Route 9 NB TH	0.27	5.2	A	1/2	0.31	5.6	A	1/2	0.50	8.5	A	5/7	0.34	5.8	A	2/3	0.53	8.9	A	5/7
NH Route 9 NB RT	0.02	11/6	B	0/0	0.02	11.6	B	0/0	0.02	11.6	B	0/1	0.02	11.6	B	0/0	0.02	11.6	B	0/0
NH Route 9 SB LT	0.55	35.9	D	3/5	0.55	35.9	D	3/5	0.55	35.9	D	4/6	0.55	36.0	D	3/5	0.55	36.0	D	4/6
NH Route 9 SB TH/RT	0.30	11.8	B	3/6	0.34	12.2	B	4/7	0.54	14.5	B	8/12	0.40	12.7	B	5/8	0.59	15.3	B	9/14
Overall	--	**18.7**	**B**	--	--	**18.3**	**B**	--	--	**17.7**	**B**	--	--	**18.0**	**B**	--	--	**17.9**	**B**	--

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
20. NH Route 9 at Break O'Day Drive and Old Sheep Davis Road																				
Weekday Morning:																				
Break O'Day Drive EB LT/TH					0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0
Break O'Day Drive EB RT					0.00	20.6	C	0/0	0.00	20.9	C	0/0	0.00	20.4	C	0/0	0.00	20.8	C	0/0
Old Sheep Davis Road WB LT/TH/RT					0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0
NH Route 9 NB LT					0.01	20.6	C	0/1	0.01	20.9	C	0/1	0.01	20.4	C	0/1	0.01	20.9	C	0/1
NH Route 9 NB TH/RT					0.12	3.6	A	0/2	0.16	3.7	A	0/2	0.13	3.7	A	0/2	0.17	3.7	A	0/2
NH Route 9 SB UT/LT					0.09	20.9	C	1/1	0.09	21.3	C	1/1	0.11	20.7	C	1/1	0.11	21.2	C	1/1
NH Route 9 SB TH/RT					0.23	3.9	A	0/3	0.29	4.0	A	0/3	0.24	3.9	A	0/3	0.29	4.0	A	0/4
Overall					--	**4.1**	**A**	--	--	**4.1**	**A**	--	--	**4.2**	**A**	--	--	**4.2**	**A**	--
Weekday Evening:																				
Break O'Day Drive EB LT/TH					0.44	16.3	B	1/3	0.46	17.3	B	1/3	0.45	16.7	B	1/3	0.46	17.4	B	1/3
Break O'Day Drive EB RT	*See Unsignalized Intersection Level-of-Service and Vehicle Queue Summary (Table 14)*				0.01	14.0	B	0/0	0.01	14.8	B	0/0	0.01	14.3	B	0/0	0.01	14.9	B	0/0
Old Sheep Davis Road WB LT/TH/RT					0.00	14.0	B	0/0	0.00	14.8	B	0/0	0.00	14.3	B	0/0	0.00	14.9	B	0/0
NH Route 9 NB LT					0.11	20.6	C	1/1	0.11	21.4	C	1/1	0.11	20.9	C	1/1	0.11	21.6	C	1/1
NH Route 9 NB TH/RT					0.46	8.5	A	2/6	0.59	9.5	A	3/10	0.50	8.7	A	2/7	0.64	10.1	B	3/11
NH Route 9 SB UT/LT					0.04	20.1	C	1/1	0.04	21.0	C	1/1	0.04	20.4	C	1/1	0.04	21.1	C	1/1
NH Route 9 SB TH/RT					0.47	8.6	A	2/6	0.61	9.7	A	3/10	0.50	8.7	A	2/6	0.65	10.2	B	3/11
Overall					--	**9.4**	**A**	--	--	**10.3**	**B**	--	--	**9.5**	**A**	--	--	**10.7**	**B**	--
Saturday Midday:																				
Break O'Day Drive EB LT/TH					0.57	19.0	B	1/4	0.57	20.0	C	2/4	0.57	19.5	B	1/4	0.57	20.0	C	2/4
Break O'Day Drive EB RT					0.01	14.7	B	0/0	0.01	15.4	B	0/0	0.01	15.0	B	0/0	0.01	15.4	B	0/0
Old Sheep Davis Road WB LT/TH/RT					0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0
NH Route 9 NB LT					0.15	22.9	C	1/1	0.16	23.9	C	1/1	0.14	23.1	C	1/1	0.15	23.8	C	1/1
NH Route 9 NB TH/RT					0.45	8.8	A	2/7	0.62	10.2	B	3/12	0.49	9.0	A	2/7	0.67	10.9	B	4/13
NH Route 9 SB UT/LT					0.01	21.9	C	0/1	0.01	22.9	C	0/1	0.01	22.2	C	0/1	0.01	22.9	C	0/1
NH Route 9 SB TH/RT					0.61	10.2	B	3/10	0.81	14.0	B	4/17	0.65	10.7	B	3/12	0.85	15.9	B	5/19
Overall					--	**10.7**	**B**	--	--	**13.0**	**B**	--	--	**11.0**	**B**	--	--	**14.2**	**B**	--

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
21. NH Route 106 at Pembroke Road and North Pembroke Road																				
Weekday Morning:																				
Pembroke Road EB LT	0.32	44.6	D	1/2	0.35	45.1	D	1/2	0.35	43.4	D	1/3	0.35	44.8	D	1/3	0.34	42.2	D	1/3
Pembroke Road EB TH/RT	0.17	36.5	D	1/2	0.18	36.5	D	1/2	0.18	36.4	D	1/2	0.18	36.6	D	1/3	0.18	35.9	D	1/3
North Pembroke Road WB LT	0.44	43.8	D	2/3	0.45	44.1	D	2/3	0.45	44.1	D	2/3	0.42	43.5	D	2/4	0.41	42.7	D	2/4
North Pembroke Road WB TH/RT	0.52	38.4	D	3/5	0.53	38.6	D	3/5	0.59	41.8	D	4/5	0.49	38.1	D	3/6	0.54	40.0	D	3/6
NH Route 106 NB LT	0.32	19.7	B	1/1	0.33	20.7	C	1/1	0.34	20.7	C	1/2	0.33	20.5	C	1/2	0.33	20.1	C	1/2
NH Route 106 NB TH	0.50	14.7	B	8/12	0.53	15.2	B	9/13	0.58	16.4	B	11/15	0.52	15.0	B	9/15	0.59	17.0	B	10/17
NH Route 106 NB RT	0.02	10.6	B	0/0	0.02	10.7	B	0/0	0.02	10.8	B	0/0	0.02	10.6	B	0/0	0.02	11.3	B	0/0
NH Route 106 SB LT	0.09	9.8	A	1/1	0.09	10.1	B	1/1	0.11	10.5	B	1/1	0.10	9.9	A	1/1	0.12	10.0	B	1/1
NH Route 106 SB TH	0.94	39.6	D	23/37	0.99	49.4	D	26/40	1.05	68.0	E	30/43	1.08	77.8	E	31/46	1.16	106.0	F	35/50
NH Route 106 SB RT	0.09	12.2	B	0/1	0.10	12.4	B	0/1	0.11	12.5	B	1/2	0.11	12.3	B	1/2	0.12	12.4	B	1/2
Overall	--	**30.2**	**C**	--	--	**34.6**	**C**	--	--	**43.1**	**D**	--	--	**47.9**	**D**	--	--	**61.2**	**E**	--
Weekday Evening:																				
Pembroke Road EB LT	1.12	141.7	F	7/13	1.18	163.6	F	8/14	1.25	190.5	F	8/15	1.20	170.4	F	8/16	1.26	194.1	F	9/17
Pembroke Road EB TH/RT	0.41	34.6	C	3/5	0.42	34.7	C	3/6	0.42	34.8	C	4/6	0.43	34.9	C	3/7	0.43	35.0	D	4/7
North Pembroke Road WB LT	0.29	45.2	D	1/2	0.30	45.5	D	1/2	0.30	45.5	D	1/2	0.28	45.4	D	1/2	0.28	45.5	D	1/2
North Pembroke Road WB TH/RT	0.32	37.9	D	2/3	0.33	37.9	D	2/3	0.34	38.1	D	2/3	0.29	37.8	D	1/4	0.29	37.9	D	3/4
NH Route 106 NB LT	0.25	14.9	B	1/2	0.29	16.4	B	1/2	0.35	20.1	C	1/2	0.38	19.6	B	1/2	0.38	21.2	C	1/2
NH Route 106 NB TH	1.07	78.2	E	26/42	1.14	102.3	F	29/45	1.23	137.6	F	34/50	1.27	155.4	F	36/52	1.35	192.8	F	40/57
NH Route 106 NB RT	0.04	13.7	B	0/0	0.04	13.9	B	0/0	0.04	13.9	B	0/0	0.04	13.9	B	0/0	0.04	14.0	B	0/0
NH Route 106 SB LT	0.37	21.0	C	1/2	0.38	21.2	C	1/2	0.40	21.3	C	1/2	0.42	21.3	C	1/2	0.43	21.5	C	1/3
NH Route 106 SB TH	0.77	25.4	C	14/24	0.82	28.4	C	15/28	0.93	40.8	D	19/34	0.91	37.5	D	18/33	1.02	62.1	E	23/39
NH Route 106 SB RT	0.90	14.0	B	0/1	0.09	14.2	B	0/1	0.11	14.3	B	1/2	0.11	14.3	B	1/2	0.13	14.5	B	1/2
Overall	--	**56.2**	**E**	--	--	**68.0**	**E**	--	--	**86.7**	**F**	--	--	**91.1**	**F**	--	--	**114.1**	**F**	--
Saturday Midday:																				
Pembroke Road EB LT	0.59	39.8	D	3/5	0.67	44.7	D	4/6	0.89	74.6	E	5/9	0.73	53.3	D	4/8	0.85	67.7	E	5/10
Pembroke Road EB TH/RT	0.11	27.3	C	1/2	0.12	28.5	C	1/2	0.11	29.6	C	1/2	0.11	29.3	C	1/2	0.11	29.0	C	1/3
North Pembroke Road WB LT	0.14	42.6	D	1/1	0.15	44.3	D	1/1	0.16	47.8	D	1/1	0.17	47.6	D	1/1	0.17	47.4	D	1/1
North Pembroke Road WB TH/RT	0.19	35.0	D	1/2	0.21	36.7	D	1/2	0.19	37.2	D	1/3	0.19	36.8	D	1/3	0.20	36.7	D	1/3
NH Route 106 NB LT	0.13	12.2	B	1/1	0.16	12.9	B	1/1	0.26	19.3	B	1/1	0.21	16.1	B	1/1	0.25	20.3	C	1/1
NH Route 106 NB TH	0.78	23.7	C	12/20	0.82	25.7	C	14/23	0.99	52.8	D	20/34	0.90	35.5	D	16/30	1.07	76.3	E	25/39
NH Route 106 NB RT	0.01	12.2	B	0/0	0.01	12.1	B	0/0	0.01	13.0	B	0/0	0.01	13.3	B	0/0	0.01	13.2	B	0/0
NH Route 106 SB LT	0.19	13.1	B	1/1	0.23	14.5	B	1/1	0.32	20.9	C	1/2	0.41	19.5	B	1/2	0.33	20.7	C	1/2
NH Route 106 SB TH	0.70	19.9	B	11/18	0.73	20.8	C	12/20	0.91	34.3	C	18/31	0.83	27.8	C	14/26	1.02	58.8	E	21/36
NH Route 106 SB RT	0.07	11.9	B	0/1	0.08	11.9	B	0/1	0.11	12.9	B	1/2	0.09	13.5	B	0/1	0.12	13.9	B	1/2
Overall	--	**23.1**	**C**	--	--	**24.7**	**C**	--	--	**42.1**	**D**	--	--	**31.3**	**C**	--	--	**58.7**	**E**	--

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
22. NH Route 106 at Regional Drive and Smokey Bear Boulevard																				
Weekday Morning:																				
Regional Drive EB LT	0.42	19.2	B	2/3	0.06	17.1	B	1/1	0.47	19.5	B	2/4	0.43	19.0	B	2/4	0.48	19.3	B	2/4
Regional Drive EB TH/RT	0.48	19.6	B	2/4	0.50	20.1	C	2/4	0.49	19.4	B	3/5	0.50	19.4	B	3/5	0.50	19.3	B	3/5
Smokey Bear Boulevard WB LT	0.04	16.8	B	1/1	0.04	17.1	B	1/1	0.04	16.5	B	1/1	0.04	16.4	B	1/1	0.04	16.3	B	1/1
Smokey Bear Boulevard WB TH/RT	0.06	16.8	B	1/1	0.06	17.1	B	1/1	0.06	16.5	B	1/1	0.05	16.4	B	1/1	0.05	16.3	B	1/1
NH Route 106 NB LT	0.32	7.5	A	1/2	0.34	8.1	A	1/2	0.33	8.6	A	1/2	0.36	9.4	A	1/2	0.35	9.8	A	1/2
NH Route 106 NB TH	0.39	5.6	A	3/5	0.40	5.7	A	3/5	0.43	6.0	A	3/6	0.43	6.1	A	3/6	0.45	6.3	A	3/7
NH Route 106 NB RT	0.03	4.1	A	0/1	0.03	4.2	A	0/1	0.03	4.3	A	0/1	0.03	4.4	A	0/1	0.03	4.4	A	0/1
NH Route 106 SB LT	0.32	12.4	B	1/3	0.33	12.6	B	1/3	0.34	12.9	B	1/3	0.39	13.4	B	1/4	0.40	13.5	B	2/4
NH Route 106 SB TH	0.80	21.4	C	7/16	0.83	23.5	C	8/17	0.90	30.2	C	9/18	0.95	40.1	D	10/19	1.00	52.3	D	12/21
NH Route 106 SB RT	0.20	11.5	B	0/2	0.21	11.6	B	0/2	0.22	11.8	B	0/2	0.23	12.1	B	0/2	0.25	12.2	B	0/2
Overall	--	**14.2**	**B**	--	--	**14.7**	**B**	--	--	**17.0**	**B**	--	--	**20.2**	**C**	--	--	**24.0**	**C**	--
Weekday Evening:																				
Regional Drive EB LT	0.99	60.6	E	6/11	1.04	76.9	E	7/12	1.14	108.6	F	8/13	1.12	104.1	F	8/14	1.25	157.1	F	9/15
Regional Drive EB TH/RT	0.09	14.2	B	1/1	0.10	14.4	B	1/1	0.10	15.0	B	1/1	0.10	15.6	B	1/1	0.10	17.2	B	1/2
Smokey Bear Boulevard WB LT	0.04	13.9	B	1/1	0.04	14.1	B	1/1	0.04	14.7	B	1/1	0.04	15.3	B	1/1	0.05	16.9	B	1/1
Smokey Bear Boulevard WB TH/RT	0.10	14.2	B	1/2	0.10	14.4	B	1/2	0.10	15.0	B	1/2	0.12	15.7	B	1/2	0.12	17.3	B	1/2
NH Route 106 NB LT	0.20	8.9	A	1/1	0.22	9.3	A	1/1	0.20	9.9	A	1/1	0.25	10.1	B	1/1	0.23	10.7	B	1/1
NH Route 106 NB TH	0.63	10.3	B	5/9	0.66	10.8	B	6/10	0.70	11.5	B	7/11	0.71	11.6	B	7/12	0.73	11.8	B	8/13
NH Route 106 NB RT	0.00	5.9	A	0/0	0.00	5.9	A	0/0	0.00	5.7	A	0/0	0.00	5.6	A	0/0	0.00	5.3	A	0/0
NH Route 106 SB LT	0.03	11.5	B	1/1	0.03	11.4	B	1/1	0.04	11.0	B	1/1	0.04	11.0	B	1/1	0.04	10.4	B	1/1
NH Route 106 SB TH	0.82	24.0	C	7/14	0.85	26.4	C	8/15	0.90	30.7	C	10/18	0.89	29.4	C	9/18	0.90	30.2	C	11/20
NH Route 106 SB RT	0.17	12.2	B	0/2	0.18	12.2	B	0/2	0.21	12.0	B	0/2	0.20	11.8	B	0/2	0.23	11.5	B	0/2
Overall	--	**23.9**	**C**	--	--	**27.7**	**C**	--	--	**34.9**	**C**	--	--	**32.8**	**C**	--	--	**42.1**	**D**	--
Saturday Midday:																				
Regional Drive EB LT	0.63	19.6	B	2/6	0.66	20.0	C	3/6	0.79	26.1	C	4/9	0.67	20.6	C	3/8	0.81	29.3	C	4/11
Regional Drive EB TH/RT	0.04	13.6	B	1/1	0.04	13.3	B	1/1	0.04	13.2	B	1/1	0.04	13.3	B	1/1	0.04	14.0	B	1/1
Smokey Bear Boulevard WB LT	0.00	13.4	B	0/1	0.00	13.1	B	0/1	0.00	13.0	B	0/1	0.00	13.1	B	0/1	0.00	13.8	B	0/1
Smokey Bear Boulevard WB TH/RT	0.01	13.4	B	1/1	0.01	13.2	B	1/1	0.01	13.1	B	1/1	0.01	13.2	B	1/1	0.01	13.8	B	1/1
NH Route 106 NB LT	0.09	7.6	A	1/1	0.11	8.3	A	1/1	0.10	9.7	A	1/1	0.13	8.8	A	1/1	0.12	10.0	A	1/1
NH Route 106 NB TH	0.46	8.1	A	3/	0.51	8.7	A	4/6	0.61	10.2	A	5/9	0.56	9.4	A	4/7	0.65	10.7	B	6/10
NH Route 106 NB RT	0.00	5.8	A	6	0.00	6.0	A	0/0	0.00	6.1	A	0/0	0.00	6.0	A	0/0	0.00	5.9	A	0/0
NH Route 106 SB LT	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0
NH Route 106 SB TH	0.70	17.1	B	4/11	0.76	19.6	B	4/13	0.91	31.7	C	6/16	0.80	22.0	C	5/15	0.91	31.2	C	6/18
NH Route 106 SB RT	0.15	11.0	B	0/1	0.16	11.4	B	0/1	0.20	11.6	B	0/2	0.17	11.4	B	0/2	0.21	11.4	B	0/2
Overall	--	**13.7**	**B**	--	--	**14.7**	**B**	--	--	**20.2**	**B**	--	--	**15.7**	**B**	--	--	**20.6**	**C**	--

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
23. US Route 3 at NH Route 106 and Kline Way																				
Weekday Morning:																				
US Route 3 EB LT	0.57	24.9	C	3/6	0.58	25.0	C	3/6	0.61	26.4	C	3/6	0.60	26.0	C	3/7	0.63	27.6	C	3/8
US Route 3 EB TH	0.13	4.9	A	1/2	0.13	4.9	A	1/2	0.14	5.8	A	1/2	0.14	4.9	A	1/2	0.14	5.7	A	1/2
US Route 3 EB RT	0.04	0.0	A	0/0	0.04	0.0	A	0/0	0.04	0.0	A	0/0	0.04	0.0	A	0/0	0.04	0.0	A	0/0
US Route 3 WB LT	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0
US Route 3 WB TH	0.59	18.1	B	4/8	0.61	18.6	B	4/8	0.65	20.5	C	5/8	0.65	19.4	B	5/9	0.69	21.1	C	5/10
US Route 3 WB RT	0.16	0.2	A	0/0	0.17	0.2	A	0/0	0.18	0.2	A	0/0	0.18	0.2	A	0/0	0.19	0.2	A	0/0
Kline Way NB LT	0.09	28.8	C	1/1	0.09	29.0	C	1/1	0.09	29.4	C	1/1	0.10	29.6	C	1/1	0.10	30.1	C	1/1
Kline Way NB TH	0.06	28.8	C	1/1	0.06	29.0	C	1/1	0.06	29.4	C	1/1	0.07	29.6	C	1/1	0.07	30.1	C	1/1
Kline Way NB RT	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0
NH Route 106 SB LT	0.34	26.3	C	1/2	0.36	26.7	C	1/2	0.34	25.3	C	1/3	0.40	27.5	C	1/3	0.38	26.1	C	2/3
NH Route 106 SB TH	0.09	25.2	C	1/1	0.09	25.4	C	1/1	0.07	24.0	C	1/1	0.10	26.0	C	1/1	0.08	24.6	C	1/1
NH Route 106 SB RT	0.13	0.2	A	0/0	0.13	0.2	A	0/0	0.13	0.2	A	0/0	0.15	0.2	A	0/0	0.15	0.2	A	0/0
Overall	--	**12.6**	**B**	--	--	**12.8**	**B**	--	--	**13.7**	**B**	--	--	**13.3**	**B**	--	--	**14.1**	**B**	--
Weekday Evening:																				
US Route 3 EB LT	0.52	27.8	C	3/6	0.55	28.6	C	3/6	0.55	29.0	C	3/6	0.59	30.3	C	3/7	0.60	30.6	C	4/7
US Route 3 EB TH	0.47	15.0	B	4/8	0.48	15.2	B	4/9	0.49	15.5	B	4/9	0.53	15.8	B	5/10	0.53	16.1	B	5/10
US Route 3 EB RT	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.01	0.0	A	0/0	0.01	0.0	A	0/0
US Route 3 WB LT	0.01	33.5	C	0/1	0.01	33.9	C	0/1	0.01	34.2	C	0/1	0.01	35.1	D	0/1	0.01	35.3	D	0/1
US Route 3 WB TH	0.38	21.4	C	3/5	0.40	21.7	C	3/5	0.40	22.0	C	3/6	0.44	22.7	C	4/6	0.44	23.0	C	4/6
US Route 3 WB RT	0.17	0.2	A	0/0	0.18	0.2	A	0/0	0.21	0.3	A	0/0	0.20	0.3	A	0/0	0.23	0.3	A	0/0
Kline Way NB LT	0.21	30.7	C	1/1	0.21	31.1	C	1/1	0.21	31.3	C	1/1	0.24	32.3	C	1/1	0.24	32.5	C	1/1
Kline Way NB TH	0.15	30.6	C	1/1	0.16	31.0	C	1/1	0.16	31.3	C	1/1	0.18	32.2	C	1/1	0.18	32.4	C	1/2
Kline Way NB RT	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0
NH Route 106 SB LT	0.65	29.3	C	3/7	0.68	30.4	C	4/7	0.75	32.4	C	5/9	0.76	33.8	C	4/8	0.82	37.1	D	5/10
NH Route 106 SB TH	0.01	23.6	C	1/1	0.01	23.8	C	1/1	0.01	23.6	C	1/1	0.01	24.5	C	1/1	0.01	24.3	C	1/1
NH Route 106 SB RT	0.14	0.2	A	0/0	0.14	0.2	A	0/0	0.14	0.2	A	0/0	0.16	0.2	A	0/0	0.16	0.2	A	0/0
Overall	--	**17.0**	**B**	--	--	**17.3**	**B**	--	--	**18.0**	**B**	--	--	**18.5**	**B**	--	--	**19.4**	**B**	--
Saturday Midday:																				
US Route 3 EB LT	0.48	20.5	C	2/5	0.49	21.0	C	2/5	0.50	21.0	C	2/6	0.53	22.3	C	2/6	0.53	22.3	C	2/6
US Route 3 EB TH	0.27	6.9	A	1/3	0.27	6.9	A	1/3	0.27	6.9	A	1/3	0.28	7.3	A	1/4	0.28	7.3	A	1/4
US Route 3 EB RT	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.55	0.0	A	0/0
US Route 3 WB LT	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0
US Route 3 WB TH	0.49	19.0	B	2/5	0.49	19.5	B	2/6	0.450	19.5	B	2/6	0.55	20.6	C	3/6	0.00	20.6	C	3/6
US Route 3 WB RT	0.17	0.2	A	0/0	0.18	0.2	A	0/0	0.24	0.3	A	0/0	0.21	0.3	A	0/0	0.26	0.4	A	0/0
Kline Way NB LT	0.02	26.8	C	0/1	0.02	27.5	C	0/1	0.02	27.5	C	0/1	0.02	27.6	C	0/1	0.02	27.6	C	0/1
Kline Way NB TH	0.00	0.0	A	0/0	0.13	28.2	C	1/1	0.13	28.2	C	1/1	0.10	28.1	C	1/1	0.10	28.1	C	1/1
Kline Way NB RT	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0
NH Route 106 SB LT	0.68	25.1	C	2/6	0.72	27.6	C	3/7	0.92	42.2	D	4/9	0.73	28.8	C	3/8	0.89	40.6	D	4/11
NH Route 106 SB TH	0.00	19.2	B	0/1	0.01	20.0	B	0/1	0.01	20.0	B	0/1	0.00	21.1	C	0/1	0.00	21.1	C	0/1
NH Route 106 SB RT	0.21	0.3	A	0/0	0.13	0.3	A	0/0	0.22	0.3	A	0/0	0.21	0.3	A	0/0	0.21	0.3	A	0/0
Overall	--	**12.2**	**B**	--	--	**12.9**	**B**	--	--	**16.4**	**B**	--	--	**13.4**	**B**	--	--	**16.0**	**B**	--

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
24. US Route 3 at Black Hill Road and Old Turnpike Road																				
Weekday Morning:																				
US Route 3 EB LT	1.08	90.5	F	19/23	1.12	102.4	F	20/24	1.13	108.9	F	21/25	1.09	94.5	F	19/29	1.11	100.2	F	20/30
US Route 3 EB TH/RT	0.38	2.6	A	3/3	0.39	2.6	A	3/3	0.39	2.6	A	3/4	0.38	2.6	A	3/4	0.38	2.6	A	3/4
US Route 3 WB LT	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0
US Route 3 WB TH/RT	0.87	32.5	C	11/12	0.91	35.4	D	14/14	0.91	35.6	D	14/15	0.84	30.4	C	13/17	0.84	30.5	C	13/18
Black Hill Road NB LT/TH	0.01	38.1	D	1/1	0.01	38.1	D	1/1	0.01	38.1	D	1/1	0.01	38.0	D	1/1	0.01	38.0	D	1/1
Black Hill Road NB RT	0.00	38.0	D	0/0	0.00	38.0	D	0/0	0.00	38.0	D	0/0	0.00	38.0	D	0/0	0.00	37.9	D	0/0
Old Turnpike Road SB LT/TH	0.23	39.8	D	1/2	0.24	39.9	D	1/2	0.26	40.1	D	1/2	0.25	39.9	D	1/2	0.27	40.2	D	1/2
Old Turnpike Road SB RT	0.23	39.7	D	0/3	0.24	39.8	D	0/3	0.24	39.8	D	0/3	0.25	39.9	D	0/4	0.26	39.9	D	0/4
Overall	--	**36.2**	**D**	--	--	**39.8**	**D**	--	--	**41.5**	**D**	--	--	**36.5**	**D**	--	--	**37.9**	**D**	--
Weekday Evening:																				
US Route 3 EB LT	0.78	38.4	D	8/13	0.79	38.8	D	9/13	0.79	38.7	D	9/14	0.80	38.9	D	10/15	0.81	39.3	D	11/16
US Route 3 EB TH/RT	0.44	5.7	A	3/7	0.45	5.7	A	3/8	0.45	5.7	A	4/8	0.50	5.9	A	4/9	0.50	5.8	A	4/9
US Route 3 WB LT	0.04	45.4	D	1/1	0.04	45.8	D	1/1	0.04	46.5	D	1/1	0.04	47.7	D	1/1	0.04	48.3	D	1/1
US Route 3 WB TH/RT	0.73	23.0	C	12/15	0.76	24.3	C	12/16	0.78	25.6	C	13/16	0.84	29.6	C	15/20	0.85	31.3	C	15/21
Black Hill Road NB LT/TH	0.02	36.7	D	1/1	0.02	37.2	D	1/1	0.02	37.9	D	1/1	0.02	39.1	D	1/1	0.02	39.7	D	1/1
Black Hill Road NB RT	0.00	36.6	D	0/0	0.00	37.1	D	0/0	0.00	37.8	D	0/0	0.00	39.0	D	0/0	0.00	39.6	D	0/0
Old Turnpike Road SB LT/TH	0.55	43.3	D	2/5	0.57	44.3	D	2/5	0.58	45.6	D	2/5	0.66	52.4	D	2/5	0.67	53.9	D	3/6
Old Turnpike Road SB RT	1.61	339.1	F	10/20	1.75	400.4	F	11/22	1.90	466.5	F	13/23	2.38	681.4	F	18/27	2.53	747.9	F	19/28
Overall	--	**97.4**	**F**	--	--	**112.6**	**F**	--	--	**130.9**	**F**	--	--	**186.0**	**F**	--	--	**205.4**	**F**	--
Saturday Midday:																				
US Route 3 EB LT	0.73	32.6	C	8/11	0.75	33.6	C	8/12	0.76	34.0	C	10/13	0.79	38.3	D	9/14	0.80	38.5	D	11/15
US Route 3 EB TH/RT	0.37	5.4	A	2/5	0.38	5.3	A	3/5	0.38	5.2	A	3/6	0.39	5.1	A	3/6	0.39	4.9	A	3/6
US Route 3 WB LT	0.02	41.8	D	1/1	0.02	42.8	D	1/1	0.02	44.5	D	1/1	0.02	46.0	D	1/1	0.02	47.3	D	1/1
US Route 3 WB TH/RT	0.63	20.7	C	8/12	0.65	21.4	C	9/13	0.67	23.3	C	10/13	0.70	23.0	C	11/15	0.71	24.7	C	12/15
Black Hill Road NB LT/TH	0.05	34.1	C	1/1	0.05	35.1	D	1/1	0.05	36.8	D	1/1	0.07	38.4	D	1/1	0.06	39.9	D	1/1
Black Hill Road NB RT	0.00	33.8	C	0/0	0.00	34.8	C	0/0	0.00	36.4	D	0/0	0.00	37.9	D	0/0	0.00	39.4	D	0/0
Old Turnpike Road SB LT/TH	0.46	37.9	D	2/4	0.49	39.3	D	2/4	0.51	41.3	D	2/4	0.55	44.7	D	2/4	0.37	42.6	D	2/3
Old Turnpike Road SB RT	0.32	36.3	D	0/3	0.33	37.3	D	0/3	0.36	39.3	D	0/4	0.36	40.8	D	0/6	0.38	42.6	D	0/7
Overall	--	**21.0**	**C**	--	--	**21.5**	**C**	--	--	**22.9**	**C**	--	--	**23.5**	**C**	--	--	**24.5**	**C**	--

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
25. NH Route 9 at Ralph Pill Marketplace and Stickney Avenue																				
Weekday Morning:																				
NH Route 9 EB LT	0.23	59.6	E	1/1	0.23	59.6	E	1/1	0.23	59.6	E	1/2	0.26	60.0	E	1/1	0.26	60.0	E	1/2
NH Route 9 EB TH/RT	0.43	29.6	C	7/9	0.44	29.9	C	7/10	0.48	32.5	C	7/10	0.53	33.2	C	8/12	0.55	34.5	C	9/12
NH Route 9 WB LT	0.03	48.7	D	1/1	0.03	48.2	D	1/1	0.03	47.0	D	1/1	0.04	48.6	D	1/1	0.03	47.8	D	1/1
NH Route 9 WB TH/RT	0.54	2.2	A	1/2	0.55	2.2	A	1/2	0.57	2.5	A	2/2	0.63	3.5	A	1/2	0.64	3.4	A	2/2
Ralph Pill Marketplace NB LT	0.01	46.2	D	1/1	0.01	47.1	D	1/1	0.01	45.4	D	1/1	0.00	44.2	D	1/1	0.00	44.1	D	1/1
Ralph Pill Marketplace NB TH/RT	0.01	46.2	D	0/0	0.01	47.0	D	0/0	0.01	45.4	D	0/0	0.01	44.2	D	0/0	0.01	44.1	D	0/0
Stickney Avenue SB LT	0.12	47.1	D	1/1	0.12	48.0	D	1/1	0.12	46.4	D	1/2	0.10	45.0	D	1/2	0.10	45.0	D	1/2
Stickney Avenue SB TH/RT	0.01	46.2	D	0/0	0.01	47.1	D	0/0	0.01	45.4	D	0/0	0.01	44.3	D	0/0	0.01	44.2	D	0/0
Overall	--	**14.0**	**B**	--	--	**14.0**	**B**	--	--	**15.1**	**B**	--	--	**16.0**	**B**	--	--	**16.3**	**B**	--
Weekday Evening:																				
NH Route 9 EB LT	0.20	68.0	E	1/1	0.20	68.0	E	1/1	0.20	68.0	E	1/1	0.22	68.2	E	1/1	0.22	68.2	E	1/2
NH Route 9 EB TH/RT	0.77	43.1	D	17/19	0.82	45.6	D	18/20	0.84	46.7	D	18/21	0.92	53.4	D	21/24	0.93	54.2	D	21/24
NH Route 9 WB LT	0.01	59.7	E	1/1	0.01	60.8	E	1/1	0.01	60.9	E	1/1	0.01	59.0	E	1/1	0.01	58.8	E	1/1
NH Route 9 WB TH/RT	0.54	2.3	A	1/1	0.56	2.4	A	1/2	0.58	2.5	A	1/2	0.64	2.8	A	1/2	0.65	2.9	A	1/2
Ralph Pill Marketplace NB LT	0.02	46.2	D	1/1	0.02	45.6	D	1/1	0.02	45.5	D	1/1	0.02	44.7	D	1/1	0.02	44.7	D	1/1
Ralph Pill Marketplace NB TH/RT	0.02	46.1	D	0/0	0.02	45.6	D	0/0	0.02	45.5	D	0/0	0.01	44.6	D	0/0	0.01	44.6	D	0/0
Stickney Avenue SB LT	0.24	48.6	D	2/4	0.24	48.1	D	2/4	0.24	48.0	D	2/4	0.24	47.2	D	2/4	0.24	47.2	D	2/4
Stickney Avenue SB TH/RT	0.02	46.2	D	0/0	0.02	45.6	D	0/0	0.02	45.5	D	0/0	0.02	44.7	D	0/0	0.02	44.7	D	0/0
Overall	--	**25.2**	**C**	--	--	**26.5**	**C**	--	--	**27.0**	**C**	--	--	**30.5**	**C**	--	--	**30.8**	**C**	--
Saturday Midday:																				
NH Route 9 EB LT	0.20	61.8	E	1/1	0.20	61.8	E	1/1	0.20	61.8	E	1/1	0.22	62.0	E	1/1	0.22	62.0	E	1/2
NH Route 9 EB TH/RT	0.82	48.5	D	13/18	0.89	53.8	D	14/20	1.03	81.3	F	17/21	1.09	102.8	F	19/23	1.21	150.6	F	20/24
NH Route 9 WB LT	0.01	38.9	D	1/1	0.01	39.1	D	1/1	0.01	37.4	D	1/1	0.01	39.4	D	1/1	0.01	38.3	D	1/1
NH Route 9 WB TH/RT	0.59	2.0	A	1/2	0.62	2.2	A	1/2	0.64	2.5	A	1/2	0.70	4.1	A	1/3	0.72	4.8	A	1/4
Ralph Pill Marketplace NB LT	0.02	43.1	D	1/1	0.02	42.4	D	1/1	0.01	42.0	D	1/1	0.01	40.9	D	1/1	0.01	40.5	D	1/1
Ralph Pill Marketplace NB TH/RT	0.00	43.0	D	0/0	0.00	42.3	D	0/0	0.00	41.9	D	0/0	0.00	40.8	D	0/0	0.00	40.3	D	0/0
Stickney Avenue SB LT	0.20	45.0	D	2/2	0.20	44.2	D	2/2	0.19	43.8	D	2/5	0.16	42.5	D	1/3	0.16	42.0	D	2/3
Stickney Avenue SB TH/RT	0.02	43.2	D	0/0	0.02	42.4	D	0/0	0.02	42.0	D	0/0	0.02	41.0	D	0/0	0.02	40.5	D	0/0
Overall	--	**24.3**	**C**	--	--	**26.8**	**C**	--	--	**39.2**	**D**	--	--	**49.4**	**D**	--	--	**71.3**	**E**	--
26. NH Route 9 at I-93 Southbound On- and Off-Ramps																				
Weekday Morning:																				
NH Route 9 EB TH	0.27	2.2	A	1/1	0.25	2.2	A	1/1	0.30	2.2	A	1/1	0.32	2.1	A	1/1	0.33	2.1	A	1/1
NH Route 9 EB RT	0.07	0.2	A	0/0	0.07	0.2	A	0/0	0.07	0.2	A	0/0	0.08	0.2	A	0/0	0.08	0.2	A	0/0
NH Route 9 WB LT	0.60	54.9	D	4/4	0.62	57.1	E	4/5	0.64	53.7	D	5/5	0.63	53.2	D	4/5	0.65	53.4	D	5/6
NH Route 9 WB TH	0.54	17.7	B	6/10	0.56	16.0	B	6/8	0.59	17.1	B	7/11	0.60	16.4	B	6/15	0.62	15.9	B	7/14
I-93 Southbound Off-Ramp SB LT/TH	0.65	47.9	D	7/10	0.66	47.7	D	8/10	0.78	55.2	E	10/12	0.68	49.2	D	8/12	0.79	56.0	E	9/15
I-93 Southbound Off-Ramp SB RT	0.82	59.9	E	7/10	0.85	63.9	E	8/12	0.97	86.4	F	10/15	0.87	66.6	E	8/17	0.97	87.4	F	10/20
Overall	--	**27.9**	**C**	--	--	**29.1**	**C**	--	--	**33.6**	**C**	--	--	**27.7**	**C**	--	--	**32.2**	**C**	--
Weekday Evening:																				
NH Route 9 EB TH	0.46	1.8	A	1/1	0.48	2.0	A	1/1	0.49	2.1	A	1/1	0.53	2.7	A	1/2	0.54	2.7	A	1/2
NH Route 9 EB RT	0.13	0.2	A	0/0	0.13	0.7	A	0/0	0.13	1.0	A	0/0	0.15	2.5	A	0/0	0.15	2.7	A	0/0
NH Route 9 WB LT	0.92	98.9	F	12/16	0.95	103.4	F	12/17	1.03	126.0	F	15/20	1.08	138.2	F	15/20	1.18	178.2	F	18/23
NH Route 9 WB TH	0.53	10.2	B	4/6	0.56	10.4	B	4/6	0.57	9.7	A	4/6	0.63	11.6	B	5/7	0.64	11.7	B	5/8
I-93 Southbound Off-Ramp SB LT/TH	0.69	66.7	E	6/9	0.72	69.2	E	6/9	1.07	140.2	F	10/17	0.79	75.3	E	7/11	1.13	160.3	F	11/18
I-93 Southbound Off-Ramp SB RT	0.40	57.3	E	2/5	0.45	57.9	E	2/6	0.48	58.5	E	3/7	0.55	60.4	E	3/8	0.59	62.0	E	4/9
Overall	--	**28.1**	**C**	--	--	**29.2**	**C**	--	--	**40.0**	**D**	--	--	**36.5**	**D**	--	--	**51.6**	**D**	--
Saturday Midday:																				
NH Route 9 EB TH	0.45	5.1	A	1/2	0.48	6.4	A	1/2	0.52	8.7	A	2/2	0.55	11.9	B	2/2	0.58	14.2	B	2/3
NH Route 9 EB RT	0.08	6.9	A	0/0	0.08	7.9	A	0/0	0.08	10.6	B	0/0	0.09	10.5	B	0/0	0.09	11.3	B	0/0
NH Route 9 WB LT	0.84	60.9	E	11/13	0.86	61.9	E	11/14	0.90	64.1	E	13/19	0.92	64.8	E	12/18	1.00	78.8	E	17/22
NH Route 9 WB TH	0.67	14.5	B	8/12	0.71	15.5	B	9/12	0.74	16.5	B	8/14	0.82	19.4	B	11/17	0.85	22.0	C	12/28
I-93 Southbound Off-Ramp SB LT/TH	0.84	70.1	E	8/13	0.87	75.9	E	8/14	1.39	249.7	F	18/25	0.95	90.8	F	9/16	1.37	239.7	F	18/26
I-93 Southbound Off-Ramp SB RT	0.22	46.8	D	1/3	0.24	47.1	D	1/4	0.24	47.1	D	1/4	0.31	47.8	D	1/5	0.31	47.8	D	2/5
Overall	--	**26.5**	**C**	--	--	**27.9**	**C**	--	--	**50.2**	**D**	--	--	**32.4**	**C**	--	--	**53.2**	**D**	--

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
27. NH Route 9 at I-93 On-Ramp																				
Weekday Morning:																				
NH Route 9 EB LT	0.63	45.2	D	5/8	0.67	50.7	D	5/9	0.71	51.4	D	5/8	0.77	52.7	D	6/10	0.77	53.5	D	6/9
NH Route 9 EB TH	0.32	6.8	A	4/5	0.34	7.2	A	5/6	0.36	7.4	A	5/6	0.37	6.5	A	4/5	0.39	7.5	A	5/6
NH Route 9 WB TH	0.28	1.8	A	1/2	0.30	1.4	A	1/1	0.31	1.6	A	2/2	0.33	1.4	A	1/2	0.34	1.5	A	2/2
NH Route 9 WB RT	0.04	0.0	A	0/0	0.04	0.0	A	0/0	0.06	0.1	A	0/0	0.05	0.0	A	0/0	0.07	0.1	A	0/0
Overall	--	**6.8**	**A**	--	--	**7.1**	**A**	--	--	**7.1**	**A**	--	--	**7.0**	**A**	--	--	**7.2**	**A**	--
Weekday Evening:																				
NH Route 9 EB LT	0.83	85.8	F	10/15	0.86	88.1	F	10/16	0.86	85.3	F	11/15	0.95	102.3	F	12/19	0.95	99.3	F	12/17
NH Route 9 EB TH	0.48	19.1	B	15/18	0.50	20.9	C	16/19	0.54	22.4	C	18/21	0.55	23.8	C	19/22	0.59	24.9	C	21/23
NH Route 9 WB TH	0.44	1.4	A	1/1	0.46	1.4	A	2/2	0.48	1.3	A	1/2	0.51	1.6	A	1/2	0.54	1.7	A	1/2
NH Route 9 WB RT	0.17	0.0	A	0/0	0.18	0.0	A	0/0	0.22	0.0	A	0/0	0.20	0.0	A	0/0	0.24	0.0	A	0/0
Overall	--	**14.1**	**B**	--	--	**14.9**	**B**	--	--	**14.7**	**B**	--	--	**17.0**	**B**	--	--	**16.8**	**B**	--
Saturday Midday:																				
NH Route 9 EB LT	0.45	33.5	C	2/4	0.47	34.3	C	2/5	0.47	41.2	D	3/4	0.52	37.5	D	3/5	0.52	42.7	D	3/5
NH Route 9 EB TH	0.45	9.9	A	5/10	0.47	10.9	B	7/11	0.53	14.4	B	11/12	0.52	13.5	B	11/13	0.58	17.1	B	14/14
NH Route 9 WB TH	0.47	3.0	A	3/3	0.49	3.2	A	3/3	0.53	4.4	A	3/4	0.54	3.8	A	3/4	0.58	6.0	A	3/5
NH Route 9 WB RT	0.14	0.0	A	0/0	0.15	0.0	A	0/0	0.22	0.0	A	0/0	0.17	0.0	A	0/0	0.24	0.0	A	0/0
Overall	--	**6.3**	**A**	--	--	**6.8**	**A**	--	--	**8.7**	**A**	--	--	**8.1**	**A**	--	--	**10.5**	**B**	--
28. NH Route 9 at I-93 Northbound Off-Ramp and Fort Eddy Road																				
Weekday Morning:																				
NH Route 9 EB LT	0.25	29.5	C	2/2	0.26	32.7	C	2/2	0.28	31.0	C	2/2	0.30	31.1	C	2/2	0.30	32.2	C	2/2
NH Route 9 EB TH	0.36	7.2	A	4/5	0.36	7.2	A	5/6	0.38	6.7	A	5/6	0.38	7.2	A	4/7	0.39	7.2	A	5/9
NH Route 9 WB TH	0.54	30.3	C	9/12	0.55	30.7	C	9/12	0.59	29.6	C	11/14	0.58	29.8	C	10/14	0.63	29.8	C	13/16
NH Route 9 WB RT	0.06	17.9	B	0/1	0.06	20.9	C	0/1	0.06	17.9	B	1/1	0.07	21.0	C	1/1	0.07	18.1	B	1/1
I-93 Northbound Off-Ramp NB LT	0.67	49.2	D	8/10	0.70	51.5	D	8/10	0.70	51.5	D	8/10	0.68	50.5	D	8/12	0.70	51.7	D	8/12
I-93 Northbound Off-Ramp NB TH/RT	0.41	42.4	D	3/4	0.46	43.4	D	4/5	0.51	44.1	D	5/6	0.46	43.5	D	4/6	0.52	44.6	D	5/7
I-93 Northbound Off-Ramp NB RT	0.31	41.7	D	1/3	0.40	43.1	D	2/4	0.51	44.7	D	4/6	0.41	43.4	D	2/7	0.52	45.4	D	4/9
Fort Eddy Road SB LT	0.27	48.4	D	2/3	0.30	49.3	D	2/3	0.32	50.5	D	2/3	0.31	50.8	D	2/3	0.32	51.4	D	2/3
Fort Eddy Road SB RT	0.23	34.8	C	1/2	0.27	36.1	D	1/2	0.32	38.4	D	2/3	0.27	38.0	D	1/3	0.31	38.9	D	2/4
Overall	--	**30.2**	**C**	--	--	**31.1**	**C**	--	--	**30.8**	**C**	--	--	**30.2**	**C**	--	--	**30.5**	**C**	--
Weekday Evening:																				
NH Route 9 EB LT	0.64	44.7	D	8/10	0.66	42.5	D	8/10	0.66	38.8	D	8/9	0.72	40.2	D	9/10	0.72	37.6	D	8/9
NH Route 9 EB TH	0.45	22.9	C	12/15	0.48	23.3	C	13/16	0.53	23.7	C	15/18	0.53	23.2	C	15/18	0.58	23.3	C	17/20
NH Route 9 WB TH	1.20	155.6	F	28/33	1.26	181.8	F	30/35	1.44	261.1	F	38/42	1.37	231.5	F	35/41	1.55	308.5	F	42/48
NH Route 9 WB RT	0.37	83.7	F	2/10	0.41	84.1	F	3/11	0.46	81.4	F	7/12	0.49	84.8	F	7/12	0.53	77.8	E	9/13
I-93 Northbound Off-Ramp NB LT	0.48	49.9	D	6/9	0.49	50.1	D	6/9	0.49	50.1	D	6/9	0.57	51.9	D	7/10	0.55	51.5	D	7/10
I-93 Northbound Off-Ramp NB TH/RT	0.68	54.2	D	8/11	0.71	55.3	E	9/11	0.73	55.9	E	9/12	0.81	60.0	E	10/13	0.85	63.4	E	11/15
I-93 Northbound Off-Ramp NB RT	0.34	47.9	D	2/6	0.40	48.8	D	3/7	0.52	50.8	D	5/10	0.56	52.2	D	6/10	0.65	55.8	E	7/12
Fort Eddy Road SB LT	0.34	48.3	D	4/5	0.36	48.6	D	4/6	0.35	48.4	D	4/6	0.40	49.0	D	5/6	0.39	48.9	D	5/6
Fort Eddy Road SB RT	0.92	85.1	F	10/20	0.99	101.2	F	11/22	0.99	101.2	F	11/22	1.25	193.0	F	19/29	1.25	190.1	F	19/29
Overall	--	**81.0**	**F**	--	--	**90.3**	**F**	--	--	**114.1**	**F**	--	--	**116.1**	**F**	--	--	**138.6**	**F**	--
Saturday Midday:																				
NH Route 9 EB LT	0.87	48.9	D	5/10	0.89	53.1	D	6/11	0.89	57.0	E	6/11	0.99	76.0	E	7/13	0.99	78.8	E	8/13
NH Route 9 EB TH	0.41	16.0	B	4/8	0.43	16.8	B	6/9	0.53	20.3	C	9/12	0.48	19.2	B	8/11	0.57	22.0	C	10/13
NH Route 9 WB TH	1.17	134.3	F	23/28	1.23	162.6	F	25/31	1.51	290.0	F	35/40	1.37	227.9	F	30/34	1.65	352.8	F	36/43
NH Route 9 WB RT	0.38	104.9	F	4/7	0.44	102.8	F	5/8	0.57	80.5	F	7/10	0.58	87.9	F	6/11	0.70	78.5	E	9/10
I-93 Northbound Off-Ramp NB LT	0.45	47.2	D	5/7	0.47	47.3	D	5/7	0.47	47.3	D	5/7	0.50	47.9	D	5/8	0.50	47.9	D	5/8
I-93 Northbound Off-Ramp NB TH/RT	0.97	81.5	F	11/15	1.04	99.7	F	12/16	1.18	150.5	F	16/20	1.17	145.7	F	15/21	1.30	200.3	F	18/24
I-93 Northbound Off-Ramp NB RT	0.72	57.3	E	6/12	0.82	66.3	E	8/14	1.01	109.3	F	11/19	0.91	81.4	F	9/17	1.10	134.8	F	13/22
Fort Eddy Road SB LT	0.52	41.2	D	7/9	0.54	41.7	D	7/9	0.53	41.4	D	7/9	0.61	42.9	D	8/11	0.59	42.6	D	8/11
Fort Eddy Road SB RT	1.20	160.7	F	19/29	1.27	187.7	F	21/31	1.27	188.4	F	21/31	1.52	292.7	F	28/38	1.52	293.5	F	28/38
Overall	--	**90.0**	**F**	--	--	**103.4**	**F**	--	--	**143.1**	**F**	--	--	**141.3**	**F**	--	--	**182.7**	**F**	--

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
29. NH Route 9 at Gully Hill Road West and Everett Arena																				
Weekday Morning:																				
NH Route 9 EB LT	0.09	62.7	E	1/1	0.09	64.2	E	1/1	0.09	69.3	E	1/1	0.07	63.3	E	1/1	0.07	65.8	E	1/1
NH Route 9 EB TH	0.46	5.1	A	6/8	0.49	5.6	A	6/9	0.53	4.3	A	3/7	0.50	5.1	A	6/8	0.53	4.9	A	6/6
NH Route 9 EB RT	0.12	4.0	A	1/1	0.13	4.1	A	1/1	0.13	2.7	A	0/1	0.13	3.9	A	1/1	0.13	3.6	A	1/1
NH Route 9 WB LT	0.27	62.8	E	1/2	0.27	64.9	E	1/2	0.27	69.4	E	1/2	0.30	65.9	E	1/3	0.30	69.8	E	1/3
NH Route 9 WB TH/RT	0.27	2.3	A	2/2	0.29	2.4	A	2/2	0.32	2.1	A	1/2	0.32	2.5	A	2/2	0.35	2.2	A	1/3
Gully Hill Road West NB LT/TH	0.40	57.7	E	1/2	0.36	55.5	E	1/3	0.36	55.5	E	1/3	0.38	55.5	E	1/3	0.38	55.5	E	2/3
Gully Hill Road West NB RT	0.01	53.4	D	0/0	0.01	52.0	D	0/0	0.01	52.0	D	0/0	0.01	51.7	D	0/0	0.01	51.7	D	0/0
Everett Arena SB LT/TH/RT	0.02	53.5	D	1/1	0.02	52.1	D	1/1	0.02	52.1	D	1/1	0.02	51.8	D	1/1	0.02	51.8	D	1/1
Overall	--	**6.3**	**A**	--	--	**6.5**	**A**	--	--	**5.5**	**A**	--	--	**6.3**	**A**	--	--	**5.9**	**A**	--
Weekday Evening:																				
NH Route 9 EB LT	0.36	63.4	E	1/2	0.36	63.4	E	1/2	0.36	63.9	E	1/2	0.36	62.7	E	1/2	0.36	64.5	E	1/2
NH Route 9 EB TH	0.54	19.6	B	17/17	0.57	19.9	B	17/18	0.63	19.7	B	18/20	0.66	22.7	C	18/20	0.73	23.2	C	19/24
NH Route 9 EB RT	0.25	15.0	B	1/7	0.26	15.0	B	2/7	0.27	14.2	B	4/7	0.30	16.9	B	6/8	0.31	15.3	B	5/8
NH Route 9 WB LT	0.26	63.6	E	1/2	0.28	63.7	E	1/2	0.28	62.9	E	1/2	0.30	62.9	E	1/2	0.30	60.8	E	1/2
NH Route 9 WB TH/RT	0.61	17.2	B	13/15	0.65	18.0	B	15/16	0.72	20.1	C	16/19	0.75	22.5	C	16/20	0.82	25.4	C	17/23
Gully Hill Road West NB LT/TH	0.85	64.3	E	11/12	0.87	66.5	E	11/12	0.89	70.1	E	11/15	0.92	72.7	E	13/14	0.93	75.1	E	14/14
Gully Hill Road West NB RT	0.04	36.8	D	0/1	0.05	36.5	D	0/1	0.05	37.1	D	0/1	0.05	35.0	C	0/1	0.05	35.2	D	0/1
Everett Arena SB LT/TH/RT	0.04	36.7	D	1/1	0.04	36.4	D	1/1	0.04	37.0	D	1/1	0.04	34.8	C	1/1	0.04	35.1	D	1/1
Overall	--	**24.5**	**C**	--	--	**25.0**	**C**	--	--	**25.6**	**C**	--	--	**28.5**	**C**	--	--	**29.5**	**C**	--
Saturday Midday:																				
NH Route 9 EB LT	0.61	56.1	E	3/4	0.62	55.4	E	3/4	0.64	55.3	E	3/4	0.64	57.4	E	3/4	0.64	56.3	E	3/4
NH Route 9 EB TH	0.61	26.0	C	19/19	0.65	27.4	C	20/21	0.74	27.7	C	24/25	0.70	27.5	C	23/24	0.80	28.1	C	27/28
NH Route 9 EB RT	0.39	26.0	C	6/8	0.41	26.4	C	7/8	0.42	22.8	C	7/8	0.47	24.8	C	8/9	0.47	21.9	C	8/9
NH Route 9 WB LT	0.33	53.5	D	1/2	0.34	52.8	D	1/2	0.34	50.6	D	1/2	0.37	50.3	D	1/2	0.37	51.9	D	1/2
NH Route 9 WB TH/RT	0.72	33.3	C	15/26	0.77	34.7	C	15/28	0.86	35.3	D	18/33	0.83	36.1	D	17/31	0.93	41.0	D	21/37
Gully Hill Road West NB LT/TH	0.85	59.2	E	10/17	0.87	60.5	E	10/18	0.95	81.4	F	11/18	1.04	102.9	F	14/20	1.11	129.0	F	14/21
Gully Hill Road West NB RT	0.07	32.3	C	0/2	0.07	31.9	C	0/2	0.07	34.1	C	0/2	0.08	33.6	C	0/2	0.08	35.2	D	0/2
Everett Arena SB LT/TH/RT	0.10	32.7	C	1/1	0.10	32.3	C	1/1	0.12	34.7	C	1/1	0.12	34.1	C	1/1	0.14	35.9	D	1/1
Overall	--	**33.0**	**C**	--	--	**34.1**	**C**	--	--	**35.5**	**D**	--	--	**38.3**	**D**	--	--	**41.6**	**D**	--

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
30. NH Route 9 at Gully Hill Road East and Everett Arena																				
Weekday Morning:																				
NH Route 9 EB LT	0.09	81.0	F	1/1	0.09	74.8	E	1/1	0.09	66.4	E	1/1	0.07	75.1	E	1/1	0.07	70.5	E	1/1
NH Route 9 EB TH/RT	0.56	5.6	A	2/15	0.58	6.3	A	1/4	0.63	7.3	A	1/6	0.55	5.6	A	1/4	0.59	6.4	A	1/6
NH Route 9 WB UT/LT	0.34	55.3	E	1/3	0.35	55.3	E	1/3	0.35	55.3	E	2/3	0.37	55.2	E	2/3	0.37	55.2	E	2/3
NH Route 9 WB TH/RT	0.31	5.5	A	2/7	0.32	5.6	A	2/7	0.36	5.9	A	2/8	0.36	5.9	A	2/8	0.40	6.2	A	3/9
Gully Hill Road East NB LT	0.24	54.8	D	1/2	0.25	54.9	D	1/2	0.25	54.9	D	1/2	0.27	55.0	D	1/2	0.27	55.0	D	1/2
Gully Hill Road East NB TH/RT	0.03	53.1	D	0/0	0.03	53.1	D	0/0	0.03	53.1	D	0/0	0.03	53.1	D	0/0	0.03	53.1	D	0/0
Everett Arena SB LT	0.08	59.1	E	1/1	0.08	59.1	E	1/1	0.08	59.1	E	1/1	0.08	59.1	E	1/1	0.08	59.1	E	1/1
Everett Arena SB TH/RT	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0
Overall	--	**8.3**	**A**	--	--	**8.7**	**A**	--	--	**9.2**	**A**	--	--	**8.6**	**A**	--	--	**8.9**	**A**	--
Weekday Evening:																				
NH Route 9 EB LT	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0
NH Route 9 EB TH/RT	0.62	36.3	D	23/26	0.65	36.8	D	24/27	0.74	38.9	D	28/31	0.79	46.7	D	28/31	0.87	50.8	D	31/37
NH Route 9 WB UT/LT	0.54	53.4	D	6/9	0.54	52.9	D	6/9	0.54	52.7	D	6/9	0.53	49.4	D	7/10	0.53	49.4	D	7/10
NH Route 9 WB TH/RT	0.46	6.9	A	6/12	0.47	7.1	A	7/12	0.54	7.9	A	8/15	0.54	8.1	A	8/16	0.60	9.0	A	10/19
Gully Hill Road East NB LT	0.51	58.0	E	4/7	0.51	58.0	E	4/7	0.52	58.1	E	4/7	0.56	58.8	E	5/7	0.56	58.8	E	5/8
Gully Hill Road East NB TH/RT	0.11	56.7	E	1/3	0.11	56.6	E	1/3	0.11	56.6	E	1/3	0.12	56.1	E	1/3	0.12	56.1	E	1/3
Everett Arena SB LT	0.26	65.5	E	1/1	0.26	65.5	E	1/1	0.26	65.5	E	1/1	0.26	65.5	E	1/1	0.26	65.5	E	1/1
Everett Arena SB TH/RT	0.00	66.9	E	0/0	0.01	66.9	E	0/0	0.00	66.9	E	0/0	0.01	66.9	E	0/0	0.00	66.9	E	0/0
Overall	--	**27.3**	**C**	--	--	**27.5**	**C**	--	--	**28.1**	**C**	--	--	**31.7**	**C**	--	--	**33.4**	**C**	--
Saturday Midday:																				
NH Route 9 EB LT	0.13	48.6	D	1/1	0.13	51.2	D	1/1	0.13	58.7	E	1/1	0.13	56.2	E	1/1	0.13	61.9	E	1/1
NH Route 9 EB TH/RT	0.96	70.7	E	24/27	1.02	84.1	F	25/30	1.19	151.9	F	32/39	1.15	135.1	F	31/36	1.33	208.9	F	40/45
NH Route 9 WB UT/LT	0.57	43.7	D	7/12	0.61	45.5	D	7/13	0.61	45.5	D	7/13	1.03	102.8	D	12/24	0.75	54.4	D	8/16
NH Route 9 WB TH/RT	0.55	15.4	B	7/16	0.59	16.5	B	7/18	0.70	19.1	B	10/24	0.68	20.6	C	10/22	0.80	24.7	C	13/29
Gully Hill Road East NB LT	0.48	46.4	D	5/8	0.48	45.8	D	5/8	0.48	45.8	D	6/8	0.48	43.2	D	6/9	0.48	43.2	D	6/9
Gully Hill Road East NB TH/RT	0.16	43.3	D	1/3	0.17	42.7	D	1/3	0.17	42.7	D	1/3	0.18	40.2	D	1/3	0.18	40.2	D	1/3
Everett Arena SB LT	0.26	61.3	E	1/1	0.26	61.3	E	1/1	0.26	61.3	E	1/2	0.26	61.3	E	1/1	0.26	61.3	E	1/2
Everett Arena SB TH/RT	0.01	59.8	E	0/0	0.01	59.8	E	0/0	0.01	59.8	E	0/0	0.01	59.8	E	0/0	0.01	59.8	E	0/0
Overall	--	**44.6**	**D**	--	--	**50.6**	**D**	--	--	**80.3**	**F**	--	--	**78.1**	**E**	--	--	**106.8**	**F**	--

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
31. NH Route 9 at Airport Road and Hazen Drive																				
Weekday Morning:																				
NH Route 9 EB LT	0.72	40.4	D	8/13	0.77	44.9	D	9/15	0.80	49.6	D	10/16	0.75	46.5	D	9/19	0.78	50.8	D	9/19
NH Route 9 EB TH	0.54	26.8	C	7/10	0.56	28.0	C	8/11	0.62	28.9	C	10/13	0.53	28.2	C	8/13	0.57	28.8	C	9/15
NH Route 9 EB RT	0.17	0.2	A	0/0	0.18	0.2	A	0/0	0.18	0.2	A	0/0	0.16	0.2	A	0/0	0.16	0.2	A	0/0
NH Route 9 WB LT	0.54	43.6	D	4/7	0.57	45.3	D	4/8	0.57	47.8	D	4/8	0.60	46.5	D	5/9	0.60	49.0	D	5/9
NH Route 9 WB TH	0.70	38.2	D	8/12	0.70	38.6	D	8/13	0.74	39.6	D	10/15	0.73	38.4	D	10/15	0.77	39.8	D	12/17
NH Route 9 WB RT	0.08	0.1	A	0/0	0.08	0.1	A	0/0	0.08	0.1	A	0/0	0.09	0.1	A	0/0	0.09	0.1	A	0/0
Airport Road NB LT	0.50	43.7	D	3/6	0.51	45.6	D	3/6	0.52	47.8	D	3/6	0.53	46.7	D	3/7	0.54	49.2	D	4/7
Airport Road NB TH	0.30	31.8	C	3/6	0.31	32.9	C	3/6	0.32	34.6	C	4/7	0.32	34.0	C	4/7	0.34	35.8	D	4/8
Airport Road NB RT	0.07	0.1	A	0/0	0.08	0.1	A	0/0	0.08	0.1	A	0/0	0.08	0.1	A	0/0	0.08	0.1	A	0/0
Hazen Drive SB LT	0.25	48.8	D	1/2	0.26	50.6	D	1/2	0.28	53.0	D	1/2	0.27	52.1	D	1/2	0.28	54.5	D	1/2
Hazen Drive SB TH	0.47	40.0	D	4/6	0.48	41.4	D	4/7	0.49	43.4	D	4/7	0.47	42.9	D	4/8	0.49	45.0	D	4/8
Hazen Drive SB RT	0.06	0.1	A	0/0	0.06	0.1	A	0/0	0.06	0.1	A	0/0	0.06	0.1	A	0/0	0.06	0.1	A	0/0
Overall	--	**28.0**	**C**	--	--	**29.3**	**C**	--	--	**30.9**	**C**	--	--	**29.9**	**C**	--	--	**31.5**	**C**	--
Weekday Evening:																				
NH Route 9 EB LT	0.47	61.7	E	2/4	0.48	63.5	E	3/5	0.49	63.3	E	3/5	0.51	63.6	E	3/5	0.51	63.2	E	3/5
NH Route 9 EB TH	0.86	48.5	D	19/25	0.90	53.2	D	21/27	1.03	79.4	E	27/34	0.99	69.9	E	25/32	1.12	109.4	F	31/39
NH Route 9 EB RT	0.15	0.2	A	0/0	0.15	0.2	A	0/0	0.15	0.2	A	0/0	0.17	0.2	A	0/0	0.17	0.2	A	0/0
NH Route 9 WB LT	0.70	60.8	E	7/11	0.73	64.0	E	8/12	0.72	62.8	E	8/11	0.78	66.2	E	9/13	0.76	65.4	E	8/13
NH Route 9 WB TH	0.52	29.2	C	11/15	0.55	30.0	C	12/16	0.66	32.6	C	16/20	0.61	30.8	C	14/18	0.71	33.8	C	18/23
NH Route 9 WB RT	0.04	0.0	A	0/0	0.04	0.0	A	0/0	0.04	0.0	A	0/0	0.04	0.0	A	0/0	0.04	0.0	A	0/0
Airport Road NB LT	0.83	68.9	E	10/14	0.86	74.6	E	10/15	0.86	73.9	E	10/15	0.87	75.7	E	11/18	0.87	75.1	E	11/18
Airport Road NB TH	0.24	38.6	D	3/6	0.25	40.0	D	4/6	0.25	39.7	D	4/6	0.26	40.2	D	4/6	0.26	40.1	D	4/7
Airport Road NB RT	0.17	0.2	A	0/0	0.18	0.2	A	0/0	0.17	0.2	A	0/0	0.18	0.2	A	0/0	0.17	0.2	A	0/0
Hazen Drive SB LT	0.48	59.0	E	3/4	0.49	60.9	E	3/4	0.50	60.5	E	3/5	0.46	61.0	E	3/5	0.46	60.7	E	3/5
Hazen Drive SB TH	0.79	64.1	E	9/11	0.83	69.8	E	10/11	0.82	68.9	E	10/11	0.77	65.5	E	9/13	0.77	65.2	E	9/13
Hazen Drive SB RT	0.26	0.4	A	0/0	0.27	0.4	A	0/0	0.27	0.4	A	0/0	0.24	0.4	A	0/0	0.24	0.4	A	0/0
Overall	--	**35.6**	**D**	--	--	**38.2**	**D**	--	--	**46.5**	**D**	--	--	**43.3**	**D**	--	--	**56.3**	**E**	--
Saturday Midday:																				
NH Route 9 EB LT	0.36	50.1	D	1/3	0.37	51.7	D	2/3	0.37	51.1	D	2/4	0.40	52.8	D	2/4	0.40	52.2	D	2/4
NH Route 9 EB TH	0.75	29.8	C	14/26	0.79	31.5	C	16/26	0.93	42.5	D	21/34	0.89	39.0	D	19/31	1.04	69.6	E	27/39
NH Route 9 EB RT	0.14	0.2	A	0/0	0.14	0.2	A	0/0	0.14	0.2	A	0/0	0.16	0.2	A	0/0	0.16	0.2	A	0/0
NH Route 9 WB LT	0.57	46.7	D	4/8	0.60	48.6	D	5/8	0.58	48.4	D	5/8	0.63	50.0	D	5/9	0.62	49.5	D	5/9
NH Route 9 WB TH	0.68	23.0	C	14/21	0.71	23.9	C	15/23	0.86	30.1	C	21/33	0.80	27.2	C	19/27	0.95	39.3	D	25/38
NH Route 9 WB RT	0.04	0.0	A	0/0	0.04	0.0	A	0/0	0.04	0.0	A	0/0	0.04	0.0	A	0/0	0.04	0.0	A	0/0
Airport Road NB LT	0.66	47.6	D	6/10	0.69	50.5	D	6/10	0.69	49.8	D	6/10	0.73	52.3	D	7/11	0.72	51.7	D	7/11
Airport Road NB TH	0.16	35.1	D	2/3	0.17	36.3	D	2/3	0.17	36.0	D	2/4	0.18	36.6	D	2/4	0.18	36.3	D	2/4
Airport Road NB RT	0.15	0.2	A	0/0	0.16	0.2	A	0/0	0.15	0.2	A	0/0	0.17	0.2	A	0/0	0.17	0.2	A	0/0
Hazen Drive SB LT	0.27	51.8	D	1/2	0.29	53.5	D	1/2	0.30	53.1	D	1/2	0.24	54.5	D	1/2	0.25	53.9	D	1/2
Hazen Drive SB TH	0.37	48.3	D	2/3	0.38	49.9	D	2/3	0.38	49.4	D	2/3	0.34	51.1	D	2/4	0.34	50.6	D	2/4
Hazen Drive SB RT	0.07	0.1	A	0/0	0.07	0.1	A	0/0	0.07	0.1	A	0/0	0.06	0.1	A	0/0	0.06	0.1	A	0/0
Overall	--	**25.0**	**C**	--	--	**26.2**	**C**	--	--	**32.2**	**C**	--	--	**30.0**	**C**	--	--	**45.1**	**D**	--

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
32. NH Route 9 at NH Route 132 and Canterbury Road																				
Weekday Morning:																				
NH Route 9 EB LT	0.30	40.7	D	1/3	0.32	42.1	D	1/3	0.32	44.4	D	1/3	0.35	43.8	D	1/3	0.35	44.0	D	2/3
NH Route 9 EB TH/RT	0.37	20.7	C	3/7	0.38	20.5	C	4/7	0.42	20.2	C	5/9	0.39	19.1	B	4/8	0.45	19.9	B	5/10
NH Route 9 WB LT	0.14	44.9	D	1/1	0.15	46.3	D	1/1	0.20	49.3	D	1/1	0.17	48.4	D	1/1	0.21	48.9	D	1/1
NH Route 9 WB TH/RT	0.62	27.5	C	7/11	0.64	27.6	C	8/12	0.68	27.9	C	10/14	0.65	26.7	C	9/13	0.74	29.0	C	11/17
Canterbury Road NB LT	0.43	36.2	D	3/4	0.45	37.5	D	3/4	0.46	39.7	D	3/4	0.43	40.1	D	2/5	0.43	40.0	D	3/5
Canterbury Road NB TH/RT	0.51	37.2	D	3/5	0.54	38.8	D	3/5	0.57	42.1	D	4/5	0.52	41.2	D	3/5	0.53	41.4	D	3/6
NH Route 132 SB LT	0.41	30.5	C	3/7	0.46	32.4	C	4/7	0.54	36.5	D	5/8	0.52	35.4	D	4/8	0.57	36.8	D	5/9
NH Route 132 SB TH/RT	0.84	48.1	D	8/17	0.89	57.3	E	9/18	0.96	74.4	E	9/18	1.03	92.2	F	10/21	1.03	93.7	F	11/21
Overall	--	**31.4**	**C**	--	--	**33.2**	**C**	--	--	**36.0**	**D**	--	--	**39.0**	**D**	--	--	**39.2**	**D**	--
Weekday Evening:																				
NH Route 9 EB LT	0.52	47.8	D	3/5	0.52	47.3	D	3/5	0.49	46.7	D	3/5	0.54	47.8	D	3/6	0.51	47.1	D	3/5
NH Route 9 EB TH/RT	0.75	29.9	C	11/16	0.83	34.8	C	13/18	0.98	54.3	D	21/25	0.87	37.6	D	16/23	1.02	62.9	E	23/29
NH Route 9 WB LT	0.29	53.4	D	1/2	0.25	50.8	D	1/2	0.32	50.8	D	1/2	0.27	51.0	D	1/2	0.34	51.1	D	1/3
NH Route 9 WB TH/RT	0.90	45.1	D	14/21	0.98	59.8	E	17/23	1.17	124.9	F	24/31	1.10	95.9	F	21/27	1.29	175.2	F	28/35
Canterbury Road NB LT	0.38	39.6	D	3/5	0.38	39.2	D	3/6	0.38	38.8	D	3/6	0.43	39.9	D	4/6	0.43	39.6	D	4/6
Canterbury Road NB TH/RT	0.91	70.3	E	8/15	0.93	75.0	E	9/16	0.94	75.7	E	9/17	1.04	103.8	F	10/18	1.05	107.2	F	11/19
NH Route 132 SB LT	0.88	66.7	E	8/16	0.91	72.4	E	8/15	0.97	85.2	F	9/17	1.02	99.4	F	9/18	1.08	116.7	F	11/19
NH Route 132 SB TH/RT	0.78	54.0	D	7/13	0.82	56.7	E	8/14	0.87	62.7	E	8/15	0.91	71.8	E	9/16	0.97	84.4	F	10/18
Overall	--	**45.2**	**D**	--	--	**52.6**	**D**	--	--	**83.0**	**F**	--	--	**72.4**	**E**	--	--	**111.2**	**F**	--
Saturday Midday:																				
NH Route 9 EB LT	0.39	45.3	D	2/3	0.40	45.8	D	2/4	0.34	45.3	D	2/3	0.42	45.0	D	2/4	0.37	44.2	D	2/3
NH Route 9 EB TH/RT	0.78	31.7	C	13/17	0.85	36.2	D	14/20	1.17	120.6	F	23/29	0.93	42.3	D	16/24	1.24	150.4	F	26/33
NH Route 9 WB LT	0.28	46.9	D	1/2	0.31	47.7	D	1/2	0.36	45.4	D	2/3	0.34	47.1	D	1/2	0.37	44.3	D	2/3
NH Route 9 WB TH/RT	1.11	94.1	F	22/29	1.20	133.5	F	25/32	1.53	276.6	F	35/42	1.32	181.6	F	29/37	1.64	325.4	F	39/48
Canterbury Road NB LT	0.48	37.8	D	4/5	0.49	38.2	D	4/5	0.47	36.9	D	4/5	0.46	38.4	D	3/6	0.45	37.4	D	3/6
Canterbury Road NB TH/RT	0.67	43.2	D	5/6	0.69	44.6	D	6/7	0.69	43.7	D	6/7	0.64	43.1	D	5/8	0.64	42.1	D	5/8
NH Route 132 SB LT	0.70	43.8	D	6/11	0.72	44.9	D	7/12	0.82	53.1	D	8/14	0.79	49.5	D	7/14	0.88	58.6	E	9/16
NH Route 132 SB TH/RT	0.60	39.6	D	5/9	0.62	40.3	D	6/10	0.72	44.4	D	7/13	0.69	42.2	D	6/12	0.78	47.3	D	8/15
Overall	--	**60.0**	**E**	--	--	**77.7**	**E**	--	--	**166.8**	**F**	--	--	**101.1**	**F**	--	--	**200.7**	**F**	--

See notes at end of table.

Table 13 (Continued)
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No-Build				2027 Opening Year				2037 No-Build				2037 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
33. NH Route 132 at Hazen Drive																				
Weekday Morning:																				
Hazen Drive EB LT	0.34	32.9	C	3/4	0.34	32.6	C	3/4	0.34	32.4	C	4/5	0.29	31.6	C	3/5	0.29	31.5	C	3/5
Hazen Drive EB RT	0.01	29.8	C	0/1	0.01	29.4	C	0/1	0.01	29.3	C	0/1	0.01	29.0	C	0/1	0.01	28.9	C	0/1
NH Route 132 NB LT/TH	0.32	7.2	A	4/5	0.34	7.5	A	4/5	0.36	7.7	A	4/6	0.35	7.9	A	4/6	0.37	8.0	A	5/7
NH Route 132 SB TH	0.38	7.9	A	6/8	0.40	8.2	A	7/8	0.42	8.5	A	7/9	0.42	8.5	A	7/9	0.43	8.8	A	7/10
NH Route 132 SB RT	0.39	30.1	C	2/2	0.41	29.3	C	2/3	0.41	27.9	C	2/2	0.42	27.1	C	2/2	0.42	25.7	C	2/2
Overall	--	**18.5**	**B**	--	--	**18.3**	**B**	--	--	**17.7**	**B**	--	--	**17.3**	**B**	--	--	**16.7**	**B**	--
Weekday Evening:																				
Hazen Drive EB LT	1.03	84.1	F	17/23	1.08	99.3	F	18/24	1.11	108.6	F	18/24	1.14	119.9	F	19/28	1.15	126.1	F	20/28
Hazen Drive EB RT	0.05	25.7	C	1/1	0.05	26.0	C	1/1	0.05	26.5	C	1/1	0.06	26.3	C	1/1	0.06	26.6	C	1/2
NH Route 132 NB LT/TH	0.59	13.0	B	10/11	0.61	13.1	B	10/12	0.65	13.7	B	12/14	0.61	12.8	B	10/15	0.64	13.4	B	12/16
NH Route 132 SB TH	0.40	12.9	B	6/10	0.42	13.1	B	7/10	0.45	13.7	B	8/11	0.47	14.1	B	8/11	0.50	14.6	B	9/12
NH Route 132 SB RT	0.10	26.9	C	1/1	0.10	27.0	C	1/1	0.10	27.7	C	1/1	0.11	28.8	C	1/1	0.11	29.4	C	1/1
Overall	--	**35.5**	**D**	--	--	**39.9**	**D**	--	--	**41.7**	**D**	--	--	**46.2**	**D**	--	--	**47.0**	**D**	--
Saturday Midday:																				
Hazen Drive EB LT	0.45	35.9	D	4/5	0.46	35.6	D	4/6	0.45	35.1	D	4/6	0.40	34.1	C	4/6	0.40	34.1	C	5/7
Hazen Drive EB RT	0.02	31.6	C	0/1	0.02	31.3	C	0/1	0.02	30.8	C	0/1	0.02	30.5	C	0/1	0.02	30.4	C	0/1
NH Route 132 NB LT/TH	0.42	7.0	A	6/7	0.45	7.4	A	6/7	0.53	8.5	A	8/9	0.44	7.7	A	6/9	0.51	8.4	A	8/11
NH Route 132 SB TH	0.43	8.2	A	8/11	0.46	8.6	A	8/12	0.51	10.0	A	8/13	0.52	10.1	B	9/14	0.57	11.5	B	11/15
NH Route 132 SB RT	0.09	15.3	B	1/1	0.09	15.7	B	1/1	0.09	17.0	B	1/1	0.11	17.2	B	1/2	0.11	17.6	B	1/1
Overall	--	**12.4**	**B**	--	--	**12.6**	**B**	--	--	**13.2**	**B**	--	--	**13.1**	**B**	--	--	**13.5**	**B**	--
34. NH Route 132 at I-393 Eastbound Ramps																				
Weekday Morning:																				
I-393 Eastbound Off-Ramp WB LT	0.65	38.1	D	7/11	0.68	39.5	D	8/11	0.71	41.1	D	8/12	0.73	41.7	D	8/13	0.76	43.4	D	9/14
I-393 Eastbound Off-Ramp WB RT	0.10	29.8	C	1/2	0.12	30.1	C	1/2	0.13	30.4	C	1/2	0.14	30.5	C	1/3	0.15	30.6	C	1/3
NH Route 132 NB TH/RT	0.23	4.6	A	2/2	0.24	4.6	A	2/2	0.24	4.7	A	2/2	0.23	4.8	A	2/2	0.24	4.8	A	2/3
NH Route 132 SB LT	0.07	6.2	A	1/1	0.07	6.1	A	1/1	0.07	6.1	A	1/1	0.07	6.1	A	1/1	0.08	6.1	A	1/1
NH Route 132 SB TH	0.65	11.5	B	11/14	0.67	11.8	B	12/15	0.68	12.0	B	12/15	0.70	12.7	B	13/18	0.71	12.9	B	13/19
Overall	--	**15.5**	**B**	--	--	**15.8**	**B**	--	--	**16.2**	**B**	--	--	**17.0**	**B**	--	--	**17.5**	**B**	--
Weekday Evening:																				
I-393 Eastbound Off-Ramp WB LT	0.75	47.8	D	7/11	0.77	49.3	D	7/12	0.84	55.2	D	8/14	0.83	53.8	D	8/14	0.91	66.6	E	9/16
I-393 Eastbound Off-Ramp WB RT	0.10	34.5	C	0/2	0.12	34.3	C	1/2	0.15	34.4	C	1/3	0.17	34.3	C	1/3	0.20	34.8	C	1/4
NH Route 132 NB TH/RT	0.50	2.7	A	2/3	0.52	3.0	A	3/3	0.55	3.5	A	3/4	0.53	2.9	A	2/3	0.55	3.2	A	3/4
NH Route 132 SB LT	0.19	5.0	A	1/1	0.20	5.2	A	1/1	0.22	5.5	A	1/1	0.24	5.7	A	1/1	0.25	5.7	A	1/1
NH Route 132 SB TH	0.28	5.1	A	3/4	0.29	5.3	A	3/5	0.30	5.5	A	3/5	0.33	5.7	A	4/5	0.34	5.7	A	4/6
Overall	--	**11.5**	**B**	--	--	**11.9**	**B**	--	--	**13.2**	**B**	--	--	**13.0**	**B**	--	--	**15.3**	**B**	--
Saturday Midday:																				
I-393 Eastbound Off-Ramp WB LT	0.60	35.0	D	6/11	0.62	35.7	D	7/11	0.76	41.9	D	9/16	0.71	39.2	D	8/14	0.81	45.1	D	10/17
I-393 Eastbound Off-Ramp WB RT	0.05	28.1	C	0/2	0.05	28.0	C	1/2	0.08	28.3	C	1/2	0.07	28.6	C	1/2	0.09	28.7	C	1/2
NH Route 132 NB TH/RT	0.29	5.4	A	2/3	0.31	5.5	A	3/3	0.35	6.0	A	3/3	0.31	5.5	A	3/3	0.34	5.9	A	3/4
NH Route 132 SB LT	0.09	6.9	A	1/1	0.09	7.0	A	1/1	0.11	7.0	A	1/1	0.11	6.9	A	1/1	0.12	7.0	A	1/1
NH Route 132 SB TH	0.38	8.8	A	6/7	0.40	9.0	A	7/7	0.42	9.1	A	6/8	0.44	9.1	A	7/8	0.46	9.3	A	6/9
Overall	--	**13.4**	**B**	--	--	**13.6**	**B**	--	--	**15.5**	**B**	--	--	**14.7**	**B**	--	--	**16.3**	**B**	--

[a]Volume-to-capacity ratio.
[b]Control (signal) delay per vehicle in seconds.
[c]Level of service.
[d]Queue length in vehicles.
NB = northbound; SB = southbound; EB = eastbound; WB = westbound; UT = U-turn movements; LT = left-turning movements; TH = through movements; RT = right-turning movements.

Table 14
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Unsignalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No Build				2027 Opening Year				2037 No Build				2037 Build			
	Demand[a]	Delay[b]	LOS[c]	Queue 95th[d]	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th
5. NH Route 106 at Sam's Club and WB Matthews Driveways																				
Weekday Morning:																				
WB Matthews Driveway EB LT/TH	3	22.6	C	1	8	24.9	C	1	8	32.9	D	1	8	29.1	D	1	8	>50.0	F	1
WB Matthews Driveway EB RT	0	0.0	A	0	10	14.1	B	1	10	15.2	C	1	10	15.3	C	1	10	16.5	C	1
Sam's Club Driveway WB LT	12	22.9	C	1	12	25.3	D	1	12	33.6	D	1	12	29.8	D	1	12	>50.0	F	1
Sam's Club Driveway WB RT	17	9.4	A	1	17	9.5	A	1	17	10.2	B	1	17	9.6	A	1	17	13.4	B	1
NH Route 106 NB LT	3	9.3	A	0	6	9.4	A	0	6	9.7	A	0	6	9.7	A	0	6	10.1	B	0
NH Route 106 NB TH	190	0.0	A	0	198	0.0	A	0	295	0.0	A	0	220	0.0	A	0	617	0.0	A	0
NH Route 106 NB RT	4	0.0	A	0	4	0.0	A	0	4	0.0	A	0	4	0.0	A	0	4	0.0	A	0
NH Route 106 SB LT	27	7.7	A	1	27	7.7	A	1	27	8.0	A	1	27	7.8	A	1	27	9.1	A	1
NH Route 106 SB TH/RT	655	0.0	A	0	678	0.0	A	0	753	0.0	A	0	756	0.0	A	0	831	0.0	A	0
Weekday Evening:																				
WB Matthews Driveway EB LT/TH	2	>50.0	F	1	5	>50.0	F	2	5	>50.0	F	3	5	>50.0	F	3	5	>50.0	F	3
WB Matthews Driveway EB RT	9	13.6	B	1	15	14.5	B	1	15	16.8	C	1	15	15.8	C	1	15	18.5	C	1
Sam's Club Driveway WB LT	74	>50.0	F	8	74	>50.0	F	9	74	>50.0	F	11	74	>50.0	F	10	74	>50.0	F	12
Sam's Club Driveway WB RT	159	26.3	D	3	159	28.8	D	4	159	48.4	E	5	159	31.4	D	4	159	>50.0	F	6
NH Route 106 NB LT	0	0.0	A	0	11	9.2	A	0	11	9.7	A	1	11	9.5	A	0	11	10.1	B	1
NH Route 106 NB TH	735	0.0	A	0	769	0.0	A	0	929	0.0	A	0	857	0.0	A	0	1,017	0.0	A	0
NH Route 106 NB RT	20	0.0	A	0	20	0.0	A	0	20	0.0	A	0	20	0.0	A	0	20	0.0	A	0
NH Route 106 SB LT	98	10.5	B	1	98	10.8	B	1	98	12.0	B	1	98	11.0	B	1	98	12.2	B	1
NH Route 106 SB TH/RT	676	0.0	A	0	717	0.0	A	0	859	0.0	A	0	805	0.0	A	0	947	0.0	A	0
Saturday Midday:																				
WB Matthews Driveway EB LT/TH	1	>50.0	F	1	5	>50.0	F	3	5	>50.0	F	N/C	5	>50.0	F	3	5	>50.0	F	N/C
WB Matthews Driveway EB RT	4	15.6	C	1	10	16.9	C	1	10	>50.0	F	N/C	10	18.7	C	1	10	>50.0	F	N/C
Sam's Club Driveway WB LT	187	>50.0	F	30	187	>50.0	F	30	187	>50.0	F	32	187	>50.0	F	31	187	>50.0	F	32
Sam's Club Driveway WB RT	301	33.8	D	7	301	40.7	E	8	301	>50.0	F	18	301	>50.0	F	10	301	>50.0	F	21
NH Route 106 NB LT	1	9.7	A	0	7	10.0	A	0	7	11.4	B	0	7	10.4	B	0	7	12.0	B	0
NH Route 106 NB TH	587	0.0	A	0	631	0.0	A	0	928	0.0	A	0	701	0.0	A	0	998	0.0	A	0
NH Route 106 NB RT	27	0.0	A	0	27	0.0	A	0	27	0.0	A	0	27	0.0	A	0	27	0.0	A	0
NH Route 106 SB LT	279	10.7	B	2	279	11.0	B	2	279	14.3	B	3	279	11.6	B	2	279	15.5	C	3
NH Route 106 SB TH/RT	812	0.0	A	0	869	0.0	A	0	1,132	0.0	A	0	959	0.0	A	0	1,222	0.0	A	0

See notes at end of Table.

Table 14 (Continued)
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Unsignalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No Build				2027 Opening Year				2037 No Build				2037 Build			
	Demand[a]	Delay[b]	LOS[c]	Queue 95th[d]	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th
6. NH Route 106 at the Walmart Driveway																				
Weekday Morning:																				
Walmart Driveway EB LT	24	31.8	D	1	24	34.8	D	1	24	49.6	F	1	24	36.6	E	1	24	>50.0	F	1
Walmart Driveway EB RT	41	14.9	B	1	41	15.5	C	1	41	17.0	C	1	41	16.4	C	1	41	18.0	C	1
NH Route 106 NB LT	41	9.7	A	1	41	9.8	A	1	41	10.2	B	1	41	10.0	B	1	41	10.4	B	1
NH Route 106 NB TH	361	0.0	A	0	379	0.0	A	0	476	0.0	A	0	428	0.0	A	0	525	0.0	A	0
NH Route 106 SB TH	621	0.0	A	0	652	0.0	A	0	727	0.0	A	0	730	0.0	A	0	805	0.0	A	0
NH Route 106 SB RT	39	0.0	A	0	39	0.0	A	0	39	0.0	A	0	39	0.0	A	0	39	0.0	A	0
Weekday Evening:																				
Walmart Driveway EB LT	37	>50.0	F	3	37	>50.0	F	4	37	>50.0	F	5	37	>50.0	F	5	37	>50.0	F	6
Walmart Driveway EB RT	144	16.3	C	2	144	17.3	C	2	144	21.8	C	2	144	19.9	C	2	144	25.8	D	3
NH Route 106 NB LT	148	10.4	B	1	148	10.7	B	1	148	11.7	B	1	148	11.3	B	1	148	12.4	B	1
NH Route 106 NB TH	950	0.0	A	0	1,005	0.0	A	0	1,165	0.0	A	0	1,136	0.0	A	0	1,296	0.0	A	0
NH Route 106 SB TH	623	0.0	A	0	665	0.0	A	0	807	0.0	A	0	753	0.0	A	0	95	0.0	A	0
NH Route 106 SB RT	135	0.0	A	0	135	0.0	A	0	135	0.0	A	0	135	0.0	A	0	135	0.0	A	0
Saturday Midday:																				
Walmart Driveway EB LT	82	>50.0	F	9	82	>50.0	F	10	82	>50.0	F	12	82	>50.0	F	11	82	>50.0	F	13
Walmart Driveway EB RT	223	30.3	D	4	223	36.2	E	5	223	>50.0	F	10	223	>50.0	F	7	223	>50.0	F	12
NH Route 106 NB LT	215	13.1	B	2	215	13.8	B	2	215	18.1	C	3	215	15.4	C	2	215	21.0	C	3
NH Route 106 NB TH	717	0.0	A	0	777	0.0	A	0	1,074	0.0	A	0	887	0.0	A	0	1,184	0.0	A	0
NH Route 106 SB TH	801	0.0	A	0	860	0.0	A	0	1,123	0.0	A	0	977	0.0	A	0	1,240	0.0	A	0
NH Route 106 SB RT	197	0.0	A	0	197	0.0	A	0	197	0.0	A	0	197	0.0	A	0	197	0.0	A	0
7. NH Route 106 at the Steeplegate Mall Driveway																				
Weekday Morning:																				
Steeplegate Mall Driveway EB LT	13	23.7	C	1	13	25.4	D	1					13	29.5	D	1				
Steeplegate Mall Driveway EB RT	11	13.7	B	1	11	14.1	B	1					11	15.0	C	1				
NH Route 106 NB LT	9	9.4	A	0	9	9.5	A	0					9	9.8	A	0				
NH Route 106 SB TH	639	0.0	A	0	670	0.0	A	0					748	0.0	A	0				
NH Route 106 SB RT	23	0.0	A	0	23	0.0	A	0					23	0.0	A	0				
Weekday Evening:																				
Steeplegate Mall Driveway EB LT	33	133.1	F	3	33	>50.0	F	3	*See Signalized Intersection Level-of-Service and Vehicle Queue Summary (Table 13)*				33	>50.0	F	4	*See Signalized Intersection Level-of-Service and Vehicle Queue Summary (Table 13)*			
Steeplegate Mall Driveway EB RT	19	14.6	B	1	19	15.2	C	1					19	16.7	C	1				
NH Route 106 NB LT	22	9.6	A	1	22	9.8	A	1					22	10.2	B	1				
NH Route 106 NB TH	1,065	0.0	A	0	1,120	0.0	A	0					1,251	0.0	A	0				
NH Route 106 SB TH	721	0.0	A	0	763	0.0	A	0					851	0.0	A	0				
NH Route 106 SB RT	46	0.0	A	0	46	0.0	A	0					46	0.0	A	0				
Saturday Midday:																				
Steeplegate Mall Driveway EB LT	24	105.2	F	2	24	>50.0	F	2					24	>50.0	F	3				
Steeplegate Mall Driveway EB RT	19	18.2	C	1	19	19.4	C	1					19	22.2	C	1				
NH Route 106 NB LT	16	10.6	B	1	16	10.9	B	1					16	11.6	B	1				
NH Route 106 NB TH	908	0.0	A	0	968	0.0	A	0					1,078	0.0	A	0				
NH Route 106 SB TH	976	0.0	A	0	1,035	0.0	A	0					1,152	0.0	A	0				
NH Route 106 SB RT	48	0.0	A	0	48	0.0	A	0					48	0.0	A	0				

See notes at end of Table.

Table 14 (Continued)
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Unsignalized Intersection/ Peak-Hour/Movement	2024 Existing				2027 No Build				2027 Opening Year				2037 No Build				2037 Build			
	Demand[a]	Delay[b]	LOS[c]	Queue[d] 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th
9. NH Route 106 at Triangle Park Drive																				
Weekday Morning:																				
Triangle Park Drive EB LT/RT	60	30.2	D	2	64	34.3	D	2	70	42.5	E	3	71	36.6	E	2	79	44.3	E	3
NH Route 106 NB LT	95	12.2	B	1	99	12.6	B	1	99	13.2	B	1	110	13.3	B	1	110	14.0	B	1
NH Route 106 NB TH	352	0.0	A	0	371	0.0	A	0	420	0.0	A	0	413	0.0	A	0	462	0.0	A	0
NH Route 106 SB TH	914	0.0	A	0	952	0.0	A	0	1,008	0.0	A	0	1,061	0.0	A	0	1,117	0.0	A	0
NH Route 106 SB RT	45	0.0	A	0	46	0.0	A	0	46	0.0	A	0	52	0.0	A	0	52	0.0	A	0
Weekday Evening:																				
Triangle Park Drive EB LT/RT	175	82.5	F	8	182	>50.0	F	10	201	>50.0	F	16	203	>50.0	F	15	222	>50.0	F	20
NH Route 106 NB LT	161	10.4	B	1	168	10.8	B	1	176	11.6	B	1	187	11.6	B	1	195	12.7	B	2
NH Route 106 NB TH	959	0.0	A	0	1,010	0.0	A	0	1,084	0.0	A	0	1,126	0.0	A	0	1,200	0.0	A	0
NH Route 106 SB TH	684	0.0	A	0	726	0.0	A	0	823	0.0	A	0	807	0.0	A	0	904	0.0	A	0
NH Route 106 SB RT	32	0.0	A	0	33	0.0	A	0	33	0.0	A	0	37	0.0	A	0	37	0.0	A	0
Saturday Midday:																				
Triangle Park Drive EB LT/RT	142	41.4	E	4	149	>50.0	F	6	177	>50.0	F	13	165	>50.0	F	9	193	>50.0	F	18
NH Route 106 NB LT	164	9.9	A	1	172	10.3	B	1	198	11.8	B	1	192	11.0	B	1	218	12.8	B	2
NH Route 106 NB TH	765	0.0	A	0	825	0.0	A	0	978	0.0	A	0	916	0.0	A	0	1,069	0.0	A	0
NH Route 106 SB TH	639	0.0	A	0	692	0.0	A	0	855	0.0	A	0	769	0.0	A	0	932	0.0	A	0
NH Route 106 SB RT	16	0.0	A	0	16	0.0	A	0	16	0.0	A	0	18	0.0	A	0	18	0.0	A	0
10. D'Amante Drive at the East Steeplegate Mall Driveway																				
Weekday Morning:																				
D'Amante Drive EB LT	8	7.6	A	0	8	7.7	A	0					8	7.7	A	0				
D'Amante Drive EB TH	135	0.0	A	0	148	0.0	A	0					167	0.0	A	0				
D'Amante Drive WB TH/RT	149	0.0	A	0	165	0.0	A	0					184	0.0	A	0				
East Steeplegate Mall Driveway SB LT	4	10.4	B	0	4	10.7	B	0					4	10.5	B	0				
East Steeplegate Mall Driveway SB RT	6	9.3	A	1	6	9.4	A	1					6	9.3	A	1				
Weekday Evening:																				
D'Amante Drive EB TH	319	0.0	A	0	341	0.0	A	0	*Driveway Closed in Conjunction with the Project*				382	0.0	A	0	*Driveway Closed in Conjunction with the Project*			
D'Amante Drive WB TH/RT	339	0.0	A	0	360	0.0	A	0					402	0.0	A	0				
East Steeplegate Mall Driveway SB LT	23	13.5	B	1	23	13.9	B	1					23	14.9	B	1				
East Steeplegate Mall Driveway SB RT	22	10.4	B	1	22	10.6	B	1					22	10.9	B	1				
Saturday Midday:																				
D'Amante Drive EB LT	24	8.8	A	1	24	8.9	A	1					24	9.1	A	1				
D'Amante Drive EB TH	390	0.0	A	0	417	0.0	A	0					466	0.0	A	0				
D'Amante Drive WB TH/RT	536	0.0	A	0	566	0.0	A	0					629	0.0	A	0				
East Steeplegate Mall Driveway SB LT	22	18.5	C	1	22	19.6	C	1					22	21.6	C	1				
East Steeplegate Mall Driveway SB RT	42	12.9	B	1	42	13.3	B	1					42	14.3	B	1				

See notes at end of table.

Table 14 (Continued)
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Unsignalized Intersection/ Peak-Hour/Movement	2024 Existing				2027 No Build				2027 Opening Year				2037 No Build				2037 Build			
	Demand[a]	Delay[b]	LOS[c]	Queue[d] 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th
11. D'Amante Drive at the Target Driveway																				
Weekday Morning:																				
D'Amante Drive EB LT	--	--	--	--	--	--	--	--	28	7.9	A	1	--	--	--	--	28	7.8	A	1
D'Amante Drive EB TH/RT	156	0.0	A	0	169	0.0	A	0	214	0.0	A	0	188	0.0	A	0	233	0.0	A	0
D'Amante Drive WB LT	45	7.8	A	1	45	7.8	A	1	45	8.0	A	1	45	7.7	A	1	45	7.9	A	1
D'Amante Drive WB TH	104	0.0	A	0	120	0.0	A	0	146	0.0	A	0	139	0.0	A	0	168	0.0	A	0
D'Amante Drive WB RT	--	--	--	--	--	--	--	--	52	0.0	A	0	--	--	--	--	52	0.0	A	0
Target Driveway NB LT	13	12.1	B	1	13	12.5	B	1	13	17.6	C	1	13	11.9	B	1	13	15.6	C	1
Target Driveway NB RT	23	9.0	A	1	23	9.0	A	1	23	9.2	A	1	23	9.0	A	1	23	9.1	A	1
Site Driveway SB RT	--	--	--	--	--	--	--	--	62	9.7	A	1	--	--	--	--	62	9.6	A	1
Weekday Evening:																				
D'Amante Drive EB LT	--	--	--	--	--	--	--	--	41	8.2	A	1	--	--	--	--	41	8.3	A	1
D'Amante Drive EB TH/RT	301	0.0	A	0	323	0.0	A	0	471	0.0	A	0	364	0.0	A	0	512	0.0	A	0
D'Amante Drive WB LT	120	8.3	A	1	120	8.4	A	1	120	9.0	A	1	120	8.5	A	1	120	9.1	A	1
D'Amante Drive WB TH	220	0.0	A	0	238	0.0	A	0	242	0.0	A	0	283	0.0	A	0	287	0.0	A	0
D'Amante Drive WB RT	--	--	--	--	--	--	--	--	111	0.0	A	0	--	--	--	--	111	0.0	A	0
Target Driveway NB LT	130	26.5	D	2	130	29.2	D	3	130	>50.0	F	8	120	35.3	E	3	130	>50.0	F	9
Target Driveway NB RT	127	10.1	B	1	127	10.2	B	1	127	11.0	B	1	127	10.3	B	1	127	11.2	B	1
Site Driveway SB RT	--	--	--	--	--	--	--	--	81	10.3	B	1	--	--	--	--	81	10.7	B	1
Saturday Midday:																				
D'Amante Drive EB LT	--	--	--	--	--	--	--	--	58	9.4	A	1	--	--	--	--	58	9.6	A	1
D'Amante Drive EB TH/RT	357	0.0	A	0	386	0.0	A	0	622	0.0	A	0	433	0.0	A	0	671	0.0	A	0
D'Amante Drive WB LT	140	8.5	A	1	140	8.6	A	1	140	9.6	A	1	140	8.7	A	1	140	9.8	A	1
D'Amante Drive WB TH	408	0.0	A	0	438	0.0	A	0	499	0.0	A	0	501	0.0	A	0	562	0.0	A	0
D'Amante Drive WB RT	--	--	--	--	--	--	--	--	148	0.0	A	0	--	--	--	--	148	0.0	A	0
Target Driveway NB LT	111	70.3	F	5	111	>50.0	F	6	111	>50.0	F	16	111	>50.0	F	7	111	>50.0	F	17
Target Driveway NB RT	147	10.7	B	1	147	10.8	B	1	147	12.5	B	1	147	11.1	B	1	147	12.9	B	1
Site Driveway SB RT	--	--	--	--	--	--	--	--	113	14.2	B	1	--	--	--	--	113	15.0	B	1
14. NH Route 9 at Shaw's Driveway																				
Weekday Morning:																				
Shaw's Driveway NWB LT/RT	46	12.7	B	1	46	13.2	B	1	46	15.1	C	1	46	13.9	B	1	46	16.0	C	1
NH Route 9 NEB TH/RT	469	0.0	A	0	505	0.0	A	0	609	0.0	A	0	553	0.0	A	0	657	0.0	A	0
NH Route 9 SWB LT	42	8.5	A	1	42	8.7	A	1	42	9.0	A	1	42	8.8	A	1	42	9.2	A	1
NH Route 9 SWB TH	418	0.0	A	0	461	0.0	A	0	571	0.0	A	0	515	0.0	A	0	625	0.0	A	0
Weekday Evening:																				
Shaw's Driveway NWB LT/RT	67	14.1	B	1	67	14.9	B	1	61	16.9	C	1	67	15.3	C	1	61	17.3	C	1
NH Route 9 NEB TH/RT	961	0.0	A	0	1,033	0.0	A	0	1,227	0.0	A	0	1,138	0.0	A	0	1,332	0.0	A	0
NH Route 9 SWB LT	19	11.0	B	1	19	11.5	B	1	19	13.0	B	1	19	11.8	B	1	19	13.3	B	1
NH Route 9 SWB TH	853	0.0	A	0	915	0.0	A	0	1,127	0.0	A	0	1,020	0.0	A	0	1,323	0.0	A	0
Saturday Midday:																				
Shaw's Driveway NWB LT/RT	61	18.8	C	1	61	20.9	C	1	56	38.4	E	2	61	25.4	D	1	56	49.6	E	2
NH Route 9 NEB TH/RT	1,197	0.0	A	0	1,285	0.0	A	0	1,609	0.0	A	0	1,419	0.0	A	0	1,743	0.0	A	0
NH Route 9 SWB LT	37	12.2	B	1	37	12.8	B	1	37	16.0	C	1	37	14.0	B	1	37	17.7	C	1
NH Route 9 SWB TH	1,200	0.0	A	0	1,286	0.0	A	0	1,626	0.0	A	0	1,434	0.0	A	0	1,774	0.0	A	0

See notes at end of table.

Table 14 (Continued)
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Unsignalized Intersection/ Peak-Hour/Movement	2024 Existing				2027 No Build				2027 Opening Year				2037 No Build				2037 Build			
	Demand[a]	Delay[b]	LOS[c]	Queue 95th[d]	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th
17. NH Route 9 at Regal Concord Driveway																				
Weekday Morning:																				
Regal Concord Driveway WB LT/RT	1	11.6	B	0	1	12.1	B	0	23	12.2	B	1	1	12.5	B	0	23	12.5	B	1
NH Route 9 NB TH/RT	236	0.0	A	0	262	0.0	A	0	348	0.0	A	0	292	0.0	A	0	378	0.0	A	0
NH Route 9 SB LT	0	0.0	A	0	0	0.0	A	0	17	8.1	A	1	0	0.0	A	0	17	8.2	A	1
NH Route 9 SB TH	317	0.0	A	0	347	0.0	A	0	444	0.0	A	0	386	0.0	A	0	483	0.0	A	0
Weekday Evening:																				
Regal Concord Driveway WB LT/RT	7	18.3	C	1	7	19.8	C	1	65	35.1	E	2	7	22.4	C	1	65	>50.0	F	4
NH Route 9 NB TH/RT	608	0.0	A	0	655	0.0	A	0	887	0.0	A	0	727	0.0	A	0	959	0.0	A	0
NH Route 9 SB LT	1	8.8	A	0	1	8.9	A	0	37	10.1	B	1	1	9.2	A	0	37	10.5	B	1
NH Route 9 SB TH	583	0.0	A	0	631	0.0	A	0	835	0.0	A	0	703	0.0	A	0	907	0.0	A	0
Saturday Midday:																				
Regal Concord Driveway WB LT/RT	7	19.0	C	1	7	21.1	C	1	88	>50.0	F	7	7	24.9	C	1	88	>50.0	F	8
NH Route 9 NB TH/RT	797	0.0	A	0	864	0.0	A	0	1,130	0.0	A	0	958	0.0	A	0	1,217	0.0	A	0
NH Route 9 SB LT	10	9.6	A	0	10	9.9	A	0	50	11.8	B	1	10	10.4	B	0	50	12.5	B	1
NH Route 9 SB TH	786	0.0	A	0	853	0.0	A	0	1,140	0.0	A	0	953	0.0	A	0	1,240	0.0	A	0
20. NH Route 9 at Break O'Day Drive and Old Sheep Davis Road																				
Weekday Morning:																				
Break O'Day Drive EB LT/TH/RT	1	9.6	A	0																
Old Sheep Davis Road WB LT/TH/RT	0	0.0	A	0																
NH Route 9 NB LT	1	8.3	A	0																
NH Route 9 NB TH/RT	212	0.0	A	0																
NH Route 9 SB UT/LT	8	8.1	A	0																
NH Route 9 SB TH/RT	386	0.0	A	0																
Weekday Evening:																				
Break O'Day Drive EB LT/TH/RT	8	16.1	C	1																
Old Sheep Davis Road WB LT/TH/RT	1	10.5	B	0																
NH Route 9 NB LT	1	8.5	A	0																
NH Route 9 NB TH/RT	641	0.0	A	0																
NH Route 9 SB UT/LT	4	11.1	B	0																
NH Route 9 SB TH/RT	523	0.0	A	0																
Saturday Midday:																				
Break O'Day Drive EB LT/TH/RT	1	25.5	D	1																
Old Sheep Davis Road WB LT/TH/RT	0	0.0	A	0																
NH Route 9 NB LT	0	0.0	A	0																
NH Route 9 NB TH/RT	651	0.0	A	0																
NH Route 9 SB UT/LT	1	8.9	A	0																
NH Route 9 SB TH/RT	675	0.0	A	0																

See Signalized Intersection Level-of-Service and Vehicle Queue Summary (Table 13)

[a]Demand in vehicles per hour.
[b]Average control delay per vehicle (in seconds).
[c]Level of service.
[d]Queue length in vehicles.
NB = northbound; SB = southbound; EB = eastbound; WB = westbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

As can be seen in Tables 13 and 14, the majority of the movements at the study area intersections were shown to continue to operate at LOS D or better with the addition of Project-related traffic, where an LOS of "D" or better is generally defined as "acceptable" operating conditions. That being said, capacity constraints (i.e., LOS "E" or "F" operating conditions) were identified within the study area, many of which occur independent of the Project.

The following is a summary of those study area intersections where one or more movements were identified to be operating at LOS E or F and for which physical improvements or traffic control modifications are required to be identified to achieve LOS D or better operating conditions pursuant to Section 32.08.19 of the City of Concord Site Plan Regulations. The identified improvement measures are defined in the *Recommendations* section of this assessment, along with the responsible party for implementation.

Signalized Intersections

NH Route 106 at Josiah Bartlett Road and Staniels Road (Intersection 1)

- Left-turn movements from NH Route 106 southbound (LOS F) during all three peak hours under all analysis conditions.

NH Route 9 at NH Route 106 (Intersection 4)

- Left-turn and/or through movements from NH Route 9 eastbound (LOS E/F) during the weekday evening and Saturday midday peak hours under all analysis conditions.

NH Route 106 at D'Amante Drive (Intersection 8)

- Left-turn and through movements from NH Route 106 northbound (LOS F/E) under 2037 Build conditions during the weekday evening peak-hour.
- Left-turn movements from NH Route 106 northbound (LOS F) under 2027 Opening-Year Build and 2037 Build conditions during the Saturday midday peak-hour.

Triangle Park Drive at D'Amante Drive (Intersection 12)

- Left-turn movements from D'Amante Drive eastbound (LOS F) under 2027 Opening-Year Build and 2037 Build conditions during the Saturday midday peak-hour.

NH Route 9 at Old Loudon Road and D'Amante Drive (Intersection 15)

- Left-turn movements from D'Amante Drive (LOS E) under 2027 Opening-Year Build conditions during the Saturday midday peak-hour.
- Left-turn movements and left-turn/through movements from D'Amante Drive (LOS F/E) under 2037 Build conditions during the Saturday midday peak-hour.

NH Route 9 at Patriots Place and Harbor Freight Tools Driveways (Intersection 18)

- Left-turn movements from NH Route 9 southbound (LOS E) under 2037 No-Build and 2037 Build conditions during the weekday evening peak-hour.

NH Route 106 at Pembroke Road and North Pembroke Road (Intersection 21)

- Through movements from NH Route 106 southbound (LOS E/F) under 2027 Opening-Year Build, 2037 No-Build and 2037 Build conditions and overall intersection operations (LOS E) under 2037 Build conditions during the weekday morning peak-hour.
- Left-turn movements from Pembroke Road (LOS F) and through movements from NH Route 106 northbound (LOS E/F) under all analysis conditions; through movements from NH Route 106 southbound (LOS E) under 2037 Build conditions; and overall intersection operations (LOS E/F) under 2027 No-Build, 2027 Opening-Year Build, 2037 No-Build and 2037 Build conditions during the weekday evening peak-hour.
- Left-turn movements from Pembroke Road (LOS E) under 2027 Opening-Year Build and 2037 Build conditions and through movements from NH Route 106 northbound (LOS E) under 2037 Build conditions; through movements from the NH Route 106 southbound (LOS E) under 2037 Build conditions; and overall intersection operations (LOS E) under 2037 Build conditions during the Saturday midday peak-hour.

NH Route 106 at Regional Drive and Smokey Bear Boulevard (Intersection 22)

- Left-turn movements from Regional Drive (LOS E/F) under all analysis conditions during the weekday evening peak-hour.

U.S. Route 3 at Black Hill Road and Old Turnpike Road (Intersection 24)

- Left-turn movements from U.S. Route 3 eastbound (LOS F) under all analysis conditions during the weekday morning peak-hour.
- Right-turn movements from Old Turnpike Road (LOS F) and overall intersection operations (LOS F) under all analysis conditions during the weekday evening peak-hour.

NH Route 9 at Ralph Pill Marketplace and Stickney Avenue (Intersection 25)

- Left-turn movements from NH Route 9 eastbound (LOS E) during the weekday morning peak-hour under all analysis conditions.
- Left-turn movements from NH Route 9 east and westbound (LOS E) during the weekday evening peak-hour under all analysis conditions.
- Left-turn movements from NH Route 9 eastbound (LOS E) under all analysis conditions; through/right-turn movements from NH Route 9 eastbound (LOS E/F) under 2027 Opening -Year Build, 2037 No-Build and 2037 Build conditions; and overall intersection operations (LOS E) under 2037 Build conditions during the Saturday midday peak-hour.

NH Route 9 at I-93 Southbound On- and Off-Ramps (Intersection 26)

- Left-turn movements from NH Route 9 westbound (LOS E) under 2027 No-Build conditions and all movements from the I-93 southbound off-ramp (LOS E/F) under all analysis conditions during the weekday morning peak-hour.
- Left-turn movements from NH Route 9 westbound (LOS F) and all movements from the I-93 southbound off-ramp (LOS E/F) under all analysis conditions during the weekday evening peak-hour.

- Left-turn movements from NH Route 9 westbound (LOS E) and left-turn/through movements from the I-93 southbound off-ramp (LOS E/F) under all analysis conditions during the Saturday midday peak-hour.

NH Route 9 at I-93 On-Ramp (Intersection 27)

- Left-turn movements from NH Route 9 eastbound (LOS F) during the weekday evening peak-hour under all analysis conditions.

NH Route 9 at I-93 Northbound Off-Ramp and Fort Eddy Road (Intersection 28)

- Through and right-turn movements from NH Route 9 westbound (LOS E/F) under all analysis conditions; through/right-turn movements from the I-93 northbound off-ramp (LOS E) under 2027 No-Build, 2027 Opening-Year Build, 2037 No-Build and 2037 Build conditions; right-turn movements from Fort Eddy Road (LOS F) under all analysis conditions; and overall intersection operations (LOS F) under all analysis conditions during the weekday evening peak-hour.
- Left-turn movements from NH Route 9 eastbound (LOS E) under 2027 Opening-Year Build, 2037 No-Build and 2037 Build conditions; through and right-turn movements from NH Route 9 westbound (LOS F) under all analysis conditions; through/right-turn movements from the I-93 northbound off-ramp (LOS E/F) under all analysis conditions; right-turn movements from Fort Eddy Road (LOS F) under all analysis conditions; and overall intersection operations (LOS F) under all analysis conditions during the Saturday midday peak-hour.

NH Route 9 at Gully Hill Road (West) and Everett Arena Driveway (Intersection 29)

- Left-turn movements from NH Route 9 east and westbound (LOS E) and left-turn/through movements from Gully Hill Road (west) (LOS E) under all analysis conditions during the weekday morning peak-hour.
- Left-turn movements from NH Route 9 east and westbound (LOS E) and left-turn/through movements from Gully Hill Road (west) (LOS E) under all analysis conditions during the weekday evening peak-hour.
- Left-turn movements from NH Route 9 eastbound (LOS E) and left-turn/through movements from Gully Hill Road (west) (LOS E) under all analysis conditions during the Saturday midday peak-hour.

NH Route 9 at Gully Hill Road (East) and Everett Arena Driveway (Intersection 30)

- Left-turn movements from NH Route 9 east and westbound (LOS E/F) and left-turn movements from the arena driveway (LOS E) under all analysis conditions during the weekday morning peak-hour.
- All movements from Gully Hill Road (east) (LOS E) and all movements from the arena driveway (LOS E) under all analysis conditions during the weekday evening peak-hour.
- Left-turn movements from NH Route 9 eastbound (LOS E) under 2027 Opening-Year, 2037 No-Build and 2037 Build conditions; through/right-turn movements from NH Route 9 eastbound (LOS E/F) under all analysis conditions; all movements from the arena driveway (LOS E) under all analysis conditions; and overall intersection operations

(LOS E/F) under 2027 Opening-Year Build, 2037 No-Build and 2037 Build conditions during the Saturday midday peak-hour.

NH Route 9 at Airport Road and Hazen Drive (Intersection 31)

- Left-turn movements from NH Route 9 eastbound (LOS E) under all analysis conditions; through movements from NH Route 9 eastbound (LOS E/F) under 2027 Opening-Year, 2037 No-Build and 2037 Build conditions; left-turn movements from NH Route 9 westbound (LOS E) under all analysis conditions; left-turn movements from Airport Road (LOS E) under all analysis conditions; left-turn and through movements from Hazen Drive (LOS E) under all analysis conditions; and overall intersection operations under 2037 Build conditions during the weekday evening peak-hour.
- Through movements from NH Route 9 eastbound (LOS E) under 2037 Build conditions during the Saturday midday peak-hour.

NH Route 9 at NH Route 132 and Canterbury Road (Intersection 32)

- Left-turn movements from NH Route 132 (LOS E/F) under 2027 No-Build, 2027 Opening-Year Build, 2037 No-Build and 2037 Build conditions during the weekday morning peak-hour.
- Through/right-turn movements from NH Route 9 eastbound (LOS E) under 2037 Build conditions; through/right-turn movements from NH Route 9 westbound (LOS E/F) under 2027 No-Build, 2027 Opening -Year Build, 2037 No-Build and 2037 Build conditions; through/right-turn movements from Canterbury Road and left-turn movements from NH Route 132 (LOS E/F) under all analysis conditions; through/right-turn movements from the NH Route 132 (LOS E/F) under 2027 No-Build, 2027 Opening-Year Build, 2037 No-Build and 2037 Build conditions; and overall intersection operations (LOS E/F) under 2027 Opening-Year Build, 2037 No-Build and 2037 Build conditions during the weekday evening peak-hour.
- Through/right-turn movements from NH Route 9 eastbound (LOS F) under 2027 Opening-Year Build and 2037 Build conditions; through/right-turn movements from NH Route 9 westbound (LOS F) under all analysis conditions; left-turn movements from NH Route 132 (LOS E) under 2037 Build conditions; and overall intersection operations (LOS E/F) under all analysis conditions during the Saturday midday peak-hour.

NH Route 132 at Hazen Drive (Intersection 33)

- Left-turn movements from Hazen Drive (LOS F) under all analysis conditions during the weekday evening peak-hour.

NH Route 132 at I-393 Eastbound Ramps (Intersection 34)

- Left-turn movements from the I-393 eastbound off-ramp (LOS E) under 2037 Build conditions during the weekday evening peak-hour.

Unsignalized Intersections

NH Route 106 at Sam's Club and WB Mathews Driveways (Intersection 5)

- Left-turn/through movements from WB Matthews driveway and Sam's Club driveways (LOS F) under 2037 Build conditions during the weekday morning peak-hour.
- Left-turn/through movements from WB Matthews driveway and left-turn movements from the Sam's Club driveway (LOS F) under all analysis conditions and right-turn movements from the Sam's Club driveway (LOS E/F) under 2027 Opening-Year Build and 2037 Build conditions during the weekday evening peak-hour.
- Left-turn/through movements from WB Matthews driveway and left-turn movements from the Sam's Club driveway (LOS F) under all analysis conditions and right-turn movements from the Sam's Club driveway (LOS E/F) under 2027 No-Build, 2027 Opening-Year Build, 2037 No-Build and 2037 Build conditions during the Saturday midday peak-hour.

NH Route 106 at the Walmart Driveway (Intersection 6)

- Left-turn movements from the Walmart driveway (LOS E/F) under 2027 Opening-Year Build, 2037 No-Build and 2037 Build conditions during the weekday morning peak-hour.
- Left-turn movements from the Walmart driveway (LOS F) under all analysis conditions during the weekday evening peak-hour.
- Left-turn movements from the Walmart driveway (LOS F) under all analysis conditions and right-turn movements from the Walmart driveway (LOS E/F) under 2027 No-Build, 2027 Opening-Year Build, 2037 No-Build and 2037 Build conditions during the Saturday midday peak-hour.

NH Route 106 at Steeplegate Mall Driveway (Intersection 7)

This intersection will be placed under traffic signal control in conjunction with the Project (2027 Opening-Year Build and 2037 No-Build conditions).

NH Route 106 at Triangle Park Drive (Intersection 9)

- All movements from Triangle Park Drive (LOS E/F) under 2027 Opening-Year Build, 2037 No-Build and 2037 Build conditions during the weekday morning peak-hour.
- All movements from Triangle Park Drive (LOS F) under all analysis conditions during the weekday evening peak-hour.
- All movements from Triangle Park Drive (LOS E/F) under all analysis conditions during the Saturday midday peak-hour.

NH Route 9 at the Target Driveway (Intersection 11)

- Left-turn movements from the Target driveway (LOS E/F) under 2027 Opening-Year Build, 2037 No-Build and 2037 Build conditions during the weekday evening peak-hour.
- Left-turn movements from the Target driveway (LOS F) under all analysis conditions during the Saturday midday peak-hour.

NH Route 9 at the Shaw's Driveway (Intersection 14)

- Left-turn/right-turn movements from the Shaw's driveway (LOS E) under 2027 Opening-Year Build and 2037 Build conditions during the Saturday midday peak-hour.

NH Route 9 at the Regal Concord (Project) Driveway (Intersection 17)

- Left-turn/right-turn movements from the Regal Concord (Project) driveway (LOS E) under 2027 Opening-Year Build conditions and (LOS F) 2037 Build conditions during the weekday evening peak-hour.
- Left-turn/right-turn movements from the Regal Concord (Project) driveway (LOS F) under 2027 Opening-Year Build conditions and 2037 Build conditions during the Saturday midday peak-hour.

LOUDON ROAD (NH ROUTE 9) CORRIDOR ANALYSIS

At the request of the City of Concord Planning Division, a review of travel times along the NH Route 9 corridor between the NH Route 9/Hazen Drive/Airport Road and the NH Route 9/ D'Amante Drive/Old Loudon Road intersections was completed using the SimTraffic® microsimulation software. SimTraffic® is a simulation-based model that predicts operations at an intersection or network of intersections by simulating the arrival and departure of vehicles with consideration of roadway and intersection geometry and traffic control. For corridor simulations, the overall travel time within the network is typically used to determine the quality of flow and includes the impact of turning volumes entering and exiting the network.

In order to compete the SimTraffic® microsimulation, traffic volumes were collected in December 2024 at the major intersections and driveways along the NH Route 9 corridor between and including the intersections with D'Amante Drive/Old Loudon Road and Hazen Road/ Airport Road. This information was used to determine entering and exiting traffic volumes along the roadway network as well as the volume of left-turn traffic entering and exiting the roadway segment at major intersections and driveways. The December 2024 traffic counts were adjusted to peak-month conditions and to 2027 and 2037 future horizon-year conditions following the methodology described herein. In order to determine the travel time within the simulated network, five (5) simulations were performed and the reported travel times were averaged.

Table 15 summarizes the average simulated travel times reported within the subject segment of the NH Route 9 corridor by direction under Existing, No-Build and Build conditions. The detailed traffic volume networks for the NH Route 9 roadway segment and the SimTraffic® reports for each analysis condition are provided in the Appendix.

Table 15
CORRIDOR TRAVEL TIME: NH ROUTE 9 BETWEEN D'AMANTE DRIVE AND HAZEN ROAD[a]

Corridor/Direction	2024 Existing Corridor Travel Time (Min:Sec)	2027 No-Build Corridor Travel Time (Min:Sec)	2027 Build Corridor Travel Time (Min:Sec)	2037 No-Build Corridor Travel Time (Min:Sec)	2037 Build Corridor Travel Time (Min:Sec)
NH Route 9 between D'Amante Drive and Hazen Road					
Weekday Morning:					
NH Route 9 Eastbound	4:29	4:32	4:37	4:34	4:41
NH Route 9 Westbound	4:30	4:34	4:38	4:38	4:41
Weekday Evening:					
NH Route 9 Eastbound	5:21	5:32	7:04	6:06	8:11
NH Route 9 Westbound	5:23	5:51	16:57	9:33	19:14
Saturday Midday:					
NH Route 9 Eastbound	5:10	5:20	5:59	5:47	8:21
NH Route 9 Westbound	6:15	7:54	18:41	15:05	22:51

[a]Travel time is defined as the amount of time it takes a motorist to travel from the NH Route 9/Hazen Drive/Airport Road intersection to or from the NH Route 9/D'Amante Drive/Old Loudon Road intersection in either direction along NH Route 9.

As can be seen in Table 15, existing (2024) travel times along the NH Route 9 corridor segment between Hazen Drive and D'Amante Drive (approximately 1.6 miles) were found to range from between 4 minutes and 29 seconds to 6 minutes and 15 seconds. Under 2027 and 2037 No-Build conditions, travel times along the corridor are predicted to increase as a result of traffic volume increases that will occur independent the Project and will be off-set to some extent as a result of the implementation of an optimal traffic signal timing, phasing and coordination plan at the NH Route 9/D'Amante Drive/Old Loudon Road intersection that will be implemented as a part of the mitigation commitments for the 33 Old Loudon Road development project. Under 2027 No-Build conditions, travel times along the NH Route 9 roadway segment were identified to range from 4 minutes and 32 seconds to 7 minutes and 54 seconds, increasing to between 4 minutes and 34 seconds and 15 minutes and 5 seconds under 2037 No-Build conditions.

With the addition of Project-related traffic, travel times along the NH Route 9 roadway segment were identified to range from 4 minutes and 37 seconds to 18 minutes and 41 seconds under 2027 Opening-Year Build conditions, or an increase in travel time of up to 10 minutes and 47 seconds over 2027 No-Build conditions. Under 2037 Build conditions, travel times were shown to range from 4 minutes and 41 seconds to 22 minutes and 51 seconds, or an increase in travel time of up to 7 minutes and 46 seconds over 2037 No-Build conditions. Specific recommendations have been provided as a part of this assessment (see *Recommendations* section) to reduce travel times along the corridor.

SIGHT DISTANCE EVALUATION

In accordance with Section 32.08.6 of the City of Concord Site Plan Regulations, and evaluation of lines of sight was completed at the study area intersections and at the Project site driveways. The sight distance evaluation was performed in accordance with American Association of State Highway and Transportation Officials (AASHTO)[27] requirements using both aerial imagery and field measurements. An evaluation of both stopping sight distance (SSD) and intersection sight distance (ISD) was performed. In brief, SSD is the distance required by a vehicle traveling at the design speed of a roadway, on wet pavement, to stop prior to striking an object in its travel path. ISD or corner sight distance (CSD) is the sight distance required by a driver entering or crossing an intersecting roadway to perceive an on-coming vehicle and safely complete a turning or crossing maneuver with on-coming traffic. In accordance with AASHTO standards, if the measured ISD is at least equal to the required SSD value for the appropriate design speed, the intersection can operate in a safe manner. Table 16 presents the measured SSD and ISD at the Project site driveway intersections.

[27] *A Policy on Geometric Design of Highway and Streets,* 7th Edition; American Association of State Highway and Transportation Officials (AASHTO); Washington D.C.; 2018.

Table 16
SIGHT DISTANCE MEASUREMENTS[a]

Intersection/Sight Distance Measurement	Feet		
	Required Minimum (SSD)	Desirable (ISD)[b]	Measured
NH Route 9 at the North Project site driveway			
Stopping Sight Distance:			
NH Route 9 approaching from the east	305	--	650+
NH Route 9 approaching from the west	305	--	650+
Intersection Sight Distance:			
Looking to the east from the Project site driveway	305	500	650+
Looking to the west from the Project site driveway	305	385	650+
NH Route 9 at the South Project site driveway			
Stopping Sight Distance:			
NH Route 9 approaching from the east	305	--	650+
NH Route 9 approaching from the west	305	--	650+
Intersection Sight Distance:			
Looking to the east from the Project site driveway	305	530	650+
Looking to the west from the Project site driveway	305	385	650+
NH Route 106 at the Project site driveway			
Stopping Sight Distance:			
NH Route 106 approaching from the north	360	--	650+
NH Route 106 approaching from the south	360	--	650+
Intersection Sight Distance:			
Looking to the north from the Project site driveway	360	430	650+
Looking to the south from the Project site driveway	360	565	650+
D'Amante Drive at the East Project site driveway			
Stopping Sight Distance:			
D'Amante Drive approaching from the east	250	--	500+
Intersection Sight Distance:			
Looking to the east from the Project site driveway	250	335	141/500+[c]

See notes at the end of the table.

Table 16 (Continued)
SIGHT DISTANCE MEASUREMENTS[a]

Intersection/Sight Distance Measurement	Feet		
	Required Minimum (SSD)	Desirable (ISD)[b]	Measured
D'Amante Drive at the Central Project site driveway			
Stopping Sight Distance:			
D'Amante Drive approaching from the east	250	--	368/500+[c]
D'Amante Drive approaching from the west	250	--	500+
Intersection Sight Distance:			
Looking to the east from the Project site driveway	250	335	137/500+[c]
Looking to the west from the Project site driveway	250	440	176/500+[c]
D'Amante Drive at the West Project site driveway			
Stopping Sight Distance:			
D'Amante Drive approaching from the east	250	--	249/500+[c]
D'Amante Drive approaching from the west	250	--	500+
Intersection Sight Distance:			
Looking to the east from the Project site driveway	250	335	156/500+[c]
Looking to the west from the Project site driveway	250	465	500+

[a]Recommended minimum values obtained from *A Policy on Geometric Design of Highways and Streets,* 7th Edition; American Association of State Highway and Transportation Officials (AASHTO); 2018; and based on a 40 mph approach speed along NH Route 9, a 45 mph approach speed along NH Route 106 and a 35 mph approach speed along D'Amante Drive.

[b]Values shown are the intersection sight distance for a vehicle turning right or left exiting a roadway under STOP control such that motorists approaching the intersection on the major street should not need to adjust their travel speed to less than 70 percent of their initial approach speed. The critical gap for left-turn movements exiting the Project site driveways was increased by 0.5 seconds for each additional travel lane to be crossed in order to account for the additional travel lanes along NH Route 9, NH Route 106 and D'Amante Drive.

[c]With the selective trimming or removal of the existing vegetation located along the Project site frontage on D'Amante Drive within the sight triangle areas.

As can be seen in Table 16, with the selective trimming/removal of vegetation located within the sight triangle areas of the Project site driveways along D'Amante Drive, the available lines of sight at the Project site driveway intersections were found to exceed the recommended minimum sight distances for the driveway to function in a safe (SSD) and efficient (ISD) manner based on the appropriate approach speeds.

For the remaining study area intersections, Google™ imagery was used and supplemented with field measurements were necessary. Where speed measurements were not available, the design speed was based on the posted or statutory speed limit along the major roadway. Figures depicting the sight line information for the remaining study area intersections are included in the Appendix.

Based on a review of the figures, the following intersections were identified to have sight distances that are below the recommended minimum SSD, with the limiting feature noted and recommended corrective action(s) identified:

- ***NH Route 106 at the I-393 Eastbound Ramps (Intersection 3)***
  - *Limiting Feature:* I-393 Bridge Fencing, Guardrail and Signage; existing trees and vegetation
  - *Suggested Corrective Action(s):* None. This intersection is under traffic signal control

- ***NH Route 106 at the Walmart Driveway (Intersection 6)***
  - *Limiting Feature:* Existing trees and vegetation located along the west side of NH Route 106
  - *Suggested Corrective Action(s):* Trim and maintain existing trees and vegetation located along the west side of NH Route 106

- ***NH Route 106 at Pembroke Road and North Pembroke Road (Intersection 21)***
  - *Limiting Feature:* Existing trees and vegetation located along the south side of North Pembroke Road
  - *Suggested Corrective Action(s):* None. This intersection is under traffic signal control

- ***NH Route 106 at Regional Drive and Smokey Bear Boulevard (Intersection 22)***
  - *Limiting Feature:* Existing horizontal curve and grade of Smokey Bear Boulevard and existing trees and vegetation located along the east side of NH Route 106
  - *Suggested Corrective Action(s):* None. This intersection is under traffic signal control

- ***U.S. Route 3 at Old Turnpike Road and Black Hill Road (Intersection 24)***
  - *Limiting Feature:* Existing trees and vegetation located along the east side of Black Hill Road
  - *Suggested Corrective Action(s):* None. This intersection is under traffic signal control

- ***NH Route 9 at the I-93 Southbound Ramps (Intersection 26)***
  - *Limiting Feature:* I-93 Bridge Abutment for lines of sight from the off-ramp
  - *Suggested Corrective Action(s):* None. This intersection is under traffic signal control

- ***NH Route 9 at NH Route 132 and Canterbury Road (Intersection 32)***
  - *Limiting Feature:* 148 Loudon Road commercial building
  - *Suggested Corrective Action(s):* None. This intersection is under traffic signal control

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

VAI has conducted a TIS in order to determine the potential impacts on the transportation infrastructure associated with the proposed redevelopment of the Steeplegate Mall shopping center and the adjacent Regal Concord movie theater located at 270 Loudon Road (NH Route 9) and 282 Loudon Road in Concord, New Hampshire, respectively, to accommodate a mixed-use development. The following specific areas have been evaluated as they relate to the Project: i) access requirements; ii) potential off-site improvements; and iii) safety considerations; under existing and future conditions, both with and without the Project at specific intersections that were defined in consultation with the City of Concord the NHDOT. Based on this assessment, we have concluded the following with respect to the Project:

1. Using trip-generation statistics published by the ITE[28] and with appropriate adjustments to account for internal trips, pass-by trips and divert-link trips, the completed Project, without consideration of the trips generated by the existing uses that are currently operating within the Project site, is expected to generate 21,520 new vehicle trips on an average weekday and 22,616 new vehicle trips on a Saturday (both two-way, 24-hour volumes), with 725 new vehicle trips expected during the weekday morning peak-hour, 1,488 new vehicle trips expected during the weekday evening peak-hour and 2,312 new vehicle trips expected during the Saturday midday peak-hour;

2. In comparison to the trips associated with the Steeplegate Mall as counted in July 2023 and inclusive of pass-by and divert-link trips, the Project is expected to result in 1,042 *additional* vehicle trips during the weekday morning peak-hour, 2,191 *additional* vehicle trips during the weekday evening peak-hour and 3,167 *additional* vehicle trips during the Saturday midday peak-hour;

3. The Project will not result in a significant impact (increase) on motorist delays or vehicle queuing over Existing or anticipated future conditions without the Project (No-Build conditions), with the majority of the study area intersections shown to continue to operate at an overall LOS D or better with the addition of Project-related traffic, where an LOS of "D" or better is generally defined as being representative of "acceptable" traffic operations. Pursuant to Section 32.08.19 of the City of Concord Site Plan Regulations, physical

[28]Institute of Transportation Engineers, op. cit. 1.

improvements or traffic control modifications have been identified for the study area intersections at which overall operations or specific movements have been identified to operate at or over capacity (i.e., LOS "E" or "F") with the addition of Project-related traffic (discussion follows);

4. Based on a review of motor vehicle crash information provided by the City of Concord Police Department and pursuant to Section 32.08.20 of the City of Concord Site Plan Regulations, recommendations for safety-related improvements have been identified at the study area intersections that were reported to have experienced an average of 10.0 or more reported motor vehicle crashes in an effort to enhance safety or to assist the City of Concord and NHDOT in advancing safety-related improvements (discussion follows);

5. The NH Route 106/Project site driveway intersection was found to meet the necessary warrants specified in the MUTCD[29] to justify the installation of a traffic control signal under 2027 average-month Build traffic volume conditions in conjunction with the Project;

6. With the installation of a traffic control signal at the NH Route 106/Project site driveway intersection and geometric improvements along NH Route 106 and D'Amante Drive, all movements exiting the Project site will operate at LOS D or better during the peak hours, with the exception of left-turn movements exiting the north Project site driveway to NH Route 9, which are predicted to operate at capacity (LOS E/F) during the weekday evening and Saturday midday peak hours under 2027 Opening-Year Build and 2037 Build peak-month conditions; however, the resulting residual vehicle queue (up to eight (8) vehicles) can be contained within the Project site without inhibiting access or circulation, or the movement of vehicles along NH Route 9;

7. The addition of Project-related traffic to the approximately 1.6± mile segment of the NH Route 9 corridor between and including the intersections with D'Amante Drive and Hazen Drive was identified to increase travel times for motorists traveling along this roadway segment by between five (5) seconds and ten (10) minutes and 47 seconds during the peak periods. Accordingly, specific recommendations have been provided that are intended to reduce travel times and facilitate left-turn movements to and from NH Route 9 along this roadway segment; and

8. Lines of sight to and from the Project site driveway intersections with NH Route 9, NH Route 106 and D'Amante Drive were found to exceed or will be made to exceed the recommended minimum distances for safe and efficient operation.

In consideration of the above, it has been concluded that the Project can be accommodated within the confines of the existing transportation infrastructure in a safe and efficient manner with implementation of the recommendations that follow.

[29]Federal Highway Administration, op. cit. 2.

RECOMMENDATIONS

A detailed transportation improvement program has been developed that is designed to: i) provide safe and efficient access to the Project site; and ii) address any deficiencies identified at off-site locations evaluated in conjunction with this study pursuant to Section 32.08 of the City of Concord Site Plan Regulations. The following improvements have been recommended as a part of this evaluation to comply with Section 32.08 of the City of Concord Site Plan Regulations and, where noted, will be undertaken by the Project proponent and completed in conjunction with the Project subject to receipt of all necessary rights, permits, and approvals.

Project Access

Access to the Project site will be provided by way of six (6) driveways that will intersect NH Route 9 (two (2) driveways), NH Route 106 (one (1) driveway) and D'Amante Drive (three (3) driveways), with the driveways along NH Route 9 and NH Route 106 situated at the location of the existing driveways that serve the Project site. The three (3) driveways along D'Amante Drive will be configured as follows: the existing full access driveway that currently serves the Project site and intersects the north side of D'Amante Drive opposite the Shaw's driveway; a new full access driveway that will intersect the north side of D'Amante Drive opposite Triangle Park Drive; and a new driveway that will intersect the north side of D'Amante Drive opposite the Target driveway where exiting movements from the Project site will be restricted to right-turn only. The existing Project site driveway that intersects the north side of D'Amante Drive approximately 260 feet east of the Target driveway will be closed in conjunction with the Project. In addition, a new internal roadway network will be constructed that will connect the NH Route 9 south driveway, the NH Route 106 driveway and the D'Amante Drive driveway that is located opposite Triangle Park Drive that will ultimately be conveyed to the City of Concord as a public way.

The following recommendations are offered with respect to Project access, internal circulation, and parking, many of which are reflected on the Site Plans for the Project:

- The Project site driveways and internal circulating drives should be a minimum of 24 feet in width where two-way traffic is to be conveyed and a minimum of 20 feet in width for one-way travel, and designed to accommodate the turning and maneuvering requirements of delivery trucks (where delivery trucks are to be accommodated) and the largest anticipated responding emergency vehicle.

- A review of the auxiliary turn lane warrants for the installation of left- and right-turn lanes at the Project site driveway intersections indicates that left-turn lanes should be provided on the D'Amante Drive eastbound approaches to the Project site driveways located opposite Triangle Park Drive and the Target driveway. In addition, right-turn lanes should be provided on the NH Route 9 eastbound approach to the Project site driveway that is located opposite Carrier Place and on the D'Amante Drive westbound approach to the Project site driveway located opposite the Target driveway. The recommended turn lane installation and associated geometric improvements will be completed commensurate with the construction of the Project.

- Where perpendicular parking is proposed, the drive aisle behind the parking should be a minimum of 23 feet in order to facilitate parking maneuvers.

- A review of the warrants specified in the MUTCD[30] for the installation of a traffic control signal indicates that **the reinstallation of the traffic control signal at the NH Route 106/Steeplegate Mall (Project site) driveway intersection is warranted under 2027 average-month Opening-Year Build conditions**. As such, it is recommended that a traffic control signal be installed at this intersection to include upgrading/replacing the traffic signal poles, mast arms and appurtenances that were retained at the intersection, as necessary. Furthermore, NH Route 106 should be widened to accommodate two (2) travel lanes per direction from a point south of D'Amante Drive to a point north of the Project site driveway. These improvements are conceptually depicted on Figure 25. Given that the completion and opening of specific components of the Project will likely be phased, the traffic signal equipment should be installed as a part of the initial construction of the Project and traffic volumes at the intersection should be monitored on an annual or more frequent basis in order to determine when the traffic volume thresholds are met that would justify (warrant) the activation of the traffic signal system. With the installation of a traffic signal control at the intersection and the widening of NH Route 106, all movements at the intersection are predicted to operate at LOS D or better during the peak-hours.

- Vehicles exiting the Project site at the unsignalized Project site driveways along NH Route 9 and D'Amante Drive should be placed under STOP-sign control.

- Appropriate signs ("One-Way" and "Do Not Enter") and pavement markings should be provided where one-way traffic is to be conveyed.

- All signs and pavement markings to be installed within the Project shall conform to the applicable standards of the MUTCD.[31]

- An internal sidewalk network should be developed that links the proposed buildings to parking areas and extends to the existing sidewalks along NH Route 9 and D'Amante Drive. Americans with Disabilities Act (ADA) compliant wheelchair ramps should be provided at pedestrian crossings that are to be constructed or modified in conjunction with the Project.

- Signs and landscaping to be installed as a part of the Project within intersection sight triangle areas should be designed and maintained so as not to restrict lines of sight.

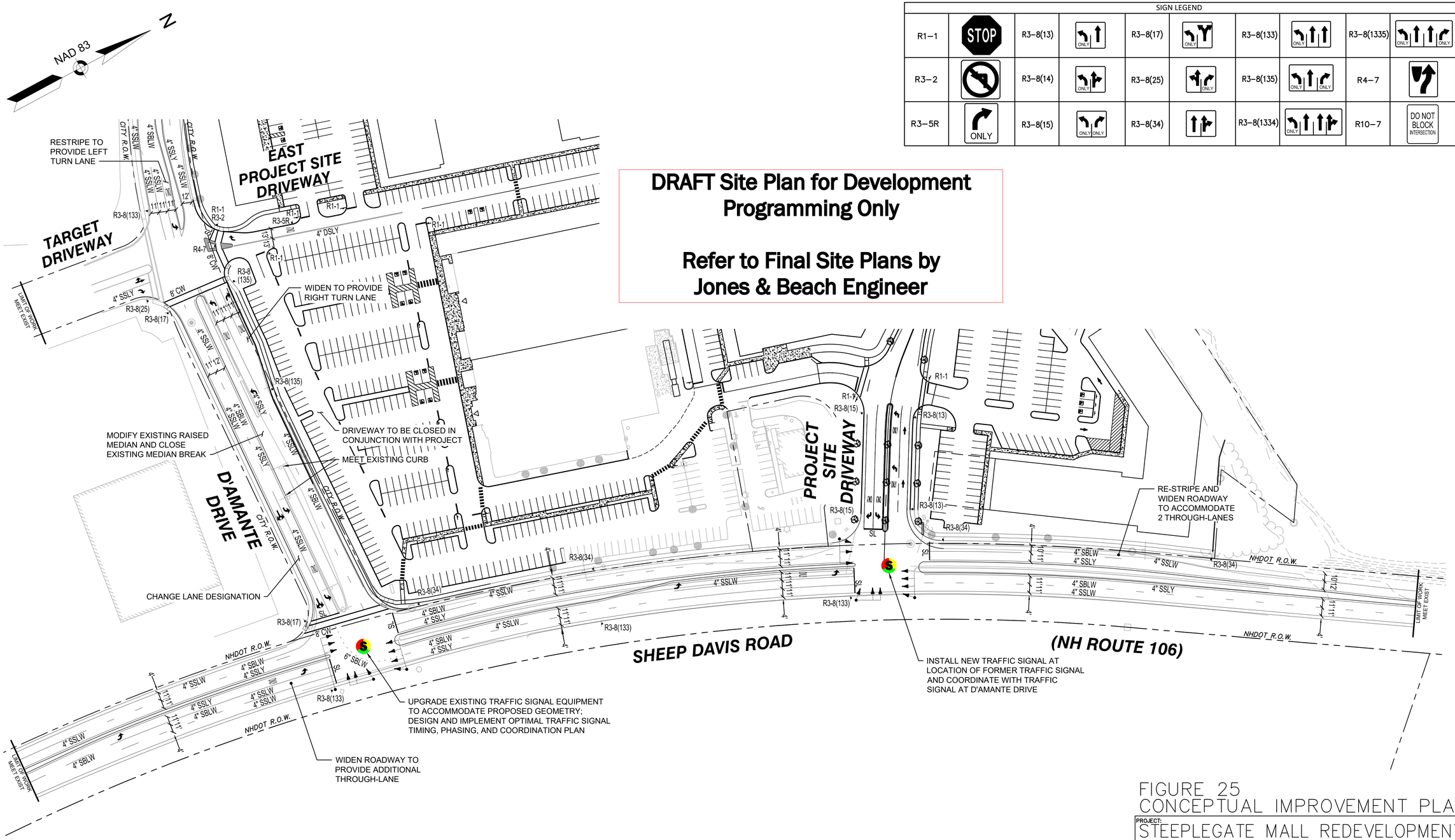
- Existing vegetation located along the Project site frontage on D'Amante Drive should be removed or selectively trimmed and maintained as necessary so that no portion of the vegetation is located within the sight triangle areas of the Project site driveways.

- Snow accumulations (windrows) within sight triangle areas shall be promptly removed where such accumulations would impede sight lines.

[30]Federal Highway Administration, op. cit. 2.

[31]Federal Highway Administration, op. cit. 2.

SIGN LEGEND									
R1–1	STOP	R3–8(13)	ONLY	R3–8(17)	ONLY	R3–8(133)	ONLY	R3–8(1335)	ONLY ONLY
R3–2		R3–8(14)	ONLY	R3–8(25)	ONLY	R3–8(135)	ONLY ONLY	R4–7	
R3–5R	ONLY	R3–8(15)	ONLY ONLY	R3–8(34)		R3–8(1334)	ONLY	R10–7	DO NOT BLOCK INTERSECTION



DRAFT Site Plan for Development
Programming Only

Refer to Final Site Plans by
Jones & Beach Engineer

0 60 100 200 300
SCALE: 1" = 60'

PAVEMENT MARKING LEGEND

SSLW	= SINGLE SOLID LINE WHITE
SSLY	= SINGLE SOLID LINE YELLOW
DSLY	= DOUBLE SOLID LINE YELLOW
SBLW	= SINGLE BROKEN LINE WHITE (10' LINE W/30' GAP)
CW	= CROSSWALK 12" WIDTH LINES

NOTES:
1. THIS PLAN IS FOR REVIEW PURPOSES ONLY AND IS NOT INTENDED FOR CONSTRUCTION.
2. BASE PLAN INFORMATION OBTAINED FROM JONES & BEACH ENGINEERS, INC.

FIGURE 25
CONCEPTUAL IMPROVEMENT PLAN

PROJECT:
STEEPLEGATE MALL REDEVELOPMENT
CONCORD, NEW HAMPSHIRE

PROPONENT:
ONYX PARTNERS LTD
NEEDHAM, MASSACHUSETTS

NO.	REVISIONS	DATE
1	RESPONSE TO PEER REVIEW COMMENTS	5/18/26

Vanasse & Associates inc
Transportation Engineers & Planners
35 NE. BUSINESS CENTER DRIVE TEL: (978) 474-8800
ANDOVER, MA 01810-1071 www.vaiva.com

DESIGNED BY:	IJS	DATE:	4/23/24
DRAWN BY:	IJS	SCALE:	1" = 60'
CHECKED BY:	JPC	SHEET	1 OF 3

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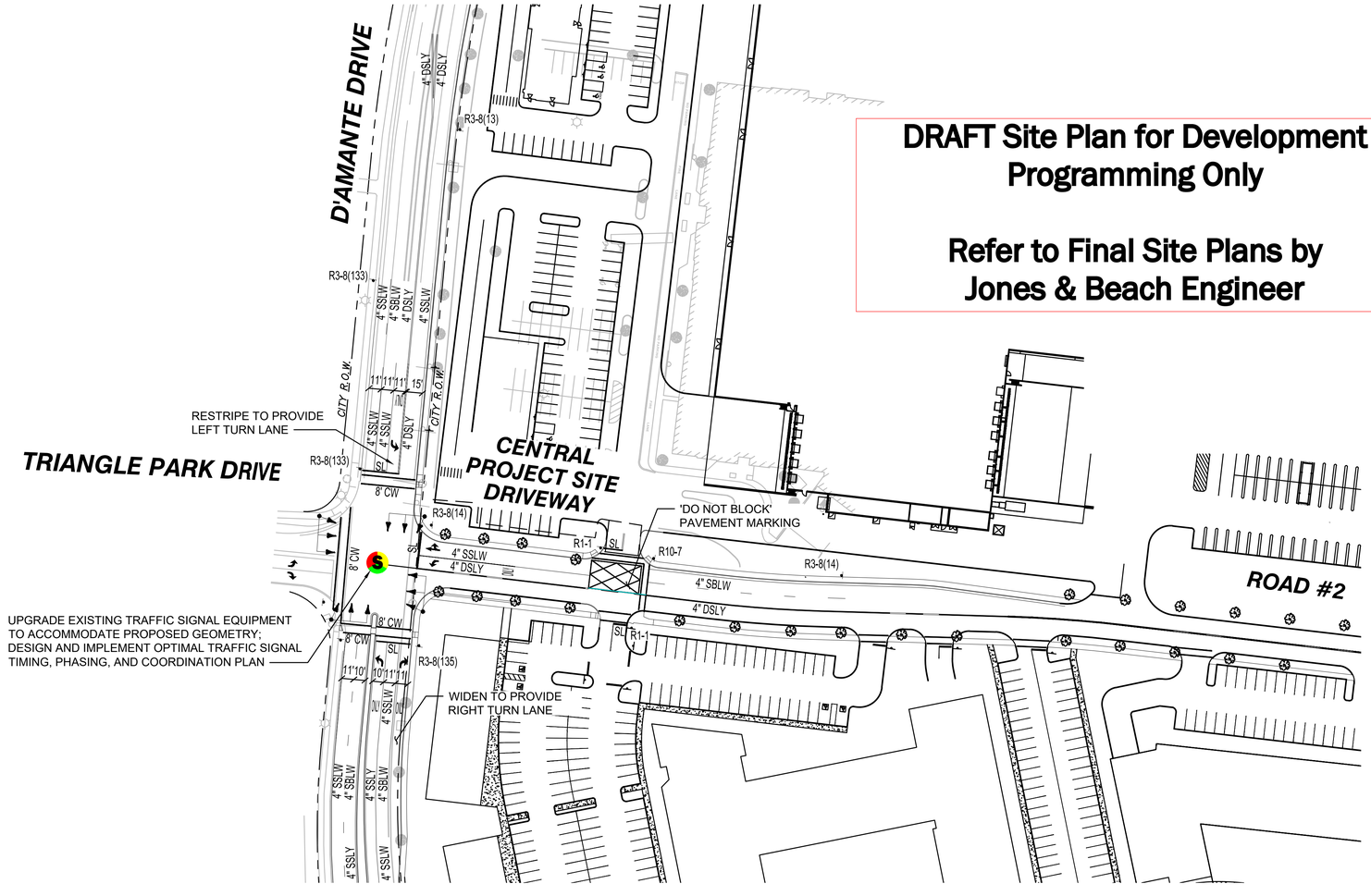
SIGN LEGEND									
R1-1	STOP	R3-8(13)	ONLY	R3-8(17)	ONLY	R3-8(133)	ONLY	R3-8(1335)	ONLY ONLY
R3-2		R3-8(14)	ONLY	R3-8(25)	ONLY	R3-8(135)	ONLY ONLY	R4-7	
R3-5R	ONLY	R3-8(15)	ONLY ONLY	R3-8(34)		R3-8(1334)	ONLY	R10-7	DO NOT BLOCK INTERSECTION



DRAFT Site Plan for Development Programming Only

Refer to Final Site Plans by Jones & Beach Engineer

PAVEMENT MARKING LEGEND

SSLW	= SINGLE SOLID LINE WHITE
SSLY	= SINGLE SOLID LINE YELLOW
DSLY	= DOUBLE SOLID LINE YELLOW
SBLW	= SINGLE BROKEN LINE WHITE (10' LINE W/30' GAP)
CW	= CROSSWALK 12" WIDTH LINES

0 60 100 200 300

SCALE: 1" = 60'

NOTES:
1. THIS PLAN IS FOR REVIEW PURPOSES ONLY AND IS NOT INTENDED FOR CONSTRUCTION.
2. BASE PLAN INFORMATION OBTAINED FROM JONES & BEACH ENGINEERS, INC.

FIGURE 25
CONCEPTUAL IMPROVEMENT PLAN

PROJECT:
STEEPLEGATE MALL REDEVELOPMENT
CONCORD, NEW HAMPSHIRE

PROPONENT:
ONYX PARTNERS LTD
NEEDHAM, MASSACHUSETTS

NO.	REVISIONS	DATE
1	RESPONSE TO PEER REVIEW COMMENTS	5/18/26

Vanasse & Associates inc
Transportation Engineers & Planners
35 NE. BUSINESS CENTER DRIVE ANDOVER, MA 01810-1071
TEL: (978) 474-8800
www.nbva.com

DESIGNED BY:	IJS	DATE:	4/23/24
DRAWN BY:	IJS	SCALE:	1" = 60'
CHECKED BY:	JPC	SHEET	2 OF 3

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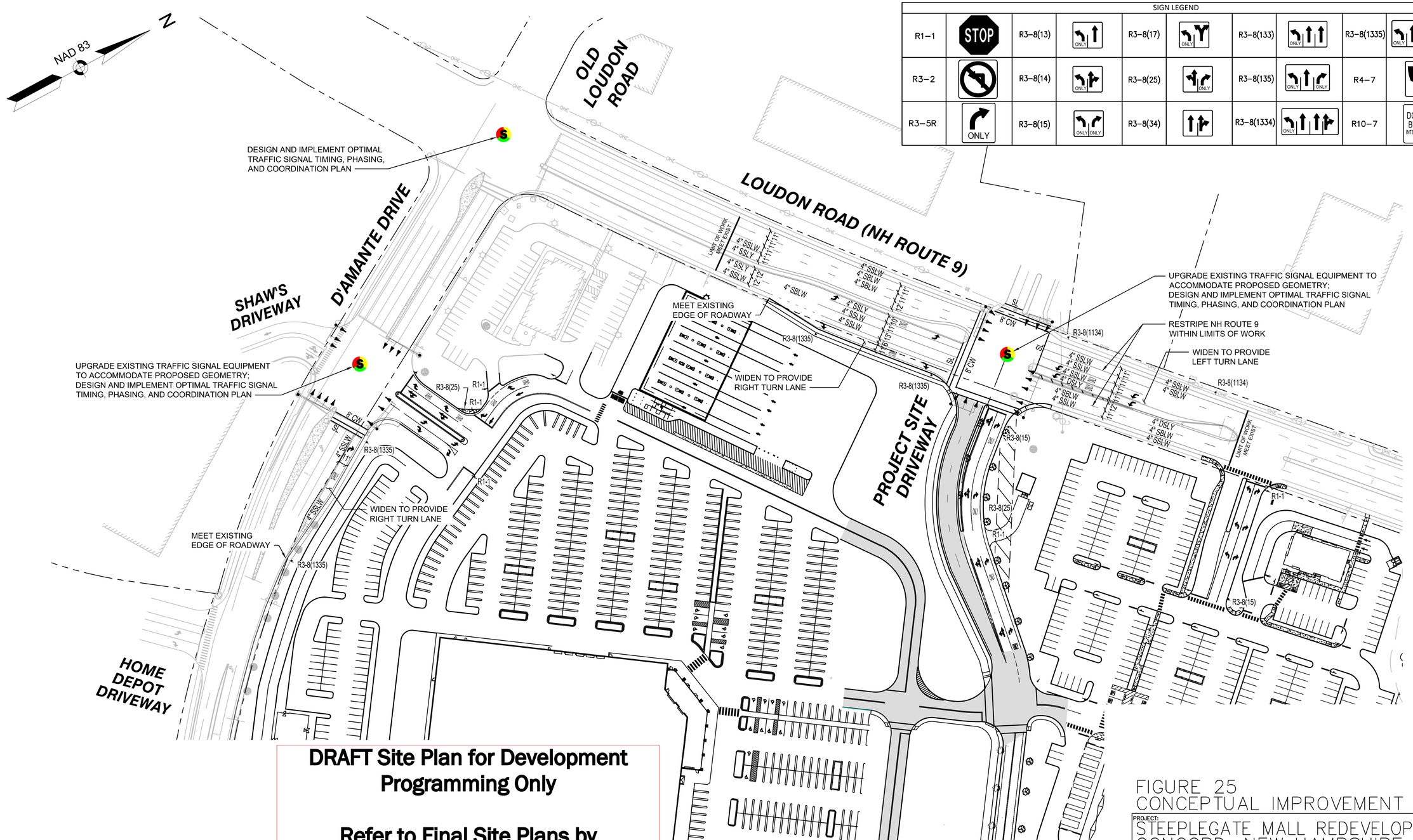

DRAFT Site Plan for Development Programming Only

Refer to Final Site Plans by Jones & Beach Engineer

PAVEMENT MARKING LEGEND

SSLW	= SINGLE SOLID LINE WHITE
SSLY	= SINGLE SOLID LINE YELLOW
DSLY	= DOUBLE SOLID LINE YELLOW
SBLW	= SINGLE BROKEN LINE WHITE (10' LINE W/30' GAP)
CW	= CROSSWALK 12" WIDTH LINES

0 60 100 200 300

SCALE: 1" = 60'

NOTES:
1. THIS PLAN IS FOR REVIEW PURPOSES ONLY AND IS NOT INTENDED FOR CONSTRUCTION.
2. BASE PLAN INFORMATION OBTAINED FROM JONES & BEACH ENGINEERS, INC.

FIGURE 25
CONCEPTUAL IMPROVEMENT PLAN

PROJECT:
STEEPLEGATE MALL REDEVELOPMENT
CONCORD, NEW HAMPSHIRE

PROPONENT:
ONYX PARTNERS LTD
NEEDHAM, MASSACHUSETTS

NO.	REVISIONS	DATE
1	RESPONSE TO PEER REVIEW COMMENTS	5/18/26

Vanasse & Associates inc
Transportation Engineers & Planners
35 N.E. BUSINESS CENTER DRIVE ANDOVER, MA 01810-1071
TEL: (978) 474-8800 www.vaiva.com

DESIGNED BY:	IJS	DATE:	4/23/24
DRAWN BY:	IJS	SCALE:	1" = 60'
CHECKED BY:	JPC	SHEET	3 OF 3

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Off-Site

Improvements have been identified at off-site intersections as required to demonstrate compliance with Sections 32.08.19 and 32.08.20 of the City of Concord Site Plan Regulations. Pursuant to the aforementioned sections of the Site Plan Regulations, the transportation improvement plan must identify physical improvements or traffic control modifications necessary to provide acceptable operating conditions (defined as LOS "D" or better) and that enhance safety at the study locations. Table 17 summarizes the elements of the transportation improvement program for the Project at the study area intersections, the responsible party and the schedule of implementation to the extent that the improvement will be completed as a part of the Project. As can be seen in Tables 18 and 19, with the implementation of the identified improvements, all movements at the study area intersections are anticipated to operate at LOS D or better during the peak hours in accordance with Section 32.08 of the City of Concord Site Plan regulations.

Table 17
TRANSPORTATION IMPROVEMENT PROGRAM SUMMARY

Improvement Location (Intersection)	Description of Improvement	Responsible Party	Implementation Schedule
1. NH Route 106 at Staniels Road and Josiah Bartlett Road	Design and implement optimal traffic signal timing and phasing plan	Project Proponent	Initial Prior to CO for: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; and iv) 300 residential units. Subsequent Adjustments as Required per Monitoring.
2. NH Route 106 at the I-393 Westbound Ramps	Improvements not required for compliance with Site Plan Regulations	--	--
3. NH Route 106 at the I-393 Eastbound Ramps	Improvements not required for compliance with Site Plan Regulations	--	--
4. NH Route 106 at NH Route 9	Widen NH Route 9 eastbound approach to accommodate 2 left-turn lanes, 2 through lanes and 1 right-turn lane	By Others	--
	Upgrade or relocate traffic signal equipment as necessary to accommodate additional travel lanes	By Others	--
	Design and implement an optimal traffic signal timing and phasing plan; review/replace/upgrade signs and pavement markings; test/repair vehicle detection system	Project Proponent	Initial Prior to CO for: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; and iv) 300 residential units. Subsequent Adjustments as Required per Monitoring.
5. NH Route 106 at the Sam's Club Driveway	Install traffic control signal if/when warranted	By Others	--
	Widen NH Route 106 to provide 2 travel lanes per direction	By Others	--
6. NH Route 106 at the Walmart Driveway	Install traffic control signal if/when warranted	By Others	--
	Widen NH Route 106 to provide 2 travel lanes per direction	By Others	--
	Implement Sight Distance Improvements	Project Proponent	Prior to CO for Whichever Comes First: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; or iv) 300 residential units.
7. NH Route 106 at the Steeplegate Mall Driveway	Widen NH Route 106 to provide 2 travel lanes per direction	Project Proponent	Commensurate with the Construction or Modification of the Intersection to Accommodate Access to the Project Site.
	Install traffic control signal when warranted	Project Proponent	When Warranted.
8. NH Route 106 at D'Amante Drive	Widen NH Route 106 to provide 2 travel lanes per direction	Project Proponent	Commensurate with the Construction or Modification of the Intersection to Accommodate Access to the Project Site.
	Restripe the D'Amante Drive eastbound approach to provide 1 left-turn lane and 1 left/right-turn lane	Project Proponent	Commensurate with the Construction or Modification of the Intersection to Accommodate Access to the Project Site.
	Upgrade or relocate traffic signal equipment as necessary to accommodate additional travel lanes	Project Proponent	Commensurate with the Construction or Modification of the Intersection to Accommodate Access to the Project Site.

Table 17 (Continued)
TRANSPORTATION IMPROVEMENT PROGRAM SUMMARY

Improvement Location (Intersection)	Description of Improvement	Responsible Party	Implementation Schedule
9. NH Route 106 at Triangle Park Drive	Undertake Intersection Improvement Study (IIS) to select preferred traffic control for the intersection	Project Proponent	Prior to CO for Whichever Comes First: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; or iv) 300 residential units.
	Provide a "Fair-Share" Cost for the preferred traffic control commensurate with the impact of the Project	Project Proponent	Prior to CO for Whichever Comes First: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; or iv) 300 residential units.
10. D'Amante Drive at the East Steeplegate Mall Driveway	Improvements not required for compliance with Site Plan Regulations	--	--
11. D'Amante Drive at the Target Driveway	Install modern roundabout to accommodate southbound Project site driveway approach	By Others	--
	Widen D'Amante Drive to provide an eastbound left-turn lane and a westbound right-turn lane	Project Proponent	Commensurate with the Construction or Modification of the Intersection to Accommodate Access to the Project Site.
12. D'Amante Drive at Triangle Park Drive	Install left-turn lane on D'Amante Drive eastbound approach	Project Proponent	Commensurate with the Construction or Modification of the Intersection to Accommodate Access to the Project Site.
	Install right-turn lane on D'Amante Drive westbound approach	Project Proponent	Commensurate with the Construction or Modification of the Intersection to Accommodate Access to the Project Site.
	Replace traffic control signal system as necessary to accommodate Project site driveway and additional travel lane	Project Proponent	Commensurate with the Construction or Modification of the Intersection to Accommodate Access to the Project Site.
13. D'Amante Drive at West Steeplegate Mall and Shaw's Driveways	Widen D'Amante Drive westbound approach to accommodate right-turn lane	Project Proponent	Commensurate with the Construction or Modification of the Intersection to Accommodate Access to the Project Site.
	Replace traffic control signal system as necessary to accommodate additional travel lane	Project Proponent	Commensurate with the Construction or Modification of the Intersection to Accommodate Access to the Project Site.
14. NH Route 9 at the Shaw's Driveway	Extend the raised median along NH Route 6 to further restrict left-turns from the Shaw's Driveway	Project Proponent	Prior to CO for Whichever Comes First: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; or iv) 300 residential units
15. NH Route 9 at D'Amante Drive and Old Loudon Road	Design and implement optimal traffic signal timing, phasing and coordination plan; review/replace/upgrade signs and pavement markings; test/repair vehicle detection system	Project Proponent	Initial Prior to CO for: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; and iv) 300 residential units. Subsequent Adjustments as Required per Monitoring.
16. NH Route 9 at the Steeplegate Mall and Carrier Place Driveway	Widen NH Route 9 southbound approach to accommodate an additional left-turn lane	Project Proponent	Commensurate with the Construction or Modification of the Intersection to Accommodate Access to the Project Site.
	Design and implement optimal traffic signal timing, phasing and coordination plan	Project Proponent	Commensurate with the Construction or Modification of the Intersection to Accommodate Access to the Project Site.
17. NH Route 9 at the Regal Concord Driveway	Improvements not required for compliance with Site Plan Regulations	--	--
18. NH Route 9 at the Patriots Place and Harbor Freight Tools Driveways	Design and implement optimal traffic signal timing, phasing and coordination plan	Project Proponent	Initial Prior to CO for: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; and iv) 300 residential units. Subsequent Adjustments as Required per Monitoring.
19. NH Route 9 at the Walmart Driveway	Design and implement optimal traffic signal timing, phasing and coordination plan; review/replace/upgrade signs and pavement markings; test/repair vehicle detection system	Project Proponent	Initial Prior to CO for: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; and iv) 300 residential units. Subsequent Adjustments as Required per Monitoring.

Table 17 (Continued)
TRANSPORTATION IMPROVEMENT PROGRAM SUMMARY

Improvement Location (Intersection)	Description of Improvement	Responsible Party	Implementation Schedule
20. NH Route 9 at Break O'Day Drive and Old Sheep Davis Road	Improvements not required for compliance with Site Plan Regulations	--	--
21. NH Route 106 at Pembroke Road and North Pembroke Road	Widen NH Route 106 to provide 2 travel lanes per direction	By Others	--
	Widen Pembroke Road to accommodate additional left-turn lane	By Others	--
	Design and implement optimal traffic signal timing and phasing plan	Project Proponent	Initial Prior to CO for: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; and iv) 300 residential units. Subsequent Adjustments as Required per Monitoring.
	Implement Sight Distance Improvements	Project Proponent	Prior to CO for Whichever Comes First: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; or iv) 300 residential units
22. NH Route 106 at Regional Drive and Smokey Bear Boulevard	Design and implement optimal traffic signal timing and phasing plan	Project Proponent	Initial Prior to CO for: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; and iv) 300 residential units. Subsequent Adjustments as Required per Monitoring.
24. US Route 3 at Old Turnpike Road and Black Hill Road	Widen US Route 3 eastbound approach to provide an additional left-turn lane	By Others	--
	Upgrade or relocate traffic signal equipment as necessary to accommodate additional travel lanes	By Others	--
	Design and implement optimal traffic signal timing and phasing plan	Project Proponent	Initial Prior to CO for: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; and iv) 300 residential units. Subsequent Adjustments as Required per Monitoring.
	Implement Sight Distance Improvements	Project Proponent	Prior to CO for Whichever Comes First: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; or iv) 300 residential units
25. NH Route 9 at Stickney Avenue and the Ralph Phil Marketplace Driveway	Improvements to be identified as a part of NHDOT *Bow-Concord Improvement Project*	NHDOT	Anticipated between 2031 and 2037
26. NH Route 9 at the I-93 Southbound Ramps	Improvements to be identified as a part of NHDOT *Bow-Concord Improvement Project*	NHDOT	Anticipated between 2031 and 2037
27. NH Route 9 at the I-93 Northbound On-Ramp	Improvements to be identified as a part of NHDOT *Bow-Concord Improvement Project*	NHDOT	Anticipated between 2031 and 2037
28. NH Route 9 at the I-93 Northbound Off-Ramp and Fort Eddy Road	Improvements to be identified as a part of NHDOT *Bow-Concord Improvement Project*	NHDOT	Anticipated between 2031 and 2037
	Review and adjust clearance intervals; review/replace/upgrade signs and pavement markings; test/repair vehicle detection system	Project Proponent	Prior to CO for Whichever Comes First: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; or iv) 300 residential units
29. NH Route 9 at Gully Hill Road and the Everett Arena West Driveway	Widen NH Route 9 to accommodate 3 travel lanes per direction	By Others	--
	Widen Gully Hill approach to accommodate an additional left-turn lane	By Others	--
	Design and implement an optimal traffic signal timing, phasing and coordination plan; review/replace/upgrade signs and pavement markings; test/repair vehicle detection system	Project Proponent	Initial Prior to CO for: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; and iv) 300 residential units. Subsequent Adjustments as Required per Monitoring.

Table 17 (Continued)
TRANSPORTATION IMPROVEMENT PROGRAM SUMMARY

Improvement Location (Intersection)	Description of Improvement	Responsible Party	Implementation Schedule
30. NH Route 9 at Gully Hill Road and the Everett Arena East Driveway	Widen NH Route 9 to accommodate 3 travel lanes per direction	By Others	--
	Widen NH Route 9 eastbound approach to accommodate right-turn lane	By Others	--
	Widen Gully Hill approach to accommodate an additional left-turn lane	By Others	--
	Design and implement an optimal traffic signal timing, phasing and coordination plan; review/replace/upgrade signs and pavement markings; test/repair vehicle detection system	Project Proponent	Initial Prior to CO for: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; and iv) 300 residential units. Subsequent Adjustments as Required per Monitoring.
31. NH Route 9 at Hazen Drive and Airport Road	Widen NH Route 9 and Airport Road approaches to accommodate an additional left-turn lane	By Others	--
	Design and implement an optimal traffic signal timing and phasing plan	Project Proponent	Initial Prior to CO for: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; and iv) 300 residential units. Subsequent Adjustments as Required per Monitoring.
32. NH Route 9 at NH Route 132 and Canterbury Road	Widen NH Route 132 approach to accommodate an additional left-turn lane	By Others	--
	Widen NH route 9 westbound and Canterbury Road approaches to accommodate right-turn lanes	By Others	--
	Design and implement an optimal traffic signal timing and phasing plan	Project Proponent	Initial Prior to CO for: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; and iv) 300 residential units. Subsequent Adjustments as Required per Monitoring.
33. NH Route 132 at Hazen Drive	Widen Hazen Road to accommodate an additional left-turn and lane and NH Route 132 northbound to accommodate an additional receiving lane	By Others	--
	Design and implement an optimal traffic signa timing and phasing plan	Project Proponent	Initial Prior to CO for: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; and iv) 300 residential units. Subsequent Adjustments as Required per Monitoring.
34. NH Route 132 at the I-393 Eastbound Ramps	Design and implement an optimal traffic signal timing and phasing plan	Project Proponent	Initial Prior to CO for: i) any new Commercial Building that Alone or in Aggregate Exceeds 50,000 sf; ii) the Chick-fil-A Restaurant; iii) the Costco Wholesale Club; and iv) 300 residential units. Subsequent Adjustments as Required per Monitoring.

Table 18
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2027 No-Build				2027 Opening Year				2027 Opening Year with Mitigation				2037 No-Build				2037 Build				2037 Build with Mitigation			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
1. NH Route 106 at Josiah Bartlett Road and Staniels Road																								
Weekday Morning:																								
Josiah Bartlett Road EB LT/TH/RT	0.03	20.0	C	1/1	0.03	20.7	C	1/1	0.03	22.2	C	1/1	0.02	20.8	C	1/1	0.02	21.3	C	1/1	0.02	22.2	C	1/1
Staniels Road WB LT/TH	0.52	24.0	C	1/3	0.54	25.0	C	2/3	0.55	27.1	C	2/4	0.54	25.4	C	2/4	0.55	26.2	C	2/4	0.49	26.0	C	2/5
Staniels Road WB RT	0.01	20.0	B	0/0	0.01	20.6	C	0/0	0.01	22.1	C	0/0	0.01	20.8	C	0/0	0.01	21.2	C	0/0	0.01	22.2	C	0/0
NH Route 106 NB LT	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0
NH Route 106 NB TH/RT	0.24	7.6	A	1/3	0.25	7.7	A	1/3	0.24	7.7	A	1/4	0.25	7.5	A	1/4	0.25	7.5	A	1/4	0.26	8.6	A	2/4
NH Route 106 SB LT	0.83	105.8	F	1/2	0.85	114.7	F	1/2	0.52	37.6	D	1/2	0.87	124.6	F	1/2	0.89	134.7	F	1/2	0.57	44.7	D	1/2
NH Route 106 SB TH/RT	0.56	5.9	A	5/8	0.57	6.0	A	5/9	0.56	5.7	A	6/9	0.59	6.1	A	6/10	0.60	6.2	A	6/11	0.61	7.1	A	6/10
Overall	--	**9.6**	**A**	--	--	**9.7**	**A**	--	--	**8.5**	**A**	--	--	**10.0**	**B**	--	--	**10.2**	**B**	--	--	**9.6**	**A**	--
Weekday Evening:																								
Josiah Bartlett Road EB LT/TH/RT	0.02	23.9	C	1/1	0.02	24.7	C	1/1	0.02	23.7	C	1/1	0.01	25.7	C	1/1	0.01	26.4	C	1/1	0.01	30.8	C	1/1
Staniels Road WB LT/TH	0.39	25.2	C	1/3	0.41	27.5	C	1/3	0.57	30.9	C	1/3	0.45	29.0	C	1/3	0.45	29.8	C	1/3	0.54	36.6	D	2/4
Staniels Road WB RT	0.04	24.0	C	0/1	0.04	24.8	C	0/1	0.04	23.9	C	0/0	0.05	25.9	C	0/1	0.05	26.6	C	0/1	0.05	31.0	C	0/1
NH Route 106 NB LT	0.06	33.5	C	0/1	0.06	33.9	C	0/1	0.05	29.4	C	0/1	0.06	35.2	D	0/1	0.06	36.1	D	0/1	0.08	41.1	D	1/1
NH Route 106 NB TH/RT	0.62	8.9	A	4/11	0.64	9.1	A	5/13	0.64	8.1	A	4/10	0.68	9.9	A	9/14	0.70	10.3	B	10/15	0.66	9.2	A	11/14
NH Route 106 SB LT	0.94	159.9	F	1/2	0.97	174.5	F	1/2	0.65	52.8	D	1/2	0.70	66.3	E	1/2	0.71	70.8	E	1/2	0.55	46.5	D	1/2
NH Route 106 SB TH/RT	0.28	6.1	A	2/4	0.32	6.2	A	2/5	0.32	5.3	A	2/4	0.31	6.0	A	2/5	0.34	6.2	A	2/6	0.32	5.2	A	2/5
Overall	--	**11.6**	**B**	--	--	**11.8**	**B**	--	--	**9.2**	**A**	--	--	**11.0**	**B**	--	--	**11.2**	**B**	--	--	**10.2**	**B**	--
Saturday Midday:																								
Josiah Bartlett Road EB LT/TH/RT	0.04	19.7	B	1/1	0.04	21.6	C	1/1	0.04	22.8	C	1/1	0.05	20.1	C	1/1	0.05	21.9	C	1/1	0.05	23.4	C	1/1
Staniels Road WB LT/TH	0.34	21.6	C	1/2	0.35	23.6	C	1/2	0.37	25.0	C	1/3	0.37	22.1	C	1/2	0.39	24.2	C	1/2	0.41	25.9	C	1/3
Staniels Road WB RT	0.03	19.7	B	0/0	0.03	21.5	C	0/0	0.03	22.7	C	0/0	0.03	20.0	C	0/0	0.03	21.9	C	0/0	0.03	23.3	C	0/0
NH Route 106 NB LT	0.26	34.7	C	1/1	0.29	38.9	D	1/1	0.23	35.8	D	1/1	0.39	41.4	D	1/1	0.41	45.5	D	1/1	0.32	39.5	D	1/1
NH Route 106 NB TH/RT	0.44	8.0	A	2/6	0.49	8.1	A	3/8	0.49	8.4	A	3/9	0.48	8.3	A	3/7	0.53	8.5	A	3/9	0.53	8.8	A	3/10
NH Route 106 SB LT	0.85	112.1	F	1/2	0.92	143.5	F	1/2	0.51	36.0	D	1/2	0.90	131.0	F	1/2	0.95	153.7	F	1/2	0.54	38.3	D	1/2
NH Route 106 SB TH/RT	0.48	7.9	A	3/7	0.54	8.1	A	3/8	0.53	7.9	A	4/9	0.49	8.0	A	3/8	0.55	8.2	A	4/10	0.53	7.9	A	4/10
Overall	--	**10.8**	**B**	--	--	**11.1**	**B**	--	--	**9.6**	**A**	--	--	**11.4**	**B**	--	--	**11.6**	**B**	--	--	**9.9**	**A**	--

See notes at end of table.

Table 18 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2027 No-Build				2027 Opening Year				2027 Opening Year with Mitigation				2037 No-Build				2037 Build				2037 Build with Mitigation			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
4. NH Route 9 at NH Route 106																								
Weekday Morning:																								
NH Route 9 EB LT	0.27	30.5	C	1/3	0.44	33.3	C	2/5	0.40	29.6	C	2/4	0.28	31.7	C	1/3	0.45	34.9	C	2/5	0.40	30.0	C	2/4
NH Route 9 EB TH	0.41	31.9	C	2/5	0.44	33.8	C	2/6	0.40	30.0	C	2/5	0.42	33.2	C	2/6	0.46	35.6	D	2/6	0.41	30.5	C	2/5
NH Route 9 EB RT	0.03	29.2	C	0/0	0.03	30.6	C	0/0	0.03	27.3	C	0/0	0.03	30.2	C	0/0	0.03	32.1	C	0/0	0.03	27.6	C	0/0
NH Route 9 WB LT	0.58	27.5	C	4/10	0.62	30.2	C	5/11	0.62	27.6	C	4/8	0.61	29.3	C	5/12	0.65	32.0	C	5/13	0.65	28.5	C	5/9
NH Route 9 WB LT/TH	0.54	25.7	C	4/8	0.59	28.4	C	5/9	0.29	24.1	C	2/4	0.57	27.1	C	4/9	0.62	29.7	C	5/11	0.30	24.4	C	2/5
NH Route 9 WB RT	0.06	21.9	C	0/0	0.06	23.4	C	0/0	0.06	22.6	C	0/0	0.07	22.7	C	0/0	0.06	24.1	C	0/0	0.06	22.8	C	0/0
NH Route 106 NB LT	0.18	39.1	D	1/1	0.19	41.7	D	1/1	0.20	38.9	D	1/1	0.20	41.0	D	1/1	0.21	43.3	D	1/1	0.21	39.4	D	1/1
NH Route 106 NB TH	0.32	25.9	C	2/5	0.38	26.6	C	3/6	0.38	24.6	C	3/6	0.34	26.6	C	3/5	0.40	27.3	C	4/7	0.41	24.7	C	3/6
NH Route 106 NB RT	0.08	24.3	C	0/2	0.10	24.5	C	0/2	0.10	22.6	C	0/2	0.09	24.8	C	0/2	0.11	24.9	C	0/2	0.11	22.5	C	0/2
NH Route 106 SB LT	0.16	30.9	C	1/2	0.17	33.4	C	1/2	0.19	31.9	C	1/2	0.17	32.1	C	1/2	0.18	34.6	C	1/2	0.21	32.6	D	1/2
NH Route 106 SB TH	0.66	24.4	C	6/11	0.69	25.6	C	7/12	0.71	24.9	C	7/11	0.67	24.8	C	7/12	0.69	25.8	C	8/13	0.73	25.3	C	7/13
NH Route 106 SB RT	0.16	0.2	A	0/0	0.22	0.3	A	0/0	0.22	0.3	A	0/0	0.16	0.2	A	0/0	0.22	0.3	A	0/0	0.22	0.3	A	0/0
Overall	--	**23.2**	**C**	--	--	**24.3**	**C**	--	--	**22.6**	**C**	--	--	**24.2**	**C**	--	--	**25.2**	**C**	--	--	**23.1**	**C**	--
Weekday Evening:																								
NH Route 9 EB LT	0.88	52.3	D	7/14	1.49	277.3	F	16/22	0.84	40.2	D	10/13	1.11	118.5	F	10/16	1.64	343.6	F	17/24	0.91	50.4	D	10/15
NH Route 9 EB TH	1.04	101.7	F	10/21	1.37	233.3	F	14/24	0.77	39.7	D	9/15	1.33	217.1	F	14/24	1.54	311.0	F	17/27	0.86	51.0	D	10/17
NH Route 9 EB RT	0.04	32.7	C	0/0	0.04	39.7	D	0/0	0.04	26.1	C	0/0	0.04	38.8	D	0/0	0.04	41.4	D	0/0	0.04	28.2	C	0/0
NH Route 9 WB LT	0.52	37.5	D	4/7	0.66	44.3	D	6/10	0.72	44.4	D	5/6	0.61	42.5	D	5/9	0.69	47.0	D	7/11	0.78	50.0	D	5/7
NH Route 9 WB LT/TH	0.31	34.6	C	2/4	0.66	41.8	D	6/9	0.63	41.2	D	4/6	0.61	40.8	D	6/8	0.68	43.7	D	7/10	0.67	45.1	D	4/6
NH Route 9 WB RT	0.04	32.7	C	0/0	0.03	34.4	C	0/0	0.03	35.2	D	0/0	0.04	34.8	C	0/0	0.04	35.6	D	0/0	0.04	37.8	D	0/0
NH Route 106 NB LT	0.35	41.5	D	1/3	0.38	48.4	D	2/3	0.50	46.1	D	2/3	0.40	47.4	D	2/4	0.41	50.0	D	2/4	0.55	51.2	D	2/4
NH Route 106 NB TH	0.64	26.1	C	9/13	0.74	33.1	C	12/16	0.78	31.7	C	11/14	0.73	32.1	C	11/16	0.81	36.0	D	14/19	0.85	36.5	D	13/16
NH Route 106 NB RT	0.32	22.0	C	0/3	0.35	26.1	C	0/3	0.48	25.4	C	2/7	0.35	25.8	C	0/3	0.39	26.9	C	0/4	0.61	29.6	C	4/10
NH Route 106 SB LT	0.48	41.2	D	2/5	0.41	44.0	D	3/5	0.67	54.2	D	3/5	0.43	42.8	D	3/5	0.44	45.2	D	3/5	0.62	50.3	D	3/6
NH Route 106 SB TH	0.51	22.8	C	7/10	0.55	25.2	C	9/13	0.63	26.6	C	9/11	0.54	24.3	C	8/12	0.60	26.1	C	10/14	0.66	27.2	C	10/13
NH Route 106 SB RT	0.26	0.4	A	0/0	0.40	0.7	A	0/0	0.40	0.7	A	0/0	0.28	0.4	A	0/0	0.42	0.7	A	0/0	0.42	0.7	A	0/0
Overall	--	**33.4**	**C**	--	--	**79.1**	**E**	--	--	**29.6**	**C**	--	--	**54.0**	**D**	--	--	**95.4**	**F**	--	--	**34.1**	**C**	--
Saturday Midday:																								
NH Route 9 EB LT	0.85	45.6	D	6/13	1.46	260.4	F	16/25	0.85	39.9	D	10/14	0.97	66.9	E	8/16	1.62	335.4	F	18/28	0.90	45.1	D	11/16
NH Route 9 EB TH	0.93	66.2	E	7/18	1.24	176.6	F	13/24	0.72	36.0	D	9/13	1.07	107.2	F	10/21	1.41	251.7	F	16/28	0.78	40.1	D	10/16
NH Route 9 EB RT	0.05	29.9	C	0/0	0.05	36.2	D	0/0	0.05	25.1	C	0/0	0.05	32.3	C	0/0	0.05	38.8	D	0/0	0.05	25.7	C	0/0
NH Route 9 WB LT	0.58	32.7	C	5/9	0.71	41.5	D	7/14	0.75	43.1	D	6/8	0.63	36.2	D	6/11	0.76	47.1	D	8/17	0.81	47.4	D	6/9
NH Route 9 WB LT/TH	0.58	31.6	C	5/8	0.71	38.5	D	7/12	0.70	41.3	D	5/8	0.63	34.3	C	6/10	0.76	42.6	D	9/15	0.75	44.2	D	6/9
NH Route 9 WB RT	0.05	26.8	C	0/0	0.02	29.7	C	0/0	0.02	33.2	C	0/0	0.03	28.1	C	0/0	0.02	31.4	C	0/0	0.02	34.0	C	0/0
NH Route 106 NB LT	0.39	38.5	D	2/4	0.43	45.1	D	2/4	0.55	47.2	D	2/4	0.43	41.1	D	2/4	0.47	47.9	D	2/5	0.60	51.1	D	2/4
NH Route 106 NB TH	0.54	29.0	C	5/8	0.64	31.1	C	9/12	0.66	30.0	C	8/11	0.57	30.2	C	6/9	0.67	32.8	C	10/15	0.69	30.9	C	9/12
NH Route 106 NB RT	0.20	25.9	C	0/3	0.26	26.2	C	0/3	0.26	25.0	C	0/3	0.22	26.6	C	0/3	0.29	27.2	C	0/3	0.29	25.2	C	0/3
NH Route 106 SB LT	0.21	34.5	C	1/3	0.25	41.2	D	1/3	0.39	43.7	D	1/3	0.24	36.4	D	1/3	0.26	42.6	D	2/3	0.47	46.0	D	2/3
NH Route 106 SB TH	0.65	29.0	C	7/11	0.72	31.5	C	11/14	0.80	34.3	C	11/14	0.68	30.0	C	8/12	0.74	32.4	C	12/16	0.85	37.8	D	12/15
NH Route 106 SB RT	0.34	0.5	A	0/0	0.50	1.0	A	0/0	0.50	1.0	A	0/0	0.37	0.6	A	0/0	0.53	1.1	A	0/0	0.53	1.1	A	0/0
Overall	--	**30.2**	**C**	--	--	**73.6**	**E**	--	--	**29.5**	**C**	--	--	**37.6**	**D**	--	--	**91.5**	**F**	--	--	**32.1**	**C**	--

See notes at end of table.

Table 18 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2027 No-Build				2027 Opening Year				2027 Opening Year with Mitigation				2037 No-Build				2037 Build				2037 Build with Mitigation			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
5. NH Route 106 at WB Matthews and Sam's Club Driveways																								
Weekday Morning:																								
WB Matthews Driveway EB LT/TH									0.13	24.0	C	1/1									0.13	25.1	C	1/1
WB Matthews Driveway EB RT									0.01	23.4	C	0/0									0.01	24.4	C	0/0
Sam's Club Driveway WB LT/TH									0.14	24.1	C	1/1									0.15	25.2	C	1/1
Sam's Club Driveway WB RT									0.02	23.4	C	0/0									0.02	24.4	C	0/0
NH Route 106 NB LT									0.08	24.7	C	1/1									0.08	25.6	C	1.1
NH Route 106 NB TH/RT									0.21	7.7	A	0/3									0.42	8.5	A	0/7
NH Route 106 SB LT									0.25	24.8	C	1/1									0.26	25.9	C	1/1
NH Route 106 SB TH/RT									0.46	8.5	A	0/8									0.49	8.6	A	0/9
Overall									--	**9.7**	**A**	--									--	**9.7**	**A**	--
Weekday Evening:																								
WB Matthews Driveway EB LT/TH									0.14	27.4	C	1/1									0.14	27.4	C	1/1
WB Matthews Driveway EB RT									0.03	26.6	C	0/0									0.03	26.6	C	0/0
Sam's Club Driveway WB LT/TH	*See Unsignalized Intersection Level-of-Service and Vehicle Queue Summary (Table 14)*								0.33	21.0	C	1/2	*See Unsignalized Intersection Level-of-Service and Vehicle Queue Summary (Table 14)*								0.33	21.0	C	1/2
Sam's Club Driveway WB RT									0.11	17.9	B	0/1									0.11	17.9	B	0/1
NH Route 106 NB LT									0.15	29.5	C	1/1									0.14	29.4	C	1/1
NH Route 106 NB TH/RT									0.73	16.2	B	9/12									0.75	16.5	B	9/14
NH Route 106 SB LT									0.55	30.4	C	2/3									0.55	30.4	C	2/3
NH Route 106 SB TH/RT									0.50	10.7	B	4/9									0.55	11.2	B	5/11
Overall									--	**15.4**	**B**	--									--	**15.6**	**B**	--
Saturday Midday:																								
WB Matthews Driveway EB LT/TH									0.10	42.8	D	1/1									0.10	43.5	D	1/1
WB Matthews Driveway EB RT									0.01	42.2	D	0/0									0.01	42.9	D	0/0
Sam's Club Driveway WB LT/TH									0.69	36.5	D	5/7									0.70	37.7	D	5/7
Sam's Club Driveway WB RT									0.30	29.0	C	1/2									0.31	29.8	C	1/2
NH Route 106 NB LT									0.13	45.4	D	1/1									0.13	46.0	D	1/1
NH Route 106 NB TH/RT									0.72	25.3	C	12/15									0.76	26.5	C	13/17
NH Route 106 SB LT									0.79	45.1	D	7/12									0.80	46.8	D	7/12
NH Route 106 SB TH/RT									0.58	12.4	B	8/14									0.62	13.0	B	9/16
Overall									--	**23.7**	**C**	--									--	**24.4**	**C**	--
6. NH Route 106 at Walmart Driveway																								
Weekday Morning:																								
Walmart Driveway EB LT									0.21	23.3	C	1/1									0.21	23.3	C	1/1
Walmart Driveway EB RT									0.04	13.6	B	0/1									0.04	13.6	B	0/1
NH Route 106 NB LT									0.25	21.8	C	1/2									0.23	21.6	C	1/2
NH Route 106 NB TH									0.24	2.0	A	1/2									0.23	1.9	A	1/2
NH Route 106 SB TH/RT									0.48	7.4	A	5/7									0.50	7.5	A	5/8
Overall									--	**6.4**	**A**	--									--	**6.5**	**A**	--
Weekday Evening:																								
Walmart Driveway EB LT	*See Unsignalized Intersection Level-of-Service and Vehicle Queue Summary (Table 14)*								0.17	22.0	C	1/2	*See Unsignalized Intersection Level-of-Service and Vehicle Queue Summary (Table 14)*								0.17	22.5	C	1/2
Walmart Driveway EB RT									0.09	21.7	C	0/2									0.09	22.2	C	0/2
NH Route 106 NB LT									0.60	25.4	C	2/4									0.61	25.9	C	2/4
NH Route 106 NB TH									0.50	3.4	A	3/5									0.55	3.6	A	4/6
NH Route 106 SB TH/RT									0.57	10.4	B	5/8									0.62	10.9	B	6/9
Overall									--	**8.7**	**A**	--									--	**8.9**	**A**	--
Saturday Midday:																								
Walmart Driveway EB LT									0.34	24.1	C	1/3									0.34	24.4	C	1/3
Walmart Driveway EB RT									0.33	13.2	B	2/4									0.35	13.5	B	2/4
NH Route 106 NB LT									0.73	31.6	C	3/7									0.74	32.3	C	3/7
NH Route 106 NB TH									0.43	3.3	A	3/4									0.47	3.4	A	3/4
NH Route 106 SB TH/RT									0.81	16.4	B	8/12									0.88	19.6	B	10/16
Overall									--	**12.6**	**B**	--									--	**14.1**	**B**	--

See notes at end of table.

Table 18 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2027 No-Build				2027 Opening Year				2027 Opening Year with Mitigation				2037 No-Build				2037 Build				2037 Build with Mitigation			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
8. NH Route 106 at D'Amante Drive																								
Weekday Morning:																								
D'Amante Drive EB LT	0.33	16.3	B	1/3	0.38	16.7	B	1/4	--	--	--	--	0.36	18.2	B	1/3	0.40	18.7	B	2/4	--	--	--	--
D'Amante Drive EB RT	0.05	14.9	B	0/1	0.06	14.9	B	0/1	--	--	--	--	0.05	16.5	B	0/1	0.06	16.6	B	0/1	--	--	--	--
D'Amante Drive EB LT/RT	--	--	--	--	--	--	--	--	0.34	22.6	C	1/2	--	--	--	--	--	--	--	--	0.34	22.6	C	1/2
NH Route 106 NB UT/LT	0.16	3.8	A	1/1	0.25	5.4	A	1/1	0.19	3.8	A	1/1	0.18	3.7	A	1/1	0.28	5.4	A	1/2	0.22	4.1	A	1/1
NH Route 106 NB TH	0.33	4.3	A	2/4	0.38	5.7	A	2/5	0.17	3.1	A	1/1	0.34	4.1	A	2/4	0.39	5.5	A	2/5	0.18	3.2	A	1/2
NH Route 106 SB TH	0.56	5.6	A	4/8	0.63	8.1	A	5/10	--	--	--	--	0.60	5.9	A	4/9	0.67	8.5	A	5/12	--	--	--	--
NH Route 106 SB TH/RT	--	--	--	--	--	--	--	--	0.47	7.0	A	2/3	--	--	--	--	--	--	--	--	0.51	6.7	A	2/3
NH Route 106 SB RT	0.08	3.5	A	0/1	0.13	4.6	A	0/1	--	--	--	--	0.09	3.3	A	0/1	0.13	4.4	A	0/1	--	--	--	--
Overall	--	**6.3**	**A**	--	--	**8.1**	**A**	--	--	**8.3**	**A**	--	--	**6.6**	**A**	--	--	**8.4**	**A**	--	--	**8.0**	**A**	--
Weekday Evening:																								
D'Amante Drive EB LT	0.62	25.2	C	4/7	0.70	26.2	C	6/10	--	--	--	--	0.65	25.3	C	5/8	0.74	27.3	C	7/11	--	--	--	--
D'Amante Drive EB RT	0.05	19.2	B	0/1	0.08	17.8	B	0/1	--	--	--	--	0.06	18.6	B	0/1	0.09	17.5	B	0/1	--	--	--	--
D'Amante Drive EB LT/RT	--	--	--	--	--	--	--	--	0.60	21.7	C	3/5	--	--	--	--	--	--	--	--	0.71	25.3	C	4/5
NH Route 106 NB UT/LT	0.54	9.2	A	2/5	0.84	32.3	C	3/9	0.57	9.7	A	1/3	0.71	17.2	B	2/8	1.13	116.8	F	5/12	0.59	10.4	B	1/4
NH Route 106 NB TH	0.87	18.4	B	13/26	1.00	42.3	D	18/33	0.48	6.5	A	4/5	0.94	27.9	C	15/32	1.06	62.0	E	24/38	0.49	6.0	A	4/5
NH Route 106 SB TH	0.57	8.5	A	6/12	0.67	12.4	B	8/17	--	--	--	--	0.66	10.5	B	7/15	0.75	15.4	B	10/22	--	--	--	--
NH Route 106 SB TH/RT	--	--	--	--	--	--	--	--	0.70	9.3	A	2/5	--	--	--	--	--	--	--	--	0.74	29.9	C	9/12
NH Route 106 SB RT	0.14	5.5	A	0/1	0.20	7.5	A	0/2	--	--	--	--	0.15	6.1	A	0/1	0.22	8.1	A	0/2	--	--	--	--
Overall	--	**14.7**	**B**	--	--	**26.9**	**C**	--	--	**10.6**	**B**	--	--	**19.8**	**B**	--	--	**41.5**	**D**	--	--	**18.6**	**B**	--
Saturday Midday:																								
D'Amante Drive EB LT	0.66	25.2	C	5/8	0.86	34.6	C	10/15	--	--	--	--	0.70	26.2	C	6/9	0.85	33.8	C	10/17	--	--	--	--
D'Amante Drive EB LT/RT	--	--	--	--	--	--	--	--	0.85	29.9	C	5/8	--	--	--	--	--	--	--	--	0.74	21.8	C	5/7
NH Route 106 NB UT/LT	0.65	14.4	B	2/7	1.74	378.4	F	8/11	0.73	18.6	B	2/6	0.91	50.2	D	3/10	2.73	822.0	F	8/14	0.78	22.2	C	2/7
NH Route 106 NB TH	0.68	11.7	B	8/17	0.87	24.2	C	15/24	0.39	6.4	A	3/4	0.76	14.7	B	10/24	0.93	31.1	C	17/28	0.46	8.3	A	4/6
NH Route 106 SB TH	0.63	10.6	B	7/15	0.80	19.9	B	13/22	--	--	--	--	0.71	13.3	B	9/19	0.87	24.9	C	15/25	--	--	--	--
NH Route 106 SB TH/RT	--	--	--	--	--	--	--	--	0.84	39.2	D	10/13	--	--	--	--	--	--	--	--	1.05	41.5	D	0/15
NH Route 106 SB RT	0.26	7.2	A	0/2	0.36	11.1	B	0/2	--	--	--	--	0.29	7.9	A	0/2	0.39	11.2	B	0/2	--	--	--	--
Overall	--	**13.1**	**B**	--	--	**50.5**	**D**	--	--	**26.2**	**C**	--	--	**17.6**	**B**	--	--	**88.7**	**F**	--	--	**26.5**	**C**	--
9. NH Route 106 at Triangle Park Drive																								
Weekday Morning:																								
Triangle Park Drive EB LT/RT									0.09	22.7	C	1/1									0.07	23.0	C	1/2
NH Route 106 NB LT									0.53	25.3	C	2/3									0.54	26.1	C	2/4
NH Route 106 NB TH									0.20	2.2	A	1/1									0.20	2.2	A	1/2
NH Route 106 SB TH/RT									0.63	9.4	A	6/8									0.66	9.7	A	7/10
Overall									--	**9.2**	**A**	--									--	**9.3**	**A**	--
Weekday Evening:																								
Triangle Park Drive EB LT/RT		*See Unsignalized Intersection Level-of-Service and Vehicle Queue Summary (Table 14)*							0.18	19.0	B	1/2		*See Unsignalized Intersection Level-of-Service and Vehicle Queue Summary (Table 14)*							0.18	20.0	B	1/2
NH Route 106 NB LT									0.59	23.3	C	2/5									0.55	21.1	C	3/5
NH Route 106 NB TH									0.49	4.4	A	3/5									0.54	4.5	A	3/6
NH Route 106 SB TH/RT									0.61	12.5	B	5/8									0.70	15.0	B	6/9
Overall									--	**10.2**	**B**	--									--	**11.0**	**B**	--
Saturday Midday:																								
Triangle Park Drive EB LT/RT									0.18	20.5	C	1/2									0.19	21.2	C	1/3
NH Route 106 NB LT									0.59	23.3	C	3/5									0.54	21.2	C	3/5
NH Route 106 NB TH									0.40	3.6	A	2/3									0.43	3.6	A	3/4
NH Route 106 SB TH/RT									0.59	12.1	B	5/8									0.68	14.5	B	6/9
Overall									--	**10.1**	**B**	--									--	**11.0**	**B**	--

See notes at end of table.

Table 18 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2027 No-Build				2027 Opening Year				2027 Opening Year with Mitigation				2037 No-Build				2037 Build				2037 Build with Mitigation			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
12. Triangle Park Drive at D'Amante Drive																								
Weekday Morning:																								
D'Amante Drive EB LT	--	--	--	--	0.32	18.4	B	1/2	0.45	24.1	C	1/2	--	--	--	--	0.34	19.5	B	1/2	0.38	23.0	C	1/2
D'Amante Drive EB TH/RT	0.15	7.3	A	1/1	0.15	7.0	A	1/2	0.18	10.9	B	1/2	0.14	7.3	A	1/1	0.14	7.1	A	1/2	0.16	9.8	A	1/2
D'Amante Drive WB LT	0.24	16.2	B	1/1	0.26	18.2	B	1/1	0.36	23.4	C	1/2	0.20	15.9	B	1/1	0.22	17.7	B	1/2	0.31	22.6	C	1/2
D'Amante Drive WB TH	0.11	2.5	A	1/1	--	--	--	--	0.29	11.6	B	2/3	0.10	2.5	A	1/1	--	--	--	--	0.22	10.1	B	2/4
D'Amante Drive WB TH/RT	--	--	--	--	0.31	7.8	A	2/3	--	--	--	--	--	--	--	--	0.24	6.8	A	1/4	--	--	--	--
D'Amante Drive WB RT	--	--	--	--	--	--	--	--	0.05	11.6	B	0/0	--	--	--	--	--	--	--	--	0.03	10.5	B	0/0
Triangle Park Drive NB LT	0.21	16.1	B	1/1	--	--	--	--	--	--	--	--	0.20	15.9	B	1/1	--	--	--	--	--	--	--	--
Triangle Park Drive NB LT/TH	--	--	--	--	0.28	18.0	B	1/1	0.32	23.0	C	1/2	--	--	--	--	0.27	17.7	B	1/2	0.30	22.5	C	1/2
Triangle Park Drive NB RT	0.03	8.0	A	0/0	0.03	9.3	A	0/1	0.03	14.1	B	0/0	0.03	7.9	A	0/1	0.03	9.1	A	0/1	0.03	13.8	B	0/0
Site Road #2 SB LT	--	--	--	--	0.33	18.4	B	1/2	0.26	21.1	C	1/2	--	--	--	--	0.32	18.1	B	1/2	0.28	22.4	C	1/2
Site Road #2 SB LT/TH/RT	--	--	--	--	0.05	16.7	B	1/1	0.08	20.2	C	1/1	--	--	--	--	0.05	16.5	B	1/1	0.09	21.3	C	1/1
Overall	--	**7.9**	**A**	--	--	**11.0**	**B**	--	--	**15.1**	**B**	--	--	**7.9**	**A**	--	--	**10.9**	**B**	--	--	**14.3**	**B**	--
Weekday Evening:																								
D'Amante Drive EB LT	--	--	--	--	0.54	40.7	D	3/7	0.61	32.8	C	3/6	--	--	--	--	0.37	39.2	D	2/3	0.60	32.6	C	3/6
D'Amante Drive EB TH/RT	0.20	7.0	A	1/2	0.24	8.7	A	1/1	0.35	17.7	B	3/5	0.22	7.0	A	1/2	0.28	8.2	A	2/2	0.38	17.5	B	3/5
D'Amante Drive WB LT	0.29	33.5	C	1/2	0.30	33.9	C	1/2	0.37	31.6	C	1/3	0.31	33.4	C	1/2	0.33	34.0	C	1/3	0.41	32.1	C	1/3
D'Amante Drive WB TH	0.27	4.1	A	2/4	--	--	--	--	0.64	24.2	C	5/9	0.29	4.1	A	2/4	--	--	--	--	0.67	24.4	C	6/10
D'Amante Drive WB TH/RT	--	--	--	--	0.55	18.5	B	7/10	--	--	--	--	--	--	--	--	0.48	14.5	B	6/10	--	--	--	--
D'Amante Drive WB RT	--	--	--	--	--	--	--	--	0.07	8.8	A	0/1	--	--	--	--	--	--	--	--	0.08	17.6	B	0/1
Triangle Park Drive NB LT	0.47	31.1	C	3/4	--	--	--	--	--	--	--	--	0.45	31.3	C	2/4	--	--	--	--	--	--	--	--
Triangle Park Drive NB LT/TH	--	--	--	--	0.53	27.9	C	3/4	0.64	34.4	C	3/5	--	--	--	--	0.63	32.5	C	3/5	0.60	32.5	C	3/6
Triangle Park Drive NB RT	0.05	18.2	B	0/1	0.05	14.5	B	0/1	0.05	18.6	B	0/1	0.05	18.4	B	0/1	0.06	15.0	B	0/1	0.05	18.7	B	0/1
Site Road #2 SB LT	--	--	--	--	0.71	35.2	D	4/6	0.48	24.5	C	3/5	--	--	--	--	0.67	34.5	C	3/6	0.50	25.4	C	3/6
Site Road #2 SB LT/TH/RT	--	--	--	--	0.13	23.5	C	1/2	0.20	22.3	C	1/3	--	--	--	--	0.06	23.7	C	0/1	0.20	22.9	C	1/3
Overall	--	**11.4**	**B**	--	--	**21.4**	C	--	--	**22.8**	**C**	--	--	**10.9**	**B**	--	--	**18.6**	**B**	--	--	**23.3**	**C**	--
Saturday Midday:																								
D'Amante Drive EB LT	--	--	--	--	0.95	87.4	F	5/10	0.78	45.4	D	4/8	--	--	--	--	0.95	86.0	F	5/10	0.83	55.0	D	4/8
D'Amante Drive EB TH/RT	0.25	5.5	A	1/2	0.34	12.8	B	2/3	0.41	16.7	B	4/5	0.29	5.8	A	1/2	0.38	12.0	B	2/7	0.46	18.0	B	5/7
D'Amante Drive WB LT	0.44	38.3	D	2/4	0.46	38.8	D	2/4	0.52	34.3	C	2/4	0.47	38.2	D	2/4	0.50	39.0	D	2/4	0.57	37.8	D	2/4
D'Amante Drive WB TH	0.35	4.2	A	3/6	--	--	--	--	0.78	27.4	C	9/15	0.40	4.7	A	4/7	--	--	--	--	0.83	30.9	C	9/18
D'Amante Drive WB TH/RT	--	--	--	--	0.80	28.4	C	12/16	--	--	--	--	--	--	--	--	0.84	29.3	C	13/19	--	--	--	--
D'Amante Drive WB RT	--	--	--	--	--	--	--	--	0.11	17.5	B	0/1	--	--	--	--	--	--	--	--	0.11	16.4	B	0/1
Triangle Park Drive NB LT	0.46	36.2	D	3/5	--	--	--	--	--	--	--	--	0.49	36.0	D	3/5	--	--	--	--	--	--	--	--
Triangle Park Drive NB LT/TH	--	--	--	--	0.53	28.7	C	3/7	0.77	48.3	D	3/7	--	--	--	--	0.65	34.8	C	4/8	0.80	53.0	D	3/8
Triangle Park Drive NB RT	0.04	21.5	C	0/1	0.04	14.0	B	0/1	0.04	20.3	C	0/0	0.04	20.7	C	0/1	0.04	14.8	B	0/1	0.04	21.4	C	0/1
Site Road #2 SB LT	--	--	--	--	0.86	49.9	D	7/14	0.81	43.5	D	5/10	--	--	--	--	0.97	76.3	E	7/14	0.81	45.8	D	5/11
Site Road #2 SB LT/TH/RT	--	--	--	--	0.18	24.2	C	1/3	0.32	26.7	C	1/4	--	--	--	--	0.18	25.5	C	1/3	0.33	28.6	C	1/4
Overall	--	**10.8**	**B**	--	--	**31.6**	**C**	--	--	**28.6**	**C**	--	--	**11.0**	**B**	--	--	**34.6**	**C**	--	--	**31.1**	**C**	--

See notes at end of table.

Table 18 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2027 No-Build				2027 Opening Year				2027 Opening Year with Mitigation				2037 No-Build				2037 Build				2037 Build with Mitigation			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
13. D'Amante Drive at Shaw's Driveway and West Steeplegate Mall Driveway																								
Weekday Morning:																								
Shaw's Driveway EB LT/TH/RT	0.03	14.3	B	0/1	0.03	15.4	B	0/1	0.03	26.2	C	0/0	0.03	14.4	B	0/1	0.03	16.2	B	0/1	0.03	29.3	C	0/0
West Steeplegate Mall Driveway WB LT/TH	0.00	0.0	A	0/0	0.43	17.8	B	1/1	0.52	30.6	C	1/2	0.00	0.0	A	0/0	0.24	17.3	B	1/1	0.27	31.0	C	1/2
West Steeplegate Mall Driveway WB RT	0.00	11.6	B	0/0	0.04	8.1	A	0/0	0.04	17.1	B	0/0	0.00	11.7	B	0/0	0.01	10.2	B	0/1	0.02	18.3	B	0/0
D'Amante Drive NB LT	0.14	16.9	B	1/1	0.17	21.5	C	1/1	0.24	35.8	D	1/1	0.14	16.9	B	1/1	0.15	19.3	B	1/1	0.22	35.7	D	1/1
D'Amante Drive NB TH	--	--	--	--	0.22	11.7	B	1/2	0.14	9.9	A	1/2	--	--	--	--	0.19	8.2	A	1/2	0.14	8.9	A	1/2
D'Amante Drive NB TH/RT	0.11	5.8	A	1/1	--	--	--	--	--	--	--	--	0.12	5.8	A	1/1	--	--	--	--	--	--	--	--
D'Amante Drive NB RT	--	--	--	--	0.03	10.9	B	0/1	0.03	9.2	A	0/1	--	--	--	--	0.03	7.6	A	0/1	0.03	8.2	A	0/0
D'Amante Drive SB LT	0.03	16.1	B	0/1	0.09	14.7	B	1/1	0.12	26.8	C	1/1	0.03	16.2	B	0/1	0.11	14.9	B	1/1	0.11	23.0	C	1/1
D'Amante Drive SB TH/RT	0.16	5.8	A	1/2	0.17	7.0	A	1/2	0.13	6.7	A	1/3	0.16	5.8	A	1/2	0.17	5.6	A	1/2	0.13	4.4	A	1/2
Overall	--	**7.7**	**A**	--	--	**11.4**	**B**	--	--	**15.2**	**B**	--	--	**7.7**	**A**	--	--	**9.3**	**A**	--	--	**12.3**	**B**	--
Weekday Evening:																								
Shaw's Driveway EB LT/TH/RT	0.31	32.0	C	1/2	0.06	26.0	C	0/1	0.06	38.5	D	0/1	0.31	32.0	C	1/2	0.06	26.0	C	0/1	0.06	38.2	D	0/1
West Steeplegate Mall Driveway WB LT/TH	0.10	30.8	C	1/1	0.55	31.3	C	3/5	0.58	36.4	D	3/5	0.10	30.8	C	1/1	0.55	31.3	C	3/5	0.58	36.4	D	3/5
West Steeplegate Mall Driveway WB RT	0.03	20.0	B	0/0	0.07	14.7	B	0/1	0.07	19.4	B	0/1	0.03	20.3	C	0/0	0.07	15.0	B	0/1	0.07	19.6	B	0/1
D'Amante Drive NB LT	0.29	37.2	D	1/2	0.29	30.3	C	1/2	0.32	40.2	D	1/2	0.29	37.9	D	1/2	0.29	31.7	C	1/2	0.32	40.2	D	1/2
D'Amante Drive NB TH	--	--	--	--	0.30	9.9	A	2/5	0.26	12.6	B	3/5	--	--	--	--	0.34	15.1	B	4/6	0.29	12.7	B	3/6
D'Amante Drive NB TH/RT	0.23	6.5	A	2/2	--	--	--	--	--	--	--	--	0.26	6.8	A	2/3	--	--	--	--	--	--	--	--
D'Amante Drive NB RT	--	--	--	--	0.06	10.8	B	1/1	0.06	11.0	A	0/1	--	--	--	--	0.06	34.7	C	1/1	0.06	10.9	B	0/1
D'Amante Drive SB LT	0.09	28.4	C	1/1	0.24	26.9	C	2/3	0.31	28.8	C	2/3	0.09	28.7	C	1/1	0.24	27.3	C	2/3	0.30	28.2	C	2/3
D'Amante Drive SB TH/RT	0.24	6.8	A	2/4	0.28	9.6	A	3/5	0.27	7.0	A	2/4	0.26	6.9	A	2/4	0.30	9.7	A	3/6	0.28	6.9	A	3/4
Overall	--	**12.5**	**B**	--	--	**15.4**	**B**	--	--	**17.6**	**B**	--	--	**12.2**	**B**	--	--	**17.9**	**B**	--	--	**17.2**	**B**	--
Saturday Midday:																								
Shaw's Driveway EB LT/TH/RT	0.37	36.6	D	1/2	0.08	27.7	C	0/1	0.08	31.7	C	0/1	0.37	36.6	D	1/2	0.08	27.8	C	0/1	0.08	26.9	C	0/1
West Steeplegate Mall Driveway WB LT/TH	0.10	34.9	C	1/1	0.65	37.2	D	4/6	0.63	30.4	C	3/5	0.10	34.9	C	1/1	0.66	37.5	D	4/6	0.63	30.4	C	3/5
West Steeplegate Mall Driveway WB RT	0.02	24.7	C	0/0	0.16	17.3	B	1/2	0.14	14.2	B	1/2	0.02	25.1	C	0/0	0.16	17.3	B	1/2	0.14	14.4	B	1/2
D'Amante Drive NB LT	0.34	43.7	D	1/2	0.34	35.9	D	1/2	0.38	34.7	C	1/2	0.34	43.2	D	1/3	0.34	35.4	D	1/2	0.37	34.7	C	1/2
D'Amante Drive NB TH	--	--	--	--	0.49	18.8	B	7/11	0.52	16.7	B	6/8	--	--	--	--	0.54	19.9	B	8/13	0.56	17.1	B	6/9
D'Amante Drive NB TH/RT	0.34	7.8	A	3/5	--	--	--	--	--	--	--	--	0.38	8.2	A	4/6	--	--	--	--	--	--	--	--
D'Amante Drive NB RT	--	--	--	--	0.09	22.9	C	1/2	0.09	12.6	B	0/1	--	--	--	--	0.10	20.8	C	1/2	0.08	12.4	B	0/1
D'Amante Drive SB LT	0.11	34.4	C	1/1	0.37	33.0	C	2/4	0.38	31.6	C	2/3	0.12	34.9	C	1/1	0.36	32.8	C	3/4	0.39	33.6	C	2/3
D'Amante Drive SB TH/RT	0.28	6.9	A	3/5	0.37	11.6	B	5/8	0.39	13.8	B	6/7	0.32	7.1	A	4/6	0.41	11.9	B	6/9	0.43	14.7	B	6/9
Overall	--	**13.2**	**B**	--	--	**20.5**	**C**	--	--	**19.3**	**B**	--	--	**12.9**	**B**	--	--	**20.5**	**C**	--	--	**19.3**	**B**	--

See notes at end of table.

Table 18 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2027 No-Build				2027 Opening Year				2027 Opening Year with Mitigation				2037 No-Build				2037 Build				2037 Build with Mitigation			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
15. NH Route 9 at Old Loudon Road and D'Amante Drive																								
Weekday Morning:																								
Old Loudon Road EB LT/TH	0.34	27.1	C	1/2	0.27	26.6	C	1/2	0.29	33.4	C	1/2	0.32	27.1	C	1/2	0.32	27.5	C	1/2	0.29	33.5	C	1/2
Old Loudon Road EB RT	0.04	18.3	B	0/1	0.04	18.7	B	0/1	0.04	25.0	C	0/1	0.03	18.4	B	0/1	0.03	18.8	B	0/1	0.04	25.3	C	0/1
D'Amante Drive WB LT	0.29	20.6	C	1/3	0.41	20.5	C	2/5	0.25	12.9	B	2/3	0.31	20.5	C	1/3	0.38	19.4	B	2/5	0.23	11.9	B	1/2
D'Amante Drive WB LT/TH	0.28	20.5	C	1/3	0.39	20.3	C	2/5	0.24	12.8	B	2/3	0.30	20.5	C	1/3	0.37	19.3	B	2/5	0.23	11.8	B	1/2
D'Amante Drive WB RT	0.03	14.9	B	0/0	0.03	14.2	B	0/0	0.03	10.6	B	0/0	0.03	14.8	B	0/0	0.03	13.4	B	0/0	0.03	10.2	B	0/0
NH Route 9 NB LT	0.21	23.0	C	1/2	0.23	24.5	C	1/2	0.28	32.0	C	1/2	0.21	23.0	C	1/2	0.22	23.4	C	1/2	0.29	32.2	C	1/2
NH Route 9 NB TH	0.25	13.2	B	1/3	0.31	15.8	B	3/4	0.43	25.1	C	3/4	0.24	13.4	B	1/4	0.30	15.1	B	2/4	0.44	25.6	C	3/4
NH Route 9 RT	0.11	6.2	A	0/1	0.16	6.7	A	0/1	0.17	6.5	A	0/1	0.11	6.2	A	0/1	0.15	6.2	A	0/1	0.16	6.5	A	0/1
NH Route 9 SB LT	0.16	24.6	C	1/1	0.21	26.3	C	1/1	0.20	39.1	D	1/1	0.16	24.7	C	1/1	0.20	25.2	C	1/2	0.18	38.1	D	1/2
NH Route 9 SB TH/RT	0.35	15.4	B	2/4	0.43	18.2	B	3/5	0.54	22.3	C	2/4	0.35	15.7	B	2/5	0.42	17.5	B	2/6	0.54	22.6	C	3/4
Overall	--	**15.5**	**B**	--	--	**16.7**	**B**	--	--	**19.3**	**B**	--	--	**15.6**	**B**	--	--	**16.1**	**B**	--	--	**19.4**	**B**	--
Weekday Evening:																								
Old Loudon Road EB LT/TH	0.51	34.4	C	1/3	0.49	37.5	D	1/3	0.57	48.8	D	1/3	0.48	35.7	D	1/3	0.45	37.4	D	1/3	0.51	43.6	D	1/3
Old Loudon Road EB RT	0.05	22.5	C	0/1	0.05	25.2	C	0/1	0.05	30.1	C	0/1	0.05	24.3	C	0/1	0.05	25.9	C	0/1	0.05	28.8	C	0/1
D'Amante Drive WB LT	0.53	23.5	C	4/7	0.70	30.5	C	6/11	0.50	27.6	C	4/11	0.62	29.2	C	5/8	0.77	36.6	D	7/13	0.56	31.0	C	4/12
D'Amante Drive WB LT/TH	0.51	23.1	C	4/8	0.67	29.0	C	6/10	0.47	27.1	C	4/11	0.60	28.5	C	5/8	0.74	34.7	C	7/12	0.54	30.3	C	4/12
D'Amante Drive WB RT	0.09	14.3	B	0/1	0.09	14.8	B	0/1	0.09	16.9	B	0/2	0.09	15.8	B	0/1	0.10	16.4	B	0/1	0.10	21.4	C	0/3
NH Route 9 NB LT	0.50	30.3	C	2/4	0.52	34.0	C	2/5	0.50	38.6	D	3/5	0.57	35.8	D	2/5	0.60	38.6	D	3/5	0.54	39.6	D	3/5
NH Route 9 NB TH	0.53	19.9	B	5/7	0.59	22.2	C	6/9	0.63	28.0	C	7/9	0.57	22.0	C	6/8	0.62	23.4	C	7/9	0.65	27.8	C	7/10
NH Route 9 RT	0.22	7.2	A	0/1	0.31	8.1	A	1/2	0.34	6.4	A	1/2	0.25	8.5	A	0/1	0.36	9.0	A	1/2	0.38	7.2	A	1/3
NH Route 9 SB LT	0.27	28.8	C	1/2	0.24	30.2	C	1/2	0.36	49.1	D	1/3	0.26	30.2	C	1/2	0.27	32.2	C	1/2	0.41	46.5	D	1/3
NH Route 9 SB TH/RT	0.56	20.8	C	5/7	0.58	21.6	C	6/9	0.73	26.9	C	5/8	0.56	21.1	C	6/8	0.61	22.7	C	7/10	0.77	27.8	C	5/9
Overall	--	**19.7**	**B**	--	--	**21.9**	**C**	--	--	**24.9**	**C**	--	--	**22.0**	**C**	--	--	**24.0**	**C**	--	--	**25.9**	**C**	--
Saturday Midday:																								
Old Loudon Road EB LT/TH	0.67	48.5	D	2/4	0.62	46.5	D	2/3	0.56	37.8	D	2/3	0.70	50.9	D	2/4	0.66	49.0	D	2/4	0.59	39.2	D	2/3
Old Loudon Road EB RT	0.06	27.7	C	0/1	0.06	28.9	C	0/1	0.05	26.8	C	0/1	0.07	26.4	C	1/2	0.07	27.6	C	1/2	0.06	26.8	C	0/1
D'Amante Drive WB LT	0.74	34.4	C	7/12	0.96	61.3	E	10/18	0.84	34.2	C	4/13	0.81	38.8	D	8/14	1.04	83.1	F	12/20	0.94	43.4	D	4/15
D'Amante Drive WB LT/TH	0.72	32.9	C	7/11	0.91	50.3	D	10/17	0.80	30.7	C	4/13	0.78	36.2	D	8/14	0.99	68.8	E	11/20	0.90	36.2	D	4/14
D'Amante Drive WB RT	0.11	15.5	B	0/1	0.11	15.6	B	0/1	0.11	15.8	B	0/2	0.12	15.1	B	0/1	0.12	15.5	B	0/1	0.12	11.2	B	0/1
NH Route 9 NB LT	0.51	37.6	D	2/4	0.51	39.2	D	2/4	0.61	41.0	D	2/4	0.46	35.4	D	2/4	0.48	37.0	D	2/4	0.68	45.6	D	2/4
NH Route 9 NB TH	0.68	26.1	C	7/10	0.78	26.9	C	9/13	0.83	30.2	C	8/12	0.77	29.4	C	9/12	0.87	35.1	D	10/15	0.88	33.4	C	9/14
NH Route 9 RT	0.34	9.2	A	1/3	0.57	11.4	B	4/9	0.58	9.7	A	4/8	0.40	9.9	A	2/5	0.66	13.6	B	7/13	0.67	11.3	B	6/11
NH Route 9 SB LT	0.36	32.6	C	2/3	0.41	34.2	C	2/3	0.56	26.1	C	2/3	0.39	32.6	C	2/3	0.43	34.0	C	2/4	0.61	26.6	C	2/3
NH Route 9 SB TH/RT	0.67	23.6	C	8/11	0.79	27.9	C	10/14	0.89	28.7	C	9/15	0.79	28.7	C	9/12	0.90	36.6	D	12/17	0.94	34.5	C	12/17
Overall	--	**25.3**	**C**	--	--	**31.8**	**C**	--	--	**26.2**	**C**	--	--	**28.1**	**C**	--	--	**39.5**	**D**	--	--	**30.0**	**C**	--

See notes at end of table.

Table 18 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2027 No-Build				2027 Opening Year				2027 Opening Year with Mitigation				2037 No-Build				2037 Build				2037 Build with Mitigation			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
16. NH Route 9 at Carrier Place Driveway and Steeplegate Mall Driveway																								
Weekday Morning:																								
Carrier Place Driveway EB LT/TH	0.27	20.2	C	1/1	0.23	19.2	B	1/2	0.30	32.3	C	1/2	0.27	19.9	B	1/1	0.26	19.8	B	1/1	0.30	32.3	C	1/2
Carrier Place Driveway EB RT	0.02	13.5	B	0/1	0.02	11.5	B	0/1	0.02	22.6	C	0/1	0.02	13.5	B	0/1	0.02	13.2	B	0/1	0.02	23.1	C	0/1
Steeplegate Mall Driveway WB LT/TH	0.12	19.2	B	1/1	0.28	19.4	B	1/2	0.36	32.7	C	1/2	0.12	19.0	B	1/1	0.32	20.1	C	1/2	0.36	32.7	C	1/2
Steeplegate Mall Driveway WB RT	0.00	16.2	B	0/0	0.05	9.5	A	0/1	0.05	21.7	C	0/1	0.00	16.0	B	0/0	0.05	10.0	A	0/1	0.05	22.9	C	0/1
NH Route 9 NB LT	0.26	18.3	B	1/1	0.21	17.4	B	1/2	0.30	23.8	C	2/2	0.21	18.0	B	1/1	0.20	18.0	B	1/2	0.25	20.2	C	1/3
NH Route 9 NB TH/RT	0.18	4.6	A	0/2	0.31	10.8	B	2/3	0.19	16.6	B	3/3	0.15	4.5	A	0/2	0.24	9.5	A	1/3	0.16	17.5	B	3/4
NH Route 9 SB LT	0.01	20.3	C	0/1	0.33	15.5	B	1/3	0.30	28.1	C	1/2	0.01	20.0	C	0/1	0.29	14.6	B	1/3	0.31	29.4	C	1/2
NH Route 9 SB TH/RT	0.25	6.6	A	1/3	0.29	8.7	A	2/3	0.21	5.8	A	2/3	0.25	6.5	A	1/3	0.25	6.8	A	1/3	0.20	5.5	A	2/4
Overall	--	**7.9**	**A**	--	--	**11.5**	**B**	--	--	**16.4**	**B**	--	--	**7.8**	**A**	--	--	**10.4**	**B**	--	--	**16.4**	**B**	--
Weekday Evening:																								
Carrier Place Driveway EB LT/TH	0.50	33.2	C	2/4	0.44	29.9	C	2/3	0.48	34.8	C	2/4	0.50	33.2	C	2/4	0.44	29.9	C	2/3	0.48	34.8	C	2/4
Carrier Place Driveway EB RT	0.06	21.7	C	1/1	0.05	19.3	B	1/1	0.05	22.8	C	0/1	0.08	21.8	C	1/1	0.06	19.3	B	1/1	0.05	22.8	C	0/1
Steeplegate Mall Driveway WB LT/TH	0.12	29.7	C	1/1	0.54	31.3	C	3/5	0.57	36.8	D	3/5	0.12	29.7	C	1/1	0.54	31.3	C	3/5	0.57	36.8	D	3/5
Steeplegate Mall Driveway WB RT	0.01	23.9	C	0/1	0.29	14.5	B	2/3	0.27	20.7	C	2/3	0.01	23.9	C	0/1	0.32	15.3	B	3/4	0.31	21.6	C	3/4
NH Route 9 NB LT	0.36	33.3	C	1/3	0.36	33.3	C	2/3	0.39	37.5	D	2/4	0.36	33.3	C	1/3	0.36	33.3	C	2/3	0.39	37.2	D	2/4
NH Route 9 NB TH/RT	0.28	7.3	A	3/5	0.49	18.7	B	5/8	0.39	14.2	B	4/6	0.32	7.5	A	3/6	0.53	18.7	B	6/9	0.43	16.2	B	3/7
NH Route 9 SB LT	0.14	28.6	C	1/1	0.72	30.4	C	7/9	0.53	40.5	D	4/5	0.14	30.8	C	1/1	0.70	28.8	C	6/6	0.51	43.0	C	4/5
NH Route 9 SB TH/RT	0.38	14.0	B	6/8	0.39	14.6	B	5/9	0.37	9.4	A	3/7	0.39	13.5	B	7/10	0.40	14.5	B	4/6	0.38	9.3	A	3/4
Overall	--	**14.6**	**B**	--	--	**20.2**	**C**	--	--	**20.2**	**C**	--	--	**14.1**	**B**	--	--	**19.9**	**B**	--	--	**20.7**	**C**	--
Saturday Midday:																								
Carrier Place Driveway EB LT/TH	0.56	39.3	D	2/4	0.51	32.8	C	2/4	0.46	26.5	C	2/4	0.56	39.3	D	2/4	0.51	32.8	C	2/4	0.46	26.5	C	2/4
Carrier Place Driveway EB RT	0.18	24.4	C	1/2	0.15	19.7	B	1/2	0.07	16.1	B	0/1	0.18	24.4	C	1/2	0.15	19.7	B	1/2	0.07	16.1	B	0/1
Steeplegate Mall Driveway WB LT/TH	0.15	33.8	C	1/2	0.69	38.9	D	4/7	0.66	31.3	C	4/6	0.15	33.8	C	1/2	0.69	38.9	D	4/7	0.66	31.3	C	4/6
Steeplegate Mall Driveway WB RT	0.02	27.9	C	0/1	0.40	14.9	B	4/6	0.44	15.0	B	4/6	0.03	28.0	C	1/1	0.41	15.2	B	4/7	0.44	15.1	B	4/6
NH Route 9 NB LT	0.41	36.6	D	2/4	0.41	36.5	D	2/4	0.45	27.0	C	1/2	0.41	36.6	D	2/4	0.41	36.6	D	2/4	0.45	38.6	D	2/2
NH Route 9 NB TH/RT	0.37	7.6	A	5/8	0.74	28.0	C	10/14	0.69	22.5	C	10/12	0.42	8.0	A	5/9	0.81	30.7	C	12/17	0.76	19.6	B	11/13
NH Route 9 SB LT	0.12	50.5	D	1/1	0.83	39.0	D	7/14	0.55	31.0	C	3/6	0.12	53.6	D	1/1	0.83	40.0	D	8/14	0.54	25.7	C	2/4
NH Route 9 SB TH/RT	0.48	8.9	A	4/5	0.54	10.9	B	7/12	0.56	12.7	B	6/7	0.53	8.9	A	8/10	0.59	11.0	B	7/15	0.62	13.6	B	4/8
Overall	--	**13.2**	**B**	--	--	**23.6**	**C**	--	--	**20.4**	**C**	--	--	**12.9**	**B**	--	--	**24.3**	**C**	--	--	**19.4**	**B**	--

See notes at end of table.

Table 18 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2027 No-Build				2027 Opening Year				2027 Opening Year with Mitigation				2037 No-Build				2037 Build				2037 Build with Mitigation			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
17. NH Route 9 at Regal Concord Driveway																								
Weekday Morning:																								
Regal Concord Driveway WB LT									0.10	33.5	C	1/1									0.10	33.5	C	1/1
Regal Concord Driveway WB RT									0.01	25.1	C	0/1									0.01	25.2	C	0/1
NH Route 9 NB TH/RT									0.16	3.4	A	0/2									0.17	3.6	A	0/3
NH Route 9 SB LT									0.17	33.7	C	1/1									0.17	33.8	C	1/1
NH Route 9 SB TH									0.19	1.4	A	0/2									0.19	1.4	A	0/2
Overall									--	**3.6**	**A**	--									--	**3.7**	**A**	--
Weekday Evening:																								
Regal Concord Driveway WB LT									0.20	38.6	D	1/2									0.28	38.5	D	1/2
Regal Concord Driveway WB RT									0.02	27.0	C	0/1									0.03	26.5	C	0/1
NH Route 9 NB TH/RT									0.39	3.2	A	1/3									0.42	3.8	A	2/4
NH Route 9 SB LT									0.25	38.6	D	1/2									0.24	38.5	D	1/2
NH Route 9 SB TH									0.33	2.3	A	2/3									0.36	2.5	A	3/4
Overall									--	**4.6**	**A**	--									--	**5.3**	**A**	--
Saturday Midday:																								
Regal Concord Driveway WB LT									0.23	31.5	C	1/2									0.24	31.9	C	1/2
Regal Concord Driveway WB RT									0.03	20.4	C	0/1									0.03	21.3	C	1/1
NH Route 9 NB TH/RT									0.56	6.2	A	4/5									0.59	5.9	A	5/6
NH Route 9 SB LT									0.28	31.5	C	1/2									0.32	32.6	C	1/2
NH Route 9 SB TH									0.46	3.1	A	3/4									0.50	3.3	A	4/5
Overall									--	**6.0**	**A**	--									--	**5.8**	**A**	--

See Unsignalized Intersection Level-of-Service and Vehicle Queue Summary (Table 14)

See Unsignalized Intersection Level-of-Service and Vehicle Queue Summary (Table 14)

See notes at end of table.

Table 18 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2027 No-Build				2027 Opening Year				2027 Opening Year with Mitigation				2037 No-Build				2037 Build				2037 Build with Mitigation			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
18. NH Route 9 at Patriots Place Driveway and Harbor Freight Tools Driveway																								
Weekday Morning:																								
Patriots Place Driveway EB LT/TH	0.03	16.9	B	1/1	0.03	18.1	B	1/1	0.03	18.1	B	1/1	0.03	16.8	B	1/1	0.03	17.6	B	1/1	0.03	17.6	B	1/1
Patriots Place Driveway EB RT	0.01	16.8	B	0/0	0.01	18.0	B	0/0	0.01	18.0	B	0/0	0.01	16.7	B	0/0	0.01	17.5	B	0/0	0.01	17.5	B	0/0
Harbor Freight Tools Driveway WB LT/TH	0.27	18.2	B	1/1	0.29	19.5	B	1/1	0.29	19.5	B	1/1	0.27	18.1	B	1/1	0.28	19.0	B	1/1	0.28	19.0	B	1/1
Harbor Freight Tools Driveway WB RT	0.00	16.8	B	0/0	0.00	18.0	B	0/0	0.00	18.0	B	0/0	0.00	16.7	B	0/0	0.00	17.5	B	0/0	0.00	17.5	B	0/0
NH Route 9 NB LT	0.14	19.0	B	1/1	0.16	20.4	C	1/1	0.16	20.4	C	1/1	0.12	18.9	B	1/1	0.12	19.8	B	1/1	0.12	19.8	B	1/1
NH Route 9 NB TH	0.18	5.2	A	0/2	0.23	5.2	A	0/3	0.23	5.2	A	0/3	0.16	5.2	A	0/2	0.21	5.2	A	0/3	0.21	5.2	A	0/3
NH Route 9 NB RT	0.01	4.7	A	0/0	0.01	4.5	A	0/0	0.01	4.5	A	0/0	0.01	4.7	A	0/0	0.01	4.6	A	0/0	0.01	4.6	A	0/0
NH Route 9 SB UT/LT	0.05	18.4	B	1/1	0.06	19.5	B	1/1	0.06	19.5	B	1/1	0.05	18.3	B	1/1	0.05	19.0	B	1/1	0.05	19.0	B	1/1
NH Route 9 SB TH/RT	0.24	5.3	A	0/3	0.31	5.3	A	0/4	0.31	5.3	A	0/4	0.23	5.3	A	0/3	0.29	5.3	A	0/4	0.29	5.3	A	0/4
Overall	--	**6.6**	**A**	--	--	**6.3**	**A**	--	--	**6.3**	**A**	--	--	**6.5**	**A**	--	--	**6.4**	**A**	--	--	**6.4**	**A**	--
Weekday Evening:																								
Patriots Place Driveway EB LT/TH	0.36	30.9	C	1/2	0.36	30.9	C	1/3	0.36	30.9	C	1/3	0.36	30.9	C	1/2	0.36	30.9	C	1/3	0.37	31.2	C	1/3
Patriots Place Driveway EB RT	0.06	28.4	C	0/0	0.06	28.4	C	0/0	0.06	28.4	C	0/0	0.06	28.4	C	0/0	0.06	28.4	C	0/0	0.06	28.6	C	0/0
Harbor Freight Tools Driveway WB LT/TH	0.55	33.9	C	2/3	0.55	33.9	C	2/3	0.55	33.9	C	2/3	0.55	33.9	C	2/3	0.55	33.9	C	2/3	0.56	34.4	C	2/3
Harbor Freight Tools Driveway WB RT	0.02	28.2	C	0/0	0.02	28.2	C	0/0	0.02	28.2	C	0/0	0.02	28.2	C	0/0	0.02	28.2	C	0/0	0.02	28.3	C	0/0
NH Route 9 NB LT	0.35	42.5	D	2/3	0.35	32.9	C	2/3	0.37	34.1	C	2/3	0.35	43.9	D	2/3	0.35	32.9	C	2/3	0.37	34.2	C	1/3
NH Route 9 NB TH	0.28	12.7	B	1/6	0.40	13.9	B	3/11	0.35	7.3	A	3/8	0.29	8.1	A	1/6	0.40	10.4	B	3/12	0.38	7.3	A	3/8
NH Route 9 NB RT	0.03	7.7	A	0/0	0.03	7.8	A	0/1	0.03	5.5	A	0/0	0.03	5.9	A	0/0	0.03	5.9	A	0/1	0.03	5.3	A	0/0
NH Route 9 SB UT/LT	0.09	49.0	D	1/1	0.09	53.2	D	0/1	0.21	51.7	D	1/1	0.15	55.3	E	1/1	0.15	58.1	E	1/1	0.21	44.4	D	1/1
NH Route 9 SB TH/RT	0.31	13.5	B	2/8	0.45	17.8	B	6/12	0.44	14.3	B	6/8	0.33	12.2	B	3/8	0.47	16.8	B	5/13	0.46	11.6	B	5/8
Overall	--	**18.2**	**B**	--	--	**18.9**	**B**	--	--	**15.0**	**B**	--	--	**15.8**	**B**	--	--	**17.0**	**B**	--	--	**13.6**	**B**	--
Saturday Midday:																								
Patriots Place Driveway EB LT/TH	0.32	32.3	C	2/3	0.32	32.3	C	2/3	0.33	32.8	C	2/3	0.32	32.3	C	1/3	0.32	32.3	C	2/3	0.33	32.8	C	2/3
Patriots Place Driveway EB RT	0.09	30.3	C	0/1	0.09	30.3	C	0/1	0.09	30.7	C	0/1	0.09	30.3	C	0/1	0.09	30.3	C	0/1	0.09	30.7	C	0/1
Harbor Freight Tools Driveway WB LT/TH	0.58	36.7	D	3/4	0.58	36.7	D	3/4	0.60	37.7	D	3/4	0.58	36.7	D	3/4	0.58	36.7	D	3/4	0.60	37.7	D	3/4
Harbor Freight Tools Driveway WB RT	0.02	29.7	C	0/0	0.02	29.7	C	0/0	0.02	30.1	C	0/0	0.02	29.7	C	0/0	0.02	29.7	C	0/0	0.02	30.1	C	0/0
NH Route 9 NB LT	0.45	30.7	C	2/2	0.45	50.5	D	3/4	0.49	39.1	D	2/4	0.45	31.6	C	2/2	0.45	51.3	D	3/4	0.48	39.0	D	2/4
NH Route 9 NB TH	0.38	6.8	A	1/7	0.52	7.2	A	2/8	0.51	10.1	B	5/11	0.42	6.7	A	1/7	0.57	7.2	A	2/8	0.55	10.3	B	5/12
NH Route 9 NB RT	0.04	1.3	A	0/0	0.04	7.0	A	0/1	0.04	6.5	A	0/1	0.04	1.3	A	0/0	0.04	5.1	A	0/1	0.04	6.3	A	0/1
NH Route 9 SB UT/LT	0.14	28.3	C	1/1	0.19	37.4	D	1/1	0.23	29.9	C	1/1	0.14	30.3	C	1/1	0.18	39.1	D	1/1	0.24	32.0	C	1/1
NH Route 9 SB TH/RT	0.41	8.7	A	4/5	0.61	12.2	B	6/10	0.60	8.7	A	5/6	0.46	9.7	A	4/6	0.65	13.2	B	6/12	0.63	9.4	A	5/8
Overall	--	**13.5**	**B**	--	--	**14.6**	**B**	--	--	**13.8**	**B**	--	--	**13.4**	**B**	--	--	**14.6**	**B**	--	--	**14.0**	**B**	--

See notes at end of table.

Table 18 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2027 No-Build				2027 Opening Year				2027 Opening Year with Mitigation				2037 No-Build				2037 Build				2037 Build with Mitigation			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
19. NH Route 9 at Walmart Driveway and Private Driveway																								
Weekday Morning:																								
Private Driveway EB LT/TH	0.34	17.1	B	1/2	0.35	18.3	B	1/2	0.36	18.2	C	1/2	0.34	17.2	B	1/2	0.35	18.4	B	1/2	0.36	18.4	B	1/2
Private Driveway EB RT	0.04	11.0	B	0/1	0.04	12.0	B	0/1	0.04	12.0	B	0/1	0.04	11.2	B	0/1	0.04	12.2	B	0/1	0.04	12.3	B	0/1
Walmart Driveway WB LT/TH	0.17	16.1	B	1/1	0.17	17.2	B	1/1	0.18	17.1	B	1/1	0.17	16.2	B	1/1	0.17	17.4	B	1/1	0.18	17.3	B	1/1
Walmart Driveway WB RT	0.02	10.8	B	0/1	0.02	11.7	B	0/1	0.02	12.0	B	0/1	0.02	10.9	B	0/1	0.02	11.9	B	0/1	0.02	12.2	B	0/1
NH Route 9 NB LT	0.18	16.6	B	1/1	0.19	17.8	B	1/1	0.20	17.7	B	1/1	0.16	16.7	B	1/1	0.17	17.9	B	1/1	0.18	17.9	B	1/1
NH Route 9 NB TH	0.11	7.3	A	1/1	0.18	7.3	A	1/2	0.17	6.9	A	1/2	0.11	7.2	A	1/1	0.16	7.1	A	1/2	0.16	6.8	A	1/2
NH Route 9 NB RT	0.01	6.9	A	0/0	0.01	6.7	A	0/0	0.01	6.3	A	0/0	0.01	6.8	A	0/0	0.01	6.6	A	0/0	0.01	6.3	A	0/0
NH Route 9 SB LT	0.26	16.7	B	1/1	0.27	17.9	B	1/2	0.29	18.3	B	1/2	0.25	16.9	B	1/1	0.26	18.0	B	1/2	0.28	18.4	C	1/2
NH Route 9 SB TH/RT	0.21	7.5	A	1/2	0.29	7.5	A	2/3	0.29	7.4	A	2/3	0.23	7.5	A	1/3	0.29	7.4	A	2/4	0.29	7.3	B	2/3
Overall	--	**10.2**	**B**	--	--	**9.9**	**A**	--	--	**9.8**	**A**	--	--	**10.1**	**B**	--	--	**9.9**	**A**	--	--	**9.7**	**A**	--
Weekday Evening:																								
Private Driveway EB LT/TH	0.59	35.5	D	2/4	0.59	35.5	D	2/4	0.62	37.2	D	2/4	0.59	35.5	D	2/4	0.59	35.5	D	2/4	0.61	36.9	D	2/4
Private Driveway EB RT	0.02	20.7	C	0/1	0.02	20.7	C	0/1	0.02	21.6	C	0/1	0.02	21.0	C	0/1	0.02	21.0	C	0/1	0.02	21.8	C	0/1
Walmart Driveway WB LT/TH	0.59	35.5	D	2/4	0.59	35.5	D	2/4	0.62	37.5	D	2/4	0.59	35.5	D	2/4	0.59	35.5	D	2/4	0.61	37.1	D	2/4
Walmart Driveway WB RT	0.21	18.9	B	1/2	0.31	19.7	B	2/3	0.27	20.3	C	2/3	0.20	19.2	B	1/2	0.30	20.0	B	2/3	0.26	20.4	C	2/3
NH Route 9 NB LT	0.34	37.7	D	1/2	0.34	40.2	D	1/2	0.37	42.7	D	1/3	0.31	42.9	D	1/2	0.31	40.9	D	2/2	0.34	50.0	D	2/3
NH Route 9 NB TH	0.33	9.9	A	3/6	0.50	11.9	B	5/11	0.48	10.1	B	7/8	0.32	8.0	A	3/6	0.47	10.5	B	5/12	0.46	8.6	A	6/6
NH Route 9 NB RT	0.02	9.7	A	0/1	0.02	9.8	A	0/1	0.02	9.1	A	0/0	0.01	9.5	A	0/1	0.01	9.5	A	0/1	0.01	9.0	A	0/0
NH Route 9 SB LT	0.49	31.0	C	3/4	0.48	30.8	C	3/4	0.52	32.0	C	3/5	0.47	31.1	C	2/4	0.47	31.1	C	3/5	0.50	32.0	C	3/5
NH Route 9 SB TH/RT	0.28	9.3	A	3/5	0.43	10.6	B	5/8	0.42	9.9	A	5/7	0.30	9.3	A	3/6	0.44	10.5	B	5/9	0.43	9.9	A	5/8
Overall	--	**16.9**	**B**	--	--	**16.5**	**B**	--	--	**15.9**	**B**	--	--	**16.3**	**B**	--	--	**15.9**	**B**	--	--	**15.5**	**B**	--
Saturday Midday:																								
Private Driveway EB LT/TH	0.52	34.6	C	2/3	0.52	34.6	C	2/4	0.53	35.0	C	2/4	0.52	34.6	C	2/3	0.52	34.6	C	2/4	0.53	35.0	C	2/4
Private Driveway EB RT	0.06	20.9	C	0/1	0.14	21.6	C	1/2	0.06	21.7	C	0/1	0.09	21.1	C	1/1	0.14	21.6	C	1/2	0.06	21.7	C	0/1
Walmart Driveway WB LT/TH	0.62	37.8	D	3/5	0.62	37.8	D	3/5	0.62	38.1	D	3/5	0.62	37.8	D	3/5	0.62	37.8	D	3/5	0.62	38.1	D	3/5
Walmart Driveway WB RT	0.14	18.8	B	1/1	0.25	19.7	B	2/3	0.23	20.0	C	2/3	0.17	19.1	B	1/2	0.25	19.8	B	2/3	0.24	20.1	B	2/3
NH Route 9 NB LT	0.37	51.5	D	2/4	0.37	48.1	D	2/4	0.39	48.2	D	2/4	0.37	53.0	D	2/4	0.37	48.6	D	2/4	0.39	48.2	D	2/4
NH Route 9 NB TH	0.31	5.6	A	1/2	0.50	8.5	A	5/7	0.49	8.5	A	4/4	0.34	5.8	A	2/3	0.53	8.9	A	5/7	0.53	8.8	A	4/6
NH Route 9 NB RT	0.02	11.6	B	0/0	0.02	11.6	B	0/1	0.01	11.3	B	0/0	0.02	11.6	B	0/0	0.02	11.6	B	0/0	0.01	11.3	B	0/0
NH Route 9 SB LT	0.55	35.9	D	3/5	0.55	35.9	D	4/6	0.56	36.6	D	4/6	0.55	36.0	D	3/5	0.55	36.0	D	4/6	0.56	36.6	D	4/6
NH Route 9 SB TH/RT	0.34	12.2	B	4/7	0.54	14.5	B	8/12	0.52	13.6	B	7/11	0.40	12.7	B	5/8	0.59	15.3	B	9/14	0.58	14.5	B	9/12
Overall	--	**18.3**	**B**	--	--	**17.7**	**B**	--	--	**17.5**	**B**	--	--	**18.0**	**B**	--	--	**17.9**	**B**	--	--	**17.6**	**B**	--

See notes at end of table.

Table 18 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2027 No-Build				2027 Opening Year				2027 Opening Year with Mitigation				2037 No-Build				2037 Build				2037 Build with Mitigation			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
21. NH Route 106 at Pembroke Road and North Pembroke Road																								
Weekday Morning:																								
Pembroke Road EB LT	0.35	45.1	D	1/2	0.35	43.4	D	1/3	0.28	37.2	D	1/2	0.35	44.8	D	1/3	0.34	42.2	D	1/3	0.28	39.0	D	1/2
Pembroke Road EB TH/RT	0.18	36.5	D	1/2	0.18	36.4	D	1/2	0.17	28.8	C	1/2	0.18	36.6	D	1/3	0.18	35.9	D	1/3	0.17	30.8	C	1/3
North Pembroke Road WB LT	0.45	44.1	D	2/3	0.45	44.1	D	2/3	0.44	36.3	D	2/3	0.42	43.5	D	2/4	0.41	42.7	D	2/4	0.42	37.8	D	2/4
North Pembroke Road WB TH/RT	0.53	38.6	D	3/5	0.59	41.8	D	4/5	0.43	28.6	C	3/5	0.49	38.1	D	3/6	0.54	40.0	D	3/6	0.42	30.4	C	3/5
NH Route 106 NB LT	0.33	20.7	C	1/1	0.34	20.7	C	1/2	0.32	11.9	B	1/1	0.33	20.5	C	1/2	0.33	20.1	C	1/2	0.34	12.4	B	1/2
NH Route 106 NB TH	0.53	15.2	B	9/13	0.58	16.4	B	11/15	--	--	--	--	0.52	15.0	B	9/15	0.59	17.0	B	10/17	--	--	--	--
NH Route 106 NB TH/RT	--	--	--	--	--	--	--	--	0.36	13.2	B	4/6	--	--	--	--	--	--	--	--	0.33	12.4	B	4/7
NH Route 106 NB RT	0.02	10.7	B	0/0	0.02	10.8	B	0/0	--	--	--	--	0.02	10.6	B	0/0	0.02	11.3	B	0/0	--	--	--	--
NH Route 106 SB LT	0.09	10.1	B	1/1	0.11	10.5	B	1/1	0.10	9.6	A	1/1	0.10	9.9	A	1/1	0.12	10.0	B	1/1	0.11	9.0	A	1/1
NH Route 106 SB TH	0.99	49.4	D	26/40	1.05	68.0	E	30/43	--	--	--	--	1.08	77.8	E	31/46	1.16	106.0	F	35/50	--	--	--	--
NH Route 106 SB TH/RT	--	--	--	--	--	--	--	--	0.70	18.5	B	10/14	--	--	--	--	--	--	--	--	0.73	18.5	B	11/17
NH Route 106 SB RT	0.10	12.4	B	0/1	0.11	12.5	B	1/2	--	--	--	--	0.11	12.3	B	1/2	0.12	12.4	B	1/2	--	--	--	--
Overall	--	**34.6**	**C**	--	--	**43.1**	**D**	--	--	**19.1**	**B**	--	--	**47.9**	**D**	--	--	**61.2**	**E**	--	--	**19.2**	**B**	--
Weekday Evening:																								
Pembroke Road EB LT	1.18	163.6	F	8/14	1.25	190.5	F	8/15	0.49	33.3	C	3/5	1.20	170.4	F	8/16	1.26	194.1	F	9/17	0.51	34.7	C	3/5
Pembroke Road EB TH/RT	0.42	34.7	C	3/6	0.42	34.8	C	4/6	0.37	28.2	C	3/5	0.43	34.9	C	3/7	0.43	35.0	D	4/7	0.40	29.8	C	3/6
North Pembroke Road WB LT	0.30	45.5	D	1/2	0.30	45.5	D	1/2	0.38	41.4	D	1/2	0.28	45.4	D	1/2	0.28	45.5	D	1/2	0.35	42.3	D	1/2
North Pembroke Road WB TH/RT	0.33	37.9	D	2/3	0.34	38.1	D	2/3	0.40	35.7	D	2/3	0.29	37.8	D	1/4	0.29	37.9	D	3/4	0.36	36.8	D	1/4
NH Route 106 NB LT	0.29	16.4	B	1/2	0.35	20.1	C	1/2	0.28	12.1	B	1/2	0.38	19.6	B	1/2	0.38	21.2	C	1/2	0.33	12.5	B	1/2
NH Route 106 NB TH	1.14	102.3	F	29/45	1.23	137.6	F	34/50	--	--	--	--	1.27	155.4	F	36/52	1.35	192.8	F	40/57	--	--	--	--
NH Route 106 NB TH/RT	--	--	--	--	--	--	--	--	0.72	20.4	C	11/15	--	--	--	--	--	--	--	--	0.76	21.2	C	13/17
NH Route 106 NB RT	0.04	13.9	B	0/0	0.04	13.9	B	0/0	--	--	--	--	0.04	13.9	B	0/0	0.04	14.0	B	0/0	--	--	--	--
NH Route 106 SB LT	0.38	21.2	C	1/2	0.40	21.3	C	1/2	0.37	13.4	B	1/2	0.42	21.3	C	1/2	0.43	21.5	C	1/3	0.45	14.9	B	1/2
NH Route 106 SB TH	0.82	28.4	C	15/28	0.93	40.8	D	19/34	--	--	--	--	0.91	37.5	D	18/33	1.02	62.1	E	23/39	--	--	--	--
NH Route 106 SB TH/RT	--	--	--	--	--	--	--	--	0.61	17.9	B	9/12	--	--	--	--	--	--	--	--	0.65	18.0	B	10/13
NH Route 106 SB RT	0.09	14.2	B	0/1	0.11	14.3	B	1/2	--	--	--	--	0.11	14.3	B	1/2	0.13	14.5	B	1/2	--	--	--	--
Overall	--	**68.0**	**E**	--	--	**86.7**	**F**	--	--	**21.7**	**C**	--	--	**91.1**	**F**	--	--	**114.1**	**F**	--	--	**22.1**	**C**	--
Saturday Midday:																								
Pembroke Road EB LT	0.67	44.7	D	4/6	0.89	74.6	E	5/9	0.38	30.8	C	2/3	0.73	53.3	D	4/8	0.85	67.7	E	5/10	0.38	32.2	C	2/4
Pembroke Road EB TH/RT	0.12	28.5	C	1/2	0.11	29.6	C	1/2	0.11	22.3	C	1/2	0.11	29.3	C	1/2	0.11	29.0	C	1/3	0.11	23.5	C	1/2
North Pembroke Road WB LT	0.15	44.3	D	1/1	0.16	47.8	D	1/1	0.15	37.8	D	1/1	0.17	47.6	D	1/1	0.17	47.4	D	1/1	0.17	39.5	D	1/1
North Pembroke Road WB TH/RT	0.21	36.7	D	1/2	0.19	37.2	D	1/3	0.19	29.7	C	1/3	0.19	36.8	D	1/3	0.20	36.7	D	1/3	0.21	31.2	C	1/3
NH Route 106 NB LT	0.16	12.9	B	1/1	0.26	19.3	B	1/1	0.20	12.1	B	1/1	0.21	16.1	B	1/1	0.25	20.3	C	1/1	0.23	12.4	B	1/1
NH Route 106 NB TH	0.82	25.7	C	14/23	0.99	52.8	D	20/34	--	--	--	--	0.90	35.5	D	16/30	1.07	76.3	E	25/39	--	--	--	--
NH Route 106 NB TH/RT	--	--	--	--	--	--	--	--	0.60	17.8	B	7/10	--	--	--	--	--	--	--	--	0.62	17.8	B	8/11
NH Route 106 NB RT	0.01	12.1	B	0/0	0.01	13.0	B	0/0	--	--	--	--	0.01	13.3	B	0/0	0.01	13.2	B	0/0	--	--	--	--
NH Route 106 SB LT	0.23	14.5	B	1/1	0.32	20.9	C	1/2	0.24	11.3	B	1/2	0.41	19.5	B	1/2	0.33	20.7	C	1/2	0.26	11.4	B	1/2
NH Route 106 SB TH	0.73	20.8	C	12/20	0.91	34.3	C	18/31	--	--	--	--	0.83	27.8	C	14/26	1.02	58.8	E	21/36	--	--	--	--
NH Route 106 SB TH/RT	--	--	--	--	--	--	--	--	0.65	17.9	B	8/12	--	--	--	--	--	--	--	--	0.67	18.0	B	9/13
NH Route 106 SB RT	0.08	11.9	B	0/1	0.11	12.9	B	1/2	--	--	--	--	0.09	13.5	B	0/1	0.12	13.9	B	1/2	--	--	--	--
Overall	--	**24.7**	**C**	--	--	**42.1**	**D**	--	--	**19.4**	**B**	--	--	**31.3**	**C**	--	--	**58.7**	**E**	--	--	**19.5**	**B**	--

See notes at end of table.

Table 18 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2027 No-Build				2027 Opening Year				2027 Opening Year with Mitigation				2037 No-Build				2037 Build				2037 Build with Mitigation			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
22. NH Route 106 at Regional Drive and Smokey Bear Boulevard																								
Weekday Morning:																								
Regional Drive EB LT	0.06	17.1	B	1/1	0.47	19.5	B	2/4	0.46	21.7	C	2/4	0.43	19.0	B	2/4	0.48	19.3	B	2/4	0.48	22.5	C	3/5
Regional Drive EB TH/RT	0.50	20.1	C	2/4	0.49	19.4	B	3/5	0.47	22.1	C	3/5	0.50	19.4	B	3/5	0.50	19.3	B	3/5	0.49	23.0	C	3/6
Smokey Bear Boulevard WB LT	0.04	17.1	B	1/1	0.04	16.5	B	1/1	0.09	30.2	C	1/1	0.04	16.4	B	1/1	0.04	16.3	B	1/1	0.09	30.9	C	1/1
Smokey Bear Boulevard WB TH/RT	0.06	17.1	B	1/1	0.06	16.5	B	1/1	0.18	30.6	C	1/1	0.05	16.4	B	1/1	0.05	16.3	B	1/1	0.16	31.2	C	1/2
NH Route 106 NB LT	0.34	8.1	A	1/2	0.33	8.6	A	1/2	0.37	9.4	A	1/2	0.36	9.4	A	1/2	0.35	9.8	A	1/2	0.45	11.2	B	1/2
NH Route 106 NB TH	0.40	5.7	A	3/5	0.43	6.0	A	3/6	0.43	6.9	A	4/6	0.43	6.1	A	3/6	0.45	6.3	A	3/7	0.44	6.9	A	4/6
NH Route 106 NB RT	0.03	4.2	A	0/1	0.03	4.3	A	0/1	0.03	5.0	A	0/0	0.03	4.4	A	0/1	0.03	4.4	A	0/1	0.03	4.9	A	0/0
NH Route 106 SB LT	0.33	12.6	B	1/3	0.34	12.9	B	1/3	0.29	11.8	B	1/3	0.39	13.4	B	1/4	0.40	13.5	B	2/4	0.32	12.0	B	2/3
NH Route 106 SB TH	0.83	23.5	C	8/17	0.90	30.2	C	9/18	0.77	19.0	B	9/14	0.95	40.1	D	10/19	1.00	52.3	D	12/21	0.82	21.9	C	10/18
NH Route 106 SB RT	0.21	11.6	B	0/2	0.22	11.8	B	0/2	0.22	11.2	B	0/2	0.23	12.1	B	0/2	0.25	12.2	B	0/2	0.25	11.2	B	0/2
Overall	--	**14.7**	**B**	--	--	**17.0**	**B**	--	--	**14.6**	**B**	--	--	**20.2**	**C**	--	--	**24.0**	**C**	--	--	**15.8**	**B**	--
Weekday Evening:																								
Regional Drive EB LT	1.04	76.9	E	7/12	1.14	108.6	F	8/13	0.80	34.1	C	11/14	1.12	104.1	F	8/14	1.25	157.1	F	9/15	0.88	45.7	D	11/17
Regional Drive EB TH/RT	0.10	14.4	B	1/1	0.10	15.0	B	1/1	0.09	20.1	C	1/2	0.10	15.6	B	1/1	0.10	17.2	B	1/2	0.09	22.7	C	1/2
Smokey Bear Boulevard WB LT	0.04	14.1	B	1/1	0.04	14.7	B	1/1	0.13	43.4	D	1/1	0.04	15.3	B	1/1	0.05	16.9	B	1/1	0.15	46.4	D	1/2
Smokey Bear Boulevard WB TH/RT	0.10	14.4	B	1/2	0.10	15.0	B	1/2	0.37	45.2	D	2/4	0.12	15.7	B	1/2	0.12	17.3	B	1/2	0.45	48.8	D	2/5
NH Route 106 NB LT	0.22	9.3	A	1/1	0.20	9.9	A	1/1	0.26	17.8	B	1/2	0.25	10.1	B	1/1	0.23	10.7	B	1/1	0.32	19.1	B	1/2
NH Route 106 NB TH	0.66	10.8	B	6/10	0.70	11.5	B	7/11	0.73	21.3	C	14/20	0.71	11.6	B	7/12	0.73	11.8	B	8/13	0.77	22.1	C	14/23
NH Route 106 NB RT	0.00	5.9	A	0/0	0.00	5.7	A	0/0	0.00	11.2	B	0/0	0.00	5.6	A	0/0	0.00	5.3	A	0/0	0.00	10.5	B	0/0
NH Route 106 SB LT	0.03	11.4	B	1/1	0.04	11.0	B	1/1	0.05	16.6	B	1/1	0.04	11.0	B	1/1	0.04	10.4	B	1/1	0.06	15.8	B	1/1
NH Route 106 SB TH	0.85	26.4	C	8/15	0.90	30.7	C	10/18	0.81	31.6	C	15/21	0.89	29.4	C	9/18	0.90	30.2	C	11/20	0.84	32.5	C	18/27
NH Route 106 SB RT	0.18	12.2	B	0/2	0.21	12.0	B	0/2	0.22	18.1	B	1/2	0.20	11.8	B	0/2	0.23	11.5	B	0/2	0.26	17.6	B	1/3
Overall	--	**27.7**	**C**	--	--	**34.9**	**C**	--	--	**26.9**	**C**	--	--	**32.8**	**C**	--	--	**42.1**	**D**	--	--	**29.5**	**C**	--
Saturday Midday:																								
Regional Drive EB LT	0.66	20.0	C	3/6	0.79	26.1	C	4/9	0.77	29.4	C	5/9	0.67	20.6	C	3/8	0.81	29.3	C	4/11	0.83	36.2	D	5/11
Regional Drive EB TH/RT	0.04	13.3	B	1/1	0.04	13.2	B	1/1	0.04	17.8	B	1/1	0.04	13.3	B	1/1	0.04	14.0	B	1/1	0.05	18.9	B	1/1
Smokey Bear Boulevard WB LT	0.00	13.1	B	0/1	0.00	13.0	B	0/1	0.03	32.9	C	1/1	0.00	13.1	B	0/1	0.00	13.8	B	0/1	0.03	34.1	C	1/1
Smokey Bear Boulevard WB TH/RT	0.01	13.2	B	1/1	0.01	13.1	B	1/1	0.08	33.2	C	1/1	0.01	13.2	B	1/1	0.01	13.8	B	1/1	0.08	34.4	C	1/1
NH Route 106 NB LT	0.11	8.3	A	1/1	0.10	9.7	A	1/1	0.10	9.3	A	1/1	0.13	8.8	A	1/1	0.12	10.0	A	1/1	0.11	9.4	A	1/1
NH Route 106 NB TH	0.51	8.7	A	4/6	0.61	10.2	A	5/9	0.56	9.5	A	4/11	0.56	9.4	A	4/7	0.65	10.7	B	6/10	0.56	9.4	A	5/12
NH Route 106 NB RT	0.00	6.0	A	0/0	0.00	6.1	A	0/0	0.00	6.0	A	0/0	0.00	6.0	A	0/0	0.00	5.9	A	0/0	0.00	5.7	A	0/0
NH Route 106 SB LT	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0
NH Route 106 SB TH	0.76	19.6	B	4/13	0.91	31.7	C	6/16	0.74	18.0	B	5/15	0.80	22.0	C	5/15	0.91	31.2	C	6/18	0.74	17.9	B	5/20
NH Route 106 SB RT	0.16	11.4	B	0/1	0.20	11.6	B	0/2	0.20	10.7	B	0/2	0.17	11.4	B	0/2	0.21	11.4	B	0/2	0.21	10.4	B	0/2
Overall	--	**14.7**	**B**	--	--	**20.2**	**B**	--	--	**16.3**	**B**	--	--	**15.7**	**B**	--	--	**20.6**	**C**	--	--	**17.4**	**B**	--

See notes at end of table.

Table 18 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2027 No-Build				2027 Opening Year				2027 Opening Year with Mitigation				2037 No-Build				2037 Build				2037 Build with Mitigation			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
24. US Route 3 at Black Hill Road and Old Turnpike Road																								
Weekday Morning:																								
US Route 3 EB LT	1.12	102.4	F	20/24	1.13	108.9	F	21/25	0.69	28.2	C	8/9	1.09	94.5	F	19/29	1.11	100.2	F	20/30	0.65	25.7	C	7/10
US Route 3 EB TH/RT	0.39	2.6	A	3/3	0.39	2.6	A	3/4	0.37	1.5	A	2/2	0.38	2.6	A	3/4	0.38	2.6	A	3/4	0.37	1.5	A	2/3
US Route 3 WB LT	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0
US Route 3 WB TH/RT	0.91	35.4	D	14/14	0.91	35.6	D	14/15	0.74	18.7	B	11/12	0.84	30.4	C	13/17	0.84	30.5	C	13/18	0.71	18.3	C	10/13
Black Hill Road NB LT/TH	0.01	38.1	D	1/1	0.01	38.1	D	1/1	0.02	38.0	D	1/1	0.01	38.0	D	1/1	0.01	38.0	D	1/1	0.01	36.6	D	1/1
Black Hill Road NB RT	0.00	38.0	D	0/0	0.00	38.0	D	0/0	0.00	37.9	D	0/0	0.00	38.0	D	0/0	0.00	37.9	D	0/0	0.00	36.5	D	0/0
Old Turnpike Road SB LT/TH	0.24	39.9	D	1/2	0.26	40.1	D	1/2	0.45	42.8	D	1/2	0.25	39.9	D	1/2	0.27	40.2	D	1/2	0.46	41.5	D	1/2
Old Turnpike Road SB RT	0.24	39.8	D	0/3	0.24	39.8	D	0/3	0.21	19.2	B	0/2	0.25	39.9	D	0/4	0.26	39.9	D	0/4	0.23	18.0	B	0/2
Overall	--	**39.8**	**D**	--	--	**41.5**	**D**	--	--	**15.7**	**B**	--	--	**36.5**	**D**	--	--	**37.9**	**D**	--	--	**14.8**	**B**	--
Weekday Evening:																								
US Route 3 EB LT	0.79	38.8	D	9/13	0.79	38.7	D	9/14	0.50	24.3	C	3/5	0.80	38.9	D	10/15	0.81	39.3	D	11/16	0.53	24.8	C	4/6
US Route 3 EB TH/RT	0.45	5.7	A	3/8	0.45	5.7	A	4/8	0.50	6.6	A	4/10	0.50	5.9	A	4/9	0.50	5.8	A	4/9	0.55	7.3	A	4/12
US Route 3 WB LT	0.04	45.8	D	1/1	0.04	46.5	D	1/1	0.03	34.7	C	1/1	0.04	47.7	D	1/1	0.04	48.3	D	1/1	0.03	35.8	D	1/1
US Route 3 WB TH/RT	0.76	24.3	C	12/16	0.78	25.6	C	13/16	0.78	20.2	C	10/15	0.84	29.6	C	15/20	0.85	31.3	C	15/21	0.84	24.0	C	11/19
Black Hill Road NB LT/TH	0.02	37.2	D	1/1	0.02	37.9	D	1/1	0.02	27.7	C	1/1	0.02	39.1	D	1/1	0.02	39.7	D	1/1	0.02	28.2	C	1/1
Black Hill Road NB RT	0.00	37.1	D	0/0	0.00	37.8	D	0/0	0.00	27.6	C	0/0	0.00	39.0	D	0/0	0.00	39.6	D	0/0	0.00	28.1	C	0/0
Old Turnpike Road SB LT/TH	0.57	44.3	D	2/5	0.58	45.6	D	2/5	0.50	31.8	C	2/3	0.66	52.4	D	2/5	0.67	53.9	D	3/6	0.54	33.6	C	2/4
Old Turnpike Road SB RT	1.75	400.4	F	11/22	1.90	466.5	F	13/23	0.80	26.4	C	4/14	2.38	681.4	F	18/27	2.53	747.9	F	19/28	0.93	40.4	D	9/23
Overall	--	**112.6**	**F**	--	--	**130.9**	**F**	--	--	**18.5**	**B**	--	--	**186.0**	**F**	--	--	**205.4**	**F**	--	--	**23.4**	**C**	--
Saturday Midday:																								
US Route 3 EB LT	0.75	33.6	C	8/12	0.76	34.0	C	10/13	0.55	23.4	C	3/5	0.79	38.3	D	9/14	0.80	38.5	D	11/15	0.58	24.9	C	4/6
US Route 3 EB TH/RT	0.38	5.3	A	3/5	0.38	5.2	A	3/6	0.42	6.1	A	2/9	0.39	5.1	A	3/6	0.39	4.9	A	3/6	0.42	5.2	A	2/9
US Route 3 WB LT	0.02	42.8	D	1/1	0.02	44.5	D	1/1	0.01	28.7	C	0/1	0.02	46.0	D	1/1	0.02	47.3	D	1/1	0.01	30.2	C	0/1
US Route 3 WB TH/RT	0.65	21.4	C	9/13	0.67	23.3	C	10/13	0.58	13.2	B	6/8	0.70	23.0	C	11/15	0.71	24.7	C	12/15	0.61	12.6	B	7/10
Black Hill Road NB LT/TH	0.05	35.1	D	1/1	0.05	36.8	D	1/1	0.06	27.3	C	1/1	0.07	38.4	D	1/1	0.06	39.9	D	1/1	0.09	30.2	C	1/1
Black Hill Road NB RT	0.00	34.8	C	0/0	0.00	36.4	D	0/0	0.00	27.0	C	0/0	0.00	37.9	D	0/0	0.00	39.4	D	0/0	0.00	29.6	C	0/0
Old Turnpike Road SB LT/TH	0.49	39.3	D	2/4	0.51	41.3	D	2/4	0.59	35.2	D	1/3	0.55	44.7	D	2/4	0.37	42.6	D	2/3	0.52	35.1	D	1/3
Old Turnpike Road SB RT	0.33	37.3	D	0/3	0.36	39.3	D	0/4	0.31	16.7	B	1/2	0.36	40.8	D	0/6	0.38	42.6	D	0/7	0.38	19.1	B	1/3
Overall	--	**21.5**	**C**	--	--	**22.9**	**C**	--	--	**13.9**	**B**	--	--	**23.5**	**C**	--	--	**24.5**	**C**	--	--	**13.9**	**B**	--

See notes at end of table.

Table 18 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2027 No-Build				2027 Opening Year				2027 Opening Year with Mitigation				2037 No-Build				2037 Build				2037 Build with Mitigation			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
29. NH Route 9 at Gully Hill Road West and Everett Arena																								
Weekday Morning:																								
NH Route 9 EB LT	0.09	64.2	E	1/1	0.09	69.3	E	1/1	0.07	47.4	D	1/1	0.07	63.3	E	1/1	0.07	65.8	E	1/1	0.05	47.2	D	1/1
NH Route 9 EB TH	0.49	5.6	A	6/9	0.53	4.3	A	3/7	0.64	12.5	B	8/15	0.50	5.1	A	6/8	0.53	4.9	A	6/6	0.64	12.6	B	8/18
NH Route 9 EB RT	0.13	4.1	A	1/1	0.13	2.7	A	0/1	0.12	3.1	A	1/1	0.13	3.9	A	1/1	0.13	3.6	A	1/1	0.12	3.1	A	1/1
NH Route 9 WB LT	0.27	64.9	E	1/2	0.27	69.4	E	1/2	0.23	52.4	D	1/2	0.30	65.9	E	1/3	0.30	69.8	E	1/3	0.26	52.3	D	1/2
NH Route 9 WB TH/RT	0.29	2.4	A	2/2	0.32	2.1	A	1/2	0.26	4.5	A	1/2	0.32	2.5	A	2/2	0.35	2.2	A	1/3	0.29	4.6	A	1/3
Gully Hill Road West NB LT	--	--	--	--	--	--	--	--	0.14	42.5	D	1/2	--	--	--	--	--	--	--	--	0.15	42.5	D	1/2
Gully Hill Road West NB LT/TH	0.36	55.5	E	1/3	0.36	55.5	E	1/3	0.14	42.5	D	1/2	0.38	55.5	E	1/3	0.38	55.5	E	2/3	0.15	42.5	D	1/2
Gully Hill Road West NB RT	0.01	52.0	D	0/0	0.01	52.0	D	0/0	0.01	41.6	D	0/0	0.01	51.7	D	0/0	0.01	51.7	D	0/0	0.01	41.5	D	0/0
Everett Arena SB LT/TH/RT	0.02	52.1	D	1/1	0.02	52.1	D	1/1	0.03	45.6	D	1/1	0.02	51.8	D	1/1	0.02	51.8	D	1/1	0.03	45.6	D	1/1
Overall	--	**6.5**	**A**	--	--	**5.5**	**A**	--	--	**10.4**	**B**	--	--	**6.3**	**A**	--	--	**5.9**	**A**	--	--	**10.4**	**B**	--
Weekday Evening:																								
NH Route 9 EB LT	0.36	63.4	E	1/2	0.36	63.9	E	1/2	0.28	45.3	D	1/2	0.36	62.7	E	1/2	0.36	64.5	E	1/2	0.28	45.3	D	1/2
NH Route 9 EB TH	0.57	19.9	B	17/18	0.63	19.7	B	18/20	0.71	20.6	C	10/24	0.66	22.7	C	18/20	0.73	23.2	C	19/24	0.84	27.4	C	17/30
NH Route 9 EB RT	0.26	15.0	B	2/7	0.27	14.2	B	4/7	0.22	3.8	A	1/3	0.30	16.9	B	6/8	0.31	15.3	B	5/8	0.25	4.4	A	2/3
NH Route 9 WB LT	0.28	63.7	E	1/2	0.28	62.9	E	1/2	0.26	40.9	D	1/1	0.30	62.9	E	1/2	0.30	60.8	E	1/2	0.23	39.0	D	1/1
NH Route 9 WB TH/RT	0.65	18.0	B	15/16	0.72	20.1	C	16/19	0.58	22.8	C	10/14	0.75	22.5	C	16/20	0.82	25.4	C	17/23	0.66	26.1	C	11/19
Gully Hill Road West NB LT	--	--	--	--	--	--	--	--	0.52	37.9	D	4/5	--	--	--	--	--	--	--	--	0.53	36.7	D	5/5
Gully Hill Road West NB LT/TH	0.87	66.5	E	11/12	0.89	70.1	E	11/15	0.52	37.9	D	4/5	0.92	72.7	E	13/14	0.93	75.1	E	14/14	0.53	36.7	D	5/5
Gully Hill Road West NB RT	0.05	36.5	D	0/1	0.05	37.1	D	0/1	0.05	33.2	C	0/0	0.05	35.0	C	0/1	0.05	35.2	D	0/1	0.05	31.8	C	0/0
Everett Arena SB LT/TH/RT	0.04	36.4	D	1/1	0.04	37.0	D	1/1	0.05	43.0	D	1/1	0.04	34.8	C	1/1	0.04	35.1	D	1/1	0.05	43.0	D	1/1
Overall	--	**25.0**	**C**	--	--	**25.6**	**C**	--	--	**22.9**	**C**	--	--	**28.5**	**C**	--	--	**29.5**	**C**	--	--	**26.5**	**C**	--
Saturday Midday:																								
NH Route 9 EB LT	0.62	55.4	E	3/4	0.64	55.3	E	3/4	0.45	43.2	D	2/4	0.64	57.4	E	3/4	0.64	56.3	E	3/4	0.45	43.2	D	2/4
NH Route 9 EB TH	0.65	27.4	C	20/21	0.74	27.7	C	24/25	0.83	25.7	C	17/30	0.70	27.5	C	23/24	0.80	28.1	C	27/28	0.95	37.6	D	22/35
NH Route 9 EB RT	0.41	26.4	C	7/8	0.42	22.8	C	7/8	0.46	17.6	B	4/10	0.47	24.8	C	8/9	0.47	21.9	C	8/9	0.55	20.6	C	6/15
NH Route 9 WB LT	0.34	52.8	D	1/2	0.34	50.6	D	1/2	0.26	52.8	D	1/1	0.37	50.3	D	1/2	0.37	51.9	D	1/2	0.28	53.2	D	1/1
NH Route 9 WB TH/RT	0.77	34.7	C	15/28	0.86	35.3	D	18/33	0.70	19.8	B	14/22	0.83	36.1	D	17/31	0.93	41.0	D	21/37	0.80	23.0	C	15/24
Gully Hill Road West NB LT	--	--	--	--	--	--	--	--	0.56	40.2	D	4/6	--	--	--	--	--	--	--	--	0.57	38.8	D	5/7
Gully Hill Road West NB LT/TH	0.87	60.5	E	10/18	0.95	81.4	F	11/18	0.56	40.2	D	4/6	1.04	102.9	F	14/20	1.11	129.0	F	14/21	0.57	38.9	D	5/7
Gully Hill Road West NB RT	0.07	31.9	C	0/2	0.07	34.1	C	0/2	0.07	34.6	C	0/1	0.08	33.6	C	0/2	0.08	35.2	D	0/2	0.08	33.2	C	0/1
Everett Arena SB LT/TH/RT	0.10	32.3	C	1/1	0.12	34.7	C	1/1	0.20	43.3	D	1/2	0.12	34.1	C	1/1	0.14	35.9	D	1/1	0.20	43.3	D	1/2
Overall	--	**34.1**	**C**	--	--	**35.5**	**D**	--	--	**24.9**	**C**	--	--	**38.3**	**D**	--	--	**41.6**	**D**	--	--	**30.4**	**C**	--

See notes at end of table.

Table 18 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2027 No-Build				2027 Opening Year				2027 Opening Year with Mitigation				2037 No-Build				2037 Build				2037 Build with Mitigation			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
30. NH Route 9 at Gully Hill Road East and Everett Arena																								
Weekday Morning:																								
NH Route 9 EB LT	0.09	74.8	E	1/1	0.09	66.4	E	1/1	0.07	53.4	D	1/1	0.07	75.1	E	1/1	0.07	70.5	E	1/1	0.05	54.3	D	1/1
NH Route 9 EB TH	--	--	--	--	--	--	--	--	0.45	3.9	A	2/2	--	--	--	--	--	--	--	--	0.43	4.2	A	2/3
NH Route 9 EB TH/RT	0.58	6.3	A	1/4	0.63	7.3	A	1/6	--	--	--	--	0.55	5.6	A	1/4	0.59	6.4	A	1/6	--	--	--	--
NH Route 9 EB RT	--	--	--	--	--	--	--	--	0.01	2.4	A	0/0	--	--	--	--	--	--	--	--	0.01	2.7	A	0/0
NH Route 9 WB UT/LT	0.35	55.3	E	1/3	0.35	55.3	E	2/3	0.22	44.8	D	1/1	0.37	55.2	E	2/3	0.37	55.2	E	2/3	0.20	43.4	D	1/2
NH Route 9 WB TH/RT	0.32	5.6	A	2/7	0.36	5.9	A	2/8	0.38	6.7	A	2/9	0.36	5.9	A	2/8	0.40	6.2	A	3/9	0.42	7.0	A	2/10
Gully Hill Road East NB LT	0.25	54.9	D	1/2	0.25	54.9	D	1/2	0.12	43.5	D	1/1	0.27	55.0	D	1/2	0.27	55.0	D	1/2	0.14	43.7	D	1/2
Gully Hill Road East NB LT/TH	--	--	--	--	--	--	--	--	0.13	43.6	D	1/1	--	--	--	--	--	--	--	--	0.14	43.7	D	1/2
Gully Hill Road East NB TH/RT	0.03	53.1	D	0/0	0.03	53.1	D	0/0	--	--	--	--	0.03	53.1	D	0/0	0.03	53.1	D	0/0	--	--	--	--
Gully Hill Road East NB RT	--	--	--	--	--	--	--	--	0.03	42.9	D	0/0	--	--	--	--	--	--	--	--	0.03	42.9	D	0/0
Everett Arena SB LT	0.08	59.1	E	1/1	0.08	59.1	E	1/1	0.07	47.3	D	1/1	0.08	59.1	E	1/1	0.08	59.1	E	1/1	0.07	47.3	D	1/1
Everett Arena SB TH/RT	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0
Overall	--	**8.7**	**A**	--	--	**9.2**	**A**	--	--	**6.9**	**A**	--	--	**8.6**	**A**	--	--	**8.9**	**A**	--	--	**7.4**	**A**	--
Weekday Evening:																								
NH Route 9 EB LT	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0	0.00	0.0	A	0/0
NH Route 9 EB TH	--	--	--	--	--	--	--	--	0.49	14.9	B	12/15	--	--	--	--	--	--	--	--	0.54	13.8	B	13/16
NH Route 9 EB TH/RT	0.65	36.8	D	24/27	0.74	38.9	D	28/31	--	--	--	--	0.79	46.7	D	28/31	0.87	50.8	D	31/37	--	--	--	1/1
NH Route 9 EB RT	--	--	--	--	--	--	--	--	0.05	29.8	C	1/1	--	--	--	--	--	--	--	--	0.06	17.1	B	--
NH Route 9 WB UT/LT	0.54	52.9	D	6/9	0.54	52.7	D	6/9	0.42	41.0	D	2/4	0.53	49.4	D	7/10	0.53	49.4	D	7/10	0.45	40.7	D	3/4
NH Route 9 WB TH/RT	0.47	7.1	A	7/12	0.54	7.9	A	8/15	0.59	8.9	A	9/15	0.54	8.1	A	8/16	0.60	9.0	A	10/19	0.65	10.0	B	11/18
Gully Hill Road East NB LT	0.51	58.0	E	4/7	0.52	58.1	E	4/7	0.32	41.4	D	2/3	0.56	58.8	E	5/7	0.56	58.8	E	5/8	0.34	41.3	D	2/4
Gully Hill Road East NB LT/TH	--	--	--	--	--	--	--	--	0.32	41.4	D	2/3	--	--	--	--	--	--	--	--	0.35	41.4	D	2/4
Gully Hill Road East NB TH/RT	0.11	56.6	E	1/3	0.11	56.6	E	1/3	--	--	--	--	0.12	56.1	E	1/3	0.12	56.1	E	1/3	--	--	--	0/2
Gully Hill Road East NB RT	--	--	--	--	--	--	--	--	0.10	41.5	D	0/2	--	--	--	--	--	--	--	--	0.12	41.2	D	--
Everett Arena SB LT	0.26	65.5	E	1/1	0.26	65.5	E	1/1	0.20	45.0	D	1/1	0.26	65.5	E	1/1	0.26	65.5	E	1/1	0.20	45.0	D	1/1
Everett Arena SB TH/RT	0.01	66.9	E	0/0	0.00	66.9	E	0/0	0.00	43.6	D	0/0	0.01	66.9	E	0/0	0.00	66.9	E	0/0	0.00	43.6	D	0/0
Overall	--	**27.5**	**C**	--	--	**28.1**	**C**	--	--	**16.7**	**B**	--	--	**31.7**	**C**	--	--	**33.4**	**C**	--	--	**16.5**	**B**	--
Saturday Midday:																								
NH Route 9 EB LT	0.13	51.2	D	1/1	0.13	58.7	E	1/1	0.10	33.9	C	1/1	0.13	56.2	E	1/1	0.13	61.9	E	1/1	0.10	34.2	C	1/1
NH Route 9 EB TH	--	--	--	--	--	--	--	--	0.63	29.4	C	12/16	--	--	--	--	--	--	--	--	0.72	33.7	C	12/21
NH Route 9 EB TH/RT	1.02	84.1	F	25/30	1.19	151.9	F	32/39	--	--	--	--	1.15	135.1	F	31/36	1.33	208.9	F	40/45	--	--	--	--
NH Route 9 EB RT	--	--	--	--	--	--	--	--	0.06	11.0	B	0/1	--	--	--	--	--	--	--	--	0.06	8.8	A	1/1
NH Route 9 WB UT/LT	0.61	45.5	D	7/13	0.61	45.5	D	7/13	0.51	40.1	D	3/5	1.03	102.8	D	12/24	0.75	54.4	D	8/16	0.54	39.7	D	4/5
NH Route 9 WB TH/RT	0.59	16.5	B	7/18	0.70	19.1	B	10/24	0.71	16.0	B	11/25	0.68	20.6	C	10/22	0.80	24.7	C	13/29	0.79	19.0	B	13/30
Gully Hill Road East NB LT	0.48	45.8	D	5/8	0.48	45.8	D	6/8	0.39	40.0	D	2/4	0.48	43.2	D	6/9	0.48	43.2	D	6/9	0.40	39.3	D	3/4
Gully Hill Road East NB LT/TH	--	--	--	--	--	--	--	--	0.38	39.9	D	2/4	--	--	--	--	--	--	--	--	0.40	39.3	D	3/4
Gully Hill Road East NB TH/RT	0.17	42.7	D	1/3	0.17	42.7	D	1/3	--	--	--	--	0.18	40.2	D	1/3	0.18	40.2	D	1/3	--	--	--	--
Gully Hill Road East NB RT	--	--	--	--	--	--	--	--	0.15	39.6	D	0/3	--	--	--	--	--	--	--	--	0.16	38.9	D	0/3
Everett Arena SB LT	0.26	61.3	E	1/1	0.26	61.3	E	1/2	0.17	45.0	D	1/1	0.26	61.3	E	1/1	0.26	61.3	E	1/2	0.17	45.0	D	1/1
Everett Arena SB TH/RT	0.01	59.8	E	0/0	0.01	59.8	E	0/0	0.01	43.9	D	0/0	0.01	59.8	E	0/0	0.01	59.8	E	0/0	0.01	43.9	D	0/0
Overall	--	**50.6**	**D**	--	--	**0.3**	**F**	--	--	**25.8**	**C**	--	--	**78.1**	**E**	--	--	**106.8**	**F**	--	--	**28.6**	**C**	--

See notes at end of table.

Table 18 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2027 No-Build				2027 Opening Year				2027 Opening Year with Mitigation				2037 No-Build				2037 Build				2037 Build with Mitigation			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
31. NH Route 9 at Airport Road and Hazen Drive																								
Weekday Morning:																								
NH Route 9 EB LT	0.77	44.9	D	9/15	0.80	49.6	D	10/16	0.73	41.1	D	4/6	0.75	46.5	D	9/19	0.78	50.8	D	9/19	0.68	39.7	D	4/8
NH Route 9 EB TH	0.56	28.0	C	8/11	0.62	28.9	C	10/13	0.69	26.2	C	8/9	0.53	28.2	C	8/13	0.57	28.8	C	9/15	0.62	24.6	C	7/11
NH Route 9 EB RT	0.18	0.2	A	0/0	0.18	0.2	A	0/0	0.18	0.2	A	0/0	0.16	0.2	A	0/0	0.16	0.2	A	0/0	0.16	0.2	A	0/0
NH Route 9 WB LT	0.57	45.3	D	4/8	0.57	47.8	D	4/8	0.36	35.4	D	2/4	0.60	46.5	D	5/9	0.60	49.0	D	5/9	0.40	35.8	D	2/4
NH Route 9 WB TH	0.70	38.6	D	8/13	0.74	39.6	D	10/15	0.66	26.4	C	7/11	0.73	38.4	D	10/15	0.77	39.8	D	12/17	0.71	27.2	C	8/12
NH Route 9 WB RT	0.08	0.1	A	0/0	0.08	0.1	A	0/0	0.08	0.1	A	0/0	0.09	0.1	A	0/0	0.09	0.1	A	0/0	0.09	0.1	A	0/0
Airport Road NB LT	0.51	45.6	D	3/6	0.52	47.8	D	3/6	0.30	35.2	D	1/3	0.53	46.7	D	3/7	0.54	49.2	D	4/7	0.32	35.4	D	1/3
Airport Road NB TH	0.31	32.9	C	3/6	0.32	34.6	C	4/7	0.28	24.4	C	2/6	0.32	34.0	C	4/7	0.34	35.8	D	4/8	0.31	25.0	C	2/6
Airport Road NB RT	0.08	0.1	A	0/0	0.08	0.1	A	0/0	0.08	0.1	A	0/0	0.08	0.1	A	0/0	0.08	0.1	A	0/0	0.08	0.1	A	0/0
Hazen Drive SB LT	0.26	50.6	D	1/2	0.28	53.0	D	1/2	0.29	41.0	D	1/2	0.27	52.1	D	1/2	0.28	54.5	D	1/2	0.29	41.4	D	1/2
Hazen Drive SB TH	0.48	41.4	D	4/7	0.49	43.4	D	4/7	0.40	29.5	C	3/6	0.47	42.9	D	4/8	0.49	45.0	D	4/8	0.39	30.2	C	3/6
Hazen Drive SB RT	0.06	0.1	A	0/0	0.06	0.1	A	0/0	0.06	0.1	A	0/0	0.06	0.1	A	0/0	0.06	0.1	A	0/0	0.06	0.1	A	0/0
Overall	--	**29.3**	**C**	--	--	**30.9**	**C**	--	--	**23.7**	**C**	--	--	**29.9**	**C**	--	--	**31.5**	**C**	--	--	**23.5**	**C**	--
Weekday Evening:																								
NH Route 9 EB LT	0.48	63.5	E	3/5	0.49	63.3	E	3/5	0.27	48.8	D	1/2	0.51	63.6	E	3/5	0.51	63.2	E	3/5	0.29	48.8	D	1/2
NH Route 9 EB TH	0.90	53.2	D	21/27	1.03	79.4	E	27/34	0.86	35.3	D	17/21	0.99	69.9	E	25/32	1.12	109.4	F	31/39	0.91	38.4	D	19/26
NH Route 9 EB RT	0.15	0.2	A	0/0	0.15	0.2	A	0/0	0.15	0.2	A	0/0	0.17	0.2	A	0/0	0.17	0.2	A	0/0	0.17	0.2	A	0/0
NH Route 9 WB LT	0.73	64.0	E	8/12	0.72	62.8	E	8/11	0.57	48.9	D	3/5	0.78	66.2	E	9/13	0.76	65.4	E	8/13	0.63	50.9	D	3/5
NH Route 9 WB TH	0.55	30.0	C	12/16	0.66	32.6	C	16/20	0.64	24.7	C	12/16	0.61	30.8	C	14/18	0.71	33.8	C	18/23	0.68	25.0	C	13/18
NH Route 9 WB RT	0.04	0.0	A	0/0	0.04	0.0	A	0/0	0.04	0.0	A	0/0	0.04	0.0	A	0/0	0.04	0.0	A	0/0	0.04	0.0	A	0/0
Airport Road NB LT	0.86	74.6	E	10/15	0.86	73.9	E	10/15	0.69	51.0	D	4/6	0.87	75.7	E	11/18	0.87	75.1	E	11/18	0.70	51.8	D	4/6
Airport Road NB TH	0.25	40.0	D	4/6	0.25	39.7	D	4/6	0.28	34.0	C	3/5	0.26	40.2	D	4/6	0.26	40.1	D	4/7	0.30	34.9	C	3/5
Airport Road NB RT	0.18	0.2	A	0/0	0.17	0.2	A	0/0	0.17	0.2	A	0/0	0.18	0.2	A	0/0	0.17	0.2	A	0/0	0.17	0.2	A	0/0
Hazen Drive SB LT	0.49	60.9	E	3/4	0.50	60.5	E	3/5	0.57	52.6	D	3/4	0.46	61.0	E	3/5	0.46	60.7	E	3/5	0.53	52.1	D	2/4
Hazen Drive SB TH	0.83	69.8	E	10/11	0.82	68.9	E	10/11	0.71	45.9	D	8/9	0.77	65.5	E	9/13	0.77	65.2	E	9/13	0.66	45.2	D	7/10
Hazen Drive SB RT	0.27	0.4	A	0/0	0.27	0.4	A	0/0	0.27	0.4	A	0/0	0.24	0.4	A	0/0	0.24	0.4	A	0/0	0.24	0.4	A	0/0
Overall	--	**38.2**	**D**	--	--	**46.5**	**D**	--	--	**27.6**	**C**	--	--	**43.3**	**D**	--	--	**56.3**	**E**	--	--	**28.9**	**C**	--
Saturday Midday:																								
NH Route 9 EB LT	0.37	51.7	D	2/3	0.37	51.1	D	2/4	0.20	42.5	D	1/2	0.40	52.8	D	2/4	0.40	52.2	D	2/4	0.22	42.9	D	1/2
NH Route 9 EB TH	0.79	31.5	C	16/26	0.93	42.5	D	21/34	0.81	24.2	C	15/21	0.89	39.0	D	19/31	1.04	69.6	E	27/39	0.90	29.9	C	18/26
NH Route 9 EB RT	0.14	0.2	A	0/0	0.14	0.2	A	0/0	0.14	0.2	A	0/0	0.16	0.2	A	0/0	0.16	0.2	A	0/0	0.16	0.2	A	0/0
NH Route 9 WB LT	0.60	48.6	D	5/8	0.58	48.4	D	5/8	0.40	40.9	D	2/3	0.63	50.0	D	5/9	0.62	49.5	D	5/9	0.45	41.6	D	2/4
NH Route 9 WB TH	0.71	23.9	C	15/23	0.86	30.1	C	21/33	0.81	22.1	C	16/23	0.80	27.2	C	19/27	0.95	39.3	D	25/38	0.90	27.7	C	19/28
NH Route 9 WB RT	0.04	0.0	A	0/0	0.04	0.0	A	0/0	0.04	0.0	A	0/0	0.04	0.0	A	0/0	0.04	0.0	A	0/0	0.04	0.0	A	0/0
Airport Road NB LT	0.69	50.5	D	6/10	0.69	49.8	D	6/10	0.53	41.4	D	3/4	0.73	52.3	D	7/11	0.72	51.7	D	7/11	0.58	42.9	D	3/5
Airport Road NB TH	0.17	36.3	D	2/3	0.17	36.0	D	2/4	0.23	35.8	D	2/3	0.18	36.6	D	2/4	0.18	36.3	D	2/4	0.22	34.3	C	2/4
Airport Road NB RT	0.16	0.2	A	0/0	0.15	0.2	A	0/0	0.15	0.2	A	0/0	0.17	0.2	A	0/0	0.17	0.2	A	0/0	0.17	0.2	A	0/0
Hazen Drive SB LT	0.29	53.5	D	1/2	0.30	53.1	D	1/2	0.26	44.3	D	1/2	0.24	54.5	D	1/2	0.25	53.9	D	1/2	0.27	46.5	D	1/2
Hazen Drive SB TH	0.38	49.9	D	2/3	0.38	49.4	D	2/3	0.34	41.2	D	2/3	0.34	51.1	D	2/4	0.34	50.6	D	2/4	0.27	40.4	D	2/3
Hazen Drive SB RT	0.07	0.1	A	0/0	0.07	0.1	A	0/0	0.07	0.1	A	0/0	0.06	0.1	A	0/0	0.06	0.1	A	0/0	0.06	0.1	A	0/0
Overall	--	**26.2**	**C**	--	--	**32.2**	**C**	--	--	**22.1**	**C**	--	--	**30.0**	**C**	-	--	**45.1**	**D**	--	--	**26.2**	**C**	--

See notes at end of table.

Table 18 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2027 No-Build				2027 Opening Year				2027 Opening Year with Mitigation				2037 No-Build				2037 Build				2037 Build with Mitigation			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
32. NH Route 9 at NH Route 132 and Canterbury Road																								
Weekday Morning:																								
NH Route 9 EB LT	0.32	42.1	D	1/3	0.32	44.4	D	1/3	0.29	38.7	D	1/3	0.35	43.8	D	1/3	0.35	44.0	D	2/3	0.33	40.3	D	1/3
NH Route 9 EB TH/RT	0.38	20.5	C	4/7	0.42	20.2	C	5/9	0.53	24.3	C	6/9	0.39	19.1	B	4/8	0.45	19.9	B	5/10	0.51	22.2	C	5/10
NH Route 9 WB LT	0.15	46.3	D	1/1	0.20	49.3	D	1/1	0.11	40.2	D	1/1	0.17	48.4	D	1/1	0.21	48.9	D	1/1	0.15	43.2	D	1/1
NH Route 9 WB TH	--	--	--	--	--	--	--	--	0.62	27.8	C	7/10	--	--	--	--	--	--	--	--	0.61	26.7	C	8/11
NH Route 9 WB TH/RT	0.64	27.6	C	8/12	0.68	27.9	C	10/14	--	--	--	--	0.65	26.7	C	9/13	0.74	29.0	C	11/17	--	--	--	--
NH Route 9 WB RT	--	--	--	--	--	--	--	--	0.16	7.9	A	1/2	--	--	--	--	--	--	--	--	0.18	7.5	A	1/3
Canterbury Road NB LT	0.45	37.5	D	3/4	0.46	39.7	D	3/4	0.44	34.7	C	3/4	0.43	40.1	D	2/5	0.43	40.0	D	3/5	0.42	36.8	D	2/5
Canterbury Road NB TH	--	--	--	--	--	--	--	--	0.49	35.2	D	3/5	--	--	--	--	--	--	--	--	0.47	37.3	D	3/5
Canterbury Road NB TH/RT	0.54	38.8	D	3/5	0.57	42.1	D	4/5	--	--	--	--	0.52	41.2	D	3/5	0.53	41.4	D	3/6	--	--	--	--
Canterbury Road NB RT	--	--	--	--	--	--	--	--	0.01	23.8	C	0/0	--	--	--	--	--	--	--	--	0.01	26.7	C	0/0
NH Route 132 SB LT	0.46	32.4	C	4/7	0.54	36.5	D	5/8	0.26	27.0	C	2/4	0.52	35.4	D	4/8	0.57	36.8	D	5/9	0.28	28.7	C	2/4
NH Route 132 SB TH/RT	0.89	57.3	E	9/18	0.96	74.4	E	9/18	0.75	37.5	D	7/15	1.03	92.2	F	10/21	1.03	93.7	F	11/21	0.84	47.2	D	9/18
Overall	--	**33.2**	**C**	--	--	**36.0**	**D**	--	--	**27.5**	**C**	--	--	**39.0**	**D**	--	--	**39.2**	**D**	--	--	**28.3**	**C**	--
Weekday Evening:																								
NH Route 9 EB LT	0.52	47.3	D	3/5	0.49	46.7	D	3/5	0.53	47.1	D	3/5	0.54	47.8	D	3/6	0.51	47.1	D	3/5	0.52	47.2	D	3/5
NH Route 9 EB TH/RT	0.83	34.8	C	13/18	0.98	54.3	D	21/25	0.93	41.7	D	18/22	0.87	37.6	D	16/23	1.02	62.9	E	23/29	0.88	36.2	D	16/22
NH Route 9 WB LT	0.25	50.8	D	1/2	0.32	50.8	D	1/2	0.34	49.9	D	1/2	0.27	51.0	D	1/2	0.34	51.1	D	1/3	0.35	50.3	D	1/3
NH Route 9 WB TH	--	--	--	--	--	--	--	--	0.77	33.5	C	13/16	--	--	--	--	--	--	--	--	0.85	37.5	D	14/19
NH Route 9 WB TH/RT	0.98	59.8	E	17/23	1.17	124.9	F	24/31	--	--	--	--	1.10	95.9	F	21/27	1.29	175.2	F	28/35	--	--	--	--
NH Route 9 WB RT	--	--	--	--	--	--	--	--	0.31	12.2	B	2/5	--	--	--	--	--	--	--	--	0.35	12.6	B	3/6
Canterbury Road NB LT	0.38	39.2	D	3/6	0.38	38.8	D	3/6	0.38	37.5	D	3/6	0.43	39.9	D	4/6	0.43	39.6	D	4/6	0.42	38.0	D	4/6
Canterbury Road NB TH	--	--	--	--	--	--	--	--	0.74	47.7	D	7/11	--	--	--	--	--	--	--	--	0.82	54.2	D	8/13
Canterbury Road NB TH/RT	0.93	75.0	E	9/16	0.94	75.7	E	9/17	--	--	--	--	1.04	103.8	F	10/18	1.05	107.2	F	11/19	--	--	--	--
Canterbury Road NB RT	--	--	--	--	--	--	--	--	0.04	26.3	C	0/1	--	--	--	--	1.08	--	--	--	0.05	26.4	C	0/1
NH Route 132 SB LT	0.91	72.4	E	8/15	0.97	85.2	F	9/17	0.67	44.5	D	5/7	1.02	99.4	F	9/18	--	116.7	F	11/19	0.73	46.7	D	6/8
NH Route 132 SB TH/RT	0.82	56.7	E	8/14	0.87	62.7	E	8/15	0.69	48.1	D	6/10	0.91	71.8	E	9/16	0.97	84.4	F	10/18	0.77	53.0	D	6/11
Overall	--	**52.6**	**D**	--	--	**83.0**	**F**	--	--	**37.8**	**D**	--	--	**72.4**	**E**	--	--	**111.2**	**F**	--	--	**38.1**	**D**	--
Saturday Midday:																								
NH Route 9 EB LT	0.40	45.8	D	2/4	0.34	45.3	D	2/3	0.49	47.7	D	1/3	0.42	45.0	D	2/4	0.37	44.2	D	2/3	0.55	49.4	D	2/3
NH Route 9 EB TH/RT	0.85	36.2	D	14/20	1.17	120.6	F	23/29	0.90	33.5	C	16/23	0.93	42.3	D	16/24	1.24	150.4	F	26/33	0.97	42.6	D	18/26
NH Route 9 WB LT	0.31	47.7	D	1/2	0.36	45.4	D	2/3	0.45	46.2	D	2/3	0.34	47.1	D	1/2	0.37	44.3	D	2/3	0.48	45.9	D	2/3
NH Route 9 WB TH	--	--	--	--	--	--	--	--	0.91	33.4	C	17/21	--	--	--	--	--	--	--	--	0.98	44.3	D	20/29
NH Route 9 WB TH/RT	1.20	133.5	F	25/32	1.53	276.6	F	35/42	--	--	--	--	1.32	181.6	F	29/37	1.64	325.4	F	39/48	--	--	--	--
NH Route 9 WB RT	--	--	--	--	--	--	--	--	0.29	7.6	A	2/4	--	--	--	--	--	--	--	--	0.32	7.4	A	2/5
Canterbury Road NB LT	0.49	38.2	D	4/5	0.47	36.9	D	4/5	0.58	40.4	D	4/5	0.46	38.4	D	3/6	0.45	37.4	D	3/6	0.53	39.3	D	3/6
Canterbury Road NB TH	--	-	--	--	--	--	--	--	0.56	39.7	D	4/5	--	--	--	--	--	--	--	--	0.50	38.7	D	3/6
Canterbury Road NB TH/RT	0.69	44.6	D	6/7	0.69	43.7	D	6/7	--	--	--	--	0.64	43.1	D	5/8	0.64	42.1	D	5/8	--	--	--	--
Canterbury Road NB RT	--	--	--	--	--	--	--	--	0.06	25.8	C	0/1	--	--	--	--	--	--	--	--	0.05	26.1	C	0/1
NH Route 132 SB LT	0.72	44.9	D	7/12	0.82	53.1	D	8/14	0.73	43.9	D	5/7	0.79	49.5	D	7/14	0.88	58.6	E	9/16	0.79	46.4	D	5/9
NH Route 132 SB TH/RT	0.62	40.3	D	6/10	0.72	44.4	D	7/13	0.47	38.2	D	3/6	0.69	42.2	D	6/12	0.78	47.3	D	8/15	0.52	38.5	D	3/6
Overall	--	**77.7**	**E**	--	--	**166.8**	**F**	--	--	**33.2**	**C**	--	--	**101.1**	**F**	--	--	**200.7**	**F**	--	--	**40.1**	**D**	--

See notes at end of table.

Table 18 (Continued)
MITIGATED SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak-Hour/Movement	2027 No-Build				2027 Opening Year				2027 Opening Year with Mitigation				2037 No-Build				2037 Build				2037 Build with Mitigation			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th	V/C	Delay	LOS	Queue 50th/95th
33. NH Route 132 at Hazen Drive																								
Weekday Morning:																								
Hazen Drive EB LT	0.34	32.6	C	3/4	0.34	32.4	C	4/5	0.18	30.7	C	2/2	0.29	31.6	C	3/5	0.29	31.5	C	3/5	0.15	30.1	C	2/3
Hazen Drive EB RT	0.01	29.4	C	0/1	0.01	29.3	C	0/1	0.01	29.3	C	0/1	0.01	29.0	C	0/1	0.01	28.9	C	0/1	0.01	28.9	C	0/1
NH Route 132 NB LT/TH	0.34	7.5	A	4/5	0.36	7.7	A	4/6	0.36	7.7	A	4/6	0.35	7.9	A	4/6	0.37	8.0	A	5/7	0.37	8.0	A	5/7
NH Route 132 SB TH	0.40	8.2	A	7/8	0.42	8.5	A	7/9	0.42	8.5	A	7/9	0.42	8.5	A	7/9	0.43	8.8	A	7/10	0.43	8.8	A	7/10
NH Route 132 SB RT	0.41	29.3	C	2/3	0.41	27.9	C	2/2	0.41	27.9	C	2/2	0.42	27.1	C	2/2	0.42	25.7	C	2/2	0.42	25.7	C	2/2
Overall	--	**18.3**	**B**	--	--	**17.7**	**B**	--	--	**17.5**	**B**	--	--	**17.3**	**B**	--	--	**16.7**	**B**	--	--	**16.6**	**B**	--
Weekday Evening:																								
Hazen Drive EB LT	1.08	99.3	F	18/24	1.11	108.6	F	18/24	0.57	32.1	C	7/9	1.14	119.9	F	19/28	1.15	126.1	F	20/28	0.59	32.6	C	7/10
Hazen Drive EB RT	0.05	26.0	C	1/1	0.05	26.5	C	1/1	0.04	26.5	C	0/1	0.06	26.3	C	1/1	0.06	26.6	C	1/2	0.04	26.5	C	0/2
NH Route 132 NB LT/TH	0.61	13.1	B	10/12	0.65	13.7	B	12/14	0.65	13.7	B	12/14	0.61	12.8	B	10/15	0.64	13.4	B	12/16	0.64	13.4	B	12/16
NH Route 132 SB TH	0.42	13.1	B	7/10	0.45	13.7	B	8/11	0.45	12.6	B	7/11	0.47	14.1	B	8/11	0.50	14.6	B	9/12	0.50	13.6	B	9/12
NH Route 132 SB RT	0.10	27.0	C	1/1	0.10	27.7	C	1/1	0.10	24.5	C	1/1	0.11	28.8	C	1/1	0.11	29.4	C	1/1	0.11	26.2	C	1/1
Overall	--	**39.9**	**D**	--	--	**41.7**	**D**	--	--	**19.8**	**B**	--	--	**46.2**	**D**	--	--	**47.0**	**D**	--	--	**20.3**	**C**	--
Saturday Midday:																								
Hazen Drive EB LT	0.46	35.6	D	4/6	0.45	35.1	D	4/6	0.23	32.7	C	2/3	0.40	34.1	C	4/6	0.40	34.1	C	5/7	0.21	32.0	C	2/3
Hazen Drive EB RT	0.02	31.3	C	0/1	0.02	30.8	C	0/1	0.02	30.9	C	0/1	0.02	30.5	C	0/1	0.02	30.4	C	0/1	0.02	30.5	C	0/1
NH Route 132 NB LT/TH	0.45	7.4	A	6/7	0.53	8.5	A	8/9	0.53	8.4	A	8/9	0.44	7.7	A	6/9	0.51	8.4	A	8/11	0.50	8.3	A	8/11
NH Route 132 SB TH	0.46	8.6	A	8/12	0.51	10.0	A	8/13	0.51	9.5	A	8/13	0.52	10.1	B	9/14	0.57	11.5	B	11/15	0.57	10.8	B	10/15
NH Route 132 SB RT	0.09	15.7	B	1/1	0.09	17.0	B	1/1	0.09	15.1	B	1/1	0.11	17.2	B	1/2	0.11	17.6	B	1/1	0.11	15.7	B	1/1
Overall	--	**12.6**	**B**	--	--	**13.2**	**B**	--	--	**12.5**	**B**	--	--	**13.1**	**B**	--	--	**13.5**	**B**	--	--	**12.8**	**B**	--
34. NH Route 132 at I-393 Eastbound Ramps																								
Weekday Morning:																								
I-393 Eastbound Off-Ramp WB LT	0.68	39.5	D	8/11	0.71	41.1	D	8/12	0.71	41.1	D	8/12	0.73	41.7	D	8/13	0.76	43.4	D	9/14	0.76	43.4	D	9/14
I-393 Eastbound Off-Ramp WB RT	0.12	30.1	C	1/2	0.13	30.4	C	1/2	0.13	30.4	C	1/2	0.14	30.5	C	1/3	0.15	30.6	C	1/3	0.15	30.6	C	1/3
NH Route 132 NB TH/RT	0.24	4.6	A	2/2	0.24	4.7	A	2/2	0.24	4.7	A	2/2	0.23	4.8	A	2/2	0.24	4.8	A	2/3	0.24	4.9	A	2/3
NH Route 132 SB LT	0.07	6.1	A	1/1	0.07	6.1	A	1/1	0.07	6.1	A	1/1	0.07	6.1	A	1/1	0.08	6.1	A	1/1	0.08	6.1	A	1/1
NH Route 132 SB TH	0.67	11.8	B	12/15	0.68	12.0	B	12/15	0.68	12.0	B	12/15	0.70	12.7	B	13/18	0.71	12.9	B	13/19	0.71	12.9	B	13/19
Overall	--	**15.8**	**B**	--	--	**16.2**	**B**	--	--	**16.2**	**B**	--	--	**17.0**	**B**	--	--	**17.5**	**B**	--	--	**17.5**	**B**	--
Weekday Evening:																								
I-393 Eastbound Off-Ramp WB LT	0.77	49.3	D	7/12	0.84	55.2	D	8/14	0.78	47.9	D	8/13	0.83	53.8	D	8/14	0.91	66.6	E	9/16	0.85	54.6	D	9/15
I-393 Eastbound Off-Ramp WB RT	0.12	34.3	C	1/2	0.15	34.4	C	1/3	0.17	33.3	C	1/3	0.17	34.3	C	1/3	0.20	34.8	C	1/4	0.21	33.6	C	1/4
NH Route 132 NB TH/RT	0.52	3.0	A	3/3	0.55	3.5	A	3/4	0.56	4.5	A	3/5	0.53	2.9	A	2/3	0.55	3.2	A	3/4	0.56	4.2	A	3/6
NH Route 132 SB LT	0.20	5.2	A	1/1	0.22	5.5	A	1/1	0.23	6.1	A	1/1	0.24	5.7	A	1/1	0.25	5.7	A	1/1	0.26	6.4	A	1/1
NH Route 132 SB TH	0.29	5.3	A	3/5	0.30	5.5	A	3/5	0.31	6.1	A	4/5	0.33	5.7	A	4/5	0.34	5.7	A	4/6	0.35	6.3	A	4/6
Overall	--	**11.9**	**B**	--	--	**13.2**	**B**	--	--	**12.9**	**B**	--	--	**13.0**	**B**	--	--	**15.3**	**B**	--	--	**14.2**	**B**	--
Saturday Midday:																								
I-393 Eastbound Off-Ramp WB LT	0.62	35.7	D	7/11	0.76	41.9	D	9/16	0.75	40.2	D	10/15	0.71	39.2	D	8/14	0.81	45.1	D	10/17	0.78	42.6	D	10/16
I-393 Eastbound Off-Ramp WB RT	0.05	28.0	C	1/2	0.08	28.3	C	1/2	0.07	27.8	C	1/2	0.07	28.6	C	1/2	0.09	28.7	C	1/2	0.08	28.0	C	1/2
NH Route 132 NB TH/RT	0.31	5.5	A	3/3	0.35	6.0	A	3/3	0.35	6.3	A	3/4	0.31	5.5	A	3/3	0.34	5.9	A	3/4	0.35	6.2	A	3/4
NH Route 132 SB LT	0.09	7.0	A	1/1	0.11	7.0	A	1/1	0.11	7.3	A	1/1	0.11	6.9	A	1/1	0.12	7.0	A	1/1	0.12	7.3	A	1/1
NH Route 132 SB TH	0.40	9.0	A	7/7	0.42	9.1	A	6/8	0.42	9.5	A	6/8	0.44	9.1	A	7/8	0.46	9.3	A	6/9	0.47	9.8	A	7/10
Overall	-	**13.6**	**B**	--	--	**15.5**	**B**	--	--	**15.4**	**B**	--	--	**14.7**	**B**	-	--	**16.3**	**B**	--	--	**16.1**	**B**	--

[a]Volume-to-capacity ratio.
[b]Control (signal) delay per vehicle in seconds.
[c]Level of service.
[d]Queue length in vehicles.
NB = northbound; SB = southbound; EB = eastbound; WB = westbound; UT = U-turning movements; LT = left-turning movements; TH = through movements; RT = right-turning movements.

Table 19
MITIGATED ROUNDABOUT INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Unsignalized Intersection/Peak-Hour/Movement	2024 Existing				2027 No Build				2027 Opening Year				2037 No Build				2037 Build			
	Demand[a]	Delay[b]	LOS[c]	Queue 95th[d]	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th
11. D'Amante Drive at the Target Driveway																				
Weekday Morning:																				
Target Driveway NB LT									25	3.7	A	0					25	3.8	A	0
Target Driveway NB RT									27	3.4	A	0					27	3.5	A	0
D'Amante Drive WB LT/TH									62	3.1	A	0					62	3.1	A	0
D'Amante Drive WB TH/RT									275	4.4	A	1					306	4.6	A	1
Project Site Driveway SB RT									69	3.9	A	0					69	4.0	A	0
D'Amante Drive EB LT									164	3.7	A	1					176	3.8	A	1
D'Amante Drive EB TH/RT									164	3.7	A	1					176	3.8	A	1
Overall									--	**3.9**	**A**	--					--	**4.0**	**A**	--
Weekday Evening:																				
Target Driveway NB LT									139	5.4	A	1					140	5.5	A	1
Target Driveway NB RT									128	5.8	A	1					128	6.0	A	1
D'Amante Drive WB LT/TH	*See Unsignalized Intersection Level-of-Service and Vehicle Queue Summary (Table 14)*								132	4.0	A	1	*See Unsignalized Intersection Level-of-Service and Vehicle Queue Summary (Table 14)*				132	3.9	A	1
D'Amante Drive WB TH/RT									388	6.1	A	2					437	6.5	A	2
Project Site Driveway SB RT									90	5.1	A	1					90	5.4	A	1
D'Amante Drive EB LT									298	4.9	A	1					307	5.0	A	1
D'Amante Drive EB TH/RT									298	4.9	A	1					307	5.0	A	1
Overall									--	**5.3**	**A**	--					--	**5.5**	**A**	--
Saturday Midday:																				
Target Driveway NB LT									162	7.0	A	1					161	7.4	A	1
Target Driveway NB RT									178	6.5	A	1					178	6.9	A	1
D'Amante Drive WB LT/TH									161	4.2	A	1					161	4.2	A	1
D'Amante Drive WB TH/RT									744	11.0	B	6					816	12.7	B	10
Project Site Driveway SB RT									126	8.0	A	1					126	8.6	A	1
D'Amante Drive EB LT									358	5.5	A	2					384	5.8	A	2
D'Amante Drive EB TH/RT									358	5.5	A	2					384	5.8	A	2
Overall									--	**7.7**	**A**	--					--	**8.6**	**A**	--

[a]Demand in vehicles per hour.
[b]Average control delay per vehicle (in seconds).
[c]Level of service.
[d]Queue length in vehicles.
NB = northbound; SB = southbound; EB = eastbound; WB = westbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

The following improvements will be undertaken by the Project proponent, subject to receipt of all necessary rights, permits and approvals, and corresponding to the identified schedule of implementation as identified in Table 17:

Physical Improvements

- ***Geometric Improvements***

  In an effort to improve traffic operations along the NH Route 106 and D'Amante Drive corridors and to provide safe and efficient access to the Project site, the Project proponent will design and construct the following geometric improvements commensurate with the construction or modification of the Project site driveway intersections:

  - ***NH Route 106*** – Widen NH Route 106 to accommodate two (2) travel lanes in each direction from a point south of D'Amante Drive to a point north of the Project site driveway and additional turn lanes at the NH Route 106/Steeplegate Mall Driveway and NH Route 106/D'Amante Drive intersections.
  - ***D'Amante Drive at the Target and Steeplegate Mall Driveways (Intersection 11)*** – Widen the D'Amante Drive approaches to the Target/Project site driveway intersection to provide an eastbound right-turn lane and a westbound left-turn lane.
  - ***D'Amante Drive at Triangle Park Drive (Intersection 12)*** – Reconstruct the intersection to accommodate the Project site driveway (north leg) and widen D'Amante Drive approaches to accommodate an eastbound left-turn lane and a westbound right-turn lane.
  - ***D'Amante Drive at the West Steeplegate Mall and Shaw's Driveways (Intersection 13)*** – Widen D'Amante Drive eastbound approach to accommodate right-turn lane.
  - ***NH Route 9 at the Shaw's Driveway (Intersection 14)*** – Extend the raised median along NH Route 9 to further reinforce the right-turn only operation of the Shaw's Driveway.
  - ***NH Route 9 at the North Steeplegate Mall Driveway (Intersection 17)*** – Widen the NH Route 9 southbound approach to accommodate an additional left-turn lane.

- ***Traffic Signal Equipment***

  The Project Proponent will monitor traffic volumes and operating conditions at the NH Route 106/Steeplegate Mall Driveway intersection (Intersection 7) on an annual basis as a part of the Post-Occupancy Traffic Monitoring Program (discussion follows) to determine if the installation of a traffic control signal is warranted. The monitoring will follow the schedule defined for the Post-Occupancy Traffic Monitoring Program. To the extent that the installation of a traffic signal is found to be warranted and the installation is desirable to NHDOT, the Proponent will design and install a traffic control signal at the intersection subject to receipt of all necessary rights, permits and approvals.

  To accompany the geometric improvements at the study area intersections defined above, the Project proponent will modify or upgrade the traffic signal systems and associated traffic signal equipment as may be necessary to accommodate the improvements, to include

the installation of equipment to coordinate the proposed traffic signal at the NH Route 106/Project site driveway intersection with the existing traffic signal at the NH Route 106/D'Amante Drive intersection

❖ ***Traffic Signal Timing Improvements***

In an effort to off-set the predicted impact of the Project and to enhance safety at the study area intersections, the Project Proponent will design and implement optimal traffic signal timing, phasing and coordination (where appropriate) plans at the following intersections:

- NH Route 106 at Staniels Road and Josiah Barlett Road (Intersection 1)
- NH Route 9 at NH Route 106 (Intersection 4)
- NH Route 9 at D'Amante Drive and Old Loudon Road (Intersection 15)
- NH Route 9 at the Steeplegate Mall and Carrier Place Driveway (Intersection 16)
- NH Route 9 at the Patriots Place and Harbor Freight Tools Driveways (Intersection 18)
- NH Route 9 at the Walmart Driveway (Intersection 19)
- NH Route 106 at Pembroke Road and North Pembroke Road (Intersection 21)
- NH Route 106 at Regional Drive and Smokey Bear Boulevard (Intersection 22)
- U.S. Route 3 at Old Turnpike Road and Black Hill Road (Intersection 24)
- NH Route 9 at Gully Hill Road and the Everett Arena West Driveway (Intersection 29)
- NH Route 9 at Gully Hill Road and the Everett Arena East Driveway (Intersection 30)
- NH Route 9 at Hazen Drive and Airport Road (Intersection 31)
- NH Route 9 at NH Route 132 and Canterbury Road (Intersection 32)
- NH Route 132 at Hazen Drive (Intersection 33)
- NH Route 132 at the I-393 Eastbound Ramps (Intersection 34)

The initial traffic signal timing improvements will be completed in conjunction with the geometric improvements at those intersections identified above, subject to receipt of all necessary rights, permits and approvals, or prior to the issuance of a Certificate of Occupancy for each of the following: i) any new commercial building that alone or in aggregate that exceeds 50,000 sf; ii) the Chick-fil-A restaurant; iii) the Costco Wholesale club; and iv) 300 residential units. The traffic signal timing at the subject intersections will be revisited as a part of a Post Occupancy Traffic Monitoring Program (discussion follows) in order to determine if additional adjustments are necessary as the Project is constructed and occupied.

❖ ***Safety Improvements***

The following intersections were identified to have experienced an average of 10.0 or more reported motor vehicle crashes per year over the five-year review period that was evaluated as a part of this study:

- NH Route 9 at NH Route 106 (Intersection 4)
- NH Route 9 at D'Amante Drive and Old Loudon Road (Intersection 15)
- NH Route 9 at the Walmart Driveway (Intersection 19)

- NH Route 9 at the I-93 Northbound Off-Ramp and Fort Eddy Road (Intersection 28)
- NH Route 9 at Gully Hill Road and Everett Arena West Driveway (Intersection 29)
- NH Route 9 at Gully Hill Road and Everett Arena East Driveway (Intersection 30)

In an effort to enhance safety at the subject intersections in accordance with Section 32.08.20 of the City of Concord Site Plan Regulations, the following safety-related improvements are recommended:

1. Review and adjust the "yellow" and "all-red" clearance intervals to comply with current traffic conditions and safety standards;
2. Review, replace and supplement existing signs and pavement marking at and on the approaches to the intersections; and
3. Test and repair the existing vehicle detection systems.

The recommended improvements will be completed by the Project proponent in conjunction with the geometric improvements that are to be completed at the intersections identified above or prior to the issuance of a Certificate of Occupancy for any new commercial building that alone or in aggregate that exceeds 50,000 sf, the Chick-fil-A restaurant, the Costco Wholesale Club, or 300 residential units, whichever occurs first, subject to receipt of all necessary rights, permits and approvals.

Intersection Improvement Study

In addition to the physical improvements at the NH Route 106/Triangle Park Drive intersection that will be advanced as a part of the Project, the Project proponent will undertake an intersection improvement study (IIS) to identify potential future improvements. The IIS will include performing a formal Traffic Signal Warrants Analysis (TSWA) in accordance with the methodology outlined in the MUTCD[32] and evaluating geometric improvements, including the reconfiguration of the intersection as a modern roundabout. Conceptual improvement plans will be prepared for each of the improvement alternatives that are evaluated and preliminary cost estimates will be developed. The IIS will be provided to the City prior to the issuance of the first Certificate of Occupancy for any new commercial building that alone or in aggregate that exceeds 50,000 sf, the Chick-fil-A restaurant, the Costco Wholesale club, or 300 residential units, whichever occurs first. Upon selection of a preferred improvement strategy by the City, the Project proponent will contribute a "fair-share" portion of the cost to design and construct the identified improvement measure defined based on the predicted increase in peak-hour traffic at the intersection that the Project represents over No-Build conditions.

NH Route 9 Corridor

The addition of Project-related traffic to the NH Route 9 corridor between Hazen Drive and D'Amante Drive corridor was shown to result in an increase in travel time of up to ten (10) minutes and 47 seconds during the peak periods and increased delay for left-turn movements which are already experiencing extended delay due to the large volume of conflicting traffic traveling along NH Route 9 during the peak periods. As mentioned previously, the Project proponent will design and implement optimal traffic signal timing, phasing and coordination (where appropriate) plans at

[32]Federal Highway Administration, op. cit. 2.

the following intersection along the NH Route 9 corridor that will serve to reduce vehicle queuing and overall travel times along this segment of the NH Route 9 corridor and afford additional gaps to facilitate left-turn movements:

- NH Route 9 at Hazen Drive and Airport Road (Intersection 31)
- NH Route 9 at NH Route 132 and Canterbury Road (Intersection 32)
- NH Route 9 at D'Amante Drive and Old Loudon Road (Intersection 15)

Further improvements to corridor travel times could be achieved with the implementation of adaptive traffic control system (ATCS) technologies. To the extent that left-turn movements along the corridor continue to be problematic, consideration could also be given to access management strategies, including the installation of a center median and redirecting left-turn/U-turn movements to signalized intersections or midblock locations. An access management strategy would also serve to enhance safety for all roadway users.

Sight Distance Improvements

The following study area intersections were identified to have existing sight distance deficiencies on one or more approaches due to the presence of trees and vegetation:

- NH Route 106 at the Walmart driveway (Intersection 6)
- NH Route 106 at Pembroke Road and North Pembroke Road (Intersection 21)
- U.S. Route 3 at Old Turnpike Road and Black Hill Road (Intersection 24)

In an effort to improve sight distances at the subject intersections, the Project proponent will selectively trim or remove the existing trees and vegetation as necessary to improve sight lines. The sight line improvements will be completed prior to the issuance of a Certificate of Occupancy for any new commercial building that alone or in aggregate that exceeds 50,000 sf, the Chick-fil-A restaurant, the Costco Wholesale club, or 300 residential units, whichever occurs first, subject to receipt of all necessary rights, permits and approvals.

Transportation Demand Management

Public transportation services are provided within the study area by CAT and are accessible at the Project site. CAT operates fixed route bus service along NH Route 9 and D'Amante Drive by way of the Heights Route, with one stop located within the Project site and two (2) stops located along D'Amante Drive proximate to the Project site. CAT also provides Dial-a-Ride paratransit services to eligible people who cannot use fixed-route transit all or some of the time due to a physical, cognitive, or mental disability in compliance with the Americans with Disabilities Act (ADA). In an effort to encourage the use of alternative modes of transportation to single occupancy vehicles (SOVs), the following Transportation Demand Management (TDM) measures will be implemented as a part of the Project:

- A transportation coordinator, who may also have other duties and responsibilities, will be designated for the Project to coordinate the elements of the TDM program;

- The transportation coordinator will facilitate a ride matching program for residents and employees to encourage carpooling;

- Information regarding public transportation services, maps, schedules, and fare information will be posted in a central location and/or otherwise made available to residents and employees of the Project;

- A "welcome packet" will be provided to new residents and employees detailing available public transportation services, bicycle and walking alternatives, and commuter options available;

- Work-at-home accommodations will be provided to support telecommuting by residents of the Project that make take the form of a business office, meeting space and a collaboration area within the amenities area;

- Commercial tenants will be encouraged to offer specific amenities to discourage off-site trips which may include: including providing a breakroom equipped with a microwave and refrigerator; offering direct deposit of paychecks; on-site dry cleaning pick-up; and other such measures to reduce overall traffic volumes and travel during peak-traffic-volume periods;

- Pedestrian accommodations will be incorporated into the Project, and will include ADA-compliant wheelchair ramps at all pedestrian crossings that are to be constructed as a part of the Project and sidewalk connections to the existing sidewalks along NH Route 9 and D'Amante Drive; and

- Secure bicycle parking will be provided at appropriate locations within the Project site and will include weather protected bicycle parking.

In addition, the Project proponent will coordinate with CAT to design and locate a central bus stop (or stops) within the Project site that will include a bus pull-out and a shelter.

Post Occupancy Traffic Monitoring Program

The Project proponent will conduct Post-Occupancy Traffic Monitoring Program in order to validate the trip projections for the Project and to evaluate the success and refine the elements of the TDM program. The monitoring program will include the following:

i) Obtaining traffic volume information over a continuous seven day, weeklong period on the Project site driveways;

ii) Performing turning movement counts and vehicle classification counts at the following intersections (the "Monitored Intersections") during the weekday morning (7:00 to 9:00 AM), weekday evening (3:00 to 6:00 PM) and Saturday midday (11:00 AM to 2:00 PM) peak periods:

- NH Route 106 at Staniels Road and Josiah Barlett Road (Intersection 1)
- NH Route 9 at NH Route 106 (Intersection 4)
- NH Route 9 at D'Amante Drive and Old Loudon Road (Intersection 15)
- NH Route 9 at the Steeplegate Mall and Carrier Place Driveway (Intersection 16)
- NH Route 9 at the Patriots Place and Harbor Freight Tools Driveways (Intersection 18)
- NH Route 9 at the Walmart Driveway (Intersection 19)
- NH Route 106 at Pembroke Road and North Pembroke Road (Intersection 21)

- NH Route 106 at Regional Drive and Smokey Bear Boulevard (Intersection 22)
- U.S. Route 3 at Old Turnpike Road and Black Hill Road (Intersection 24)
- NH Route 9 at Gully Hill Road and the Everett Arena West Driveway (Intersection 29)
- NH Route 9 at Gully Hill Road and the Everett Arena East Driveway (Intersection 30)
- NH Route 9 at Hazen Drive and Airport Road (Intersection 31)
- NH Route 9 at NH Route 132 and Canterbury Road (Intersection 32)
- NH Route 132 at Hazen Drive (Intersection 33)
- NH Route 132 at the I-393 Eastbound Ramps (Intersection 34)

iii) Performing a 12-hour (7:00 AM to 7:00 PM) turning movement count and vehicle classification count on an average weekday and a Traffic Signal Warrants Analysis (TSWA) at the NH Route 106/Steeplegate Mall Driveway intersection (Intersection 7).

iv) Performing a survey of resident and employee commuting modes; and

v) Documenting the elements of the TDM program that have been implemented.

The monitoring program will commence with the issuance of a Certificate of Occupancy for any new commercial building that alone or in aggregate that exceeds 50,000 square feet (sf), the Chick-fil-A restaurant, the Costco Wholesale club, or 300 residential units, whichever occurs first, and will continue for a period not to exceed 1-year after the completion of the Project. The results of the monitoring program will be summarized in a report to be provided to the City of Concord and NHDOT within 2-months after the completion of the data collection effort. The report will document the following information:

- Traffic volumes associated with the constructed portions of Project;
- Traffic operations (i.e., motorist delays, vehicle queuing and LOS) at the Monitored Intersections;
- The results of the TSWA for the NH Route 106/Steeplegate Mall Driveway intersection;
- The elements of the TDM program that have been implemented; and
- Use of alternative modes of transportation to single-occupant vehicles by residents and employees of the Project.

If any of the following conditions are documented as a part of the monitoring program: i) the measured traffic volumes exceed the predicted traffic volumes for the constructed land uses as defined using trip-generation data published by the ITE for the appropriate land use(s) or empirical data (i.e., Costco Wholesale club or Chick-fil-A) by more than 10 percent on a regular and sustained basis during the monitoring period; ii) the overall directional distribution of Project-related traffic as measured at the Project site driveway varies by more than 10 percent from the directional distributions that form the basis of this assessment; or iii) one or more of the movements at the Monitored Intersections are identified to operate at LOS E or F; the Proponent will identify and undertake corrective measures in conjunction with the appropriate parties and subject to receipt of all necessary rights, permits and approvals. These measures may include without limitation:

- Traffic signal timing modifications and the Monitored Intersections;
- Sign and pavement marking improvements;

- On-site operation and management strategies that are designed to reduce overall and peak traffic volumes; and/or
- Expanding the elements of the TDM program.

The identified corrective measures, if any, will be documented in the Post-Occupancy Traffic Monitoring Report, and will identify the appropriate parties responsible for implementation (assumed to be the Proponent unless the corrective measure(s) are a part of a committed improvement project or plan that is scheduled to be implemented by others), required approvals, and the timeline for implementation. The status of implementation of the identified improvement measure(s) will be documented in the subsequent monitoring report.

With implementation of the aforementioned recommendations, safe and efficient access will be provided to the Project site and the Project can be accommodated within the confines of the existing transportation system.