

Somerset County Roadway Safety Study Subregional Project ROAD SAFETY AUDIT REPORT FRANKLIN BOULEVARD IN FRANKLIN TOWNSHIP





November 2021

Executive Summary

As part of the North Jersey Transportation Planning Authority (NJTPA)'s subregional studies grant program, Somerset County (the County) has conducted the Somerset County Roadway Corridor Safety Analysis study. The study will advance the County's efforts to address pedestrian, bicycle, and intersection safety. Five (5) County roadway corridors have been selected to go through a comprehensive safety analysis following the Federal Highway Administration's Road Safety Audit (RSA) process to identify vehicle, pedestrian, and bicyclist safety issues and to develop safety improvement recommendations. This RSA report has been prepared for the Franklin Boulevard corridor (Somerset County Route 617, CR 617), from New Jersey State Route 27 (Route 27) at MP 0.0 to Belmar Street at MP 1.0, in Franklin Township. According to the compiled crash data, 214 crashes occurred on the 1-mile segment analysis area during the 3-year vehicle and 5-year pedestrian crash analysis period.

The pre-audit meeting was held at 10:00 AM via video conferencing on Thursday, March 25th, 2021, on the morning of the in-field review meeting to introduce the audit team, cover the activities to complete the RSA, define the RSA process, cover existing conditions data, present safety measures under consideration, summarize crash data collected for the corridor, and go over ground rules for conducting the in-field portion of the audit safely. The in-field component of the RSA was conducted at 2:00 PM on the same day as the pre-audit meeting. Participants were paired off with each other to walk halves of the corridor. Utilizing aerial mapping, prompt lists, photography, and video, participants recorded their observations of the corridor, as well as safety measures to address potential safety concerns. On the following day (Friday, March 26th, 2021), the RSA team reconvened via video conferencing to view photos gathered during the in-field audit to discuss each potential safety concern, elaborate on potential ideas to mitigate, cover questions on travel pertaining to the overall corridor, and summarize next steps for this study.

Discussions from the RSA process helped to form the basis of the Implementation Matrix in the **Identified Issues & Observations** section of this report, which serves as a record of items discussed during the postaudit meeting. Major findings (or recommendations) from these discussions included:

- Mountable curbs at Route 27 and Hamilton Street intersections to balance ped safety and truck usage;
- Implementation of sidewalk/lighting from Route 27 to Fuller Street for improved pedestrian connections;
- New sidewalks, with narrowing of curb cuts, on east side of corridor from Frank Street to Hamilton Street;
- Speed humps on Ellen Street to discourage cut-through traffic around Hamilton Street intersection;
- Changes to lane alignments, setbacks, and signal/utility poles at Hamilton Street intersection;
- Additional striping on the existing bike lane (buffer/text) north of Hamilton Street; and,
- Refresh of striping/signing/crossings and improved sidewalks on approach to Hillcrest Elementary.

A key recommendation from this RSA was to investigate the feasibility of a road diet with bike lanes on Franklin Boulevard from Route 27 to Hamilton Street, as recommended by prior County studies. Since Franklin Boulevard has an AADT of 16,000, thorough intersection-by-intersection capacity analysis, design, administrative approval, and public vetting is needed to ensure the efficacy and success of the road diet. Since the curb-to-curb cartway width is limited at approximately 44' to 46', bike lanes would not be able to have a buffer and could be of substandard width. An alternate option to dedicating shoulder width available from the road diet to bicycle travel would be to restrict use of shoulders by parked vehicles and to provide curb extensions (in line with shoulder widths) at intersections to reduce pedestrian crossing distance.

Please note that recommendations cited in the Implementation Matrix are to reflect feedback received during the RSA process and are meant to be a record of ideas discussed. As these recommendations are considered for advancement into either a Concept Development (CD) study, or incorporation into an overlapping County or municipal project, the recommendations herein should be thoroughly evaluated for feasibility and practicability and designed as appropriate by the roadway owner and/or a professional engineer for conformance to all applicable codes, standards, and best practices.



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I. Introduction

As part of the North Jersey Transportation Planning Authority (NJTPA)'s subregional studies grant program, Somerset County (the County) has conducted the Somerset County Roadway Corridor Safety Analysis study. The study will advance New Jersey's efforts to address pedestrian/bicycle and intersection safety. Five (5) County roadway corridors have been selected to go through a comprehensive safety analysis following the Federal Highway Administration's Road Safety Audit (RSA) process to identify vehicle, pedestrian, and bicyclist safety issues and to develop safety improvement recommendations. One of the locations that have been selected is the Franklin Boulevard corridor (Somerset County Route 617, CR 617), from New Jersey State Route 27 (Route 27) at MP 0.0 to Belmar Street at MP 1.0, in Franklin Township.

The purpose of this RSA Report is to detail the site selection, road/multimodal inventory, land use investigation, crash data collection, crash analysis efforts, post/pre-audit meetings, and in-field RSA investigation conducted for the Franklin Boulevard corridor. Flowing from this RSA is a list of potential recommendations proposed to improve safety. These recommendations were based on the investigated crash data, as well as recommendations made during the in-field RSA and post-audit meeting. This introduction serves to provide background on selection of the investigated corridor and covers the logistics of the RSA process that was performed. This RSA report also seeks to provide sample figures of improvements and crash countermeasures that could be considered as the County, or municipality, seeks to move forward on its Concept Development (CD) and/or Local Safety Program grant (or other funding) application. Please note, in applying these ideas to the corridor, design of such improvements, conceptual or otherwise, is the responsibility of the designated jurisdiction as is standard RSA practice.

A. Site Selection

Selection of the Franklin Boulevard corridor was based on a rigorous process which started with a list of top crash segments for the County from NJTPA's Network Screening Lists (NSL)¹ and used supporting collision data, equity data, recommendations from prior studies, and public/stakeholder input to develop a shortlist of top crash segments. Segments with recently constructed safety improvements or locations undergoing study/design were identified through discussions with County Engineering and removed from this shortlist to target segments not currently being considered. The remaining locations were further prioritized and ranked with more recent crash severity and frequency data (old crash data from NSL superseded with more recent crash data from Safety Voyager), traffic volume data from NJTPA's regional travel demand model (NJRTM-E), and environmental justice data from NJTPA.

Input on these top crash locations was obtained through the Public Involvement Plan for this project, which included gathering information from the public via a virtual mapping tool and project email address and gathering information from a Technical Advisory Committee (TAC)² via an initial virtual meeting conducted in August 2020. Based upon public and stakeholder input, the following (5) segment locations (including the segment being studied in this report) were selected to be advanced for RSA review:

- 1. Finderne Avenue/Main Street (CR 533) in Bridgewater Township, MP 29.60-30.60
- 2. Franklin Boulevard (CR 617) in Franklin Township, MP 0.00-1.00
- 3. Somerset Street (CR 626) in Raritan Borough, MP 0.00-0.67
- 4. Greenbrook Road (CR 636) in North Plainfield Borough, MP 0.70-1.97
- 5. Main Street (CR 533) in Millstone Borough, MP 25.14-25.87

Franklin Boulevard was selected based on the relatively high crash frequency on this corridor, equity data, and pedestrian/cyclist crash frequency. Furthermore, this location was identified within the Supporting Priority

² Stakeholders on the TAC include NJDOT, NJ TRANSIT, FHWA, RideWise, AARP, Vorhees Transportation Center, and various County advocates.



https://www.njtpa.org/Projects-Programs/Local-Programs/Local-Safety-Rural-Roads/Local-Safety-Program/Network-Screening-Lists.aspx

crash segment lists on this webpage are based upon a programmatic analysis of statewide locations utilizing 2014-2018 crash data.

Investment in Somerset County, Phase III (2017) study, which proposed a road diet and/or speed reduction on Franklin Boulevard between Route 27 and Lewis Avenue. **Table 1** shows the selected segment, or intersections, that qualified as one of the top 100 crash locations¹ in the County based on either overall crash data for the years of 2016 through 2018 or pedestrian/cyclist crash data for the years of 2014 through 2018 as listed on the NSLs.

Corridor Segments Overall Crash Data	Corridor Segments Ped/Bike Crash Data	Intersection Locations Overall Crash Data	Intersection Locations Ped/Bike Crash Data
			Hamilton St (#13)
#11, MP 0.0-1.0	#34, MP 0.2-1.2	Fuller St (#46)	Norma Avenue (#36)
		Pine St (#85)	Viking Avenue (#76)

Table 1 – Franklin Boulevard NJTP	2019 NSL Rankings for	Somerset County
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B. What is a Road Safety Audit (RSA)?

An RSA is a formal safety performance examination of an existing or future road or intersection by a multidisciplinary audit team, including public works, law enforcement, emergency medical services, engineering, planning, and advocacy staff. It qualitatively estimates and reports on existing and potential road safety issues and identifies opportunities for improvements in safety for all road users. RSAs can be used on any size project, from minor maintenance to mega-projects, and can be conducted on facilities with a history of crashes during the design phase of a new roadway or planned upgrade. RSAs consider all road users, account for human factors and road user capabilities, are documented in a formal report, and require a formal response from the road owner. **Figure 1** shows the steps employed by the County to complete the RSA, as informed by the Federal Highway Administration's (FHWA's) RSA process. The steps that traditionally consist of an in-field review of conditions with an RSA team are highlighted in green in **Figure 1**.





The RSA program is conducted to identify potential countermeasures for roadway segments demonstrating a history of, or potential for, a high frequency of crashes, or an identifiable pattern of crash types. Recommendations range from low-cost, quick-turnaround safety improvements to more complex strategies, which are all codified in this report within an Implementation Matrix, categorizing improvements by timeline, cost, and jurisdiction. Implementation of improvement strategies identified through this process may be eligible for Local Federal Aid Safety Funds. Because the RSA process is adaptable to local needs and conditions, recommendations can be implemented incrementally as time and resources permit. Please note that the RSA process does not include the design or thorough evaluation of improvements that are being considered, conceptual or otherwise. Following the eighth and final step of the RSA process, it will be incumbent for the designated jurisdiction to start to evaluate and design the potential improvements presented herein, as is standard RSA practice.

At the request of NJTPA, RSAs originally planned for Fall 2020 were postponed to Spring 2021 due to the COVID-19 pandemic. In addition to postponement, the County took additional steps to safely conduct this



RSA. Both the start-up meeting and RSA de-brief (steps #3 and #5 shown in **Figure 1**), which are traditionally conducted in-person, were conducted virtually via video conferencing to reduce the exposure and potential risk of disease transmission. Furthermore, the essential step of in-field review was conducted in a socially distanced manner with participants paired off in groups spaced more than six feet apart from each other. All in-field RSA participants were masked for the entire duration of the field visit to further reduce the risk of disease transmission. Through this process, the post-audit "de-brief" meeting benefitted from being held virtually after the day on which the in-field review was conducted.

Some notable benefits produced by a virtual post-audit included:

- Additional time for participants to share photos, videos, and scans of their observations;
- Available screensharing for quick review and consensus of RSA observations;
- An involved discussion of the observations and recommendations was well established by the wide audience of stakeholders;
- Additional time for participants to process their observations and organize their thoughts for discussion.



II. Corridor Description & Analysis

A. Study Location

The study area consists of one mile of CR 617 (Franklin Boulevard) extending from the municipal/County border with New Brunswick City/Middlesex County at the intersection with Route 27 at MP 0.0 to a few hundred feet south of the intersection with Belmar Street at MP 1.0 (**Figure 2**). A straight line diagram of the corridor is provided in **Appendix A**. The identified segment is in the Township of Franklin in the County of Somerset. Franklin Boulevard transitions from a more urban land use context with dense mixed-use zoning and commercial zoning on the southern end to a more suburban land use context with apartment complexes, single-family detached housing, churches, and schools on the northern end.

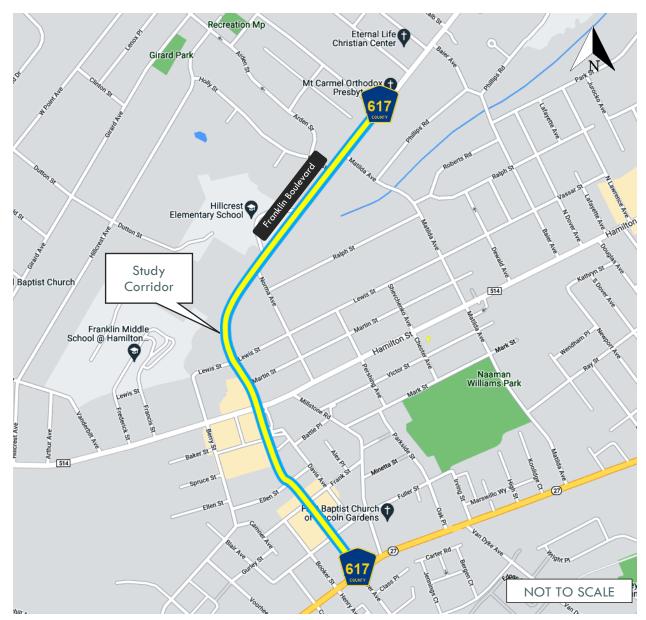


Figure 2 – Study Area Location Map

Major vehicle and pedestrian trip generators on this corridor include Hillcrest Elementary School and The Arbors at Franklin Township at the northern end of the corridor and the DeForest B. Soaries Jr. Senior



Complex, strip malls, and mixed-use residential housing (including Franklin Boulevard Commons) at the southern end of the corridor. Of note, the section of Franklin Boulevard that intersects Hamilton Street is part of the Hamilton Street Special Improvement District (SID) and has been identified as a Priority Growth Investment Area (PGIA) by the County. Hamilton Street (CR 514), from Franklin Boulevard to the border with the City of New Brunswick is also part of a NJTPA Local Safety Program grant currently under design.

B. Roadway and Intersection Characteristics

Franklin Boulevard is classified by the New Jersey Department of Transportation (NJDOT) as an urban minor arterial and has a posted speed of 40 mph with an advisory school posted speed signing of 25 mph in the vicinity of Hillcrest Elementary School, which flashes when school is in session. The corridor study section between Route 27 and Hamilton Street generally consists of four 10'-11' travel lanes (two in each direction) undivided with no shoulders on either side. From Hamilton Street to the north, the road generally consists of two 11' travel lanes (one in each direction) with a 9' shoulder in each direction signed for bicycle usage. There is no on-street parking provided. There are two signalized and twelve unsignalized intersections along the corridor.

C. Existing Bicycle/Pedestrian Accommodations

For the most part, sidewalks are generally available along at least one side of the road and consist of both bituminous and concrete paving and greatly vary in width. One gap in sidewalk continuity on both sides of the road was noted to exist between Route 27 and Fuller Street on the southernmost block of the corridor; worn paths along the side of the road here indicate pedestrian and cyclist traffic here. Just north of this block, there are both coverage and gaps in the sidewalk on the east and west sides of the road; however, Franklin Boulevard lacks crosswalks and curb ramps to facilitate continuity of ADA-compliant paths. Sidewalk south of Hamilton Street is also interrupted by numerous wide driveway curb cuts, which increase pedestrian exposure to potential vehicle conflicts.

North of Hamilton Street, better sidewalk continuity, more frequent pedestrian curb ramps, and more frequent side/main street crosswalks are provided. Furthermore, a 9' shoulder is signed to allow bicycle usage. Despite this, the lack of street space provided for cyclists south of Hamilton Street and the relatively high travel speeds and traffic volumes on the road in general, Franklin Boulevard was classified in the recent WalkBikeHike (2019) study as having a Bicycle Level of Traffic Stress of 4, which is representative of cycling travel conditions that are comfortable to the most risk-tolerant riders.

Traffic signs alert drivers to potential school crossings during school arrival and dismissal times. A review of Google Streetview images from September 2019 shows vegetative overgrowth on sidewalks on the east side of the road in the vicinity of Norma Avenue, greatly narrowing the traversable width of the sidewalk. Sidewalk coverage is provided on the west side of the road north of Norma Avenue, which then switches over to the east side of the road at the Holly Street intersection via a signed striped continental crosswalk. Sidewalk coverage on the east side of the road continues to the northern end of the segment.

D. Traffic Volumes

According to traffic data available from NJDOT³ count stations #111815 and 111816, Average Annual Daily Traffic (AADT) on Franklin Boulevard can range from approximately 12,000 to 16,000 vehicles per day. Supporting count data from NJDOT is provided in **Appendix B**. This figure is supported by traffic volume estimates from NJTPA's NJRTM-E travel demand model, which provides an AADT estimate of 15,000 based upon 2020 pre-COVID-19 conditions.

³ AADT data obtained from <u>https://www.nitms.org/map/</u>.



E. Transit Service⁴

There are no transit services on this section of Franklin Boulevard. The NJ TRANSIT Jersey Avenue Train Station with Northeast Corridor Line service is located approximately one mile southeast of the Franklin Boulevard corridor. The corridor is more directly served by the County's CAT 1R bus service (which runs from New Brunswick to Branchburg/Raritan Valley Community College, while also running through Somerville, Bound Brook, South Bound Brook, and Franklin) near the Hamilton Street intersection via a bus stop at the Franklin Court strip mall located in the southwest quadrant of the Hamilton Street intersection (MP 0.34).

Although a nearside (that is, in advance of the intersection) bus stop with shelter and trash can amenities is located on the eastbound side of Hamilton Street at the intersection with Franklin Boulevard and is signed as having Suburban Transit bus service, current Suburban Transit bus service schedules and Google Maps transit data show that this bus service has relocated from the Hamilton Street corridor to the Route 27 (Somerset Street) corridor. Suburban Transit bus service on Route 27 has an inbound (that is, bound for New York City) nearside bus stop located at its intersection with Franklin Street, with the corresponding outbound bus stop located approximately one block (400') to the east. Suburban Transit Line 100 services these bus stops with weekday service between Princeton and the Port Authority Bus Terminal in New York City with hourly headways during AM and PM peak periods. The New Brunswick Park and Ride, located approximately ¹/₄-mile to the east along Route 27 near Matilda Avenue, has additional Suburban Transit service, including Lines 100, 500, and 600, all providing service to different commuter destinations throughout New York City.

F. Community Profile

Population and income characteristics from the American Community Survey (ACS), an update to the 2010 Census performed by the U.S. Census Bureau, were used to identify Environmental Justice populations. The latest ACS for this study area is a five-year estimate from 2015 through 2019 for County Census Tracts 532 and 533. A summary of the demographics is listed in **Table 2**. The Equity Analysis conducted for the Somerset County Roadway Corridor Safety Analysis highlighted this corridor as an Environmental Justice focus area based upon the share of minority residents living within a ¹/₄-mile buffer of the corridor.

Characteristic		Census Tract Average	County Average	
Below Pove	erty Level ⁵	15.2%	5.1%	
Race/	White	30.6%	66.3%	
Ethnicity ⁶	Asian American	8.1%	17.7%	
	Black or African American	46.4%	9.7%	
	American Indian/Alaskan	1.0%	0.3%	
	Other	13.9%	6.0%	
	Hispanic/Latino (Ethnicity)	32.1%	14.7%	
Limited English Proficiency (LEP) ⁷		2.8%	4.4%	
Use Public Transportation ⁸		4.9%	5.3%	
Zero Vehic	e Households ⁷	2.0%	2.1%	

Table 2 – Franklin Boulevard RSA Study Area Demographics

Although nearby transit service is available, the study area population is very car-dependent compared to the County average due to limited nearby transit service. Furthermore, lack of sidewalk connectivity towards the southern end of the corridor to Route 27 may discourage access to available transit to New York City.

⁸ 2019: ACS 5-Year Estimates Data Profiles, TableID S0802, "Means of Transportation to Work by Selected Characteristics"



⁴ Information as of Winter 2020.

⁵ 2019: ACS 5-Year Estimates Data Profiles, TableID S1701, "Poverty Status in the Last 12 Months"

⁶ 2019: ACS 5-Year Estimates Data Profiles, TableID DP05, "ACS Demographic and Housing Estimates"

⁷ 2019: ACS 5-Year Estimates Data Profiles, TableID S1602, "Limited English-Speaking Households"

G. Redevelopment

Franklin Boulevard travels through the Hamilton Street Special Improvement District, identified by the County as a Priority Growth Investment Area (PGIA) in the Supporting Priority Investment in Somerset County Phase III Study dated June 2017. The goal of this study was to identify land use and transportation improvements to support redevelopment and targeted growth. The study identified, screened, and evaluated candidate locations and proposed a series of pilot sites to serve as templates for the redevelopment of other sites. Properties on the segment of Franklin Boulevard within the PGIA (between Route 27 and Norma Avenue) are anticipated to be redeveloped to include more mixed-use, multi-story buildings. Due to its proximity and convenient access to New Brunswick, the transportation improvements in the Phase III Study focused on multimodal mobility, such as expanded bus service and enhanced pedestrian and bicyclist connectivity. Significant applications for the redevelopment of land on this section of Franklin Boulevard in the PGIA include the following:

- 52 Norma Avenue (Block 234, Lots 2 and 8) Two-story apartment building with eight one-bedroom units approved by County Planning
- 610 Franklin Boulevard (Block 233, Various Lots) Four-story mixed-use building to include eight one-bedroom and six two-bedroom units and 23,000 SF of office space – approved by County Planning
- 602 Franklin Boulevard/515 Lewis Avenue (Blocks 233/234, Various Lots) Conversion of former a post office building to a school property application is on hold
- 600 Franklin Boulevard (Block 234, Lot 1) Repopulation of abandoned office space with medical office/research space approved by County Planning
- Southeast corner of Norma & Franklin intersection (Block 234, Lots 3 through 7) Proposed major residential subdivision approved by County Planning

Located along Franklin Boulevard to the north of the PGIA, there are also two residential redevelopment applications, including a subdivided lot at the Mt. Carmel Orthodox Presbyterian Church (350 Franklin Boulevard, approved by County Planning) and a 28-unit townhouse complex (453-455 Franklin Boulevard, approval withheld).

H. Proposed Improvements from Previous Studies

The WalkBikeHike (2019) and Supporting Priority Investment in Somerset County Phase III Study (2017) studies recommend implementing a road diet on Franklin Boulevard between Route 27 and Lewis Avenue (**Figure 3**) to reduce vehicle speeds and minimize pedestrian-vehicle conflict exposure. A high-level investigation of the road diet concept was made within the Phase III study with initial capacity analysis showing that existing Levels of service could be maintained with signal timing adjustments. The intersection at Hamilton Street would maintain the existing configuration with a northbound left-turn lane extending approximately to Field Street. At Route 27, the southbound left-turn lane would extend at least 150' to accommodate typical vehicle queues. However, the study recommended that further investigation be performed in coordination with the municipality, local stakeholders, and NJDOT.





Figure 3 – Franklin Boulevard Road Diet Concept from Phase III Study

Other improvement considerations on Franklin Boulevard from the Phase III Study included the following:

- Investigate lowering the speed limit between Route 27 and Lewis Avenue (currently 40 mph); and,
- Fill sidewalk gaps between Ellen Street and Frank Street and between Fuller Street and Route 27.

Furthermore, the study also proposed a bicycle boulevard along Lewis Street, which would run parallel to Hamilton Street and would intersect Franklin Boulevard with improved pedestrian crossings, wider sidewalks, and enhanced streetscaping. Pertinent excerpts from these studies, and associated improvements, are provided in **Appendix C**.

I. Public Meeting #1

On Thursday, November 12, 2020, the first public meeting for this project was held via Zoom conferencing to obtain feedback for the five locations selected for RSA review. Email blasts, advertisements, and social media notifications were provided in advance of the meeting. This meeting introduced the project team, who provided an overview of the study, stating the purpose and need. Crash statistics on County jurisdiction roadways were reviewed, showing a steady increase of crashes over the past ten years. The Consultant Team explained the RSA process and the technical analysis used in the development of the shortlist of corridors. Due to the pandemic, virtual or socially distanced options for conducting the RSA process were discussed.

The Consultant Team explained the study's Public Involvement Plan (PIP), an iterative process designed to collect feedback and input. The opportunities to collaborate on the PIP were virtual, including public meetings and comments received through the project website and project email. The Consultant Team then discussed the process of selecting the five corridors. The selection process was based on screenings for top crash locations, evaluation of equity data, and public/stakeholder input obtained from the initial virtual mapping outreach conducted in Fall 2020. The virtual mapping tool allowed users to pin comments on areas of concern on a virtual map.

As part of the PIP, the public meeting included an opportunity to hear from attendees on comments specific to each corridor selected for RSA review by splitting the overall meeting into breakout rooms. The group in the Franklin Boulevard breakout room discussed various concerns and suggestions regarding traffic calming and pedestrian safety. Comments received were as follows:



- The intersection of Franklin Boulevard and Belmar Street needs pedestrian crossing control for church access as the roadway is busy during peak times.
 - Traffic control and a pedestrian signal crossing is needed at the intersection of Franklin Boulevard and Matilda Avenue.
 - Concern with bike lane as it is a challenge to incorporate with existing left turning lanes
- At the intersection of Hamilton Street and Franklin Boulevard:
 - Vehicles moving southbound are aggressive, and there is heavy traffic from the parking lots servicing the shopping center.
 - Cars are not adhering to traffic signals by using the connecting Lewis Street to avoid the signal at Hamilton Street.
 - Tractor-trailers and other heavy vehicles turning onto Hamilton Street make passenger vehicular movement difficult.
 - Suggestion to pull left-turn bay back to make more room for right-turning vehicles
- Vehicles are slower, making it easier to exit from the Walgreens parking lot; drivers moving eastbound give way to vehicles wanting to go westbound on Hamilton Street. However, the queue from eastbound traffic blocks drivers' views as they are trying to make a left onto Hamilton Street
- On Berry Street, there is a speed issue; there is easier access for exiting, but there are faster moving vehicles on Hamilton Street.
- Vehicles are using Berry Street to bypass traffic signals.
- The intersection of Franklin Boulevard and Frank Street is missing a crosswalk, and there is heavy foot traffic at the intersection, with fast-moving vehicles.
- At the intersection of Franklin Boulevard and Rt. 27:
 - The southbound Franklin Boulevard left-turn bay does not provide enough room for westbound right-turning trucks.
 - For all approaches, a right-turn on the red restriction should be evaluated.

J. Technical Advisory Committee Meeting #2

Following an August 2020 meeting with the TAC (Technical Advisory Committee) to select the five corridor locations for further review the County held the second TAC meeting in February 2021. This meeting consisted of a 45-minute presentation followed by interactive breakout rooms with discussion centered around the corridors selected for further review. The presentation included the following topics: project background, summary of selected corridors, description of potential safety measures, and a discussion of demonstration projects.

A breakout room was dedicated solely to the discussion of potential safety measures to be implemented in response to potential safety concerns on the Franklin Boulevard corridor in Franklin Township Participants were asked to review the ten safety measures discussed during the presentation. They were then asked to rate the effectiveness and ease of implementation of each safety measure based on their own opinion/perspective. Participants were also asked to identify specific areas within each corridor that were areas of concern.

 Table 3 contains a summary of those ratings and discussions for each safety measure, along with additional comments made toward each safety measure.



Safety Measure	Effectiveness (1= not effective; 10= very effective)	Ease of Implementation (1=easy; 10= hard)
Lighting	8	3
Curb Extensions/Bus Bulbs	10	10
Daylighting ⁹ and Crosswalks	10	1
Walkways for Sidewalk Gaps	10	3
Dedicated Turn Lanes	10	5
Leading Pedestrian Intervals (LPI)	10	1
High Visibility Crosswalks	10	1
Turn Restrictions	5	5
Bike Lanes	0	1
Lane Width Reduction/Road Diet	10	1

Table 3 – Perceived Effectiveness and Ease of Implementation for Various Safety Measures

Breakout Group Additional Comments:

- Lighting:
 - Participants agree that illuminated crosswalks help prevent crashes.
 - Lighting can be a maintenance issue. Participants did not see an issue with adding more lighting, in addition to residential windows facing roadway and commercial property lighting, to improve security along the corridor.
- Curb Extensions/Bus Bulbs:
 - Curb extensions are hard to implement and would need to be strategic to reap benefits.
- Walkways for Sidewalks Gaps:
 - Heavily traveled corridors should have consistent sidewalks.
 - ADA compliance is key.
 - There are some sidewalk gaps noticed from aerial views.
- High Visibility Crosswalks:
 - The corridor does have some intersections without crosswalks.
 - There may be issues with adding crosswalks in this area (i.e., County feels intersection is unsafe to implement a crossing).
- Dedicated Turn Lanes:
 - Dedicated turn lanes already exist at the two major intersections of this corridor.
 - Feasibility is also contingent upon ROW.
 - $\circ~$ Signal phasing for dedicated turn lanes, in addition to LPIs, takes time away from through vehicles.
- Leading Pedestrian Intervals (LPI):
 - $\circ~$ The County is willing to consider use of LPIs if vehicles delay, and queuing does not significantly increase.
 - \circ $\;$ LPIs are beneficial for school crossings.
- High Visibility Crosswalks:
 - High visibility crosswalk retroreflective paint is more costly than regular paint.
 - Maintenance is an issue.
- Turn Restrictions:
 - No turn on red restrictions is effective.
 - There does not seem to be places to divert traffic for left turns prohibitions along the corridor.
 - There could be pushback with diverting traffic near Route 27. Limiting movements onto state roadways requires NJDOT coordination. State would also need to control signing.

⁹ Daylighting is the act of restricting parked or standing vehicles through striping or curbing to improve sight distance at crosswalks or intersections.



- Bike Lanes:
 - Participants believed if there are cyclists, as well as room for lanes, a road diet with bike lanes can be effective.
 - Since the AADT is relatively high on the corridor, it is viewed that a bike buffer would need to be accommodated.
- Lane Width Reduction/ Road Diet:
 - Road diets are hard to implement given the AADT.
 - Road diet improvement plans are under design for the intersecting Route 27 (Somerset Street) corridor.

K. Technical Advisory Committee Meeting #3

Following the RSAs in Spring 2021 and authoring of the draft RSA reports and accompanying recommendations soon thereafter, the County held the third and final TAC meeting for the study in August 2021. The virtual meeting format consisted of a 45-minute presentation with interactive breakout rooms. The presentation included the following topics: project background, project status, identification of needs, and proposed safety measures by corridor.

The meeting was then divided into five breakout rooms, one for each of the selected corridors. Each breakout room discussed a specific set of recommendations pertaining to that corridor. Participants were asked to provide their general reactions to the proposed recommendations and whether they would accomplish the goals of the study. Potential barriers or other ways to accomplish study goals were also discussed. The topic of discussion for the breakout room specific to the Franklin Township RSA was the road diet proposed for the Franklin Boulevard corridor, between Route 27 and Hamilton Street. Provided below is participant feedback received on this specific proposed safety measure:

- All participants seemed to support the idea of a road diet between Route 27 and Hamilton Street.
- Capacity analysis is key to testing the feasibility of the road diet. In particular, queueing lengths at intersections will be important to designing appropriate turning bay lengths.
- NJDOT participant noted that the nearby Concept Development study is exploring road diet options on Route 27. Same participant noted the improvement is connected to a Crash Modification Factor proven to tie the benefit to a specific reduction in crashes.
- Truck turning movements at the intersections on either end of the road diet should be evaluated so that the realignment of lanes as part of the road diet can be positioned to minimize the occurrence of trucks driving over the nearby intersection corners, as is happening now.
- If this road diet results in bike lanes, connections to bike lanes north of Hamilton Street and other biking facilities/roadways via sharrows and/or bike lanes must be designed and could need to be accommodated via travel lane realignment.
- As part of the road diet project, sidewalk rehabilitation and sidewalk gaps should be addressed.
- How the road diet, and two-way left-turn lanes, ties into existing business on either side of the road should be considered.

Additional comments were received during the breakout room (not pertaining to the road diet):

- Lighting just north of the Route 27 intersection was noted to be relatively dim.
- Other improvements that could be implemented along with the road diet include curb extensions, refuge islands, etc., which can be accomplished by implementing the road diet.



L. Public Meeting #2

On Wednesday, September 29, 2021, from 7:00 PM to 9:00 PM, Somerset County held the second and final public meeting for the study. The virtual meeting format consisted of a 45-minute presentation touching on the following topics: project background, project status, identification of needs, and proposed safety measures by corridor.

The meeting was then divided into seven breakout rooms, one for each of the selected corridors, one for county-wide general transportation comments and suggestions, and one for Spanish speakers. Much like at the third TAC meeting, participants were asked to provide their general reactions to the proposed road diet recommendations and whether they would accomplish the goals of the study. Potential barriers or other ways to accomplish study goals were also discussed. Provided below is participant feedback received on this specific proposed safety measure:

- In general, participants supported the idea of implementing a road diet south of Hamilton Street.
- Participants agreed that corridor speeds would benefit from a road diet.
- Concerns were expressed to address same issues experienced south of Hamilton Street for the northern end of the corridor.

Additional comments were received during the breakout room (not pertaining to the particular road diet in question):

- Speeding between Hamilton Street and Hillcrest Elementary comprised the bulk of discussion.
- Participants shared ideas to address the speeding issues north of Hamilton Street (e.g., feedback signs, curb extensions, etc.).
- Participants perceive that Franklin Boulevard carries a relatively high volume of truck traffic.



III. Crash Findings

The analysis used to support the RSA process incorporated a data-driven effort to utilize reportable crash information resulting in any combination of fatality, injury, or property damage. The datasets used for this analysis are sourced from local law enforcement responses to reported vehicular crashes. These on-scene responses subsequently translate to official law enforcement generated reports. Concurrently, the individual reports are aggregated to render serviceable crash information. To be entirely inclusive in obtaining complete crash information, the data was accumulated using three distinct resources: NJDOT's Safety Voyager¹⁰, New Jersey Division of Highway Traffic Safety (NJDHTS) Numetrics¹¹, and the NJDOT raw crash tables¹². The three sources were compared against each of the other obtained sources to allow for duplicate records to be discarded and all distinct records to be included with the goal of producing a complete and comprehensive representation of the crashes within the extents of the corridor.

The datasets were obtained for a three-year analysis period from the beginning of January 2016 through the end of December 2018 for vehicle-vehicle crash incidents and from the beginning of January 2014 through the end of December 2018 for vehicle-pedestrian/cyclist crash incidents. According to the compiled crash data, 214 crashes occurred within the one-mile segment analysis area during the analysis period. The following evaluation breaks down crash attributes as a percentage of the total crashes to achieve a stronger understanding of the localized trends compared to County roadway systems crash performance. Furthermore, all crashes along this segment were mapped onto collision diagrams, which can be found in **Appendix D**, providing a quick spatial overview of crash clustering patterns.

In reviewing the crash data, the following crash clusters and prevailing safety issues were noted:

- At the Somerset Street intersection
 - Numerous fixed object collisions on NW intersection corner with pedestrian signal pole
 - Numerous sideswipe collisions on SB narrow lanes approach to intersection
 - Crashes on SB Route 27 including rear ends and crashes with left turn and cross-street traffic
- Crashes between NB traffic and traffic trying to turn on from Fuller Street
- At the Hamilton Street intersection
 - Heavy volume of rear end collisions on EB approach to intersection
 - Crashes between EB queue to intersection and vehicles looking to turn out of strip mall
 - Significant amount of right angle and left-turn collisions involving EB traffic
 - Numerous crashes at this intersection involving pedestrian and cyclist traffic (half on east crosswalk)
 - Numerous fixed object collisions with signal pole on SE intersection corner
 - Numerous sideswipe collisions just south of intersection, both same and opposite directions
 - NB and SB rear end collisions and cyclist crash clustered in front of Hillcrest Elementary driveway
- Numerous struck parked vehicle and fixed object collisions at Matilda Avenue intersection

A. Temporal Trends

Sorting the crashes by month reveals that the study segment experiences increased crashes during the Fall/Winter month from October thru February. The Spring/Summer months from March thru September show lower frequencies. During the seven (7) months of January, February, March, May, June, October, and November, the study corridor experiences higher crash frequencies than the County-wide average. Notably, February experiences more crashes than the County-wide average (7.0% vs. 11.0%), as shown highlighted in yellow in **Figure 4. Figure 5** highlights the crash percent distributions by day of the week. Midday, between 12:00 PM and 2:00 PM, reveals higher crash percentages than the County-wide average, as shown

 $^{^{12} \ \}underline{https://www.state.ni.us/transportation/refdata/accident/rawdata01-current.shtm}$



¹⁰ <u>https://www.njvoyager.org/App/</u>

¹¹ <u>https://www.numetric.com/</u>

highlighted in yellow in **Figure 6**. More specifically, the 2:00 PM hour has crash frequencies almost double the County-wide average, 10.6% local distribution versus a 6.4% County-wide distribution. This higher percentage can relate to the presence of schools along the study corridor, most notably the Hillcrest Elementary School at the northern end of the corridor. A closer look at the crash data reveals that ten crashes occurred near this school, with three crashes specifically involving vehicles entering/exiting the school driveway.

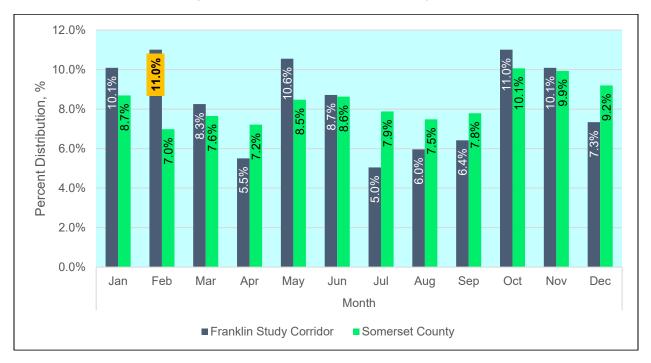
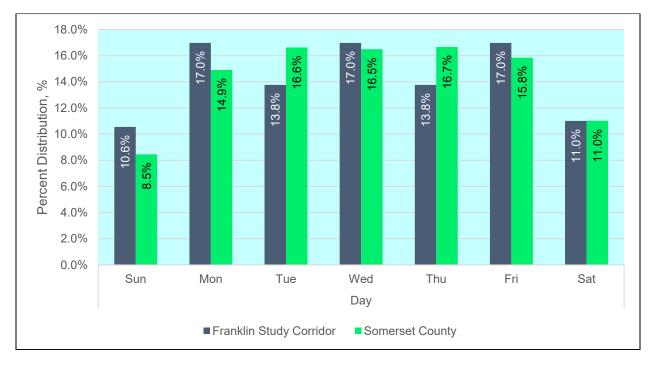
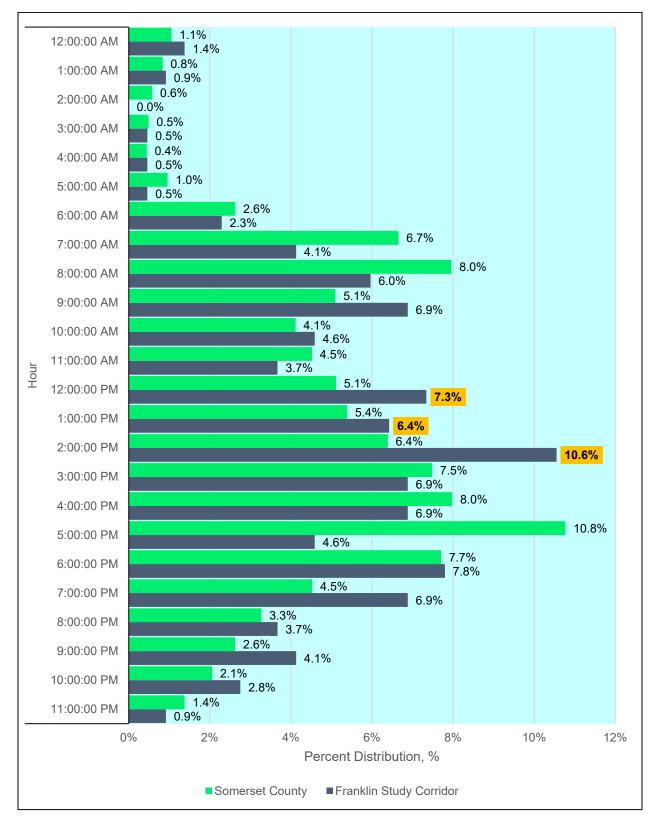


Figure 4 – Vehicular Crashes, Percent Distribution by Month

Figure 5 – Vehicular Crashes, Percent Distribution by Day











B. Collision Types

Fifty-six rear end and 60 right angle crashes make up more than 53% of the crash distribution along the study segment, shown highlighted in yellow in **Figure 7**. Rear end crashes on the corridor occur approximately 10% less frequently than County-wide rear end crashes. Right angle crashes, however, are more frequent within the study segment than the County. Pedestrian-involved crashes on the study segment occur at a considerably higher frequency than the County, almost four times as frequent (0.8% County-wide vs. 4.1% CR 617) highlighted in yellow in **Figure 7**. This is perhaps correlated to the fact that the study segment lies in a more heavily urbanized area. **Figure 7**, and **Table 4**, provide a breakdown of crash types for the study segment.

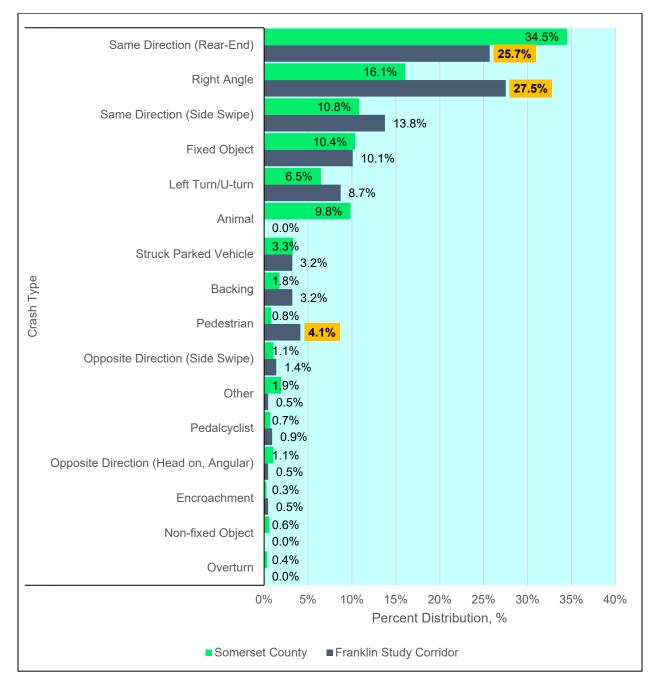


Figure 7 – Vehicular Crashes, Percent Distribution by Crash Type

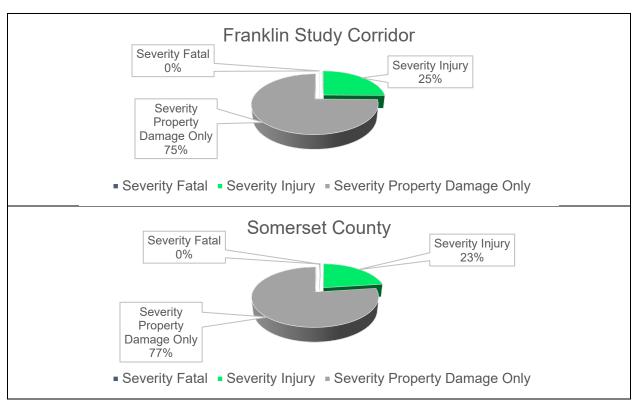


Crash Type	Total
Backing	7
Encroachment	1
Fixed Object	22
Left Turn/U-turn	19
Opposite Direction (Head on, Angular)	1
Opposite Direction (Side Swipe)	3
Other	1
Pedalcyclist	2
Pedestrians	5
Right Angle	60
Same Direction (Rear-End)	56
Same Direction (Side Swipe)	30
Struck Parked Vehicle	7
Total	214

Table 4 – Vehicular Crashes by Type

C. Crash Severity

The study segment generally conforms to the County's trends when considering the percent distribution of crash severity. However, data shows a slight increase in crashes resulting in injuries rather than property damage only when compared to the County. The analysis period saw no fatalities along the selected roadway study segment (**Figure 8**).

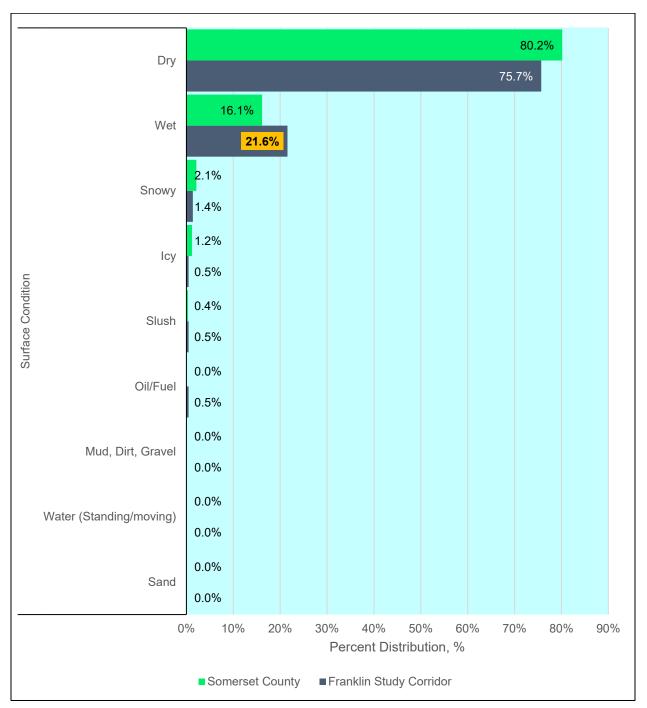






D. Roadway Surface & Light Condition

Crashes occurred more frequently during wet driving conditions on the study segment than the County-wide average. Wet road-related crashes are the second most overrepresented roadway surface condition during crashes, 21.6%, approximately 5% more as frequent as the County-wide average, 16.1% (highlighted in yellow in **Figure 9**).







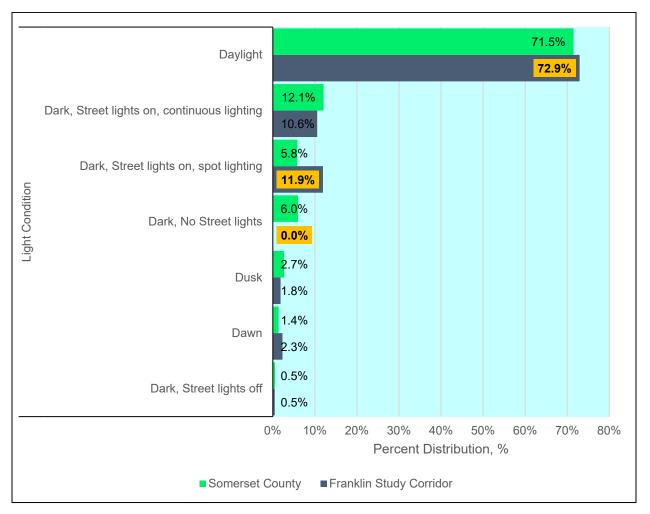


Figure 10 – Vehicular Crashes, Percent Distribution by Light Condition

Approximately 72.9% of crashes on the study segment occurred during daylight conditions. This is slightly higher than the County-wide average of 71.5%. Crashes occurring during "dark, street lights on, spot lighting" is noticeably higher than the County average, occurring more than double the frequency of 11.9% on the study segment corridor versus the 5.8% for the County. This may be due to the relatively-lit/developed nature of the study segment's streetscape, as evidenced by a 0% for "dark, no streetlights" (shown highlighted in yellow in **Figure 10**).

E. Location

Crash visualization using the histogram, grouped in 0.01-mile segments, is provided in **Figure 11**. This chart indicates that the signalized intersections of Somerset Street and Hamilton Street experience the highest recurrence rate of crashes along the study segment (as shown highlighted in yellow in **Figure 11**). The crashes at these two locations account for 50% of all crashes. Fuller & Matilda Streets equally present the highest crash totals at unsignalized intersections with fourteen (14) crashes at each location (as shown highlighted in yellow in **Figure 11**). A three-dimensional representation of this crash histogram for the 2016 through 2020 timeframe, imposed onto a map of the study area, is shown on **Figure 12**.



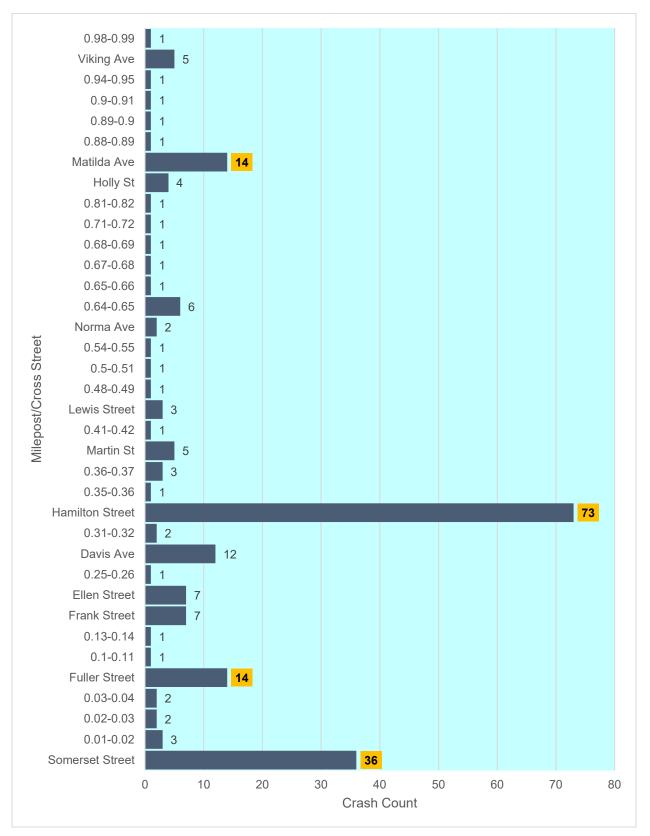


Figure 11 – Vehicular Crashes by Milepost





Figure 12 – Visual Estimation of 5-Year (2016 - 2020) Crash History Obtained from Safety Voyager ¹³

F. Age of Those Involved

Driver-, occupant-, and pedestrian-involved data was also accessible from the NJDOT crash tables. A normal distribution table was developed (**Figure 13**) utilizing the age data provided by NJDOT. Amongst the 196 crashes reported, the average person(s) involved age was determined to be approximately 37 years old. Approximately 68% of person(s) involved were between the ages of 19 and 55 years old. **Table 5** outlines the percent distribution of the age(s) of those involved in the vehicular crashes, grouped by ten years of age. Data from the table indicates that crashes with drivers between the ages of 16 and 45 years old occur with a higher frequency on the study segment than the County average for the same age groups. Ages 16-25 account for the highest frequency of those involved at 24.4%, marginally higher than the County average of 23.1%.

¹³ Five-year crash totals shown on histogram from Safety Voyager may vary from crash report data obtained from municipality's police department and do not include crashes recorded as occurring on side street approaches, which are included in the record of analyzed collected crash data.



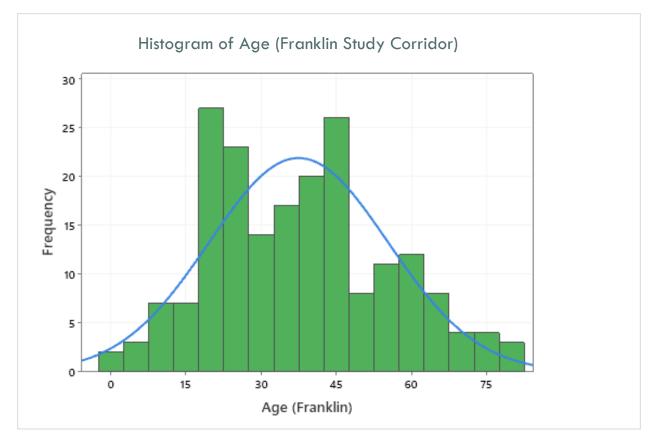


Figure 13 – Histogram of Age(s) Involved



Age Involved	Franklin Township Study Corridor	Somerset County
Under 16	6.6%	7.9%
16-25	24.4%	23.1%
26-35	17.3%	16.9%
36-45	19.3%	15.8%
46-55	14.7%	16.7%
56-65	11.7%	11.3%
66-75	4.1%	5.1%
76-85	2.0%	2.5%
86-95	0.0%	0.7%
96-105	0.0%	0.0%
106-116	0.0%	0.0%



IV. RSA Logistics

All data previously discussed in this report was used to inform the RSA conducted on this corridor. All participants involved in this RSA, whether in attendance during the pre-audit meeting, in-field review, and/or post-audit meeting, are listed in **Appendix E**. The pre-audit meeting was held at 10:00 AM via video conferencing on Thursday, March 25th, 2021, on the morning of the in-field review meeting to introduce the audit team, cover the activities to complete the RSA, define the RSA process, cover existing conditions data, present safety measures under consideration, summarize crash data collected for the corridor, and go over ground rules for conducting the in-field portion of the audit safely. The PowerPoint used to facilitate this discussion is provided in **Appendix F**.

The in-field component of the RSA was conducted at 2:00 PM on the same day as the pre-audit meeting. The audit team met in a social-distanced manner, while masked, in the parking lot behind Somerset County Social Services building for a flipbook RSA orientation presentation to reiterate the ground rules of the audit. Upon conclusion of the orientation, participants were paired off with each other to walk halves of the corridor, seeking to pair each Somerset County Roadway Safety Study project team member (whether with the County or Consultant team) with each of the stakeholders. Utilizing aerial mapping, prompt lists, photography, and video, participants recorded their observations of the corridor, as well as potential safety measures to address potential safety concerns. After walking the corridor, the RSA team met back in the parking lot to share overall thoughts on the corridor and fill out a survey on corridor identity, crossings, pedestrian-vehicle interactions, sidewalk and roadway conditions, and streetscape amenities, the answers of which were compiled and are averaged in **Appendix G**. Based on survey results, the corridor had the following perceived concerns:

- Faded or missing crosswalk
- Lack of curb ramps for strollers/wheelchairs

On the following day (Friday, March 26th, 2021), the RSA team reconvened via video conferencing to view photos gathered during the in-field audit, some of which are presented in the following section, to discuss each observation, elaborate on potential ideas to mitigate, cover questions on travel pertaining to the overall corridor, and summarize next steps for this study. This discussion helped to form the basis of the Implementation Matrix in the **Identified Issues & Observations** section of this report. The PowerPoint used to facilitate this discussion is provided in **Appendix H**.

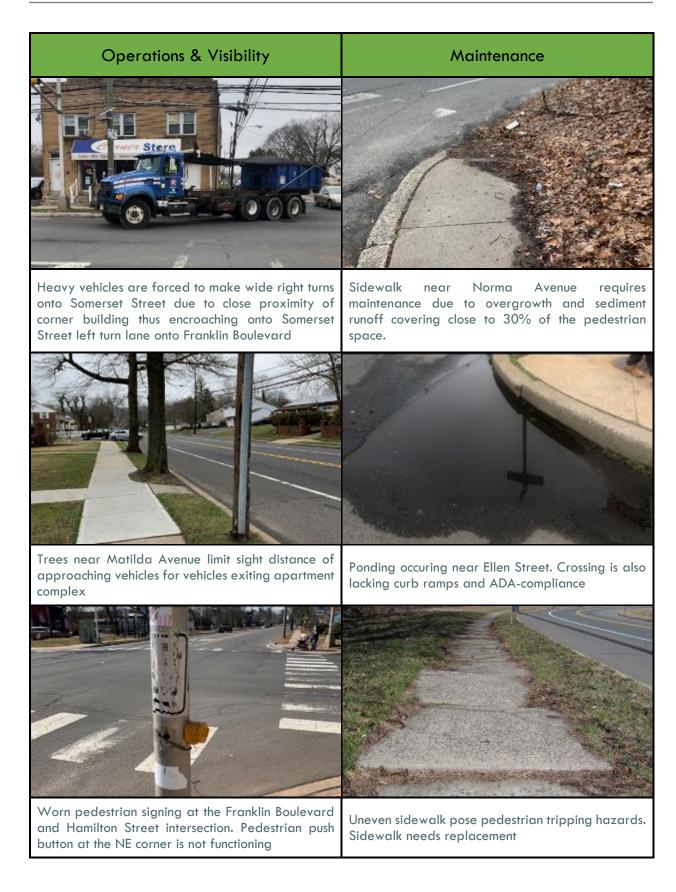


V. Identified Issues & Observations

This section depicts a sampling of overall issues identified during the RSA. Please refer to the Implementation Matrix in the following section of the report for a comprehensive list of identified corridor issues.









VI. Findings & Recommendations

This section summarizes the site-specific and corridor-wide safety issues, potential strategies, and recommendations to improve safety. An Implementation Matrix is provided that summarizes the recommendations and provides qualitative information on time frame, cost, and responsible jurisdiction. Please note that recommendations cited in the Implementation Matrix are to reflect feedback received during the RSA process and are meant to be a record of ideas discussed. Symbols used in the Implementation Matrix are defined in **Table 6** as follows:

Symbol	Meaning	Definition		
\$	Low cost	Could be accomplished through maintenance		
\$\$	Medium cost	May require some engineering or design and funding may be readily available		
\$\$\$	High cost	Longer term; may require full engineering, ROW acquisition, and new funding		
ľ	Short term	Could be accomplished within 1 year		
00	Medium	Could be accomplished in 1 to 3 years; may require some engineering		
	term	Could be accomplished in 1 to 3 years; may require some engineering		
000	Long term	Could be accomplished in 3 years or more; may require full engineering		

T ()		o			
Table 6 – Le	egend of	Symbols	in Im	plementation	Matrix

A. Implementation Matrix

The following represents the specific findings and recommendations made by the interdisciplinary RSA team, which were subsequently evaluated via discussions with County Engineering on Wednesday, June 2nd, 2021, and Thursday, June 3rd, 2021. As these recommendations are considered for advancement into either a CD study, or incorporation into an overlapping County or municipal project, the recommendations herein should be thoroughly evaluated for feasibility and practicability and designed as appropriate by the roadway owner and/or a professional engineer for conformance to all applicable codes, standards, and best practices. Corridor-wide recommendations, requiring a review of all important applicable infrastructure along the corridor pertinent to these specific topics, are provided in Table 7. Further defined recommendations at specific intersection or mid-block locations are provided in Table 8. Recommendations bolded within the Implementation Matrix below feature one of the twenty Proven Safety Countermeasures from the FHWA¹⁴, which means that the recommendation is shown to have a significant safety benefit as proven by substantial traffic safety research. These recommendations are tied to Crash Modification Factors (CMFs) showing a substantial reduction in crashes, as well as research documented on the Crash Modification Factor Clearinghouse website that has a high-quality ranking. This high ranking indicates the quality of study design, sample size, statistical methodology, statistical significance, etc. for the research backing each CMF. Mapping of location-specific proposed recommendations is provided in Appendix I.

Table 7 – Corridor	-Wide	Recommendations
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No.	Recommendation	Cost	Time Frame	Jurisdiction
Bicy	cle			
1	Install bike lane pavement markings to supplement signs.	\$\$	Ċ	County
2	Determine if inlets have bicycle-safe grates and replace if necessary.	\$	ÛÛ	County

¹⁴ https://safety.fhwa.dot.gov/provencountermeasures/



No.	Recommendation	Cost	Time Frame	Jurisdiction	
3	Consider Biking Bus event to incentivize the use of improved cycling facilities on the corridor. See Biking Bus discussion under Demonstration Project section of this chapter.	\$	Ċ	Municipality/ School District	
Ope	rations				
4	Stripe crosswalks and stop bars on side streets to connect pedestrian ROW. Evaluate sight distance at all side street approaches and use easements/trimming to improve sight lines if necessary.	\$	Ø	County/ Municipality	
Pede	strian				
5	Conduct a sidewalk assessment to determine the extent of sidewalk that needs to be replaced, repaired, and constructed.	\$\$	ľ	Municipality	
6	Perform curb ramp assessment to determine the number of curb ramps that need to be replaced, repaired, and constructed.	\$\$	Ø	County/ Municipality	
7	Consider RRFB at School crossings on Franklin Boulevard to facilitate students walking along key travel routes	\$\$	Ø	Municipality	
8	Consider implementing messages striped on the pavement, like "SCHOOL" and "SLOW" to better catch the cone of vision for drivers passing the school.	\$	Ø	County	
9	Consider wider crosswalk bars to better alert drivers to potential crossing pedestrian traffic.	\$	Ø	County	
Mair	Maintenance				
10	Perform maintenance to clear overgrowth and debris on sidewalks and curb ramps.	\$	Ø	Municipality	

Table 8 – Location-Specific Recommendations

No.	Recommendation	Cost	Time Frame	Jurisdiction		
KEY S	KEY STUDY RECOMMENDATION – Road Diet between Somerset Street and Hamilton Street					
11	Investigate design and implementation of a road diet. Options include 1) bike lanes and one travel lane in each direction with a median two-way left turn lane or 2) shoulders (with parking restricted) and one travel lane in each direction with a median two-way left turn lane. It should be noted that other studies have determined a road diet to be feasible.	\$\$	ଡ଼ଡ଼ଡ଼	County		
Somer	set Street/NJ 27					
12	Coordinate with NJDOT during Route 27 road diet concept development study to recommend County-proposed improvements at intersection, including potential road diet on Franklin Blvd approach. These improvements could include LPIs, NO TURN ON RED signage on all approaches, high-visibility crosswalks, and new lighting.	\$	OO	State		
13	Recommend GSI treatments in NE quadrant of intersection if travel lanes are realigned and curb extensions installed during the road diet.	\$	OO	State		



No.	Recommendation	Cost	Time Frame	Jurisdiction	
14	Recommend increasing intersection corner curb radii to accommodate truck turning movements. Realignment of SB Franklin Boulevard travel lanes towards the center of the roadway via a road diet would also better accommodate SB truck turning movements.	\$	OO	State	
15	Access to/from property on NW corner of intersection should be reevaluated when property is redeveloped.	\$	OOO	State	
16	Consider incorporating concrete mountable curbs to accommodate the large sweeping truck turning movements, mitigating the instances of pedestrian space encroachment and encroachment into the opposing lane of travel.	\$\$	OO	State	
Betwe	en Somerset Street and Fuller Street		1		
17	Construct sidewalk on SB side of roadway as part of nearby redevelopment.	\$\$\$	000	Municipality/ Utility companies	
18	Consider coordinating with utility company to install more utility pole-mounted lighting.	\$	Ø	Municipality	
19	Clear overgrowth obstructing speed limit sign.	\$	Û	County	
Fuller		1	1		
20	Consider restricting left turns to reduce number of left turn collisions at this intersection	\$	Ø	County/ Municipality	
Betwe	en Fuller Street and Frank Street				
21	Add street furniture on the west sidewalk for Franklin Boulevard. Also, Township should put policies into place to incentivize occupancy of first floor businesses at 727 Franklin Boulevard to improve the appearance of side street land uses and create more of a downtown feel.	\$	ØØ	Municipality	
Frank	Street	1			
22	Relocate ONE WAY sign on NW corner to make more visible to NB traffic.	\$	Ø	County	
23	Consider reducing curb radii to shorten crossing on east side.	\$\$	UU	County	
24	Stripe crosswalk across Franklin Blvd to connect SW and SE corners and provide continuous pedestrian ROW on southern end (only end with sidewalk on both sides)	\$\$	ØØ	County	
Ellen S	itreet	1	1		
25	Consider installing speed humps or tables to slow down cut- through traffic from Berry Street	\$\$	Ċ	Municipality	
26	Stripe stop bar.	\$	Ċ	Municipality	
27	Stripe crosswalks and construct curb ramps.	\$	Ø	Municipality	
28	Investigate completing missing sidewalk south of the intersection.	\$\$\$	UUU	County	
Between Ellen Street and Hamilton Street					
29	Restrict parking in sidewalk areas.	\$	Ċ	Municipality	
30	Coordinate with gas station property owner to construct a buffer between pumps and curb, such as landscaping, to provide a separation between vehicle usage and pedestrian ROW.	\$	OO	Municipality/ Property owner	



No.	Recommendation	Cost	Time Frame	Jurisdiction
31	Coordinate with car wash property owner to construct ADA- compliant sidewalk through steep driveway apron.	\$	ÛŬ	Municipality/ Property owner
32	Construct and/or redefine sidewalk on NB side of roadway.	\$\$	O O	Municipality
33	Explore restricting left turns out of car wash driveway due to roadway curvature.	\$\$	ØØ	County
Field S	Street			
34	Stripe stop bar.	\$	\bigcirc	Municipality
35	Stripe crosswalks and construct curb ramps.	\$	\mathcal{D}	County/ Municipality
Betwe	en Field Street and Hamilton Street			
36	Investigate the feasibility of installing a mid-block crossing to the shopping center as part of the road diet (Location TBD).	\$\$	OOO	County
Hamil	ton Street	1		-
37	Conduct a traffic study to determine capacity issues, evaluate if they can be mitigated through signal retiming and rephasing.	\$\$	ÐÐ	County
38	Evaluate existing signal timing to determine if LPIs can be accommodated with changes in signal phasing, if flashing don't walk time accommodates 3.5 ft/s^{15} , and if turns on red can be restricted. Hamilton Street Local Safety grant awarded. Project scheduled for 2022.	\$\$	000	County
39	Consider increasing all corner curb radii to at least 30' for trucks. Hamilton Street Local Safety grant awarded. Project scheduled for 2022.	\$\$\$	OOO	County
40	Since many children cross at this intersection to get to school, consider applying for Safe Routes to School funding to make necessary safety improvements. Hamilton Street Local Safety grant awarded. Project scheduled for 2022.	\$\$	OOO	RideWise
41	Install missing lane use sign on NB approach.	\$	Ø	County
42	Install missing overhead Hamilton Street mast arm sign.	\$	Ċ	County
43	Install SPEED LIMIT sign in the SB direction.	\$	Ċ	County
44	Upgrade all push buttons. Hamilton Street Local Safety grant awarded. Project scheduled for 2022.	\$	OOO	County
45	Evaluate if left turn lane stop bars can be pushed back to accommodate truck right turns on all approaches. Hamilton Street Local Safety grant awarded. Project scheduled for 2022.	\$	OOO	County
46	Realign WB approach lanes to make receiving lanes narrower.	\$	UUU	County
47	Install backplates on signal heads if traffic signal poles and mast arms will be replaced with steel equipment. Hamilton Street Local Safety grant awarded. Project scheduled for 2022.	\$	OOO	County

 $^{^{15}}$ 3.5 ft/s (3.5 feet per second) refers to the typical pedestrian walking pace/speed



No.	Recommendation	Cost	Time Frame	Jurisdiction
48	Coordinate with utility companies to relocate utility pole on SW corner. Hamilton Street Local Safety grant awarded. Project scheduled for 2022.	\$\$\$	000	Municipality/ Utility companies
49	Install "DO NOT BLOCK THE BOX" at Shopping Center Driveway. Hamilton Street Local Safety grant awarded. Project scheduled for 2022.	\$	OOO	County
50	Relocate or construct new signal poles on SE/SW quadrants of intersection due to collisions with trucks. Hamilton Street Local Safety grant awarded. Project scheduled for 2022.	\$\$\$	UUU	County
51	Coordinate with gas station property owner to evaluate if access can be modified. Hamilton Street Local Safety grant awarded. Project scheduled for 2022.	\$\$	UUU	County
Betwe	en Martin Street and Lewis Street	1		1
52	Formalize striping for bike lane with 3' buffer. Bike lanes should also have bike symbols spaced at least 200' apart	\$\$	U	County
53	Reconstruct curb in northbound direction.	\$\$	ÛÛ	County
54	Explore why trucks encroach on double yellow striping.	\$\$	ÐÐ	County
55	Remove redundant NO PARKING sign.	\$	UU	County
Lewis	Street			
56	Construct RRFB (Rectangular Rapid Flashing Beason) crossing at Lewis to accommodate pedestrian activity	\$\$	UU	County/ Municipality
Curve	between Lewis Street and Norma Avenue			
57	Add wayfinding to path that goes to high school.	\$	Ċ	County/ Municipality
58	Investigate if guy wire on SB sidewalk is conflicting with pedestrian space and consider coordinating with utility company to relocate it.	\$\$	ÛÛ	Municipality
59	Replace old school crossing sign with new fluorescent yellow- green sign and add AHEAD plaque underneath.	\$	Ċ	County
60	Explore options to install a timer or remote control on flashing school signal.	\$	ŶÐ	Municipality
61	Install wayfinding signage for elementary school.	\$	Ċ	County
62	Township should permanently remove weed intrusion issues by reconstructing NB sidewalk and adding buffer grass strip.	\$\$	ĊĊ	Municipality
Norm	a Avenue			
63	Consider installing an RRFB (per NJDOT). RRFB would require Township maintenance.	\$\$\$	OOO	County/ Municipality
64	Clear overgrowth and debris from sidewalk and curb ramps.	\$	Û	Municipality
65	Investigate relocating the crosswalk or use daylighting to add traffic calming and pedestrian visibility.	\$	U	County
66	Explore ways to mitigate limited intersection sight distance. Consider clearing overgrowth on SE corner.	\$	U	County
67	Install fluorescent yellow-green school crossing sign (S1-1) with a diagonal downward-pointing arrow plaque on left side of roadway in SB direction.	\$	Ø	County
68	Remove existing NB school crossing signs. Install new fluorescent yellow-green S1-1 signs with diagonal downward-pointing arrow plaques on new posts before crosswalk in the NB direction.	\$	Ċ	County



No.	Recommendation	Cost	Time Frame	Jurisdiction		
69	Remove existing SB school crossing sign on right side of roadway and replace with new fluorescent yellow-green S1-1 sign with a diagonal downward-pointing arrow.	\$	Ø	County		
70	Consider lengthening crosswalk stripes and adding pedestrian paddle(s), increasing the prominence of the crosswalk.	\$	٢	County/ Municipality		
Hillcre	est School					
71	Replace curb ramps at driveways to eliminate ponding issue.	\$	\bigcirc	Municipality		
72	Explore ways to reduce crossing lengths at driveways. This could include short-term striped curb extensions and/or long-term driveway realignment.	\$\$	ĊĊ	County/ Municipality		
73	Replace STOP sign and other signs within vicinity of school driveway on a breakaway post and at least 84" above ground level.	\$	Ċ	County/ Municipality		
74	Explore ways to keep buses from driving over curb, including daylighting and/or striped curb extensions.	\$\$	$\mathcal{O}\mathcal{O}$	County/ Municipality		
75	Replace post-mounted SCHOOL SPEED LIMIT sign on SB approach to driveway.	\$	Ð	County		
76	Perform a speed study along Franklin Boulevard through this area when speed advisory signs are lit as well as unlit.	\$\$	\odot	County		
Holly						
77	Replace school crossing signs (S1-1) with new fluorescent yellow-green signs and diagonal downward-pointing arrows.	\$	\odot	County		
78	Consider daylighting and/or additional lighting for this crosswalk.	\$\$	\odot	County/ Municipality		
Betwe	en Holly Street and Matilda Avenue					
79	Remove trees that pose continuous sidewalk heaving problems and that block sight distance at apartment complex driveway.	\$\$	ÐÐ	County/ Municipality		
80	Construct sidewalk on SB side of roadway to complete pedestrian connections.	\$\$	$\mathcal{O}\mathcal{O}$	Municipality		
Matila	Matilda Avenue					
81	Install an RRFB to provide crossing opportunities when traffic volume is high, especially during times when there is high church activity.	\$\$\$	() () () () () () () () () () () () () (County/ Municipality		
82	Consider installing advance S1-1 signs for crosswalks at locations where trees compromise visibility.	\$	Ċ	County		
83	Post R4-11 "BIKE MAY USE FULL LANE" sign on Franklin Boulevard NB where bike lane drops off.	\$	Ċ	County		

B. Road Owner Response

An essential final step of the RSA process (see **Figure 1**) is a response from the roadway owner, which provides accountability between the funding body and the participating jurisdiction who acknowledges the findings within the RSA and their planned steps to improve safety. In responding to the RSA's findings, the road owner, in this case the County, must weigh the safety benefits posed by the recommendations within this report against the available resources to implement such improvements to make an informed decision. Because the audit process generated a long and wide-ranging list of improvements, the road owner is expected to implement these recommended improvements as time and funds allow in coordination with other projects and priorities.



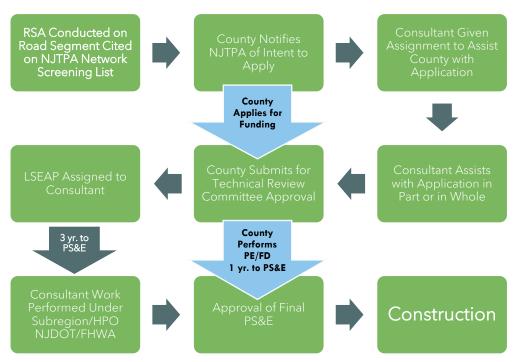
Somerset County delivered their response following the finalization of the findings and recommendations table (see **Appendix J**). While the County has overseen this RSA process, by no means should this report be considered as a commitment to address some or all concerns and implement some or all improvements listed within this report. All potential recommendations must be fully studied. It is acknowledged that some recommendations may not be feasible.

C. Potential External Funding Sources

Local Safety Program

The County has previously used RSAs as a "launching pad" for pursuing funding for corridor safety improvement projects, such as Main Street in Manville and Hamilton Street in Franklin, via the Local Safety Program (LSP) offered through NJTPA. Should the County desire to pursue funding of safety improvements on this corridor, the RSA can help to scope the specific safety improvements to be conceptualized and designed for eventual funding and construction. A simplified flowchart of the LSP application process from RSA to construction is shown in **Figure 14**.

The RSA can also be appended to Section 4 of the funding application¹⁶ submitted to NJTPA as a further substantiation and documentation of the understanding of the existing concerns and proposed safety measures. This application, which also requests information on scope, location ranking, HSM analyses, estimated costs, and environmental impacts, may be filled out by the County itself or with assistance from a consultant designated by NJTPA. Pending determination of eligibility by NJTPA's Technical Review Committee, the County can choose to either perform the Preliminary Engineering and Final Design work inhouse or obtain assistance for such work through NJTPA's Local Safety Engineering Assistance Program. It should be noted that implementation of improvements through the LSP often takes around five to six years from corridor selection to construction. If faster implementation is desired, County, and municipal operating and capital budgets could be relied upon if internal funding is available.





¹⁶ Application for FY 2020 provided here: <u>https://www.nitpa.org/NJTPA/media/Documents/Projects-Programs/Local-Programs/Local-Safety-Rural-Roads/FY-2020-LSHRRP-Application-Rev 191003.doc?ext=.doc</u>



Transportation Alternatives Program

The purpose of the Transportation Alternatives Set-Aside Program (TA Set-Aside) federal grant initiative is to support the construction of "non-traditional" surface transportation projects, which typically involves the designing of infrastructure for active modes such as pedestrians, cyclists, and other non-motorized forms of travel. Supported projects can also have elements that bolster the recreational, historic, cultural, or environmental assets of the project area. Grant funding for a given project can range from \$150,000 to \$1,000,000. The amount of funding is determined on a project-by-project basis with award of prior grant money, and successful execution of prior funded projects, playing a factor. The County would not be prohibited from applying for both Safe Routes to School and TA Set-Aside funding at the same time.

TA Set-Aside lists the following activities that are eligible for funding under its "Pedestrian/Bicycle Facilities" and "Community Improvement" categories:

- New/reconstructed sidewalks/curb ramps;
- Bike lane striping;
- Wide paved shoulders;
- Bike parking and bus racks;
- New or reconstructed off-road trails;
- Bike/pedestrian bridges and underpasses;
- Lighting;
- Historic sidewalk paving;
- Benches;
- Planting containers;
- Decorative walls; and,
- Walkways.

The recommendations within the Implementation Matrix touch on many of the prior elements listed. To best position itself to attain approval for funding, the applying jurisdiction, whether County or municipal, should pass a resolution of support showing the commitment of maintenance of the proposed complete streets elements. Furthermore, the applicant should have data supporting that the implementation of similar improvements elsewhere within its jurisdiction has resulted in the increase of non-motorized transportation, the stimulus of economic activity, and the improvement in quality of life. A handbook summarizing the process of applying for these funds can be found at NJDOT Local Aid website¹⁷.

Safe Routes to School (SRTS)

SRTS is a federally funded application program established to assist County, municipalities, school districts, and individual schools with programmed reimbursements for the implementation of improvements that would:

- Enable/encourage children in grades K-8, including those with disabilities, to walk/bicycle to school;
- Make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age; and,
- Facilitate the planning, development and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption and air pollution in the vicinity of schools.

Such improvements can include the construction of hard infrastructure, such as bridging sidewalk gaps, providing new crosswalks, specifying traffic control for new school crossing movements (signals, RRFBs, etc.), proposing new traffic calming devices, and implementing bike lanes or other bike facilities to encourage alternate modes of travel to school. Design assistance programs are also provided for the applicant to work with a NJDOT-selected consultant to design such infrastructure improvements. Funding can also be used for non-infrastructure events and services, such as walking school buses, traffic safety lessons, increased enforcement, etc. A handbook specifying the application process for SRTS FY 2022 funding can be found on NJDOT's SRTS website¹⁸. Webinars are also available to learn more about the program.

¹⁸ https://www.njdotlocalaidrc.com/perch/resources/Uploads/2022-srts-handbook-06-10-2021.pdf



¹⁷ https://njdotlocalaidrc.com/perch/resources/Uploads/2020-ta-set-aside-handbook-8-12-20.pdf

D. Demonstration Project

Demonstration projects are where an example improvement is completed for a selected corridor with foresight to prepare for larger rollouts. The improvement(s) should highlight the concept and illustrate the benefits of RSAs and how RSAs may improve the overall level of safety for the road users. The selected demonstration projects should be of strategic importance, and which is representative of the general safety theme suggested for the selected corridor.

To incentivize the use of improved cycling facilities on the corridor, especially by those attending school, it is recommended that aforementioned upgrades be followed by a Biking Bus event. Hillcrest Elementary School and Franklin Middle School would organize a one-day Biking Bus event overseen by local law enforcement to encourage students and parents alike to ride their bike to school on seasonable days. A similar successful event was organized in Ocean City and is depicted in **Figure 15**.

Figure 15 – Biking Bus Event in Ocean City, New Jersey¹⁹



E. Visualization of Potential Safety Measures

 Table 7 and Table 8). Visualizations of these safety

 measures, along with accompanying descriptions on how these ideas seek to improve safety for vehicular,

 pedestrian, and cyclist travel, are adapted from the following publications:

- New Jersey Pedestrian and Bicycle Resource Center video library, 2021²⁰
- Cross County Connection TMA video library, 2021²¹
- NJDOT Technology Transfer video library, 2021²²
- NJDOT Safe Routes to School video library, 2021²³
- 2017 State of New Jersey Complete Streets Design Guide, NJDOT, 2017
- Proven Safety Countermeasures, FHWA, 2017
- Small Town and Rural Multimodal Networks, FHWA, 2016
- Separated Bike Lane Planning and Design Guide, FHWA, 2015
- New Jersey School Zone Design Guide, NJDOT, 2014
- Urban Bikeway Design Guide 2nd Edition, National Association of City Transportation Officials, 2014
- Urban Street Design Guide, National Association of City Transportation Officials, 2012

Key Study Recommendation - Road Diet, from Route 27 to Hamilton Street

As recommended in the WalkBikeHike (2019) and Supporting Priority Investment in Somerset County Phase III Study (2017, **Figure 3**), the County could consider a redesign of Franklin Boulevard from two travel lanes in each direction to one travel lane and one bike lane in each direction with a two-way left turn lane. Since

²³ https://www.youtube.com/channel/UCilvrPiwNZ97MkX5IRol4ow



¹⁹ Safe Routes NJ. (2018). Ocean City Biking School Bus. YouTube. Civic Eye Collaborative. <u>https://www.youtube.com/watch?v=Cb_4bWYFR9s</u>.

²⁰ https://www.youtube.com/channel/UCMsSU487ZPfaOAjcC7K8_SQ

²¹ https://www.youtube.com/channel/UC5C0fODzuDqT9ycKMYv0C3Q

²² https://www.youtube.com/channel/UC-L3YfqzFHcuDw6al7wDrJQ

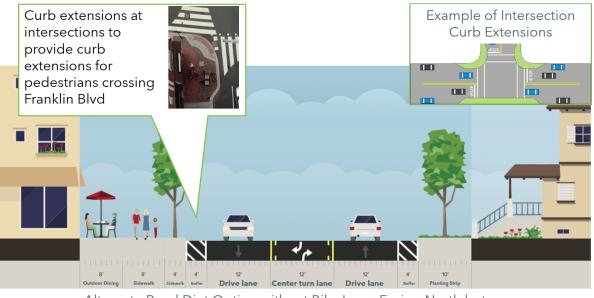
Franklin Boulevard has an AADT of 16,000, thorough intersection-by-intersection capacity analysis, design, administrative approval, and public vetting is needed to ensure the efficacy and success of the road diet. A four-lane to three-lane road diet, where properly implemented, could result in a 19-47%²⁴ reduction in total crashes. Standard types of crashes on a four-lane section of roadway such as Franklin Boulevard include "ghosting" right angle crashes (where left turn vehicles cannot see an approaching vehicle in the right lane due to a stopped opposing left turn vehicle) and "lane shopping" crashes where vehicles jump from left lane to right lane and back to aggressively pass slower vehicles. A similar improvement designed within a similar roadway width is depicted in **Figure 16**.

Since the curb-to-curb cartway width is limited at approximately 44' to 46', bike lanes would not be able to have a buffer and could be of substandard width. An alternate option to dedicating shoulder width available from the road diet to bicycle travel would be to restrict use of shoulders by parked vehicles and to provide curb extensions (in line with shoulder widths) at intersections to reduce pedestrian crossing distance, as depicted in **Figure 17**.





Figure 17 – Alternate Road Diet Option with Shoulders Transitioning to Curb Extensions at Intersections



Alternate Road Diet Option without Bike Lane, Facing North between Frank Street and Fuller Street

²⁵ NJDOT / FHWA / Rutgers. (2015). 2015 CS Passaic County. YouTube. Civic Eye Collaborative. <u>https://www.youtube.com/watch?v= BAqvlRwifM</u>.



²⁴ FHWA. (2017). Proven Safety Countermeasures. <u>https://safety.fhwa.dot.gov/provencountermeasures/</u>.

Bike Lane Buffer, from Hamilton Street to Viking Avenue

North of Hamilton Street, a bike lane is provided on Franklin Boulevard, albeit with limited signing and no striping indicating bicycle usage only. It is proposed that striping be made more prominent with bicycle text striped at regular intervals and intersection locations (**Figure 18** – Buffered Bicycle Lanes in the City of Camden

). During the RSA, it was also noted that, just past the northern limit of the study corridor at Belmar Street, the bike lanes in each direction dropped off for the roadway to accommodate a two-way left turn lane within the cartway width. To provide continuity of bicycle travel, it is recommended that a "BIKE MAY USE FULL LANE" sign be posted on Franklin Boulevard on segments where the bike lane ends (**Figure 19**).

Figure 18 – Buffered Bicycle Lanes in the City of Camden²⁶





MAY USE FULL LANE

School Signing on Franklin Boulevard

School signing and striping on Franklin Boulevard on approach to Hillcrest Elementary School, and on the school grounds itself needs upgrade to MUTCD standards (sign mounting height, fluorescent yellow-green signing, etc.) and state signing practices. While the overhead flashing beacon provided for both directions of travel helps alert roadway users on Franklin Boulevard of crosswalk traffic during school arrival and dismissal periods, more clear and consistent messaging is needed at street-level. Although not current typical County practice, optional messages striped on the pavement, like "SCHOOL" and "SLOW," could be considered to better catch the cone of vision for drivers passing the school. Wider crosswalk bars also better alert drivers to potential crossing pedestrian traffic. For the re-signing and re-striping of school advisory messages on Franklin Boulevard, the designer should refer to NJDOT's New Jersey School Zone Design Guide (2014, key figure shown on **Figure 20**) and the MUTCD for best practices.

²⁶ NJDOT / FHWA / Rutgers. (2015). 2015 CS Camden. YouTube. Civic Eye Collaborative. <u>https://www.youtube.com/watch?v=lo1oB6vrIRE</u>.



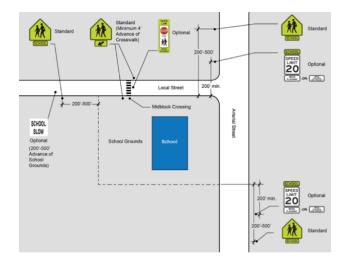


Figure 20 – Figure from New Jersey School Zone Design Guide Showing Signing Placement

Mountable Curbs at Intersections with Route 27 and Hamilton Street

Conceptual design of improvements at Franklin Boulevard intersections with Route 27 and Hamilton Street are underway with NJDOT redesigning the Route 27 (Somerset Street) corridor for a road diet and the County redesigning Hamilton Street, incorporating various safety improvements. In addition to these improvement projects, due to the heavy truck turning movements at these intersections and numerous curb overruns (especially in the northwest corner of both intersections), it is recommended that concrete mountable curbs (**Figure 21**) be considered for the redesigns of both intersections to accommodate the large sweeping truck turning movements at these heavily traveled intersections, mitigating the instances of pedestrian space encroachment and encroachment into the opposing lane of travel. These curbs also allow the designer to tighten turning radii for general passenger car traffic, slowing turning speeds and mitigating the risk of pedestrian-vehicle conflicts and collisions. Should a road diet be achieved at the intersection with Route 27, the additional lateral space provided between the curb and southbound travel lane via the bike lane would mitigate the occurrence of pedestrian space and opposing traffic encroachments for the truck turning movements from Franklin Boulevard southbound onto Route 27 southbound.





New development projects within this Priority Growth Investment Area (see Phase III study) on the southern end of the corridor, such as 727 Franklin Boulevard between Fuller Street and Frank Street, should specify the design of similar buildings with parking provided behind storefront areas and storefront areas adjacent to the street and sidewalk, which helps drivers to slow vehicle speeds with visual queues of a downtown neighborhood feel. It was noticed, however, that many businesses at 727 Franklin Boulevard were empty and lacked street furniture outside the store front, which made the businesses feel less "engaging" with the

²⁷ NJDOT. (2017). 2017 State of New Jersey Complete Streets Design Guide.



street traffic. The Township should consider the addition of street furniture (**Figure 22**) in front of this and other new developments to help provide more of a downtown street feel on Franklin Boulevard. Additional striped crossing locations traversing Franklin Boulevard unlocked by a potential road diet would also help achieve this traffic calming effect.





Speed Humps on Berry Street and Ellen Street

Cut-through traffic was observed to occur on Berry Street and Ellen Street, with vehicles bypassing peak hour congestion at the intersection with Hamilton Street to the southwest. Speed humps (

Figure 23), combined with turning restrictions could help to discourage this cut-through traffic activity. Speed humps can be designed to slow an average vehicle's wheelbase width yet can also allow for bicyclists and larger emergency vehicles, such as firetrucks, to move along the street unimpeded.

Figure 23 – Sample Speed Humps from NACTO²⁸



²⁸ Figure from National Association of City Transportation Officials. (2012). Urban Street Design Guide.



VII. Conclusion

This RSA Report seeks to describe the process undertaken by the County to investigate potential traffic safety issues along the Franklin Boulevard corridor, extending from the municipal/County border with New Brunswick City/Middlesex County at the intersection with Route 27 at MP 0.0 to a few hundred feet south of the intersection with Belmar Street at MP 1.0, located in Franklin Township. From survey of prior County, municipal, or regional studies to public and stakeholder outreach conducted as part of this study to the crash data that was reviewed report-by-report to the observations made during in-field audits, potential concerns were observed and recorded, not only for corridor-wide issues, but for location-specific issues.

In order to address these potential concerns, discussions were held with the RSA team and County Engineering to develop a list of tasks to improve traffic safety on the corridor, which are codified in the Implementation Matrix (Chapter VI, Subsection A) in this report. To assist the responsible jurisdictions (whether municipal, County, or separate agency) to schedule and prioritize these improvements, such were classified by anticipated timeline and cost magnitude. It is encouraged that the improvement recommendations are shared with all responsible jurisdictions to increase the benefits to be seen from the recommendations in this report.

While the recommendations in the Implementation Matrix are centered around the engineering (and associated maintenance) of roadway features, changes to hard infrastructure alone will fall shy of the benefit that would be seen by implementing the 5E's of highway safety²⁹:

- Engineering: highway design, traffic, maintenance, operations, and planning professionals;
- Enforcement: State and local law enforcement agencies;
- Education: communication professionals, educators, and citizen advocacy groups;
- Emergency response: first responders, paramedics, fire, and rescue; and,
- Equity: prioritizing the safety of vulnerable roadway users.

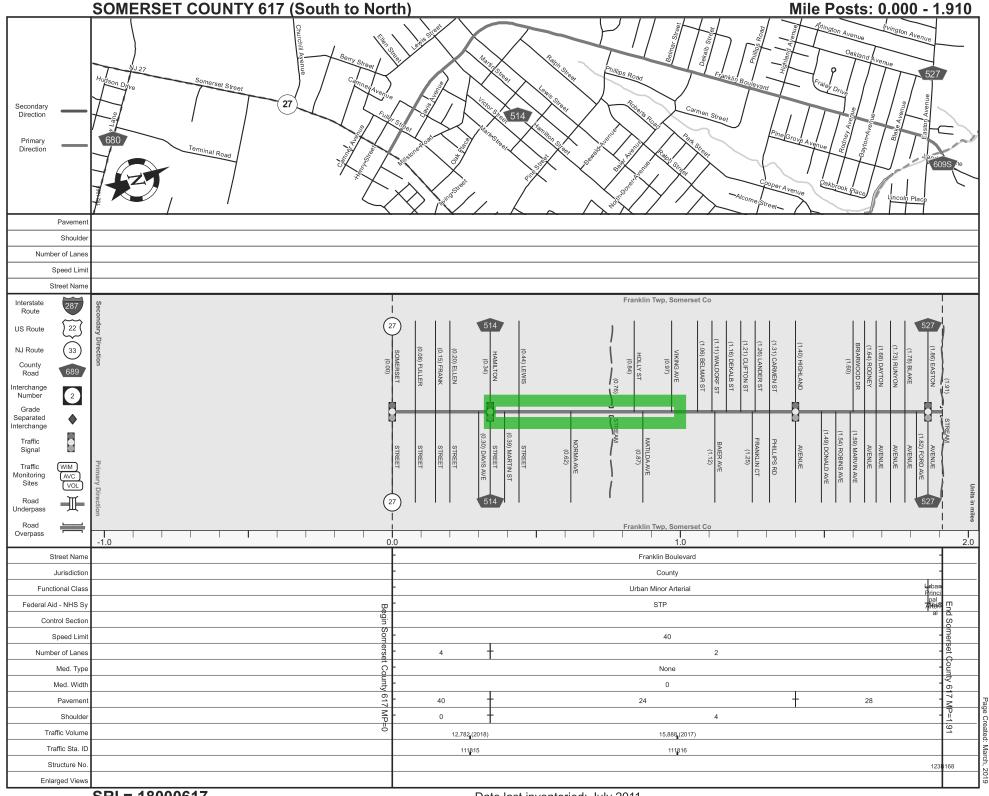
This approach recognizes a shared responsibility across numerous professions to see improved benefits in corridor crash performance, beyond the anticipated reduction in crashes with the implementation of proven crash countermeasures. RideWise (the County's TMA), law enforcement, and EMS are encouraged to continue their efforts in educating the local driving population, holding driving behaviors accountable to Title 39, improving the response times to severe crash incidents, and reaching underserved communities with these safety strategies.

²⁹ Adapted from FHWA, <u>https://safety.fhwa.dot.gov/hsip/resources/fhwasa1102/flyr3_in.cfm</u>



Appendix A

Straight Line Diagram



SRI = 18000617

Date last inventoried: July 2011

Appendix B

Traffic Data

Short-term Hourly Traffic Volume for 07/10/2018 to 07/12/2018

Site names:	111815,FRANKLIN BLVD27,18000617	Seasonal Factor Grp:	rg3_4U
County:	SOMERSET	Daily Factor Grp:	rg3_4U
Funct Class:	Urban Minor Arterial	Axle Factor Grp:	rg3_4U
Location:	BET ELLEN ST DAVIS AVE	Growth Factor Grp:	rg3_4U

	Si	un, Jul 8,	2018	М	on, Jul 9,	2018	Tu	e, Jul 10,	2018	Wed	l, Jul 11, :	2018	Thu	, Jul 12, 2	018	F	ri, Jul 13,	2018	S	at, Jul 14,	2018
	Road	Ν	S	Road	Ν	S	Road	Ν	S	Road	N	S	Road	Ν	S	Road	N	S	Road	Ν	S
00:00										116	81	35	137	76	61						
01:00										94	45	49	102	40	62						
02:00										43	18	25	66	24	42						
03:00										47	27	20	50	27	23						
04:00										89	47	42	90	58	32						
05:00										211	130	81	166	119	47						
06:00										500	297	203	453	325	128						
07:00										812	388	424	723	401	322						
08:00										859	417	442	841	405	436						
09:00										823	378	445	816	356	460						
10:00							697	341	356	723	345	378									
11:00							775	437	338	762	377	385									
12:00							836	448	388	872	490	382									
13:00							932	475		858	440	418									
14:00							869	441	428	878	435	443									
15:00							960	500	460	968	500	468									
16:00							1,086	588		1,018	571	447									
17:00							1,042	539		1,086	635	451									
18:00							930	474		995	482	513									
19:00							824	427	397	840	435	405									
20:00							672	341	331	707	338	369									
21:00							520	263	257	597	269	328									
22:00							414	212	202	439	204	235									
23:00							255	113	142	340	165	175									
Total							10,812	5,599	5,213	14,677	7,514	7,163	3,444	1,831	1,613						
AM Peak Vol										889	417	487									
AM Peak Fct										.979	.923	.951									
AM Peak Hr							:	:	:.	8: 30	8: 00	8: 30									
PM Peak Vol							1,086	588	513	1,090	635	513									
PM Peak Fct							.933	.942	.812	.966	.951	.897									
PM Peak Hr							16: 00	16: 00	17: 30	17: 30	17: 00	18: 00									
Seasonal Fct							.972	.972	.972	.972	.972	.972	.972	.972	.972						
Daily Fct							.970	.970	.970	.912	.912	.912	.924	.924	.924						
Axle Fct							.486	.486	.486	.486	.486	.486	.486	.486	.486						
Pulse Fct							2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000						

6,603

Short-term Hourly Traffic Volume for 07/10/2018 to 07/12/2018

Site names:	111815,FRANKLIN BLVD27,18000617	Seasonal Factor Grp:	rg3_4U
County:	SOMERSET	Daily Factor Grp:	rg3_4U
Funct Class:	Urban Minor Arterial	Axle Factor Grp:	rg3_4U
Location:	BET ELLEN ST DAVIS AVE	Growth Factor Grp:	rg3_4U

	Si	un, Jul 8,	2018	М	on, Jul 9,	2018	Tu	e, Jul 10,	2018	Wed	l, Jul 11, :	2018	Thu	, Jul 12, 2	018	F	ri, Jul 13,	2018	S	at, Jul 14,	2018
	Road	Ν	S	Road	Ν	S	Road	Ν	S	Road	N	S	Road	Ν	S	Road	N	S	Road	Ν	S
00:00										116	81	35	137	76	61						
01:00										94	45	49	102	40	62						
02:00										43	18	25	66	24	42						
03:00										47	27	20	50	27	23						
04:00										89	47	42	90	58	32						
05:00										211	130	81	166	119	47						
06:00										500	297	203	453	325	128						
07:00										812	388	424	723	401	322						
08:00										859	417	442	841	405	436						
09:00										823	378	445	816	356	460						
10:00							697	341	356	723	345	378									
11:00							775	437	338	762	377	385									
12:00							836	448	388	872	490	382									
13:00							932	475		858	440	418									
14:00							869	441	428	878	435	443									
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AM Peak Hr							:	:	:.	8: 30	8: 00	8: 30									
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PM Peak Hr							16: 00	16: 00	17: 30	17: 30	17: 00	18: 00									
Seasonal Fct							.972	.972	.972	.972	.972	.972	.972	.972	.972						
Daily Fct							.970	.970	.970	.912	.912	.912	.924	.924	.924						
Axle Fct							.486	.486	.486	.486	.486	.486	.486	.486	.486						
Pulse Fct							2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000						

6,603

Short-term Hourly Traffic Volume for 11/07/2017 to 11/13/2017

Site names:	111816,Franklin Boulevard99,18000617	Seasonal Factor Grp:	rg3_4U
County:	SOMERSET	Daily Factor Grp:	rg3_4U
Funct Class:	Urban Minor Arterial	Axle Factor Grp:	rg3_4U
Location:	BET VIKING AVE BELMAR ST	Growth Factor Grp:	rg3_4U

	Su	in, Nov 5,	2017	Mo	on, Nov 6	, 2017	Tue	e, Nov 7,	2017	Weo	d, Nov 8, 2	2017	Th	u, Nov 9, 2	2017	Fri	, Nov 10,	2017	Sat	, Nov 11,	, 2017
	Road	Ν	S	Road	Ν	S	Road	N	S	Road	N	S	Road	Ν	S	Road	Ν	S	Road	Ν	S
00:00							126	56	70	107	48	59	157	66	91	175	88	87	258	133	125
01:00							70	26	44	86	41	45	77	35	42	93	46	47	155	70	85
02:00							56	31	25		27	28	52	28	24	92	44	48	113	53	
03:00							77	43	34	72	35	37	88	44	44	85	40	45	97	50	
04:00							162	83	-		70	75	160	81	79	146	68		108	56	-
05:00							332	186	146		185	164	363	192	171	309	169		118	61	57
06:00							802	410		780	413	367	684	394	290	638	353	285	271	156	115
07:00							1,188	611	577	1,184	608	576	980	521	459	889	486		384	221	
08:00							1,198	624	574	1,135	577	558	1,032	533	499	946	514	432	521	270	
09:00							998	485	513	976	526	450	1,009	540	469	914	480		793	398	
10:00							842	424	418	907	477	430	863	437	426	913	474	439	854	425	
11:00							856	424	432	822	448	374	946	513	433	883	482	401	911	464	447
12:00							866	462	404	866	480	386	997	504	493	940	501	439	1,018	562	456
13:00							963	509	454	962	510	452	953	509	444	1,055	521	534	881	461	420
14:00							1,114	579	535	1,156	598	558	1,055	521	534	1,057	561	496	960	495	
15:00							1,273	691	582	1,313	701	612	1,121	603	518	1,092	554	538	953	495	458
16:00							1,325	673	652	1,347	729	618	1,239	659	580	1,233	608	625	928	450	478
17:00							1,249	653	596	1,315	674	641	1,274	634	640	1,219	665	554	847	400	447
18:00							1,030	480	550	1,151	556	595	1,136	543	593	1,148	571	577	807	407	400
19:00							795	359	436	915	450	465	857	423	434	899	444	455	675	334	
20:00							586	281	305	659	326	333	700	339	361	691	334	357	591	287	
21:00							486	213	273	584	269	315	558	247	311	706	365	341	536	284	
22:00							377	194	183	423	207	216	446	221	225	593	336	257	530	285	245
23:00							261	113	148	287	124	163	303	148	155	374	165	209	415	211	204
Total							17,032	8,610	8,422	17,596	9,079	8,517	17,050	8,735	8,315	17,090	8,869	8,221	13,724	7,028	6,696
AM Peak Vol							1,198	624	577	1,184	608	576	1,032	540	499	946	514	439	911	464	447
AM Peak Fct							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AM Peak Hr							8: 00	8: 00	7: 00	7: 00	7: 00	7: 00	8: 00	9: 00	8: 00	8: 00	8: 00	10: 00	11: 00	11: 00	11: 00
PM Peak Vol							1,325	691	652	1,347	729	641	1,274	659	640	1,233	665	625	1,018	562	478
PM Peak Fct							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
PM Peak Hr							16: 00	15: 00	16: 00	16: 00	16: 00	17: 00	17: 00	16: 00	17: 00	16: 00	17: 00	16: 00	12: 00	12: 00	16: 00
Seasonal Fct							1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019
Daily Fct							.940	.940	.940	.905	.905	.905	.962	.962	.962	.939	.939	.939	1.094	1.094	1.094
Axle Fct							.488	.488	.488	.488	.488	.488	.488	.488	.488	.488	.488	.488	.488	.488	.488
Pulse Fct							2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000

Short-term Hourly Traffic Volume for 11/07/2017 to 11/13/2017

Site names:	111816,Franklin Boulevard99,18000617	Seasonal Factor Grp:	rg3_4U
County:	SOMERSET	Daily Factor Grp:	rg3_4U
Funct Class:	Urban Minor Arterial	Axle Factor Grp:	rg3_4U
Location:	BET VIKING AVE BELMAR ST	Growth Factor Grp:	rg3_4U

	Sun	, Nov 12, 2	2017	Мо	n, Nov 13,	2017	Tu	e, Nov 14	, 2017	We	d, Nov 15	i, 2017	Th	u, Nov 16	6, 2017	Fr	i, Nov 17,	2017	Sa	at, Nov 18	, 2017
	Road	N	S	Road	N	S	Road	N	S	Road	N	S	Road	N	S	Road	N	S	Road	N	S
00:00	242	123	119	99	51	48															
01:00	165	66	99	52	29	23															
02:00	150	71	79	51	17	34															
03:00	86	40	46	69	34	35															
04:00	65	31	34	143	72	71															
05:00	76	39	37	340	193	147															
06:00	178	106	72	688	355	333															
07:00	237	119	118	1,134	549	585															
08:00	470	201	269	1,144	599	545															
09:00	592	280	312	964	516	448															
10:00	689	378	311	877	447	430															
11:00	870	502	368	779	428	351															
12:00	891	419	472	869	460	409															
13:00	881	479	402	975	517	458															
14:00	889	480	409	1,124	586	538															
15:00	842	411	431	1,295	722	573															
16:00	902	466	436	1,279	706	573															
17:00	762	407	355	1,263	669	594															
18:00	675	340	335	1,117	589	528															
19:00	640	308	332	766	385	381															
20:00	614	321	293	656	314	342															
21:00	423	191	232	515	216	299															
22:00	314	132	182	377	192	185															
23:00	223	103	120	289	125	164															
Total	11,876	6,013	5,863	16,865	8,771	8,094															
AM Peak Vol	870	502	368	1,144	599	585															
AM Peak Fct	1	1	1	1	1	1															
AM Peak Hr	11: 00	11: 00	11: 00	8: 00	8: 00	7: 00															
PM Peak Vol	902	480	472	1,295	722	594															
PM Peak Fct	1	1	1	1	1	1															
PM Peak Hr	16: 00	14: 00	12: 00	15: 00	15: 00	17: 00															
Seasonal Fct	1.019	1.019	1.019	1.019	1.019	1.019															
Daily Fct	1.344	1.344	1.344	.960	.960	.960															
Axle Fct	.488	.488	.488	.488	.488	.488															
Pulse Fct	2.000	2.000	2.000	2.000	2.000	2.000															

8,132

Appendix C

Excerpts from Prior Studies

Improvement	Order of Magnitude Cost (Est.)	Time Frame	Potential Partners
Hamilton Street / Renaissance Redevelopment PGIA			
Hamilton Street Corridor			
Install bus stop signage	Low	Short	County
Promote findings of the Strategic Zoning and Economic Development Recommendations Study	Low	Short	Town / County
Investigate shared-lane markings connecting to existing markings in New Brunswick	Low	Med	Town / County
Repair deteriorating and / or heaved sidewalk sections	Low	Med	Town / County
Widen sidewalk (min. 10 ft) in front of commercial properties	Low	Long	Town / Developer
Enhance pedestrian crossings with curb extensions and integrate green stormwater features into curb extensions	Low	Long	Town / County / Developer
Upgrade traffic signal equipment to include pedestrian signal heads and countdown timers	Low	Long	County
Install high-visibility crosswalks and ADA compliant curb ramps at unmarked crossings	Low	Long	County / Developer
Investigate opportunities to incorporate bicycle parking into streetscape and require bicycle parking for new developments	Low	Long	Town / County / Developer
Investigate opportunities to expand transit access along the corridor, such as NJ TRANSIT and/or Rutgers University bus service	Low	Long	County / NJ TRANSIT / Rutgers / Town
Lewis Street Bicycle Boulevard			
Install wayfinding signage and bicycle boulevard pavement markings	Low	Med	Town
Install a multi-use path between Francis Street and Berry Street	Low	Long	Town
Provide marked crossings and median islands on Franklin Boulevard	Low	Long	County / Town

Improvement	Order of Magnitude Cost (Est.)	Time Frame	Potential Partners
Install contraflow bicycle lane on Lewis Street between Franklin Boulevard and Norma Avenue	Low	Long	Town
Investigate opportunity to install bicycle boulevard behind the Nora Shopping Center	Low	Long	Town / Developer
Enhanced Multimodal Connectivity			
Adopt Complete Streets policy	Low	Short	Town
Investigate opportunities to enhance bike/ped connectivity between Franklin and New Brunswick with bike/ped-only, prefabricated structures crossing over Mile Run Creek	Low	Long	Towns
Provide bike/ped connections on Burns Street between Jurocko Avenue and North Lawrence Avenue and Winslow Avenue and Miller Avenue	Low	Long	Town
Provide bike/ped connection from Eugene Avenue and Victor Street to the rear and side, respectively, of the Hamilton Street Center shopping plaza	Low	Long	Town / Property Owner / Developer
Investigate opportunities to utilize the Mile Run Creek as a greenway	Low	Long	Town
Franklin Boulevard			
Investigate lowering the speed limit between NJ 27 and Lewis Avenue (currently 40 mph)	Low	Med	County / Town
Fill sidewalk gaps between Ellen Street and Frank Street, and between Fuller Street and NJ 27	Low	Long	Town
Investigate a road diet between Hamilton Street and NJ 27	Low	Long	County / Town / NJDOT

NOTE:

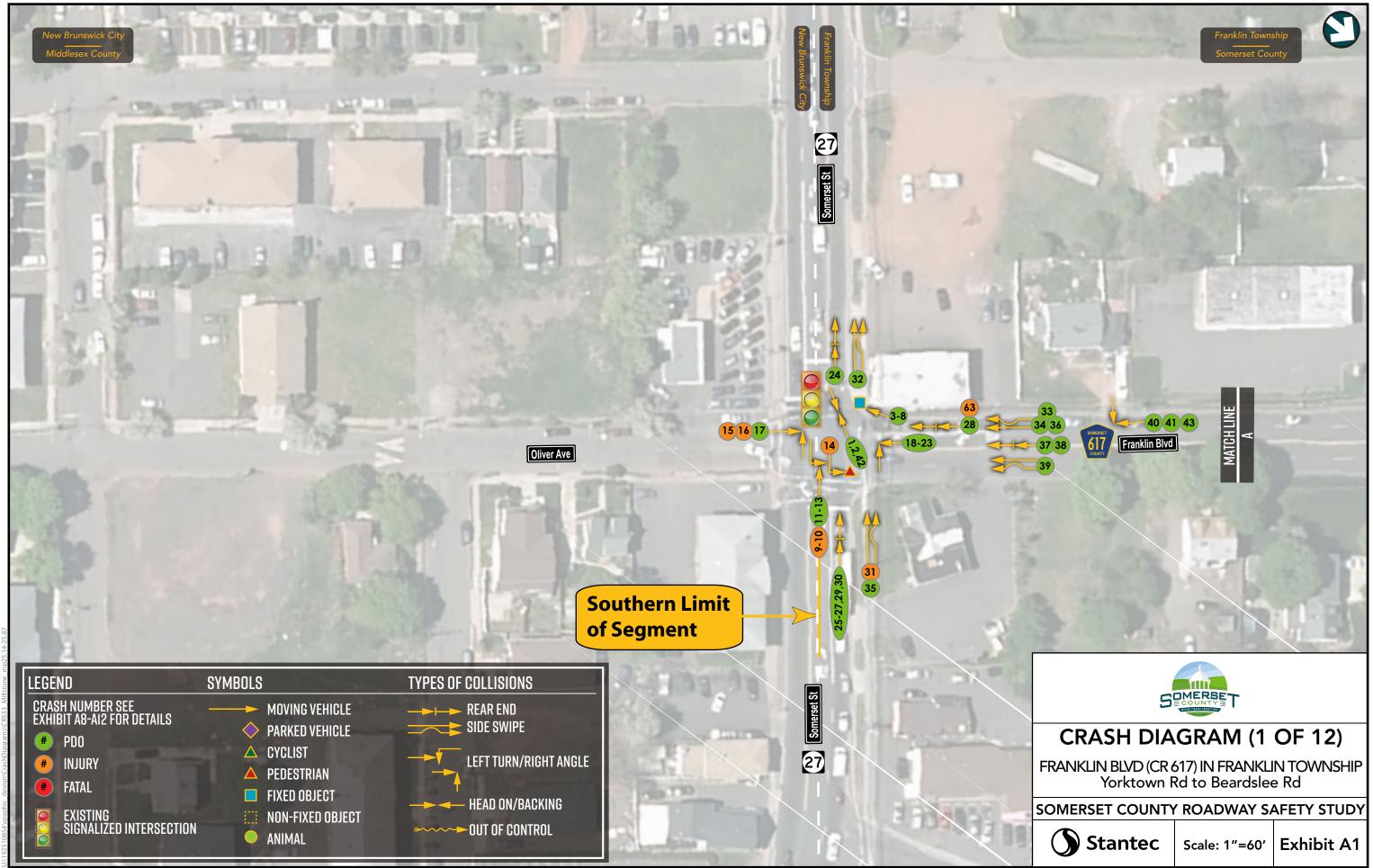
Order of Magnitude Cost tiers:

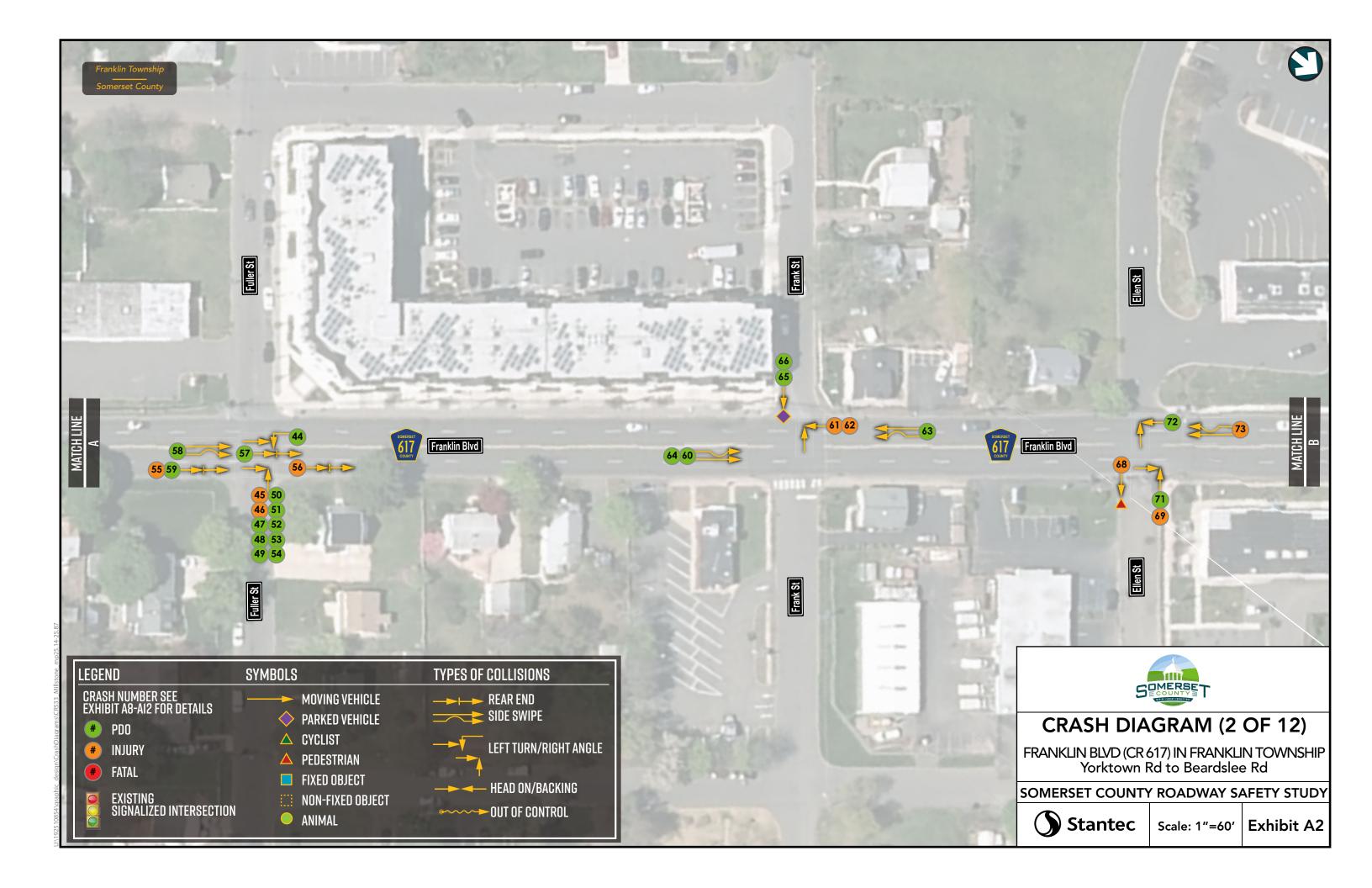
- Time Frame tiers:
- Low: <\$5M Medium: \$5M - \$25M
- High: >\$25M
- Short: <3 year
 Med: 3-8 years
 Long: >8 years

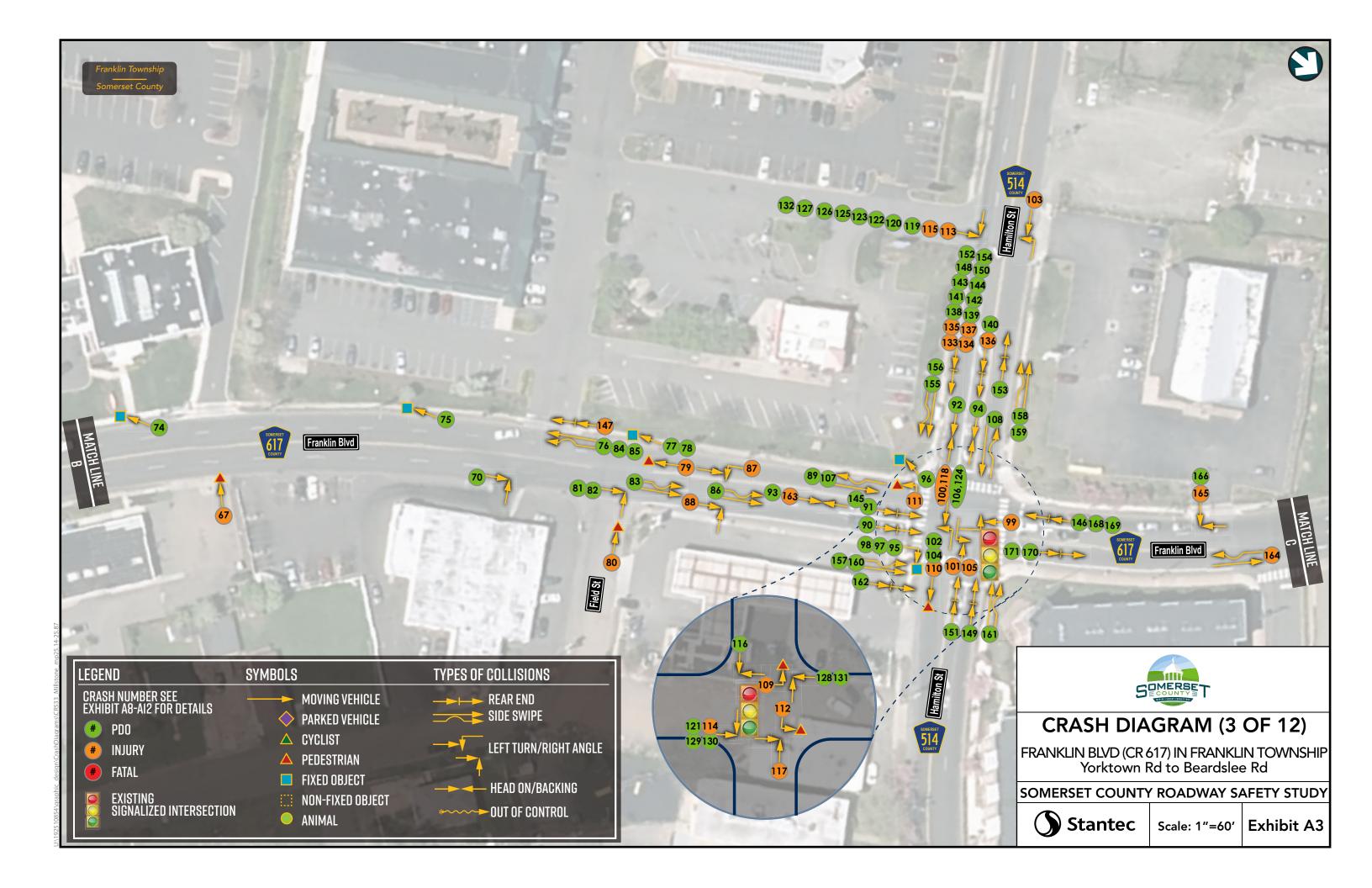
Hamilton Street / Renaissance Redevelopment PGIA

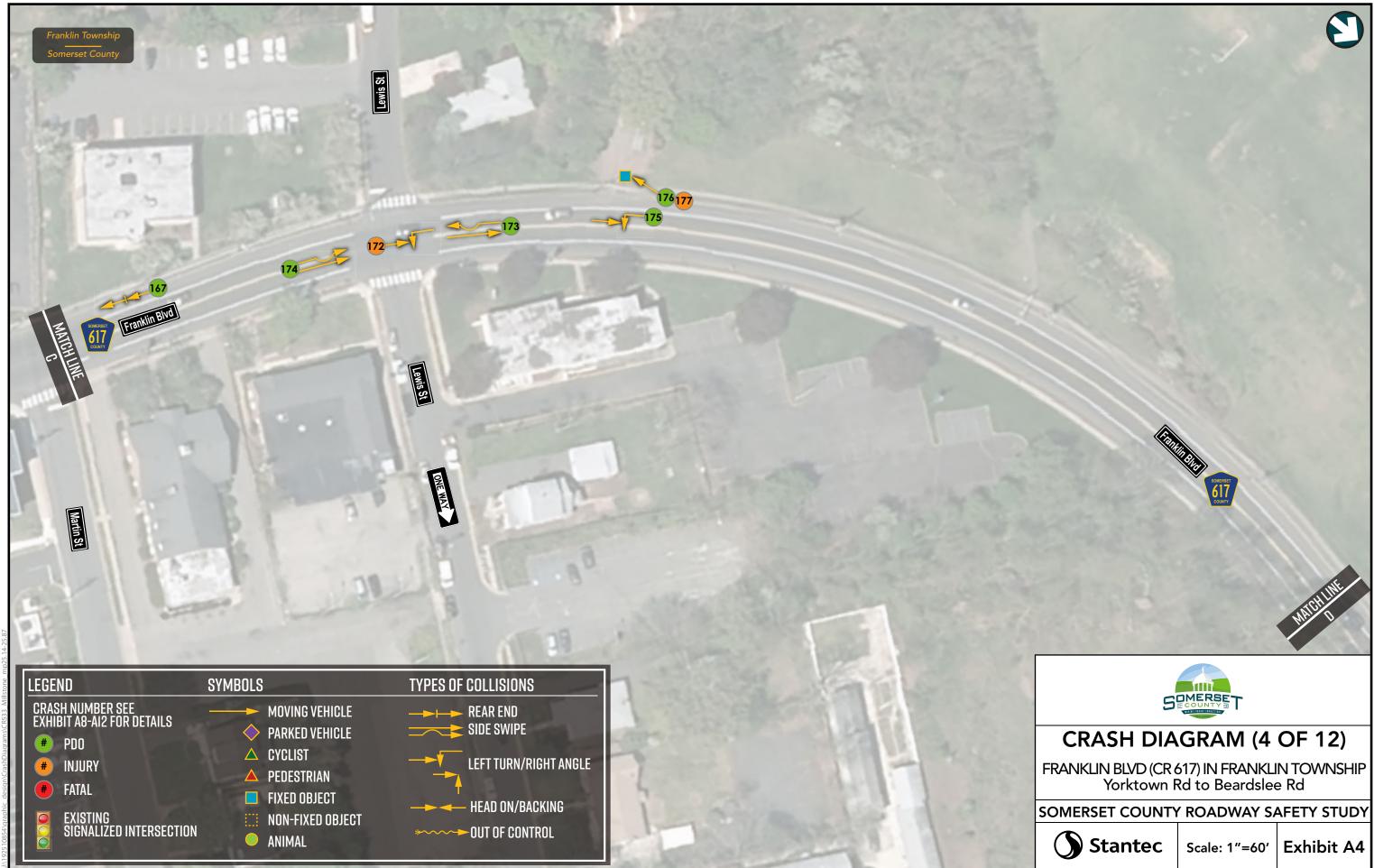
Appendix D

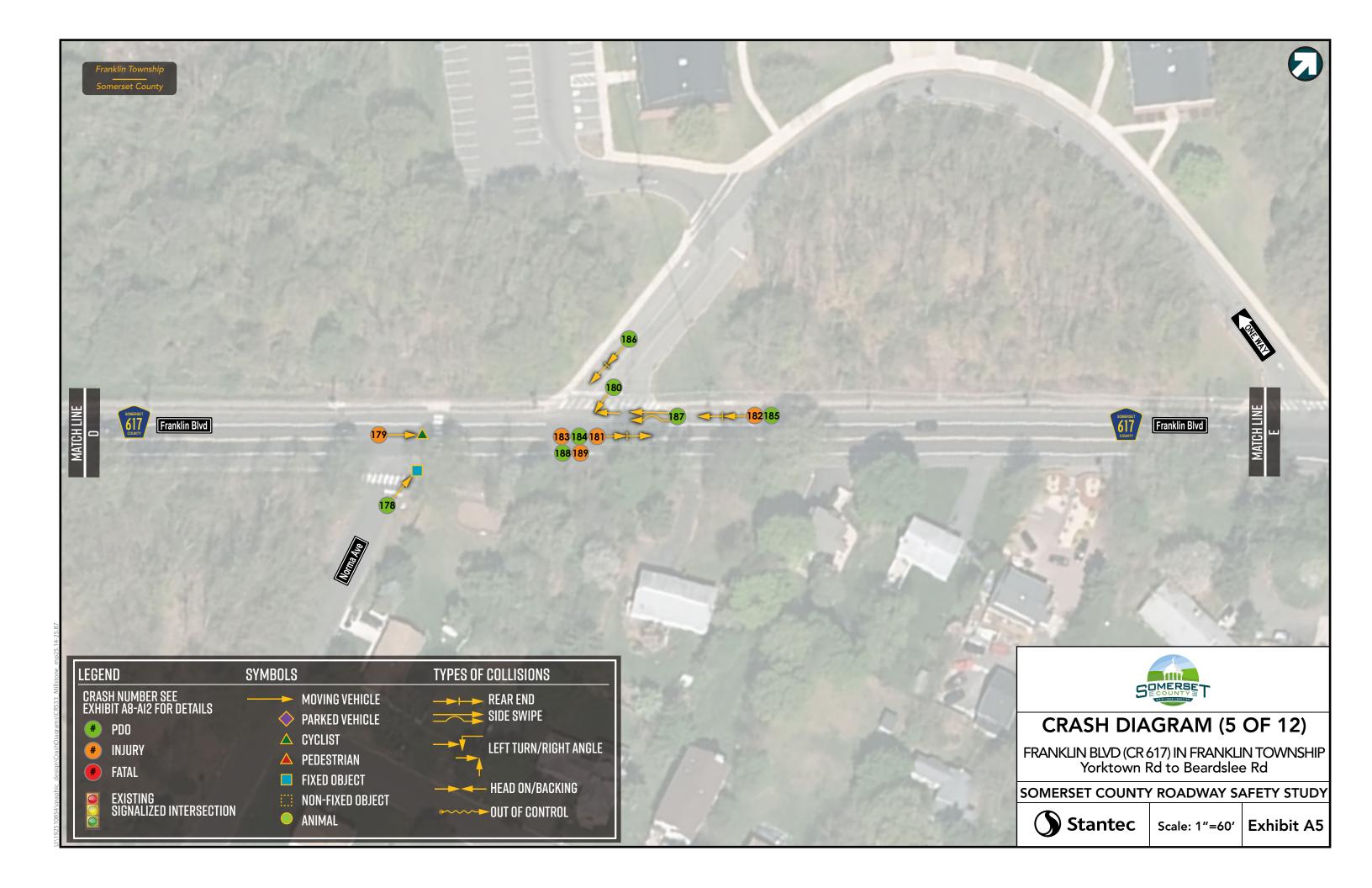
Collision Diagrams



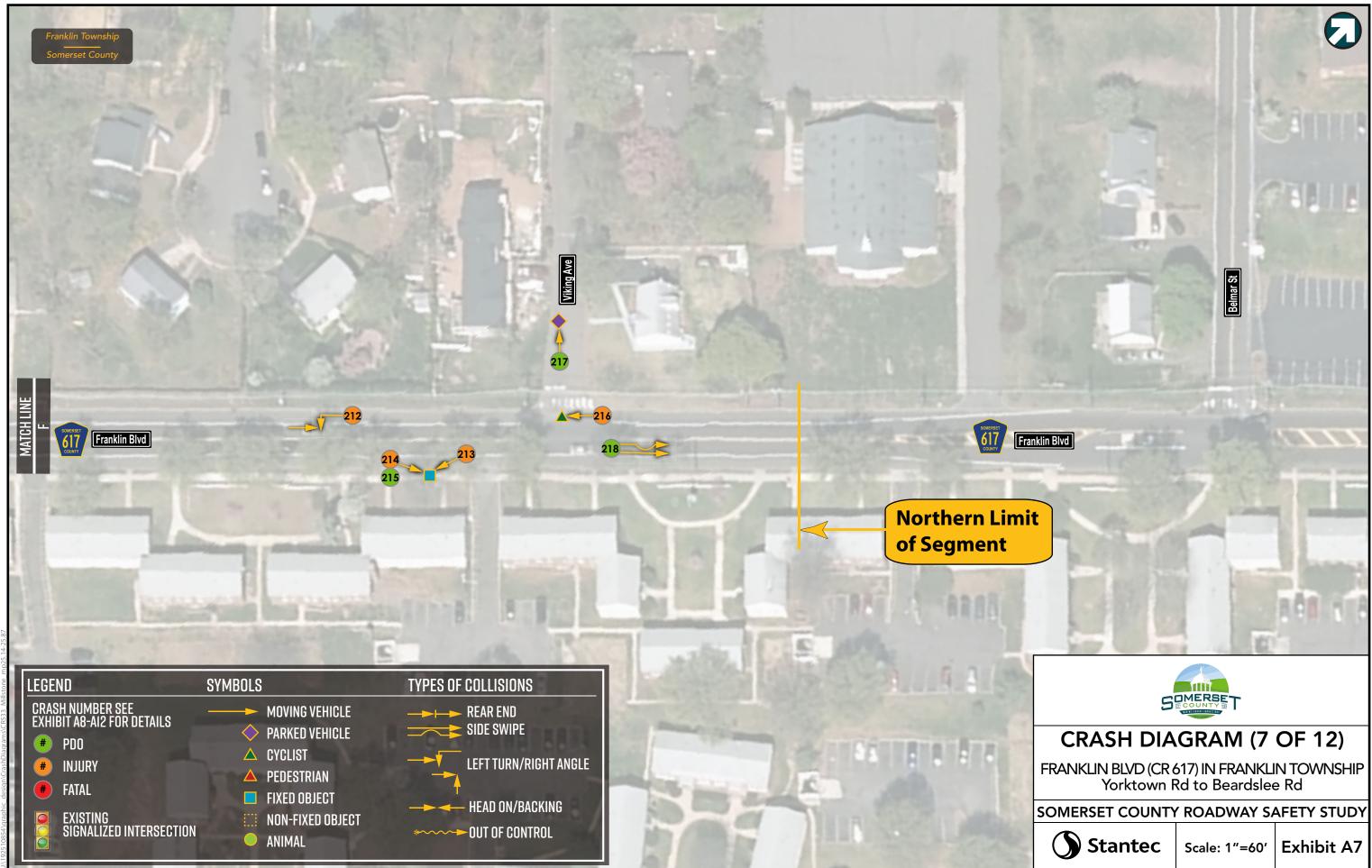












Crash #	Date	Time	Severity	Total Injured	Crash Type	Light Condition	Surface Condition
1	09/12/2018	02:20 PM	Property Damage Only	0	Backing	Daylight	Wet
2	01/14/2018	10:50 PM	Property Damage Only	0	Encroachment	Dark, Street lights on, continuous lighting	Dry
3	01/22/2016	07:11 AM	Property Damage Only	0	Fixed Object	Daylight	Dry
4	01/29/2016	09:54 AM	Property Damage Only	0	Fixed Object	Daylight	Dry
5	02/02/2016	06:16 AM	Property Damage Only	0	Fixed Object	Dawn	Dry
6	12/21/2016	02:39 PM	Property Damage Only	0	Fixed Object	Daylight	Dry
7	11/01/2017	01:10 PM	Property Damage Only	0	Fixed Object	Daylight	Dry
8	02/03/2017	12:56 PM	Property Damage Only	0	Fixed Object	Daylight	Dry
9	08/03/2017	10:04 PM	Injury	2	Left Turn/U-turn	Dark, Street lights on, spot lighting	Wet
10	12/05/2016	07:05 PM	Injury	5	Left Turn/U-turn	Dark, Street lights on, continuous lighting	Dry
11	02/13/2017	04:39 PM	Property Damage Only	0	Left Turn/U-turn	Daylight	Dry
12	10/07/2017	10:52 AM	Property Damage Only	0	Left Turn/U-turn	Daylight	Dry
13	11/13/2018	10:04 AM	Property Damage Only	0	Left Turn/U-turn	Daylight	Wet
14	01/24/2017	09:23 PM	Injury	1	Pedestrian	Dark, Street lights on, spot lighting	Wet
15	10/10/2018	09:21 PM	Injury	1	Right Angle	Dark, Street lights on, continuous lighting	Dry
16	11/22/2018	01:56 PM	Injury	3	Right Angle	Daylight	Dry
17	03/31/2016	11:00 PM	Property Damage Only	0	Right Angle	Dark, Street lights on, spot lighting	Wet
18	10/11/2016	12:30 PM	Property Damage Only	0	Right Angle	Daylight	Dry
19	11/16/2016	06:27 PM	Property Damage Only	0	Right Angle	Dark, Street lights on, continuous lighting	Dry
20	02/17/2017	05:22 PM	Property Damage Only	0	Right Angle	Dark, Street lights on, spot lighting	Dry
21	04/12/2017	12:36 PM	Property Damage Only	0	Right Angle	Daylight	Dry
22	08/26/2017	03:15 PM	Property Damage Only	0	Right Angle	Daylight	Dry
23	10/08/2017	10:28 AM	Property Damage Only	0	Right Angle	Daylight	Wet
24	02/12/2016	01:17 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
25	10/19/2016	08:32 PM	Property Damage Only	0	Same Direction (Rear-End)	Dark, Street lights on, continuous lighting	Dry
26	02/04/2017	01:37 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
27	02/04/2018	07:59 PM	Property Damage Only	0	Same Direction (Rear-End)	Dark, Street lights on, continuous lighting	Wet
28	01/29/2018	04:44 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
29	09/30/2016	06:40 PM	Property Damage Only	0	Same Direction (Rear-End)	Dark, Street lights on, continuous lighting	Wet
30	09/30/2016	10:08 PM	Property Damage Only	0	Same Direction (Rear-End)	Dark, Street lights on, continuous lighting	Wet
31	05/28/2017	09:48 PM	Injury	2	Same Direction (Side Swipe)	Dark, Street lights on, continuous lighting	Wet
32	05/16/2016	07:26 PM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
33	01/28/2016	08:00 AM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
34	02/09/2018	02:55 PM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
35	12/15/2018	11:03 AM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
36	03/09/2018	06:19 PM	Property Damage Only	0	Same Direction (Side Swipe)	Dark, Street lights on, spot lighting	Dry
37	02/11/2017	12:36 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
38	10/21/2016	05:10 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
39	02/06/2017	02:57 PM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
40	04/20/2016	08:48 PM	Property Damage Only	0	Right Angle	Dark, Street lights on, continuous lighting	Dry
41	11/19/2017	12:09 PM	Property Damage Only	0	Right Angle	Daylight	Dry
42	08/12/2016	12:38 PM	Property Damage Only	0	Backing	Daylight	Dry
43	02/14/2017	09:18 AM	Property Damage Only	0	Right Angle	Daylight	Dry
44	05/10/2017	08:21 AM	Property Damage Only	0	Left Turn/U-turn	Daylight	Dry
45	04/10/2016	11:14 AM	Injury	1	Right Angle	Daylight	Dry



CRASH DIAGRAM (8 OF 12)

FRANKLIN BLVD (CR 617) IN FRANKLIN TOWNSHIP Yorktown Rd to Beardslee Rd

SOMERSET COUNTY ROADWAY SAFETY STUDY



Crash #	Date	Time	Severity	Total Injured	Crash Type	Light Condition	Surface Condition
46	11/26/2017	01:31 PM	Injury	3	Right Angle	Daylight	Dry
47	03/07/2017	02:51 PM	Property Damage Only	0	Right Angle	Daylight	Wet
48	01/11/2016	05:08 PM	Property Damage Only	0	Right Angle	Dark, Street lights on, spot lighting	Dry
49	12/11/2016	06:58 AM	Property Damage Only	0	Right Angle	Dawn	Dry
50	05/22/2017	07:20 AM	Property Damage Only	0	Right Angle	Daylight	Wet
51	03/08/2016	02:06 PM	Property Damage Only	0	Right Angle	Daylight	Dry
52	02/27/2017	12:33 PM	Property Damage Only	0	Right Angle	Daylight	Dry
53	11/03/2017	05:26 PM	Property Damage Only	0	Right Angle	Daylight	Dry
54	09/05/2018	08:44 AM	Property Damage Only	0	Right Angle	Daylight	Dry
55	02/05/2016	09:43 AM	Injury	1	Same Direction (Rear-End)	Daylight	Slush
56	01/03/2018	08:36 AM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
57	11/12/2018	05:22 PM	Property Damage Only	0	Same Direction (Rear-End)	Dark, Street lights on, continuous lighting	Dry
58	06/07/2018	09:55 AM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
59	11/15/2018	01:42 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Snowy
60	03/27/2017	08:51 AM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Wet
61	02/28/2016	09:56 AM	Injury	1	Right Angle	Daylight	Dry
62	08/05/2018	03:43 PM	Injury	1	Right Angle	Daylight	Dry
63	08/21/2017	07:41 AM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
64	06/21/2018	06:26 PM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
65	01/29/2016	02:10 PM	Property Damage Only	0	Struck Parked Vehicle	Daylight	Dry
66	10/02/2016	05:39 AM	Property Damage Only	0	Struck Parked Vehicle	Dark, Street lights on, spot lighting	Wet
67	09/29/2015	07:28 AM	Injury	1	Pedestrian	Daylight	Dry
68	09/27/2017	02:48 PM	Injury	1	Pedestrian	Daylight	Dry
69	09/29/2017	02:46 PM	Injury	2	Right Angle	Daylight	Dry
70	05/28/2016	02:02 PM	Property Damage Only	0	Right Angle	Daylight	Dry
71	11/11/2016	08:03 PM	Property Damage Only	0	Right Angle	Dark, Street lights on, spot lighting	Dry
72	02/16/2018	12:02 AM	Property Damage Only	0	Right Angle	Dark, Street lights on, continuous lighting	Wet
73	12/21/2018	08:38 PM	Injury	1	Same Direction (Side Swipe)	Dark, Street lights on, spot lighting	Wet
74	05/14/2016	04:17 AM	Property Damage Only	0	Fixed Object	Dark, Street lights on, spot lighting	Wet
75	10/21/2018	12:50 AM	Property Damage Only	0	Fixed Object	Dark, Street lights on, continuous lighting	Wet
76	06/28/2017	11:54 AM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
77	05/26/2017	01:04 AM	Property Damage Only	0	Fixed Object	Dark, Street lights on, spot lighting	Wet
78	04/03/2018	06:16 PM	Property Damage Only	0	Fixed Object	Daylight	Wet
79	06/13/2016	11:03 AM	Injury	1	Pedestrian	Daylight	Dry
80	04/23/2018	09:14 PM	Injury	1	Pedestrian	Dark, Street lights on, spot lighting	Dry
81	01/14/2016	06:20 PM	Property Damage Only	0	Right Angle	Dark, Street lights on, continuous lighting	Dry
82	05/09/2018	09:41 PM	Property Damage Only	0	Right Angle	Dark, Street lights on, spot lighting	Dry
83	12/01/2016	02:10 PM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
84	10/21/2016	03:16 PM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
85	01/25/2018	12:15 PM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
86	10/17/2018	04:12 PM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
87	03/20/2017	07:07 PM	Injury	1	Left Turn/U-turn	Dark, Street lights on, spot lighting	Dry
88	01/30/2016	01:43 PM	Injury	1	Right Angle	Daylight	Dry
89	05/01/2018	03:29 PM	Property Damage Only	0	opposite direction (side swipe)	Daylight	Dry
90	04/06/2016	02:56 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry



CRASH DIAGRAM (9 OF 12)

FRANKLIN BLVD (CR 617) IN FRANKLIN TOWNSHIP Yorktown Rd to Beardslee Rd

SOMERSET COUNTY ROADWAY SAFETY STUDY



Crash #	Date	Time	Severity	Total Injured	Crash Type	Light Condition	Surface Condition
91	03/24/2017	08:00 AM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
92	03/27/2017	11:51 AM	Property Damage Only	0	Backing	Daylight	Wet
93	10/29/2018	06:08 PM	Property Damage Only	0	Backing	Dark, Street lights on, continuous lighting	Dry
94	12/15/2018	08:42 PM	Property Damage Only	0	Backing	Dark, Street lights on, spot lighting	Wet
95	03/14/2016	04:18 PM	Property Damage Only	0	Fixed Object	Daylight	Wet
96	06/05/2018	07:39 PM	Property Damage Only	0	Fixed Object	Daylight	Oil/Fuel
97	01/14/2016	02:01 PM	Property Damage Only	0	Fixed Object	Daylight	Dry
98	10/18/2018	04:09 PM	Property Damage Only	0	Fixed Object	Daylight	Dry
99	12/23/2018	04:36 PM	Injury	1	Left Turn/U-turn	Dusk	Dry
100	01/12/2016	02:17 PM	Injury	1	Left Turn/U-turn	Daylight	Dry
101	02/07/2016	06:14 AM	Injury	2	Left Turn/U-turn	Dark, Street lights on, continuous lighting	Dry
102	01/26/2018	07:35 PM	Property Damage Only	0	Left Turn/U-turn	Dark, Street lights on, spot lighting	Dry
103	03/10/2018	12:29 PM	Property Damage Only	0	Left Turn/U-turn	Daylight	Dry
104	06/02/2018	10:33 AM	Property Damage Only	0	Left Turn/U-turn	Daylight	Dry
105	12/09/2018	10:02 AM	Property Damage Only	0	Left Turn/U-turn	Daylight	Dry
106	08/04/2016	09:09 AM	Property Damage Only	0	Left Turn/U-turn	Daylight	Dry
107	02/16/2018	08:30 AM	Property Damage Only	0	Opposite Direction (Head on, Angular)	Daylight	Dry
108	12/21/2016	08:41 AM	Property Damage Only	0	Opposite Direction (Side Swipe)	Daylight	Dry
109	10/06/2015	07:01 PM	Injury	1	Pedestrian	Dusk	Dry
110	12/09/2015	06:25 PM	Injury	1	Pedestrian	Dark, Street lights on, spot lighting	Dry
111	11/13/2016	03:56 PM	Injury	1	Pedestrian	Daylight	Dry
112	08/11/2018	09:35 PM	Injury	1	Pedestrian	Dark, Street lights on, spot lighting	Wet
113	05/06/2016	03:37 PM	Injury	1	Right Angle	Daylight	Wet
114	06/07/2016	06:04 PM	Injury	1	Right Angle	Daylight	Dry
115	05/25/2018	06:28 PM	Injury	1	Right Angle	Daylight	Dry
116	03/15/2017	12:52 PM	Injury	1	Right Angle	Daylight	Wet
117	06/30/2018	02:27 PM	Injury	1	Right Angle	Daylight	Dry
118	05/04/2016	01:54 PM	Injury	1	Right Angle	Daylight	Wet
119	03/09/2016	06:39 PM	Property Damage Only	0	Right Angle	Dark, Street lights on, continuous lighting	Dry
120	05/04/2016	06:17 PM	Property Damage Only	0	Right Angle	Daylight	Wet
121	10/13/2016	09:56 AM	Property Damage Only	0	Right Angle	Daylight	Dry
122	06/22/2017	12:28 PM	Property Damage Only	0	Right Angle	Daylight	Dry
123	09/07/2017	04:06 PM	Property Damage Only	0	Right Angle	Daylight	Dry
124	02/22/2018	12:20 PM	Property Damage Only	0	Left Turn/U-turn	Daylight	Wet
125	07/10/2018	09:49 AM	Property Damage Only	0	Right Angle	Daylight	Dry
126	05/07/2018	02:39 PM	Property Damage Only	0	Right Angle	Daylight	Dry
127	12/21/2018	01:27 PM	Property Damage Only	0	Right Angle	Daylight	Wet
128	05/01/2016	10:35 AM	Property Damage Only	0	Right Angle	Daylight	Wet
129	11/21/2017	06:10 PM	Property Damage Only	0	Right Angle	Dark, Street lights on, continuous lighting	Dry
130	01/25/2016	03:01 PM	Property Damage Only	0	Right Angle	Daylight	Wet
131	11/06/2017	08:16 AM	Property Damage Only	0	Right Angle	Daylight	Dry
132	08/29/2018	07:31 PM	Property Damage Only	0	Right Angle	Daylight	Dry
133	03/29/2016	06:17 PM	Injury	1	Same Direction (Rear-End)	Daylight	Dry
134	10/19/2016	02:52 PM	Injury	1	Same Direction (Rear-End)	Daylight	Dry
135	05/09/2018	05:55 PM	Injury	1	Same Direction (Rear-End)	Daylight	Dry



CRASH DIAGRAM (10 OF 12)

FRANKLIN BLVD (CR 617) IN FRANKLIN TOWNSHIP Yorktown Rd to Beardslee Rd

SOMERSET COUNTY ROADWAY SAFETY STUDY



Crash #	Date	Time	Severity	Total Injured	Crash Type	Light Condition	Surface Condition
136	07/09/2018	12:54 PM	Injury	1	Same Direction (Rear-End)	, , , , , , , , , , , , , , , , , , , ,	
137	07/11/2018	05:06 PM	Injury	2	Same Direction (Rear-End)	Daylight	Dry
138	02/25/2016	08:08 AM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
139	07/20/2016	05:45 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
140	11/11/2016	06:31 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
141	01/17/2017	03:21 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
142	01/23/2017	09:16 AM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Wet
143	04/24/2017	10:12 AM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
144	09/13/2017	03:50 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Wet
145	02/12/2016	07:32 PM	Property Damage Only	0	Same Direction (Rear-End)	Dark, Street lights on, continuous lighting	Dry
146	02/13/2018	11:08 PM	Property Damage Only	0	Same Direction (Rear-End)	Dark, Street lights on, continuous lighting	Dry
147	07/10/2018	07:22 AM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
148	02/08/2016	01:02 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
149	12/12/2016	08:17 AM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Wet
150	02/09/2016	03:11 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Wet
151	08/26/2016	07:42 PM	Property Damage Only	0	Same Direction (Rear-End)	Dusk	Dry
152	06/06/2017	11:51 AM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Wet
153	11/01/2018	04:17 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
154	11/05/2018	07:26 AM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Wet
155	06/23/2017	06:27 AM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
156	10/22/2017	09:40 AM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
157	05/16/2017	09:17 PM	Property Damage Only	0	Same Direction (Side Swipe)	Dark, Street lights on, spot lighting	Dry
158	07/16/2017	12:30 PM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
159	10/11/2017	10:21 AM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
160	11/02/2018	04:24 PM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
161	07/17/2018	03:20 PM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Wet
162	01/04/2016	02:15 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
163	08/28/2018	06:29 PM	Injury	1	Backing	Daylight	Dry
164	05/07/2016	02:57 PM	Injury	2	Opposite Direction (Side Swipe)	Daylight	Dry
165	10/09/2017	05:23 PM	Injury	1	Right Angle	Daylight	Dry
166	07/01/2018	10:55 AM	Property Damage Only	0	Right Angle	Daylight	Dry
167	01/19/2016	11:03 AM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
168	05/06/2016	03:21 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Wet
169	09/12/2017	02:45 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
170	10/31/2018	07:50 AM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
171	10/16/2017	02:49 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
172	08/22/2016	05:35 PM	Injury	1	Left Turn/U-turn	Daylight	Dry
173	03/07/2018	08:27 PM	Property Damage Only	0	Opposite Direction (Side Swipe)	Dark, Street lights on, spot lighting	Snowy
174	11/24/2016	03:30 PM	Property Damage Only	0	Struck Parked Vehicle	Daylight	Dry
175	03/07/2018	01:50 PM	Property Damage Only	0	Right Angle	Daylight	Snowy
176	12/31/2016	01:28 AM	Property Damage Only	0	Fixed Object	Dark, Street lights on, continuous lighting	Dry
170	09/25/2017	01:18 PM	Injury	1	Fixed Object	Daylight	Dry
178	12/09/2017	04:54 PM	Property Damage Only	0	Fixed Object	Dark, Street lights on, spot lighting	lcy
179	07/27/2016	07:17 PM	Injury	1	Pedalcyclist	Daylight	Dry
180	06/07/2016	08:56 AM	Injury	1	Right Angle	Daylight	Dry
	00/07/2010		ngary	I	Night Aligic	Daylight	Dry



CRASH DIAGRAM (11 OF 12)

FRANKLIN BLVD (CR 617) IN FRANKLIN TOWNSHIP Yorktown Rd to Beardslee Rd

SOMERSET COUNTY ROADWAY SAFETY STUDY



Crash #	Date	Time	Severity	Total Injured	Crash Type	Light Condition	Surface Condition
181	08/17/2017	06:13 PM	Injury	1	Same Direction (Rear-End)	Daylight	Dry
182	06/22/2016	09:09 PM	Injury	1	Same Direction (Rear-End)	Dark, Street lights on, continuous lighting	Dry
183	11/05/2018	09:56 AM	Injury	1	Same Direction (Rear-End)	Daylight	Wet
184	09/30/2016	07:14 AM	Property Damage Only	0	Same Direction (Rear-End)	Dawn	Wet
185	10/12/2017	07:18 AM	Property Damage Only	0	Same Direction (Rear-End)	Dawn	Wet
186	11/09/2016	09:00 AM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Wet
187	03/30/2017	04:18 PM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
188	03/27/2017	04:45 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
189	11/30/2017	12:16 PM	Injury	1	Other	Daylight	Dry
190	04/08/2017	10:10 PM	Property Damage Only	0	Same Direction (Side Swipe)	Dark, Street lights on, spot lighting	Dry
191	04/30/2016	12:17 AM	Injury	1	Right Angle	Dark, Street lights on, spot lighting	Dry
192	07/21/2016	09:07 AM	Property Damage Only	0	Right Angle	Daylight	Dry
193	07/23/2016	09:01 PM	Property Damage Only	0	Same Direction (Rear-End)	Dark, Street lights off	Dry
194	10/01/2018	09:33 AM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
195	09/02/2016	03:48 PM	Property Damage Only	0	Left Turn/U-turn	Daylight	Dry
196	12/20/2018	02:21 PM	Property Damage Only	0	Left Turn/U-turn	Daylight	Wet
197	05/13/2017	11:59 AM	Injury	2	Right Angle	Daylight	Wet
198	06/02/2017	04:35 PM	Property Damage Only	0	Right Angle	Daylight	Dry
199	06/28/2018	04:35 PM	Property Damage Only	0	Right Angle	Daylight	Dry
200	05/14/2018	03:34 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
201	05/22/2018	04:38 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
202	11/23/2016	12:58 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
203	06/16/2016	07:20 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
204	08/19/2017	07:02 PM	Property Damage Only	0	Same Direction (Rear-End)	Daylight	Dry
205	04/10/2016	07:11 PM	Property Damage Only	0	Same Direction (Side Swipe)	Dusk	Dry
206	09/12/2016	02:55 PM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry
207	06/23/2016	10:13 AM	Property Damage Only	0	Struck Parked Vehicle	Daylight	Dry
208	01/01/2018	09:35 AM	Property Damage Only	0	Struck Parked Vehicle	Daylight	Dry
209	01/31/2017	10:51 PM	Property Damage Only	0	Struck Parked Vehicle	Dark, Street lights on, spot lighting	Dry
210	06/05/2016	08:05 PM	Property Damage Only	0	Fixed Object	Daylight	Wet
211	06/01/2018	08:53 PM	Injury	1	Fixed Object	Dark, Street lights on, continuous lighting	Dry
212	10/05/2017	01:47 PM	Injury	1	Left Turn/U-turn	Daylight	Dry
213	02/10/2018	03:57 AM	Injury	1	Fixed Object	Dark, Street lights on, spot lighting	Dry
214	10/03/2018	10:11 PM	Injury	1	Fixed Object	Dark, Street lights on, spot lighting	Dry
215	05/05/2018	06:27 AM	Property Damage Only	0	Fixed Object	Dawn	Dry
216	04/24/2015	07:09 PM	Injury	1	Pedalcyclist	Daylight	Dry
217	04/24/2016	01:34 PM	Property Damage Only	0	Struck Parked Vehicle	Daylight	Dry
218	03/05/2016	08:22 AM	Property Damage Only	0	Same Direction (Side Swipe)	Daylight	Dry



Appendix E

Audit Team

Franklin - March 25th

Group 1 Pairs - Northern Section

Matthew Maher, Stantec Tim Medina, Stantec Ryan Walsh, FHI Adam Bradford, Somerset County Victor Owuso, Somerset County Officer Jose Jaime, Franklin Township Mark Healey, Planning Director Vincent Dominach, Economic Development Pat Marotto, Somerset County Group 2 Pairs - Southern Section

Kati DiRaimondo, Stantec Michael Ahillen, FHI Kenneth Wedeen, Somerset County Walter Lane, Somerset County Officer Sgt James Raics, Franklin Township Robert Vornlocker, Township Administrator Virgilio Tan, NJDOT Jon Dugan, RideWise

Appendix F

Pre-Audit Presentation







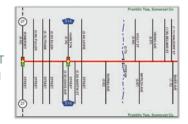


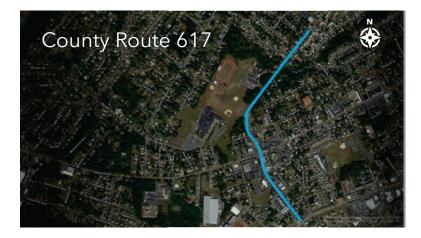
Existing Conditions Data

Project Area

- Urban minor arterial
- 10' 11' travel lanes, two in each direction at southern end
- ~12,000-16,000 AADT
- Posted 40 mph speed limit
- Posted advisory 25 mph near Hillcrest Elementary

Somerset County Roadway Safety Study





Land Use

Suburban land-use (e.g., single-family homes, shopping/retail, churches, schools

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- County Shuttle New Brunswick to Branchburg/RVCC
 Suburban Transit Princeton to NYC (bus stop 400' east of CR 617)
- Redevelopment
- 52 Norma Avenue Two story apartment building
- 610 Franklin Blvd Four-story mixed-use building
- 602 Franklin Blvd Mixed-used conversion to school property
 600 Franklin Blvd Repopulation of abandoned office space
- SE corner of Norma & Franklin Major residential subdivision
- SE corrier of Norma & Hankin Major residential subdivision

Somerset County Roadway Safety Study

Existing Conditions Feedback

- Belmar Street: Pedestrian crossing activity during church
- Matilda Avenue: Lacks traffic control/pedestrian crossing
- Issues noted at Hamilton Street:
 - Nearby streets utilized by cut-through traffic
 - Difficulty turning onto Hamilton from nearby retail
- Truck turning movements
- Heavy traffic to/from Franklin Court Shopping Center
- Frank St: Missing crosswalks
- Route 27: Wide truck turning movements cross into oncoming traffic
- Lack of pedestrian connectivity on southern end of corridor

COMERSET

Somerset County Roadway Safety Study



Study-Focused Safety Measures





Safety Measures Feedback

- Lighting: Desire for more lighting, but lighting can be a maintenance issue.
- Curb Extensions/Bus Bulbs: Curb extensions would hard to implement and need to be strategic.
- Walkways for Sidewalks Gaps: There are some sidewalk gaps along corridor.
 ADA compliance is key.
- High Visibility Crosswalks: Intersections lack crosswalks; however, crosswalks make users more complacent.

• Dedicated Turn Lanes:

Dedicated turn lanes already exist at the two major intersections of this corridor.
 Feasibility is contingent upon ROW acquisition, if necessary.

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Safety Measures Feedback, cont'd

- Leading Pedestrian Intervals (LPI):
 LPIs are beneficial for locations where students are crossing.
- High Visibility Crosswalks:
 High visibility crosswalk retroreflective paint is more costly than regular paint.
- Turn Restrictions:
- There does not seem to be places to divert traffic for turn restrictions.
 Limiting movements onto Route 27 requires NJDOT coordination.
- Bike Lanes:
 High AADT on this corridor, plus bike buffer would be needed.
- Lane Width Reduction/Road Diet:
 - Improvement plans are in the works on Hamilton Street.



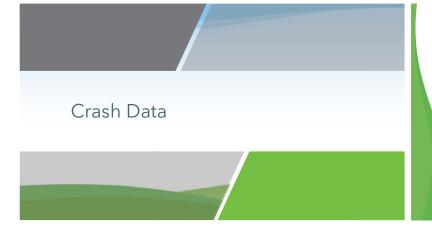
Somerset County Roadway Safety Study

Public/ **Stakeholder** Improvement Feedback

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	Effectiveness(1= not effective; 10= very effective)	Ease of Implementation (1=easy; 10= hard)
Lighting	8	3
Curb Extensions/Bus Bulbs	10	10
Daylighting and Crosswalks	10	0
Walkways for Sidewalk Gaps	10	8
Dedicated Turn Lanes	10	5
Leading Pedestrian Intervals (LPI)	10	10
High Visibility Crosswalks	10	0
Turn Restrictions	5	5
Bike Lanes	0	10
Lane Width Reduction/Road Diet	10	10



Crash Data - Statistics

•All Crashes 2016-2018 •214 Total Crashes •Overrepresentations: •Right Angle collisions •Wet weather

•Pedestrian Crashes 2014-2018 •9 Total Crashes



NJTPA Network Screening List (NSL) Crash Ranking Overall Crash Data

#7th Hamilton Street

- #46th Fuller Street #85th Pine Street
- <u>Corridor Segments</u>

#11th MP 0.00 - 1.00

Pedestrian/Bike Crash Data

- Intersections

 #13th

 Hamilton Street

 #36th

 Norma Avenue
- **#76th** Viking Avenue <u>Corridor Segments</u>
 - #**34th** MP 0.20 1.20





Conducting the Audit



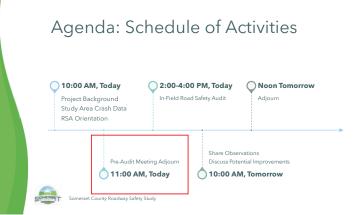
What to Look for - Photos



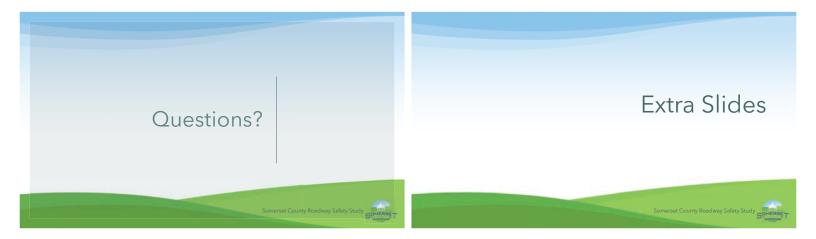
What to Look for - Photos







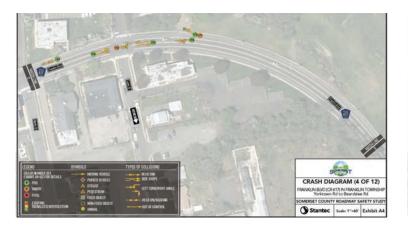




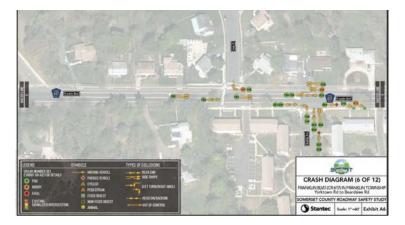














Appendix G

Post-Audit Survey

Participant Survey - Average Scores

As you near the end of the audit, rate how the following items impact your level of comfort.

(1: makes me uncomfortable; 4: makes me comfortable; N/A: issue does not exist along this corridor)

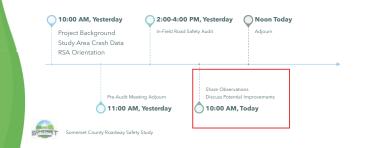
Category	ltem	Bridgewater	Franklin	Millstone	North Plainfield	Raritan
Corridor Identity	Average	2.3	2.4	2.7	3.2	2.7
Corridor Identity	Activities and uses	2.3	2.6	3.0	3.2	2.5
Corridor Identity	Condition of buildings	2.6	2.3	3.0	3.3	2.5
Corridor Identity	Perception of personal safety	1.9	2.4	2.0	3.0	3.0
Crossings	Average	2.2	2.3	2.3	2.3	2.4
Crossings	Crossing guards	2.5	3.0	-	2.7	3.0
Crossings	Missing or inoperable pedestrian/audible signal	1.9	2.0	2.0	3.0	3.5
Crossings	Pedestrian signal crossing time	2.7	3.0	3.0	2.6	2.6
Crossings	Poorly marked or missing crosswalk	1.7	1.6	1.7	1.7	2.3
Crossings	Presence of curb ramps for strollers/wheelchairs	1.7	1.9	1.0	1.9	2.3
Crossings	View of traffic is blocked	2.0	2.6	2.3	2.1	1.6
Crossings	Wait time for pedestrian signal	2.9	2.8	3.0	2.8	2.4
Pedestrian-Vehicle Interactions	Average	1.6	2.1	1.9	2.8	2.5
Pedestrian-Vehicle Interactions	Amount of traffic	1.7	2.1	2.3	3.0	2.6
Pedestrian-Vehicle Interactions	Bicycling on the sidewalk	1.3	4.0	2.0	2.1	2.9
Pedestrian-Vehicle Interactions	Driver behavior (distracted, did not yield to pedestrians, etc.)	2.1	2.0	2.7	3.0	2.1
Pedestrian-Vehicle Interactions	Noise level due to auto traffic	1.2	2.0	1.3	2.9	2.1
Pedestrian-Vehicle Interactions	Presence of trucks or large vehicles	1.7	2.0	1.7	2.8	2.8
Pedestrian-Vehicle Interactions	Speed of traffic	1.4	2.1	1.3	2.5	2.5
	·					
Sidewalk/Roadway Condition	Average	2.3	2.7	2.6	2.6	2.9
Sidewalk/Roadway Condition	Areas on roadway with poor drainage	3.1	2.9	2.5	3.0	2.6
Sidewalk/Roadway Condition	Areas on sidewalk with poor drainage	3.0	2.8	2.0	2.9	2.6
Sidewalk/Roadway Condition	Buffer area between sidewalk and traffic	1.5	2.4	2.3	2.5	3.1
Sidewalk/Roadway Condition	Guide rails/protection systems	2.0	3.3	3.0	2.3	2.5
Sidewalk/Roadway Condition	Intersection configuration	2.1	2.7	3.0	2.8	2.7
Sidewalk/Roadway Condition	Obstacles blocking sidewalk (utilities/trees)	2.9	2.5	3.0	2.6	2.9
Sidewalk/Roadway Condition	Roadway condition	2.8	3.1	2.7	3.0	3.3
Sidewalk/Roadway Condition	Roadway width	2.2	2.8	3.0	3.0	3.3
Sidewalk/Roadway Condition	Sidewalk condition	1.9	2.3	1.7	1.8	2.9
Sidewalk/Roadway Condition	Sidewalk width	2.2	2.6	2.7	2.4	3.1
Streetscape Amenities	Average	2.0	2.5	3.2	2.5	3.2
Streetscape Amenities	Benches or places to rest, trash cans	1.5	2.8	N/A	1.1	3.8
Streetscape Amenities	Lighting (for pedestrians)	1.9	2.0	3.0	2.4	3.7
Streetscape Amenities	Lighting (for vehicles)	2.4	2.5	2.7	2.9	2.7
Streetscape Amenities	Presence of directional/regulatory signage	2.4	2.3	3.7	2.8	2.7
Streetscape Amenities	Street trees and landscaping	1.9	3.0	3.5	2.9	3.2

Appendix H

Post-Audit Presentation











Field Photography/Videos





Field Photography/Videos



Somerset County Roadway Safety Study





Field Photography/Videos

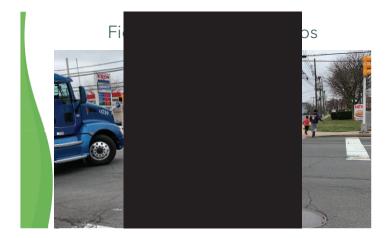


Somerset County Roadway Safety Study



Field Photography/Videos





Field Photography/Videos





Somerset County Roadway Safety Study

Field Photography/Videos





Field Photography/Videos



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Field Photography/Videos





Field Photography/Videos



Field Photography/Videos





Somerset County Roadway Safety Study

Field Photography/Videos



Somerset County Roadway Safety Study







Prompt List Discussion



"What operational/safety issues did you note on the corridor?"

"What makes travel on the corridor difficult ?"

FOR	driv	vers?
101	anv	

For non-drivers?

For people with disabilities?

For families with small children?

For transit riders?

Somerset County Roadway Safety Study

SOMERSE

"What pedestrian/cyclist connectivity issues were observed?"

Recommendations Discussion



"WHAT SAFETY IMPROVEMENTS DO YOU PROPOSE FOR REDUCING CRASHES?"



"WHAT IS YOUR VISION FOR THE CORRIDOR? HOW SHOULD IT LOOK IN 10 YEARS?"



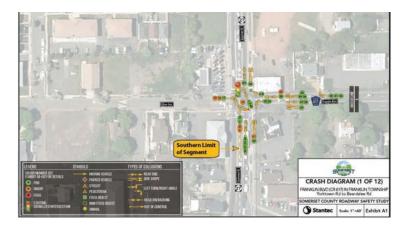


Next Steps

- Produce RSA Reports
- Implementation Matrix
- Final Study Report
- Conduct Follow-Up Public/TAC Meetings

rankl



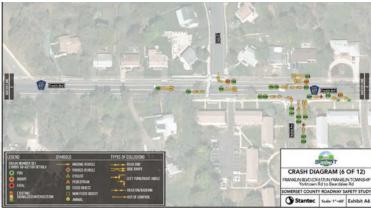


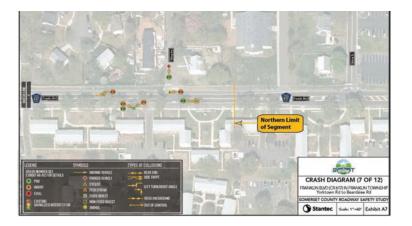












Appendix I

Recommendations from Implementation Matrix



ORIGINAL SHEET - ANSI B



365 West Passaic Street, Suite 175 Rochelle Park, NJ 07662 www.stantec.com



July, 2021 192510854

Client/Project Somerset County/ NJTPA Somerset County Roadway Safety Study Franklin Boulevard (CR 617) Sheet No. <u>1 of 4</u> Title RSA Recommendations Scale: 1'' = 60'



\us0253-ppfss01\shared_projects\192510854\cadd\base\RSA\Franklin.dwg 2021/07/14 11:29 AM By: DiRaimondo, Kati ORIGINAL SHEET - ANSI B



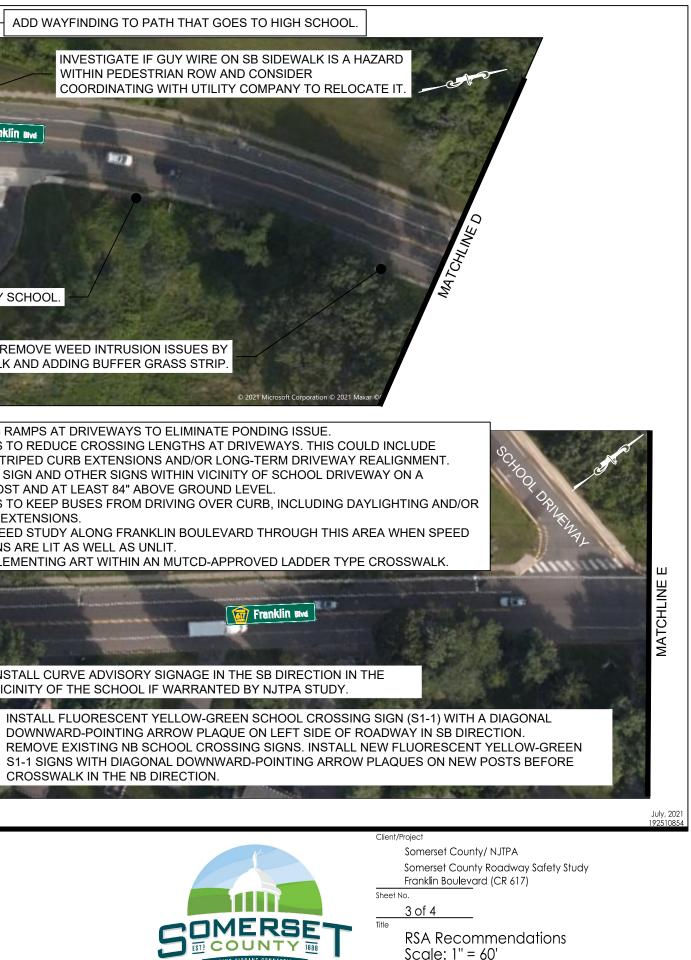
365 West Passaic Street, Suite 175 Rochelle Park, NJ 07662 www.stantec.com

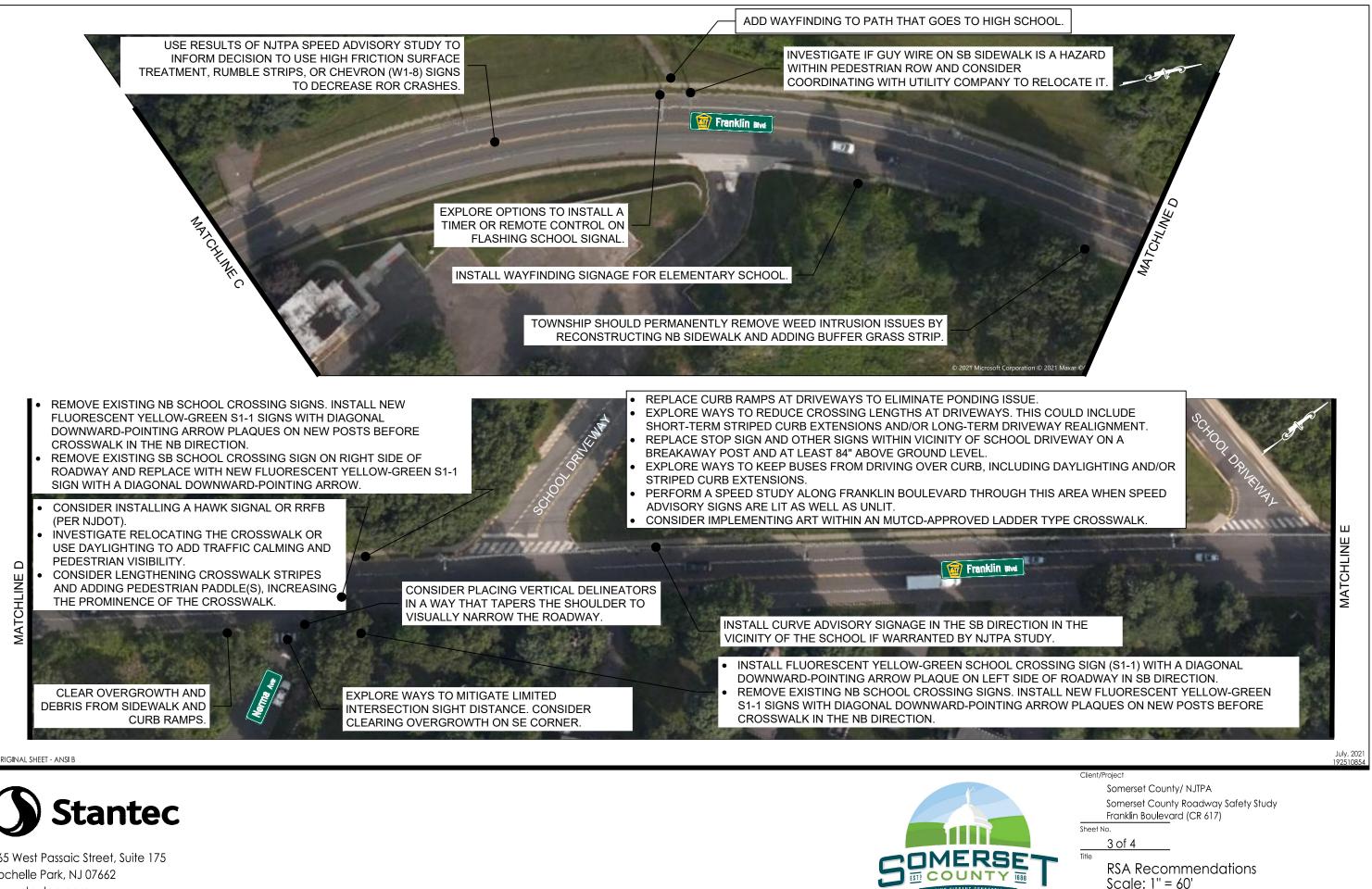


2 of 4 **RSA** Recommendations

Sheet No.

Scale: 1'' = 60'

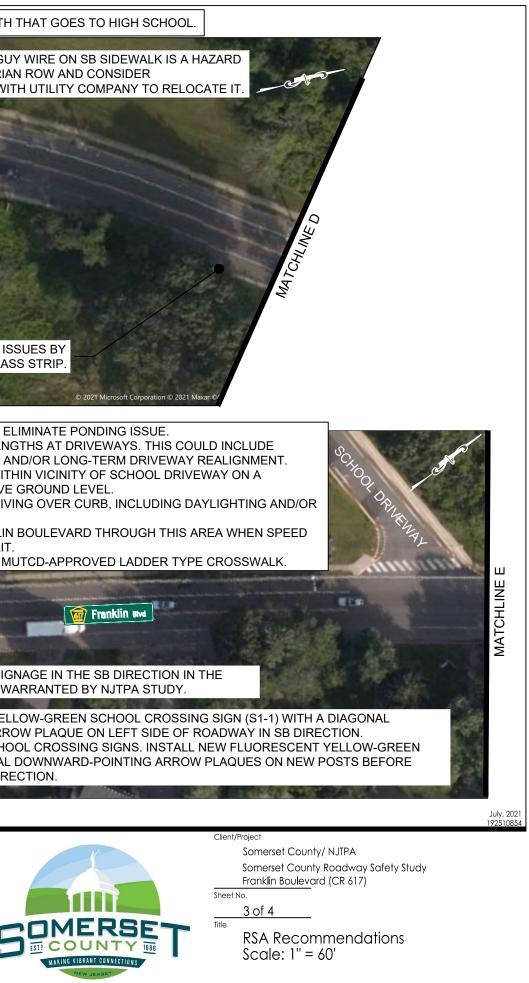


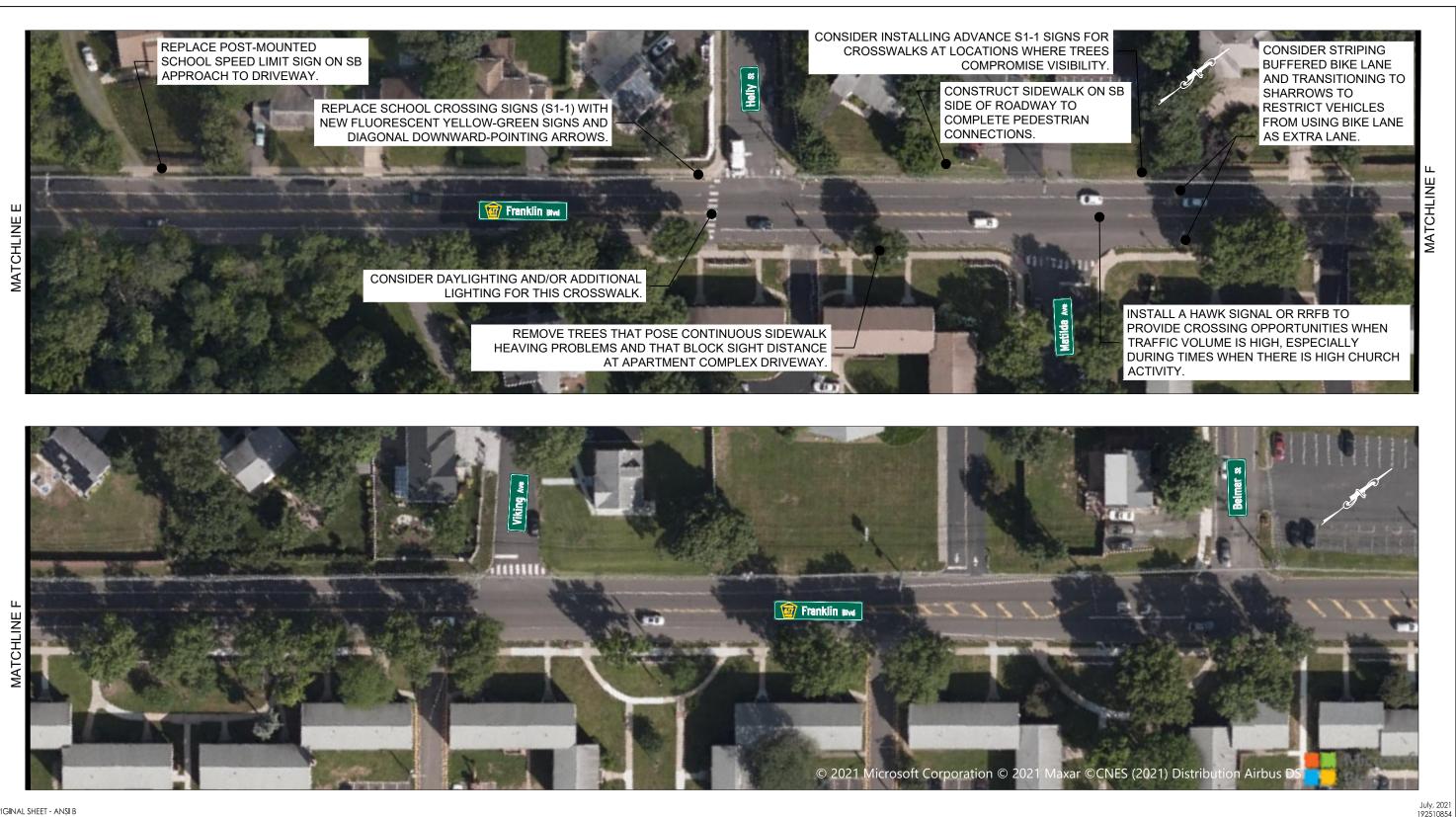


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Client/Project Somerset County/ NJTPA Somerset County Roadway Safety Study Franklin Boulevard (CR 617) Sheet No.

4 of 4

RSA Recommendations Scale: 1'' = 60'

Appendix J

Road Owner Response

Somerset County Response to the Franklin Boulevard (CR 617) in Franklin Township Road Safety Audit (owner's response)

Somerset County agrees with the recommendations of the Road Safety Audit. The County strives to make our roads safer for all users and is willing to investigate any recommendations that can assist in achieving that goal. Our agreement with the assessment should in no way be perceived as a commitment to the implementation of such suggestions. The following general points should be noted:

- Somerset County does not maintain or inspect sidewalks, street lighting, landscaping, or parking facilities along county roadways. That responsibility lies with the municipality or property owner.
- Some recommendations may not be warranted or feasible due to engineering or fiscal constraints. Additional analysis is necessary.

