

Allen Avenue Corridor Study



Meriden, CT
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Prepared For:



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1 Introduction

Fuss and O'Neill has prepared this Corridor Study for the South Central Regional Council of Governments (SCRCOG) on behalf of the City of Meriden to evaluate the existing transportation performance of Allen Avenue from Finch Avenue to Johnson Avenue. The corridor study length is approximately 8,150'. A project location map is presented in *Figure 1*.

This study will be used as a planning tool by the City to evaluate and prioritize potential roadway improvements along the corridor. This study establishes the existing conditions of the roadway which will include pavement conditions, sight distances, drainage, utilities, and geometry. The study will identify existing deficiencies and will recommend potential improvements. Construction cost information is provided so that the City can prioritize improvements within the corridor.

2 Existing Conditions

A comprehensive field inventory of the study area roadway system was performed in May 2010. The inventory included documentation of existing roadway and intersection geometry, pavement conditions, sidewalk presence, drainage systems, and traffic control devices along the corridor.

2.1 Overview of Corridor

2.1.1 Allen Avenue

Allen Avenue is a two lane roadway with no delineated shoulders oriented in an east-west direction, connecting Finch Avenue to Johnson Avenue. The land use along Allen Avenue is primarily residential. The roadway is functionally classified as a Local Street according to the Connecticut Department of Transportation (CTDOT) and has a posted speed limit of 25 miles per hour. There is no on-street parking or bicycle facilities on this corridor. A sidewalk is present on the south side of Allen Avenue from Coe Avenue to Johnson Avenue and on the north side for a 500' segment at the Westfort Drive intersection.

Automated traffic recorder counts were collected on Allen Avenue, south of Coe Avenue, in June 2010. The counts were collected bi-directionally over a 48-hour period along with speed data. Based on the counts, the existing weekday average daily traffic on Allen Avenue is 2,300 vehicles per day, with 1,100 vehicles traveling eastbound and 1,200 vehicles traveling westbound. The 85th percentile speed for Allen Avenue, south of Coe Avenue was 43 miles per hour eastbound and 42 miles per hour westbound. Based on field observations and roadway geometry, this should not be considered the uniform speed of traffic. Further speed evaluations should be performed along the corridor. Automated traffic recorder counts data are presented in *Appendix A*.

2.2 Existing Roadway Segments and Intersection Conditions

There are four distinct roadway segments within the Allen Avenue corridor. Each roadway segment description includes a summary of the geometry, roadway widths, and pavement condition. The intersections that are present within each particular roadway segment are further described with the relevant intersection sight distance at stop-controlled intersections, pavement conditions, drainage structures present, and pavement marking condition. Town GIS data was utilized in reviewing existing horizontal and vertical geometry.

Intersection sight distances were measured at each intersection in accordance with criteria set forth in the 2003 CTDOT Highway Design Manual. Adequate intersection sight distances are required for intersection designs to maintain safe sight distances for motorists to enter or cross an intersection safely without disrupting the flow of traffic on the roadway. Intersection sight distances are a desired requirement while stopping sight distances are required.

Design criteria are based on the CTDOT Highway Design Manual, 2003 edition. The relevant design criteria are shown for 3R Non-Freeway Projects classified as an Urban Collector Street. The selected design speed was based on the CTDOT HDM for a Local Urban Street in a suburban area. This speed is 5 miles per hour above the posted speed limit and is appropriate for the residential context of the corridor. This study analyzes the existing roadway through context sensitive design (CSD) procedures.

CSD, as defined by the Federal Highway Administration, is “a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility.” One of design controls that CSD differs from historical practice is the use of speed data. Historically, it has been the practice to design the roadway for the 85th percentile speed. This approach has the potential to promote speeds that are not consistent with the adjacent land use/environment. It should be noted that the CSD approach as used herein may underestimate geometric related deficiencies. In these instances, increased enforcement and traffic calming measures should be considered.

According to the Manual, design parameters for Local Urban Street Figure 2-3I (Suburban Area, 30 mph design speed) are:

- Travel lane width: 10' – 12'
- Shoulder width: 2' - 4'
- Parking lanes: 7' - 10', if present
- Bike lanes: 5', if present
- Sidewalk width: 5' minimum, if present
- Stopping sight distance: 200'
- Intersection sight distance: 335'
- Minimum Radius: 295' (Low Speed Urban)
- Grade: 0.5% - 10%
- Sag Vertical Curve K-Value: 37 (Headlight) – 20 (Comfort)
- Crest Vertical Curve K-Value: 19

Detailed accident data was requested from the City of Meriden's Police Department for the last five years on record from 2005 to 2010. To date, only a general accident summary has been received and is presented in *Table 1*.

**Table 1
Accident Data Summary (2005-2010)**

Intersection	Accidents	Involving Injury
Allen Avenue at Finch Avenue	2	1
Allen Avenue at Old Gate Lane and Hourigan Drive	1	1
Allen Avenue at Goodspeed Avenue	3	1
Allen Avenue at Pasture Lane	1	0
Allen Avenue at Kryvel Road	1	1
Allen Avenue at Coe Avenue	1	1
Allen Avenue at Johnson Avenue	4	1

Additional details beyond the summary total were not provided. It is presumed from the roadway geometry and visual evidence, that these accidents follow typical patterns associated with intersections and roadways of this type. These patterns include roadside fixed objects and turning movement counts. The overall totals indicate no significant accident pattern exists. In addition, no fatalities were recorded.

2.2.1 Allen Avenue – Finch Avenue to Old Gate Lane/Hourigan Street (East)

This segment of Allen Avenue is approximately 1,750' long and rises in elevation from Finch Avenue to Hourigan Street (East)/Old Gate Lane. The vertical alignment of the roadway varies with grades ranging from 0.5% to 10.4%. All of the vertical crest curves within this segment meet standards. The sag vertical curves do not meet the criteria for headlight, but meet the criteria for comfort. The horizontal geometry of Allen Avenue throughout this segment is fairly straight except for a horizontal curve at the intersection of Hourigan Street (East) and Old Gate Lane. A 500' radius horizontal curve shifts the roadway to the north at the intersection. There is one variable width travel lane in each direction with no delineated shoulder. The roadway width varies between 20' and 27' between Finch Avenue and Hourigan Street (West). The roadway width from Hourigan Street (West) and Hourigan Street (East) / Old Gate Lane varies between 20' and 24'.



Longitudinal cracking down center line with depressed catch basins and reduced curb reveal on Allen Avenue

The roadway pavement and pavement markings are in fair to good condition with minor cracks. The roadway is illuminated and has a closed drainage system. The catch basins along the roadway are depressed lower than standard and the curb reveal has been reduced. This could be due to a previous roadway surfacing where the catch basins were not reset and the curbs not replaced. The land use within this section is primarily residential.

2.2.1.1 Finch Avenue Intersection

Finch Avenue meets Allen Avenue to form a stop-controlled T-intersection, with Allen Avenue stop-controlled. Finch Avenue is classified as a Local Street and has a single travel lane in each direction. The intersection sight distance from Allen Avenue looking to the southwest was measured at 195' and 400' looking northeast. The intersection sight distance looking southwest is inhibited by vegetation along Finch Avenue. The measured intersection sight distance looking southwest is insufficient compared to the recommended intersection sight distance of 335' and the required 200' for stopping sight distance.



Vegetation obstructs intersection sight distance looking southwest on Allen Avenue

The intersection has large corner radii, which is unusual for the intersection of two local streets. Twin oval concrete pipes run under Finch Avenue from the northeast corner of Finch Avenue to the west side of Finch Avenue. These pipes have unprotected inlet and outlet treatments which create a roadside safety concern. There are no pavement markings along Finch Avenue and a stop bar is not visible on Allen Avenue. There is only a small segment of curb present on the west side of Finch Avenue at the intersection. The catch basin located at the northeast corner is filled with silt. The drainage system on Allen Avenue in the vicinity of Finch Avenue outlets on the western side of Finch Avenue into a watercourse.

2.2.1.2 Hourigan Street (West) Intersection

Hourigan Street (West) meets Allen Avenue to form a stop-controlled T-intersection, with Hourigan Street (West) stop-controlled. Hourigan Street (West) is classified as a Local Street and has a single travel lane in each direction. The intersection sight distance from Hourigan Street (West) looking to the northwest was measured at 260' and 140' looking southeast. The intersection sight distance looking northwest is inhibited by a steep slope adjacent to Allen Avenue and a cluster of trees looking southeast. The measured intersection sight distance looking in both directions is insufficient compared to the recommended intersection sight distance of



Steep slope on Allen Avenue limits intersection sight distance on Hourigan Street (West) looking northwest

335' and only looking northwest meets the required 200' for stopping sight distance.

Some longitudinal and transverse cracks are present within the intersection and along the catch basins on Allen Avenue. Fatigue cracking is present on Hourigan Street (West). Pavement markings are faded and there are no street signs present. There is existing curbing on all sides of the intersection.

2.2.1.3 Hourigan Street (East)/Old Gate Lane Intersection

Hourigan Street (East) and Old Gate Lane meets Allen Avenue to form a four-legged intersection, with Hourigan Street (East) and Old Gate Lane stop-controlled. Hourigan Street (East) and Old Gate Lane are classified as Local Streets and have a single travel lane in each direction. The intersection sight distance from Hourigan Street (East) looking to the west was measured at 240' and 700' looking east. The intersection sight distance looking west is inhibited by a shrub. The measured intersection sight distance looking in the west direction is insufficient compared to the recommended intersection sight distance of 335'; however, it meets the required 200' for stopping sight distance.



Evergreen shrub row on Allen Avenue limits intersection sight distance on Old Gate Lane looking east

The intersection sight distance from Old Gate Lane looking to the west was measured at 385' and 115' looking east. The intersection sight distance looking east is inhibited by an evergreen shrub row. The measured intersection sight distance looking east direction is insufficient compared to the recommended intersection sight distance of 335' and for the required 200' for stopping sight distance.

Pavement lines are faded and curbing is present along all intersection corners. The pavement condition on Allen Avenue and Old Gate Lane is in good to fair condition. Allen Avenue has a transverse crack spanning from the western side of the intersection from Old Gate Lane to Hourigan Street (East). Hourigan Street (East) has many cracks including a joint crack that spans across where the two roadways meet.

2.2.2 Allen Avenue - Old Gate Lane/Hourigan Street (East) to Goodspeed Avenue

This segment of Allen Avenue is approximately 2,900' long and rises in elevation from Hourigan Street (East)/Old Gate Lane to Edgemark Acres before descending towards Goodspeed Avenue. There is one high and low point between the Hourigan Street (East)/Old Gate Lane and Edgemark Acres intersections with profile grades ranging from 0.5% to 4.2%. The vertical profile descends when reaching a second high point at Edgemark Acres with grades varying from 0.6% to 3.4%. All of the vertical curves within this segment meet design criteria. The horizontal geometry of Allen Avenue throughout this segment is fairly straight

until just west of Edgemark Acres as two horizontal curves with a minimum radius of 825' shift the roadway to the south. Allen Avenue then remains fairly straight until reaching Goodspeed Avenue. At the Goodspeed Avenue intersection, a 600' radius horizontal curve shifts the roadway to the north. There is one variable width travel lane in each direction with no delineated shoulder. The roadway width varies from 18' to 24' between Hourigan Street (East)/Old Gate Lane and Edgemark Acres. The roadway width from Edgemark Acres to Goodspeed Avenue varies between 19' and 26'.



Existing drainage outlet on north side of Allen Avenue west of Edgemark Acres

Field observations reveal the pavement has longitudinal cracks down the center of the street and severe fatigue cracking around the catch basins. There are two potholes in front of the Westfort Farm Greenhouse parcel. The centerline pavement markings are in fair to good condition although near intersections they are faded. Curbing is present along the south side of the roadway from Edgemark Acres to Old Gate Lane/Hourigan Street. The land use within this section is primarily residential.

2.2.2.1 Westfort Drive Intersection

Westfort Drive meets Allen Avenue to form a stop-controlled T-intersection, with Westfort Drive stop-controlled. Westfort Drive is classified as a Local Street and has a single travel lane in each direction divided by a 35' wide median. The intersection sight distance from Westfort Drive looking to the southwest was measured at 400' and 450' looking northeast.

There is longitudinal cracking in the pavement along the center of the Allen Avenue. Curbing exists on the corners of the intersection and along the south side of Allen Avenue.

2.2.2.2 Edgemark Acres Intersection

Edgemark Acres meets Allen Avenue to form a stop-controlled T-intersection, with Edgemark Acres stop-controlled. Edgemark Acres is classified as a Local Street and has a single travel lane in each direction. The intersection sight distance from Edgemark Acres looking to the northwest was measured at 340' and 260' looking southeast. The intersection sight distance looking southeast is inhibited by a large tree adjacent to Allen Avenue. The measured intersection sight distance looking southeast is insufficient compared to the recommended intersection sight distance of 335'; however, it meets the required 200' for stopping sight distance.

The pavement at the intersection has minor cracking. No stop bar is present and the center pavement lines have



Erosion and pavement cracking along Allen Avenue

faded on Edgemark Acres. The pavement at the southeastern corner of the intersection is in poor condition due to no curbing. Curbing exists only on the southwest corner of the intersection.

2.2.2.3 Goodspeed Avenue Intersection

Goodspeed Avenue meets Allen Avenue to form a stop-controlled T-intersection, with Goodspeed Avenue stop-controlled. Goodspeed Avenue is classified as a Local Street and has a single travel lane in each direction with a small planter island at the intersection, most likely for the existing utility pole. The intersection sight distance from Goodspeed Avenue looking to the west was measured at 220' and 160' looking east. The intersection sight distance looking west is inhibited by a field stone wall with trees on private property and a steep slope adjacent to Allen Avenue looking east. The measured intersection sight distance looking in both directions is insufficient compared to the recommended intersection sight distance of 335' and only looking west meets the required 200' for stopping sight distance.



Erosion damage, longitudinal pavement cracking, and limited intersection sight distances looking east from Goodspeed Avenue

There is major longitudinal cracking in the pavement along both sides of Allen Avenue and slope erosion is heavily present along northeastern side of the intersection and on the south side of Allen Avenue which is causing severe fatigue cracking. There is no stop bar for Goodspeed Avenue. Pavement markings along Allen Avenue are in good to fair condition. Existing curbing is only present on the northwest corner of the intersection.

2.2.3 Allen Avenue – Goodspeed Avenue to Coe Avenue

This segment of Allen Avenue is approximately 2,200' long and descends in elevation from Goodspeed Avenue to Coe Avenue. The vertical alignment of the roadway varies with grades ranging from 4.3% to 12%. All of the vertical curves within this segment meet standards. The horizontal geometry of Allen Avenue throughout this segment is fairly straight except for two curves that shift the roadway into an east-west orientation. The minimum radius of the horizontal curves is 350' which meets the minimum required. There is one variable width travel lane in each direction with no delineated shoulder. The roadway width varies



Reverse superelevation around curve north of Pasture Lane

between 24' and 30' between Coe Avenue and Spring Glen Drive. The roadway width from Spring Glen Drive to Goodspeed Avenue varies between 20' and 24'.

Curbing exists on both sides of the roadway; however, it is intermittent through this segment. No drainage system exists from Goodspeed Avenue to Spring Glen Drive. There are existing catch basins at the intersection of Spring Glen Drive with two double catch basins on Allen Avenue, presumably due to the large volume of water that travels down the roadway. Thus, slope erosion and undermining of the roadway is present along the non-curbed sides of the road. Longitudinal, transverse, and fatigue cracking is present throughout the length of the roadway. Around the horizontal curve between Pasture Lane and Goodspeed Avenue, the roadway is superelevated to the wrong side. Field observations revealed a section of approximately 200' of Allen Avenue was marked with "Prop. Under Drain" between Kryvel Road and Spring Glen Drive. Between Goodspeed Avenue and Pasture Lane the area is illuminated, while between Pasture Lane and Spring Glen Drive the roadway is unlit except at intersections. The land use in this area is primarily residential.

2.2.3.1 Pasture Lane Intersection

Pasture Lane meets Allen Avenue to form a stop-controlled T-intersection, with Pasture Lane stop-controlled. Pasture Lane is classified as a Local Street and has a single travel lane in each direction. The intersection sight distance from Pasture Lane looking to the southwest was measured at 385' and 300' looking northeast. The intersection sight distance looking northeast is inhibited by trees most likely on private property. The measured intersection sight distance looking northeast is insufficient compared to the recommended intersection sight distance of 335'; however, it meets the required 200' for stopping sight distance.

The stop bar on Pasture Lane is faded and there are pavement crackings throughout the intersection with a joint crack where the two roadways meet. Curbing exists along the southeast corner of the intersection.

2.2.3.2 Kryvel Road Intersection

Kryvel Road meets Allen Avenue to form a stop-controlled T-intersection, with Kryvel Road stop-controlled. Kryvel Road is classified as a Local Street and has a single travel lane in each direction. The intersection sight distance from Kryvel Road looking to the southwest was measured at 360' and 400' looking northeast.

The existing pavement condition on Kryvel Road is in fair to good condition with minor longitudinal cracking. The intersection has minor cracking around the manhole located in the middle of the intersection. At the location where the two roadways meet, there is a gap that spans Kryvel Road. Also, there is no stop bar



Poor pavement condition on Allen Avenue

present on Kryvel Road. Curbing is present on the southeast corner of the intersection.

2.2.3.3 Spring Glen Drive Intersection

Spring Glen Drive meets Allen Avenue to form a stop-controlled T-intersection, with Spring Glen Drive stop-controlled. Spring Glen Drive is classified as a Local Street and has a single travel lane in each direction. The intersection sight distance from Spring Glen Drive looking to the southwest was measured at 80' and 210' looking northeast. The intersection sight distance looking southwest is inhibited by shrubbery bordering Allen Avenue and the horizontal curvature of the roadway looking northeast. The measured intersection sight distance looking in both directions is insufficient compared to the recommended intersection sight distance of 335' while only looking northeast meets the required 200' for stopping sight distance.



Shrub obstructed intersection sight distance looking southwest at Spring Glen Drive

The pavement condition at the intersection has minor cracking. Pavement markings are faded and there is no stop bar on Spring Glen Drive. Field observations revealed erosion along the south side of the Allen Avenue which has no curbing.

2.2.3.4 Coe Avenue Intersection

Coe Avenue meets Allen Avenue to form an all-way stop-controlled T-intersection. Coe Avenue is classified as a Local Street and has a single travel lane in each direction. The intersection sight distance from Coe Avenue looking to the southwest was measured at 370' and 465' looking northeast.



Pavement cracking at Allen Avenue and Coe Avenue intersection

The intersection area has been resurfaced in some areas as patching is visible. The pavement area on the northbound lane on Coe Avenue and eastern portion of Allen Avenue have many cracks, while the rest of the intersection has minor cracking. The pavement markings are faded and there are no stop bars at the northbound and eastbound approaches with the westbound approach stop bar almost entirely faded. Curbing is present at the corners of the intersection.

2.2.4 Allen Avenue - Coe Avenue to Johnson Avenue

This segment of Allen Avenue is approximately 1,300' long and descends in elevation beginning at Coe Avenue to Johnson Avenue. The vertical alignment of the roadway begins descending from Coe Avenue with varying grade between 5.0% and 5.2% to a low point at Stoddard Drive. The roadway then ascends from Stoddard Drive at 1.2% to a high point between Stoddard Drive and Allen Court. From the high point, the profile descends at 5.2% to a low point at Johnson Avenue. All vertical crest and sag curves meet design standards except the vertical sag curve at Johnson Avenue. The K-value of 20 for the vertical sag curve does not meet the criteria for headlight but does meet the criteria for comfort. The horizontal geometry of Allen Avenue through this segment is winding with three horizontal curves shifting the roadway back and forth. The minimum horizontal curve of 1,500' meets the required minimum horizontal curve of 295'. There is one variable width travel lane in each direction with no delineated shoulder. The roadway width varies between 26' and 30' between Coe Avenue and Stoddard Drive. The roadway width from Stoddard Drive to Johnson Avenue varies between 24' and 30' wide.



Severe pothole on Allen Avenue

The pavement in this section is poor and has many fatigue cracks throughout its length. The majority of the pavement markings are faded and blend in with the longitudinal cracks running parallel with the pavement lines. Curbing is provided only on the south side of the roadway and there are isolated catch basins at various locations. Potholes and pavement cracks surround the sewer manholes. Field observations showed the pavement around some of the existing catch basins to be failing with the basin depressed deeper than standards. This could have occurred when a previous overlay was performed and the structure was not raised to a proper elevation. The roadway is unlit except for lighting mounted on utility poles at intersections. Land uses along this segment are primarily residential.

2.2.4.1 Stoddard Drive Intersection

Stoddard Drive meets Allen Avenue to form a stop-controlled T-intersection, with Stoddard Drive stop-controlled. Stoddard Drive is classified as a Local Street and has a single travel lane in each direction. The intersection sight distance from Stoddard Drive looking to the southwest was measured at 300' and 235' looking northeast. The intersection sight distance looking southwest is inhibited by the horizontal curvature of the roadway and a tree line adjacent to Allen Avenue looking northeast. The measured intersection sight distance looking in both



Recently installed catch basin at low point of Allen Avenue at Stoddard Drive

directions is insufficient compared to the recommended intersection sight distance of 335'; however, it meets the required 200' for stopping sight distance.

The pavement condition of Stoddard Drive is in good to fair condition with little to no cracking. There is one joint crack spanning the length where the two roads meet. Field observations showed a recently installed catch basin located in the center of this crack. The pavement condition of Allen Avenue is in poor condition with many fatigue cracks and small potholes at this intersection. Curbing is present at both corners of the intersection.

2.2.4.2 Allen Court Intersection

Allen Court meets Allen Avenue to form a stop-controlled T-intersection, with Allen Court stop-controlled. Allen Court is classified as a Local Street and has a single travel lane in each direction. The intersection sight distance from Allen Court looking to the southwest was measured at 430' and 100' looking northeast to the terminus of Allen Avenue.



Joint cracking at Allen Court Intersection

The pavement where the roadways meet is in poor condition. This could be caused by the accumulation of stormwater from the area between Allen Court and the previous catch basin which is located 600' southwest. The water could have settled and infiltrated into the joint. Curbing is only present on the southwest corner of the intersection.

2.2.4.3 Johnson Avenue Intersection

Johnson Avenue meets Allen Avenue to form a stop-controlled T-intersection, with Allen Avenue stop-controlled. Johnson Avenue is classified as an Urban Collector Street and has a single travel lane in each direction. The intersection sight distance from Allen Avenue looking to the north was measured at 310' and over 350' looking south. The intersection sight distance looking west is inhibited by horizontal curvature of Johnson Avenue. The measured intersection sight distance looking west is insufficient compared to the recommended intersection sight distance of 335', however meets the required 200' for stopping sight distance.



Johnson Avenue at Allen Avenue looking west

The pavement at this intersection has large cracks, both longitudinal and transverse, throughout the intersection with exceptionally poor areas at the approach on Allen Avenue and on the westbound lane on Johnson Avenue.

3 Drainage Analysis

A conceptual drainage analysis was performed to determine deficiencies and potential drainage improvements for the corridor. The existing drainage areas for the corridor were defined based on the City GIS data and the design flows were analyzed for the 25-year storm. Proposed catch basin spacing was based on maximum recommended spacing. Detailed gutter analysis was not in the scope of this effort.

The Allen Avenue corridor has four existing low points between Finch Avenue and Johnson Avenue. These low points are located at Finch Avenue, west of Edgemark Acres, at Stoddard Drive and at Johnson Avenue.

A closed drainage system exists from east of Westfort Drive to Finch Avenue and outlets to a watercourse at Finch Avenue. The existing drainage area was delineated to be 22.5 acres. The existing outlet was not field measured; however, it appears adequate based on the analysis. The existing catch basin spacing appears adequate.

A closed drainage system exists from east of Westfort Drive to Edgemark Acres. The existing drainage area was delineated to be 5.7 acres. The existing outlet was not field measured; however, based on the results of the conceptual drainage analysis, a 15" outlet pipe should accommodate storm drainage through this segment. The existing catch basin spacing does not meet the CTDOT recommended maximum spacing of 300'. In addition, flanker catch basins do not exist at the low point.

The existing drainage area from west of Goodspeed Avenue to Stoddard Drive was delineated to be 27.2 acres. A closed drainage system exists from Spring Glen Drive to Stoddard Drive. The existing outlet could not be field located; however, is assumed to connect to a drainage system on Stoddard Drive. The existing catch basin spacing does not meet the CTDOT recommended maximum spacing of 300'. In addition, flanker catch basins do not exist at the low point.

The existing drainage area from Stoddard Drive to Johnson Avenue was delineated to be 4.2 acres. Only one catch basin exists at Johnson Avenue within this drainage area and is assumed to connect to a drainage system on Johnson Avenue. The existing catch basin spacing does not meet the CTDOT recommended maximum spacing of 300'.

4 Recommended Improvements

The existing conditions assessment serves to identify existing roadway deficiencies along the Allen Avenue corridor. The purpose of this section of the report is to summarize potential improvements based on the identified existing deficiencies. Preliminary construction cost estimates were prepared for each roadway segment per CTDOT preliminary estimating procedures for the City to prioritize the implementation of the recommended improvements.

The projected Year 2030 weekday average daily traffic volumes for Allen Avenue, given a 1% annual growth rate, are estimated to be 2,800 vehicles per day with 1,340 vehicles traveling eastbound and 1,460 vehicles traveling westbound. Based on these volumes, the two-lane Allen Avenue has adequate capacity to accommodate the projected Year 2030 weekday average daily traffic. Traffic counts were not performed at any intersection and intersection capacity was not studied.

4.1 Allen Avenue – Finch Avenue to Old Gate Lane/Hourigan Street (East)

The recommended improvements for Allen Avenue from Finch Avenue to Old Gate Lane/Hourigan Street (East) presented in *Figure 2*, are as follows:

- Mill and overlay with variable width widening to provide 22' wide minimum width roadway through the entire section.
- CTDOT design standards require a minimum roadway width of 24' for this classification of roadway. The minimum existing width of roadway through this section is 20'. Given the existing nature of the roadway, it is our professional opinion a 22' wide roadway is adequate. However, depending on the funding source, it may be required to widen the roadway to the CTDOT design standard width of 24'. The cost of this potential widening has been provided in the cost estimate.
- Install bituminous concrete lip curbing on both sides of Allen Avenue.
- The existing corner radii of approximately 55' at the intersection of Allen Avenue and Finch Avenue are large given the classification of the roadways. Reduce existing corner radii to 30'.
- Remove vegetation on southeast corner of Allen Avenue at Finch Avenue to improve intersection sight distance on Allen Avenue looking south onto Finch Avenue.
- Remove vegetation on northeast corner of Allen Avenue at Hourigan Street (West) to improve intersection sight distance on Hourigan Street (West) looking east onto Allen Avenue.
- Remove vegetation on southeast corner of Allen Avenue at Old Gate Lane/Hourigan Street (East) to improve intersection sight distance on Old Gate Lane looking east onto Allen Avenue. The existing vegetation currently screens Allen Avenue from a private residence. It is unknown if the existing vegetation is on City or private property. A landscape budget has been added to the cost estimate to compensate the owner, if necessary.

- Install metal beam rail and proper end treatments on both sides of Finch Avenue at Allen Avenue at the watercourse.
- Upgrade the existing drainage system to include new catch basin tops, as necessary, from Finch Avenue to Old Gate Lane/Hourigan Street (East).
- Install underdrain along the roadway edge on the north side of Allen Avenue.
- Replace all existing signage to conform to latest edition of the Manual of Uniform Traffic Control Devices for reflectivity and letter legend standards.

The construction cost for the recommended improvements for this segment of roadway is \$713,000. A detailed construction cost estimate is presented in *Appendix B*.

4.2 Allen Avenue - Old Gate Lane/Hourigan Street (East) to Goodspeed Avenue

The recommended improvements for Allen Avenue from Old Gate Lane/Hourigan Street (East) to Goodspeed Avenue presented in *Figures 3 and 4*, are as follows:

- Perform full-depth reconstruction for pavement rehabilitation with variable width widening to provide 22' wide minimum width roadway through the entire section.
- CTDOT design standards require a minimum roadway width of 24' for this classification of roadway. The minimum existing width of roadway through this section is 19'. Given the existing nature of the roadway, it is our professional opinion a 22' wide roadway is adequate. However, depending on the funding source, it may be required to widen the roadway to the CTDOT design standard width of 24'. The cost of this potential widening has been provided in the cost estimate.
- Reconstruct the existing concrete sidewalk on north side of Allen Avenue at Westfort Drive.
- Install bituminous concrete lip curbing on both sides of Allen Avenue.
- Upgrade the existing drainage system new catch basin tops as necessary from Old Gate Lane/Hourigan Street (East) to Westfort Drive.
- Upgrade the existing drainage system with additional catch basins from east of Westfort Drive to Edgemark Acres. Upgrade the existing outlet to a 15" pipe, as necessary.
- Install a new drainage system from west of Goodspeed Avenue to Goodspeed Avenue.
- Install underdrain along the roadway edge on the north side of Allen Avenue from Old Gate Lane/Hourigan Street (East) to west of Westfort Drive.
- Replace all existing signage to conform to latest edition of the Manual of Uniform Traffic Control Devices for reflectivity and letter legend standards.

The construction cost for the recommended improvements for this segment of roadway is \$1,606,000. A detailed construction cost estimate is presented in *Appendix B*.

4.3 Allen Avenue – Goodspeed Avenue to Coe Avenue

The recommended improvements for Allen Avenue from Goodspeed Avenue to Coe Avenue presented in *Figures 4 and 5*, as follows:

- Perform full-depth reconstruction for pavement rehabilitation with variable width widening to provide 22' wide minimum width roadway through the entire section.
- CTDOT design standards require a minimum roadway width of 24' for this classification of roadway. The minimum existing width of roadway through this section is 19'. Given the existing nature of the roadway, it is our professional opinion a 22' wide roadway is adequate. However, depending on the funding source, it may be required to widen the roadway to the CTDOT design standard width of 24'. The cost of this potential widening has been provided in the cost estimate.
- Remove improper roadway superelevation and replace with a normal crown roadway between Goodspeed Avenue and Pasture Lane.
- Install bituminous concrete lip curbing on both sides of Allen Avenue.
- Regrade slope on north side of Allen Avenue from Goodspeed Avenue to Pasture Lane to improve intersection sight distance for Goodspeed Avenue looking east onto Allen Avenue.
- Remove vegetation on northwest corner of Allen Avenue at Spring Glen Drive to improve intersection sight distance on Spring Glen Drive looking west onto Allen Avenue. The existing vegetation currently screens Allen Avenue from a private residence. It is unknown if the existing vegetation is on City or private property. A landscape budget has been added to the cost estimate to compensate the owner, if necessary.
- Install a new drainage system from Goodspeed Avenue to Coe Avenue. Install a new 24" drainage outlet along Coe Avenue to the south. It is assumed given the drainage area within this system, a hydrodynamic separator will need to be installed to conform to the latest stormwater quality guidelines.
- Install underdrain along the roadway edge on the north side of Allen Avenue from Goodspeed Avenue to the Kryvel Road.
- Install underdrain along the roadway edge on the south side of Allen Avenue from Goodspeed Avenue to Pasture Lane.
- Install underdrain along the roadway edge on the south side of Allen Avenue from Kryvel Road to Coe Avenue.
- Replace all existing signage to conform to latest edition of the Manual of Uniform Traffic Control Devices for reflectivity and letter legend standards.

The construction cost for the recommended improvements for this segment of roadway is \$2,626,000. A detailed construction cost estimate is presented in *Appendix B*.

4.4 Allen Avenue – Coe Avenue to Johnson Avenue

The recommended improvements for Allen Avenue from Coe Avenue to Johnson Avenue presented in *Figure 6*, are as follows:

- Perform full-depth reconstruction for pavement rehabilitation through the entire section.
- Shift Allen Avenue 2' to the north at the existing house between Stoddard Avenue and Allen Court to construct a 5' wide sidewalk to connect with the existing sidewalk system on the south side of Allen Avenue.
- Reconstruct the existing sidewalk on the south side of Allen Avenue from Stoddard Avenue and Johnson Avenue.
- Relocate the existing utility poles from the middle of the existing sidewalk on the south side of Allen Avenue west of Allen Court.
- Install bituminous concrete lip curbing on both sides of Allen Avenue. Install concrete curb where concrete sidewalk borders roadway.
- Remove vegetation on southeast corner of Allen Avenue at Stoddard Drive to improve intersection sight distance on Stoddard Drive looking east onto Allen Avenue.
- Remove unnecessary portion of guide rail on south side of Allen Avenue east of Stoddard Drive.
- Upgrade the existing drainage system with additional catch basins from Coe Avenue to Stoddard Drive.
- Upgrade the existing drainage system with additional catch basins from Stoddard Drive to Johnson Avenue.
- Install underdrain along the roadway edge on the north side of Allen Avenue from Coe Avenue to Johnson Avenue.
- Replace all existing signage to conform to latest edition of the Manual of Uniform Traffic Control Devices for reflectivity and letter legend standards.

The construction cost for the recommended improvements for this segment of roadway is \$1,225,000. A detailed construction cost estimate is presented in *Appendix B*.

5 Implementation of Recommended Improvements and Funding Sources

Based on the recommended improvements and cost estimates prepared for the various roadway segments, the City can prioritize individual projects. A summary of the construction cost for each segment is presented in *Table 2*.

Table 2
Construction Cost Summary

Roadway Segment	Construction Cost
Allen Avenue – Finch Avenue to Old Gate Lane/Hourigan Street (East)	\$713,000
Allen Avenue - Old Gate Lane/Hourigan Street (East) to Goodspeed Avenue	\$1,606,000
Allen Avenue – Goodspeed Avenue to Coe Avenue	\$2,626,000
Allen Avenue – Coe Avenue to Johnson Avenue	\$1,225,000
Total	\$6,170,000

The total construction cost for the entire corridor is estimated to be \$6,170,000

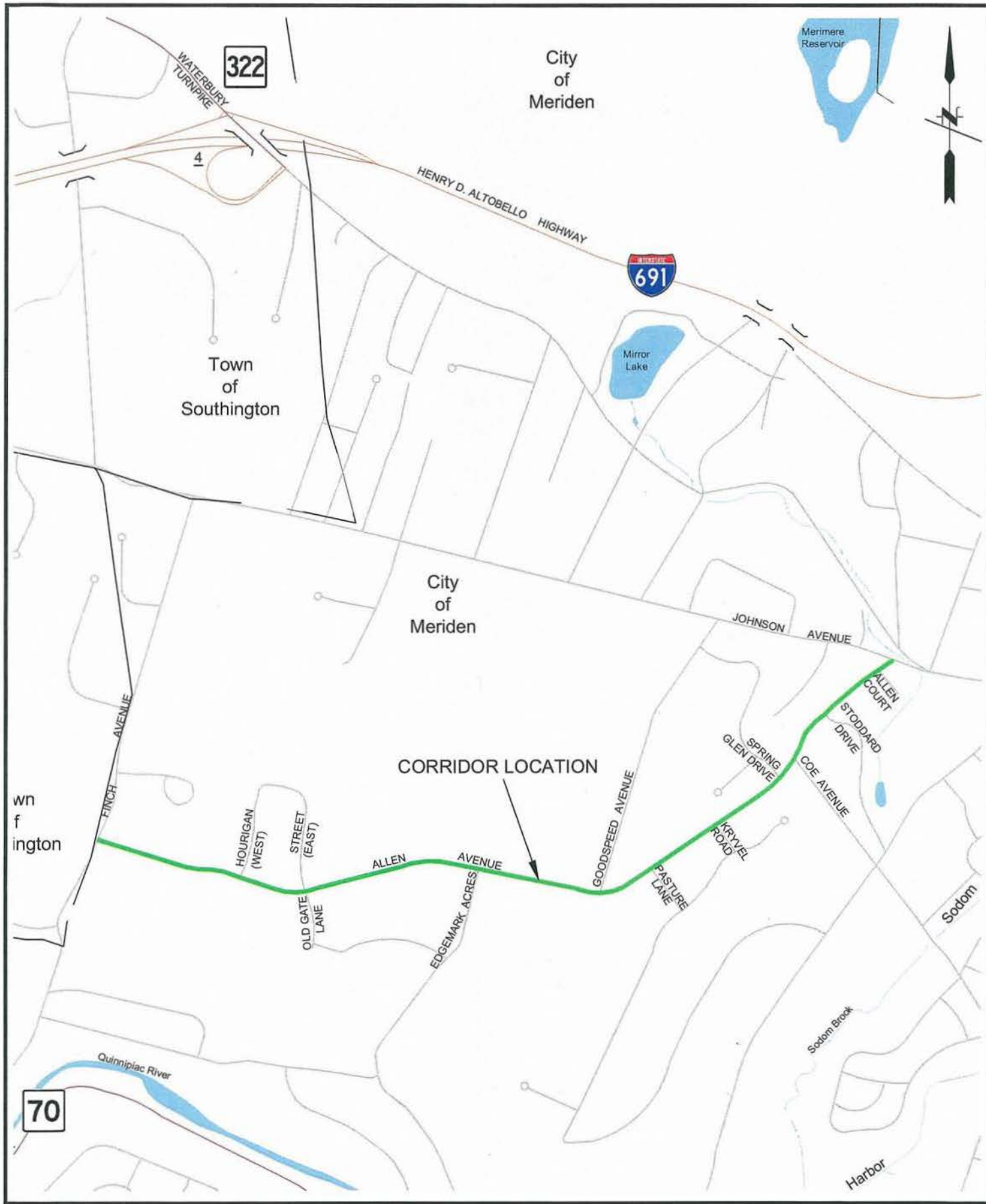
There are various funding sources available for the implementation of the recommended improvements for the corridor, (i.e. Local Capital Improvement (LOCIP), Surface Transportation Plan – Urban (STP-Urban), High Priority Project (HPP), and other State and local funding.)

Short-term improvements such as clearing of vegetation for intersection sight distance improvements, upgrading existing signing, and pavement marking restriping can be implemented in a short-time period at a low cost. Drainage improvements, sidewalk improvements, and milling and overlay can be considered intermediate improvements. Full-depth reconstruction, vertical profile corrections, and widening can be considered long-term improvement projects, which will require dedicated funding.

The identification of recommended improvements along with construction cost estimates for each roadway segment of the corridor will allow the City to develop a phased improvement plan as funding becomes available.

Figures

File Path: J:\DWG\2009\06\2A10\civil\Plan\20090602A10_LOC01_ALLEN.dwg, Layout: FIG.1 Sat, Jun 19, 2010 - 3:19 PM User: mmpach



MS VIEW: UCS
 LMAN: CTB

SCALE:	HORIZ: 1" = 1200'
	VERT: 1" = 100'
DATUM:	NAD 83
	HORIZ: 1" = 1200'
	VERT: 1" = 100'
GRAPHIC SCALE	

WWW.FOND0.COM

FUSS & O'NEILL
Discipline to Deliver

146 HARTFORD RD MANCHESTER, CT 06040 860.646.2489

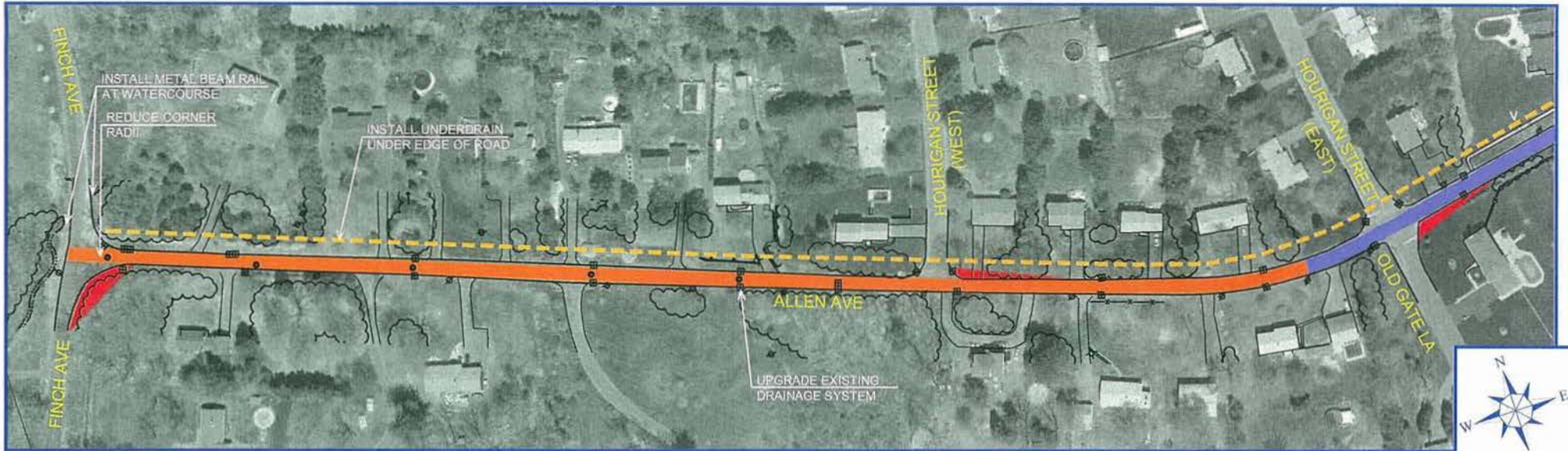
SOUTH CENTRAL REGIONAL COUNCIL OF GOVERNMENTS

PROJECT LOCATION MAP
 ALLEN AVENUE CORRIDOR STUDY





MERIDEN CONNECTICUT

PROJ. No.: 20090602A10
 DATE: JUNE 2010

FIG. 1



LEGEND

-  FULL-DEPTH RECONSTRUCTION FOR PAVEMENT REHABILITATION. VARIABLE WIDTH WIDENING TO PROVIDE 22' WIDE MINIMUM ROADWAY. RECONSTRUCT EXISTING SIDEWALKS AS CONCRETE SIDEWALKS AND ADA COMPLIANT RAMPS AT WESTFORT DRIVE.
-  MILL AND OVERLAY. VARIABLE WIDTH WIDENING TO PROVIDE 22' WIDE MINIMUM ROADWAY FROM OLD GATE LANE TO HOURIGAN STREET.
-  REMOVE OBSTRUCTIONS FROM SIGHT TRIANGLES
-  INSTALL UNDERDRAIN

NOTES

- REPLACE ALL EXISTING SIGNING TO CONFORM TO LATEST EDITION OF MUTCD
- ROADWAY MAY REQUIRE WIDENING TO 24' WIDE DEPENDING ON FUNDING SOURCE



REMOVE VEGETATION TO IMPROVE SIGHT DISTANCE ALLEN AVE. AT FINCH AVE. LOOKING SOUTH



REMOVE VEGETATION IMPROVE SIGHT DISTANCE ALLEN AVE. AT EDGEMARK ACRES LOOKING EAST

Figure 2 - Allen Avenue
From Finch Avenue to
Old Gate Lane



- LEGEND**
- FULL-DEPTH RECONSTRUCTION FOR PAVEMENT REHABILITATION. VARIABLE WIDTH WIDENING TO PROVIDE 22' WIDE MINIMUM ROADWAY. RECONSTRUCT EXISTING SIDEWALKS AS CONCRETE SIDEWALKS AND ADA COMPLIANT RAMPS AT WESTFORT DRIVE.
 - REMOVE OBSTRUCTIONS FROM SIGHT TRIANGLES
 - INSTALL UNDERDRAIN

- NOTES**
- REPLACE ALL EXISTING SIGNING TO CONFORM TO LATEST EDITION OF MUTCD
 - ROADWAY MAY REQUIRE WIDENING TO 24' WIDE DEPENDING ON FUNDING SOURCE



RECONSTRUCT SIDEWALKS AND RAMPS TO CONFORM TO ADA STANDARDS ALLEN AVE. AT WESTFORT DR.

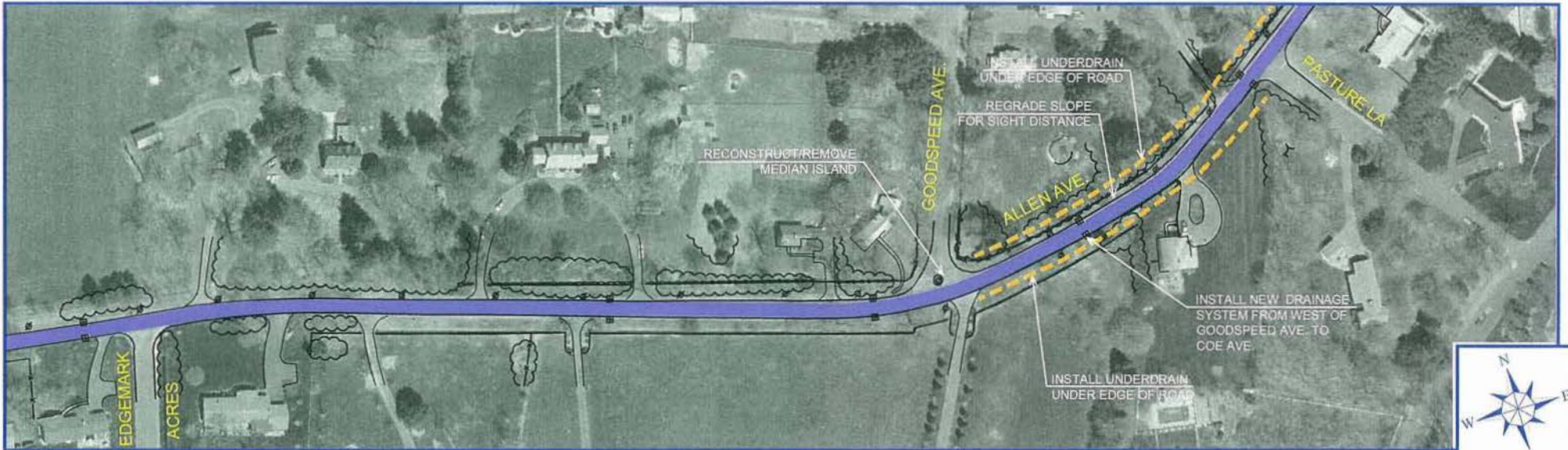


UPGRADE EXISTING OUTLET IF NECESSARY NORTH SIDE OF ALLEN AVE. WEST OF EDGEMARK ACRES



ROADWAY RECONSTRUCTION FOR PAVEMENT REHABILITATION ALLEN AVE. BETWEEN WESTFORT DR. & EDGEMARK ACRES

Figure 3 - Allen Avenue
From Old Gate Lane to
Edgemark Acres



LEGEND

- FULL-DEPTH RECONSTRUCTION FOR PAVEMENT REHABILITATION AND TO ELIMINATE REVERSE SUPERELEVATION BETWEEN GOODSPEED AVENUE TO PASTURE LANE.. VARIABLE WIDTH WIDENING TO PROVIDE 22' WIDE MINIMUM ROADWAY.
- INSTALL UNDERDRAIN

NOTES

- REPLACE ALL EXISTING SIGNING TO CONFORM TO LATEST EDITION OF MUTCD
- ROADWAY MAY REQUIRE WIDENING TO 24' WIDE DEPENDING ON FUNDING SOURCE



REGRADE SLOPE TO IMPROVE SIGHT DISTANCE ALLEN AVE. AT GOODSPEED AVE. LOOKING EAST



ROADWAY RECONSTRUCTION FOR PAVEMENT REHABILITATION ALLEN AVE AT GOODSPEED AVE.





RECONSTRUCT ROADWAY TO ELIMINATE IMPROPER SUPERELEVATION ALLEN AVE. AT PASTURE LANE LOOKING WEST

Figure 4 - Allen Avenue
From Edgemark Acres to
Pasture Lane



LEGEND

-  FULL-DEPTH RECONSTRUCTION FOR PAVEMENT REHABILITATION. VARIABLE WIDTH WIDENING TO PROVIDE 22' WIDE MINIMUM ROADWAY. RECONSTRUCT EXISTING SIDEWALKS AS CONCRETE SIDEWALKS AND ADA COMPLIANT RAMPS.
-  INSTALL UNDERDRAIN

NOTES

- REPLACE ALL EXISTING SIGNING TO CONFORM TO LATEST EDITION OF MUTCD
- ROADWAY MAY REQUIRE WIDENING TO 24' WIDE DEPENDING ON FUNDING SOURCE



RECONSTRUCT ROADWAY FOR PAVEMENT REHABILITATION ALLEN AVE. AT SPRING GLEN DR. LOOKING WEST

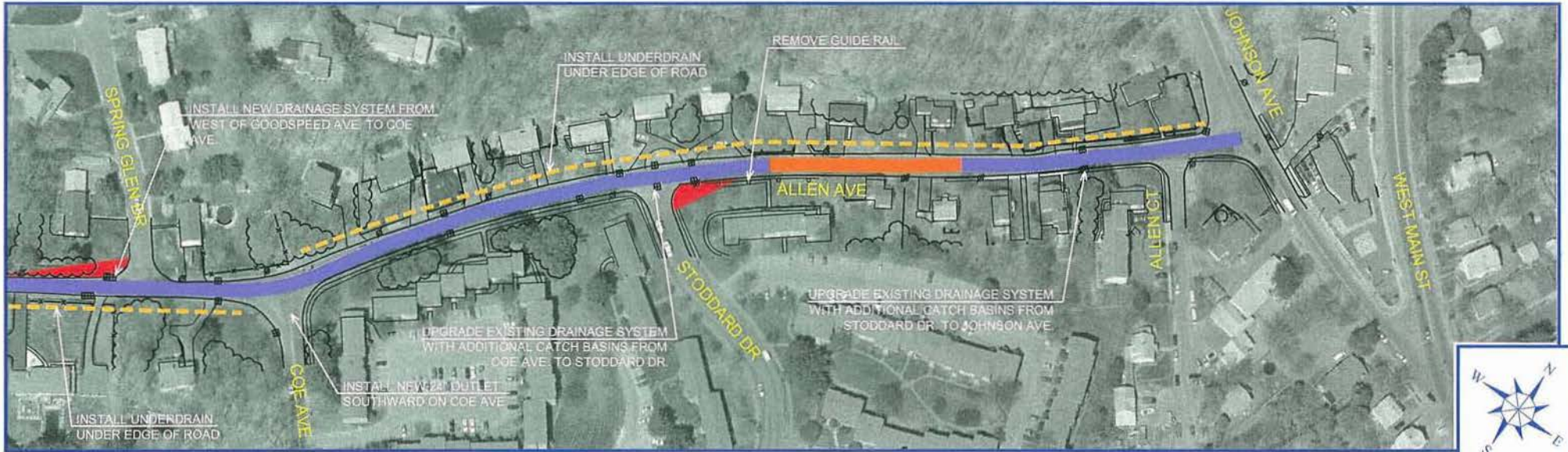


RECONSTRUCT ROADWAY DUE TO EDGE OF ROAD EROSION ALLEN AVE. WEST OF KRYVEL RD.







REMOVE VEGETATION TO IMPROVE SIGHT DISTANCE ALLEN AVE. AT SPRING GLEN DR. LOOKING WEST

Figure 5 - Allen Avenue
From Pasture Lane to
Coe Avenue



LEGEND

-  FULL-DEPTH RECONSTRUCTION FOR PAVEMENT REHABILITATION. RECONSTRUCT EXISTING SIDEWALKS AS CONCRETE SIDEWALKS AND ADA COMPLIANT RAMP. RELOCATE UTILITY POLES FROM MIDDLE OF SIDEWALK.
-  FULL-DEPTH RECONSTRUCTION FOR PAVEMENT REHABILITATION. REALIGN ROADWAY 2 FEET TO NORTH TO CONSTRUCT 5' WIDE SIDEWALK ON SOUTH SIDE.
-  REMOVE OBSTRUCTIONS FROM SIGHT TRIANGLES
-  INSTALL UNDERDRAIN

NOTES

- REPLACE ALL EXISTING SIGNING TO CONFORM TO LATEST EDITION OF MUTCD



RECONSTRUCT ROADWAY FOR PAVEMENT REHABILITATION ALLEN AVE. EAST OF COE AVE. LOOKING WEST



RELOCATE ROADWAY TO NORTH FOR 5' WIDE SIDEWALK AT HOUSE ALLEN AVE. BETWEEN ALLEN CT. AND STODDARD DR.



RELOCATE UTILITY POLES FROM MIDDLE OF SIDEWALK ALLEN AVE. AT ALLEN CT. LOOKING WEST

Figure 6 - Allen Avenue
From Coe Avenue to
Johnson Avenue

Appendix A

Automated Traffic Recorder Counts

Allen Avenue South of Coe Avenue
Meriden, Connecticut

Connecticut Counts LLC
63 Sugar Maple Lane
Kensington, Connecticut 06037
(860) 828-1693

Site Code: 2207
Station ID: SN:018757

Latitude: 0' 0.000 Undefined

Start Time	07-Jun-10		Tue		Wed		Thu		Fri		Sat		Sun		Week Average		
	Northbound	Southbo	Northbo	Southbo	Northbo	Southbo	Northbo	Southbo	Northbo	Southbo	Northbo	Southbo	Northbo	Southbo	Northbo	Southbo	
12:00 AM	*	*	*	*	*	*	*	*	2	6	12	18	14	12	9	12	
01:00	*	*	*	*	*	*	*	*	1	7	4	12	6	13	4	11	
02:00	*	*	*	*	*	*	*	*	1	4	2	8	3	2	2	5	
03:00	*	*	*	*	*	*	*	*	2	0	3	9	0	2	2	4	
04:00	*	*	*	*	*	*	*	*	1	2	3	1	3	2	2	2	
05:00	*	*	*	*	*	*	*	*	13	4	10	7	4	4	9	5	
06:00	*	*	*	*	*	*	*	*	54	11	15	2	9	3	26	5	
07:00	*	*	*	*	*	*	*	*	91	40	31	14	26	9	49	21	
08:00	*	*	*	*	*	*	*	*	72	40	59	29	26	18	52	29	
09:00	*	*	*	*	*	*	*	*	70	43	65	42	42	38	59	41	
10:00	*	*	*	*	*	*	*	*	52	51	80	61	39	34	57	49	
11:00	*	*	*	*	*	*	*	*	64	57	76	65	83	57	74	60	
12:00 PM	*	*	*	*	*	*	*	51	53	71	68	82	80	75	68	70	67
01:00	*	*	*	*	*	*	*	72	60	64	74	70	94	65	68	68	74
02:00	*	*	*	*	*	*	*	75	90	72	100	49	81	73	75	67	86
03:00	*	*	*	*	*	*	*	55	92	74	116	53	78	61	65	61	88
04:00	*	*	*	*	*	*	*	67	92	70	93	79	66	49	75	66	82
05:00	*	*	*	*	*	*	*	83	85	87	98	47	66	48	68	66	79
06:00	*	*	*	*	*	*	*	68	82	67	58	69	68	55	46	65	64
07:00	*	*	*	*	*	*	*	52	58	65	68	50	63	46	43	53	58
08:00	*	*	*	*	*	*	*	41	52	40	62	47	53	25	28	38	49
09:00	*	*	*	*	*	*	*	29	45	38	45	32	40	29	27	32	39
10:00	*	*	*	*	*	*	*	10	29	28	35	28	29	7	28	18	30
11:00	*	*	*	*	*	*	*	5	13	18	30	20	17	11	30	14	22
Lane	0	0	0	0	0	0	608	751	1117	1112	986	1003	799	815	963	982	
Day	0	0	0	0	0	0	1359	751	2229	1112	1989	1003	1614	815	1945	982	
AM Peak									07:00	11:00	10:00	11:00	11:00	11:00	11:00	11:00	
Vol.									91	57	80	65	83	57	74	60	
PM Peak							17:00	15:00	17:00	15:00	12:00	13:00	12:00	14:00	12:00	15:00	
Vol.							83	92	87	116	82	94	75	75	70	88	

Allen Avenue South of Coe Avenue
Meriden, Connecticut

Connecticut Counts LLC
63 Sugar Maple Lane
Kensington, Connecticut 06037
(860) 828-1693

Site Code: 2207
Station ID: SN:018757

Latitude: 0' 0.000 Undefined

Start Time	14-Jun-10		Tue		Wed		Thu		Fri		Sat		Sun		Week Average			
	Northbound	Southbo	Northbo	Southbo	Northbo	Southbo	Northbo	Southbo	Northbo	Southbo	Northbo	Southbo	Northbo	Southbo	Northbo	Southbo		
12:00 AM	3	23	4	10	*	*	*	*	*	*	*	*	*	*	4	16		
01:00	1	5	2	6	*	*	*	*	*	*	*	*	*	*	2	6		
02:00	2	4	4	2	*	*	*	*	*	*	*	*	*	*	3	3		
03:00	0	6	2	3	*	*	*	*	*	*	*	*	*	*	1	4		
04:00	5	5	3	2	*	*	*	*	*	*	*	*	*	*	4	4		
05:00	24	4	19	9	*	*	*	*	*	*	*	*	*	*	22	6		
06:00	36	17	48	13	*	*	*	*	*	*	*	*	*	*	42	15		
07:00	108	78	115	56	*	*	*	*	*	*	*	*	*	*	112	67		
08:00	91	81	83	78	*	*	*	*	*	*	*	*	*	*	87	80		
09:00	89	85	70	76	*	*	*	*	*	*	*	*	*	*	80	80		
10:00	65	93	59	68	*	*	*	*	*	*	*	*	*	*	62	80		
11:00	55	46	69	69	*	*	*	*	*	*	*	*	*	*	62	58		
12:00 PM	64	89	60	62	*	*	*	*	*	*	*	*	*	*	62	76		
01:00	57	71	*	*	*	*	*	*	*	*	*	*	*	*	57	71		
02:00	62	71	*	*	*	*	*	*	*	*	*	*	*	*	62	71		
03:00	50	78	*	*	*	*	*	*	*	*	*	*	*	*	50	78		
04:00	58	80	*	*	*	*	*	*	*	*	*	*	*	*	58	80		
05:00	76	105	*	*	*	*	*	*	*	*	*	*	*	*	76	105		
06:00	75	94	*	*	*	*	*	*	*	*	*	*	*	*	75	94		
07:00	70	74	*	*	*	*	*	*	*	*	*	*	*	*	70	74		
08:00	66	77	*	*	*	*	*	*	*	*	*	*	*	*	66	77		
09:00	31	47	*	*	*	*	*	*	*	*	*	*	*	*	31	47		
10:00	12	15	*	*	*	*	*	*	*	*	*	*	*	*	12	15		
11:00	7	13	*	*	*	*	*	*	*	*	*	*	*	*	7	13		
Lane	1107	1261	538	454	0	0	0	0	0	0	0	0	0	0	1107	1220		
Day	2368		992		0		0		0		0		0		2327			
AM Peak	07:00	10:00	07:00	08:00													07:00	08:00
Vol.	108	93	115	78													112	80
PM Peak	17:00	17:00	12:00	12:00													17:00	17:00
Vol.	76	105	60	62													76	105

Comb. Total	2368	992	0	1359	2229	1989	1614	4272
ADT	ADT 2,298		AADT 2,298					

Connecticut Counts LLC
63 Sugar Maple Lane
Kensington, Connecticut 06037
(860) 828-1693

Allen Avenue South of Coe Avenue
 Meriden, Connecticut

Site Code: 2207
 Station ID: SN:018757

Northbound															Latitude: 0' 0.000 Undefined		
Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
6/10/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	0	1	0	6	14	15	8	6	1	0	0	0	0	0	51	31-40	29
13:00	0	1	4	6	16	24	18	2	1	0	0	0	0	0	72	34-43	43
14:00	0	0	1	7	20	21	20	5	1	0	0	0	0	0	75	31-40	41
15:00	0	0	0	3	14	21	10	5	2	0	0	0	0	0	55	31-40	35
16:00	0	1	1	9	12	25	14	4	1	0	0	0	0	0	67	34-43	40
17:00	0	0	2	7	21	27	21	5	0	0	0	0	0	0	83	32-41	49
18:00	0	0	1	4	22	22	12	4	3	0	0	0	0	0	68	31-40	44
19:00	0	1	1	6	11	21	10	2	0	0	0	0	0	0	52	31-40	32
20:00	0	1	0	4	12	10	10	4	0	0	0	0	0	0	41	31-40	22
21:00	0	0	1	6	12	6	4	0	0	0	0	0	0	0	29	27-36	19
22:00	0	0	0	1	4	3	1	0	0	1	0	0	0	0	10	29-38	8
23:00	0	0	0	1	2	1	0	0	0	1	0	0	0	0	5	27-36	4
Total	0	5	11	60	160	196	128	37	9	2	0	0	0	0	608		
Percent	0.0%	0.8%	1.8%	9.9%	26.3%	32.2%	21.1%	6.1%	1.5%	0.3%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.		12:00	13:00	16:00	18:00	17:00	17:00	12:00	18:00	22:00					17:00		
		1	4	9	22	27	21	6	3	1					83		

Allen Avenue South of Coe Avenue
Meriden, Connecticut

Connecticut Counts LLC
63 Sugar Maple Lane
Kensington, Connecticut 06037
(860) 828-1693

Site Code: 2207
Station ID: SN:018757

Northbound

Latitude: 0' 0.000 Undefined

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
6/11/10	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	28-37	2
01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	22-31	1
02:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	32-41	1
03:00	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	28-37	2
04:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	22-31	1
05:00	0	0	0	1	2	4	5	0	1	0	0	0	0	0	13	34-43	9
06:00	0	0	1	2	13	19	15	4	0	0	0	0	0	0	54	33-42	34
07:00	0	1	1	6	13	28	26	12	3	1	0	0	0	0	91	36-45	54
08:00	0	0	0	4	19	24	15	8	2	0	0	0	0	0	72	31-40	43
09:00	0	0	0	4	16	24	20	5	1	0	0	0	0	0	70	35-44	44
10:00	0	0	1	2	17	17	9	4	2	0	0	0	0	0	52	31-40	34
11:00	0	0	0	4	21	23	12	3	1	0	0	0	0	0	64	31-40	44
12 PM	0	2	0	8	21	27	11	2	0	0	0	0	0	0	71	31-40	48
13:00	0	1	2	5	13	24	11	7	0	1	0	0	0	0	64	32-41	38
14:00	1	1	5	7	27	21	5	3	2	0	0	0	0	0	72	31-40	48
15:00	0	1	0	7	19	31	12	4	0	0	0	0	0	0	74	31-40	50
16:00	0	1	2	3	14	27	20	2	1	0	0	0	0	0	70	36-45	47
17:00	0	0	0	6	16	37	24	3	1	0	0	0	0	0	87	35-44	61
18:00	0	0	1	8	13	26	12	5	2	0	0	0	0	0	67	33-42	41
19:00	0	2	0	4	20	27	9	1	2	0	0	0	0	0	65	31-40	47
20:00	1	0	1	5	7	16	9	0	1	0	0	0	0	0	40	34-43	26
21:00	0	0	0	5	12	13	8	0	0	0	0	0	0	0	38	31-40	25
22:00	0	0	0	4	4	9	7	4	0	0	0	0	0	0	28	33-42	16
23:00	0	0	0	1	7	5	3	1	1	0	0	0	0	0	18	30-39	12
Total	2	9	14	86	276	406	234	68	20	2	0	0	0	0	1117		
Percent	0.2%	0.8%	1.3%	7.7%	24.7%	36.3%	20.9%	6.1%	1.8%	0.2%	0.0%	0.0%	0.0%	0.0%			
AM Peak		07:00	06:00	07:00	11:00	07:00	07:00	07:00	07:00	07:00					07:00		
Vol.		1	1	6	21	28	26	12	3	1					91		
PM Peak	14:00	12:00	14:00	12:00	14:00	17:00	17:00	13:00	14:00	13:00					17:00		
Vol.	1	2	5	8	27	37	24	7	2	1					87		

Connecticut Counts LLC
63 Sugar Maple Lane
Kensington, Connecticut 06037
(860) 828-1693

Allen Avenue South of Coe Avenue
 Meriden, Connecticut

Site Code: 2207
 Station ID: SN:018757

Northbound															Latitude: 0' 0.000 Undefined		
Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
6/12/10	0	0	1	1	0	4	5	1	0	0	0	0	0	0	12	37-46	10
01:00	0	0	1	0	1	0	1	1	0	0	0	0	0	0	4	37-46	2
02:00	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2	32-41	2
03:00	0	0	0	1	1	0	1	0	0	0	0	0	0	0	3	22-31	2
04:00	0	0	0	0	0	2	0	0	0	1	0	0	0	0	3	28-37	2
05:00	0	0	0	0	3	4	3	0	0	0	0	0	0	0	10	33-42	9
06:00	0	2	0	2	0	3	4	3	1	0	0	0	0	0	15	38-47	9
07:00	0	0	0	1	2	15	8	4	1	0	0	0	0	0	31	34-43	23
08:00	0	0	0	5	15	17	17	5	0	0	0	0	0	0	59	33-42	34
09:00	0	0	0	3	14	24	17	6	1	0	0	0	0	0	65	33-42	41
10:00	0	0	0	12	29	25	11	3	0	0	0	0	0	0	80	31-40	54
11:00	0	0	1	13	22	17	18	5	0	0	0	0	0	0	76	31-40	39
12 PM	0	0	1	8	20	31	17	4	1	0	0	0	0	0	82	31-40	51
13:00	0	0	4	7	22	26	9	1	0	0	1	0	0	0	70	31-40	48
14:00	0	0	0	1	12	20	13	2	1	0	0	0	0	0	49	34-43	35
15:00	0	0	1	7	16	17	11	0	1	0	0	0	0	0	53	31-40	33
16:00	0	0	1	6	24	24	18	4	2	0	0	0	0	0	79	31-40	48
17:00	0	0	1	9	15	17	3	1	1	0	0	0	0	0	47	31-40	32
18:00	0	0	2	5	23	22	12	4	1	0	0	0	0	0	69	31-40	45
19:00	0	0	2	15	13	15	5	0	0	0	0	0	0	0	50	26-35	28
20:00	0	0	1	3	14	12	14	2	1	0	0	0	0	0	47	31-40	26
21:00	0	0	2	5	12	10	3	0	0	0	0	0	0	0	32	31-40	22
22:00	0	1	1	6	8	11	0	0	1	0	0	0	0	0	28	30-39	19
23:00	0	0	0	1	7	11	1	0	0	0	0	0	0	0	20	31-40	18
Total	0	3	19	111	273	328	192	46	12	1	1	0	0	0	986		
Percent	0.0%	0.3%	1.9%	11.3%	27.7%	33.3%	19.5%	4.7%	1.2%	0.1%	0.1%	0.0%	0.0%	0.0%			
AM Peak		06:00	00:00	11:00	10:00	10:00	11:00	09:00	06:00	04:00					10:00		
Vol.		2	1	13	29	25	18	6	1	1					80		
PM Peak		22:00	13:00	19:00	16:00	12:00	16:00	12:00	16:00		13:00				12:00		
Vol.		1	4	15	24	31	18	4	2		1				82		

Connecticut Counts LLC
63 Sugar Maple Lane
Kensington, Connecticut 06037
(860) 828-1693

Allen Avenue South of Coe Avenue
 Meriden, Connecticut

Site Code: 2207
 Station ID: SN:018757

Northbound																Latitude: 0' 0.000 Undefined		
Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace	
6/13/10	0	0	0	2	2	6	1	1	2	0	0	0	0	0	14	29-38	8	
01:00	0	0	0	3	0	1	2	0	0	0	0	0	0	0	6	19-28	3	
02:00	0	0	0	0	1	2	0	0	0	0	0	0	0	0	3	28-37	3	
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
04:00	0	1	0	1	1	0	0	0	0	0	0	0	0	0	3	22-31	2	
05:00	0	0	0	0	1	2	1	0	0	0	0	0	0	0	4	32-41	4	
06:00	0	0	0	2	2	3	1	1	0	0	0	0	0	0	9	29-38	7	
07:00	0	1	1	2	5	6	9	2	0	0	0	0	0	0	26	35-44	15	
08:00	0	0	0	3	7	6	8	2	0	0	0	0	0	0	26	34-43	14	
09:00	0	0	0	3	9	20	7	2	1	0	0	0	0	0	42	32-41	30	
10:00	0	1	0	0	6	15	16	1	0	0	0	0	0	0	39	36-45	31	
11:00	1	0	1	10	25	23	21	2	0	0	0	0	0	0	83	31-40	48	
12 PM	0	0	2	8	17	24	16	8	0	0	0	0	0	0	75	32-41	42	
13:00	0	0	2	8	17	20	14	1	3	0	0	0	0	0	65	31-40	37	
14:00	0	0	2	4	20	28	13	5	1	0	0	0	0	0	73	31-40	48	
15:00	0	1	0	8	13	24	9	5	1	0	0	0	0	0	61	31-40	37	
16:00	0	0	2	4	8	21	11	2	1	0	0	0	0	0	49	33-42	32	
17:00	0	0	2	1	13	19	10	3	0	0	0	0	0	0	48	31-40	32	
18:00	0	0	2	8	10	18	12	5	0	0	0	0	0	0	55	33-42	30	
19:00	0	0	1	4	13	14	10	3	0	1	0	0	0	0	46	31-40	27	
20:00	0	0	1	2	7	9	5	1	0	0	0	0	0	0	25	30-39	16	
21:00	0	0	1	4	5	6	5	5	2	1	0	0	0	0	29	27-36	11	
22:00	0	0	1	3	0	0	2	1	0	0	0	0	0	0	7	19-28	4	
23:00	0	1	0	1	5	1	2	0	0	1	0	0	0	0	11	26-35	6	
Total	1	5	18	81	187	268	175	50	11	3	0	0	0	0	799			
Percent	0.1%	0.6%	2.3%	10.1%	23.4%	33.5%	21.9%	6.3%	1.4%	0.4%	0.0%	0.0%	0.0%	0.0%				
AM Peak	11:00	04:00	07:00	11:00	11:00	11:00	11:00	07:00	00:00						11:00			
Vol.	1	1	1	10	25	23	21	2	2						83			
PM Peak		15:00	12:00	12:00	14:00	14:00	12:00	12:00	13:00	19:00					12:00			
Vol.		1	2	8	20	28	16	8	3	1					75			

Connecticut Counts LLC
63 Sugar Maple Lane
Kensington, Connecticut 06037
(860) 828-1693

Allen Avenue South of Coe Avenue
 Meriden, Connecticut

Site Code: 2207
 Station ID: SN:018757

Northbound															Latitude: 0' 0.000 Undefined		
Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
6/14/10	0	0	0	0	2	1	0	0	0	0	0	0	0	0	3	27-36	3
01:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	17-26	1
02:00	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2	32-41	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	3	0	2	0	0	0	0	0	0	0	0	5	19-28	3
05:00	0	0	1	5	8	6	3	1	0	0	0	0	0	0	24	27-36	14
06:00	0	0	0	4	5	19	5	3	0	0	0	0	0	0	36	31-40	24
07:00	0	0	2	9	28	39	21	8	1	0	0	0	0	0	108	31-40	67
08:00	0	0	4	10	41	23	12	1	0	0	0	0	0	0	91	31-40	64
09:00	0	1	6	32	37	9	4	0	0	0	0	0	0	0	89	26-35	69
10:00	0	0	2	17	26	10	7	3	0	0	0	0	0	0	65	26-35	43
11:00	0	0	4	12	15	16	6	2	0	0	0	0	0	0	55	29-38	31
12 PM	0	0	2	17	20	19	5	1	0	0	0	0	0	0	64	29-38	40
13:00	0	1	3	18	16	15	4	0	0	0	0	0	0	0	57	26-35	34
14:00	0	1	7	7	28	13	5	1	0	0	0	0	0	0	62	29-38	41
15:00	0	0	0	6	13	19	10	1	1	0	0	0	0	0	50	31-40	32
16:00	0	0	1	4	13	18	12	8	2	0	0	0	0	0	58	33-42	33
17:00	0	0	1	6	12	34	16	6	1	0	0	0	0	0	76	34-43	50
18:00	0	0	1	6	23	29	9	4	1	1	1	0	0	0	75	31-40	52
19:00	0	2	1	14	18	22	12	1	0	0	0	0	0	0	70	31-40	40
20:00	0	1	2	12	14	24	11	1	1	0	0	0	0	0	66	32-41	39
21:00	0	1	1	2	5	14	7	0	1	0	0	0	0	0	31	33-42	21
22:00	0	0	0	0	2	4	3	1	2	0	0	0	0	0	12	34-43	9
23:00	0	0	1	1	1	2	2	0	0	0	0	0	0	0	7	33-42	5
Total	0	7	39	186	327	339	155	42	10	1	1	0	0	0	1107		
Percent	0.0%	0.6%	3.5%	16.8%	29.5%	30.6%	14.0%	3.8%	0.9%	0.1%	0.1%	0.0%	0.0%	0.0%			
AM Peak		09:00	09:00	09:00	08:00	07:00	07:00	07:00	07:00						07:00		
Vol.		1	6	32	41	39	21	8	1						108		
PM Peak		19:00	14:00	13:00	14:00	17:00	17:00	16:00	16:00	18:00	18:00				17:00		
Vol.		2	7	18	28	34	16	8	2	1	1				76		

Connecticut Counts LLC
63 Sugar Maple Lane
Kensington, Connecticut 06037
(860) 828-1693

Allen Avenue South of Coe Avenue
 Meriden, Connecticut

Site Code: 2207
 Station ID: SN:018757

Northbound Latitude: 0' 0.000 Undefined

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
6/15/10	0	0	0	1	2	1	0	0	0	0	0	0	0	0	4	27-36	4
01:00	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2	22-31	1
02:00	0	0	0	0	1	2	1	0	0	0	0	0	0	0	4	32-41	4
03:00	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2	17-26	1
04:00	0	1	0	0	0	1	1	0	0	0	0	0	0	0	3	32-41	2
05:00	0	0	1	3	3	5	7	0	0	0	0	0	0	0	19	33-42	12
06:00	0	0	0	1	11	20	12	3	1	0	0	0	0	0	48	33-42	33
07:00	0	0	2	8	27	48	23	5	2	0	0	0	0	0	115	31-40	75
08:00	0	0	4	15	40	17	5	2	0	0	0	0	0	0	83	28-37	57
09:00	1	2	12	31	13	7	4	0	0	0	0	0	0	0	70	24-33	46
10:00	1	1	8	21	19	7	2	0	0	0	0	0	0	0	59	26-35	40
11:00	2	2	9	16	21	17	2	0	0	0	0	0	0	0	69	28-37	39
12 PM	0	3	3	8	11	18	12	3	1	1	0	0	0	0	60	33-42	31
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	4	9	39	105	149	143	71	13	4	1	0	0	0	0	538		
Percent	0.7%	1.7%	7.2%	19.5%	27.7%	26.6%	13.2%	2.4%	0.7%	0.2%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	09:00	09:00	09:00	08:00	07:00	07:00	07:00	07:00						07:00		
Vol.	2	2	12	31	40	48	23	5	2						115		
PM Peak		12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00					12:00		
Vol.		3	3	8	11	18	12	3	1	1					60		
Total	7	38	140	629	1372	1680	955	256	66	10	2	0	0	0	5155		
Percent	0.1%	0.7%	2.7%	12.2%	26.6%	32.6%	18.5%	5.0%	1.3%	0.2%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 30 MPH
 50th Percentile : 37 MPH
 85th Percentile : 43 MPH
 95th Percentile : 47 MPH

Stats
 10 MPH Pace Speed : 31-40 MPH
 Number in Pace : 3052
 Percent in Pace : 59.2%
 Number of Vehicles > 35 MPH : 2969
 Percent of Vehicles > 35 MPH : 57.6%
 Mean Speed(Average) : 37 MPH

Connecticut Counts LLC
63 Sugar Maple Lane
Kensington, Connecticut 06037
(860) 828-1693

Allen Avenue South of Coe Avenue
 Meriden, Connecticut

Site Code: 2207
 Station ID: SN:018757

Southbound	Latitude: 0' 0.000 Undefined															Total	Pace Speed	Number in Pace
Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	999			
	15	20	25	30	35	40	45	50	55	60	65	70	75					
6/10/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	0	0	1	14	20	15	2	1	0	0	0	0	0	0	53	27-36	35	
13:00	0	1	1	6	14	20	15	3	0	0	0	0	0	0	60	32-41	35	
14:00	0	1	3	13	23	30	14	5	1	0	0	0	0	0	90	31-40	53	
15:00	0	1	3	5	31	35	15	1	1	0	0	0	0	0	92	31-40	66	
16:00	0	0	3	6	41	26	12	4	0	0	0	0	0	0	92	31-40	67	
17:00	0	0	3	7	23	33	15	4	0	0	0	0	0	0	85	31-40	56	
18:00	0	2	3	10	25	17	18	5	1	1	0	0	0	0	82	31-40	42	
19:00	0	0	1	5	21	18	10	3	0	0	0	0	0	0	58	31-40	39	
20:00	0	0	1	6	17	18	8	1	1	0	0	0	0	0	52	31-40	35	
21:00	0	0	5	9	17	12	1	1	0	0	0	0	0	0	45	28-37	29	
22:00	0	0	2	3	6	12	3	3	0	0	0	0	0	0	29	31-40	18	
23:00	0	0	1	2	4	3	3	0	0	0	0	0	0	0	13	25-34	7	
Total	0	5	27	86	242	239	116	31	4	1	0	0	0	0	751			
Percent	0.0%	0.7%	3.6%	11.5%	32.2%	31.8%	15.4%	4.1%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%				
AM Peak Vol.																		
PM Peak Vol.		18:00	21:00	12:00	16:00	15:00	18:00	14:00	14:00	18:00					15:00			
		2	5	14	41	35	18	5	1	1					92			

Connecticut Counts LLC
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Allen Avenue South of Coe Avenue
 Meriden, Connecticut

Site Code: 2207
 Station ID: SN:018757

Southbound																Latitude: 0' 0.000 Undefined		
Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76		Pace	Number	
	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Speed	in Pace	
6/11/10	0	0	0	0	2	1	3	0	0	0	0	0	0	0	6	34-43	4	
01:00	0	0	0	0	3	1	3	0	0	0	0	0	0	0	7	31-40	4	
02:00	0	0	0	0	0	3	1	0	0	0	0	0	0	0	4	32-41	4	
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
04:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	23-32	2	
05:00	0	1	0	1	2	0	0	0	0	0	0	0	0	0	4	23-32	3	
06:00	0	0	2	3	3	2	1	0	0	0	0	0	0	0	11	24-33	8	
07:00	0	0	2	6	9	16	6	1	0	0	0	0	0	0	40	32-41	26	
08:00	0	1	1	3	16	13	5	1	0	0	0	0	0	0	40	31-40	29	
09:00	0	0	2	3	12	15	7	3	0	0	1	0	0	0	43	31-40	27	
10:00	0	1	1	3	17	16	12	1	0	0	0	0	0	0	51	31-40	33	
11:00	0	3	0	5	21	19	7	2	0	0	0	0	0	0	57	31-40	40	
12 PM	0	3	1	10	27	16	8	2	1	0	0	0	0	0	68	31-40	43	
13:00	1	0	1	8	18	26	18	2	0	0	0	0	0	0	74	33-42	46	
14:00	0	1	6	15	31	34	10	2	0	1	0	0	0	0	100	31-40	65	
15:00	0	1	2	9	33	41	24	6	0	0	0	0	0	0	116	31-40	74	
16:00	0	0	5	8	24	38	10	7	1	0	0	0	0	0	93	31-40	62	
17:00	0	1	5	12	26	24	27	2	1	0	0	0	0	0	98	33-42	51	
18:00	0	1	1	6	9	23	15	2	1	0	0	0	0	0	58	36-45	38	
19:00	0	1	1	7	15	23	18	2	0	1	0	0	0	0	68	34-43	41	
20:00	0	1	2	5	23	11	15	4	1	0	0	0	0	0	62	31-40	34	
21:00	0	0	1	4	12	16	11	1	0	0	0	0	0	0	45	32-41	29	
22:00	0	0	0	7	10	13	3	0	1	0	1	0	0	0	35	29-38	23	
23:00	0	0	3	3	16	5	3	0	0	0	0	0	0	0	30	28-37	21	
Total	1	15	36	118	331	356	207	38	6	2	2	0	0	0	1112			
Percent	0.1%	1.3%	3.2%	10.6%	29.8%	32.0%	18.6%	3.4%	0.5%	0.2%	0.2%	0.0%	0.0%	0.0%				
AM Peak		11:00	06:00	07:00	11:00	11:00	10:00	09:00			09:00				11:00			
Vol.		3	2	6	21	19	12	3			1				57			
PM Peak	13:00	12:00	14:00	14:00	15:00	15:00	17:00	16:00	12:00	14:00	22:00				15:00			
Vol.	1	3	6	15	33	41	27	7	1	1	1				116			

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(860) 828-1693

Allen Avenue South of Coe Avenue
 Meriden, Connecticut

Site Code: 2207
 Station ID: SN:018757

Southbound

Latitude: 0' 0.000 Undefined

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
6/12/10	0	0	0	1	11	3	3	0	0	0	0	0	0	0	18	30-39	14
01:00	0	0	1	0	3	2	3	3	0	0	0	0	0	0	12	39-48	8
02:00	0	0	0	1	3	2	1	1	0	0	0	0	0	0	8	28-37	6
03:00	0	0	0	3	3	3	0	0	0	0	0	0	0	0	9	28-37	8
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	17-26	1
05:00	0	0	0	1	1	4	1	0	0	0	0	0	0	0	7	30-39	6
06:00	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	12-21	1
07:00	0	0	0	3	6	3	0	2	0	0	0	0	0	0	14	28-37	11
08:00	0	0	0	3	12	7	4	2	1	0	0	0	0	0	29	28-37	19
09:00	0	0	1	6	10	17	4	4	0	0	0	0	0	0	42	31-40	27
10:00	1	0	1	8	20	22	8	1	0	0	0	0	0	0	61	31-40	42
11:00	0	0	1	8	16	29	7	4	0	0	0	0	0	0	65	31-40	45
12 PM	0	2	0	2	30	25	14	6	1	0	0	0	0	0	80	31-40	55
13:00	0	1	7	16	25	33	11	0	1	0	0	0	0	0	94	31-40	58
14:00	0	1	3	10	33	17	13	4	0	0	0	0	0	0	81	31-40	50
15:00	0	0	2	9	22	26	16	3	0	0	0	0	0	0	78	31-40	48
16:00	0	0	2	6	20	25	10	3	0	0	0	0	0	0	66	31-40	45
17:00	0	0	3	12	10	26	12	3	0	0	0	0	0	0	66	33-42	38
18:00	0	1	5	4	27	17	11	1	2	0	0	0	0	0	68	31-40	44
19:00	0	1	1	11	16	23	10	1	0	0	0	0	0	0	63	31-40	39
20:00	0	0	3	15	12	12	8	1	1	0	1	0	0	0	53	26-35	27
21:00	1	0	0	5	8	17	6	2	0	0	1	0	0	0	40	32-41	26
22:00	0	0	0	4	15	8	2	0	0	0	0	0	0	0	29	29-38	23
23:00	0	1	1	4	6	4	1	0	0	0	0	0	0	0	17	27-36	11
Total	2	7	32	133	309	326	145	41	6	0	2	0	0	0	1003		
Percent	0.2%	0.7%	3.2%	13.3%	30.8%	32.5%	14.5%	4.1%	0.6%	0.0%	0.2%	0.0%	0.0%	0.0%			
AM Peak	10:00		01:00	10:00	10:00	11:00	10:00	09:00	08:00							11:00	
Vol.	1		1	8	20	29	8	4	1							65	
PM Peak	21:00	12:00	13:00	13:00	14:00	13:00	15:00	12:00	18:00		20:00					13:00	
Vol.	1	2	7	16	33	33	16	6	2		1					94	

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 Meriden, Connecticut

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 Station ID: SN:018757

Southbound																Latitude: 0' 0.000 Undefined		
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Pace Speed	Number in Pace	
6/13/10	0	0	1	1	3	4	1	2	0	0	0	0	0	0	12	30-39	8	
01:00	0	1	1	2	7	1	1	0	0	0	0	0	0	0	13	25-34	9	
02:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	27-36	2	
03:00	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	28-37	2	
04:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	22-31	2	
05:00	0	0	0	3	1	0	0	0	0	0	0	0	0	0	4	22-31	4	
06:00	0	0	0	0	2	0	1	0	0	0	0	0	0	0	3	23-32	2	
07:00	0	0	1	0	6	2	0	0	0	0	0	0	0	0	9	28-37	8	
08:00	0	0	0	4	8	3	3	0	0	0	0	0	0	0	18	26-35	12	
09:00	0	0	2	3	15	10	6	2	0	0	0	0	0	0	38	31-40	25	
10:00	0	0	0	6	8	14	5	1	0	0	0	0	0	0	34	30-39	22	
11:00	0	0	5	13	17	11	10	0	1	0	0	0	0	0	57	27-36	31	
12 PM	0	0	2	9	26	16	10	4	1	0	0	0	0	0	68	31-40	42	
13:00	0	1	1	10	24	20	6	5	1	0	0	0	0	0	68	31-40	44	
14:00	0	0	1	6	34	22	9	2	1	0	0	0	0	0	75	31-40	56	
15:00	0	1	1	10	20	23	6	4	0	0	0	0	0	0	65	31-40	43	
16:00	0	0	1	9	24	23	14	3	1	0	0	0	0	0	75	31-40	47	
17:00	0	0	0	6	32	16	11	3	0	0	0	0	0	0	68	31-40	48	
18:00	0	0	1	3	15	14	9	4	0	0	0	0	0	0	46	31-40	29	
19:00	0	0	1	3	13	16	5	4	1	0	0	0	0	0	43	31-40	29	
20:00	0	0	0	4	10	8	6	0	0	0	0	0	0	0	28	29-38	18	
21:00	0	3	1	2	6	8	5	1	1	0	0	0	0	0	27	29-38	14	
22:00	1	9	1	3	6	4	3	1	0	0	0	0	0	0	28	28-37	11	
23:00	0	7	0	2	13	6	2	0	0	0	0	0	0	0	30	29-38	19	
Total	1	22	20	100	292	224	113	36	7	0	0	0	0	0	815			
Percent	0.1%	2.7%	2.5%	12.3%	35.8%	27.5%	13.9%	4.4%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%				
AM Peak		01:00	11:00	11:00	11:00	10:00	11:00	00:00	11:00						11:00			
Vol.		1	5	13	17	14	10	2	1						57			
PM Peak	22:00	22:00	12:00	13:00	14:00	15:00	16:00	13:00	12:00						14:00			
Vol.	1	9	2	10	34	23	14	5	1						75			

Allen Avenue South of Coe Avenue
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Station ID: SN:018757

Southbound

Latitude: 0' 0.000 Undefined

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
6/14/10	2	8	0	3	6	4	0	0	0	0	0	0	0	0	23	28-37	11
01:00	1	1	0	2	0	1	0	0	0	0	0	0	0	0	5	7-16	2
02:00	0	2	0	0	0	1	0	1	0	0	0	0	0	0	4	8-17	2
03:00	0	1	1	3	1	0	0	0	0	0	0	0	0	0	6	19-28	5
04:00	1	0	0	3	1	0	0	0	0	0	0	0	0	0	5	22-31	4
05:00	0	1	1	1	0	1	0	0	0	0	0	0	0	0	4	17-26	3
06:00	2	3	0	4	4	3	1	0	0	0	0	0	0	0	17	27-36	9
07:00	4	19	0	3	25	14	10	3	0	0	0	0	0	0	78	31-40	39
08:00	5	22	3	9	27	11	4	0	0	0	0	0	0	0	81	27-36	38
09:00	10	15	4	20	21	11	4	0	0	0	0	0	0	0	85	26-35	41
10:00	9	26	2	15	24	12	5	0	0	0	0	0	0	0	93	26-35	39
11:00	2	3	1	7	14	8	6	4	1	0	0	0	0	0	46	29-38	24
12 PM	3	18	1	16	26	18	6	0	0	1	0	0	0	0	89	29-38	45
13:00	2	10	2	11	21	12	9	4	0	0	0	0	0	0	71	28-37	34
14:00	0	5	0	10	27	20	6	3	0	0	0	0	0	0	71	31-40	47
15:00	0	0	1	3	24	28	19	1	2	0	0	0	0	0	78	31-40	52
16:00	0	0	1	6	21	28	18	5	1	0	0	0	0	0	80	31-40	49
17:00	0	1	3	17	35	26	17	5	1	0	0	0	0	0	105	31-40	61
18:00	1	4	6	8	33	27	10	3	2	0	0	0	0	0	94	31-40	60
19:00	0	1	1	7	24	24	13	3	1	0	0	0	0	0	74	31-40	48
20:00	0	0	1	16	27	21	10	1	1	0	0	0	0	0	77	30-39	48
21:00	0	0	1	7	17	12	8	2	0	0	0	0	0	0	47	29-38	29
22:00	0	0	0	2	6	3	4	0	0	0	0	0	0	0	15	29-38	9
23:00	0	0	0	2	2	7	1	0	1	0	0	0	0	0	13	32-41	10
Total	42	140	29	175	386	292	151	35	10	1	0	0	0	0	1261		
Percent	3.3%	11.1%	2.3%	13.9%	30.6%	23.2%	12.0%	2.8%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	10:00	09:00	09:00	08:00	07:00	07:00	11:00	11:00						10:00		
Vol.	10	26	4	20	27	14	10	4	1						93		
PM Peak	12:00	12:00	18:00	17:00	17:00	15:00	15:00	16:00	15:00	12:00					17:00		
Vol.	3	18	6	17	35	28	19	5	2	1					105		

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Southbound

Latitude: 0' 0.000 Undefined

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
6/15/10	0	1	0	2	1	3	1	2	0	0	0	0	0	0	10	29-38	4
01:00	1	0	0	0	4	1	0	0	0	0	0	0	0	0	6	27-36	5
02:00	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	28-37	2
03:00	0	0	1	0	1	0	0	0	1	0	0	0	0	0	3	12-21	1
04:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	17-26	2
05:00	1	0	1	2	4	1	0	0	0	0	0	0	0	0	9	25-34	7
06:00	0	0	0	1	5	2	3	2	0	0	0	0	0	0	13	30-39	7
07:00	2	7	0	3	17	17	8	2	0	0	0	0	0	0	56	31-40	34
08:00	8	18	3	15	18	11	3	2	0	0	0	0	0	0	78	26-35	33
09:00	4	4	6	30	24	5	3	0	0	0	0	0	0	0	76	26-35	54
10:00	3	3	1	20	25	9	4	3	0	0	0	0	0	0	68	26-35	45
11:00	2	4	5	16	20	12	10	0	0	0	0	0	0	0	69	26-35	36
12 PM	0	1	4	10	17	21	4	3	1	1	0	0	0	0	62	31-40	38
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	21	38	22	100	136	84	36	14	2	1	0	0	0	0	454		
Percent	4.6%	8.4%	4.8%	22.0%	30.0%	18.5%	7.9%	3.1%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	09:00	09:00	10:00	07:00	11:00	10:00	03:00						08:00		
Vol.	8	18	6	30	25	17	10	3	1						78		
PM Peak		12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00					12:00		
Vol.		1	4	10	17	21	4	3	1	1					62		
Total	67	227	166	712	1696	1521	768	195	35	5	4	0	0	0	5396		
Percent	1.2%	4.2%	3.1%	13.2%	31.4%	28.2%	14.2%	3.6%	0.6%	0.1%	0.1%	0.0%	0.0%	0.0%			

15th Percentile : 28 MPH
 50th Percentile : 35 MPH
 85th Percentile : 42 MPH
 95th Percentile : 45 MPH

Stats
 10 MPH Pace Speed : 31-40 MPH
 Number in Pace : 3217
 Percent in Pace : 59.6%
 Number of Vehicles > 35 MPH : 2528
 Percent of Vehicles > 35 MPH : 46.8%
 Mean Speed(Average) : 35 MPH

Appendix B

Construction Cost Estimates



ORDER OF MAGNITUDE OPINION OF COST

PROJECT: ALLEN AVENUE CORRIDOR STUDY	DATE PREPARED:	
LOCATION: ALLEN AVENUE	BASIS: ConnDOT 2010	
DESCRIPTION: BETWEEN FINCH AVENUE TO OLD GATE LANE/HOURIGAN STREET (EAST)	From Sta.	To Sta.
	LENGTH: 1,750	WIDTH: 24
PROJECT NO.: 20090602.A10	ESTIMATOR: MSR	CHECKED BY: KPC

Since Fuss & O'Neill has no control over the cost of labor, materials, equipment or services furnished by others, or over the Contractor(s)' methods of determining prices, or over competitive bidding or market conditions, Fuss & O'Neill's opinion of probable Total Project Costs and Construction Cost are made on the basis of Fuss & O'Neill's experience and qualifications and represent Fuss & O'Neill's best judgment as an experienced and qualified professional engineer, familiar with the construction industry; but Fuss & O'Neill cannot and does not guarantee that proposals, bids or actual Total Project or Construction Costs will not vary from opinions of probable cost prepared by Fuss & O'Neill. If prior to the bidding or negotiating Phase the Owner wishes greater assurance as to Total Project or Construction Costs, the Owner shall employ an independent cost estimator.

Item	Est. Quant.	Unit	Unit Price	Total
ROADWAY ITEMS				
Earth Excavation	570	c.y.	\$25.00	\$14,250
Subbase	100	c.y.	\$38.00	\$3,800
Sedimentation Control System	3500	l.f.	\$4.00	\$14,000
Milling of Bituminous Concrete Pavement	4650	s.y.	\$7.50	\$34,875
H.M.A.	630	ton	\$100.00	\$63,000
6" P.V.C. Underdrain	1750	l.f.	\$30.00	\$52,500
Simple Catch Basin Top	16	ea.	\$700.00	\$11,200
Double Catch Basin Top	3	ea.	\$1,100.00	\$3,300
Structure Resetting (Storm and Sanitary)	26	ea.	\$1,000.00	\$26,000
Bituminous Concrete Lip Curbing	3100	l.f.	\$7.00	\$21,700
Metal Beam Rail (Type R-B 350)	225	l.f.	\$30.00	\$6,750
R-B End Anchorage Type I	2	ea.	\$1,200.00	\$2,400
Bituminous Concrete Driveway - Residential	500	s.y.	\$40.00	\$20,000
Furnishing and Placing Topsoil	1500	s.y.	\$8.00	\$12,000
Turf Establishment	1500	s.y.	\$3.00	\$4,500
Landscaping Budget	1	l.s.	\$10,000.00	\$10,000
TRAFFIC ITEMS				
Trafficmen - Town (City) Police Officer	160	hr.	\$75.00	\$12,000
Trafficmen - Uniformed Flagger	320	hr.	\$55.00	\$17,600
Contract Items			SUBTOTAL	\$329,900
Clearing and Grubbing Roadway		2.0%		\$6,600
M & P of Traffic		4.0%		\$13,200
Mobilization		7.5%		\$24,700
Construction Staking		1.0%		\$3,300
Minor Items		25.0%		\$82,500
Inflation Factor	0	5.0%		\$0
			CONSTRUCTION TOTALS	\$460,000
CONTINGENCIES		10.0%		\$46,000
INCIDENTALS		30.0%		\$138,000
UTILITIES		15.0%		\$69,000
			TOTAL ESTIMATED COST	\$713,000



ORDER OF MAGNITUDE OPINION OF COST

PROJECT: ALLEN AVENUE CORRIDOR STUDY	DATE PREPARED:	
LOCATION: ALLEN AVENUE	BASIS: ConnDOT 2010	
DESCRIPTION: BETWEEN OLD GATE LANE/HOURIGAN STREET (EAST) TO GOODSPEED AVENUE	From Sta.	To Sta.
	LENGTH: 2,900	WIDTH: 24
PROJECT NO.: 20090602.A10	ESTIMATOR: MSR	CHECKED BY: KPC

Since Fuss & O'Neill has no control over the cost of labor, materials, equipment or services furnished by others, or over the Contractor(s)' methods of determining prices, or over competitive bidding or market conditions, Fuss & O'Neill's opinion of probable Total Project Costs and Construction Cost are made on the basis of Fuss & O'Neill's experience and qualifications and represent Fuss & O'Neill's best judgment as an experienced and qualified professional engineer, familiar with the construction industry; but Fuss & O'Neill cannot and does not guarantee that proposals, bids or actual Total Project or Construction Costs will not vary from opinions of probable cost prepared by Fuss & O'Neill. If prior to the bidding or negotiating Phase the Owner wishes greater assurance as to Total Project or Construction Costs, the Owner shall employ an independent cost estimator.

Item	Est. Quant.	Unit	Unit Price	Total
ROADWAY ITEMS				
Earth Excavation	3850	c.y.	\$25.00	\$96,250
Rock Excavation	100	c.y.	\$90.00	\$9,000
Trench Excavation 0-4' Deep	300	c.y.	\$20.00	\$6,000
Trench Excavation 0-10' Deep	290	c.y.	\$25.00	\$7,250
Rock in Trench Excavation	25	c.y.	\$150.00	\$3,750
Subbase	2600	c.y.	\$38.00	\$98,800
Sedimentation Control System	5800	l.f.	\$4.00	\$23,200
H.M.A.	1575	ton	\$100.00	\$157,500
Bedding Material	60	c.y.	\$35.00	\$2,100
12" R.C.P.	875	l.f.	\$55.00	\$48,125
15" R.C.P.	60	l.f.	\$65.00	\$3,900
6" P.V.C. Underdrain	750	l.f.	\$30.00	\$22,500
Simple Catch Basin	14	ea.	\$3,000.00	\$42,000
Simple Catch Basin Top	9	ea.	\$700.00	\$6,300
Structure Resetting (Storm and Sanitary)	10	ea.	\$1,000.00	\$10,000
Bituminous Concrete Lip Curbing	5000	l.f.	\$7.00	\$35,000
Concrete Sidewalk	2500	s.f.	\$14.00	\$35,000
Bituminous Concrete Driveway - Residential	850	s.y.	\$40.00	\$34,000
Furnishing and Placing Topsoil	3250	s.y.	\$8.00	\$26,000
Turf Establishment	3250	s.y.	\$3.00	\$9,750
TRAFFIC ITEMS				
Trafficmen - Town (City) Police Officer	480	hr.	\$75.00	\$36,000
Trafficmen - Uniformed Flagger	960	hr.	\$55.00	\$52,800
Contract Items			SUBTOTAL	\$765,200
Clearing and Grubbing Roadway		2.0%		\$15,300
M & P of Traffic		4.0%		\$30,600
Mobilization		7.5%		\$57,400
Construction Staking		1.0%		\$7,700
Minor Items		25.0%		\$191,300
Inflation Factor	0	5.0%		\$0
			CONSTRUCTION TOTALS	\$1,070,000
CONTINGENCIES		10.0%		\$107,000
INCIDENTALS		25.0%		\$268,000
UTILITIES		15.0%		\$161,000
			TOTAL ESTIMATED COST	\$1,606,000



ORDER OF MAGNITUDE OPINION OF COST

PROJECT: ALLEN AVENUE CORRIDOR STUDY	DATE PREPARED:	
LOCATION: ALLEN AVENUE	BASIS: ConnDOT 2010	
DESCRIPTION: BETWEEN GOODSPEED AVENUE TO COE AVENUE	From Sta.	To Sta.
	LENGTH: 2,200	WIDTH: 24
PROJECT NO.: 20090602.A10	ESTIMATOR: MSR	CHECKED BY: KPC

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Item	Est. Quant.	Unit	Unit Price	Total
ROADWAY ITEMS				
Earth Excavation	1500	c.y.	\$25.00	\$37,500
Rock Excavation	1565	c.y.	\$90.00	\$140,850
Trench Excavation 0-4' Deep	810	c.y.	\$20.00	\$16,200
Trench Excavation 0-10' Deep	285	c.y.	\$25.00	\$7,125
Rock in Trench Excavation	710	c.y.	\$150.00	\$106,500
Subbase	2150	c.y.	\$38.00	\$81,700
Sedimentation Control System	4400	l.f.	\$4.00	\$17,600
H.M.A.	1325	ton	\$100.00	\$132,500
Bedding Material	338	c.y.	\$35.00	\$11,830
12" R.C.P.	775	l.f.	\$55.00	\$42,625
15" R.C.P.	775	l.f.	\$65.00	\$50,375
24" R.C.P.	2150	l.f.	\$100.00	\$215,000
6" P.V.C. Underdrain	2700	l.f.	\$30.00	\$81,000
Simple Catch Basin	16	ea.	\$3,000.00	\$48,000
Manhole	3	ea.	\$3,000.00	\$9,000
Structure Resetting (Storm and Sanitary)	4	ea.	\$1,000.00	\$4,000
13' x 7' Sedimentation Chamber	1	ea.	\$35,000.00	\$35,000
Bituminous Concrete Lip Curbing	3800	l.f.	\$7.00	\$26,600
Bituminous Concrete Driveway - Residential	550	s.y.	\$40.00	\$22,000
Furnishing and Placing Topsoil	3700	s.y.	\$8.00	\$29,600
Turf Establishment	3700	s.y.	\$3.00	\$11,100
Landscaping Budget	1	l.s.	\$10,000.00	\$10,000
TRAFFIC ITEMS				
Trafficmen - Town (City) Police Officer	640	hr.	\$75.00	\$48,000
Trafficmen - Uniformed Flagger	1280	hr.	\$55.00	\$70,400
Contract Items			SUBTOTAL	\$1,254,500
Clearing and Grubbing Roadway		2.0%		\$25,100
M & P of Traffic		4.0%		\$50,200
Mobilization		7.5%		\$94,100
Construction Staking		1.0%		\$12,500
Minor Items		25.0%		\$313,600
Inflation Factor	0	5.0%		\$0
			CONSTRUCTION TOTALS	\$1,750,000
CONTINGENCIES		10.0%		\$175,000
INCIDENTALS		25.0%		\$438,000
UTILITIES		15.0%		\$263,000
			TOTAL ESTIMATED COST	\$2,626,000



ORDER OF MAGNITUDE OPINION OF COST

PROJECT: ALLEN AVENUE CORRIDOR STUDY	DATE PREPARED:	
LOCATION: ALLEN AVENUE	BASIS: ConnDOT 2010	
DESCRIPTION: BETWEEN COE AVENUE TO JOHNSON AVENUE	From Sta.	To Sta.
	LENGTH: 1,300	WIDTH: 24
PROJECT NO.: 20090602.A10	ESTIMATOR: MSR	CHECKED BY: KPC

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Item	Est. Quant.	Unit	Unit Price	Total
ROADWAY ITEMS				
Earth Excavation	1725	c.y.	\$25.00	\$43,125
Trench Excavation 0-4' Deep	310	c.y.	\$20.00	\$6,200
Trench Excavation 0-10' Deep	260	c.y.	\$25.00	\$6,500
Rock in Trench Excavation	25	c.y.	\$150.00	\$3,750
Subbase	1260	c.y.	\$38.00	\$47,880
Sedimentation Control System	2600	l.f.	\$4.00	\$10,400
H.M.A.	790	ton	\$100.00	\$79,000
Bedding Material	45	c.y.	\$35.00	\$1,575
12" R.C.P.	725	l.f.	\$55.00	\$39,875
6" P.V.C. Underdrain	1275	l.f.	\$30.00	\$38,250
Simple Catch Basin	12	ea.	\$3,000.00	\$36,000
Structure Resetting (Storm and Sanitary)	7	ea.	\$1,000.00	\$7,000
Bituminous Concrete Lip Curbing	1500	l.f.	\$7.00	\$10,500
Concrete Curbing	500	l.f.	\$35.00	\$17,500
Concrete Sidewalk	6500	s.f.	\$14.00	\$91,000
Bituminous Concrete Driveway - Residential	550	s.y.	\$40.00	\$22,000
Furnishing and Placing Topsoil	1450	s.y.	\$8.00	\$11,600
Turf Establishment	1450	s.y.	\$3.00	\$4,350
TRAFFIC ITEMS				
Trafficmen - Town (City) Police Officer	480	hr.	\$75.00	\$36,000
Trafficmen - Uniformed Flagger	960	hr.	\$55.00	\$52,800
Contract Items			SUBTOTAL	\$565,300
Clearing and Grubbing Roadway		2.0%		\$11,300
M & P of Traffic		4.0%		\$22,600
Mobilization		7.5%		\$42,400
Construction Staking		1.0%		\$5,700
Minor Items		25.0%		\$141,300
Inflation Factor	0	5.0%		\$0
			CONSTRUCTION TOTALS	\$790,000
CONTINGENCIES		10.0%		\$79,000
INCIDENTALS		30.0%		\$237,000
UTILITIES		15.0%		\$119,000
PRELIMINARY ENGINEERING AND ENVIRONMENTAL				\$0
RIGHTS OF WAY				\$0
RAILROAD FORCE ACCOUNT				\$0
			TOTAL ESTIMATED COST	\$1,225,000