



COMMUNITY
connectivity program

Derby

Derby Greenway – Rail Station – Road Safety Audit

April 12, 2017



AECOM

Built to deliver a better world

Acknowledgements:

OFFICE OF INTERMODAL PLANNING
BUREAU OF POLICY AND PLANNING
CONNECTICUT DEPARTMENT OF TRANSPORTATION

With assistance from AECOM Transportation Planning Group

Contents

| | | |
|-----|---|----|
| 1 | Introduction to the Derby Downtown, Derby RSA | 5 |
| 1.1 | Location | 5 |
| 2 | Pre-Audit Assessment | 7 |
| 2.1 | Pre-Audit Information..... | 7 |
| 2.2 | Prior Successful Efforts..... | 11 |
| 2.3 | Pre-Audit Meeting | 11 |
| 3 | RSA Assessment..... | 15 |
| 3.1 | Field Audit Observations | 15 |
| 3.2 | Post-Audit Workshop - Key Issues..... | 17 |
| 4 | Recommendations | 19 |
| 4.1 | Short Term | 19 |
| 4.2 | Medium Term | 22 |
| 4.3 | Long Term..... | 24 |
| 4.4 | Summary..... | 26 |

Figures

| | |
|---|----|
| Figure 1: Derby RSA Corridors | 6 |
| Figure 2: Regional Context..... | 6 |
| Figure 3: Crashes that Occurred in 2015 (Connecticut Crash Data Repository) | 8 |
| Figure 4: Derby Avenue Road Geometrics | 9 |
| Figure 5: Route 34 Widening Project..... | 11 |
| Figure 6: Downtown Revitalization Project..... | 11 |
| Figure 7: Main Street west of Route 8 | 12 |
| Figure 8: Current Wayfinding Signs | 12 |
| Figure 9: Entrance to Train Station and DMV | 12 |
| Figure 10: Revitalization Site | 14 |
| Figure 11: Derby Greenway under Route 8 on-ramp | 14 |
| Figure 12: Crosswalk at Home Depot Entrance..... | 15 |
| Figure 13: Signage along westbound Route 34..... | 15 |
| Figure 14: Pedestrian button location is not accessible | 16 |
| Figure 15: Train Station..... | 16 |
| Figure 16: View of westbound traffic on bridge and entering Route 8 | 16 |
| Figure 17: Derby Greenway | 17 |

| | |
|--|----|
| Figure 18: Route 34 Aerial View | 17 |
| Figure 19: Greenway with Derby Train Station in background | 18 |
| Figure 20: Lifetouch Building..... | 18 |
| Figure 21: Right Lane must Turn Right Sign..... | 20 |
| Figure 22: ADA compliant ramp | 20 |
| Figure 23: Short-term Improvements | 21 |
| Figure 24: Pedestrian Countdown Signal | 22 |
| Figure 25: Pedestrian accommodations on Route 8 On-Ramp..... | 22 |
| Figure 26: Route 34 eastbound over Atwater Bridge | 22 |
| Figure 27: Medium-term Improvements | 23 |
| Figure 28: Diverging diamond interchange..... | 24 |
| Figure 29: Long-term improvements | 25 |

Tables

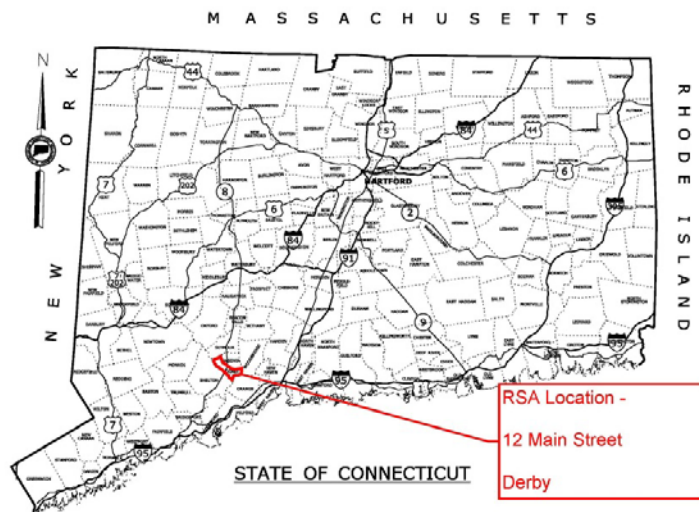
| | |
|--|----|
| Table 1: Crash Severity 2012-2014..... | 7 |
| Table 2: Crash Type 2012-2014 | 7 |
| Table 3: Intersection Street Inventory | 10 |



The Connecticut Department of Transportation (CTDOT) is undertaking a Community Connectivity Program that focuses on improving the state's transportation network for all users, with an emphasis on bicyclists and pedestrians. A major component of this program is conducting Road Safety Audits (RSA's) at selected locations. An RSA is a formal safety assessment of the existing conditions of walking and biking routes and is intended to identify the issues that may discourage or prevent walking and bicycling. It is a qualitative review by an independent team experienced in traffic, pedestrian, and bicycle operations and design that considers the safety of all road users and proactively assesses mitigation measures to improve the safe operation of the facility by reducing the potential crash risk frequency or severity.

The RSA team is made up of CTDOT staff, municipal officials and staff, enforcement agents, AECOM staff, and community leaders. An RSA Team is established for each municipality based on the requirements of the individual location. They assess and review factors that can promote or obstruct safe walking and bicycling routes. These factors include traffic volumes and speeds, topography, presence or absence of bicycle lanes or sidewalks, and social influences.

Each RSA was conducted using RSA protocols published by the Federal Highway Administration (FHWA). For details on this program, please refer to www.ctconnectivity.com. Prior to the site visit, area topography and land use characteristics are examined using available mapping and imagery. Potential sight distance issues, sidewalk locations, on-street and off-street parking, and bicycle facilities are also investigated using available resources. The site visit includes a "Pre-Audit" meeting, the "Field Audit" itself, and a "Post-Audit" meeting to discuss the field observations and formulate recommendations. This procedure is discussed in the following sections.



1 Introduction to the Derby Downtown, Derby RSA

The Town of Derby submitted an application to complete an RSA in the Main Street area to define a non-motorized connection from the Derby Greenway to the rail station. Currently, there is not a defined connection between the Greenway and the rail station. To travel between the two points, users need to leave the Greenway and use an access driveway that leads to Route 34 and the gore area of the Route 8 northbound entrance ramp. Users then have to cross the on-ramp, which has an ADT of about 8,000 vehicles per day. An at-grade crosswalk is painted across the on-ramp and a pedestrian signal is installed. However, the pedestrian signal has been disconnected and is non-functioning. From the on-ramp, users must travel along a relatively narrow sidewalk that parallels a heavily traveled section of Route 34 (about 22,300 vpd) to its intersection with Ausonio Drive.

The City of Derby's application contained information on traffic volumes, trail counts from the Naugatuck Valley Council of Governments and mapping of the corridor. The application and supporting documentation are included in Appendix A.

1.1 Location

The RSA corridor includes Route 34 (Main Street) from Derby Avenue to the Home Depot parcel at the corner of Factory Street/Water Street (Figure 1). Route 34 is classified as a Principal Arterial – Other. The Route 34 Average Daily Traffic (ADT) ranges from 22,300 by the Home Depot to 44,200 vehicles per day (vpd.) near the Derby Avenue intersection. High volumes of traffic in the corridor and the Atwater bridge rehabilitation project (underway and nearly complete), along with complex turning movements and signal phasing, combine to exacerbate an already congested corridor. In addition, this corridor provides minimal accommodations for pedestrians and no accommodations at all for bicyclists. Figure 2 shows the regional context of the study area.

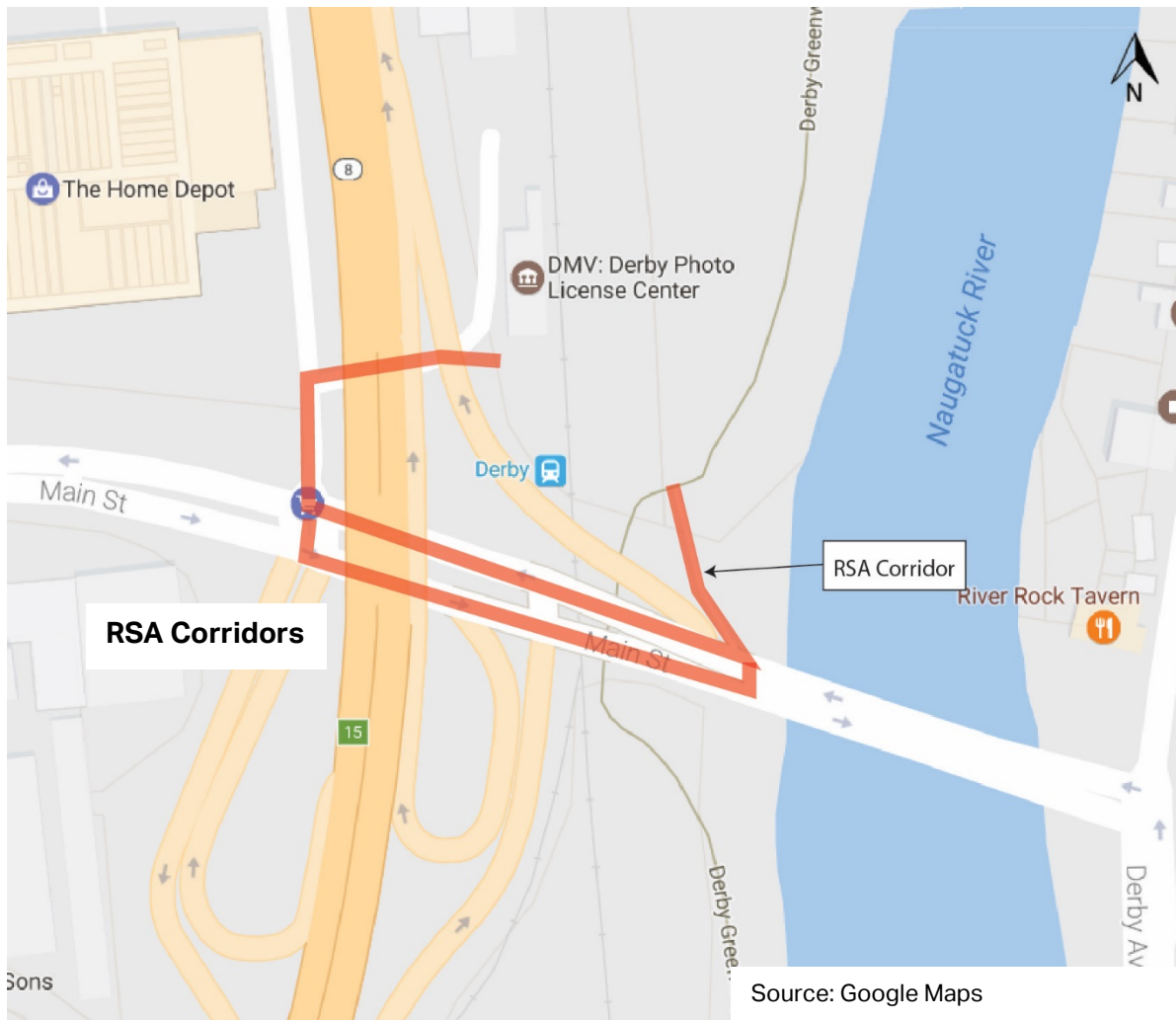


Figure 1: Derby RSA Corridors

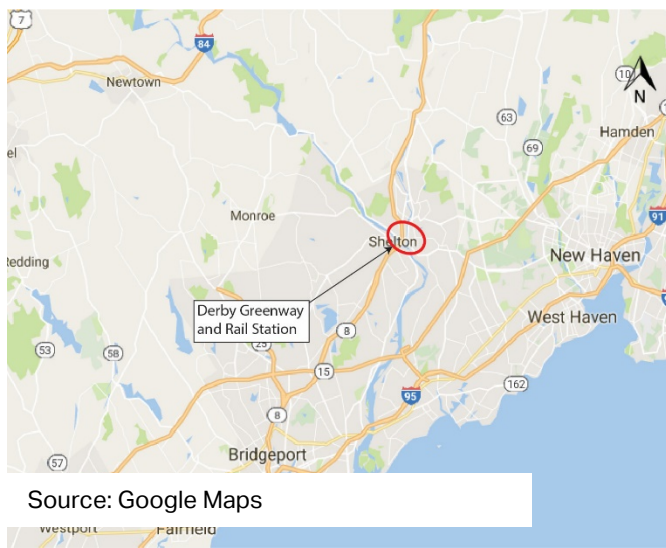


Figure 2: Regional Context

2 Pre-Audit Assessment

2.1 Pre-Audit Information

Between 2012 and 2014 there were 102 crashes in the RSA Area. The majority of crashes (87%) reported in this area resulted in property damage only; however 13% of crashes did result in an injury and there was no fatalities (Table 1 and Table 2). One crashed involved a bicyclist and no pedestrian crashes were report. The crash types reported were primarily rear-end and sideswipe-same direction. Figure 3 displays crashes that occurred in this area during 2015. The crash history for year 2015 shows that they are predominately on Route 34.

| Severity Type | Number of Accidents | |
|-----------------------------|---------------------|-----|
| Property Damage Only | 89 | 87% |
| Injury (No fatality) | 13 | 13% |
| Fatality | 0 | 0% |
| Total | 102 | |

Table 1: Crash Severity 2012-2014

Source: UConn Connecticut Crash Data Repository

| Manner of Crash / Collision Impact | Number of Accidents | |
|-------------------------------------|---------------------|-----|
| Unknown | 1 | 1% |
| Sideswipe-Same Direction | 26 | 25% |
| Rear-end | 53 | 52% |
| Turning-Intersecting Paths | 6 | 6% |
| Turning-Opposite Direction | 6 | 6% |
| Fixed Object | 0 | 0% |
| Backing | 2 | 2% |
| Angle | 5 | 5% |
| Turning-Same Direction | 3 | 3% |
| Moving Object | 0 | 0% |
| Parking | 0 | 0% |
| Pedestrian | 0 | 0% |
| Overturn | 0 | 0% |
| Head-on | 0 | 0% |
| Sideswipe-Opposite Direction | 0 | 0% |
| Miscellaneous- Non Collision | 0 | 0% |
| Total | 102 | |

Table 2: Crash Type 2012-2014

Source: UConn Connecticut Crash Data Repository

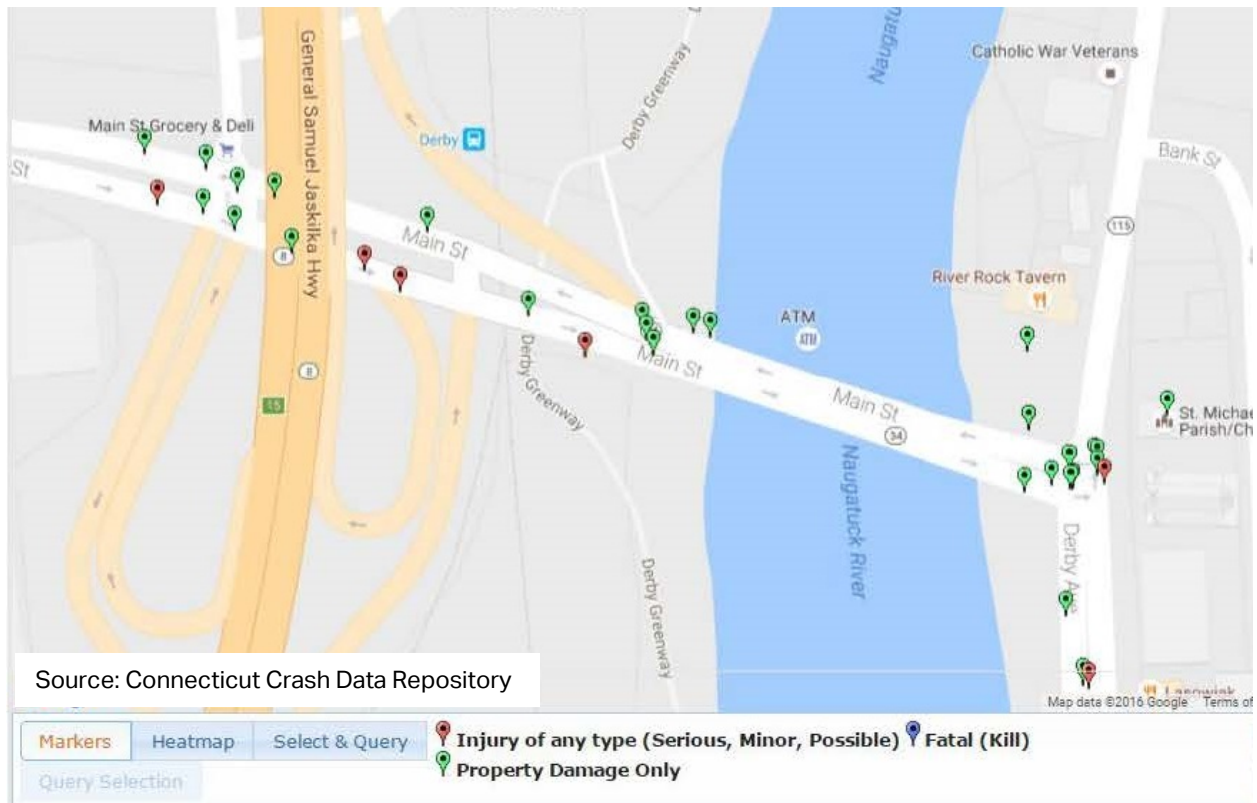


Figure 3: Crashes that Occurred in 2015 (Connecticut Crash Data Repository)

Main Street is generally a four lane, state owned road with a speed limit of 25 mph. There are sidewalks along the north side east of Route 8 and along both sides west of Route 8. Within the study area there are crosswalks at all side streets on the north side. There is also a Route 34 crossing at Water Street/Factory Street. All intersections within the study corridor limits are signalized. The geometry of the corridor is shown in Figure 4 and described in Table 3.

| Street Name / Location | Route | Travel Direction | Lane Width | Sidewalk | | | | Curb | Parking | Shoulder | Ramps | |
|---|-------|------------------|---------------------|----------|----------|--------|------------|----------|---------|----------|-------|---------------------------------------|
| | | | | Side | Type | Width | Condition* | | | | Exist | Compliant |
| Main Street/Water Street and Factory Street | 34 | West | 11-12 | North | Concrete | 5-6 | Good | Concrete | Yes | No | Yes | No |
| | 34 | East | 15 | South | Concrete | 5-6 | Good | Concrete | yes | No | Yes | No |
| Main Street between Factory and Route 8 | 34 | West | Two lanes 11 ft. | North | Concrete | 5 Feet | Good | Concrete | No | No | yes | No |
| | 34 | East | Three lanes 11 ft. | N/A | N/A | N/A | N/A | N/A | No | No | N/A | N/A |
| Main Street Under Route 8 | 34 | West | Five lanes | North | Concrete | 4 Feet | Good | Concrete | No | No | Yes | NO |
| | 34 | East | Two Lanes | South | N/A | N/A | N/A | Concrete | N/A | N/A | N/A | N/A |
| Main Street on Atwater Bridge | 34 | West | Three Lanes 11 ft. | North | Concrete | 4 Feet | Good | Concrete | No | No | Yes | ADA at crosswalk Over Route 8 on-ramp |
| | 34 | East | Three Lanes 11 feet | South | N/A | N/A | N/A | Concrete | No | No | N/A | N/A |

*CONDITION – “Good” is Serviceable Condition that meets current design standards. “Fair” is generally serviceable, but may need minor repairs, or may not completely align with current design standards. “Poor” is not serviceable, and generally inadequate for continued long-term use.

Table 3: Intersection Street Inventory

2.2 Prior Successful Efforts

Route 34 (Main Street) through downtown Derby will be widened and reconstructed as part of a federal/state project, as shown in Figure 5. Preliminary design is complete, but is under review for coordinating design elements with the proposed redevelopment of land south of Route 34. As part of the project, a bi-directional bicycle path (10 feet wide) and a pedestrian plaza are included along the south side of road. The



Figure 5: Route 34 Widening Project

Atwater Bridge (Bridge No. 00947) that carries Route 34 over the Naugatuck River is currently undergoing reconstruction (State Project No. 0036-0182). The project includes replacement of the concrete deck, replacement of bridge bearings, sidewalk and lighting. The west end of the bridge is located at the northbound on-ramp to Route 8 and the access driveway for the Derby Greenway Trail.

Downtown Revitalization Efforts

Derby received a non-matching grant from the State of Connecticut Bond Commission for \$445,000 to be used for downtown revitalization efforts. Downtown Now! is a local initiative that is focused on incrementally developing the south side of downtown Main Street for development. Primary designs have been drawn and include multi-use buildings with emphasis on bike and pedestrian connectivity to the train station and the Greenway, as shown in Figure 6. This is expected to jump start the expansion of Derby's tax base and restore the City's downtown to a vibrant center of economic and community activities



Figure 6: Downtown Revitalization Project

2.3 Pre-Audit Meeting

The RSA was conducted on April 12, 2017. The Pre-Audit meeting was held at 8:30 AM in the Derby City Hall located at 19 Maple Avenue in Derby.

The RSA Team was comprised of staff from CTDOT and representatives from several Derby Town departments and organizations including the Fire Department, Police Department, Mayor's Office, Downtown Now! representatives, VN Engineers, Inc. and AECOM. The

complete list of attendees can be found in Appendix B. Materials distributed to the RSA Team, including the agenda, audit checklist, ADT counts, crash data and road geometrics, can be found in Appendix C.

RSA Team members from Derby presented relevant information for the audit, including:

- This corridor is congested due to the location of the Route 8 interchange at the center of the Route 34 corridor.
- Sidewalks run along the north and south sides of Main Street to the west side of Route 8 entrance and exit ramps (Figure 7). The sidewalk continues on the north side, crosses the Route 8 northbound on ramp and continues across the Bridge exclusively on the north side. Pedestrians can connect to the Derby Greenway prior to the bridge crossing, using an access road that currently has construction materials and vehicles.
- The lack of pedestrian crossing signals throughout corridor and safe amenities over the Atwater Bridge are a concern.
- Lack of wayfinding signs, especially for the train station needs to be addressed (Figure 8).
- The Town attendees stressed the importance of linking the new development to the train station and the Greenway (Figure 9). The Town made clear that it is imperative for the Town's long term plans to increase non-motorized mobility and connectivity through this corridor.
- The alignment of travel lanes on Route 34 eastbound over the Atwater Bridge causes cars to jockey for position in the right lane. The current configuration forces the middle lane drivers into an exclusive left turn lane at intersection of CT-115 and CT- 34.



Figure 7: Main Street west of Route 8



Figure 8: Current Wayfinding Signs

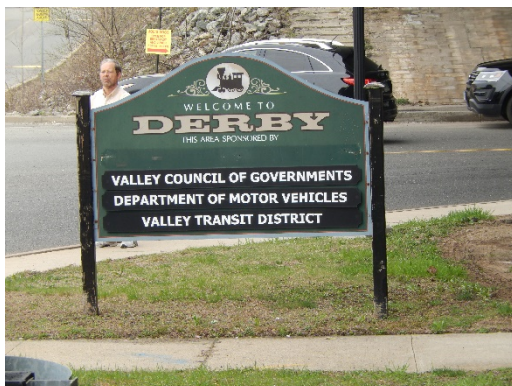


Figure 9: Entrance to Train Station and DMV

- The current alignment of CT-34 westbound, west of CT-8, with two lanes of through traffic reducing to one and an exclusive right turn lane causes driver confusion and contributes to side-swipe crashes. In addition, on-street parking is permitted west of this point in the downtown area. This lane reduction and permitted on-street parking causes driver confusion and traps vehicles in the right turn only lane without warning. There are two regulatory signs but they are insufficient to warn drivers of the changing lane patterns.
- The Route 8 Southbound Exit Ramp has three lanes, designated for left, through, and right turns. The audit attendees expressed concern that there is too much right-turning traffic for one lane to handle, so many vehicles make right turns from the through lane. The town would like the center lane to be a mixed through/right turn lane.
- Attendees indicated that the signal for the Route 8 Southbound Exit ramp includes "force-off" detection on the ramp to prevent queueing of vehicles onto the highway. The "force-off" extends the green time for the ramp to allow the queue to dissipate. However, when this occurs, Route 34 traffic can significantly back up in both the eastbound and westbound directions.
- Connection to the Derby Greenway in this area is limited to an access point from the Atwater Bridge. This path forces pedestrians to enter the roadway to cross over Route 8 northbound on-ramp.
- Sidewalk amenities along the bridge are not adequate. There is no buffer and traffic speeds and volumes are high.
- There is a bus stop along the Atwater Bridge which is perilous for riders because they have to step over a guiderail to access the bus.
- There is presently a CTDOT Route 34 widening project design to include on-street parking, two lanes of travel eastbound and westbound, and bicycle lanes. The Town has alternate ideas for accommodating bicycles in this segment of the corridor.

Downtown Derby Revitalization Plan:

- The Town is heavily engaged in the planning for a multi-use development along Route 34, primarily located south of the street and west of Route 8 (Figure 10). The project has involved a high degree of stakeholder input.
- It is a TOD project, designed to focus on non-motorized users who can access transit modes, such as the local bus routes and the train station.
- Bike and Pedestrian connectivity is an emphasis for new development. The objective is to attract millennials and retirees.
- A bike route is proposed to be installed through this development on the south side of Main Street, continue across Route 34 at Water Street, and then east along the Home Depot property (off-street) to connect to the Derby-Shelton Metro North Station and the Derby Greenway.
- The Town does not want to widen Route 34 west of the interchange to the previously designed four lanes with adjacent bike lanes. They want to maintain one lane in each direction with on-street parking. The cyclists would be directed to the proposed bike path planned to be installed as part of the Downtown Derby Revitalization Plan.

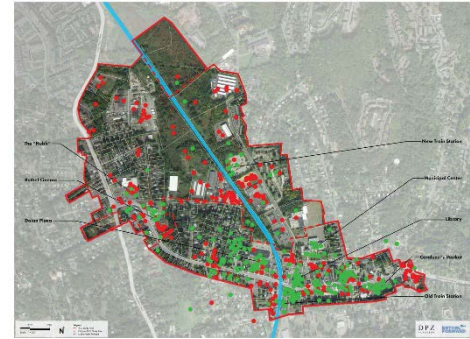


Figure 10: Revitalization Site

Derby Greenway

- This is a segment of the Naugatuck River Greenway.
- This Derby section is a two mile long paved path that passes under route 34 at the Route 8 Interchange within the study area (Figure 11).
- Average weekly usage along the Greenway is 12,000 persons according to Naugatuck Valley Council of Governments findings in 2015.



Figure 11: Derby Greenway under Route 8 on-ramp

3 RSA Assessment

3.1 Field Audit Observations

Route 34/ Water Street

- Four way signalized intersection.
- There are crosswalks on all four legs of the intersection; they are in fair condition.
- There are pedestrian pushbuttons to call vehicle phases.
- There are ramps at each corner but they do not have the ADA required tactile warning strips.
- The sidewalks are in good condition; they average six feet in width with asphalt curbing and no buffer.
- On-street parking for eastbound and westbound traffic is permitted west of the intersection.
- To the east of the intersection westbound lanes are divided into two lanes of travel; one left/through lane and one exclusive right turn lane. This reduction to one through lane forces drivers to compete for their desired lane with limited advance warning. There are two regulatory signs warning drivers of the changing traffic pattern along with appropriate pavement markings but unfamiliar drivers are reported to have difficulty maneuvering into the proper lane designation (Figure 12 and Figure 13).
- East of the intersection, the eastbound roadway widens to three lanes; one left turning lane, one exclusive through lane and one right/through lane.

Route 34 and Route 8 Interchange

- This is a $\frac{3}{4}$ cloverleaf interchange between Route 34 and the Route 8 freeway. The southbound entrance and exit ramps intersect Route 34 from the south opposite Ausonio Drive, forming a 4-way signalized intersection. The northbound entrance and exit ramps intersect Route 34 from the south, forming a signalized T-intersection, and the northbound entrance from Route 34 eastbound is a



Figure 13: Signage along westbound Route 34



Figure 12: Crosswalk at Home Depot Entrance

separate right turning roadway that is free flowing except during an actuated pedestrian phase.

Southbound Intersection with Ausonio Drive:

- There is a crosswalk located on the north leg of Ausonio Drive. There is no pedestrian phase or signal associated with this crossing. There is a pushbutton to actuate the vehicle phase on the northwest corner and on the controller cabinet on the southwest corner. The button on the controller is placed behind a guiderail. There is no button on the northeast corner (Figure 14).
- The driveway to the Home Depot is located on Ausonio Drive.
- The Metro-North Train station and DMV Photo License Center Office are located adjacent to the Northeast corner of this intersection (Figure 15).
- There are two post mounted auxiliary signals for the channelized right turn onto the southbound ramp. It is unclear as to whether right turns are allowed on red, since the indications are so far into the turn. Some drivers wait, while others do not.



Figure 14: Pedestrian button location is not accessible



Figure 15: Train Station

Northbound Intersection / Atwater Bridge

- There is a four foot wide sidewalk continuing along the north side of the bridge with no buffer. Pedestrians are very exposed to dense vehicular traffic.
- The pedestrian connection forces pedestrians to cross the entrance to the on-ramp for northbound Route 8 (Figure 16).
- The pedestrian signal is not presently functioning on the south side of the crosswalk and the push button is mislocated, facing north towards the on-ramp, not the sidewalk. Pedestrians must step into oncoming ramp traffic to activate the signal which stops oncoming vehicles in theory. Our team witnessed several vehicles proceeding through on red without pause. This signal is presently being



Figure 16: View of westbound traffic on bridge and entering Route 8

upgraded, and may have improved visibility and functionality when completed.

- Eastbound traffic passes under Route 8 and approaches this intersection in two lanes. Immediately east of the intersection, Route 34 widens to three lanes, with two right turn lanes and one left turn lane at Route 115, on the far side of the bridge. Presently, the two lanes are directed into the left and center lanes of the three lane section. This causes excessive driver confusion and lane changing, as people find the lane that they need to be in at the next intersection.

Derby Greenway

- This two mile long paved pathway runs in a north south direction adjacent to the Naugatuck River (Figure 17). It runs under Route 34 and the Route 8 North on-ramp, and continues north along the river. There is one access point Main Street from the north side of Atwater Bridge.
- There is no direct connection from the Greenway to the Train Station. The railroad tracks are between the facilities.



Figure 17: Derby Greenway

3.2 Post-Audit Workshop - Key Issues

- The current alignment of Route 34 causes driver confusion (Figure 18). Some lane striping should be redesigned. In other areas better signage might suffice to increase driver awareness of changing lane patterns.
- The Route 8 southbound on-ramp configuration could be lengthened.
- Corridor needs wayfinding signs.
- Congestion in this study area is due to the geometry of the interchange.
- Due to congestion the town could consider alternative interchange designs, such as diverging



Figure 18: Route 34 Aerial View

diamond interchange, Texas turn or single point interchange (this was done on Exit 48 of the Merritt Parkway near Milford Mall.)

- Include recommendations from this audit in the Route 34 widening project.
- Pedestrian bridge over railroad tracks is best option for connectivity between downtown, the train station and the greenway (Figure 19).
- Town would like the State to change center lane of Route 8 southbound off ramp through lane designation to through/right turn. That would reflect the current traffic patterns since drivers ignore the exclusive through lane for the center lane.
- Car storage is the issue through the entire interchange area.
- On the southwest corner of the Route 34 Route 8 interchange, the former Lifetouch building is designated to be the gateway for the downtown revitalization (Figure 20).



Figure 19: Greenway with Derby Train Station in background



Figure 20: Lifetouch Building

4 Recommendations

From the discussions during the Post-Audit meeting, the RSA team compiled a set of recommendations that are divided into short-term, mid-term, and long-term categories. For the purposes of the RSA, **Short-term** is understood to mean modifications that can be expected to be completed very quickly, perhaps within six months, and certainly in less than a year if funding is available. These include relatively low-cost alternatives, such as striping and signing, and items that do not require additional study, design, or investigation (such as right-of way acquisition). **Mid-term** recommendations may be more costly and require establishment of a funding source, or they may need some additional study or design in order to be accomplished. Nonetheless, they are relatively quick turn-around items, and should not require significant lengths of time before they can be implemented. Generally, they should be completed within a window of eighteen months to two years if funding is available. **Long-term** improvements are those that require substantial study and engineering, and may require significant funding mechanisms and/or right-of-way acquisition. These projects generally fall into a horizon of two years or more when funding is available.

Notes:

- Project 0036-0182 is finishing construction; cat tracks (proposed peg-a-track) are proposed to guide vehicles to the left in the EB direction as they enter the bridge.

4.1 Short Term

1. Town to design and install wayfinding signs for the DMV, the train station, the Derby Greenway, and other points of interest in the corridor.
2. Town to coordinate with CTDOT to restripe all crosswalks.
3. Town to coordinate with CTDOT to fix the pedestrian signal on Atwater Bridge/ Route 8 northbound on-ramp.
4. Town to coordinate with CTDOT to repaint pavement markings, especially where traffic merges into one lane or where there is potential driver confusion, for example along the Route 34 eastbound section.
5. Coordinate with CTDOT to install MUTCD *Right Lane MUST Turn Right* sign, R3-7, for Route 34 westbound traffic between Route 8 and Water Street (Figure 21).
6. Coordinate with CTDOT to install ADA Compliant truncated domes at all current ramp locations (Figure 22).
7. Coordinate with CTDOT to consider installing *Yield for pedestrians in crosswalk* sign, R1-5c, for Route 8 northbound on-ramp crossing.
8. Coordinate with CTDOT to address the Route 34 widening designs (State Project No. 0036-0182) to incorporate the Town's vision.
9. Send the CTDOT a copy of this report so they can incorporate relevant recommendations in their project.

Figure 23 depicts these short-term recommendations.



Figure 21: Right Lane must Turn Right Sign



Figure 22: ADA compliant ramp

Short-term improvements

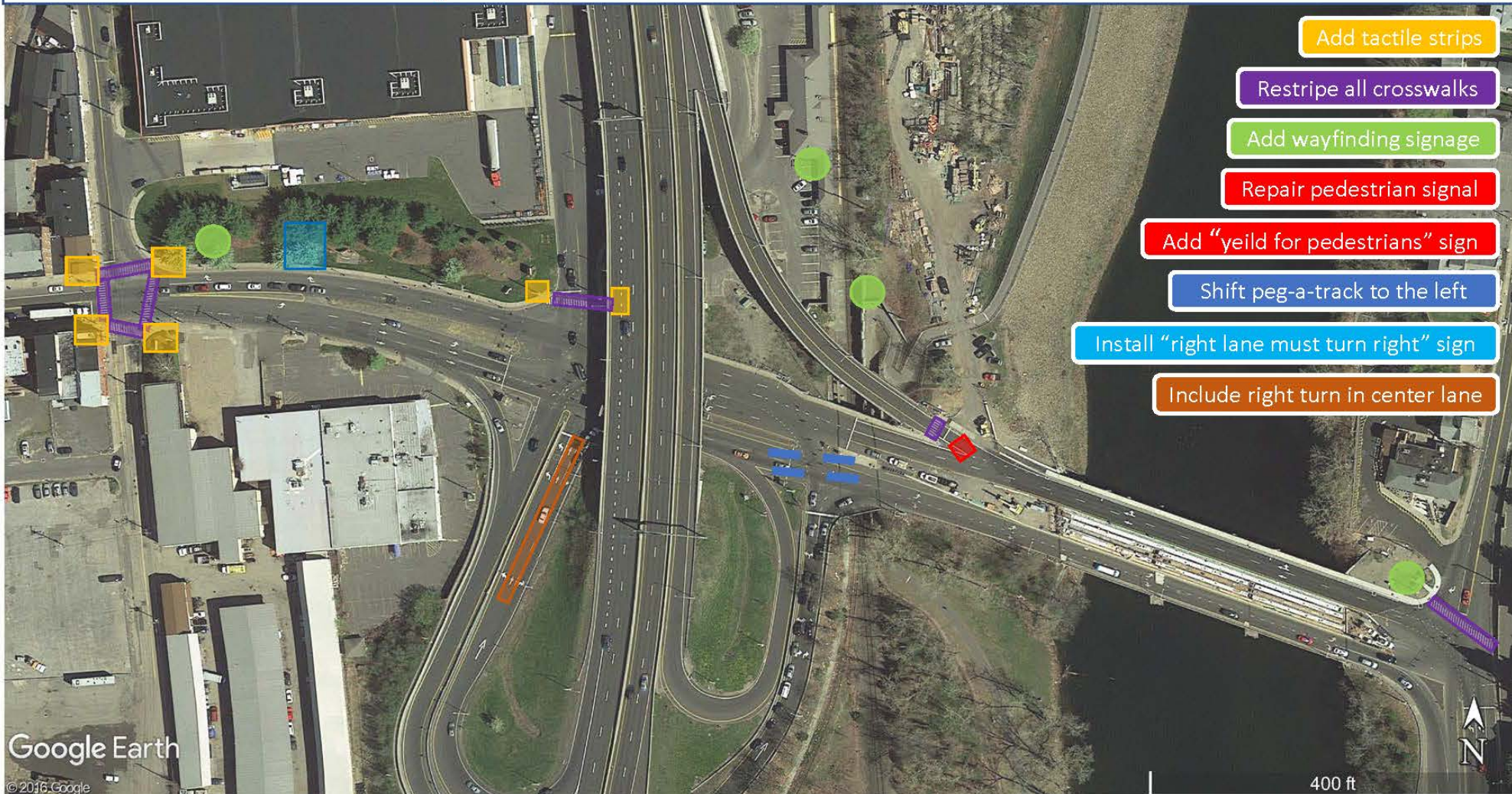


Figure 23: Short-term Improvements

4.2 Medium Term

1. Town to coordinate with CTDOT to install pedestrian countdown signals at Route 34 and Ausonio Drive (Figure 24).
2. Town to coordinate with CTDOT to provide pedestrians crossing the Route 8 on-ramp with a protective barrier (Figure 25).
3. Town to coordinate with CTDOT to realign the travel lanes on the eastbound section of Route 34 over the Atwater Bridge before placement of final epoxy (Figure 26). This modification is needed to guide drivers from the two through lanes at to Route 8 northbound off-ramp to the more frequently used right turning lanes. This would be more conducive to the current flow of traffic. A capacity analysis would need to be performed and a request to the Office of the State Traffic Administration (OSTA) would be needed.



Figure 24: Pedestrian Countdown Signal

Figure 27 depicts these short-term recommendations.



Figure 25: Pedestrian accommodations on Route 8 On-Ramp



Figure 26: Route 34 eastbound over Atwater Bridge

Medium-term improvements

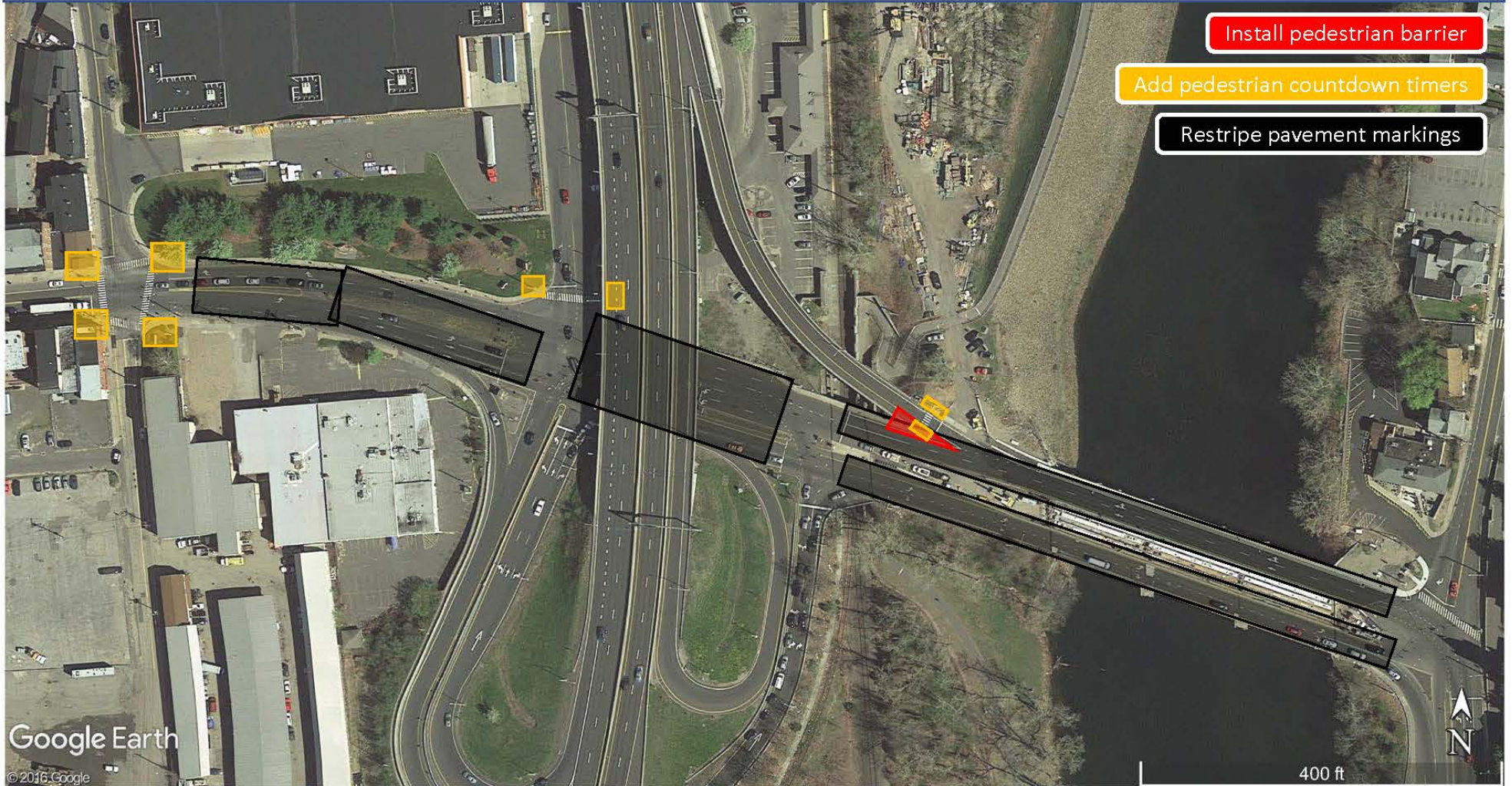


Figure 27: Medium-term Improvements

4.3 Long Term

1. Town to coordinate with Metro North Railroad to develop a plan for a pedestrian bridge to be constructed over the active tracks, linking the Derby Greenway to the train station with points of interest west of here, including the new development along Main Street.
2. Town to coordinate with CTDOT to study Route 8 southbound entrance ramp for possible alternative reconfiguration. Right of way needs to be studied.
3. Town to coordinate with CTDOT to consider the redesign on the entire interchange to augment the flow of this area. Consider a study for single point entry, diverging diamond interchange, or Texas turn as possible options (Figure 28).

Figure 29 depicts these short-term recommendations.

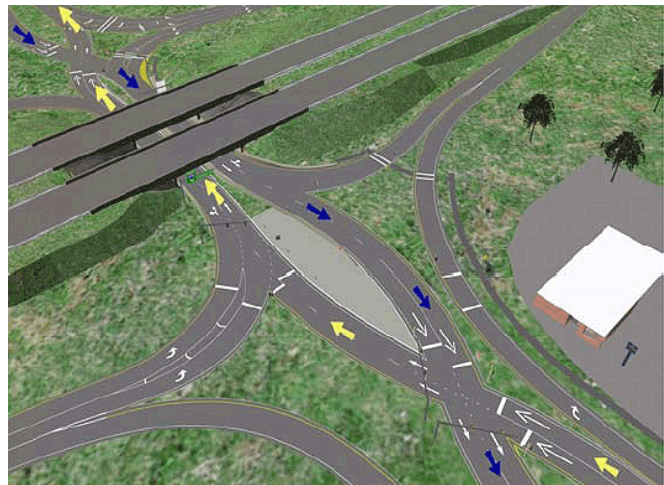


Figure 28: Diverging diamond interchange

Long-term improvements



Figure 29: Long-term improvements

4.4 Summary

This report outlines the observations, discussions and recommendations developed during the RSA. It documents the successful completion of the Town of Derby RSA and provides Derby with an outlined strategy to improve the transportation network in their downtown for all road users, particularly focusing on pedestrians and cyclists. Moving forward, Derby may use this report to prepare strategies for funding and implementing the improvements, and as a tool to plan for including these recommendations into future development for downtown.



COMMUNITY
connectivity program

Appendix A



AECOM
Built to deliver a better world

Welcome to the Community Connectivity Program Application



Please fill in the following information to provide the Audit team leaders with a comprehensive description of the area contained in this application.

1. Applicant contact information

| | |
|-------------------------|----------------------|
| Name | <input type="text"/> |
| Title | <input type="text"/> |
| Email Address | <input type="text"/> |
| Telephone Number | <input type="text"/> |

2. Location information

| | |
|--------------------|----------------------|
| Address | <input type="text"/> |
| Description | <input type="text"/> |
| City / Town | <input type="text"/> |

3. Roadway type
(Please select all that apply)

State road

Local road

Private Road

Other (please specify)

4. Zoning
(Please select all that apply)

Industrial

Residential

Commercial

Mixed Use

Retail

N/A (not applicable)

Other (please specify)

5. Approximate mile radius around the location

Other (Please Specify)

6. Community Sites
(Please select all that apply)

Community Centers

Business Districts

Restaurant/Bar Districts

Churches

Housing Complexes

Proximity to Schools

Tourist Locations (examples – Casino, Malls, Parks, Aquarium, etc...)

N/A (not applicable)

Other (please specify)

7. Employment Facilities
(Retail, Industrial, etc...)

Yes

No

If Yes please describe (please specify)

8. Educational facilities

(Please select all that apply)

Public, Parochial, Private Schools (more than 1 school within a ½ mile)

University / Community Colleges

N/A (not applicable)

Other (please specify)

9. Transit facilities

(Please select all that apply)

Bus

Rail

Ferry

Airport

Park and Ride Lot

N/A (not applicable)

Other (please specify)

10. Safety Concerns

(Please select all that apply)

Traffic (volumes & speed)

Collisions

Sidewalks

Traffic Signals

Traffic Signs

Parking Restrictions / Additions

Drainage

ADA Accommodations

Agricultural & Live Stock crossing

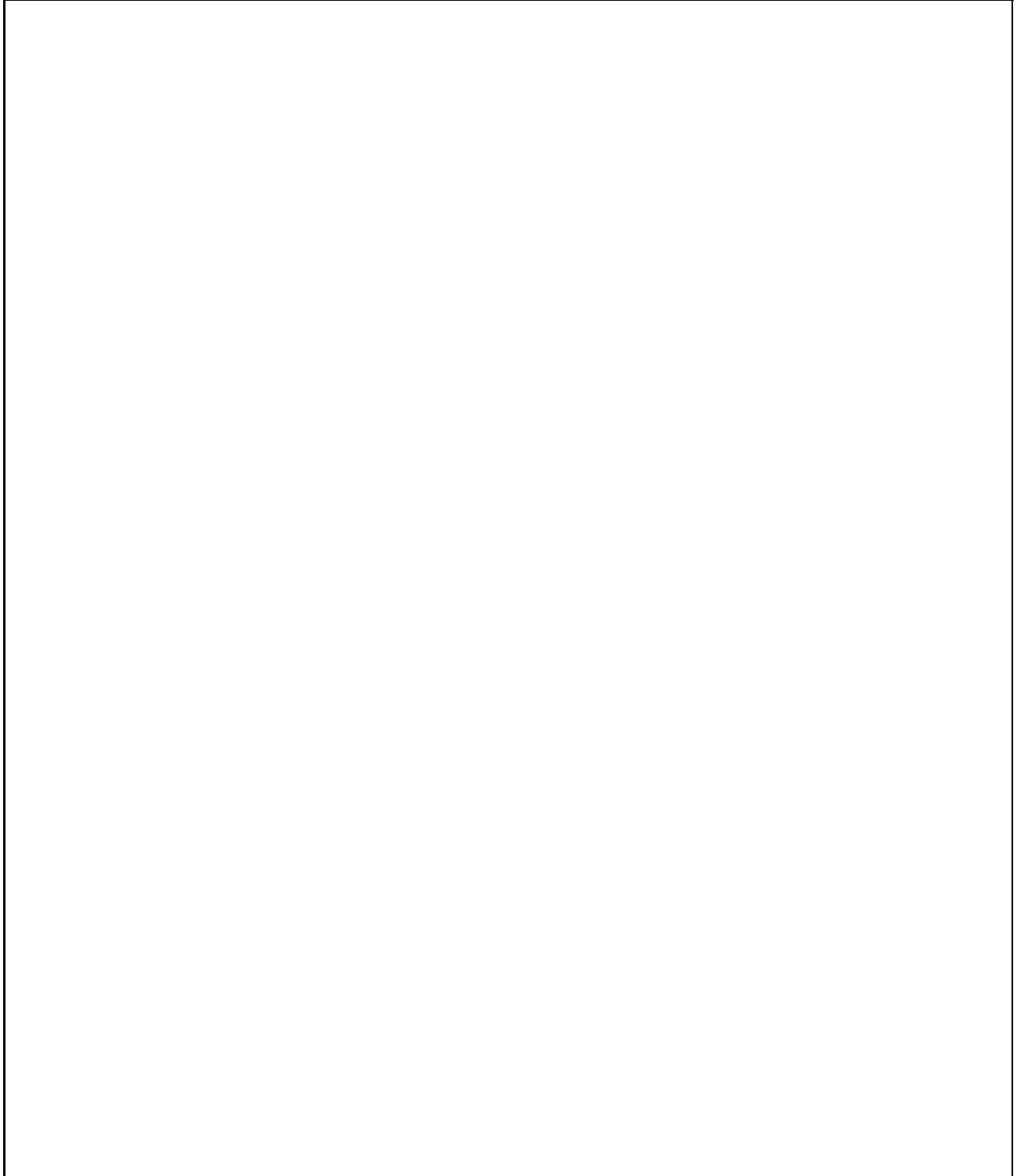
Maintenance issues (cutting grass, leaves, snow removal)

N/A (not applicable)

Other (please specify)

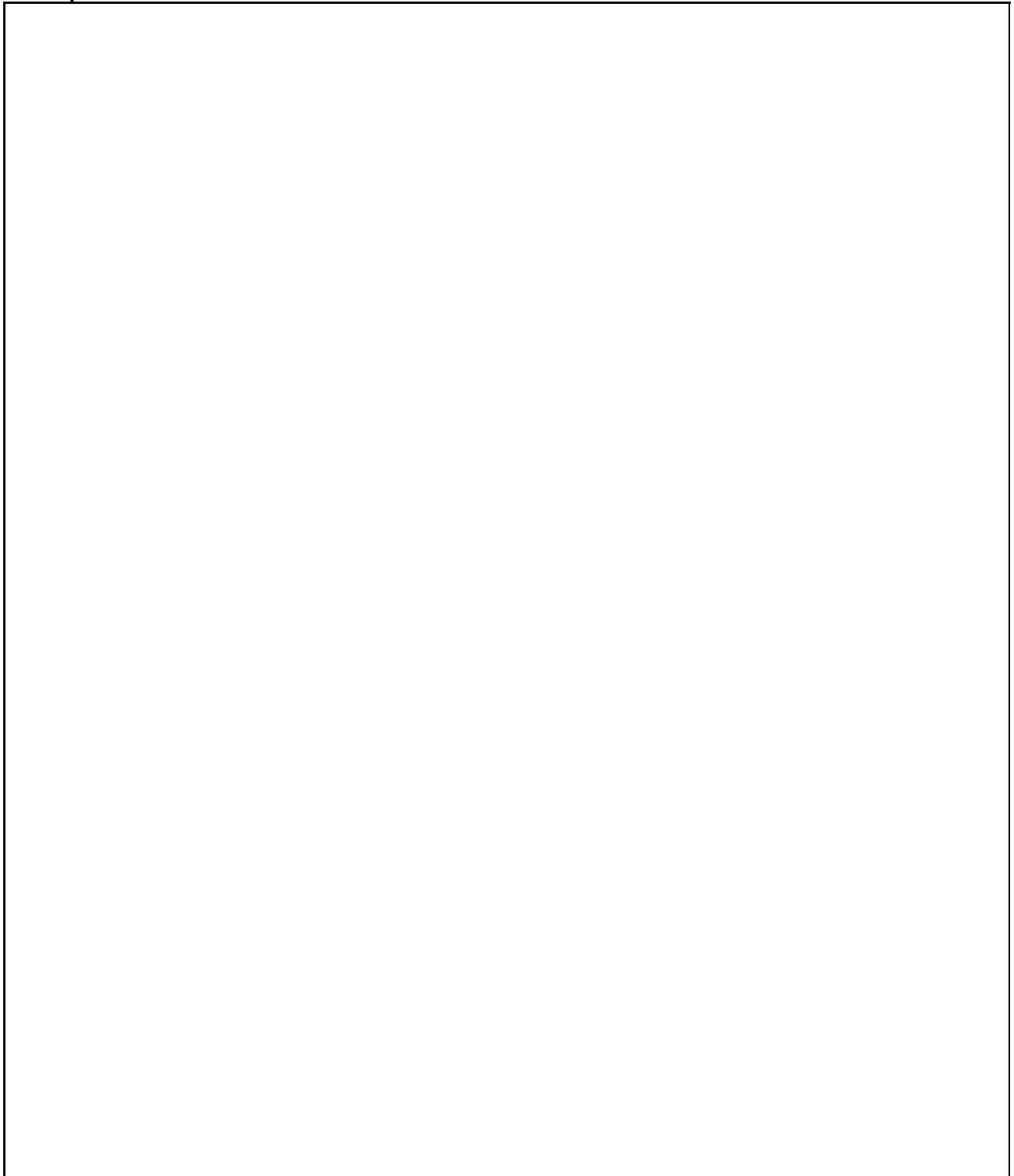
11. Are there any past, current or future transportation/economic development projects near this location (i.e. Federal, State or local projects)?

If Yes please describe and list all projects.

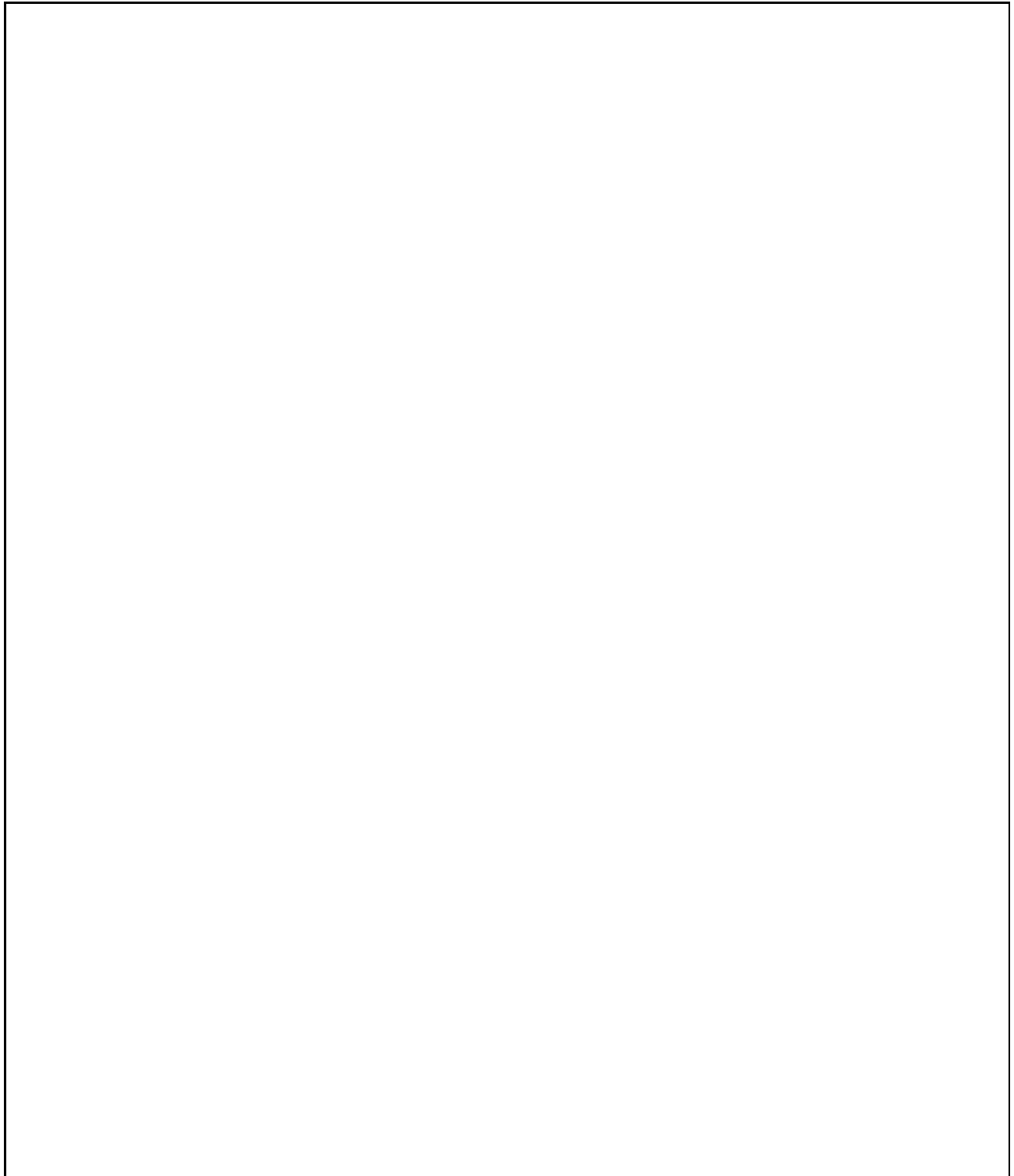
A large, empty rectangular box with a thin black border, intended for the user to describe and list any past, current, or future transportation or economic development projects near the location. The box is currently blank.

12. Environmental Concerns:

If Yes please describe and list.

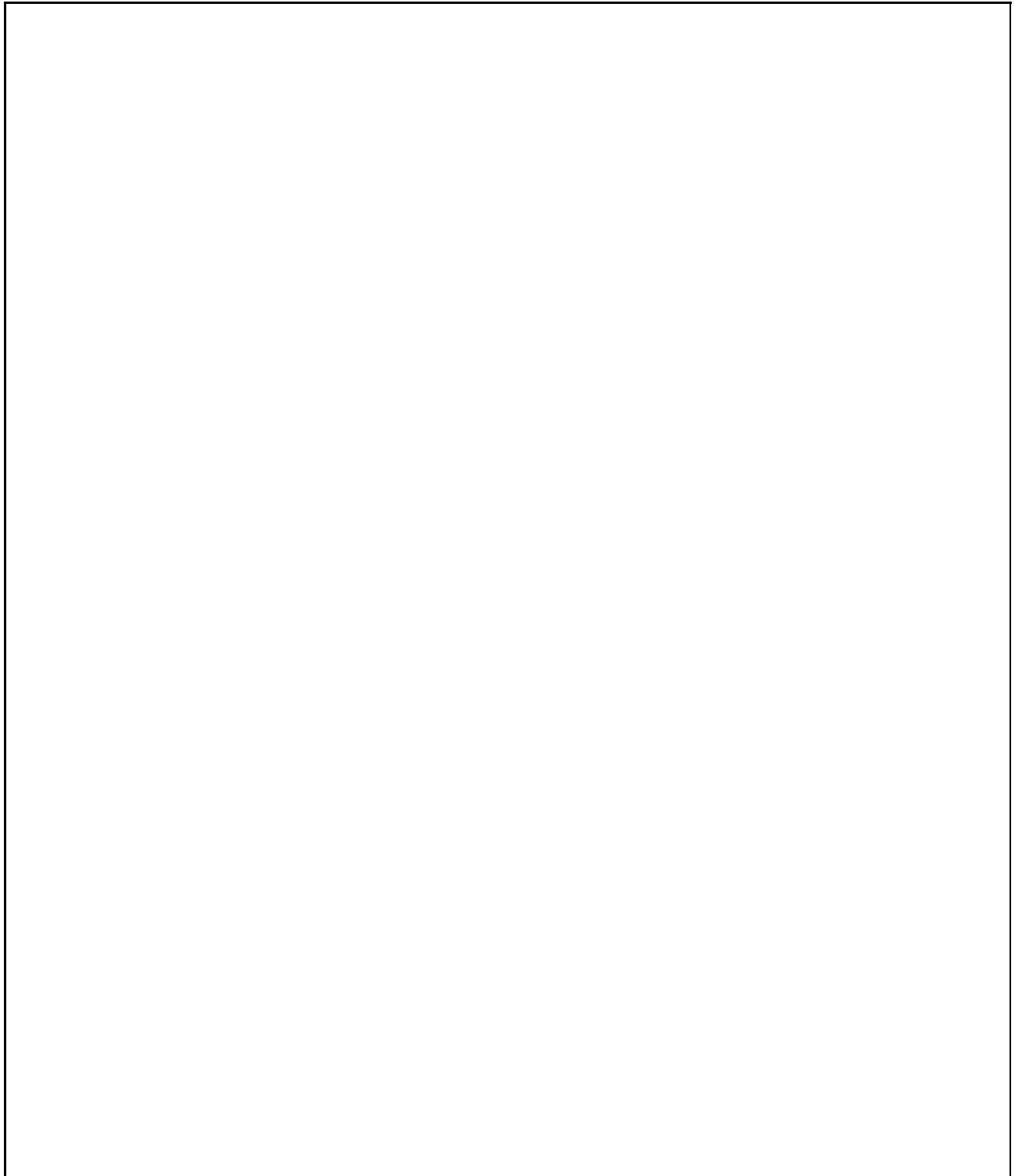
A large, empty rectangular box with a thin black border, intended for the user to describe and list any environmental concerns. The box occupies most of the page's vertical space below the instruction.

13. Please explain why this location should be considered for an RSA

A large, empty rectangular box with a thin black border, intended for the user to provide a detailed explanation for why a specific location should be considered for an RSA. The box occupies most of the page's vertical space below the question.

14. Are there plans to expand the area?

(Transportation Oriented Development, Economic Development, housing, etc...)



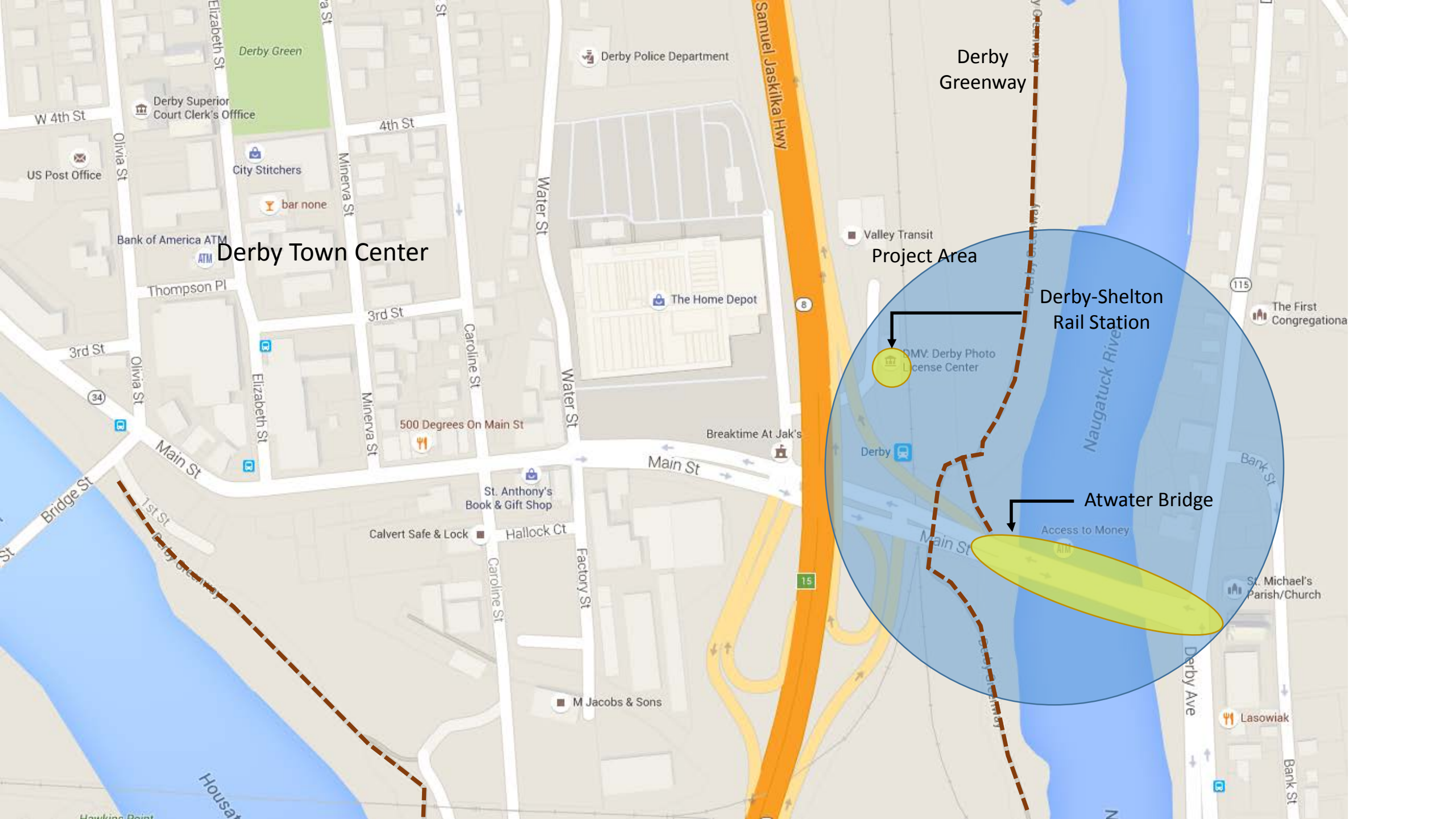
15. Any other pertinent information that is unique to this location?

A large, empty rectangular box with a thin black border, intended for the user to provide any other pertinent information unique to the location.

Thank you for completing the Community Connectivity application.

Please click on the "submit button" below and include the following attachments

- 1 Location map (google, GIS) **(Required)**
- 2 Collision data (If available)
- 3 Traffic data (ADT or VMT) (If available)
- 4 Pedestrian/bicycle data (If available)



Derby Town Center

Derby Greenway

Project Area

Derby-Shelton Rail Station

Atwater Bridge

W 4th St

US Post Office

Derby Superior Court Clerk's Office

Thompson Pl

3rd St

Main St

Bridge St

1st St

Hawking Point

Derby Green

City Stitches

bar none

ATM

ATM

ATM

ATM

ATM

ATM

ATM

ATM

ATM

ATM

ATM

Derby Police Department

4th St

Minerva St

3rd St

500 Degrees On Main St

Calvert Safe & Lock

Hallock Ct

St. Anthony's Book & Gift Shop

Caroline St

Factory St

M Jacobs & Sons

Main St

Breaktime At Jak's

The Home Depot

Samuel Jaskilka Hwy

8

15

Valley Transit

DMV Derby Photo License Center

Derby

Main St

Main St

Main St

Main St

Main St

Derby-Shelton Rail Station

Access to Money

ATM

ATM

ATM

ATM

ATM

ATM

ATM

ATM

ATM

ATM

ATM

ATM

ATM

ATM

ATM

ATM

ATM

ATM

ATM

ATM

ATM

ATM

115

Lasowiak

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM

ATM

The First Congregationa

St. Michael's Parish/Church

ATM

ATM



Derby-Shelton Bridge



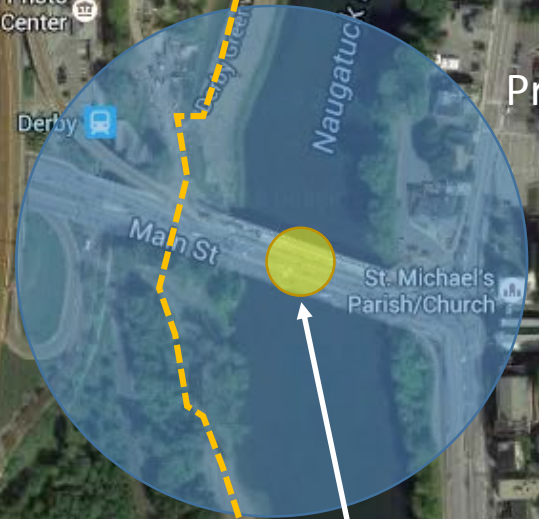
Downtown Derby

The Home Depot

DMV: Derby Photo License Center

Project Area

Planned Bike Path - Proj. No. 36-184



St. Michael's Parish/Church

East Derby

Downtown Shelton

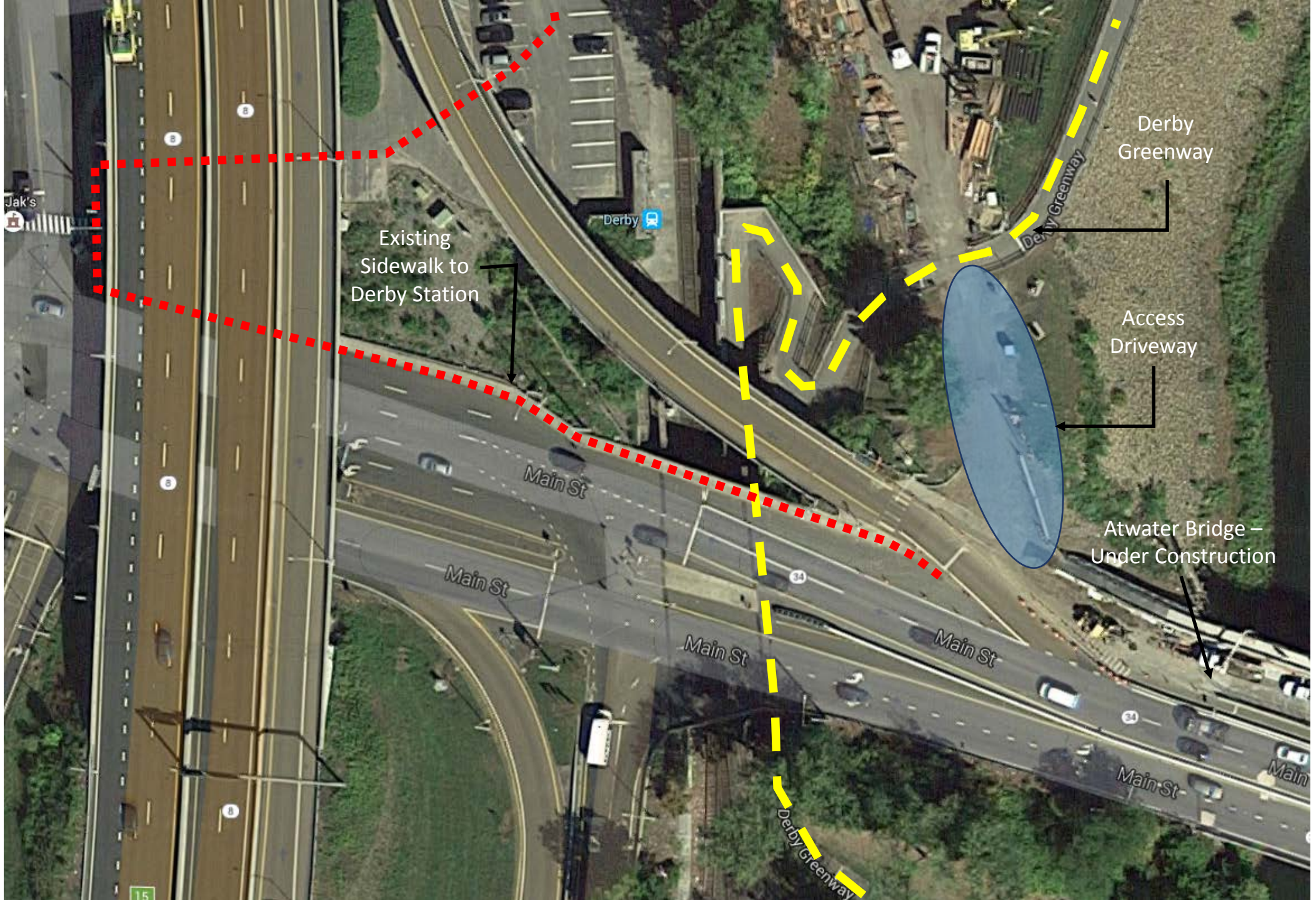
Atwater Bridge

Derby Greenway

Hawkins Point

Hog Island

Veterans Memorial Park



Jak's

Existing Sidewalk to Derby Station

Derby

Derby Greenway

Access Driveway

Atwater Bridge - Under Construction

8

8

8

8

Main St

Main St

Main St

Main St

Main St

Main St

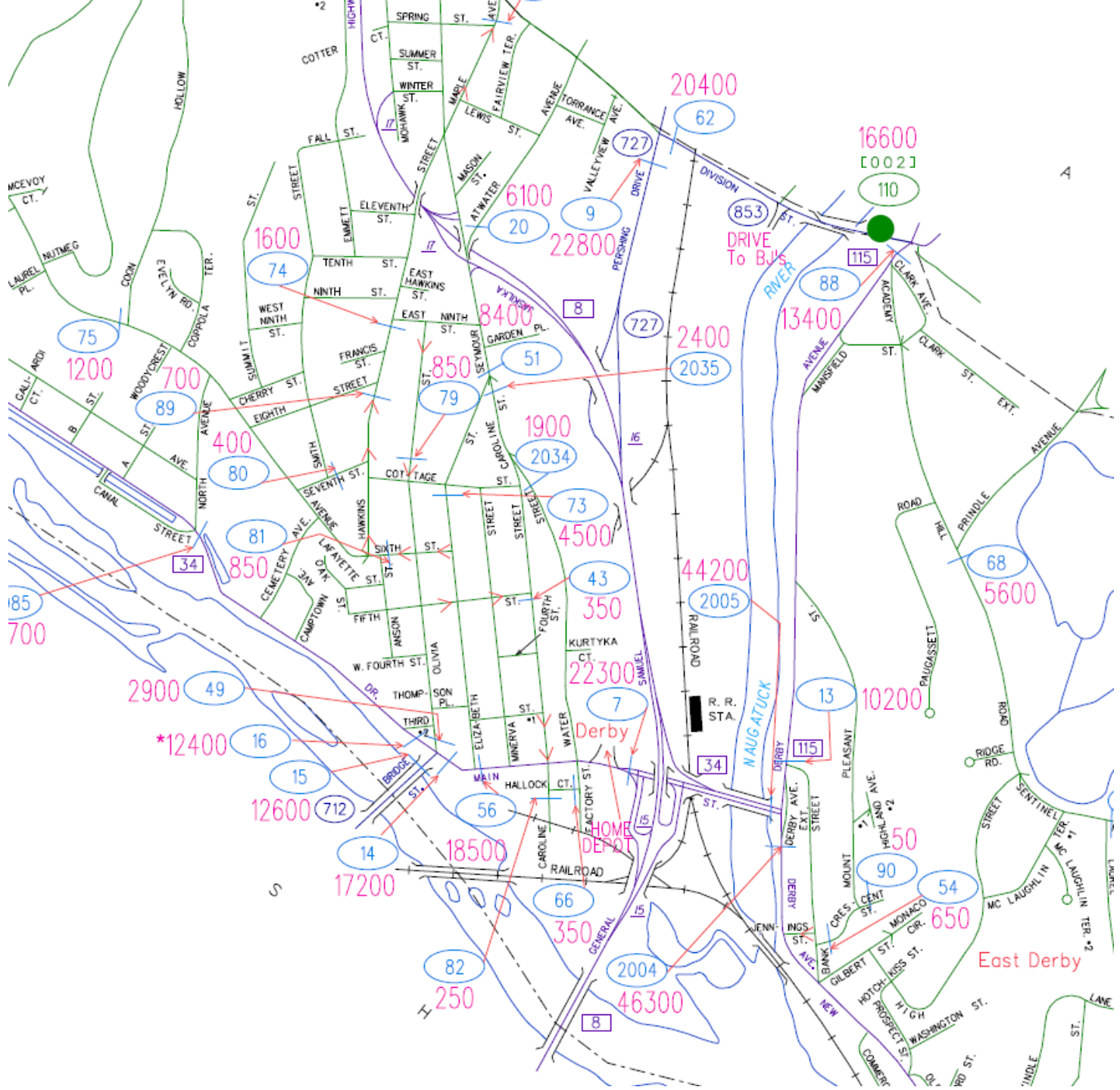
34

34

15

Derby Greenway

Derby Greenway



2012 Derby ADT Map
CTDOT

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF POLICY AND PLANNING
PLANNING INVENTORY AND DATA

TRAFFIC RECORDER DATA

| TOWN OF DERBY | ROUTE 34 | | | | | | DIRECTION E |
|----------------------------|------------------|-----|------------|------------|------------|-----|-------------|
| WEST OF ROUTE 8 SB ON RAMP | SUN | MON | TUE | WED | THU | FRI | SAT |
| DAY | 0 | 0 | 10/23/2012 | 10/24/2012 | 10/25/2012 | 0 | 0 |
| DATE | | | | | | | |
| TYPE | | | | | | | |
| HOUR | | | | | | | |
| | 2012 ADT = 11800 | | ACF = NA | | | | |
| | ***** | | | | | | |
| 12A | 0 | 0 | 0 | 64 | 75 | 0 | 0 |
| 01A | 0 | 0 | 0 | 53 | 42 | 0 | 0 |
| 02A | 0 | 0 | 0 | 24 | 35 | 0 | 0 |
| 03A | 0 | 0 | 33 | 28 | 0 | 0 | 0 |
| 04A | 0 | 0 | 77 | 83 | 0 | 0 | 0 |
| 05A | 0 | 0 | 283 | 287 | 0 | 0 | 0 |
| 06A | 0 | 0 | 781 | 766 | 0 | 0 | 0 |
| 07A | 0 | 0 | 1261 | 1240 | 0 | 0 | 0 |
| 08A | 0 | 0 | 1094 | 1160 | 0 | 0 | 0 |
| 09A | 0 | 0 | 847 | 791 | 0 | 0 | 0 |
| 10A | 0 | 0 | 699 | 757 | 0 | 0 | 0 |
| 11A | 0 | 0 | 724 | 744 | 0 | 0 | 0 |
| 12P | 0 | 0 | 729 | 697 | 0 | 0 | 0 |
| 01P | 0 | 0 | 701 | 726 | 0 | 0 | 0 |
| 02P | 0 | 0 | 773 | 738 | 0 | 0 | 0 |
| 03P | 0 | 0 | 869 | 811 | 0 | 0 | 0 |
| 04P | 0 | 0 | 912 | 1009 | 0 | 0 | 0 |
| 05P | 0 | 0 | 867 | 937 | 0 | 0 | 0 |
| 06P | 0 | 0 | 747 | 710 | 0 | 0 | 0 |
| 07P | 0 | 0 | 466 | 529 | 0 | 0 | 0 |
| 08P | 0 | 0 | 335 | 345 | 0 | 0 | 0 |
| 09P | 0 | 0 | 248 | 291 | 0 | 0 | 0 |
| 10P | 0 | 0 | 174 | 195 | 0 | 0 | 0 |
| 11P | 0 | 0 | 137 | 124 | 0 | 0 | 0 |
| TOT | 0 | 0 | 12757 | 13109 | 152 | 0 | 0 |

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF POLICY AND PLANNING
PLANNING INVENTORY AND DATA

TRAFFIC RECORDER DATA

TOWN OF DERBY

ROUTE 34

DIRECTION W

WEST OF ROUTE 8 SB ON RAMP

| DAY | SUN | MON | TUE | WED | THU | FRI | SAT |
|------|-----|-----|------------|------------|------------|-----|-----|
| DATE | 0 | 0 | 10/23/2012 | 10/24/2012 | 10/25/2012 | 0 | 0 |
| TYPE | | | | | | | |
| HOUR | | | | | | | |

2012 ADT = 10500 ACF = NA

| | | | | | | | |
|-----|---|---|-------|-------|-----|---|---|
| 12A | 0 | 0 | 0 | 81 | 100 | 0 | 0 |
| 01A | 0 | 0 | 0 | 36 | 41 | 0 | 0 |
| 02A | 0 | 0 | 0 | 32 | 28 | 0 | 0 |
| 03A | 0 | 0 | 28 | 27 | 0 | 0 | 0 |
| 04A | 0 | 0 | 67 | 54 | 0 | 0 | 0 |
| 05A | 0 | 0 | 182 | 188 | 0 | 0 | 0 |
| 06A | 0 | 0 | 488 | 500 | 0 | 0 | 0 |
| 07A | 0 | 0 | 643 | 599 | 0 | 0 | 0 |
| 08A | 0 | 0 | 757 | 812 | 0 | 0 | 0 |
| 09A | 0 | 0 | 614 | 580 | 0 | 0 | 0 |
| 10A | 0 | 0 | 581 | 569 | 0 | 0 | 0 |
| 11A | 0 | 0 | 545 | 532 | 0 | 0 | 0 |
| 12P | 0 | 0 | 612 | 585 | 0 | 0 | 0 |
| 01P | 0 | 0 | 635 | 630 | 0 | 0 | 0 |
| 02P | 0 | 0 | 736 | 726 | 0 | 0 | 0 |
| 03P | 0 | 0 | 868 | 997 | 0 | 0 | 0 |
| 04P | 0 | 0 | 946 | 1041 | 0 | 0 | 0 |
| 05P | 0 | 0 | 1005 | 1157 | 0 | 0 | 0 |
| 06P | 0 | 0 | 899 | 818 | 0 | 0 | 0 |
| 07P | 0 | 0 | 496 | 535 | 0 | 0 | 0 |
| 08P | 0 | 0 | 420 | 445 | 0 | 0 | 0 |
| 09P | 0 | 0 | 331 | 341 | 0 | 0 | 0 |
| 10P | 0 | 0 | 243 | 246 | 0 | 0 | 0 |
| 11P | 0 | 0 | 127 | 162 | 0 | 0 | 0 |
| TOT | 0 | 0 | 11223 | 11693 | 169 | 0 | 0 |

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF POLICY AND PLANNING
PLANNING INVENTORY AND DATA

TRAFFIC RECORDER DATA

| TOWN OF DERBY | ROUTE 34 | | | | | | | DIRECTION B |
|--------------------------|------------------|-----|------------|------------|------------|-----|-----|-------------|
| EAST OF ELIZABETH STREET | SUN | MON | TUE | WED | THU | FRI | SAT | |
| DAY | 0 | 0 | 10/23/2012 | 10/24/2012 | 10/25/2012 | 0 | 0 | |
| DATE | | | | | | | | |
| TYPE | | | | | | | | |
| HOUR | | | | | | | | |
| | 2012 ADT = 18500 | | ACF = NA | | | | | |
| | ***** | | | | | | | |
| 12A | 0 | 0 | 0 | 125 | 139 | 0 | 0 | |
| 01A | 0 | 0 | 0 | 78 | 61 | 0 | 0 | |
| 02A | 0 | 0 | 0 | 52 | 60 | 0 | 0 | |
| 03A | 0 | 0 | 0 | 51 | 0 | 0 | 0 | |
| 04A | 0 | 0 | 128 | 119 | 0 | 0 | 0 | |
| 05A | 0 | 0 | 410 | 407 | 0 | 0 | 0 | |
| 06A | 0 | 0 | 1051 | 1055 | 0 | 0 | 0 | |
| 07A | 0 | 0 | 1545 | 1542 | 0 | 0 | 0 | |
| 08A | 0 | 0 | 1550 | 1549 | 0 | 0 | 0 | |
| 09A | 0 | 0 | 1218 | 1124 | 0 | 0 | 0 | |
| 10A | 0 | 0 | 1022 | 1110 | 0 | 0 | 0 | |
| 11A | 0 | 0 | 1068 | 1062 | 0 | 0 | 0 | |
| 12P | 0 | 0 | 1124 | 1089 | 0 | 0 | 0 | |
| 01P | 0 | 0 | 1128 | 1108 | 0 | 0 | 0 | |
| 02P | 0 | 0 | 1210 | 1213 | 0 | 0 | 0 | |
| 03P | 0 | 0 | 1374 | 1417 | 0 | 0 | 0 | |
| 04P | 0 | 0 | 1560 | 1625 | 0 | 0 | 0 | |
| 05P | 0 | 0 | 1521 | 1665 | 0 | 0 | 0 | |
| 06P | 0 | 0 | 1310 | 1309 | 0 | 0 | 0 | |
| 07P | 0 | 0 | 826 | 957 | 0 | 0 | 0 | |
| 08P | 0 | 0 | 661 | 677 | 0 | 0 | 0 | |
| 09P | 0 | 0 | 519 | 542 | 0 | 0 | 0 | |
| 10P | 0 | 0 | 364 | 368 | 0 | 0 | 0 | |
| 11P | 0 | 0 | 224 | 242 | 0 | 0 | 0 | |
| TOT | 0 | 0 | 19813 | 20486 | 260 | 0 | 0 | |

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF POLICY AND PLANNING
PLANNING INVENTORY AND DATA

TRAFFIC RECORDER DATA

| TOWN OF DERBY | ROUTE 34 | | | | | | | DIRECTION E |
|------------------------|------------------|------------|------------|------------|------------|-----|-----|-------------|
| SOUTH OF DERBY AVE EXT | SUN | MON | TUE | WED | THU | FRI | SAT | |
| DAY | 0 | 10/22/2012 | 10/23/2012 | 10/24/2012 | 10/25/2012 | 0 | 0 | |
| DATE | | | | | | | | |
| TYPE | | | | | | | | |
| HOUR | | | | | | | | |
| | 2012 ADT = 21600 | | ACF = NA | | | | | |
| | ***** | | | | | | | |
| 12A | 0 | 0 | 195 | 170 | 203 | 0 | 0 | |
| 01A | 0 | 0 | 86 | 83 | 92 | 0 | 0 | |
| 02A | 0 | 0 | 77 | 68 | 0 | 0 | 0 | |
| 03A | 0 | 0 | 57 | 48 | 0 | 0 | 0 | |
| 04A | 0 | 125 | 135 | 133 | 0 | 0 | 0 | |
| 05A | 0 | 355 | 384 | 409 | 0 | 0 | 0 | |
| 06A | 0 | 1053 | 1048 | 1030 | 0 | 0 | 0 | |
| 07A | 0 | 1413 | 1470 | 1430 | 0 | 0 | 0 | |
| 08A | 0 | 1634 | 1600 | 1581 | 0 | 0 | 0 | |
| 09A | 0 | 1179 | 1252 | 1164 | 0 | 0 | 0 | |
| 10A | 0 | 1111 | 1127 | 1110 | 0 | 0 | 0 | |
| 11A | 0 | 1160 | 1175 | 1200 | 0 | 0 | 0 | |
| 12P | 0 | 1215 | 1277 | 1348 | 0 | 0 | 0 | |
| 01P | 0 | 1347 | 1391 | 1374 | 0 | 0 | 0 | |
| 02P | 0 | 1463 | 1536 | 1565 | 0 | 0 | 0 | |
| 03P | 0 | 1743 | 1718 | 1825 | 0 | 0 | 0 | |
| 04P | 0 | 1978 | 1937 | 1936 | 0 | 0 | 0 | |
| 05P | 0 | 2037 | 1927 | 2138 | 0 | 0 | 0 | |
| 06P | 0 | 1672 | 1682 | 1686 | 0 | 0 | 0 | |
| 07P | 0 | 1154 | 1074 | 1214 | 0 | 0 | 0 | |
| 08P | 0 | 872 | 928 | 1048 | 0 | 0 | 0 | |
| 09P | 0 | 627 | 714 | 778 | 0 | 0 | 0 | |
| 10P | 0 | 449 | 500 | 525 | 0 | 0 | 0 | |
| 11P | 0 | 278 | 331 | 330 | 0 | 0 | 0 | |
| TOT | 0 | 22865 | 23621 | 24193 | 295 | 0 | 0 | |

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF POLICY AND PLANNING
PLANNING INVENTORY AND DATA

TRAFFIC RECORDER DATA

| TOWN OF DERBY | ROUTE 34 | | | | | | | DIRECTION W |
|------------------------|------------------|------------|------------|------------|------------|-----|-----|-------------|
| SOUTH OF DERBY AVE EXT | SUN | MON | TUE | WED | THU | FRI | SAT | |
| DAY | 0 | 10/22/2012 | 10/23/2012 | 10/24/2012 | 10/25/2012 | 0 | 0 | |
| DATE | | | | | | | | |
| TYPE | | | | | | | | |
| HOUR | | | | | | | | |
| | 2012 ADT = 24700 | | ACF = NA | | | | | |
| | ***** | | | | | | | |
| 12A | 0 | 0 | 156 | 170 | 178 | 0 | 0 | |
| 01A | 0 | 0 | 71 | 139 | 119 | 0 | 0 | |
| 02A | 0 | 0 | 65 | 76 | 0 | 0 | 0 | |
| 03A | 0 | 0 | 99 | 118 | 0 | 0 | 0 | |
| 04A | 0 | 207 | 216 | 237 | 0 | 0 | 0 | |
| 05A | 0 | 609 | 669 | 674 | 0 | 0 | 0 | |
| 06A | 0 | 1470 | 1636 | 1595 | 0 | 0 | 0 | |
| 07A | 0 | 2262 | 2406 | 2404 | 0 | 0 | 0 | |
| 08A | 0 | 1950 | 2073 | 2136 | 0 | 0 | 0 | |
| 09A | 0 | 1567 | 1532 | 1708 | 0 | 0 | 0 | |
| 10A | 0 | 1355 | 1388 | 1469 | 0 | 0 | 0 | |
| 11A | 0 | 1421 | 1436 | 1508 | 0 | 0 | 0 | |
| 12P | 0 | 1455 | 1402 | 1458 | 0 | 0 | 0 | |
| 01P | 0 | 1426 | 1429 | 1453 | 0 | 0 | 0 | |
| 02P | 0 | 1606 | 1607 | 1600 | 0 | 0 | 0 | |
| 03P | 0 | 1875 | 1863 | 1911 | 0 | 0 | 0 | |
| 04P | 0 | 2160 | 2093 | 2178 | 0 | 0 | 0 | |
| 05P | 0 | 2208 | 2251 | 2219 | 0 | 0 | 0 | |
| 06P | 0 | 1698 | 1687 | 1659 | 0 | 0 | 0 | |
| 07P | 0 | 973 | 1044 | 1134 | 0 | 0 | 0 | |
| 08P | 0 | 685 | 838 | 741 | 0 | 0 | 0 | |
| 09P | 0 | 447 | 598 | 594 | 0 | 0 | 0 | |
| 10P | 0 | 327 | 417 | 358 | 0 | 0 | 0 | |
| 11P | 0 | 246 | 295 | 221 | 0 | 0 | 0 | |
| TOT | 0 | 25947 | 27271 | 27760 | 297 | 0 | 0 | |

Derby Greenway Trail Counts

May 14 – June 11, 2015

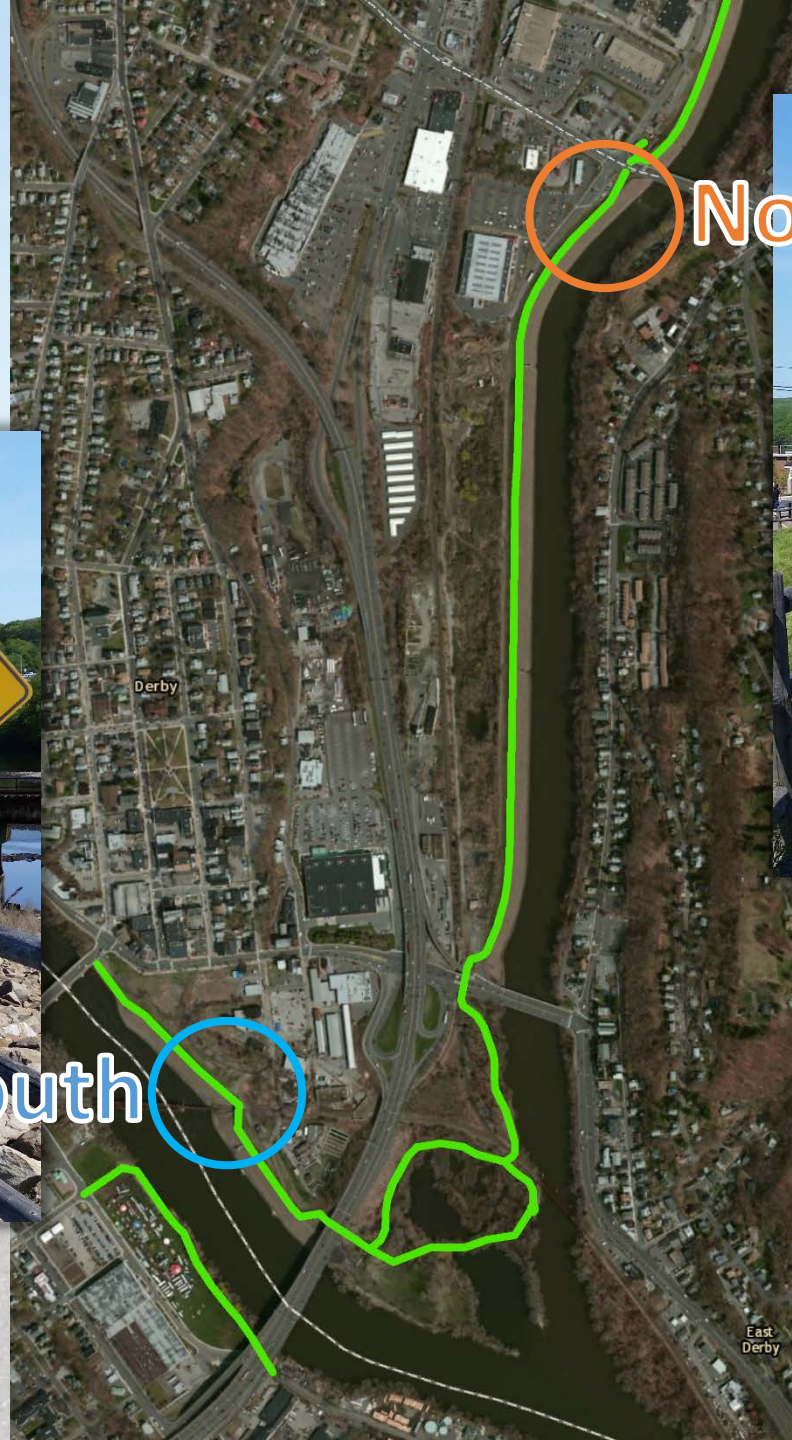


NAUGATUCK VALLEY
COUNCIL of GOVERNMENTS



NAUGATUCK VALLEY
COUNCIL of GOVERNMENTS

Derby Count Locations

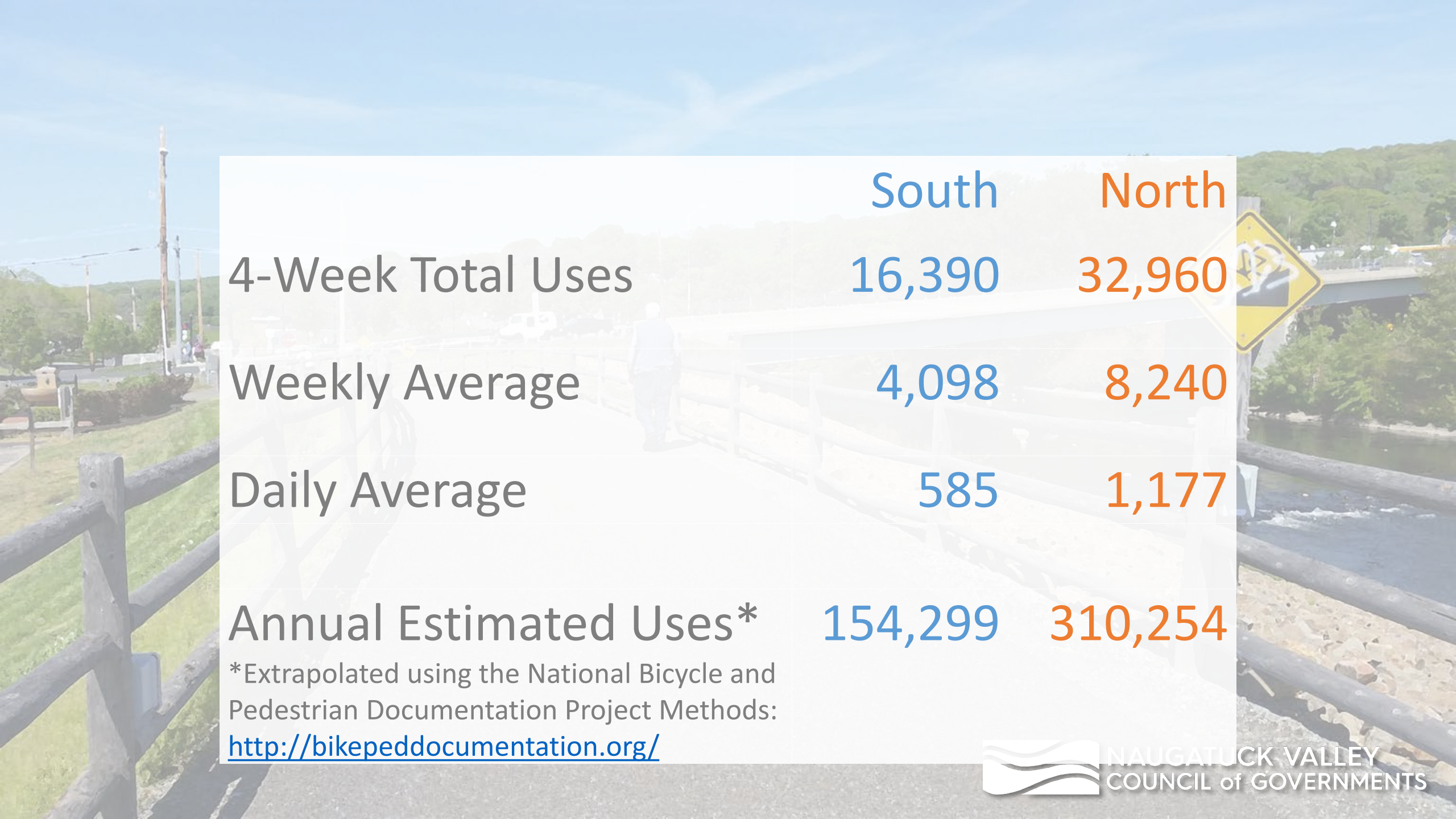


North

South



NAUGATUCK VALLEY
COUNCIL of GOVERNMENTS



| | South | North |
|------------------------|---------|---------|
| 4-Week Total Uses | 16,390 | 32,960 |
| Weekly Average | 4,098 | 8,240 |
| Daily Average | 585 | 1,177 |
| Annual Estimated Uses* | 154,299 | 310,254 |

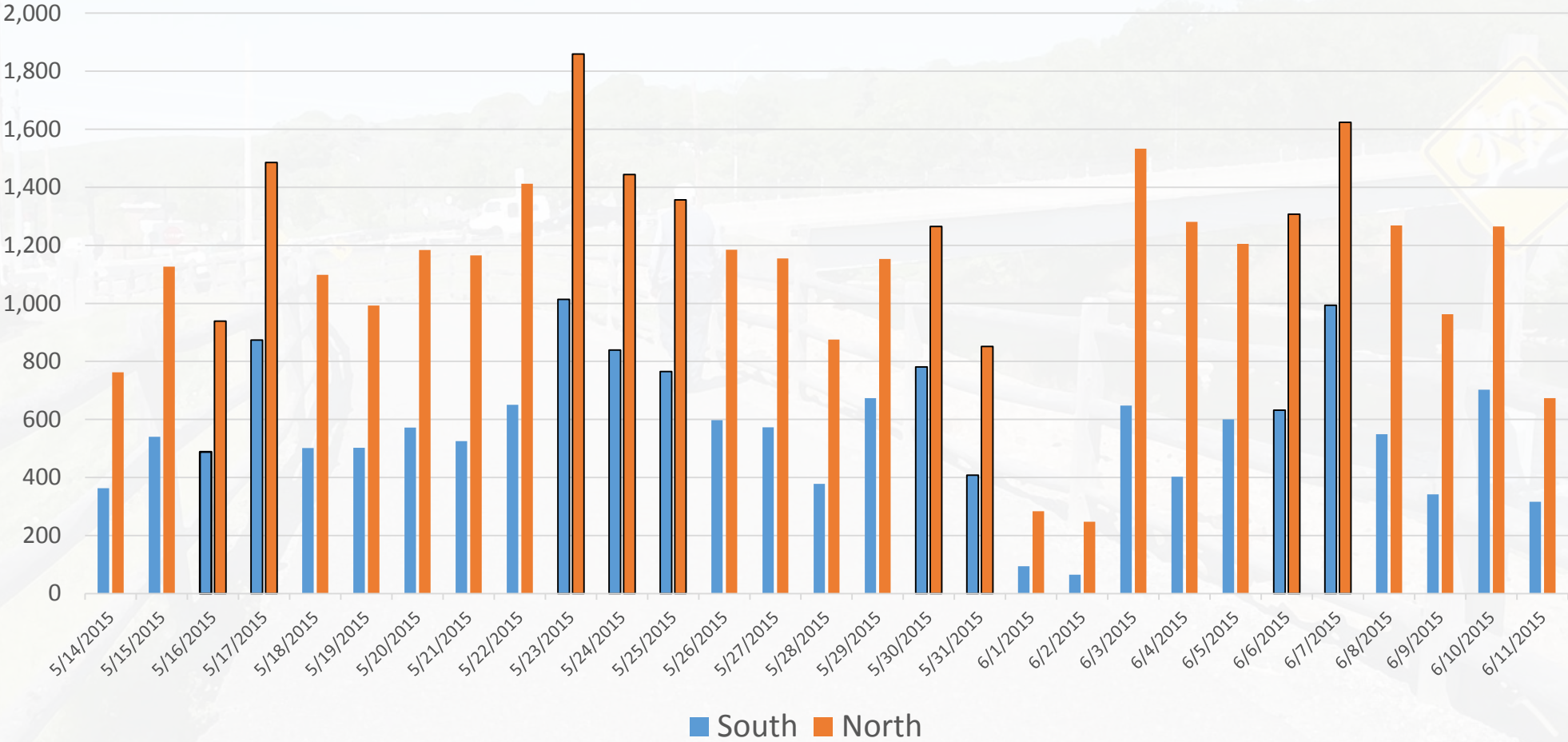
*Extrapolated using the National Bicycle and Pedestrian Documentation Project Methods:

<http://bikepeddocumentation.org/>

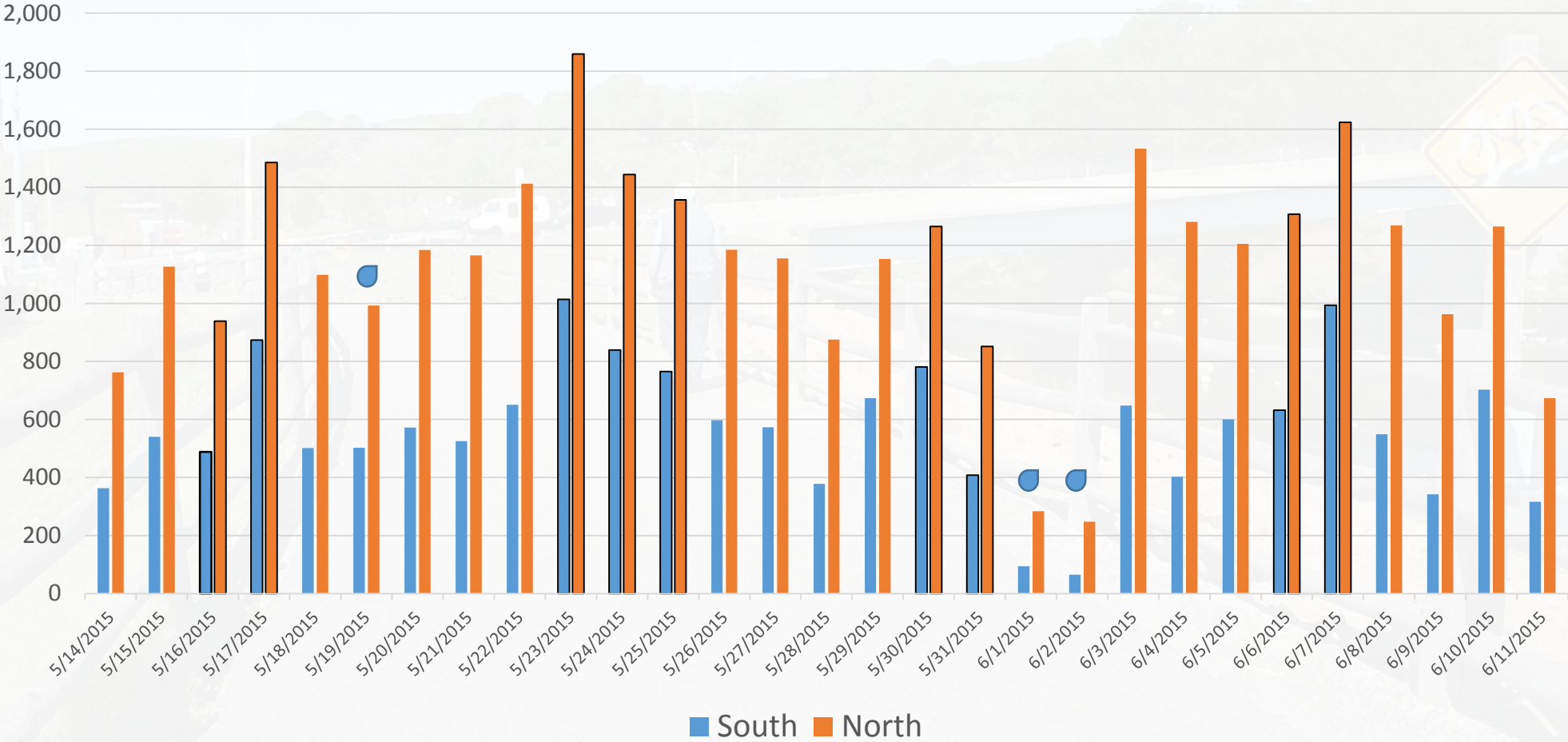


NAUGATUCK VALLEY
COUNCIL of GOVERNMENTS

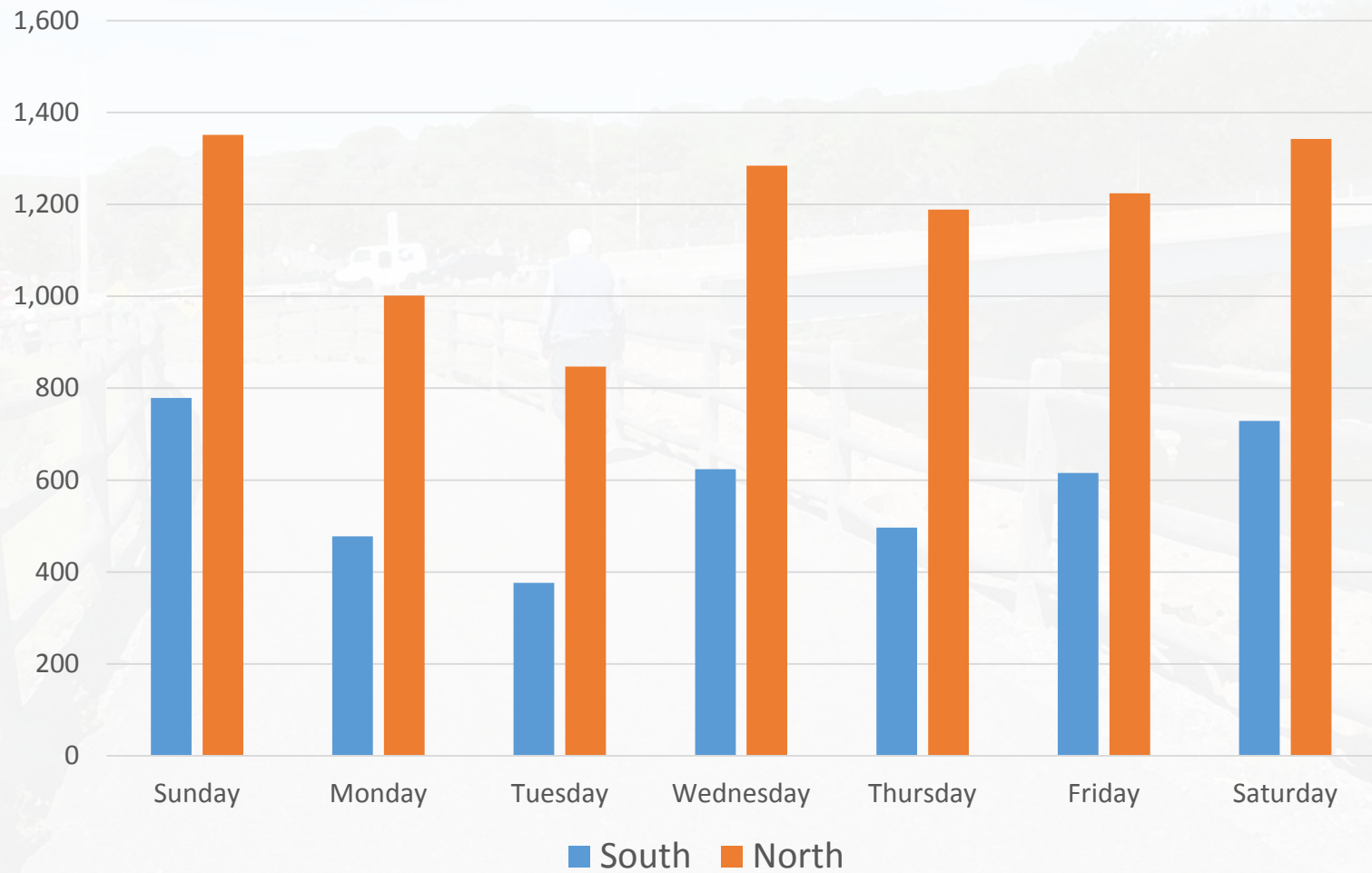
Derby Greenway Daily Use Totals



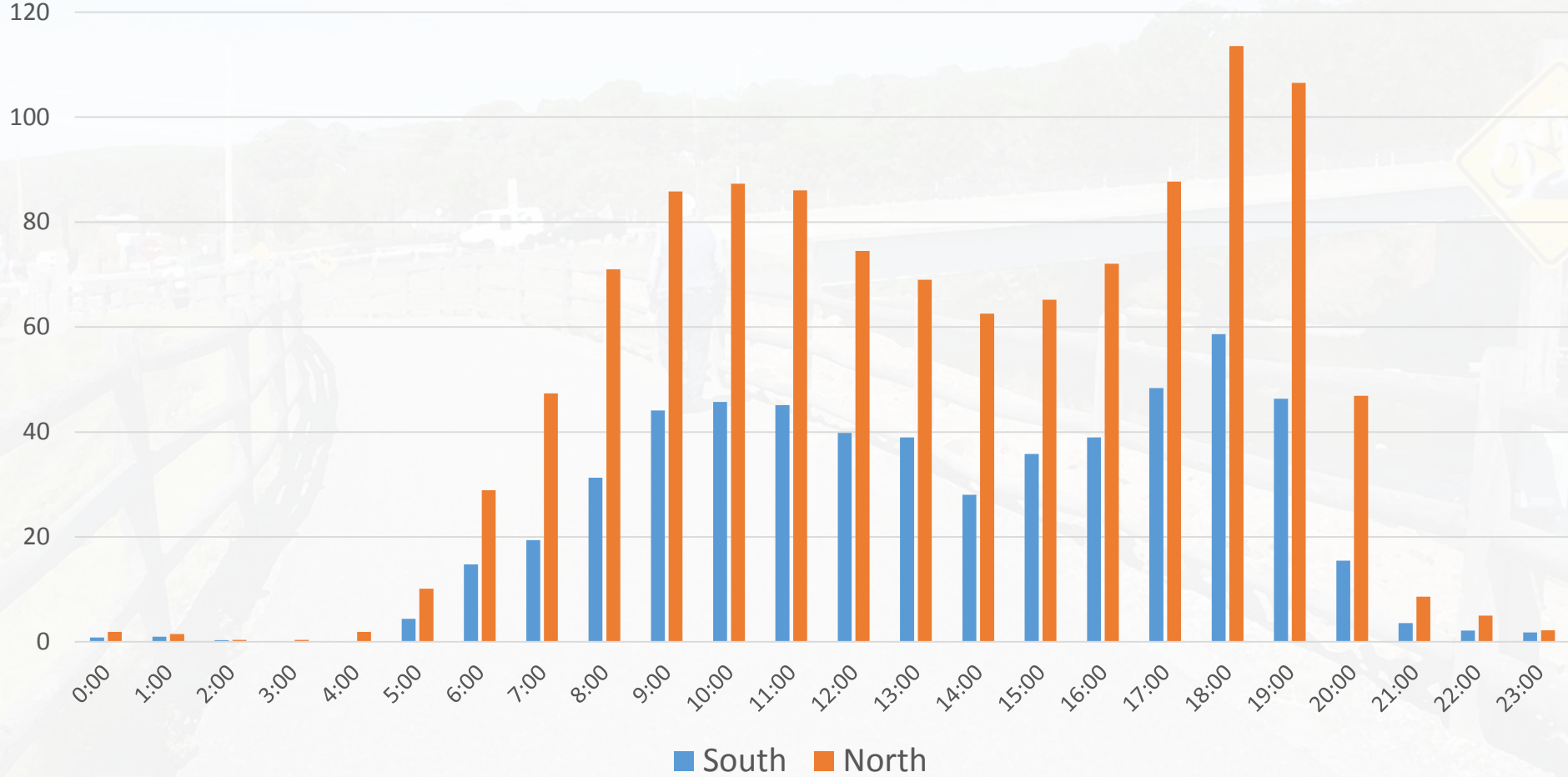
Derby Greenway Daily Use Totals



Derby Greenway Average Daily Uses



Derby Greenway Average Hourly Uses



Next Up... Naugatuck





COMMUNITY
connectivity program

Appendix B



AECOM
Built to deliver a better world



Road Safety Audit

Town: Derby
RSA Location: Route 34
Meeting Location: Derby City Hall
Address: 1 Elizabeth St, Derby, CT 06418
Date: 4/12/2017
Time: 8:30AM

Participating Audit Team Members

| Audit Team Member | Agency/Organization |
|-------------------|------------------------------|
| Stephen Mitchell | AECOM |
| Bridget Boucaud | VN Engineers |
| Anita Dugatto | Mayor |
| Henry Domurad | Mayor's Office |
| Shane Mangado | Mayor's Office |
| Mike Kellehen | Fire Department |
| Craig Babowicz | CTDOT |
| Leslie Creane | City of Derby Chief of Staff |
| Daniel Donston | Derby Police |



COMMUNITY
connectivity program

Appendix C



AECOM
Built to deliver a better world



Road Safety Audit – Derby

Meeting Location: Derby City Hall Aldermen Chambers
Address: 1 Elizabeth St, Derby, CT 06418
Date: 4/12/17
Time: 8:30 AM

Agenda

- Type of Meeting:** Road Safety Audit – Pedestrian Safety
- Attendees:** Invited Participants to Comprise a Multidisciplinary Team
- Please Bring:** Thoughts and Enthusiasm!!
- 8:30 AM** **Welcome and Introductions**
- Purpose and Goals
 - Agenda
- 8:45 AM** **Pre-Audit**
- Definition of Study Area
 - Review Site Specific Data:
 - Average Daily Traffic
 - Crash Data
 - Geometrics
 - Issues
 - Safety Procedures
- 10:00 AM** **Audit**
- Visit Site
 - As a group, identify areas for improvements
- 12:00 PM** **Post-Audit Discussion / Completion of RSA**
- Discussion observations and finalize findings
 - Discuss potential improvements and final recommendations
 - Next Steps
- 2:30 PM** **Adjourn for the Day – but the RSA has not ended**

Instruction for Participants:

- Before attending the RSA, participants are encouraged to observe the intersection and complete/consider elements on the RSA Prompt List with a focus on safety.
- All participants will be actively involved in the process throughout. Participants are encouraged to come with thoughts and ideas, but are reminded that the synergy that develops and respect for others' opinions are key elements to the success of the overall RSA process.
- After the RSA meeting, participants will be asked to comment and respond to the document materials to assure it is reflective of the RSA completed by the multidisciplinary team.



Audit Checklist

| Pedestrians and Bicycles | Comment |
|--|---------|
| <p>Pedestrian Crossings</p> <ul style="list-style-type: none">• Sufficient time to cross (signal)• Signage• Pavement Markings• Detectable warning devices (signal)• Adequate sight distance• Wheelchair accessible ramps<ul style="list-style-type: none">○ Grades○ Orientation○ Tactile Warning Strips• Pedestrian refuge at islands• Other | |
| <p>Pedestrian Facilities</p> <ul style="list-style-type: none">• Sidewalk<ul style="list-style-type: none">○ Width○ Grade○ Materials/Condition○ Drainage○ Buffer• Pedestrian lighting• Pedestrian amenities (benches, trash receptacles)• Other | |



| | |
|--|--|
| Bicycles <ul style="list-style-type: none">• Bicycle facilities/design• Separation from traffic• Conflicts with on-street parking• Pedestrian Conflicts• Bicycle signal detection• Visibility• Roadway speed limit• Bicycle signage/markings• Shared Lane Width• Shoulder condition/width• Traffic volume• Heavy vehicles• Pavement condition• Other | |
|--|--|

| | |
|---|--|
| Roadway & Vehicles | |
| <ul style="list-style-type: none">• Speed-related issues<ul style="list-style-type: none">○ Alignment;○ Driver compliance with speed limits○ Sight distance adequacy○ Safe passing opportunities | |
| <ul style="list-style-type: none">• Geometry<ul style="list-style-type: none">○ Road width (lanes, shoulders, medians);○ Access points;○ Drainage○ Tapers and lane shifts○ Roadside clear zone /slopes○ Guide rails / protection systems | |

| | |
|--|--|
| <ul style="list-style-type: none">• Intersections<ul style="list-style-type: none">○ Geometrics○ Sight Distance○ Traffic control devices○ Safe storage for turning vehicles○ Capacity Issues | |
|--|--|

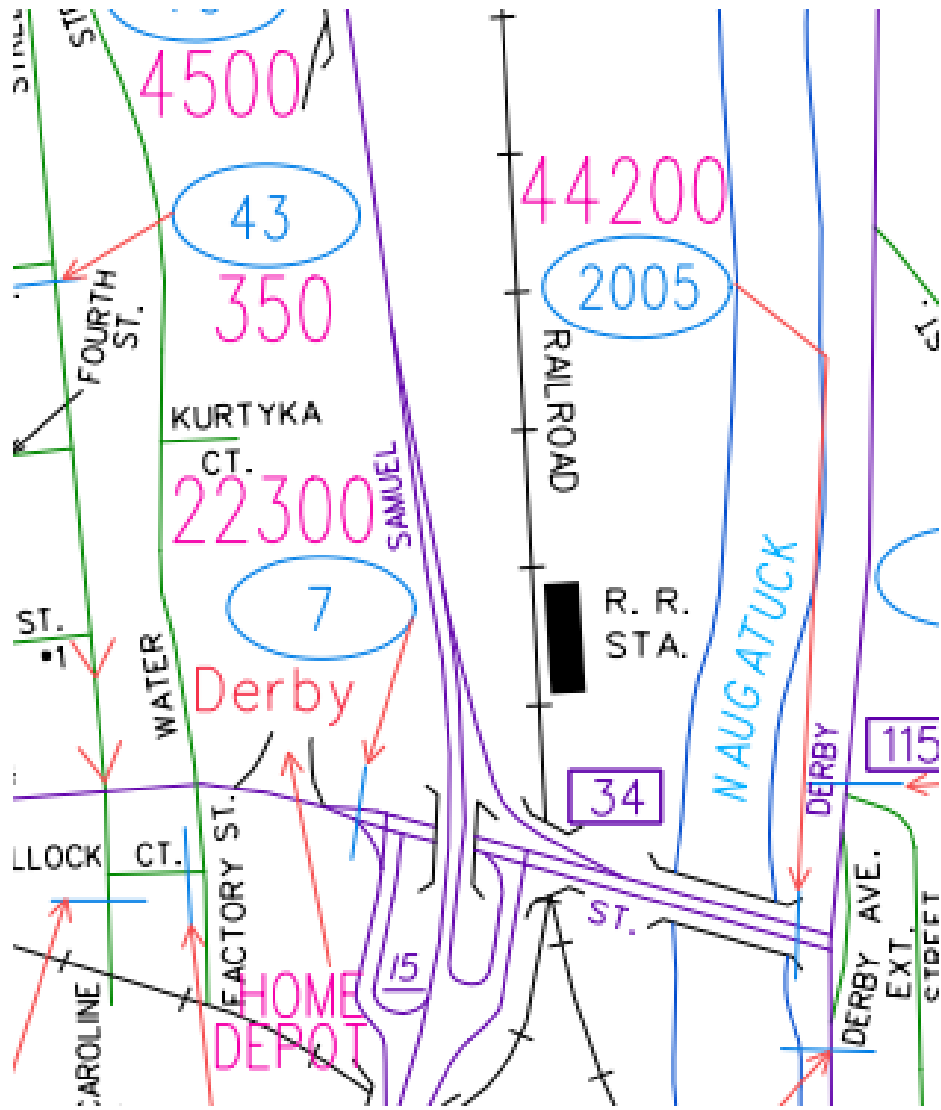


| | |
|---|--|
| <ul style="list-style-type: none">• Pavement<ul style="list-style-type: none">○ Pavement Condition (excessive roughness or rutting, potholes, loose material)○ Edge drop-offs○ Drainage issues• Lighting Adequacy | |
| <ul style="list-style-type: none">• Signing<ul style="list-style-type: none">• Correct use of signing• Clear Message• Good placement for visibility• Adequate retroreflectivity• Proper support | |
| <ul style="list-style-type: none">• Signals<ul style="list-style-type: none">○ Proper visibility○ Proper operation○ Efficient operation○ Safe placement of equipment○ Proper sight distance○ Adequate capacity | |
| <ul style="list-style-type: none">• Pavement Markings<ul style="list-style-type: none">○ Correct and consistent with MUTCD○ Adequate visibility○ Condition○ Edgelines provided | |
| <ul style="list-style-type: none">• Miscellaneous<ul style="list-style-type: none">○ Weather conditions impact on design features.○ Snow storage | |

Location Map



ADT MAP



2015 Crashes

UConn

Connecticut Crash Data Repository

Search Criteria:

Dataset: mmucc
Date From: 01/01/2015
Date To: 12/31/2015
Towns: Derby
Town & Route: Town: 37 Route: 34 Intersection: undefined Milepost: -
Crash Severity: Injury of any type (Serious, Minor, Possible), Fatal (Kill), Property Damage Only
Case Status: Complete



Google

Map data ©2016 Google Terms of Use Report a map error

Markers Heatmap Select & Query Query Selection

● Injury of any type (Serious, Minor, Possible) ● Fatal (Kill)
● Property Damage Only

Select All Deselect All

This web site is exempt from discovery or admission under 23 U.S.C. 409.

Connecticut Crash Data Repository [User Guide](#) [Contact Us](#)



Road Safety Audit – Derby

Crash Summary

Data: 3 years (2012-2014)

There were no crashes that involved pedestrians.

There was 1 crash involving bicyclists.

| Severity Type | Number of Crashes | |
|----------------------|-------------------|-----|
| Property Damage Only | 89 | 87% |
| Injury (No fatality) | 13 | 13% |
| Fatality | 0 | 0% |
| Total | 102 | |

| Manner of Crash / Collision Impact | Number of Crashes | |
|------------------------------------|-------------------|-----|
| Unknown | 1 | 1% |
| Sideswipe-Same Direction | 26 | 25% |
| Rear-end | 53 | 52% |
| Turning-Intersecting Paths | 6 | 6% |
| Turning-Opposite Direction | 6 | 6% |
| Fixed Object | 0 | 0% |
| Backing | 2 | 2% |
| Angle | 5 | 5% |
| Turning-Same Direction | 3 | 3% |
| Moving Object | 0 | 0% |
| Parking | 0 | 0% |
| Pedestrian | 0 | 0% |
| Overturn | 0 | 0% |
| Head-on | 0 | 0% |
| Sideswipe-Opposite Direction | 0 | 0% |
| Miscellaneous- Non Collision | 0 | 0% |
| Total | 102 | |



| Weather Condition | Number of Crashes | |
|----------------------------------|-------------------|-----|
| Snow | 0 | 0% |
| Rain | 10 | 10% |
| No Adverse Condition | 92 | 90% |
| Unknown | 0 | 0% |
| Blowing Sand, Soil, Dirt or Snow | 0 | 0% |
| Severe Crosswinds | 0 | 0% |
| Sleet, Hail | 0 | 0% |
| Total | 102 | |

| Light Condition | Number of Crashes | |
|------------------|-------------------|-----|
| Dark-Not Lighted | 0 | 0% |
| Dark-Lighted | 19 | 19% |
| Daylight | 83 | 81% |
| Dusk | 0 | 0% |
| Unknown | 0 | 0% |
| Dawn | 0 | 0% |
| Total | 102 | |

| Road Surface Condition | Number of Crashes | |
|------------------------|-------------------|------|
| Snow/Slush | 0 | 0% |
| Wet | 15 | 15% |
| Dry | 86 | 84% |
| Unknown | 1 | 1% |
| Ice | 0 | 0% |
| Other | 0 | 0.0% |
| Total | 102 | |



| Time | | Number of Crashes | |
|-------|-------|-------------------|-----|
| 0:00 | 0:59 | 0 | 0% |
| 1:00 | 1:59 | 0 | 0% |
| 2:00 | 2:59 | 0 | 0% |
| 3:00 | 3:59 | 0 | 0% |
| 4:00 | 4:59 | 0 | 0% |
| 5:00 | 5:59 | 0 | 0% |
| 6:00 | 6:59 | 1 | 1% |
| 7:00 | 7:59 | 7 | 7% |
| 8:00 | 8:59 | 8 | 8% |
| 9:00 | 9:59 | 5 | 5% |
| 10:00 | 10:59 | 4 | 4% |
| 11:00 | 11:59 | 2 | 2% |
| 12:00 | 12:59 | 8 | 8% |
| 13:00 | 13:59 | 6 | 6% |
| 14:00 | 14:59 | 6 | 6% |
| 15:00 | 15:59 | 5 | 5% |
| 16:00 | 16:59 | 11 | 11% |
| 17:00 | 17:59 | 15 | 15% |
| 18:00 | 18:59 | 12 | 12% |
| 19:00 | 19:59 | 4 | 4% |
| 20:00 | 20:59 | 5 | 5% |
| 21:00 | 21:59 | 3 | 3% |
| 22:00 | 22:59 | 0 | 0% |
| 23:00 | 23:59 | 0 | 0% |
| Total | | 102 | |

Derby - Greenway - Rail Station

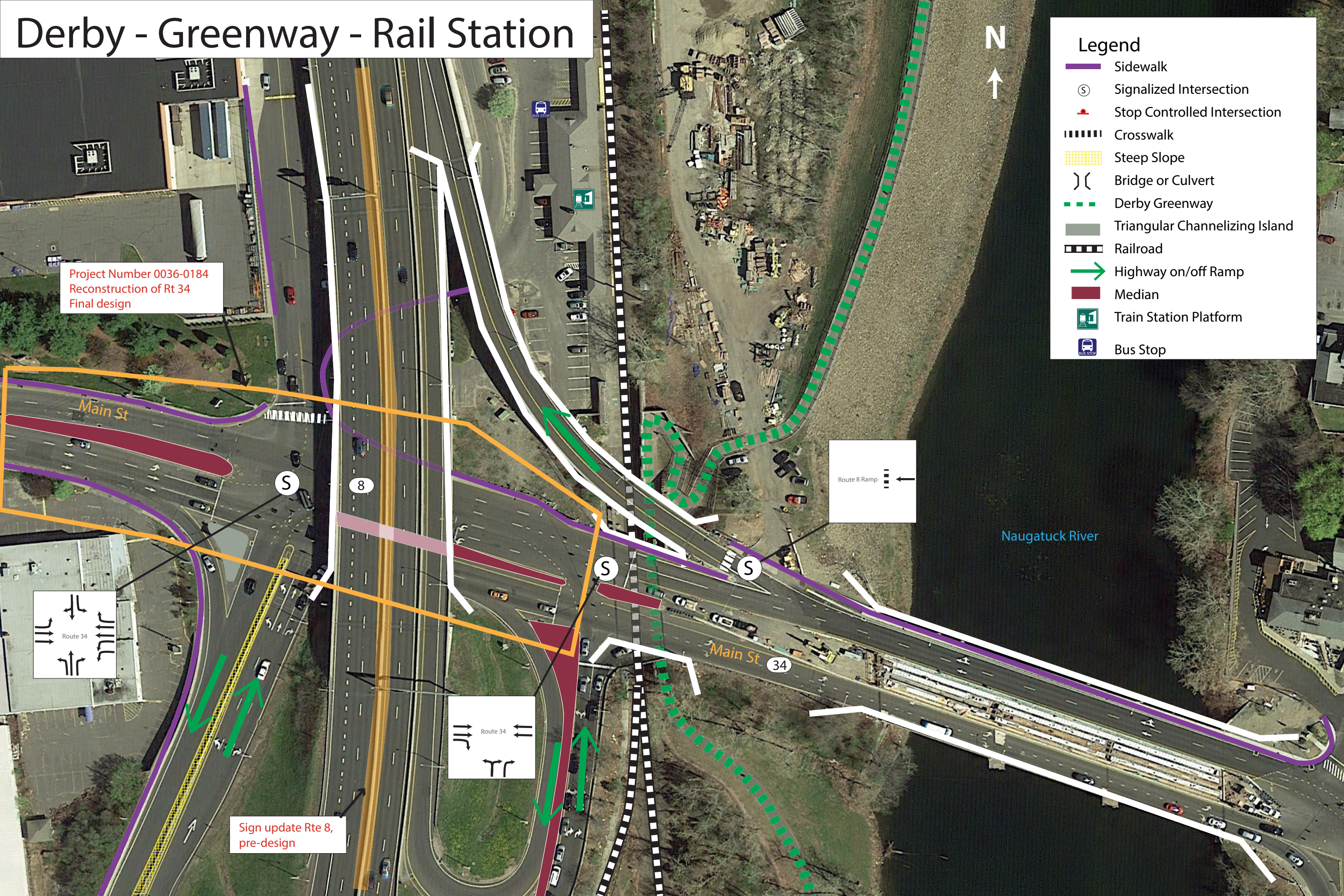
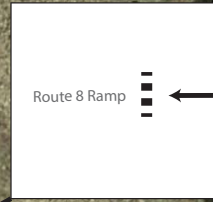
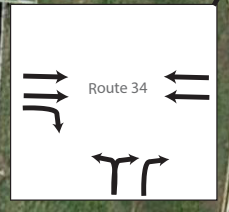
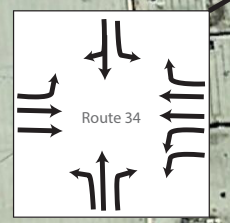


Legend

- Sidewalk
- Signalized Intersection
- Stop Controlled Intersection
- Crosswalk
- Steep Slope
- Bridge or Culvert
- Derby Greenway
- Triangular Channelizing Island
- Railroad
- Highway on/off Ramp
- Median
- Train Station Platform
- Bus Stop

Project Number 0036-0184
Reconstruction of Rt 34
Final design

Sign update Rte 8,
pre-design





Road Safety Audit – Derby

Fact Sheet

Functional Classification:

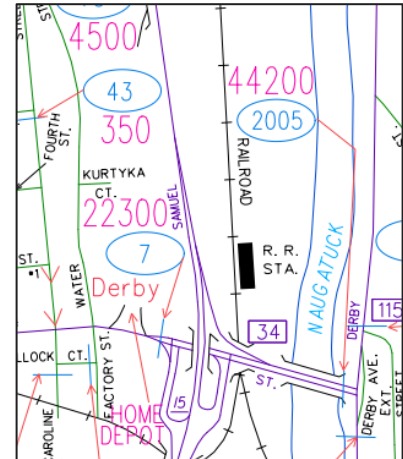
- Maine Street is classified as a Principal Arterial - other

ADT

- ADT on Main Street is 22,300-44,200

Population and Employment Data (2014):

- Population: 12,837
- Employment: 4,894

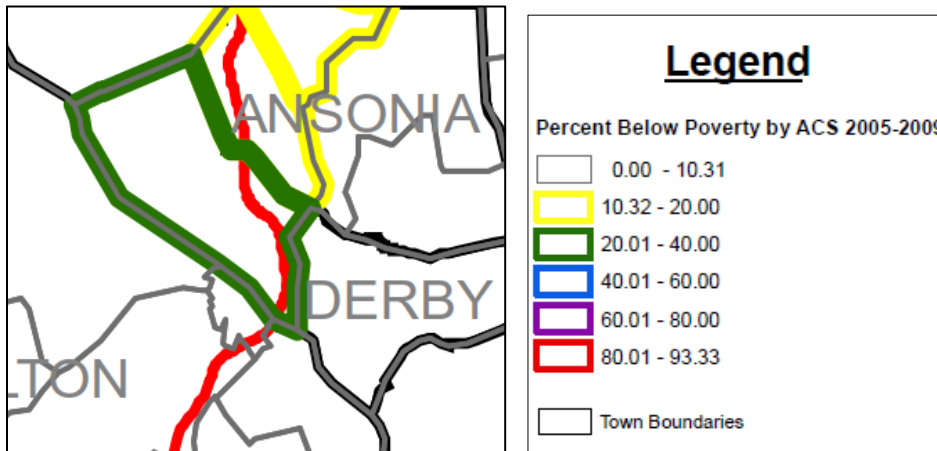


Urbanized Area

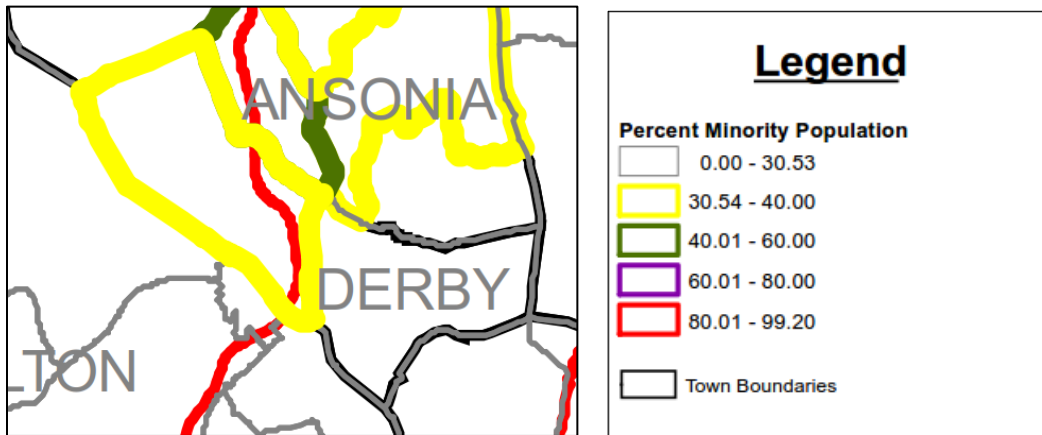
- Derby is in the Bridgeport-Stamford Urbanized Area

Demographics

- The statewide average percentage below the poverty line is 10.31%. Within the vicinity of Main Street up to 40% of residents are below the state poverty level.



- The statewide average percentage minority population is 30.53%. Within the vicinity of Main Street up to 40% of residents are minorities.



Air Quality

- Derby's CIPP number 506
- Derby is within the NY/NJ/CT Marginal Ozone Area and PM_{2.5} Attainment/Maintenance Area
- Derby is within a CO Maintenance Area