Creating a Livable Randolph Through Complete Streets
Creating a Livable Randolph
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INTRODUCTION

**What is a Complete Street Policy?**
A Complete Streets policy formalizes a community’s intent to plan, design, and maintain streets so they are safe for all users of all ages and abilities. These policies will direct transportation planners and engineers to consistently design and construct the right-of-way to accommodate all anticipated users, including pedestrians, bicyclists, public transportation users, motorists, and freight vehicles.

Complete streets can be achieved through a variety of policies including ordinances and resolutions; rewrites of design manuals; inclusion in comprehensive plans and zoning regulations.¹

**Making the Case for Complete Streets**
Walking and bicycling have both been frequently overlooked as village, town city, state, and federal governments focus their effort and funds on building infrastructure heavy transportation systems for motorized means. Yet there are a growing percentage of people that want to change the common notion of transportation and mobility. They want livable communities where they can commute to work, socialize and recreate by foot and bicycle.

Recent socio-economic and cultural trends highlight the desire for walkable and bikeable communities. The 15-Year Report on Walking and Biking determined that, as of 2009, 12 percent of all trips are now made by bicycle or foot, a 25 percent increase from 2001, even though there are often not adequate facilities for safe walking or bicycling. Bicyclists and pedestrians make up 14 percent of traffic fatalities, although federal funding for biking and walking projects is approximately 2 percent of the federal transportation budget.²

While national initiatives, such as Complete Streets and Safe Routes to School, are examples of programs that support pedestrian facility development, problems persist. In 2014, 4,884 pedestrians and 726 bicyclists were killed and roughly 65,000 pedestrians and 50,000 bicyclists were injured.³ These numbers have held steady in recent years, indicating that pedestrian and bicyclist safety is an ongoing problem that should continue to be addressed at all levels of government.

Creating a walkable and bikeable community starts with the built environment: having destinations close to each other; siting schools, parks, and public spaces appropriately; allowing mixed-use developments; having sufficient densities to support transit; creating commercial districts that people can access by bicycle, foot and wheelchair; etc. Most walking trips are less than .5 mi (0.8 km), so having a compact environment is essential. Similarly, while half of all household trips are three miles or less, fewer than 2 percent of those trips are made by bicycle. The connection between land-use planning and transportation planning is critical to safely and effectively accommodate trips by foot and bicycle.

**Economic Advantages**

Developing pedestrian and bicycle infrastructure has economic benefits. Studies have found that bicycle infrastructure improvements can have a positive overall impact on business, and that people who walk or bike to a commercial area spend more money per month than those who accessed the area by automobile. The removal of any on-street parking is often thought to negatively impact business, but reports show adding facilities such as bicycle racks and bicycle lanes can actually increase economic activity, and also help create a buffer from moving traffic that aides both pedestrian and bicyclist activity (Clifton, Morrissey & Ritter, 2012). Finally, improving bicycle and pedestrian infrastructure can positively impact real estate values. Homes near bicycle paths have been found to support higher sales prices, and areas that facilitate walkability and attract pedestrians sustain higher rents, revenues and resale values. Additionally, there is recent evidence that the implementation of complete streets projects has contributed to growth in business and employment, improved property values, and increased private sector investment.  

**Health Benefits**

The health benefits of walking and bicycling have been well-documented by public health and medical professionals. As the focus of healthcare transitions from treatment to the prevention of disease, walking and biking (often referred to as Active Transportation) are being promoted as an accessible and easy way to improve both our current and future well-being. Rates of obesity among children and adolescents in rural areas have been shown to be growing at a quicker pace than those of urban and suburban populations. Some of this difference has been attributed to the vast differences in the built environment between urban and rural settings, particularly to patterns of sprawling, low-density development characteristic of dependency on automotive transportation.

As a result, urban planners, engineers, and public health professionals are increasingly working together to create pedestrian- and bicycle-friendly environments that promote these activities for both leisure and transportation purposes. Researchers who study the effect of the built environment on walking and biking have discovered that numerous variables affect such decisions. The proximity of destinations, the presence and quality of sidewalks or bicycle lanes, perceptions of safety and security, the steepness of grades, the presence of other people, separation from traffic, and aesthetics are all factors that can encourage or discourage people from walking or biking. Policies and roadway features can also help promote active transportation, such as the use of wayfinding signage and pedestrian and bicyclist-oriented crossing signals. Through the implementation of complete streets, communities can help people live longer, healthier and

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more prosperous lives.

**Context Sensitive**

However, community context is also very important. Whereas large cities around the globe, from New York to London to Montreal, for example, gain high profile media attention about their efforts to make their streets more livable and inviting, smaller communities in urban, suburban and rural settings are also making great strides. Complete Streets are not a one-size-fits all scenario, but are about providing the access and opportunity appropriate to local context, and about leveraging changes to the built environment to make communities more vibrant and appealing. Often these changes build confidence in a community and spur additional private investment, sparking a virtuous cycle of neighborhood change.

The National Complete Streets Coalition has compiled a list of resources specifically for rural communities exploring the implementation of Complete Streets within their community: [http://www.smartgrowthamerica.org/complete-streets/implementation/factsheets/rural-areas-and-small-towns/](http://www.smartgrowthamerica.org/complete-streets/implementation/factsheets/rural-areas-and-small-towns/)
Starting in 2002, the Village of Hamburg, NY utilized a Complete Streets approach to restore value and vitality to their village's traditional Main Street. This approach has had many benefits that have transformed their streets into vibrant, people-friendly places where property values have surged and the population has returned.

The New York State Department of Transportation was planning a $13 million complete reconstruction of the village's commercial thoroughfare, a roughly two-mile segment of Route 62 (Main Street) and Buffalo Street. Residents formed the “Imagine Hamburg” committee and worked with the state to establish a walkable, bikeable corridor. The village started an education campaign, including several design workshops where village residents could raise concerns, make suggestions, communicate their values and collaborate with planners on a vision and design. This effort alleviated the initial skepticism and allowed all parties to overcome suspicion and build a strong consensus on how to proceed.

Construction began in 2005 and was finished by 2009. Four roundabouts replaced traditional intersections and the corridor went on a “road diet” which removed excess travel lanes allowing for the addition of enhanced bicycle and pedestrian amenities. Since completion - shoppers, stalkers, joggers and cyclists have returned while congestion has eased. For the first two years following completion, car accidents on the new road dropped by 66% and injuries by 60%. This has led to the resurgence of private investment and property values.

Village leaders understood that it was not enough to re-design their streets; private development had to be supported and enhanced. The village created building design guidelines that were incorporated into the local zoning code to strengthen their desire to encourage the traditional development that represented the historic character of the community. These design guidelines included zero-setback rules to ensure buildings are pedestrian oriented and are built up to the sidewalk with good first floor fenestration and signage standards. They also included upper-floor residential by requiring two-to-three story buildings to increase the number of people living along their main street. The guidelines

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created an environment of predictability and synergistic development, maximizing the return on public roadway investments, which were essential to attracting private investment.

Since 2005, business owners spent a total of $7 million on 33 building projects. The number of building permits rose from 15 in 2005 to 96 in 2010 and property values along Route 62 more than doubled over the same period. In 2012, the village's Main Street was placed on the National Register of Historic Places, which brought tax incentives that may lead to still more development. ¹⁰

**CASE STUDY: OLEAN, NY - UNDER CONSTRUCTION**

The City of Olean is currently in the process of reconstructing North Union Street, one of the city's commercial corridors. Under the conditions pictured on the left, North Union Street's accident rate was found to be 4.6 times greater than the statewide average for similar corridors within New York State (195 accidents between 2008-2013), demonstrating a need for a wholesale rethinking of the roadway. ¹¹

In 2013, following a community visioning and planning process, the City of Olean applied for and was awarded a $6.5 million dollar Federal Highway Administration TIGER Grant to complete the North Union Street project. An important piece of this application was a Benefit Cost Analysis demonstrating the value of the project's more than $11 million dollars in benefits versus its $8 million dollar cost. Benefits included: Travel time savings, reduced vehicle emissions, improved safety, increases in property values, and greater efficiency in utility usage. Not included in the quantitative benefit analysis were the less tangible, but assumed benefits in public health, business growth, and improved attractiveness to residents.¹²

An additional benefit of performing this analysis was the community's discovery that changes in city


spending could go a long way toward paying for the improvements they desired. For example, the City of Olean could implement traffic circles, freeing up city funds that previously paid utility costs for traffic signals, to be used for improved landscaping and maintenance.
DEMOGRAPHICS
According to U.S. Census figures, as of 2010 there were 80,317 people living in Cattaraugus County, and 2,602 of those individuals lived in the town of Randolph. Cattaraugus County’s population density was 61.4 people per square mile, covering a land area of 1308.35 square miles, whereas Randolph’s land area of 36.06 square miles was slightly more densely populated, with 72.1 people per square mile. Slightly less than one-quarter of Randolph’s population lives in East Randolph (shaded red in figure 1).

From 2000-2010 both Cattaraugus County and Randolph’s populations remained relatively stable, both decreasing just slightly (Cattaraugus County -3,638/4.3% decrease; Randolph -79/2.9% decrease). That being said, the number of seniors slightly increased in both areas. Residents 65 years or older now represent 15.5% (+0.9%) of the county’s total population as well as 17.3% (+2.3%) of the town’s, compared to the nation, whose senior population makes up 13.0% of the total. It should also be noted that 18.8% of East Randolph’s population was made up of seniors as of 2014\textsuperscript{13}. An aging population presents challenges of mobility as elderly residents may have a harder time living independently if they are reliant on auto travel alone. 7.3% of residents in Cattaraugus County and 8.8% of those living in Randolph are 75 years or older, demonstrating the importance of walkability in the town in order to ensure safety and mobility for older residents.

Meanwhile, as population the over 65 grew, from 2000-2010 the number of residents under 18 years old remained relatively stable with slight decreases in both the county (-2.8%) and the town (-1.6%). According to the Census Bureau’s 2010-2014 American Community Survey 5-Year Estimates, as of 2014, 17% of Cattaraugus County’s population was under 18 years old, as well as 19.5% of Randolph’s population, and 20.6% of East Randolph’s. Nationally, the number of people under 18 shrank slightly as well from 25.7% in 2000 to 24.0% in 2010 (-1.7%), and as of 2014 represented 17.1% of the population. Though not as rapidly growing as the seniors, the youth population still represents a large proportion of residents in the area that are particularly vulnerable to poor walking and cycling conditions.

Furthermore, with respect to median age, as of 2010 Randolph (40.1) and Cattaraugus County (40.7) were older than both the state of New York (38.0) and the United States as a whole (37.2).

<table>
<thead>
<tr>
<th>Table 1. 2010 Median Age</th>
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<tbody>
<tr>
<td>United States</td>
</tr>
<tr>
<td>New York</td>
</tr>
<tr>
<td>Cattaraugus County</td>
</tr>
<tr>
<td>Randolph</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, 2010 Census, Summary File 1, Tables P12, P13, and PCT12.

\textsuperscript{13} U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates
Census estimates also reveal disparity in income between residents of Cattaraugus County, Randolph, and the rest of the state and country. Although the town’s median household income ($44,583) is about 5% higher than the county’s ($42,466), it is about 24% lower than New York state's median household income ($58,687) and about 17% lower than the nation's ($53,482). Additionally, East Randolph’s median household income ($31,250) is 30% lower than the town's and 47% lower than the state's. With about 41% of households in Randolph, and 55% of those in East Randolph, living on less than $35,000 per year, the cost of car ownership (which averaged $8,698 per car per year in 2015 according to the American Automobile Association) is disproportionately burdensome to residents in the town.

**Table 2. Household Income in the Past 12 Months (in 2014 Inflation-adjusted Dollars)**

<table>
<thead>
<tr>
<th></th>
<th>Cattaraugus County, NY</th>
<th>Randolph town, Cattaraugus County, NY</th>
<th>East Randolph CDP, NY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Margin of Error</td>
<td>Estimate</td>
</tr>
<tr>
<td>Total</td>
<td>31,798 +/-450</td>
<td>995 +/-55</td>
<td>181 +/-33</td>
</tr>
<tr>
<td>Less than $10,000</td>
<td>6.5% +/-0.6</td>
<td>4.4% +/-1.9</td>
<td>7.7% +/-8.6</td>
</tr>
<tr>
<td>$10,000 to $14,999</td>
<td>7.0% +/-0.6</td>
<td>6.8% +/-2.5</td>
<td>8.8% +/-5.2</td>
</tr>
<tr>
<td>$15,000 to $24,999</td>
<td>14.4% +/-0.9</td>
<td>18.0% +/-4.2</td>
<td>24.9% +/-12.8</td>
</tr>
<tr>
<td>$25,000 to $34,999</td>
<td>12.5% +/-0.9</td>
<td>11.5% +/-3.4</td>
<td>13.3% +/-8.1</td>
</tr>
<tr>
<td>$35,000 to $49,999</td>
<td>15.7% +/-1.1</td>
<td>16.1% +/-3.9</td>
<td>9.4% +/-5.3</td>
</tr>
<tr>
<td>$50,000 to $74,999</td>
<td>19.5% +/-1.2</td>
<td>17.1% +/-4.1</td>
<td>16.0% +/-7.0</td>
</tr>
<tr>
<td>$75,000 to $99,999</td>
<td>12.0% +/-0.7</td>
<td>13.9% +/-3.8</td>
<td>10.5% +/-7.1</td>
</tr>
<tr>
<td>$100,000 to $149,999</td>
<td>8.9% +/-0.8</td>
<td>11.3% +/-3.0</td>
<td>9.4% +/-5.1</td>
</tr>
<tr>
<td>$150,000 to $199,999</td>
<td>2.1% +/-0.4</td>
<td>0.6% +/-0.6</td>
<td>0.0% +/-15.2</td>
</tr>
<tr>
<td>$200,000 or more</td>
<td>1.4% +/-0.3</td>
<td>0.4% +/-0.6</td>
<td>0.0% +/-15.2</td>
</tr>
<tr>
<td>Median Income</td>
<td>43,503 +/-1,179</td>
<td>44,583 +/-4,004</td>
<td>31,250 +/-12,286</td>
</tr>
<tr>
<td>Mean Income</td>
<td>55,277 +/-1,175</td>
<td>52,888 +/-3,137</td>
<td>44,078 +/-6,720</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

Census estimates also reveal disparity in income between residents of Cattaraugus County, Randolph, and the rest of the state and country. Although the town’s median household income ($44,583) is about 5% higher than the county’s ($42,466), it is about 24% lower than New York state's median household income ($58,687) and about 17% lower than the nation's ($53,482). Additionally, East Randolph’s median household income ($31,250) is 30% lower than the town’s and 47% lower than the state’s. With about 41% of households in Randolph, and 55% of those in East Randolph, living on less than $35,000 per year, the cost of car ownership (which averaged $8,698 per car per year in 2015 according to the American Automobile Association) is disproportionately burdensome to residents in the town.

**Travel Behavior**

In Cattaraugus County, 10.3% (3,282) of the population has no access to a vehicle, as well as 5.2% (52) of residents in Randolph and 7.2% of those living in East Randolph. 36.7% of people in Cattaraugus County have access to one vehicle, as well as 38.4% of people in Randolph, and 43% of those in East Randolph, while the rest have access to two or more vehicles. However, in Randolph, the percentage of multi-person households with access to only one vehicle is somewhat high. 26% of two-person households, 31% of three-person households, and 17% four-person households have access to only one vehicle. Additionally, the percentage of households with no access to a vehicle increases for seniors in Cattaraugus County (14.0%) and East Randolph (9.8%).

Roughly 55% of the population ages 16 and over of both the county and town are in the labor force, and about 80% of both populations drive in a car or van, alone in order to get to work each day. Carpooling is more frequent in Randolph (11.8%) than Cattaraugus County (8.6%), however more workers walk to work in the County (6%) than in

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14 U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates
Randolph (3.5%). In East Randolph, the portion of workers who drive alone is lower (69.4%) and the portion who carpool (23.0%) is much higher than the rest of the town and county, while the portion who walk to work is about the same as Randolph in general (3.1%).

**Traffic Volume**

The most heavily trafficked road in Randolph is Route 394. From west to east, 2014 traffic counts reveal that the section of the road from Chautauqua/Cattaraugus Co Line to ACC Route 261 Schoolhouse Rd. R sees an average of 1328 vehicles daily, and the section from Route 261 to Route 952M W Main St. to Route 241) peaking at 7170 vehicles in 2007.

15 Department of Transportation Traffic Data Viewer. https://www.dot.ny.gov/tdv

<table>
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<tr>
<th>Table 3. Commuting Characteristics</th>
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<tbody>
<tr>
<td>Cattaraugus County, NY</td>
</tr>
<tr>
<td>-------------------------</td>
</tr>
<tr>
<td><strong>Means of Transportation to Work</strong></td>
</tr>
<tr>
<td>Car, truck, or van</td>
</tr>
<tr>
<td>Drove alone</td>
</tr>
<tr>
<td>Carpooleed</td>
</tr>
<tr>
<td>In 2-person carpool</td>
</tr>
<tr>
<td>In 3-person carpool</td>
</tr>
<tr>
<td>In 4-or-more person carpool</td>
</tr>
<tr>
<td>Workers per car, truck, or van</td>
</tr>
<tr>
<td>Public transportation (excluding taxicab)</td>
</tr>
<tr>
<td>Walked</td>
</tr>
<tr>
<td>Bicycle</td>
</tr>
<tr>
<td>Taxicab, motorcycle, or other means</td>
</tr>
<tr>
<td>Worked at home</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates
between. \textsuperscript{16}

**SAFETY**

In 2014 Cattaraugus County experienced 390 motor vehicle crashes that resulted in death or personal injury. Where pedestrians and bicyclists are concerned, 35 of those crashes resulted in their injury or death.\textsuperscript{17} According to the Institute for Traffic Safety Management and Research, in 2011 the top three factors contributing to motor vehicle crashes included unsafe speeds (14.7\%), Driver Inattention/Distraction (13.6\%), and Failure to Yield the Right of Way (8.1\%). It should also be noted that youth, ages 7-15 years old were most vulnerable on the roadways, representing 39\% of the total bicyclists and pedestrians killed or injured.\textsuperscript{18}


\textsuperscript{17} Institute for Traffic Safety Management and Research's Traffic Safety Statistical Repository https://www.itsmr.org/tssr/


<table>
<thead>
<tr>
<th><strong>ROAD SEGMENT INFORMATION</strong></th>
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<tbody>
<tr>
<td><strong>NY 394, Main Street</strong></td>
</tr>
<tr>
<td>- Functional Class: Rural Major Collector</td>
</tr>
<tr>
<td>- Annual Average Daily Traffic (AADT): 6854</td>
</tr>
<tr>
<td>- Last Work Done: Mill and Overlay / 2011</td>
</tr>
<tr>
<td>- Pavement Score: 8</td>
</tr>
<tr>
<td><strong>NY 394, Jamestown Street</strong></td>
</tr>
<tr>
<td>- Functional Class: Rural Major Collector</td>
</tr>
<tr>
<td>- Annual Average Daily Traffic (AADT): 1284</td>
</tr>
<tr>
<td>- Last Work Done: Mill and Overlay / 2011</td>
</tr>
<tr>
<td>- Pavement Score: 7</td>
</tr>
<tr>
<td><strong>Ref. Route 952M, Main Street</strong></td>
</tr>
<tr>
<td>- Functional Class: Rural Major Collector</td>
</tr>
<tr>
<td>- Annual Average Daily Traffic (AADT): 4308</td>
</tr>
<tr>
<td>- Last Work Done: Microsurfacing / 2012</td>
</tr>
<tr>
<td>- Pavement Score: 7</td>
</tr>
</tbody>
</table>

* No major highway work currently scheduled for the above highway segments in the Town of Randolph
**PEDESTRIAN CRASHES**
The New York State Accident Location Information System (ALIS) shows one pedestrian crash in the Town of Randolph from 8/1/2012 to 7/31/15.

**ALL CRASHES**
Two stretches of road, on Jamestown St. and a portion of Main St., have been identified as Priority Investigation Locations (PIL) and Safety Deficient Locations (SDL) by NYS’s High Accident Location (HAL) screening of raw data for crashes of all types.
The Complete Streets workshop in Randolph, NY was held on April 26, 2016. Justin Booth, a Principal at Make Communities, facilitated the discussion.

The agenda contained several main elements: an introduction and visioning exercise, a presentation on the key elements of Complete Streets for Randolph, policy recommendations for sustainability, and a group exercise to identify actions to address the current challenges inhibiting the community’s ability to walk and bicycle safely.

Each element of the course presented was designed to assist the participants in developing a community that supports all modes of travel safely. During the visioning session participants discussed various issues and defined how they would like to see their vision take shape. The presentation educated participants on why complete streets are important, creative engineering strategies to implement them and policy ideas for long-term sustainability. Provided was an overview on each along with a menu of options that may be considered in developing Complete Streets. Participants then walked the community observing issues in the built environment that inhibits access for bicyclists and pedestrians. Once returning the group worked collaboratively to discuss solutions to their local challenges observed during the walking tour and their intimate knowledge of the local community. These solutions were related back to the visioning session and a discussion commenced on next steps.

Overall, the workshop was intended to help the local community develop an environment to support healthy, environmentally sustainable and community friendly transportation choices while establishing a strong basis to apply for future resources creating positive momentum for the identified vision to achieve complete streets.

**Attendees:**

Justin Booth, Make Communities
Tom Congdon, President, RACDC, Randolph Zoning/Planning Boards
Mary Heyl, Director, RACDC
Kyle Brown, Randolph Planning Board
David Messinger, RACDC Board Member/Planning Board
Catherine Congdon, Randolph Business Owner
Deb Miller, Cattaraugus County Planning Board
Crystal Abers, Cattaraugus County
Mike Frame, Randolph Central School, IT Department
Jerry Mottern, Randolph Central School, Acting Superintendent
Kaitlyn Summers, Healthy Community Alliance
Kate Huber, Erie 1 BOCES, Creating Healthy Schools and Communities
Kate O’Stricker, Cattaraugus County EDPT
Greg Szewczyk, NYS DOT
Dale Senn, Town of Randolph Supervisor
Howard V. VanRenssalaear, County Legislator
Ann Schubert, Randolph Business Manager
VISION

To start the workshop, participants were asked to introduce themselves and briefly present their individual vision in implementing Complete Streets for Randolph. Each participant’s comments were recorded and related to at the end. The purpose of this was to allow everyone the opportunity to air his or her concerns and issues in a constructive manner. The comments from this exercise were referred to throughout the course as an aide to identify appropriate recommendations for moving the discussion forward as a way to reach the community’s vision.

The following are four key principles based upon the participant’s vision statements:

1. Establish, expand and better maintain a safe sidewalk and bicycle network through the community ensuring all pedestrian crossings are safe especially at the school.
2. Create a safer community for all ages through the use of proven traffic calming techniques to support slower speeds through downtown business district and school zone.
3. Revitalize the village by engaging and empowering citizens, attracting more businesses and encouraging visitors to stop by developing a place where people want to be through beautification, establishing gateways, creating a civic center, and developing consistency in the street design palette.
4. Identify policy and funding opportunities so that Randolph is successful in implementing Complete Streets through better infrastructure as well as education for all users.
COMMUNITY OBSERVATIONS

STUDENT SAFETY ISSUES
1. Approaching Randolph from the West on Route 394, the speed limit is 35 mph; around a bend three schools appear on the right in sequence – the Academy, the Home and the RCS (Randolph Central School). The blinking lights at the beginning of the school area are alert for pedestrians but do not indicate the presence of a school zone. The speed limit in this location remains at 35 mph in what could be designated as a slower speed area. 25 mph speed signs are present but appear to only warn motorists of a curve in the road, which, for the most part, includes the area from the approach to the RCS from the west and the Academy from the east. There is no indication that the blinking lights are associated with a special speed in this school zone.

2. Students are instructed to cross to Weeden Park (for after school practices and games) via a designated sidewalk on the RCS campus to a painted crosswalk across Route 394. Many students have been observed crossing in this location in groups or individually. Due to lack of clear School Speed Zone or a controlled crossing, this location is the sight of neighborhood safety concerns.

3. The Academy/Home faces a similar street crossing challenge as RCS. Their crosswalk is not in a marked School zone with many students crossing to the Riding Arena and the barn. In addition to the students, horses are guided across the road from one side to the other at this location.
**Traffic Speed Issues:**

1. Traffic to and from Exit 16 (on Route 86) is carried along Randolph's Main Street, which is a mixture of residential (closer to the exit) and business (concentrated along one block just before a blinking red light.) The speed limit is 30 mph, but residents have observed that this speed is often ignored due to both design and a lack of speed enforcement. Traffic going East after the red light often speeds up and encounters no further speed limit, approaching the School zone at 30 or more miles per hour.

2. Residents have expressed pedestrian safety concerns in the business zone when crossing Main Street from the bank, flower shop or salon to businesses on the other side. This is much less of a problem when crossing Jamestown Street, because that street is not the main route to the Expressway. Not only does traffic appear heavy on Main Street, it is perceived as fast. Trucks headed west have been observed to speed up quickly after going through the red light. Concerns relate to the noise, foul air and danger of speeding vehicles and trucks inhibiting the vitality of the business area creating unsafe conditions for pedestrians and bicyclists, to safely navigate.

3. In the residential portion of Main Street, gracious homes line both sides of the street, as well as several churches. The side streets continue the residential neighborhood, but to enjoy the neighborhood on foot or bicycle ends at Main Street, which is perceived as unsafe. Most of the downtown of Randolph is in an official Historic District. However, many of the new development have large street offsets to accommodate vehicle parking.

4. Bicyclists are required by town rules to stay off the sidewalks, but due to the frequency and speed of motor vehicles on Main Street, it is simply too dangerous to ride anywhere except on sidewalks creating unsafe conditions for pedestrians.
**Pedestrian and Bicyclist Safety Issues:**

1. Numerous side streets and driveways with wide turning radii intersect Main Street, which fosters faster speeds and creates longer distances for pedestrians to cross.

2. Driveways into several businesses are undefined, or extremely wide, creating unpredictable traffic movement and conflicts with pedestrians. Examples include: the Mobil station, R & M Restaurant, the Hardware store, Pete’s Restaurant, Randolph Auto Supply, Peaches and Cream and TOPS Supermarket.

3. The intersection of Main and 394 at the mini-plaza is a series of challenges for both vehicles and pedestrians. There are two paved driveways into the plaza, and one unpaved one which heads back to Town owned maintenance buildings. There are no sidewalks into the plaza. To walk to the Post Office on the east end of the plaza the undefined space creates conflicts with cars and trucks going to the gas/diesel fuel pumps, the Physical Therapy office on the east, or the Arrowmart convenience store. This is also a popular place for Amish buggy parking. Lack of a defined entrance and exit has created an unsafe environment for users.

4. The amount of pavement at the “Y” shaped intersection of Main Street, Jamestown Street and the continuation of Rt. 394 is considerable. Crosswalk markings from the plaza lead to the tip of the triangle park, cross it, and continue to the sidewalk on the south side of Main Street. The bridge over the Creek between the plaza and the municipal building has a sidewalk with no buffer between the roadway and the sidewalk. Walkers are in the splash zone, and in winter, the snow piles up on the sidewalk, making walking between ‘downtown’ and the homes and businesses on the other side extremely unappealing, thus ‘forcing’ pedestrians to walk in the roadway across the bridge. As the only connection for both vehicles and people between one end of town and the other, this situation creates an impediment to would-be pedestrians and bicyclists.
1. **Build Safe Sidewalk Network (pgs. 29-30)**

   **Short Term:**
   - Use planter, bike racks, and other street furniture to create buffer
   - Better maintain existing sidewalks removing debris (snow, gravel) along bridge

   **Long Term:**
   - Add pedestrian bridge over creek


   **Short Term:**
   - Provide high visibility crosswalks (pg. 25)
   - Include curb extensions (pg. 33)

   **Long Term:**
   - Create gateway and calm traffic with roundabout (pg. 35)
   - Add sidewalk on both sides of all streets (pg. 29)
   - Better define ingress and egress of property (Zoning)

3. **Add Bicycle Facilities (pg. 36)**

   **Short Term:**
   - Paint shared lane markings
   - Install bicycle racks
   - Add wayfinding and signage

   **Long Term:**
   - Add bicycle lanes

4. **Add Mid-Block Crossing (pg. 27)**

   **Short Term:**
   - Paint crosswalks (pg. 25)
   - Paint curb extension (pg. 33)

   **Long Term:**
   - Add median with pedestrian refuge island (pg. 26-27)
5. **Create Gateway and Slow Traffic (pgs. 26-27)**

**Short Term:**
- Add trees (pg. 29)
- Establish School Zone (pg. 39)

**Long Term:**
- Widen sidewalk (pg. 29)
- Green infrastructure (pg. 31-32)


**Short Term:**
- Paint crosswalks (pg. 25)
- Paint curb extension (pg. 33)

**Long Term:**
- Add curb extension or pedestrian refuge island (pgs. 25-27, 33)

7. **Build Safe Sidewalk Network (pg. 29)**

**Short Term:**
- Use planter, bike racks, and other street furniture to create buffer
- Paint pedestrian/bicycle area through parking lots

**Long Term:**
- Establish a buffer providing for a tree lawn, trees and other green infrastructure (pg. 29, 31-32)
- Address building set back through zoning changes

9. **Create Gateway and Safe Pedestrian Crossing (pgs. 26-27, 32-35)**

**Short Term:**
- Paint crosswalks (pg. 25)
- Paint curb extensions and buffer space with planters (pgs. 31-33)

**Long Term:**
- Add curb extensions (pg. 33)
10. ESTABLISH SCHOOL ZONE AND SAFE PEDESTRIAN CROSSING (PGS. 20-22)

**Short Term:**
- Paint crosswalks (pg. 25)
- Paint curb extensions and buffer space with planters (pg 31-33)
- Add yield to pedestrian signage in crossing

**Long Term:**
- Add curb extensions to facilitate crossing (pg. 33)
- Add raised crosswalk

11. ADD BICYCLE FACILITIES (PG. 36)

**Short Term:**
- Paint shared lane markings (pg. 36)
- Add wayfinding and signage
- Install bicycle racks

**Long Term:**
- Add bicycle lanes (pg. 36)
DEFINITION OF STRATEGIES

This section is intended to define the outlined opportunities provided within the report establishing the framework to achieve the vision outlined by the community. Best practices in design treatments to create complete streets are reviewed. Through this process, an illustrated list of standard and innovative practices will create a menu of improvement actions to enhance the targeted area.

Provided are concept sheets on a variety of topics and is organized from the broadest topic element to the most detailed. The following pages provide a succinct description and discussion of the topic, a drawing or photo and the source of the information. These concepts will serve as the starting point for re-imagining the street network. Full implementation will require design in accordance with the New York State Highway Design Manual.

The New York State Department of Transportation (NYS DOT) adopts and approves specific standards for roadway facility design which are set forth in NYS DOT documents such as the New York State Highway Design Manual and the Manual for Uniform Traffic Control Devices (MUTCD). For the latest versions of these documents it is important to consult the appropriate web sites as information is regularly updated. In addition, designers may also consider various external advisory and informational resources including (but not limited to):

- Federal standards, policies and guidelines
- Recommended practice from major agencies and organizations such as the Federal Highway Administration (FHWA), American Association of State Highway and Transportation Officials (AASHTO), National Association of City Traffic Officials (NACTO) and the Institute of Traffic Engineers (ITE)
- Published research; experiences and practices of other state and local agencies; international experience

1.0 AMERICANS WITH DISABILITIES ACT (ADA)

Description: The Americans with Disabilities Act, enacted in 1990, prohibits discrimination against persons with disabilities by public entities in the course of their providing “services, programs and activities” to the public. Numerous ADA-related regulatory requirements must be addressed by NYS DOT to ensure ADA compliance.

From a broad perspective, ADA regulations include a requirement for a self-evaluation of compliance with applicable detailed regulations. The purpose of Section 1 of the ADA Management Plan and Transition Plan is to identify the regulations affecting NYS DOT, to describe how they are being addressed in relation to NYS DOT services, programs and activities to ensure compliance with the ADA, and to find areas where improvements can and should be made, i.e., the required self-evaluation.

Based on both the federal and State laws and regulations, all newly-constructed facilities must allow full accessibility. When existing facilities are being reconstructed or modified, the contract must also include work to make these facilities accessible. State and local governments, regardless of whether they receive federal funds, are required to comply with the Federal ADA Accessibility Guidelines (ADAAG), Title 24, Uniform Federal Accessibility Standards, or Local Code, whichever provides the greatest access. Private-funded improvements are required to comply with the Federal ADA Accessibility Guidelines (ADAAG) and Title 24, whichever code offers
2.0 CROSSINGS: CROSSWALK MARKINGS

Crosswalk markings show pedestrians where to safely cross the road or street, and they are often supplemented with signage to warn drivers of the possibility that pedestrians may be crossing at a specific location.

It is important to ensure that crosswalk markings are visible to motorists, particularly at night. Crosswalks should not be slippery, create tripping hazards, or be difficult to traverse by those with diminished mobility or visual capabilities.

Inlay tape is often installed on new or repaved streets. It is highly reflective, long-lasting, and slip-resistant, and does not require a high level of maintenance. Both inlay tape and thermoplastic are more cost-effective in the long run than paint. Inlay tape is recommended for new and resurfaced pavement, while thermoplastic may be a better option on rougher pavement surfaces. Both inlay tape and thermoplastic are more visible and less slippery than paint when wet.

Crosswalk markings are usually seen in the standard parallel lines, ladder crosswalk or zebra crosswalk marking style. The value of both ladder and high visibility markings in terms of absolute crash reduction is positive; the number of vehicle-pedestrian incidents at nine test intersections within New York City fell from 36 to 21, a decrease of 42 percent over the one year study period.

Source: MUTCD 2003 and MUTCD New York Supplement 2008, Section 3B.17 Crosswalk Markings


City of Toronto (2006) Were All Pedestrians Program: Evaluation of Stamped DuraTherm™ Crosswalks
2.1 Crossings: Overcoming Movement Barriers
A movement barrier is anything that restricts an individual’s ability to physically move along or within the sidewalk and crosswalk environment. The greatest movement barriers for pedestrians at pedestrian crossings are:

- Long crossing distances,
- Short signal timing
- Medians and islands without ramps or cut-throughs
- Curbs without curb ramps
- Curb ramps without level landings
- Lack of information during pedestrian signal phase
- Lack of crosswalks or prohibited pedestrian crossings
- Motorists making right turns during a red light
- Non-signalized slip lanes or roundabouts that permit a continuous flow of vehicular traffic
- Pedestrian actuated signal devices that are difficult to operate or in hard to reach locations


2.2 Crossings: Medians and Refuges
Refuge islands allow pedestrians to cross fewer traffic lanes at a time and to judge conflicts separately. They also aid and protect pedestrians crossing a roadway.

Depending on the signal timing, pedestrian refuge islands or medians should be considered where the pedestrian crossing distance exceeds 18.3 m or 5 lanes of vehicular traffic. Raised medians or islands in street crossing paths shall be either cut through level with the street or have curb ramps and a level area at least 1.8 m long between curb ramps. Widths of cut through paths should be consistent with “Width” above. Since a cut through path is adjacent to traffic without a barrier, it must have a detectable warning surface such as “truncated domes”.

Truncated domes are the Federally legislated standard design requirement for detectable warnings, which enable people with visual disabilities to determine the boundary between the sidewalk and street.

The use of right on red may create higher speeds and conflicts between vehicles and pedestrians and bicyclists. This problem is not entirely offset by the use of “pork chop” channelizing islands.
2.3 Crossings: Mid-Block Crosswalks

Mid-block pedestrian crossings are generally unexpected by the motorist and should be discouraged unless, in the opinion of the engineer, there is strong justification in favor of such installation. Particular attention should be given to roadways with two or more traffic lanes in one direction as a pedestrian may be hidden from view by a vehicle yielding the right-of-way to a pedestrian.

According to Alternative Treatments for At-Grade Pedestrian Crossings (ITE, 2001), mid-block locations may be warranted if:

- Protected intersections crossings are more than 180 meters apart, 100 meters in high pedestrian volume locations.
- Adequate sight distance is available.
- The combination of traffic and pedestrian volumes justifies the installation.

The installation of marked crosswalks may not address all pedestrian safety concerns at a given location. More substantial engineering and road treatments may need to be considered, as well as enforcement and education programs and possibly new legislation to provide safer and easier crossings at problem locations.

Source: Institute for Transportation Engineers (2001) Alternative Treatments for At-Grade Pedestrian Crossings Main Streets: Flexibility in Design and Operation (January 2005)
3.0 **Signals: Signal Warrants**

A traffic signal may be warranted where the pedestrian volume crossing the major street at an intersection or mid-block location during an average day is:

- 100 or more for each of any four hours; or
- 190 or more during any one hour.

The pedestrian volume crossing the major street may be reduced as much as 50% of the values given above when the predominant pedestrian crossing speed is below 1.2 m/s (4 ft/s).

In addition to a minimum pedestrian volume of that stated above, there shall be fewer than 60 gaps per hour in the traffic stream of adequate length for pedestrians to cross during the same period when the pedestrian volume criterion is satisfied. Where there is a divided street having a median of sufficient width for the pedestrian(s) to wait, the requirement applies separately to each direction of vehicular traffic.

Where coordinated traffic signals on each side of the study location provide for platooned traffic which result in fewer than 60 gaps per hour of adequate length for the pedestrians to cross the street, a traffic signal may not be warranted.

This warrant applies only to those locations where the distance to the nearest traffic signal along the major street is greater than 90 m (295 ft) and where a new traffic signal at the study location would not unduly restrict platooned flow of traffic. Curbside parking at non-intersection locations should be prohibited for 30 m (98 ft) in advance of and 6 m (20 ft) beyond the crosswalk.

A signal installed under this warrant should be of the traffic-actuated type with push buttons for pedestrians crossing the main street. If such a signal is installed within a signal system, it should be coordinated if the signal system is coordinated.

Signals installed according to this warrant shall be equipped with pedestrian indications conforming to requirements set forth in Chapter 4E of the MUTCD.

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4.0 Sidewalks: Maintenance
Sidewalk surfaces that have settled or heaved over time can be a significant barrier for pedestrians. Surfaces that are smooth and rollable when newly installed may not stay that way, particularly where masonry units are installed without an adequate subbase. Knowledgeable design, wise material selection, good construction practices, and regular maintenance procedures can help ensure that differences in level between adjacent units do not exceed the limits of usability. Surface provisions for an accessible route limit allowable vertical differences in level between abutting surfaces to no more than 6 mm (1/4 in); if beveled at 1:2, a 13 mm (1/2 in) difference in elevation is permitted.


4.1 Sidewalks: Trees: Site Selection
New trees should be included in every public streetscape improvement or new development. Tree lawns are suitable planting sites in the area between the sidewalk and the curb (snow storage area) and must meet the following requirements:

- No tree to be planted when there is less than 3’ between the sidewalk and curb
- 35’ spacing from an intersection or stop sign
- 6’ spacing between a driveway and drip line of overhanging tree
- 5’ spacing from underground service or utility box
- 15’ spacing from a street light, utility pole or fire hydrant
- 40’ spacing between large trees, 20’ for medium trees, 20’ for small trees

Tree pits are suitable planting sites in concrete cut out areas which must meet the minimum re-
quirements for sites in tree lawns as well as:

- No vaults or utility services are directly under site where concrete is to be cut
- 5’ clearance for pedestrian walkway next to pit
- Not to be located under any overhanging structures
- Size of cut out must have 28 square feet of surface area, such as 6’x6’, 5’x6’ or 4’x7’, unless structural soil is used, then surface area may decrease to 20 square feet, 4’ x 5’
- No tree grates are to be placed after planting

Planter boxes are suitable planting sites when tree lawns and tree pits are not possible. Planter boxes must meet the minimum requirements for tree lawns as well as:

- Planter box should be placed 18 inches from curb line
- No less than 16 square feet of surface area (4’x4’) for small trees and shrub-like trees
- No less than 9 feet of surface area (3’x3’) for small shrubs
- 5’ of clearance for pedestrian walkway next to planter box
- Not to be located under any overhanging structures
- Must be irrigated regularly to ensure survival of plant


4.2 Sidewalks: Zone System

Where paved sidewalks exist, a sidewalk corridor lies in a public right-of-way between the street and a property line adjacent to the street. The curb zone is designed for drainage, and to isolate pedestrians from the street; it is typically about 15 cm (6 in) wide, and 15 cm (6 in) high. The furnishings zone buffers pedestrians from the street, and is the proper place for utility poles, signs, litter baskets, etc. (these are called street furniture). The furnishings zone is also the place to plant trees or shrubs, and for this reason it is sometimes called the planter strip. Other things being equal, the wider the furnishings zone, the better, since a wide buffer makes walking safer and more pleasant.

The furnishings zone provides width for any slopes that must exist for access through the sidewalk corridor; for example, a driveway apron, the part of the driveway that slopes to the street level, or a curb ramp for disabled pedestrian access. In addition, it can also serve as snow storage.

The space adjacent to the property line that is not part of the normal walking surface is called the frontage zone. Its width will vary, depending on its use. The lower diagram shows a sidewalk café in the frontage zone. If there is a barrier on the property line, such as a fence or the side of a building, the frontage zone should be at least wide enough so that a pedestrian on the edge of the sidewalk will not touch the barrier. This extra room is called shy distance.
The through pedestrian zone is the clear space to walk commonly referred to as a sidewalk. The through pedestrian zone should ideally be at least 1.8 m (6 ft) wide and free of both permanent and temporary obstructions. Walking surfaces in the through pedestrian zone should be firm and stable, resistant to slipping when wet, and allow for use by people using canes, wheelchairs, etc. Except where absolutely required by the topography, there should be no significant slope (in line with the direction of travel) or cross-slope (at right angles to the direction of travel) in the through pedestrian zone.


5.0 **Green Infrastructure: Stormwater Planters**

Stormwater Planters are specialized planters installed in the sidewalk area or median and are designed to manage stormwater runoff by providing storage and infiltration while conveying any overflow to the appropriate system. These types of treatments are applicable on all street types. If designed well, these types of planters can benefit street tree and plant health as long as the appropriate species are chosen that can tolerate periodic flooding and salt. This treatment can do a lot to beautify a street but will require a maintenance entity to clean and occasionally unclog the swale and drains.

Considerations for placement include:

- Stormwater Planters should be located so that they maintain a minimum clear walking zone width (see section 4.2) and do not create pinch points or tripping hazards.
- Stormwater Planters should be considered in curb extensions (see section 6.2) and medians (see section 2.2) and the furnishing zone (see section 4.2).
- Planter placement should consider the placement of underground utilities.
- Planter design must consider passenger and wheelchair accessibility at transit stops and on street parking locations.
Design:

- Stormwater planters are generally rectangular with four concrete “curbed” sides and inlets that allow runoff to flow into the planter. The planter is lined with permeable fabric, gravel and soil and filled with plants and/or trees. Soil in the planter is lower in elevation than the sidewalk to provide storage space for runoff.

- Planter dimensions vary depending upon site conditions. Standard width for planting strips is 4’ from face of parallel curb; required minimum width is 3’.


6.0 Traffic Calming

In the publication Traffic Calming: State of the Practice (ITE/FHWA, August 1999), traffic calming is described as “the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users.” Traffic calming is differentiated from route modification, traffic control devices, and streetscaping. Traffic control devices, notably STOP signs and speed limit signs, are regulatory measures that require enforcement. By contrast, traffic calming measures are intended to be self-enforcing.

Most traffic calming programs, which are also termed neighborhood traffic management programs, traffic mitigations, among other names, are instituted by local agencies rather than regions or states. Traffic calming measures are also included in many general circulation plans, pedestrian and bicycle plans, streetscape plans, and safe routes to school plans.

Source: Institute of Transportation Engineers (1999) Traffic Calming: State of the Practice

6.1 Traffic Calming: Chicanes and Chokers

Chicanes are curb extensions that alternate from one side of the street to the other, forming S-shaped curves. Chicanes can also be created by alternating on-street parking, either diagonal or parallel, between one side of the street and the other. Each parking bay can be created either by restriping the roadway or by installing raised, landscaped islands at the ends of a parking bay.

When properly designed, chicanes slow traffic speeds through horizontal deflection and are still relatively easy for large vehicles, like fire trucks, to maneuver when traffic volumes are low to moderate. Chicanes should be designed carefully to ensure that drivers do not deviate out of the appropriate lane.

Chokers are curb extensions that extend from both sides of the street directly across from each other, narrowing the curb-to-curb width of the roadway at that point. As with chicanes, chokers should not be designed to force bicyclists to merge with vehicular traffic.

Additional design recommendations include:

• Install sidewalks that continue in a straight path rather than following the path of the chicane or choker
• Design chokers to include curb extensions with landscaping at mid-block crossings

6.2 Traffic Calming: Curb Extensions

Curb extensions, also known as bulb-outs or neck downs, are achieved at an intersection or mid-block by extending the curb corners to the center of the roadway. Curb extensions reduce the crossing distance for pedestrians and may slow motorists, though minimally, at the intersection.

Intersection curb extensions should only be used on low-speed streets with parking lanes. In addition, curb extensions should be designed to assure curbs do not abruptly jut out to the edge of the travel lane. For this reason, intersection curb extensions should generally be at least 6 m long and as wide as the parking lane minus an appropriate curb offset for bicycle access. Designs should also reflect the turning radii of snow plows and other vehicles.

Careful consideration for bicyclists is required. Shoulder striping should be installed to warn motorists and bicyclists of the narrowing at the intersection of a roadway and assist them in maintaining proper spacing.


6.3 Traffic Calming: Raised Intersections

Raised intersections are flat elevated areas that cover an entire intersection, often with textured materials on the flat section. Ramps are installed on all approaches. The intersections are usually raised to the level of the sidewalk, or slightly below to provide a “lip” that is detectable by the visually impaired.

The appropriate locations for a raised intersection treatment would include intersections with substantial pedestrian activity and areas where other traffic calming measures would be unacceptable because they take away scarce parking spaces, such as in an active commercial retail neighborhood. With the whole intersection raised with a different surface, the intersection is recognized by motorists as being different than other roadway segments, or as “pedestrian territory”.

Design recommendations include:

- Installation of detectable warnings, such as truncated domes, to identify the transition between street and sidewalk, especially for the visually impaired.
- Use a smooth surface such as colored asphalt instead of brick, to enhance access for people with mobility impairments.

The advantages of raised intersections as a calming tool are:

- By calming the intersection, they can calm two streets at once.

The disadvantages of raised intersections are:

- They tend to be expensive, varying by materials used, and impact to drainage.
- They are less effective in reducing speeds than other measures such as speed humps, speed tables and raised crosswalks.
- People with back and neck problems can experience additional pain or discomfort by the jarring effect when traveling over the raised intersection.


6.4 Traffic Calming: Modern Roundabouts

Modern roundabouts can serve to reduce traffic speeds and simplify pedestrian crossings. Even so, they are not always considered to be traffic calming intersection treatments. The use of modern roundabouts can also occur at freeway-to-street interchanges and at other sites with limited space available for queueing. In some cases, roundabouts can also be used to increase the capacity of an intersection and/or roadway.

The modern roundabout is defined by two basic principles that distinguish it from a traffic circle:

- Roundabouts follow the “yield-at-entry” rule in which approaching vehicles wait for a gap in the circulating flow before entering the circle,
- Roundabouts involve low speeds for entering and circulating traffic, as governed by small diameters and deflected entrances.

Roundabouts also reduce the number of potential conflicts between motorized vehicles and pedestrians. While a pedestrian crossing a leg of a typical signalized intersection may encounter six potential conflicts (from thru/turning vehicles), the pedestrian will only encounter two potential conflicts from vehicles at a modern roundabout. While roundabouts provide advantages, they must be designed to safely accommodate pedestrians, especially sight-impaired pedestrians. Furthermore, safety issues increase for pedestrians as roundabouts become more complex and increase the number of travel lanes. High-volume, multi-lane roundabouts can be more dangerous than a traditional signalized intersection for pedestrians and bicyclists without proper engineering, education and enforcement.

7.0 **On-street Bicycle Lanes**

Parked vehicles can pose as serious a hazard to bicyclists as moving vehicles, both by being hit by an opening door, and by the parking maneuver itself. On streets with parked vehicles, experienced bicyclists will ride 0.9 m - 1.2 m (3 or 4 ft) away from parked vehicles even if it means riding in a travel lane. Several techniques are available to help maximize separation between bicyclist and parked vehicle:

- **Minimize the parking lane width.** This technique may be used in conjunction with widening the bike lane. Some research suggests that the narrower the parking lane, the closer vehicles park to the curb. The traditional 2.4 m (8 ft) wide parking lane can be reduced to 2.1 m (7 ft), and in some cases, to 1.9 m (6.5 ft), to achieve this result.
- **Space markings.** Marked parking spaces with cross hatches indicating the parking lane limits may help guide drivers closer to the curb.
- **Stencils.** Bike route stencils help educate drivers on narrow roadways with on-street parking to expect bicyclists in the travel lane.
- **Angled parking should be avoided in areas of high bike traffic.** If angled parking is used on a street, one approach that is being tried in some locations is to require vehicles to use reverse angle parking so that drivers back into spaces. This allows for greater visibility of bicyclists both entering and leaving the space.

Source: Institute of Transportation Engineers (2002)
Innovative Bicycle Treatments: An Informational Report.

7.1 **Shared Lane Marking “Sharrows”**

The rightmost lane on signed/shared bikeways is often too narrow to be safely shared side-by-side by cyclists and passing motorists. On these routes, cyclists wishing to stay out of the way of drivers often ride too close to parked cars and risk being struck by a suddenly opened car door (being “doored”).

To avoid this, experienced cyclists ride further to the left and position themselves closer to the center of narrow lanes. This is permitted by the New York State vehicle code, but it often irritates motorists who are not aware that this is permitted.

A “shared lane marking” is a potential solution. The marking does not connote a separated bicycle lane, but instead directs the bicyclist to travel outside the car door zone and encourage safe coexistence.

8.0 **Roadway Design: Reduce Travel Lane Width**

To accommodate bicyclists on busy roadways in urban areas, bike lanes generally serve bicyclists and motorists best. Many roadways in urban areas were originally built without bike lanes. These roadways often act as deterrents to bicycle travel and may cause conflicts between bicyclists and motorists.

The following motor vehicle travel lane and bicycle lane widths may be used when street width is limited. All reduced lane widths are within AASHTO minimums. The need for full-width travel lanes decreases with speed. This is significant because narrowing lanes helps make room for bicycle lanes. Additionally, creating dedicated left-turn lanes with the “left-over” space makes vehicular traffic more predictable.

There are some rules of thumb for lane reductions:

- Up to 25 MPH (40km/h): Travel lanes may be reduced to 10 or 10.5 ft (3 or 3.2 m).
- 30 to 40 MPH (50 to 65km/h): 11ft (3.3) travel lanes and 12ft (3.6m) center turn lanes may be acceptable.
- 45 MPH (70km/h) or greater: Try to maintain a 12 ft (3.6m) outside travel lane and a 14ft (4.2m) center turn lane if there are high truck volumes.

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Nationwide, transportation planners and engineers are looking at removing travel lanes. Removing travel lanes broadens transportation choices and encourages mobility and access for transit users, pedestrians, and bicyclists. Removing travel lanes also improves the livability and quality of life for residents and shoppers.

Removing travel lanes and creating a shared center turn lane can also help improve the roadway efficiency by shifting left turn movements from main through movements, which may also reduce crashes.

The best candidates for removing travel lanes should fit some of the following criteria:
- Moderate traffic volumes (8-15,000 ADT)
- Transit corridors
- Popular or essential bicycle routes / links
- Commercial reinvestment areas
- Economic enterprise zones
- Historic streets
- Scenic roads
- Entertainment districts Main streets

These criteria are just a general guide, as streets with much higher ADT’s have been successfully converted. In Santa Monica, officials feel most comfortable working with streets less than 20,000 ADT, although they have converted streets with ADT’s up to 25,000 vehicles. In California alone, more than twenty cities have made successful street conversions. This includes Santa Barbara, Palo Alto, Sacramento, and Sunnyvale, among others.

9.0 School Speed Zones

The following are the key provisions of the law and regulations:

**Hours of Operation**

There are two choices available for the hours of operations: Fixed Message School Speed Limit Signs with or without Flashing Beacons. For:

- Traditional 7 AM to 6 PM hours on SCHOOL DAYS, A supplementary time/day panel is required. (There is no precise definition of SCHOOL DAYS.)
- Alternative time within such core hours, a supplementary time/day panel is required.

Examples: 9 AM to 4 PM, 7 AM to 9 AM and 2 PM to 4 PM; 8 PM to 10 PM (NOT ALLOWED with fixed message signs since time is outside core hours)

**Note:** Flashing beacons used in a supplementary manner may only flash during the actual hours stated on the supplemental time/day panel.

**Length of a School Speed Zone**

- Maximum distance is 1320 feet (0.25 miles) along a highway passing a school building entrance or exit of a school abutting on the highway.

**MUTCD Considerations**

The Manual of Uniform Traffic Control Devices (MUTCD) provides criteria for establishing school speed limits. A school speed limit is primarily used to enhance the safety of children who must walk/bicycle to a school/child care facility or cross the street at a school/child care facility. A school speed limit may be established on a highway at the following facilities under the following conditions:

1. **School with one or more grades under grade 12**
   - Some of the students walk or bicycle to or from school; or the school and related facilities (e.g. classrooms, cafeteria, gymnasium, playground, athletic fields, parking lots, etc.) are separated by a highway and require the students to cross the highway on foot to access the facilities; and
   - The school administration and the jurisdiction responsible for the highway provides written documentation of their support for a school speed limit.

2. **Child Care Facility**
   - The child care facility is licensed and provided in an institutional setting; and
   - Some of the children walk or bicycle to or from the facility; or the child care center and related facilities (e.g. classrooms, cafeteria, gymnasium, playground, athletic fields, parking lots, etc.) are separated by a highway and require the children to cross the highway on foot to access the facilities; and
   - The child care facility and the jurisdiction responsible for the highway provides written documentation of their support for a school speed limit.

3. When a school speed limit is established and if students must cross a highway at a school
or child care facility, the following conditions should be met:

- The school speed zone contains a marked crosswalk.
- The crosswalk is supervised by an adult crossing guard.
- There is no traffic control signal, pedestrian overpass, or bridge suitable for pedestrian use within the designated school speed zone.

The Vehicle and Traffic Law prohibits school speed limits less than 15 miles per hour.

Source: New York State Department of Transportation (https://www.dot.ny.gov/about-nysdot/faq/posting-speed-limit-within-a-school-zone)
Based upon feedback generated from the workshop participants, the following actions were identified to begin the process of implementing complete streets in the Town of Randolph.

**IMMEDIATE ACTIONS**

1. **Advisory Board:** The Town of Randolph should establish an interdepartmental advisory board to oversee the implementation of its complete streets policy. The committee will include members of the town (board members, planning board, school board, highway department), county (economic development, planning department and highway department), the NYS Department of Transportation, the police department as well as representatives from bicycling, pedestrian, disabled, youth and elderly communities or any other organizations as deemed relevant. This committee will meet quarterly and provide a written report to the town board evaluating progress and advising on implementation.

2. Write to and engage the New York State Department of Transportation (NYSDOT) in advisory board and to identify maintenance schedule for identified short term improvements

3. Consider the following work items based on workshop discussions
   - Raise drainage grates to be flush with pavement for bicycle safety
   - Refresh crosswalk striping and consider upgrading to high visibility ladder bar crosswalk striping
   - Develop maintenance plan to remove snow from Main St bridge, west of Town Hall to improve pedestrian safety in winter
   - Identify roundabout candidate locations and explore area impacts
   - Work with NYSDOT to address sweeping of gravel from curb side
   - Look at options to address highway signs blocked by street trees, including tree trimming and possible sign relocation
   - Install curb extensions/bulb outs at intersection of Main & Bank; other locations
   - Develop curb ramp maintenance plan
   - Identify any ADA concerns
   - Explore installation of school zone beacons with radar speed indications at Randolph Central School

4. Disseminate this report to newly formed advisory board

5. Identify catalyst project (up to $1,000 available)
**Mid-Term Actions**

1. Revise Existing Plans and Policies to incorporate complete street principles into the comprehensive plan, zoning code and other plans and manual, rules, regulations and programs.


3. Randolph’s Complete Streets committee should continuously evaluate to identify successes and review opportunities for improvement. Sample performance measures may include:
   - Increase in the share of bicycles, pedestrians and transit users;
   - Crash data;
   - Use of new projects by mode;
   - Compliments and complaints;
   - Linear feet of pedestrian accommodations built;
   - Number of ADA accommodations built;
   - Miles of bike lanes/trails built or striped;
   - Number of transit accessibility accommodations built;
   - Number of street trees planted;
   - Number of building permits issued along new complete street.

4. Inventory: The Town of Randolph will maintain a comprehensive inventory of the pedestrian and bicycle infrastructure and will prioritize projects to eliminate gaps in the sidewalk and bikeway networks.

5. Capital Improvement and Maintenance Project Prioritization: The Town of Randolph will reevaluate capital improvement and maintenance project prioritization annually to encourage implementation of pedestrian and bicycle improvements.

6. Research and prepare grant applications for project implementation

**Long-Term Actions**

1. Implement prioritized opportunities identified for establishing pedestrian and bicycle connections

2. Secure grant funding and implement long term vision
FUNDING OPPORTUNITIES

There are many mechanisms for a municipality to generate resources for public infrastructure maintenance and construction. Provided below is a sampling of current fund development strategies.

MUNICIPAL BEST PRACTICES

Voter Approved Transportation Spending
There are a number of communities across the country that have approved short-term local tax initiatives to fund bicycle, pedestrian and other transportation projects. One of the best examples of this comes from the City of Tucson and the surrounding Pima County. During a one-time vote in May of 2006, voters approved a sales tax to fund the implementation of the 20-year transportation plan.

Transportation Utility Fee
Some municipalities have used transportation utility fees to fund improvements that aid active transportation. A transportation utility fee, also known as a transportation maintenance fee, street maintenance fee, or street utility fee, is a monthly user fee paid by city residents, businesses, government agencies, schools, etc. based on their use of the transportation system. Fees are usually included on the city’s utility bill. Revenue from this fee can only be used to maintain transportation infrastructure. Residential fees typically range from approximately $1 to $12 per month. Other land uses often pay much higher fees based on their predicted traffic generation. Compared to a tax, a fee faces fewer legal hurdles and public opposition.

Metered Parking Revenue
Charging market prices for curb parking and returning the meter revenue for public improvements has helped pave the way for a renaissance of a number of communities around the US. The meter revenue has paid to improve the streetscape and to convert alleys into pleasant walkways with shops and restaurants. The additional public spending makes the area safer, cleaner, and more attractive for both customers and businesses. These public improvements have increased private investment, property values, and sales tax revenues.

Sidewalk Tax District
This community-based initiative is similar to the metered parking revenue in that it looks to generate funds within the community where the money will eventually be spent. In this case, each building owner would pay an extra $100 in taxes for the next 10 years to levy additional funds from the city. These funds could be used for matching grants or the like and they also demonstrate to the city a strong investment on the part of the local businesses.

Private Advertising in the Public Right-of-Way
Another method is to use funds from private advertising in the public right-of-way for active living infrastructure. Possible advertising locations include transit shelters and vehicles, existing bicycle parking infrastructure, street furniture, and utility poles.
Development Impact Fee or Development Excise Tax

Some municipalities utilize a development impact fee—a one-time fee collected from a new development to pay for its fair share of future capital improvements necessitated by growth. The impact fee can be used only for capital improvements, not maintenance or operating costs. Usually, a specific portion of this fee is earmarked for transportation infrastructure improvements.

Similar to a development impact fee, a development excise tax is a one-time tax collected on new development to fund new infrastructure. The excise tax can be rolled into the municipality’s general funds. Unlike a development impact fee, however, an excise tax does not have to be specifically earmarked to benefit new growth. Taxes can be calculated as a percentage of construction cost, a flat fee per acre, or a flat fee by building type.

**Federal Programs**

Specific application for these programs should be reviewed within the region through the county planning office or other specific public agency identified.

**Congestion Mitigation and Air Quality (CMAQ):**

CMAQ is a federal reimbursement program for surface transportation and other related projects that contribute to air-quality improvements and reduced congestion. Program funds may be used to construct bicycle and pedestrian facilities intended to reduce automobile travel and/or emissions in areas that have failed to meet air-quality standards for ozone, carbon monoxide and small particulate.

**Highway Safety Improvement Programs (HSIP):**

The overall purpose of this program is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads through the implementation of infrastructure-related highway safety improvements.

**Transportation and Community System Preservation (TCSP):**

The Transportation, Community, and System Preservation (TCSP) Program is a comprehensive initiative of research and grants to investigate the relationships between transportation, community, and system preservation plans and practices and identify private sector-based initiatives to improve such relationships. States, metropolitan planning organizations, local governments, and tribal governments are eligible for discretionary grants to carry out eligible projects to integrate transportation, community, and system preservation plans and practices that:

- Improve the efficiency of the transportation system of the United States.
- Reduce environmental impacts of transportation.
- Reduce the need for costly future public infrastructure investments.
- Ensure efficient access to jobs, services, and centers of trade.
- Examine community development patterns and identify strategies to encourage private sector development patterns and investments that support these goals.
Hazard Elimination Program:
At least ten percent of each state’s Surface Transportation Program (STP) must be set aside for Hazard Elimination programs. This program’s purpose is to identify and improve locations that have a documented history of numerous crashes. Funds may be used for safety improvement projects on any public road, any public surface transportation facility, or any publicly owned bicycle or pedestrian pathway or trail.

Transportation Alternatives Program:
The Transportation Alternatives Program (TAP) is a legislative program that was authorized in 2012 by federal transportation legislation, the Moving Ahead for Progress in the 21st Century Act (MAP-21). With certain exceptions, projects that met eligibility criteria for the Safe Routes to School Program, Transportation Enhancements, and/or the Bicycle & Pedestrian Facilities Program will be eligible TAP projects.

Tiger Grants:
TIGER grants are awarded to transportation projects that have a significant national or regional impact. Projects are chosen for their ability to contribute to the long-term economic competitiveness of the nation, improve the condition of existing transportation facilities and systems, increase energy efficiency and reducing greenhouse gas emissions, improve the safety of U.S. transportation facilities and enhance the quality of living and working environments of communities through increased transportation choices and connections. The Department also gives priority to projects that are expected to create and preserve jobs quickly and stimulate increases in economic activity.

Surface Transportation Block Grant Program (FAST Act)
The Fixing America's Surface Transportation Act (FAST Act) will fund surface transportation programs, including Federal-aid highways, through fiscal year 2020. The program aims to improve mobility through congestion management strategies; support economic growth by supporting road, bridge, bicycling, and walking improvements; and promote innovation by focusing on efficiency through the planning and review processes. The program includes set-asides for funding transportation alternatives previously available under TAP, including the Safe Routes to School Program, Transportation Enhancements, and/or the Bicycle & Pedestrian Facilities Program.
STATE PROGRAMS

Specific application for these programs should be reviewed with the county planning office or specific public agency identified.

New York State Energy Research and Development Authority (NYSERDA), a public benefit corporation offering objective information and analysis, innovative programs, technical expertise and funding to help New Yorkers increase energy efficiency, save money, use renewable energy, and reduce their reliance on fossil fuels. Funding is available through multiple, continuous, mechanisms targeted toward businesses and researchers. (http://www.nyserda.ny.gov)

New York Main Street Program, the Office of Community Renewal administers the New York Main Street program. New York Main Street provides financial resources and technical assistance to communities to strengthen the economic vitality of the State’s traditional Main Streets and neighborhoods. The New York Main Street grant program provides funds from the New York State Housing Trust Fund Corporation (HTFC) to units of local government, business improvement districts, and other not-for-profit organizations that are committed to revitalizing historic downtowns, mixed-use neighborhood commercial districts, and village centers. (http://www.nyshcr.org/AboutUs/Offices/CommunityRenewal/)

The Neighborhood Stabilization Program (NSP), administered through the Housing Finance Agency (HFA), provides financing for municipalities and developers to acquire and redevelop foreclosed, abandoned, and vacant properties. Once renovated or newly constructed, units are sold or rented to low-, moderate-, and middle-income households, with mandated long-term affordability. NSP also funds local land banking initiatives focused on foreclosed residential properties, and select demolition programs of blighted properties in targeted neighborhoods. The program, funded with Federal and State funds, targets communities most severely affected by the foreclosure and subprime crisis. (http://www.nyshcr.org/AboutUs/Offices/CommunityRenewal/)

The Rural Area Revitalization Project (RARP) program provides financial/technical resources to New York communities for the restoration and improvement of housing, commercial areas and public/community facilities in rural communities. This program will provide grants to not-for-profit community based organizations and charitable organizations that have a direct interest in improving the health, safety and economic viability of a rural area or other aspects of the area environment that are related to community preservation or renewal activities. (http://www.nyshcr.org/AboutUs/Offices/CommunityRenewal/)

New York State Consolidated Funding Application (CFA) is part of Governor Cuomo’s plan to improve the state’s economic development model; the CFA created a streamlined and grant application process. Utilize the CFA as a single entry point for access to economic development funding in New York State. Applicants have access to multiple state agency funding opportunities, including the New York State Main Street Program. (https://apps.cio.ny.gov/apps/cfa/)
PRIVATE FUNDING

National Endowment for the Arts (NEA) Our Town grant program:
The National Endowment for the Arts provides a limited number of grants, ranging from $25,000 to $150,000, for creative placemaking projects that contribute toward the livability of communities and help transform them into lively, beautiful, and sustainable places with the arts at their core. Our Town invests in creative and innovative projects in which communities, together with their arts and design organizations and artists, seek to:
• Improve their quality of life.
• Encourage creative activity.
• Create community identity and a sense of place.
• Revitalize local economies.

Preservation League of New York State:
The Preservation League of New York State offers grants to support projects that preserve New York State’s cultural and historic resources. The grants support professional services of architects, engineers, and other design professionals working with non-profit groups and municipalities.

ZONING CODE AMENDMENTS

Zoning codes have a big influence on how pedestrian friendly or bike-friendly a community is and can encourage private investment. Not only do zoning codes create rules about the size, location, and use of buildings within a zoning district, but they also govern the surrounding public spaces. For example, zoning codes set standards for the width of sidewalks and streets, the location and frequency of crosswalks, the placement of pedestrian medians, the installment of bicycle lanes, or the inclusion of traffic-calming devices such as speed bumps. Zoning codes can also create mixed-use districts where structures can be used for both commercial and residential purposes, allowing more commerce to happen where people live and reducing the need for motor vehicles.
MODEL COMPLETE STREETS POLICY

DRAFT MODEL ORDINANCE

The National Complete Streets Coalition promotes a comprehensive policy that addresses ten main elements for communities to adopt. These elements include an identified vision, specific direction and commitment, interpret clearly the community’s desire, and establish flexibility in planning and implementation to ensure real results through good process. Provided is a description of each section and sample language for consideration.

A strong vision can inspire a community to follow through on its policy. Every community has its own set of challenges and desires, which has encouraged them to develop Complete Streets as an effective policy to combat them. At its core, complete streets identifies that all users upon the roadways should be safely accommodated into the planning, design, construction and operation of the transportation system.

Whereas; Establish (your community) as a safe and accessible community by improving bicycle and pedestrian friendliness through consistent public realm design standards to a revitalized mixed-use downtown district.

Clarity in the intent of the policy makes it easy for those who are tasked with its implementation and follow through. All involved understands this new goal and can determine what changes in the current process need to occur.

Whereas; The (your community) shall plan for, design, construct, operate and maintain appropriate facilities for all transportation users in all new construction, retrofit and reconstruction projects.

Complete Street policies come with an understanding that all users and modes shall be accommodated upon the roadway. This recognizes that our streets are for more then moving vehicles through them. Streets should also be places for those who travel by foot and bicycle for they too are deserving of safe facilities to travel upon.

Whereas; streets that integrate multiple transportation choices for pedestrians, bicyclists, and transit, with special consideration for children, the elderly and people with disabilities, contribute to the public life of a community, sustainable economic development and efficient movement of people and goods.

The complete street policy should apply to all street projects and phases. Whether it is new construction, reconstruction, maintenance or operations all transportation improvements should be viewed as an opportunity to create safer, more accessible streets for all users.

Whereas; the (your community) shall, to the maximum extent practical, scope, plan, design, construct, operate and maintain all streets to provide a comprehensive and integrated network of facilities for all users of all abilities.

There are some exceptions that should be in place to ensure the policy is not too onerous. However, a process to handle exceptions is needed and should not weaken the overall policy. The Federal Highway Administrations guidance on accommodating bicycle and pedestrian travel identifies when accommodations may not be necessary on corridors where specific users are prohibited, such as in-
terstate freeways or pedestrian malls; the cost of accommodation is excessively disproportioned to the need or probable use; there is a documented absence of current or future need.

Whereas: Any exception to applying this Complete Streets Policy to a specific roadway project must be approved by (the Village Trustees) with documentation of the reason for the exception. Exceptions may be made when the project involves a roadway on which non-motorized use is prohibited by law. In this case, an effort shall be made to accommodate pedestrians and bicyclists elsewhere.

Streets must be organized in an integrated network. Residents have many potential destinations in their daily travel. A complete street provides an interconnected network that meets this demand.

Whereas: This policy will create a comprehensive, integrated, connected transportation network for (your community) that balances access, mobility, health and safety needs for all residents. Planning, funding, designing, constructing, managing and maintaining a complete multi-modal network, ensures this.

Implementing a complete street network can become difficult with multiple agencies having jurisdiction over the planning, design and construction of different roads. In Randolph, the state and county also have jurisdiction over some of the roadways. Additionally, new developments may be built in town and new roadways established by private developers.

Whereas: It is the intent of this policy to foster partnerships with the state, county, school district, citizens, businesses, interest groups and neighborhoods to implement complete streets.

Communities should design their streets using the best and latest design standards available.


All communities are different and it is important that each maintain their character and sense of place when designing complete streets. A context sensitive approach does this by adapting roads to fit the character of the surrounding neighborhood.

Whereas: the implementation of this policy shall reflect the context and character of the surrounding built and natural environments while enhancing the appearance of such. In doing so, the (your community) shall consider methods of providing development flexibility within safe design parameters such as context-sensitive design solutions and shall attempt to employ all solutions consistent with and sensitive to the context of the project.

Performance measures help communities measure their success. The evaluation of complete streets projects can help identify this success by determining improvements in safety, economic development and changes in mode share. These can include the total number of bike lanes added, increase
in building permits issued to the increase in activity levels of residents because they are now walking or biking more often.

Whereas; Complete Streets should be continuously evaluated for success and opportunities for improvement sought. This policy encourages the regular evaluation and reporting of implementing complete streets through the following performance measures:

- Increase in the share of bicycles, pedestrians and transit users;
- Crash data;
- Use of new projects by mode;
- Compliments and complaints;
- Linear feet of pedestrian accommodations built;
- Number of ADA accommodations built;
- Miles of bike lanes/trails built or striped;
- Number of transit accessibility accommodations built;
- Number of street trees planted;
- Number of building permits issued along new complete street;
- Number of exemptions from this policy.

Once a policy is passed, the work is not done. There are a number of steps that a community can take to ensure the implementation of complete streets. There are five key steps to follow in order to be successful, these include:

1. Restructure or revise related procedures, plans, regulations and other processes to accommodate all users.
2. Develop new design policies and guides or revise existing ones to reflect current best practices in transportation design.
3. Ensure that staff responsible for implementing the policy, as well as community leaders and the general public has opportunities to attend workshops or other training opportunities so that everyone understands how to implement the policy effectively.
4. Identify ways to evaluate and measure the performance of your new complete streets by collecting data and sharing with the general public how well the streets are serving them.

Whereas; The (your community) shall implement the following steps to ensure successful implementation of complete streets:

- Advisory Board: the (your community) will establish an interdepartmental advisory board to oversee the implementation of this policy. The committee will included members of the village (board members, planning board, school board, highway department), county (planning department and highway department), the NYS Department of Transportation, the police department as well as representatives from bicycling, pedestrian, disabled, youth and elderly communities or any other organizations as deemed relevant. This committee will meet quarterly and provide a written report to the (your community's elected officials) evaluating progress and advising on implementation.
- Inventory: The (your community) will maintain a comprehensive inventory of the pedestrian and bicycle infrastructure and will prioritize projects to eliminate gaps in the sidewalk and bikeway networks.
- Capital Improvement and Maintenance Project Prioritization: The (your community) will re-evaluate capital improvement and maintenance project prioritization annually to encourage
implementation of pedestrian and bicycle improvements.

- **Revisions to Existing Plans and Policies:** The (your community) will incorporate complete street principles into the comprehensive plan, zoning code and other plans and manual, rules, regulations and programs.

- **Other Plans:** The (your community) will prepare, implement and maintain a Bicycle and Pedestrian Transportation Plan, a Safe Routes to School Plan, an Americans with Disabilities Act Transition Plan, and a Street Tree and Landscape Plan.

- **Storm Water Management:** The (your community) will prepare and implement a plan to transition to sustainable storm water management techniques along our streets.

- **Staff Training:** The (your community) will train all pertinent staff on the content of the complete streets principles and best practices for implementing the policy.

- **Coordination:** The (your community) will utilize inter-departmental project coordination to promote the most responsible and efficient use of fiscal resources for activities that occur within the public right of way.

- **Street Manual:** The (your community) will create and adopt a Complete Streets Design Manual to support implementation of this policy.

- **Funding:** The (your community) will actively seek sources of appropriate funding to implement complete streets.
Report End