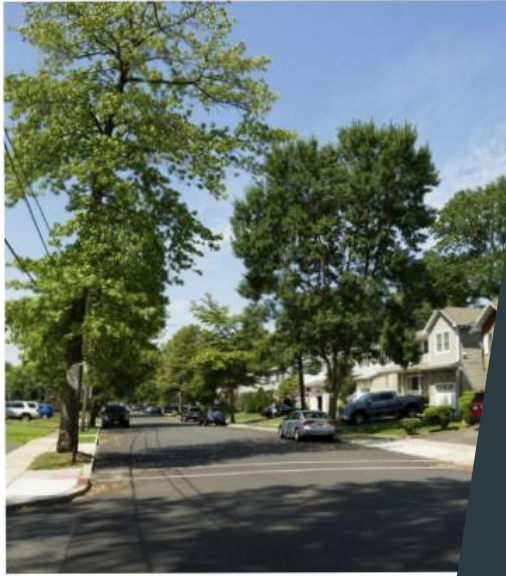


# Center Street Corridor Project

*Improving Vehicular and Pedestrian Safety in Garwood*



## Bicycle Network Plan

Borough of Garwood, Union County, NJ

2020

# Center Street

► In 2020, Garwood engaged in a full Bicycle Network Plan Study in conjunction with NJTPA and Rutgers. Several areas for improving pedestrian, bicycle and vehicular safety were identified. Center Street was highlighted, as it is a major thoroughfare with minimal challenges for those improvements. Garwood Council has decided to move forward with Center Street as their first major project for street safety.





## Planned Route and Recommendations

The Garwood Bicycle Network Plan includes bicycle accommodations for six streets in the borough—Center Street, Walnut Street, Second Avenue, Spruce Avenue, Fourth Avenue, and Pine Avenue—which Garwood officials prioritized in this order. Its main purpose is to enable bicycle connectivity along Center Street, link to amenities across the borough, and improve safety on roads where cut-through traffic causes heavy traffic and speeding. Though not directly addressed in this plan, many other Garwood roadways are similar to the selected streets and the recommendations in this report could be applied to those streets to provide safe bicycle accommodations with minimal changes.

### Center Street

Municipal officials identified Center Street as the highest priority street in the Garwood Bicycle Corridor Network Plan. It begins at Unami County Park near the southern border of Garwood and terminates at North Avenue, north of the rail line. As the only route that connects to Garwood's northern and southern parts, and to the train station, Center Street provides an important link for all modes: pedestrians, bicyclists, and cars.

Center Street is a 48- to 50-foot wide roadway with a 25-mph speed limit. According to the *New Jersey Complete Streets Design Guide*, dedicated bicycle lanes or shared-use paths are the most appropriate bicycle treatments for Center Street, given its AADT volume and 85th percentile speed. Between Unami County Park and North Avenue, Center Street is divided into three sections based on its changes in street profile.

#### Center Street: South of Willow Avenue

Center Street's first section extends from Unami County Park to Willow Avenue where it is a 48-foot wide two-lane road lined by single-family homes (Figure 18). It has shoulder line markings and parking on both sides. Sidewalks are continuous, but too narrow to be shared by bicyclists and pedestrians.

South of Willow Avenue, Center Street has enough width to accommodate bicycle lanes. The current design may encourage speeding as the roadway has wide driving lanes and priority over intersecting streets.

**Recommendation:** Restripe the roadway to create 6-foot wide bicycle lanes on both sides. While the desirable width of a bicycle lane adjacent to parking is 7 feet, this proposal exceeds the 5 foot minimum. Figure 19 and Figure 20 depict the current and proposed design for this section of Center Street. The design would narrow the existing 12-foot wide driving lanes to 11 feet, which is sufficient for the existing traffic, but will discourage speeding. According to the National Association of City Transportation Officials (NACTO) 2013 *Urban Street Design Guide*, "lane widths of 10 feet are appropriate in urban areas and have a positive impact on a street's



Figure 18. Looking north on Center Street south of Willow Avenue. (Photo Credits: Google Street View)

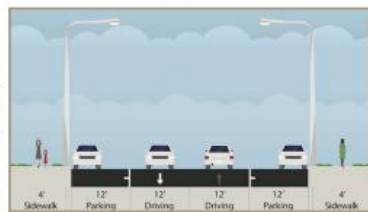


Figure 19. Looking south on Center Street south of Willow Avenue, existing conditions.



Figure 20. Looking south on Center Street south of Willow Avenue, proposed conditions.

safety without impacting traffic operations." Reducing the lane width would discourage speeding, which in turn will reduce the severity of crashes and increase safety.

Appropriate signage and pavement markings should be installed to improve the visibility of bicyclists and remind drivers to look for them, especially at intersections where conflicts are more likely to happen. Additionally, this section of Center Street is lined by single-family homes, many of which have driveways. The design of these driveways should consider the interaction between vehicles entering/exiting the driveways and cars parked on the street to enable clear sightlines that allow drivers to see oncoming bicyclists.

**Also Consider:** Work with Union County to connect the bicycle lanes to Unami County Park at the southern end of Center Street as it is a natural destination.

#### Center Street: Willow Avenue to South Avenue

Center Street has businesses and mixed-use buildings with wider sidewalks on both sides from Willow Avenue to South Avenue (Figure 21). This section of Center Street is 50-feet wide and includes a dedicated left-turn lane at the South Avenue intersection.

With two driving lanes and a dedicated left-turn lane, it does not have the width to incorporate dedicated bicycle lanes on both sides without eliminating the parking spaces on one side. During the virtual public input meeting and through public comments, Garwood residents noted that these parking spaces are important for the surrounding businesses. As such, a long-term and short-term alternative are discussed.

**Recommendation:** Install a 6-foot wide bicycle lane on the northbound side, as it experiences higher traffic volumes and 85th percentile speeds (Figure 22 and Figure 23). Narrow the two 13-foot driving lanes to 10 feet to make space for the northbound bicycle lane and improve safety by reducing opportunities for speeding.

On the southbound side, determine the feasibility of developing the south sidewalk as a shared-use path for both bicyclists and pedestrians, considering the pedestrian foot traffic in the area. The shared-use path should be designed for two-way movement of pedestrians and southbound bicyclists. Restricting the bicycle movement to the direction of traffic on the sidewalk would prevent the creation of extra conflicts at the adjacent intersections.

Currently, the south sidewalk has a clear width of 7.5 to 9 feet. Its design could be reimagined to obtain a clear width of 8 to 10 feet for a shared-use path. Typically, the minimum width required for a shared-use path is 10 feet; however, the *New Jersey Complete Streets Design Guide* mentions that 8-foot wide shared-use paths are acceptable for short distances when there are physical constraints.



Figure 21. Looking north on Center Street, from Willow Avenue toward South Avenue.

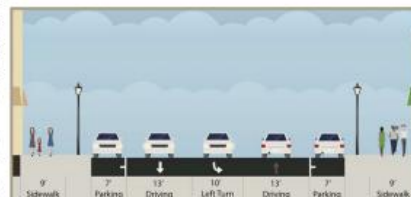


Figure 22. Looking south on Center Street at South Avenue, existing conditions.

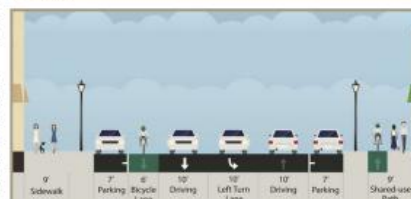


Figure 23. Looking south on Center Street at South Avenue, proposed conditions.

# Network Plan Recommendation: Bicycle Lanes South of Willow Avenue

# Key Points for Center Street Bicycle Lanes

- ❑ Estimates for painting lanes on both sides of Center Street from Willow Avenue to Unami using thermal paint and including bicycle picture template comes to estimated \$32,000.
- ❑ The Garwood Council applied for and received a \$39,000 Infrastructure Grant from Union County to go towards the project. We are awaiting the decision of another \$10,000 grant from Sustainable Jersey to further offset costs.
- ❑ **NO PARKING WILL BE AFFECTED.** Bike lanes will be on the outside of current Center Street parking. While protected bikes lanes are considered optimum, when taking into consideration the landscape of our residential area, it was decided to move ahead with outer bike lanes. This still improves safety for bikers and maintains the convenience of resident parking in a suburban area.



M75-SA314-0000

**Crosswalk Illuminator**

Pedestrian Safety  
Enhancement

Other improvements to be added to the Center Street Corridor:

Improved lighting at intersections\*

Improved signage along the corridor and at the Unami entrance\*

Curb bump outs at Center and Willow \*\*

\*These items will be purchased utilizing funds from the UC Infrastructure grant

\*\*This temporary demo will utilize a free funding from EZ-Ride



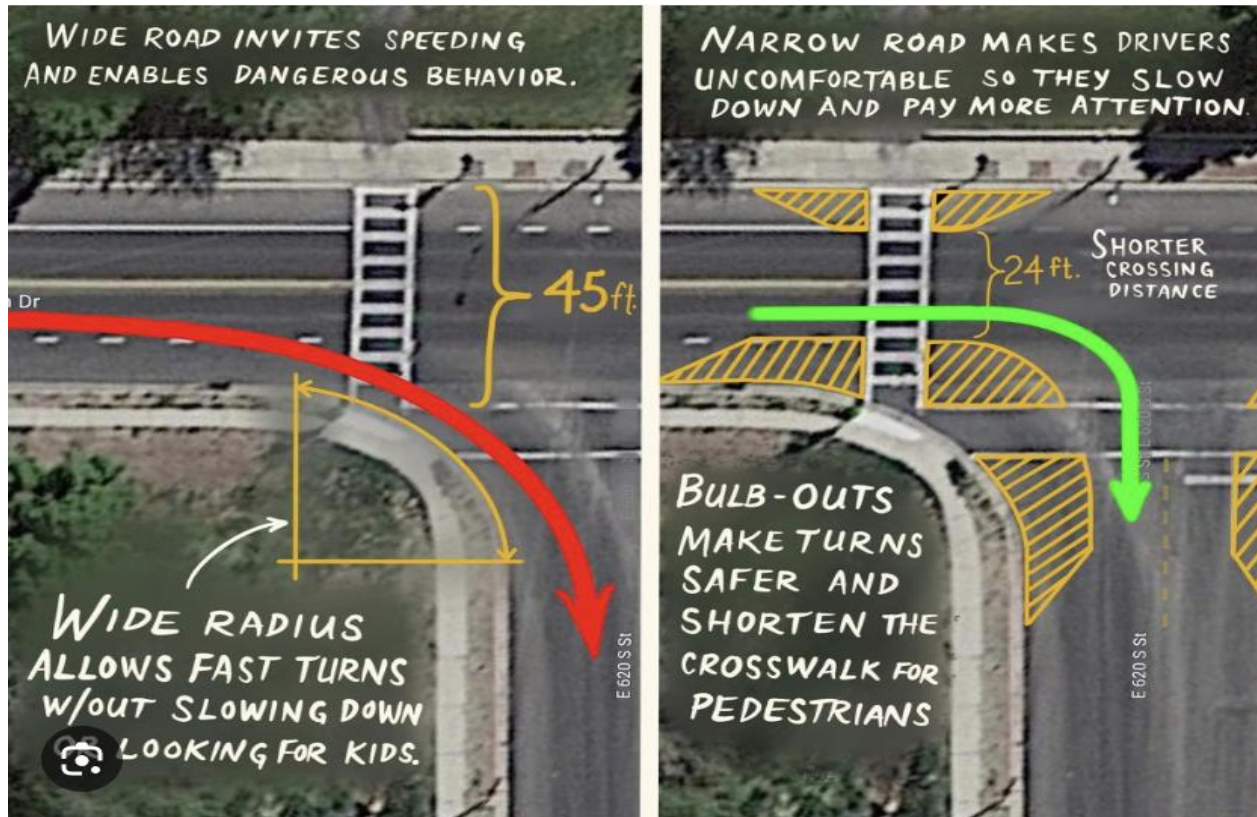
# Bump Outs:

## What are they?

They are a traffic calming measure where the sidewalk and curb line are extended out into the roadway, narrowing the street and reducing the crossing distance for pedestrians. They are usually at intersections, though they can be mid-block.



# Why Add Bump Outs?

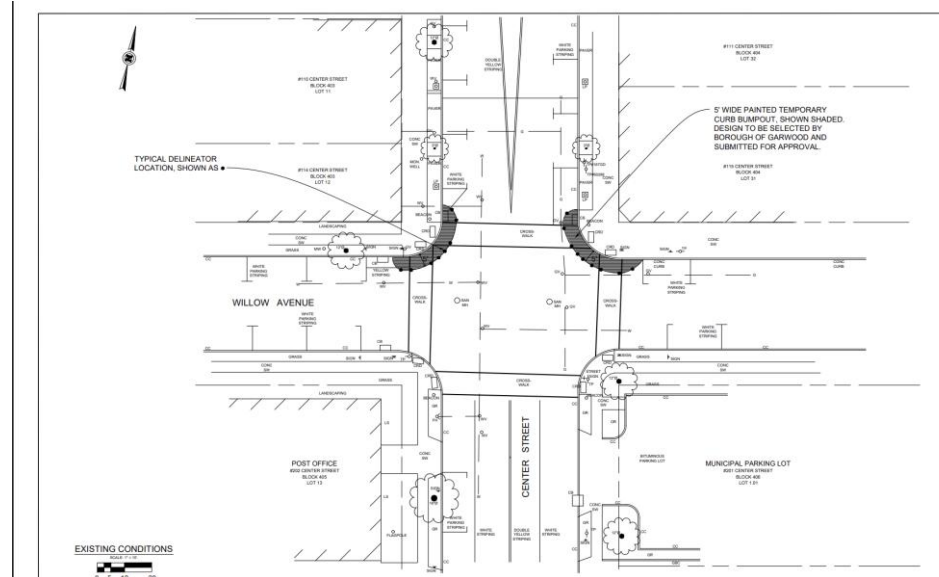




# More Bump Out Examples:







The intersection of Center and Willow was discussed by Police Department, Borough Engineer and Council to be the first location to use as a pilot to test curb bump outs in Garwood. This was due to its high pedestrian traffic and central location.

# Bump Out Demo

Garwood will participate in a pilot test with curb bump outs at Center and Willow. This “demo” will be temporary and use temporary paint and delineators to create bump outs on the northeast and northwest sides of the intersection. The whole community will be able to engage with its creation and gauge the bump outs’ results.





# Our Partners for the Bump Out Demo

## EZ-Ride

- ▶ EZ-Ride Implements innovative transportation programs and services that enhance the quality of life, regional mobility, and economic opportunity for both people and businesses, while reducing traffic congestion and improving air quality.

## NJTPA (North Jersey Transportation Planning Authority)

- ▶ The **NJTPA** is the federally authorized Metropolitan Planning Organization for the 13-county northern New Jersey region. They partner with local and state agencies to help fund more than \$3 billion in transportation investments annually and provide a forum for interagency cooperation and public input.

\*\*\*EZ-Ride has applied for a grant through NJTPA to provide for the materials needed to create these bump outs: paint/brushes/pans/delineators, etc. EZ-Ride volunteers will also be on hand on to help with painting.

# “Safer Streets Day”

## Curb Bump Out Demo Painting

- ▶ Aiming for **Saturday, June 21<sup>st</sup>** from 9-11:30 am
- ▶ All members of community invited to take part, both kids and adults
- ▶ Bump outs will be marked out with delineators and design to be painted that morning
  - ▶ Paint will last from a few weeks to a few months



# What Design Should We Use?

We are looking for your feedback for the bump out design!

Polka Dots



Leaves



# What Design Should We Use?

We are looking for your feedback for the  
bump out design!

Flowers



Geometric





Together,  
we can make our  
streets safer for  
both pedestrians  
and drivers.  
Each measure we  
take -- from bike  
lanes to improved  
lighting, to curb  
bump outs -- makes  
our residents safer.

