

Next Steps

Implementation

This Connectivity and Traffic Calming Plan, in combination with adopted Circulation Plan, provides a transportation blueprint for the Town of Davidson. This blueprint will be achieved over time through a combination of public and private initiatives.

Many challenges lie ahead for the Town. First and foremost, the Connectivity and Traffic Calming Plan must be adopted by the Town and endorsed by the community. With the adoption of the Connectivity and Traffic Calming Plan, the Town will become the Plan's caretaker and advocate, taking on the daily responsibility of ensuring that each element of the Plan, no matter its scale, is implemented.

The successful implementation of the Connectivity and Traffic Calming Plan needs action. The Town must be a proactive caretaker of the Plan and take actions aimed at implementation.

Davidson is a small community with limited resources. Transportation investments identified in this plan will exceed the Town's ability to implement these recommendations alone. Creative partnerships with the North Carolina Department of Transportation, the Mecklenburg-Union County Metropolitan Planning Organization, the town of Cornelius, neighborhood associations, private land owners, and the development community will be required to realize the desired actions envisioned in this Transportation Plan.

This section identifies specific implementation actions that will support transportation actions and design concepts intended for the Town of Davidson.

Public Responsibilities

Many of the transportation connections identified in this document can only be accomplished through public initiatives. The Mecklenburg - Union Metropolitan Planning Organization (MUMPO) and the North Carolina Department of Transportation should be funding partners in implementing many of the Town-Wide connections identified in the Connectivity and Traffic Calming Plan for Davidson.

The most appropriate mechanism for implementing these projects is to

identify them in the MPO's Long-Range Transportation Needs Plan and have them placed within the Region's Thoroughfare Plan. The connections that benefit regional circulation are primarily the town-wide connections.

Public and Private Partnerships

The majority of neighborhood connections and traffic calming measures identified in this plan will be completed through joint public and private partnerships. Funding for many of these initiatives will be private dollars required through a modified Adequate Facilities Ordinance and supplemented by monies from the Town of Davidson.

Adequate Facilities Ordinance

The Town of Davidson will need to revise its Adequate Public Facilities Ordinance (APFO) to support the Davidson Connectivity and Traffic Calming Plan. The transportation sections of the existing APFO focus on the level of service at key intersections, including Main at Concord and Main at South. The unintended result of these APFO sections is a potential inappropriate reconstruction of these intersections.

Significant changes are needed to restructure the APFO and provide the basis for a new approach to defining and measuring public transportation facilities. In conventional APFOs, when capacity of a Community Street is depleted, it is increased through a road widening project. In the recommended APFO, the increase of traffic to capacity is stalled through the network alternatives provided through the connections among Neighborhood Streets. Instead of reacting to congestion, the APFO attempts to proactively prevent congestion. This new approach needs to be considered and thought-through by the town planners, lawyers, and council. The recommended changes create new and different burdens on the town and its capital improvements program.

The recommended changes to transportation sections of the Davidson APFO will avoid the unintended inappropriate intersection reconstructions, and will transform it from a reactionary to proactive approach toward congestion on regional roads. It is also a departure from the current approach, and full consideration of its ramifications is recommended. Initial thoughts from the Town include:

Establish an annexation fee policy in the Davidson ETJ (rural area). This fee would be based on a predetermined formula reflecting the transportation

needs (street connectivity, intersection improvement, sidewalks, traffic calming, streetscaping) of the ETJ area. This fee would apply to all residential developments that wished to annex into the town limits.

Determine universal impact areas for new development within the existing town limits and the ETJ. "Universal impact area" refers to areas that feel the impact of all development in town, no matter what the location. Establish a per unit fee that at buildout would pay for transportation improvements that better conditions within the universal impact areas. Three possible universal impact areas: Elementary School walk zone, Main/Concord intersection, Bailey Road Middle School area.

Next Steps:

1. Determine that there is a universal impact in the three areas identified above.
2. Determine cost of all improvements in these impact areas, including street connections, intersection improvements, traffic calming, streetscaping, etc.
3. Determine build out number of units in town and ETJ.

Priorities

Several variables were used to establishing a prioritization system for these connections and their associated traffic calming measures, these included: benefit to regional circulation benefits, development timing, and neighborhood impacts and project timing.

Regional Circulation Benefits:

One prioritization variable should be measured through the benefits each project would provide the regional transportation network and relief to congested intersections. Obviously as development occurs a project's priority will likely change: Based on existing travel patterns and congested intersections, four projects should be added to the MPO's Thoroughfare Plan.

1) *Potts to Sloan* - This connection directly benefits Main Street by creating, in combination with Beauty Street, an "in-town-bypass", or alternative route to Main Street. This connection virtually doubles the capacity of Main Street through Davidson. This roadway is currently in the Regional Thoroughfare Plan and should be funded by transportation dollars within the Mecklenburg-Union Metropolitan Planning Organization. This connection will provide immediate regional circulation benefits.

2) *Davidson Concord to Bailey* - The connection creates a parallel route to Concord Road and becomes a high priority as proposals from the Mecklenburg County School Board of placing a middle school and high school at the end of Bailey Road are realized. The connection should be added to the MPOs Thoroughfare Plan. This connection will provide near-term regional circulation benefits.

3) *Concord to Grey and Grey to N. Main (in the Beauty St vicinity)* - The combination of these two connections create an alternative route to the most congested intersections within Davidson. These connections will improve access from Concord-Davidson Road to North Main Street and the future Lowes Head Quarter Facilities.

In the design of these two connections, it is important that they do not connect and create a Davidson bypass. The "kink in the roadway is specifically designed to be a traffic calming feature and a planning tool to keep commercial development focused on Downtown Davidson. These connections will provide near-term regional circulation benefits and should be added to the region's Thoroughfare Plan.

4) *Shearer to NC 73* - Once Shearer Road is connected with NC 73, the Town of Davidson will have a viable regional alternative north/south route to Main Street. This connection will provide regional connections between NC 73 and Lowes Headquarter facilities. This connection will provide long-term regional circulation benefits and should be added to the MPOs Thoroughfare Plan.

Development Timing

Several town-wide connections and many neighborhood connections will be dictated by private development. For instance, the South Street connection is not important at this time simply because the Cornelius TOD has not begun construction. However, as the TOD begins construction, both the South Street and Avinger Lane connections become high priorities.

Neighborhood Impacts

The timing of each connection needs to be coordinated with the construction of actual traffic calming measures to minimize neighborhood impacts. It is not recommended to open connections without effective traffic calming measures in place. The timing of connects must be coordinated so that the neighborhoods are not impacted by motorists behaving poorly.

Priorities and Cost Estimates

The following table documents the recommended priorities of projects and their associated construction cost estimates: