



Greenway Accommodation Training

November 2015



Agenda and Goal

Agenda

- Background on Guidelines
- DBPT Greenway Vetting Process
- Project Team Process
- Context for Bicycle/Pedestrian Accommodations
- Questions and Discussion

Goal

- Attendees will understand how the Guidelines are applied by the Project Team and Division of Bicycle and Pedestrian Transportation, and the context of other NCDOT policies which apply to bicycle/pedestrian accommodations incidental to NCDOT projects.



Background



Background: Basics of the Guidelines

- In 1994, NCDOT adopted the *Administrative Action to Include Greenway Plans*, establishing the consideration of greenways/crossings during the highway planning process, and allowing inclusion of greenway crossing/element as incidental to the highway expenditure.
- On August 25, 2015, NCDOT Chief Engineer Michael Holder and Technical Services Administrator Rodger Rochelle distributed the ***Guidelines for Inclusion of Greenway Accommodations Underneath a Bridge as Part of a NCDOT Project.***
- The Guidelines clarify the 1994 *Administrative Action*. They provide a **process** for NCDOT staff to utilize when determining if a planned greenway should be accommodated under a bridge, and establish **cost share provisions** if the accommodation is made.
- Available at: <http://www.ncdot.gov/bikeped/lawspolicies/>



Background: Process to Develop Guidelines

Fall 2013 – Varied interpretation of existing policies used in bridge replacement projects; small group formed to identify issues

Spring 2014 – PDEA and Bike/Ped receive input from Divisions about current practice

Summer/Fall 2014 – Technical workgroup drafts guidance to clarify Greenway Accommodation policy

Summer 2015 – Memo released allowing NCDOT to use clarifying guidance for greenway accommodation under bridge replacements

* Questions regarding other related policies is prompting NCDOT to review policies for potential updates or implementation guidance



DBPT Greenway Vetting Process



Establishing Need for Greenway Accommodation

The **Bicycle and Pedestrian Division** in coordination with the appropriate **Highway Division** will determine if the proposed greenway/multi-use trail underneath a bridge is justified and provide documentation to the Project Team. The Bicycle and Pedestrian Division evaluation will include but is not limited to the following:

1. Is it part of a locally or state adopted plan?
2. Does it have transportation benefit?
3. Is a greenway underneath the bridge the preferred/best crossing in context of the situation?
4. Has the local government requested the greenway accommodation?



DBPT Vetting Process: Research

DBPT undertakes research using a variety of data sources:

- GIS data from Pedestrian and Bicycle Infrastructure Network (PBIN): planned and existing pedestrian and bicycle facilities in NC
- State, regional, and local bicycle and pedestrian plans and maps
 - Comprehensive Transportation Plans/Thoroughfare Plans
 - WalkBikeNC and historic state and regional bicycle route maps
 - Regional bicycle plans (funded by DBPT)
 - Municipal bicycle and pedestrian plans (some funded by DBPT)
 - Local websites
- Remote “site visit” via Google: maps, streetview, satellite
- NCDOT resources
 - Project Store file for the project
 - Community Characteristics Reports and Community Impact Assessments
- Goal: Determine the transportation benefit of a proposed facility and collect all relevant supporting information



DBPT Vetting Process: Analysis

DBPT seeks a complete description of the facility and context, and to establish if there is a transportation benefit of the proposed project

- Complete description
 - Name and location (start and end points), agency planning the facility
 - Surface treatment, width, and length of facility
 - Which side of the bridge the greenway is proposed to cross under, if specified
 - Connections to other bicycle and pedestrian facilities and key destinations
 - Plan adoption date and planned year of construction or priority level or project
 - Whether or not any connecting segments have already been funded and/or built
- Contact local agency
 - Where is the project on agency's priority list?
 - Is funding anticipated in 5-10 years (or already secured)?
 - Has agency or NCDOT conducted feasibility study or design work?
 - Questions should include: Is the facility planned to cross under the bridge or at grade? If under the bridge, which side? If at grade, where?
 - What connecting facilities within a 5 mile corridor are completed, underway, or funded?



DBPT Vetting Process: Recommendation

- Once the research and analysis steps are complete, DBPT staff craft a recommendation to the Project Team regarding the accommodation of the proposed greenway under the bridge. Considerations may include:
 - Importance of the planned facility within the local or regional multi-modal network
 - Availability of other safe and convenient multi-modal routes, or lack thereof
 - Progress in seeking funding for this planned facility
 - Progress in funding and constructing other connecting multi-modal facilities in the area
- In the recommendation, DBPT staff will also make appropriate reference to NCDOT and national guidance documents to best practices for facility design and construction, including:
 - North Carolina Complete Streets Planning and Design Guidelines
 - North Carolina Bicycle Facilities Planning and Design Guidelines
 - AASHTO Guide for the Development of Bicycle Facilities
 - NACTO Urban Bikeway Design Guide
- DBPT staff are available for any scoping meetings or other consultations with the Project Team after recommendation is made



Project Team Process



Project Team Considerations

The Project Team Will:

1. Evaluate if greenway accommodation will result in impacts that, from the Project Team's perspective, are unacceptable
 2. Evaluate if the accommodation is acceptable/feasible from an engineering perspective
 3. Have discretion to make accommodations up to:
 - a) Adding 20 feet of bridge length
 - b) Adding up to 3 feet of additional height if Hydraulic requirements can be met

*Items affecting cost will be subject to sections C & D of Guidelines
 4. Ensure all maintenance of the greenway will be the responsibility of the Local Government
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- If the Project Team recommends that the greenway not be included, the Project team will provide background and recommendations to the Upper Management Team who will make the final determination.
 - The Upper Management Team is: Director of Bicycle & Pedestrian Division, Division Engineer, Chief Engineer's Office, Technical Services Division.



Cost Responsibility

1. Existing Greenway/Multi-Use Trail: NCDOT will pay 100% of **in-kind replacement** costs. If improvement is requested, the cost responsibility is described in item 3 below.
2. Proposed Greenway where **“Need Has Not Been Established”**: Accommodation is considered betterment, local interest pays 100%.
3. Proposed Greenway where **“Need Has Been Established”**:
 - Cost established by developing 2 prelim. designs; one with the greenway, one without.
 - NCDOT participation will be lesser of (1) sum of accommodation costs up to \$50,000 per bridge, or (2) 5% of total project.
 - Any costs exceeding NCDOT participation included above will be considered betterment, and a sliding scale cost share will be used to determine LGA (municipality/county/other) and NCDOT remaining cost share.



Cost Responsibility, Continued

Municipalities will cost share as follows (similar to Sidewalk Policy):

Municipality Population	DOT Participation	Municipal Participation
>100,000	50%	50%
50,000 to 100,000	60%	40%
10,000 to <50,000	70%	30%
< 10,000	80%	20%

Counties/Other Interested Parties will cost share as follows:

County/Other Population	DOT Participation	County/Other Participation
>60,000	60%	40%
40,000 to 60,000	70%	30%
20,000 to <40,000	80%	20%
< 20,000	90%	10%

* Note information about agreement timing outlined in Guidelines



Questions and Examples

- 2014 analysis of completed bridge projects revealed that a small subset of bridges required special accommodations for future greenways
- More county-level greenway plans being developed

- Example – Existing Greenway under bridge
- Example – Natural shelf for future greenway under bridge
- Example – Bridge lengthened or raised to accommodate future greenway

Questions?



Context for Bicycle/Pedestrian Accommodations



Context for Bicycle/Pedestrian Accommodations

A variety of policies exist concerning accommodation of bicycle/pedestrian facilities within NCDOT projects (see <http://www.ncdot.gov/bikeped/lawspolicies/>)

- **Administrative Action to Include Greenway Plans (1994, 2015)**
 - Guidelines to consider greenways/crossings during the highway planning process, and allow inclusion of greenway crossing/element as incidental to the highway expenditure.
- **Pedestrian Policy (1993, 2001)**
 - Allows NCDOT to participate with municipalities in construction of sidewalks as incidental features of highway improvement projects. Municipality is required to maintain sidewalk, and a cost share approach is utilized.
- **Bridge Policy (1994)**
 - Establishes design elements for bridges, and addresses sidewalks and bicycle facilities on bridges. Cost share established by reference to Pedestrian Policy.
- **Complete Streets Policy (2009)**
 - Directs NCDOT to consider and incorporate all modes when building new projects or making improvements to existing infrastructure.

** Parenthetical year is original publication, most recent update of policy/document*



Pedestrian Policy

- Municipality or County must notify NCDOT about the desire for a sidewalk and will be responsible for evaluating need, public involvement, maintenance, and liability.
- The municipality is responsible for ROW/easement and utility relocation where outside the berm of the roadway project.

MUNICIPAL POPULATION	PARTICIPATION	
	DOT	LOCAL
> 100,000	50%	50%
50,000 to 100,000	60%	40%
10,000 to 50,000	70%	30%
< 10,000	80%	20%

- Standard cross section follows AASHTO and includes 5' sidewalks and curb ramps.
- Includes all pedestrian facilities, such as multi-use paths.
- Betterments are local cost responsibilities (i.e. decorative pavers, wider sidewalks).
- DOT will fund sidewalks on both sides of bridges with 200' length or less.
- DOT will study and consider sidewalks on both sides for longer bridges, but may only fund sidewalk on one side for bridges with longer length.



Bridge Policy

- Sidewalks shall be included on new bridges with curb and gutter approach roadways that are without control of access; in some cases, only one side may warrant a sidewalk. A determination on providing sidewalks on one or both sides of new bridges will be made during the planning process according to the NCDOT Pedestrian Policy Guidelines.
- Sidewalks should not be included on controlled access facilities.
- When a sidewalk is justified, it shall be a minimum of 5'-6" wide.
- Cost share generally includes the cost of sidewalk construction. NCDOT provides the "offset" (shoulder width) regardless of sidewalk construction.
- A minimum handrail height of 42" is required.
- When a "bikeway" is required, the bridge shall be designed in accordance with AASHTO standard bicycle accommodations to give safe access to bicycles where feasible.
- [Note: A minimum handrail height of 54" is included, but AASHTO only requires 42"-48" railing height depending on travel speeds.]



Complete Streets Policy

- Requires that NCDOT will consider multimodal alternatives in the design and improvement of all appropriate transportation projects within a growth area of a town or city unless exceptional circumstances exist.
- Routine maintenance projects may be excluded if funding is not available.
- 2012 Planning and Design Guidelines further describe approach and decision-making process.
- Cost responsibilities not described in policy or guidelines.

Reference for Cross Sections:

- Urban Main Street – includes sidewalk zones; 6' bike lane (note about shared lanes)
- Suburban Avenue – includes sidewalk zones; 4-6 bike lane (with note about 5' wide preferred bike lane)
- Rural Parkway – include 10-12' multi-use path zone behind berm



Context for Bicycle/Pedestrian Accommodations

H 97 – raised questions concerning bicycle and pedestrian accommodations incidental to NCDOT projects

SECTION 29.5.(a) G.S. 136-66.3(e) reads as rewritten:

"(e) Authorization to Participate in Project Additions. – Pursuant to an agreement with the Department of Transportation, a county or municipality shall reimburse the Department of Transportation for the cost of all improvements requested by the county or municipality, including additional rights-of-way, streets, highway improvement projects, or other transportation system improvements approved by the Board of Transportation under G.S. 143B-350(f)(4), that are in addition to those improvements that the Department of Transportation would normally include in the project. Requests for safety enhancements or efforts to facilitate the flow of traffic shall not be considered improvements under this subsection unless the enhancement or effort is in excess of the standard required by law."

Several NCDOT bicycle/pedestrian accommodation policies already address this requirement with cost-sharing guidelines for “normal” improvements and local responsibility for “betterments.”



FAQs

- Can multiuse paths be accommodated on a bridge?
- When is the standard cross section or shoulder width determined?
- Who pays for a sidewalk in an unincorporated area?
- How are on-road bike facilities and crosswalks treated within cost share policies?
- Are road diets or shoulder widening projects typically incidental to roadway projects or regarded as separate bike/ped projects?



Questions and Discussion



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