DURHAM-CHAPEL HILL-CARRBORO MPO
METHODOLOGY FOR RANKING
METROPOLITAN TRANSPORATION IMPROVEMENT PROGRAM
PRIORITY PROJECT REQUESTS (FY 2011-2017)

INTRODUCTION

The purpose of the Regional Priority List is to facilitate determination of the region's project priorities to be used in development of a fiscally constrained Transportation Improvement Program (TIP). SAFETEA-LU calls for a TIP development process that documents a methodology for ranking project requests, reflects local and metropolitan goals, and addresses mobility, environmental and air quality goals.

OBJECTIVE

The methodology outlined below is designed to address multi-modal transportation needs and to ensure regional balance through the use of specific technical criteria. The Technical Coordinating Committee (TCC) will use the methodology to develop a draft Regional Priority List. This draft Priority List is to be used as a starting point or a reference base by the Transportation Advisory Committee (TAC) for the approval of a final Regional Priority List.

The TAC may reorder projects at its discretion to promote jurisdictional and geographical balance, or based upon the TAC members' knowledge of the urban area and the policies of their communities. Therefore, the TCC will make its technical recommendation on a draft Priority List based on the methodology described in this document, and the TAC will then be afforded the opportunity to make any changes it deems appropriate.

METHODOLOGY GOALS

- Produce a program of projects (or project priorities) which satisfies MPO, local and state goals, and addresses SAFETEA-LU policies of system preservation, operational efficiency in the movement of people and goods, multi/inter-modalism, and air quality mandates.

- Be simple enough for project-level analysis without requiring unnecessary data collection.

- Be understandable by the general public.

PROCEDURE FOR RANKING PROJECTS

1. **Goal Setting For Regional Priority List**

   Since the Regional Priority List should be a subset of the DCHC MPO Long Range Transportation Plan (LRTP), the goals for the regional priority list are the same as the DCHC MPO goals and objectives in the 2035 LRTP.

2. **Submission of Local Priority Lists**

   All MPO member jurisdictions and Triangle Transit will submit a local priority list to the MPO. The

DCHC MPO requests that the local jurisdictions apply screening criteria during the development of these lists. The screening criteria are:

a. Regional Goals - How well does the project meet the adopted regional goals? Is the project an element of the current long-range plan? Does it implement community objectives (for the intrastate system, does it meet NCDOT mobility objectives)? Does the project have a broad base of local support?

b. Cost Effectiveness - How much benefit does the project offer compared to the estimated cost?

c. Timing Factor – Is the project needed within the TIP funding cycle? Is timing a critical element for the project (one-time opportunity)? Will the opportunity to do the project be lost if it is not in the current priority cycle?

Local jurisdictions may also elect to use the ranking methodology to create their local priority lists but are not required to do so. The TCC will review local priority lists for adherence to these screening criteria before applying the ranking methodology.

Local jurisdictions shall provide the DCHC MPO a list of projects in priority order. The list may be grouped by mode (highway, transit, bicycle and pedestrian), but does not need to be. The local jurisdictions shall provide a short description of the project, including the project limits, name, mileage, and cost. The description should note any essential elements of the project such as bike lanes, sidewalks, transit accommodations, vehicle types, etc. Local jurisdictions are also asked to gather information about their projects and apply the ranking methodology by using the input spreadsheet.

3. <u>Development of the Regional Priority List</u>

DCHC MPO staff will combine the local priority lists into a regional priority list by mode and complete the application of the ranking methodology. Projects will be listed in order of the points on the draft regional priority list. This draft list will be presented at a TCC meeting. The TCC first examines the consistency in which local jurisdictions have responded to the screening criteria and applied the methodology. If the methodology is not applied consistently, the TCC can agree to change some responses for consistency among all projects. The draft Regional Priority List is then forwarded to the TAC, as the TCC's recommended project priorities for the urban area.

The TAC will release the draft list for public comment and hold a public hearing at a TAC meeting. <u>The TAC may reorder projects at its discretion to promote jurisdictional and geographical balance, or based upon the TAC members' knowledge of the urban area and the policies of their communities.</u> After review and public comment, the TAC will approve the final Regional Priority List and forward this to NCDOT.

The TCC and TAC may also develop a combined mode comprehensive Regional Priority List. This list would be based on policy priorities, not the ranking methodology because the points are not comparable across different modes.

APPLICATION OF THE METHODOLOGY

1. There are three separate ranking methodologies based on the primary mode of transportation: 1) highway; 2) bicycle and pedestrian; and 3) transit. ITS, TSM, and TDM projects would be included

in whichever mode best fits the specific project. The three ranking methodologies are independent of each other. Points for different modes are on different scales and are not comparable.

2. Points are weighted and totaled for each project using the three modal ranking methodologies outlined on the last pages of this document.

3. Projects are listed in order of points except for the transit projects. Transit projects are first sorted by year needed with the earliest year (2011) first and then they are listed in order of points. Projects receiving the same number of points are ordered by the local ranking. If the local ranking is also the same (for example, Orange County-1 vs. Chapel Hill-1), then the project with the most additional local rankings will be ranked higher. If the projects also have the same number of additional local rankings, then the project with the highest additional local ranking will be ranked higher.

MODAL RANKING METHODOLOGIES IN DETAIL

Highway

All seven point categories are weighted equally. A maximum of four points can be received for each point category.

1. *Travel Demand* - This category awards points to projects based on the level of travel demand. For road projects, travel demand is measured by the volume to capacity (V/C) ratio based on the 2035 socio-economic data on the existing plus committed network. For new road facilities in which traffic counts are not available, volumes on a parallel existing facility may be used. Projects must have a V/C ratio of at least 0.80 to receive points. All projects with a V/C greater than 0.80 will be divided equally into four quartiles based on V/C ratio. Assigning points by quartile will ensure that points are distributed evenly and that projects are compared relative to each other. Traffic signal systems, Intelligent Transportation Systems (ITS), and Transportation Demand Management (TDM) projects receive four points because these projects reduce congestion system-wide.

   Local jurisdictions are asked to provide the V/C ratio for their local priorities. MPO staff will divide the projects into quartiles and award points.

2. *Safety (Crashes/100 Million Vehicle Miles)* - Safety points are awarded to projects with reported crash rates significantly greater than statewide averages for urban road segments – the statewide average is 330 to 370 crashes per 100 million vehicle miles (or, 330-370 CRASHES/100 MVM). Projects must have a crash rate of at least 300 CRASHES/100 MVM to receive points. All projects with a crash rate of at least 300 ACC/100 MVM will be divided equally into four quartiles based on crash rate. Assigning points by quartile will ensure that points are distributed evenly and that projects are compared relative to each other. Traffic signal systems, Intelligent Transportation Systems (ITS), and Transportation Demand Management (TDM) projects receive four points because these projects improve safety system-wide.

   Local jurisdictions are asked to provide the crash rate for their local priorities using the NCDOT database.   MPO staff will divide the projects into quartiles and award points.

3. *Benefits to Other Modes of Transportation or Use of New Technology* – Points are awarded to projects based on how they benefit other modes of transportation and deploy new technology (carpool, transit, bicycle, pedestrian, ITS, and TDM). For example, a road widening that adds

additional travel lanes, bicycle lanes, and sidewalks on a transit route would benefit three other modes.

Local jurisdictions are asked to describe the benefits and apply the ranking methodology.

4. *Environmental Impacts* - Points are awarded based on the impact on wetlands, streams, water supply watersheds, wildlife habitat, parks, and air quality.

   The MPO will provide local jurisdictions a base map of environmental areas. Local jurisdictions are asked to use the environmental impacts worksheet to assess the impact of projects based on a GIS analysis.

5. *Community Impacts* – Points are awarded based on the impact on neighborhoods, communities, schools, parks, recreation facilities, historic resources, and cemeteries.

   The MPO will provide local jurisdictions a base map of community resources and 2005 population density by Traffic Analysis Zone. Local jurisdictions are asked to use the community impacts worksheet to assess the impact of projects based on a GIS analysis.

6. *Environmental Justice* - Points are awarded based on the impact on low-income and minority populations. This item is designed to penalize projects that may have negative impacts on low income areas or federally recognized disadvantaged groups.

   The MPO will provide local jurisdictions a base map that indicates which Traffic Analysis Zones have a high percentage of minority and low income populations. Local jurisdictions are asked to use the environmental justice worksheet to assess the impact of projects based on a GIS analysis.

7. *Funding Status in the Transportation Improvement Program (TIP)* - Points are awarded to projects based on the percentage of the total project cost that is funded in the currently adopted Transportation Improvement Program (TIP), or if the project has postyear status in the TIP.

   Local jurisdictions are asked to provide funding status and apply the ranking methodology.

Bicycle and Pedestrian

All nine point categories are weighted equally. A maximum of three points can be received for each point category.

1. *Traffic Volume* - This category awards points to projects based on the amount of vehicular traffic on the road that the bicycle and pedestrian facility is provided on. Off-road greenways are based on the parallel or alternate roadways. More points are provided for higher volume facilities to reflect the safety hazard for bicyclists and pedestrians on larger busier roadways. The traffic counts should be taken from the latest Annual Average Daily Traffic (AADT) maps on the NCDOT website.

   Local jurisdictions are asked to provide the AADT and apply the ranking methodology.

2. *Right-of-Way Availability* – This category awards points to projects based on the right-of-way available for the project. Right-of-way should be estimated based on the local jurisdiction's best

knowledge of the area and the NCDOT right-of-way database. Extensive research into property deeds is not required.

Local jurisdictions are asked to provide an estimate of right-of-way and apply the ranking methodology.

3. *Travel Demand from Local Land Uses* – This category awards points to projects based on the proximity to schools, colleges, parks, major retail centers, transit routes, and major employment centers. The bicycle and pedestrian project travel demand worksheet will be used to assign interim points for each project. Projects will be divided equally into four quartiles based on the interim points. Final points will be assigned by quartile to ensure that points are distributed evenly and that projects are compared relative to each other.

    The interim points are assigned using two different tables for bicycle and pedestrian projects to reflect the different travel times and accessibility of the two modes. The numbers of land uses or amenities within the specified distance for the project are recorded on the worksheet. The worksheet multiplies the number of land uses by the appropriate points and total points are calculated by the worksheet. The land uses considered are schools (public or private elementary, middle, or high schools), colleges and universities, major retail centers (over 100,000 square feet or locally recognized shopping districts – i.e. downtown areas), major employment centers (Traffic Analysis Zones over 1,000 in employment in 2005), and fixed transit routes. If a project includes both bicycle and pedestrian improvements, the travel demand points are added together for a total.

    Local jurisdictions are asked to provide the number of land uses served by the project in the travel demand worksheet. MPO staff will divide the projects into quartiles and award final points.

4. *Local Connectivity to Existing Bicycle and Pedestrian Facilities* - Points are awarded based on if projects connect to existing bicycle and pedestrian facilities. This will reward projects that extend the existing bicycle and pedestrian network. Connections are to be counted by street and greenway centerlines (i.e. if a project connects to a street that has sidewalks on both sides of the street, it is only counted as one connection). Projects will be divided equally into four quartiles based on the number of connections. Final points will be assigned by quartile to ensure that points are distributed evenly and that projects are compared relative to each other.

    Local jurisdictions are asked to provide a list of facilities that the project will connect. MPO staff will divide the projects into quartiles and award final points.

5. *Regional Connectivity* – Points are awarded to bicycle based on if the project is a part of the regional routes recognized in the 1992 Regional Bicycle Plan (these routes will be reevaluated as part of the 2035 LRTP process). Projects part of a regional bicycle route that partially exists receive three points. Projects part of a regional bicycle route that does not currently exist receive two points. Projects not part of a regional bicycle route that connect to a regional bicycle route receive one points. Projects that are not part of a regional bicycle route and do not connect to a regional bicycle route receive zero points.

    Points are awarded to pedestrian only projects based on if the project provides a pedestrian connection to regional and local buses. Project limits that include a bus stop for an existing Triangle Transit regional route receive three points. Project limits that include a station area for

a future regional rail receive two points. Project limits that include a bus stop for a local bus route receive one point. Project limits that do not include a bus stop for a transit route receive zero points.

6. *Environmental Impacts* - Points are awarded based on the impact on wetlands, streams, water supply watersheds, and wildlife habitat.

   The MPO will provide local jurisdictions a base map of environmental areas. Local jurisdictions are asked to use the environmental impacts worksheet to assess the impact of projects based on a GIS analysis.

7. *Community Impacts* – Points are awarded based on the impact on neighborhoods, communities, schools, parks, and recreation facilities. Since bicycle and pedestrian facilities are perceived as amenities and usually require little right-of-way acquisition, projects that serve more dense neighborhoods and community facilities receive more points.

   The MPO will provide local jurisdictions a base map of community resources and 2005 population density by Traffic Analysis Zone. Local jurisdictions are asked to use the community impacts worksheet to assess the impact of projects based on a GIS analysis.

8. *Environmental Justice* - Points are awarded based on the impact on low-income and minority populations. Since bicycle and pedestrian facilities are perceived as amenities and usually require little right-of-way acquisition, projects that serve low income and minority areas will receive more points.

   The MPO will provide local jurisdictions a base map that indicates which Traffic Analysis Zones have a high percentage of minority and low income populations. Local jurisdictions are asked to use the environmental justice worksheet to assess the impact of projects based on a GIS analysis.

9. *Funding Status in the Transportation Improvement Program (TIP)* - Points are awarded to projects based on the percentage of the total project cost that is funded in the currently adopted Transportation Improvement Program (TIP), or if the project has postyear status in the TIP.

   Local jurisdictions are asked to provide funding status and apply the ranking methodology.

Transit

Transit projects are awarded points based on seven categories. A maximum of four points can be received for each point category. The year needed must be provided for each project. Projects will be ordered by year needed and then by points.

1. *Service Type* – This category is designed to award points to projects that are essential to maintaining the current transit service. Service expansion and enhancements receive fewer points.
   Local jurisdictions are asked to categorize projects and apply the ranking methodology.

2. *Annual Ridership* – This category awards points to projects that serve more riders. Ridership is calculated on an annual basis. The method of calculating riders varies by project type:

   Replacement Vehicles = # of vehicles * average annual ridership per vehicle

Operating & Maintenance Expenses = annual system ridership
Expansion Vehicles = model output OR # of vehicles * system minimum standard for annual
  ridership per vehicle
Fixed Guideway / BRT / Express Bus = model output
Park & Ride Lots = spaces * service days/year
Passenger Amenities = # of stops * average daily boarding per stop * service days/year
ITS = annual ridership on affected vehicles

Local jurisdictions are asked to provide the annual ridership. MPO staff will divide the projects into quartiles and award points.

3. *Regional Connectivity* – Projects receive points based on the number of connections to other transit systems. The transit systems considered are: DATA, Chapel Hill Transit, TTA, Orange Public Transit, and Duke University Transit. These are the fixed route systems in the MPO.

Local jurisdictions are asked to apply the ranking methodology.

4. *Environmental Impacts* - Points are awarded based on the impact on the natural environment. Since most transit projects use existing roadway facilities and thus do not require construction, projects are assessed based on their relative positive air quality impacts. Transit projects that require construction such as fixed guideway, BRT, and park and ride lots should have points deducted if significant environmental impacts may occur due to construction, including impacts on wetlands, streams, water supply watersheds, and rare species habitats.

The MPO will provide local jurisdictions a base map of environmental areas. Local jurisdictions are asked to use the environmental impacts worksheet to assess the impact of projects based on project type and a GIS analysis for construction projects.

5. *Community Impacts* – Points are awarded based on the impact on neighborhoods, communities, schools, parks, and recreation facilities. Since transit projects are community amenities and usually require little right-of-way acquisition, projects that serve more dense neighborhoods and community facilities receive more points.

The MPO will provide local jurisdictions a base map of community resources and 2005 population density by Traffic Analysis Zone. Local jurisdictions are asked to use the community impacts worksheet to assess the impact of projects based on a GIS analysis.

6. *Environmental Justice* - Points are awarded based on the impact on low-income and minority populations. Since transit projects are community amenities and usually require little right-of-way acquisition, projects that serve low income and minority areas will receive more points.

The MPO will provide local jurisdictions a base map that indicates which Traffic Analysis Zones have a high percentage of minority and low income populations. Local jurisdictions are asked to use the environmental justice worksheet to assess the impact of projects based on a GIS analysis.

7. *Funding Status in the Transportation Improvement Program (TIP)* - Points are awarded to projects based on the percentage of the total project cost that is funded in the currently adopted Transportation Improvement Program (TIP), or if the project has post year status in the TIP.

Local jurisdictions are asked to provide funding status and apply the ranking methodology.

OBSERVATIONS

The order of transit priorities could vary significantly from year to year if anticipated funding sources are reduced or eliminated by Congress.

- Mandates (e.g., the American's with Disabilities Act) may take precedence when programming projects from the Regional Priority List in the TIP.

- The fiscal constraints of programming projects in the TIP may result in the programming of less expensive, lower ranked projects.

- Some lower ranking projects may be implemented earlier than a higher ranked, large project due to the time constraints associated with a more complex project (i.e., major investment studies, preparing environmental documents, designing the project, right-of way acquisition, etc.).

- The utility of ranking more than 25 projects is minimal due to the availability of project funds.

HIGHWAY

	RANKING CRITERIA (MEASURES)	SCORE (points)	Category Weight
1	*Travel Demand*		1
	2035 volume to capacity ratio (v/c) on existing or parallel roadway		
	Traffic Signal System, TDM, ITS Projects	4	
	First quartile of ranked projects, v/c >0.80	4	
	Second quartile of ranked projects, v/c >0.80	3	
	Third quartile of ranked projects, v/c >0.80	2	
	Fourth quartile of ranked projects, v/c >0.80	1	
	v/c <= 0.80	0	
2	*Safety*		1
	Crash rate (accidents/100 million VMT)		
	Traffic Signal System, TDM, ITS Projects	4	
	First quartile of ranked projects, Crash Rate >300 accidents/100 million VMT	4	
	Second quartile of ranked projects, Crash Rate >300 accidents/100 million VMT	3	
	Third quartile of ranked projects, Crash Rate >300 accidents/100 million VMT	2	
	Fourth quartile of ranked projects, Crash Rate >300 accidents/100 million VMT	1	
	Crash Rate <=300 accidents/100 million VMT	0	
3	*Benefits to Other Modes of Transportation or Deployment of New Technology*		1
	Any 4 or more modes (Carpool, transit, bike, pedestrian, ITS, TDM)	4	
	Any 3 modes (Carpool, transit, bike, pedestrian, ITS, TDM)	3	
	Any 2 modes (Carpool, transit, bike, pedestrian, ITS, TDM)	2	
	Any 1 mode (Carpool, transit, bike, pedestrian, ITS, TDM)	1	
	No other modes	0	
4	*Environmental Impacts*		1
	Based on air quality impacts and GIS analysis including wetlands, stream crossings, rare species habitat, parks, and water supply watersheds. Uses environmental impacts worksheet.		
	No negative or adverse impacts or positive impact	4	
	Low negative or adverse impacts	3	
	Medium negative or adverse impacts	2	
	Medium-High negative or adverse impacts	1	
	High negative or adverse impacts	0	
5	*Community Impacts*		1
	Based on GIS analysis including population density, schools, parks and recreation, historic resources, and cemeteries. Uses community impacts worksheet.		
	No negative or adverse impacts or positive impact	4	
	Low negative or adverse impacts	3	
	Medium negative or adverse impacts	2	
	Medium-High negative or adverse impacts	1	
	High negative or adverse impacts no mitigation	0	
6	*Environmental Justice Impacts*		1
	Based on GIS analysis of low-income and minority areas (TAZ). Uses environmental justice impacts worksheet.		
	Positive impact	4	
	No negative or adverse impacts	3	
	Low negative or adverse impacts	2	
	Medium negative or adverse impacts	1	
	High negative or adverse impacts	0	
7	*Funding Status in TIP*		1
	Partially funded in current TIP cycle at least 25% of total cost (construction & ROW)	4	
	Partially funded in current TIP cycle at least 10% of total cost (construction & ROW)	3	
	Partially funded in current TIP cycle at least 5% of total cost (construction & ROW)	2	
	Partially funded in post year (construction & ROW)	1	
	Not programmed in TIP	0	

BIKE/PED

	RANKING CRITERIA (MEASURES)	SCORE (points)	Category Weight
1	*Traffic Count*		1
	2005 AADT on existing or parallel roadway		
	10,000 or greater AADT	3	
	2,000 to 10,000 AADT	2	
	Under 2,000 AADT	1	
2	*Right-of-Way Availability*		1
	Adequate right-of-way available	3	
	Some right-of-way available	2	
	Much right-of-way needed	1	
	Major barriers to right-of-way acquisition	0	
3	*Travel Demand from Local Land Uses*		1
	Based on proximity to schools, colleges, parks, major retail centers, transit, and major employment centers. Uses bike/ped travel demand worksheet.		
	First quartile of ranked projects	3	
	Second quartile of ranked projects	2	
	Third quartile of ranked projects	1	
	Fourth quartile of ranked projects	0	
4	*Local Connectivity to Existing Bicycle and Pedestrian Facilities*		1
	Based on number of connections to existing bicycle and pedestrian facilities		
	First quartile of ranked projects	3	
	Second quartile of ranked projects	2	
	Third quartile of ranked projects	1	
	Fourth quartile of ranked projects	0	
5	*Regional Connectivity*		1
	Based on recognized regional bicycle routes AND/OR pedestrian connections to transit		
	Part of regional bicycle route that already partially exists AND/OR pedestrian connection to TT regional route	3	
	Part of regional bicycle route that does not partially exist AND/OR pedestrian connection to future regional rail	2	
	Local bicycle route that connects to an existing regional bicycle route AND/OR pedestrian connection to local bus	1	
	Local bicycle route OR no pedestrian connection to transit	0	
6	*Safety*		1
	Based on number of crashes involving pedestrians and bicyclists on existing or parallel roadway.		
	First quartile of ranked projects	3	
	Second quartile of ranked projects	2	
	Third quartile of ranked projects	1	
	Fourth quartile of ranked projects	0	
7	*Environmental Impacts*		1
	Based on GIS analysis including wetlands, stream crossings, rare species habitat, and water supply watershed. Uses environmental impacts worksheet.		
	High positive impact	3	
	Medium positive impact	2	
	Low positive impact	1	
	Negative impact	0	
8	*Community Impacts*		1
	Based on GIS analysis including population density, schools, and parks and recreation facilities. Uses community impacts worksheet.		
	High positive impact	3	
	Medium positive impact	2	
	Low positive impact	1	
	Negative impact	0	
9	*Environmental Justice Impacts*		1
	Based on GIS analysis of low-income and minority areas (TAZ). Uses environmental justice impacts worksheet.		
	High positive impact	3	
	Medium positive impact	2	
	Low positive impact	1	
	Negative impact	0	
10	*Funding Status in TIP*		1
	Partially funded in current TIP cycle at least 25% of total cost (construction & ROW)	3	
	Partially funded in current TIP cycle at least 10% of total cost (construction & ROW)	2	
	Partially funded in post year (construction & ROW)	1	
	Not programmed in TIP	0	

TRANSIT

	RANKING CRITERIA (MEASURES)	SCORE (points)	Category Weight
1	*Service Type*		1
	Replacement vehicles, operating and maintenance expenses (provides an essential service to maintain the current level of transit service)	4	
	Expansion vehicles, new fixed guideway, BRT, or express bus, new park and ride lots	3	
	Enhancements, passenger amenities, ITS	2	
2	*Ridership*		1
	Estimated number of new or benefited riders per year		
	First quartile of ranked projects	4	
	Second quartile of ranked projects	3	
	Third quartile of ranked projects	2	
	Fourth quartile of ranked projects	1	
3	*Connectivity*		1
	Connections to fixed route transit systems (CAT, CHT, DATA, Duke, OPT, TT, Wolfline)		
	Provides 5 or more connections	4	
	Provides 4 connections	3	
	Provides 3 connections	2	
	Provides 2 connections	1	
	Provides 1 connection	0	
4	*Environmental Impacts*		1
	Based on vehicle type, air quality impacts and GIS analysis including wetlands, stream crossings, water supply watersheds, rare species habitat, parks, etc. Uses environmental impacts worksheet.		
	Very high positive impact	4	
	High positive impact	3	
	Medium positive impact	2	
	Low negative impact	1	
	High Negative impact	0	
5	*Community Impacts*		1
	Based on GIS analysis including population density, schools, and parks and recreation. Uses community impacts worksheet.		
	High positive impact	4	
	Medium positive impact	3	
	Low positive impact	2	
	Low negative impact	1	
	High Negative impact	0	
6	*Environmental Justice Impacts*		1
	Based on GIS analysis of low-income and minority areas (TAZ). Uses environmental justice impacts worksheet.		
	High positive impact	4	
	Medium positive impact	3	
	Low positive impact	2	
	Neutral	1	
	Negative impact	0	
7	*Funding Status in TIP*		1
	Partially funded in current TIP cycle at least 25% of total cost	4	
	Partially funded in current TIP cycle at least 10% of total cost	3	
	Partially funded in current TIP cycle at least 5% of total cost	2	
	Partially funded in post year	1	
	Not programmed in TIP	0	

ENVIRONMENTAL IMPACTS WORKSHEET

For BikePed Projects:

Stream Crossings	#
	+
Major Wetland Crossings	#
	+
Natural Heritage Element Occurances (rare species habitat) within 1000 feet	#
	+
In critical water supply watershed	2
In protected water supply watershed	1
Not in water supply watershed protection	0
	= Score

Score -->	Impact -->	Points
0	High+	3
1-2	Medium+	2
3	Low+	1
4+	Negative	0

For Transit Projects:

Replacement Vehicle		
Standard fuel vehicle	Medium+	
Lower emission vehicle (specify in project description)	High+	
Expansion Vehicle		
Standard fuel vehicle	High+	
Lower emission vehicle (specify in project description)	Very High+	
Passenger Amenities	High+	
ITS	High+	
Operating & Maintenance Expenses	Low+	
Fixed Guideway / BRT / Express Buses	Very High+	Lower if significant physical environmental impacts
Park & Ride Lot	High+	Lower if significant physical environmental impacts

For Highway Projects:

Stream Crossings	#
	+
Major Wetland Crossings	#
	+
Natural Heritage Element Occurances (rare species habitat) within 1000 feet	#
	+
In critical water supply watershed	2
In protected water supply watershed	1
Not in water supply watershed protection	0
	+
Adjacent to park	1
Not adjacent to park	0
	+
Reduces emissions	-1
Does not reduce emissions	0
	= Score

Score -->	Impact -->	Points
-1	Positive	4
0	Low-	3
1-2	Medium-	2
3-4	Medium/High-	1
5+	High-	0

COMMUNITY IMPACTS WORKSHEET

For BikePed Projects

In or adjacent to most dense TAZ	3
In or adjacent to second most dense TAZ	2
In or adjacent to third most dense TAZ	1
In or adjacent to least dense TAZ	0
	+
Directly adjacent to a K-12 school	2
Not adjacent to a K-12 school	0
	+
Directly adjacent to a park or recreation facility	1
Not adjacent to a park or recreation facility	0
	= Score

Score -->	Impact -->	Points
6	High+	3
4-5	Medium+	2
0-3	Low+	1
0-3 and construction would negatively impact a community resource (church, school, park, historic property)	Negative	0

For Transit Projects

In or adjacent to most dense TAZ	3
In or adjacent to second most dense TAZ	2
In or adjacent to third most dense TAZ	1
In or adjacent to least dense TAZ	0
	+
Directly adjacent to a K-12 school	2
Not adjacent to a K-12 school	0
	+
Directly adjacent to a park or recreation facility	1
Not adjacent to a park or recreation facility	0
	= Score

Score -->	Impact -->	Points
6	High+	4
4-5	Medium+	3
0-3	Low+	2
0 and construction would negatively impact a community resource (church, school, park, historic property)	Low-	1
0 and construction would negatively impact more than one community resource (church, school, park, historic property)	High-	0

For Highway Projects

In or adjacent to most dense TAZ	3
In or adjacent to second most dense TAZ	2
In or adjacent to third most dense TAZ	1
In or adjacent to least dense TAZ	0
	+
Directly adjacent to a K-12 school	2
Not adjacent to a K-12 school	0
	+
Directly adjacent to a park or recreation facility	1
Not adjacent to a park or recreation facility	0
	+
Directly adjacent to a historic resource	1
Not adjacent to a historic resource	0
	+
Direcly adjacent to a cemetery	1
No adjacent to a cemetery	0
	= Score

Score -->	Impact -->	Points
0 and the project would positively impact a neighborhood	Positive	4
0	Low-	3
1-3	Medium-	2
4-5	Medium/High-	1
6	High-	0

ENVIRONMENTAL JUSTICE IMPACTS WORKSHEET

For BikePed Projects

		Percent Minority				
		At or below county average	Up to 10% above county average	10%-25% above county average	25%-50% above county average	Over 50% above county average
Percent Household Income Below Poverty	At or below county average	Low+	Low+	Low+	Medium+	Medium+
	Up to 10% above county average	Low+	Low+	Medium+	Medium+	High+
	10%-25% above county average	Low+	Medium+	Medium+	High+	High+
	25%-50% above county average	Medium+	Medium+	High+	High+	High+
	Over 50% above county average	Medium+	High+	High+	High+	High+
Negative		If at or below county averages AND construction of the project will have a negative impact on a low-income or minority area				

For Transit Projects

		Percent Minority				
		At or below county average	Up to 10% above county average	10%-25% above county average	25%-50% above county average	Over 50% above county average
Percent Household Income Below Poverty	At or below county average	Neutral	Low+	Low+	Medium+	Medium+
	Up to 10% above county average	Low+	Low+	Medium+	Medium+	High+
	10%-25% above county average	Low+	Medium+	Medium+	High+	High+
	25%-50% above county average	Medium+	Medium+	High+	High+	High+
	Over 50% above county average	Medium+	High+	High+	High+	High+
Negative		If at or below county averages AND construction of the project will have a negative impact on a low-income or minority area				

Replacement Vehicle	Use system average
Operating & Maintenance Expenses	Use system average
Expansion Vehicle	Use area of proposed route or system average for general expansion
Fixed Guideway	Use areas around proposed stations
Park & Ride Lot	Use system average
Passenger Amenities	Use system average
ITS	Use area of proposed improvements

For Highway Projects

		Percent Minority				
		At or below county average	Up to 10% above county average	10%-25% above county average	25%-50% above county average	Over 50% above county average
Percent Household Income Below Poverty	At or below county average	Neutral	Low-	Low-	Medium-	Medium-
	Up to 10% above county average	Low-	Low-	Medium-	Medium-	High-
	10%-25% above county average	Low-	Medium-	Medium-	High-	High-
	25%-50% above county average	Medium-	Medium-	High-	High-	High-
	Over 50% above county average	Medium-	High-	High-	High-	High-
Positive		If at or below county averages AND the project will have a positive impact on a low-income or minority area				

BIKE/PED TRAVEL DEMAND WORKSHEET

Complete both tables for multi-use trails or projects that include both bicycle and pedestrian facilities.

For Bicycle Projects

A project will receive points based on its proximity to the following land uses:

		Proximity				Total Points
		# within 1 mile	2 points per #	# between 1 and 2 miles	1 point per #	
Land Use	Schools		0		0	
	Colleges		0		0	
	Parks		0		0	
	Major Retail Centers		0		0	
	Major Employment Centers		0		0	
	Transit Routes		0		0	
Total			0	+	0	**0**

For Pedestrian Projects

A project will receive points based on its proximity to the following land uses:

		Proximity				Total Points
		# within 1/4 mile	2 points per #	# between 1/4 and 1/2 mile	1 point per #	
Land Use	Schools		0		0	
	Colleges		0		0	
	Parks		0		0	
	Major Retail Centers		0		0	
	Major Employment Centers		0		0	
	Transit Routes		0		0	
Total			0	+	0	**0**

Schools	K-12 public or private school
Colleges	Duke, UNC, NCCU, Durham Tech
Parks	State or local public park
Major Retail Centers	Retail center over 100,000 square feet AND downtown shopping areas
Major Employment Centers	TAZ over 1,000 in employment
Transit Routes	DATA, CHT, TTA, OPT fixed routes