

## Collecting Functional Classification Data

### Description

The purpose of this procedure is to describe the process for collecting Functional Classification data during the needs assessment step of the Comprehensive Transportation Planning (CTP) process.

### Responsibility

*TPB Engineer* – is responsible for:

Accessing and clipping the functional classification shapefile to be presented for the CTP development process.

### Scheduling and Time Constraints

The *TPB Engineer* shall collect functional classification data after the Planning Area Boundary (PAB) has been established.

### Procedure

Step	Action
1	Download latest Road Characteristics shapefile and Smoothed Boundaries shapefile, linked from the CTP GIS Data Layers spreadsheet <i>S:\Shared\TPB Reference\Comprehensive Transportation Plan</i>
2	After clipping each shapefile to your Planning Area Boundary delete statewide shapefiles.
3	Go to Road Characteristics shapefile - Properties/Fields and select RTE_1_CLSS_CD, RTE_1_NBR, FC_TYP_CD, URBAN_ID_CD
4	To properly present Functional Classification data use FC_TYP_CD field codes, see colors and table below. For Projected facilities use filed RTE_1_CLSS_CD with (PRJ<>0)
5	

### Policy, Regulatory, and Legal Requirements

None

### Resources








The Functional Classifications for the North Carolina Federal Aid eligible roads can be viewed graphically using the internal Functional Class Viewer at <http://qisi01.dot.nc.net/GISApps/SDVOnline/>

Or NCDOT Functional Class Map viewer

<http://ncdot.maps.arcgis.com/explorer/?open=ab1aa139bcea48f191a4e688698b0512>

## Background

Functional classification is the process by which roads, streets, and highways are grouped into classes according to the character of service they provide. Individual roads and streets do not serve travel independently but as part of a network of roads through which the traffic moves. Functional classification defines the nature of this movement by defining the part that any particular road or street should play in serving the flow of trips through a highway network and the type of access it provides to adjacent properties. Functional classification describes the importance of a particular road or network of roads to the overall system and, therefore, is critical in assigning priorities to projects and establishing the appropriate highway design standards to meet the needs of the traffic served. Functional classification is also used to determine which roads are eligible for project funding under the Surface Transportation Program (STP) administered by the Federal Highway Administration.

FUNCTIONAL CLASSIFICATION CODES	FHWA Codes	Colors	Codes
Principal Arterial - Interstate	1		
Principal Arterial - Other Freeway/Expressway	2		
Principal Arterial - Other	3		
Minor Arterial	4		
Major Collector	5		
Minor Collector	6		
Local	7		

The classes are as follows:

- **Principal Arterial** – The principal arterial system should serve the major centers of activity of a metropolitan area, the highest traffic volume corridors, and the longest trip desires; and should carry a high proportion of the total urban area travel on a minimum of mileage. Principal Arterials should be further divided into three subcategories: Interstates; Other Freeways and Expressways; and Other Principal Arterials. In rural areas, only Interstate and Other Principal Arterial classifications are used.
- **Minor Arterial** – The minor arterial street system should interconnect with and augment the urban principal arterial system. This street system should also provide service to trips of moderate length at a somewhat lower level of travel mobility than principal arterials.
- **Collector** – The collector street system provides land access service and traffic circulation within residential neighborhoods, commercial and industrial areas. This street system differs from the arterial system described above. Facilities on the collector system may penetrate residential neighborhoods, thus distributing trips from the arterials through the area to the ultimate destination. In rural areas, the collectors are further divided into major and minor collectors.
- **Local** – The local street system consists of all roads not defined as arterials or collectors. The functional classification system is used as a basis for developing the initial highway network for the CTP study area.

**Record of Revision**

*The information contained in this procedure is deemed accurate and complete when posted. Content may change at any time without notice. We cannot guarantee the accuracy or completeness of printed copies. Please refer to the online procedure for the most current version. Contact TPB Staff Engineer with all the questions about this procedure.*

<b>Version</b>	<b>Section Affected</b>	<b>Description</b>	<b>Effective Date</b>
2.0	Entire Procedure	New template and links for the FC map viewers	7/31//2013

**Flowchart**