

Guidance for Developing the CTP Inventory and Recommendations Tables

- The CTP Inventory & Recommendations table lists the existing characteristics of the transportation system as well as the future recommendations of the CTP. There are separate tables by mode: highway, public transportation, rail, bicycle, multi-use path, and pedestrian.
- Assumptions and notes about the tables will be listed on the first page of Appendix C - CTP Inventory and Recommendations. Carefully review the standard assumptions/notes listed in the Minimum CTP Standard Report Template and only include those that are relevant. If the standard format is being followed modifications to these assumptions should be limited, but can be made on a case by case basis in consultation with the group supervisor.
- Footnotes may be used with the table to explain specific issues or variances with the data entered in the table.
- Data entry- If there is no available data for a particular cell, a dash should be placed in the cell. The only exception is that no dash is needed for the blank cells in the Local ID column. A blank row should be left between each facility listed. For facility names and section descriptions, use typical abbreviations (e.g., Co. for County, St. for Street).
- **Do not alter the column widths** in the CTP Inventory and Recommendations Tables (Excel format). The widths are fixed so that the information is legible for a letter size page in landscape orientation. Instead, allow the text to wrap when necessary; this will often be necessary for the 'Facility' or 'Facility/ Route' and 'Section (From – To)' columns. Also print with narrow margins.

COLUMNS COMMON TO ALL TABLES

- **Local ID-** In using the system to create project codes, note that there are only codes needed for the recommended improvements (not the existing street inventory). If a TIP project number or feasibility study number exists it is listed as the ID. Otherwise, the following system is used to create a code for each recommended improvement: the first 4 letters of the county name is combined with a 4 digit unique numerical code followed by '-H' for highway, '-T' for public transportation, '-R' for rail, '-B' for bicycle, '-M' for multi-use path, or '-P' for pedestrian modes. Use a different code along a route if it is likely that separate projects will be requested. Also, include upper case alphabetic characters (i.e., 'A', 'B', or 'C') after the numeric portion of the code if it is anticipated that project segmentation or phasing will be recommended.
 - Check prior CTPs for your area and other CTPs within the County to determine what Local IDs have already been assigned. Also, check the Prioritization Project Submittal Tool and with your MPO/ RPO contacts to determine if some Local IDs have already been created as part of the prioritization process. If a code has already been assigned to a recommendation (or project proposal), that code

should remain the same in the current, and subsequent, CTP updates. Further, be sure not to reuse codes within the same County that have been assigned to other project proposals.

- In determining the 4 letter county code portion of the Local ID, use the first 4 letters of the county's name. For Lee County use the entire name. For Davie and Davidson Counties, use 5 letters in order for the code to be unique. If a project is located in multiple counties, the Local ID should be based on the county where the majority of the project is located.
- In assigning the 4 digit unique numerical code, the numbers should be sequenced in the order that the project proposal appears in the table. The sequencing starts over for each mode. Therefore, the first project proposal for the highway mode would be XXXX0001-H and the first project proposal for the public transportation mode would be XXXX0001-T, for example. In subsequent updates of the CTP, if additional project proposals are added, the codes should start with the next 4-digit number in sequence. Because project proposals will change, numeric codes may not necessarily be in order in the table in future CTP updates.
- The letter that follows the numerical code with a dash ('-H' for highway, '-T' for public transportation or rail, '-B' for bicycle, '-M' for multi-use path, or '-P' for pedestrian) **represents only the primary mode for the project**, even if the project proposal contains multiple modes. For example, a facility that is proposed to be widened and also have bicycle lanes would have a local ID ending in '-H'; this code would be entered in both the highway table and the bicycle table (and the other modes column would be utilized to highlight the presence of other modes).
- **Facility and Section (From, To)**- Facilities are listed in the following order: Interstates, US routes, NC routes, and then SRs by road name alphabetically. Interstates, US routes, and NC routes are listed by route number followed by any common road name(s) in parentheses. SRs are listed by road name first, followed by the number in parentheses (following the standard for the entire CTP report). New location project proposals should be listed separately, with the sequencing following the same rules. For example, if there are listings for various sections of US 17 and there is a new location proposal for US 17 Bypass, the new location proposal would be listed after the existing US 17 entries with a blank row separating them.

For the Bicycle and Multi-use Path tables, if there is a specific facility name, the name is to be listed in bold followed by the road names that are utilized in brackets (and not bold), i.e., '**Lakeview Bicycle Route** [US 178]'. If there are numerous roads used, it is acceptable to list only the major ones with a note that there are others not listed, i.e., '**Long Lake Multi-use Path** [US 54, PineView Rd (SR 1341), NC 11, and other local roads]'. If there is no specific name for the bicycle facility or multi-use path, just list the road name utilized (in bold).

When to break facilities into sections

Facilities are to be segmented in the CTP Inventory and Recommendations tables whenever any of the data changes significantly, particularly if it changes the capacity of the existing facility. For example, a road is to be segmented at intersections with other major roads or if the AADT (base year or future year) changes. Breaks also may be created where the jurisdiction changes. Some data changes may be determined not to warrant segmenting the facility, such as if the lane width changes by 1 foot for only a half a mile and then changes back.

How to define/ identify sections

Sections should be described by easily identifiable landmarks, such as roads, municipal limits, planning area boundaries of adjacent CTPs, rivers, etc. When necessary, it is acceptable to use the distance from the nearest road. However, mileposts should not be used. Road sections should be ordered from west to east or south to north, as applicable, to be consistent with Interstate numbering and design plan standards.

How to list concurrent routes

When a single road is assigned multiple route numbers (concurrent routes), the data should be listed with the highest facility. For example, Interstates would be higher than NC routes and NC11 would be listed before NC92. The data is only listed with the entry for the highest facility, so in the section where the lower facility is listed, the following phrase should be entered instead of repeating the data: 'Concurrent with *higher facility's name*'.

- **Proposals for Other Modes-** If there is an improvement recommended for another mode of transportation that is within the corridor of a given project proposal or inventoried highway, indicate this by entering an alphabetic code (H=highway, T= public transportation, R= rail, B= bicycle, M=multi-use path, and P= pedestrian). This would apply whether or not the entry in the highway table includes a highway project proposal. For example, there could be a highway project proposal for a certain road that has a bicycle recommendation as well; in this case, the Local ID would be would end in an '-H' and 'B' would be entered in the 'Other Modes' column. For another example, if there is a bicycle project proposal on a road for which there is no highway recommendation, a 'B' would still be entered in the 'Other Modes' column of the highway table, and the local ID column would be left blank. In this case, the Local ID would only be listed in the bicycle table and would end in a '-B'.

HIGHWAY TABLE

- **Jurisdiction-** This column is only needed if multiple jurisdictions (municipalities, counties, and/ or a MPO) are covered by the CTP. Municipal limits are to be used to determine municipal jurisdictions, not the extra-territorial jurisdiction (ETJ). MPO areas are defined by their Metropolitan Planning Area Boundary (MAB). For a CTP covering multiple MPO areas, list the MPO followed by the municipality or county in parentheses. For a CTP covering only one MPO and no non-MPO areas, it is not necessary to list the MPO each time.

- **Dist. (Distance)**- Only 1 decimal place is to be used. Use an entry of '<0.1' if a length is shorter than a tenth of a mile. The GIS Road Characteristics layer and GIS mapping may be used as the starting source for this data, then it should be field verified through measurement.

20XX Existing System

- **Cross-Section**- List under 'Total Width (ft)' the approximate total width of the roadway from edge of pavement to edge of pavement. List under 'Lanes' the number of lanes and the letter 'D' if the facility is divided or 'OW' if it is one-way. In the 'Lane Width (ft)' column enter the approximate width of a single lane, from centerline to edge line markings, for instance. If there is variability in the lane widths (for example, there are wide outside lanes), enter the narrowest lane width and use a footnote to explain. The GIS Road Characteristics layer may be used as the starting source for this data, then it should be field verified through measurement and observation. Note that if it is desirable to know the paved shoulder width, this can be estimated by subtracting the lane width times the number of lanes from the total width.
- **ROW**- The primary source of right-of-way (ROW) data is the GIS Road Characteristics layer. This information should be checked by working with local governments. Also, property tax maps may be used as appropriate. The assumptions listed in the CTP Inventory and Recommendations Appendix make it clear that the amounts listed are approximate and may vary. It is acceptable to enter a range for the right-of-way where necessary due to lack of information or a desire not to further break the road into sections; enter as '70-100', for example.
- **Speed Limit**- The existing posted speed limit of the facility in mph.
- **Existing Capacity**- Enter the estimated capacities in vehicles per day (vpd), as developed using NCLOS (refer to Procedure [link to be established](#)). Typically, capacities are based on LOS D for existing facilities and LOS C for new facilities. Ensure that all assumptions/ inputs are documented in the CTP Study Report and/or the archive, as appropriate.
- **20XX Volume**- Existing traffic volumes, given in vehicles per day (vpd), are base year estimates based on a systems-level analysis (using the travel demand model, where available). The existing AADT is based, in part, on existing AADT data available in the GIS Road Characteristics layer. Ensure adequate information about assumptions and techniques used to develop the existing and future AADT volume estimates are described in the report.

20XX Proposed System

- **20XX Volume E+C**-The '20xx Volume E+C' is an estimate of the traffic volume in the future year with only existing plus committed projects assumed to be in place, where committed is defined as projects programmed for construction (fully or partially funded) in the Transportation Improvement Program (TIP). Note that this

volume is used for the future year '20XX Volumes and Capacity Deficiencies' figure in the CTP Report (refer to the Minimum CTP Standard Report Template).

- **20XX Volume with CTP** (or LRTP, in MPO areas)- The '20xx Volume with CTP' is an estimate of the traffic volume in the future year with all proposed CTP improvements assumed to be in place. For MPO areas, it is only the fiscally constrained 'LRTP' projects that are assumed to be in place. Show the '20xx AADT with CTP' (or LRTP, in MPO areas) in bold if the volume exceeds the Proposed Capacity, indicating an unmet need exists. *Remember to change the column heading to '20XX Volume with LRTP' for MPO Areas.
- **Proposed Capacity**- See notes for existing capacity. Using the same techniques and assumptions, develop the proposed capacities for all project proposals. If there is no project proposal for a given facility, the value for the existing capacity should be reentered in the column for the proposed capacity.
- **Proposed Cross-section**- The CTP recommended cross-sections are listed by code based on the cross-sections shown in Appendix D of the report. Only one cross-section is to be listed for each project proposal. List the cross-section that is recommended as the long range planning alternative as part of the approved CTP. Enter 'ADQ' if the existing facility is adequate and there are no improvements recommended as part of the CTP. Existing standards for cross-sections need to be used. If different options are requested, the proposed new cross-sections must be approved through the NCDOT Roadway Unit. If the cross-section is approved for use but not added to the 'Typical Highway Cross-sections' it may be described in this CTP Inventory and Recommendations Table using footnoting. The cell entry is the footnote number in parentheses, with the cross-section explained at the bottom of the table.
- **ROW**- Enter the total right of way needed corresponding with the recommended cross-section, as shown in Appendix D.
- **CTP Classification**- List the CTP classification, as shown on the adopted CTP Maps. Entries should be the facility type without the terms 'needs improvement' or 'recommended'. Use the abbreviations F= freeway, E= expressway, B= boulevard, Maj= other major thoroughfare, and Min= minor thoroughfare.
- **Tier**- Enter the tier that the facility is part of, as defined by the North Carolina Multitodal Investment Network (NCMIN). Abbreviations are Sta= statewide tier, Reg= regional tier, Sub= subregional tier. For highways, the statewide tier consists of all Strategic Highway Corridors (SHC); the regional tier consists of all primary routes (US and NC) not on the statewide tier; and the subregional tier consists of all secondary routes (SR) not on the statewide tier, plus all locally owned roads.

PUBLIC TRANSPORTATION AND RAIL TABLE

- The public transportation and rail table is not intended to be a comprehensive database of all public transportation and rail facilities in an area. Instead, it is intended to inventory major routes and those that are on, or intersect with, network roadways or proposed improvements. Limit the amount of data shown in these

tables by including only general descriptions of bus routes and rail lines (detailed sections should not be shown). For municipalities with major bus systems, show only major, stable, existing routes and general information for proposed bus services. Reference local plans or other documents in a footnote for other existing or proposed bus routes.

Public Transportation

- **Speed Limit**- Enter the speed limit of the facility/ route in mph. A range may be entered, if necessary (i.e., '20-55').
- **Distance**- Enter the distance of the facility/ route in miles.
- **Existing and Proposed System Type**- Indicate the type of the facility/ route for the existing and proposed system, respectively. Example entries include 'Bus', 'Trolleybus', 'Aerial Tramway', 'HOV', 'Express Bus', etc.
- Park and Ride lots should be shown as a footnote to the most closely associated transit link in the public transportation table. If a park and ride lot is not linked to any transit information in the table it should be a footnote to the table title. Information for the footnote should include a description of the location of the park and ride lot, a note of the link to transit if any, and number of spaces/ size if known.

Rail

- **Class**- Enter the classification of the railroad (I, II, or III), as defined by the Surface Transportation Board. This class is typically available through the local contact for the CTP study or NCDOT's Rail Division.
- **Speed Limit**- Enter the speed limit of the facility/ route, if applicable, in mph. A range may be entered, if necessary.
- **Distance**- Enter the distance of the facility/ route in miles.
- **Existing and Proposed System Type**- Indicate the type of the facility/ route for the existing and proposed system, respectively. Entries may include 'Rail' or 'High Speed Rail', for example.
- **Existing and Proposed ROW**- Enter the total right of way corresponding with the existing and proposed system. It is acceptable to enter a range for the right-of-way (i.e., '25-100').
- **Existing and Proposed Trains per day**- Enter the average number of trains using the existing or expected to use the proposed system daily. Enter <1 if the track is active but carries less than 1 train each day (i.e., it may be 1 train per week or every other day, etc). Enter 'Inactive' if there are no trains regularly using the track.

BICYCLE TABLE

- The bicycle table is not intended to be a comprehensive database of all bicycle facilities in an area. Instead, it is intended to inventory major routes and those that are on, or intersect with, network roadways or proposed improvements. Limit the amount of data shown in this table by including only general descriptions of bicycle routes. For areas with detailed existing bicycle plans, do not show detailed sections

and reference the local plan or other documents using a footnote. If a bicycle proposal is concurrent with a highway route that already has data entered in the Highway Table, the cells for the Existing and Proposed System columns should be merged and the following note entered, 'Concurrent with *highway facility name*- see Highway Table'.

- **Distance-** Enter the distance of the facility/ route in miles.
- **Existing Cross-Section-** List under '(ft)' the approximate width of the facility from edge of pavement to edge of pavement. List under 'lanes' is the number of lanes, with the letter 'D' if the facility is divided.
- **Proposed System Type-** Indicate the type of the facility/ route for the proposed system, either 'On Road' or 'Off Road'. Note that if an off-road facility will also accommodate pedestrians, it should be listed only in the multi-use path table.
- **Proposed Cross-section-** The CTP recommended cross-sections are listed by code based on the cross-sections shown in Appendix D of the report.

PEDESTRIAN TABLE

- The pedestrian table is not intended to be a comprehensive database of all pedestrian facilities in an area. Instead, it is intended to inventory major facilities and those that are on, or intersect with, network roadways or proposed improvements. Limit the amount of data shown in this table by including only general descriptions of pedestrian facilities, where possible (detailed sections should not be shown). Do not include information on existing sidewalks, even if they are shown on the CTP maps. Reference local plans or other documents using a footnote.
- **Distance-** Enter the distance of the facility/ route in miles.
- **Existing and Proposed System Type-** Indicate the type of the facility/ route for the existing and proposed system, respectively. Entries are either 'Sidewalks' or 'Off Road'. Note that if an off-road facility will also accommodate bicycles, it should be listed only in the multi-use path table.
- **Existing and Proposed System Side of Street-** 'Side of street' is either north or south for an east-west route; east or west for a north-south route. If sidewalks are existing or proposed on both sides of the street, use an entry of 'Both'. Use a footnote to explain (or reference where in the report an explanation is given) if the recommendation is only for one side of the road.

MULTI-USE PATH TABLE

- Limit the amount of data shown in this table by including only general descriptions of multi-use paths, where possible (detailed sections should not be shown). Reference local plans or other documents using a footnote.
- **Distance-** Enter the distance of the facility/ route in miles.

- **Existing and Proposed System Side of Street-** 'Side of street' is either north or south for an east-west route; east or west for a north-south route. If the path is not along a street, enter a dash in the cell.
- **Existing and Proposed Cross-section-** The CTP recommended cross-sections are listed by code based on the cross-sections shown in Appendix D of the report.