ROADWAY DESIGN UNIT

FEB 26 2009

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

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February 24, 2009

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FROM: Debbie Barbour, PE
Director of Preconstruction

SUBJECT: Traffic Forecast Guidelines

Attached are three sets of guidelines that are the work product of a team established to review traffic forecasting procedures. The team developed guidelines for new, updated, and revised traffic forecasts, as well as guidance for volumes which warrant the need for forecast data. The intent of the guidelines is to accelerate the delivery of traffic forecast information by identifying the proper traffic forecast request procedures, and by identifying when traffic forecasts or updated forecasts are needed. Please relay this information to your staff.

If you have any questions regarding this information or guidelines, please contact Deborah Hutchings at (919) 715-5482 extension 394. Thank you for your efforts to make this process work as smoothly as possible.

DMB

Attachments

cc w/attachments: Susan Coward
Terry Gibson, PE
Deborah Hutchings, PE

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Guidelines for Requesting a Traffic Forecast
(New, Update or Revision)

Purpose

These Guidelines provide direction for requesting a traffic forecast and improving the process for providing traffic forecast information. (These Guidelines cover all NCDOT projects with the exception of Bridge (B) projects. Bridge projects are covered in a separate set of Guidelines.) It is recognized that while these guidelines will be appropriate for the vast majority of situations, there will exist some unique situations where modifications to these guidelines are necessary. It is important that the guidelines be followed when requesting a traffic forecast. When incomplete or inaccurate requests are received, it will take additional time to complete the traffic forecast and its delivery will be delayed.

Guidelines

The following information is required to complete the request for a traffic forecast. Requests received without this information will be returned to the requestor for additional information. Providing this information and following these guidelines will assist in the timely completion of the request.

1. For an Update or Revision to a traffic forecast, the Requester shall contact a Tri-Project Manager to insert the appropriate Traffic Forecast Activity into the Scheduling, Tracking and Reporting System (Project STaRS).

2. Three copies of a completed Traffic Forecast Request Form are required. This includes copies of all attachments. (The form can be found at the site: http://www.ncdot.org/doh/preconstruct/tpb/PLANNING/forecast.html). The WBS element entered on the Request Form must be associated with the Traffic Forecast Activity for time charges.

3. A detailed map of the study area is required. This map should include all intersections that need to be part of the forecast. The requestor is responsible for the accuracy and completeness of the map(s). If multiple maps are needed to cover the project, an additional overview map should be provided. The Traffic Forecast Staff will review the traffic forecast request, and if omissions are discovered, they will consult with the requestor.

4. It is recommended that the requestor consult with other staff from Project Development and Environmental Analysis (PDEA), Congestion Management, and Roadway Design to ensure a complete and accurate initial request is submitted. This step will also help to ensure that the information the respective Business Units need is included in the Traffic Forecast Request. Failing to consult with these Business Units may result in unnecessary schedule delays.

5. Provide a detailed list of each intersection where turning movements are required. Turning movements will not be provided for any intersections that are not on this list. The Traffic Forecast Staff will review the list and if omissions are discovered, they will consult with the requestor. The requestor is responsible for the accuracy and completeness of the list of relevant intersections.

   Note: ** Turning movement counts for Y-lines that have a current AADT less than 1,000 vehicles per day are not to be requested. Turning movements for these Y-lines will not be provided unless there are documented extenuating circumstances. The collection of this data is costly and time dependant. Also, standard design practices can be utilized for the design of low volume intersections.

6. The requestor is responsible for conducting an initial review of the all AADT maps and estimates for all roads in the study area. If it is apparent that this review has not been completed, the request will be returned to the requestor.

Guidelines to Determine When to Request an Updated Traffic Forecast

Purpose

Since unnecessary traffic forecasts can adversely affect the project's cost, schedule, and budget, it is important to follow these guidelines to determine if an updated or new traffic forecast is required.

Guidelines

There are two primary paths to consider when it is believed that it is necessary to update the current traffic forecast. One is straight forward and results in the request of a new forecast. The other situation is flexible and will allow the Design Engineer to evaluate the aged traffic forecast data.

Situation 1 – New Alternative(s)

A new alternative is identified and it needs a forecast. The only option is to request a new traffic forecast. However, there are many items that need to be considered. Before requesting a new forecast, make the following determinations and do the following:

- Determine if the project is in a Metropolitan Planning Organization (MPO) area. If the project is in an MPO, the North Carolina Department of Transportation (NCDOT) is required to use the last adopted model for the traffic forecast. If the model has been revised since the original forecast, it may be necessary to request an update for all of the other alternatives. You should contact either the Transportation Planning Branch Coordinator for the area, or the State Traffic Forecast Engineer for information on the date of the latest adopted model.

- Determine if you want the forecast dates to be the same as the original forecast. This means the same Base Year and same Future Year (also known as Horizon Year or Out Year) will be provided if possible.

- Have Tri-Project Manager add the appropriate Traffic Forecast Activity to the Scheduling, Tracking and Reporting System (STaRS) and complete a request for a new forecast.

Situation 2 – Age of Forecast

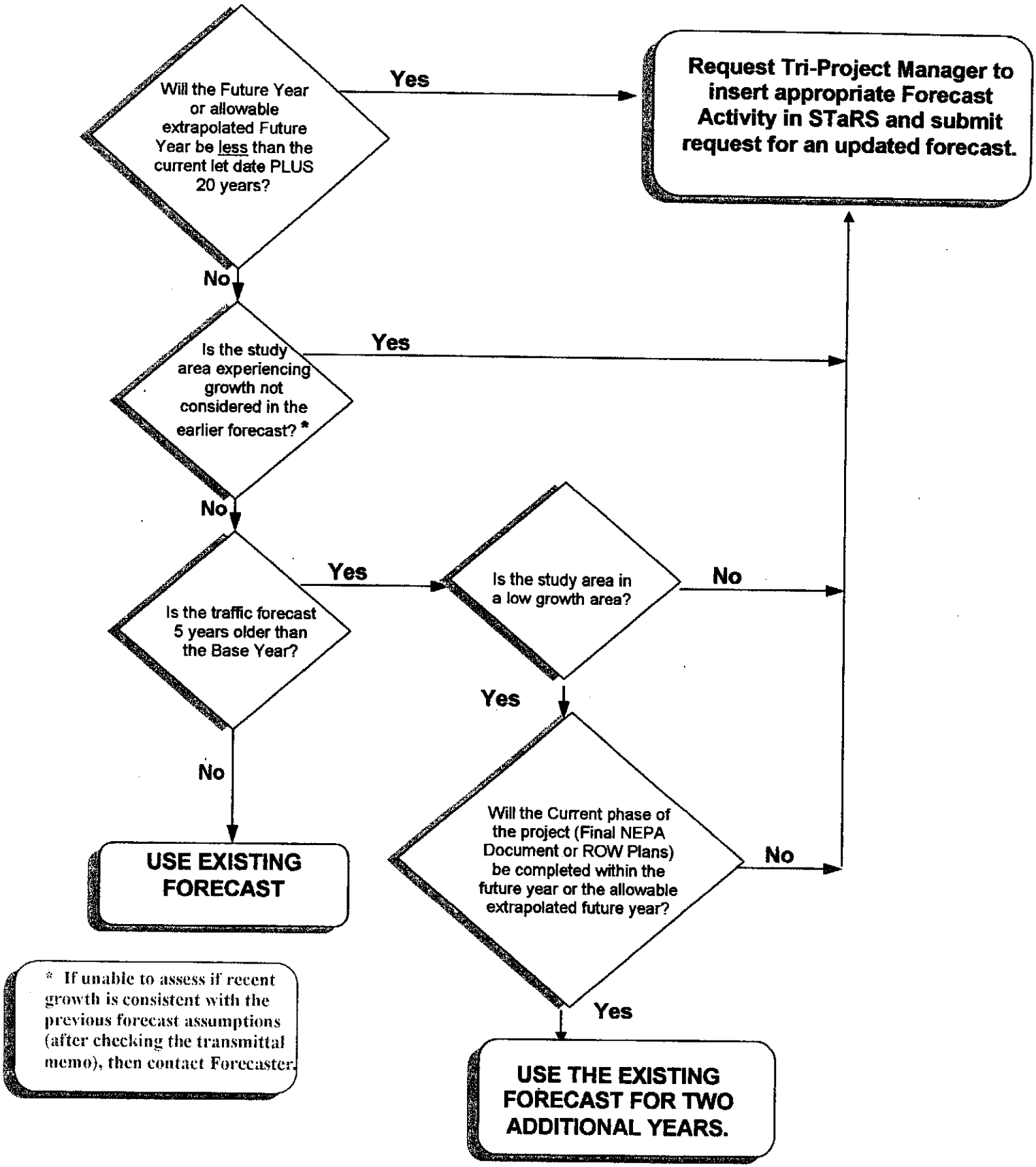
A project forecast is five years old or older from the base year and is under study / design. Examples of "under study / design" include but are not limited to:

a) The Project Development and Environmental Analysis (PDEA) Project Engineer will evaluate the need for Traffic Forecast when they begin a new project phase (Final Environmental Impact Statement (FEIS), Finding of No Significant Impact (FONSI)) or project re-initiation.

b) The Roadway Design Engineer will evaluate the need for requesting an updated traffic forecast when they request final surveys for the project.

To determine if a new forecast is needed, use the *Traffic Forecast Flow Chart.*

Traffic Forecast Flow Chart (for Situation 2)

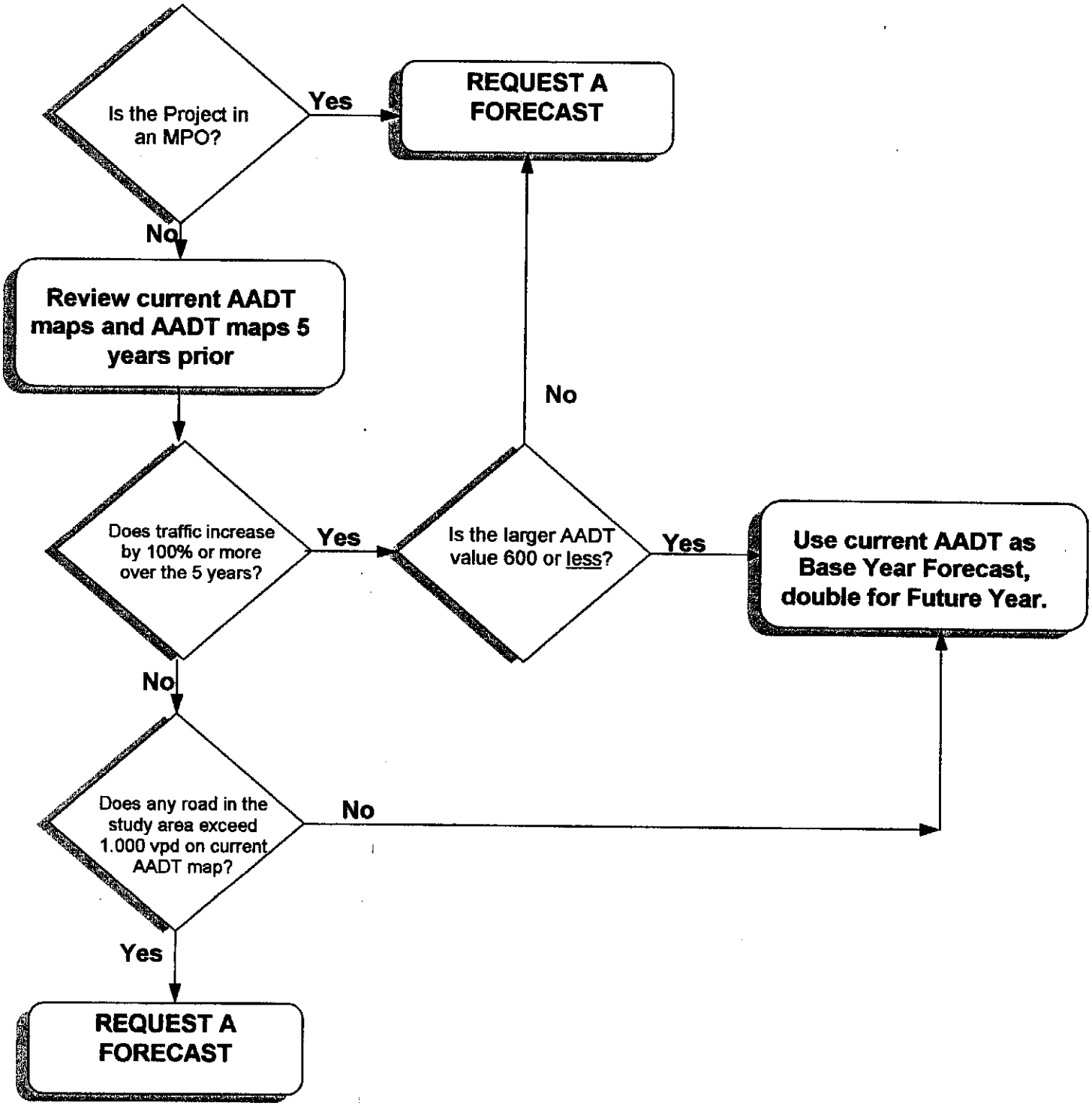


Guidelines to Determine When to Request Initial Formal Traffic Forecast for Bridge Projects.

Purpose

The purpose of these guidelines is to provide guidance on when to request a forecast for a bridge project. In many cases, the bridge project is located on a road with a low volume and the projected travel will not affect the design decision of the bridge. In these cases, requesting a traffic forecast will not be a cost effective activity and the projected traffic can be developed using the AADT maps.

Guidelines

To determine if you should request a traffic forecast for a bridge project use the *Bridge Traffic Forecast Flow Chart* flow chart.

Bridge Traffic Forecast Flow Chart