

STEP 4

FUTURE CONDITIONS

The second analytic step in developing a transportation plan is to forecast or project what the community's transportation needs will be in the future. These projections will be assessed to determine how the transportation system will be affected given future development and land uses and resulting changes in traffic volumes, assuming no modifications are made to the system itself.

The forecasting of future conditions is important because it provides a view of what the local transportation system *may* have to handle years from now; thereby enabling a community to determine if and what changes need to be made to the transportation system to achieve their goals and objectives. If the future conditions are not acceptable, a community can develop transportation alternatives to mitigate or remove operational deficiencies that may occur.

Ideally, the time period covered by the transportation plan will be consistent with the time period covered by the community's comprehensive plan. However, this is not always necessary and often transportation plans will cover time periods of up to 25 years.

As with Step 3, this step involves three primary components – Estimate Changes in Land Use, Forecast Growth in Traffic Volumes, and Definition of Future Needs.

Accordingly, this step may require professional assistance from a planning/engineering consultant in order to gather, analyze, and interpret the technical data and information. Guidance on soliciting professional services and evaluating the qualifications of consultants can be provided by GTC.

ESTIMATE CHANGES IN LAND USE

Given the relationship between transportation and land use, determining changes in land use and physical development is the first step in analyzing future conditions. Many of the factors that will determine future land use are currently in place. In addition, previous changes in land use can also serve as an indicator of what is likely to happen in the future with regard to development. As such, reviews of current regulations and historical trends in land use are an important part of estimating changes in land use.

- Current Land Use Regulations – primarily, but not limited to, comprehensive plans and zoning ordinances (along with associated maps) should be consulted to determine the types of allowable development by location.

In addition, other land use regulations such as open space plans, agricultural district boundaries, watershed protection plans, and others should be reviewed to determine factors that will supplement the comprehensive plan and zoning ordinances in determining what type of growth will occur and where.

If a community is in the process of updating any of its land use regulations, refer to the committee(s) preparing the updates for likely changes to the existing plans.

- Historical Trends – changes in land use over time should be reviewed to determine past development activity that can be assessed to determine historical trends. These trends can then be analyzed and discussed by the Steering Committee to determine if they are likely to continue; if not, determine if future development will be more or less and where compared to past development.

Much of the information needed is available through the municipal code/zoning enforcement officer and/or the assessor's office. In addition, the Genesee/Finger Lakes Regional Planning Council produces an annual land use monitoring report that includes the number of permits issued for new buildings by type.

It is important to consider several other factors in estimating future development:

- The amount of developable land available and likelihood of redevelopment
- The potential for extensions of utility services, primarily water and sewer
- Proximity to regional employment and commercial centers

Based on the land use regulations and historical development trends, future land uses should be estimated considering the following elements:

- Type – residential, commercial, office, industrial, agricultural, etc.
- Number – housing units for residential, square feet for commercial/office/industrial, etc.
- Location – in relation to the existing transportation system
- Access Points – how vehicles and persons access these land uses

Once these variables have been considered, multiple land use scenarios can be developed for analysis purposes (i.e. low, medium and high density scenarios). Maps of the various scenarios should be produced to view the estimated changes in a spatial context.

FORECAST GROWTH IN TRAFFIC VOLUMES

People make trips for many different reasons, and the factors that affect trip decisions vary with the purposes of the trips. Once the development scenarios are complete, projections of future traffic volumes can be calculated.

Traffic volume estimates can be generated based on trip generation rates. Appendix E provides general guidelines for the number of trips that individual land uses generate. Distributing the projected trips along the existing transportation system can produce future traffic volumes.

At this time, it is valuable to perform quantitative analysis based on the estimated land use scenarios and associated trip generation rates as well as qualitative analysis based on input from Steering Committee and the general public.

Calculate the number of new trips and assign them to roads based on the estimated changes in land use and the maps displaying the locations of these changes created above. Steering Committee members should discuss the calculations of new trips and make adjustments based on knowledge of the area and comments received by the public at the first public meeting.

DEFINITION OF FUTURE NEEDS

Future needs should identify what and where issues are likely to arise, summarized in list form with a corresponding map. Future needs should initially be defined based on the estimated changes in land use and forecasts of growth in traffic volumes conducted above. This list of future needs should be presented at the first public meeting and revised based on comments received there.

A comparison of the forecasted traffic volumes against the current operating characteristics determined in Step 3 is good way to begin identifying future needs. Some obvious questions to ask are:

- Will the community's existing roadways be able to handle the forecasted volumes of traffic on them (e.g., if traffic on the most heavily traveled road in a community increases by 50 percent, will it be above its capacity)?
- Will the locations of new development require new or modified transportation facilities (e.g., could a new subdivision be permitted in an area that is only served by a narrow road that would be inefficient in handling additional volumes)?
- Will transit routes adequately serve new development (e.g., does an existing bus route service the location of a publicly-subsidized housing complex)?

It is also helpful to consider amending land use regulations when they are updated to insure that future development is coordinated with improvements to the transportation system.