Introduction to Transit Route Location and Analysis

In this section, we are going to look at transit route location and analysis. The There are a huge variety of options that can be used to solve transit problems. We will concentrate on transit service options. For this section, you should first go through the Computer Assisted Course (CAI), “who wants to be a Transit Planner?” Do the first module. It works well to do this with another person.

Who wants to be a Transit Planner?

In this topic, you should go through the transit route relationships questions of the transit CAI (computer aided instruction) course. The transit planning CAI course is a lot like the TV show, "Who wants to be a Millionaire?" In the CAI course, you will be given a series of multiple choice questions that will help you learn the basics of transit planning terminology and principles. There are three modules -

- Transit Route relationships
- Principles of Route Location and
- Transit Ridership Forecasting

The course is in a zip file that you can download. Unzip the file and begin with the file called CAITRAN.exe It should show up with a blue letter T as its icon. Go to the start menu and pick the transit route relationships module and give it a try. You can get more instructions by pushing the letter A button, or just begin by pushing B and then try to answer the questions.

There are some useful diagrams and hints in this file cai.pdf . You will probably want to print it out for reference.

A couple other points

- If you get a wrong answer, there will be more questions on the same topic, if you get it right, it will skip to another topic.
- Like "Who wants to be a Millionaire?” the questions get harder as you go along.
- Also like “"Who wants to be a Millionaire?” you can take away a wrong answer
- Save your place often if you want to go back and try some questions again. Go to the Tasks item on the menu to save (or quit)
- You may disagree with some of the answers; let us know where you think they may be wrong.

Transit Route location

Once you have done this, look at the following sections. These deal with the options transit agencies have to modify their route system or level of service. You should do the second module – Principles of transit route location - that goes along with these topics. Also do the fleet size problems.

- **Alternatives for transit operations**
- **Principles of Route Location**
- **Fleet Size Calculations**
- **Fleet Size Problems**
- **Solutions to Fleet Size Problems**
- **Transit Scheduling**

Transit Ridership and cost analysis for operations

The final topics related to transit operations planning are demand and cost analysis. These topics need to be understood to determine the impacts of transit operations changes on ridership and on costs. Read these topics and do the third module of the CAI course – transit ridership forecasting

- **Transit Demand Estimates**
- **Transit Operations Cost Analysis**

The Belle Crisis

Once you have done all of the above, you should work on the Belle Crisis project. This is ideally done as a group of 3-4 people. See detailed instructions with the project description.

- **Belle Crisis Project Description**

The Belle Crisis is a realistic exercise dealing with a financial crisis in a small transit system. In this project, you take on the role of transit manager and planner and must find ways to balance the transit system budget and to still provide a good level of service for the community.

Belle Crisis Follow up Questions:

Once you have done the Belle Crisis, consider the following questions:

1. What was the actual process that you followed to do the project, in what ways was it similar or different than the planning process as you have been taught? What methods should be used in the future to assure that the planning process as actually practiced is the same as that which is taught?
2. What assumptions had to be made to do the project? If you had more time and resources, what data or information should you have on hand to cope with a proble such as the Belle crisis?
3. How is the process for planning for transit similar or different than that for other modes such as highways?
4. How effective was the teamwork on your project? How could it have been done better?