Light rail transportation has failed to meet expectations


You are going to be hearing and seeing more in the coming months and years about light rail in Tulsa, since there are those who see it as a necessary component of the new comprehensive plan that will follow a New Urbanism model. John Fregonese, our planning consultant is an advocate of light rail, and he will undoubtedly vision it in Tulsa’s future.

There is a lot of confusion about what rail really means, since the Obama administration is pushing a highly publicized 13 billion dollar five year plan to build a high speed “bullet” train rail system across America. That’s a wholly separate topic.

There are several kinds of rail services that are used within city and regional areas.

One type is commuter rail, which are electric or diesel trains that operate on the same rail tracks that freight trains use, and they are used primarily to connect the suburbs to downtown. These do not generally operate on city streets, only occasionally making a street crossing that might obstruct traffic.

Another type is heavy rail, which are subway trains (as you would find in New York) or elevated trains (of Chicago fame). These never operate in streets or make a street crossing; they are always separated from other modes of transportation and pedestrians.

A third type is light rail, which is the type that some would like to see come to Tulsa. These sometimes operate in city streets but generally have their own track system.

Light rail has been widely touted as an answer to reducing congestion on city streets, reducing air pollution, and giving people another option for transportation, especially low-income people. They are also perceived as a status symbol for the cities that build them.

However, light rail is not cost effective to build or operate, it is not effective in reducing congestion, nor has it been universally beneficial for low-income people. Out of the many cities in America that have light rail cities, only Boston is still seeing an increase in ridership, and that has been attributed to their strict land use regulations that has discouraged growth in the suburbs and kept many jobs downtown.

Light rail is extremely expensive to build. It costs about the same to build one mile of light rail as it does to build one mile of a four lane highway, and according to Randal O’Toole’s “Great Rail Disasters” report, “highways produce nearly 100 times as much passenger transport plus far more freight transport than transit”.

Light rail is a competitor for bus systems, not because it attracts riders away from the bus transit in large numbers, but because high construction and operating costs for light rail systems force cities to divert funding from bus to rail.

They haven’t been that great for low-income people either. Cities have found that they must extend their light rails to their suburbs in order to attract more riders, and subsequently reduce services to less affluent areas.

For light rail to be successful, rail systems need to connect areas with extremely high population and job densities. However, most cities are decentralized, that is, most jobs are not centralized in the downtown area, and most people live in low density suburbs. To counter this problem, New Urbanistic codes include TOD’s or “Transit-Oriented Developments,” areas that are designed as high-density, mixed use developments connected to other TOD’s by means of light rail. Theoretically, people will be able to walk everywhere within their own TOD, and take light rail to the TOD next door.

Problem is, few people want to live next door to a light rail line or station. An example of this is a TOD called Orenco Station, near Portland, where the first areas to be developed were the areas furthest from the light rail station. And even though residents still lived within walking distance of the station, most still drove their cars to the station to catch the train.

If light rail has failed to meet its intended purpose, why have so many cities attempted to make it work? And why are more cities considering light rail, as Tulsa will probably do?

O’Toole states in his report that “Congress has given transit agencies incentives to overinvest in capital-intensive projects in order to get “their share of federal funds” and that “the budgetary incentives built into the federal transportation funding process combined with the pork-barrel aspects of expensive transportation projects combine to favor rail even when buses can do as well or better for far less money”.

More on light rail for Tulsa next week.

©2009 Randy W. Bright

Randy W. Bright, AIA, NCARB, is an architect who specializes in church and church-related projects. You may contact him at 918-664-7957, rwbrightchurcharch@sbcglobal.net or www.churcharchitect.net.

This entry was posted on Thursday, May 7th, 2009 and is filed under Columns.