Guideway Transit System with Transit Oriented Development

Guideway Transit is a general term used to describe innovative mass transportation technologies that operate on an exclusive right of way (exclusive travel lanes or tracks depending on the technology). These systems, in combination with Transit Oriented Development, create communities that on a regional scale preserve open space and reduce the need for travel by car. The “permanent” nature of guideways contributes to greater development along the corridor than that stimulated by bus service in mixed traffic. Transit Oriented Development is generally defined as mixed-use development (mixing residential, retail, office, open space, and public uses) within walking distance of a transit stop that encourages travel on foot or by public transportation instead of by car.

Examples of guideway transit systems include:

**Bus Rapid Transit (BRT) on Dedicated Lanes**: A high performance rubber wheeled transit service that functions like rail but is flexible and can operate on the regular street network. BRT works best when the vehicles have exclusive travel lanes.

**Automated Guideway Transit (AGT)**: A transportation system with unmanned vehicles that operate on their own tracks. This technology is commonly found at airports and occasionally as downtown circulators. CDTC identified potential applications for the Capital District in its work in the mid-1990’s, but cautioned that unit costs need to drop before extensive application is feasible.

**Light Rail Transit (LRT)**: A rail transportation system typically powered by electricity that can operate on an exclusive right of way or on streets in mixed traffic.

A “big initiative” of this type for the Capital District could be pictured as one that implements BRT guideway transit on key Interstate facilities and provides dedicated BRT lanes on important arterials. This initiative differs from the “BRT” initiative by including an extensive use of dedicated lanes for buses. Past CDTC research indicates that expensive light rail or automated guideway options would be appropriate only in the context of rapid growth and regional commitments to TOD. As a BRT-based program, a “big initiative” of this type in the Capital District would mirror that planned for Portland, OR. It could produce a 100 mile BRT or light rail system (the same scale as the non-guideway BRT initiative above), but with approximately one-half of the system miles in dedicated lanes or guideways and greater service levels. The budget is considerable, estimated at $40 M/mile for guideway miles for a total capital expense of $2.1 B over twenty years, with $1.45 B in supplemental operating expenses.

**Rationale**: Guideway transit provides a greater sense of permanence than other forms of transit. A commitment to guideway transit would support efforts to focus and structure regional development and project an image of proactive, energy-conscious public policy to potential businesses and residents.