



## APPENDIX D: CANDIDATE TECHNOLOGIES

*Community, Mobility, and Environment*

The Transit Master Plan Team identified five technologies that are most applicable for operations within the City of Rancho Cordova. The technologies are described based on their function and capacities, beginning with longer distance and higher capacity vehicles.

### Light Rail and Bus Rapid Transit

Light Rail Transit (LRT) and Bus Rapid Transit (BRT) are the highest capacity vehicles, serving the longest distance commutes. Principally, these vehicles:

- Are for commuters traveling longer distance (10-20 miles)
- Focus on travel time savings – getting from Point A to Point B as soon as possible
- Run in separate fixed guide ways, although they can run in the streets with automobiles
- Can have innovative vehicle design, especially for BRT

Station spacing ranges from one-half to one-half mile, depending on land use conditions.

Photo D-1 shows an existing RT Light Rail vehicle. This vehicle already operates within the City limits and will not be considered for future alignments within the City.

BRT vehicles can be the high-end variety that resemble LRT vehicles and operate on rubber tires. Photo D-2 shows an example of a higher end Bus Rapid Transit Vehicle (BRT). This type of vehicle is designed to look like an LRT vehicle or a streetcar, but it has rubber tires and, if necessary, can operate in the travel lanes with automobiles. This type of BRT vehicle costs less than a similar LRT or street car vehicle. Other types of BRT can cost even less because they can use vehicles that are more like regular city buses, but still operate with fast and frequent service.



### The Modern Streetcar

*Creating Places Where People Want to Be* <sup>SM</sup>



Photo D-3 shows a streetcar technology that could be implemented as the preferred vehicle for the Signature Route that is being proposed for Rancho Cordova.

The modern streetcar is a new “old” technology that is a pedestrian accelerator with a passenger capacity of 110, with 30 sitting and 80 standing. Streetcars operate with overhead electric power and are in-street running (or they can operate in a fixed guide way). Capital costs are usually in the range of \$12 - \$15 million/mile, and for a 2.5-mile system, operating and maintenance costs are approximately \$2-2.5 million/year. Other characteristics of the streetcar are:

- Vehicle Length – 66 feet
- Vehicle speed – 45 to 60 mph
- Service Range – 3 to 15 miles
- Station Spacing – 800’ to 1000’
- Service Frequency – 8 to 15 minutes
- Turning Radius – 40’ to 60’
- Frequency - 5 to 30 minutes

### **Buses and Shuttles**

Photos D-4 and D-5 are examples of the type of local transit and shuttles that are considered for service operations within the City. RT currently operates the 40’ transit vehicle shown in Photo D-4. This vehicle is the predominant vehicle for City type service and will not be different from what is operating today. The shuttle, Photo D-5, is the most likely candidate for paratransit and on-demand service. It may also be used as a neighborhood shuttle service.

