

City of Jefferson Transit Development Plan

Southwest Area Flexible Bus Route November 8, 2005

The use of a flexible route service is a new concept for JEFFTRAN. JEFFTRAN does provide paratransit service for persons with disabilities, Handi Wheels. However, the primary JEFFTRAN service type is fixed route scheduled service operated with standard transit buses. The following is a summary of the flexible route service concept.

Flexible Route Services

The term “flexible route services” or “innovative services” actually covers a range of services ranging from “pure” demand response services to route and point deviation services. The Southwest flex route would be designed as a flexible route service that would operate only within a defined zone or sector. Transfers to other routes would be required for travel to other parts of the city.

The flex route service design is better able to serve lower density areas, and is more adaptable to the transportation needs of seniors and persons with mobility limitations. In addition, this service can supplement fixed route service and address the needs of the reverse commute market. Unlike fixed route transit service, the vehicles are scheduled only at a few points in the service area and the vehicles are otherwise free to move within the service area to provide more convenient service to residents. Passengers could access flex vehicles in one of three ways:

1. Passengers can board at any of the scheduled points in the service area, much like regular transit service.
2. Passengers can have a “standing order” or subscribe to the service. In this manner, the passengers would have a guaranteed pick-up near their residence or work place on a daily basis, unless the passenger cancels the reservation.
3. Passengers could call the JEFFTRAN flex dispatcher and arrange for a scheduled pick-up near their home or work place. These calls can be made as early as a day in advance or within an hour of the pick-up, although the service is provided on an availability basis (first come - first served) for same day calls.

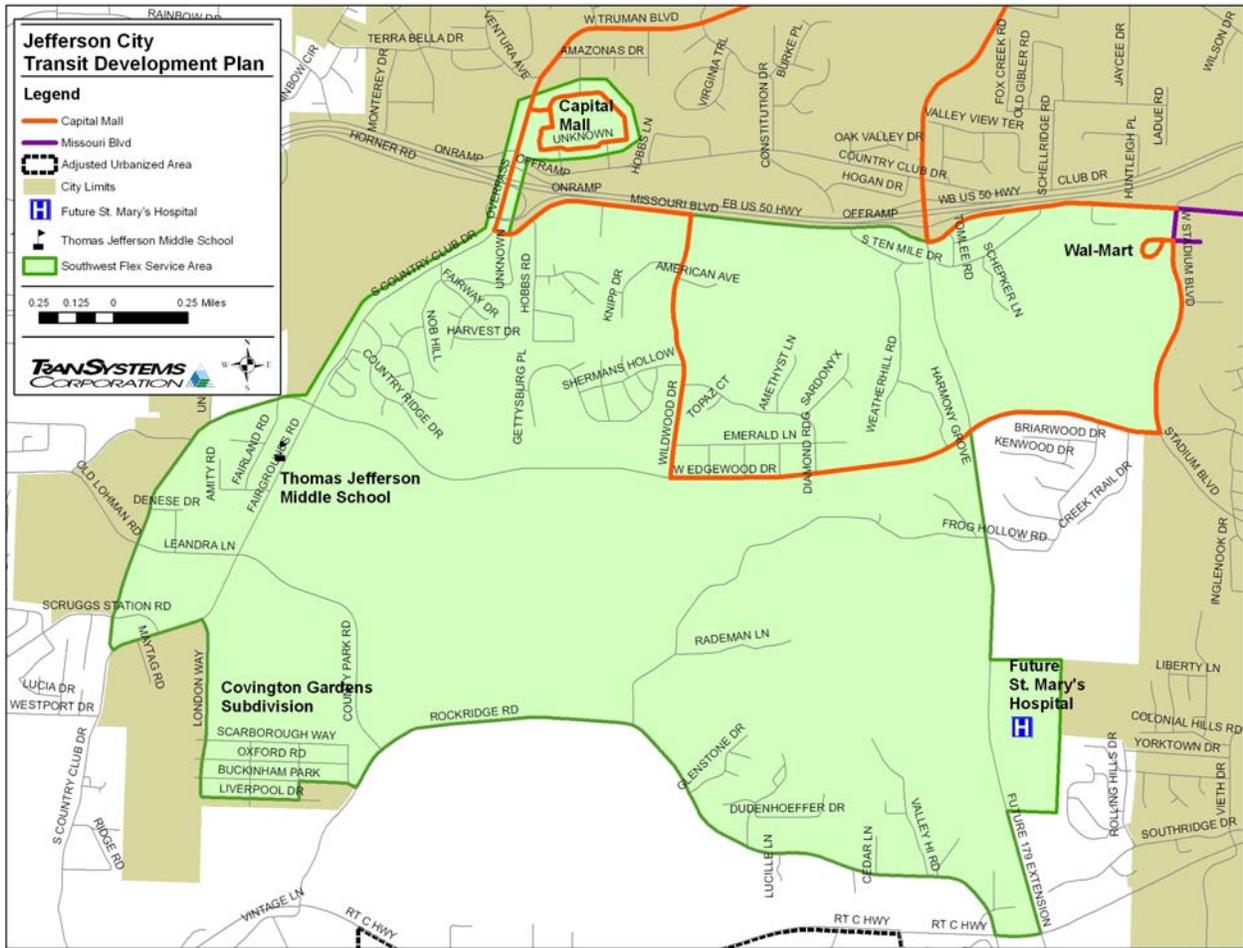
The experience from other areas is that most passengers will subscribe to the service, minimizing calls to the dispatcher.

Flex Route Service Design Options

A single vehicle Southwest Area flexible bus service could operate along Truman Boulevard, Fairgrounds Road, Edgewood Drive and Highway 179. Sites served include Covington Gardens Subdivision, Thomas Jefferson Middle School, businesses along Wildwood and Edgewood, Capital Mall, Wal-Mart and the future St. Mary’s Hospital. Deviations could also serve other homes and businesses within the specified service area. The proposed service area is illustrated in Figure 1. Service days, span of service and “schedules” would likely coincide with fixed route service. A sample schedule is presented in Tables 1 and 2. Timed transfers would be provided for at key locations, probably with the Missouri Boulevard route at Wal-Mart. Service could be provided at 60 minute intervals by carefully designing the service area.

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Figure 1: Southwest Area Flexible Bus Route Service Area



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Table 1: Sample Schedule for Southwest Area Flexible Route

SOUTHWEST FLEX (ALTERNATIVE C)		
Leave Wal-Mart	Service Area	Arrive Wal-Mart
		7:00 AM
7:10 AM	7:35 AM	8:00 AM
8:10 AM	8:35 AM	9:00 AM
9:10 AM	9:35 AM	10:00 AM
10:10 AM	10:35 AM	11:00 AM
11:10 AM	11:35 AM	12:00 PM
12:10 PM	12:35 PM	1:00 PM
1:10 PM	1:35 PM	2:00 PM
2:10 PM	2:35 PM	3:00 PM
3:10 PM	3:35 PM	4:00 PM
4:10 PM	4:35 PM	5:00 PM
5:10 PM	5:35 PM	

Table 2: Sample Schedule for Southwest Area Flexible Route (Alternative C Extended Hours)

SOUTHWEST FLEX (ALTERNATIVE C - EXT)		
Leave Wal-Mart	Service Area	Arrive Wal-Mart
		6:30 AM
6:40 AM	7:05 AM	7:30 AM
7:40 AM	8:05 AM	8:30 AM
8:40 AM	9:05 AM	9:30 AM
9:40 AM	10:05 AM	10:30 AM
10:40 AM	11:05 AM	11:30 AM
11:40 AM	12:05 PM	12:30 PM
12:40 PM	1:05 PM	1:30 PM
1:40 PM	2:05 PM	2:30 PM
2:40 PM	3:05 PM	3:30 PM
3:40 PM	4:05 PM	4:30 PM
4:40 PM	5:05 PM	5:30 PM
5:40 PM	6:05 PM	6:30 PM

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It takes approximately 15 minutes to travel from one end of the service area to the other. With 15 minutes of travel in either direction and 10 minutes of deviation time in either direction, the vehicle could operate for 50 minutes before returning to the Wal-Mart for a ten minute layover to intercept transferring passengers. Because the Capital Mall/Missouri Boulevard route does not return to Wal-Mart on the inbound trip, this scheme would require that the Capital Mall/Missouri Boulevard route make a second pass by Wal-Mart on the return trip to pick up passengers transferring from the Southwest Area Flex route. If a return pass by Wal-Mart is not provided then another opportunity needs to be provided for passengers to be able to transfer from the Southwest Area Flex route.

An example trip could begin at Covington Gardens subdivision and travel to Capital Mall. The driver could then take a passenger to the new St. Mary's Hospital. The bus would then need to go to Wal-Mart to meet the Missouri Boulevard route at the scheduled hourly time so that people can transfer to and from the fixed route network.

Operating Needs of Flexible Route Services

It is important to understand the changes JEFFTRAN would be required to make to operate the flexible services. Following is a brief outline:

1. Operating Plan and Policies
 - Service type – Demand response versus route or point deviation schemes.
 - Service access – Curb to curb or nearest intersection.
 - Service access – advance reservation versus immediate response; subscription reservations.
 - Define service area and limits.
 - Identify key transfer points.
 - Determine transfer guarantee policies (i.e., do buses wait for connecting trips, and if so, how long?).
2. Vehicles
 - Smaller vehicles preferred (12 to 15 passenger body on chassis).
3. Trip Reservations & Dispatching
 - Agent required to accept trip requests
 - Scheduling and dispatching similar to Handi Wheels demand response
 - Trip scheduling key to service effectiveness
4. User Information
 - Flexible service requires more involvement on the part of the rider.
 - User information must be more detailed and is critical to success.
 - Many useful examples exist from other cities to serve as a template.
5. Training
 - The service is much different than traditional service. Drivers, supervisors, dispatcher, reservation (customer service) agents all require training.