

BRIEFING MEMO

AC TRANSIT DISTRICT
Board of Directors
Executive Summary

GM Memo No. 05-199

Meeting Date: September 7, 2005

Committees:

- | | | | |
|----------------------------|-------------------------------------|------------------------------|--------------------------|
| Planning Committee | <input checked="" type="checkbox"/> | Finance Committee | <input type="checkbox"/> |
| External Affairs Committee | <input type="checkbox"/> | Operations Committee | <input type="checkbox"/> |
| Board of Directors | <input type="checkbox"/> | Financing Corporation | <input type="checkbox"/> |

SUBJECT:

Receive further review of the Transit Capacity and Quality of Service Manual: Part 3, Quality of Service, Chapter 4: Demand Responsive Transit Service Measures

RECOMMENDED ACTION:

- Information Only Briefing Item Recommended Motion

Fiscal Impact:

None

Background/Discussion:

Over the past several months staff has provided the Planning Committee with an overview of various quality of service issues as outlined in the *Transit Capacity and Quality of Service Manual (TCQSM)*. Staff has summarized internal policies affecting service, and provided details of the District's practices with respect to the service concepts discussed in the TCQSM. This month, Accessible Services staff will provide a review of Demand-Responsive Transit (DRT) Service Measures. AC Transit does not presently provide DRT service in the fixed-route area. However, the service measures discussed in the TCSQM would be helpful in the set-up of any future DRT fixed-route

BOARD ACTION: **Approved as Recommended** [] **Other** []
 Approved with Modification(s) []

[To be filled in by District Secretary after Board/Committee Meeting]

The above order was passed on _____, 2005.

Rose Martinez, District Secretary
By _____

service. Staff will apply the measures as outlined in the TCSQM to the East Bay Paratransit Consortium's (EBPC) Americans with Disabilities Act (ADA) service.

The TCQSM provides a quality of service evaluation framework for Demand-Responsive Transit (DRT) that looks at the following measures:

- A. Availability-Response Time
- B. Availability-Service Span
- C. Comfort and Convenience-Reliability
 - C.1. On-Time Performance
 - C.2. Trips Not Served: Trips Denied and Missed Trips
- D. Comfort and Convenience-Travel Time
 - D.1. DRT-Auto Travel Time

Similar to the fixed route evaluation framework, the service measures examine availability, and comfort and convenience. However, while fixed route service is evaluated using an "A" to "F" scale for level of service (LOS), the DRT framework utilizes a "1" to "8" scale. This numerical scale allows for greater precision in the gradation of LOS thresholds for DRT service.

The information contained in this report is based on FY 04-05 data for the EBPC. The EBPC provides paratransit service in compliance with the ADA. Currently, the EBPC collects and reports on over 75 data points on a monthly basis. Additionally, the EBPC conducts an annual Customer Service Satisfaction Survey.

A. Availability-Response Time

Response time is the minimum amount of time a user needs for scheduling and accessing a trip or the minimum advance reservation time.

LOS	Response Time	Comments
1	Up to ½ hour	Very prompt response; similar to exclusive – ride taxi service
2	More than ½ hour, and up to 2 hours	Prompt response; considered immediate response for DRT service
3	More than 2 hours, but still same day service	Requires planning, but one can still travel the day the trip is requested
4	24 hours in advance; next day service	Requires some advance planning
5	48 hours in advance	Requires more advance planning than next-day service

6	More than 48 hours in advance, and up to 1 week	Requires advance planning
7	More than 1 week in advance, and up to 2 weeks	Requires considerable advance planning, but may still work for important trips needed soon
8	More than 2 weeks, or not able to accommodate trip	Requires significant advance planning, or service is not available at all

Under this construct, EBPC service would be evaluated between LOS 4 and LOS 6. EBPC allows reservations up to seven (7) days in advance, but accepts calls within 24 hours of the intended trip. Reservations are taken seven (7) days a week from 7 a.m. to 7 p.m. Although EBPC does not track how many individuals call within 24 hours prior to a trip, EBPC conducted a survey in 2003 to determine when individuals were booking their trips. Approximately 50 percent of EBPC trips are subscription trips. These individuals do not need to call in a reservation. Twenty (20) percent of the EBPC riders call between 2 and 6 days in advance, and thirty (30) percent call the day prior to the day of requested service.

In the Annual Customer Satisfaction Survey, a question was asked regarding the convenience of the hours available to schedule trips. Seventy-nine (79) percent of the responders rated them as good or excellent. Fifteen (15) percent rated them as only fair and five (5) percent rated the reservation hours as poor.

B. Availability-Service Span

Service span measures the numbers of hours per day and the days of the week that DRT service is available. The chart as contained in the TCQSM is not included in this section as EBPC service is available the same hours and days as AC Transit fixed-route and BART service. EBPC is at LOS 1, indicating a high degree of DRT service availability.

C. Comfort and Convenience-Reliability

DRT service reliability (both phone and vehicle systems) is critical from the user's perspective. Can I make a timely reservation? Will my trip be scheduled? Will my vehicle arrive on time? Will I make my appointment? The TCQSM looks at two measures for reliability: on-time performance and trips not served.

C.1. On-time Performance

On-time performance measures the degree to which vehicles arrive at a location for a scheduled pick -up.

LOS	On-time Performance	Comments*
1	97.5-100.0%	1 late trip/month
2	95.0—97.4%	2 late trips/month
3	90.0-94.9%	3-4 late trips/month
4	85.0-89.9%	5-6 late trips/month
5	80.0-84.9%	7-8 late trips/month
6	75.0-79.9%	9-10 late trips/month
7	70.0-74.9%	11-12 late trips/month
8	<70%	More than 12 late trips/month

Note: Based on 30 minute on-time window

* Assumes user travels by DRT round trip each weekday for one month, with 20 weekdays/month

On-time performance for EBPC is calculated for all trips during a sample period for the month. Recently EBPC began reporting on-time performance for the drop-off location or appointment based trips.

Below is the FY 04-05 year-end results for EBPC on-time performance. EBPC achieved a LOS of 3. It should be noted that in June 2005, EBPC achieved the highest level of on-time performance to-date, with 95.4% of all trips on time. This achievement corresponds to LOS 2 for the month of June. The year-end figures are based on the 688,450 total annual trips provided by EBPC. EBPC also captures the degree to which late trips are provided:

% of trips on time	93.1%
% of trips 1-20 minutes late	5.7%
% of trips 21-59 minutes late	1.2%
% of trips 60 minutes late	0.14%

For appointment based trips, approximately 32 percent of all trips requested, EBPC achieved 92.4% on-time, or a measure corresponding to LOS 3.

C.2. Trips Not Served: Trips Denied and Missed Trips

Trips not served is a measure that looks at the number of trips denied due to lack of capacity and missed trips.

LOS	Percent Trips Not Served	Comments*
1	0-1%	No trip denials or missed trips within month
2	>1-2%	1 denial or missed trip within month
3	>2-4%	1-2 denials or missed trips within month
4	>4-6%	2 denials or missed trips within month
5	>6-8%	3 denials or missed trips within month
6	>8-10%	4 denials or missed trips within month
7	>10-12%	5 denials or missed trips within month
8	>12%	More than 5 denials or missed trips within month

Note: Trips not served include trip requests denied due to insufficient capacity, and missed trips

*Assumes user travels by DRT round trip each weekday for one month, with 20 weekdays/month.

EBPC denials include both capacity denials and refusals. A refusal is when an individual is given a time outside the ADA parameter (one hour on either side of the requested time), and they decline to book the trip. Out of 846,728 trips scheduled in FY 04-05, 2,850 (0.3%) were denied. Out of the 688,450 trips provided in FY 04-05, 1,289 (0.2%) were missed. Even combining the two measures, EBPC exceeds LOS 1 with regard to trips not served.

D. Comfort and Convenience-Travel Time

EBPC does not track individual trip travel time. Approximately 50% of all trips provided by EBPC are shared rides. The threshold established for travel time is that a DRT trip should not be more than one and one-half times a comparable fixed-route trip. The TCQSM compares DRT travel time to auto travel time as a measure of service quality.

D.1. DRT-Auto Travel Time

Travel time for the DRT would only include the in-vehicle time. The auto travel time includes the in-vehicle time, parking and walking to a destination. Again, EBPC does not currently capture this data. However, a question asked in the annual survey was..." did

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you find the amount of time detouring to pick up or drop off other passengers on this ride was acceptable, too long, or much too long?" Of those that responded eighty-seven (87) percent felt that the trip time spent detouring was acceptable and nine (9) percent thought the time spent was too long or much too long.

The next review of the Transit Capacity and Quality of Service Manual will begin discussion of Part 3, Chapter 2, *Quantitative and Qualitative Measurements*.

Prior Relevant Board Actions/Policies:

GM Memo 05-173: Part 3, Chapter 2: Quality of Service Factors

GM Memo 05-137: Part 3: Service Availability

GM Memo 05-027: Designing with Transit

GM Memo 05-109: Part 3, Transit Decisionmaking

GM Memo 05-083: Part 3, Transit Performance Measures

GM Memo 05-062: Part 1 TCRP Manual

GM Memo 05-022: Review Timeline for Review of TCRP Manual

GM Memo 04-361: Overview of TCRP Manual

GM Memo 03-262a: Approve Actions Related to Park and Ride Transit Centers

Board Policy 520 – Promoting Public Transit in Land Use Planning

Board Policy 550 – Service Standards and Design Policy

Attachments: None

Approved by: Rick Fernandez, General Manager
Nancy Skowbo, Deputy General Manager, Service Development

Prepared by: Mallory Nestor-Brush, Accessible Services Manager

Date Prepared: August 25, 2005