

INFORMATION ITEM

AC TRANSIT DISTRICT
Board of Directors
Executive Summary

GM Memo No. 04-361

Meeting Date: Dec. 8, 2004

Committees:

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

SUBJECT: Consider the process for adopting standards outlined in the Transit Cooperative Research Board Document (TCRP) “Transit Capacity and Quality of Service Manual—2nd edition”.

RECOMMENDED ACTION:

- Information Only** **Briefing Item** **Recommended Motion**

Fiscal Impact: None

Background/Discussion:

The Transportation Research Board (TRB) recently published the 2nd edition of the *Transit Capacity and Quality of Service Manual*. The document is intended to be a reference for public transit practitioners as well as policy makers. The manual contains background, statistics, and graphics on the various types of public transportation, while

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 _____, 2004.

Rose Martinez, District Secretary
By _____

providing a framework for measuring transit availability and quality of service from the passenger's standpoint.

Much the way the Highway Capacity Manual provides fundamental information and computational techniques related to quality of service and capacity for highways, the Transit Capacity and Quality of Service Manual is intended to provide a focal point and structure for advancing the state of knowledge relative to transit operations. Attachment A provides the Table of Contents for the document.

As described in the manual, "Transit Capacity is a multi-faceted concept that deals with the movement of people and vehicles; depends on the size of the transit vehicles and how often they operate; and reflects interaction between passenger traffic and vehicle flow. Quality of service is an even more complex concept that must reflect a transit user's perspective and must measure how a transit route, service, facility, or system is operating under various demand, supply and control conditions."

As such, the manual is a useful reference for transit operations and bus operations. All facets of service delivery are discussed, including frequency standards, load factors, reliability, safety, appearance and cost. Capital elements of service quality are addressed, such as availability of bus stops, bus preferential treatments, grade-separated facilities, and bus lanes. Operational considerations such as "skip stop operations" and demand responsive transportation are also covered.

This manual is a comprehensive examination of all forms of transit and associated service quality elements. As such, there are chapters for rail transit, ferry transit, and stop and station capacity.

Service Quality Measurement

One of the most useful aspects of this manual is that it provides quantifiable "yardsticks" for measuring both performance and quality of service delivery. Typically, transit operators measure performance delivery in terms of metrics that operators find most important to them as a business. This includes out-lates and cancellations, on-time performance, roadcalls or missed trips. In this way, transit performance measures are used to evaluate a particular aspect of transit service.

However, service can also be quantitatively measured for aspects of transit service that directly influence how passengers perceive the quality of transit. In general, these service measures reflect a passenger's point of view, while the performance measures mentioned above may reflect any number of points of view.

Attachment B provides a good example of how various performance measures can be categorized and shows how quality of service fits into the spectrum of transit performance measures.

Next Steps

Because the manual is dense with relevant information, staff proposes to use the document in the following way:

Capital Improvements:

The elements and standards reflected in the manual are both general and specific. In all cases, they represent "best practices" that should be considered as part of the District's decision-making process relative to large-scale capital projects such as Bus Rapid Transit or park and ride facilities. Accordingly, staff expects that consultants will apply these best practices when designing such projects or facilities. However, applicability of these best practices will be determined by specific project requirements.

Additionally, District staff comments on project specific environmental documents will reference the manual when requesting mitigations or alternatives, to better meet the needs of the District and our passengers. District staff will have discretion in determining the recommended mitigations.

Service Quality:

The manual does not recommend changes to service policy as such. However, it does suggest other ways of considering service quality when planning and implementing service changes. Staff recommends a more thorough review of these standards and measurements to determine if any Board action is necessary. Staff will assess the chapters applicable to bus transit with the intent of incorporating any useful recommendations.

Prior Relevant Board Actions/Policies:

Attachments:

Attachment A: Transit Capacity and Quality of Service Manual Table of Contents

Attachment B: Performance Measures Examples

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Prepared by: Tina B Spencer, Manager of Long Range Planning

Date Prepared: Nov. 29, 2004

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Exhibit 3-3
Transit Performance
Measure Categories and
Examples^(R17)

		PASSENGER ("QUALITY OF SERVICE")		PERFORMANCE MEASURE EXAMPLES		
				TRAVEL TIME	• Transit-Auto Travel Time	• Transfer Time
				AVAILABILITY	• Service Coverage • Service Denials	• Frequency • Hours of Service
				SERVICE DELIVERY	• Reliability • Comfort	• Passenger Environment • Customer Satisfaction
				SAFETY & SECURITY	• Vehicle Accident Rate • Passenger Accident Rate	• Crime Rate • % Vehicles with Safety Devices
				MAINTENANCE & CONSTRUCTION	• Road Calls • Fleet Cleaning	• Spare Ratio • Construction Impact
COMMUNITY		AGENCY		ECONOMIC	• Ridership • Fleet Maintenance Performance	• Cost Efficiency • Cost Effectiveness
				TRANSIT IMPACT	• Community Economic Impact • Employment Impact	• Environmental Impact • Mobility
		VEHICLE/DRIVER		CAPACITY	• Vehicle Capacity • Volume-to-Capacity Ratio	• Roadway Capacity
				TRAVEL TIME	• Delay	• System Speed

Transit performance measures can represent the passenger, agency, driver/vehicle, and/or community point of view.

Travel time overlaps the vehicle/driver and passenger points of view.