

**CAPITAL AREA TRANSIT
PLANNING SERVICE
STANDARDS
AND PROCESS**

Customer Experience Department
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INTRODUCTION

Transit Service Standards are public rules and guidelines used to make decisions about where transit vehicles should run and how often. They form the basis of professional recommendations regarding routing and service proposals. The process of applying Service Standards will be a full and open one, with input and review from the general public, elected officials and planning professionals. Final decisions regarding routing changes will be made by the CAT Board based on all of the facts before them. The application of Service Standards has two major advantages:

1. Identifies the best uses of resources by comparing different choices for these resources.
2. Leads to a fair, equitable, open and objective comparison of all requests and proposals from the general public, elected officials and CAT staff.

This document outlines a set of standards and guidelines for their application, for services operated by CAT along with the process by which these standards are used to evaluate service changes. In order to provide a high level of transit mobility that is affordable by passengers and taxpayers, tradeoffs are required between the costs of the benefits achieved by providing the service. Service Standards provide a formal mechanism for making these tradeoffs in an objective and equitable way. This process involves both the continuous monitoring of services and an annual review for possible changes. It provides for input from the general public and elected officials, and ensures that all service changes and proposals are treated fairly and equitably.

An important element of the Service Standards process is the Annual Service Plan, which identifies changes that are designed to achieve specific service goals and objectives, and identify opportunities for cost-effective service expansion. The Annual Service Plan is tied into the annual CAT Operating Budget process and follows a defined process allowing for governmental and public input. Elements of the Annual Service Plan are analyzed through a comparative evaluation process that produces an equitable ranking of routing proposals from both within and outside of CAT. The CAT route implementation process, which includes public hearings and final approval by the CAT Board, is incorporated into the Annual Service Plan process.

Following are descriptions of CAT Service Standards and procedures for applying them.

SERVICE STANDARDS

SERVICE COVERAGE

The following guidelines are used to establish reasonable service coverage for CAT's route structure. Although these are guidelines, service may vary from the below standards based on ridership, street networks, funding, or other circumstances that would lend to variances. The below standards describes "well serviced areas" and not a standard used to deploy service.

CAT's Standard

URBAN ROUTES.....

CAT's urban route network area is considered well serviced if access to a route is not more than $\frac{3}{4}$ mile from a passenger's point of origin, an approximate walking time of 15 to 20 minutes.

Suburban Routes

CAT's suburban route network area is considered well serviced if access to a route is not more than 1 mile from a passenger's point of origin.

COMMUTER EXPRESS ROUTES.....

CAT's commuter express routes are primarily established by the placement of the state park-n-ride lots within CAT'S service area and are considered well served if along a major transportation corridor with boarding locations sufficiently spaced and sized to adequate serve major employment centers primarily focused on the State Capitol and local military installations. Most commuter express patrons drive to a park and ride facility, some up to 20 – 30 miles.

TRIP GENERATORS

In evaluating the various aspects of Service Standards, consideration must be given to specific trip generators. Trip generators include, but are not limited to the following:

- Employment centers
- Shopping and retail establishments
- Medical institutions
- Educational institutions
- Government and community facilities
- Residential areas of high density

Alternative transit centers

CONNECTING ROUTES

Some CAT customers must transfer buses in order to reach their destinations. In order to provide some degree of connectivity vehicles should be scheduled to arrive at major transfer points as close as possible to the connecting service.

Emphasis should be ongoing to identify locations where frequent connections occur.

SERVICE FREQUENCY

The following describes average acceptable frequency time period between trips categorized by mode and service type.

CAT Standard

The table below outlines CAT’s Service Frequency Standard by time of day and day of week. This standard will establish policy frequencies for CAT service (not demand frequencies which will be set through ongoing Service Monitoring Process). Routes and lines not meeting the minimum standard, to improve route performance will be monitored frequently. This program will phase in improvements on an incremental basis over several years in accordance with available financial resources.

Some routes and lines operate limited weekday service. These routes are exempt from the Service Frequency Standard.

Some routes may not operate on Saturdays.

CAT SERVICE FREQUENCY STANDARDS

Weekday	AM Peak (6:00am-9:00am)	Off-Peak (9:00am-3:30pm)	PM-Peak (3:30pm-6:30pm)	Other (6:30pm-6:00am)
Urban	30	90	30	150
Urban Limited ¹	-	-	-	-
Suburban	60	120	60	-
Suburban Limited ¹	-	-	-	-
Rural	60	90	60	-
Commuter Express ¹	-	-	-	-
Express ¹	-	-	-	-
Saturday	8:30 am – 6:30 pm		Other	
Urban	60		150	
Suburban	120		-	
Rural	90		90	
Commuter Express ¹	-		-	
Express ¹	-		-	

¹ Exempt from Standards

CAT BUS ROUTES BY CATEGORY

URBAN ROUTES:

Route 1 – Market Street
Route 3 – Third Street
Route 6 – Sixth Street
Route 9 – City Island – HACC
Route 13 – Paxton Street
Route 19 – Steelton

URBAN LIMITED ROUTE:

Route 4 – City Island Park-n-Loop
Route 21 – FGS Annex Complex

SUBURBAN:

Route 7 – Middletown
Route 8 – Derry Street
Route 12 – Colonial Park – Colonial Commons – Gateway - Linglestown²
Route 15 – Berryhill Street & Union Deposit Road
Route 20 – High Points Commons²
Route 24 – Springford Apartments
Route 39 – Herr Street / Blue Mt. Commons
Route A – New Cumberland
Route B – Highland Park
Route C – Carlisle Local and Commuter Express²
Route D – Shoppers' Special
Route F – Enola
Route K – Erford Road
Route L – Lemoyne Station Shuttle
Route M – Mechanicsburg – Local and Express Service²

SUBURBAN LIMITED ROUTES:

Route 14 – Union Deposit – Four Seasons
Route 16 – Union Deposit – Pennswood

RURAL:

Red and Blue Routes (Raider division)

COMMUTER EXPRESS:

Route 23 – Elizabethville – Millersburg – Halifax
Route 81 – Shippensburg – Newville – Carlisle – Harrisburg Express
Route 120 – Winding Hill Express
Route 322 – Hershey Hummelstown

Express:

12, 20, C and M as listed under Suburban Routes above.

² Route includes some express trips.

CAT ROUTE DEFINITIONS

- Urban Routes: Routes which operate within the city
- Suburban Routes: Routes which originate or terminate in the city but operate out into Suburban areas
- Rural Routes: Routes that operate solely in outlying rural areas
- Express Routes: Suburban Routes operated with limited stop access for a portion of the route
- Commuter Express: Operate over limited access highways and/or make limited stops

CAT LOAD STANDARDS BY BUS TYPE

CAT's load standard defines the acceptable numbers of passengers on the bus including passengers that have a seat available and those that have to stand during part or their entire trip. With a few exceptions based on bus type, CAT employs a load standard of 1.5 of total seating capacity (i.e., 26 seats equals a load of 39 passengers).

The only exceptions to this rule are vehicles with narrow aisles that limit the space available for standees.

Vehicle Type	Average Passenger Capacities			Maximum Load Factor
	Seated	Standing	Total	
30' standard bus	26	13	39	1.5
30' low floor bus	26	13	39	1.5
35' standard bus	37	18	55	1.5
35' low floor bus	31	15	46	1.5
40' low floor (city)	38	19	57	1.5
40' low floor (Suburban)	39	10	49	1.25
45' coach	55	15	71	1.29

LOADING GUIDELINES

Load guidelines on the passenger flow at the maximum load point, taken in the prevailing direction of the individual route will define CAT's desired passengers per hour. The number of passengers is varied by service frequency, time of day, vehicle size, and route type.

CAT will utilize the following for loading guidelines:

PEAK periods

Most routes are expected to operate near seated capacity (in the prevailing direction of travel). While CAT does not guarantee that every passenger will have a seat, CAT's load standards have a maximum load which allows for standees at a rate of 1.5 of the total number of seats.

OFF PEAK periods

For off peak (mid-day, evening and weekend) service CAT's standard calls for operating at 40% of seated capacity.

ON-TIME PERFORMANCE

CAT measures schedule adherence and customer service based on our “On-time” performance. CAT’s defines its’ acceptable window of time to be 0 minutes before, and up to 4 minutes after the scheduled time for a bus to arrive at a time point. Running ahead of schedule is not considered acceptable schedule adherence. CAT’s current on-time performance objective is 90 percent or better.

CAT staff measures on-time performance through traffic checking and supervisory reports, sampling an approximate 1 week service per month.

In addition, CAT is proposing to implement passenger surveys at a minimum of 2 times per year to measure customers’ perception of CAT’s on-time performance, which will be reported on December 31, 2013.

BUS FLEET ASSIGNMENT

Standard for the assignment of CAT's bus fleet to specific routes and areas:

CAT assigns vehicles to each route, based on PEAK capacity requirements and vehicles are randomly assigned based on the order the vehicles were stack parked in the parking garage locations the day prior.

CAT also has several community restrictions that affect and or limit the ability to assign certain Bus fleet type to certain routes based on the following:

- Low bridge clearance – limits use of Hybrid buses
- Highway travel – no hybrid buses
- Narrow roadways – 45' Coach turning radius
- Low density routes – Assigned smaller 30' Buses

DISTRIBUTION OF AMENITIES

CAT does not have the authority to determine if a transit amenity can be placed in a certain area and/or location but must seek permission from a separate jurisdiction to gain the final approval of amenity sitings. This includes bus stops and bus shelters.

SERVICE STANDARDS PROCESS

SERVICE MONITORING PROCEDURE

CAT monitors several different criteria to ensure the service standards established above are meeting reasonable expectations. Some of the criteria are as follows:

Transfers

Service Frequency

Vehicle Loading

Route Performance Review

Transfers – Many CAT passengers use more than one route to complete their journey and arrive at their final destination. In developing our network of services, it is important to consider the timing of vehicles at specific locations where services intersect. The route network is designed to align services so that logical travel patterns can be facilitated at convenient transfer locations.

Service Frequency – Service Frequency is monitored to ensure adequate levels for passenger demand and to identify underutilized routes, or parts thereof, where resources may be reallocated. There are two types of frequency; demand frequency and policy frequency. Demand frequency is determined by the number of vehicles required to accommodate a given number of passengers during a fixed period of time. Demand frequency is established by using passenger traffic check data gathered. Policy frequency is established irrespective of demand based on what CAT considers to be a reasonable or tolerable waiting time between vehicles which is defined earlier in this document.

The following items are used to monitor service:

- Corner Checks – counts passenger boardings and deboardings, by stop. Usually these are conducted at the maximum load point on a specific route (route beginning or end).
- Ride Checks – counts passenger boards and deboarding, by stop, along a specific route. Such data may be gathered by manual or automatic passenger counters (APC). Ride checks also assist in refining actual running (elapsed travel time between stops to ensure on-time can be accomplished)
- Origin/Destination Studies – ride checks with specifically identify each passengers boarding and deboarding locations. Although these provide the best data they are difficult and expensive to administer and used sparingly.
- Passenger Surveys – These are detailed questionnaires that pinpoint passenger perceptions, likes, dislikes and comments about a particular route and the service administered in general. In addition, CAT will utilize passenger surveys to gain a better understanding of the racial and income characteristics of our ridership.
- Passenger Miles Data Collection – Used to calculate the average passenger trip length. Also provides a random sampling of trips to verify some of the information collected above.

SERVICE REQUEST PROCEDURE

Establishment of criteria for addressing service change requests relating to operation, schedules and routing of CAT service.

CAT Process

Service changes originate from several different sources, some being the general public, County Planning Commission, Chamber of Commerce, local businesses, and CAT employees.

Operations-related requests such as transit stop locations, service quality complaints and operating problems are routed to the appropriate department for review and action. Schedule requests and complaints addressing service frequency, service hours span and service level adequacy are routed to the Customer Experience Department for review and recommendation to the Executive Staff/Board of Directors for potential adjustment of standards.

Major service change proposals such as new routes, routing realignments or major changes in days or periods of operation are referred to the Customer Experience Department for review and recommendation to the Executive Staff/Board of Directors for potential adjustment of standards.

All requests will first be analyzed for compliance with service standards. Requests that do not comply with service standards will not be processed further. The requester will be notified in writing as to the specific elements of the service standards with which the proposal did not comply, or addressed at the public meeting or public hearing.

Routing realignment requests which have no budget impact and comply with service standards, as well as requests which have deficit coverage support, may be implemented at any time during the year after proceeding through the public hearing process.

Major routing realignment, service requests and new route initiatives that meet service standards will be analyzed. This process includes development of operating costs, and a ridership and revenue projection based on census data, potential traffic generators and automobile ownership data.

IMPLEMENTATION OF SERVICE CHANGES

There are two types of CAT service changes, schedule changes and route changes. Schedule changes generally occur three times a year based on our negotiated bid schedule outlined in the labor agreement. Minor changes and adjustments, however, may be implemented at any time throughout the year. Many CAT schedule changes will not be subject to the public hearing process due to the minor nature of the change.

Exceptions would be a proposal to completely discontinue a route, eliminate service on a particular day of the week, or the removal of 25 percent or more of the current level of service.

Routing changes must be initiated through CAT's Board approved process. Minor changes may be implemented throughout the year but must proceed through this process.

Temporary changes, due to emergencies, such as a detour may be made with the approval of CAT's Assistant General Manager. These changes are often necessary but seldom exceed one year. If these changes exceed one year or are to become permanent the regular procedure, including a public hearing, will be necessary.