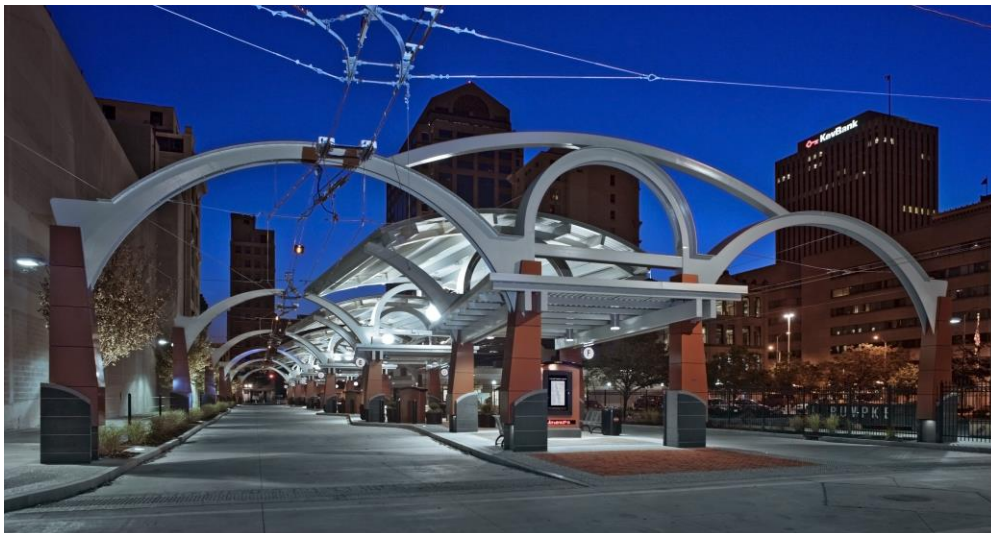




**GREATER DAYTON
REGIONAL TRANSIT AUTHORITY**



**SERVICE STANDARDS
MANUAL**

UPDATED JULY 2013

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INTRODUCTION

The background to the formation of this document is that the “RTA in 2000 Committee” provided a final report recommending that RTA "*utilize specific quantifiable policy criteria for justifying both expansion and elimination of service.*" This recommendation was consistent with a Greater Dayton Regional Transit Authority (RTA) Board of Trustees resolution that the RTA adopt and implement uniform standards governing the design, evaluation and adjustment of transit service. In June 1992, new service standards were implemented. Service standards are an important part of the RTA's policy structure and provide a guide to help balance the social benefits and equity of transit coverage against fiscal constraints.

Purpose

The creation of the Service Standards Manual (the manual) is to provide a template for the RTA on route and schedule design standards. This template provides a basic guideline of the types of services RTA provides as well as how the service will be delivered. The manual also provides guidelines on how to base decisions regarding the development of new service, the elimination or modification of current service, and in some cases to justify no modification where a request has been made to do so. The manual also serves as a template to measure fixed route operating performance. The manual contains monitoring procedures and policies updated in 2013 to ensure compliance with Title VI regulations which prohibits discrimination based on color, race or national origin and consider environmental justice issues involving low-income populations.

The Function

Pertinent service standards are to be reviewed annually and updated as necessary to review past performance, recent trends, and reflect current Board policy and direction. The manual is comprised of two sections: Section 1 presents guidelines for system design and operation of the RTA system. Explanations and definitions are provided for a variety of terms and operating policies and practices. Section 2 covers the RTA annual Service Evaluation and Adjustment Process. This process provides guidelines to Staff to develop a "state-of-the-system" report and to assist Staff in establishing statistics to support service recommendations. Necessary steps to follow when considering new or revised service requests are also part of the Service Evaluation and Adjustment Process.

SECTION 1: SERVICE DESIGN GUIDELINES

SERVICE DESIGN GUIDELINES

ROUTE TYPES

There are six route types in the RTA system:

Local – Local routes make all stops and operate between ridership generators within the RTA service area. Local routes mainly serve the City of Dayton jurisdiction.

Suburban – Suburban routes operate between ridership generators within the RTA service area. Suburban routes mainly serve suburban communities and townships.

Crosstown – Crosstown routes operate between various jurisdictions and do not travel to or through the City of Dayton Central Business District (CBD).

Express – Express routes operates a faster, line-haul service between two major passenger generators. This route type generally travels via a major Interstate or State Route and serves a park & ride facility.

Rural – Rural routes operate between ridership generators within the RTA service area. Rural service is typically AM and PM peak service and serves outlying rural areas.

Feeder - Any route that circulates or "orbits" among a variety of neighboring jurisdictions or points of interest and connects to other routes or hubs for transfer opportunities. Feeder routes typically operate with a smaller vehicle.

FREQUENCY OF SERVICE (HEADWAYS)

The frequency of service on a particular route (i.e. headway, or time interval between successive buses) will be based on the existing or projected ridership and passenger loads (i.e. maximum number of passengers onboard a bus). However, on some routes during certain periods of low ridership, determining frequency of service based on ridership demand may lead to very infrequent service. So infrequent, in fact, that the service is no longer viewed by passengers as a reliable or convenient means of travel. Therefore minimum standards of service frequency may be applied to assure that a reliable, attractive level of service is available throughout the day. In cases where passenger demand does not exceed vehicle capacity the following headway standards generally apply to those listed in Table 1:

TABLE 1
Headways (in minutes) By Operating Period

<u>Service Type</u>	<u>Peak</u>	<u>Base</u>	<u>Night</u>	<u>Saturday</u>	<u>Sunday</u>
Local	20	30	70	30	70
Suburban	35	65	90	90	90
Cross-town	45	60	60	70	70
Express	30	60	70	70	70
Rural*	*	NA	NA	NA	NA
Feeder	60	60	60	60	60

Definitions:

⇒ Operating Periods are defined as follows:

Peak - 6:30 a.m.-9:00 a.m. and 3:00 p.m.-6:30 p.m. weekdays

Base - Early morning service and 9:00 a.m.-3:00 p.m. weekdays

Night - Service after 6:30 p.m.

Sat. - Service on Saturday prior to 6:30 p.m.

Sun. - Service on Sunday.

*Rural routes generally provide service for peak hour work trips only.

Clock headways (e.g. service frequency intervals 10, 15, 20, 30 and 60 minutes) should be maintained where possible. This makes the service easier to understand and more predictable to a rider which is particularly important during periods when the service is infrequent. Although clock headways are recommended, current funding levels and vehicle availability make this operating structure difficult to implement on a system-wide basis.

TIME PERIODS

Time periods are defined as follows

Early Morning -	4:00 am - 6:30 am
AM Peak -	6:30 am - 9:00 am
Midday -	9:00 am - 3:00 pm
PM Peak -	3:00 pm - 6:30 pm
Night -	6:30 pm - 2:00 am

Time periods have been developed to properly and fairly evaluate the fluctuations in ridership that occur throughout the day.

ROUTE DIRECTNESS STANDARDS

RTA bus routes shall be designed to operate as directly as possible in order to minimize passenger travel time. Routes shall operate on major arterial streets as much as possible. However, there will be situations when a route may deviate from the shortest, most direct routing. Such situations include a mid-route deviation to serve a particular trip generator or an end-of-line terminal loop. Feeder routes, which are designed to collect and distribute people in a specified service area, are exempt from this standard.

When a deviation exists or is being considered, the gain in convenience to those passengers who are boarding or alighting during the deviation must be balanced against the additional travel time for the passengers traveling through. The following standards shall be applied to all route deviations and/or terminal loops:

1. To the extent possible, two-way service shall be provided on the same street.
2. Express service shall be routed in the most direct manner possible.
3. Deviations should not exceed five minutes (one-way).
4. Mid-route loops shall be avoided.
5. End-of-line terminal loops shall not exceed 25% of a route's total length.

ROUTE VARIATIONS

While not universally recommended as a service delivery practice, it is sometimes more efficient to provide service to a certain area with one route having several branches than to operate several different routes. In addition, some bus trips on a route may not need to always travel to the end of the line due to very low ridership in that area at a particular time of day (i.e. "turnback"). However, these actions can result in a system that is much more difficult for transit passengers to understand and utilize. Therefore, to provide a user friendly service and to encourage maximum use of the system by riders, the following standards for branches and turnbacks shall apply (and only if deemed necessary):

1. No route shall have more than two (2) distinct branches
2. No route shall have more than one turnback
3. Routes with turnbacks shall have a very specific and unique destination sign to clarify that particular route trip's final endpoint.

VEHICLE LOAD FACTORS

The intent of load standards is to balance passenger comfort and safety with operating costs. These standards define maximum passenger loads by vehicle type. A load factor is defined as the number of passengers on board a vehicle divided by the number of available seats at a maximum load point. Load factors help determine the operating efficiency, safety, and passenger comfort of individual trips in the RTA system.

Although vehicle manufacturers state that vehicles can allow standees up to 50% of seated capacity, Table 2 illustrates RTA's suggested maximum passenger loading standards by vehicle type:

TABLE 2					
Vehicle Loading Standards					

<u>Vehicle Type</u>	<u>Length (feet)</u>	<u>Passenger Capacity</u>			<u>Load (*) Factor</u>
		<u>Seated</u>	<u>Standing</u>	<u>Total</u>	
Standard Diesel	28	23	9	32	140%
Standard Diesel	30	24	10	34	140%
Standard Diesel	35	29	12	41	140%
Standard Diesel	40	38	14	52	140%
Trolley	38	41	17	58	140%

Note: All buses operating express trips shall not exceed factor of 100%.

(*) Capacity is reduced when wheelchair tie-downs are utilized. (For ex. on the Trolleys there are four (4) seats per tie-down.)

If this load standard is exceeded for any 60 minute period, RTA staff will evaluate the potential for improving the service frequency (i.e. reducing the headway or interval between buses). If the standard is exceeded for particular trips, but not for a sustained 60-minute period, RTA will evaluate the possibility of adjusting schedule times to focus more service before and after the overloaded trip (overload trippers). The maximum time that an individual should be expected to stand on any given trip is 15 minutes. Passenger maximum loads will be evaluated throughout the year via, Automatic Passenger Counter (APC) data reports, on-board cameras, overcrowded trips reported by customers, and overcrowded trips reported by bus operators. Upon evaluation, these standards will apply.

TRANSFERS

Extensive passenger transfers on the RTA system can discourage users. Efforts to promote one-seat rides on the RTA system will be pursued through route extensions, route leg redesign. The overall percentage of cash riders requiring a transfer shall not exceed 15%.

COMMUNITY IMPACT REVIEW

Title VI of the Civil Rights Act of 1964 requires that the RTA assure that "services are made available and are equitably distributed without regard to race, color, or national origin." Executive Order 12898 which focuses on "environmental justice" extended Title VI's assurance to include low-income populations. GDRTA condemns intentional discrimination in the design and operation of its services and fares. Therefore, recognizing these populations, a service evaluation and adjustment process based on measurements of market effectiveness, on-time performance and vehicle-loading standards help to assure the equitable provision of service. In addition, service design guidelines and standards for the placement of passenger amenities provide for an equitable distribution of transit service throughout the community. Every 3 years the RTA will conduct a passenger survey on routes surveying minority and non-minority routes. The survey will provide rider demographic information on:

- Age, race, national origin, gender, income base and zip code
- English proficiency, auto availability
- Travel patterns and opinions of service provided.
- Average peak hour travel time, number of transfers required, total cost of trips, and method of payment.

The survey will compare the quality of services and amenities to minority and non-minority routes and provide results to take action on the disparities. This review will include load factors.

VEHICLE ASSIGNMENT POLICY

The RTA uses the following policy shown as Exhibit 1 to assign vehicles in a fair and equitable manner as well as to meet customer needs.

Exhibit # 1



Planning (Policy)

Focus: Vehicle Assignment	Number: Marketing/Planning 3
Document History: Approved: 9/3/13 Effective: 9/3/13 Revisions:	Pages: 1 of 1

Executive Director Signature:	Date:
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VEHICLE ASSIGNMENT

RTA OPERATING POLICY

I. GENERAL DESCRIPTION

In compliance with applicable Federal Requirements under Title VI of the Civil Rights Act of 1964, including 49 CFR Section 21 and FTA Circular FTA C 4702.1B, the Greater Dayton RTA is updating its vehicle assignment process to a Board of Trustees approved policy and amending the process to include the assignment of APC vehicles. The policy will ensure that vehicles are assigned in an equitable manner without regard to race, color or national origin.

II. POLICY STATEMENT

1. RTA assigns vehicles randomly every day to ensure a fair and equitable distribution of vehicles throughout the service area.
2. When assigning vehicles, RTA takes into consideration routes that have higher ridership, specific needs and the topography that limits the use of certain size vehicles.
3. As RTA is one of the fewest transit systems that have a fleet of electric trolley buses, some routes are limited to this vehicle mode except in situations that might interfere with their operation.
4. RTA rotates a percentage (approximately 30% of peak fleet) of APC equipped diesel and trolley buses through out the fleet on a monthly basis to ensure that complete passenger counts are collected on all route blocks. The rotation is semi-random except for the end of the period and then specific buses are assigned to ensure coverage as well as for manual integrity checks.

The Directors of Planning/Marketing and Maintenance will be responsible for ensuring compliance with this policy.

PASSENGER AMENITIES

Annually, the RTA evaluates its amenity program for the acquisition and placement of shelters, benches, trash receptacles, schedule holders, concrete pads, bus pads, and bus stop signs. Funding availability, ridership counts, and operational characteristics at bus stops will be used in determining the appropriate amenity. Consideration is given to traffic patterns affecting vehicle operations and/or public safety and local ordinances or

regulations governing the location and placement of amenities.

The current Customer Amenity Program Operating Policy was approved by the Board in September 3, 2013. The policy details the criteria for placement of passenger amenities and is included as Exhibit 2.

Since the adoption of this policy, and in addition to a current contract with a company responsible for maintaining RTA-owned shelters, other practices concerning maintenance of amenities have been developed. Programs such as direct contact w/ service providers, staff inspections, development of a bus operator amenities reporting sheet, Community Grants whereby jurisdictions maintain RTA-funded amenities, and adoption of amenities by local businesses and citizens are all part of the maintenance of amenities process.

Exhibit # 2



**Planning
(Policy)**

Focus: Customer Amenity Program	Number: Marketing/Planning 1
Document History: Approved: 9/2/99 Effective: 9/1/92 Revisions: 4/2/96, 9/2/99, 6/15/08, 7/1/08, 9/4/08, 9/3/13	Pages: 1 of 2
Executive Director Signature:	Date:

**CUSTOMER AMENITY PROGRAM
PLANNING POLICY**

GENERAL DESCRIPTION

The Greater Dayton Regional Transit Authority (GDRTA) recognizes the importance of customer amenities in providing comfortable and quality service to system users as well as attracting new riders. This program will place shelters, benches, trash receptacles, schedule holders, concrete pads, bus pads and bus stop signs at bus stops. GDRTA will maintain an accurate inventory of all passenger amenities.

PROGRAM STATEMENT

Periodically, the GDRTA will evaluate its amenity program for the acquisition and placement of amenities. Funding, actual ridership counts and operational characteristics at bus stops will be used in determining the appropriate amenity. Amenities will be placed according to the following criteria.

Bus Signage: Each bus stop will be clearly marked with a bus stop sign. Most signs display the route number(s) and name of route(s), which serve that bus stop.

Concrete Pads: Bus stops which have boardings of (20) or more passengers per day can be provided with a concrete pad.

Benches: Bus stops which have boardings of (20) or more passengers per day can be provided with a bench. Benches will only be placed on existing concrete pads or in conjunction with the installation of a new pad.

Shelters: Bus stops that have boardings of (40) or more passengers per day can be provided an open shelter. If an enclosed shelter is desired, the request must be submitted by a political jurisdiction through the Community Grants Program.

Trash Receptacles: Bus stops that have a GDRTA shelter will be provided with a trash receptacle. At bus stops without a shelter, a trash receptacle will be installed if a request has been made, the bus stop has boardings of (20) or more passengers per day and, the jurisdiction, business, or property owner agrees to empty the receptacle weekly. GDRTA Planning Department will document new agreements for emptying trash receptacles.

Bus Pads: New layover locations will be inspected for any necessary concrete bus support, dependent upon the conditions and layout of the roadbed, which it will operate.

Schedule Information: Bus stops where it is deemed necessary to provide clearer scheduling information, may be eligible for a schedule holder, system map, or digital sign equipment

Lighting: Bus stops that do not provide adequate lighting will be programmed for a solar light at locations where physically possible to place.

Park-n-Rides: GDRTA will seek locations along GDRTA routes where GDRTA customers can park their automobiles and conveniently board a bus.

Special Considerations: In placing or relocating customer amenities, the following will also be given consideration: traffic patterns affecting vehicle operations and/or public safety, the location of other nearby amenities, the affect on cost of maintaining amenities, GDRTA identity in rural areas, the span of time between buses (frequency of service), and local ordinances or regulations governing the location and placement of amenities.

Special consideration for additional amenities will be given to bus stops located near senior housing, senior centers, independent/assisted living centers, hospitals or other senior/health-related facilities. New transit-friendly developments where ridership is expected but not as yet determined will also receive the same

consideration.

The placement of amenities will be distributed equitably across the system to ensure Title VI requirements are met. An analysis of the placement of amenities will take place at least every three years and will be implemented by mapping existing and planned amenities and facilities to evaluate equal distribution. The maps will be included as part of GDRTA's Title VI Program.

PROGRAM CRITERIA

To effectively implement the GDRTA Amenity Program, ridership counts and operational characteristics at bus stops will be monitored to determine which stops warrant shelters, benches, and other amenities. The Executive Director reserves the right to determine the placement of customer amenities beyond this program upon rational examination of the benefits to the community and/or GDRTA operations. It will be the goal of the GDRTA to provide amenities to the riding public wherever possible, within the Board-approved budget and operating policies of the GDRTA.

In addition, the GDRTA will continue to encourage participation in the annual GDRTA Community Grant Program. This program awards approximately \$200,000 per year for jurisdictions within the GDRTA service area for transit-related improvements, including customer amenities, over and beyond those, which the GDRTA can provide.

BUS STOPS

Since bus stops provide the interface points between the walkway system, the roadway network and the transit system, proper location is critical. The placement of stops varies by location, however, the general considerations for the placement of bus stops at intersections are:

- When the route alignment requires a left turn, the preferred location for the bus stop is on the farside of the intersection after the left turn is completed.
- When the route alignment requires a right turn and the curb radius is short, a mid-block location is preferred. If a mid-block stop is not possible, the stop should be located on the farside of the intersection after the bus completes the right turn movement.
- If there is a high volume of right turns at an intersection, the preferred location for the stop is on the farside of the intersection. If there is not a high volume of right turns at an intersection, then a nearside stop is acceptable.
- In circumstances where the accumulation of buses at a farside stop would spill over into the intersection, then a nearside is preferred.
- When a large percentage of passengers are going to a single trip generator, the stop should be located at that point to minimize pedestrian activity.

The following considerations for the spacing between bus stops are:

- Stops in the Central Business District in downtown Dayton should be 500-1000 feet apart. A city block is typically 450 feet.

- Stops in urban areas should be 500-1500 feet apart.
- Stops in suburban areas should be 750-2000 feet apart.
- Stops in rural areas should be 1,000-2,500 feet apart.

Special exceptions will apply depending on locations of ridership generators, access needs for elderly and disabled passengers, or passengers with disabilities where excessive stop spacing could be difficult to negotiate.

PARK-N-RIDES

Park-N-Rides are an effective way to provide service to passengers who choose to park at a specified location and then ride the RTA. Park-N-Rides are served by all of the various RTA route types but are most effective when express service is available.

Evaluation:

Each spring, RTA Staff will conduct car counts, check county plates of each car, evaluate lot conditions, and inspect signage and amenities at each Park-N-Ride location. Necessary steps will be taken to maintain the quality and visibility of each location.

**SECTION 2: SERVICE EVALUATION AND
ADJUSTMENT PROCESS**

Annual Service Planning

The RTA has developed a tentative timeline for performing tasks that assist with the overall evaluation of current and future service planning. The typical framework of the service planning efforts incorporates direct meetings with jurisdictions to discuss community needs, summarizing community needs and desires, the gathering of data for a passenger per hour study called a “Service Effectiveness Review” (SER), and balancing service needs with RTA objectives and Board direction. The sample guideline is shown in Table 3.

<p>TABLE 3 RTA Annual Service Planning Cycle Sample Guideline for Service Evaluation and Adjustment Process</p>
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<u>Time period</u>	<u>Activity</u>
September-December	<ul style="list-style-type: none"> • Neighborhood needs process and review • Solicit jurisdiction requests • Review August service adjustments and revise as necessary • Meet with all jurisdictions to identify upcoming road construction projects
October-November	<ul style="list-style-type: none"> • Review past ridership checks and on-time performance trends
November-January	<ul style="list-style-type: none"> • Review and report any Title VI or Environmental Justice issues. • Evaluation of community service requests • Review ridership patterns and on-time Performance of APC data collected • Complete the SER passenger per hour process
January-March	<ul style="list-style-type: none"> • Develop preliminary service suggestion package • Conduct public hearings for citizen review and comment – if necessary • Modify suggestions as needed
April	<ul style="list-style-type: none"> • Review service suggestion package with RTA Board Committees if major changes are proposed and modify as needed • Road Construction Summary Report finalized and distributed

Service Evaluation and Adjustment Process - Continued

<u>Time period</u>	<u>Activity</u>
May	<ul style="list-style-type: none"> • Seek RTA Board approval on any major service suggestion package (if required)
August	<ul style="list-style-type: none"> • Implement approved service adjustments

The factors that are reviewed during the course of the Service Evaluation and Adjustment Process are as follows:

- A) Passengers per Revenue Hour
- B) On-Time Performance
- C) Community-Based Service Needs

FACTOR A - PASSENGERS PER REVENUE HOUR

“Passengers per revenue hour” is an important measurement of a route's market effectiveness. Revenue hours are the amount of time that the bus runs while picking up passengers. A threshold has been established that targets routes with a productivity rate that falls below 75% of the respective route type average. For instance, if the average passengers per hour for the local route system is 20, then local routes that have less than 15 passengers per hour shall be subject to remedial action ($15/20 = .75$). Routes falling below this .75 threshold are considered “poor performers”. Based on the 2012 RTA system-wide passenger count, these minimum thresholds have been established and are represented in Table 4. To facilitate the service planning process, the RTA Staff completes an internal Service Effectiveness Review (SER), an annual process in which routes are analyzed on a route segment basis from APC data collected during the year. Multiple day samples are collected to ensure an accurate ridership count for every RTA trip. With the ridership count, passengers per revenue hour (i.e.: market effectiveness) can be calculated for each route, route type and time period. These calculations are then evaluated by using the criteria established for the SER process. Routes that are deemed “Poor Performers” are then subject to remedial action ranging from route elimination, modification, or reinvestment of more service through better frequencies new extensions, etc.

Performance of existing transit routes must be reviewed to ensure resources are appropriately distributed or re-allocated and, at the same time, customers are adequately served. As demand most generally exceeds available resources, it is important to adhere to these established standards as much as possible.

TABLE 4
Suggested Minimum Standards - Passengers per Revenue Hour

Route Type	AM Peak	Midday	PM Peak	Night	Sat	Sat Night	Sun	Sun Night
Local	24	30	24	19	17	16	18	12
Suburban	19	23	16	13	18	15	15	12
Cross-town	12	10	13	9	12	7	10	7
Express	14	23	21	23	25	17	22	17
Rural	4	6	4	NA	NA	NA	NA	NA
Feeder	9	7	7	5	5	4	7	4

FACTOR B - ON-TIME PERFORMANCE

To ensure transit riders have confidence that RTA service will perform reliably and in accordance with the public timetables, on-time performance standards have been established. Each route has an on-time performance standard of 90%. A vehicle is considered “on-time” when its departure is zero to 5 minutes after the scheduled time at a specified timepoint. A vehicle is scheduled late when it arrives 5 minutes and 1 second after the scheduled time at a specified timepoint. No vehicles should arrive at a scheduled timepoint early. Each month, a route-by-route summary report will be developed by Operations outlining on-time performance statistics. This will include the percentage early, late, and on-time. An annual report will also be produced. Any route that is consistently not meeting the on-time performance criteria will be evaluated through staff ride checks, operator interviews, and passenger surveys if necessary. After schedule evaluations are completed, the need for remedial action such as recommending additional vehicles, schedule headway adjustment, or bus operator performance review will be determined.

FACTOR C - COMMUNITY-BASED SERVICE NEEDS

The annual meetings with jurisdictions in the RTA service area are a critical step in the annual service evaluation process. Maintaining relevance, being considered a vital community asset, and providing essential mobility options for our region are important goals of the RTA. The following checklist summarizes RTA’s commitment to doing all that is possible to providing service access to the following facilities or functions:

- Medical facilities and hospitals
- Convalescent centers
- Facilities serving the elderly and disabled
- Centers providing job access training
- Education centers
- Major employment centers
- Major shopping centers

Service access will also be considered if an employer commits to programs such as fare subsidies, auto parking surcharges, and priority bus entry onto the employment site property.

Minimum service coverage will be maintained, if at all possible, to assist with the maintenance of the public health, safety, and quality of life of our community.

EXISTING ROUTE AND NEW SERVICE EVALUATION

The Service Evaluation and Adjustment Process for evaluating existing routes and new service requests are illustrated in Exhibit 3. Trips are reviewed to determine if they meet standards for vehicle passengers per hour and on-time performance. Trips that are not up to standard are reviewed for remedial action. If the remedy requires an increase in vehicle hours of service, then the action enters into the comparative evaluation step of the process.

ROUTE EVALUATION PROCESS

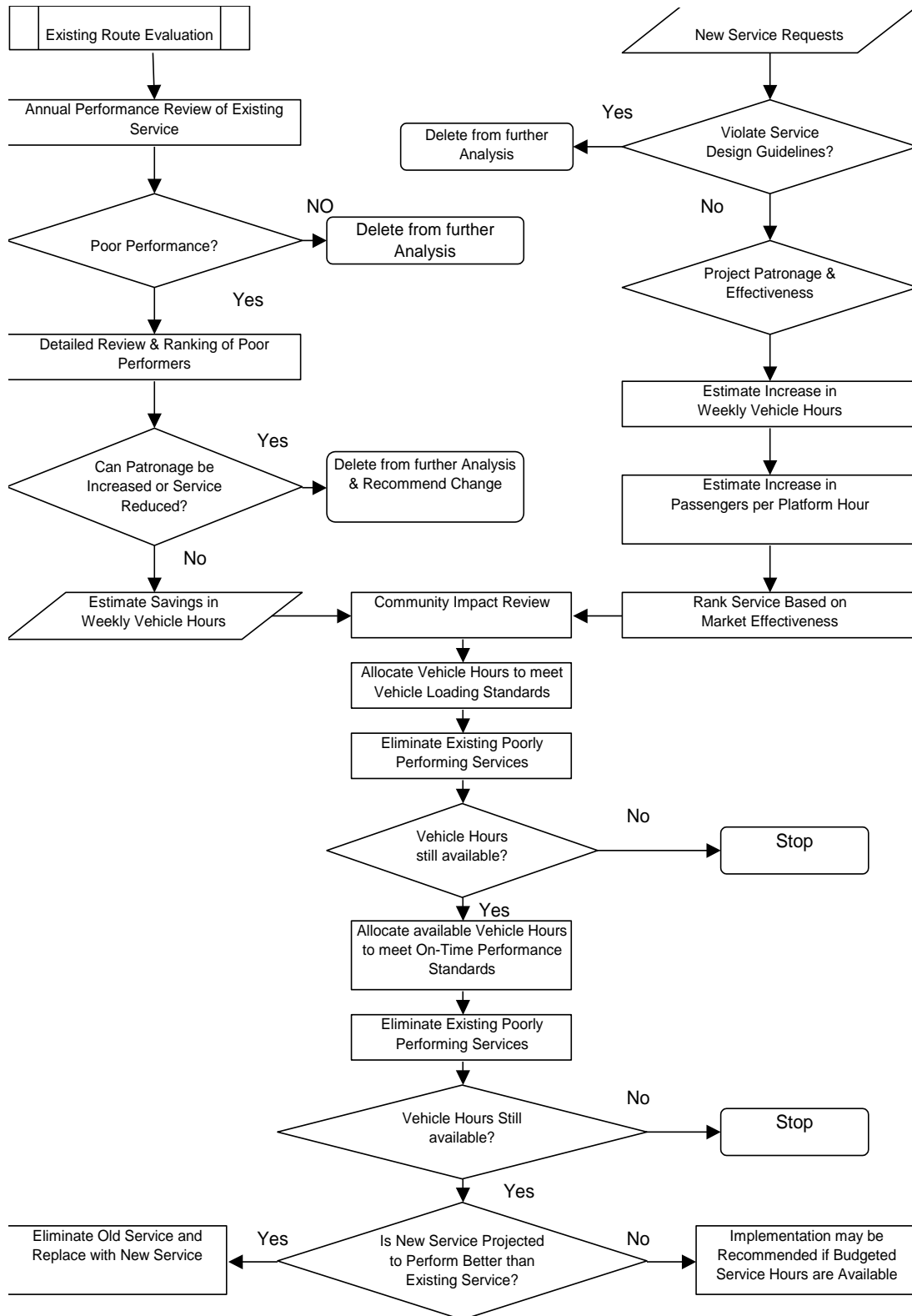
RTA routes are reviewed annually to determine if they meet RTA standards for market effectiveness (i.e.: passengers per platform hour), on-time performance, and/or community-based service needs. In order to perform the annual review, all RTA routes and stop are surveyed with APC vehicles throughout the year to obtain multiple trip samples.

Data is also collected by the Scheduling Department, as required by the Federal Transit Administration (FTA) under the National Transit Database requirements. Through this effort, RTA staff randomly surveys 740 trips, collecting in-person information on ridership and on-time performance. Information from these surveys is reported to the FTA but is also used in the service evaluation process.

At a minimum, all stops on trips within the RTA system will be evaluated each year. Existing services are divided into categories based on route type, time of day, and day of week. Existing services are ranked in descending order on the basis of passenger boarding per platform hour. This ranking is then compared to the minimum standard for each route type by time period and day of week. Any service that falls below the

minimum standard which is 75% of average is considered a poor performer with respect to effectiveness. "Poor performers" will be reviewed to determine whether or not it is reasonable to expect a significant increase in patronage within the next year. The review could include an assessment of promotional opportunities, route changes, or schedule adjustments to increase patronage. In addition, remedial action, such as a reduction in vehicle hours, will be considered.

EXHIBIT 3 - SERVICE EVALUATION AND ADJUSTMENT PROCESS



NEW OR MODIFIED SERVICE REQUESTS

Requests for new or modified services are generated by RTA customers, RTA Staff, local jurisdictions, area employers, and the public in general. Staff-originated proposals can be generated based on observations and ongoing analysis of the system, through market research, input from RTA bus operators, input from RTA Customer Service, regional planning efforts, and requests received from individuals or groups. Generally, major new service proposals are planned for an August implementation, but this is not a requirement.

The Planning Department will keep a log of requests, research each, follow-up with the requesting individual or entity, and address the requests promptly. Requests for new services, extended periods of operation, and frequency improvements are evaluated with respect to the design guidelines. Only proposals that are consistent with RTA's service design guidelines are further considered. The proposals are also evaluated in terms of market effectiveness. Those proposals that fall below the minimum standards are eliminated from further consideration, unless the request meets the following:

- The service request can be accommodated without adding additional operating expenses.
- Other RTA services can be reduced to help reallocate hours to accommodate the specific request without increasing expenses.
- The service will provide a critical community service need such as to medical facilities or vital social service agencies.

COMPARATIVE EVALUATION PROCESS

The comparative evaluation is used to determine how well existing services meet Board objectives, and to evaluate the desirability and economic feasibility of proposed new services. It provides a consistent process for comparing the performance of different services. The lower half of Exhibit 3 is essentially a diagram of the comparative evaluation process.

If no change in poorly-performing existing services can be identified that would result in satisfactory performance, then the service enters the comparative evaluation step of the process. In addition, new service requests which are determined to exceed the minimum effectiveness standards also enter the comparative evaluation step of the process.

In the comparative evaluation, poorly-performing services may be recommended for cancellation in order to reallocate their hours to non-poorly-performing lines which fail to meet the maximum vehicle loading or on-time performance standards, and/or to new services which are projected to be more effective.

A systematic assessment of community factors is undertaken for the poorly-performing services, any otherwise substandard service, and any proposed new services. The assessment includes rider characteristics, a discussion of transit dependency, attitudinal and awareness levels, political issues, social benefits and consideration of the census tract data. This information is then combined with information on effectiveness (the degree to which a particular service is able to attract riders) to rank each service or proposal in order of merit. After routes with substandard vehicle loadings (i.e. overcrowding) and on-time performance have been brought up to standard, new services may be recommended for implementation subject to operating revenue availability, starting with the highest ranked services and proceeding down the list until the available vehicle hours have been exhausted. If a proposed new service or expansion in service is ranked above an existing poorly-performing service, then the latter may be recommended for elimination. In the event that it is practical to expand the overall level of service, new services may be implemented even if poorly-performing services are not eliminated. Regardless, major service adjustments, typically considered as changing a route alignment or hours by 25% or deemed to have a significant community impact, must go through a public hearing process.

PUBLIC OUTREACH AND PARTICIPATION PROCESS

The Greater Dayton RTA complies with Federal Transit Law 49 United States Code (USC) Chapter 53, Section 5307 (d)(1)(I) by developing a locally written process for soliciting and considering public comment before raising a fare or carrying out a major service reduction. In addition, the following public outreach and participation plan meets the requirements of U.S. DOT Order 5610.2(a), Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, FTA C 4703.1 Environmental Justice.

The RTA employs several means to communicate to the general public regarding the activities it performs including LEP (limited-English proficient) and minority populations. The communication activities may focus in different mediums depending on the program or population affected. These include but are not limited to:

Public Information and Notifications

RTA publishes notices, brochures and tables regarding RTA proposals or programs, including how the public can obtain information and make comments, where meetings are to take place, and other applicable information. The notices for public input are posted 30 days in advance so the public has time to consider proposals and make comments. The notice methods include:

- Press releases to local and state media
- Customer newsletters (print and email)
- E-mail blasts and alerts via text or e-mail
- Website links and articles
- Notification to affected Jurisdictions

- On bus advertising with interior cards, exterior bus banners, onboard enunciator, and TV monitors on partial bus fleet
- Rack cards/"take ones" placed on the bus and racks throughout GDRTA transit centers
- Transit Center posters and brochures
- Spanish translation services and translated materials including fare media signs, day and family pass rack cards, system map information, bus hailer kits, translation assistance cards, critical notifications and forms such as Title VI notice and application forms
- Radio, television or newspaper ads considering stations and publications that serve LEP and minority populations

Meeting Locations

RTA meets with the public in locations that have convenient access to transit and are centrally located so that anyone in its service area can attend meetings and receive information about any RTA activities that will impact them, especially LEP and minority populations. Meetings are held at several different times of the day for easier access. All public meeting locations will be accessible to those with disabilities. If notified five (5) days prior to the meeting, language or hearing interpreters will be made available.

Public Meeting Forums

On critical issues such as major service changes and all fare changes, RTA conducts public meetings that utilize one-on-one interviews with customers. RTA Staff will prepare proposals in sufficient detail and make available prior to the meeting for interested individuals. If the proposal involves service changes, maps are made available. Since each customer can be affected differently than another customer, obtaining comments this way allows for an individualized response to an individual need. RTA staff will conduct personal interviews and transcribe oral comments if written comments are not possible. Meetings will have sign-up sheets available and if no one is in attendance, staff will wait for 10 minutes and then announce the reason for the meeting, a statement that no one is in attendance and close the meeting. Customers are also able to leave audio messages on an advertised phone number prior to the advertised deadline for public feedback and the comments are transcribed for RTA's analysis along with all public feedback received. The public comments are presented at Board of Trustee Committee meetings so that they are part of the decision making process.

Priority Boards

Dayton's priority board system links representatives from each sector within city limits to City Hall. To keep the priority boards informed, RTA's planning staff members attend meetings to discuss ongoing activities and future plans. These visits also provide opportunities for neighborhood groups to provide feedback and share concerns they may have about RTA.

Website

RTA's website provides round-the-clock information on the transit system, including fare structures, route schedules and maps. Any changes in service, such as weather anomalies, traffic reroutes, or holiday hours, are made available on the site. RTA press releases and customer newsletters are published on the site. The site has Google Translation software for on demand translation to Spanish. RSS messages can be sent to customer phones for immediate service alerts when they sign-up for the service. Customers also may apply on line to become a member of RTA's Customer Advocacy Group, which reports directly to the RTA Management staff. This council is representative of both minority and non-minority groups.

Community Events

RTA staff members regularly participate in community events that are not specific to public transit such as ethnic festivals, arts and music events, or events that promote a specific community or district. RTA staffers man a display booth and provide information on public transit activities and review customer feedback.

Wright Stop Plaza Information Tables

When RTA wants to advise the public of specific projects that will have a direct impact on riders, RTA staff will conduct personal interviews at the major downtown transit center and transcribe oral comments or assist customers with computer surveys to receive customer input.

Outreach to Community Groups

The Greater Dayton RTA meets with community groups such as LEAD (Leadership for Equality and Action in Dayton) and social service agencies to listen to community concerns on the effects of fare changes to low-income and minority populations. GDRTA has associations with the Latino Family Advocacy Program at East End Community Services (EECS), Sinclair Community College, WSU, Montgomery County, and the City of Dayton, all of which assist LEP persons.

Jurisdictional Meetings

RTA conducts an extensive outreach program with jurisdictions throughout its service area. Over 30 meetings annually are conducted to gather meaningful feedback on current transit needs issues, offer information about the services RTA provides, and enhance relationships with our stakeholders.

SERVICE MONITORING PROCEDURES AND POLICIES

The following monitoring procedures and policies have been added or revised in 2013 to comply with the Title VI regulations. Exhibit #4 specifies the parameters of a major service change. This policy will be followed to determine if a service change meets the threshold to conduct a service equity analysis on changes that occur on the route system. Exhibit #5 is the Disparate Impact Policy that establishes a threshold of 20% for determining whether adverse effects are borne disproportionately by minority populations and steps to take following the determination. Exhibit #6 is the Disproportionate Burden Policy which establishes a 20% threshold for determining whether adverse effects are borne disproportionately by low-income individuals. Exhibit #7 is the Major Service Change and Fare Equity Analysis Policy that outlines the procedures to be followed when evaluating a major service change or any fare change on minority and low-income populations. Exhibit #8 outlines the procedures to be followed to monitor service equity for existing services.

Exhibit # 4



Planning (Policy)

Focus: Major Service Change	Number: Marketing/Planning 2
Document History: Approved: 9/3/13 Effective: 9/3/13 Revisions:	Pages: 1 of 2
Executive Director Signature:	Date:

MAJOR SERVICE CHANGE PLANNING POLICY

I. GENERAL DESCRIPTION

In compliance with applicable Federal Requirements under Title VI of the Civil Rights Act of 1964, including 49 CFR Section 21 and FTA Circular FTA C 4702.1B, the Greater Dayton RTA is updating its definition of a major service change to a Board of Trustees approved policy from the previous public hearing practice in the Planning Service Standards Manual. The major service change policy will be used to determine what constitutes a major service change and qualify for a service equity analysis. All completed analyses will be placed in the Title VI program and submitted to the FTA every three years.

II. POLICY STATEMENT

A major change of service is defined as:

- 1) Any change in service (adding or reducing) resulting in a 25 percent or greater change in the number of transit miles;
- 2) Any change in service resulting in a 25 percent or greater change in the number of transit revenue vehicle miles of a route computed on a daily basis for the day of the week for which the change is made;
- 3) The accumulation of changes on a route in a fiscal year adding up to 25 percent;
- 4) Any headway adjustments of 5 minutes or more during peak hour service and 15 minutes or more during non-peak hour service.
- 5) A temporary addition of service of less than 12 months qualifies for an exemption but will be required to undergo a service equity analysis after this time if it meets the definition of a major service change.

The Director of Planning/Marketing will be responsible for ensuring compliance with this policy.

Exhibit # 5



Planning (Policy)

Focus: Disparate Impact Policy	Number: Marketing/Planning 4
Document History: Approved: 9/3/13 Effective: 9/3/13 Revisions:	Pages: 1 of 3
Executive Director Signature:	Date:

TITLE VI DISPARATE IMPACT POLICY

RTA OPERATING POLICY

I. GENERAL DESCRIPTION

In compliance with applicable Federal Requirements under Title VI of the Civil Rights Act of 1964, including 49 CFR Section 21 and FTA Circular FTA C 4702.1B, the Greater Dayton RTA is establishing a Disparate Impact Policy. The Federal Transit Administration (FTA) requires that recipients of FTA funding prepare and submit service equity analyses for proposed major service changes (defined in the Greater Dayton RTA's Major Service Change Policy). The purpose of this policy is to establish a threshold which identifies when adverse effects of major service change are borne disproportionately by minority populations.

FTA Circular 4702.1B, defines Disparate Impact as "a neutral policy or practice that disproportionately affects members of a group identified by race, color, or national origin, where the recipient's policy or practice lacks a substantial legitimate justification and where there exists one or more alternatives that would serve the same legitimate objectives but with less disproportionate effect on the basis of race, color, or national origin.

II. POLICY STATEMENT

The Greater Dayton RTA has established its Disparate Impact threshold to be at the statistically significant level of 20 percent or greater of the population that could possibly be affected by the service or fare change. Therefore, in the event that the impact of any major service changes require a minority population to bear adverse effects of 20 percent or greater than those adverse effects borne by the non-minority population, that impact will be deemed disparate. Justification for the selected comparison population will be provided in each individual scenario. The threshold will be applied uniformly to all modes of service operated by the Greater Dayton RTA.

The Disparate Impact Policy applies to Greater Dayton RTA service standards established for all modes of service. Those standards include the following:

- ◆ Vehicle Load;
- ◆ Vehicle Headway (Frequency);
- ◆ Route Directness;
- ◆ Route Variations;
- ◆ Transfers;
- ◆ On-time Performance; and,
- ◆ Service Availability.

The procedure for monitoring disparate impact is described in the RTA Monitoring Plan. If the Greater Dayton RTA finds a disparate impact when applying the 20 percent threshold to the cumulative proposed changes, it will consider modifying the proposed changes in order to avoid, minimize, or mitigate the disparate impacts of the proposed changes. The Greater Dayton RTA will exercise the same threshold and procedures to reanalyze the modified proposed changes to determine whether the modifications actually removed the potential disparate impacts of the changes.

If the Greater Dayton RTA does not alter the proposed service changes despite the potential disparate impact on minority populations, or if it finds, even after the revisions, that minority riders will continue to bear a disproportionate share of the proposed service change, the Greater Dayton RTA will implement the service change only if the following criteria apply:

- (1) There is a substantial legitimate justification for the proposed service change, **and**
- (2) The Greater Dayton RTA can show that, after examining alternatives, there are no alternatives that would have a less disparate impact on minority riders but would still accomplish the legitimate program goals.

Resources for Comparison of Service or Fare Changes

The Greater Dayton RTA will include a justification for the selected comparison population of people in the protected class that could be adversely affected by the service or fare change and the proportion of people not in the protected class. The selected populations will be based on the intended service or fare change. The following matrix outlines the comparison populations to be applied by service or fare change option.

Table 1: Comparison Population By Service or Fare Change

<u>Service Changes</u>	<u>Comparison of Ridership of Affected Route and System-wide Ridership</u>	<u>Comparison of Population of the Service Area and the Census Block Groups, Zip Code, or TAZ Served by the Affected Routes</u>
Headway Changes	Yes	No
Eliminating a Route	Yes	Yes
Increasing Service to Existing Service Area	Yes	No
New Service or Service Expansion	No	Yes
Fare Change	Yes	No

Comparison for Multiple Service or Fare Changes

The Greater Dayton RTA will use one comparison population (either ridership or population) when proposing major service changes that involve more than one of the categories noted in Table 1. The Greater Dayton RTA will use a comparison of ridership from minority, non-minority, and low-income riders for proposed changes that would increase or decrease fares on the entire system, or on certain modes, or by fare payment or fare media.

When ridership data is utilized for comparison, the Greater Dayton RTA will analyze any available information generated from surveys to determine the minority and non-minority population ridership of the affected route(s) and the minority and non-minority ridership of the entire system.

When adequate ridership data is not available, or if the Greater Dayton RTA is uncertain as to which population to use for comparison purposes, it will contact the FTA regional office for technical assistance.

Public Comment Opportunity

The Greater Dayton RTA shall provide a meaningful opportunity for public comment on any proposed

mitigation measures, including less discriminatory alternatives that may be available. The public comment or Public Hearing Process is defined in the RTA Public Engagement Process.

The Director of Planning/Marketing will be responsible for ensuring compliance with this policy.

Exhibit # 6



**Planning
(Policy)**

Focus: Environmental Justice Disproportionate Burden	Number: Marketing/Planning 5
Document History: Approved: 9/3/13 Effective: 9/3/13 Revisions:	Pages: 1 of 2
Executive Director Signature:	Date:

ENVIRONMENTAL JUSTICE DISPROPORTIONATE BURDEN

RTA OPERATING POLICY

I. GENERAL DESCRIPTION

The Greater Dayton Regional Transit Authority (RTA) establishes this Disproportionate Burden Policy in compliance with applicable Federal Environmental Justice requirements under Executive Order 12898 and FTA Circular 4702.1B. The Federal Transit Administration (FTA) requires that recipients of FTA funding evaluate proposed major service changes to determine whether low-income populations will bear a disproportionate burden of the changes. The purpose of this policy is to establish a threshold for determining when adverse effects of service changes are borne disproportionately by low-income populations.

The disproportionate burden threshold defines statistically significant disparity and may be presented as a statistical percentage of impacts borne by low-income populations as compared to impacts borne by non-low-income populations. The threshold will be applied uniformly, regardless of mode.

A “disproportionate burden” is defined by FTA Circular 4702.1B as a neutral policy or practice that disproportionately affects low-income populations more than non-low-income populations.

For the purposes of this policy, “low-income population” is defined as having a median household income that is at or below 150% of the Department of Health and Human Services Poverty Guidelines.

II. POLICY STATEMENT

The RTA has established its Disproportionate Burden threshold to be at the level of 20 percent or greater of the population that could possibly be affected by the major service change. Therefore, should the impact of any major service change require a low-income population to bear adverse effects of 20 percent or greater than those adverse effects borne by the non-low-income population, that impact will be deemed disproportionate. The threshold will be applied uniformly to all modes of service operated by the RTA.

The Policy applies to RTA service standards established for all modes of service. Those standards include the following:

- ◆ Vehicle Load;
- ◆ Vehicle Headway (Frequency);
- ◆ Route Directness;
- ◆ Transfers;
- ◆ On-time Performance; and,
- ◆ Service Availability.

If the RTA finds a disproportionate burden on identified low-income populations when applying the 20 percent threshold, it will consider modifying the proposed changes in order to avoid, minimize, or mitigate the disproportionate burden of the proposed changes. The RTA will exercise the same threshold and procedures to reanalyze the modified proposed changes to determine whether the modifications actually removed the potential disproportionate burden of the changes.

If the RTA does not alter the proposed service changes despite the potential disproportionate burden on low-income populations, or if it finds, even after the revisions, that the low-income population will continue to bear a disproportionate share of the proposed major service change or fare change, the RTA will implement the change only if the following criteria apply:

- (1) There is a substantial legitimate justification for the proposed major service change,
and
- (2) The RTA can show that, after examining alternatives, there are no alternatives that would reduce the disproportionate burden on the low-income population but would still accomplish the legitimate program goals.

Resources for Comparison of Service or Fare Changes

The RTA will include a justification for the selected comparison dataset for use in low-income population service equity analysis. The RTA will use the same comparison population data in low-income population service equity analyses as it uses for minority population service equity analyses.

Public Comment Opportunity

The Greater Dayton RTA shall provide a meaningful opportunity for public comment on any proposed mitigation measures, including less discriminatory alternatives that may be available. The public comment or Public Hearing Process is defined in the RTA Public Engagement Process.

The Director of Planning/Marketing will be responsible for ensuring compliance with this policy.

Exhibit # 7



**Planning
(Policy)**

Focus: Major Service Change and Fare Equity Analysis	Number: Marketing/Planning 6
Document History: Approved: 9/3/13 Effective: 9/3/13 Revisions:	Pages: 1 of 3
Executive Director Signature:	Date:

TITLE VI MAJOR SERVICE AND FARE EQUITY ANALYSIS POLICY
RTA OPERATING POLICY

I. GENERAL DESCRIPTION

The Greater Dayton Regional Transit Authority (RTA) establishes this Title VI Major Service Change and Fare Equity Analysis Policy in compliance with applicable Federal requirements under Title VI of the Civil Rights Act of 1964, including 49 CFR Section 21, as well as Environmental Justice requirements under Executive Order 12898 and FTA Circular 4702.1B.

The Federal Transit Administration (FTA) requires that recipients of FTA funding evaluate the effects of major service changes and all fare changes on minority and low-income populations.

A “minority population” is defined in FTA Circular 4702.1B as any population of minority persons identifiable by race, color, or national origin. A “low-income” population is defined as having a median household income at or below 150% of the Department of Health and Human Services Poverty Guidelines.

For the purposes of this policy, “low-income population” is defined as having a median household income that is at or below 150% of the Department of Health and Human Services Poverty Guidelines.

This policy incorporates by reference the percentage thresholds for disparate impact and disproportionate burden from the RTA’s Title VI Disparate Impact Policy and Environmental Justice Disproportionate Burden Policy.

II. POLICY STATEMENT

Fare Equity Analysis

For the proposed changes that would increase or decrease the fares on the entire system, or on any mode, or by fare payment type or fare media, the RTA shall analyze any available information generated from annual ridership surveys indicating whether minority and/or low-income riders are disproportionately more likely to use the mode of service, payment type, or payment media that would be subject to the fare change. The RTA will describe the techniques and/or technologies used to collect data for analysis in its documentation of application of the Monitoring Procedure. (It is noted that Census data will not be effective for fare change analysis, since it is impossible to know, based on Census data, what fare media people are using.)

The RTA will conduct the following steps in accordance with this policy:

- (1) Determine the number and percent of overall riders, minority, and low-income users of each fare media being changed;
- (2) Review current fares vs. proposed fare change;
- (3) Compare the statistical percentage differences for each particular fare media between minority users and overall users; and
- (4) Compare the statistical percentage differences for each particular fare media between low-income users and overall users.

Should a proposed change result in a disparate impact on the basis of race, color, or national origin, the RTA will consider modifications to the proposed changes that avoid, minimize, or mitigate the disparate impact of the change. If the RTA finds a potential disparate impact and then modifies the proposed changes to avoid, minimize, or mitigate potential disparate impacts, the RTA will reanalyze the proposed changes to determine whether the modifications actually removed the potential disparate impacts of the changes.

If the RTA chooses not to alter the proposed fare changes despite the disparate impact on minority ridership, or if RTA finds, even after the revisions, that minority riders will continue to bear a disproportionate share of the proposed fare change, RTA may implement the fare change only if:

- (1) RTA has a substantial justification for the proposed change, and
- (2) RTA can show that there are no alternatives that would have a less disparate impact on minority riders but would still accomplish RTA's legitimate program goals.

If the RTA finds that low-income populations will bear a disproportionate burden of the proposed fare change, RTA will consider modifying the proposed changes to avoid, minimize, or mitigate the disproportionate burden of the change. The RTA will describe alternatives available to low-income populations affected by the fare changes

Exceptions

In accordance with FTA Title VI Circular 4702.1B, the RTA will not require a fare equity analysis when the following exceptions apply:

- (1) "Spare the air days" or other instances when the RTA or local municipality has declared that all passengers ride free.
- (2) Temporary fare reductions that are mitigating measures for other actions (i.e., construction activities).
- (3) Promotional fare reductions lasting less than six months.

Public Comment Opportunity

The RTA shall provide a meaningful opportunity for public comment on any proposed mitigation measures, including less discriminatory alternatives that may be available. The public comment or Public Hearing Process is defined in the RTA Public Engagement Process

The Director of Planning/Marketing will be responsible for ensuring compliance with this policy.

Exhibit # 8



Planning (Procedure)

Focus: Title VI and Environmental Justice Service Monitoring Procedures	Number: Planning Procedure 12
Document History: Approved: 9/3/13 Effective: 9/3/13 Revisions:	Pages: 1 of 6

TITLE VI AND ENVIRONMENTAL JUSTICE SERVICE MONITORING PROCEDURES

The Greater Dayton RTA's Title VI and Environmental Justice Service Monitoring Procedures sets forth the criteria and steps necessary for the RTA's consideration of service equity for existing services. The Greater Dayton RTA will apply the Title VI and Environmental Justice Service Monitoring Procedures to ensure that there is no disparate impact to minority and non-minority service areas. Before implementing fare changes, the RTA will apply the appropriate procedures to ensure that there is no disproportionate burden borne by minority and/or low-income individuals.

The procedures outlined in this document correspond to the RTA's Disparate Impact and Disproportionate Burden Policies (2013).

The Director of Planning/Marketing will be responsible for ensuring compliance with this procedure.

PROCEDURE

Monitoring Vehicle Load

When measuring the Disparate Impact by minority and non-minority routes in terms of vehicle load, the Greater Dayton RTA will apply vehicle load data samples to its service standards to obtain a sample of services in each of the respective demographic areas. A one week sample will be used and compared on a semi-annual basis. Table 1 outlines the comparison process.

The load factor is defined as "the number of passengers on board a vehicle divided by the number of seats available at a maximum load point." The RTA's Vehicle Loading Standards are outlined in the RTA Service Standards Manual. Per the Manual, if the load standard is exceeded for any 60-minute period, RTA staff will evaluate the potential for improving the service frequency. If the load is exceeded but not sustained for 60-minutes, the RTA will evaluate the possibility of adjusting schedule times to focus on

more service before and after the overloaded trip.

Table 1: Comparison Table for Vehicle Load

Type of Service	Load Factor	Average Weekday Load Factor																Saturday	Sunday		
		3AM-4AM	5AM-6AM	7AM-8AM	9AM-10AM	10AM-11AM	11AM-12PM	12PM-1PM	1PM-2PM	2PM-3PM	3PM-4PM	4PM-5PM	5PM-6PM	6PM-7PM	7PM-8PM	8PM-9PM	9PM-10PM	10PM-11PM	11PM-12AM	Base	Base
System	140%																				
Minority Routes	140%																				
Local	140%																				
Suburban	140%																				
Crosstown	140%																				
Express	140%																				
Rural	140%																				
Feeder	140%																				
Non-Minority Routes	140%																				
Local	140%																				
Suburban	140%																				
Crosstown	140%																				
Express	140%																				
Rural	140%																				
Feeder	140%																				

Monitoring Vehicle Headways (Frequency)

When applying the Disparate Impact Policy to Vehicle Headways, the Greater Dayton RTA will compare average headways from routes that serve minority and non-minority areas (as defined in Chapter 1 of Federal Transit Administration Circular 4702.1B). The headways will be derived from the Trunk Headway Report and compared to RTA service policies. Table 2 illustrates the comparison process.

Table 2: Comparison Table for Vehicle Headways (Frequency)

Type of Service	Average Weekday Headways				Average Saturday Headways		Average Sunday Headways	
	AM Peak	Base	PM Peak	Night	Base	Night	Base	Night
Overall (2013)	37.5	49.5	36.3	74.7	66.6	76.1	78.7	81
+20% Variance	30 - 45	39.6 - 59.4	29 - 43.6	59.8 - 89.6	53.3 - 79.9	60.9 - 91.3	63 - 94.4	64.8 - 97.2
Minority Routes								
Local (1, 2, 4, 7, 8, 9, 12, 22)								
Suburban (14)								
Crosstown (24, 34)								
Express (X1B, X5)								
Rural (40, 41)								
Feeder (61, 65)								
Non-Minority Routes								
Local (3, 5)								
Suburban (11, 16, 17, 18, 19)								
Crosstown (23)								
Express (X1A)								
Rural (42)								
Feeder (60, 66)								

*Averages are in minutes

Monitoring On-Time Performance

The RTA vehicle is considered “on-time” when its departure is zero to five minutes after the scheduled time at the specified timepoint. A vehicle is scheduled late when it arrives five minutes and one second after the scheduled time at the specified timepoint. The on-time performance goal is 90 percent.

The RTA will measure on-time performance by mode and minority/non-minority routes. The Schedule Adherence By Route – Summary for each month will be used as that dataset for Table 3 which outlines the analysis requirements by route.

Table 3: Comparison Table for On-Time Performance

Type of Service	Average Percent On-Time		
	Early	On-Time	Late
Overall (2013)	3.5%	84.6%	11.9%
+/-20% Variance	2.8 - 4.2%	67.7 - 100%	9.5 - 14.3%
Minority Routes			
Local			
Suburban			
Crosstown			
Express			
Rural			
Feeder			
Non-Minority Routes			
Local			
Suburban			
Crosstown			
Express			
Rural			
Feeder			

Monitoring the Impact of Changes to Route Directness

The RTA Service Standards Manual defines the system’s Route Directness Standards. As stated in the Manual, when a deviation exists or is being considered, the gain in convenience to those passengers who are boarding or alighting during the deviation must be balanced against the additional travel time for the passengers traveling through.

The RTA will compare the Route Directness Standards on existing routes when a deviation is planned that will impact minority, non-minority, and low-income population of the TAZ or zip-code area served by the new deviation. The impact on the population will be compared against the additional travel time for minority, non-minority, and low-income passengers who are traveling through on the route.

Monitoring Transfers and Connections between Buses

Excessive transfers and/or extensive wait time when waiting for a second bus can discourage passengers from using the bus because of the inconvenience and added travel time from origin to destination. The RTA will use passenger surveys to monitor the number of buses used to get from origin to destination for services in minority and non-minority areas. It will also apply survey results to monitor passenger satisfaction with the connection-time between buses. When a route serving a minority area exceeds the system-wide average for transfers, the Greater Dayton RTA will seek to design and implement service changes to reduce the number of transfers necessary for those passengers. A sample of ridership will be used to measure the transfers required by passengers. Tables 4 and 5 illustrate the comparison table to be applied.

Table 4: Comparison of Transfers Required by Route

Type of Service	Average Number of Buses to Destination
Overall (2013)	1.86 buses
+/-20% Variance	1.49 - 2.23 buses
Minority Routes	
Local	
Suburban	
Crosstown	
Express	
Rural	
Feeder	
Non-Minority Routes	
Local	
Suburban	
Crosstown	
Express	
Rural	
Feeder	

Table 5: Comparison of Connections Between Buses

Type of Service	Average Passenger Rating
Overall	
Minority Routes	
Local	
Suburban	
Crosstown	
Express	
Rural	
Feeder	
Non-Minority Routes	
Local	
Suburban	
Crosstown	
Express	
Rural	
Feeder	

Monitoring the Impact of Fare Changes

For proposed changes that would increase or decrease fares on the entire system, or on certain modes, or by fare payment type or fare media, the RTA will analyze any available information generated from ridership surveys indicating whether minority and/or low-income riders are disproportionately more likely to use the mode of service, payment type, or payment media that would be subject to fare change. An example of the process taken for monitoring the impact of fare changes is provided in the Fare Equity Analysis Policy (2013).

Monitoring Vehicle Assignment

The Greater Dayton RTA will use the following procedure to monitor the Vehicle Assignment Policy. GDRTA will use Table 6 that analyzes each service type for average date of purchase, and average age of buses used. These averages will be determined using a sample for a given week.

Table 6: Comparison Table for Vehicle Assignment

Type of Service	Average Date of Purchase	Average Age of Buses
Overall		
+/-20% Variance		
Minority Routes		
Local		
Suburban		
Crosstown		
Express		
Rural		
Feeder		
Non-Minority Routes		
Local		
Suburban		
Crosstown		
Express		
Rural		
Feeder		

Monitoring Service Availability

As a way to monitor service availability, GDRTA will use the map “GDRTA Routes Demographic Analysis” provided by the Miami Valley Regional Planning Commission (MVRPC) until a new Decennial Census becomes available. GDRTA will continue to use GIS and Census data to monitor the percentage of minority, Hispanic, and elderly populations that live within ¼ and ½ mile of GDRTA routes.

CONCLUSION

This manual offers RTA staff and the general public an opportunity to review and utilize a basic template for decision-making concerning current service and evaluating new service requests. It also helps inform decision-makers who may not have a background in the transit industry about functional transit practices. Although it is not always feasible to utilize this document to the exact “letter” due to various items beyond staff control such as the economy, political desires, or community initiatives, it certainly provides an objective basis to assist with annual service planning evaluation and implementation.