COTA

Short Range *Transit Plan*

2003

Central Ohio Transit Authority

Connecting Communities

2003 SHORT RANGE TRANSIT PLAN

Prepared by COTA in compliance with the March 19, 1980 Short Range Transit Plan guidelines issued by the Federal Transit Administration

Central Ohio Transit Authority

Short Range Transit Plan
2003 - 2007

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Prepared by the Department of Planning
April 2003

1600 McKinley Avenue, Columbus, Ohio 43222-1093 (614) 275-5800

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SECTION I

INTRODUCTION TO THE SHORT RANGE TRANSIT PLAN

INTRODUCTION

The Central Ohio Transit Authority (COTA) biennially develops a five-year plan known as the Short Range Transit Plan (SRTP). This document constitutes an update of the original Transportation Development Plan (TDP) of COTA, in accordance with Federal, State and Local eligibility requirements for funding. The SRTP analyzes the transit market in Central Ohio and the ability of the current COTA system to serve the market. Methods for prioritizing expenditures, service and funding are examined in detail.

The SRTP also incorporates the Transportation Improvement Program (TIP), which can be found in Section IX. The TIP is based on the present and projected four-year service needs of the area and identifies the capital needs, cost projections, funding requirements and programmed service improvements for each year. Major operating and capital elements of the 2003 SRTP include:

Operating

- Due to significant declines in COTA's sales tax revenues and state and federal operating assistance, COTA will be required to eliminate 19,682 annualized hours of fixed-route service in 2003. Given the projected slow growth in sales tax proceeds, COTA will be required to eliminate an additional 149,312 fixed-route service hours between 2004 and 2007 in order to balance the budget. In total, COTA fixed-route service hours will decrease from 787,270 to 618,276 between 2003 and 2007. In addition, COTA will reduce administrative labor costs by 15% in 2004.

- In 2003, Project Mainstream will provide 126,547 vehicle hours of service. Complementary paratransit service has increased significantly during the last eleven years as COTA came into compliance with Title II of the Americans with Disabilities ACT (ADA). As a result of the reduction in the area of fixed-route service coverage and constrained revenues, COTA will reduce Project Mainstream service hours from 126,547 to 111,283 between 2004-2007.

- Major service initiatives for 2003 include:

  - #3 Mound St./Northwest Blvd. – reduce weekday midday service levels from 27 to 40 minutes;

  - #9 Leonard/Brentnell Local - reduce weekday midday service levels from 40 to 55 minutes;

  - #31 Worthington Express – discontinue unproductive trips through Worthington Estates;

- #72 Easton LINK – discontinue service on the South Loop;
- #73 Capital City Flyer – discontinue service;
- #92 James Rd. Crosstown – extend all trips into Port Columbus;
- #95 Morse/Henderson Crosstown – realign route to serve Gillie Senior Recreation Center.

COTA's projected operating expenses will increase from $72,330,627 in 2003 to $73,230,653 in 2007.

Capital

- COTA will complete final design and begin construction on the Easton Child Care Center in 2003. Construction will be completed in the first quarter of 2004.
- In 2003, COTA will begin final design on the Downtown Multi-Modal Transportation Terminal (MMTT) project. Construction of the terminal will occur in 2004-2005.
- COTA will initiate final design on the Near-East Transit Center in 2003. Construction will occur in 2004.
- In the second trimester of 2003, COTA will replace ten 9100 series buses with 40' low-floor New Flyer buses. In the second trimester of 2004, COTA will take delivery on twelve 35' low-floor New Flyer buses. These coaches will replace ten 9100 Series buses and two 9500 series buses. In the first trimester of 2005, COTA will replace seventeen 9300 series coaches. COTA will replace fourteen 9500 series coaches in 2007. Prior to 2007, COTA will need to identify funding to replace an additional sixty-six 9500 series coaches. As a result of service reductions, the total fixed-route active bus fleet will decrease from 295 in 2003 to 237 buses in 2007.
- COTA will need to replace forty-six Project Mainstream vehicles between 2003-2007.
- In 2003, COTA will replace its aging automatic passenger counters (APC) with a new system that will provide among other data, stop level detail passenger counts.
- In 2003, COTA will initiate Preliminary Engineering on the North Corridor Light Rail transit line.

- In 2004, COTA will procure and install 315 bike racks for the fixed-route coaches.

In the last two years, COTA has experienced significant reductions in sales tax revenue and state and federal capital and operating assistance. In order to maintain a balanced budget during this four-year plan, COTA will be required to reduce fixed-route and Project Mainstream service hours and administrative costs. These service reductions may be mitigated if Governor Taft is successful in implementing his plan to expand Ohio's sales tax base. It is estimated that COTA would receive a 2% to 4% increase in its sales tax receipts per year if this plan were adopted. In addition, COTA staff is investigating several innovative financing techniques (e.g., sale/leaseback of existing assets, and joint development on COTA owned sites), which could generate supplemental revenue. If COTA is successful in generating additional revenues and/or the sales tax receipts return to more typical levels, COTA will make every effort to minimize the fixed-route and Project Mainstream service reductions and restore key projects to the 2004-2007 Capital Plan. COTA's Board of Trustees and management staff will continue to work vigorously to provide affordable, cost effective public transit services to the citizens of Central Ohio.

SECTION II

PUBLIC TRANSIT IN THE COLUMBUS METROPOLITAN STATISTICAL AREA

COTA HISTORY

In 1970, the Columbus and Southern Ohio Electric Company, parent corporation of the Columbus Transit Company (CTC), announced its decision to dispose of the bus company. In order to preserve transit in the Central Ohio region, a group of citizens formed the Advisory Committee on Transit. One of the Committee's first actions was to lobby the State legislature to permit the formation of regional transit authorities. Once enacted, the next step was the creation of the Central Ohio Transit Authority (COTA), as an entity.

The agreement creating COTA was authorized by the Franklin County Commissioners, and the City Councils of Bexley, Columbus, Gahanna, Grandview Heights, Grove City, Hilliard, Reynoldsburg, Upper Arlington, Westerville, Whitehall and Worthington. A thirteen member Board of Trustees was created for COTA. The Board of Trustees was composed of eleven trustees named by the mayors of the eleven member cities, and two trustees named by the Franklin County Commissioners.

On June 29, 1973, an agreement for COTA to purchase the privately owned bus company from CTC and the Columbus and Southern Ohio Electric Company was signed. The actual transition occurred in January 1974. Ridership in the last year of CTC ownership (1973) was 12,975,000.

As shown in Appendix B-1, Annual Passenger and Operating Statistics, COTA ridership and service began to grow in the first year of public operation. Service reached its peak in 1985 with 26,700,334 passengers and 822,289 hours of operation. In 1986 and 1987 work stoppages negatively affected the amount of service provided and ridership. In 1988, the downward trend was reversed as both ridership and service increased.

With the defeat of a local sales tax issue in November of 1988, COTA was required to make significant reductions in service in order to stretch its resources to the November 1989 election. As a result, COTA's ridership dropped in 1989. In November 1989, COTA passed a ten-year, 0.25% sales tax that provided the essential local funds to restore the productive service eliminated in 1989 and provide for modest growth in the system.

In order to provide financial support for implementation of COTA's 1995 Expanded Bus Plan, COTA placed an additional 0.25% 10-year sales tax on the ballot in November 1995. Following the close defeat of this issue, COTA developed a long-term plan titled "Vision 2020" which includes both expansion of COTA's bus service and the introduction of commuter and light rail (see Section IV).

Facing the expiration of the 1990 ten-year 0.25% sales tax, COTA sought permanent funding for existing levels of services and additional funding to implement Vision 2020. Two separate 0.25% sales tax issues, Issues 20 and 21, were placed on the November 1999 ballot for voter approval. Issue 20 successfully passed and established for the first time in COTA's history a permanent source of funding.

Unfortunately, Issue 21 did not pass and as a result, COTA must continue to develop innovative strategies necessary to provide the level of transit services proposed in Vision 2020.

Over the past several years, strategic partnerships aimed to expand transit service and increase ridership have been formed with many local colleges, universities, social service agencies, and businesses. While these partnerships have made a strong impact towards improved transit service in the Central Ohio area, the recent economic downturn and resulting decline in sales tax receipts forced COTA to implement various service reductions and other cost cutting measures, and increase fares. For example, as of April 2003, annual service hours have decreased nearly 12% from May 2000 service levels, [MMc1]while COTA's active fleet size decreased from 339 to 2[MMc2]95 buses (14.9% reduction). As a result, COTA's fixed-route ridership declined to 16,274,593 passengers in 2002. Appendix B-1 provides annual data on passengers, hours and miles for the year's 1974-2002.

THE TRANSIT MARKET IN THE COLUMBUS METROPOLITAN STATISTICAL AREA

The Columbus Metropolitan Statistical Area (MSA) consists of six counties in Central Ohio. The counties include: Delaware, Fairfield, Franklin, Licking, Madison and Pickaway. The population for this area is 1,348,288[1].

Franklin County has a population of 1,088,445[1], making it the MSA's largest county in terms of population. A map of the Columbus MSA and Franklin County are shown in Figures 2-1 and 2-2, respectively. There are twenty-six incorporated municipalities in Franklin County. Columbus is the largest city in Franklin County, with a population of 712,415[2] in Franklin County, and a total population of 726,601[3].

COTA's service area consists of Franklin County and small portions of Delaware, Fairfield and Licking Counties. The areas served outside of Franklin County are within municipalities that were signatories to the agreement which created COTA (i.e. Columbus, Reynoldsburg, and Westerville).

THE COTA SYSTEM

COTA operates four types of regular routes: locals, which make all stops and travel through or end downtown; expresses, which make few or limited stops and start or terminate downtown; crosstowns, which operate between two non-downtown points, and LINK routes, which circulate through major activity centers or residential development areas. LINK routes utilize low-floor 30' buses, and serve as a connector to regular fixed-route services, and to COTA transit centers.

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[1] U.S. Census Bureau, Census 2000/MORPC
[2] U.S. Census Bureau, Census 2000/MORPC
[3] U.S. Census Bureau, Census 2000/MORPC

A timed-transfer system goes into effect at 10:00 PM on weekdays allowing passengers to conveniently transfer in the downtown. The final trip from the downtown is 11:45 PM on weekdays.

COTA operates a mid-day downtown shuttle, the COTA High St. LINK, which runs along High Street connecting German Village and the Short North area. The downtown LINK operates on weekdays between 11:00 AM and 2:00 PM with six and a half minute headways.

On June 1, 1998, COTA implemented the Westerville COTA LINK. This first-of-its-kind pilot program in the Central Ohio area provides transit service via a neighborhood circulator bus that also serves as a feeder for local, express, and crosstown routes. On July 10, 2000, LINK service was introduced to the Easton area, where the Easton LINK loop route was implemented to serve this fast-growing retail, commercial, and residential development. On May 7th, 2001, COTA implemented the Linden LINK route, which circulates in the Linden area while making connections with the Linden Transit Center and other fixed route services.

Effective March 31, 1997, COTA added service to its system as a result of an overwhelming majority vote by The Ohio State University's (OSU) undergraduate and professional student body to pay an additional $9.00 fee per quarter ($13.50 for professional students), for unlimited use of the COTA system. After a successful twenty-month trial period, the option to continue this service for an additional five years was put to a vote by OSU students. Voting took place on campus in January 1999, and continuation of the GO BUS! program was approved by an overwhelming majority (90%) of voting students. The GO BUS! program provides improved frequency of service on North High St., additional local service from the campus area to the Lennox Town Center (including late night service on the weekends), the Bethel/Sawmill area, Tuttle Mall area, and weekend late evening service from the Brewery District to campus. Beginning in autumn 1999, COTA began providing limited express service from the OSU campus area to Port Columbus Airport.

Table 2-1 on page II-6 summarizes the COTA system by day of week and time of day. Maps of the entire COTA system, as well as evening, Saturday and Sunday service follow the Existing Service Table.

FIGURE 2-1
THE COLUMBUS MSA

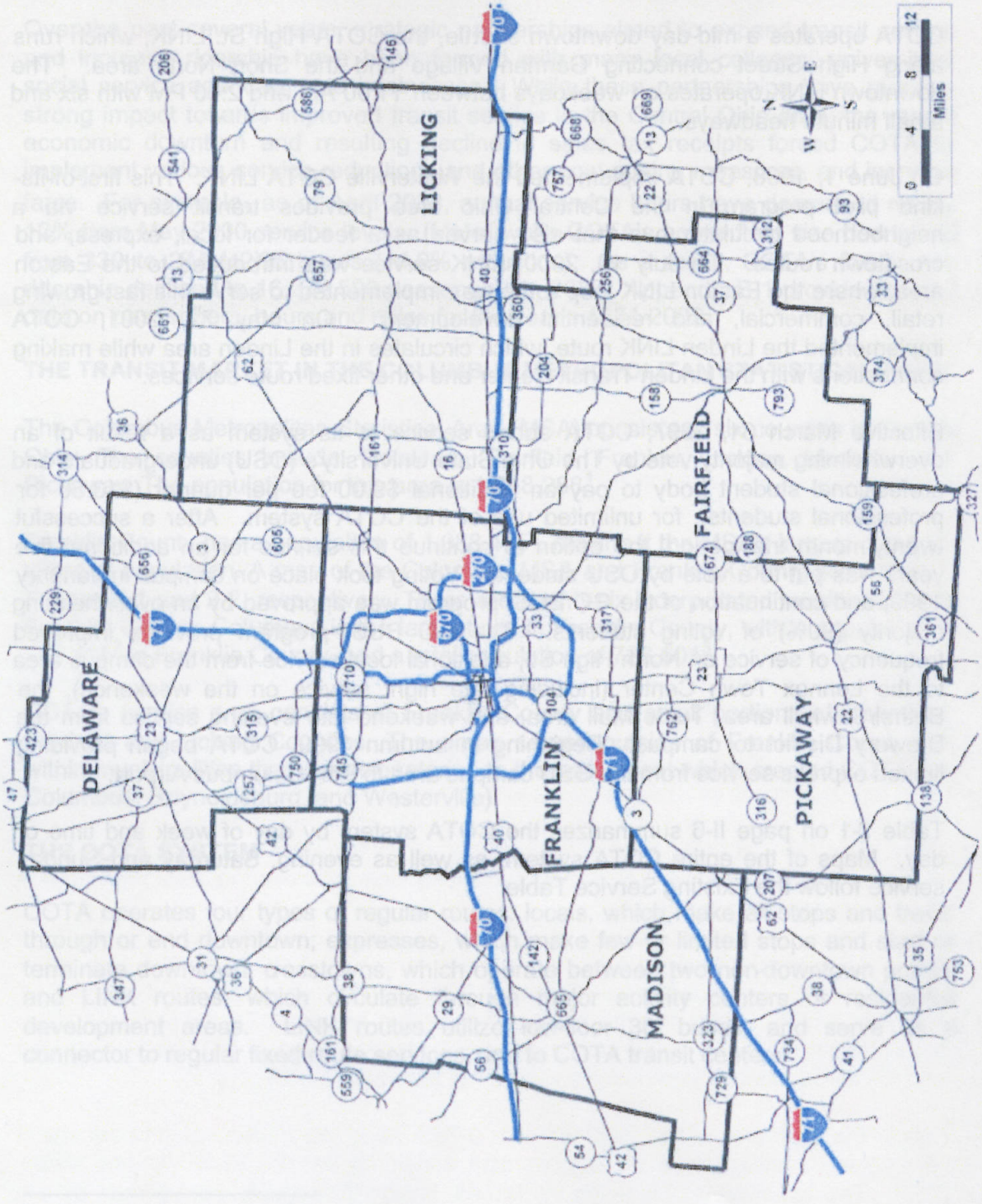


FIGURE 2-2
COTA SERVICE AREA

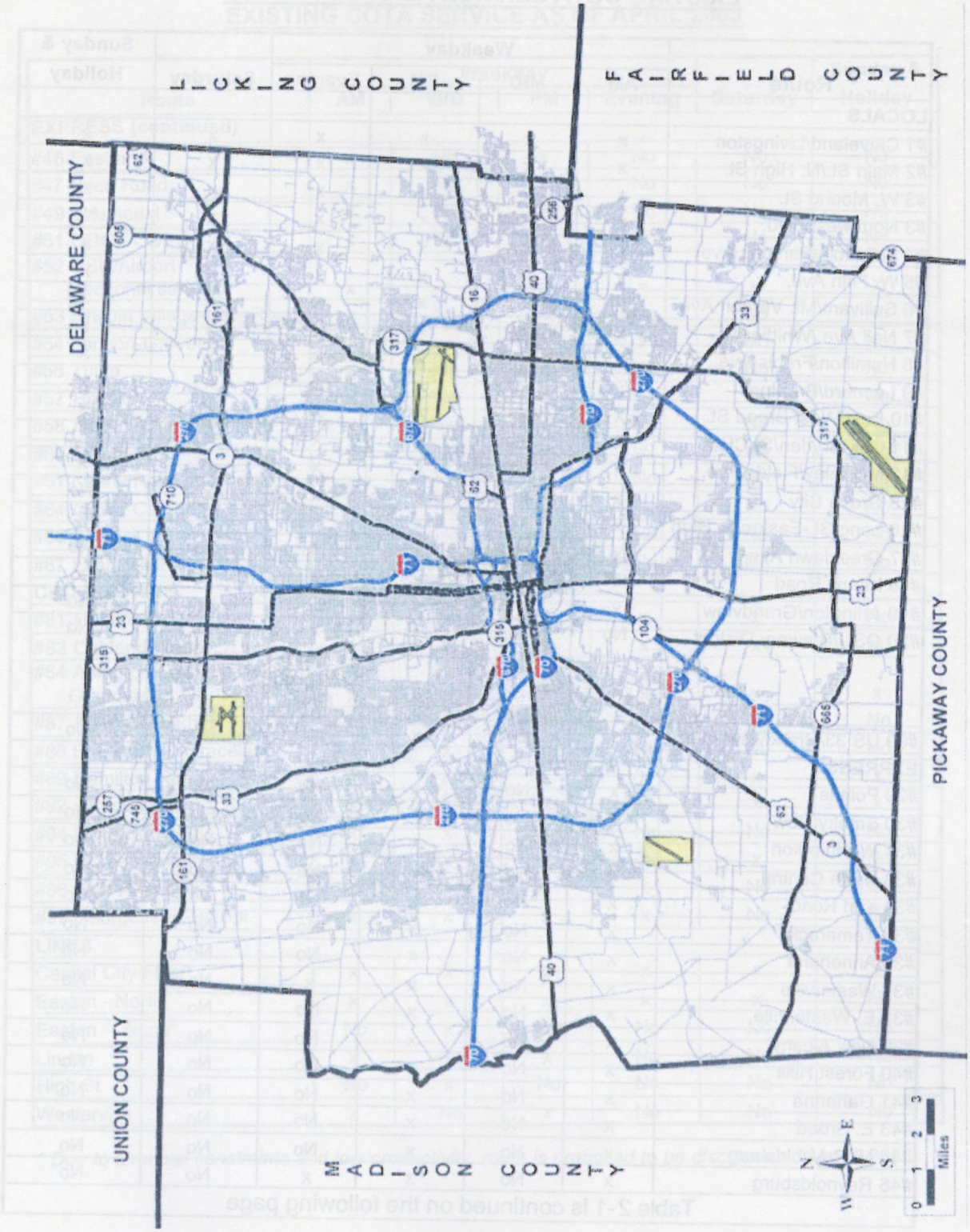


TABLE 2-1

EXISTING COTA SERVICE AS OF APRIL 2003

Route	Weekday				Saturday	Sunday & Holiday
	AM	MID	PM	Evening		
LOCALS						
#1 Cleveland/Livingston	x	x	x	x	x	x
#2 Main St./N. High St.	x	x	x	x	x	x
#3 W. Mound St.	x	x	x	x	x	x
#3 Northwest Blvd.	x	x	x	x	x	No
#4 Indianola/Parsons Ave.	x	x	x	x	x	x
#5 W. Fifth Ave.	x	x	x	x	x	x
#6 Sullivant/Mt. Vernon Ave	x	x	x	x	x	x
#7 Neil Ave./Whittier St.	x	x	x	x	x	x
#8 Hamilton/Frebis Ave.	x	x	x	x	x	x
#9 Leonard/Brentnell	x	x	x	x	x	x
#10 East/West Broad St.	x	x	x	x	x	x
#11 Oak-Bryden/St.Clair	x	x	x	x	x	x
#12 McKinley/Fields Ave.	x	x	x	x	x	x
#15 Grove City	x	x	x	x	x	No
#16 Long St.-Easton/S. High	x	x	x	x	x	x
#17 Greenlawn Ave.	x	x	x	No	No	No
#18 Kenny Road	x	x	x	x	x	x
#19 Arlington/Grandview	x	x	x	x	No	No
#20 OSU/Brewery District	No	No	No	x Friday Late Night Only	x Late Night Only	No
#69 US 33/Grandview Ave.	x	No	x	No	No	No
EXPRESS						
#29 Polaris	x	No	x	No	No	No
#30 Smoky Row	x	No	x	No	No	No
#31 Worthington	x	No	x	No	No	No
#33 North Central	x	No	x	No	No	No
#34 Karl Road	x	No	x	x	No	No
#35 Tamarack	x	No	x	No	No	No
#36 Annehurst	x	No	x	No	No	No
#37 Westerville	x	No	x	x	No	No
#38 E. Westerville	x	No	x	No	No	No
#39 New Albany	x	No	x	No	No	No
#40 Forest Hills	x	No	x	No	No	No
#41 Gahanna	x	No	x	No	No	No
#43 E. Broad	x	No	x	No	No	No
#44 N. Reynoldsburg	x	No	x	No	No	No
#45 Reynoldsburg	x	No	x	x	No	No

Table 2-1 is continued on the following page

TABLE 2-1 (Continued)

EXISTING COTA SERVICE AS OF APRIL 2003

Route	Weekday				Saturday	Sunday & Holiday
	AM	MID	PM	Evening		
EXPRESS (continued)						
#46 Eastland	x	No	x	No	No	No
#47 Brice Road	x	No	x	No	No	No
#49 Southeast	x	No	x	No	No	No
#51 ODOT/ODPS	x	No	x	No	No	No
#52 OSU/Airport (seasonal service)	x	x	x	x	x	X
#53 Lincoln Village-New Rome	x	No	x	No	No	No
#54 London-Groveport	No	x	x	x	No	No
#56 Tuttle	x	No	x	No	No	No
#57 Hilliard	x	No	x	No	No	No
#58 Dublin	x	No	x	No	No	No
#60 Arlington	x	No	x	x	No	No
#61 Kenny Road	x	No	x	No	No	No
#64 Grove City	x	No	x	No	No	No
#65 Berwick	x	No	x	No	No	No
#67 East Hilliard	x	No	x	No	No	No
CROSSTOWNS						
#81 Hudson/Ohio	x	x	x	x	x	No
#83 Oakland-Weber	x	x	x	x	x	No
#84 Arlington/OSU/Lennox/ Grandview	x	x	x	x	x	x
#87 Agler-Cassady	x	x	x	No	x	No
#88 Busch Blvd.-Graceland	x	x	x	No	No	No
#89 Hamilton Road	x	x	x	x	x	x
#92 James Road	x	x	x	x	x	x
#94 State Route 161	x	x	x	No	No	No
#95 Morse/Henderson	x	x	x	x	x	No
#96 Fifth Avenue	x	x	x	x	No	No
#97 Georgesville-Phillipi	x	x	x	x	No	No
LINKS						
Capital City Flyer*	x	x	x	x	x	x
Easton - North	x	x	x	x	x	No
Easton – South*	No	x	No	No	No	No
Linden	x	No	x	No	No	No
High St	No	x	No	No	No	No
Westerville	x	No	x	No	No	No

** Due to financial constraints and low productivity, route is proposed to be discontinued May 5,2003.*

FIGURE 2-3
THE COTA SYSTEM AS OF APRIL 2003

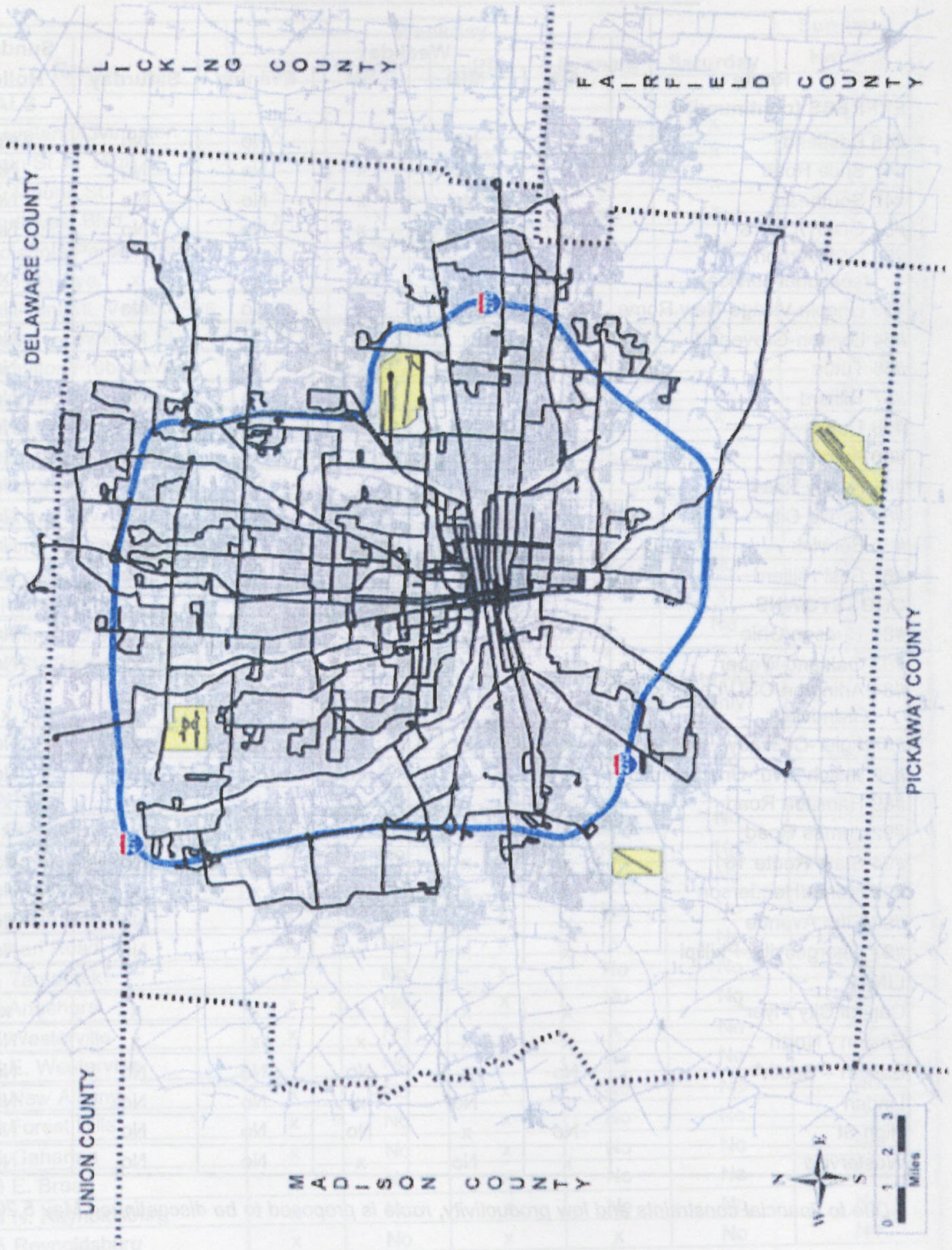


FIGURE 2-4
WEEKDAY ROUTES OPERATING ONE COMPLETE TRIP AFTER
6:00 P.M. AS OF APRIL 2003

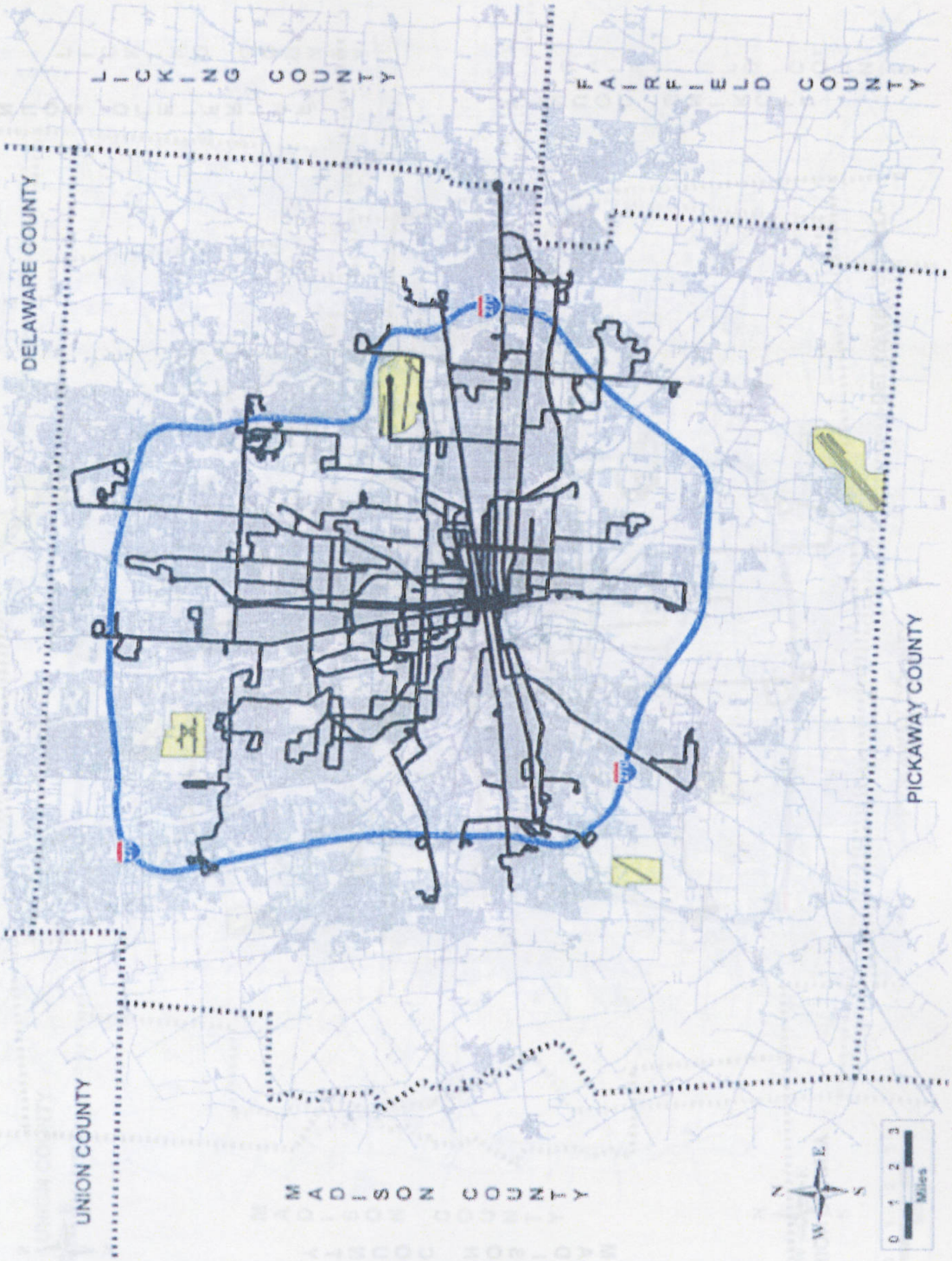


FIGURE 2-5
SATURDAY SERVICE AS OF APRIL 2003

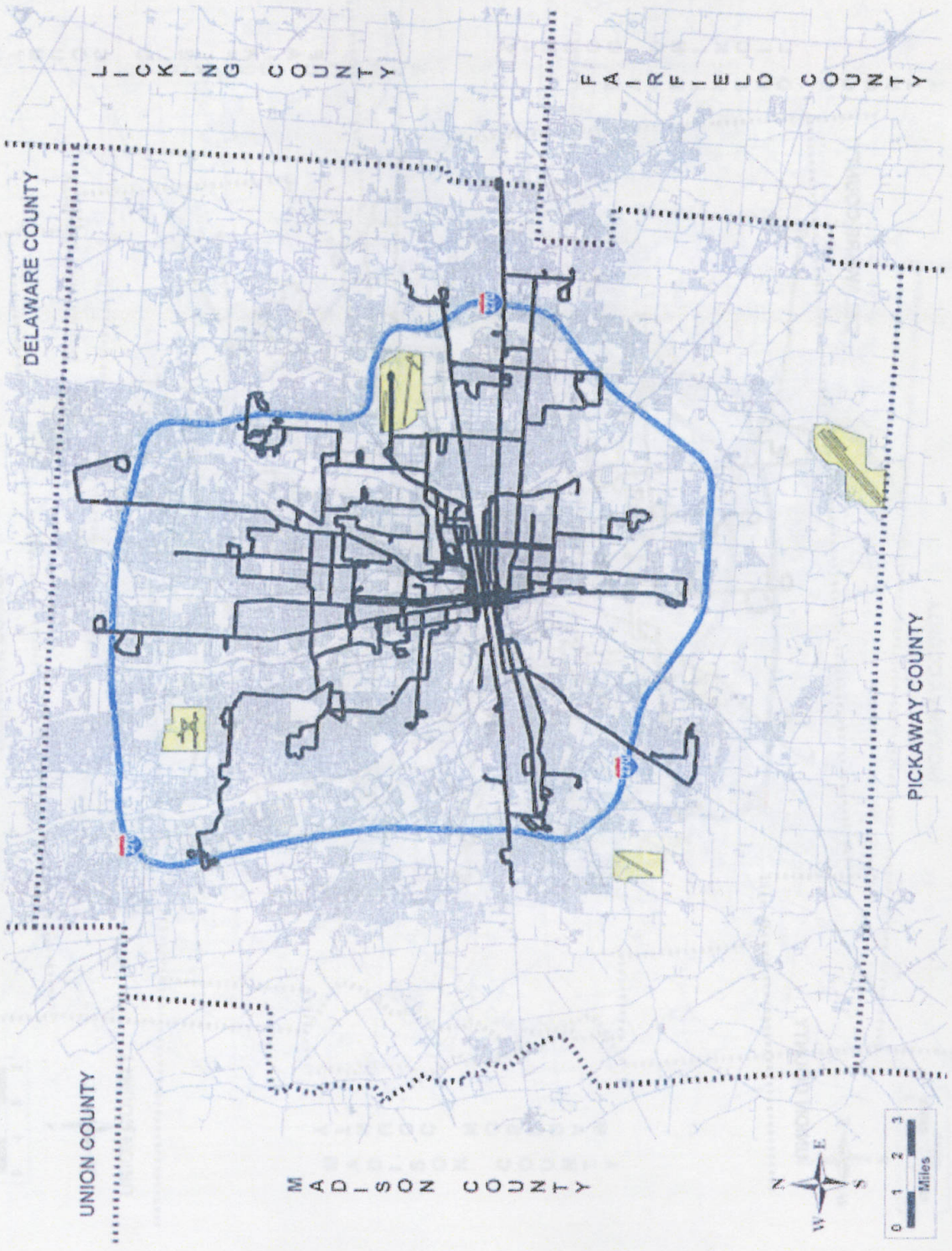
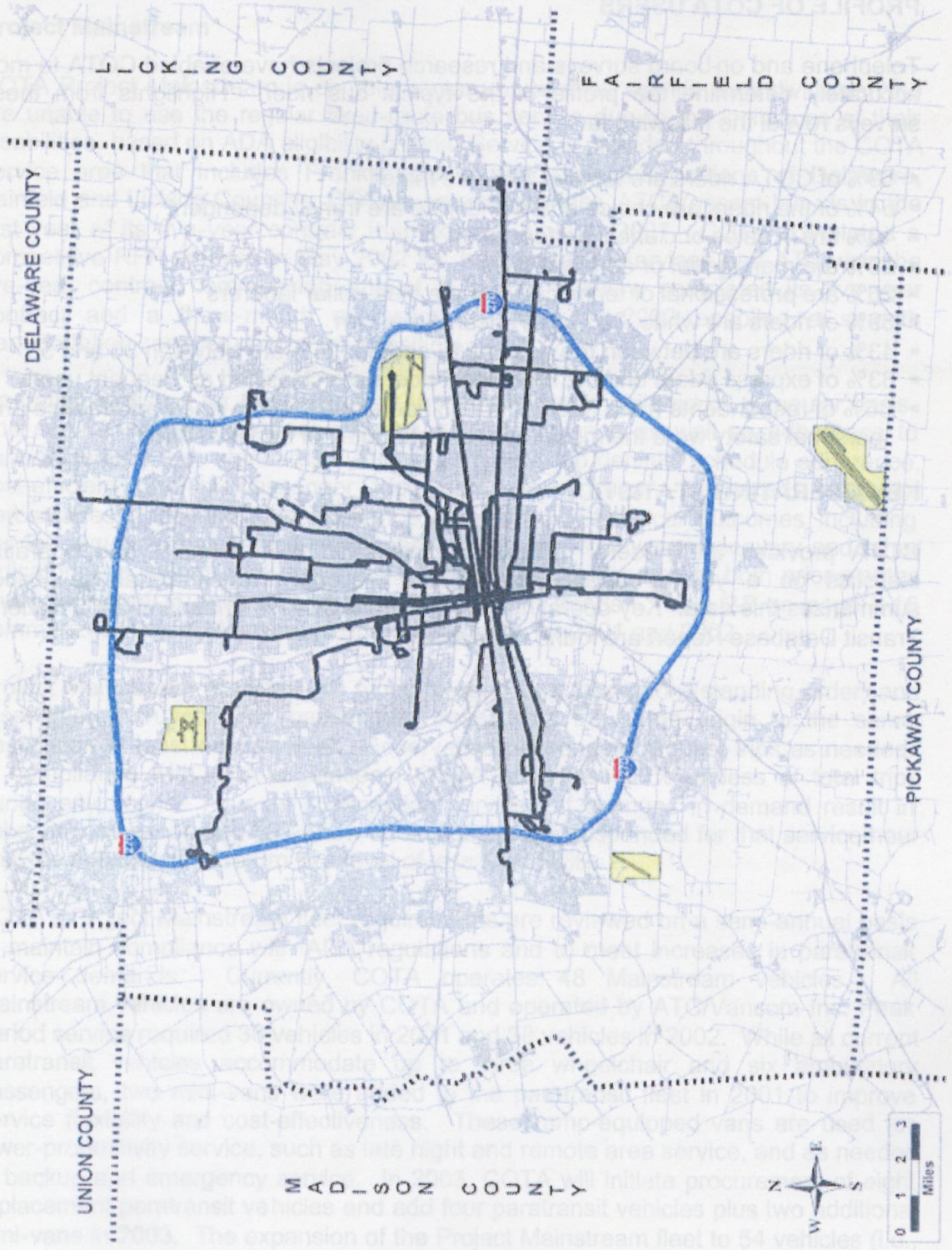


FIGURE 2-6
SUNDAY/HOLIDAY SERVICE AS OF APRIL 2003



PARATRANSIT SERVICES

Project Mainstream

COTA Project Mainstream is complementary paratransit service for individuals who are unable to use the regular fixed-route bus service due to the limitations of their disabilities, based on ADA eligibility criteria. Service is provided throughout the COTA service area that includes Franklin County and selected portions of Delaware, Fairfield and Licking Counties. COTA's service provider, ATC/Vancom Inc., is in the first year of its five-year contract that expires July 31, 2007. COTA completed a competitive RFP process in May 2002 for transportation services and ATC won the five-year contract commencing August 1, 2002. Laidlaw completed its five-year contract and a three-month extension on July 31, 2002 enabling a smooth transportation services contractor transition.

Operating statistics for COTA Project Mainstream are monitored on a regular basis. The service provider contract requires ADA compliance as well as adherence to various performance standards including zero ADA trip denials, schedule adherence, cost-efficient rate of passenger trips per revenue hour, minimized deadhead percentages and vehicle maintenance standards. Statistical outcomes including service requests, passenger trips, operating expenses, revenue recovery and other indicators are reported on a monthly basis. Data is compared to both prior months and prior years to analyze and assess significant trends. Table 2-2 on page II-15 summarizes Project Mainstream operating results for 2001 and 2002.

Project Mainstream provides two types of service, subscription (standing order) and reservation. Subscription passengers travel from the same origin to the same destination at least once a week. Reservation passengers request trips as needed. In compliance with ADA regulations, COTA schedules 50% or less of total trips during any service hour as subscription service. If changes in demand result in subscriptions exceeding 50%, new subscriptions are suspended for that service hour until the subscriptions return to a level of less than 50%.

COTA's Project Mainstream fleet requirements are reviewed on a semi-annual basis to maintain compliance with ADA regulations and to meet increases in paratransit service demands. Currently, COTA operates 48 Mainstream vehicles. All Mainstream vehicles are owned by COTA and operated by ATC/Vancom Inc. Peak period service required 36 vehicles in 2001 and 38 vehicles in 2002. While all current paratransit vehicles accommodate up to three wheelchair and six ambulatory passengers, two mini-vans were added to the paratransit fleet in 2001 to improve service flexibility and cost-effectiveness. These ramp-equipped vans are used for lower-productivity service, such as late night and remote area service, and as needed in backup and emergency service. In 2003, COTA will initiate procurement of eight replacement paratransit vehicles and add four paratransit vehicles plus two additional mini-vans in 2003. The expansion of the Project Mainstream fleet to 54 vehicles (i.e.,

50 mini buses and 4 vans) will be required to meet existing and projected demand for peak period ADA trips.

COTA staff works closely with members of its Accessible Transportation Advisory Committee (ATAC), as well as with other groups representing individuals with disabilities. In June 1999, COTA held its first Paratransit Strategic Planning Retreat. Participants included the Mid-Ohio Planning Commission, Ohio Department of Transportation, Franklin County, Project ACTION and representatives of several local organizations that provide advocacy or support services to people with disabilities. Joined by Project Mainstream customers, ATAC members and COTA staff, COTA's long and short-range paratransit planning was refined based on the initiatives identified through the retreat. In both September 2000 and August 2001, COTA conducted public meetings entitled "Report To The Community (Focus On Accessibility)", which were held in order to update Central Ohio residents on the progress of the paratransit plans established during the 1999 retreat.

COTA continues to develop opportunities to improve paratransit cost effectiveness and service quality. In 2000, a new telephone system was installed that increased the incoming reservation lines from five to sixteen, substantially improving the Project Mainstream trip reservation system. The system has the capacity for future expansion. In addition, new technology has fully integrated Project Mainstream with COTA's fixed-route wireless communication system. During 2001, all Project Mainstream vehicles were equipped with wireless radio, mobile data terminals and automatic vehicle location equipment. The integration helps to improve paratransit operating efficiency and support future coordination of services between fixed-route and paratransit vehicles. The wireless radio system with automatic vehicle location is interfaced with the scheduling system to provide paratransit operators with manifest schedules on each mobile data terminal and schedule adherence with real-time trip editing for improved dispatching.

The automated paratransit scheduling software was replaced to sustain the year 2000 date format. The software will also support coordinated transportation programs currently under consideration in Central Ohio (see Section VIII). Additional service hours have been purchased to ensure availability of service capacity throughout the transition.

In the past two years, COTA has experienced significant reductions in sales tax revenue and state and federal capital and operating assistance. In order to maintain a balanced budget during this four-year plan, COTA will be required to reduce fixed- route and Project Mainstream services, and administrative costs. Specifically, the 2003 SRTP assumes Mainstream service hours will be reduced from 125,547 to 111,285 between 2004-2007. In order to maximize use of our current funds, staff is investigating the feasibility of using Job Access/Reverse Commute grant funds to subsidize new ADA eligible work trips. If COTA is successful at attracting additional revenues and/or sales tax receipts return to more typical levels, COTA will make every effort to minimize reductions in Project Mainstream.

TABLE 2-2
PROJECT MAINSTREAM ANNUAL REPORT FOR 2002

	2001	2002	CHANGE
PASSENGER TRIPS			
Subscription			
Weekday	31,256	34,033	8.88%
Saturday	2787	1,343	-51.81%
Sunday	2782	1,242	-55.36%
TOTAL	**36,825**	**36,618**	**-0.56%**
Reservation			
Weekday	87,192	91,842	5.33%
Saturday	13,437	9,513	-29.20%
Sunday	11,231	8,559	-23.79%
TOTAL	**111,860**	**109,914**	**-1.74%**
Total Weekday	118,448	125,875	6.27%
Total Saturday	16,224	10,856	-33.09%
Total Sunday	14,013	9,801	-30.06%
TOTAL TRIPS	**148,685**	**146,532**	**-1.45%**
PRODUCTIVITY			
Operating Expenses	$4,614,828	$4,525,116	-1.94%
Cost/Passenger	$31.04	$30.88	-0.50%
Service Days	365	365	0.00%
Vehicle-Hours	127,856	127,016	-0.66%
Total Revenue Generated	$199,504	$212,979	6.75%
Revenue/Cost	4.32%	4.71%	8.87%
Passengers/Revenue Vehicle-Hour	1.35	1.42	5.31%
Cancellations	34,120	37,724	10.56%
No Shows	4,139	3,809	-7.97%
Total Service Denials	1,700	1,731	1.82%
Complaints	98	135	37.76%
ADMINISTRATIVE			
Applications requested	1,185	1,190	0.42%
Applications processed	879	881	0.23%
New subscription users	23	46	100.00%
*Subscription waiting list	92	78	-15.22%
*Subscription users	184	162	-11.96%
TOTAL CERTIFIED USERS	5,961	6,832	14.61%

*Average per month
2001 & 2002 consisted of 255 Weekdays, 52 Saturdays, 58 Sundays/Holidays

Americans with Disabilities Act

As required by regulations implementing Title II of the Americans with Disabilities Act (ADA), the 1996 Plan Update was submitted and approved by the FTA.

Project Mainstream's eligibility application form was revised in 1996, and previously eligible riders of Mainstream were re-certified by the end of 1996. The new form provides more detailed and focused questions with reference to the individual's ability or inability to use regular fixed-route service.

Project Mainstream's active fleet is currently 48 vehicles, and will expand to 54 vehicles upon receiving the four expansion buses and receipt of the two mini-vans discussed earlier in this section. As a historical note, the fleet was expanded from 26 to 38 vehicles in December 1996 in order to provide the capacity to meet the 1996 Plan Update projections for 1997. Project Mainstream service is provided throughout the service area and hours of service are the same as the total hours of operation for the fixed route service. COTA decided in 1996 not to reduce the scope or span of service to the ADA required minimums.

The current one-way fare for Project Mainstream $1.75. Eligible riders may also purchase a $55.00 monthly pass.

Accessible Fixed Route Service

In 2002, lifts on the accessible buses in fixed route service were used 17,246 times versus 9,813 in 2001, for an increased usage of 76%. In 2001, COTA accepted delivery on thirty-eight (38) low-floor 30' ramp-equipped buses and sixty-two (62) New Flyer low-floor 40' ramp-equipped buses to further enhance accessibility options for individuals using public transportation. During 1999, COTA added 28 low-floor Nova 40' coaches to the active fleet. The new vehicles replaced non-lift or non-accessible vehicles that previously had been part of COTA's active fleet.

Combined with previous lift-equipped bus purchases, COTA now provides fully accessible ADA compliant service on all routes during the weekdays, Saturdays, and Sundays/holidays.

COTA continues to improve the accessibility of bus stops based on passenger requests and information from previous bus stop inventories. Additionally, COTA has implemented several Intelligent Transportation Systems (ITS) projects - such as automated voice enunciators - to help improve transit services for individuals with disabilities. Further detailed information about these ITS projects can be found beginning on page VI-21.

SPECIAL SERVICES

Rent A Trolley

This special service allows area residents or businesses to take a group of up to 28 people back in time on a COTA trolley. From the ringing of the bell to the real wood trim, these distinctive, roving landmarks will give events the same character they give downtown Columbus! Trolleys may be rented for events such as tours, proms, company picnics, family reunions, field trips, church functions, etc. The Chance-made trolleys are COTA owned, however, the trolley rental program is operated by Jacs Transportation. Trolley rentals are available Monday-Thursday 6:30 pm - 1:00 am, Friday 6:30 pm - 3:00 am, Saturday all day until 3:00 am, and Sunday all day until Midnight.

Senior Citizens on the Town

Senior Citizens on the Town (SCOT) is group demand-response service offered to the senior citizens of Franklin County. SCOT trips provide convenient, inexpensive service to local events and attractions. SCOT service is available Monday through Friday, 9:30 a.m.-2:30 p.m., and 6:30 p.m.-11:30 p.m. Groups of 30 or more cost just $2.50 per person for round-trip service. For smaller groups, the minimum cost is $75.

Special Event Services

In previous years, COTA has provided supplementary bus service for the following seasonal special events:

- Red, White and Boom (Columbus downtown Independence Day celebration). COTA augments its normal service with additional trips on local routes as well as evening express service from selected park and ride lots.
- COTA's "GO BUS" program for Ohio State home football games. Due to the recent loss of nearly 4,000 parking spaces on campus, COTA, The Ohio State University, and the Ohio Expositions Commission partnered together in 1998 to provide shuttle bus service from the Ohio State Fairgrounds parking lot to Ohio Stadium. COTA also provides football Saturday service at three park and ride lots (Crosswoods, Royal Forest, and Jeffrey Place), and increased frequency of service on North High Street.
- Christmas Service. COTA provides special service from downtown Columbus to the Columbus Zoo for the "Wildlight Wonderland" event, which occurs annually between Thanksgiving and Christmas.
- Zoo Bus. COTA has operated the Zoo painted bus seven days a week during the summer between downtown and the Columbus Zoo. A new, wheelchair lift-equipped painted bus was introduced as the Zoo bus late in the summer of 1994. The Columbus Zoo and other local businesses subsidize the cost of this

service. Passengers pay the regular fare, and as a result, receive special discount admissions to both the Columbus Zoo and Wyandot Lake.

Staff and Board continually review the merits of each of these services on a case-by-case basis before a decision is made to commit transit resources.

Travel Training

COTA provides trip-specific travel training to individuals or groups who would like to learn how to ride COTA. COTA provides this service via our subcontractor, Association for the Developmentally Disabled (ADD). Travel training is offered for free, and teaches the necessary skills required to travel the fixed-route bus system. Areas covered in training include reading public timetables, fare payments, navigation of a particular fixed route, etc. On average, approximately 120 individual and 10 group-training sessions are conducted each year.

Emergency Evacuation Services

COTA coordinates closely with the Franklin County Emergency Management Agency and Chemical Emergency Preparedness Advisory Council on evacuation training in the event of an emergency. This training has included a simulated plane crash at Port Columbus International Airport. In addition, COTA has been involved in several emergency evacuations in Franklin County in recent years.

PASSENGER INFORMATION

COTA provides information to its passengers in a variety of ways. On December 11, 2000, COTA relocated its Customer Service Center from 177 S. High St. to 60 E. Broad St. in downtown Columbus. Monthly passes, DayPasses, Senior Discount and Key-Cards, and schedule information can be obtained at this location. A customer information center (which provides telephone information to the public), COTA's Quality Service Office, and the Lost and Found Department are also housed at this location. Additionally, Monthly passes and DayPasses are available for purchase at 97 locations in Franklin County.

COTA communicates in writing to its passengers on board the bus via Commuter Bulletins, interior placards, and information brochures that feature upcoming events and news about the COTA system. In addition, COTA staff holds public meetings to discuss refinements to the service prior to the annual January, May, and September service changes.

Over the past several years, COTA has made a significant investment in Intelligent Transportation Systems (ITS), to better manage and improve how COTA communicates and offers services to the public (see page VI-21). One component of ITS, the Automatic Vehicle Enunciators (AVA) is a project that was initiated in January of 2003. AVA will automatically announce and display next stop information for the benefit of hearing and vision-disabled passengers. This system will also

improve service to COTA's riders - especially to people not familiar with the stops of a particular route; or, to all riders when visibility is poor or limited due to night time hours or inclement weather conditions. The AVA System will also enable COTA to meet or exceed all Americans with Disabilities Act (ADA) requirements and is expected to be fully functional by the end of 2003.

In 1989, COTA's automated customer information system in place at the time was temporarily suspended to reduce operating costs. In 1991, COTA contracted with Megadyne to install a new automated telephone customer information system that was implemented in 1992. In 2001, COTA began the process of upgrading this system to a Microsoft Windows platform named Trapeze Info (see page VI-3). Consisting of several software modules, Trapeze Info now allows customers to obtain schedule and other information interactively via the telephone or COTA's website 24 hours a day.

In March 1997, COTA established a web site on the Internet for those individuals who wish to obtain information about COTA services via the computer. Information can be found about COTA's routes, trip times, service changes, job postings, and other public transit related items. COTA's Internet address is www.cota.com.

During 1998 and 1999, the COTA Planning and Public Relations staff conducted an extensive series of community outreach meetings in an effort to gather public input on the Vision 2020 Transit Plan (see page IV-1). As part of COTA's system-wide service audit titled "Operation: Excellence" (see page IV-12), COTA held numerous public workshops and meetings throughout the Central Ohio area in August 2000 and February 2001. The meetings were held in order to gather public input about our service, and to solicit feedback to the service modifications proposed in Operation: Excellence.

In 2000 and 2001, the Mid-Ohio Regional Planning Commission (MORPC) and COTA studied the feasibility of rail options from Downtown Columbus to the Polaris area. During the course of the study, Fast Trax: Phase 1 (see page IV-9), public participation and input were encouraged at monthly Advisory Group meetings. Public meetings were also held to select the locally preferred transit alternative from the Fast Trax study. In April 2001, these meetings concluded with an overwhelming majority vote (124 to 1) in favor of selecting the 13-mile North Corridor Light Rail Line/Expanded Bus Service as the Locally Preferred Option. The COTA Board of Trustees and MORPC Policy Committee adopted the Light Rail Line/Expanded Bus service option as the Locally Preferred Alternative (LPA) in May and June, respectively.

COTA will initiate the Preliminary Engineering Phase of the North Corridor Light Rail Project in June 2003. As part of the public outreach process for this effort, COTA has established the following committees:

- The Advisory Committee of Community Leaders will focus on project policy issues.
- The Light Rail Technical Committee will be made up of planning professionals who will review technical issues.
- The Public Involvement Committee will be composed of representatives from neighborhood groups who will focus on community issues.

It is anticipated that the Preliminary Engineering Phase will be completed in the 2nd quarter of 2005.

TABLE 2-3

COTA FARE STRUCTURE

EFFECTIVE FEBRUARY 1, 2002

CASH FARES

Local, Crosstown $1.25
Express $1.75
Transfers* .....10¢
*An additional 50¢ is required when transferring from local to express service.

Easton LINK .....25¢
Linden LINK.....25¢
High St. LINK .....25¢
Westerville LINK .....25¢

Note: When transferring from a COTA LINK onto a regular fixed-route bus, you must purchase a $0.10 transfer when boarding the LINK bus and pay a $1.00 up-charge when boarding a local or crosstown bus. Boarding an express bus from a LINK requires a $0.10 transfer purchase plus a $1.50 up-charge, which is paid when boarding the express bus (60¢ boarding cost for reduced fare categories – see below).

SPECIAL REDUCED FARES

Senior Discount/Medicare,
Key Card or ADA Card .....60¢
Children 7-12 years .....60¢
Children under 48" tall .....FREE (Limit 3 with an adult family member)

PROJECT MAINSTREAM

Project Mainstream $1.75

PASSES

Monthly

Local $40.00
Express $55.00
Reduced Fare..... $18.00 (Senior Discount, Medicare, or Key Card)
Project Mainstream $55.00

DayPass

Adult**..... $3.00
**An additional 50¢ is required on express or Project Mainstream service
Human Service Agency $2.50
Reduced Fare***..... $1.50
***Children 7-12, Key Card, ADA Card Senior Discount/Medicare
7-Day Pass..... $12.50

SECTION III

THE PLANNING PROCESS - HOW ROUTES ARE EVALUATED

Overview

As part of Operation: Excellence (see Section IV), COTA requested its consultant develop new route and schedule design standards along with route performance evaluation measures based on current industry practices. The proposed standards and route evaluation measures were presented to the COTA Board of Trustees Business Development Subcommittee in January 2001.

The Route & Schedule Design Standards codifies good transit planning and operations practices. These guidelines and standards serve several purposes:

1. To inform decision-makers, who may not have a background in the transit industry, about good transit practices.
2. Provide an objective basis for planning new services and evaluating existing services.
3. To serve as a "compass" to both staff and decision-makers who often may be caught up in reactive responses to external factors.
4. Support the route performance evaluation process and standards described in the second set of performance monitoring indicators.

The second set of indicators, Route Performance Evaluation Measures, are the factors used in a periodic (i.e., annual) evaluation of existing services that generates recommendations for service changes designed to improve the productivity of existing and planned services.

The recommended Route & Schedule Design Standards and Route Performance Evaluation Process are described in the following sections.

Route & Schedule Design Standards

Service Categories

As discussed in Section II, COTA operates the following types of routes:

- Local routes make all stops and operate between downtown Columbus and various neighborhoods or townships within Franklin County. The vast majority of COTA vehicle service hours are operated on local routes.

- Express routes operate to provide fast, line-haul service between downtown Columbus and suburban areas and/or park and ride facilities. Service is usually operated only in the peak periods (AM and PM) in the peak direction of travel. However, some routes serve "reverse commute" markets and operate in the non-peak direction of travel (i.e., from downtown to outlying employers in the AM). Between downtown Columbus and the outlying segments of the route, most buses operate with "closed doors" (i.e., no stops).

- Crosstown routes operate between various neighborhoods or townships within Franklin County and do not serve the downtown area.
- COTA operates LINK routes in downtown Columbus and in suburban activity centers. LINK routes are generally short routes that are intended to serve short, non-work trips or serve as feeders to local and/or express routes.

Route Directness

COTA bus routes shall be designed to operate as directly as possible to and from a major destination in order to minimize passenger travel time. Routes shall operate on major arterial streets as much as possible. However, there may be situations in which 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. LINK 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 from the basic route alignment to serve activity centers will be made only when they have the potential to attract new riders equal to or exceeding the route performance evaluation standard (riders per hour) for the corresponding route category.
4. Additional time to operate route deviations should not exceed five minutes (one-way) or ten percent of the one-way run time, whichever is less.
5. No mid-route loops shall be operated.
6. Terminal loops shall not exceed 25% of a route's total length.

Route Variations

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 go 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 current as well as potential transit passengers to understand and utilize. Therefore, to provide a user-friendly service and to encourage maximum use of the system by all current and potential riders, the following standards for branches and turnbacks shall apply:

- No route shall have more than two (2) distinct branches.
- No route shall have more than one (1) turnback.

- When two routes are interlined (e.g., #2 North High, #31 Worthington Express), each route shall be treated as a separate route for the application of this standard.

Span of Service

The time between the first and last trip operated on a route is the span of service. In order to maximize the opportunities for passengers to connect with other routes, a consistent span of service is desirable. The proposed minimum span of service for each Service Category is:

Weekday	
Local	5:30 a.m. to 10:30 p.m.
Express	6:00 to 8:30 a.m. and 4:00 to 6:30 p.m.
Crosstown	6:00 a.m. to 8:00 p.m.
LINK	-- varies by route --
Saturday	
Local	6:00 a.m. to 10:30 p.m.
Express	Not operated
Crosstown	6:00 a.m. to 8:00 p.m.
LINK	-- varies by route --
Sunday & Holidays	
Local	7:30 a.m. to 7:30 p.m.
Express	Not operated
Crosstown	7:30 a.m. to 7:30 p.m.
LINK	-- varies by route --

Due to differences in ridership levels and existing funding limitations, some variation in days operated and start/end times among routes are expected. For this reason, the proposed spans of service are intended as guidelines rather than standards.

Service Frequency

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 load standards (i.e., maximum number of passengers onboard a bus). However, on some routes, during certain periods of low ridership, determining frequency 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 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.

The following are minimum standards for COTA service frequency for each Service Category:

Time Period	Local	Express	Crosstown	LINK
Weekday				
AM, PM peak	30 min.	60 min.	30 min.	NA
Midday	60 min.	NA	60 min.	NA
Night	60 min.	NA	NA	NA
Saturday	60 min.	NA	60 min.	NA
Sunday	60 min.	NA	60 min.	NA

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

Load Standards

The intent of load standards is to balance passenger comfort and safety with operating costs. These standards define maximum passenger loads at different times of day to ensure acceptable levels of rider comfort and safety, while providing COTA good operating efficiencies. The load standards shown below represent the total number of riders as a percent of the number of seats on the bus:

Time Period	Local	Express	Crosstown	LINK
Weekday				
AM, PM peak	120%	100%	120%	120%
Midday	100%	100%	100%	100%
Night	100%	100%	100%	100%
Saturday	100%	100%	100%	100%
Sunday	100%	100%	100%	100%

These load standards should be applied to the average ridership and number of seats per bus for a period of 60 minutes. Passenger loading on individual bus trips may exceed the standard. If the load standard is exceeded for any 60-minute period, COTA 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, COTA will evaluate the possibility of adjusting schedule times to focus more service before and after the overloaded trip(s).

The maximum time that an individual passenger should be expected to stand on a given trip is 15 minutes.

On-Time Performance

To ensure that transit riders have confidence that the service will perform reliably in accordance with the public timetables prepared and distributed by COTA, on-time performance standards have been established. A vehicle is considered "on-time" when its arrival is from zero to five minutes after the scheduled time. A vehicle is considered "late" when it arrives more than five minutes after the scheduled time. No vehicles should arrive before the scheduled time, or "early".

It is impossible to achieve and maintain 100% on-time performance due to varying traffic and weather conditions, construction activity, detours, accidents and other service interruptions. Nevertheless, every effort will be made to ensure that all COTA buses operate on-time. The following on time performance standards shall apply:

- 80 - 90% of all buses should arrive at scheduled time points "on-time".

If a route or individual trip(s) is consistently running late, then a review of the schedule will be conducted and remedial actions (e.g., schedule and/or run modification if needed, improved on-street supervision, etc.) taken at the earliest opportunity.

Missed Trips

COTA, like all other transit agencies, rarely misses scheduled trips due to a shortage of drivers, mechanical problems or accidents. The percentage of trips operated is defined as the ratio of trips actually operated divided by the scheduled number of trips. The annual objective shall be to operate a minimum of 99% of scheduled trips (i.e., less than 1% trips not operated or "missed").

Route Performance Evaluation Process

COTA continually receives requests for changes to existing service and for new service in growing areas of Franklin County. Additionally, COTA may be operating some routes that are not attracting enough riders to justify operating these services. In order to be consistent in the evaluation of service proposals, and to ensure that the service being operated represents the most cost-effective use of available resources, the following Route Performance Evaluation Process has been developed.

The Route Performance Evaluation Process relies on the analysis and ranking of existing and proposed routes based on a ridership productivity standard – ridership per revenue hour of service or passengers per revenue trip. The Evaluation Process also uses a ridership economic standard of subsidy per passenger trip for all routes. The process is as follows:

1. Develop productivity standards for each Service Category,
2. Calculate performance measures for all proposed and existing routes,
3. Identify "substandard" services,

4. Evaluate service modifications,
5. Obtain approval from appropriate decision-makers,
6. Implement the modifications and
7. Monitor route performance.

The application of productivity and economic standards to existing routes is a flexible process. The purpose of the standards is to help identify routes that are most in need of service modifications, such as restructuring to eliminate lower-productivity segments or branches, adjusting service frequency to better reflect the demand for service, or providing additional promotion of routes with low ridership. Elimination of routes is only intended as a last resort, when it has been determined that no cost-effective actions are able to improve the productivity of the route.

In addition, the evaluation of existing routes is not intended to preclude changes to routes that meet the minimum standards. In many cases, it may be possible to improve the productivity of routes that meet or exceed the standards by making minor changes to service frequency, span of service or trip times.

The productivity of existing routes will be reported each trimester. The evaluation of possible service modifications and approval and implementation of recommended modifications will be conducted annually. Additionally, the productivity standards will be reviewed annually, using ridership and other data for the previous 12-month period for which data is available.

Productivity and Economic Standards

COTA uses ridership productivity and economic subsidy as its primary measures of transit performance. Ridership productivity is measured in terms of riders per revenue hour of service (Local, Crosstown and LINK routes) or riders per revenue trip (Express routes). Economic performance is measured by calculating the subsidy per passenger trip (boarding). Routes within each service category will be ranked according to the productivity and measures and compared to the minimum standards identified for each service category. A productivity rating will then be calculated for each route and a corresponding list of actions (e.g., marketing promotions, service modifications, elimination, etc.) will be identified for further evaluation (see Table 3-5).

New routes should meet the applicable standards for the service category after one year of operation. All new routes will be reviewed each trimester and routes that have not shown adequate progress toward meeting the standards will be targeted for marketing promotions or possible service modifications to increase productivity.

The ridership and economic standards are calculated as follows:

Passenger boardings per revenue hour – The number of average daily boardings per route (as reported by COTA's farebox data) divided by the daily number of

revenue hours of service. The standard is calculated as the average of all routes in each service category.

Passenger boardings per revenue trip – Because express routes may vary significantly in route length and one-way travel times, a different ridership productivity measure is used. This measure is defined as the number of average daily boardings (as reported by COTA's farebox data) divided by the number of daily revenue trips. The standard is calculated as the average of all express routes.

Operating subsidy per passenger boarding – The average daily operating cost (direct operating cost) of a route less average daily passenger revenue divided by number of passenger boardings. The standard is calculated as the average of all routes in each service category.

The ridership productivity measure for each route then will be ranked and their productivity rating will be calculated as a percentage of the productivity standards:

Local, Crosstown and LINK routes:

$$\text{Ridership productivity rating} = 1 + \frac{(\text{Route riders per hour} - \text{Standard riders per hour})}{\text{Standard riders per hour}}$$

Or

Express routes:

$$\text{Ridership productivity rating} = 1 + \frac{(\text{Route riders per trip} - \text{Standard riders per trip})}{\text{Standard riders per trip}}$$

And

$$\text{Economic productivity rating} = 1 + \frac{(\text{Standard oper. subsidy} - \text{Route oper. subsidy})}{\text{Standard operating subsidy}}$$

Tables 3-1 through 3-4 summarize these productivity standards for the local, crosstown, LINK and express service categories, respectively.

Potential Actions

The potential actions that may be evaluated, recommended and ultimately implemented for each route will be determined by its productivity rating. A productivity rating greater than 100% (i.e., better than average performance), may indicate a need to increase service on the route in order to better serve unmet transit demands or reduce passenger loads (passengers per seat). On the other hand, a

productivity rating less than 100% (i.e., worse than average performance) may indicate a need for actions to increase ridership or reduce service levels.

For any route that has a productivity value less than 50%, an in-depth analysis of that route's performance should be conducted. That analysis should assess the comparative productivity of each scheduled trip and route segment (for weekdays, Saturdays and Sundays) with the objective of identifying unproductive services. Potential actions designed to increase ridership and/or reduce service levels include marketing promotions, reducing the span of service (i.e., eliminating early morning or night trips), decreasing the service frequency, changing the route alignment and, as a last resort, eliminating the route. COTA may also elect to hold informal public meetings to elicit comments from existing and potential riders regarding ways to improve service.

Similarly, an in-depth analysis should be conducted for any route that has a ridership productivity value greater than 150%. Potential actions may include increasing the span of service (e.g., adding early morning or night trips, implementing new Saturday or Sunday service), improving the service frequency, or adding a new route.

Less detailed analyses should be conducted for the remaining routes that have productivity values greater than 50% and less than 150%. Table 3-5 lists potential actions that can be evaluated for varying levels of new productivity ratings.

Table 3-1
Local Routes Productivity

Line #	Line Name	Weekday				
		Productivity (Pass / hr. or trip)	Productivity Index	Subsidy per Passenger	Subsidy Index	Combined Index
1	Cleveland/Livingston	37.54	1.36	$0.80	1.72	1.54
2	Main/North High	36.34	1.31	$0.80	1.73	1.52
3	W. Mound/Northwest	17.55	0.63	$2.68	0.52	0.57
4	Indianola/Parsons	25.28	0.91	$1.69	0.81	0.86
5	West Fifth Ave	16.02	0.58	$2.88	0.48	0.53
6	Sullivant/Mt. Vernon	28.85	1.04	$1.33	1.04	1.04
7	Neil/Whittier	28.37	1.03	$1.28	1.08	1.05
8	Hamilton/Frebis	24.93	0.90	$1.64	0.84	0.87
9	Leonard/Brentnell	18.29	0.66	$2.41	0.57	0.62
10	East/West Broad*	34.06	1.23	$1.05	1.32	1.27
11	Oak-Bryden/St. Clair	23.98	0.87	$1.68	0.82	0.84
12	McKinley/Fields	5.25	0.19	$10.15	0.14	0.16
15	Grove City Local	14.61	0.53	$3.14	0.44	0.48
16	Long/S. High St.	21.22	0.77	$2.09	0.66	0.71
17	Greenlawn	10.16	0.37	$5.90	0.23	0.30
18	Kenny Road Local	16.78	0.61	$2.42	0.57	0.59
19	Arlington/Grandview	9.62	0.35	$5.46	0.25	0.30
20	Brewery District	4.25	0.15	$14.99	0.09	0.12
69	US 33/Dublin Rd.	1.92	0.07	$39.10	0.04	0.05
	Standard for Route Type	27.65	1.00	$1.38	1.00	1.00

*Route subsidized by Job Access & Reverse Commute Grant Funds

Table 3-2
Crosstown Routes Productivity

Line #	Line Name	Weekday				
		Productivity (Pass / hr. or trip)	Productivity Index	Subsidy per Passenger	Subsidy Index	Combined Index
81	Hudson/Ohio	12.69	1.01	$3.93	1.04	1.02
83	Oakland/Weber	10.34	0.82	$5.16	0.79	0.81
84	OSU/Arlington/Grandview	10.78	0.86	$4.41	0.92	0.89
87	Agler/Cassady	11.35	0.90	$4.67	0.87	0.89
88	Busch Blvd	9.35	0.74	$6.30	0.65	0.70
89	Hamilton Road	16.46	1.31	$3.19	1.28	1.29
92	James/Stelzer	20.96	1.67	$2.18	1.87	1.77
94	161 Crosstown	6.09	0.48	$10.39	0.39	0.44
95	Morse/Henderson	10.59	0.84	$4.96	0.82	0.83
96	Fifth Avenue Crosstown	9.27	0.74	$5.52	0.74	0.74
97	Georgesville/Phillipi***	5.21	0.41	$10.41	0.39	0.40
	Standard for Route Type	12.58	1.00	$4.08	1.00	1.00

Table 3-3
LINK Routes Productivity

Line #	Line Name	Weekday				
		Productivity (Pass / hr. or trip)	Productivity Index	Subsidy per Passenger	Subsidy Index	Combined Index
14	High Street LINK	25.28	2.43	$2.12	2.61	2.52
71	Westerville LINK	6.86	0.66	$9.60	0.58	0.62
72	Easton LINK*	1.96	0.19	$31.81	0.17	0.18
73	Capital City Flyer**	2.57	0.25	$20.59	0.27	0.26
74	Linden LINK***	13.49	1.30	$1.84	2.99	2.15
	Standard for Route Type	10.40	1.00	$5.52	1.00	1.00

*Services on the South Loop of the Easton LINK will be discontinued in May 2003.
**Will be discontinued in May 2003.
***Route subsidized by Job Access & Reverse Commute Grant Funds.

Table 3-4
Express Routes Productivity

Line #	Line Name	Weekday				
		Productivity (Pass / hr. or trip)	Productivity Index	Subsidy per Passenger	Subsidy Index	Combined Index
29	Polaris*	10.00	0.60	$2.89	1.17	0.89
30	Smoky Row	17.75	1.06	$3.23	1.05	1.06
31	Worthington	22.31	1.33	$1.90	1.79	1.56
33	North Central	13.50	0.80	$4.68	0.73	0.77
34	Karl Road	16.73	1.00	$2.88	1.18	1.09
35	Tamarack Blvd.	18.33	1.09	$2.89	1.18	1.13
36	Annehurst	20.50	1.22	$2.62	1.30	1.26
37	Westerville	19.40	1.16	$6.14	0.55	0.85
38	East Westerville	15.50	0.92	$4.42	0.77	0.85
39	New Albany*	18.75	1.12	$4.35	0.78	0.95
40	Forest Hills	12.50	0.75	$5.25	0.65	0.70
41	Gahanna	22.75	1.36	$1.22	2.79	2.07
43	East Broad	16.00	0.95	$2.47	1.38	1.16
44	North Reynoldsburg	15.28	0.91	$3.37	1.01	0.96
45	Reynoldsburg	18.29	1.09	$2.88	1.18	1.13
46	Eastland	12.14	0.72	$5.52	0.62	0.67
47	Brice Road	25.00	1.49	$1.06	3.22	2.35
49	Southeast	12.50	0.75	$5.80	0.59	0.67
51	ODOT/ODPS	2.75	0.16	$10.02	0.34	0.25
53	Lincoln Village/New Rome	16.75	1.00	$2.36	1.44	1.22
54	London/Groveport*	8.50	0.51	$1.37	2.48	1.49
56	Tuttle	3.14	0.19	$18.19	0.19	0.19
57	Hilliard	28.57	1.70	$1.14	2.98	2.34
58	Dublin	18.22	1.09	$3.50	0.97	1.03
60	Arlington	9.94	0.59	$6.63	0.51	0.55
61	Kenny Road Express	18.00	1.07	$3.35	1.01	1.04
64	Grove City Express	16.21	0.97	$2.39	1.42	1.19
65	Berwick Express	11.08	0.66	$6.23	0.54	0.60
67	East Hilliard Express	29.33	1.75	$1.76	1.93	1.84
	Standard for Route Type	16.78	1.00	$3.40	1.00	1.00

* Route subsidized by Job Access & Reverse Commute Grant Funds

Table 3-5
Potential Actions for Ridership Productivity Ratings

Potential Actions	0-25%	25-50%	50-75%	75-100%	100-150%	150+ %
Reduce Service / Increase Productivity						
1. Marketing Promotions	Yes	Yes	Yes	Yes	No	No
2. Reduce Span of Service	Yes	Yes	Yes	Yes	No	No
3. Decrease Service Frequency	Yes	Yes	Yes	Yes	No	No
4. Change Route Alignment	Yes	Yes	Yes	Yes	No	No
5. Eliminate Route	Yes	Yes	No	No	No	No
Increase Service / Decrease Productivity						
1. Increase Span of Service	No	No	No	No	Yes	Yes
2. Improve Service Frequency	No	No	No	No	Yes	Yes
3. Add New Route	No	No	No	No	No	Yes

Implementation Process

The Route Performance Evaluation Process described above should be conducted annually. For remedial actions that constitute a non-substantial change in service (less than 25% of daily revenue hours or route miles), COTA's Planning Department should make recommendations to the Vice President of Business Development and the President/CEO for approval and implementation.

For major actions (more than 25% of daily revenue hours or route miles), the Planning Department should present its recommendations to a staff committee comprised of the Operations and Business Development Divisions. After concurrence by this committee, recommendations should be advanced to the Vice President of Business Development, the President/CEO and Board of Trustees for approval and implementation. Major actions may also require conducting public hearings prior to implementation.

Other Considerations

In the course of applying the Route Performance Evaluation Process, COTA has recognized that there are special circumstances that should also be considered in addition to the technical measures described above. For certain routes, a quantitative evaluation alone may not accurately portray the benefits that are derived to both riders and non-riders. Following are four categories of routes that may be exempt from the Route Performance Evaluation Process.

- "Lifeline" routes serve disadvantaged constituents, primarily low-income riders. Without the existence of bus service, the users or residents would not be able to obtain key services. Lifeline locations include the following four categories: subsidized housing, publicly-operated social service facilities, publicly-operated hospitals, and public post-secondary schools. A lifeline route uniquely serves one or more of the above locations (no other local route operates within 1/4–mile of the location).

- Newly implemented routes are exempt from the Route Performance Evaluation Process for a period of one year from the start-up date. During this period, route performance should be monitored and reported each trimester and minor revisions can be made to improve performance. However, major revisions to the newly implemented routes should not be made until the end of the one-year "break-in" period. This exception can also be applied to poorly performing routes that have a major service revision within the past year.

- Certain COTA routes may be implemented as demonstration services intended to address a particular function (e.g., #51 Ohio Department of Transportation / Ohio Department of Public Safety) for a specified time period. These routes may be exempt from the Route Performance Evaluation Process if the service has regional or local significance.

- A portion of operating expenses for certain routes may be subsidized by other public agencies, government programs or private businesses (e.g., Federal Job Access Grants, OSU, the Columbus Compact, etc.). COTA may elect to exempt these routes from the Route Performance Evaluation Process, or add the subsidy contribution to the passenger revenue in the economic productivity criteria.

Data Collection and Service Change Process

Route performance data is used to evaluate service. COTA collects data in a number of ways:

- Eighteen buses equipped with automatic passenger counters (APC) provide COTA with running time, passenger load data and other statistics used in route planning.

- The GFI Electronic Fareboxes collect revenue and ridership data through customer and driver interaction with the units. COTA's entire active fleet of fixed-route buses is equipped with these fareboxes.

- The Scheduling Department has a checker who rides routes and conducts on/off counts, maximum load counts and running time checks.

- The Planning Department has a Data Collection/Survey Clerk whose primary emphasis is to conduct and tabulate passenger surveys. Additional responsibilities include ride checks, bus stop counts, park and ride counts and maximum load counts.

The Planning Department recommends service changes with the concurrence of the Service Planning/Scheduling Department. The two departments prepare a list of changes which are reviewed by the Board of Trustees and the President/CEO. The final set of service changes are then directed to the offices and departments that have responsibility for the implementation of new service. Planning monitors the progress of each service change to ensure that the process stays on schedule. Changes are scheduled three times a year on the first Monday in January, May and September.

Title VI Adherence

In addition to the previously discussed evaluation procedures, COTA's planning process is sensitive to the needs of the minority communities. As a federally funded transit provider, through the Federal Transit Administration, COTA has a responsibility to adhere to the objectives of Title VI of the Civil Rights Act of 1964. The objectives of the FTA Title VI program are as follows:

1. To ensure FTA-assisted benefits and related services are equitably distributed without regard to race, color or national origin.

2. To ensure that both the level and quality of transit services provide equal access and mobility for any person without regard to race, color or national origin.

3. To ensure that access to the planning and decision-making process is open and without regard to race, color or national origin.

4. To ensure that decisions on the location of transit facilities and services are made without regard to race, color or national origin.

These objectives are the basis for the implementation of the FTA Title VI program. To comply with these objectives, COTA has adopted the suggested methodology and framework set forth in the Title VI reporting guidelines (FTA Circular 4702. 1, Chapter IV) for compliance assessment.

By using this methodology, COTA will monitor and compare performance of all its routes based on level of service and quality of service criteria. To facilitate this evaluation, COTA will continue to collect data relating to its service standards, such as load factor, vehicle assignment, headway and on time analysis. These analyses will be conducted on a route-by-route basis, thus enabling a system-wide evaluation.

The findings of these analyses will be used to modify service delivery, to bring it in line with the stated objectives of the Title VI program, where a variance exists.
COTA has submitted a report to FTA which documented the results of this methodology and showed COTA's compliance with the Title VI regulations. The Federal Transit Administration approved the current Title VI program on February 27, 2003.

SECTION IV

COMPREHENSIVE PLANNING PROCESS

COMPREHENSIVE PLANNING PROCESS

The Columbus metropolitan area has changed markedly over the past 10-20 years as new growth, both population and employment, has gravitated around the I-270 Outerbelt. This growth has led to a shift in travel patterns (work trips and otherwise) by area residents and workers. During this tremendous growth period, local funding for operations (via a county-wide sales tax) has remained at .25%. As a result, COTA has faced a continuing challenge of stretching these operating dollars to provide transportation services for the central Ohio area.

Looking towards the future, Central Ohio is at a pivotal point in its growth, expecting to add 400,000 people over the next 20 years. During this period, traffic congestion is expected to increase 375%. In an effort to tackle present day transportation needs, and to provide long-term mobility strategies that address traffic congestion, quality of life, air quality and overall mobility, COTA completed several comprehensive studies which are described in further detail below.

Summary of the COTA Vision 2020 Plan

In 1995, the Central Ohio Transit Authority and the Mid-Ohio Regional Planning Commission (MORPC) completed a long-range planning process which identified the projected transit needs of the central Ohio area through the year 2010 and recommended a comprehensive set of bus improvements to address the projected growth. After a period of extensive public review and comment, COTA adopted the Expanded Bus Service Alternative in July 1995.

In 1998, COTA and MORPC created the Vision 2020 Plan. Vision 2020 builds on the 1995 planning effort and projects transit needs out through the year 2020. Major service assumptions for both the 1995 and 1998 plans include:

- The significant expansion of transit services into the growth areas of COTA's service area (see Figure 2 - COTA Service Area on page II-5), which will enable workers to access the new employment centers around I-270. With the relatively low rate of unemployment in Franklin County, and the passage of the Ohio Works First Legislation, this issue has become more urgent;
- Provide for intra-suburban and inter-suburban transit demand and dramatically expand COTA's reverse commute service to the employment centers around I-270;
- Significant expansion of Project Mainstream, COTA's transit services for disabled individuals who cannot access the fixed-route services due to limitations imposed by their disability;

- Investigate new transit services which remove COTA's vehicles from the congested highway network. This will significantly improve travel times and make COTA more competitive with the single-occupant vehicle.

Additionally, the Vision 2020 Plan investigates various Intelligent Transportation Systems (ITS) technologies that can used to facilitate the movement of COTA's coaches on the arterial highway network (see page VI-21).

Bus Expansion Element

The bus expansion element of the Vision 2020 Plan would implement 14 suburban transit centers to serve the low-density development around I-270. In addition to park and ride facilities, each transit center would provide timed transfers between local, crosstown, express and neighborhood circulator services. The timed transfers will minimize the time passengers must wait to transfer between vehicles. COTA is currently demonstrating the suburban transit center concept at Easton. In addition, COTA is proposing to implement three central city transit centers which would include transit supportive land uses such as a day care center, job readiness training center and neighborhood medical services. COTA is demonstrating this concept at our South Linden Transit Center located at 11th and Cleveland Avenues. The South Linden Transit Center opened in October of 1999.

In general, the transit center can be as simple as a park and ride lot with a passenger shelter or as elaborate as our South Linden facility. The inclusion of transit supportive uses will be dependent upon the needs in the area. All transit centers would be served by small, neighborhood friendly, circulator buses. Each circulator would provide for intra-neighborhood service by linking the transit center in that area with major activity centers and residential development. The service would utilize low-floor 30' coaches and would operate from 6:00 a.m. to 8:00 p.m. on weekdays, Saturdays and Sundays. In total, the plan calls for 20 neighborhood circulator routes.

As part of the plan, COTA will significantly enhance the span of service and frequency of service on existing routes and dramatically expand the reverse commute express services to major suburban employment centers. COTA will add new crosstown routes and supplement service on existing crosstown routes in order to enhance inter-suburban movement. Some of the innovative new services proposed in the Vision 2020 Plan include:

- 24-hour-a-day service on major local routes;
- dramatically expanded downtown circulator service;
- express crosstown service which will operate on I-270 North, between Tuttle Crossing Boulevard and Morse Road.

Major capital items included in the bus expansion element include:

- construction of a new north express bus terminal which would be part of the Multi-Modal Transportation Terminal (MMTT);
- construction of a small-bus maintenance facility;
- construction of a large-bus maintenance facility;
- increase in the peak fleet from 248 to 465 coaches;
- in total, COTA's fixed-route fleet would increase from 295 to 558 coaches;
- increase in Project Mainstream fleet from 48 to 77 vehicles;
- 15 additional transit centers would be implemented.

Major operating elements of the bus expansion plan include:

- increasing fixed-route bus service hours from 767,588/year in 2003 to 1,726,460/year in 2020;
- increasing Project Mainstream service hours from 126,547/year in 2003 to 206,628/year in 2020;
- increasing the number of bus operators from 450 to 1,043;
- increasing the number of bus mechanics from 117 to 210.

Intelligent Transportation Systems (ITS) Element

The Vision 2020 Plan investigated numerous ITS technologies that can be used to enhance and improve COTA's transportation services. These technologies include:

- provide real-time passenger information to our customers;
- facilitate the movement of COTA's coaches on the arterial highway network; and
- make fare payment more convenient for the transit rider.

Specifically, the Vision 2020 analysis investigated the feasibility of implementing a signal priority system on North High Street from Morse Road to the downtown. Signal priority would expedite the movement of COTA's buses by lengthening the traffic signal green phase or truncating the red phase at intersections along an arterial street. Signal priority will result in a significant reduction in transit travel times which will enhance the appeal of public transit. In addition to the implementation of signal priority on major radial arterial streets, the Vision 2020 Plan would implement the following ITS improvements:

- An automatic vehicle locator (AVL) system which would provide automatic bus stop annunciation, improved dispatch communication, schedule adherence monitoring, and vehicle maintenance monitoring;

- Real-time bus information displayed at bus stops in the downtown and at major activity centers throughout the service area;

- Multi-modal trip planning which would provide COTA's customers with a detailed trip itinerary that would include walking distances/times, bus stop locations, actual bus arrival and departure times and required transfers;
- Park and ride variable message signs showing how many parking spaces are available and the next express bus departure time;
- A transportation management center which would combine traffic and public transit operations communication and control functions; Smartcard technologies that will make fare payment more convenient for the transit customer and financial management of fare revenues more secure and efficient for the transit agency.

Please refer to page VI-21 for further information relating to ITS.

Commuter Rail Element

The Central Ohio area is projected to experience dramatic growth in population and employment over the next 20 years. This growth will result in a significant increase in traffic congestion and therefore travel time for COTA's radial local and express bus services. The Vision 2020 Plan proposes that COTA address this problem by implementing commuter rail service in eight travel corridors in central Ohio. Based on ridership projections, the implementation of this commuter rail service by corridor would be prioritized as follows: North, Northwest, Northeast, East, West/Northwest, Southeast, Southwest and West (please refer to Figure 4-1 - Candidate Regional Rail Corridors, found on page IV-6).

With the exception of the north corridor service, each rail line would terminate at the proposed North Downtown Multi-modal Transportation Terminal. The north corridor line would access High Street via Goodale Boulevard and operate at grade to Fulton Street. Each rail line would provide a 30-minute frequency of service from 5:00 a.m. to 12:00 midnight Monday through Saturday. On Sundays, the commuter rail lines would operate from 7:00 a.m. to 11:00 p.m. This analysis assumes that COTA will buy rights-of-way and operate over its own trackage in the north, northwest and northeast corridors. In the remaining five corridors, COTA will negotiate operating agreements with the railroads and operate over their trackage.

In total, the eight commuter rail lines comprise 82 miles of trackage and will include 41 stations. This plan would also require the procurement of 29 diesel-powered commuter rail vehicles.

Downtown Circulator Element

As part of the Vision 2020 planning effort, COTA examined the need for an enhanced downtown circulator service. The downtown mobility work group, which was made up of approximately 40 downtown business and governmental representatives, was convened to provide policy guidance and feedback to the planning team. After five months of extensive meetings and review of the consultant data, the workgroup recommended COTA pursue the implementation of one of the following options:

- An at-grade guideway operating on High Street or Front Street from the Brewery District to the Short North which would be supplemented by a north bus loop and a south bus loop. The two loops would provide connections to the Nationwide Arena District, downtown hotels, COSI and the Discovery District (see Figure 4-2 - Shuttle Option At Grade located on page IV-7);

- An elevated guideway loop which would connect the Third Street corridor with the Nationwide Arena District, the Convention Center, COSI, Franklin County Court House complex, City Center Mall and major downtown employers. This option would also include a bus circulator loop that would provide service into the eastern downtown area and intersect with the guideway (see Figure 4-3 - Loop Cross Option – At-Grade or Elevated located on page IV-8).

FIGURE 4-1
CANDIDATE REGIONAL RAIL CORRIDORS

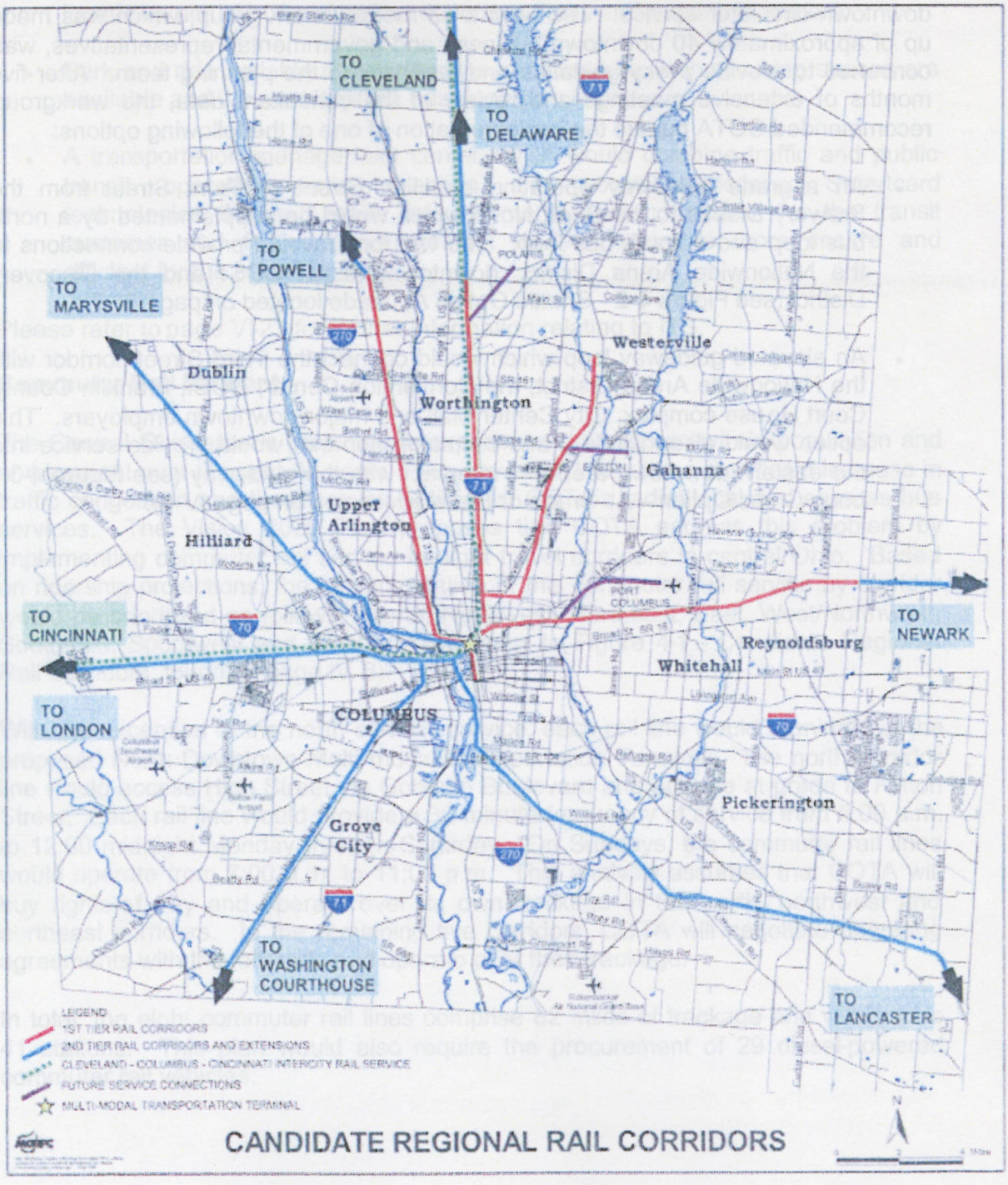


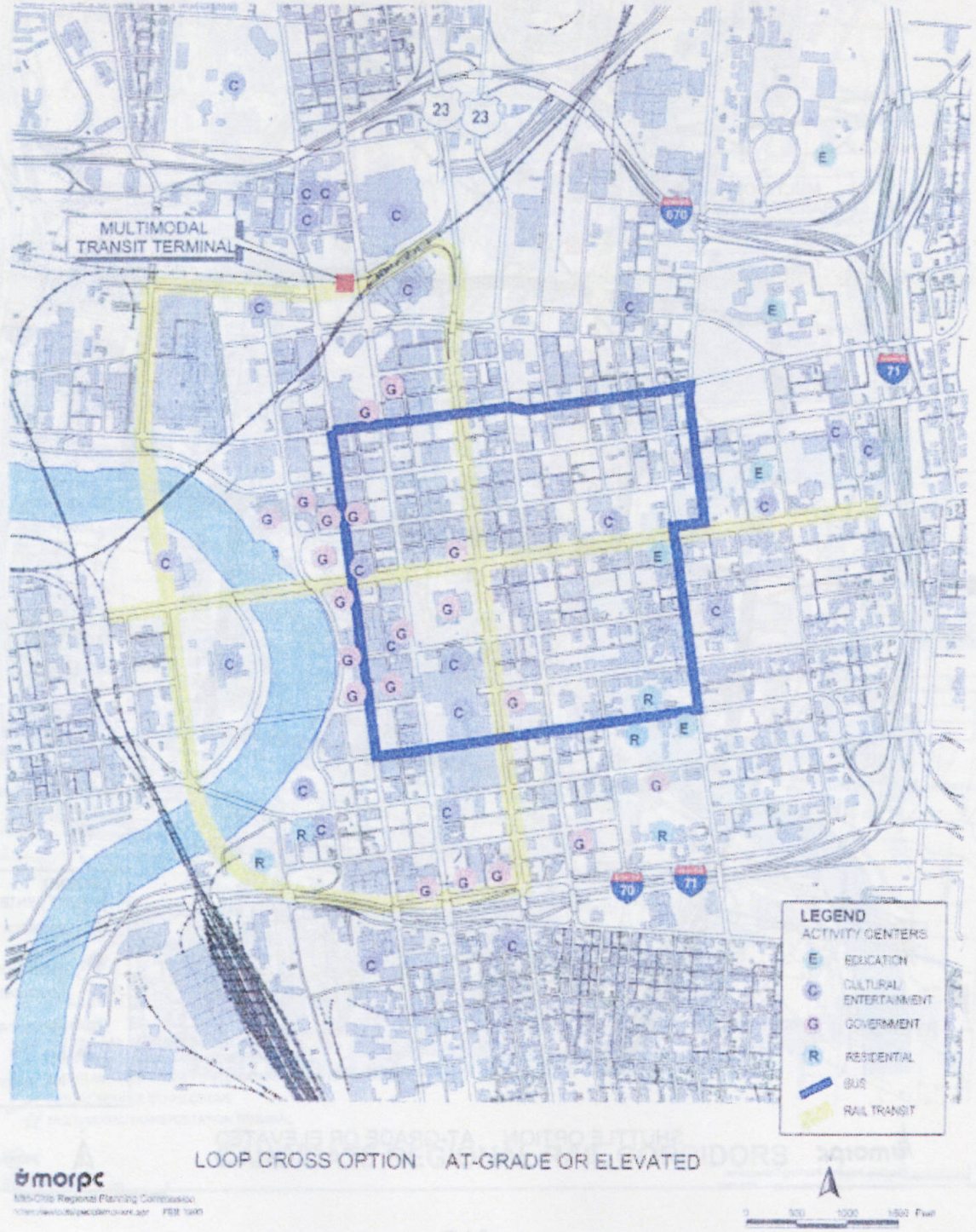
FIGURE 4-2
SHUTTLE OPTION AT-GRADE

SHUTTLE OPTION AT-GRADE OR ELEVATED

morpc
Mid-Ohio Regional Planning Commission

COTA

FIGURE 4-3
LOOP CROSS OPTION
AT-GRADE OR ELEVATED



Fast Trax North Corridor Major Investment Study

Based on the public input received during the Vision 2020 planning effort, COTA made the decision to further investigate the feasibility of passenger rail service in the highest priority travel corridor. As a result, in May 2000, COTA hired the Mid-Ohio Regional Planning Commission to update the 1995 Major Investment Study (MIS) for the North Corridor. This study, which has a year 2025 time horizon, analyzed the following major transit alternatives:

- **No-Build** - Maintains the current all-bus system with only minor improvements to service;
- **Expanded Bus Service** – This option would dramatically improve bus service throughout the region (i.e., implement the proposed Vision 2020 bus improvements);
- **Light-Rail Transit (LRT)** – Create a light rail line in the North Corridor with region-wide expanded bus service.

The LRT option would utilize existing freight rights-of-way which parallel I-71 North from downtown Columbus to Lazelle Road in Delaware County. The analysis examined the following LRT alignments in detail:

- Existing railroad rights-of-way from the northern terminus at Lazelle Road to the downtown where the line would access High Street via Goodale Street and extend down High Street to Mound Street (see Figure 4-4);
- Existing railroad rights-of-way from Lazelle Road to 17th Avenue where the line would access the downtown via Fourth/Summit Streets, Goodale Street, and extend down High Street to Mound Street (see Figure 4-4).

A separate Regional Rail Freight Study was conducted in parallel with the MIS Update in order to identify strategy for making available the railroad rights-of-way necessary to construct the LRT alternative. As part of this process, COTA and the consultant team have conducted numerous meetings with the staff of the CSX and N&S Railroads.

Each of the alternatives being considered are evaluated based on their ability to attract new transit riders, improve transit travel time, improve regional air quality and provide service in a cost-effective manner. COTA'a ability to fund each of the alternatives was also evaluated as part of a financial capacity analysis.

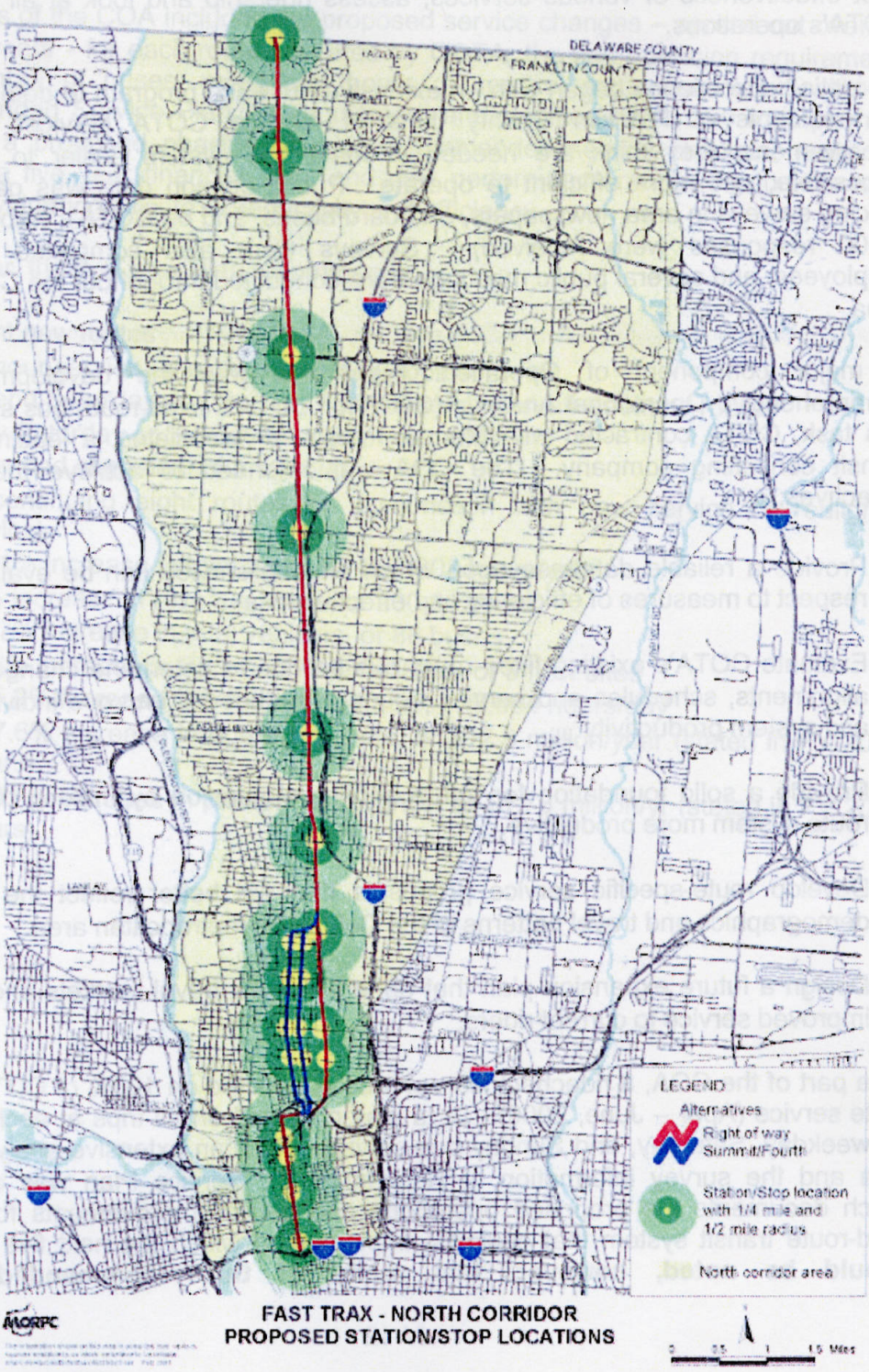
As part of the community outreach process, COTA etablished a Fast Trax Advisory Group to review progress on the study. After eight advisory group meetings and extensive discussion, the group recommended that COTA and MORPC pursue the

LRT/Expanded Bus Service Alternative. In total, COTA conducted over 220 community outreach meetings as part of the study effort.

The COTA Board of Trustees selected the LRT/Expanded Bus Service Alternative as the Locally Preferred Alternative (LPA) for the North Corridor MIS Update at the May 23, 2001 Board meeting. In August of 2001, COTA submitted the New Starts Submittal for the North Corridor Light Rail Project. The Federal Transit Administration (FTA) evaluated the project and gave it a 'Recommended' rating. This favorable rating allows COTA to proceed into the Premliminary Engineering/Draft Environment Impact (PE/DEIS) phase of the project. In August 2002, COTA submitted the annual update to the New Starts Submittal for the North Corridor Light Rail Project. FTA again rated the project as 'Recommended'.

COTA is currently evaluating consultant proposals for the PE/DEIS phase of the project. It is anticipated that the consultant selection process will be completed in May 2003, and the Preliminary Engineering phase will begin in June 2003. COTA currently has funding to complete the first phase of the PE/DEIS task. If the remaining funds for this work are identified, the PE/DEIS phase should be completed in March 2005.

FIGURE 4-4
NORTH CORRIDOR LIGHT RAIL LINE



Operation: Excellence

In May 2000, COTA launched Operation: Excellence, a comprehensive look at our routes and services. This project was a diagnostic tool designed to help analyze the cost effectiveness of various services, assess ridership and look at all aspects of COTA's operations.

Operation: Excellence began with an extensive outreach program to determine what the residents of Franklin County think of existing COTA services and what improvements they think are needed to make the system easier to use, more accessible, and more efficient to operate. Public opinion data was gathered by placing surveys in area newspapers, on board buses, and on COTA's website (nearly 2,000 responses were received). Surveys were also completed by COTA employees, and several public meetings were conducted throughout the Central Ohio area.

A major component of Operation: Excellence was the development of a Comprehensive Operational Analysis (COA) for COTA's fixed-route bus system. For this task, COTA contracted with Manuel Padron & Associates, a leading national transit consulting company. The COA was intended to achieve the following objectives:

- Provide a reliable database upon which existing service can be evaluated with respect to measures of efficiency and effectiveness.
- Evaluate COTA's existing fixed-route bus service to determine changes to route alignments, schedules and service frequencies that will improve individual route and system productivity.
- Provide a solid foundation for future service expansion by making the existing route system more productive.
- Develop route-specific service proposals that will better reflect the changing demographics and travel patterns of the Columbus metropolitan area.
- Design a future expansion plan that generates new travel markets and provides improved service to current riders.

As a part of the COA, a ridecheck survey was conducted on 100% of COTA's fixed-route service (April – June, 2000). Data was collected on all trips at each bus stop for weekday, Saturday, and Sunday bus service. After an extensive analysis of this data and the survey information, a Recommended Service Plan was developed which documents the proposed operations and capital improvements for COTA's fixed-route transit system that could be implemented within the next five years. **It should be noted, however, that many of the recommended service**

improvements cannot, at this time, be financed with current local, state, and federal funds.

The results of the COA included the proposed service changes – spread out over the next five years - for each route operated by COTA, the key operating requirements (e.g., number of buses, miles and hours of service, etc.), associated with the Recommended Service Plan, the equipment and facilities necessary to implement the Plan, a proposed phasing plan of recommended service changes, projected ridership, a five-year financial plan, and new performance monitoring indicators to assist in evaluating a route's productivity and efficiency.

In particular, the five-year Plan recommends:

- Eight new routes
- 24-hour service on eight major local routes
- Extend Saturday and Sunday span of service on all weekend routes
- New Saturday or Sunday service on two routes
- Extended alignments for 13 routes
- Discontinuing eight routes (in conjunction with new service or realigned service)
- A 31% increase in total hours, or 257,003 hours/year
- 31% increase in revenue hours, or 230,912/year
- A 27% increase in total vehicles, or 86 buses
- A 36% increase in Park and Ride facilities, or 9 new sites
- A 15.2% increase in weekday ridership, or 9,664 riders/day
- A 17.6% increase in operating costs, or $12.8 million/year (stated in FY 2001 dollars)
- A 13.3% increase in passenger revenue, or $1.78 million/yr (stated in FY 2001 dollars)

SECTION V

PLANNED SERVICE CHANGES

TABLE 5-1
Schedule of Major Service Improvements for 2003

Month	Projects	Estimated Changes in Vehicles Required			Estimated Change in Annualized Vehicle Hours
		AM Peak	Mid-day	PM Peak	
Jan	**#2 E. Main St. Local and #31 Worthington Express (interlining)** Add AM trip (prior to 8:00am) to Consumer Sq. East/JC Penney Discontinue unproductive trips through Worthington Estates	1	0	0	441
Jan	**#8 Hamilton Ave. Local:** Remove deviation to Northland Mall	0	0	0	-174
Jan	**#10 Broad St. Local:** Modify deadhead times and a trip from Franklin County Dept. of Human Services	0	0	0	-191
Jan	**#95 Morse/Henderson Crosstown:** Realign to serve Gillie Senior Rec. Center.	0	-1	0	-170
May	**#3 Mound St. N/W Blvd. Local:** Reduce midday service levels from 27 minutes to 40 minutes.	0	-1	0	-1,483
May	**#9 Leonard/Brentnell Local:** Reduce midday service levels from 40 minutes to 50 to 55 minutes.	0	-1	0	-1,624
May	**#72 Easton LINK:** Discontinue all service on the South Loop.	0	-1	0	-1,088
May	**#73 Capital City Flyer:** Discontinue service	-1	-1	-1	-4,063
May	**#92 James Rd. Crosstown:** Extend all trips into Port Columbus Airport (JARC Funds).	0	0	0	429
	Total Regular Service	**0**	**-5**	**-1**	**-7,923**

TABLE 5-2
Schedule of Service Improvements for 2004-2007

Month	Projects	Estimated Changes in Vehicles Required			Estimated Change in Annualized Vehicle Hours
		AM Peak	Mid-day	PM Peak	
	Due to significant declines in sales tax revenues and state and federal operating assistance, COTA will be required to make significant reductions in our fixed-route services. These reductions will be made to COTA's least productive services.	-49	-27	-48	-149,312
	Total Regular Service	**-49**	**-27**	**-48**	**-149,312**

SECTION VI

CURRENT AND PLANNED EQUIPMENT AND AMENITIES

COTA FACILITIES

Bus Storage and Maintenance

1600 McKinley Avenue - This bus storage and maintenance facility was completed in 1980. It has indoor storage capacity for 240 buses. Both heavy and light maintenance are performed at this location, and buses are routinely kept clean through the use of two automated bus washers. In addition to bus operations, the facility is the site of COTA's administrative headquarters. As of April 2003, thirty-six routes operated out of the McKinley Ave. facility.

1333 Fields Avenue - This 200 bus facility, which provides indoor storage and light maintenance work areas, opened in September 1984. This facility features advanced technology in the areas of ventilation, energy conservation and maintenance, and has two automated bus washers. COTA's radio control room is also housed at this facility. As of April 2003, thirty routes operated out of the Fields Ave. facility.

Transit Centers

Linden - 1394 Cleveland Avenue - Located at the intersection of Cleveland and 11th Avenues, this inaugural urban transit center opened in October 1999. The 20,500 square-foot facility is part of COTA's Livable Communities Initiative (LCI) project for the Linden area, and includes such amenities as child and health-care, and banking offices. Nine bus routes presently serve the transit center. In May 2001, the Linden LINK neighborhood circulator route was implemented, providing improved neighborhood transportation and connections to COTA's fixed-route services. Express bus routes serving the Linden Transit Center also provide vital connections to job centers around the I-270 Outerbelt, such as the Polaris area located just north of I-71 and I-270, and the Easton development area near Morse Rd. and I-270.

Since opening, Linden has also served as a successful community-based facility providing increased services for the surrounding neighborhood (e.g., involvement in neighborhood civic groups and hosting meetings and other get-togethers). Funding for the Linden Transit Center was provided by the Federal Transit Administration ($2.1 million), and the Ohio Department of Transportation ($268,000).

Easton – 4260 Stelzer Road

In July 2001, COTA began construction on a second transit center at Easton, and in May 2002, held the official grand opening ceremony. The facility (and future daycare center) is located on 2.76 acres of land that was generously donated by the Limited and Georgetown Companies. Serving commuters in northeastern Franklin County, the Easton Transit Center is located just north of Morse Rd. at the southeast corner of Transit Dr. and Stelzer Rd.

As part of COTA's Livable Communities Initiative (LCI) project for the Easton area, the transit center contains a 1,360 square foot enclosed waiting area, staff attendant booth and restroom, an ATM machine, 41 parking spaces, four dedicated large bus bays, and platform space for four to five smaller, circulator-type buses. Four bus routes presently serve the transit center, including the Easton LINK, providing quick connections to many of Easton's shopping, dining, and entertainment venues, and to COTA's fixed-route services.

Beginning in August 2003, COTA will begin construction of a day care facility on a contiguous parcel just south of the Easton Transit Center. Construction is expected to last approximately six to eight months. The facility will be 9,000 square feet and is expected to accommodate 135 children.

Design and construction funding for the Easton Transit Center project was provided by the Federal Transit Administration ($3.27 million), and the Ohio Department of Transportation ($218,750).

Downtown Express Terminals

COTA provides two downtown terminals that are utilized by many of its express routes. They are described in greater detail in the following paragraphs.

North Terminal – 33 West Spring Street - The North Terminal is located on Spring Street between High and Front Streets. There are six bays for express routes. There are currently nine express routes using the North Terminal to serve passengers in the north downtown area. As of March 2003, the North Terminal is averaging 59,925 boardings and alightings per year.

City Center Terminal – 25 East Rich Street - In November 1989, COTA moved into its 41,000 square foot City Center Express Terminal. The terminal is located east of High Street between Rich Street and Main Street in the City Center Parking Garage. Access to the terminal is from Rich and Main Streets. Elevators at both entrances provide pedestrian access to the terminal from all floors. The terminal is able to accommodate ten buses at one time, five in each direction. The terminal design permits buses to pull in at an angle and pull out directly after passenger loading and unloading. This feature increases the safety for COTA's passengers and facilitates the smooth flow of buses through the terminal. Currently, twenty-one express routes serve the City Center Terminal. As of March 2003, the City Center Terminal is averaging 100,980 boardings and alightings per year.

Customer Service

60 East Broad Street - With a goal to provide improved service at a more convenient location, COTA relocated its Customer Service Center to 60 East Broad Street in December 2000. This location is much closer to the hub of COTA's route system at

Broad and High Streets in downtown Columbus. In addition, this facility houses COTA's Sales Department.

This office houses the Customer Service Center, the Customer Information Center and the office of Quality Service. It is the main sales outlet for passes, as well as the location where passengers can obtain Senior Discount Cards and can be photographed for Key Cards.

During 2002, COTA received over 1.1 million calls to the Customer Service Center. Recently, several major computer software and hardware enhancements were implemented at 60 East Broad Street in order to further improve COTA's ability to provide quality products and services to our customers:

- Trapeze Info Agent (Jan-02). While speaking to customers on the telephone, this software now enables COTA customer service personnel to provide accurate and timely computerized itinerary trip plans for a requested trip.
- Trapeze Info Interactive Voice Response (IVR) System (Mar-02). When calling COTA's Customer Service Center for next bus arrival or schedule information, you may now use a telephone touch pad to collect trip information rather than waiting to speak to a customer service representative. To date, the IVR system has resulted in a nearly 40% reduction in calls handled by a live customer service representative, and as a result, this frees up our customer service representatives to help customers whose needs exceed the IVR schedule information capabilities.
- Trapeze Info Com (Jan-03). This software module provides a computerized customer contact management database and reporting system for COTA Quality Service representatives. Benefits of this system include allowing customer service representatives to forward customer inquiries, complaints or accommodations directly to individual departments so that customer inquiries can be resolved in a timely manner.
- Trapeze Info Web (Ongoing testing). This computer module allows the general public to create trip itineraries via COTA's web site (www.cota.com). After entering information such as trip origin, trip destination, time and date of trip, etc., Info Web displays various trip options, which are ranked by user preference (e.g., minimum number of transfers, minimum walking distance, etc.). A map of the requested trip is also created with the trip itinerary.

Numerous operational efficiencies have been gained by these enhancements, including cost savings in staffing the Customer Service Center. For example, as of September 2002, COTA no longer staffs this facility on the weekends.

Prior to the Broad Street move, COTA's Customer Service office was located at 177 South High Street. This downtown office opened in 1988, replacing the Customer Service office at 155 N. High Street which was destroyed by fire in 1987.

Business Development

1650 Lake Shore Drive - As COTA began its course towards a successful implementation of the Vision 2020 Plan (Section IV), additional office space was required for staff working on new projects such as ITS (page VI-21), Mobility Management (Section VIII), etc. As a result, in April 2001, COTA relocated its Business Development Division into 9,659 square feet of office space at 1650 Lake Shore Drive. Departments within the Business Development division include Planning, Service Planning, and Corporate Communications.

Paratransit Services

101 Phillipi Road - In June 2002, COTA signed a five-year lease for this 22,282 square foot facility to house Project Mainstream dispatch and reservation operations, and to store and maintain COTA-owned Project Mainstream vehicles.

Prior to June 2002, Laidlaw Inc., COTA's former contractor for Project Mainstream services, leased their own office space at 6400 Huntley Road. In the spring of 2002, the Project Mainstream management contract with Laidlaw expired, and a new Request For Proposals was issued to solicit bids for the Mainstream service provider contract. Because Laidlaw's site lacked indoor storage for Mainstream vehicles and had other operational shortcomings, COTA began its search for a more suitable facility to handle the demands of Project Mainstream for at least the next five years (indoor bus storage, increased square footage, etc.). In August 2002, ATC/Vancom was selected as the new service provider for Project Mainstream.

The facility is conveniently located on Phillipi Road, just north of West Broad Street, and is easily accessible to I-270. The building meets current ADA standards; and provides convenient and reliable continuation of paratransit operations.

COTA BUS FLEET

As of April 2003, COTA operated an active fleet of 295 coaches. An additional 22 buses are kept in reserve as an inactive or contingency fleet, and four buses are inoperable due to heavy accident damage. Table 6-1, which is found on page VI-7, provides information on the number of coaches, status, year of manufacture, manufacturer and seating capacity for COTA's total fleet.

In 2003, COTA will take delivery on ten 40' low-floor New Flyer buses. These buses will replace ten 9100 series coaches that have reached the end of their useful lifespan. Currently, COTA operates 254 full-sized and forty-one 30-foot accessible buses, resulting in 100% of the active fleet being fully accessible.

FTA guidelines state that heavy-duty transit buses have a 12-year service life. Listed in Table 6-2 on page VI-8 is a summary of when COTA buses are scheduled for replacement.

Fleet Spare Ratio

As of April 2003, COTA operated 246 coaches in the morning peak period and 248 coaches in the PM peak period. The remaining active vehicles are retained as emergency spares (i.e., for breakdowns and passenger overloads) or for preventive maintenance. The ratio of spare vehicles to the afternoon peak period fleet is currently 19.0%. Table 6-3 (page VI-9) displays important COTA fleet data for each year of the Transportation Improvement Program (i.e., 2003-2007).

Future Purchases

As noted above, COTA will replace ten of the 1991 series buses during the second trimester of 2003. New Flyer, the largest transit bus manufacturer in North America, will manufacture the buses. In 2000, COTA entered into a five-year agreement with New Flyer for the purchase of 223 buses. For future planning purposes (i.e., Vision 2020), the agreement also includes an option to purchase 200 more vehicles. Full implementation of the Vision 2020 Plan (which includes significant expansion of COTA's bus service), however, would require voter approval for additional local funding. To date, the COTA Board of Trustees has not made a decision on the timing of a ballot issue or the type of tax. As a result, this analysis assumes that COTA will operate within the constraints of the existing ¼% sales tax over the course of this five-year plan.

In July 2004, COTA anticipates taking delivery of twelve 35-foot low-floor New Flyer buses. These buses will replace ten 9100 series coaches and two 9300 series coaches. In order to operate within the constraints of our current funding, COTA will be required to make service cuts, which will result in the retirement of 12 additional 9300 coaches.

In the first trimester of 2005, COTA will continue the replacement of the 9300 series coaches. At present, COTA has received MORPC attributable CMAQ funds to replace 17 of these buses. In addition, fourteen 9300 series coaches will be retired as a result of service reductions.

In 2006, COTA will be required to reduce service levels and retire the remaining twenty-two 9300 series coaches. In total, COTA will replace nineteen of the sixty-seven 9300 series coaches. The remaining 48 coaches will be retired as a result of service reductions.

In the first trimester of 2007, COTA will begin the replacement of the eighty 9500 series coaches. At present, COTA has programmed MORPC attributable CMAQ funds to replace 14 of these buses. In addition, ten 9500 series coaches will be retired as a result of service reductions. COTA will need to identify additional funds to replace the 56 remaining 9500 series coaches.

The competition for Federal Section 5309 Grants is extremely intense and therefore COTA cannot be confident about the availability of these monies to fund all of our bus replacement needs. COTA will actively pursue all other possible sources of capital grant monies. In this regard, TEA-21 allows a region much greater discretion in the allocation of transportation monies between highway and public transit improvements. COTA will work with the MORPC to identify opportunities for funding COTA's bus replacement needs which this legislation has created.

If COTA is to provide reliable cost-effective transit service to the citizens of Central Ohio, it must adhere to current bus replacement schedules by identifying and securing the necessary capital funding to purchase new vehicles.

TABLE 6-1
ROSTER OF EQUIPMENT

The Central Ohio Transit Authority Fleet Roster as of April 2003 is listed below:

Active Fleet
(Note: All buses are ADA accessible)

Year Of Manufacture	Manufacturer	Length	Seating Capacity	Equipment	Number Of Vehicles	Replacement Year
2001	New Flyer	40'	39	A/C - Ramp	61	2013
2001	ABI	30'	20	A/C - Ramp	30	2013
2000	ABI	30'	20	A/C - Ramp	8	2012
1999	Nova	40'	39	A/C - Ramp	26	2011
1997	Chance	31'	25	A/C - Lift	3	2009
1995	Flxible	40'	42	A/C - Lift	56	2007
1995	Flxible	35'	35	A/C - Lift	23	2007
1993	Flxible	40'	42	A/C - Lift	48	2005
1993	Flxible	35'	35	A/C - Lift	19	2005
1991	Flxible	40'	42	A/C - Lift	20	2003
1985*	GMC	40'	45	A/C - Lift	1	2008
				Total Active Fleet	**295**	

*Fully refurbished with wheelchair lift in 2000 (GMC = General Motors Corporation)

Contingency Fleet

Year of Manufacture	Manufacturer	Length	Seating Capacity	Equipment	Number of Vehicles
1991	Flxible	40'	42	A/C - Lift	20
1985**	GMC	40'	45	A/C	1
1963	GMC	40'	53	A/C	1
				Total Contingency Fleet	22

**Training Bus

Out of Service/Heavy Repair Fleet

Year of Manufacture	Manufacturer	Length	Seating Capacity	Equipment	Number Of Vehicles
2001	New Flyer	40'	39	A/C - Ramp	1
1999	Nova	40'	39	A/C - Ramp	2
1995	Flxible	40'	42	A/C - Lift	1
				Total Out of Service/Heavy Repair Fleet	4

TABLE 6-2
BUS REPLACEMENT SCHEDULE

		2003			2004			2005			2006			2007		
Entered Year in Service	Number of Buses	1st Tri	2nd Tri	3rd Tri	1st Tri	2nd Tri	3rd Tri	1st Tri	2nd Tri	3rd Tri	1st Tri	2nd Tri	3rd Tri	1st Tri	2nd Tri	3rd Tri
1985*	1															
1991	20		10			10										
1993**	67					2		17								
1995	79													14		
1997	3															
1999	26															
2000	8															
2001	30															
2001	61															
Totals	295															
Service Reduction		0	0	0	12	0	0	14	0	0	22	0	0	10	0	0
New Expansion		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Replacement		0	10	0	0	12	0	17	0	0	0	0	0	14	0	0
Total Active Fleet		295	295	295	283	283	283	269	269	269	247	247	247	237	237	237

*Fully refurbished with wheelchair lift in 2000

**As a result of projected service reductions, COTA will only need to replace 19 of the 9300 series coaches

TABLE 6-3
PEAK FLEET UTILIZATION

	2003			2004			2005			2006			2007		
	1st Tri	2nd Tri	3rd Tri	1st Tri	2nd Tri	3rd Tri	1st Tri	2nd Tri	3rd Tri	1st Tri	2nd Tri	3rd Tri	1st Tri	2nd Tri	3rd Tri
Advance Design Buses	295	295	295	283	283	283	269	269	269	247	247	247	237	237	237
Active AM Peak Fleet	246	245	245	235	235	235	223	223	223	205	205	205	197	197	197
Active PM Peak Fleet	248	248	247	238	239	238	226	227	226	208	209	208	200	201	200
Available Spare Fleet in Higher Peak (PM)	47	47	48	45	44	45	43	42	43	39	38	39	37	36	37
COTA Spare Ratio (%)	19.0	19.0	19.4	18.9	18.4	18.9	19.0	18.5	19.0	18.8	18.2	18.8	18.5	17.9	18.5
Total Active Fleet	295	295	295	283	283	283	269	269	269	247	247	247	237	237	237

Notes:

1. Active Peak Fleet are those vehicles actually in service during the peak hours.
2. Available Spare Fleet is the Total Active Fleet minus the higher Active Peak Fleet requirements.
3. COTA Spare Ratio = Total Spare Fleet / Highest Peak Fleet
4. Total Active Fleet are all revenue vehicles which are 12 years old or less, and any older buses used in active service. Does not include vehicles which are out of service due to a major accident or fire damage.

THE COTA CONTINGENCY FLEET PLAN

As of April 2003, the Central Ohio Transit Authority operated an active fleet of 295 fixed-route buses. Of this fleet, 248 buses operate in the PM peak period with 47 vehicles held as spares (i.e., 19.0% spare ratio). In addition to the active fleet, COTA maintains 22 coaches in a contingency fleet.

COTA maintains a contingency fleet in order to respond to vital community needs in a timely fashion. These community needs include:

- Growth of the COTA Peak Fleet – COTA's ability to add new service is dictated by the growth in our sales tax receipts. The contingency fleet allows COTA the flexibility to add to the peak fleet as funding permits. The COTA Board of Trustees is currently evaluating the potential of asking voters to approve an additional ¼% sales tax in November 2003. The funds generated from this sales tax would be used to construct and operate the North Corridor LRT Line and fund a significant expansion (67% increase) in fixed-route bus services. COTA's Vision 2020 Long Range Plan assumes a rapid increase in our fixed-route service after the successful passage of a ballot issue.

- Job Access Service – COTA has been successful in attracting FTA Job Access/Reverse Commute Grant funds. In addition, COTA has been successful in partnering with major local employers in the creation of new first and second shift transit services (see Section VIII). COTA has been required to draw from our contingency fleet in order to address these vital community needs.

- Supplemental Service for Highway Reconstruction Projects – Since 1992, COTA has partnered with the City of Columbus and the Ohio Department of Transportation to provide supplemental peak period bus services for four major highway reconstruction projects. These services were added in an effort to reduce congestion during the peak periods. COTA has provided between 3 and 10 additional peak period buses to meet these community needs. In 2001, COTA provided three peak period coaches to assist in mitigating the traffic impacts of the I-70 East Reconstruction Project.

- Supplemental Service for Special Events – In June of 2000, COTA was involved in assisting the City of Columbus with planning for the Presidents Empowerment Zone Conference (June 27th-29th). This conference required the extensive movement of over 1000 conference delegates to various sites and receptions in the Columbus Empowerment Zone. The availability of a contingency fleet allowed COTA to provide supplemental service for this event and other similar events.

- Major Increase in Energy Prices – Within the last several months, the Central Ohio area has seen dramatic increases in fuel prices. If these energy prices continue to rise, COTA will see a significant increase in our peak-period bus ridership. The maintenance of a contingency fleet allows COTA to add peak period service to

address this added demand preventing pass-ups and over loads. The capability to add supplemental service during an energy crisis is critical to the Central Ohio community.

In order to provide for these essential community needs, COTA will maintain a 15-bus contingency fleet during the time period of this Short Range Transit Plan (2004-2007).

PASSENGER SHELTERS

COTA currently owns and maintains 377 passenger shelters. These shelters are located throughout Franklin County and serve major boarding/transfer locations, park and ride lots, turnarounds, shopping areas, medical/elderly facilities, etc.

The site selection process for each COTA shelter is based on the following criteria:

A) Boardings at the bus stop:

Low volume of boardings = score of 5 (lowest need)
Medium volume of boardings = score of 15
High volume of boardings = score of 25 (highest need)

B) Average waiting time at the bus stop:

Short wait time = score of 5 (lowest need)
Medium wait time = score of 15
Long wait time = score of 25 (highest need)

C) Special populations (elderly, disabled, etc.) using the stop:

Low number of special user score of 0 (lowest need)
High number of special user score of 30 (highest need)

D) Park & Ride, Terminal, Bus Loop, and Bus Stops

The overall score for each bus stop is the combined score for each indicator. All bus stops are ranked according to their overall score. Bus stops on new routes are placed on the list before the route is implemented.

Any or all of the following conditions render a potential bus shelter infeasible:

- Maximum boardings are equal to or less than 25 passengers per day.
- Adequate shelter of some type is readily available.
- Another COTA shelter is in the near vicinity.
- Shelter location is not approved by the local authorities.
- Shelter location generates severe local citizen/business opposition.
- Site geometrics are prohibitive.
- Directional orientation of shelter is prohibitive.
- Excessive high maintenance costs for a relatively low boarding volume.

Features to be available with each COTA shelter are divided within two categories, necessary and desired. The following features are necessary:

- Benches (not necessarily full length).
- Accessible to passengers with disabilities.
- Security of the shelter by limitation of nearby vegetation and non-obscured visibility and nearby/attached lighting.
- Bus stop location is directly accessible from the shelter.

The following features are desired:

- Newspaper facilities
- Full shelter site
- Public service announcements (with no other advertising).

Thirty shelters and receptacles will be installed in 2003 at a cost of $128,750. Some of these will be used to replace existing structures, while the remainder will be available for new locations that meet the criteria mentioned earlier. A complete list of the existing shelters is listed in Appendix A.

BUS STOP SIGNS

Presently, COTA has approximately 5,000 bus stops installed throughout the Franklin County area. COTA has an adequate inventory of bus stop signs and signposts for the 2003 calendar year.

PARK AND RIDE LOTS

As of April 30, 2003, COTA has 25 established park and ride lots located throughout Franklin County. A description of these lots is located in Tables 6-4 and 6-5. There are 2,197 park and ride spaces in these lots, as well as an additional twenty-four spaces available at two parking loops. Usage of the lots, as of March 2003, is shown in Table 6-6. The lots at North High Street and Royal Forest Boulevard, Broad Street and Southhampton Avenue, and Northern Lights have the highest usage percentage, while Reynoldsburg has the highest average number of spaces used.

As a result of our second Livable Communities Initiative Project, in May 2002, COTA opened the Easton Transit Center (see Page VI-1), which includes a 41-space park and ride facility for residents of northeast Franklin County. The Easton lot provides excellent connections to several of COTA's fixed-route services, and along with the adjacent transit center, was designed to incorporate simple, yet cost-effective elements while maintaining a unique aesthetically pleasing presence within the community.

Due to an expired lease, in April 2002, the New Albany Park and Ride relocated to the United Methodist Church parking lot located at 20 South Third Street in New Albany. COTA leases 26 parking spaces at this new location.

During a two-year reconstruction project of I-70 between SR-256 and downtown Columbus that began in 2000, COTA and the Ohio Department of Transportation (ODOT) partnered together to provide express bus service from a temporary park and ride facility (located on SR-204 just east of SR-256). The #42 Pickerington-ODOT Express route was a great success, offering reduced fares for individuals using the bus service instead of driving on I-70. In conjunction with the completion of this construction project, and without continued financial assistance from ODOT, the #42 Express and park and ride location were discontinued on November 30th, 2001. To date, COTA continues to work with Fairfield County, City of Pickerington, and Violet Township officials in order to investigate various funding options that could result in reactivating this service.

In 1996, COTA obtained land south of Hilliard at Trabue Road and Hilliard-Rome Road East, in order to establish a park and ride to serve this rapidly growing area. Previous to this acquisition, COTA was leasing 40 spaces at Saint James Lutheran Church at Hilliard-Rome Road and Renner Road. This lot was initially set up as part of the Traffic Management Program for the reconstruction of Interstate 70 West and due to high usage, was continued after the program ended. The Hilliard-Rome Road Park and Ride lot opened on December 22, 1997. With the completion of the Hilliard-Rome Road Park and Ride, COTA extinguished the remaining funds in a park and ride grant which was established in 1987.

In 1995, COTA completed construction of the 82-space Dublin Park and Ride on Dale Drive to replace the space COTA was forced to vacate at Dublin Village Square. Also during 1995, COTA began leasing 20 parking spaces at Saint Peter's Church and 10 spaces at Saint Andrew Church (increased to 14 spaces as of 2001) on Smoky Row Road in order to provide park and ride facilities for residents of far northwest Columbus.

During 1995, COTA installed bicycle lockers at six park and ride locations as part of a new bike and ride program. The six sites were selected with input from bicycle and recreational organizations. Due to an automobile accident near Olentangy River Rd. and Bethel Rd. in 1997, one set of bike lockers was damaged beyond repair. The remaining five sets of lockers are located at: North High Street and Jeffrey Place; Crosswoods; Reynoldsburg; Grove City; and Westwoods park and ride lots.

As part of the comprehensive system audit and related five-year bus plan developed by Manuel Padron & Associates in 2000 (see page IV-12), The following areas were identified as priority areas for future park and ride and/or transit center development:

- Sawmill Road & Hard Road area
- SR 161 & Sawmill Road area
- Tuttle Crossing / Perimeter Mall area
- Westerville Mall
- SR 161 & Sunbury Road area
- East Broad Street and Lancaster Road area
- SR 256 and Taylor Square Shopping Center area
- Eastland Mall area

TABLE 6-4
COTA PARK & RIDE LOTS AS OF APRIL 2003

Map Site	Name and Date Effective	Location	City	Number Of Spaces	Shelter	Serving	Agreement
1	Berwick 2/24/75	Refugee Rd. & Winchester Pike	Columbus	60	Yes	#46, #65	Informal agreement (No Lease)
2	Broad & Southampton 1/l/74	W. Broad St. & Southampton Ave.	Columbus	68	Yes	#10, #53	COTA Owned
3	Crosswoods 7/4/93	7460 Huntington Park Dr.	Columbus	169	Yes	#2, #31	COTA Owned
4	Dublin Park & Ride 1995	4450 Dale Drive	Dublin	82	Yes	#58	COTA Owned
5	Easton	4260 Stelzer (Stelzer Rd. & Transit Dr.)	Columbus	41	Yes	#16, #39, #95, Easton LINK	COTA Owned
6	Great Southern 1974	South High St. & Obetz Road	Columbus	84	Yes	#4, #16	Lease at $1/year has expired and a renewal lease is being negotiated
7	Griggs Dam 12/18/95	Griggs Dam Reservoir	Columbus	28	Yes	#58	Informal Agreement - No Lease
8	Grove City 9/17/84	2321 Old Stringtown Road	Grove City	150	Yes	#15, #64	COTA Owned
9	High & Jeffrey* 3/85	N. High St. & Jeffrey Place	Columbus	32	Yes	#2, #31, #95	COTA Owned
10	High & Royal Forest Pre-1980	N. High St. & Royal Forest Blvd.	Columbus	40	Yes	#2, #31, #95	COTA Owned
11	Hilliard 9/2/86	4199 Parkway Lane	Hilliard	100	Yes	#67	COTA Owned
12	Hilliard-Rome Road December 22, 1997	5660 Trabue Rd.	Columbus	80	Yes	#57, #5	COTA Owned
13	Indianola & Morse 10/81	4720 Indianola (Morse Rd. & Indianola Ave)	Columbus	105	Yes	#4, #88, #95	25-year lease $1/year expiring 4/05
14	Kingsdale 1974	Northwest Blvd. & Zollinger Rd.	Upper Arlington	35	Yes	#3, #60, #83, #84	Informal Agreement (No Lease)
15	Livingston & Barnett 9/29/82	3380 E. Livingston Ave.	Columbus	101	Yes	#1, #92	COTA Owned
16	New Albany 4/02**	20 S. Third St. (United Methodist Church)	New Albany	26	No	#39	1-year lease Automatic Renewal $.50/space/weekday

TABLE 6-4 (Continued)
COTA PARK & RIDE LOTS AS OF APRIL 2003

Map Site	Name and Date Effective	Location	City	Number of Spaces	Shelter	Serving	Agreement
17	Northern Lights 1978	Cleveland Ave at Innis Road	Columbus	60	Yes	#1, #9, #35 # 37, #38, #83, #87	Lease at $1/year has expired and a renewal lease is being negotiated
18	Olentangy and Bethel 1982	Olentangy River Rd. and Bethel Rd.	Columbus	150	Yes	#30, #95	Automatic Renewal -Lease $1/year
19	Reynoldsburg 7/85	2100 Birchview Dr.	Reynolds-Burg	214	Yes	#1, #45 #47	COTA Owned
20	Royal Plaza 7/86	Agler Rd. & Stygler Rd.	Gahanna	60	Yes	#10,#41	Leased-Automatic Renewal $1/yr $500/year maintenance
21	St. Peter's 11/10/94	6899 Smoky Row Road	Columbus	20	No	#30	Leased-Automatic Renewal $.50/space/day
22	St. Andrew 11/10/94	1985 Swansford Dr.	Dublin	14	No	#30	Leased-Automatic Renewal $.50/space/day
23	Westerville 1/9/81	Main St., east of Cleveland Avenue	Westerville	230	Yes	#1,#33, #36,#37, #40,#94 Westerville LINK	Lease at $1/year has expired and a renewal lease is being negotiated
24	Westwoods 10/25/94	55 West-woods Blvd.	Columbus	100	Yes	#10,#53	COTA Owned
25	Whitehall 6/28/93	4540 E. Broad Street	Whitehall	148	Yes	#10,#43, #87,#89	COTA Owned
				2,197	Park and Ride Spaces		

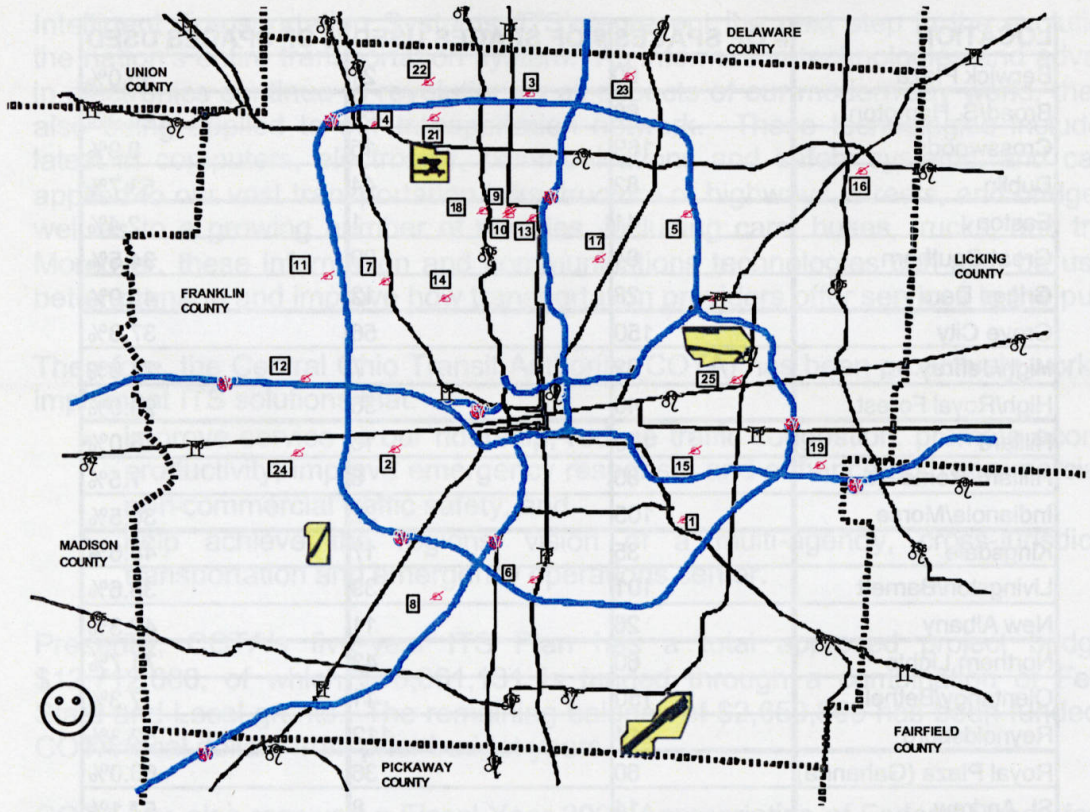
Loops Used For Parking

Name	Location	City	Number of Spaces	Shelter	Serving	Agreement
Cleveland & Mecca	Cleveland Ave. & Mecca Road	Columbus	12	No	#1,#35 #37,#38	COTA Owned
Main & Weyant	E. Main St. & Weyant Ave.	Columbus	12	Yes	#2	COTA Owned
			24	Loop Parking Spaces		

**During the Fall of 2003, the High St. & Jeffrey Pl. Park and Ride will be relocated to the northwest corner of High St. and Rathbone Ave. The new park and ride lot will have 37 parking spaces, a bike locker, and an emergency telephone.*

***Relocated in April 2002*

TABLE 6-5
COTA PARK AND RIDE LOCATIONS AS OF APRIL 2003



Park & Ride	Number Of Spaces	Routes Serving
1. Berwick	60	#46, #65
2. Broad & Southampton	68	#10, #53
3. Crosswoods	169	#2, #31
4.Dublin Park & Ride	82	#58
5. Easton	41	#16, #39, #95, Easton LINK
6. Great Southern	84	#4, #16
7. Griggs Dam	28	#58
8. Grove City	150	#15, #64
9. High & Jeffrey	32	#2, #31, #95
10. High & Royal Forest	40	#2, #31, #95
11. Hilliard	100	#67
12. Hilliard-Rome Rd.	40	#5, #57
13. Indianola & Morse	105	#4, #88, #95
14. Kingsdale	35	#3, #60, #83, #84
15. Livingston & Barnett	101	#1, #92
16. New Albany	26	#39
17. Northern Lights	60	#1, #9, #35, #37, #38, #83, #87
18. Olentangy and Bethel	150	#30, #95
19. Reynoldsburg	214	#1, #45, #47
20. Royal Plaza	60	#41
21. St. Peter's	20	#30
22. St. Andrew	14	#30
23. Westerville	230	#1, #33, #36, #37, #40, #94 Westerville LINK
24. Westwoods	100	#10, #53
25. Whitehall	148	#10, #43, #87, #89

TABLE 6-6
PARK & RIDE UTILIZATION AS OF APRIL 2003

LOCATION	# OF SPACES	# OF SPACES USED	% OF SPACES USED
Berwick Plaza	60	21	35.0%
Broad/S. Hampton	68	58	85.3%
Crosswoods	169	15	8.9%
Dublin	82	44	53.7%
Easton	41	1	2.4%
Great Southern	84	29	34.5%
Griggs Dam	28	12	42.9%
Grove City	150	56	37.3%
High/Jeffrey	32	7	21.9%
High/Royal Forest	40	36	90.0%
Hilliard	100	16	16.0%
Hilliard-Rome Rd	80	6	7.5%
Indianola/Morse	105	32	30.5%
Kingsdale	35	17	48.6%
Livingston/Barnett	101	39	38.6%
New Albany	26	11	42.3%
Northern Lights	60	43	71.7%
Olentangy/Bethel	150	11	7.3%
Reynoldsburg	214	112	52.3%
Royal Plaza (Gahanna)	60	36	60.0%
St. Andrew	14	8	57.1%
St. Peter's	20	13	65.0%
Westerville	230	41	17.8%
Westwoods	100	24	24.0%
Whitehall	148	26	17.6%
TOTAL P/R	2,197	714	32.5%
LOOPS			
Cleveland & Mecca	12	2	16.7%
Main & Weyant	12	4	33.3%
TOTAL LOOPS	24	6	25.0%
TOTAL - ALL LOTS	2,221	720	32.4%

Intelligent Transportation Systems (ITS)

Intelligent Transportation Systems (ITS) represent the next step in the evolution of the nation's entire transportation system. As information technologies and advances in electronics continue to revolutionize all aspects of our modern-day world, they are also being applied to our transportation network. These technologies include the latest in computers, electronics, communications and safety systems, and can be applied to our vast transportation infrastructure of highways, streets, and bridges, as well as to a growing number of vehicles, including cars, buses, trucks, and trains. Moreover, these information and communications technologies can also be used to better manage and improve how transportation providers offer services to the public.

Therefore, the Central Ohio Transit Authority (COTA) has been proactively working to implement ITS solutions that:

- improve service to our ridership, reduce traffic congestion, promote economic productivity, improve emergency response, and enhance both commercial and non-commercial traffic safety; and
- help achieve the regions' vision of a multi-agency, cross-jurisdictional transportation and emergency operations center.

Presently, COTA's five-year ITS Plan has a total approved project budget of $12,712,000, of which $10,061,131 is funded through a combination of Federal, State and Local grants. The remaining balance of $2,650,869 has been funded with COTA local dollars from prior budget years.

COTA has also received a Fiscal Year 2002 Appropriation of Federal Funds for $1.5 million dollars for the Advanced Traveler Information Systems (ATIS) infrastructure, and been recently notified that an additional $1 million dollars in ITS grants will be earmarked for COTA within the Fiscal Year 2003 Appropriation of Federal Funds. These funds were requested for the second and final phase of ATIS, Variable Message Signs, as well as to commence the Authority's Smart Card initiative (see page VI-27).

Thus, when these grants are presented for approval of matching local dollars in future COTA budgets, an opportunity exists to add an additional $5 million dollars in projects to the revised five-year ITS Plan. However, it is important to note that changes in both the economic and political environment of the United States have resulted in ITS projects requiring a funding composition that includes a 50% local match for grant monies, as opposed to the previous 20% local dollar match that COTA and many other transit agencies contributed in the late 1990's.

COTA's significant investment in ITS is described in further detail on the following pages. The benefits illustrated below will greatly assist COTA in attaining its mission and vision to offer convenient, affordable, and user friendly mobility for every resident and visitor in Central Ohio.

Computer Aided Dispatch/Automatic Vehicle Location (CAD/AVL)

In July of 2002, COTA successfully completed the implementation of the Orbital Sciences OrbCAD-NT system, which serves as the foundation of COTA's ITS infrastructure. Although Orbital's name for their system is OrbCAD-NT, the Authority established an identity for its unique project initiative by choosing the acronym CAREERS, or **C**OTA **A**dvanced **R**eplacement **E**conomic **E**nvironment **R**adio **S**ystem.

The CAREERS solution equips COTA staff with a computer aided dispatch/automatic vehicle location (CAD/AVL) system that presents graphical representations of the COTA fleet associated with Franklin County area street maps. The dispatch workstations are designed in a two-monitor configuration. One display shows status information on each bus in a table format. The second display shows a map of COTA's service area and the real time location of every vehicle on the street. There are a total of four workstations located in COTA's central radio room at Fields Avenue and a backup unit at the McKinley Avenue facility for redundancy operations during emergencies.

On the vehicles themselves, control and communication is achieved through a touch screen device, or Advanced Mobile Data Terminal (AMDT), on all fixed-route and paratransit buses. The AMDT units are used to log onto the system and are used as the primary method to send/receive data messages, including vehicle location. However, the COTA bus operator still has an option to switch over to voice communications at any time. Software updates to the AMDT units are facilitated through a spread spectrum wireless local area network.

Fully integrated with the Franklin County 800 Mhz trunk group radio system, the CAREERS system utilizes Global Positioning System (GPS) technology to track the location of every bus and service vehicle in the fleet – which allows COTA to operate more safely and provide improved on-time service. Through the on-board AMDT's that incorporate text/e-mail type messaging, COTA operators can more efficiently communicate their status in order to improve emergency response and enhance both commercial and non-commercial traffic safety. COTA's vision is that the integrated CAREERS system will eventually provide valuable data to a planned multi-agency, cross-jurisdictional transportation and emergency operations center, presently known as the Central Ohio Regional Transportation and Emergency Management Center, or CORTRAN.

COTA has already seen some initial benefits from the deployment of the AVL system, including a reduction in deadhead times estimated to save between $160,000 and $200,000 in operating expenses annually. Buses running early of the scheduled times is down 65% from 2001 and total complaints from the public are down 20% for the period of January through September 2002 versus the same period in 2001. Additionally, since the paratransit vehicles utilize the Magellan 'Neverlost' navigation system in conjunction with the CAREERS system, there has been a significant

reduction in the number of times that paratransit drivers get lost while serving the customer.

Finally, within a localized pilot project, COTA implemented a real-time next bus kiosk at the Port Columbus International Airport's baggage claim & bus shelter and at three downtown hotels. Initial results within the pilot indicated that over 95% of the time, the system was within one minute of accuracy. This fact, as well as other significant lessons learned, are being incorporated into a new, much larger scale, regionally based Advanced Traveler Information Systems (ATIS) Pilot Project.

Automatic Vehicle Annunciators/Wireless LAN Upgrade

COTA initiated a project in January of 2003 to implement a system that will automatically announce and display next stop information for the benefit of hearing and vision disabled passengers. The Automated Voice Announcements (AVA) System will also improve service to COTA's riders - especially to people not familiar with the stops of a particular route; or, to all riders when visibility is poor or limited due to night time hours or inclement weather conditions. The AVA System, which is being installed from Orbital Sciences, will also enable COTA to meet or exceed all Americans with Disabilities Act (ADA) requirements and is expected to be fully functional by the end of 2003.

While in service, the bus will use a Global Positioning Satellite (GPS) technology based sub-system so that audio announcements of the next stop, major intersections, destinations, and landmark information will automatically be delivered on 250 of COTA's fixed-route buses. No driver intervention will be required to operate this system. Future bus purchases will also include this AVA technology, as well as the core CAD/AVL system and AMDT devices, as a part of the final equipment specifications.

Audio announcements shall be made using the existing public address (PA) equipment onboard each bus. Should a driver have to make emergency or priority announcements, the AVA System will allow instant operator-voice override. In addition to announcements made inside the bus, destination and next stop information will be announced on an exterior speaker. The system will also measure ambient noise and automatically adjust the volume of those announcements. At a minimum, one announcement will be made for the next stop as the bus approaches the stop. The distance from the stop when the announcement is triggered shall be selectable by both direction and stop and will be stored in the onboard processor.

Each audio announcement will be up to twenty seconds in length and will include the stop designation such as the complete intersection name or a landmark name. If a bus should go off-route, announcements will not be made until the system determines that the bus is again traveling on the assigned route. The AVA system will make this determination based on the GPS sub-system and the physical coordinates of the bus that is approaching a stop on the designated route. An electronic variable message sign will provide the same information that is being

communicated over the public address system. The signs will be ceiling-mounted at the front of each bus inside the vehicle.

Web-Based Itinerary Planning

In late 2002, COTA introduced the Central Ohio community to Internet-based itinerary planning for public transit. Through a direct link on the www.cota.com web site, COTA customers can access interactive screens to input origin/destination or arrival/departure information, generate quick itineraries for local or regional trips, utilize look-ups for popular destinations including shopping centers, hospitals and hotels, and receive complete, printable itineraries, including maps, transfers, stop locations, fares and written instructions directly via the Internet.

An overview of the system features and functionality is illustrated below:

Schedules

- display COTA schedule and bus stop data by line or stop.
- display time points or all stops along selected routes.
- view all trips that pass through a particular stop.
- locate COTA bus stops within a predefined distance of specific locations.
- view information about COTA bus stops (e.g. shelter availability, wheelchair accessibility).

Trip Planning

- generate detailed travel itineraries quickly by entering the starting point and the destination.
- optimize trip planning results using predefined criteria, including lowest fare, lowest travel time, and fewest transfer points.
- display the map of the itinerary including overview, origin and destination
- create personalized pages that include frequently used routes, stops, and itineraries.
- generate a concise written itinerary that can be printed or saved in the user's personalized Web page

The COTA web-based itinerary planner has also been implemented within an application infrastructure that can be used to publish schedule, itinerary, and real time information to multiple Internet appliances (e.g. cell phones, PDA's, pagers, kiosks). The software engine utilized by COTA adheres to accessibility standards from the W3C Web Accessibility initiatives (WAI) and the accessibility standards set out by the Architectural and Transportation Barriers Compliance Board (Section 508). The "Bobby WorldWide" software test has been used to measure compliance with these initiatives.

Advanced Traveler Information Systems (ATIS)

It is important to note that the COTA web based-itinerary planner is also the precursor application for a much larger scale Authority deployment known as Advanced Traveler Information Systems (ATIS). ATIS empowers travelers to make decisions based upon timely, accurate information. This information can readily be used by the traveler to make pre-trip and en-route (including in-vehicle) trip decisions. This information will include COTA specific data such as:

- transit service areas and routes
- scheduled vehicle departure times and projected vehicle arrival times
- service disruptions and delays
- fare and transfer data

This information also includes regional information such as:

- traffic and freeway updates
- alternative transportation services
- available shopping and weather updates
- information on the various activities and events in the Central Ohio area

ATIS information is made available through kiosks and variable message signs that will be installed at various regional locations, including:

- COTA bus shelter, transit center and park and ride locations
- local hotels, office buildings, shopping centers, arena complexes
- the Columbus Convention Center

ITS Standards

As a regional transit authority, COTA actively participates in the U.S. Department of Transportation ITS Standards Program in order to work towards the widespread use of standards and to encourage the interoperability of ITS systems. Within the Standards Program exist Transit Communication Interface Profiles (TCIP) that standardize transit data definitions, formats and exchange procedures between components employed in transit systems. TCIP is a component in the ITS National Architecture which provides a common framework for planning, defining, and integrating intelligent transportation systems. By specifying how systems and components interconnect within the framework, the standards promote interoperability.

The existing TCIP Standards are written in the ASN.1 programming language. However, the emergence of eXtensible Markup Language (XML) has been recognized as an opportunity to take advantage of better-known tool sets that will result in:

- more rapid supplier acceptance of the standards; and
- more timely and cost effective application development

As such, the American Public Transportation Association (APTA) – in cooperation with the Federal Transit Administration (FTA) – has sponsored an initiative in which they will identify and engage transit agencies for active participation in a pilot project to develop a suite of data interface standards using eXtensible Markup Language (XML). The goal of both APTA and the FTA in this initiative is to establish the basis for future ITS standards compliance in transit.

Recently, COTA was notified that they have been selected as one of two transit agencies to actively participate in this pilot project in which they will become a core member of a technical working group to review, modify and adopt XML based dialogs to be published as part of new TCIP Standards.

Thus, in March of 2003 COTA will kick off a project to develop an Advanced Traveler Information Systems pilot, in part based upon the lessons learned from the Orbital Real Time localized pilot, and as a medium to test the new TCIP standards in full cooperation with the APTA/FTA sponsored working group.

Regional ITS Integration and COTA ITS Plan Development

COTA continues to be actively involved in the ITS consensus building for Central Ohio. In particular, COTA has developed a very close working relationship with the Mid-Ohio Regional Planning Commission (MORPC), the Federal Transit Administration (FTA) and the Federal Highway Administration (FHWA). At the same time, dialogue has been progressively increasing with other regional partners, specifically with the Ohio Department of Transportation (ODOT), the City of Columbus Traffic & Engineering and Public Safety Departments, Franklin County Engineers, Franklin County Sheriff's Department and the Port Columbus Authority.

Previously, COTA, along with its regional partners, participated in the development of the 1999 ITS Integration Strategy for Central Ohio that was published by MORPC. All COTA ITS systems deployed to date, or planned for future deployment, have been fully aligned with this plan.

Yet, at present, MORPC is in the process of updating its plan to reflect updates to the ITS National Architecture and the newly released (January 2002) FTA ITS 10-Year Plan/Vision. Accordingly, COTA intends to publish a fully revised five-year ITS Plan in September of 2003 that will:

- demonstrate the current success of COTA ITS project initiatives
- delineate future COTA ITS project initiatives
- exhibit the integration and interoperability of current and future COTA ITS project initiatives with ITS technologies employed by regional partners
- document COTA web integration strategies for regional Advanced Traveler Information Systems (ATIS) based kiosks and Internet appliances
- reflect developments and advances in transit technology, including the introduction of ITS-based security technologies

- illustrate the alignment of current and future COTA ITS project initiatives with proposed and/or published ITS Standards
- directly align with the revised ITS Integration Strategy for Central Ohio
- develop a framework for ITS-based security systems (e.g. cameras mounted within the Orbital AMDT units on COTA vehicles) and regional security integration (e.g. CORTRAN), including a review of the City of Columbus fiber optic network infrastructure for the purpose of integrating ITS devices (e.g. Orbital AMDT) with regional security facilities.

Smart Card Feasibility

COTA will initiate a project in April 2003 to determine the feasibility and appropriateness of smart card technology within the scope of COTA's overall ITS program. The approach taken will build upon the experiences of industry leading transit smart card implementations such as Washington (DC) Metropolitan Area Transit Authority's (WMATA) Smartrip, Metropolitan (San Francisco Bay Area) Transportation Commission's (MTC) TransLink, and Los Angeles County Metropolitan Transportation Authority's (LACMTA) Universal Fare System.

Several key inputs to the COTA specific smart card feasibility assessment will be provided from COTA's involvement in an APTA sponsored Smart Card Fare Media Work Group. In March of 2003, COTA was notified that they have been selected as one of four transit agencies to actively participate in this working group, which is being facilitated by the U.S. Department of Transportation's Volpe Center and is under the Universal Transit Farecard Standards (UTFS) Program established by APTA. The UTFS program has been created in order to provide guidance to the transit community to address the business and technical interfaces and other issues that come into play as individual transit agencies pursue options for integrating independent revenue collection systems into a regional transportation payments system in a way that promotes greater access and convenience to the public transportation network.

The Smart Card Fare Media Work Group is one of four working groups under the Fare Media Committee, which is attempting to provide guidelines, standards and education on fare media, specifically smart card and magnetic fare media. The other three work groups are the Magnetic Fare Media Work Group, the Procedural Work Group, and the Trends in Electronic Fare Media Work Group.

Within the scope of the COTA specific feasibility assessment, the current fare policy and fare collection operation will be documented. The baseline information that will be assembled, as available, includes current equipment quantities (type, age, etc.), COTA fare policies, ridership by fare type, ridership by mode of access and interfaces with other transit providers. Relevant data pertaining to existing regional fare collection programs, including the City of Columbus' parking program, as well as national directives, such as the TSA's credentialing initiative, will also be collected.

The baseline data will be examined to determine opportunities for fare collection improvement including smart card technology's ability to address those opportunities. While smart card programs in transit have most often been utilized to simplify fare payment in multi-operator environments, COTA may have other opportunities to utilize smart cards capabilities. The target date for the completion of this feasibility assessment is December 2003.

Signal Priority

Although in 1999 and 2000 the Authority had worked with a local consulting firm to identify a stretch of High Street between Goodale Street and Morse Road as a corridor to be studied for introducing a Transit Signal Priority (TSP) solution, integration with the City of Columbus signal system presents significant technical and financial challenges to COTA in implementing TSP.

This is primarily due to the fact that the City's incumbent signal system, COMPUTRAN, operates within a legacy based, closed architecture environment that is lacking a database model. Moreover, the COMPUTRAN system is not compliant with currently published ITS architecture standards.

However, in late 2002, discussions with key regional stakeholders resulted in MORPC taking action to convene a "signals working group" to develop a regional solution to this dilemma. This is a significant development since once the signals working group has completed its work, and made final recommendations, COTA will be in the position to develop a business case and establish a timeline for the implementation of a TSP solution. The Authority is optimistic that the final recommendations of the signals working group will occur by the end of 2003.

Automatic Passenger Counters (APC)

This component of the Intelligent Transportation Systems (ITS) technology infrastructure allows for devices that count passengers getting on and off the bus while recording the time of the occurrence by line, trip and block. The data collected is compiled within mandatory reports that are submitted to the Federal Transit Administration (FTA) and incorporated within the National Transit Database.

COTA currently utilizes the signpost-based Urban Transportation Associates (UTA) automatic passenger counter (APC) solution in an operating environment that is capable of employing up to 18 units. The APC data collected from this application is stored on floppy disks that reside within the physical APC units that are installed on each respective bus. The diskettes are manually retrieved, and replaced with new diskettes, from each bus on a bi-weekly basis. The data sets are then loaded into a common repository and a set of standard APC reports can be produced, including diagnostic reports. The ability to create ad hoc reports also exists for the purpose of performing statistical analysis.

Over the last 12 months, COTA has been working with the incumbent APC vendor, UTA, to complete assessment of current APC operability, to repair malfunctioning devices, and to enhance the APC workflow processes to compile and review data sets. However, as this is both a time consuming and relatively inflexible process, the Authority has both the desire and the funding availability to procure an upgraded replacement system that will enable COTA with an automated, sensor-based APC solution that is directly integrated with the Orbital CAD/AVL based Advanced Mobile Data Terminal (AMDT) units.

Thus, in late 2002 COTA engaged a consulting firm to elicit functional requirements and to develop a specification for the procurement of a replacement APC system that will achieve several operational goals that include, but are not limited to:

- Improving service
- Promoting efficiency
- Calculating passenger statistics for the National Transit Database report

As such, upon receipt of the completed functional requirement/specification document, COTA initiated a project initiative to procure and implement an APC solution that includes a minimum of 50 APC units that will:

- determine vehicle location using GPS technology
- provide passenger boarding and alighting counts by stop, line, block, time, and date without driver intervention

In February of 2003, COTA Purchasing issued a Request for Proposals (RFP) by which bids from qualified vendors are in the process of being solicited. The COTA procurement process timeline is expected to result in a contract award by late April 2003, the commencement of project activities in early May, and a target completion date of early 2004.

In addition to achieving these defined goals, the replacement APC System will be required to attain the following functional objectives:

- automatically transfer passenger count data from the COTA buses to an APC database via a spread spectrum wireless LAN while the bus is parked in the bus garage
- store passenger count data in an APC database for at least eighteen months
- automatically process APC data
- provide a backup method for manual downloads of APC data from the COTA buses
- generate a sampling plan that would satisfy the goal of sampling each block a user-specified number of times per service period and generate weekly reports showing which blocks have and have not been sampled
- utilize COTA's route and schedule database (Trapeze FX).

- export data to COTA's ridership analysis software (Trapeze PLAN) for route analysis and to generate reports in addition to the standard and "ad hoc" APC reports provided with the base ridership analysis software.

The outcome of this project will not only result in COTA employing an automated APC solution that meets and exceeds the Authority's goals and objectives, but one that is integrated with the incumbent COTA ITS infrastructure within an operating environment that will not require COTA to invest in regional sign post technology that is unreliable and nearly 20 years old.

OTHER EQUIPMENT

In addition to obvious passenger amenities such as buses, park and ride lots, bus stops and shelters, COTA has other equipment and facilities which are a part of a behind-the-scenes effort to keep operations running efficiently. This equipment is described below:

Non-Revenue Vehicles - COTA has established a consistent replacement schedule for service vehicles, which include company automobiles and trucks. During 2003, 2006, and 2007, five non-revenue vehicles are scheduled for replacement. In 2004, one truck will be replaced, in 2005, two trucks will be replaced, and in 2006, one truck will be replaced.

Revenue Vehicles - During 2001, COTA replaced 330 bus radios. These radios provide two-way communication between the driver and COTA's radio/communications personnel. Additionally, 51 non-revenue vehicles and 45 Project Mainstream vehicles were also equipped with new radios.

PASSENGER SECURITY

COTA's efforts to ensure passenger security and safety focus on off-duty police assistance, security devices on buses and procedures for operators. COTA will spend $346,925.00 in 2003 to hire off-duty police officers to perform the following functions:

- Uniform officers patrol COTA service areas Monday-Thursday 9:00am-2:00pm, 4:00pm-9:00pm and 9:00pm-2:00am; Friday 9:00am-2:00pm, 4:00pm-10:00pm, and 10:00pm-4:00am; Saturday 4:00pm-10:00pm, 6:00pm-12:00 midnight, and 10:00pm-10:00am; and Sunday 8:00pm-2:00am.

- Uniform officers monitor evening lineups downtown on a daily basis.

- Plainclothes officers ride buses to monitor operations as needed.

- Traffic control police officers work COTA's downtown terminals Monday-Friday for morning and evening rush hour periods.

Security related devices on buses include the following:

- Destination signs can be activated to read "Emergency, Please Call Police", followed by a silent alarm to COTA's Radio Room.

- Convex mirrors to allow complete vision of passengers by the operator.

- Bus identification numbers are painted on top of coaches for easy aerial view (e.g., by police helicopters, etc.).

- GPS radio installed on coaches to provide real-time bus location information.

- Emergency buttons included in upgraded radio system in order to provide priority and second level of priority notification to the Radio Room.

- Digital closed circuit cameras installed on all 9500 (80), 9900 (28), 2000 (8) and 2001 (91) series coaches. Cameras will be installed on all future coaches purchased by COTA.

- COTA's Security Budget also provides for additional police coverage during Red, White & Boom, the Ohio State Fair, National Security Conditions Orange & Red, and as needed for facility security.

Operator procedures are to contact the Radio Room immediately either by pressing the emergency alarm or by pressing the 'Priority Button' on the radio. Radio Central will provide the appropriate actions for the situation. The new radio system is monitored by police dispatchers for immediate assistance as needed.

FACILITY SECURITY

COTA's efforts to ensure facility safety involve contracting with several vendors to provide electronic security monitoring and security guards for facility, employee and visitor protection. For 2003, COTA has budgeted $163,458.00 for security guard staffing at various facilities and $7,626.00 for additional police coverage as needed. Digital security cameras have been purchased to provide recorded, color, pan, tilt and zoom capabilities for McKinley, Fields, Easton, COTA Connection and Linden facilities.

SECTION VII

THE STRATEGIC PLANNING PROCESS

THE STRATEGIC PLANNING PROCESS

COTA relies upon a repeatable strategic planning process to encourage a high level of innovation as it relates to its core services and its role as the "Mobility Manager" for the Central Ohio Region, and to make the best use of its increasing limited financial resources. Annually, COTA initiates a collaborative planning process to clearly detail it's mission, vision, strategic goals, critical success factors (CSFs) and annual work plans.

With Board of Trustee, COTA management and union leadership involvement, a three-year authority-wide strategic plan is developed. Once the plan is completed, business units and support divisions create three-year divisional plans. After these are completed, departments create one-year work plans. These plans are used to track progress made at the various levels during the course of the year. They are also used as the foundation for the creation of individual performance objectives for all non-bargaining employees as part of COTA's Performance Management Process (PMP). Ultimately, the individual performance objectives are used to determine performance-based pay for non-bargaining employees.

As mentioned above, the division three-year plans are extensions of COTA's three-year strategic plan. They identify initiatives, or major program thrusts, at the division level required to move the critical success factors (CSF) forward to achievement. Once the division plans are completed, staffing requirements, equipment, and other capital needs are identified to determine budget requirements. The allocation of resources in budgeting is made based on the relative impact on the strategic goals, the timeline for completion of the tasks related to the strategic goal and available resources.

Using a balanced scorecard approach, Authority-wide performance is communicated based on key performance indicators (KPI). These are high-level measures that touch all areas of the organization. Each year, indicators and targets are established, which are used to measure COTA against other similar organizations to determine whether COTA is on-track as an organization. Indicators such as ridership, revenue, cost recovery, employee performance, and customer satisfaction, are tracked from month to month and benchmarked against transit systems COTA considers as its peers.

Central to this repeatable process is the annual review and updating of the authority-wide three-year plan, especially as influenced by the external and internal environments. As changes to the environment occur, it becomes necessary to modify the three-year plan to ensure that it remains current and realistic in terms of deliverables, milestones, and impact on goals. Environmental factors that affect COTA include traffic congestion, air quality, health care costs, fuel pricing, local, state, national elections and policy shifts, downtown office space occupancy, the

general economy and others. On a continuous basis COTA reviews and assesses its plans based on the environment in which it must provide service.

During June of 2002, COTA redefined and validated the following Vision and Mission statements that govern the Authority in its dealings with the public, other agencies and organizations, and its customers and employees:

Vision: *"The Central Ohio Transit Authority (COTA) aspires to be the mobility manager for a great community of the 21st Century, with convenient, affordable, and user-friendly mobility for every resident and visitor".*

Mission: *"To provide customer-focused mobility solutions for Central Ohio communities through strategic partnerships, innovative planning, and implementation options".*

2003 - 2005 Strategic Plan Goals

COTA's three-year strategic plan identifies the strategic goals for 2003 - 2005. They are:

- Introduce new products and services to expanded markets while providing excellent service to current markets.
- Institutionalize COTA's value position in the community.
- Take the lead in establishing transit oriented development opportunities to ease congestion and improve the quality of life in Central Ohio.
- Transform COTA into a highly efficient organization which is market driven.
- Redefine cost AND revenue mix to achieve short, medium and long-term financial control.

Critical Success Factors

Critical Success Factors (CSF), or what needs to be realized in the next three years to achieve the goals, are also identified as part of the strategic plan. CSF are identified from four perspectives: Customer, Process, People and Financial. The development of the CSF utilizes a best practice business management approach, the "Balanced Scorecard", to drive the achievement of the Strategic Goals. The CSF's identified in the Strategic Plan are:

<u>Customer Perspective</u>

- Remain focused & provide excellence in current core services.
- Proactively introduce & provide "value" based mobility products & services to current & future target markets in Central Ohio.

- Continuously provide effective, informative & affordable marketing to target customers on products, services and pricing options to meet customer needs.

Process Perspective

- Successfully implement & sustain a Continuous Improvement process within COTA that applies to all levels of the organization.
- Introduce a comprehensive Customer Value Management process to COTA & sustain it effectively.
- Become a process driven COTA & materially improve revenue, costs & efficiencies.
- Institutionalize a comprehensive Stakeholder Management Strategy.

People Perspective

- Transition the COTA organization to sustain high performance, high reward teams & culture.
- Institutionalize a proactive labor/management process jointly owned by Union & Management.

Finance Perspective

- Identify variable vs. fixed costs and strive to reduce fixed and control variable costs.
- Optimize opportunities to increase revenue

The strategic goals and CSFs embrace the need to reverse declining ridership numbers in an external environment that is contributing to that decline, and to transform the way COTA does business – both internally, and in the range of mobility products and services it will provide to the market place, even with challenging market conditions. COTA's strategic focus for the next three (3) years is on becoming more market and process driven, and developing the new products/services necessary to establish COTA's increased value in its market place.

2002 Key Accomplishments

2002 was truly a test of COTA's resilience. Even in light of the flat growth in sales tax revenue, COTA maintained its business operations and overcame several hurdles. The following are key accomplishments for 2002.

Federal Approval of Light Rail Line

- Received a "recommended" rating from the FTA to move into preliminary engineering stage for rail development in the North Corridor.
- Completed and submitted the Project Management Plan for the North Corridor to FTA and was received favorably.
- Completed the update of the financial analysis for the New Start submission to FTA.

Major Capital Initiatives Completed/Initiated

- Completed and opened the Easton Transit Center
- Initiated final design work on several major capital projects: the Multi-Modal Transportation Terminal (MMTT), Front Street Bridge, and Easton Daycare Center projects.
- Installed a new bus wash system at McKinley

Business Developments and Enhanced Customer Service

- Provided over 16 million rides despite an eroding base of downtown employers and a reduction in employee staffs.
- Completed a "pilot demonstration" of the Bike Rack on Buses project.
- Enhanced the Customer Service Center support 24/7 with a new voice system in Spanish as well as English.
- Achieved the lowest level of customer complaints per 100,000 boardings in COTA's history.
- Negotiated an agreement with CMACAO as the childcare provider at the Easton Transit Center.
- Initiated discussions and plans for the development of a third transit center (Near East Transit Center) on East Main Street

Enhanced Service Operations

- Transitioned Paratransit Operations services provider from Laidlaw to ATC Vancom; also moved the operations center from Huntley Road to Philippi Road.
- Completed training of all service delivery personnel in areas of customer service, ADA sensitivity, safe handling and security of customers, and road safety.
- Reached settlement agreement regarding ADA lawsuit filed by the National Federation of the Blind of Ohio.
- Trained virtually 100% of operators and supervisors on ADA "calling out stops" program

Aggressive Fiscal Management

- Despite declining revenues, managed 2002's operations within budget.
- Developed a financial model to facilitate comprehensive long-term capital and operating planning and business strategies.
- Implemented a fare structure change – the first increase in six years.
- Completed the transition of banking services to 5th/3rd Bank from The Huntington Bank.
- Received the Government Finance Officers Association "Certificate of Achievement Award for Excellence in Financial Reporting" for the 13th consecutive year.

- Implemented "on-line" disposition of assets program, which is yielding a result of significantly higher revenue at lower costs.

New Technology for Better Bus Service

- Introduced several new system applications to facilitate operational efficiency, customer service and/or improve reporting and business processes, including the implementation of a) Computer Aided Dispatch (CAD) and the Advanced Vehicle Location systems, b) installation of Real Time Bus Information system c) Trapeze Information and Trapeze Operations software systems.
- Initiated several other system initiatives targeted for implementation in 2003, which include: Automatic Enunciators, Automatic Passenger Counters, and Wireless LAN.

SECTION VIII

MOBILITY MANAGEMENT/ TRANSPORTATION COORDINATION

MOBILITY MANAGEMENT/TRANSPORTATION COORDINATION

Background

There are numerous non-profit, for-profit, and human service agency transportation providers in the Central Ohio area. A comprehensive, cooperative and continuous planning effort began in 1998 to coordinate the transportation services furnished by these providers.

In 1998, the Mid-Ohio Regional Planning Commission (MORPC) received a grant from the Columbus Foundation to organize the Columbus Area Transportation Coordination Program (CATCP). During the fall of 2000, CATCP officially became a subcommittee of the Mid-Ohio Regional Planning Commission, and as a result was renamed the Transportation Coordination Committee (TCC).

TCC is comprised of MORPC and COTA staff, workforce development organizations, employers, managers from the various transportation providers, elected officials and other interested parties. TCC assumed oversight responsibility for this program, and monthly meetings began in June 1998. Beginning in 2001, TCC met on a bi-monthly basis, and as the program has developed, TCC serves mostly in an advisory capacity, meeting on an as needed basis since January 2003.

TCC members decided the most efficient method of coordinating transportation was to select one agency to lead the planning process. In 1999, TCC issued a request for qualifications (RFQ) in order to select a lead agency. In response to this RFQ, COTA submitted a proposal and in May of 1999, was selected as the lead agency with the responsibility of formulating alternatives for the full TCC membership.

In both 2000 and 2001, COTA was nationally recognized and honored by the American Public Transit Association (APTA) via APTA's Welfare to Work award. This award honors transit authorities that have reached out to low-income populations in an effort to increase access to employment and job training opportunities.

Transportation Study

During 2000, COTA, along with the Ohio Department of Transportation (ODOT) hired consultants to develop a plan for TCC on how to implement a coordinated transportation system in Central Ohio. This study provided a framework of how a coordinated transportation system would work. In addition, the study recommended that COTA serve as a broker for transportation in the Central Ohio region. In conjunction with this study, TCC officially designated COTA as the Mobility Manager of Central Ohio. As a result of being designated the Mobility Manager, COTA will implement a mobility program with the goal of providing more transportation options to individuals while increasing the overall efficiency of transportation services for the community.

The transportation study provides the framework of how a coordination program will actually operate. The study analyzed area demand and needs, including those of the business and human service communities, and examined various financial and cost sharing options. Of primary importance, this study will serve to establish a solid operating relationship between the local providers of transit services.

The study concluded with a set of alternatives and recommendations for creating a coordinated transportation system for the Central Ohio area. In brief, the plan recommended three options:

- Initiate immediate actions to improve transportation coordination among existing providers and agencies (e.g., joint maintenance programs, bulk fuel purchases, etc.).
- Develop a trip planner function/one-stop center for transportation needs, and
- Develop a mobility manager/brokerage service.

In an effort to acquire funding and help involve other participants in the coordinated transportation program, COTA created a Jobs Access Coordinator position within the Business Development division in the fall of 1999. In February 2001, COTA expanded its mobility management program with the addition of a Mobility Project Administrator. Due to recent financial constraints, beginning in 2002, these two positions were combined into the Mobility Manager position.

Funding

COTA has received the following Federal Transportation Administration (FTA) Job Access and Reverse Commute Grant funds to help build its mobility management programs:

Round I - FY 1999 $684,708 in federal funds (a local match was provided by the Franklin County Department of Job and Family Services and COTA). Total program funds: $1,369,416.

Round II - FY 2000 $500,000 in federal funds. Local match provided by COTA. The Franklin County Department of Job and Family Services and Columbus Compact, Inc., intend to commit funds toward the local match. Total program funds: $1,000,000.

Round III - FY 2001 $750,000 in federal funds. COTA received a Congressional Earmark for these funds. Total program: $1,500,000.

Round IV – FY 2002 $1,000,000 in federal funds. Total program: $2,000,000

Round V – FY 2003 $600,000 in federal funds. Total program: $1,200,000

Current Projects

In coordination with various businesses and social service agencies, COTA presently utilizes a portion of the Job Access and Reverse Commute grant funds to assist in several fixed-route services:

- #10 W. Broad St. Extension to the Franklin County Career Opportunity Center.
- #29 Polaris Express. Reverse-commute service from Downtown to the Polaris Mall area.
- #39 New Albany Express. Reverse-commute trip to the New Albany Business Park.
- #54 London-Groveport Express. Reverse-commute service from the Downtown area to a FedEx Ground Transportation facility.
- #97 Georgesville/Phillipi Crosstown. Extended south to Georgesville Square Shopping Center.
- Linden LINK. Neighborhood circulator route providing improved neighborhood transportation and connections to COTA's fixed-route services.

Additionally, funds have been used to help market and promote awareness of these services, and to translate route and schedule information to Spanish and Somalian languages.

Future Projects

Plans for 2003 - 2007 include the development and implementation of a One-Stop Information and Referral Center, the development of alternative transportation options designed to increase access to jobs for low-income individuals, and continued development of bus service that will increase the mobility of all Columbus residents.

The One-Stop Information and Referral Center will provide information about COTA's fixed-route service, childcare centers, and other transportation resources available in the community if COTA service isn't available. It will also consist of an itinerary and trip planner. This service can be accessed via the web, or by calling COTA and speaking with a Customer Service Representative. Elements of this project are discussed further on page VI-24.

Many areas of Columbus are not currently being served by our fixed-route system. COTA is continuing its efforts to identify those service gaps in the community. With funding from the Job Access and Reverse Commute Grant, COTA is in the process of developing services and programs for low-income individuals that are designed to increase access to jobs and other employment support services. COTA is also developing alternative transportation options such as employment van shuttles and the use of taxi service to take individuals to work. These alternatives will be used in areas that do not warrant a traditional 40 or 35-foot bus. COTA will continue to

investigate innovative transportation solutions with the goal of providing more transportation options to individuals while increasing the overall efficiency of transportation services for the community.

SECTION IX

THE TRANSPORTATION IMPROVEMENT PROGRAM 2004-2007

THE TRANSPORTATION IMPROVEMENT PROGRAM 2004-2007

Background

The Transportation Improvement Program (TIP) delineates a four-year operating and capital plan. Listed annually are service levels, operating and capital expenses, and anticipated financing levels.

To avoid confusion, it should be noted that although this program was designed to span four years (2004-2007), it actually covers five fiscal years for the Central Ohio Transit Authority (COTA). COTA begins its fiscal year January 1st, while the State of Ohio begins its fiscal year July 1st, and the Federal Government begins its fiscal year October 1st. Therefore, it is necessary for the span of this document to encompass five COTA fiscal years (i.e., 2003-2007) in order to meet the state and federal requirements of a four-year program.

A discussion of the operating and capital components of the TIP follows.

Operating Plan

The following is a summary, with supporting tables, of the four-year operating component of the TIP including years 2004 through 2007. The most recently projected data for 2003 has also been included in each of the tables. Table 9-1 on page IX-5 displays the existing and projected bus hours of service based on the planned service modifications described in Tables 5-1 and 5-2 in Section V. In the last two years, COTA has experienced significant reductions in sales tax revenue and state and federal operating and capital assistance. In order to operate within this constrained budget, COTA will be required to reduce fixed-route service hours by 19% (149,312 annualized hours) between 2004 and 2007.

Ultimately, vehicle hours drive each year's operating expenses. Direct cost per hour and indirect expenses have been budgeted for 2003 and are included in Table 9-1. From 2003 through 2007 the direct cost per hour will be escalated at approximately 3.5% per year to account for inflation. Annual operating expenses are derived by multiplying all vehicle hours by direct cost per hour and then adding total indirect cost. Total indirect costs are primarily composed of administrative labor costs and benefits, services, and Project Mainstream paratransit services. As a result of COTA's tightly constrained budget, this plan proposes a 15% reduction in administration labor costs for 2004. A 3% increase in cost per year has been budgeted for Project Mainstream services in order to offset inflation. As a result of the reduction in the area of fixed-route service coverage and severely constrained revenues, COTA will reduce Project Mainstream service hours from 125,547 to 111,283 between 2004 and 2007. A more detailed discussion of the Project Mainstream program is contained in Section II, Paratransit Services.

Operating revenue has been estimated based on operating revenue during 2002 and historical operating revenue trends. Operating revenue increases from 2003 through 2007. A larger percentage increase occurs in 2005 and 2007 due to fare increases. In addition, this plan assumes that the average rate of portfolio interest on COTA's investments will increase at 2.5% per year from 2003-2007.

The financial summary of the TIP serves to summarize the various sources of revenue and assistance and relates this income to total operating and capital expenses.

Local Funding

The Vision 2020 Plan - which is an update to COTA's Long Range Plan, was completed in early 1999 (see Section IV). In November 1999, COTA sought approval of a permanent ¼% sales tax, and a separate ¼% 10-year sales tax in order to implement the Vision 2020 recommendations. The ¼% permanent tax was approved by the voters and the ¼% 10-year sales tax was rejected.

As part of the TIP development process, the Ohio Department of Transportation (ODOT) requires that a regional transit authority assume the continuation of the current local funding source unless their governing board has formally announced a decision to seek a modification to that funding source. As a result, COTA's TIP assumes that a 1/4% sales tax will be in place for the 2003-2007 time period. Given the recent declines in the sales tax growth rate, this analysis assumes that the tax receipts will grow at an annual rate of 0.93% for 2003, 3.0% for 2004, 3.35% for 2005, and 4.15% for years 2006 and 2007.

Capital Plan

An outline of the Capital Acquisition Plan is provided in Table 9-2, page IX-6. All projects in the 2003 column have been fully funded. Capital items shown in Table 9-2 are described in greater detail in Section VI, Current and Planned Equipment and Amenities. Major capital items will be funded with Federal Section 5309 Discretionary grants, Section 5307 Formula Assistance, Congestion Mitigation Air Quality funds or Section 5208 ITS monies. In order to account for inflation, this plan assumes capital costs will grow at an annual rate of 2.8% in 2003, 1.8% in 2004, 2.07% in 2005, 2.43% in 2006, and 2.67% in 2007.

With the passage of the Transportation Equity Act of the 21st Century (TEA-21), regional transit authorities were given the latitude to use their Section 5307 Federal Formula Assistance on the capitalization of maintenance. As a result of the cash flow advantages which will accrue to COTA, this plan assumes that virtually all of the Section 5307 Formula Assistance will be targeted toward vehicle maintenance costs.

Smaller capital projects, which had been previously funded with Section 5307 funds, will now be acquired with local monies.

COTA will pursue Discretionary Section 5309 Federal Capital Assistance and the Flexible TEA-21 funds to address major capital needs. These Section 5309 requests have been made as part of the ODOT statewide earmark process or as a separate request through central Ohio's U.S. Congressional Representatives.

In addition to the traditional Federal Transit Administration funding sources (i.e., Section 5307 and 5309), COTA has programmed Section 1110 Congestion Mitigation/Air Quality funds (i.e., TEA-21 Flexible Funds) in the regional Transportation Improvement Program to address the following major projects:

- $2,087,000 to replace seven (7) 9300 series buses in 2004;
- $3,000,000 to assist in funding the Downtown Multi-modal Transportation Terminal;
- $3,070,000 to replace ten (10) 9300 series buses in 2005;
- $2,213,000 to replace seven (7) 9500 series buses in 2006;
- $2,280,000 to replace seven (7) 9500 series buses in 2007.

Additionally, a Small Bus Maintenance Facility has been included in the Capital Plan as a Capital lease expense commencing in 2007.

The competition for Section 5309 Federal Capital Assistance is extremely intense and therefore COTA cannot be confident about the availability of these monies to fund all of our major capital needs. As a result of this competition and a severely constrained budget, COTA has been required to move several major capital projects out of the 2004-2007 timeframe. These projects include the ITS Smartcards and sixty-six (66) 9500 series replacement buses. COTA will continue to vigorously pursue all other potential sources of capital grant monies (e.g., TEA-21 Flexible Funds). In addition, COTA will investigate the feasibility of either a conventional lease or sale/leaseback as an alternative means to replace the 9500 series coaches which will need to be replaced in 2007.

The Transportation Equity Act for the 21st Century provides 80% Federal and 20% local and state participation on all CMAQ and Section 5307/5309 grants. Because of severely constrained state funding, COTA will need to provide most of the total local share for each of these projects in our capital plan.

Financial Summary

Table 9-1 (page IX-5), is a financial summary of the system, which displays COTA's sources of revenue: operating revenue (i.e., fares); federal and state funding; assistance from ODOT for funding elderly and disabled service; fuel tax refund; and sales tax receipts.

In the last two years, COTA has experienced significant reductions in sales tax revenue and state and federal capital and operating assistance. In order to maintain a balanced budget during this four-year plan, COTA will be required to reduce fixed-route and Project Mainstream service hours and administrative costs. These service reductions may be mitigated if Governor Taft is successful in implementing his plan to expand Ohio's sales tax base. It is estimated that COTA would receive a 2% to 4% increase in its sales tax receipts per year if this plan were adopted. In addition, COTA staff is investigating several innovative financing techniques (e.g., sale/leaseback of existing assets, and joint development on COTA owned sites), which could generate supplemental revenue. If COTA is successful in generating additional revenues and/or the sales tax receipts return to more typical levels, COTA will make every effort to minimize the fixed-route and Project Mainstream service reductions and restore key projects to the 2004-2007 Capital Plan. COTA's Board of Trustees and management staff will continue to work vigorously to provide affordable, cost effective public transit services to the citizens of Central Ohio.

TABLE 9-1
TRANSPORTATION IMPROVEMENT PROGRAM
FINANCIAL SUMMARY

	Projected 2003	Projected 2004	Projected 2005	Projected 2006	Projected 2007
Beginning service hours	787,270	767,588	736,885	700,040	644,037
Change in hours	(19,682)	(30,704)	(36,844)	(56,003)	(25,761)
Ending service hours	767,588	736,885	700,040	644,037	618,276
Beginning Cash Balance	$ 18,326,331	$ 12,625,788	$ 7,786,455	$ 6,953,776	$ 6,840,553
SOURCES					
Sales and Use Tax - Existing 1¼%	$ 42,478,145	$ 43,752,489	$ 45,219,265	$ 47,097,931	$ 49,054,649
Passenger Revenues	$ 13,313,304	$ 13,251,215	$ 13,434,072	$ 13,237,531	$ 13,639,644
Federal Asst.(JARC, 5307)	$ 11,132,565	$ 11,132,565	$ 10,645,845	$ 10,645,845	$ 10,645,845
State Assistance (E&H)	$ 307,384	$ 307,384	$ 307,384	$ 307,384	$ 307,384
Fuel Tax Refund (State)	$ 499,236	$ 492,686	$ 476,476	$ 447,432	$ 439,973
Investment Income	$ 740,033	$ 702,460	$ 644,810	$ 641,126	$ 644,602
Lease Income	$ 154,076	$ 184,891	$ 277,337	$ 277,337	$ 277,337
Other (Miscellaneous)	$ 1,147,241	$ 1,147,241	$ 1,147,241	$ 1,147,241	$ 1,147,241
TOTAL SOURCES	$ 69,771,984	$ 70,970,932	$ 72,152,431	$ 73,801,827	$ 76,156,675
USES					
RAIL	0	0	0	0	0
Bus - Extended Service	0	0	0	0	0
BUS - Existing Service					
Operating Labor	$ 28,389,494	$ 28,247,547	$ 27,823,834	$ 26,571,761	$ 26,218,357
Administrative Labor	$ 10,314,816	$ 8,767,594	$ 9,074,460	$ 9,346,693	$ 9,596,250
Benefits	$ 14,881,177	$ 15,928,651	$ 16,937,662	$ 17,650,554	$ 17,621,578
Services	$ 4,401,331	$ 4,393,466	$ 4,377,945	$ 4,316,975	$ 4,356,220
Paratransit	$ 4,014,113	$ 4,054,254	$ 4,054,254	$ 3,932,627	$ 3,971,953
Fuel	$ 2,377,313	$ 2,346,123	$ 2,268,935	$ 2,130,630	$ 2,095,108
Other Materials and Supplies	$ 3,313,871	$ 3,268,002	$ 3,206,654	$ 3,084,231	$ 3,071,986
Utilities	$ 1,249,707	$ 1,272,202	$ 1,298,536	$ 1,330,091	$ 1,365,604
Casualty & Liability Costs	$ 374,752	$ 366,508	$ 355,769	$ 335,953	$ 331,485
Other	$ 3,014,053	$ 3,056,417	$ 3,374,523	$ 3,419,548	$ 4,284,692
TOTAL USES	$ 72,330,627	$ 71,700,763	$ 72,772,573	$ 72,121,062	$ 72,913,232
NET (OPERATIONS)	(2,558,643)	(729,831)	(620,142)	1,680,765	3,243,443
Capital	(3,141,899)	(4,109,503)	(212,536)	(1,793,988)	(3,518,000)
Ending Cash Balance	$ 12,625,788	$ 7,786,455	$ 6,953,776	$ 6,840,553	$ 6,565,996

TABLE 9-2
TRANSPORTATION IMPROVEMENT PROGRAM
CAPITAL PLAN

	Fiscal Year	2003	2004	2005	2006	2007
SOURCES						
	State Funding	6,892,428	140,548	14,072,872	135,000	1,031,801
	Federal Funding	13,257,015	2,906,000	6,306,000	2,959,112	5,106,000
TOTAL SOURCES		20,149,444	3,046,548	20,378,872	3,094,112	6,137,801
USES						
	North Corridor	5,198,621	-	-	-	-
	Diesel Buses	6,193,942	-	4,095,608	-	4,307,141
	Support Vehicles	90,000	55,600	188,300	55,600	113,709
	MMTT	4,400,000	4,157,000	13,100,000	2,000,000	1,695,000
	Small Bus Maintenance Facility*	-	-	-	-	*
	Transit Centers	1,221,280	-	-	-	-
	ITS - Other	2,969,000	-	-	-	-
	Computer Hardware \ Software	851,000	500,000	500,000	500,000	686,339
	Facility Improvements	1,060,000	1,110,950	750,000	750,000	1,071,679
	Shop / Other Equipment	700,000	700,000	700,000	700,000	817,418
	Park & Rides	-	-	-	-	-
	Paratransit Vehicles	475,000	500,000	1,125,000	750,000	832,015
	Shelters	-	-	45,000	45,000	26,274
	Transit Enhancements	132,500	132,500	87,500	87,500	106,226
TOTAL USES		23,291,343	7,156,050	20,591,408	4,888,100	9,655,800
Net Captital		(3,141,899)	(4,109,503)	(212,536)	(1,793,988)	(3,518,000)

** Assumes a Capital lease structure commencing in 2007 (Estimated $450,000 annual lease expense in "Other" cost category, Table 9-1)*

SECTION X

CONCLUSIONS OF THE SHORT RANGE TRANSIT PLAN

CONCLUSIONS OF THE SHORT RANGE TRANSIT PLAN

The 2003 Short Range Transit Plan (SRTP) documents the status of the COTA system in 2003 and projects revenues, operating expenses, service levels, patronage and equipment requirements through 2007.

COTA has budgeted funds to operate 767,588 fixed-route regular service hours in 2003. Due to significant declines in COTA's sales tax revenues and state and federal operating assistance, COTA will be required to eliminate 19,682 annualized hours of fixed-route service in 2003. Given the projected slow growth in sales tax proceeds, COTA will be required to eliminate an additional 149,312 fixed-route service hours between 2004 and 2007 in order to balance the budget. In total, COTA fixed-route service hours will decrease from 787,270 to 618,276 between 2003 and 2007. In addition, COTA will reduce administrative labor costs by 15% in 2004.

In 2003, Project Mainstream will provide 126,547 vehicle hours of service. Complementary paratransit service has increased significantly during the last eleven years as COTA came into compliance with Title II of the Americans with Disabilities ACT (ADA). As a result of the reduction in the area of fixed-route service coverage and severely constrained revenues, COTA will reduce Project Mainstream service hours from 126,547 to 111,283 between 2004-2007.

Major service initiatives that have been programmed for 2003 include:

- #3 Mound St./Northwest Blvd. – reduce weekday midday service levels from 27 to 40 minutes;
- #9 Leonard/Brentnell Local - reduce weekday midday service levels from 40 to 55 minutes;
- #31 Worthington Express – discontinue unproductive trips through Worthington Estates;
- #72 Easton LINK – discontinue service on the South Loop;
- #73 Capital City Flyer – discontinue service;
- #92 James Rd. Crosstown – extend all trips into Port Columbus;
- #95 Morse/Henderson Crosstown – realign route to serve Gillie Senior Recreation Center.

Major capital projects that have been programmed for the 2003-2007 SRTP time period include:

- COTA will complete final design and begin construction on the Easton Child Care Center in 2003. Construction will be completed in the first quarter of 2004.
- In 2003, COTA will begin final design on the Downtown Multi-Modal Transportation Terminal (MMTT) project. Construction of the terminal will occur in 2004-2005.
- COTA will initiate final design on the Near-East Transit Center in 2003. Construction will occur in 2004.
- In the second trimester of 2003, COTA will replace ten 9100 series buses with 40' low-floor New Flyer buses. In the second trimester of 2004, COTA will take delivery on twelve 35' low-floor New Flyer buses. These coaches will replace ten 9100 series buses and two 9500 series buses. In the first trimester of 2005, COTA will replace seventeen 9300 series coaches. COTA will replace fourteen 9500 series coaches in 2007. Prior to 2007, COTA will need to identify funding to replace an additional sixty-six 9500 series coaches. As a result of service reductions, the total fixed-route active bus fleet will decrease from 295 in 2003 to 237 buses in 2007.
- COTA will need to replace forty-six Project Mainstream vehicles between 2003-2007.
- In 2003, COTA will replace its aging automatic passenger counters (APC) with a new system that will provide among other data, stop level detail passenger counts.
- In 2003, COTA will initiate Preliminary Engineering on the North Corridor Light Rail transit line.
- In 2004, COTA will procure and install 315 bike racks for the fixed-route coaches.

Columbus has experienced dramatic growth around the I-270 Outerbelt in recent years. This growth is projected to increase with the continued development of the Tuttle, Polaris, Easton and Rickenbacker areas. COTA's Vision 2020 Plan and the Operation: Excellence Comprehensive Operational Analysis proposes a set of

innovative service improvements which address this growth, and helps to ensure that workers can access these new job opportunities. Unfortunately, COTA's existing ¼% sales tax does not provide sufficient funding to implement these plans or to maintain existing service levels.

In the last two years, COTA has experienced significant reductions in sales tax revenue and state and federal capital and operating assistance. In order to maintain a balanced budget during this four-year plan, COTA will be required to reduce fixed-route and Project Mainstream service hours and administrative costs. These service reductions may be mitigated if Governor Taft is successful in implementing his plan to expand Ohio's sales tax base. It is estimated that COTA would receive a 2% to 4% increase in its sales tax receipts per year if this plan were adopted. In addition, COTA staff is investigating several innovative financing techniques (e.g., sale/leaseback of existing assets, and joint development on COTA owned sites), which could generate supplemental revenue. If COTA is successful in generating additional revenues and/or the sales tax receipts return to more typical levels, COTA will make every effort to minimize the fixed-route and Project Mainstream service reductions and restore key projects to the 2004-2007 Capital Plan. COTA's Board of Trustees and management staff will continue to work vigorously to provide affordable, cost effective public transit services to the citizens of Central Ohio.

APPENDIX A

COTA EXISTING SHELTER LOCATIONS

APPENDIX A

COTA EXISTING SHELTER LOCATIONS

SHELTER SITES FOR THE CENTRAL OHIO TRANSIT AUTHORITY
AS OF APRIL, 2003

NORTH & NORTHWEST

HUNTINGTON PARK DRIVE 7450 N/N
CROSSWOODS PARK & RIDE N/N
E. CAMPUS VIEW & VANTAGE DR.
DOUBLETREE & CHECKREIN S/F
WILSON BRIDGE & WORTH SQ. W/F
N. HIGH AND LARRIMER AVE. S/F
N. HIGH & W. NORTH ST. S/F
NEIL & EIGHT AVE S/N
NEIL & FOURTH AVE S/N
NEIL & GOODALE S/N
BUTTLES & HIGH W/F
BUTTLES & NEIL E/N
N. HIGH & BROADMEADOWS S/N
N. HIGH & FENWAY S/F
N. HIGH & GRACELAND S/F
N. HIGH & OPP JEFFREY PL. S/F
N. HIGH & W ROYAL FOREST S/N
N. HIGH & SHEFFIELD S/N
N. HIGH & HENDERSON RD. S/N
N. HIGH & W. COOKE RD. S/N
N. HIGH AT BLENHEIM LOOP S/N
N. HIGH & W N. BROADWAY S/F
N. HIGH & OPP CHATHAM S/N
W/N BROADWAY & N. HIGH E/N
N. HIGH & E.N. BROADWAY N/F
N. HIGH & NORTHWOOD S/F
N. HIGH & 4TH AVE. S/F
N. HIGH & I ST AVE. N/F
W. FIFTH & N. HIGH E/N
CLEVELAND & MT. VERNON N/B
CLEVELAND & MT. VERNON S/B
DENNISON & THIRD S/N
910 DUBLIN RD. N/N (WATER DEPT.)
N. HIGH & HUDSON S/B
N. HIGH & HUDSON N/B
HUDSON & N. HIGH W/N
N. HIGH & 15TH S/F
N. HIGH & OPP CHITTENDEN S/N
N. HIGH & 9TH N/N
N. HIGH & KING S/N
N. HIGH & CLARK S/F
N. HIGH & 6TH N/F
W. 5TH & PERRY E/N
W. 5TH & EDGEHILL E/N
NORTHWEST & 5TH S/N
NORTHWEST & CHAMBERS SE/F
W. 5TH & GRANDVIEW E/N
W. 5TH & WESTWOOD E/N
NORTHWEST & LANE S/F
DUBLIN PARK & RIDE W/F
250 W. DODRIDGE W/F
OLENTANGY (SVC RD) & HARLEY DR. S/N

NORTH & NORTHWEST (continued)

W/N BROADWAY & N. HIGH W/F

N. HIGH & NORTHRIDGE N/N

N. HIGH & LAKEVIEW S/F

N. HIGH & ACR. CRESTVIEW S/N

2050 KENNY RD. N/N

ARCADIA & H. HIGH ST. E/F

KENNY & WEYBRIDGE S/N

KENNY & OPP FOLKSTONE S/B

KENNY & 2050 (BWC REHAB CENTER)

REED & HENDERSON S/F

HILLIARD PARK & RIDE S/N

3RD & PENNSYLVANIA E/N

REED & DREW N/N

OLENTANGY & BETHEL PARK & RIDE N/F

REED ENTRANCE SEARS HARDWARE (OPP 4910) S/F

KINGSDALE CENTER S/F

WOODY HAYES & KENNY E/F

N. HIGH ACR. OLENTANGY ST. S/N

GRIGGS DAM PARK & RIDE (RIVERSIDE & NOTTINGHAM) S/N

BUTTLES & HIGH (E/B)

N. HIGH & FRAMBES S/N

N HIGH & E 2ND N/F

N HIGH & 2ND (FIREPROOF) N/F

GODOWN RD & BETHEL RD S/F

NORTHEAST

NORTHERN LIGHTS S/B

KARL & NORTHLAND N/F

5TH & CASSADY W/N

5TH & HIGH E/N

SAWYER BLVD & SAWYER TOWERS E/N

CALDWELL PL & OPP 989 N/S (CHESWICK).

CLEVELAND & 11TH S/N

CLEVELAND & 5TH S/F

11 TH & DAUGHERTY W/N

CLEVELAND & 15TH S/N

17TH & CLEVELAND W/F

ST. STEPHEN COMMUNITY HOUSE E/N

CLEVELAND & 19TH N/F

CLEVELAND & 24TH S/B

CLEVELAND & GENESSEE S/N

CLEVELAND & HUDSON S/F

CLEVELAND & WEBER S/N

McGUFFEY & HUDSON S/N

McGUFFEY & WEBER S/N

CLEVELAND & OAKLAND PARK S/N

INNIS & SCHOTTENSTEINS E/F

CLEVELAND & FERRIS S/F

CLEVELAND & MORSE S/F

CLEVELAND & RT. 161 S/F

BUENOS AIRES & RT. 161 S/N

STATE & SCHROCK S/N

WESTERVILLE PARK & RIDE W/N

RT. 161 & FOREST HILLS W/N

RT. 161 & PONDEROSA W/F

NORTHTOWNE & NORTHCLIFF S/F

WALFORD & BELCHER

CLEVELAND & LAURELWOOD S/F

CLEVELAND & COMMUNITY PARK S/F

KARL & NORTHRIDGE S/N

MAIZE & MOON

MORSE & MAIZE W/F

MAIZE & MORSE S/F

MORSE & ALMONT W/F

INDIANOLA & TORRENCE S/F

INDIANOLA & JEFFREY PL N/N

INDIANOLA & OPP JEFFREY PL S/F

INDIANOLA & COOKE S/N

INDIANOLA & OAKLAND PARK S/N

E.N. BROADWAY & INDIANOLA W/F

SUMMIT & 17TH S/N

SUMMIT & MAYNARD S/F

SUMMIT & 5TH S/F

SUMMIT & I ST S/N

4TH & 19TH N/N

ROCKY FORK & HAMILTON E/F

LONG RIFLE & LITTLE TURTLE WAY W/N

KARL & 161 (GRANVILLE CENTRE) S/N

AGLER & LINVIEW E/N

CASSADY & OPP 10TH S/F (LUTHERAN)

CASSADY & CASSADY PLACE NE/F

AGLER ROAD AT NCOC 3443 E/N

GATEWOOD & AGLER S/N

NORTHEAST (continued)

STYGLER & AGLER (GAHANNA P&R) S/N

TAMARACK & PINETREE S/F

TAMARACK & MORSE S/F

KARL & RT. 161 S/F

AIRPORT GROUND TRANSPORTATION SECTION (HIGH-CAPACITY) NE/N

JOYCE & BLAKE S/N

BRENTNELL & OPP ORIOLE S/N

BRENTNELL & WOODWARD S/F

CLEVELAND & MOUNT VERNON S/B

CLEVELAND & MOUNT VERNON N/F

CASSADY AVE& CASSADY PL N/F

DELAVAN & BAR HARBOR W/F

INTERNATIONAL GATEWAY & SAWYER W/F

MOCK OPPPPOSITE 2400 ARLINGTON PK E/N

WESTERVILLE / VALUE CITY WAY E/N

E 7TH AVE & STELZER RD E/F

ALLEGHENY & OPP 3208 EB (E OF VIRGINIA LEE W)

GREENWAY AVE & WOODLAND LOOP W/N

AGLER ROAD OPPOSITE NCOC 3443 W/F

EAST

E. BROAD & 20TH W/F
E. BROAD & NELSON W/F
E. BROAD & OHIO (EB)
E. BROAD & OHIO (WB)
E. BROAD & PARKWOOD W/F (E High)
E. BROAD & WINNER W/N
OAK & OHIO W/F
E. BROAD & HOFFMAN E/F
E. BROAD & HAMILTON PARK AVE E/N
E. BROAD & BROADLEIGH W/N
FAIRWAY & BROAD S/F
HAMILTON & BROADHURST S/N
HAMILTON & SHAKER SQ. N/F
E. BROAD & FAIRWAY W/N
E. BROAD & HAMILTON RD. W/F
E. BROAD & OPP ROBINWOOD W/F
E. BROAD & MAPLEWOOD W/F
E. BROAD & BEECHTREE E/N
E. BROAD & BEECHTREE W/N
E. BROAD & WEYANT W/N
E. BROAD & HAMPTON W/N
E. BROAD AT ENTRANCE former KAHIKI REST. E/F
E. BROAD & JAMES W/N
JAMES & RUHL S/N
RUHL & GOULD W/N
E. BROAD & CASSINGHAM W/F
E. BROAD & DREXEL W/F
E. BROAD & TAYLOR W/N
MAIN & WEYANT W/F
MAIN & ROBINWOOD W/N
MAIN & OPP ROBINWOOD E/F
MAIN & DREXEL W/N
MAIN & HOLTZMAN W/N
HOLTZMAN & MAIN N/F
MAIN & KELTON W/N
MAIN & WILSON AVE. W/N
MAIN & CHAMPION W/N
MAIN & GRANT E/F
MAIN & OPP KENWICK W/N
MAIN & JAMES W/N
JAMES & MAIN S/N
JAMES & MAIN N/F
JAMES & E. BROAD S/F
MAIN & BEECHWOOD W/N
MAIN & YEARLING W/N
MT. VERNON & ST. CLAIR W/N
MT. VERNON & OPP GARFIELD E/N
MT. VERNON & OPP MIAMI (MT VERNON PLAZA) W/F
MT. VERNON & 20TH E/N
MT. VERNON & CHAMPION W/F
ATCHESON & 20TH E/N
S. HAMILTON RD. & MAIN S/N
LONG & TAYLOR W/F
SUNBURY & MARYLAND S/N

EAST (continued)

E. BROAD & 17TH W/F

E. BROAD & GOVERNORS W/F

E. BROAD & OPP FAIRWAY W/F

E BROAD & SCHOFIELD (FORMERLY OPP SANTA MARIA) W/N

E MAIN & OPP ALLEN E/N

NELSON & MARYLAND S/N

E. BROAD & FRANKLIN PARK W (E/N)

E BROAD & JAMES E/B

E BROAD & OPP BEECHWOOD (TOWN & COUNTRY) W/N

MOUNT VERNON & CHAMPION E/N

SOUTHEAST

CARLYLE & MAIN S/N

MAIN & WAGGONER W/F

MAIN & BRIARCLIFF W/N

MAIN & ROSEHILL W/F

MAIN & ROSEMORE W/F (former Long John Silver)

MAIN & COUNTRY CLUB W/F

MAIN & FOUNTAIN LANE W/F

MAIN & HAMILTON W/N

MAIN & OPP SHADY LANE W/F

ROSEHILL & LIVINGSTON S/N

REYNOLDSBURG PARK & RIDE S/N

CONSUMER SQUARE EAST W/N

SCARBOROUGH BLVD. & ALSHIRE (SCAR. MALL) E/F

LIVINGSTON & McNAUGHTEN W/F

LIVINGSTON & LONSDALE W/N

LIVINGSTON & NOE BIXBY W/F

LIVINGSTON & HAMILTON W/N

LIVINGSTON & WESTPHAL W/F

HAMILTON & KINGSLAND AVE. N/F

HAMILTON & LIVINGSTON S/F

HAMILTON & LIVINGSTON N/F

LIVINGSTON & YEARLING W/N

LIVINGSTON & opp COURTRIGHT W/F

LIVINGSTON & RAND W/F

LIVINGSTON & BARNETT P & R W/N

LIVINGSTON & HAMPTON W/N

LIVINGSTON & ZETTLER E/N

LIVINGSTON & JAMES E/F

LIVINGSTON & MONTROSE W/F

LIVINGSTON & COLLEGE W/N

LIVINGSTON & FAIRWOOD W/N

LIVINGSTON & MILLER AVE. W/F

LIVINGSTON & ALUM CREEK W/F

LIVINGSTON & CHAMPION W/F

LIVINGSTON & ANN W/F

LIVINGSTON & ANN E/F

LIVINGSTON & SEYMOUR W/N

LIVINGSTON & PARSONS W/F

LIVINGSTON & PARSONS E/N

LIVINGSTON & GRANT W/N

WHITTIER & OHIO W/N

WHITTIER & LOCKBOURNE W/N

FREBIS & ALUM CREEK W/F

WINSLOW & ALUM CREEK DR. NE/N

BERWICK PARK & RIDE N/N

HAMILTON & DUNDEE S/N

HAMILTON & EASTLAND DR. N/N

EASTLAND 2 & HAMILTON RD. N/N

STUDER LOOP W/F

LOCKBOURNE & MOLER N/F

KOEBEL & FAIRWOOD W/F

FAIRWOOD & WATKINS N/N

GROVEPORT & CHILLICOTHE SE/N

FREBIS & FAIRWOOD E/N

WHITTIER LOOP W/N

LIVINGSTON & JAMES W/N

ALUM CREEK & DEVRY (ALUM INDUSTRIAL) N/N

ALUM CREEK DR OPP 1025 N/N

(DEPT OF CPORRECTIONS) N/N

SOUTHEAST (continued)

ALUM CREEK & OPP FRANKLIN COUNTY (600' S OF FREBIS) N/B

COURTRIGHT & KIMBERLY DR W N/F

COURTRIGHT & PETZINGER N/N

PARSONS & GROVEPORT N/N

HAMILTON & GROVES N/F

ALUM CREEK & OPP MARYHAVEN 1791 N/F

LIVINGSTON & KELTON W/F

MACSWAY & KIMBERLY PARKWAY E/F

SOUTH & WEST

WESTWOOD PARK & RIDE W/N

STURBRIDGE & BEACON HILL N/N

MURRAY HILL RD. & BROAD (BIG BEAR, S/N)

W. BROAD & OLD VILLAGE E/N

W. BROAD IN FRONT OF WESTLAND E/F

W. BROAD & GEORGESVILLE E/N

INDUST. MILE & NATIONWIDE BLVD.W/N

INDUST. MILE & SULLIVANT AVE. S/N

WESTPORT & FRANSHIRE, N/N

SULLIVANT & ATLANTA DR. E/N

SULLIVANT (ENT. TO MEIJER) E/F

W. BROAD & GM GATE #1

W. BROAD & WILSON RD. E/F

W. BROAD & BROADLAWN E/N

W. BROAD & SOUTHAMPTON E/F

W. BROAD & HAGUE E/N

W. BROAD & BURGESS E/F

W. BROAD & WHEATLAND E/N

W. BROAD & WHITETHORNE E/N

W. BROAD & STEVENS E/N

W. BROAD & CENTRAL E/F

W. BROAD & CENTRAL W/F

W. BROAD & STARLING W/F

W. BROAD & STARLING E/F

W. BROAD & WASHINGTON BLVD. E/N

McKINLEY ACROSS COTA E/N

W. BROAD & DAVIS E/N

W. BROAD & DAVIS W/F

EAKIN & WEDGEWOOD E/N

SULLIVANT & DERRER RD. E/N

TOWN & DAVIS W/F

SULLIVANT & HILLTONIA E/N

SULLIVANT & CRESCENT E/F

W. MOUND & HIGHLAND E/N

W. MOUND & WREXHAM E/F

W. MOUND & LARCOMB E/N

W. MOUND AT LIFE CARE ALLIANCE (E/B)

W. MOUND & HARRISBURG PK E/F

W. MOUND ACROSS GLENWOOD E/N

W. MOUND & MT. CALVARY E/N

RICH & MCDOWELL E/N

S. HIGH & SYCAMORE N/F

S. HIGH & WHITTIER N/F

S. HIGH & MITHOFF N/N

S. HIGH & WILLIAMS N/F

PARSONS & THURMAN S/N

PARSON & THURMAN NN

PARSONS & COLUMBUS N/N

PARSONS & WILLIAMS N/F

GREAT SOUTHERN PARK & RIDE F/N

GROVE CITY PARK & RIDE S/N

COLUMBUS & LEITHART W/F

RICHARD & ADDISON N/F

GANTZ & FRANK S/F

FIRST & URBANCREST COMM. W/F

HARRISBURG PIKE

SULLIVANT & HOLLY HILL E/F

W BROAD & S FRONT E/N

Twenty-six distinctive passenger shelters have been installed on the expanded sidewalks of High Street between Fulton Street and Nationwide Blvd. These shelters are a part of the High Street Improvement Project which was completed in July of 1991. One additional shelter was installed at High and Chapel in March of 1996.

The shelters are located at the following locations.

Northbound:
(1) High at Fulton St.
(1) High at Cherry St.
(2) High at Walnut St.
(2) High at Lynn St.
(2) High at Elm St.
(2) High at Lafayette St.
(1) High at Chestnut St.

Southbound:
(1) High at Chestnut St.
(1) High at Lafayette St.
(2) High at Elm St.
(3) High at Lynn St.
(2) High at Walnut St.
(1) High at Cherry St.
(1) High at Mound St.
(1) High at Chapel

Note: In most cases bus stops are located mid-block at vacated east/west streets along High Street (e.g., Lynn Street).

OTHER DOWNTOWN SHELTERS
SPRING & MARCONI W/N (HIGH CAPICITY)
W. BROAD & FRONT ST. E/N
W. BROAD & MARCONI W/N (HIGH CAPICITY)
TOWN & LESTER W/F
RICH & 5TH ST. W/N
E. LONG & FOURTH E/N
W. LONG & N. HIGH E/N

APPENDIX B

PASSENGER AND OPERATING STATISTICS

TOTAL ANNUAL PASSENGER AND OPERATION STATISTICS*

Year	Passengers	Total Hours	Miles
1974	13,887,122*	559,565*	6,806,365**
1975	13,893,944*	599,619*	7,542,495**
1976 (S)	14,237,118*	609,150*	7,598,775**
1977	14,527,593*	614,488	7,843,071
1978 (S)	18,477,775	609,245	7,665,788
1979	19,681,204	620,029	7,805,151
1980	19,994,928	615,293	7,539,367
1981	21,251,742	694,404	8,411,585
1982 (S)	22,936,000	683,036	8,748,425
1983	23,779,353	735,115	9,603,572
1984	26,217,876	763,728	10,162,610
1985	26,700,334	822,289	10,857,371
1986 (S)	24,043,816	759,035	10,282,175
1987 (S)	17,510,515	704,854	9,649,526
1988	20,456,535	752,986	10,423,949
1989	17,346,747	650,420	9,046,173
1990	18,338,024	664,337	9,076,179
1991	17,538,350	673,586	9,549,994
1992	18,068,524	685,413	9,488,639
1993	16,606,796	665,702	9,186,608
1994	18,023,895	681,421	9,493,744
1995	17,532,795	688,191	9,524,653
1996	17,553,264	697,136	9,699,757
1997	17,762,583	701,934	9,663,430
1998	18,326,115	727,710	10,192,042
1999	18,790,187	793,260	10,857,075
2000	18,742,704	806,190	11,071,394
2001	18,388,361	838,841	11,733,569
2002	16,274,593	776,011	10,841,703

* - Fixed-Route Service Only
** - Represents Revenue Totals
*** - 2002 statistics are unaudited.
Passengers are based on National Transit Database APC sampling, not fare survey or GFI Farebox Reports.
(S) - Strikes occurred during these years:
1976 - 7 days
1978 - 11 days
1982 - 17 days
1986 - 26 days
1987 - 41 days

(UNAUDITED)

NTD Internet Reporting **Transit Agency Service Non-Rail (S-10) DR PT**

Agency ID: 5016 Agency Name: Central Ohio Transit Authority Report: RY 2002 Working Data 10/9/2002

	a	b	c	d
Maximum Service Vehicles				
01 Vehicles operated in maximum service	38			
02 Vehicles available for maximum service	43			
Periods of Service	Average Typical Weekday	Average Typical Saturday	Average Typical Sunday	Annual Total
03 Time service begins	0450	0500	0600	
04 Time service ends	0100	0200	0230	
Service Supplied				
05 Number of Vehicles in Operation	38	18	20	
06 Total Actual Vehicle Miles	7,827	3,119	2,449	2,300,019
07 Total Actual Vehicle Hours	432	172	135	127,016
08 Total Actual Vehicle Revenue Miles	6,263	2,496	1,960	1,840,470
09 Total Actual Vehicle Revenue Hours	351	140	110	103,217
11 Charter Service Hours				0
12 School Bus Hours				0
Service Consumed				
13 Unlinked Passenger Trips	491	195	154	144,149
14 Passenger Miles	3,933	1,744	1,368	1,167,147
15 Americans with Disabilities Act of 1990 (ADA) Unlinked Passenger Trips				144,149
Service Operated (Days)	Weekdays	Saturdays	Sundays	Annual Total
16 Days Schedule Operated	255	52	58	365
17 Days Not Operated Due to Strikes	0	0	0	0
18 Days Not Operated Due to Officially Declared Emergencies	0	0	0	0

(UNAUDITED)

NTD Internet Reporting Transit Agency Service Non-Rail (S-10) MB DO

Agency ID: 5016 Agency Name: Central Ohio Transit Authority Report: RY 2002 Working Data 10/9/2002

	a	b	c	d	e	f	g	h
Maximum Service Vehicles								
01 Vehicles operated in maximum service	250							
02 Vehicles available for maximum service	298							
					Average Weekday			
Periods of Service	Average Typical Weekday	Average Typical Saturday	Average Typical Sunday	Annual Total	AM Peak	Midday	PM Peak	Other
03 Time service begins	0435	0503	0634		0630	0930	1500	
04 Time service ends	0344	0344	0209		0930	1500	1800	
Service Supplied								
05 Number of Vehicles in Operation	250	96	57		248	153	250	223
06 Total Actual Vehicle Miles	36,773	16,351	8,772	10,841,703				
07 Total Actual Vehicle Hours	2,619	1,354	851	778,011				
08 Total Actual Vehicle Revenue Miles	30,146	16,268	7,504	8,969,438				
09 Total Actual Vehicle Revenue Hours	2,363	1,283	609	704,603				
10 Total Scheduled Vehicle Revenue Miles	30,180	16,295	7,508	8,973,504				
11 Charter Service Hours				14				
12 School Bus Hours				0				
Service Consumed								
13 Unlinked Passenger Trips	55,386	26,958	11,510	16,193,336				
14 Passenger Miles	235,609	65,167	38,811	66,760,008				

Service Operated (Days)	Weekdays	Saturdays	Sundays	Annual Total
16 Days Schedule Operated	255	52	58	365
17 Days Not Operated Due to Strikes	0	0	0	0
18 Days Not Operated Due to Officially Declared Emergencies	0	0	0	0

Directional Route Miles	Total	Average Monthly
19 Exclusive Right of Way	0.0	0.0
20 Controlled Access Right of Way	0.0	0.0
21 Mixed Right of Way	0.0	
22 Total	0.0	0.0