SECTION 4
MULTIMODAL TRANSPORTATION PLAN

4.1 Roadway Element

High Point's multi-modal transportation network includes facilities for automobiles, trucks, commercial vehicles, bicycles, pedestrians and transit. The most significant transportation mode is the roadway network with more than 700 miles (1,100 kilometers) of roadway. This roadway network has freeway, major thoroughfare, minor thoroughfare and collector facilities.

Strong radial movements are prevalent along facilities from High Point to Winston-Salem to the northwest, the Piedmont Triad International Airport to the north, and Greensboro and Jamestown to the northeast. Predominant internal urban area radial routes also exist between High Point, Thomasville, Archdale, and Trinity. Heavily traveled routes include:

- NC 68, to Piedmont Triad International Airport
- NC 68, to Thomasville
- NC 109
- US 311, North of High Point
- US 311, South of Interstate 85
- Interstate 85
- Business 85
- Wendover Avenue
- Greensboro Road
- Surrett Drive

All of the projects that have been included in the Roadway Element of this Transportation Plan (Map 3) are from the approved Thoroughfare Plan (Map2) for the High Point Urbanized Area. The Roadway Element is very similar to the Thoroughfare Plan; however, there are some significant differences:

- The Roadway Element is an element of the federally mandated Long Range Transportation Plan while the Thoroughfare Plan is mandated by the North Carolina Department of Transportation.
- The Roadway Element is fiscally constrained. The plan presents only the new and widened streets and highways in the network in which funding can be reasonably provided for in various horizon years through 2030. A detailed breakdown of the proposed funding is presented in the Financial Plan section of this report.
- The Roadway Element represents the latest network of proposed facilities which were evaluated in the NCDOT's updated traffic model and in its air quality conformity analysis for the Urbanized Area. (See Appendix B)

- All modes of transportation have been considered. Rather than only focusing on the roadway network, this plan also addresses transit, bicycle/pedestrian, aviation and rail.

Horizon years for regional model analysis have been established following 40 CFR 93.106 of the Federal Conformity Regulations. The years for which the model was run are shown below. The regional significance of all projects has been determined by the High Point Urban Area MPO and is documented in Table 4-1. It should be noted that regionally significant projects may not cross horizon years without triggering the need for a new air quality conformity analysis. For more information regarding the air quality conformity analysis, please see Appendix B.

Below is a summary of the proposed recommendations in the Roadway Element for each of the horizon years. The horizon years include 2004, 2014, 2020, and 2030. Table 4-1 and Map 3 detail the projects identified for completion during the LRTP's planning period (2004-2030).

2004 Network

The 2004 network includes all of the existing major streets and highways and the recommended new and widened roads that will be completed by the end of calendar year 2004.

The most notable projects planned to be completed by the horizon year include the construction of the US 311 Bypass from Eastchester Drive to Business 85, NC 109 from south of Business 85 to south of SR 1800, and a grade separation at Unity Street in Thomasville.

2014 Network

The 2014 network includes all of the existing major streets and highways and the recommended new and widened roads that will be completed by the end of calendar year 2014. Most of the fourteen (14) projects in the 2014 network have been programmed in the 2004-2010 State Transportation Improvement Program (STIP).

The most notable projects planned to be completed by the horizon year include the construction of the US 311 Bypass from Business 85 to State Route 1920, NC 109 widening north of Thomasville to Johnson Road, and Skeet Club Road widening in High Point.

2020 Network

The 2020 network includes all of the existing major streets and highways and the recommended new and widened roads that will be completed by the end of calendar year 2020. In this six-year period, a total of fifteen (15) street and highway projects are planned to be completed.

The most notable projects planned to be completed by the horizon year include the NC 109 widening from Johnson Road to Winston-Salem, Archdale Road widening in Archdale, a new interchange on Interstate 85 at Trinity Road in Trinity, and Turner/Liberty Drive widening in Thomasville.

2030 Network

The 2030 network includes all of the existing major streets and highways and the recommended new and widened roads that will be completed by the end of calendar year 2030. In this ten-year period, a total of twelve (12) street and highway projects are planned to be completed.

The most notable projects planned to be completed by the horizon year include the construction of the Westside Thoroughfare, construction of the Southern Loop in Thomasville, Uwharrie Road extension in Trinity, and Eden Terrace Road widening in Archdale.

Table 4-1
Roadway Element Project List

MAP REF.	HORIZON YEAR	TIP #	CITY	LOC./DESC.	EST. COST (000)	LENGTH (mi.)	FED. FUNC. CLASS	CURRENT YEAR # LANES	HORIZON YEAR # LANES	REG. SIGNIF.?	EXEMPT?
A	2004	U-2536	High Point	Intermediate Loop, from US 311 (North Main St.) to Montlieu Ave. (SR 1471), Multi-lane facility on new location.	3,950	2.2	Local	n/a	4 divided	Yes	No
B	2004	R-2568A	Thomasville	NC 109, from Bus. 85 to SR 1800, Widen roadway to multi-lane facility and new interchange.	15,600	0.9	Other Principal Arterial	2	4/5	Yes	No
C	2004	U-3335	Thomasville	Unity Street (SR 2051). Construct a grade separation at Norfolk Southern Railway.	2,250	n/a	n/a	n/a	n/a	No	No
D	2004	R-609EF	High Point	US 311 Bypass, from NC 68 to US 29-70 (I-85 Business), Four lane divided facility on new location.	68,950	4.6	Freeway/ Expressway	n/a	4 freeway	Yes	No
E	2014	n/a	Thomasville	Ball Park Road Ext., from Ball Park Road to NC 109 on new location.	2,000	0.6	n/a	n/a	2	No	No
F	2014	U-2702	Archdale/ High Point	Eden Terrace (SR 1592) and Surrett Dr. (SR 1595), Improve intersection.	2,090	n/a	n/a	n/a	n/a	No	Yes
G	2014	U-2412	Jamestown/ High Point	Greensboro-High Point Road (SR 4121), from proposed US 311 Bypass to relocated Guilford College Rd. (SR 1546), Widen roadway to multi-lanes and construct multi-lanes on new location.	71,000	4.9	Other Principal Arterial	2	4 divided	Yes	No
H	2014	U-2913	Jamestown/ High Point	Guilford College Road (SR 1546), from High Point Rd. (SR 4121) to south of Wendover Ave. (SR 1541), Widen roadway to a multi-lane facility.	22,795	4.2	Minor Arterial	2	4/5	Yes	No
I	2014	U-3336	Thomasville	Julian Ave. (SR 2185), from Broad Street to Warner Street, Widen roadway to a multi-lane facility.	2,154	0.3	n/a	2	4/5	No	No
J	2014	U-2717	High Point	Kivett Dr. (SR 1113), from Pendleton Street to US 29-70, Widen roadway to a multi-lane curb and gutter facility.	17,702	2.5	Other Principal Arterial	2	4/5	Yes	No
K	2014	R-2568BC	Thomasville/ Davidson County	NC 109, from south of SR 1800 to south of SR 1755, Widen roadway to multi-lane facility with portions on new location.	38,700	5.9	Other Principal Arterial	2	4/5	Yes	No
L	2014	U-3122	Thomasville	Peace Street, Construct a grade separation at Southern Railway Crossing 722 320U.	5,650	n/a	n/a	n/a	3	No	Yes

Table 4-1
Roadway Element Project List

MAP REF.	HORIZON YEAR	TIP #	CITY	LOC./DESC.	EST. COST (000)	LENGTH (mi.)	FED. FUNC. CLASS	CURRENT YEAR # LANES	HORIZON YEAR # LANES	REG. SIGNIF.?	EXEMPT?
M	2014	U-4017	High Point	Piedmont Pkwy. extension, from Tarrant Rd. to W. Wendover Ave., Multi-lane facility on new location.	8,715	1.0	Local	n/a	4 divided	No	No
N	2014	U-3434	High Point/ Trinity	Prospect St. (SR 1619) at I-85 Bus./US 29-70, Replace bridge No. 136 and No. R118 (formerly B-2856).	7,300	n/a	n/a	n/a	n/a	No	Yes
O	2014	U-3615B	High Point	Skeet Club Road, from NC 68 to Johnson Street, Widen roadway to a four lane facility.	20,625	3.3	Minor Arterial	2	4/5	No	No
P	2014	n/a	Trinity/ Archdale	Trinity Road/ Sealy Drive realignment, Realign both roadways so that the existing offset is eliminated	2,500	n/a	n/a	n/a	n/a	No	Yes
Q	2014	R-609IA & IB	High Point	US 311 Bypass, from US 29-70 (I-85 Business) to SR 1920, Four lane divided facility on new location.	71,825	6.7	Freeway/ Expressway	n/a	4 freeway	Yes	No
R	2014	R-2606AB	High Point/ Archdale	US 311 Bypass, from SR 1920 to US 311, Four lane divided facility on new location.	86,400	9.2	Freeway/ Expressway	n/a	4 divided	Yes	No
S	2020	U-3400	Archdale	Archdale Rd. (SR 1577/SR 1004), from Robbins Country Rd. (SR 1567) to Main St. (US 311), Widen to a multi-lane facility.	19,400	3.1	Minor Arterial	2	4 divided	No	No
T	2020	n/a	Trinity	Finch Farm Road, from Interstate 85 to Trinity city limits, Widening to a multi-lane facility.	8,500	1.7	Minor Arterial	2	4 divided	No	No
U	2020	n/a	High Point	Johnson Street/Sandy Ridge Road widening, from Skeet Club Rd. to Interstate 40	20,000	4.4	Minor Arterial	2	4 divided	Yes	No
V	2020	n/a	Thomasville	Julian Avenue extension, from north of East Guilford Street to Unity Street, Extend a four lane facility.	7,500	0.8	n/a	n/a	4/5	No	No
W	2020	n/a	High Point	Kivett Dr. (SR 1113), from Business 85 (US 29-70) to Interstate 85, Widen roadway to a multi-lane curb and gutter facility and add new interchange at I-85.	30,000	2.7	Other Principal Arterial	2	4/5	Yes	No
X	2020	n/a	Thomasville	MLK Dr./ Jacobs St. extension/ Business 85 interchange, Construction of a new interchange.	15,000	n/a	n/a	n/a	n/a	Yes	No

Table 4-1
Roadway Element Project List

MAP REF.	HORIZON YEAR	TIP #	CITY	LOC./DESC.	EST. COST (000)	LENGTH (mi.)	FED. FUNC. CLASS	CURRENT YEAR # LANES	HORIZON YEAR # LANES	REG. SIGNIF.?	EXEMPT?
Y	2020	n/a	Trinity	Mendenhall Rd./Mendenhall Rd. Ext. realignment, Realign both roadways so that the existing offset is eliminated	2,500	n/a	n/a	n/a	n/a	No	Yes
Z	2020	R-2568D	Thomasville/ Davidson County	NC 109, from south of SR 1755 to north of SR 1723, Widen roadway to multi-lane facility with portions on new location.	24,000	2.7	Other Principal Arterial	2	4/5	Yes	No
AA	2020	U-4411	Thomasville	Randolph St. (NC 109), from Royal Oaks St. to Main St. (SR 2123), Widening to multi-lane section.	5,400	0.8	Other Principal Arterial	2	4/5	Yes	No
AB	2020	U-3615A	High Point	Skeet Club Road, from Johnson Street to US 311, Widen roadway to a four lane facility.	20,425	3.0	Minor Arterial	2	4/5	No	No
AC	2020	n/a	Trinity/ Thomasville	E. Sunrise Avenue extension, from County Line Road to Unity Street on new location.	3,500	0.3	Local	n/a	2	No	No
AD	2020	U-3432	High Point/ Archdale	Surrett Dr. (SR 1216), from Eden Terrace to Market Center Drive, Widen to multi-lanes.	15,900	1.5	Minor Arterial	2	4 divided	No	No
AE	2020	n/a	Trinity/ Archdale	Trinity Road/ I-85 interchange, Construction of a trumpet interchange.	15,000	n/a	n/a	n/a	n/a	Yes	No
AF	2020	U-4420	Thomasville	Turner St. (SR 2165)/Liberty Dr.(SR 2055), from National Highway (SR 2123) to Cloniger St.(NC 62), Widening to a four lane facility.	36,700	2.4	Minor Arterial	2	4/5	No	No
AG	2020	U-2537A	High Point/ Thomasville/ Trinity	Westside Thoroughfare, from I-85 to Bus 85, New multi-lane facility.	60,000	3.0	Other Principal Arterial	n/a	4 divided	Yes	No
AH	2030	n/a	Archdale	Eden Terrace Rd. (SR 1592), from Archdale Rd to Surrett Dr., Widening to multi-lane facility.	6,000	1.1	Local	2	4 divided	No	No
AI	2030	U-3433	High Point	E. Fairfield Rd (NC 610), from S. Main Street (US 311) to Liberty Rd. (NC 62), Widen roadway to multi-lanes.	16,000	2.1	Minor Arterial	2	4/5	No	No
AJ	2030	n/a	Thomasville	Holly Hill Road Connector, from West Holly Hill Rd to Baptist Childrens Home Road, New 2-lane facility.	4,500	0.6	Minor Arterial	n/a	2	No	No
AK	2030	n/a	Archdale	NC 62, from US 311 to Trinity Rd., Widening to three lanes.	5,000	1.4	Minor Arterial	2	3	No	No

Table 4-1
Roadway Element Project List

MAP REF.	HORIZON YEAR	TIP #	CITY	LOC./DESC.	EST. COST (000)	LENGTH (mi.)	FED. FUNC. CLASS	CURRENT YEAR # LANES	HORIZON YEAR # LANES	REG. SIGNIF.?	EXEMPT?
AL	2030	n/a	Thomasville	NC 109, from Interstate 85 to NC 47, Widen to multi-lane facility.	75,300	16.9	Minor Arterial	2	4/5	Yes	No
AM	2030	n/a	Thomasville/ High Point	NC 109 Connector, from NC 109 to proposed Westside Thoroughfare, New multi-lane facility connection.	30,000	3.1	Other Principal Arterial	n/a	4/5	Yes	No
AN	2030	n/a	Thomasville	Southern Loop, from existing Johnsontown Rd. to Finch Farm Rd., New 2-lane facility.	20,000	4.0	Minor Arterial	n/a	2	Yes	No
AO	2030	n/a	Trinity	Surrett Drive, from Eden Terrace to Interstate 85, Widening to multi-lanes.	15,000	2.7	Collector	2	4 divided	No	No
AP	2030	n/a	Trinity	Uwharrie Road extension, from Mendenhall Rd. to Surrett Dr., Multi-lane extension on new location.	5,000	1.1	Collector	n/a	2	No	No
AQ	2030	n/a	Davidson County	Wallburg/ High Point Road, from West Lexington Avenue to NC 109, Widening to a multi-lane facility.	30,000	5.7	Minor Arterial	2	4 divided	Yes	No
AR	2030	n/a	High Point	West Lexington Avenue (SR 1768), from Westchester Drive to proposed Westside Thoroughfare, Widening to multi-lane facility.	10,000	1.5	Other Principal Arterial	2	4/5	Yes	No
AS	2030	U-2537BC	High Point/ Thomasville/ Trinity	Westside Thoroughfare, from Bus. 85 to US 311 Bypass, New multi-lane facility.	120,000	7.5	Other Principal Arterial	n/a	4 divided	Yes	No

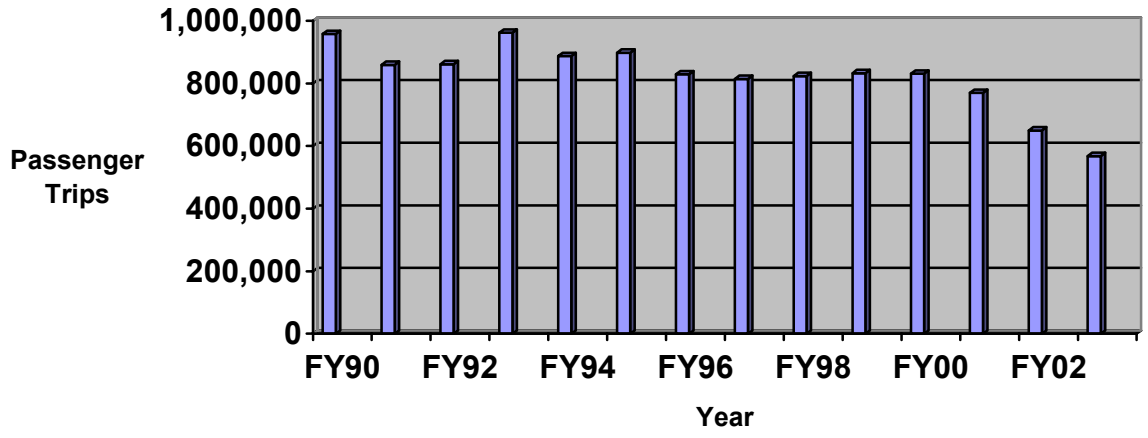
4.2 Transit Element

HISTORY

Public transportation in High Point began as it did in many cities in the early 1900's as electric street railway better known as trolleys. The City of High Point City Council granted three men from New York City the franchise to operate the electric street railway. The initial fare was $.05 per trip. Sometime later, Duke Power took over the operation of the system. With the popularity of the automobile, the rail system evolved into a bus system. In the 1960's, there were two bus systems that served High Point. – Consolidated Bus Lines and City Transit, however only Consolidated Bus Lines continued operation. In August 1975, the City of High Point took over the operation of the system from Consolidated Bus Lines and changed the name of the service to Furn-Tex Transit. In 1978, Furn-Tex Transit was renamed Hi tran.

Ridership approached nearly one million riders in FY89. Ridership from FY90 – FY03 has been gradually decreasing to its current level of 567,826 passenger trips.

Figure 4-1
Ridership Trend



EXISTING CONDITIONS

Hi tran currently operates with a fleet of 35-foot 1990 Thomas Built diesel buses with no accessibility features. The replacement vehicles have been ordered and will be put into service beginning FY05.

Table 4-2
FY2004 STATISTICS FIXED ROUTE TRANSIT NETWORK
High Point Planning Area

Vehicle Number	Mileage as of 5/30/04
817	412,441
818	405,279
819	392,913
820	419,005
821	411,229
822	420,322
823	418,927
824	419,460
825	389,104
826	376,655
827	Vehicle was totaled in accident
828	381,386
829	377,927
830	126,882
831	34,357
832	22,527

Table 4-3
FY2003 STATISTICS FIXED ROUTE TRANSIT NETWORK
High Point Planning Area

Number of Vehicles	Revenue Bus Miles	Revenue Bus Hours
15	388,408	28,155

Table 4-4 provides the number of the route and ridership information. Generally, the community is well-blanketed by service, including most major shopping centers, apartment complexes, hospitals, and extended-care facilities. However, there are many suburban areas that have limited service due to the low development densities and associated high operating costs to those areas. Map 4 shows the current routes operated by Hi tran.

Table 4-4 FY 03 Fixed Route Ridership Data Hi tran: High Point Transit System				
Number	Name	Annual Ridership	Recovery Ratio	Passengers Per Rev. Hour
10/11	North & South Main Street	140,058	.43	14.70
12/13	West Green Drive & Montlieu Ave	64,631	.40	14.93
16 /17	Leonard Ave & Washington Dr	91,031	.62	19.10
18 /14	E. Green Dr. & Westchester	90,964	.52	19.09
15/20	Eastchester Drive & Kearns Ave	58,781	.63	22.07
21/25	Industrial Park Flyer/GTCC	24,829	.59	14.34

From this data, it is possible to make the following conclusions:

- The routes with the greatest ridership include North and South Main, Leonard Ave and Washington Dr., and E. Green Dr. and Westchester.

- The routes with the greatest recovery ratio are: Eastchester Dr & Kearns Ave and Leonard Ave & Washington Dr.

All of the routes identified above serve neighborhoods relatively close to downtown High Point to the east, as well as the Main Street corridor. From this data, it is apparent transit service demand is strong in these areas.

In comparison, transit service to neighborhoods west of downtown High Point suffers from low farebox recovery ratios. These areas are predominantly suburban, and consistent with trends in other American cities, do not use transit on a regular basis.

In December 2002, Hi tran added the Guaranteed Ride Home service that gets passengers coming in on the last Hi tran trips as well as the PART Express service home. The service provides transportation from the Broad Avenue Terminal to the closest bus stop to the rider's destination. The ridership on this service has gradually increased to over 175 trips per month.

Another element of the transit system is the dial-a-ride service, a demand responsive system providing curb-to-curb transportation services for the elderly and disabled. The High Point service operates six vehicles and provided more than 39,000 trips during FY03. Hi tran and NCDOT statistics for the dial-a-ride service in FY03 use include:

- Accommodating 39,141 passengers annually, or 160 per day

- Completing 113,679 revenue service miles over 12,508 revenue service hours

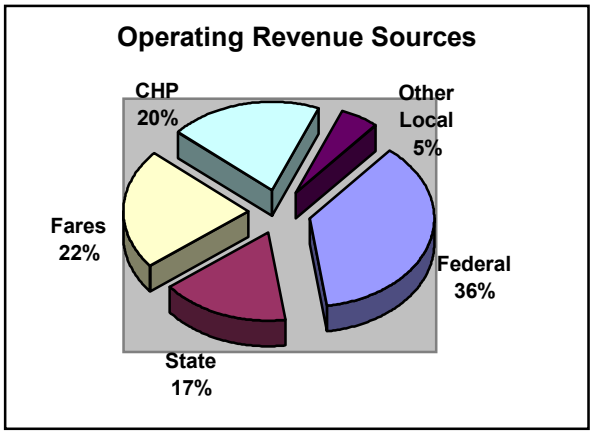
- Operating at a level of .34 passengers per bus mile and accommodating 3.13 passengers per bus hour

NCDOT assists with ridesharing programs for the state's three major metropolitan regions; the Piedmont Triad being one of them. The Piedmont Authority for Regional Transportation (PART) manages the ridesharing and vanpooling program for the Triad area. PART also offers carpool matching services and guaranteed rides home.

In 1984 the public transportation division began coordinating transportation for the attendees of the largest home furnishings market in the world. The International Home Furnishings Market attracts over 70,000 attendees to High Point for nine days every April and October. This influx of visitors places a strain on the local transportation and street network. The furniture market transportation system is comprised of four separate, but coordinated systems. All four shuttle systems converge in the downtown market transportation terminal. The four systems are 1) hotel transportation, 2) outlying showroom shuttles, 3) parking lot shuttles, and 4) the downtown showroom shuttle. The downtown showroom shuttle is a free circulator route previously run by Hi tran buses. The Market Express accounted for 51,000 trips each market.

In August 2001, the International Home Furnishings Market Authority took over coordinating transportation for the market attendees. The Market Authority contracted with private charter providers to supply larger and more comfortable vehicles for all of the transportation systems. This change has added to the decline in Hi tran ridership.

Funding for Hi tran and Dial-A-Lift comes from three primary sources-local funding (City of High Point General funds, passenger fares, and other local sources), state funding, and federal funding. Local funding accounts for 47% of the revenues to operate the system with approximately 47 % of that number coming from passenger fares. Federal funding contributes 36% with the state contributing 17%.



The fastest increasing portion of the transit system budget is the Dial-A-Lift program. The City's Dial-A-Lift program has two components. The first component is the original intent of the program – to offer transportation services to medical appointments to the

general elderly and disabled citizens of High Point. The second component developed as a result of the Americans with Disabilities Act of 1990. The ADA requires that each transit system operating fixed routes must provide complementary paratransit service to individuals who have disabilities that prevent them form using the fixed route system. Portions of the two components overlap, both the ADA requirements are narrowly tailored and if it weren't for the City's much more lenient requirements then fewer individuals would be eligible for the service. However, by narrowly tailoring the program two objectives could be met. The first would be increase ridership and revenue on the fixed-route system and the second would be to control the ever-increasing cost of Dial-A-Lift. With adding a travel training program to the services that the transit system offers, we could encourage more individuals to use the fixed-route system.

FUTURE

As the City and Piedmont region grow geographically, economically, as well as in population, the transit system will have to find ways to provide requested services to new areas. Two areas that are prime areas for expanded transit system services are service along Hwy 311 South to Archdale, and service to Thomasville via Hwy 68 South.

In developing new services a key component will be the use of ITS technologies such as Geographic Information Systems (GIS), Global Positioning Systems (GPS), Computer-Aided Scheduling and Dispatching, Mobile Data Terminals, Odometer Recorders, and Traffic Signal Preference to enhance Hi tran and Dial-A-Lift efficiency and effectiveness. In order for transit to become a true option for individuals in the city as well as surrounding areas, new and innovative ideas and ways to provide transportation will become a must.

4.3 Pedestrian/Bicycle Element

Bicycle and pedestrian transportation also plays a role in the comprehensive transportation system for the High Point Urbanized area. This section will detail some of the efforts being completed at this time.

SIDEWALKS

Sidewalks have historically been and will continue to be an important component of the transportation network, providing a safe location for pedestrian activity. Map 5 shows where sidewalks are presently located in the MPO area. Sidewalks are predominantly in the core areas of the member jurisdictions.

The Town of Jamestown has recently completed a new sidewalk in their downtown area and is planning on extending their sidewalk system east and west along Main Street.

The City of Archdale has approved amendments to its zoning ordinance and subdivision regulations that will require developers to construct sidewalk facilities in all new

subdivisions having more than twenty lots. Further, the new code requires sidewalks in areas of B-1 zoning when the property is located along a roadway having curb and gutter.

The City of High Point has approved amendments in its zoning ordinance and subdivision regulations that requires developers to construct sidewalk facilities along all new public streets and along existing public streets where pedestrian traffic is anticipated. The city has adopted a policy to install sidewalks along both sides of all new road construction and widening projects. The city is working on a Pedestrian Improvement Plan that will provide a planned coordinated system of sidewalks and will facilitate movement through the City. It will develop a list of possible sidewalk improvements, prioritize them, and develop an implementation strategy for the completion of the network.

It is recommended that all street and highway projects be evaluated to determine suitability for the provision of sidewalks. By including the cost of the sidewalk in the total street improvement, cost can be less expensive than retrofitting existing streets with sidewalks.

BIKEWAYS

The High Point Urbanized Area MPO, in conjunction with the NCDOT Division of Bicycle and Pedestrian Transportation, developed a Bicycle Map for the area in 1998. Routes were identified and signed, using primarily on-street facilities. Map 6 illustrates the routes currently on the system.

Route 1

Route 1 begins at Davidson County Community College on Old Greensboro Road, passing Tom-A-Lex Lake to end in High Point, where it intersects with Route 3. Special caution is needed at the crossing of N.C. Hwy 109 particularly during rush hours. Cyclists will encounter rolling terrain and narrow shoulders with some major hills. Cyclists will be passing the route connector for Route 6. Caution should be used in crossing major thoroughfares particularly Chestnut Drive and Westchester Drive especially during rush hours. Route 1 ends at Chestnut Drive and Rotary Drive, and is approximately 13 miles long.

Route 2

Route 2 is a portion of the 700-mile cross-state Mountains to Sea route from Murphy to Manteo, which passes through the High Point Urban Area, intersecting with Routes 3 and 7. The roads on this route are generally busier than the locally designated routes, particularly Skeet Club Road, Guilford College Road, and Kivett Drive.

Route 3

Route 3 begins at Davidson County Community College on Old Greensboro Road. Route 3 includes a journey along a scenic countryside, and is a community route that connects/links to Thomasville, High Point, and Jamestown. Attractions along this route include Martin Luther King, Jr. Community Park, Thomasville's Big Chair, Armstrong Park, West End Park, High Point University, University Park, Piedmont Environmental Center, and Jamestown Park & Golf Course. When cyclists enter into Thomasville, High Point, and Jamestown, please obey all traffic laws. Caution needs to be taken at all signalized intersections, and major thoroughfare crossings. Cyclists will encounter narrow shoulders and rolling terrain with some hills particularly on Old Greensboro Road and Jacobs Street. Cyclists may connect with the High Point Greenway by Kirkman Park School on Farris Avenue. Cyclists may also connect with the Bicentennial Greenway on East Fork Road by Jamestown Park & Golf Course taking you to Gibson Park. Route 3 ends on Greensboro Road at High Point City Lake Park, and is approximately 28 miles long.

Route 4

Route 4 begins on Archdale Road at Tom Hill Road, and is a loop route through much of rural Randolph County. Cyclists need to take special caution at the intersection of Old Glenola Square Road & US 311. Precaution needs to be taken at major streets especially during rush hours, and also caution needs to be taken on the one-lane bridge on Cedar Square Road. Cyclists will encounter rolling terrain and narrow shoulders with a scenic countryside. Route 4 ends at Tom Hill Road and Archdale Road, and is approximately 11.6 miles long.

Route 5

Route 5 begins on Fairfield Road at Allen Jay Road. Attractions along this route are Allen Jay Park and Blair Park Golf Course. The terrain is gently sloping with some major hills. Cyclists need to take caution on some of the major thoroughfares particularly Fairfield Road and Kivett Drive. Caution should be taken when turning left onto Cox Avenue off of Jackson Lake Road. Cyclists will encounter narrow shoulders on some major streets such as Jackson Lake Road, Baker Road, Brentwood Street, and Russell Avenue. Route 4 ends at Ingram Road and Fairfield Road, and is approximately 11.4 miles long.

Route 6

Route 6 begins on Fairview Church Road at Archdale Road, and is another loop route through Randolph County/Trinity area with a connector to Route 4 via Archdale Road. Route 6 includes a journey along a scenic countryside. Cyclists will encounter rolling terrain and narrow shoulders especially on Meadowbrook Road. Caution needs to be taken on all roads, particularly during rush hours. This route does contain quite a few

hills, some big, some small. Route 6 ends on Archdale Road at Fairview Church Road, and is approximately 18.2 miles long.

Route 7

Route 7 begins on Guilford Avenue at Fifth Street. Attractions along this route include Oak Hollow Marina & Golf Course, High Point Athletic Center, River Landing Sandy Ridge Golf Course, and North Carolina Farmer's Market. Caution should be used in crossing some of the major thoroughfares, particularly North Centennial Street at Eastchester Drive and Johnson Street at Skeet Club Road. The terrain is gently sloping with some hills. Cyclists will encounter narrow shoulders on Oakview Road and Johnson Street. Route 7 ends at the North Carolina Farmer's Market on Sandy Ridge Road by Interstate 40, and is approximately 14.6 miles long.

Route 8

Route 8 begins on W. Main Street at Randolph Street by Thomasville's Big Chair, and is a connection route between Thomasville and Archdale. Cyclists will be passing by Central Recreation Center. Special caution is needed in downtown Thomasville, and the crossing of Liberty Street / NC 62 and US 311 particularly during rush hours. Cyclists should be cautious of narrow shoulders and rolling terrain with quite a few hills. This route also has a scenic countryside setting. Caution needs to be taken on all roads, particularly during rush hours. Route 8 ends on Fairfield Road at Allen Jay School, and is approximately 9.5 miles long.

As situations warrant, the bike map should be examined and modified to reflect changes in the road network. It is recommended that all street and highway projects be evaluated to determine suitability for the provision of bikeways. By including the cost of the bikeway in the total street improvement cost can be less expensive than retrofitting existing streets with bikeways. The MPO should take bikeways into account as projects proceed through the TIP process so that the MPO can receive the most return on its investment dollars.

GREENWAYS

Greenways also serve a transportation need in drawing different parts of a city together by linking neighborhoods with schools, parks and shopping centers. In doing this, a safe and efficient mode of travel, independent of the need for an automobile, is made available. By following streams, greenways forestall development on marginal land and help prevent water pollution by absorbing surface runoff from adjacent land.
High Point's greenway system began in 1983 with the adoption by the City Council of a greenway plan. (Map 5) This plan was updated in 1986, and construction of the initial section of the trail started in 1989. From the first, planning for the greenway and the execution of the plan has been a cooperative effort between city government and a citizen's group called the Greenway Task Force, with funding and ideas flowing from both.

Greenways and greenway trails are a relatively recent phenomenon in High Point. Though first proposed more than a decade ago, to date just 2.3 miles of trail have been constructed. Yet this facility, which is first-rate in design, construction and maintenance, has proven such a popular success that in 1993 voters elected to authorize the sale of $300,000 in bonds to extend the system. When completed, the trail system as it has been envisioned prior to this plan will consist of 6.5 trail miles that will link with the nearly eight miles (and a planned additional 10 miles) of Guilford County's Bicentennial Greenway.

The existing greenway in High Point follows the course of Boulding Branch from near Armstrong Park, north of downtown, to a pre-existing bridge across Boulding Branch that connects to Welborn Middle School north of East Lexington Avenue. In addition, a short, branch trail connects the greenway with Wiltshire Street east of the current greenway terminus.

The paved trail begins at the intersection of Brookside Drive and Forrest Street, at the rear of Kirkman Park School one block west of North Centennial Street. From there, it follows the branch eastward through Sherwood Park and the campus of High Point University, whereupon it swings north, again closely paralleling the branch and McGuinn Drive. The Boulding Branch Trail is now approximately 2.3 miles long. The greenway threads for the most part through residential neighborhoods, which, even though developed, are pleasantly wooded and peaceful in character. In addition to providing access to four schools, the trail is convenient to the High Point Museum and the historic Haley House and Little Red Schoolhouse.

Several options for continuing the Boulding Branch Trail north to the Deep River have been studied. Due to engineering considerations and probable ease of access and property acquisition, the following course has been identified as the most likely to be constructed. The trail passes the high school's tennis courts on the east and follows the west bank of the branch to a point near Carlisle Way. Between Carlisle Way and the U.S. 311 Bypass, the city has installed a bridge across Boulding Branch. Thereupon, the trail will continue north to the Deep River along the stream for a while, passing on the way through a culvert under the U.S. 311 Bypass. Another portion of the trail has been completed from the culvert to Deep River Road where it intersects at Marsden Road. From Marsden Road, the trail will follow Deep River Road to University Park and end short of the Deep River. This northern portion of the Boulding Branch Trail will be less urban in character than the southern section.

A connector trail for the Boulding Branch Trail has recently been completed. It is the Montlieu Avenue Connector. The primary purpose of the Montlieu Avenue Connector is to provide access to the trail for students in the vicinity traveling to and from Andrews High School, Welborn Middle School and Montlieu Avenue School. With this connector trail, students can avoid walking or riding their bicycles on surface streets.

The Lake to Lake Trail will be constructed between Oak Hollow Lake and City Lake and will join with both the Boulding Branch Trail and the Bicentennial Trail. Beginning at

Festival Park on the shore of Oak Hollow Lake, the trail will cross under Eastchester Drive and follow a raw waterline easement along the south bank of the West Fork of the Deep River to Boulding Branch. It will then be routed to University Park. From University Park, the trail will cross over to the north side of the West Fork of the Deep River and follow Hickswood Road and continue east crossing a strip of land dedicated by a developer to allow connection to the Piedmont Environmental Center and the Bicentennial Trail.

Guilford County's Bicentennial Trail is 7.7 miles long, and it runs from Regency Drive in Piedmont Centre to City Lake, just south of the Piedmont Environmental Center. The existing trail's course, a significant portion of which is within High Point's city limits, is primarily through rural, undeveloped property and will remain so because much of the adjoining land is included in either a large county park (Gibson Park) or the environmental center's reserve on the western side of City Lake. There are plans to extend the Bicentennial Trail north approximately 10 miles to the vicinity of Battleground Park, in Greensboro.

Other proposed greenways with trails in the High Point Urbanized Area include:

The Allen Jay Greenway

This greenway would begin at Allen Jay Park on East Springfield Street in southeast High Point and would follow Mile Branch past Allen Jay Elementary School to its confluence with Richland Creek. It would then follow the course of Richland Creek to a point near Interstate 85. Eventually, the Allen Jay Greenway could connect with the Deep River. It is also possible that a connector trail could extend south to Allen Jay Middle School. The terrain is wooded, though the greenway would skirt some farm fields. It also would pass near the Eastside Water Treatment Plant.

West Fork Greenway

This greenway would extend along the west fork of the Deep River, the main source of Oak Hollow Lake, to Kernersville in Forsyth County. The area is now characterized by farms and scattered rural residential use, but it is a prime residential growth area for High Point. In addition, the West Fork Greenway could eventually join the Piedmont Greenway system at Triad Park, providing connections to Winston-Salem and Greensboro.

Willard Road Greenway

The Willard Road Greenway will join the important commercial hub around the intersection of N.C. 68, Wendover Avenue and Skeet Club Road, as well as a large residential area, with the Boulding Branch and Lake to Lake Trails.

Davidson Creeks Greenways

In addition to Payne Creek, other creeks and their tributaries flow west and southwest from High Point and its vicinity, including Spurgeon Creek, Abbotts Creek and Kennedy Mill Creek. The land along these streams is reserved for recreation and conservation uses under the terms of an agreement between High Point and Davidson County. These greenways will form an extensive system of loops serving western High Point and a large section of eastern Davidson County, which, though sparsely populated now, is a natural growth area of the city.

Deep River Greenway

The Deep River is the most important stream in the area, both as a source of drinking water and as a recreational and environmental amenity. A greenway along the river will protect those values and will also greatly enhance the utility of other greenways in High Point by joining with them to form a continuous, natural path from central Guilford County well into Randolph County.

Creekside Greenway

The Creekside Greenway will follow Muddy Creek in the eastern part of Archdale. This greenway will connect to an existing greenway on the east side of US 311.

Table 4-5 details the anticipated costs for the expansion of the greenway system.

Table 4-5
Estimated Costs for Proposed Greenway Trails

GREENWAY	ESTIMATED COST
Boulding Branch Trail: Northern Section	$ 554,510
Lake to Lake Trail: Eastern Section	$ 438,525
Lake to Lake Trail: Western Section	$ 484,725
Allen Jay Trail	$ 1,056,000
West Fork Trail	$ 1,056,000

In terms of funding the continuation of the greenway system, large projects such as land acquisition and trail construction are most often financed by local government through the sale of bonds, as was recently done by High Point. The city's general fund should not be ignored as a source of local funding, especially as a match for other funds when required. In the past few years, the municipalities in the Urban Area have increasingly used NCDOT Enhancement Funds to either plan or build their greenway systems. Assuming this program continues, it will continue to be an important funding source for these types of projects.

There are a number of foundations in this area, some of which may provide grants for greenway or greenway-related programs. A local match is sometimes a requirement, although an in-kind match (for example, the cost of staff time) is often sufficient.

4.4 Aviation Element

Piedmont Triad International Airport (PTIA) is the major air carrier airport in the region. This facility is along NC 68 between Greensboro and Winston-Salem. The location of the facility provides access to all parts of the planning area from the airport. From downtown High Point, the travel time is approximately 20 minutes.

PTIA is currently classified as a small hub airport (accounts for less than 0.25% of all revenue passengers enplaned in the United States). The area served by PTIA extends well beyond the region's three major urban centers. Traditionally, this service area has been defined to include Alamance, Caswell, Davidson, Davie, Forsyth, Guilford, Randolph, Rockingham, Stokes, Surry, and Yadkin counties. In reality, PTIA's market overlaps and competes with the markets of airports in Charlotte, Raleigh-Durham and Roanoke, Virginia.

PTIA is served by five major airlines, six regional airlines, and four air cargo airlines. Two fixed-base operators provide fuel, maintenance, aircraft storage, and flight training. The airport has three large aircraft maintenance facilities.

There are two 150-foot wide air carrier runways with 75-foot wide, full parallel taxiways. Runway 5/23 consists of an asphalt grooved pavement and is 10,001 feet long. Runway 14/32 is 6,380 feet long and consists of asphalt pavement with porous friction courses. An Environmental Impact Statement is currently underway to construct a new runway parallel to Runway 5/23 and extend 14/32.

PTIA has a 3-level passenger terminal containing two loading and unloading concourses served by 18 gates. Total terminal area is about 226,200 square feet. There are about 180,000 square feet of cargo space available in four buildings.

The main entrance to PTIA is on Airport Parkway, a continuous four-lane, divided cross-section. To the east, Airport Parkway becomes Bryan Boulevard, a four-lane freeway connecting to downtown Greensboro. The western terminus intersects with NC 68, a major thoroughfare providing a four-lane expressway link to US 421, I-40 and High Point to the south and a two-lane rural highway connection to US 220 to the north.

Federal Express has chosen PTIA to be the site of its Mid-Atlantic cargo hub. This hub is predicted to add approximately 60 night-time flights per day. As the plans for this new hub are finalized, transportation impacts of the new hub will be analyzed and factored into the LRTP.

4.5 Rail Element

Three AMTRAK trains operate from the passenger rail terminal in downtown High Point. These trains are:

- Piedmont, Trains 73/74, departing mornings offering southbound service to Charlotte, and northbound evening service to Greensboro and Raleigh.
- Carolinian, Trains 79/80, departing evenings offering southbound service to Charlotte, and northbound morning service to Greensboro and Raleigh with destinations to Washington, DC, Philadelphia, PA, and New York City, NY.
- Crescent, Trains 19/20, departing early morning offering southbound service to Charlotte with destinations to Atlanta, GA and New Orleans, LA, and northbound late evening service to Greensboro with destinations to Washington, DC, Philadelphia, PA, and New York City, NY.

The Federal Railroad Administration (FRA) has designated the route connecting Washington, DC, Richmond, Raleigh, Greensboro, High Point, and Charlotte as one of the five national high-speed rail corridors. The state of North Carolina has committed to a program of rail infrastructure improvements called IMPACT (Improvement Measures to Provide Alternate Corridor Transportation). The primary goal of this program is to increase the maximum train speed between Raleigh and Charlotte to 70 mph. This will reduce the travel time between Raleigh and Charlotte from just under four hours to three hours and 15 minutes.

AMTRAK uses North Carolina Railroad (NCRR) right-of-way, which is also used to move freight by Norfolk Southern. Spurs serve industry along the main line with access provided to a new industrial park along Kivett Drive.

The Piedmont Authority for Regional Transportation (PART) is undertaking two passenger rail studies: (1) Rail passenger service between Raleigh and Asheville, North Carolina through Winston-Salem generally along the Interstate 40 corridor, and (2) the feasibility of a commuter rail service between High Point, Greensboro, and Winston-Salem.

It should be noted that the potential for rail passenger service in the Triad is an integral part of the Piedmont Triad Regional Transportation Plan. Even with the successful implementation of revised zoning and development land use ordinances, the regional transportation model forecasts substantial deficiencies in the projected highway network for the horizon planning year of 2030. The regional transportation model projects a 500% increase in the utilization of public transportation for the planning year. Based upon the transportation model, there appears to be good justification for a commuter rail system in the Triad.