

**KENT COUNTY TRANSIT NEEDS ASSESSMENT**

**DRAFT REPORT**

**MAY 2, 2011**



## Table of Contents

<b>I. Introduction .....</b>	<b>1</b>
Study Goals.....	1
Kent County Description .....	3
Study Approach.....	4
<b>II. Existing Services.....</b>	<b>5</b>
Interurban Transit Partnership.....	5
Hope Network.....	10
Other Transportation Providers .....	18
<b>III. Population And Demographics .....</b>	<b>20</b>
Demographics .....	20
Senior And Disabled Population Projection .....	29
Projections Of Population And Employment .....	35
<b>IV. Previous Studies .....</b>	<b>41</b>
Hudsonville/Eastern Ottawa Impact Study.....	41
West Michigan Transit Linkages Study .....	41
Grand Valley Metropolitan Council Long Range Transportation Plan .....	42
Grand Valley Metro Council Metropolitan Framework.....	43
Grand Rapids Master Plan.....	44
<b>V. Transit Needs Assessment.....</b>	<b>46</b>
Telephone Household Survey.....	46
Employer Survey.....	109
Demographic Analysis .....	137
Public Meetings .....	139



---

<b>VI. Service Alternatives.....</b>	<b>144</b>
Commuter Express.....	144
Route Extensions And New Routes.....	149
Demand Response Service Improvements .....	161
Demand Estimates .....	163
Summary .....	185
<b>VII. Financial Alternatives .....</b>	<b>187</b>
Current Fixed Route Service Costs .....	187
Current Demand Response Service Cost.....	187
Cost And Revenue Projections Of Proposed Services.....	188
<b>VIII. Governance Alternatives .....</b>	<b>199</b>
Option I - Expanded Service Contracts With Townships, Villages And Cities .....	199
Option II - Kent County Service Contract.....	201
Option III - Expand The Current Public Transportation Authority.....	202
Option IV - Creation Of A Countywide Public Transportation Authority.....	203
Option V - Create A Second Public Transportation Authority.....	206
Summary .....	207
<b>Ix. Kent County Transit Service Plan.....</b>	<b>208</b>
Service Priorities.....	208
Governance Structure .....	211
Capital Costs .....	211
Financial Plan.....	214
Marketing And Communications.....	219

## I. INTRODUCTION

# Introduction

The Kent County Transit Needs Assessment is a study to determine the overall demand for transportation service in areas of Kent County Michigan with minimal public transportation service or without service altogether. This study assesses the transportation needs of Kent County through a latent demand analysis and a feasibility study of improved transportation service in the County.

### STUDY GOALS

Goals for the Kent County Transit Needs Assessment are to: 1. Examine the current transit use and service provided and identify gaps in service; 2. Anticipate future transit demand by identifying areas that may need transit to meet demand, and finally: 3. If a latent demand is identified, to identify options and financial implications of future public transportation service.

Latent demand is demand unmet by current service. The demand may be “unmet” because service does not exist or because service is too limited to serve all the potential demand. Therefore, latent demand for transit service in Kent County includes:

- ◆ *Latent demand among current users* for improvement of the services now available; and
- ◆ *Latent demand among current non-users* of transit service.

The collection of this information was accomplished through a number of methods including a comprehensive telephone survey, focus groups, and surveys of current transportation providers.

Several existing transit service providers serve various portions of Kent County. The intent of this study is to analyze transit needs on a county-wide basis. Results from the demand analysis and assessment of needs for communities, transportation service providers, local businesses, human service agencies, and other key stakeholders were comprehensive because they were compiled and used as a foundation for developing the most efficient transit service model to satisfy future transportation needs.

This study focused on the portion of Kent County located outside the ITP’s core service area. The study area is defined as the portion of Kent County located outside of its six-city taxing district which includes the cities of Grand Rapids, East Grand Rapids, Walker, Grandville, Wyoming, and Kentwood. Exhibit I-1 shows this study area.

# Exhibit I-1 Study Area



-  ITP Service Area
-  Study Area



## Kent County Transit Needs Assessment

## KENT COUNTY DESCRIPTION

Kent County is located in Western Michigan, near the intersection of Interstate 96 and 196. U.S. Route 131 runs north/south through the county. The Grand River, which is the largest river in Michigan, also traverses the county. According to the Grand Valley Metropolitan Council, Kent County had a population of 609,073 people in 2009. Founded in 1836 the county spans 864 square miles. It is divided into 21 townships, five villages, and nine cities. The largest city in the county is Grand Rapids with a population of 192,846. The population within the defined study area is 246,777. Exhibit I-2 shows the population estimates for the cities and townships in Kent County.

**Exhibit I-2  
Population of Kent County Municipalities**

<b>Municipality</b>	<b>2009 Population</b>
Ada Township	12,438
Algoma Township	9,776
Alpine Township	13,738
Bowne Township	3,007
Byron Township	21,550
Caledonia Township	12,603
Cannon Township	13,709
Cascade Charter Township	17,261
City of Cedar Springs	3,267
City of East Grand Rapids	10,430
City of Grand Rapids	192,846
City of Grandville	16,775
City of Kentwood	47,690
City of Lowell	4,171
City of Rockford	5,509
City of Walker	23,957
City of Wyoming	70,599
Courtland Township	7,550
Gaines Charter Township	24,882
Grand Rapids Township	15,157
Grattan Township	3,859
Lowell Township	7,163
Nelson Township	4,758
Oakfield Township	6,094
Plainfield Township	32,290
Solon Township	5,949
Sparta Township	9,204
Spencer Township	3,960

Source: Grand Valley Metropolitan Council

The greatest portion of Kent County's economy is manufacturing, with a significant amount of educational and health service sector employment. Manufacturing in Kent County is 1.63 times greater than the U.S. average. However, in recent times this industry has seen the loss of 2,600 jobs, totaling 26.3 percent of the county's employment. Jobs in Education and Health services have increased by 12.1 percent from 2003 to 2007.

Major employers in Kent County include Spectrum Health, Meijer Incorporated, Steelcase Incorporated, Alticor Incorporated, and Spartan Stores. There are several colleges within the county, including Aquinas College, Calvin College, Cornerstone University, Grand Valley State University, Cornerstone University, Grand Rapids Community College, Ferris State University, Davenport University, Kendall College of Art and Design of Ferris State University, the University of Phoenix, and Western Michigan University. All of these colleges and universities have campuses located within the County.

## **STUDY APPROACH**

The Kent County Transit Needs Assessment was conducted in an eight step process. After the initial project "kick-off" meeting with GVMC staff and the Study/Technical Team, a review of recent transportation studies in the Kent County vicinity was conducted. Following this an assessment of the existing transportation services in Kent County was conducted. This assessment included information about the existing transportation services, costs, and ridership. The core task in this study was a transportation needs assessment and latent demand estimation. After this was completed potential transit services options were developed. A range of readily implementable service options will be presented. Based on an analysis of the transit service options, a feasibility analysis of the proposed services was conducted. The findings of these tasks were compiled into a series of technical memoranda, a draft report, and after this is reviewed, a final report. Public and community involvement was an important part of this study process.

## II. EXISTING SERVICES

# Existing Services

Existing transportation services in Kent County are provided by a number of organizations. Descriptions of the primary transportation providers appear in this section.

### **INTERURBAN TRANSIT PARTNERSHIP**

The Interurban Transit Partnership (ITP), otherwise known as The Rapid, is the public transportation provider in Kent County. Its primary service area includes the Cities of Grand Rapids, Walker, Grandville, Wyoming, Kentwood, and East Grand Rapids, which is known as the “six-city area.” It provides fixed route service, Passenger Adaptive Suburban Service (PASS), County Connection, and GO!Bus.

#### **Fixed Route Service**

The Rapid operates 26 fixed routes throughout Kent County on weekdays. It is a radial system based at its Central Station in downtown Grand Rapids. On weekday evenings, The Rapid operates 19 routes. On Saturday, the system operates 25 routes during the morning and midday. On Sundays, The Rapid operates 15 routes. These routes include three campus express bus routes and one campus connector to Grand Valley State University. The fixed route service had a total ridership of 6,203,880 in 2009. Exhibit II-1 shows the location of these routes within Kent County.

Exhibit II-2 show a summary profile of The Rapid’s fixed route service. Including service span, vehicles required, frequency, revenue hours, and revenue miles. Most routes operate on a frequency of 30 minutes during the daytime and 60 minutes in the evenings and on weekends. Four routes have 15 minute peak frequencies. The peak vehicle requirement is 78 buses on weekdays, 33 on Saturdays, and 16 on Sundays. It operates about 1,000 revenue hours and 13,000 revenue miles on weekdays.

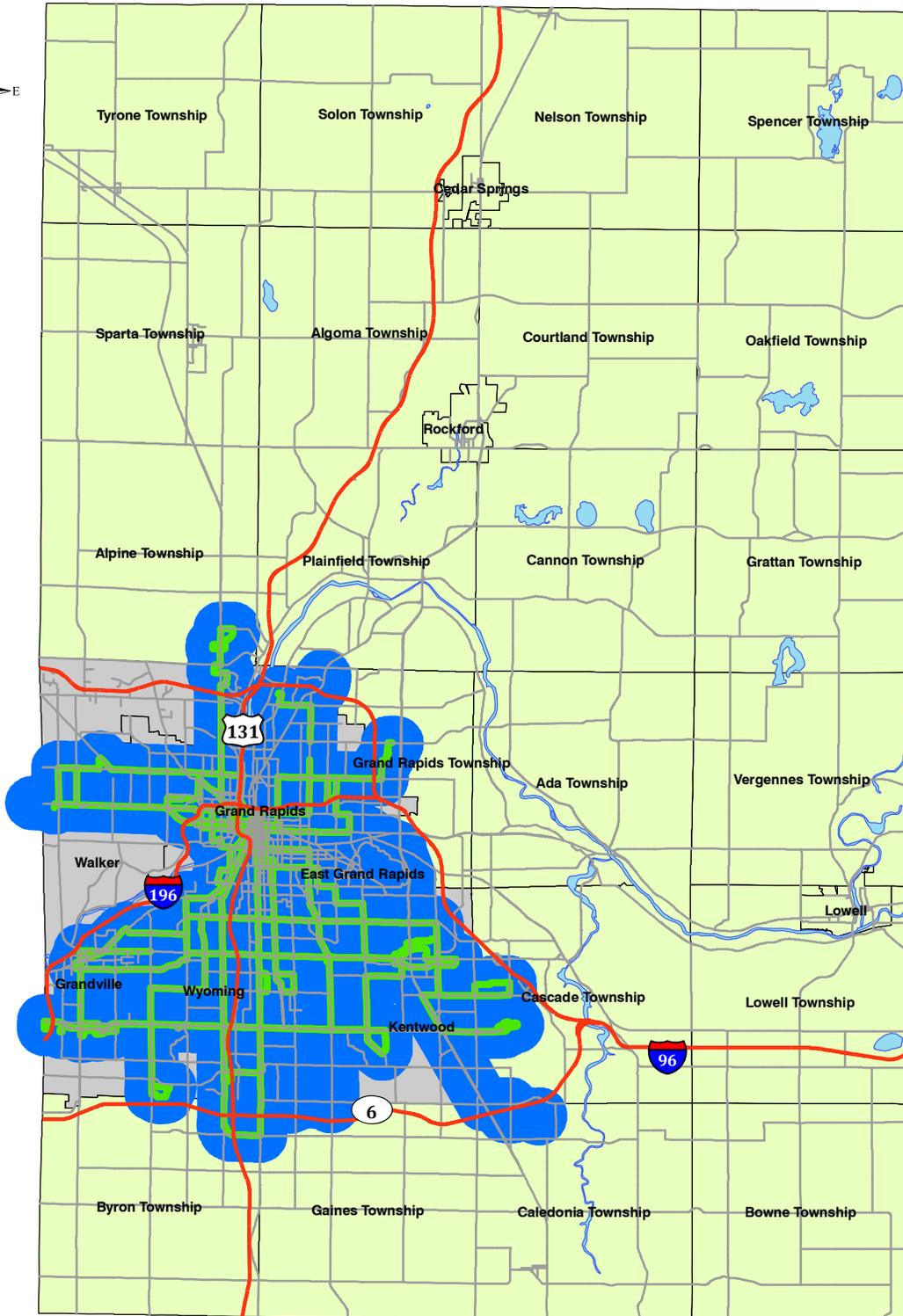
#### **PASS**

This service is a demand responsive service that is open to the general public. PASS serves the six city area, providing trips to fill in gaps in the fixed route service. The majority of trips are feeder trips to the main fixed route service. In 2009, the total ridership for the PASS service was 14,659.

#### **County Connection**

County Connection is a demand response service that transports from the outlying county to Grand Rapids. The majority of service is defined by work trips. However, there are also a large number of medical trips to Rockford. This service is open to the general public, but service is limited to trips within Kent County. Exhibit II-3 shows the location of passenger pick-ups and drop-off for the week of April 6, 2010.

# Exhibit II-1 The Rapid Fixed Route System



- Fixed Routes
- 3/4 Mile Route Buffer
- Go! Bus Contracted Township

**Kent County  
Transit Needs Assessment**

**Exhibit II-2  
The Rapid Route Profile**

Route	Weekday		Service Span		Vehicle Required				Sun.
	PK	Sat	MD	Sun.	PK	MD	Even.	Sat.	
1 Division	4:48a-11:49p	5:23a-10:28p	7:03a-7:19p	7:03a-7:19p	5.0	4.0	2.5	3.0	3.0
2 Kalamazoo	4:48a-11:54p	6:53a-7:24p	6:27a-7:05p	6:27a-7:05p	6.0	3.0	1.5	2.5	2.5
3 Madison	5:45a-7:39p	5:42a-8:05p	--	--	2.0	1.0	1.0	1.0	--
4 Eastern	4:35a-11:30p	5:20a-10:00p	6:57a-7:00p	6:57a-7:00p	5.0	3.0	1.5	1.0	1.0
5 Wealthy Woodland	4:31a-11:15p	6:34a-6:15p	--	--	4.0	3.0	1.0	1.5	--
6 Eastown Woodland	4:31a-11:51p	6:45a-10:20p	6:31a-7:05p	6:31a-7:05p	6.0	3.0	1.5	2.5	1.0
7 West Leonard	4:55a-11:11p	5:43a-10:09p	--	--	2.0	2.0	1.0	1.0	--
8 Grandville Rivertown Crossings	5:45a-11:52p	6:00a-9:52p	7:00a-6:52p	7:00a-6:52p	3.0	3.0	1.5	1.5	1.5
9 Alpine	4:33a-11:42p	5:06a-10:19p	6:38a-7:05p	6:38a-7:05p	5.0	3.0	1.5	1.5	1.5
10 Clyde Park	5:11a-11:36p	5:41a-6:36p	7:11a-6:36p	7:11a-6:36p	3.0	3.0	1.5	3.0	1.0
11 Plainfield	5:13a-11:33p	5:31a-9:33p	6:47a-6:33p	6:47a-6:33p	3.0	3.0	1.5	1.0	1.0
12 West Fulton	5:06a-11:41p	5:43a-10:08p	--	--	2.0	2.0	1.0	1.0	--
13 Michigan Fuller	5:22a-11:42p	5:42a-6:40p	--	--	2.0	2.0	1.0	1.0	--
14 East Fulton	5:12a-11:40p	5:42a-6:40p	--	--	2.0	1.0	1.0	1.0	--
15 East Leonard	4:56a-11:42p	6:07a-10:11p	6:38a-7:12p	6:38a-7:12p	2.0	2.0	1.0	1.0	1.0
16 Wyoming Metro Health Village	5:17a-11:20p	5:32a-10:20p	7:32a-7:05p	7:32a-7:05p	3.0	1.5	1.0	1.5	1.0
17 Woodland Airport	6:18a-10:25p	--	--	--	1.0	1.0	--	--	--
18 West Side	5:11a-7:39p	5:41a-10:05p	--	--	2.0	2.0	--	1.0	--
24 Burton	5:23a-7:48p	6:03a-6:49p	--	--	4.0	2.0	--	2.0	--
28 28th Street	5:30a-11:31p	7:07a-10:37p	7:14a-7:08p	7:14a-7:08p	3.0	3.0	1.5	1.5	1.5
37 GVSU North Campus Express	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
44 44th Street	5:22a-8:14p	5:22a-7:12p	--	--	2.0	2.0	--	2.0	--
48 GVSU South Campus Express	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
50 GVSU Campus Connector*	6:55a-11:45p	--	--	--	6.0	6.0	2.0	--	--
51 GVSU CHS Express*	5:30a-11:14p	7:00a-6:14p	--	--	5.0	3.0	1.0	1.0	--
60 GRCC Sneden Shuttle	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL					78	59	26	33	16

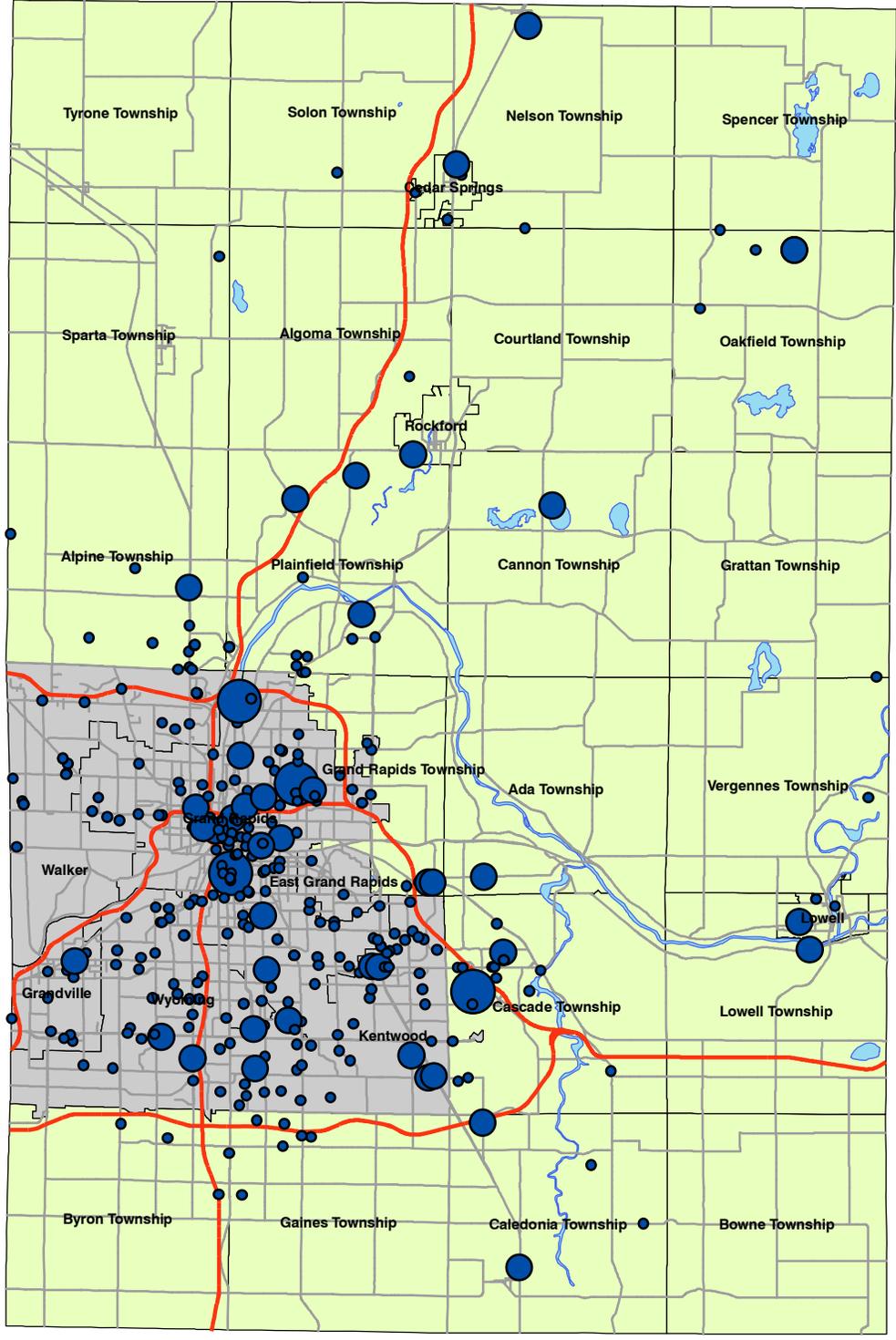
\* Summer Schedule

Route	Frequency		Revenue Hours				Revenue Miles					
	PK	MD	MD	Even.	Sat.	Sun.	Wday	Sat.	Sun.	Wday	Sat.	Sun.
1 Division	15	15	30	30	60	60	88.7	51.0	33.0	994.5	575.4	367.2
2 Kalamazoo	15	30	30	60	30/60	60	83.6	54.0	39.0	987.7	638.4	453.6
3 Madison	30	30	30	30/60	60	--	18.5	36.0	--	225.7	--	--
4 Eastern	15	30	30	60	30/60	60	59.4	36.0	18.0	866.6	537.6	268.8
5 Wealthy Woodland	30	30	30	60	60	--	41.3	42.6	--	566.5	578.7	--
6 Eastown Woodland	15	30	30	60	60	60	65.8	42.0	30.0	722.3	--	333.6
7 West Leonard	30	60	60	60	60	--	40.3	23.8	--	669.5	339.9	--
8 Grandville Rivertown Crossings	30	30	30	60	60	60	46.1	24.0	18.0	644.8	332.8	249.6
9 Alpine	15	30	30	60	30/60	60	72.0	36.0	18.0	931.2	465.6	232.8
10 Clyde Park	30	30	30	60	60	--	48.4	20.6	10.8	552.5	280.5	140.2
11 Plainfield	15	30	30	60	60	60	40.3	20.0	18.0	487.5	240.0	180.0
12 West Fulton	30	30	30	60	60	--	30.8	16.0	--	396.8	204.8	--
13 Michigan Fuller	30	30	30	60	60	60	30.8	11.0	--	434.0	154.0	--
14 East Fulton	30	60	60	60	60	--	23.3	11.0	--	249.1	116.6	--
15 East Leonard	30	30	30	60	60	60	32.3	16.0	12.0	481.0	236.8	177.6
16 Wyoming Metro Health Village	30	30	30	60	60	60	48.4	24.0	18.0	617.5	304.0	228.0
17 Woodland Airport	60	60	60	60	--	--	18.5	--	--	162.8	--	--
18 West Side	30	30	30	60	60	--	21.0	16.0	--	180.0	142.0	--
24 Burton	30	30	30	60	60	--	52.0	24.0	--	676.0	312.0	--
28 28th Street	30	30	30	60	60	60	61.5	39.5	24.0	760.8	505.8	309.6
37 GVSU North Campus Express	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
44 44th Street	60	60	60	60	--	--	29.0	26.0	--	191.1	180.0	--
48 GVSU South Campus Express	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
50 GVSU Campus Connector*	varies	--	--	--	--	--	29.0	--	--	1670.8	--	--
51 GVSU CHS Express*	varies	--	--	--	--	--	27.0	14.0	--	186.3	275.1	--
60 GRCC Sneden Shuttle	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL							1,008.0	583.5	238.8	13,655.0	6,420.0	2,941.0

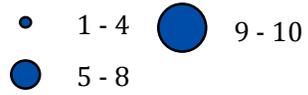
\* Summer Schedule

# Exhibit II-3

## County Connection Trips for the Week of 4/6/10



**County Connection Trips**



### Kent County Transit Needs Assessment

## GO!Bus

GO!Bus is ADA complementary paratransit and service for senior citizens in the six city core service area. Additionally, Go!Bus operates to Alpine, Byron, Gaines, and ADA Townships on a contractual basis. GO!Bus ridership was 427,160 in 2009.

## Costs and Revenues

The budgeted expenses for fiscal year 2010 are divided into 14 categories. Total labor is projected to be \$12,474,242, fringe benefits are \$6,923,172, and services are \$1,795,168. The expenditures for materials and supplies is \$4,141,399, utility expenses are \$569,492, and casualty and liability is \$918,539. Purchased transportation is duplicated at \$4,103,928 in 2010, in addition to \$2,421,683 for purchased transportation for community mental health, \$330,370 for suburban transit, and \$7,500 for other programs. These expenses along with a projected - \$1,300,000 in capitalized operating expenses bring the total expenditures to \$32,922,383 in 2010.

Total expenses are projected to grow to over \$37 million by 2015. Exhibit II-4 shows ITP projected expenditures for 2010 through 2015.

### Exhibit II-4 ITP Costs

	FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
	Budget	Projected	Projected	Projected	Projected	Projected	Projected
<b>Total Labor</b>	\$12,474,242	\$12,474,242	\$12,786,098	\$13,105,751	\$13,433,394	\$13,769,229	\$14,113,460
<b>Total Fringe Benefits</b>	\$6,923,172	\$6,929,439	\$7,171,969	\$7,422,988	\$7,682,793	\$7,951,691	\$8,230,000
<b>Total Services</b>	\$1,795,168	\$1,769,768	\$1,787,466	\$1,805,340	\$1,823,394	\$1,841,628	\$1,860,044
<b>Total Material &amp; Supplies</b>	\$4,141,399	\$4,059,077	\$4,221,440	\$4,390,298	\$4,656,910	\$478,546	\$4,938,488
<b>Total Utilities</b>	\$569,492	\$597,892	\$603,871	\$818,871	\$827,060	\$835,330	\$843,684
<b>Total Casualty &amp; Liability</b>	\$918,539	\$723,515	\$737,985	\$752,745	\$767,800	\$783,156	\$798,819
<b>Purchased Transportation</b>	\$4,103,928	\$4,103,928	\$4,227,046	\$4,353,857	\$4,484,473	\$4,619,007	\$4,757,577
<b>Purchased Transportation Community Mental Health</b>	\$2,421,683	\$2,421,683	\$2,470,117	\$2,519,519	\$2,569,909	\$2,621,308	\$2,673,734
<b>Purchased Transportation Other Programs</b>	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500
<b>Purchased Transportation Suburban Paratransit</b>	\$330,370	\$248,352	\$253,319	\$258,385	\$263,553	\$268,824	\$274,201
<b>Total Other Expenses</b>	\$536,890	\$527,623	\$532,899	\$538,228	\$543,611	\$549,047	\$554,537
<b>Net Surplus/(Deficit)</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Transfer Out - Grant Budget</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Operating Expenses - Capitalized</b>	(\$1,300,000)	(\$1,300,000)	(\$1,300,000)	(\$1,300,000)	(\$1,300,000)	(\$1,300,000)	(\$1,300,000)
<b>Total Expenditures</b>	\$32,922,383	\$32,563,019	\$33,499,709	\$34,673,482	\$35,669,397	\$36,695,265	\$37,775,044

Source: Interurban Transit Partnership

The sources of ITP revenues include a local property tax, state operating assistance, sale of transportation services, passenger fares, and other sources. For fiscal year 2010, a total of \$12,196,802 came from property tax revenues. State operating assistance totals \$9,382,879, and the sale of transportation service totals \$5,433,277 in 2010. Passenger fares provide a total of \$5,367,546. Other revenue and support are an estimated \$541,879. Exhibit II-5 shows the projected ITP revenues for the 2010 to 2015 period.

## Exhibit II-5 The Rapid Revenues

	FY 2010	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
	Budget	Projected	Projected	Projected	Projected	Projected	Projected
Passenger Fares	\$5,367,546	\$5,329,353	\$5,489,234	\$5,653,911	\$5,823,528	\$5,998,234	\$6,178,181
Sale Of Transportation Services	\$5,433,277	\$5,633,277	\$5,858,608	\$6,092,952	\$6,336,670	\$6,590,137	\$6,853,743
State Operating Assistance	\$9,382,879	\$9,641,910	\$9,751,765	\$9,920,083	\$10,026,668	\$10,131,563	\$10,234,579
Property Taxes	\$12,196,802	\$11,569,018	\$11,337,673	\$11,451,014	\$11,565,524	\$11,912,490	\$12,269,864
Other Revenue & Support	\$541,879	\$541,879	\$552,717	\$563,771	\$575,045	\$586,546	\$598,277
<b>Total</b>	<b>\$32,922,383</b>	<b>\$32,715,437</b>	<b>\$32,989,960</b>	<b>\$33,681,731</b>	<b>\$34,327,436</b>	<b>\$35,218,970</b>	<b>\$36,134,645</b>
<b>Deficit</b>	<b>\$0</b>	<b>\$152,418</b>	<b>(\$509,749)</b>	<b>(\$991,751)</b>	<b>(\$1,341,961)</b>	<b>(\$1,476,295)</b>	<b>(\$1,617,399)</b>

Source: Interurban Transit Partnership

### HOPE NETWORK

Hope Network is a non-profit organization that provides a variety of services to assist individuals with disabilities or disadvantages. The services provided by Hope Network include:

- ◆ Behavioral Health - This program works with individuals to help manage the symptoms of mental illness and co-occurring substance use to achieve a higher level of recovery. Services include crisis management, residential services, and respite care.
- ◆ Development services - This program provides specialized care for individuals with cognitive and physical disabilities. The program provides services to those who require 24-hour care, as well as individuals who require only minimal support.
- ◆ Rehabilitation services - This program provides treatment and support to help adults and children with brain injury, spinal cord injury, or other neurological conditions. Treatments work to restore maximum independence among individuals.
- ◆ Care coordination - This program provides assistance with housing, obtaining benefits, coordinating medical care, facilitating conational supports, and other needs as identified. This service enables individuals to manage their lives and achieve their goals while still ensuring a greater level of independence.
- ◆ Community services - By assisting individuals with budgeting, medication management, transportation, and other needs, this program allows individuals to live independently in their own environment.
- ◆ Subsidized housing - This program provides income-based apartment rentals for people with mobility needs, mental illness or, individuals of low income.
- ◆ Workforce development - This program is designed to expand individual independence, and allow participants to become contributing members of the community.
- ◆ Transportation - This program provides a higher level of independence for individuals in need of transportation. Door-to-door and door-through-door services are provided to assist individuals and ensure they have access to necessary appointments.

## **Transportation**

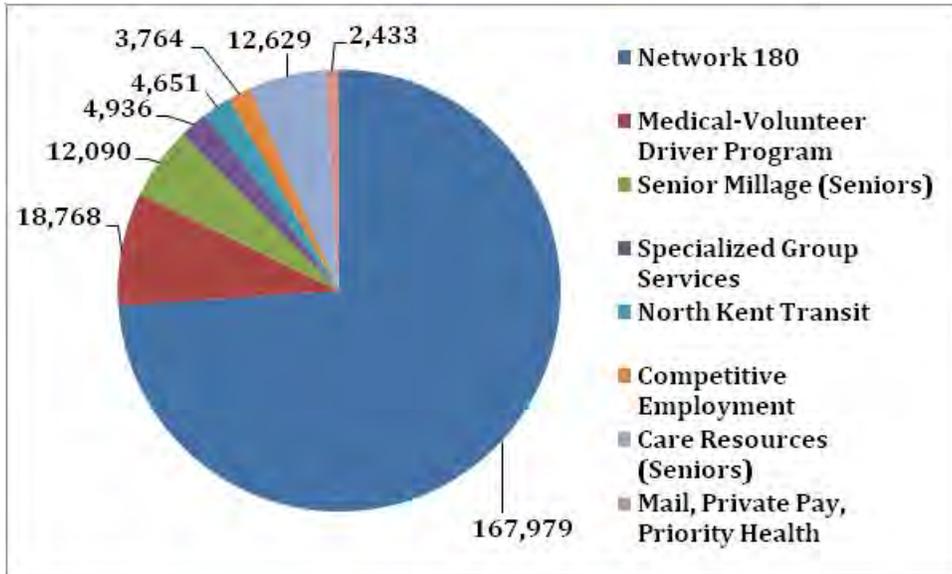
Hope Network is the second largest provider of transportation in Kent County, operating 120 vehicles per day with approximately 60 buses operating in Kent County. The system provides services to senior populations, individuals with disabilities, and those traveling to work or school. Service is available to individuals with disabilities and seniors.

In 2009, Hope Network provided 249,472 trips, and served 4,314 individuals throughout Kent County. These rides were provided in one of the categories listed below:

- ◆ Network 180 - Provided transportation to individuals with physical, developmental, mental, or emotional disabilities. It is the largest service provided by Hope Network. These rides were provided to Hope Network sites, Transitions/Touchstone, Goodwill Industries and Gerontology Network. In 2009, the Network 180 service provided 179,910 rides.
- ◆ Care Resources - Care Resources provided 22,113 trips in 2009. This service provides rides to seniors who attend programs at Care Tree Services, Family Life Center, and Care Resources.
- ◆ Medical-Volunteer Driver Program - This program provided 18,614 trips last year and served over 3,000 individuals.
- ◆ Ride Link - This service provided 14,423 rides in 2009. This service is funded by a senior citizen millage and is run in conjunction with The Rapid.
- ◆ Specialized Group Services - Transportation is provided to seniors or individuals with disabilities who need additional services such as respirators, wheelchair service, and door-to-door service. In 2009, this service provided 4,936 rides.
- ◆ North Kent Transit - This service is provided in Northern and Eastern Kent County for individuals 60 and over or individuals with disabilities. In 2009 4,239 trips were provided through the North Kent Transit service.
- ◆ Competitive Employment - This service is available to individuals who are competitively employed and have an initial sponsor. This service provided 3,347 rides in 2009.
- ◆ Mail, Private Pay, Priority Health - Individuals with disabilities who are authorized to pay for transportation with insurance or private funds use this service. In 2009, 2,319 rides were provided using this program.

Exhibit II-6 shows a breakdown of Hope Network's ridership for 2008. The chart indicates that Network 180 comprises the largest portion of riders at 167,979, or 74 percent. The second largest ridership is the Medical-Volunteer Driver Program, with 18,768 riders or 8 percent of total riders in 2008. Care Resources and Senior Millage (Ride Link) rides comprise 12,629 and 12,090 riders, respectively. The remaining programs each make up 2 percent or less of the total ridership for Hope Network.

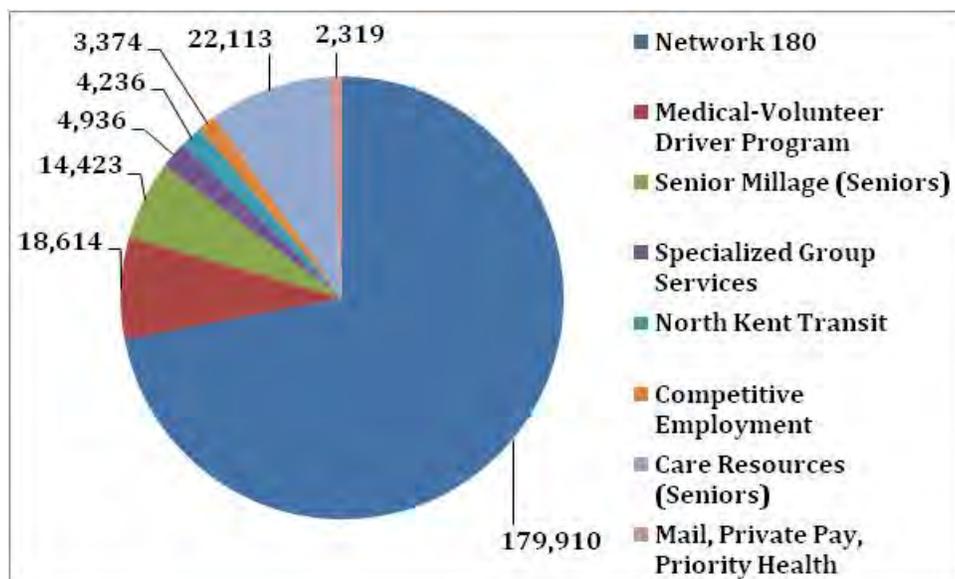
**Exhibit II-6  
Hope Network Transportation FY 2008 Ridership**



Source: Hope Network

The 2009 ridership for Hope Network is represented in Exhibit II-7. Network 180 comprised the largest ridership of Hope Network at 72 percent, or 179,910. In a change from 2008, Care Resources made up the second largest portion of riders in 2009 with 22,113, or 9 percent. The Medical-Volunteer Driver Program had 18,614 riders, totaling 7 percent of ridership. Ride Link reported 14,423 riders and totaled 6 percent of the total ridership. North Kent Transit and Specialized Group Services each comprised 2 percent of the total ridership. Competitive Employment and Mail, Private Pay, and Priority Health each made up one percent of Hope Network's Total Ridership.

**Exhibit II-7  
Hope Network Transportation FY 2009 Ridership**



Source: Hope Network

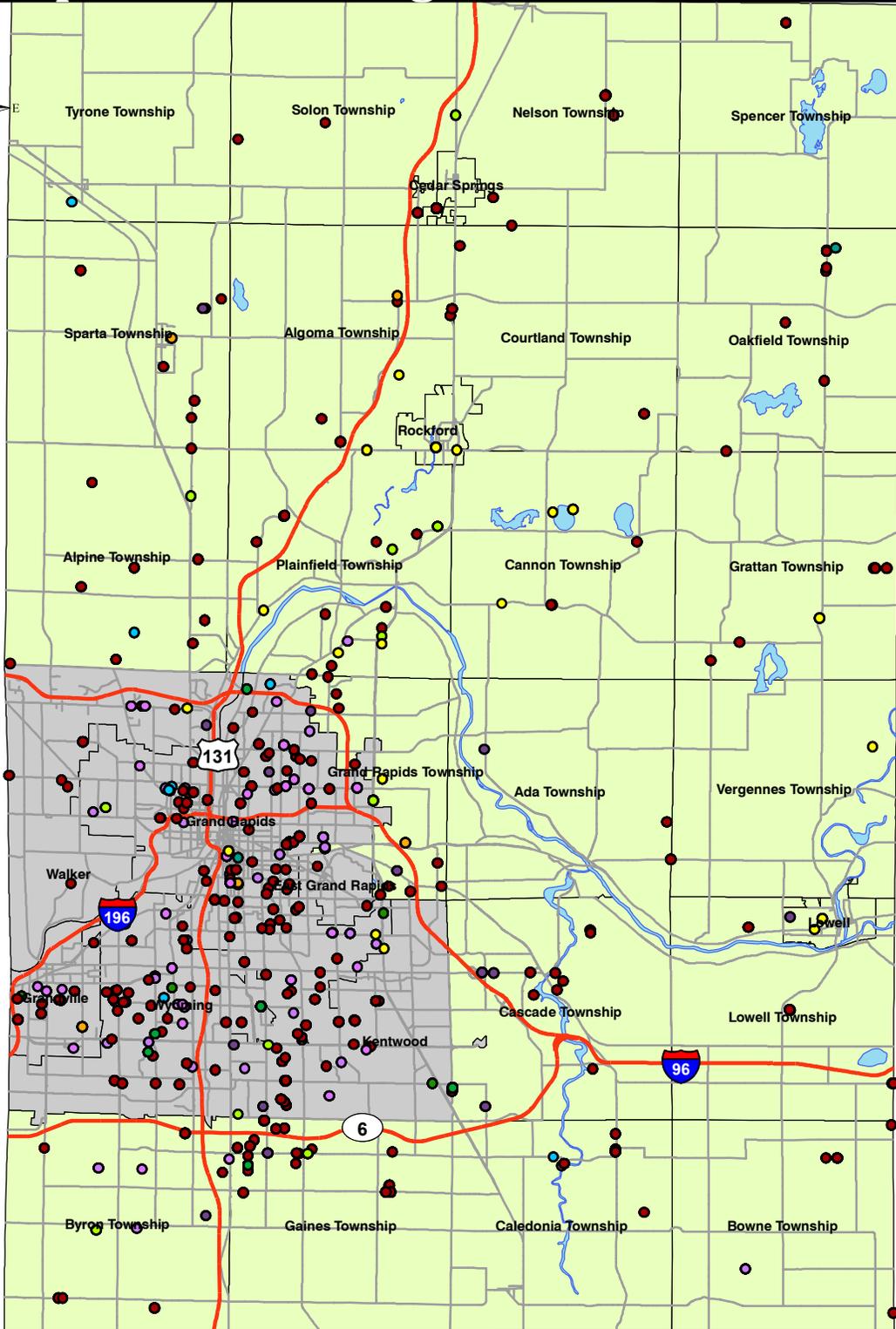
Between 2008 and 2009 ridership grew by 22,219, or 9.8 percent. The largest increase in ridership was in the Network 180 transportation with an increase from 167,979 in 2008 to 179,910 in 2009. Many clients eligible for Network 180 transportation are also eligible for Go!Bus and use that service instead of Network 180. Care resources (seniors) was the second largest increase, with an increase from 12,629 to 22,113. A small decrease in ridership accrued among the Medical-Volunteer Driver Program, North Kent Transit, Competitive Employment, and Mail, Private Pay, Priority Health. These services decreased by 150, 412, 390, 114 respectively.

Exhibit II-8 outlines the times of the current runs provided by Hope Network. This vehicle utilization chart indicates the operating times of Hope Network for the date May 11, 2010. This is considered representative of the peak day for Hope Network.

The map in Exhibit II-9 outlines the origins and destinations of the runs provided by Hope Network. The circles on the map represent residential location, while the squares represent the locations of centers in Kent County.



# Exhibit II-9 Hope Network Origins and Destinations



- |                          |                   |             |
|--------------------------|-------------------|-------------|
| ● Account                | ● Invoiced        | ● Ride Link |
| ● Care Resources         | ● Network 180     |             |
| ● Care Tree              | ● No Charge       |             |
| ● Competitively Employed | ● North Kent      |             |
| ● Family Life Center     | ● Priority Health |             |

**Kent County  
Transit Needs Assessment**

Exhibit II-10 represents an average month of Hope Network’s ridership. As the chart illustrates, there is a peak demand on Thursday and a lower demand on the weekends. The table also shows a total of 23,513 reservations taken for the month. A total of 21,913 were subscription trips and 1,575 were demand responsive trips. No-shows totaled 308 and there were 3,126 cancelled trips.

**Exhibit II-10  
Hope Network Ridership Characteristics**

April 1-30	Subscriptions	Demands	Reservations Taken	Trips Cancelled	Trips No Show	Trips Scheduled
<b>Sunday</b>	132	45	177	51	64	117
<b>Monday</b>	3,946	201	4,148	377	55	3,716
<b>Tuesday</b>	3,988	227	4,215	442	48	3,725
<b>Wednesday</b>	4,112	278	4,391	407	38	3,946
<b>Thursday</b>	5,028	365	5,393	539	47	4,807
<b>Friday</b>	4,683	278	4,984	1,276	55	3,653
<b>Saturday</b>	24	181	205	34	1	170
<b>Total</b>	<b>21,913</b>	<b>1,575</b>	<b>23,513</b>	<b>3,126</b>	<b>308</b>	<b>20,134</b>

Source: Hope Network

Exhibit II-11 outlines the performance statistics of Hope Network for 2008 and 2009. The table shows an increase in total miles from 1,020,948 to 1,250,770. The table also indicates an increase in trips from 208,485 to 230,858. Individuals served also increased from 1,342 to 1,369. Vehicles in operation increased from 62 in 2008 to 80 in 2009. The number of preventable accidents decreased.

**Exhibit II-11  
Hope Network 2008 and 2009 Operating Statistics**

2008			2009		
<b>Miles</b>	1,020,948		<b>Miles</b>	1,250,770	
<b>Trips</b>	208,485		<b>Trips</b>	230,858	
<b>Individuals Served</b>	1,342		<b>Individuals Served</b>	1,369	
<b>Vehicles</b>	62		<b>Vehicles</b>	80	
<b>Preventable Accidents</b>	13	(1.21 per 100,000 miles)	<b>Preventable Accidents</b>	6	(.48 per 100000 miles)

Source: Hope Network

**Funding**

Exhibit II-12 shows the transportation revenues and expenses for Hope Network in FY 2010. Revenues totaled nearly \$3.4 million during this period with the majority (\$2.3 million) provided through a contractual arrangement with ITP. Total operating expenses were just under \$3.1 million. The largest expense item was wages and benefits which totaled \$1.4 million. There are \$437,724 estimated for administrative expenses.

**Exhibit II-12  
Hope Network Budget 2009-2010**

Description	FY 2009-2010 Budget
Grant Revenue-Senior Millage, CDBG (NKT)	\$ 336,000.00
Transportation Revenue-PACE (Senior), Private Pay, Insurance	\$ 541,368.00
Transportation Services	\$ -
Transportation - Consumer Pay-Fares-NKT, Com Emp	\$ 42,790.00
Transportation - CMH/ITP-The Rapid	\$ 2,374,200.73
Contractual Revenue-Specialized Services	\$ 84,173.00
Temp Restricted Revenue	\$ -
Affil Service Income-Contract	\$ -
<b>Total Revenues</b>	<b>\$ 3,378,531.73</b>
Staff Wages and Benefits	\$ 1,426,818.95
Staff - Training, Travel, Conferences, and Meals	\$ 7,230.68
Program Supplies and Uniforms	\$ 13,037.99
Postage and Freight	\$ 524.86
Office Supplies	\$ 1,708.03
Program Equipment Expense - Covered by Allocated Shared Adm.	\$ -
Office Equipment Expense - Covered by Allocated Shared Adm.	\$ -
Depreciation - Vehicle	\$ 12,570.85
Purchased, Intracompany and 3rd Party Transportation	\$ 86,011.06
Vehicle - Fuel	\$ 457,999.55
Vehicle - Maintenance	\$ 430,424.44
Vehicle - License	\$ 284.67
Dues and Subscriptions - Covered by Allocated Shared Adm.	\$ -
Building - Maint/Repairs	\$ 2,277.38
Insurance - Liability	\$ 5,756.89
Insurance - Vehicle	\$ 129,686.49
Software License/Contractual Expenses	\$ 31,148.84
Staff - Hiring Costs	\$ 4,263.31
Advertising/Promotional	\$ 3,416.07
Allocated Program Expenses, fares, scheduling, and IT	\$ 479,407.60
<b>Total Operating Expenses</b>	<b>\$ 3,092,567.64</b>
Adm. Expenses - HR, Accounting, Payroll, Finance, Legal, Purchasing, Quality, Compliance, Marketing, Leadership, and Facilities.	\$ 437,723.96
<b>Total Expenses</b>	<b>\$ 3,530,291.60</b>

Source: Hope Network

## **OTHER TRANSPORTATION PROVIDERS**

### **Aids Care Network (G.R.A.C.E.)**

Volunteers provide transportation to individuals living with HIV/AIDS. The transportation includes trips to medical treatments, grocery, and housing. To be eligible, the individual must be living with HIV/AIDS and have a referral form a case manager as St. Mary's McAuley Health Center or doctor's proof of HIV status. Transportation is available from 8:00 a.m. to 5:00 p.m. Other rides may be scheduled on a needs basis with a 48 hour call ahead required.

### **American Cancer Society – West Michigan Area Service Center**

This organization provides a volunteer paratransit service to local cancer treatment centers for patients. Only cancer patients without transportation, who can walk by themselves, are eligible for service. Service is available from 8:30 a.m. to 4:00 p.m. Monday through Friday. Reservations require one week notice and the address of treatment. The average ridership of the agency can vary drastically. Currently the agency is providing 780 trips per year.

### **American Red Cross of West Central Michigan**

The American Red Cross provides transportation to individuals who are financially or physically unable to provide their own transportation, with a focus on the elderly and disabled. Documentation of income is required as well as a proof of disability or Medicaid eligibility. The service is available to those in wheelchairs, and those who travel outside of Kent County. Rides must be scheduled in advance, and are provided at a first come, first served basis. Transportation is available from 8:30 a.m. to 4:00 p.m. Monday through Friday.

### **Area Community Service Employment and Training Council (ACSET)**

This organization provides transportation for individuals 55 and over and those with disabilities. The service area is limited to those who live in Northern Kent County, and will provide transportation to necessary medical appointments. Proof of income is required. Door to door service is available, and vehicles are wheelchair accessible. Transportation is available from 8 a.m. to 4:30 p.m. with an appointment scheduled 24 hours in advance. Currently, the service provides 480 trips per year.

### **Fish For My People (G.R.A.C.E.)**

Volunteers provide transportation for medical appointments, FIA, WIC, grocery shopping, and other necessities. Transportation is not provided to nursing homes, and wheelchair users are only transported if the client has a travel companion. Priority is given to riders with medical needs. Services are available from 9:00 a.m. to 3:00 p.m., on weekdays and require a 24-hour notice.

### **Ready Ride Transportation, Inc.**

Ready Ride Transportation provides transportation to medical appointments, therapy, church, educational events, senior activities, and social events. Drivers are professionally trained and provide service at all times and days. Weekend appointments must be scheduled by Thursday.

### **Senior Neighbors**

Transportation is provided in the areas of Lowell and Grandville, and the Sparta area. Service is available to medical appointments, grocery and drug stores, and senior centers for social activities. One week's notice is preferred. The system currently provides 10,345 trips per year, and transports 5,667 individuals. The majority of funding for this service is obtained from United Way, private funding, and a senior millage. In 2009, \$283,183 was spent on transportation in the agency.

### **Sunshine Senior Assistance**

Service is provided for seniors and individuals with special needs in Kent County up to 20 miles outside of Grand Rapids. Transportation is available for medical appointments, work trips, school trips, rehab and therapy, and grocery errands. The service operates based on client needs. Wheelchair passengers are accommodated.

# Demographic

## III. POPULATION AND DEMOGRAPHICS

---

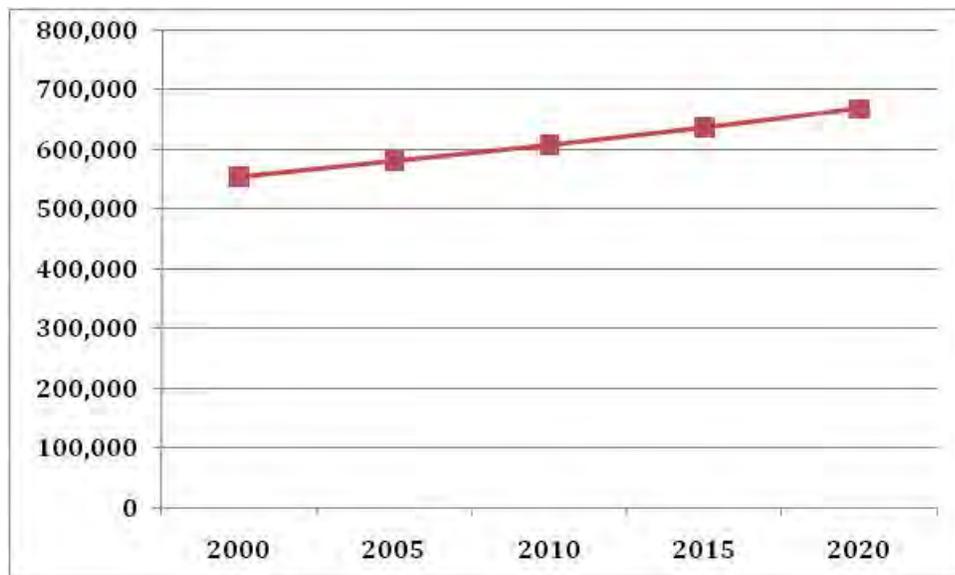
### DEMOGRAPHICS

The demographics of an area are a strong indicator of demand for public transportation service. Relevant demographic data were collected and summarized in this section.

#### Population Projection

According to information provided by the Michigan Department of Information and Technology, the population of Kent County will increase to 667,367 by 2020. This is an increase of 9.9 percent from the year 2010. Exhibit III-1 shows the projected population trend from 2000 to 2020.

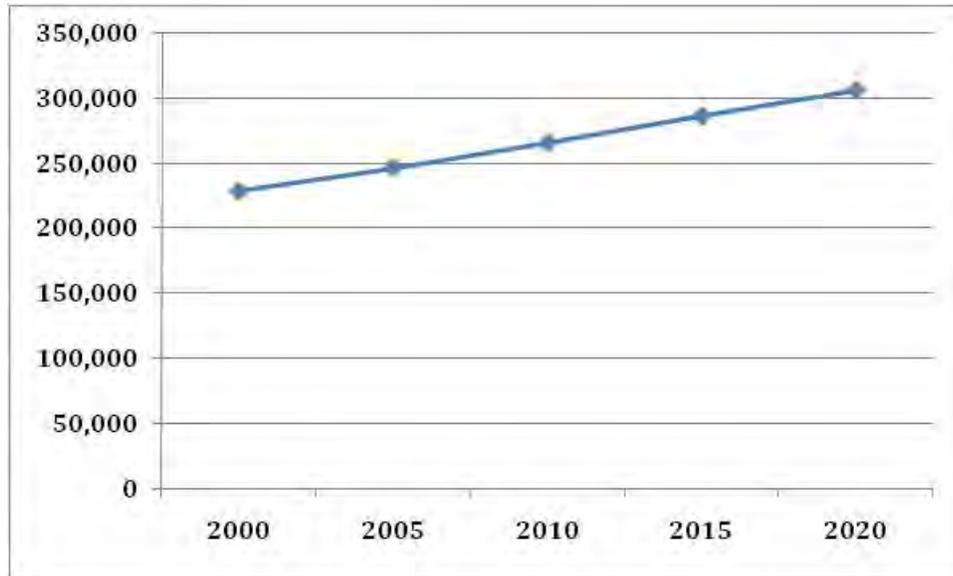
**Exhibit III-1**  
**Kent County Population Projection**



Source: Michigan Department of Information and Technology

Exhibit III-2 shows the population trends of the communities within the study area. The growth rate from 2010 to 2020 is greater than Kent County as a whole with a 15.2 percent increase. This portion of Kent County is projected to grow by 15.2 percent, or 265,046 to 305,313 during this period.

**Exhibit III-2  
Study Area Population Projection**



Source: Michigan Department of Information and Technology

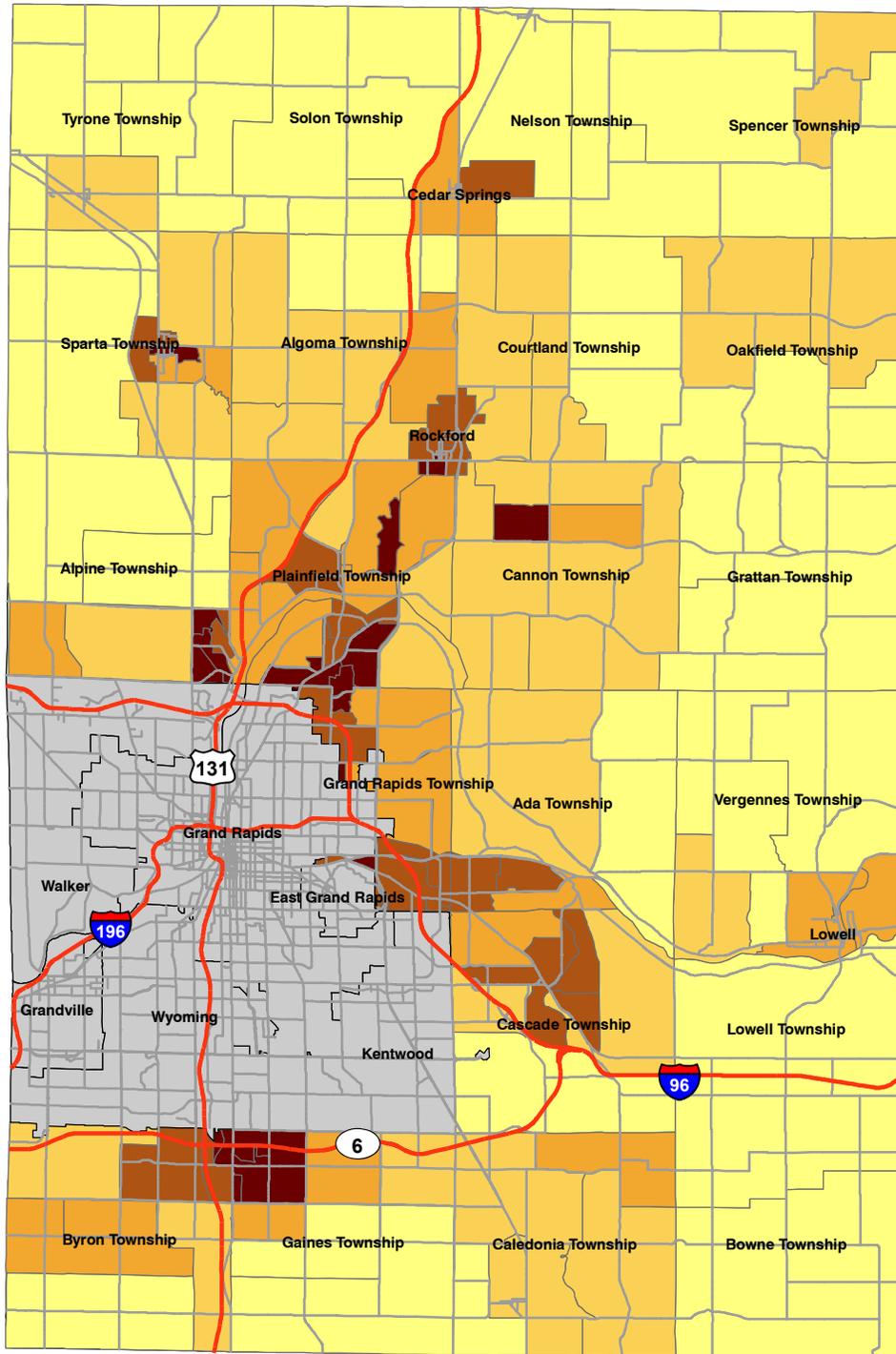
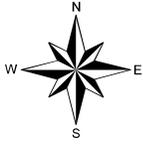
**Population Density**

The population density of the study area is depicted in Exhibit III-3. The block groups with the greatest population densities are located in Plainfield, Alpine, and Gaines Townships. These townships, which are located adjacent to the six cities area, all have block groups with over 2,085 persons per square mile. Block groups in the second highest population density category (879 to 2,084 persons per square mile) are scattered among Cedar Springs, Rockford, as well as Cascade, Ada, Grand Rapids, Byron, Plainfield, Alpine, and Sparta Townships.

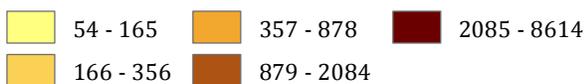
**Population Distribution by Age**

Exhibit III-4 shows the population growth estimates of four age groups in Kent County. The population of individuals between the ages 25 to 64 is the largest group and is projected to increase by 7.4 percent from 2010 to 2020. The age group that will experience the largest amount of growth is estimated for individuals aged 65 and older. It is predicted that this age group will increase by 40.5 percent between 2010 and 2020. The younger age group of individuals 0 to 14 is expected to increase by 10.3 percent. The population of individuals 15 to 24 is projected to decrease by 2.3 percent.

# Exhibit III-3 Population Density

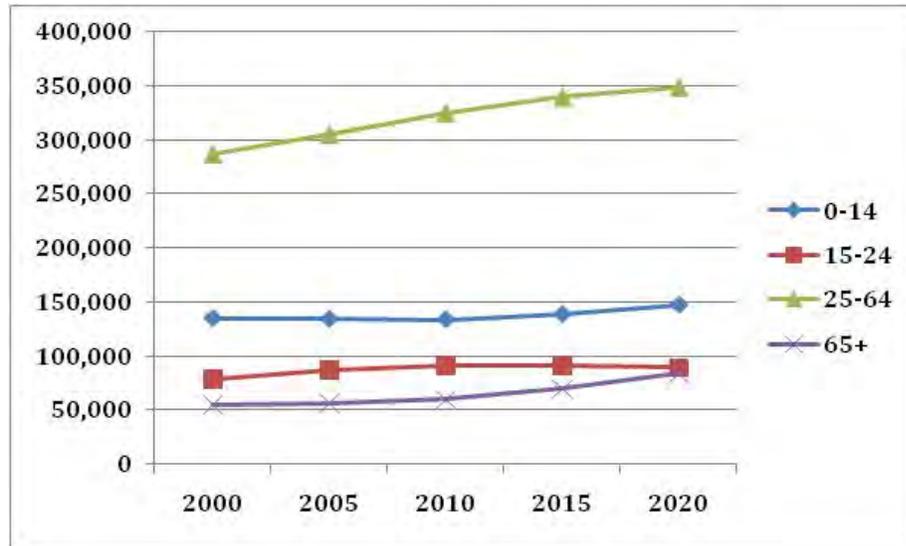


## Persons Per Square Mile



## Kent County Transit Needs Assessment

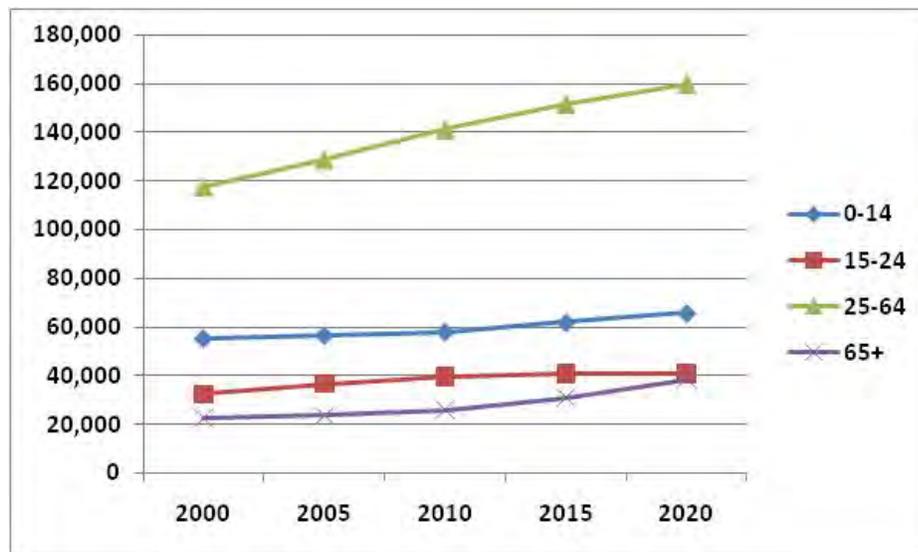
**Exhibit III-4  
Kent County Population Projection by Age**



Source: Michigan Department of Information and Technology

The age distribution of the population within the study area is shown in Exhibit III-5. This shows an increase in population of 40.6 percent among individuals 65 and over between 2010 and 2020. The largest group, individuals 25 to 64, shows an estimated increase of 7.4 percent, from 107,124 to 115,051. The 0 to 14 age group shows a growth of 10.3 percent from 2010 to 2020, and the age group 15-24 shows a 2.2 percent decrease in population.

**Exhibit III-5  
Study Area Population by Age**



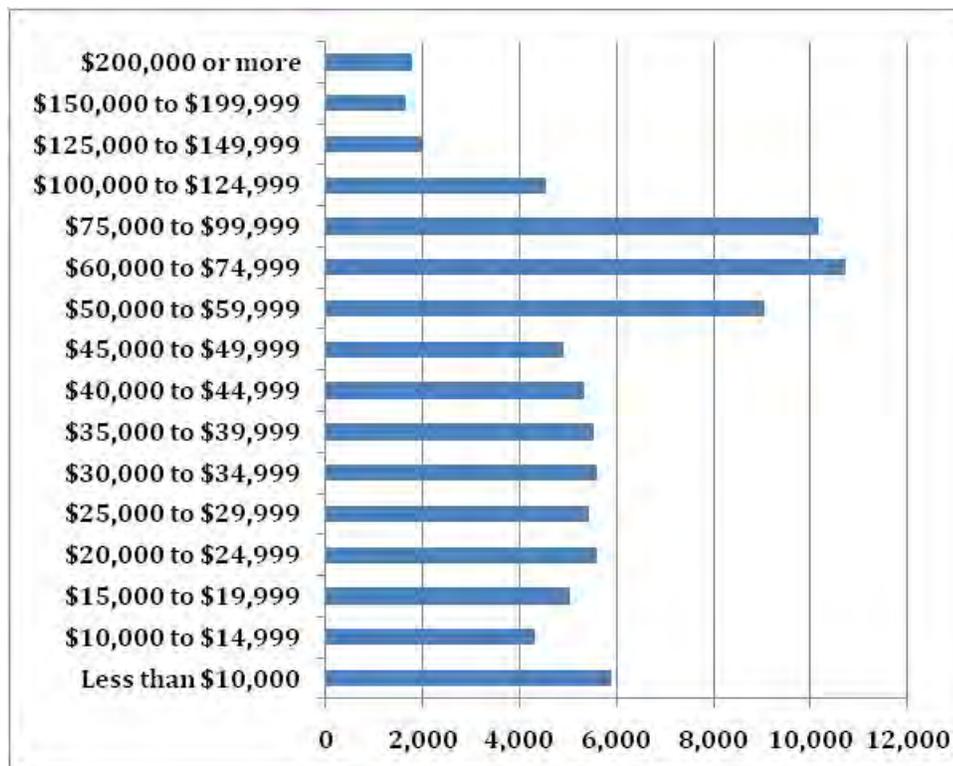
Source: Michigan Department of Information Technology

## **Household Incomes**

According to the U.S. Census, 48.8 percent of households in Kent County earned less than \$45,000 annually. Of that group, 6.7 percent earned less than \$10,000, 4.9 percent earned between \$10,000 and \$14,999, and 5.8 percent earned between \$15,000 and 19,999. This indicates that almost 18 percent of Kent County lives in the lowest three categories of household incomes.

When focusing on only the area outside of The Rapid's service zone, the population exhibits similar trends. Exhibit III-6 shows the household incomes for residents who live outside of the Grand Rapids Service area. The chart shows that 48.8 percent of households outside of the current service area earned less than \$45,000 in 1999. Of those households, 6.7 percent earned less than \$10,000, 4.9 percent earned between \$10,000 and \$14,999, and 5.8 percent earned between \$15,000 and \$19,999.

**Exhibit III-6  
Study Area Income 1999**



Source: U.S. Census 2000

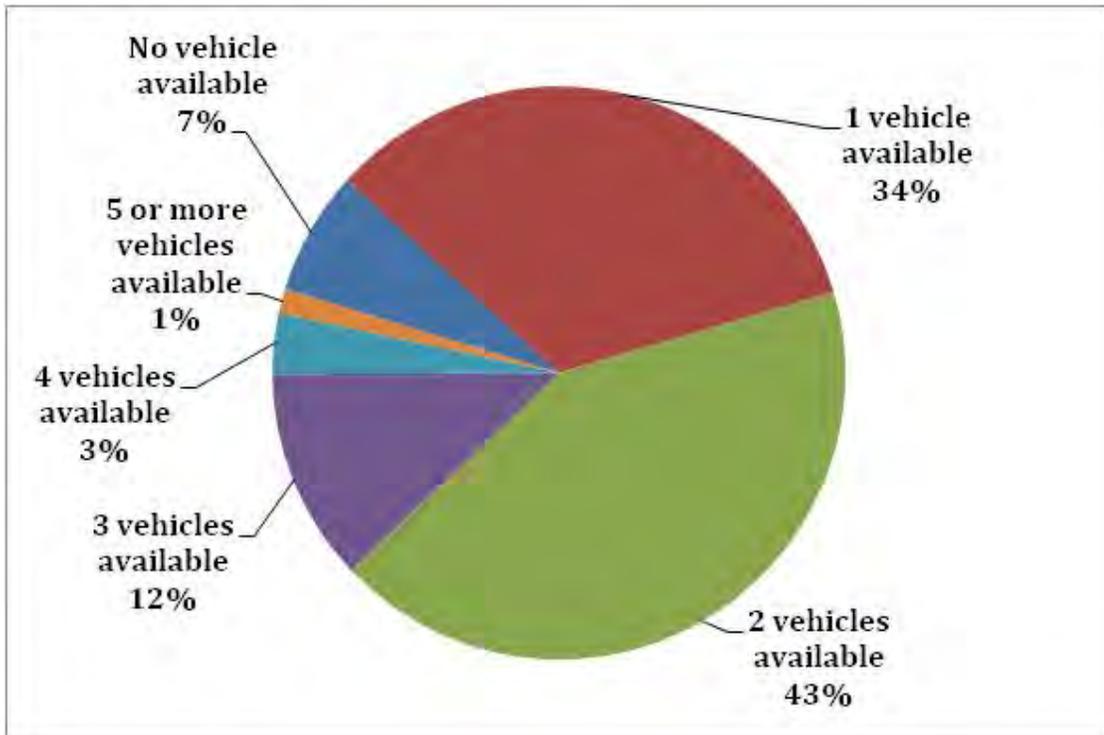
**Households Below the Poverty Level**

Households below the poverty level are scattered throughout Kent County as depicted in Exhibit III-7. The block groups with greater than 9.9 percent of households under the poverty level are located in Rockford, Lowell, and Nelson, Alpine, Plainfield, and Byron Townships. Tyrone and Sparta Townships also have areas with relatively high numbers of these households.

**Zero-Vehicle Households**

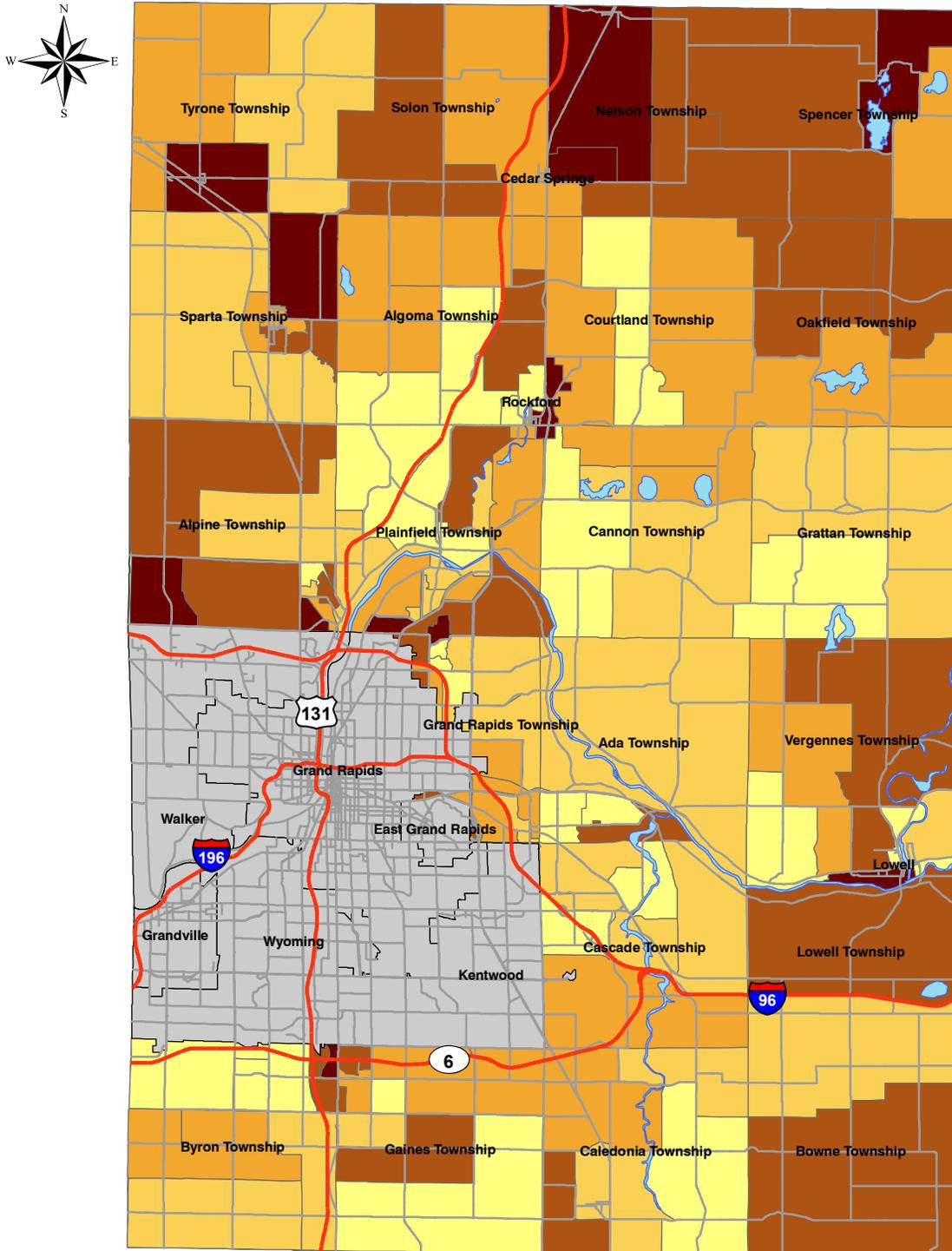
Zero-vehicle occupied housing unit status is another indicator of potential transit demand. According to the 2000 U.S. Census Data, there were a total of 1,528 out of 14,981, or 7.0 percent, of occupied housing units in Kent County with no vehicles available. Exhibit III-8 shows the percentage of households in six categories of vehicle availability in Kent County.

**Exhibit III-8  
Kent County Zero Vehicle Households**



Source: U.S. Census 2000

# Exhibit III-7 Households Below The Poverty Level



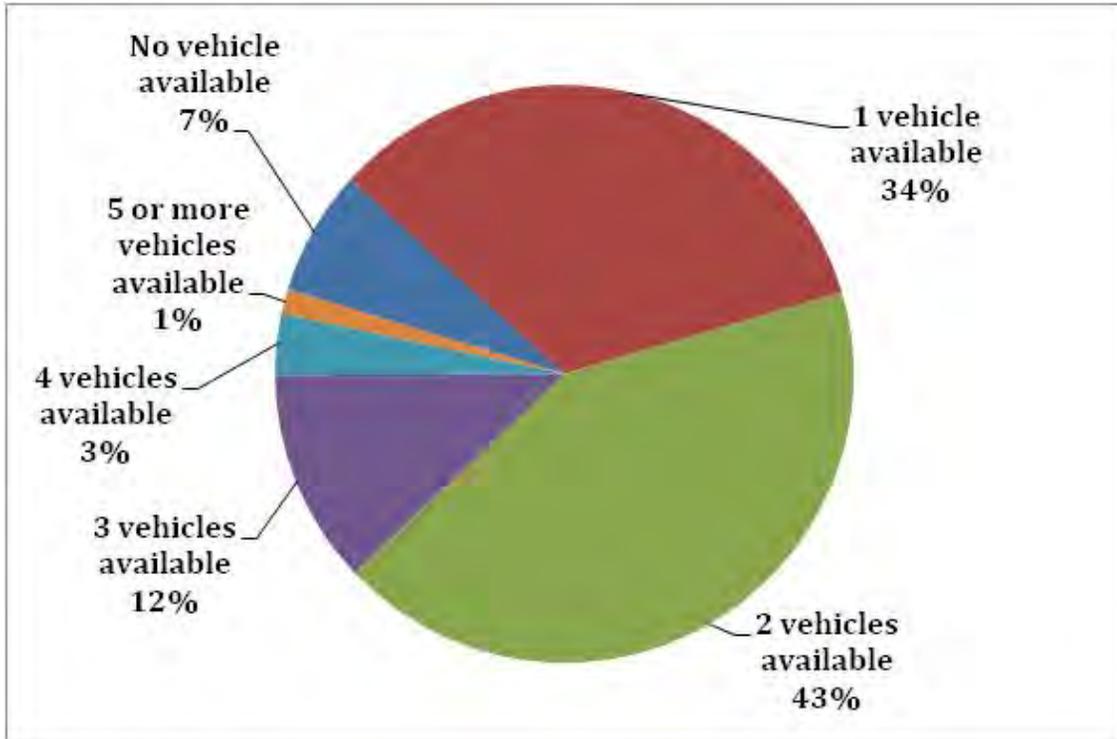
**Percent of Households Below Poverty Level**

<span style="display: inline-block; width: 15px; height: 15px; background-color: #ffffcc; border: 1px solid black; margin-right: 5px;"></span> 0% - 1.6%	<span style="display: inline-block; width: 15px; height: 15px; background-color: #ffcc99; border: 1px solid black; margin-right: 5px;"></span> 3.9% - 6.1%	<span style="display: inline-block; width: 15px; height: 15px; background-color: #993333; border: 1px solid black; margin-right: 5px;"></span> 9.9% - 19.8%
<span style="display: inline-block; width: 15px; height: 15px; background-color: #ff9933; border: 1px solid black; margin-right: 5px;"></span> 1.7% - 3.8%	<span style="display: inline-block; width: 15px; height: 15px; background-color: #663333; border: 1px solid black; margin-right: 5px;"></span> 6.2% - 9.8%	

**Kent County  
Transit Needs Assessment**

Within the study area, the U.S. Census Data indicates that 4.0 percent of the households have no vehicles available, which is less than Kent County as a whole. Nearly three-fourths of households have at least two vehicles available. Exhibit III-9 shows the six categories of vehicle availability within the study area.

**Exhibit III-9  
Study Area Zero Vehicle Households**

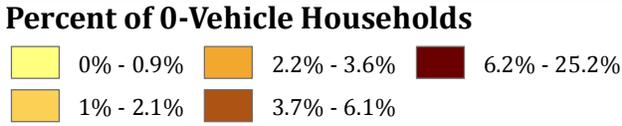
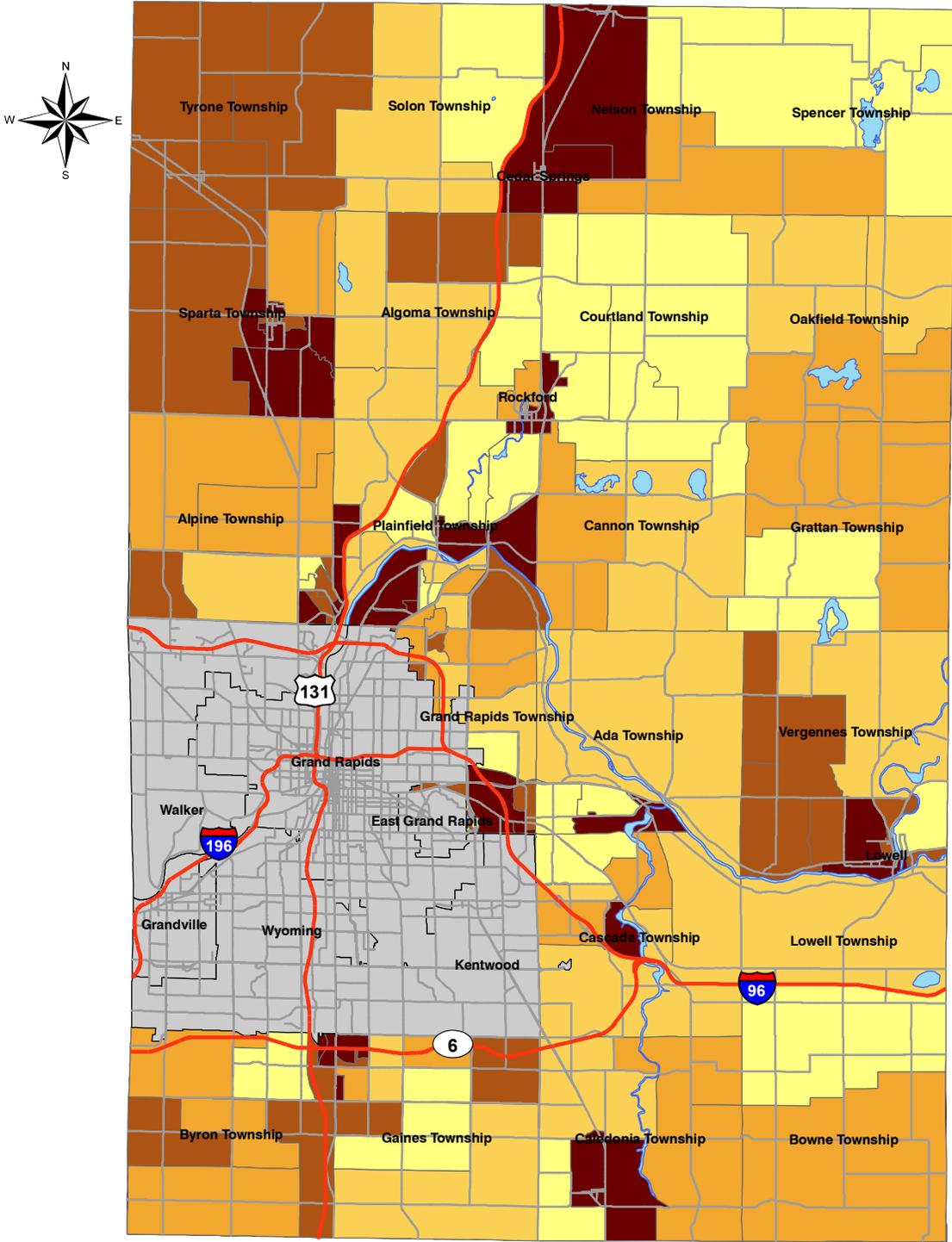


Source: U.S. Census 2000

Exhibit III-10 shows a map of the concentrations of zero-vehicle households within the study area. The locations with the highest concentrations of these households are in Lowell and Grand Rapids Township. Other locations with relatively high numbers of zero-vehicle households are located in Rockford, and Nelson, Sparta, and Plainfield Townships.

# Exhibit III-10

## Households with No Available Vehicle



## Kent County Transit Needs Assessment

## SENIOR AND DISABLED POPULATION PROJECTION

### Persons Over 65 Years of Age

Population in the United States is aging of the population. The two age cohorts with the largest percentage of growth over the last decade were the 50-54 year olds and the 45-49 year olds. People in these two age groups were primarily born during the post-WWII “baby boom” era defined by the Census Bureau as persons born between 1946 and 1964. As communities move beyond the year 2010 the population of individuals 65 years of age and older has begun to increase.

Further, the Administration on Aging (U.S. Department of Health and Human Services) reports that, based on a comprehensive survey of older adults, longevity is increasing and younger seniors are healthier than in all previously measured time in our history. Quality of life issues and an individual’s desire to live independently will put increasing pressure on existing transit services to provide mobility to this population. This has great significance on the need to provide public transit and complementary paratransit services.

Exhibits III-11 includes population projections by age group for the study area. As shown, the portion of the population over 65 years of age is projected to increase from 19,747 in 2010 to 27,762 in 2020. This is a 40.6 percent increase, as compared to a 9.8 percent increase in the overall population during the same time period. As a result, persons over 65 years, as a percent of the total population will increase from 9.8 percent in 2010 to 12.6 percent in 2020. The increase in this age group accelerates through the decade and is expected to increase further after 2020.

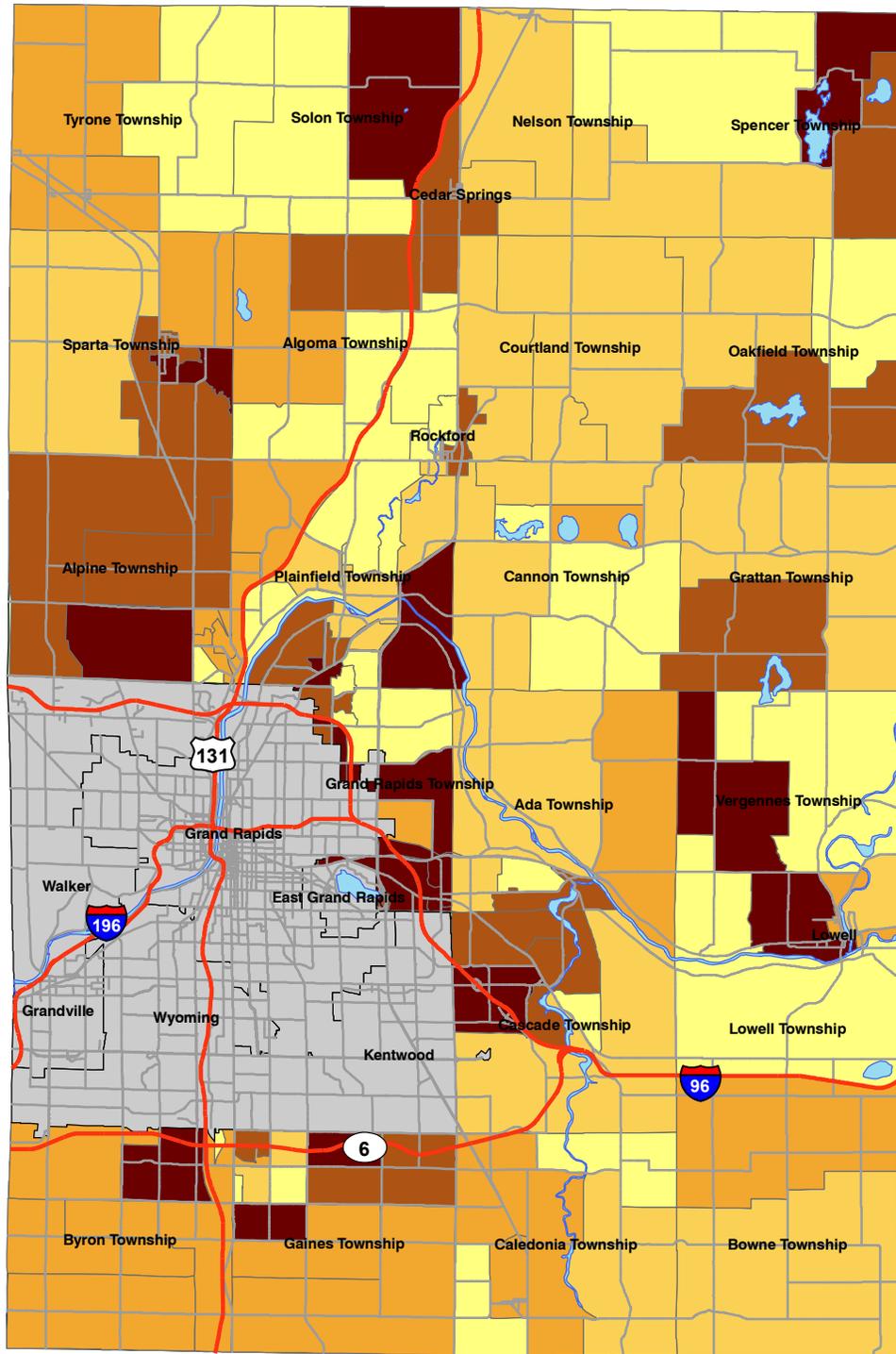
**Exhibit III-11  
Study Area Population by Age**

	<b>2010</b>	<b>2015</b>	<b>% Change</b>	<b>2020</b>	<b>% Change</b>
<b>0-14 Years</b>	44,112	45,748	3.7%	48,675	6.4%
<b>15-24 Years</b>	30,087	30,156	0.2%	29,407	-2.5%
<b>25-64 Years</b>	107,24	111,980	4.5%	115,051	2.7%
<b>65 Years and Over</b>	19,747	22,956	16.3%	27,762	20.9%

Source: Michigan Department of Information Technology

Exhibit III-12 shows the percentage of persons over 65 years of age by block group. Concentrations of this age group are spread throughout the county. Block groups with the highest concentrations are located in Spencer, Solon, Sparta, Plainfield, Gaines, and Byron Townships.

# Exhibit III-12 Population 65 and Over



### Percent of Individuals 65+ Per Square Mile



## Kent County Transit Needs Assessment

## **Individuals with Disabilities**

Enumeration of the disabled population in any community presents challenges. First, there is a complex and lengthy definition of a disabled person in the ADA implementing regulations, which is found in 49 CFR Part 37.3. This definition, when applied to public transportation applications, is designed to permit a *functional* approach to disability determination rather than a strict *categorical* definition. In a functional approach, the mere presence of a condition that is typically thought to be disabling gives way to consideration of an individual's abilities to perform various life functions. In short, an individual's capabilities, rather than the mere presence of a medical condition, determine transportation disability.

The Survey of Income and Program Participation (SIPP) is a national household survey that began in 1984. The SIPP is characterized by an extensive set of disability questions; generally, the SIPP is the preferred source for examining most disability issues. The reason for this preference is the similarities between questions posed on the SIPP survey and the ADA definition of disability.

The Americans with Disabilities Act of 1990 (ADA) defines disability as a "physical or mental impairment that substantially limits one or more of the major life activities." For persons 15 years old and over, the SIPP disability questions cover limitations in functional activities (seeing, hearing, speaking, lifting and carrying, using stairs, and walking); in Activities of Daily Living (ADL) such as getting around inside the home, getting in or out of a bed or chair, bathing, dressing, and eating; and in Instrumental Activities of Daily Living (IADL) such as going outside the home, keeping track of money or bills, preparing meals, doing light housework, and using the telephone. The SIPP also obtains information on the use of wheelchairs and crutches, canes, or walkers; the presence of certain conditions related to mental functioning; the presence of a work disability; and the disability status of children.

The SIPP provides extensive data and, more importantly, addresses multi-dimensional elements of a disability. The major drawback is that despite the fact the sample is drawn from more than 32,000 households, the Bureau cautions users who apply the various incidence rates of disability to levels of geography below the regional level. Use of SIPP data may or may not generate statistical confidence levels of 0.90 or greater when applied to the rural county or small urban area level. However, the application of these incidence rates to the Kent County study area with a population greater than 200,000 will achieve adequate statistical confidence levels. Using the indices or incidence rates for specific disabilities derived from the SIPP (2002), an estimate of the number of individuals with disabilities, by age group, has been calculated for Kent County as a whole for 2005. These estimates are found in Exhibit III-13. Exhibits III-14 and III-15 show estimates of disabled persons of 11,731 in 2015 and 13,218 in 2020.

**Exhibit III-13**  
**Estimated Transportation Disabled Population in Kent County - 2010**

Disability Status	Ages 15-24 Years		Ages 25-64 Years		Ages 65 Years +		Total Ages >15 Years
	Percent	Study Area	13713	Study Area	Percent	Study Area	
<b>Total Population by Age Group</b>		39,660		141,208		26,030	206,898
<b>Disability Status</b>							
With a Disability	20.8%	8,249	16.3%	23,017	52.3%	13,613	44,880
Severe	13.7%	5,433	10.8%	15,251	36.9%	9,605	30,289
Not Severe	7.0%	2,776	5.5%	7,766	15.4%	4,009	14,551
<b>Seeing/Hearing Disability</b>							
With a Disability	6.7%	2,657	4.8%	6,778	20.5%	5,336	14,771
Severe	1.4%	555	0.9%	1,271	4.4%	1,145	2,971
Not Severe	5.3%	2,102	3.9%	5,507	16.1%	4,191	11,800
<b>Walking/Using Stairs</b>							
With a Disability	11.4%	4,521	8.0%	11,297	38.2%	9,943	25,761
Severe	5.9%	2,340	3.6%	5,084	22.1%	5,753	13,176
Not Severe	5.5%	2,181	4.4%	6,213	16.1%	4,191	12,585
<b>Had Difficulty Walking</b>	9.4%	3,728	6.5%	9,179	31.8%	8,277	21,184
Severe	5.1%	2,023	3.1%	4,377	19.5%	5,076	11,476
Not Severe	4.3%	1,705	3.4%	4,801	12.3%	3,202	9,708
<b>Had Difficulty Using Stairs</b>	9.2%	3,649	6.5%	9,179	31.2%	8,121	20,948
Severe	3.1%	1,229	1.8%	2,542	11.9%	3,098	6,869
Not Severe	6.1%	2,419	4.6%	6,496	19.3%	5,024	13,939
Used a Wheelchair	1.2%	476	0.7%	988	4.5%	1,171	2,636
Used a Cane/Crutches/Walker	4.1%	1,626	2.2%	3,107	16.9%	4,399	9,132
<b>Limitation</b>	3.6%	1,428	2.5%	3,530	12.3%	3,202	8,160
Needed Personal Assistance	2.0%	793	1.3%	1,836	7.1%	1,848	4,477
Did not Need Personal Assistance	1.6%	635	1.2%	1,695	5.2%	1,354	3,683
<b>Number of ADLs or IADLs for which assistance was needed</b>							
One or more	4.8%	1,904	3.1%	4,377	16.3%	4,243	<b>10,524</b>

Source: Michigan Department of Information Technology

**Exhibit III-14**  
**Estimated Transportation Disabled Population in Kent County - 2015**

Disability Status	Ages 15-24 Years		Ages 25-64 Years		Ages 65 Years +		Total Ages >15 Years
	Percent	Kent County	13713	Kent County	Percent	Kent County	
<b>Total Population by Age Group</b>		40,848		151,682		31,095	223,625
<b>Disability Status</b>							
With a Disability	20.8%	8,496	16.3%	24,724	52.3%	16,263	49,483
Severe	13.7%	5,596	10.8%	16,382	36.9%	11,474	33,452
Not Severe	7.0%	2,859	5.5%	8,343	15.4%	4,789	15,991
<b>Seeing/Hearing Disability</b>							
With a Disability	6.7%	2,737	4.8%	7,281	20.5%	6,374	16,392
Severe	1.4%	572	0.9%	1,365	4.4%	1,368	3,305
Not Severe	5.3%	2,165	3.9%	5,916	16.1%	5,006	13,087
<b>Walking/Using Stairs</b>							
With a Disability	11.4%	4,657	8.0%	12,135	38.2%	11,878	28,670
Severe	5.9%	2,410	3.6%	5,461	22.1%	6,872	14,743
Not Severe	5.5%	2,247	4.4%	6,674	16.1%	5,006	13,927
<b>Had Difficulty Walking</b>	9.4%	3,840	6.5%	9,859	31.8%	9,888	23,587
Severe	5.1%	2,083	3.1%	4,702	19.5%	6,064	12,849
Not Severe	4.3%	1,756	3.4%	5,157	12.3%	3,825	10,738
<b>Had Difficulty Using Stairs</b>	9.2%	3,758	6.5%	9,859	31.2%	9,702	23,319
Severe	3.1%	1,266	1.8%	2,730	11.9%	3,700	7,697
Not Severe	6.1%	2,492	4.6%	6,977	19.3%	6,001	15,470
Used a Wheelchair	1.2%	490	0.7%	1,062	4.5%	1,399	2,951
Used a Cane/Crutches/Walker	4.1%	1,675	2.2%	3,337	16.9%	5,255	10,267
<b>Limitation</b>	3.6%	1,471	2.5%	3,792	12.3%	3,825	9,087
Needed Personal Assistance	2.0%	817	1.3%	1,972	7.1%	2,208	4,997
Did not Need Personal Assistance	1.6%	654	1.2%	1,820	5.2%	1,617	4,091
<b>Number of ADLs or IADLs for which assistance was needed</b>							
One or more	4.8%	1,961	3.1%	4,702	16.3%	5,069	<b>11,731</b>

Source: Michigan Department of Information Technology

**Exhibit III-15**  
**Estimated Transportation Disabled Population in Kent County - 2020**

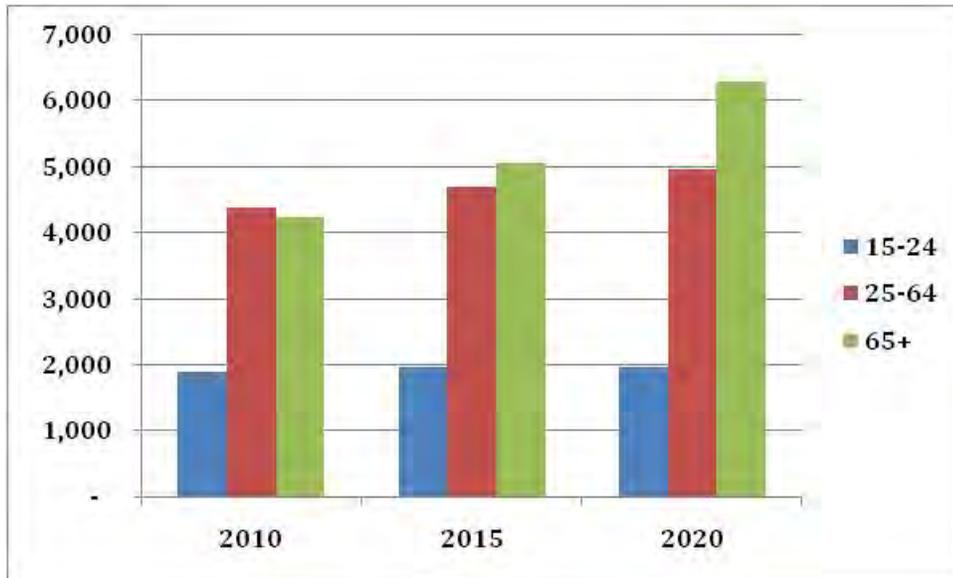
Disability Status	Ages 15-24 Years		Ages 25-64 Years		Ages 65 Years +		Total Ages >15 Years
	Percent	Kent County	13713	Kent County	Percent	Kent County	
<b>Total Population by Age Group</b>		40,902		160,026		38,614	239,542
<b>Disability Status</b>							
With a Disability	20.8%	8,508	16.3%	26,084	52.3%	20,195	54,787
Severe	13.7%	5,604	10.8%	17,283	36.9%	14,249	37,135
Not Severe	7.0%	2,863	5.5%	8,801	15.4%	5,947	17,611
<b>Seeing/Hearing Disability</b>							
With a Disability	6.7%	2,740	4.8%	7,681	20.5%	7,916	18,338
Severe	1.4%	573	0.9%	1,440	4.4%	1,699	3,712
Not Severe	5.3%	2,168	3.9%	6,241	16.1%	6,217	14,626
<b>Walking/Using Stairs</b>							
With a Disability	11.4%	4,663	8.0%	12,802	38.2%	14,751	32,216
Severe	5.9%	2,413	3.6%	5,761	22.1%	8,534	16,708
Not Severe	5.5%	2,250	4.4%	7,041	16.1%	6,217	15,508
<b>Had Difficulty Walking</b>	9.4%	3,845	6.5%	10,402	31.8%	12,279	26,526
Severe	5.1%	2,086	3.1%	4,961	19.5%	7,530	14,577
Not Severe	4.3%	1,759	3.4%	5,441	12.3%	4,750	11,949
<b>Had Difficulty Using Stairs</b>	9.2%	3,763	6.5%	10,402	31.2%	12,048	26,212
Severe	3.1%	1,268	1.8%	2,880	11.9%	4,595	8,744
Not Severe	6.1%	2,495	4.6%	7,361	19.3%	7,453	17,309
Used a Wheelchair	1.2%	491	0.7%	1,120	4.5%	1,738	3,349
Used a Cane/Crutches/Walker	4.1%	1,677	2.2%	3,521	16.9%	6,526	11,723
<b>Limitation</b>	3.6%	1,472	2.5%	4,001	12.3%	4,750	10,223
Needed Personal Assistance	2.0%	818	1.3%	2,080	7.1%	2,742	5,640
Did not Need Personal Assistance	1.6%	654	1.2%	1,920	5.2%	2,008	4,583
<b>Number of ADLs or IADLs for which assistance was needed</b>							
One or more	4.8%	1,963	3.1%	4,961	16.3%	6,294	<b>13,218</b>

Source: Michigan Department of Information Technology

Data collected in the SIPP do permit consideration of persons with multiple disabilities. Moreover, the definitions employed can be directly related to the concepts in 49 CFR Part 37.3 definitions with respect to “activities of daily life.” Exhibit III-13 also provides a summary of the number of persons with one or more activities of daily living or instrumental activities of daily living for which assistance was needed. Using the criteria that only one major limitation in activities of daily life is necessary to trigger ADA eligibility for paratransit services and that it is also a strong indicator of transit dependency. This yields an estimate of 10,534 ADA- eligible individuals for the study area.

The SIPP-derived estimates are shown graphically by age group in Exhibit III-16. This shows the significant increase among the 65 and older population. It is estimated that by 2020 there will be 6,294 disabled persons who are 65 years and older. This is an increase of nearly 50 percent from 2010. While the total population of the 25 to 64 year age group is much greater, there are more persons with disabilities in the 65 and over group than in the 25 to 64 year age group.

**Exhibit III-16  
SIPP Study Area Projections 2010-2020**



Source: Michigan Department of Information Technology

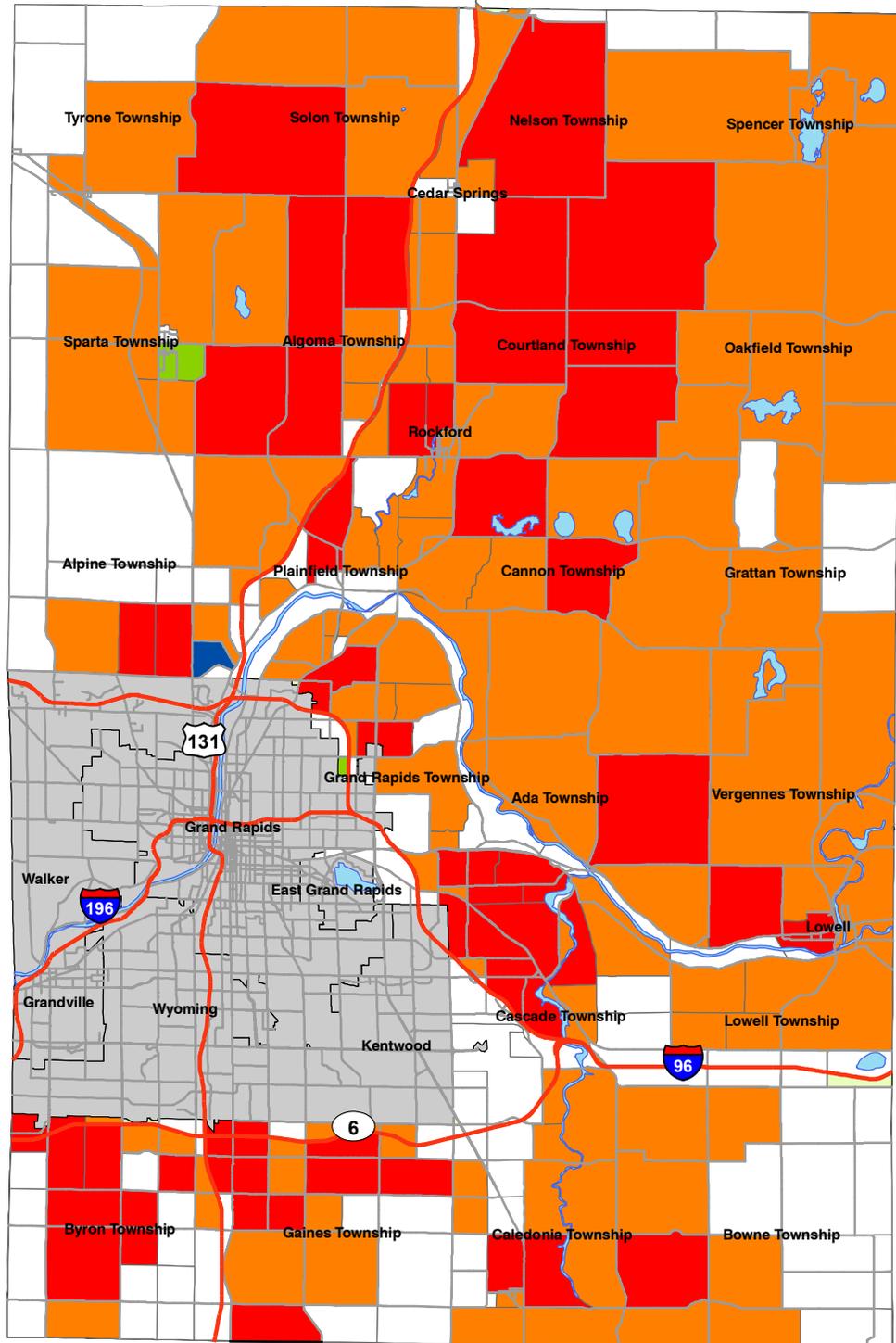
**PROJECTIONS OF POPULATION AND EMPLOYMENT**

GVMC Traffic Analysis Zone (TAZ) data for 2009 and 2018 were used to estimate growth and loss of population and employment in the study area. As shown in Exhibit III-17, the majority of TAZs within the study area are projected to increase in population over the next eight years. Those that are expected to increase the greatest in population density are shown in Exhibit III-18. These areas are located in Byron and Gaines Townships in southern Kent County; Cascade and Ada Township east of Grand Rapids; and in the U.S. 131 corridor in northern Kent County.

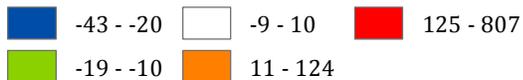
Exhibit III-19 shows the change in total employment by TAZ. This shows the greatest amount of employment growth occurring along the U.S. 131 corridor and along I-196 in Byron, Gaines, Cascade, and Caledonia Townships. The greatest increases in employment density, as depicted in Exhibit III-20, are in these areas plus parts of Sparta, Plainfield, and Grand Rapids Townships.

# Exhibit III-17

## Population Change 2009 to 2018

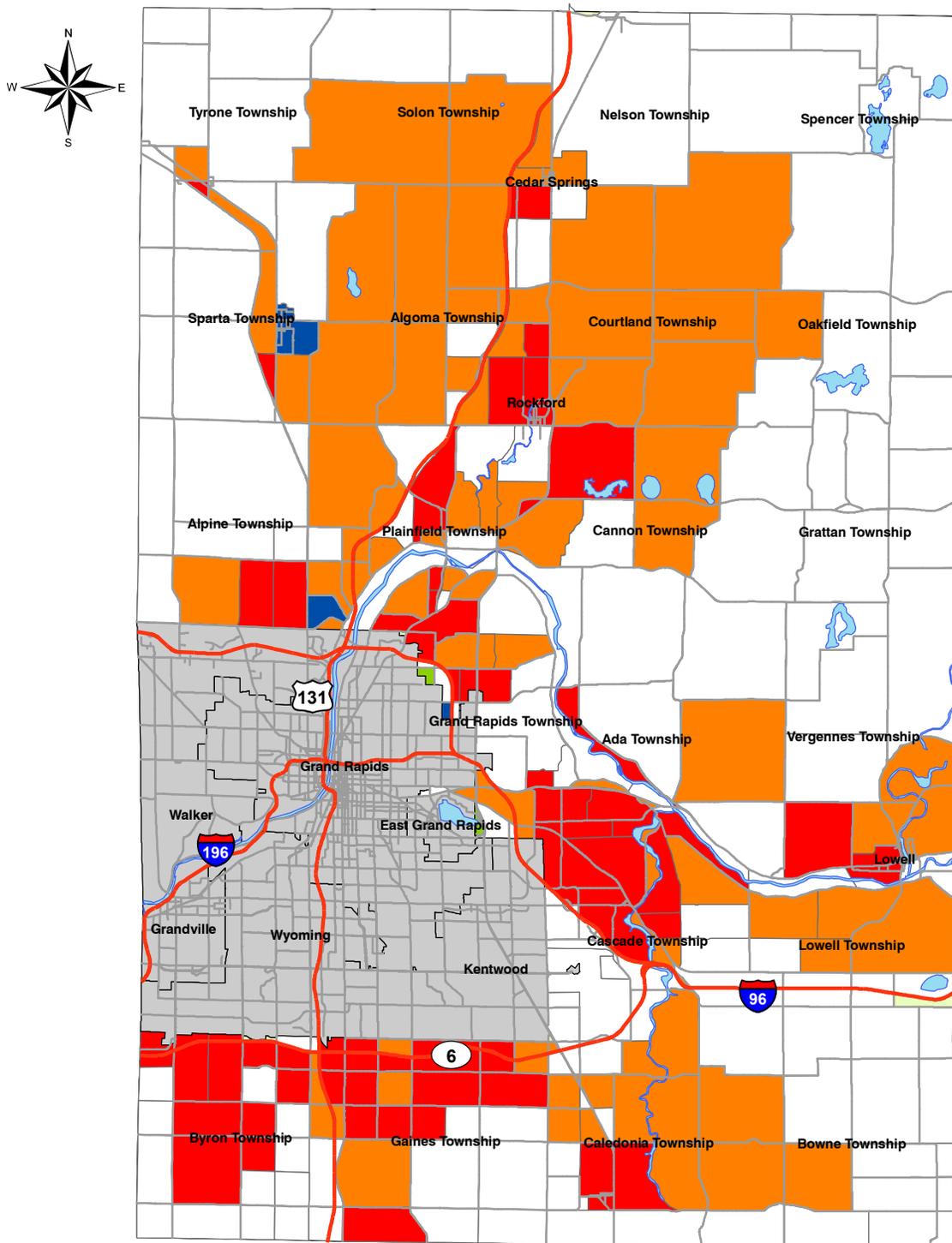


### Change in Population

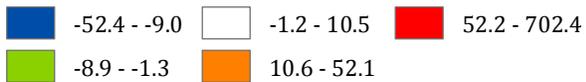


## Kent County Transit Needs Assessment

# Exhibit III-18 Population Density Change 2009-2018



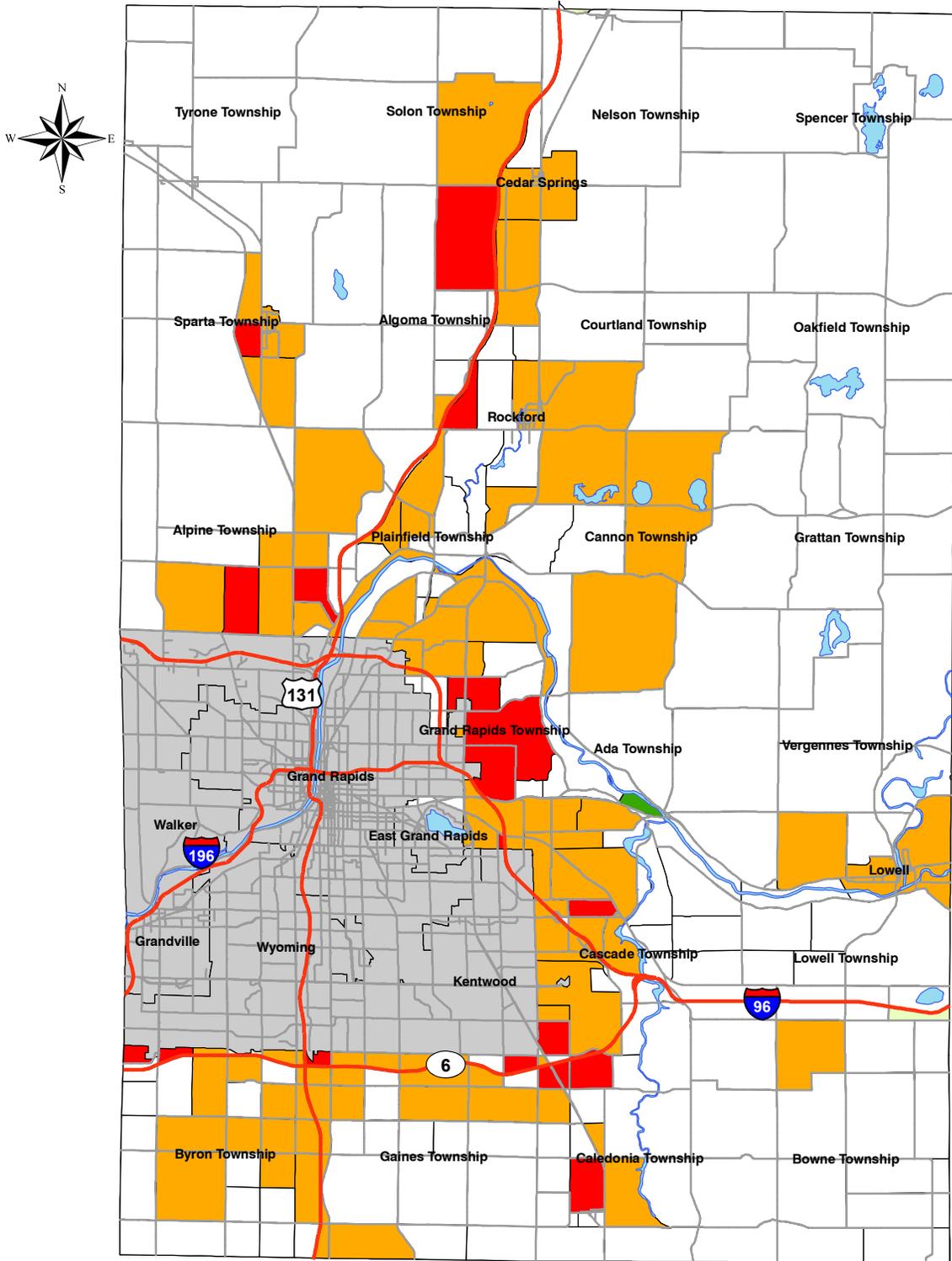
### Change in Population Density



## Kent County Transit Needs Assessment

# Exhibit III-19

## Employment Change 2009-2018

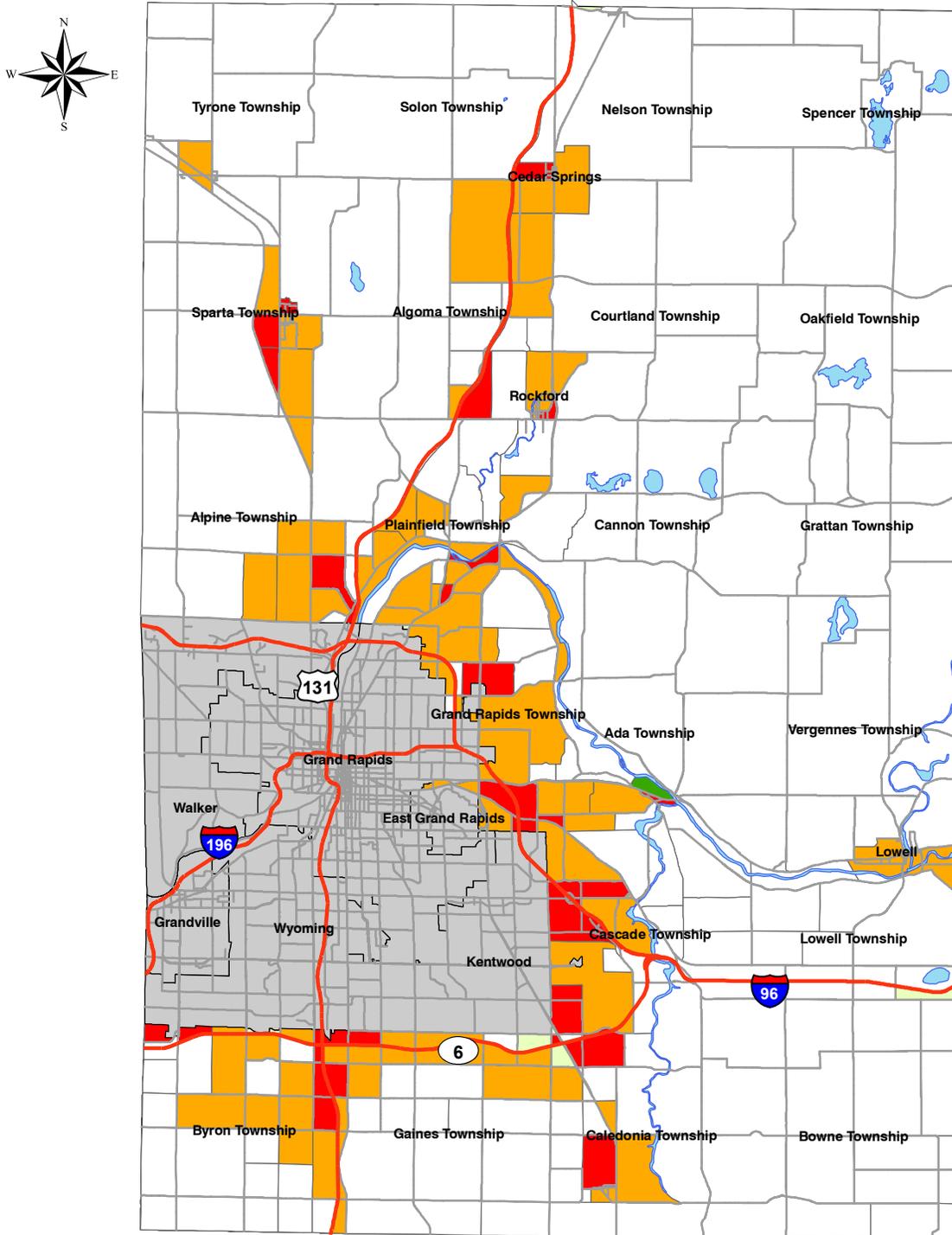


Change in Employment	
	-139 - -10
	11 - 70
	-9 - 10
	71 - 286

**Kent County  
Transit Needs Assessment**

# Exhibit III-20

## Employment Density Change 2009-2018



### Change in Employment Density



**Kent County  
Transit Needs Assessment**

## **IV. PREVIOUS STUDIES**

# Previous Studies

### **HUDSONVILLE/EASTERN OTTAWA IMPACT STUDY**

Currently, Hudsonville and Eastern Ottawa is the only urban core in Michigan that does not have access to a public transportation system. This study surveyed individuals to evaluate the potential impact of creating public transportation in Hudsonville and Eastern Ottawa. The study found that 75 percent of the respondents were in favor of implementing public transportation in the area. The creation of public transportation would increase the freedom and independence of individuals who are transit dependent.

The study evaluated the demand for public transit and areas of interest, the willingness to pay fares, and the estimated peak operating times. The report noted that:

- ◆ 51.1 percent of respondents were traveling because of medical needs;
- ◆ 14.3 percent were traveling to or from school; and
- ◆ 12.2 percent expressed the purpose of their trip was employment.

Other reasons given for the purpose of trips included social/recreation (5.9 percent), court (4.3 percent), shopping (3.8 percent), church (1.4 percent), and other (0.7 percent).

The study also asked individuals how much they would be willing to spend for public transportation. A total of 21.2 percent said they would pay between \$4 and \$5. The second highest percentage was 20.5 percent, who said they would pay \$2. A total of 17.4 percent said they would pay \$3, and 12.9 percent said they had no ability to pay for transportation. Peak hours of need were also assessed in the report, and it was found that the highest demand for transit occurs between the hours of 6:00 a.m. and 6:00 p.m. This can be attributed to employment and commuter schedules.

Individuals acknowledge the importance of public transportation and the positive potential it can bring to the area. The majority of individuals were familiar with The Rapid and believed it provided a needed service and performed fairly. Of the individuals interviewed, 87.0 percent said they believe implementing public transportation is important to the area; 49.0 percent of those interviewed added their name to a list of public transportation supporters.

### **WEST MICHIGAN TRANSIT LINKAGES STUDY**

This study evaluated the potential benefits and demand of a regional bus service in Western Michigan. A regional bus service would encourage economic development, provide better mobility, and provide a solution to existing intercity travel needs. However, to achieve a successful regional transportation network some constraints must be considered. These included existing commuters, demand, regional growth, and coordination.

Existing commuter data shows limited opportunities for regional transportation in Western Michigan. With approximately 9,000 work trips made between Georgetown and Hudsonville, it is

estimated that there is a potential for up to 90 transit riders. This is based on the U.S. Census mode-split data. Analysis of the Grand Haven and Muskegon areas shows the potential for reasonable ridership. Of the individuals surveyed, twelve (12) percent of Muskegon residents work in Grand Haven, and six (6) percent of Grand Haven residents work in Muskegon. Additionally, seventeen (17) percent of Ferrysburg and Spring Lake residents work in Muskegon. The Holland and Zeeland Route shows only around 3,000 commuters travel to Grand Rapids and fewer than 1,000 to Grand Haven. However, there are more than 3,000 commuters who travel between the Holland area and Grand Haven giving this area more transportation potential. Stakeholders have suggested that large numbers of Holland and Muskegon residents would utilize regional bus services if they are available to Grand Rapids. Additionally, over one-half of all survey respondents indicated they would be interested in a regional route that provides service to Grand Rapids. Many of these respondents indicated that a regional transit system would open up Muskegon or other lakeshore city residents to more educational and job opportunities located in Grand Rapids.

Current demand trends indicated that thirteen (13) percent of Ottawa County residents would consider using public transit two or more times a week. Of these individuals, younger adults 18-24 years old were more likely to indicate an interest in public transit. Additional transit demand exist among low income residents in Muskegon, Grand Haven, and Holland. The current lack of services in those areas created a greater potential interest in a regional transit system. Over 3,000 regional residents indicated a strong interest in regional transit. Fifty-four (54) percent of respondents and seventy-seven (77) percent of transit users indicated they would welcome a new regional public bus service.

Regional growth has also created an increased demand for public transportation in Western Michigan. This growth includes new condominium and apartment development in downtown Muskegon, new student housing in Allendale, mixed use developments in Coopersville, Holland Township's Pfizer/MSU BioEnterprise Center, and new housing in Hudsonville. The growth of the downtown has lead to new transit prospects, like the Silver Line BRT proposed in Grand Rapids. Additional growth has occurred in the townships located outside of the urban centers. This growth is mainly residential housing with some business. These areas currently have no transportation services and have begun to put pressure on Harbor Transit and MAX to expand their service areas.

The study also evaluated the current transportation service outside of jurisdictional boundaries and the coordination between the services. It was found that Muskegon Area Transit System (MATS) provided service to the surrounding area through the Go!Bus service. Harbor Transit provided coordination beyond Grand Haven to and from Ferrysburg and Spring Lake. Macatawa Area Express (MAX) provided an intercity coordination between Zeeland and Holland. The report noted that past attempts have been made to expand coordination. However, concerns by some elected officials were expressed because of a fear that regional transit might negatively impact their own community's commerce.

## **GRAND VALLEY METROPOLITAN COUNCIL LONG RANGE TRANSPORTATION PLAN**

The long range transportation plan created by Grand Valley Metropolitan Council (GVMC) outlines the goals for transportation in the region to 2035. The plan outlines five goals related to public

transportation. These goals are safety, security, and efficiency; accessibility and mobility; environmental impacts; economic and financial considerations; and community impact planning.

Transit systems should maximize the safety and security of all riders and should be utilized in the most efficient manner possible. To achieve this, systems should make efforts to minimize traffic accidents, and expand security and control devices. The system should be safe for multiple modes of traffic including pedestrian and bicycle traffic.

Accessibility and mobility should be provided throughout the Grand Rapids Metropolitan Study Area. The system should encourage multiple-occupant vehicle use and spreading travel demand to non-critical times of day. It should also mitigate congestion by managing future traffic growth, expanding the current transportation capacity, and provide continuous service across the region. The system should minimize transportation barriers to disadvantaged, mobility-limited persons, seniors, and other public transportation users.

The transportation system should be used to help reduce environment impacts and improve the quality of the environmental. This includes the reduction of noise, air, and water pollution by emissions. It also includes smart use of energy resources and fuel consumption. Finally, the system should encourage the use of park and ride transportation and ridesharing to further reduce environmental impacts.

Economic and financial considerations should be considered when developing any transportation plan and remain within feasible realms. Improvements to existing systems should be cost-effective, while minimizing capital and operating costs. Investments should be generated from all available sources, including the private sector. Existing infrastructure should be preserved and protected whenever possible.

In an effort to maximize positive community impacts, good planning efforts should be made regarding transportation systems. A focus on social justice shall be fostered to ensure the inclusions of the entire community. Planning efforts should minimize the disruption of existing neighborhoods. Plans should also reduce negative impacts on commercial and industrial facilities. Transportation should be used as an aesthetic enhancement tool to improve the design and function of transportation corridors. Transportation planning should make every effort to be consistent with land use plans and existing master plans.

## **GRAND VALLEY METRO COUNCIL METROPOLITAN FRAMEWORK**

The Grand Valley Metro Council Metropolitan Framework is a land use and strategic plan developed to provide an understanding of what kind of growth citizens in the region would like to see, and where they would like to see it occur. The plan was developed through a series of group meetings, in which participants identified types of development they would like to see on a large map. The findings suggested citizens were interested in smart growth, regional cooperation, planned development, and land preservation.

Participants identified an interest in neighborhood and town growth, where neighborhood growth defined as 70 percent residential with little commercial, and town growth was defined as 50 percent residential with a large core commercial center. In both types of development, more dense compact development was preferred to larger sprawling development. Respondents indicated they wished to see the majority of growth in the Urban Metro region and the South Belt region.

The importance of land preservation was universally agreed upon. Farmland and natural areas were identified as areas that should remain undeveloped. Areas of clustered development, including areas with two acre parcels were viewed as areas that should be conserved and limited in expansion. The growth of towns and cities should be encouraged and focused around a central business district. These developments should be developed as walkable communities. Development should continue to be focused on existing corridors as long as resources exist within the corridor to sustain new development. This focused development will lead to better planning and reduced sprawl in the region.

Focused growth makes planning for new development a proactive process. Utilities, such as sewer and water, can precede new development and anticipate the growing population in areas targeted for expansion. Additional pre-existing infrastructure can direct development and encourage smart growth.

Transportation was also identified as a way to ensure good development and plan for growth. The Interurban Transit Partnership has begun studying corridors for potential bus rapid transit or light rail corridors to connect villages, towns, and cities in the region. This type of transportation was suggested because of its ability to connect areas of growth throughout the county. The study concluded that transportation is vital to land use planning in the region. Simply designing transportation around land use models is not enough, and more information is needed.

## **GRAND RAPIDS MASTER PLAN**

The Grand Rapids Master Plan is a blue print designed to guide and shape development within The City of Grand Rapids. The plan provides details regarding all aspects of Grand Rapids including business, the economy, recreation, transportation, and land use. For the purpose of the Kent County Needs Assessment Study, this review will focus on the land use and transportation plans outlined in the Grand Rapids Master Plan. The Master Plan outlines the need to utilize land use and transportation to encourage good development, reduce automobile dependence, and encourage walkable communities.

Land use goals outlined in the Master Plan include: the desire to direct higher housing densities within walking distance of major transit routes; the encouragement of mixed-use centers located on existing high ridership bus routes; and the encouragement of developing job centers on transit routes. These goals will reduce urban sprawl and encourage smart development in Grand Rapids.

In conjunction with these land use goals, the master plan outlines transportation goals to improve the existing system and to help meet the outlined land use goals. The plan suggests transit should be supported in land use plans and street designs. This allows for easier mobility and planned

coordination between routes. Streets should be designed in a manner that accommodates pedestrian and bicycle traffic. They should be safe and scenic to encourage pedestrian travel. This is an important aspect of creating a walkable community, and encouraging alternate forms of transportation. The plan also calls for reduced highway creation and better parking lot location. Modern cities have a heavy focus on the automobile and use highways to route traffic around the city. This results in manmade land divisions, and the loss of travel through the urban area. The development of boulevards and parkways is considered a better choice. The development of large parking lots is another trait of modern cities. These parking lots limit bus service and increase walking distances for pedestrians. To correct this, the plan suggests the relocation of parking lots to the rear of buildings. This opens up the sidewalk to pedestrians and allows for easier access.

By focusing on transportation and land use, the Master Plan suggests ways in which Grand Rapids can limit sprawl and encourage smart growth. The suggested changes are seen as long term projects that will make dramatic improvements to the city over time. The blue print developed in the Master Plan will guide these changes, and encourage desired development.

# Transit Needs

## V. TRANSIT NEEDS ASSESSMENT

---

Information used in the transit needs assessment were developed from focus groups, a telephone household survey, major employer interviews, and a demographic analysis. The information and findings of these tasks are summarized below.

### TELEPHONE HOUSEHOLD SURVEY

#### Objectives

The objective of this part of the report is to generate a profile of the total market for transit service in the target areas of Kent County as the initial step in projecting the latent demand for service.

At the outset, little is known about how the general adult public envisions their possible uses of public transportation, or even whether they are aware of services that do exist. Thus, we suspect two things initially.

- ◆ First, the total latent demand, or “market,” for new services serving specific areas is likely to be relatively small. Thus, it will require an exploratory process to winnow out the latent demand, finding the core market where needs could be met by new service and who are interested in considering it.
- ◆ Second, the public, accustomed to the use of individual modes of transportation, is likely to have a more difficult time than residents of a transit-served urban area envisioning how they would use these services.

The first task is to look at the broad picture of interest in using the proposed services or services like them, and then narrow the focus. The process is iterative, beginning with an exploration of residents’ awareness and use of service in general and of existing paratransit services, as well as their usual local transportation modes, and related matters.

The analysis continues with an examination of residents’ interest in considering their potential use of new transit services. To take express routes as an example:

- ◆ How interested are area adults in using express service to Grand Rapids?
- ◆ What are the demographic differences between those who indicate they would use new services and those who would not? Are there major differences of a linear nature (e.g. a relationship between income and potential utilization) that could be used to predict demand or are the relationships irregular or only minor?
- ◆ Do they travel to the central city destinations that would be served?
- ◆ Are the purposes for which they think they would use service commuter-oriented or not?
- ◆ Are they employed, and if so, where do they work?
- ◆ Are there differences in transportation between those who reside in the areas in closest proximity and those who live farther away?

- ◆ What are the current modes used to get to work among those who are most interested in using transit?

### **Method**

A survey was conducted with 1,037 adults, 18 years old or older, throughout the target areas of Kent County, Michigan. The sample consisted of random digit dialed numbers, including both landline and cell phone numbers. Sample error in a sample of this size is plus or minus three percent when responses are divided approximately 50:50. When the distribution of responses is more skewed, as in a situation in which only 10 percent answer one way and 90 percent another, simple error is slightly lower, plus or minus two percent. Interviews occurred during August and September of 2010.

Early in the survey respondents were asked in which township they live. Virtually everyone was able to respond with the exception of a small number of people whose approximate location was found by reference to a census tract associated with their telephone number, or a series of questions that enabled them to be located.

Data was weighted by gender and age-group according to the population norms of the target townships provided by the U.S. Census data for 2006.

### **Summary of Results**

#### **Current Mode**

Respondents were asked to state the current mode they use for local travel. If the respondent was employed outside the home for 30 hours or more a week, he or she was asked the commute mode. Similarly, if the respondent was a student, he or she was asked the usual mode to get to school. All others, including homemakers and retired persons, who are neither employed outside the home or students, were asked their mode for making the types of trips they commonly make locally. The results are shown in Exhibit V-1.

It is evident from the chart that the single occupancy vehicle is highly dominant in the study area, with 87.8 percent indicating that that is the primary mode of their transportation. An additional 10.4 percent indicate they carpool or ride with other people with their usual trips.

To obtain a broader picture of the total local travel market in the study area, each respondent was asked about travel of others in the household. Because this survey was conducted by telephone, a limit had to be placed on the number of persons other than the respondent that was asked about. For example, if there were more than one employed person besides the respondent, the respondent was asked about his or her spouse, or if not married, the person closest in age to the respondent.

**Exhibit V-1  
Current Mode for Local Trips**

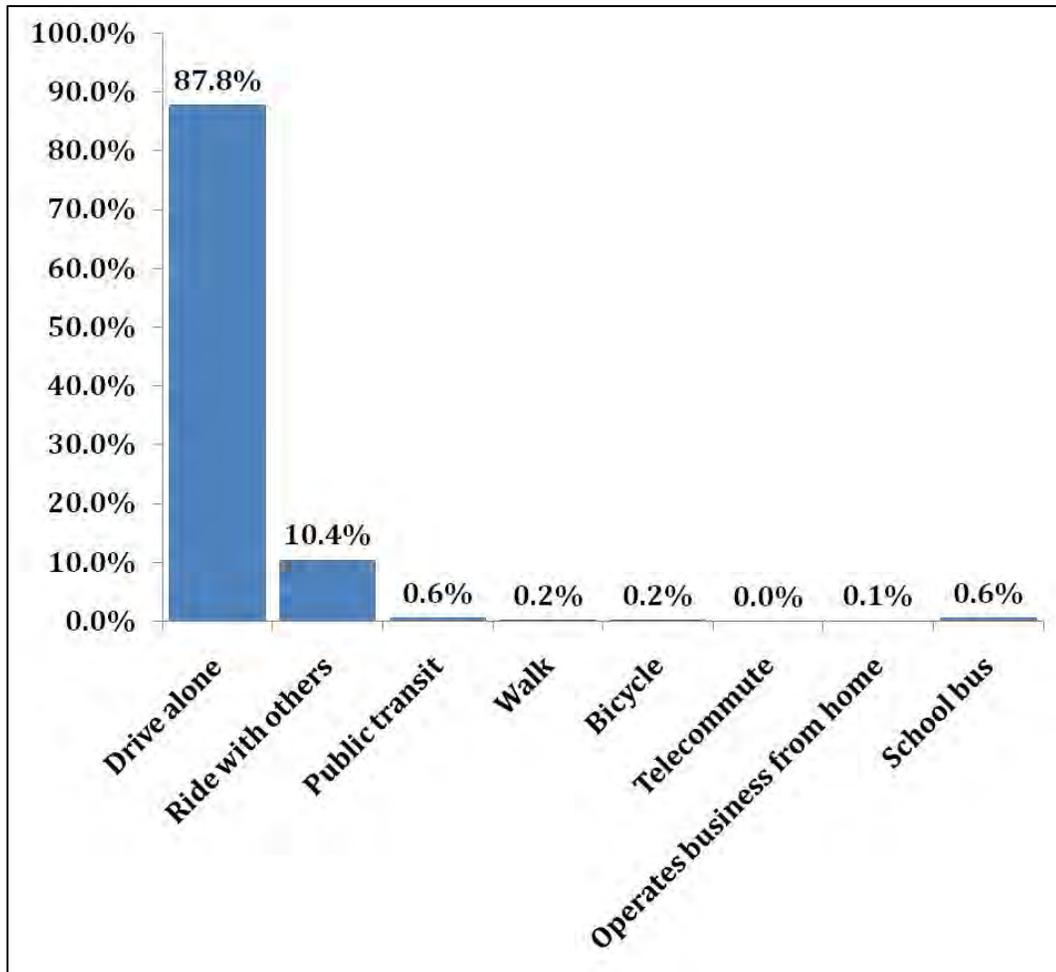
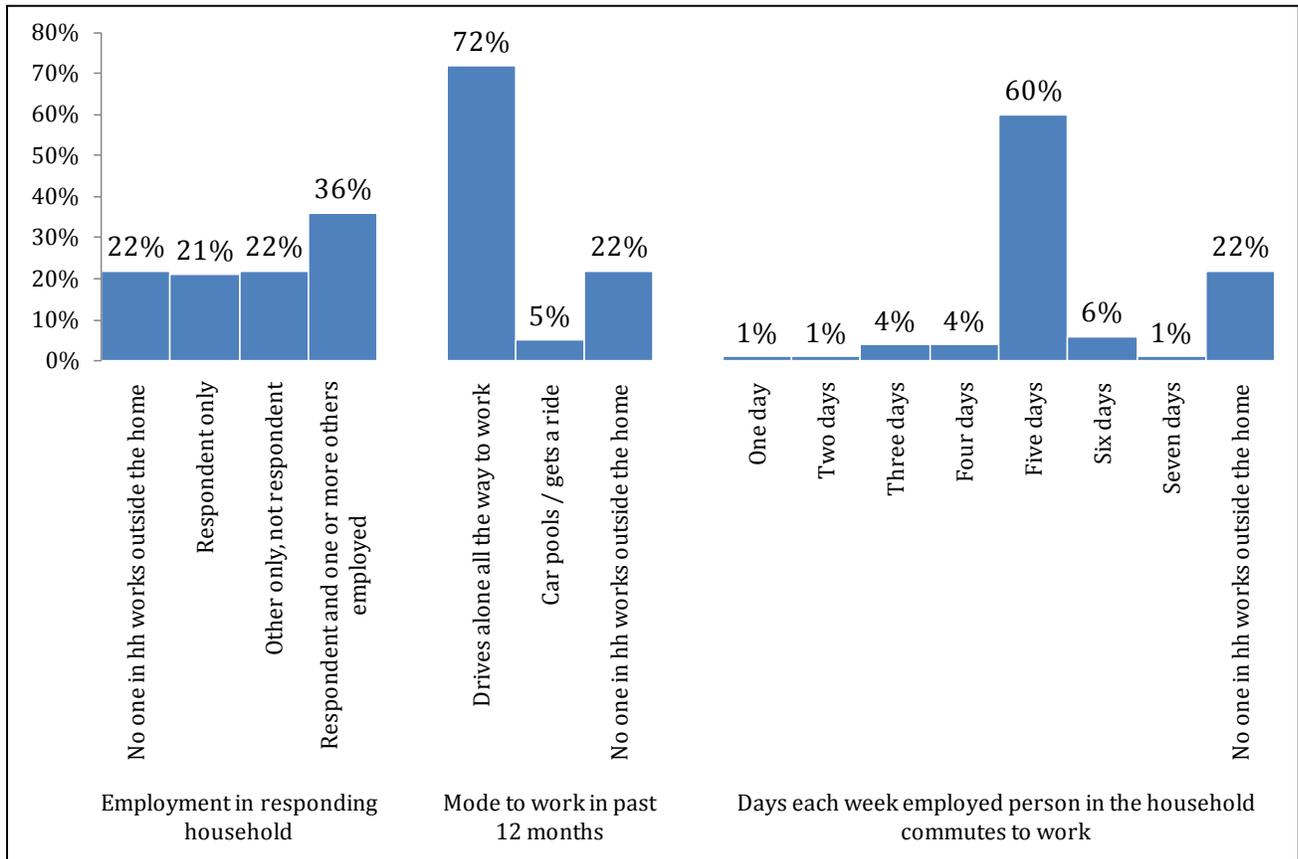


Exhibit V-2 shows that 22 percent of households indicated that no one in the household was employed outside the home for 30 hours or more per week. In 21 percent of households only the respondent to whom the surveyors spoke was employed. In 22 percent of the households, only a person other than the respondent was employed, and in 36 percent of the households the respondent and another person were employed. Thus, for 22 percent of households within the study area, there is no commute trip, but in 77 percent of the households there is a commute trip.

## Exhibit V-2 Work Commute

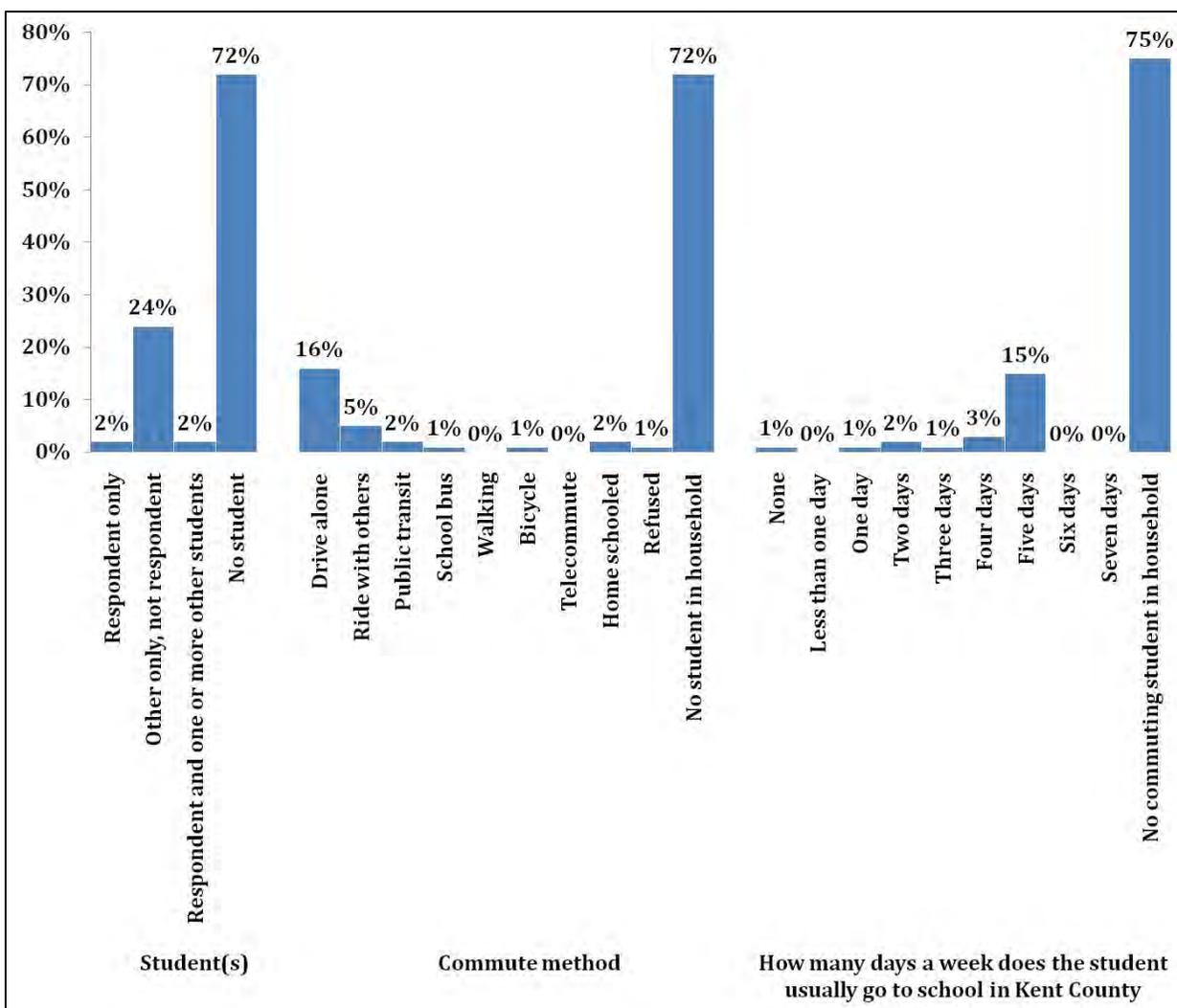


Among all households, then, 72 percent have a work trip that involves driving alone all the way to work, and another five percent rideshare.

The vast majority of those who travel to work commute five days per week. A few (seven percent) commute either six or seven days, and a total of ten percent commute less often.

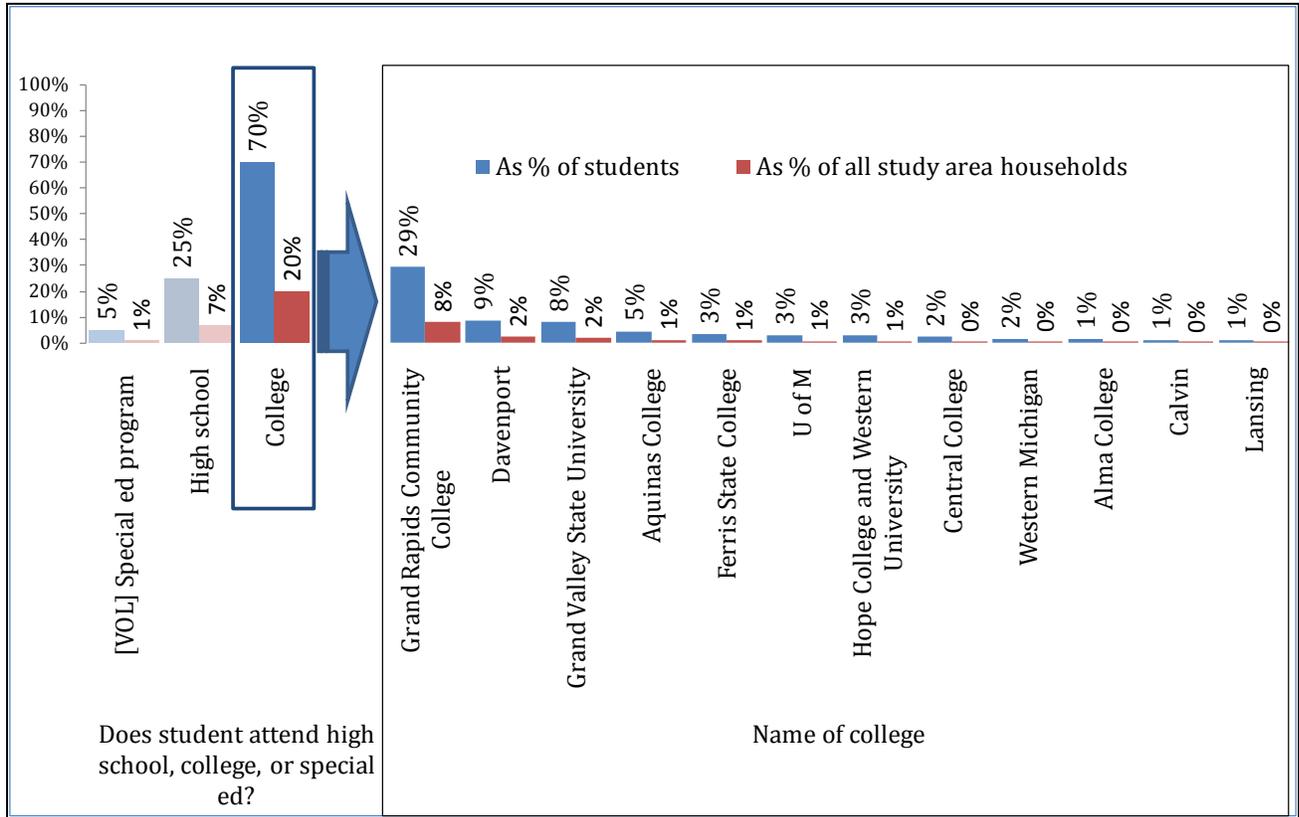
As seen in Exhibit V-3, a total of 26 percent of the households surveyed contained a student 16 years old or older who attends high school or college. Some of these are very young, and some are nontraditional students at a community college. For those who are students, the predominantly mode to school is to drive alone (16 percent of all study area households). Some ride with others, and some use transit (including a school bus). The dominant frequency of making the school commute is five days a week.

### Exhibit V-3 School Commute



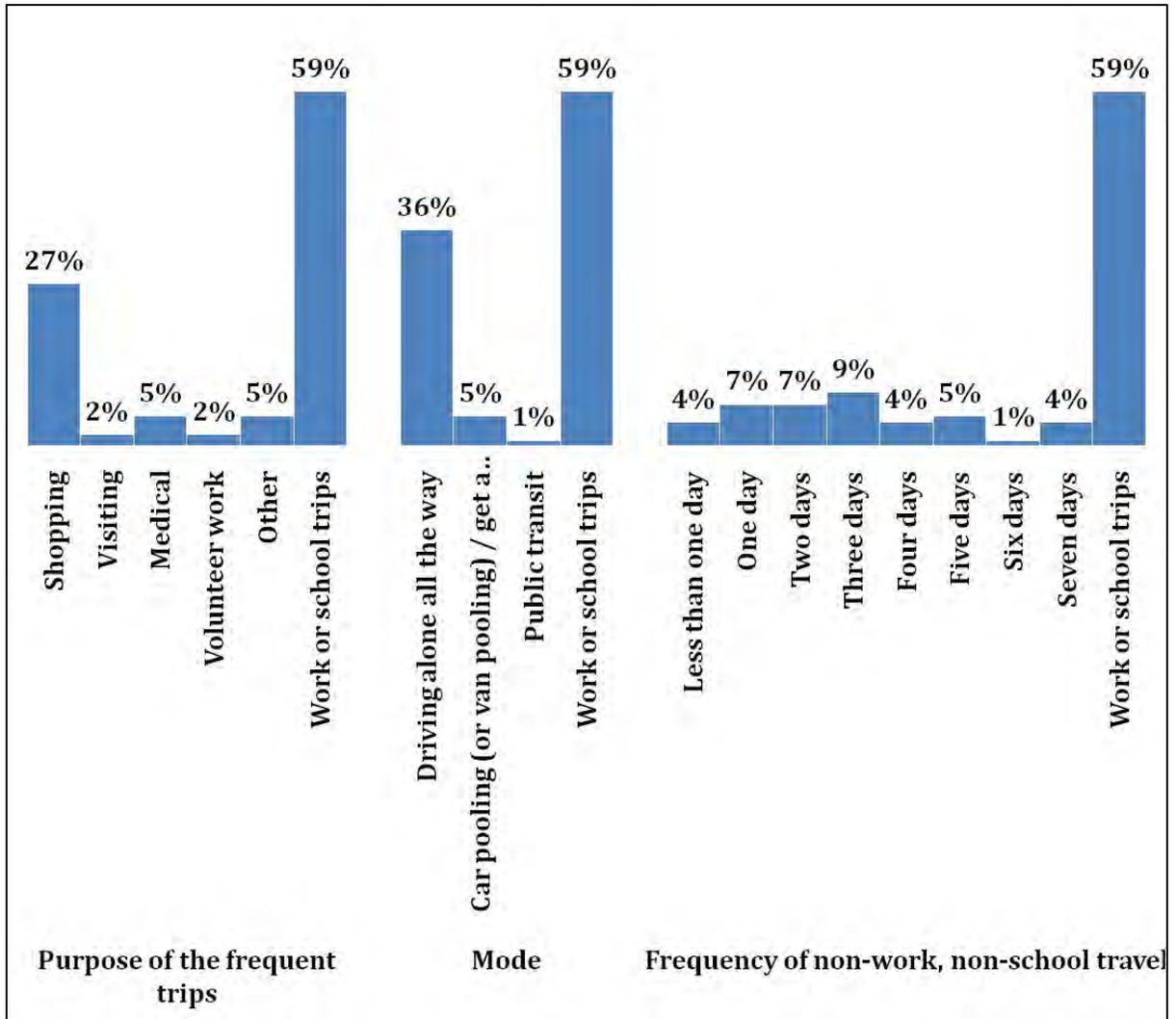
The survey showed that 28 percent of study area households have a student 16 years old or older. Most of these are college students. More of them attend Grand Rapids Community College than any other college, a fact that may offer opportunities for building student ridership. The chart in Exhibit V-4 shows percent of households with students 16 years or older.

### Exhibit V-4 Households with Students



Those respondents who were neither employed nor students were asked about their other types of travel. For the most part, such trips were for shopping, although a few were for social visits, medical reasons, volunteer work, and other purposes. In 59 percent of all households, someone made a school or work trip, leaving 41 percent who made other trips. The frequency of such trips varied greatly, with no dominant pattern (as seen in Exhibit V-5).

**Exhibit V-5  
Other Local Travel**

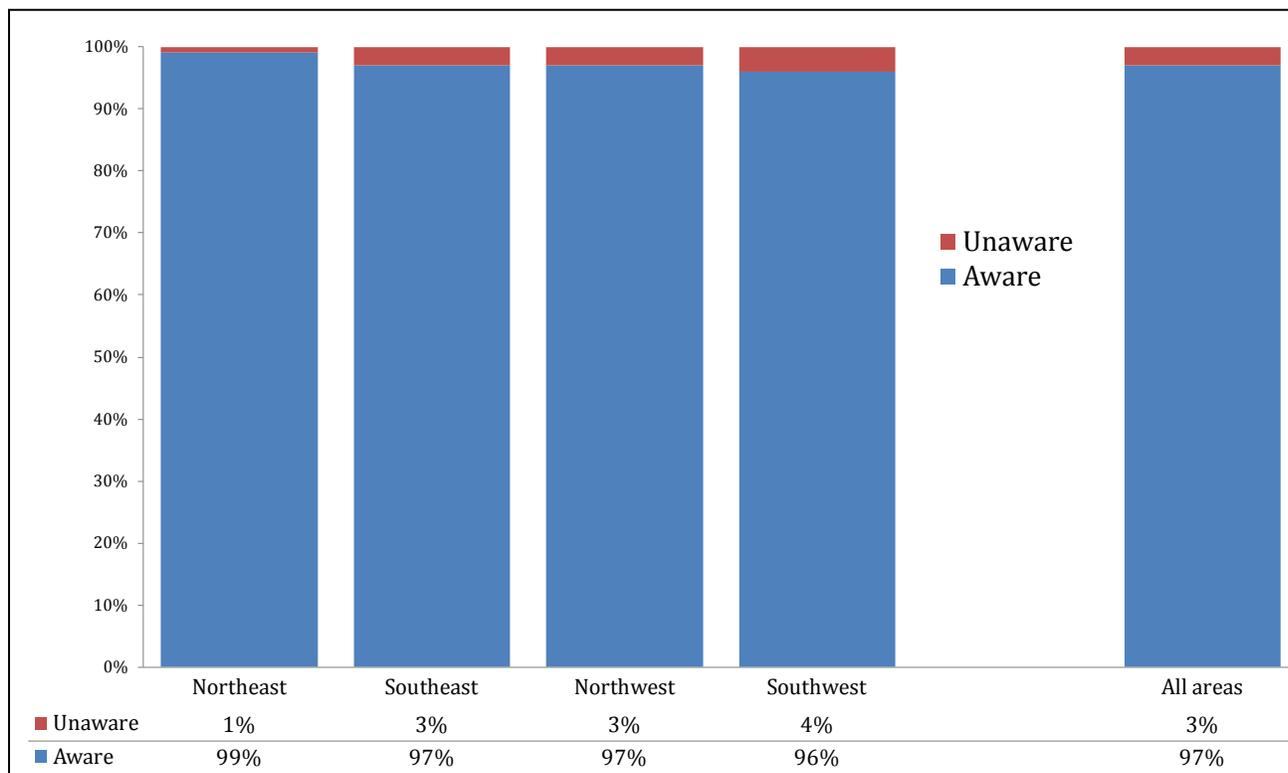


**Level of Awareness of Transit Service**

To gauge whether these suburban and rural residents had any exposure to public transportation, they were asked whether they were aware of the transit service in Grand Rapids, The Rapid. Overwhelmingly, 97 percent were aware.

The chart in Exhibit V-6 suggests that there may be some slight difference in awareness among the four general quadrants dividing the county. However, the differences are very slight and can be ignored for purposes of promoting any new possible services.

**Exhibit V-6  
Awareness of Public transportation**

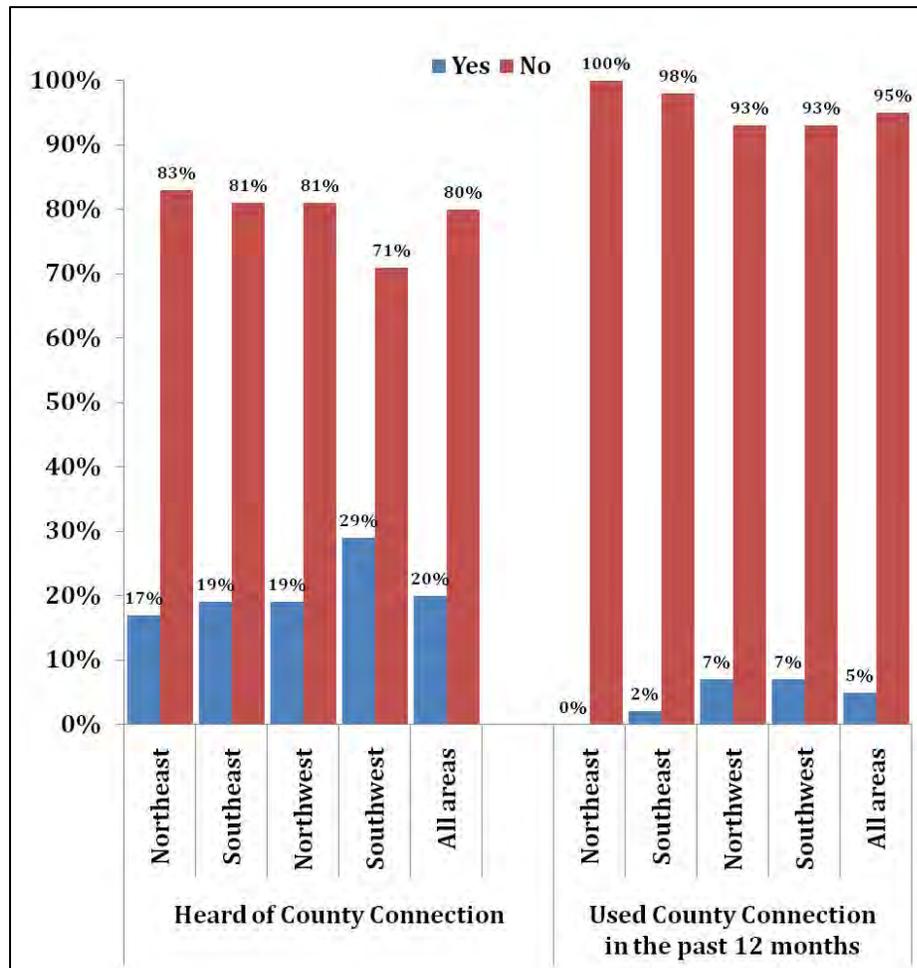


**Awareness and use of County Connection**

The only public transportation serving the entire target area at the time of the survey was County Connection. Although most respondents had heard of The Rapid, relatively few, 20 percent, had heard of County Connection, as shown in Exhibit V-7. More respondents in the southwest part of the target area were aware of County Connection than respondents elsewhere. The reason for this difference is not apparent in the survey results.

Of the 20 percent of respondents who had heard of County Connection, five (5) percent indicated that they had used it in the past 12 months. This would amount to one percent of the adult population of the area.

**Exhibit V-7  
Awareness and Use of County Connection**



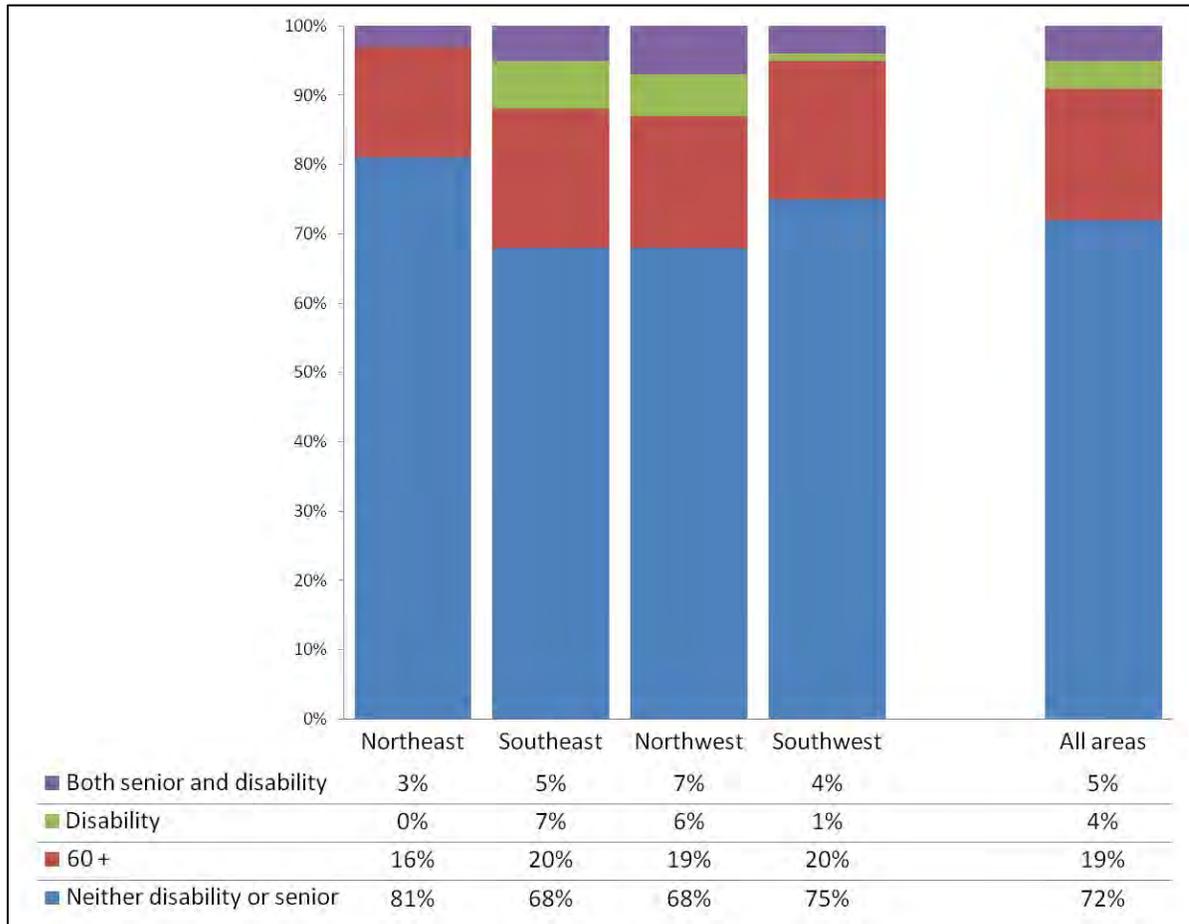
**Age and Disabilities**

Leading into a question concerning the utilization of paratransit services, respondents were asked their age and their disability status. Areawide, five (5) percent indicated that they were both over 60 and had a disability, while another four (4) percent indicated they had a disability but were not over 60. Nineteen (19) percent indicated they were 60 with no disability, and seventy-two (72) percent indicated that they were neither seniors nor disabled. Exhibit V-8 displays the responses collected regarding age and disability status.

These percentages varied considerably among the regions. There were very few persons reporting a disability in the northeast, three (3) percent in total, and five (5) percent in the southwest. More persons in the southeast and northwest reported having a disability with the totals for these areas twelve (12) percent and thirteen (13) percent, respectively. The population 60 and older also varies

somewhat, with only nineteen (19) percent in the northeast, twenty-five (25) percent in southeast, twenty-six (26) percent in the northwest, and twenty-four (24) percent in the southwest.

**Exhibit V-8**  
**Presence in Household of a Person with a Disability and/or a Person 60 or Older**



**Use of Paratransit**

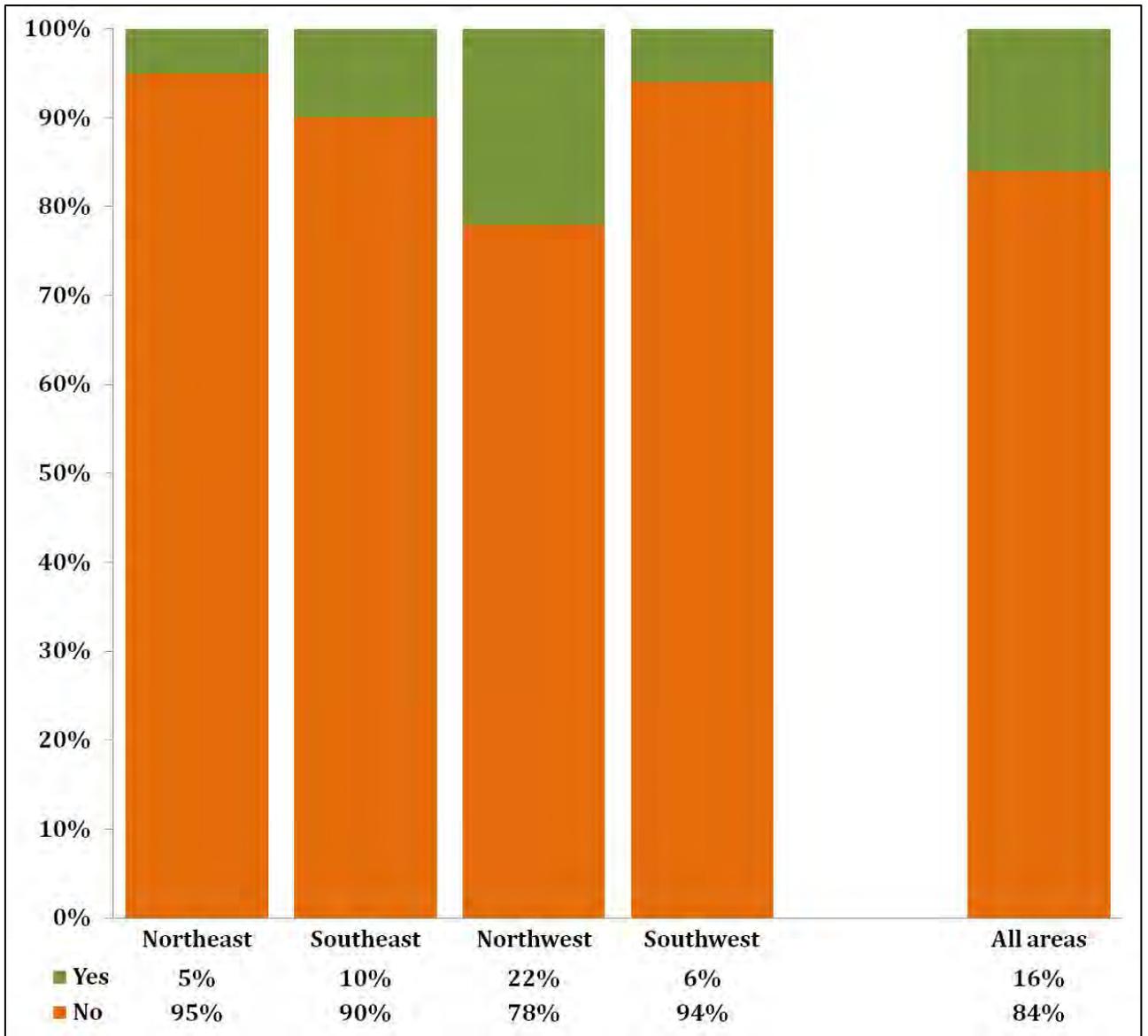
Those who reported a disability were asked a follow-up question: whether they had utilized one of more of the several transit services available to the disability community and to seniors. The responses are shown in Exhibit V-9. In the chart, therefore, the percentages represent the nine (9) percent of the persons who identified themselves as being disabled or older than 60.

*Note: The unweighted sub-sample size of this group is 124 persons.*

Of those meeting the criteria of being 60 or older, having a disability, or both, 16 percent indicated that they had used one or more of the transportation services. Although the regional subsamples are very small, averaging only approximately 20 to 30 persons per region, it appears that the northwest

part of the county has the greatest level of utilization. If utilization figures maintained by the various providers verify that this is the case, then the larger unmet need would appear to be in the southeast and southwest areas, which have populations that apparently are eligible but very few of which have used the services.

**Exhibit V-9  
Using Paratransit Among Those 60 or Over and/or With a Disability**



Those who indicated that they had used a service were asked which of the services they had used. Exhibit V-10 outlines the responses that were received. This subsample is too small for reasonable analysis. The unweighted subsample includes 26 people. While the sample is very small, the

distribution is in accord with the common observation that the area served by Go-Bus is quite limited, while the Hope Network services range farther.

**Exhibit V-10  
Use of Paratransit Services**

		<u>All areas</u>
<b>Did you or the other person use the Go-Bus in the past 12 months?</b>	<b>Yes</b>	<b>5</b>
	<b>No</b>	<b>21</b>
<b>Did you or the other person use the Hope Network in the past 12 months?</b>	<b>Yes</b>	<b>12</b>
	<b>No</b>	<b>14</b>
<b>Did you or the other person use the North Kent Transit in the past 12 months?</b>	<b>Yes</b>	<b>1</b>
	<b>No</b>	<b>25</b>
<b>Did you or the other person use the Red-Cross in the past 12 months?</b>	<b>Yes</b>	<b>5</b>
	<b>No</b>	<b>21</b>

Note: The unweighted number of persons who used the paratransit services is too small for reliable analysis.

Focus groups conducted prior to the survey suggested that many current or potential users of the existing paratransit service felt underserved because of the various limitations on the services, and because of the cost of County Connection which might otherwise serve as a substitute. Of the 26 respondents who said they had used a service, 18 persons said that it was adequate for their purposes, while eight persons indicated that it was too limited. Their comments, reproduced in the chart, are consistent with the findings of the focus groups.

Although the population is relatively small, there is clearly some latent demand for additional paratransit service. While the survey indicates that there is a small proportion of the adult population who consider existing services inadequate, actually measuring the extent of need for specific and additional paratransit services among that population would require a systematic survey of many more current users, and a larger sample of population 60 or older or with disabilities than could be incorporated in focus groups or this more general-purpose survey.

**Latent demand**

Respondents were asked a series of questions about transit services that they would be likely to use. Some of these questions were quite specific involving particular express routes, extensions of existing routes of The Rapid, and a specific type of door-to-door service. However, this section of the survey began with a more general question intended to help the respondent to begin thinking in

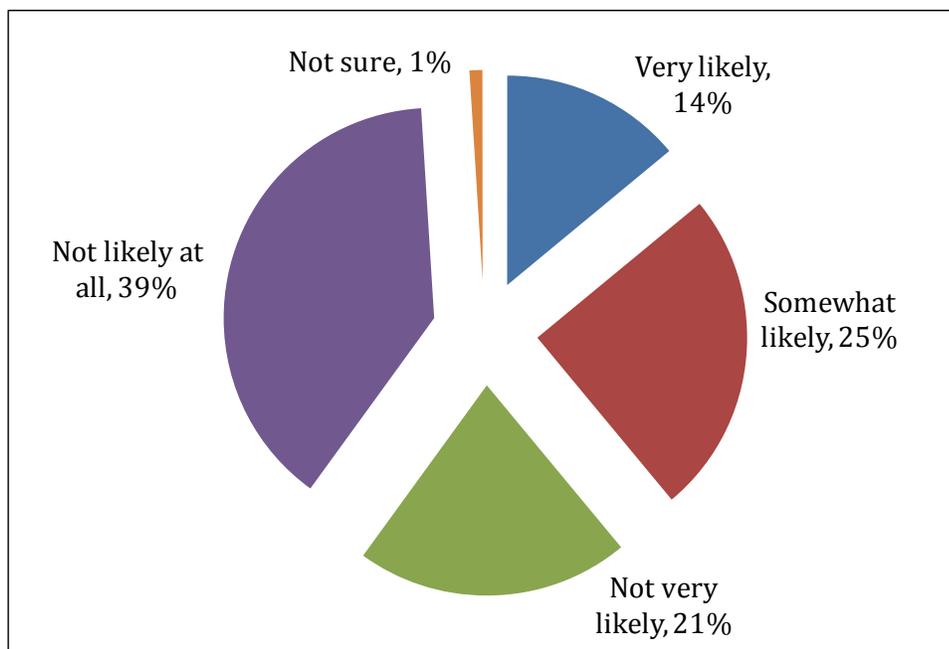
terms of possible transit services and his or her reaction to these services in general prior to asking about specific routes.

The question was worded as follows:

- ◆ *I have asked you several questions about the local trips you make. Local transportation can be improved by improving roads or public transportation. In this survey, we are interested in public transportation.*
- ◆ *Let's say that new public bus services were developed so that you could go between [insert the name of the Township where the respondent lives] and other places in Kent County. Let's say it would run frequently and on-time, and it was easy for you to get to the bus stop. Answering realistically, how likely would you be to use these public transit buses once a month or more to make local trips in Kent County?*

The distribution of responses is shown in the chart in Exhibit V-11. This response is fairly typical of the response in many underserved markets. A total of thirty-nine (39) percent indicated they would be either very likely (14 percent) or somewhat likely (25 percent) to use the service. This does not, of course, mean that all of them actually would use such service. It does, however, mean that they are interested in considering it. This provides a starting point. This distribution also means that it can be assumed that roughly sixty (60) percent of the adult public is simply not interested in using transit service even when it is described in these relatively positive terms.

**Exhibit V-11**  
**Potential for General Transit Services**



For reference, in less rural settings in similar surveys, thirty (30) percent to thirty-five (35) percent commonly express interest in such generally defined services.

### **Potential Market**

The first of two charts (Exhibit V-12) describing the market demographically indicates the percent of each of the three groups (likely, somewhat likely, unlikely to use new local transit service) who fall into each of the demographic categories.

As indicated previously, most people drive alone to their destinations. This is true of more of those who say they are unlikely to use public transportation (91 percent) than it is of those who say they are likely to do so (82 percent) and those who are somewhat likely to do so (81 percent). Conversely it can be said that if public transit is offered, it is more likely to attract those who already ride with others than it is to attract those who typically drive alone. However, the much larger market is among those who now drive alone.

Most people in the target area have a vehicle available for their use. There are some differences but relatively small ones among the three potential user/non-user groups in this respect.

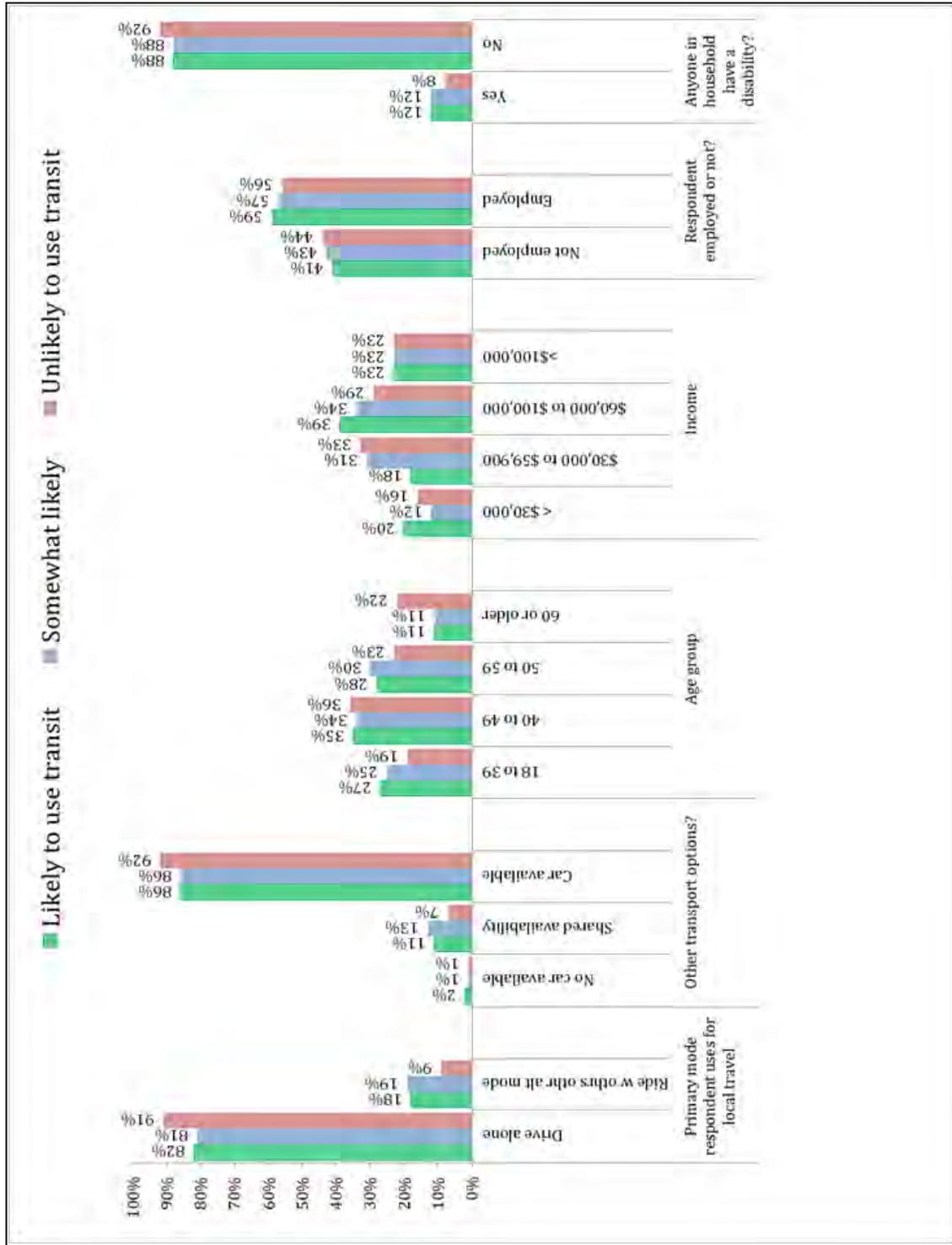
The age distribution is interesting because it suggests that the likely and somewhat likely user groups tend to fall somewhat more into the younger age categories than those who are less likely to use it. For example, of those likely to use public transit, twenty-seven (27) percent fall in the age range between 18 and 39, while only eleven (11) percent of the likely users are 60 or older. Conversely, while only nineteen (19) percent of the unlikely users are in the 18 to 39 age group, twenty-two (22) percent of unlikely users are in the oldest age group, 60 and older.

Likely users have a higher proportion of the lowest income category (below \$30,000 for the household), but the relationship between income and the likelihood of using public transit is irregular and not strong. Perhaps the most interesting aspect of it is that thirty-nine (39) percent of those likely to use transit fall in the income category between \$60,000 and \$100,000 a year, an indication that they, or at least their households, are very economically active.

There is a very small relationship between being employed and being interested in using public transportation, but it is not a strong relationship. Most adults are employed, and this is simply reflected in the potential for ridership.

Finally, there is a slightly greater tendency (12 percent) for likely and somewhat likely users than others (8 percent) to report that they or someone else in the household has a disability.

**Exhibit V-12  
Demographics of the potential Market (1)**



In the previous chart, the demographic characteristics of each likely user group were examined. In Exhibit V-13 the percentages are reversed and consider the interest in using transit among the various demographic groups.

Of those who drive alone, thirteen (13) percent said they would be likely to use such transit service, but twenty (20) percent of those who share a ride indicated they would be likely users. Similarly, of those who drive alone, only twenty-three (23) percent indicated they would be somewhat likely to use it, but thirty-seven (37) percent of those who share a ride indicated they would be somewhat likely to use it.

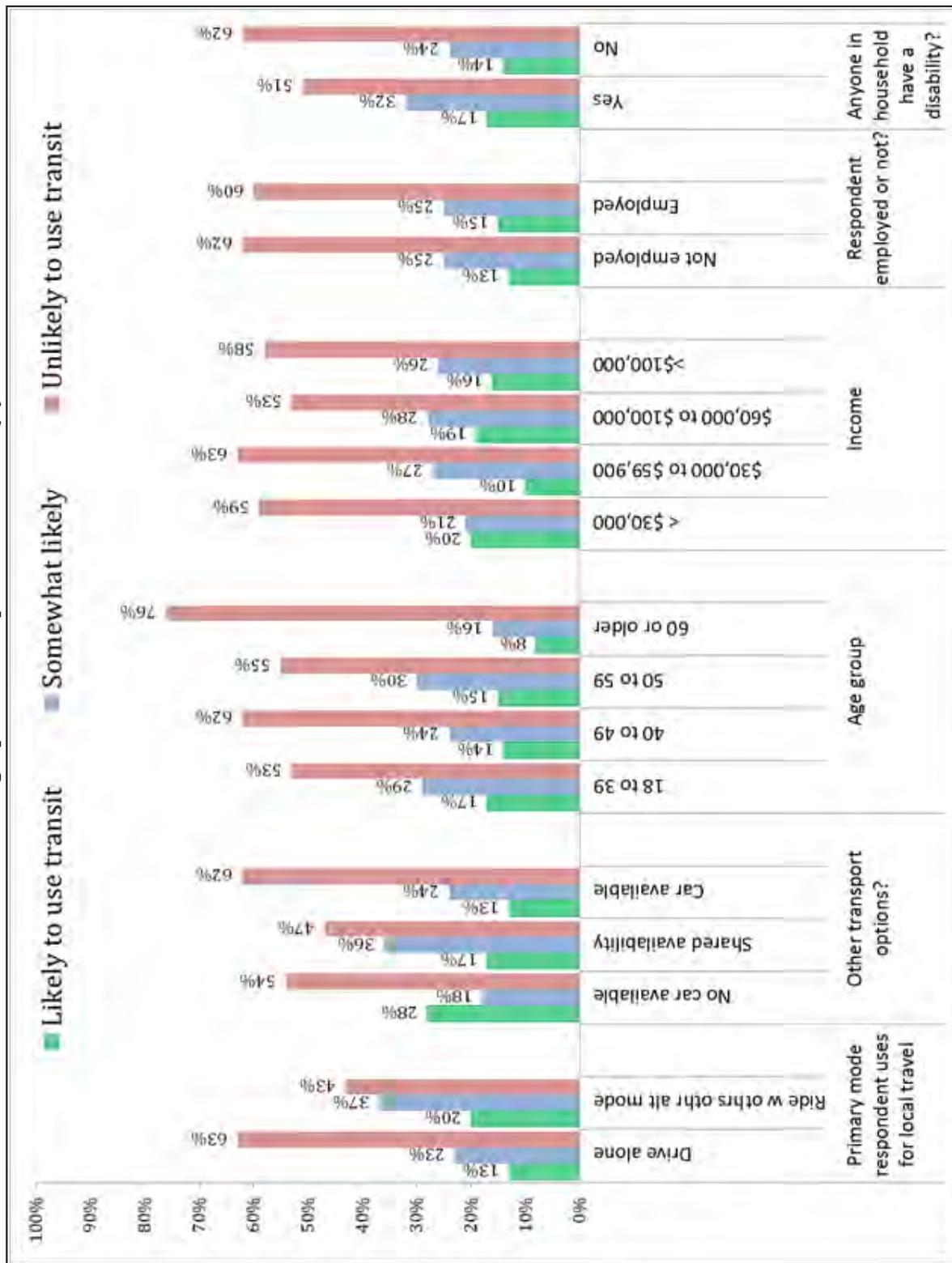
Those with no car available constitute an extremely small proportion of the total adult population and that portion of the chart can be ignored. Obviously that group, insofar as they may be economically and socially active, would be dependent on transit or ride-sharing in any event. Those who share availability of a vehicle have only a slightly greater chance of being likely to use transit than do those with a vehicle. The primary difference between those who share availability and those who have their own vehicle available is in those who are only “somewhat likely” to use transit.

As was observed with regard to the previous chart, there is a substantial difference in attitudes toward using transit between the younger and the older members of the adult population. It is the younger population that is more likely to be interested in using these types of transportation services. For example, while seventeen (17) percent of the 18 to 39-year-old respondents said they were likely to use the service, only eight (8) percent of those 60 and older said this. Conversely, those who are 60 and older were the most likely of all to say they were unlikely to use public transit. This may seem paradoxical to those accustomed to thinking of transit service that serves the elderly, but it is typically the younger population, because of their lower incomes, coupled with their need for mobility who are most interested in utilizing public transit.

Again, an unusual, mixed, and irregular, relationship between income and the likelihood of using public transit is revealed. As one would expect, there is a difference between the extremes of income, but, unexpectedly, it is quite small. Of those with household incomes below \$30,000, 20 percent are very likely users compared to sixteen (16) percent of those with household incomes in excess of \$100,000. Also, the relationship is not linear, for only ten (10) percent of those with incomes in the range of \$30,000-\$59,900 said they would be likely users. In short, it cannot be said with confidence that the lower the income the greater the consideration adults would give to using transit.

There is very little difference between those who are employed and those who are not employed in terms of their reaction to the potential use of new transit service. Finally, there is a slight tendency for those who are themselves disabled or live with someone who has a disability to indicate an interest in using transit (17 percent) compared to those in other households (14 percent), but the tendency is only slight.

Exhibit V-13  
Demographics of the potential Market (2)

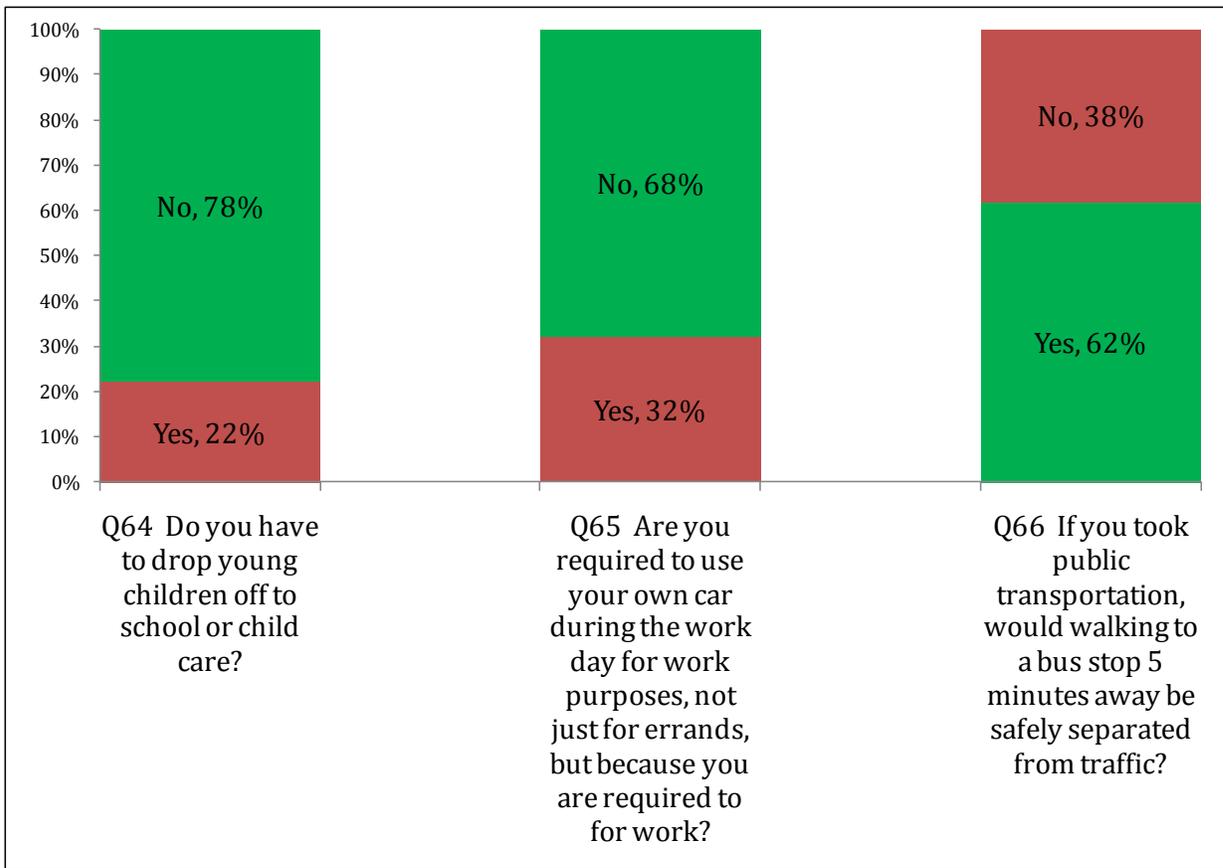


Overall, these relationships are not as strong as one might expect in a more urban population with more experience with public transportation, its opportunities, and challenges. When people understand the benefits and limitations of public transportation for their own use, the relationship between potential utilization of new service and demographic characteristics tends to be much stronger than observed here.

**Barriers**

There are also various barriers to using public transportation. These include the three named in Exhibit V-14; that is, having to drop young children off to school or childcare, having to use one's own vehicle for work purposes, and having a walk to the potential bus stop that is perceived as unsafe from traffic.

**Exhibit V-14  
Barriers**



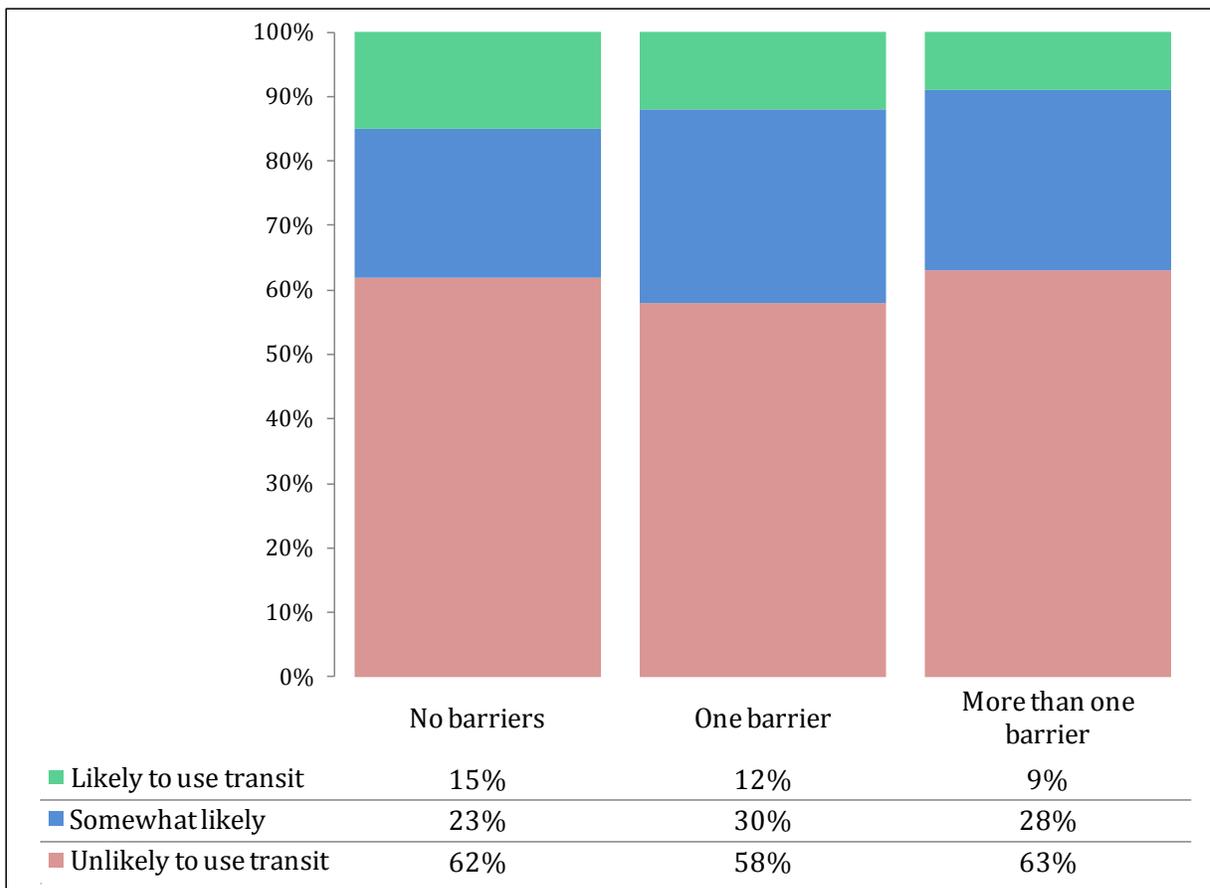
The chart shows in the green portion of the bars the percent that do *not* face one of the barriers and, in deep red, the percent who do. Note, for example, that latent demand for transit would be limited for some people (22 percent) because they feel they must drop off young children to school or childcare. Similarly, the 32 percent who say they must use their own vehicle at work would be

unable to use public transit for work purposes. Finally, thirty-eight (38) percent perceive that a five-minute walk to the bus stop would not be safely separated from traffic.

Exhibit V-15 shows how these barriers relate to people's perception that they would or would not use public transportation. In the longer run, as total estimates are prepared of the numbers of likely users of the three types that were the focus of the study (express service, route extension service, and door-to-door service), the perception of having barriers will be useful in further defining the limits of the total level of latent demand for public transportation.

Having no barriers to using public transportation is related to a slightly higher tendency to consider oneself likely to use it (15 percent) than those with a single barrier (12 percent) and those with more than one barrier (nine percent).

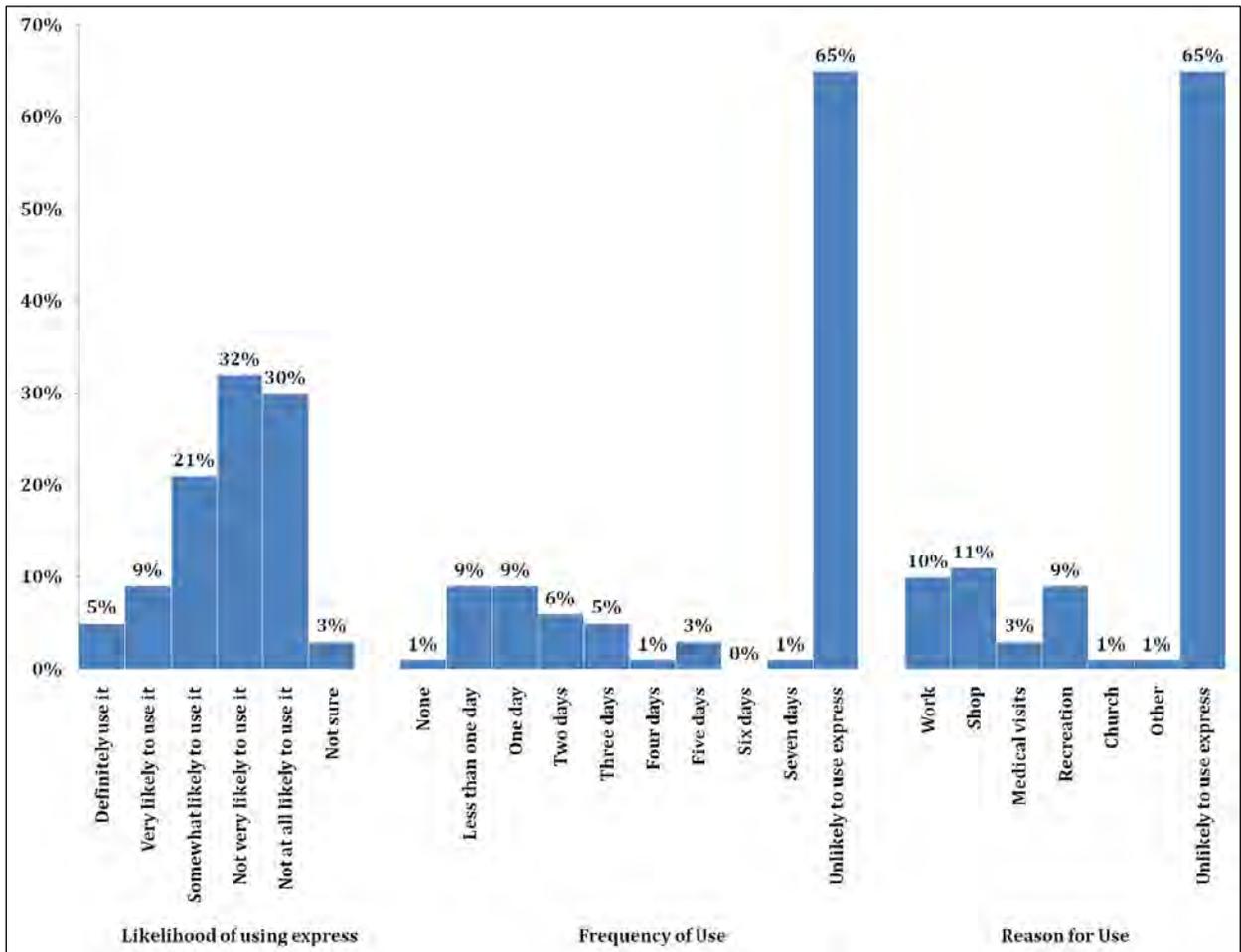
**Exhibit V-15  
Barriers and General Transit**



**Specific Transit Services**

Respondents were asked a series of questions about express routes. In general, the questions were specific to the townships in which they reside. For example, those residing in Cedar Springs or Rockford were asked about express bus service running between Cedar Springs, Rockford, and the City of Grand Rapids. Others were asked similar questions specific to their areas. If no express route was being discussed for a given area, a general question was asked about the use of express service to downtown Grand Rapids from the place where they live. The results are shown in Exhibit V-16.

**Exhibit V-16  
Demand for Express Routes**



Respondents were asked to state whether they felt they would definitely use such a service, be very likely to use it, be somewhat likely to use it, not very likely or not likely at all to use it. The same model was followed also for route extensions, and for door-to-door service countywide.

Of all respondents, five percent said they would definitely use express service to downtown Grand Rapids, and nine percent indicated they would be very likely to use it. In addition, twenty-one percent said they were somewhat likely to use it.

To repeat a point made earlier, this does not mean that there is a fixed five percent latent demand of people who would definitely begin using transit service. A question about express service was asked of all respondents as if it would be universally available. However, many people would live outside the desirable two-mile radius of a park and ride lot, while others would find that it did not meet their needs for service at particular hours, and so forth. Also, these express routes would really be commuter routes for workers employed in the City of Grand Rapids who used them regularly for several days a week to commute. What these general percentages do, however, is provide a perspective on the total extent of latent interest.

Respondents who indicated they would definitely use the route, be very likely to use the route, or somewhat likely to use the route, were asked two follow up questions. The first was how many days per week they would be likely to use it, and the second was the purpose for which they believed they would use it. Notice that although a total of thirty-five (35) percent were asked these questions, only a total of ten (10) percent indicated they would be likely to use the service on three or more days a week. Ten (10) percent indicated they would use it to commute.

Given that this commuter express service would be oriented to peak hours only, it would be difficult to use it for purposes other than commuting. However, it is not as if such service could not be used for shopping or recreation. Those would however be very infrequent uses, in spite of the fact that during a survey situation it would appear to be an attractive alternative to some potential users.

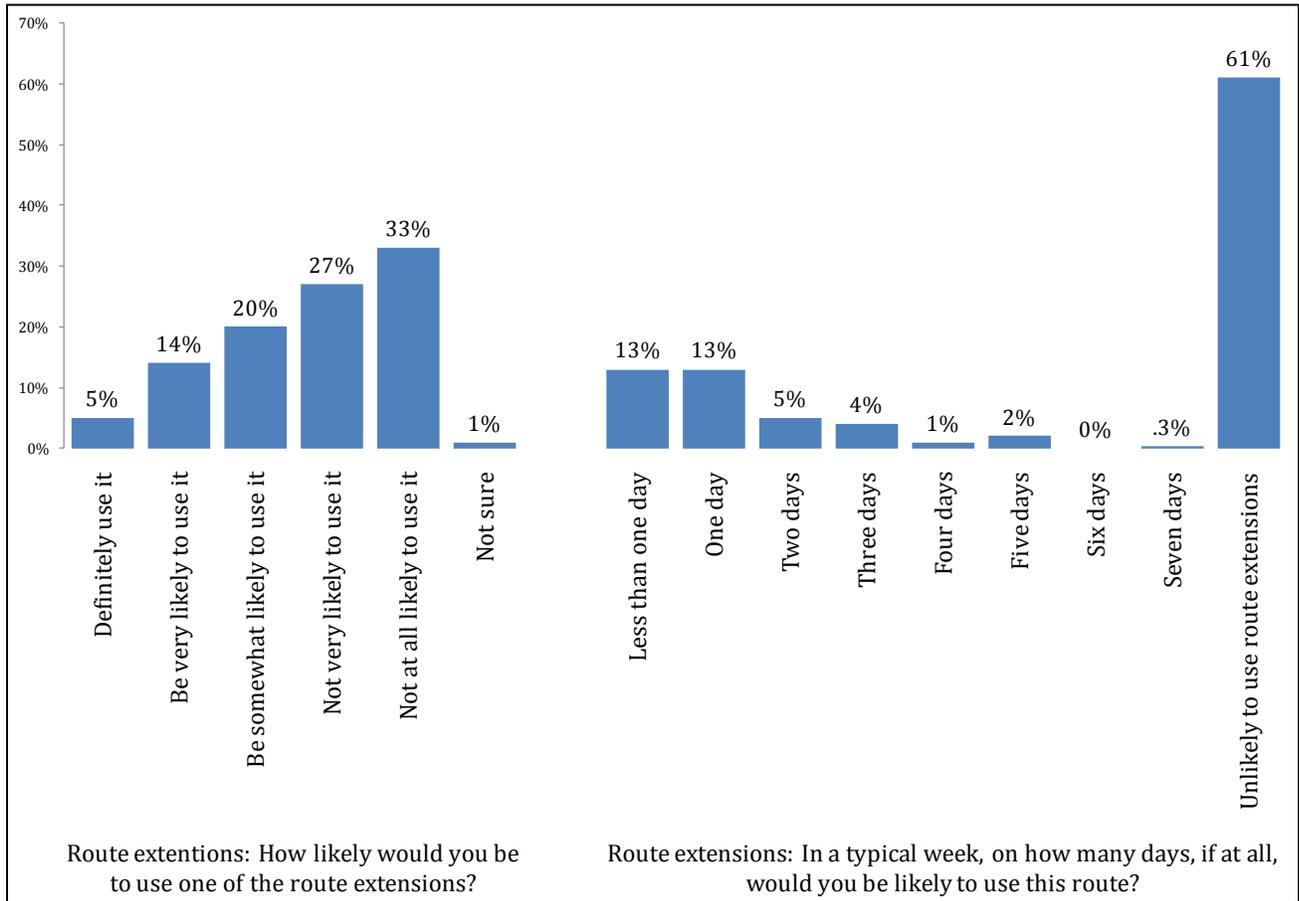
At a later time, these percentages will be narrowed using these and other survey questions such as whether the proposed hours of service meet their needs, and whether there are insurmountable barriers to their using these routes, and whether they in fact are employed in the downtown area of Grand Rapids. All of these factors will be taken into account and the limited percentages applied to the total adult population to achieve an estimate of the latent demand.

### **Route Extensions**

As with the express routes, route extensions were asked in area-specific ways. For example, residents of Plainfield Township were asked, "At one time there was Rapid service into Plainfield along Plainfield Avenue to downtown Grand Rapids. Let's say that The Rapid could restore that service, extending it to Northland Drive in Plainfield. Thinking realistically about your travel needs and preferences, how likely would you be to take the bus on this route once a month or more would you definitely use it, be very likely to use it, somewhat likely, not very likely or not at all likely to use it?" The results are shown in Exhibit V-17.

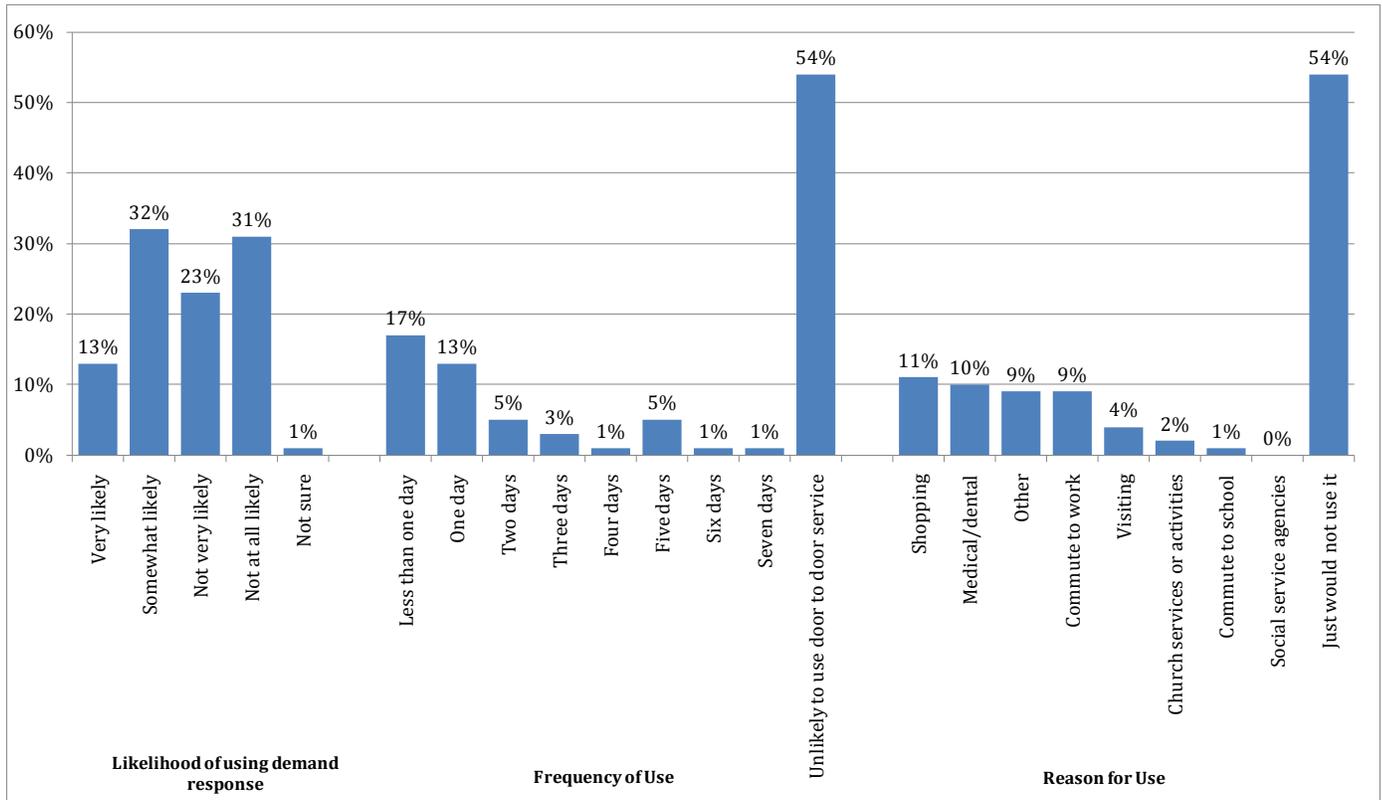
Five (5) percent indicated they would definitely use that type of service. In addition, fourteen (14) percent said they would be very likely to use it and another twenty (20) percent somewhat likely to use it. Again, these percentages establish an approximate market ceiling on the potential demand for such extensions.

**Exhibit V-17  
Demand for Route Extensions**



All respondents were asked their potential utilization of the countywide door-to-door service. The conditions were that the rider would have to call a day ahead to reserve a place and pay a five dollar fare in each direction. Such a service would be highly competitive with taxi service, and could be expected to be widely popular. In terms of the trip purpose, nine (9) percent felt they would use that service to commute to work. It would certainly be inexpensive and perhaps a welcome service for commuters during Michigan winters. However, it would be unrealistic to expect public support for such individualized service. Ultimately in determining latent demand for such service, the potential user’s age, disability status, utilization of current services, and potential trip purpose will all have to be taken into account to provide a realistic assessment. The results are shown in Exhibit V-18.

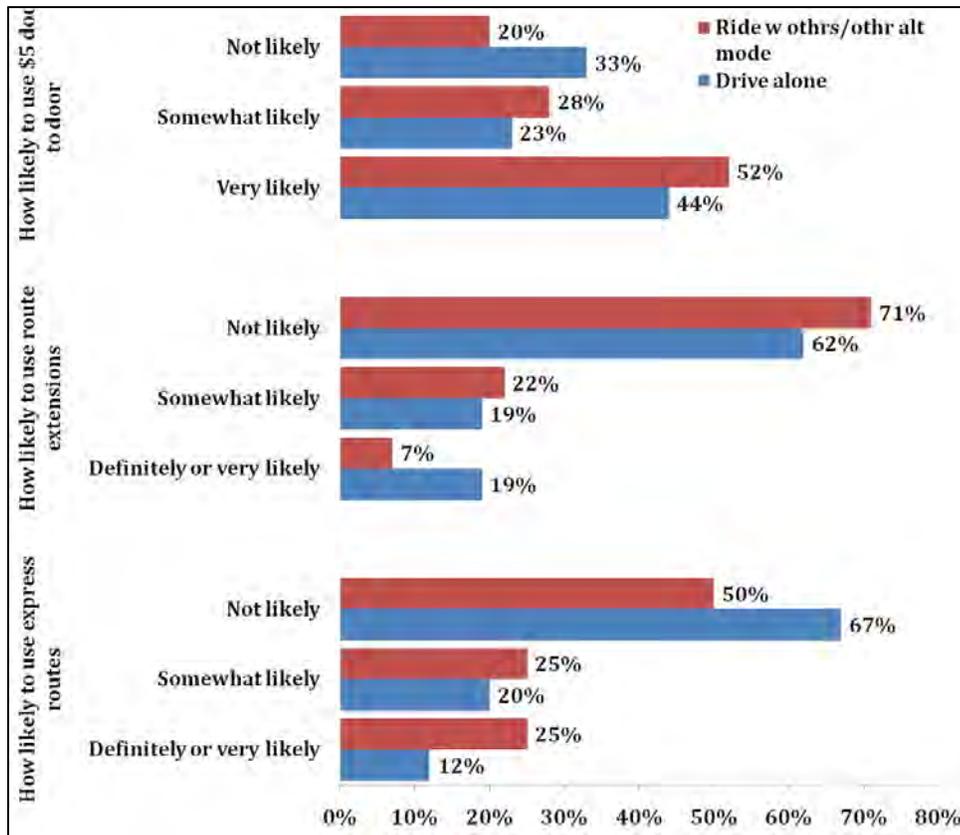
**Exhibit V-18  
Demand for Universal, County Wide Demand Response Service**



**How New Service Relates to Current Modes**

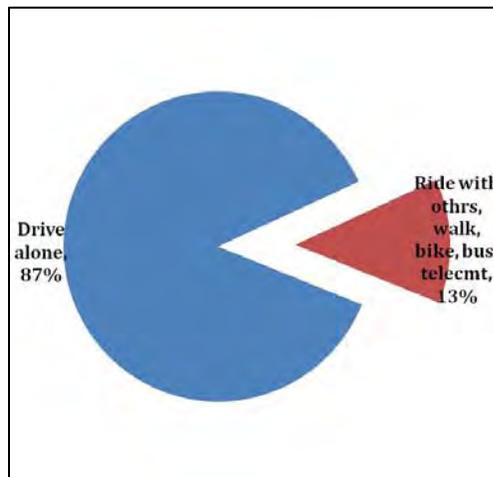
The usual tendency in terms of potential demand for new transit service is that demand is greater among those who already use alternative modes of local transportation, and do not rely on a single occupancy vehicle for all their transportation needs. In this survey is interesting to note that while the usual pattern prevails for express service and door-to-door service, it does not prevail for route extension service. Exhibit V-19 shows the responses among those who already use alternative modes and those who drive alone.

**Exhibit V-19**  
**Current Usual Mode and Stated Likelihood of Using New Transit Services**



The following exhibit, Exhibit V-20, shows the comparison of the population that uses other alternatives and the population that drives alone.

**Exhibit V-20**  
**Current Usual Mode**

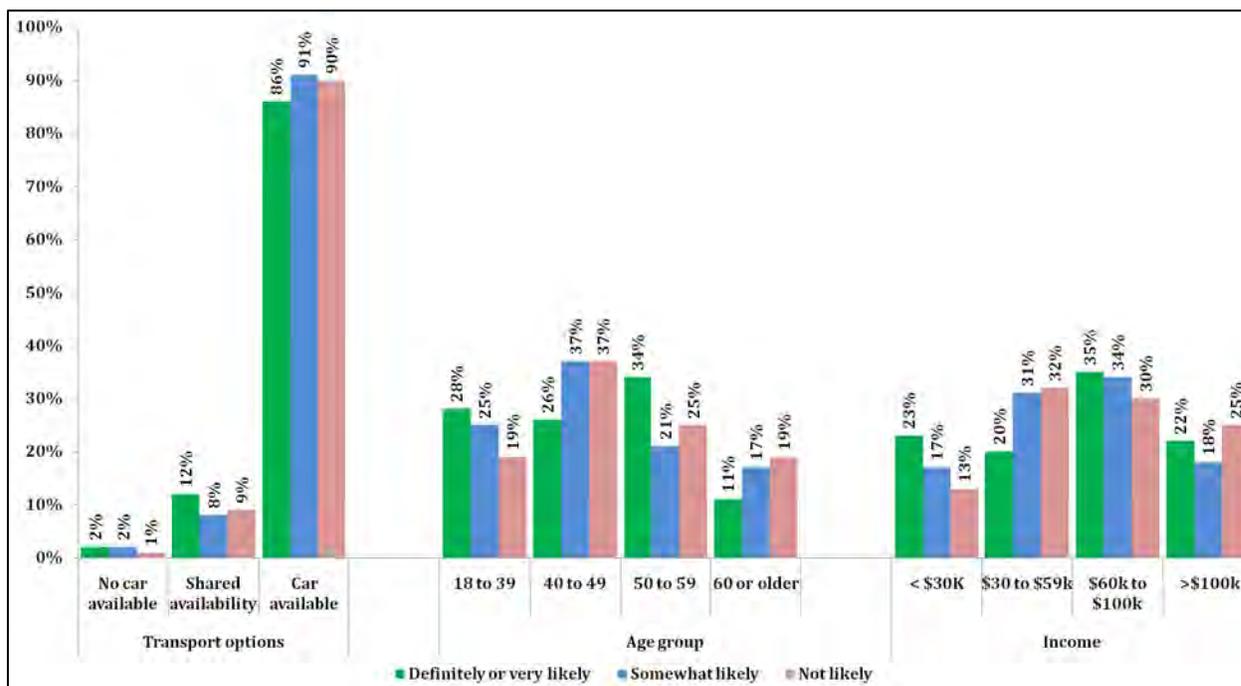


## Express Routes

### Demographics

The demographic profile of the market segments for commuter express (seen in Exhibit V-21) are similar to those of the more general question reported earlier on the demographics of those interested in transit service in general.

**Exhibit V-21**  
**Key Demographics and Stated Interest in Using Express**



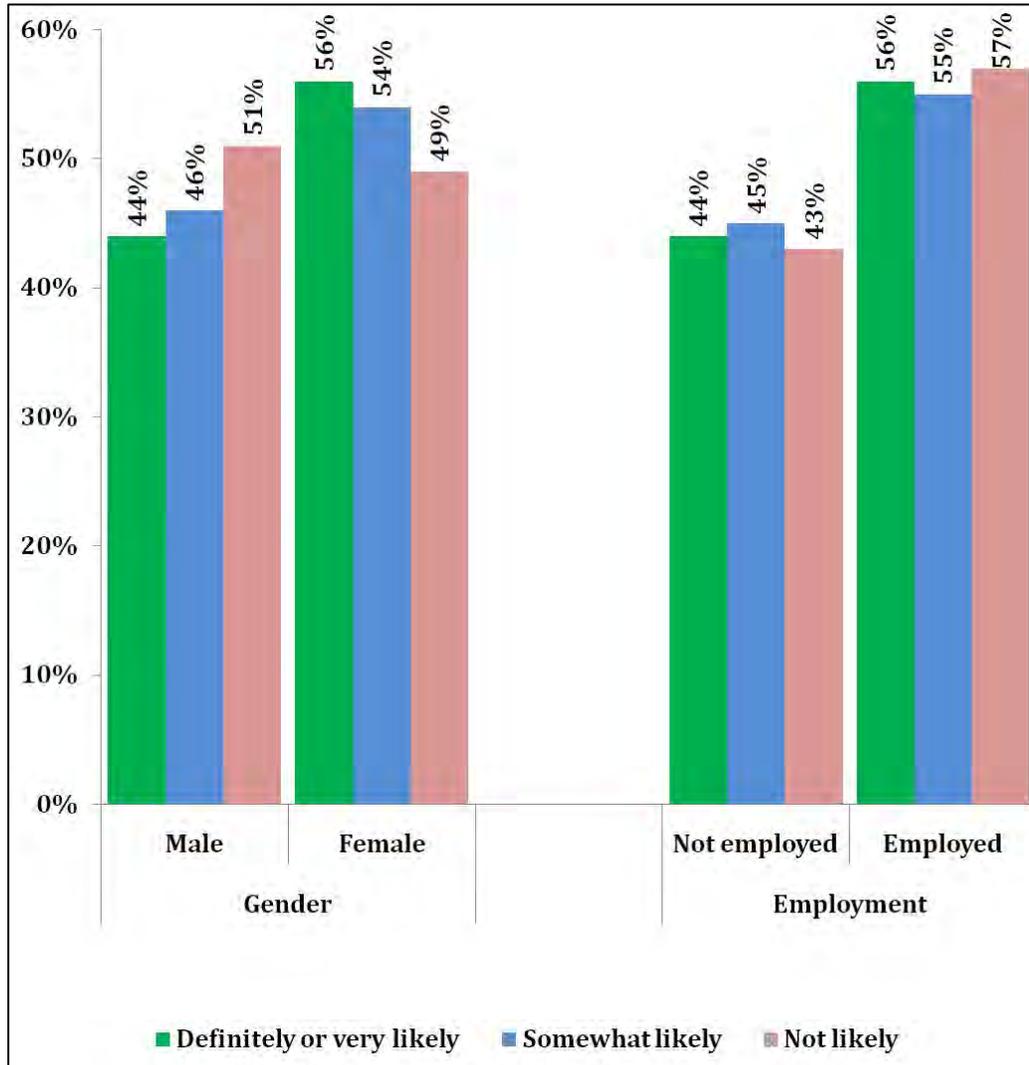
Compared to those who are only somewhat likely or not likely to use express service, those who say they are definitely or very likely to use express service are:

- ◆ Slightly more likely to have shared availability of the vehicle rather than having their own vehicles (twelve (12) percent, compared to eight (8) percent and nine (9) percent respectively).
- ◆ More likely (28 percent) to be in the youngest age range (18 to 39 years old) and fewer (11 percent) in the age range 60 or older.
- ◆ They are also slightly more likely to have household incomes under \$30,000 (43 percent in that category compared to 17 percent for the somewhat likely express users and 13 percent of those not likely to use express).

These are unusually small differences among potential user market segments. They are consistent in direction with findings elsewhere, but much less pronounced, and therefore lacking in predictive capacity.

The distribution of demographics among those more and less likely to use express service follows reasonably closely to the profile of the adult public. Some tendency is apparent in Exhibit V-22 for women to be overrepresented among those definitely or very likely to use transit.

**Exhibit V-22  
Gender and Employment**



An alternative way to look at these demographics is shown below in Exhibit V-23. In this case percentages are to be read across the row from left to right, not down the column, thus showing the attitudes toward utilization of express within each demographic group.

**Exhibit V-23**  
**Alternative Perspective on Demographics**

		<u>Definitely or</u> <u>very likely</u>	<u>Somewhat</u> <u>likely</u>	<u>Not</u> <u>likely</u>
<b>Other transport options?</b>	<b>No car available</b>	21%	27%	52%
	<b>Shared availability</b>	18%	17%	65%
	<b>Car available</b>	13%	22%	65%
<b>Age group</b>	<b>18 to 39</b>	18%	25%	56%
	<b>40 to 49</b>	10%	22%	67%
	<b>50 to 59</b>	19%	17%	64%
	<b>60 or older</b>	9%	21%	70%
<b>Income</b>	<b>&lt; \$30,000</b>	22%	26%	52%
	<b>\$30,000 to \$59,900</b>	10%	24%	66%
	<b>\$60,000 to \$100,000</b>	16%	25%	59%
	<b>&gt;\$100,000</b>	14%	19%	67%
<b>Gender</b>	<b>Male</b>	12%	20%	67%
	<b>Female</b>	15%	23%	62%
<b>Employment</b>	<b>Not employed</b>	14%	22%	64%
	<b>Employed</b>	14%	21%	65%

This chart illustrates several findings:

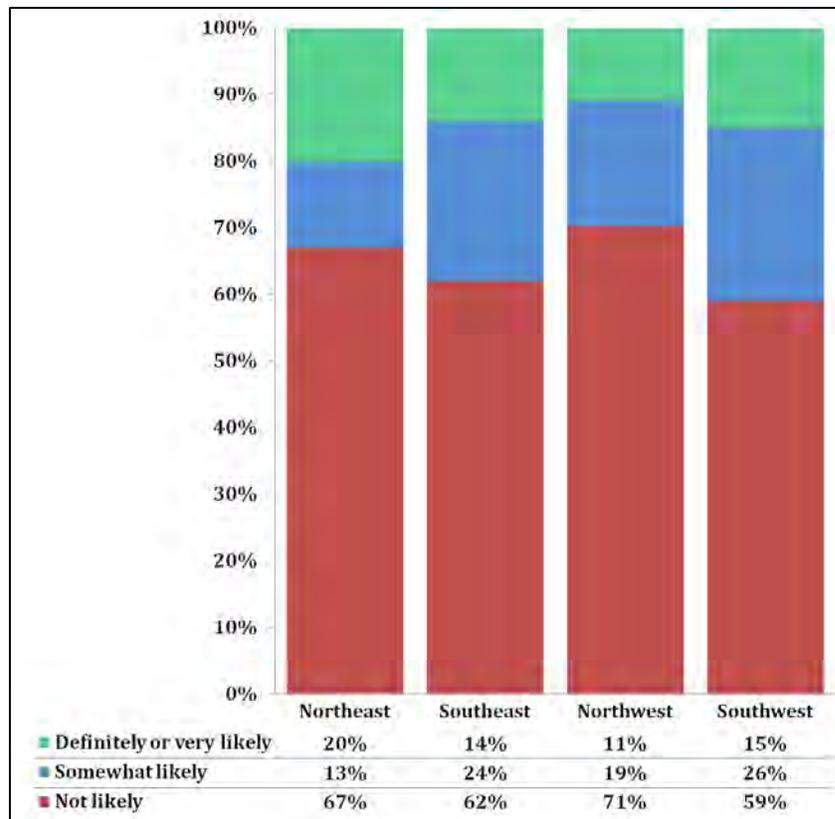
- ◆ Those with no car available or shared availability are more likely than those with a vehicle available to be likely to use express service.
- ◆ Those under the age of 60, especially those between 18 and 39 and those who are 50 to 49 are more likely than those over 60 to be interested in using express service. However, there is no continuous predictive relationship between age and likely utilization, a fact that is unusual in the study of potential transit markets.
- ◆ Those with household incomes below \$30,000 annually are likely to be more interested than others in using this service. However, substantial proportions of those earning \$60,000-\$100,000, or earning more than \$100,000 annually (16 percent and 14 percent respectively) are also quite interested in using it as well.
- ◆ Women are somewhat more interested than men in using express. Among women, fifteen (15) percent indicate they would definitely use it or be very likely to use it, and another twenty-three (23) percent that they would be somewhat likely, for a total of thirty-eight (38) percent. The comparable total for men is thirty-two (32) percent. This is typical of the gender tendencies elsewhere, though the relationship is somewhat weaker.
- ◆ There is no difference between the level of interest among those who are employed and those who are not employed.

## Geographic Distribution

One of the important elements in understanding latent demand for service in the study area is geography. Investigating the geography of demand for express service begins with a look at the basic quadrants into which the county can be divided.

The level of interest in using express service is greatest in the northeast portion of the county, as seen in Exhibit V-24. However, each of the possible express routes would serve only specific cities and townships. For example the more Northern service is specifically targeted to Cedar Springs and Rockford with easy access also from Algoma Township. For this reason analysis needs to be more closely limited geographically.

**Exhibit V-24**  
**Interest in Using Express by Area**



In the process of narrowing down the view of demand for express service, another way in which to consider the distribution of interest in using the express routes is by township of residence. The table in Exhibit V-25 indicates the proportion of the total population that falls into each market segment. Thus, for example, of all those who say they are definitely or very likely to use public transit, one percent reside in Algoma Township, and another two percent in Byron Township. Of those not likely to use express service, to give only one example eleven percent reside in Plainfield Township.

**Exhibit V-25  
Residence Interested in Using Express (percent of total adult population)**

	<b>Definitely or very likely</b>	<b>Somewhat likely</b>	<b>Not likely</b>	<b>All respondents in this twp</b>
<b>Ada Township</b>	.8%	1.4%	2.4%	4.5%
<b>Algoma Township</b>	1.3%	.8%	1.3%	3.4%
<b>Alpine Township</b>	.5%	1.3%	5.4%	7.2%
<b>Bowne Township</b>	.0%	.5%	.8%	1.3%
<b>Byron Township</b>	1.8%	2.0%	4.7%	8.4%
<b>Caledonia Township</b>	.7%	1.1%	2.4%	4.2%
<b>Cannon Township</b>	.9%	.7%	3.8%	5.4%
<b>Cascade Township</b>	.5%	.8%	5.9%	7.2%
<b>Cedar Springs</b>	.3%	.4%	.7%	1.4%
<b>Courtland Township</b>	.5%	.3%	1.8%	2.7%
<b>Gaines Township</b>	.9%	2.8%	5.9%	9.6%
<b>Grand Rapids Township</b>	.5%	2.0%	4.0%	6.4%
<b>Grattan Township</b>	.0%	.6%	1.2%	1.7%
<b>Lowell</b>	.4%	.2%	1.1%	1.8%
<b>Lowell Township</b>	.8%	.8%	.7%	2.4%
<b>Nelson Township</b>	.1%	.0%	1.8%	1.8%
<b>Oakfield Township</b>	1.4%	.1%	.9%	2.5%
<b>Plainfield Township</b>	1.1%	2.3%	10.8%	14.1%
<b>Rockford</b>	.4%	.6%	1.0%	2.1%
<b>Solon Township</b>	.2%	.6%	1.4%	2.2%
<b>Sparta Township</b>	.1%	.5%	3.6%	4.2%
<b>Spencer Township</b>	.4%	.4%	1.2%	1.9%
<b>Tyrone Township</b>	.1%	.4%	1.6%	2.0%
<b>Vergennes Township</b>	.3%	.4%	.9%	1.7%

Given that express service under discussion is commuter oriented, it is important to understand the relationship between people interested in using this potential new service, and the location of their place of work if they are employed. Of the total adult population, four percent say both that they are definitely or very likely to use express service to downtown Grand Rapids, and that they are employed in the City of Grand Rapids. This is very important because it sets a ceiling on the likely utilization of any commuter express oriented to a commute from rural or suburban areas to Grand Rapids City. Exhibit V-26 outlines the relationship.

**Exhibit V-26**  
**Work Commute Destination and Interest in Using Express**

	Definitely or very likely	Somewhat likely	Not likely	All respondents
Ada Township	.2%	.4%	.5%	1.1%
Algoma Township	.0%	.1%	.0%	0.1%
Alpine Township	.0%	.2%	.4%	0.5%
Belmont	.1%	.1%	.1%	0.3%
Bowne Township	.0%	.0%	.1%	0.1%
Byron Township	.1%	.9%	.9%	1.9%
Caledonia Village	.1%	.1%	.0%	0.2%
Caledonia Township	.1%	.4%	.2%	0.7%
Cannon Township	.0%	.0%	.4%	0.4%
Cascade Township	.1%	.4%	.5%	1.0%
Casnovia Village	.0%	.0%	.0%	0.0%
Cedar Springs	.2%	.0%	.3%	0.5%
Comstock Park	.4%	.1%	.2%	0.7%
Courtland Township	.0%	.0%	.0%	0.0%
Cutlerville	.1%	.3%	.4%	0.8%
East Grand Rapids	.0%	.0%	.5%	0.5%
Gaines Township	.0%	.0%	.9%	0.9%
Grand Rapids City	3.7%	2.3%	10.0%	16.0%
Grand Rapids Township	.6%	.4%	.6%	1.6%
Grandville	.0%	.2%	.8%	1.1%
Grattan Township	.0%	.0%	.0%	0.0%
Kent Village	.0%	.1%	.4%	0.5%
Kentwood	.4%	.9%	2.4%	3.7%
Lowell	.1%	.1%	.0%	0.2%
Lowell Township	.1%	.0%	.0%	0.1%
Nelson Township	.0%	.0%	.0%	0.0%
Oakfield Township	.0%	.0%	.0%	0.0%
Plainfield Township	.1%	.2%	1.8%	2.1%
Rockford	.2%	.8%	1.5%	2.5%
Sand Lake Village	.0%	.0%	.0%	0.0%
Solon Township	.0%	.0%	.0%	0.0%
Sparta Village	.0%	.0%	.7%	0.7%
Sparta Township	.0%	.6%	.4%	1.0%
Spencer Township	.0%	.0%	.0%	0.0%
Tyrone Township	.0%	.0%	.1%	0.1%
Vergennes Township	.0%	.0%	.4%	0.4%
Walker	.1%	.2%	2.7%	2.9%
Wyoming	.4%	1.1%	1.2%	2.7%
Not sure	.1%	.0%	.7%	0.8%
All over Kent Co	.1%	.0%	.6%	0.7%
Outside of Kent Co	.2%	1.4%	7.4%	9.0%
Student only	.7%	.2%	1.4%	2.3%
Not employed	5.4%	9.2%	27.2%	41.9%

The total adult population of the area is estimated at slightly more than 149,000 persons. Assuming that remains the case when the 2010 Census is reported, there would be roughly 5,500 people in this category of those who say they would definitely use or would be very likely to use express service. To repeat a point, this is not the final number because there are the barriers that would stand in the way of many of these people. This will be examined in subsequent charts in this report.

The first key to narrowing that population is to consider only the areas directly accessible to the proposed express routes. The express routes that were specifically described to respondents from the appropriate townships included the following areas:

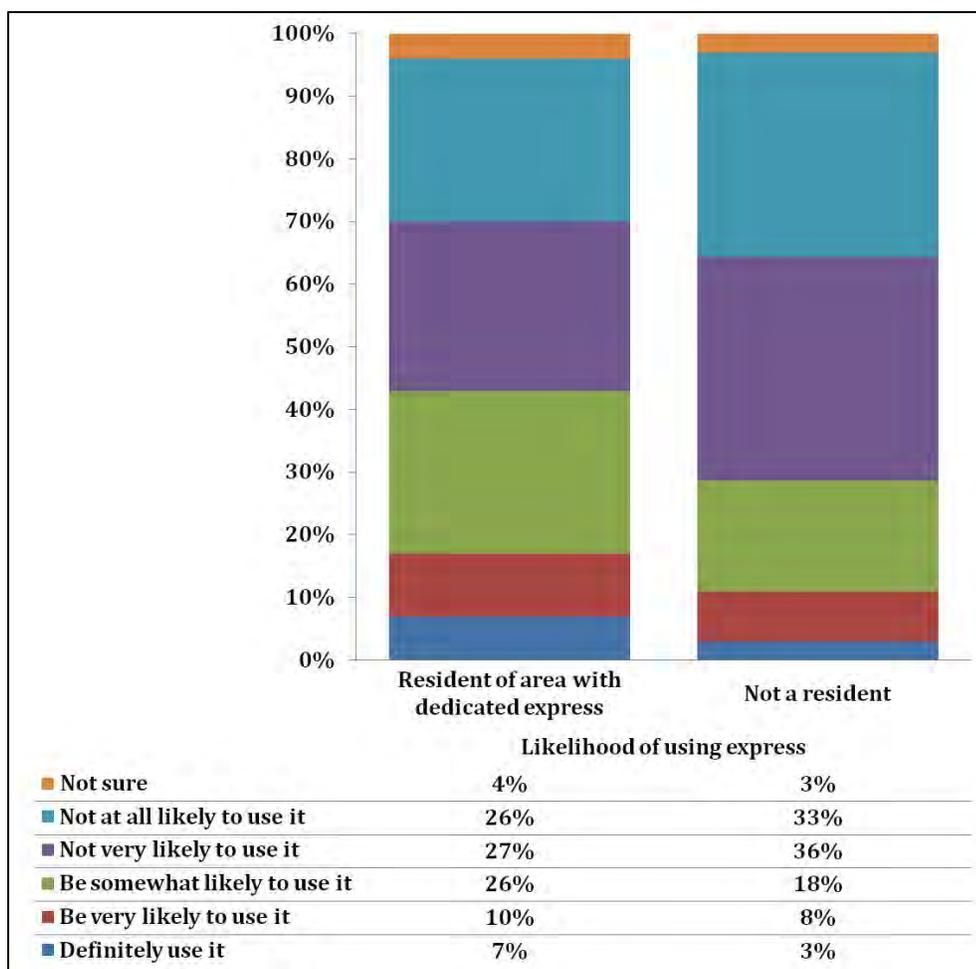
- ◆ A northern route including Algoma Township, Cedar Springs, and Rockford.
- ◆ A southeastern route including both Ada and Lowell (both Township and city).
- ◆ A southwestern route including Byron and Gaines Townships.
- ◆ A southeastern route including Cascade and Caledonia Townships.

Those who do not reside in any of those townships were asked a residual question focused on whether they would be likely to use express service oriented to downtown Grand Rapids from the area in which they live. Thus, while the destination was the same, the specificity was less.

Taken as a whole, the adult populations of these targeted cities and townships comprise forty-five (45) percent of the adult population of Kent County outside of the 6 city area served by The Rapid. Within that forty-five (45) percent who are residents of the areas targeted for express, a total of seventeen (17) percent indicated that they are definitely (7 percent) or very likely (10 percent) to use express service as described, and twenty-six (26) percent that they are somewhat likely to use it. The balance indicated they are unlikely to use it.

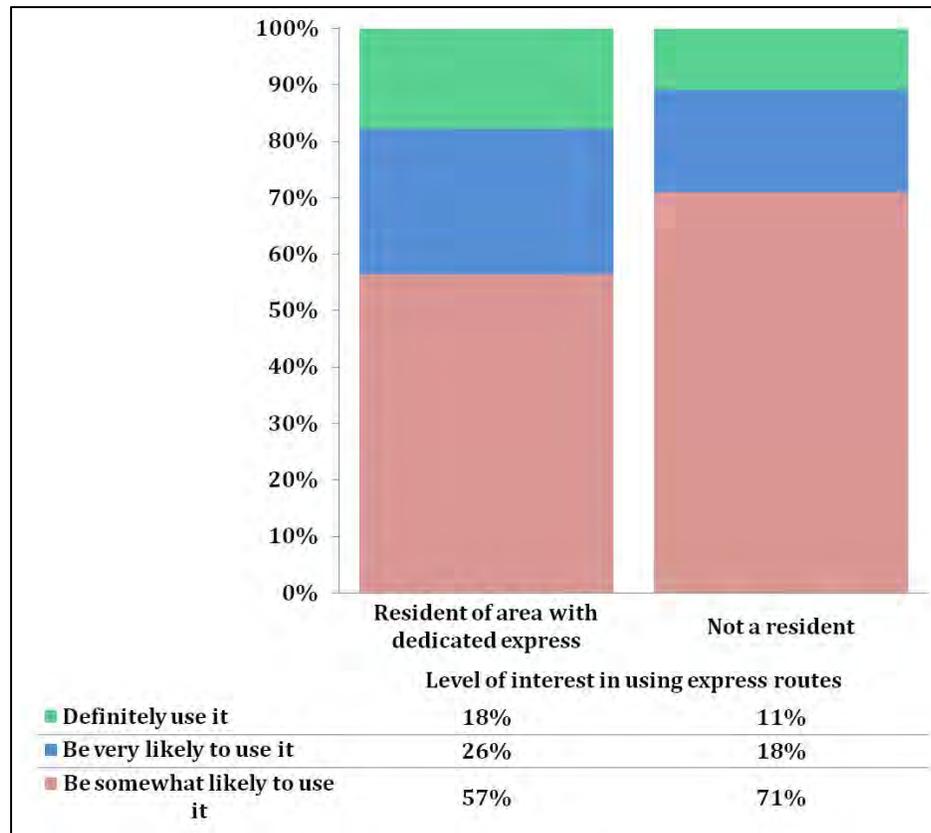
By narrowing the focus of the research and concentrating on the residents of the target areas, it is found that by a margin of forty-three (43) percent to twenty-nine (29) percent residents of the target area compared to the residents outside of it, respond that they would definitely use express service, be very likely to use it, or be somewhat likely to use it. This suggests that the tentative planning of these routes is hitting the appropriate targets. Exhibit V-27 shows the targeted areas and the response.

**Exhibit V-27  
Target Areas**



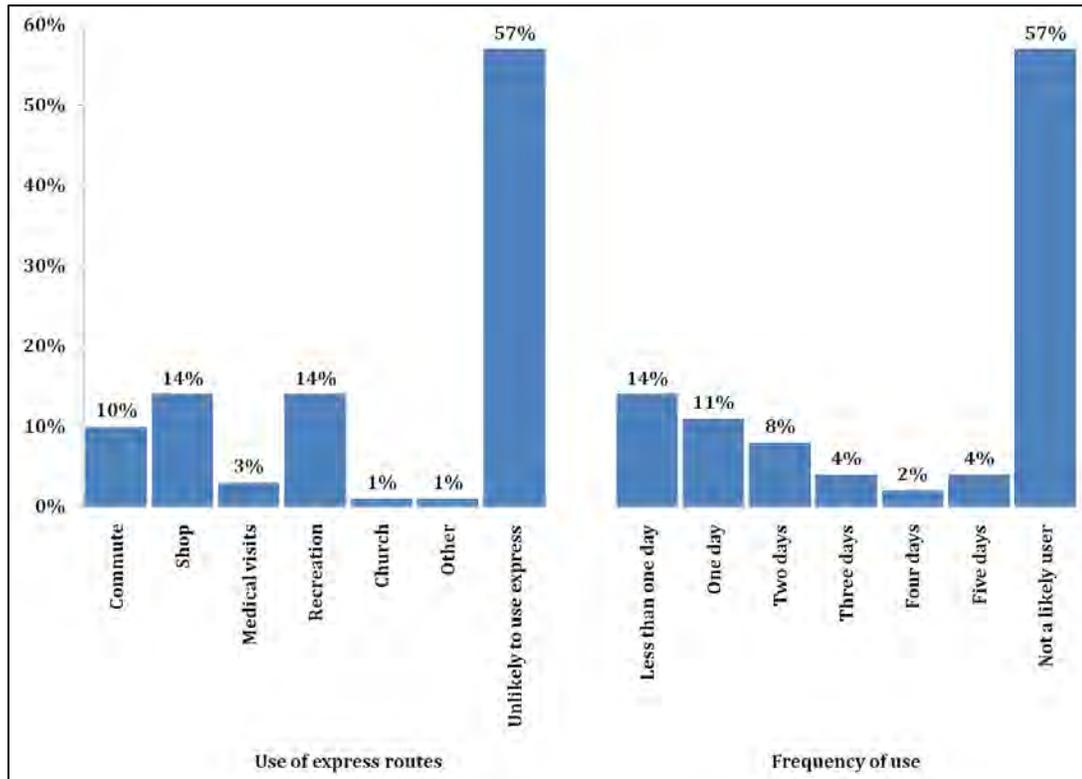
Considered in a different way, findings indicate that the level of intensity of interest differs between the two areas. In the chart, those who are unlikely to use express service are dropped, and percentages are recomputed among those who have some reasonable chance of actually becoming users. In this manner, it can be seen that while eighteen (18) percent of the target area residents indicate they would definitely use such express service, only eleven (11) percent of residents of the other areas say the same thing (see Exhibit V-28).

**Exhibit V-28  
Level of Interest**



Those who indicated that they were definite users, likely users, or were somewhat likely to use express, were asked follow-up questions concerning the purpose for which they might use it, and the frequency with which they might use it for those purposes. The results are seen in Exhibit V-29.

**Exhibit V-29  
Purpose and Frequency**



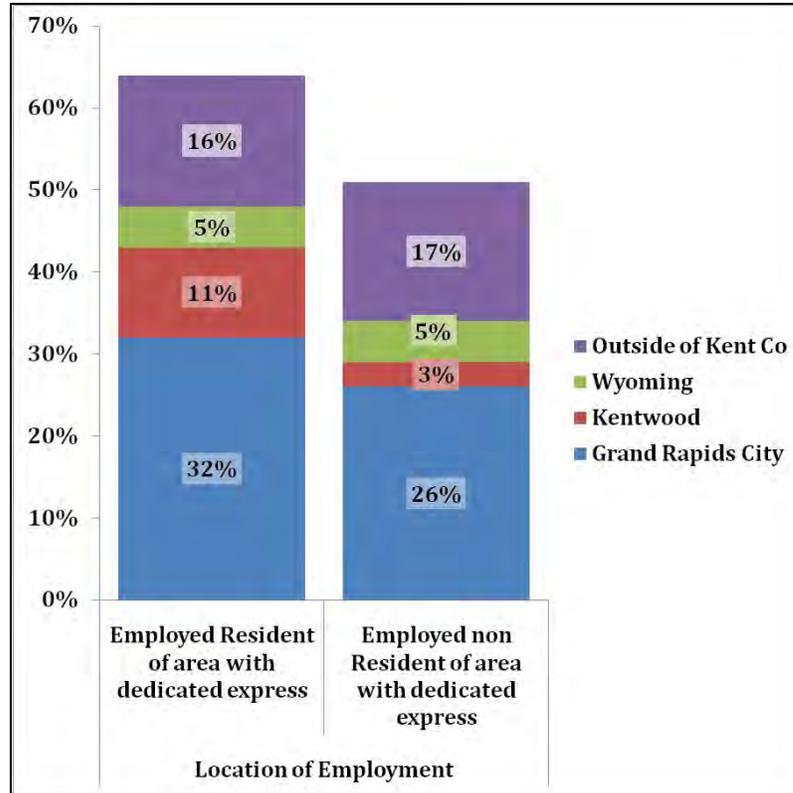
Continuing to focus on the residents of only the target area, you can see those respondents who indicated some reasonable likelihood of using express service break down as shown in the chart in terms of the purpose for which they believe they would use it, and the frequency with which they would expect to use it.

The chart first shows how the forty-three (43) percent who fall into the realm of possible use break down in terms of purpose. Ten percent of those potential users (i.e., 4.3 percent of the total adult population in the area targeted for express) anticipate commuting. Another fourteen (14) percent would expect to use it to go shopping, three (3) percent for medical visits, fourteen (14) percent for recreation, two (2) percent for church or church activities, and one (1) percent for miscellaneous other reasons. Of all of these purposes, the only one that is realistic for service that runs only during peak hours is commuting.

In terms of the frequency with which people expect to use express service, express in general is oriented toward commuting service which generally serves those riders who travel four or five days a week to their jobs. It is not oriented to casual use. Although certainly some casual users would probably make use of it, their numbers would be too small and unpredictable to have a material effect on the latent demand for such service.

Another limiting factor in terms of utilization of express commuter service is the location of commuters' workplaces. Exhibit V-30 shows the location of these workplaces. All of the service would be oriented to downtown Grand Rapids. Taking the top four workplaces of the employed residents in the target areas, Grand Rapids city, and its neighbors Kentwood and Wyoming are significant destinations for their working populations. Those in the areas targeted for express, however, are significantly more likely to work in the City of Grand Rapids.

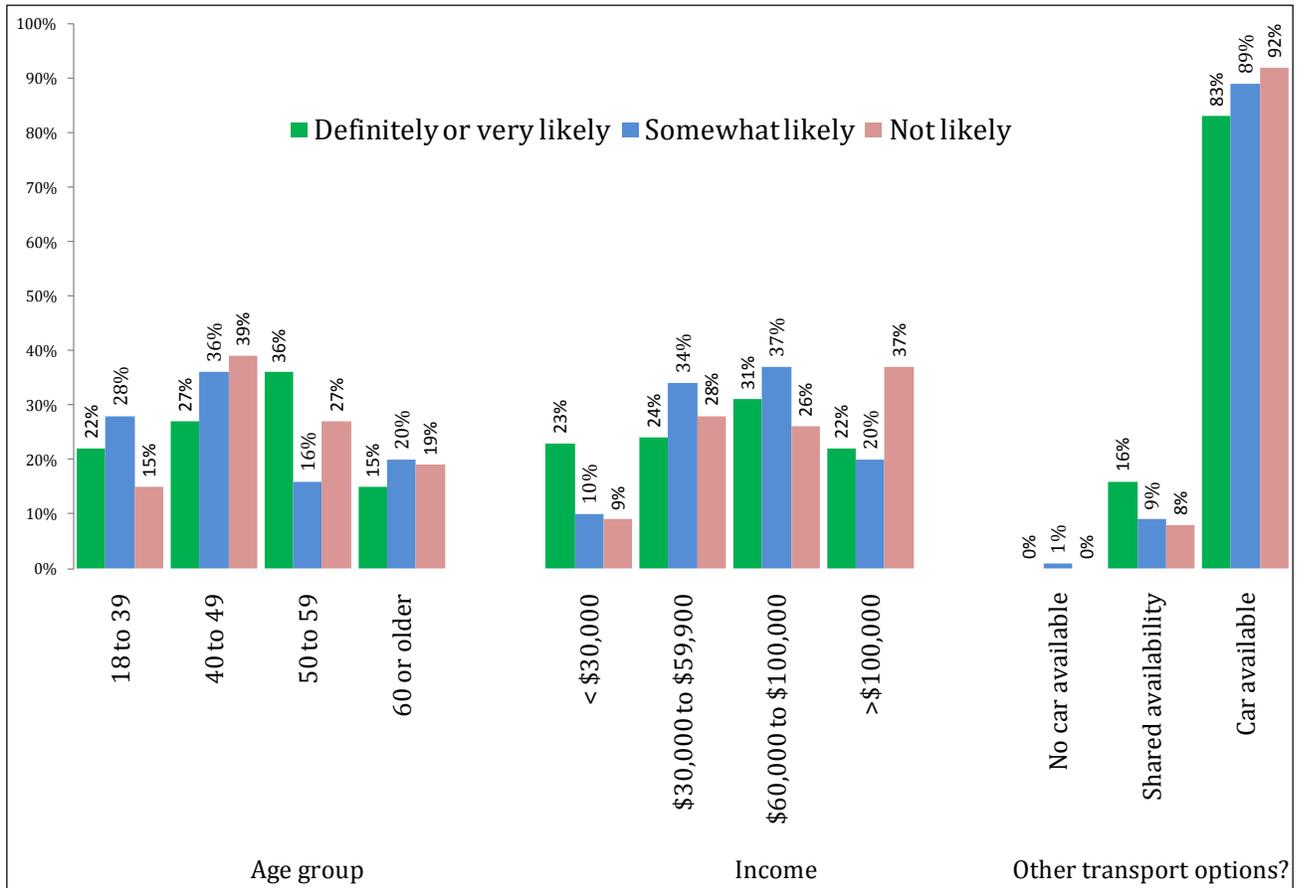
**Exhibit V-30  
Top Work Destinations**



In both the areas with the potential express routes and those without such possible routes, similar percentages (16 percent and 17 percent, respectively) of employed persons indicate that they work outside of Kent County, and would thus be precluded from benefiting from commuter service to downtown Grand Rapids.

Next, the key demographics and level of interest in express service must be considered among those who are residents of the areas in which dedicated express routes are tentatively planned. Specifically, consider the differences among those who indicated a definite or very likely intent to use express and others with lesser or no interest in the service. See Exhibit V-31 below.

**Exhibit V-31**  
**Demographics of Express Market Segments by Age, Income, and Transportation,**  
**Including Only Areas Targeted for New Express Service**



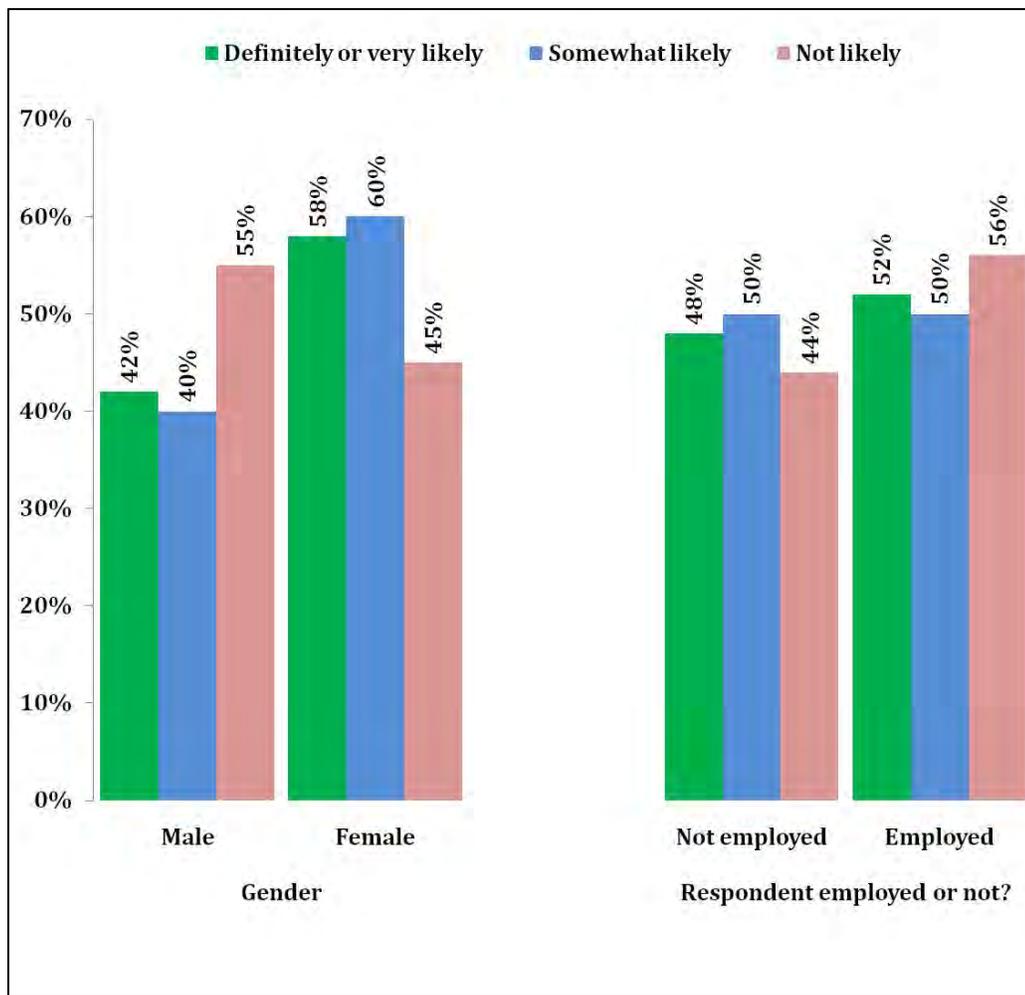
Those who are most likely to utilize the express service are less likely than others to be 60 or older (15 percent). Those most likely to use express service are also more likely than others to fall into the age range 50 to 59. Why the greatest contrast is within this specific age category is interesting, but not apparent from the survey.

In terms of income, more of those most likely to use express service have household incomes below \$30,000 per year (23 percent) than those who are only somewhat likely to use it (10 percent) or those who are unlikely to use it (9 percent). Conversely, those unlikely to use it are more likely than others to have household incomes of \$100,000 or more. Thus, having narrowed the study population to those in the targeted area, correlations between income and potential use are now revealed to be more as traditionally expected. It is also true, however, that the definite or likely users have a broad range of incomes, indicating they understand that this is not a service for only the transit dependent.

Finally, those with greater likelihood of actually using express transit service are more likely to currently share a vehicle with others (16 percent) compared to those who are only somewhat likely users (9 percent) or unlikely users (8 percent). This relationship is not uncommon, because those who already use an alternative mode (even if it is described simply as riding with others) tend to be more open to using improved public transit. Oddly, however, riding with others is three times more common (12 percent) in areas not targeted for an express route than in those areas which are (4 percent).

As seen in Exhibit V-32, within the target area the tendency for women to predominate among the likely users is more pronounced than it is among the total study area population. However, this may reflect a different gender distribution, because as you can see in the next chart, there is very little difference between men and women in terms of their interest in using express service. In the target area, fifty-eight (58) percent of the most likely users are women, while forty-two (42) percent of men.

**Exhibit V-32  
Demographics of Express Market Segments by Gender and Employment**



As in the total study area, there is very little difference in terms of employment except that those who reject the idea of using express transit are somewhat more likely to be employed (56 percent) than those who embrace the idea.

The alternative way to look at these demographics is shown below in Exhibit V-33. In this case, percentages are read from left to right, thus showing the attitudes toward utilization of express within each demographic group.

**Exhibit V-33  
Demographic Table of Express Market**

		<b>Definitely or very likely</b>	<b>Somew hat likely</b>	<b>Not likely</b>
<b>Transport options</b>	<b>No car available</b>	41%	41%	18%
	<b>Shared availability</b>	17%	21%	62%
	<b>Car available</b>	12%	22%	65%
<b>Age group</b>	<b>18 to 39</b>	19%	27%	54%
	<b>40 to 49</b>	9%	24%	67%
	<b>50 to 59</b>	17%	16%	67%
	<b>60 or older</b>	9%	24%	67%
<b>Income</b>	<b>&lt; \$30,000</b>	21%	27%	52%
	<b>\$30,000 to \$59,900</b>	9%	24%	67%
	<b>\$60,000 to \$100,000</b>	14%	29%	57%
	<b>&gt;\$100,000</b>	16%	13%	71%
<b>Gender</b>	<b>Male</b>	12%	19%	69%
	<b>Female</b>	13%	26%	61%
<b>Empolymnt</b>	<b>Not employed</b>	13%	23%	64%
	<b>Employed</b>	13%	22%	65%

Several conclusions can be drawn from this chart:

- ◆ Those with no car available or shared availability are more likely than those with a vehicle available to be likely users of express service. There are, however, very few persons with no vehicle, and this is not a significant market for express service.
- ◆ As found among respondents when examining demographics of route extensions among all respondents, those under the age of 60, especially those between 18 and 39 and those who are 50 to 49, are more likely than those over 60, or those between the ages of 40 and 49 to be interested in using express service. Because this is not a linear relationship, this provides relatively little guidance in predicting actual utilization.
- ◆ Those with household incomes below \$30,000 annually are likely to be more interested than others in using this service. However, substantial proportions of those earning \$60,000-

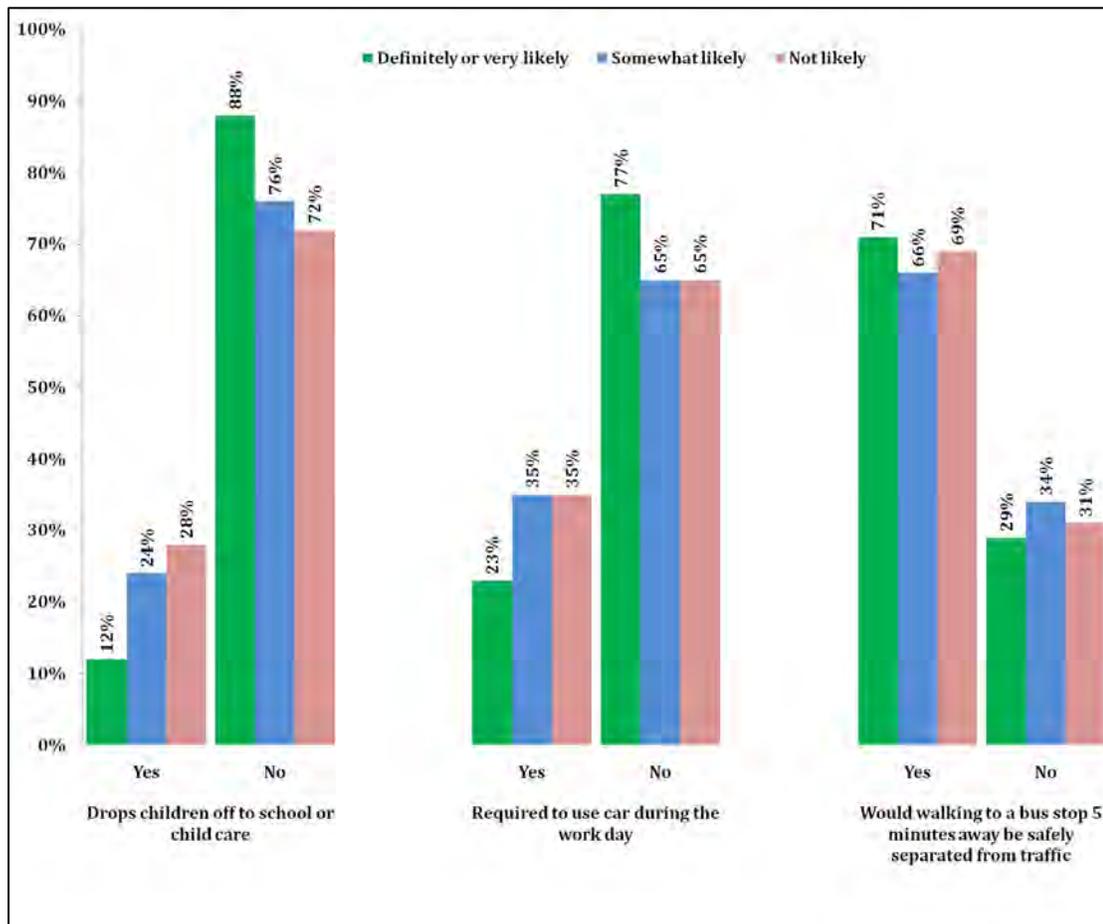
\$100,000 or more than \$100,000 annually (16 percent and 14 percent, respectively) are also quite interested in using it.

- ◆ Women are somewhat more interested than men in using express service. Among women, 13 percent indicate they would definitely use it or be very likely to use it, and another 26 percent indicated that they would be somewhat likely, for a total of 39 percent. The comparable total for men is 31 percent. This is typical of the gender tendencies elsewhere in the transit market, but the relationship is often stronger in potential markets.
- ◆ There is no difference between the level of interest among those who are employed and those who are not employed.

**Barriers, Disincentives, and Incentives for Using Express**

In an earlier section of this report, practical barriers to using public transit that will tend to limit the latent demand were discussed. In Exhibit V-34, you can see that, within the areas targeted for express service, the three barriers have a partial suppressing effect on demand. For example, those who say they must carry children to/from school or childcare are less likely than those who do not have that obligation to say they would definitely use or be very likely to use express service.

**Exhibit V-34  
Barriers to Using Express Market**

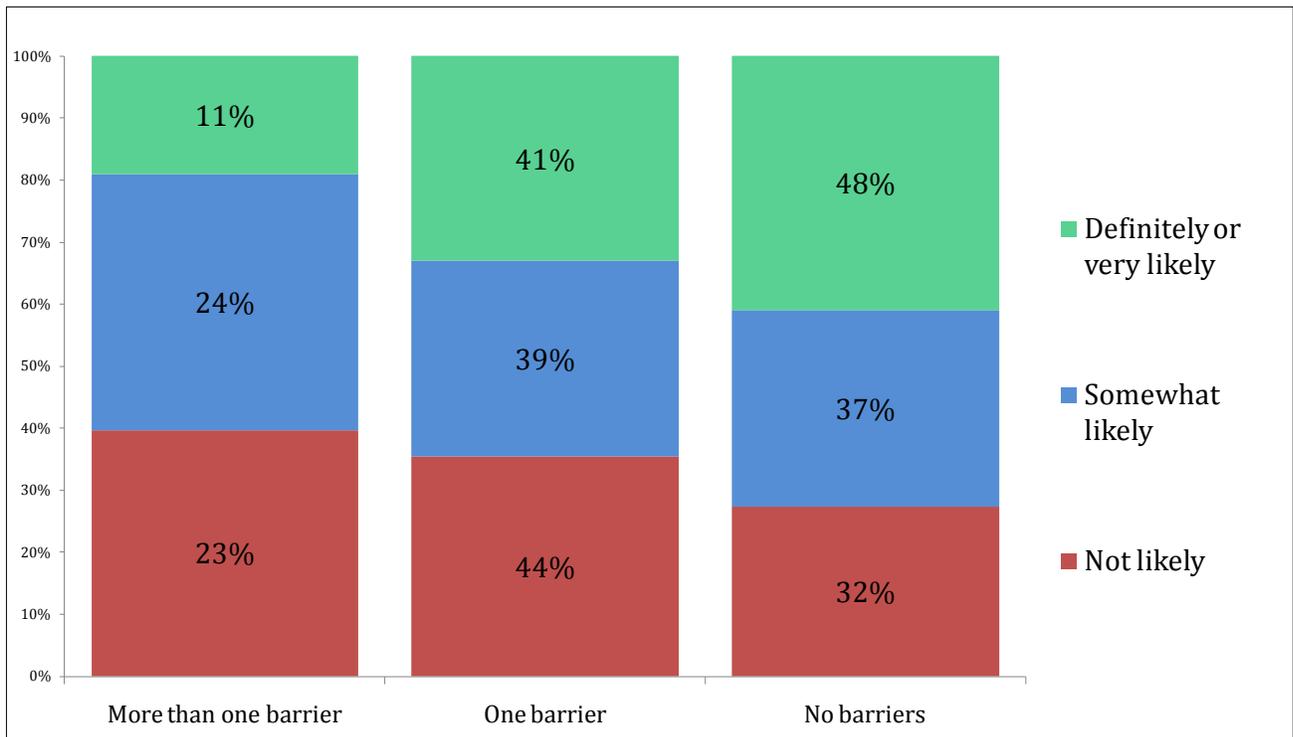


Similarly, having to use one's car at work during the day for work purposes is also a barrier. Thus, while only twenty-three (23) percent of those who say they must use their vehicle for work purposes indicate a strong intent to use express service, seventy-seven (77) percent of those who do not share that obligation express that level of interest.

However, there is no consistent perception of a lack of safety in walking to the bus stop. It can be assumed that this is because an express service is typically a park and ride service not subject to a walk.

Potential users of any service can, of course, encounter more than one barrier as seen in Exhibit V-35. The chart makes clear that multiple barriers have multiple impacts, and that these must be taken into account in considering latent demand. While forty-eight (48) percent of those facing the barriers and residing in the targeted express areas indicate they would definitely use of the very likely to use express service, of those facing more than one barrier, only eleven (11) percent said the same thing. In other words those facing more than one barrier were more than four times less likely than others to indicate likely use of express.

**Exhibit V-35  
Multiple Barriers Create Obstacles to Using Express Service**



All respondents, regardless of whether they had indicated any interest in using express, were asked several questions about what would make them more or less likely to use express, and whether the hours of express service would meet their needs. The results are shown in Exhibit V-36.

Service limitations can also serve to enhance or detract from service. Respondents were asked whether the schedule of commuter express service would fit their needs. The description of the hours is indicated in the table. Of the most likely users, fewer than half (40 percent) indicated that those hours would meet their needs. This would be a major limiting factor.

Respondents were also asked whether the limited stops which would be made by a commuter express would make them more or less likely to use the service. Forty-nine (49) percent indicated it would make them more likely to use it, while only six (6) percent said it made them less likely, and thirty-eight (38) percent indicated they would make no difference to them. Clearly, the limited stops are an attractive aspect of express service.

**Exhibit V-36  
Incentives and Disincentives for Using Express Service**

How likely would you be to use the new service once a month or more?		Definitely or very likely	Somewhat likely	Not likely
This kind of express service would make only a limited number of stops. Would that make you more likely or	More	49%	48%	38%
	Less	6%	12%	8%
	No difference	38%	39%	44%
	Not sure	7%	1%	9%
If the express service were started, it would be scheduled mostly for	Yes	40%	31%	23%
	No	55%	62%	73%
	Not sure	6%	7%	5%
Once in Grand Rapids you could connect with The Rapid to get to locations other than downtown.	More	27%	27%	16%
	Less	5%	2%	4%
	No difference	63%	66%	77%
	Not sure	5%	4%	3%
A Guaranteed ride home would be provided to those with an urgent need to get home or who missed the last	More	71%	66%	31%
	Less	1%	0%	2%
	No difference	27%	33%	65%
	Not sure	1%	0%	2%
Employers who chose to do so could pay your bus fare as a tax free benefit under a special federal program.	More	49%	41%	22%
	Less	1%	0%	4%
	No difference	49%	58%	72%
	Not sure	1%	0%	2%

Certain incentives tend to encourage ridership. It would be important to provide guaranteed ride home program because seventy-one (71) percent indicated that it would make them more likely to use the service and only twenty-seven (27) percent said it would make no difference to them.

Finally, an employer subsidy as a tax-free benefit would appeal to approximately half (49 percent) of those who are most likely users.

### **Latent Demand**

With all of the foregoing information, a concrete estimate of latent demand for express service can be determined in four rounds. The first round is objective. The further rounds involve judgment calls.

- ◆ First round – Those with latent demand for express service:
  - Reside in areas in which express is feasible and described in existing planning documents – specifically:
    - A northern route including Algoma Township, Cedar Springs, and Rockford.
    - A southeastern route including both Ada and Lowell (both Township and city).
    - A southwestern route including Byron and Gaines Townships.
    - And finally, a southeastern route including Cascade and Caledonia Townships.
  - Are employed.
  - Work in the City of Grand Rapids.

These criteria identify an estimated total of 11,100 adults in the proposed service areas combined. This is the total market, but does not represent latent demand that would emerge with the offering of new express service.

- ◆ Second round – Intent:
  - Intent:
    - Those with latent demand state that they would “definitely” use express service and would use it to commute to work. This criterion identifies a total of 1,280 adults in the proposed service areas combined. It can be assumed that their strong statement of intent indicates a probability of 1 that they will follow through if not eliminated for other reasons to be considered in subsequent rounds. We will refer to their probability using the type of transit service they were asked about as “p.” Thus, in this case, p=1.
    - Those with limited latent demand (p=.5) state that they are “very likely” to use express service. Initially, this criterion identifies a total of 714 adults in the proposed service areas combined. However, their intent is “discounted” by 50 percent, leaving an estimated 360 persons.
    - Those with very limited latent demand state that they are “somewhat likely” to use express service (p=.02). This criterion identifies a total of 437 adults in the proposed service areas combined. Their intent is “discounted” by 80 percent, leaving an estimated 90 persons.
    - Thus the total pool of those who commute to work and have some probability of using new express service can be estimated as 1,730.
  - Note that the intent to commute via this service will be greater or lesser depending on various factors, such as the cost of service (including the offset of availability of a tax-free transit benefit), the quality of service, availability of guaranteed ride home, and, most important, the cost of alternatives, specifically the price of gasoline and availability of free worksite parking.

For purposes of discussion and reaching initial estimates in this study, we have adjusted for the likelihood of people actually doing what they say they will do in terms of using new transit service by using probability factors. The factors we have used are 1, .5, and .02. These factors are inevitably somewhat arbitrary. Experience teaches that demand in practice difference from the intent of service respondents. People say they will diet, for example, and often do not. Thus we have to decide on probability weights. But what weights?

The market research world discusses this issue and concludes that each product and service differs, depending on whether it is a luxury or a necessity, and depending on environmental factors such as the state of the economy. We have seen both over and under estimates. Projections of demand for rail service in Memphis (TN) were exceeded. Projections of ridership increase for the Central Ohio Transit authority were exceeded. Projections of demand for express service the in the Research Triangle/Raleigh/Durham area were reasonably close (and the line is among the system's most productive now).

Gasoline prices, employment levels, demographic shifts between the time of a survey and the implementation of service, fares, and many factors influence the probabilities. The initial set of probabilities we have used offer what we consider to be a ceiling to the market. These are maximum, not minimum numbers.

- ◆ Third round – Discounting factors to establish a lower and upper bound. Those facing significant barriers to the use of transit for commuting will be discounted by an agreed factor. Barriers include:
  - Hours of service would or would not meet their commuting needs. Those with this limitation will be dropped. However, in the event of development of such a service, and especially if it were an aspect of a TDM program, it is possible that employers would adjust the hours of some employees.
  - An agreed proportion of those facing two barriers will be assumed to be unable to overcome those barriers. Specifically, these barriers are 1) having to use one's own vehicle for work-related purposes, and 2) having to transport children to/from child care or school during the commute. It is assumed that some proportion (amount to be determined) of these commuters could deal with these barriers, but that many could not.

The additional barrier discussed in the earlier text (perception that the walk to the bus stop would not be safe) does not apply to this park and ride oriented service.

- ◆ Final round – Frequency. The resulting population will be predicted to use express service within a frequency range determined by the frequency of their current commuting days at the high end and their stated intent to use express service for a specific number of days at the low end. This will be translated into estimated numbers of total annual trips.

## **Route Extensions**

Besides express service, the second possibility for improved public transportation service in areas beyond the service area of The Rapid, involves extending routes of The Rapid into areas where service had been discontinued, or where service might be extended somewhat. As with the study of the express routes, several questions were asked to identify latent demand for service on certain very specific route extensions from specific townships into downtown Grand Rapids. These were followed by a "catch all" question related to service in general to downtown Grand Rapids.

Questions regarding the specific route extensions were as follows:

- ◆ The first was directed to residents of Rockford, Plainfield Township, Algoma Township, Alpine Township, and Belmont and Comstock Park. They were asked: "Another way to improve service for people in the suburbs of the Grand Rapids area who have no bus service now would be to have The Rapid run its regular bus service on Plainfield Avenue farther out into the suburbs than it does now. For example, a Rapid route now runs toward Rockford, but stops at Alpine and Lamoreaux Drive. Let's say that it could be extended into Rockford on Belmont Avenue and 10 Mile Road..." (etc.)
- ◆ Another was directed to residents of Plainfield Township only. They were asked: "At one time there was Rapid service into Plainfield along Plainfield Ave to downtown Grand Rapids. Let's say that The Rapid could restore that service, extending it to Northland Drive in Plainfield..." (etc.)
- ◆ A third was for residents of Ada and Cascade Townships. They were asked: "Let's say that the Rapid could provide regular bus service on fixed routes running every 30 minutes between downtown Grand Rapids and Ada and Cascade Townships..." (etc.)
- ◆ The fourth route extension was posed to residents of Byron and Gaines Townships were asked: "The Rapid could provide regular bus service on fixed routes running every 30 minutes between downtown Grand Rapids and Byron and Gaines Townships... (etc.)
- ◆ Finally a residual question was asked of others: "Let's say that the Rapid could provide regular bus service on fixed routes running every 30 minutes between downtown Grand Rapids and the area where you live."...(etc.)

A total of fifty-six (56) percent of respondents reside in the areas with specifically described service, while forty-four (44) percent reside elsewhere in Kent County.

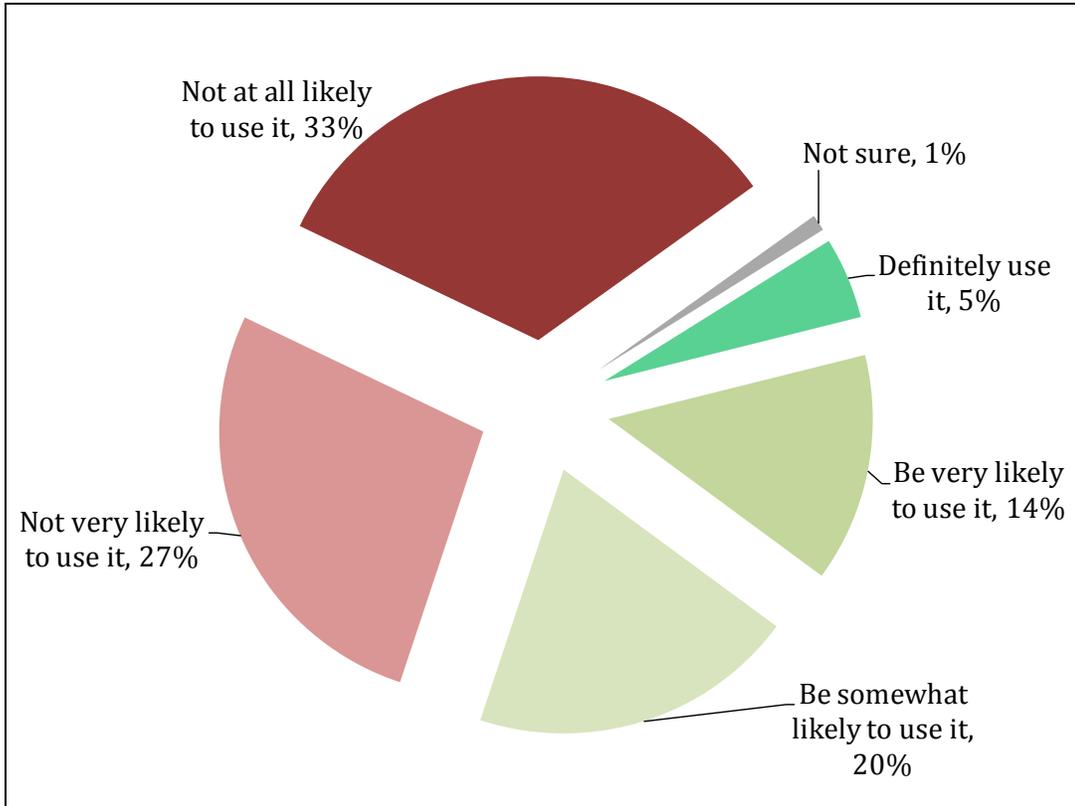
The description of each of these proposed routes was followed up with a question regarding how likely they were to use the route, and on how many days they thought they might use it each week.

Note: In this set of questions, the purpose of the trip was not asked because it is assumed that there would be many purposes of such generalized service, and unlike the situation with either commuter express or door-to-door service, the purpose of the trip could not be used to narrow the definition of latent demand.

When asked about their potential use of route extensions, five (5) percent indicated they would definitely use them, another fourteen (14) percent that they would be very likely to use them, and twenty (20) percent that they would be somewhat likely to use them. This is a total of thirty-nine

(39) percent positive response among people in the total study area. The results are shown in Exhibit V-37.

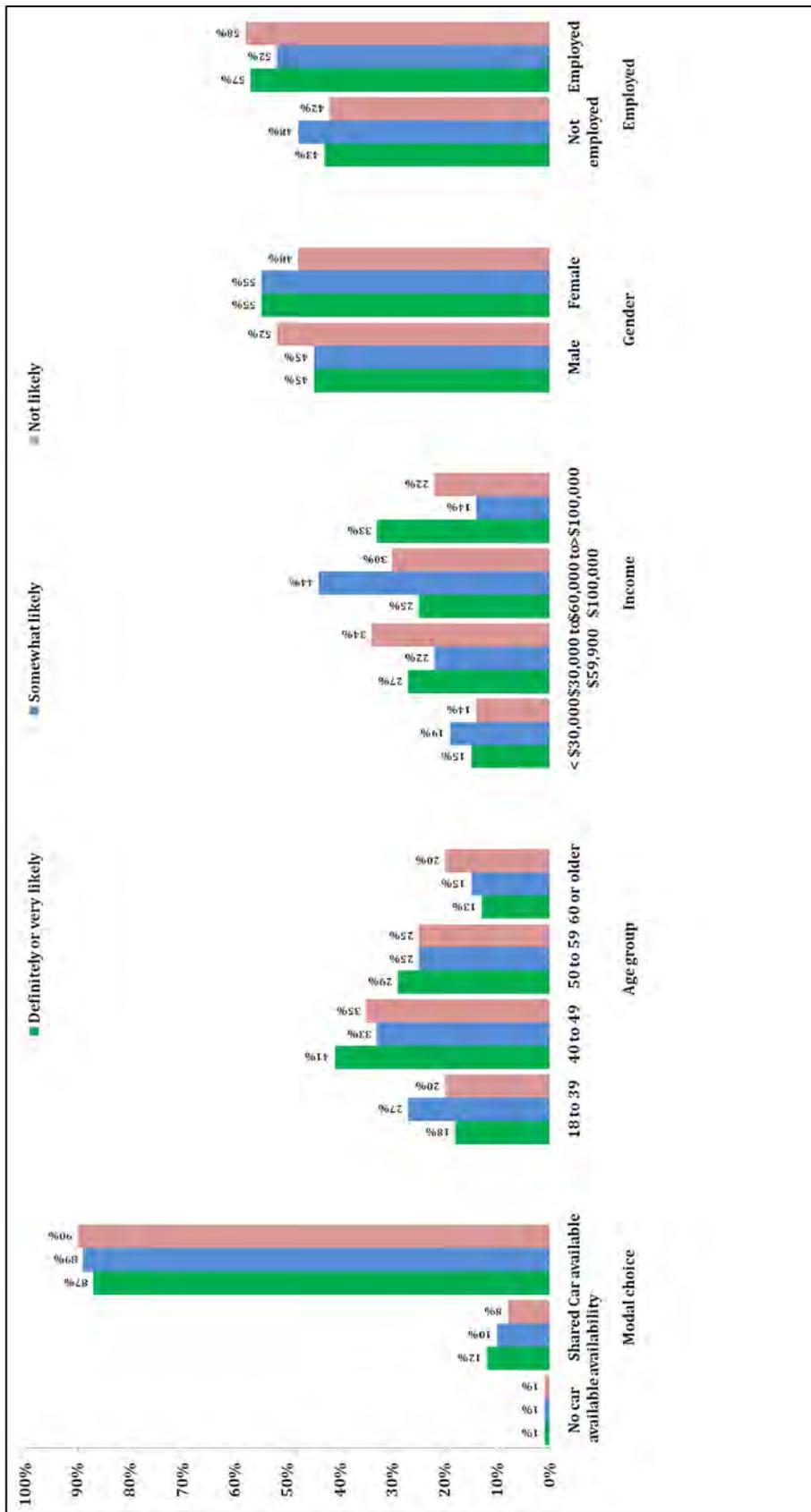
**Exhibit V-37**  
**Overall Interest in Route Extensions**



First the responses in the total study area will be examined, before those people most affected by the route extensions will be examined.

The demographics of those interested or not interested in using extensions to the existing routes of The Rapid are shown in Exhibit V-38. Given that most study area residents have a car available to them, most of those who believe they would use the route extensions also have a vehicle available. Thus, eighty-five (85) percent of those who say they are definitely or very likely to use the route extensions also say they have a car available. However, as one would expect, slightly more (90 percent) of those who are not likely to use the route extensions say they have a car available. More of those who are most likely to use the route extensions (14 percent) than of those who are only somewhat likely (eight percent) or not likely (nine percent) to share availability of a vehicle.

## Exhibit V-38 Route Extension Demographics



There is no clear pattern of gender difference between those who may or may not use the route extensions. The only notable relationship is that of those who are only somewhat likely to use them, many more (61 percent) are women than men (39 percent).

In terms of age, income, and employment, there are no continuous relationships that would allow us to predict utilization given those characteristics. Oddly, in general, the characteristics of the most likely users and not-likely users are more similar to each other than they are to the somewhat likely users. In each case, the characteristics of the likely users merely reflect the characteristics of the larger population.

Another way to look at demographic differences is to consider the within-group differences in terms of the likelihood of using route extensions. For example, within the group who share a vehicle, twenty-one (21) percent indicate that they are definitely or very likely to use the route extensions. This compares to somewhat fewer, seventeen (17) percent, of those who have a car available to them individually. (Those with no car available are shown in the table, but they are too few in number to attribute significance to that result.) The table in Exhibit V-39 shows the demographic differences.

Among women, there is a greater tendency (19 percent) to indicate that they are very likely to use the route extensions or somewhat likely to do (20 percent) so than among men (16 percent and 18 percent respectively), although the difference is small.

**Exhibit V-39  
Interest in Using Potential Route Extension of Local Service**

		Definitely or very likely	Somewhat likely	Not likely
<b>Transport options</b>	<b>No car available</b>	16%	15%	69%
	<b>Shared availability</b>	21%	22%	57%
	<b>Car available</b>	17%	19%	63%
<b>Gender</b>	<b>Male</b>	16%	18%	66%
	<b>Female</b>	19%	20%	60%
<b>Age group</b>	<b>18 to 39</b>	15%	24%	60%
	<b>40 to 49</b>	19%	20%	61%
	<b>50 to 59</b>	21%	17%	62%
	<b>60 or older</b>	13%	16%	71%
<b>Income</b>	<b>&lt; \$30,000</b>	19%	26%	54%
	<b>\$30,000 to \$59,900</b>	16%	15%	69%
	<b>\$60,000 to \$100,000</b>	14%	29%	57%
	<b>&gt;\$100,000</b>	28%	11%	61%
<b>Employment</b>	<b>Not employed</b>	18%	20%	62%
	<b>Employed</b>	17%	19%	64%

Age differences present no clear pattern except that the least likely expected to use the route extensions are those 60 years old or older.

In terms of income, surprisingly, those with the highest level of income are most likely to say they would definitely use or be very likely to use the route extensions. The results are shown in Exhibit V-40. This is sufficiently unexpected, warranting further examination.

Providing greater detail on income levels (see inset table for detailed income levels which are simplified in most of the other charts), reveals that those with incomes under \$15,000 a year are the group most likely to be most interested in using the route extensions. It is interesting, however, that those with the top level of income measured are also quite interested. This is an example of the “U-shaped curve” of demand for public transportation, which often is found to be divided between the transit dependent, and an upper-middle-class market who, in principle, would like to use transit but often do not because of reasons of convenience.

**Exhibit V-40  
Income and Interest in Using Route Extensions**

	<b>Definitely or very likely</b>	<b>Somewhat likely</b>	<b>Not likely</b>
<b>Less than \$15,000</b>	36%	22%	42%
<b>\$15,000 to \$29,999</b>	12%	28%	60%
<b>\$30,000 - \$44,999</b>	17%	9%	74%
<b>\$45,000 to \$59,999</b>	18%	22%	60%
<b>\$60,000 - \$74,999</b>	9%	40%	51%
<b>\$75,000 - \$100,000</b>	20%	22%	58%
<b>More than \$100,000</b>	29%	13%	58%

There is no relationship between being employed and having interest in using the route extensions.

As discussed in an earlier section, the route extensions that respondents were asked about were of two types:

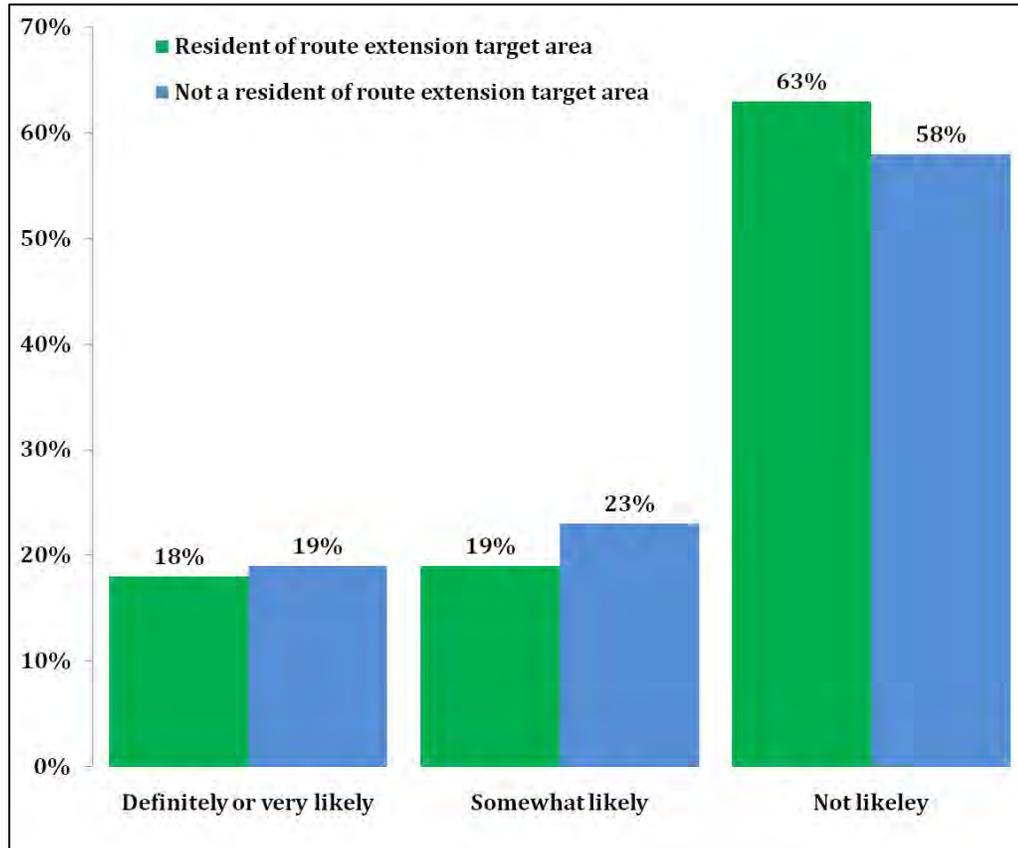
- ◆ extensions of routes into specific sets of townships adjacent to the existing service of The Rapid, and
- ◆ extensions of The Rapid into more distant areas.

In both cases, the service was described as an extension of Rapid service between the area in which the respondent resides and downtown Grand Rapids.

Exhibit V-41 displays the levels of interest among residents of the areas targeted for route extensions and areas not targeted. Notice that there is very little difference. It had been hypothesized that those who live in close proximity to Grand Rapids would be more likely to

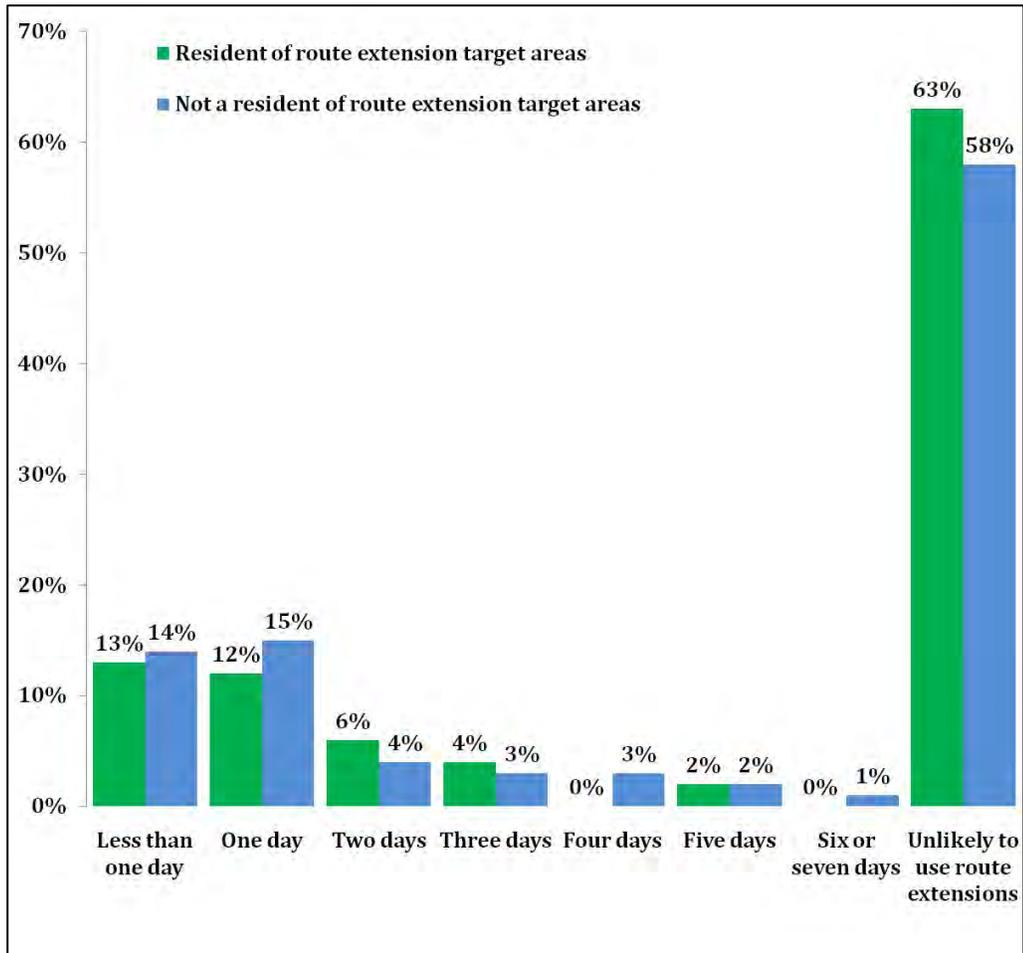
respond positively. But, perhaps those who live at a distance were focused not so much on the final destination in the City of Grand Rapids, but on the notion of having local fixed route transit service. Or perhaps there is a core of low income population there who understand the service as providing a means of getting to Grand Rapids.

**Exhibit V-41  
Target Route Extensions**



The expectation of those who said they might use the route extensions is to use them infrequently. Regardless of area of residence, those who said they might use the services also tended to say they would probably use them only occasionally – one day or less than one day a week. Only a few thought they would use them regularly, as often as three to five days a week. Those responses are shown in Exhibit V-42.

**Exhibit V-42  
Estimated Travel Frequency of Route Extensions**



The demographics of the route extension markets are shown in Exhibit V-43, broken into the targeted and non-targeted townships. The nontargeted township data is provided simply for the record, and primarily the targeted townships will be discussed. Within the targeted townships:

- ◆ Those who share availability of a vehicle are more likely (26 percent) to be interested in using the route extensions than those who have individual car available to them.
- ◆ Men and women do not differ in their interest except that women have a greater tendency to be somewhat likely, as opposed to unlikely, to be interested in using the route extensions.
- ◆ There are few significant differences among the age groups. The exception is that those between the ages of 40 and 49 are more likely than others to be stronger in their interest. That is, more of them (21 percent) than other age groups say they would definitely use or be very likely to use the route extensions, and fewer say that they are only somewhat likely to use them. The relationship of age to probable use is too irregular, however, to provide a useful predictor.
- ◆ Income shows the same pattern seen in the data for the total study area. The strongest interest in using the route extensions occurs among residents of households with the lowest level of

income and the highest levels of income. It is interesting to note that this is especially true in the more outlying areas.

- ◆ As was true in the overall study area, within the target area there is also no significant difference in the strong likelihood of using these new services. However, those who are not employed outside the home at the greater tendency than those who are to say they are somewhat likely to use the new transit service.

**Exhibit V-43  
Level of Interest within Affected Townships**

		Route extension targeted			Route extension non-targeted		
		Definitely or very likely	Somewhat likely	Not likely	Definitely or very likely	Somewhat likely	Not likely
<b>Modal choice</b>	No car available	29%	16%	55%	5%	14%	81%
	Shared availability	26%	16%	57%	22%	31%	47%
	Car available	17%	19%	64%	19%	22%	59%
<b>Gender</b>	Male	18%	15%	67%	15%	24%	61%
	Female	18%	22%	59%	23%	22%	56%
<b>Age group</b>	18 to 39	17%	24%	59%	14%	28%	58%
	40 to 49	21%	15%	64%	22%	24%	54%
	50 to 59	18%	21%	61%	26%	18%	56%
	60 or older	15%	17%	68%	11%	18%	71%
<b>Income</b>	Less than \$15,000	24%	36%	40%	44%	13%	43%
	\$15,000 to \$29,999	14%	26%	59%	9%	30%	61%
	\$30,000 - \$44,999	21%	9%	70%	13%	9%	79%
	\$45,000 to \$59,999	16%	23%	61%	20%	20%	60%
	\$60,000 - \$74,999	14%	34%	52%	3%	46%	51%
	\$75,000 - \$100,000	23%	18%	60%	17%	28%	55%
	More than \$100,000	26%	14%	60%	33%	12%	56%
<b>Employment</b>	Not employed	17%	23%	60%	19%	22%	58%
	Employed	19%	15%	66%	19%	23%	58%

**Latent Demand**

With all of the foregoing information, a concrete estimate of with latent demand for route extension service can be determined in four rounds. The first round is objective. The further rounds involve judgment calls.

- ◆ First round – Those with latent demand for route extension service:
  - Reside in areas in which route extension is feasible and described in existing planning documents – specifically:

- Rockford, Plainfield Township, Algoma Township, Alpine Township, and Belmont and Comstock Park.
- Plainfield Township only.
- Ada and Cascade Townships.
- Byron and Gaines Townships

These criteria identify an estimated total of 83,400 adults in the proposed service areas combined. This is the total market, but does not represent latent demand that would emerge with the offering of new route extension service.

- ◆ Second round – Intent and projected frequency of use:
  - Intent:
    - Those with latent demand ( $p=1$ ) state that they would “definitely” use route extension service and would use it to commute to work. This criterion identifies a total of 4,400 adults in the proposed service areas combined. It can be assumed that their strong statement of intent indicates a probability of 1 that they will follow through if not eliminated for other reasons to be considered in subsequent rounds. (Thus  $p=1$ ).
    - Those with limited latent demand ( $p=.5$ ) state that they are “very likely” to use route extension service. Initially, this criterion identifies a total of 10,800 adults in the proposed service areas combined. Their intent would be “discounted” by 50 percent, leaving an estimated (rounded) 5,400 persons.
    - Those with very limited latent demand state that they are “somewhat likely” to use route extension service ( $p=.02$ ). This criterion identifies a total of 15,600 adults in the proposed service areas combined. We would “discount” their intent by 80 percent, leaving an estimated 3,120 persons.
    - Thus the total pool of those who commute to work and have some probability of using new route extension service can be estimated as 12,900.
  - Note that the intent to commute via this service will be greater or lesser depending on various factors, including the cost of service (including the offset of availability of a tax-free transit benefit), the quality of service, and the cost of alternatives, specifically the price of gasoline and availability of free parking for work, shopping or other purposes.
- ◆ Third round – Discounting factors to establish a lower and upper bound. Those facing significant barriers to the use of transit for commuting will be discounted by an agreed factor. The primary barriers would include the perception that the walk to the bus stop would be unsafe. Another would be having to take children to school or child care.
- ◆ Final round – Frequency. The resulting population will be predicted to use route extension service within a frequency range determined by the frequency of their current local trips for purposes of commuting or shopping or other reasons. This will be translated into estimated numbers of total annual trips.

### **Demand Response Service**

Currently, demand response service of The Rapid serves only a few participating townships, and riders must qualify to use it. The question in the survey, however, was posed to all respondents regardless of location, age, or disability. Moreover this hypothetical service would take them anywhere in the county. The Go-Bus fares, depending on age and disability are \$3.00 or \$7.00. The hypothetical fare would be \$5.00, making it more than competitive with a taxi to get anywhere in

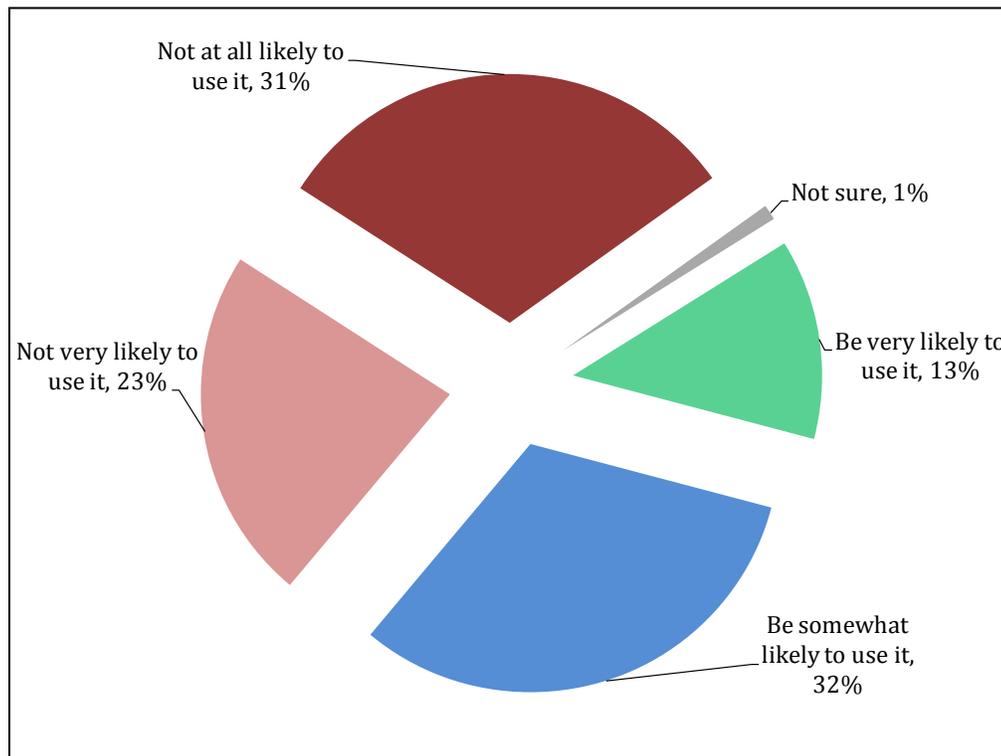
Kent County. The only drawbacks to using such a service would really be the need to reserve space a day ahead and the fact that it would pick up several people.

The question was posed this way:

- ◆ *Another change in public transportation could be new door-to-door public transit service available throughout Kent County and to anyone, not just seniors and people with disabilities. For this new door-to-door service the fare might be about \$5.00 each way to go anywhere in Kent County. You would call a day ahead to reserve a place. Or you could set up in advance a regular trip that you wanted to make routinely. The vehicle would hold about ten people. It would pick up each one at their home and then take each of them to their separate destinations.*

Thus the service, when posed to the total public in this manner is, in effect, a measure of the general public's interest in using the least expensive, most convenient form of rural public transportation without having to qualify for reasons of age, disability or income. In this sense it is not intended as a realistic option, but only to generate a ceiling of possible use. Exhibit V-44 indicates the likelihood that respondents would use door-to-door service.

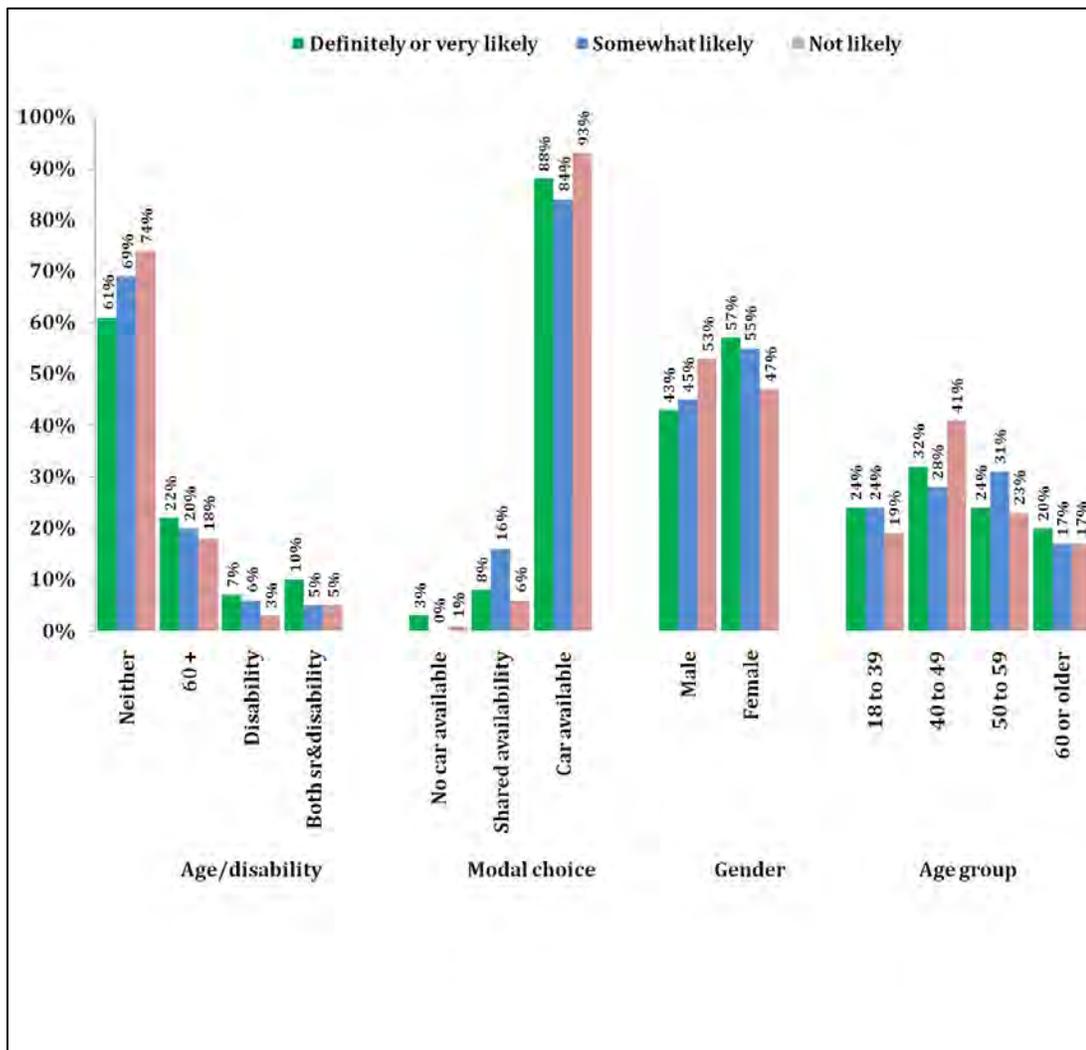
**Exhibit V-44**  
**Overview of Door-to-Door Service, at \$5 Fare**



Posed in this manner, the door-to-door service attracts interest from a broad spectrum of the population, and not just from the senior or disability communities. As a matter of public policy, it is

unlikely that the wide-ranging levels of age income and non-disability status would be served. But it is interesting to note that, for example, of those who said they would definitely use this service would be very likely to do so, sixty-one (61) percent are neither over 60 years of age nor do they have a disability. On the other hand, it is also true that of the most likely users, thirty-nine (39) percent are either over 60, disabled, or both. Contrast this with the non-likely users among whom seventy-four (74) percent are neither over 60 or nor have a disability, and only twenty-six (26) percent are over 60 or have a disability or both. The results are shown in Exhibit V-45.

**Exhibit V-45  
Door-to-door Demographics**



In other words, the service is more attractive to older persons and those with disabilities than it is to others. However, it is also attractive to a substantial number of people who fit neither of those descriptions.

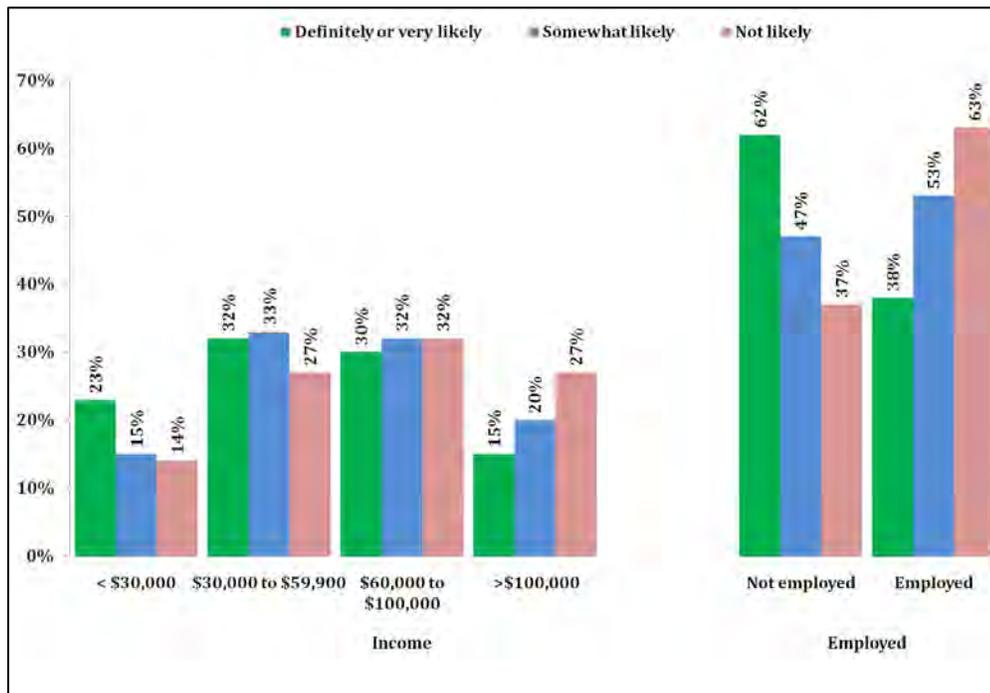
Also, regarding those respondents who are more likely to use the door-to-door service:

- ◆ Fewer have their own vehicle than do those unlikely to use the service.
- ◆ A majority of the more likely users are women (57 percent). A majority of the non-likely users are men (53 percent).
- ◆ There is not a great deal of systematic difference among the three levels of likely use in terms of age. Regardless of how likely they are to use door-to-door service, the age categories and follow the general population distribution. However, notice that one fourth of the more likely users are between the ages of 18 and 39, a fact that suggests if such a service could be provided for the general population, it would attract a significant number of younger people.

The door-to-door service does appeal disproportionately to those with household incomes under \$30,000 annually. Among the more likely users twenty-three (23) percent report incomes that level compared to only fourteen (14) percent of the non-likely users.

Exhibit V- 46 indicates that door- to-door service also appeals disproportionately to those who are not employed outside the home. Among the more likely users, sixty-two (62) percent are not employed outside the home while thirty-eight (38) percent are employed. However, of those unlikely to use this door-to-door service, only thirty-seven (37) percent are not employed outside the home compared to sixty-three (63) percent that are employed outside the home. In other words, disproportionately those likely to find door-to-door service appealing are not employed outside the home whereas the reverse is true of those who are more likely to find it unappealing.

**Exhibit V-46**  
**Door-to-Door Income and Employment**



Interest in using the door-to-door service varies considerably among income groups and between those who are employed and those who are not employed, and differs substantially among groups defined by age, disability or income (see Exhibit V-47).

**Exhibit II-47  
Interest in Using Door-to-Door, by Demographics**

		<b>(percentages to be read left to right across the rows)</b>		
		<b>Definitely or very likely</b>	<b>Somewhat likely</b>	<b>Not likely</b>
<b>Population likely to be eligible to use door-to-door because of:</b>	<b>Age</b>	14%	30%	56%
	<b>Disability</b>	23%	36%	41%
	<b>Income &lt;\$30k</b>	19%	34%	47%
	<b>Others</b>	11%	32%	57%
<b>Modal choice</b>	<b>No car available</b>	34%	12%	54%
	<b>Shared availability</b>	12%	55%	33%
	<b>Car available</b>	13%	30%	57%
<b>Gender</b>	<b>Male</b>	12%	29%	59%
	<b>Female</b>	15%	35%	50%
<b>Age group</b>	<b>18 to 39</b>	15%	37%	48%
	<b>40 to 49</b>	12%	25%	62%
	<b>50 to 59</b>	12%	38%	50%
	<b>60 or older</b>	15%	31%	54%
<b>Income</b>	<b>Less than \$15,000</b>	27%	40%	33%
	<b>\$15,000 to \$29,999</b>	18%	30%	52%
	<b>\$30,000 - \$44,999</b>	11%	34%	55%
	<b>\$45,000 to \$59,999</b>	18%	40%	42%
	<b>\$60,000 - \$74,999</b>	19%	34%	47%
	<b>\$75,000 - \$100,000</b>	9%	34%	58%
	<b>More than \$100,000</b>	9%	29%	62%
<b>Employed</b>	<b>Not employed</b>	19%	34%	47%
	<b>Employed</b>	9%	30%	61%

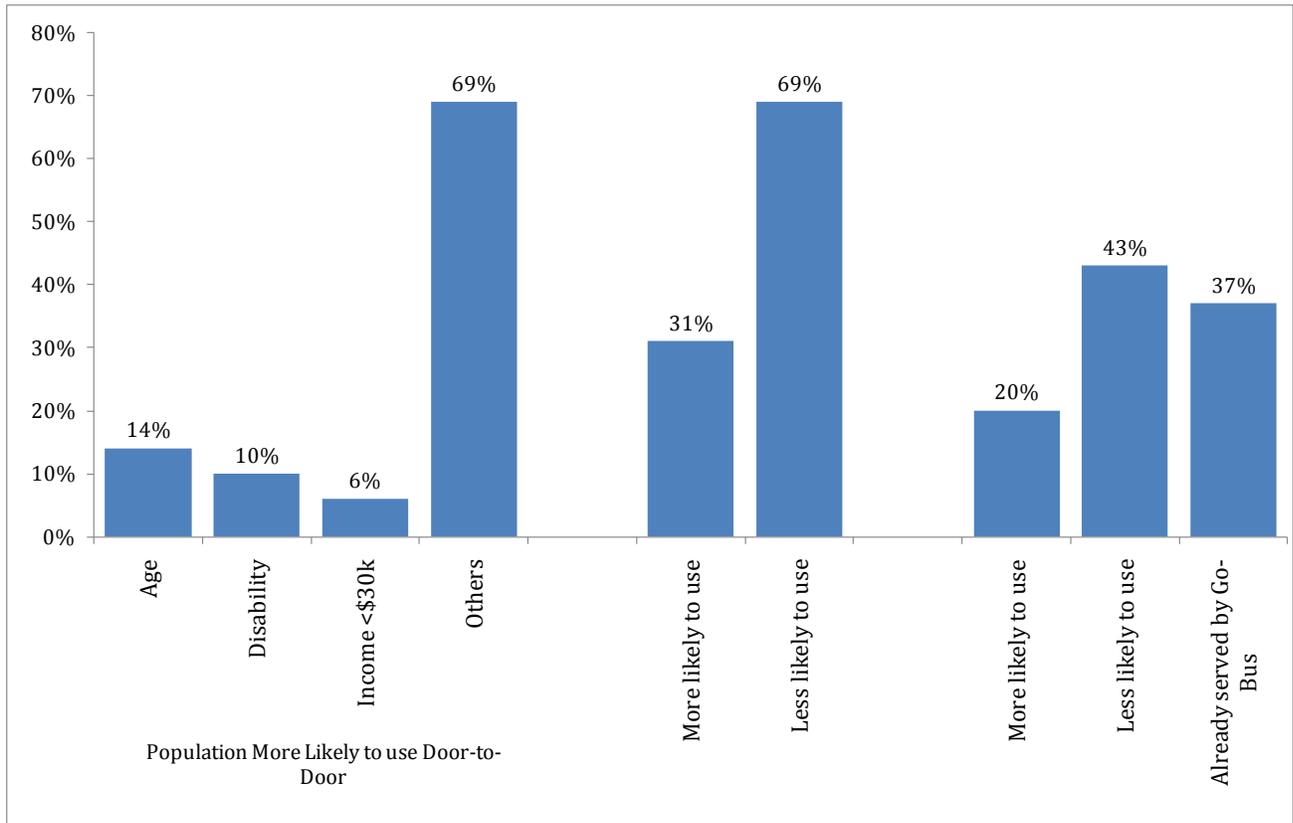
Note: Persons 60 or older, those with a disability, and low income persons are considered to be the primary markets for rural demand response service.

- ◆ Those who are in primary demand response market groups are more likely than others to say they would definitely use, or be very likely to use the door-to-door service. Those most likely to use it are those with a disability.
- ◆ There is relatively little difference between those who share a vehicle and those who have their own vehicle except that those who share a vehicle have a greater tendency to be somewhat likely to use the service than those who have a car available.
- ◆ Women are less likely than men to reject this door-to-door service (50 percent to 59 percent not likely to use it), but the difference is primarily in the “somewhat likely” category and is thus not very strong.
- ◆ There is little difference among the age groups, except that the younger group (18–39) is least likely to reject it.
- ◆ There are substantial differences among the income levels in terms of interest in using this door-to-door service. For example, of those with household incomes of less than \$15,000, 27 percent say they are likely users, but of those with incomes of \$75,000 or more, only 9 percent indicate they are likely users.
- ◆ Finally, those who are not employed are more than twice as likely to identify themselves as probable users (19 percent) as are those who are employed (9 percent).

It is important to begin the process of narrowing the focus of possible users in order to estimate the extent of latent demand. Exhibit V-48 below lists the possible approach.

For purposes of this report, three criteria have been used: (1) the age of the person, considering 60 years old as the cutoff (although some of the services are available only to those 65 and older); (2) the disability status of the person (and, if the respondent both had a disability and was 60 years old or older he or she was classified with the disability group, not the age group); (3) an income criterion, with income below \$30,000 per year for the household as the qualifier. These criteria are, of course, open for discussion. They are simply artificial constructs introduced here to begin the process of understanding the realistic limits of the market for door-to-door, countywide service.

**Exhibit V-48  
Door-to-Door Criteria**

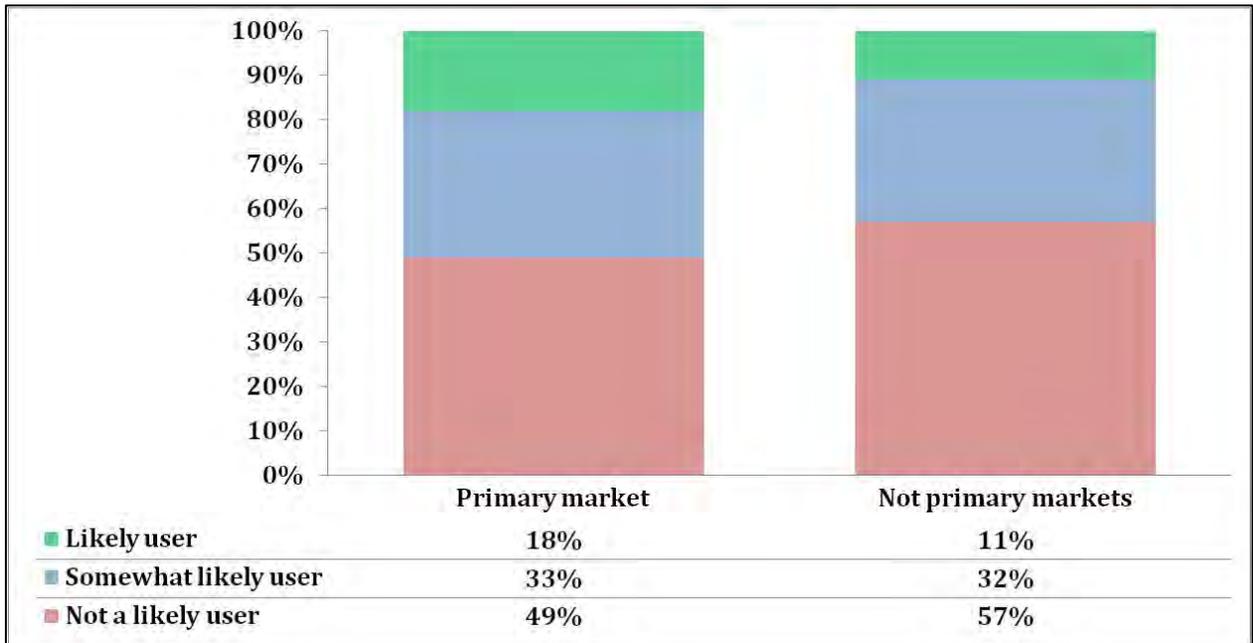


Applying these criteria, then, reveals that thirty-one (31) percent of the adults would be the demographic categories most interested in the door-to-door service, and sixty-nine (69) percent would not.

If "latent" demand is to be measured, that may imply that persons already served should be eliminated from the computation. This will be done in a subsequent analysis.

The primary demand response market criteria help focus the level of demand. Those considered "in the primary market" in this hypothetical sense are more likely (18 percent) than those not in the primary market (11 percent) to consider themselves likely users of door-to-door service, and are less likely (49 percent) than those not eligible (57 percent) to reject it. The chart in exhibit V-49 shows this hypothetical scenario.

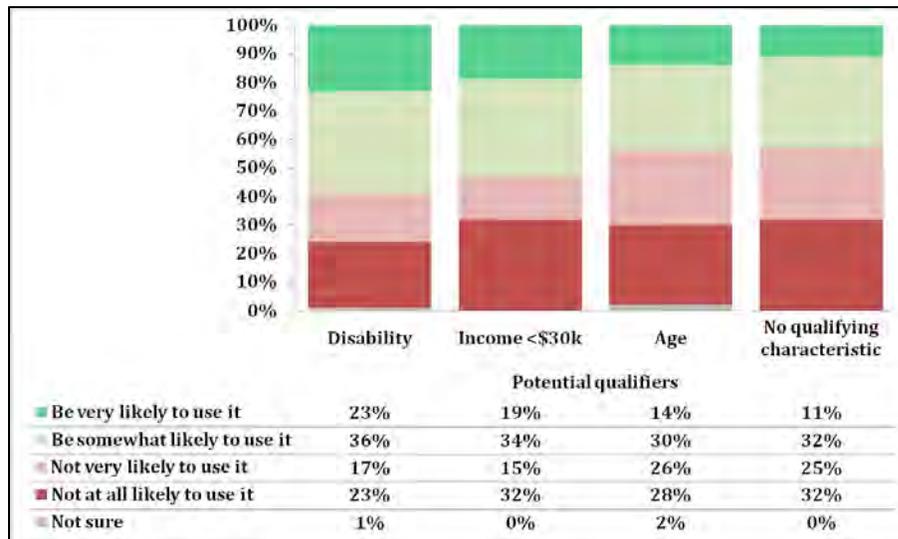
**Exhibit V-49  
Primary Market Criteria**



Among the several eligibility criteria, disability is the strongest determinant of demand, income next, and age third. As Exhibit V-50 indicates, of those with a disability, 25 percent consider themselves very likely users compared to only 11 percent of those with no qualifiers. The comparable figure for the income qualifier is 19 percent, and for age, 14 percent.

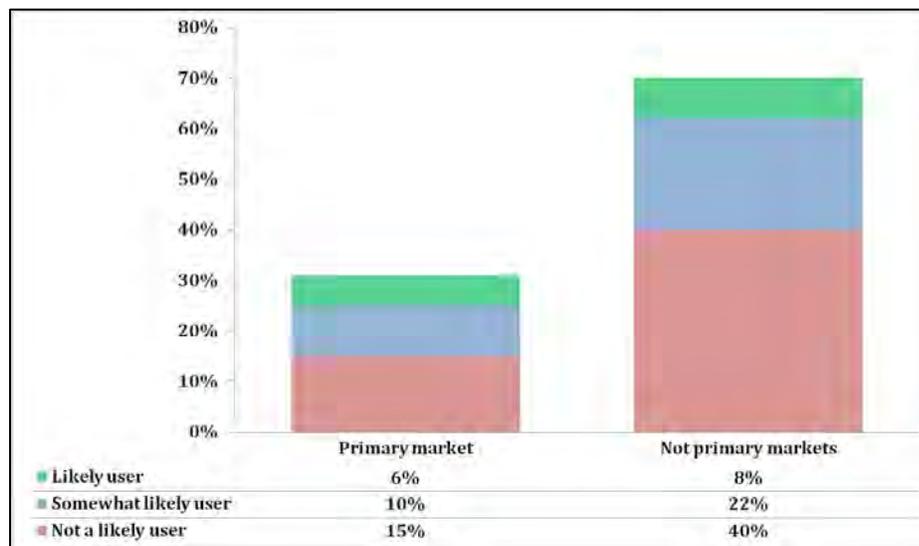
Thus, when probabilities are decided for purposes of computing latent demand, these levels of interest should be considered.

### Exhibit V-50 Demand Response Primary Markets



In focusing on the primary markets for demand response service, the level of latent demand is dramatically narrowed. Exhibit V-51 shows the percent of the total adult population in each cell of the table. The chart illustrates the point that the combination of all adults realistically most likely to use the demand response door-to-door service is only six (6) percent of the population, and those “somewhat likely” to use it compromise only another ten (10) percent.

### Exhibit V-51 Primary and Not Primary Markets



Within the small population defined as being in the primary market to utilize the new door-to-door-service, the very few who have no vehicle are too few in number to base a projection on, but the few there are in the sample, certainly consider themselves likely users. Oddly, however, those with a car available are more likely (19 percent) than those with no car available, to say they are likely users.

Although men and women do not differ much in term of likely use, men are more likely to entirely reject using door-to-door service (55 percent) than women (45 percent). The results are shown in the table in Exhibit V-52.

**Exhibit V-52**  
**Interest in Using Door-to-Door, within the Primary Market**

<u><b>Interest in using door-to-door</b></u>				
<u>(Table includes total study area but only those 60 or older, or with a disability or with household income under \$30,000 annually )</u>				
Differences within demographic groups (percentages to be read left to right across the rows)				
		Definitely or very likely	Somewhat likely	Not likely
Modal choice	No car available	44%	12%	44%
	Shared availability	9%	49%	43%
	Car available	19%	31%	51%
Gender	Male	19%	27%	55%
	Female	17%	38%	45%

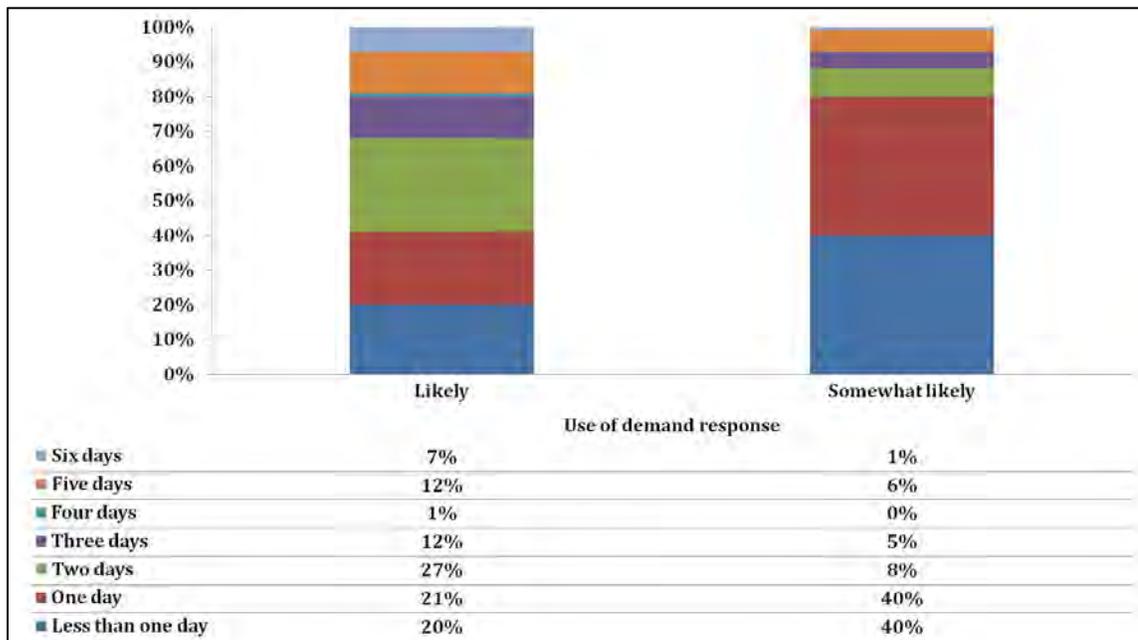
Exhibit V -53 shows trip purpose. Trip purpose among more than half of the most likely users is occasional purposes, including shopping (28 percent) and medical/dental visits (27 percent), visiting (4 percent), church (1 percent), social service agency visits (7 percent), and miscellaneous trips (8 percent), for a total of 74 percent. The other 26 percent say they would commute. Those who say they are only somewhat likely to use the service also cite predominantly occasional, not frequent, trips as the likely purpose, and only seven percent cite commuting.

**Exhibit V-53  
Trip Purpose**

	<u>Primary Market</u>	
	<b>Very likely to use it</b>	<b>Somewhat likely to use it</b>
<b>Shopping</b>	<b>28%</b>	<b>24%</b>
<b>Medical/dental</b>	<b>27%</b>	<b>42%</b>
<b>Commute to work</b>	<b>26%</b>	<b>7%</b>
<b>Visiting</b>	<b>4%</b>	<b>11%</b>
<b>Church services or activities</b>	<b>1%</b>	<b>4%</b>
<b>Social service agencies</b>	<b>7%</b>	<b>0%</b>
<b>Commute to school</b>	<b>0%</b>	<b>1%</b>
<b>Other</b>	<b>7%</b>	<b>10%</b>

The occasional nature of the trip purposes is reflected in the number of days on which people believe they would use door-to-door service each week. Sixty-eight percent (68 percent) say they would use it two or fewer days a week. They would thus comprise approximately two thirds of the likely users defined as “in the primary markets” (six percent of the adult population), or four percent of all adults in the study area. Some, 13 percent indicate they would use it three or four days (slightly less than one percent of the adult population). The results are shown in Exhibit V-54.

**Exhibit V-54  
Frequency Among Those in the Primary Markets**



The heavy potential users, five or six days (no one said they would use it seven days) comprise 19 percent of the likely users whom have been defined as “in the primary market” (six percent of the adult population), or slightly more than one percent of the adult population. In data not presented in table form here, it is clear that the 90 percent of these potentially frequent users say they would be using it to commute. Those using the service for four or fewer days say they would use it for shopping, (28 percent), medical visits (41 percent), and other occasional purposes. It is an open question whether this would be a viable means of commuting for many people.

### **Latent Demand**

The next step with the door-to-door service, as with the other service expansions, is to use these results to estimate latent demand for this additional service. Clearly there are a greater number of judgment calls in the door-to-door situation than in the express or route extension components. The most likely market for use of door-to-door service is as we have described it – persons with disabilities related to mobility, persons who are 60 or older, and persons with low incomes. The door-to-door market is thus very different from the market for express or even route extensions. Both of those markets are limited by geography. The express market is additionally limited by geography of both residence and workplace, and by whether or not the person is employed. However, there are no other demographic limits on the probable market.

For door-to-door service, however, the only limits are demographic, for the service was described as being county-wide. Nor is the service highly constrained by the price of a trip, which, at the stipulated \$5 fare is roughly one third of the comparable service (County Connection) today.

This competitive price-point means that the nominal market will tend to be quite large. In one of the charts in the door-to-door section of the report, we noted the most likely primary market as being 5.5 percent of the adult population. This amounts to approximately 8,100 persons who not only said they would be very likely to use the service but also met one or more of the criteria for being in the primary market for such service (i.e. disability, age, and/or income).

Another 10 percent meet the demographic criteria, but say they are only somewhat likely to use the service. This amounts to approximately 14,800 people who would use the service at least occasionally.

Applying the probability weights of 1 for the most likely users and .5 for the “somewhat likely” users, we find a total of approximately 15,500 persons in the market for such service.

This is not a final estimate of latent demand. The final estimate will consider the number of trips per week and annually people believe they are likely to make using the service. It will also consider two other matters. First, it will deduct the persons currently served by Go-Bus and other demand response services from the total of “latent” demand since those using these services are not “latent.” Second, the probabilities assigned to the more conventional express and fixed route services studied here to estimate the proportion of those expressing interest who will actually follow through are 1 for those saying they are very likely to use or definitely will use the service and one half for those

who say they are somewhat likely. However, demand response service is considerably more challenging to use in spite of the appealing name. because using it entails giving advance notice, waiting for the vehicle within a significant time-window, and riding with a number of other persons with differing destinations, thus potentially waiting through delivery of others to their destinations. Thus initially favorable response in a survey situation is more likely than other transit services to falter in the real world. This suggests that we ought to use a greater behavioral “discount factor.” These additional factors will be considered in the final estimate.

## **EMPLOYER SURVEY**

### **Transit Rider Origins and Destinations**

The major employers within Kent County were identified and compared to existing Rapid service to see whether they were being served. In most cases, major employment sites in the service area are provided bus service. However, five employers are located beyond the ¼ mile walking distance threshold. They are:

- ◆ Consumers Energy in Wyoming is 1.1 miles from Route 1
- ◆ Gordon Food Service in Wyoming is 0.4 miles from Route 1
- ◆ Leon Plastics in Wyoming is 0.9 miles from Route 1
- ◆ Pine Rest Christian Mental Health in Gaines Township is 0.3 miles from Route 1
- ◆ Priority Health in Grand Rapids Township is 0.7 miles from Route 15

To analyze the travel patterns of passengers using The Rapid bus service, bus stop boarding and alighting data was obtained from The Rapid to help identify the top origins and destinations of riders. The bus stops with greater than fifty (50) boardings and alightings per day were identified. This is shown in Exhibit V-55.

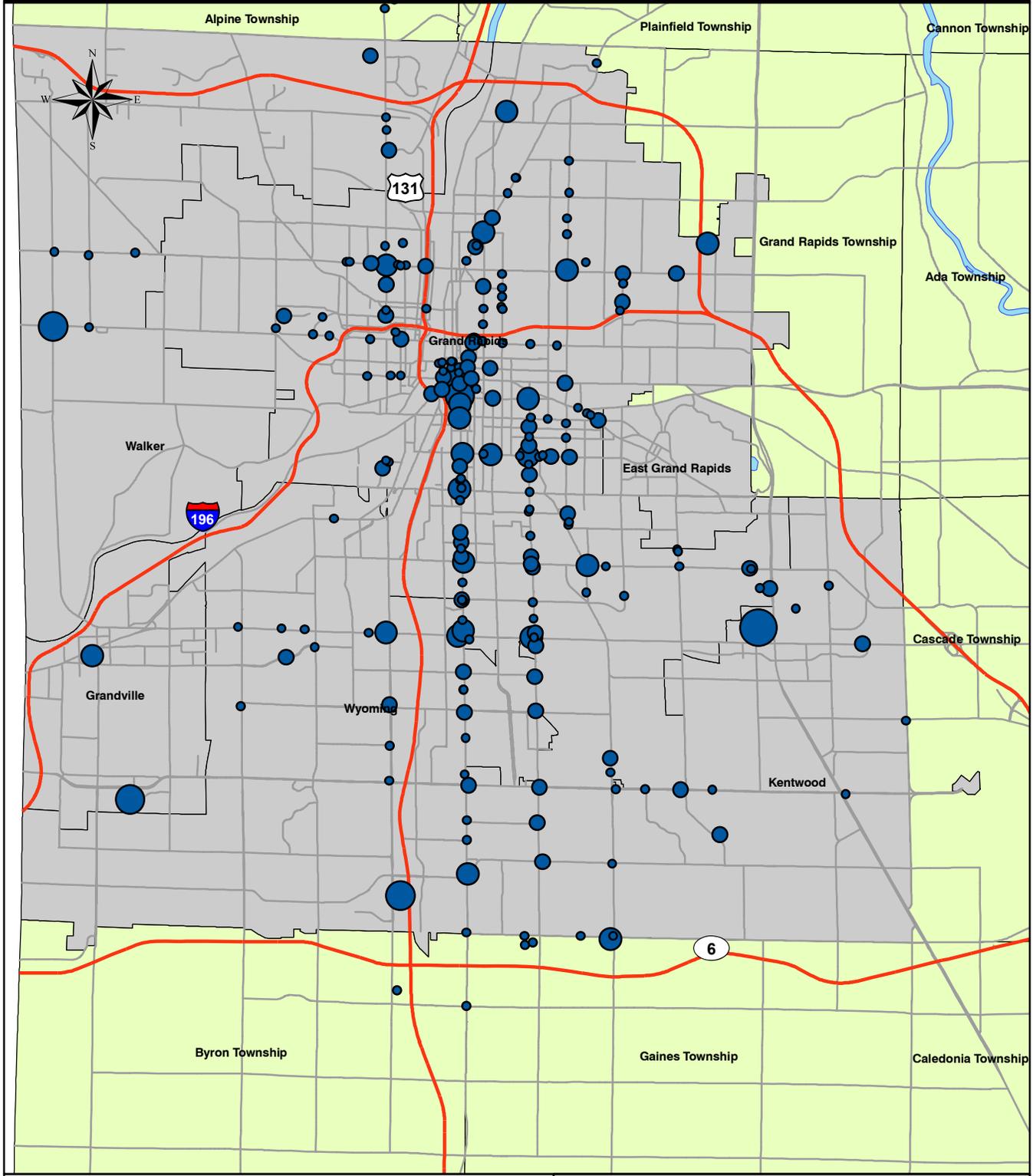
Locations of major employers were used to ascertain whether The Rapid was being utilized by their employees. The major employers are summarized in Exhibit V-56. The map shows the locations of major employers in and around the six city area.

Four major employment sites outside of downtown Grand Rapids had boarding and alighting activity above 50. While a direct correlation with the major employer cannot be shown, it can be reasonably assumed that a portion of the ridership is due to the major employer. The four locations are:

- ◆ Division Avenue S between downtown and 28th Street SE on Route 1. There are many stops with very high activity ranging from 45 to 190, the most of any route segment in the system. In this area are the employment sites of Bentleler Automotive and Pridgeon & Clay that are identified in this study.
- ◆ Roosevelt Park on Route 8 has high activity near Michigan Turkey Headquarters.
- ◆ Burton Street SE on Route 6 has high activity at the Calvin College stop and near the Holland Home Corporate Office.
- ◆ Wyoming Avenue at the Metropolitan Health Village has high boarding and alighting activity.

# Exhibit V-55

## Journey to Work Boardings and Alightings



**Boarding/Alighting**

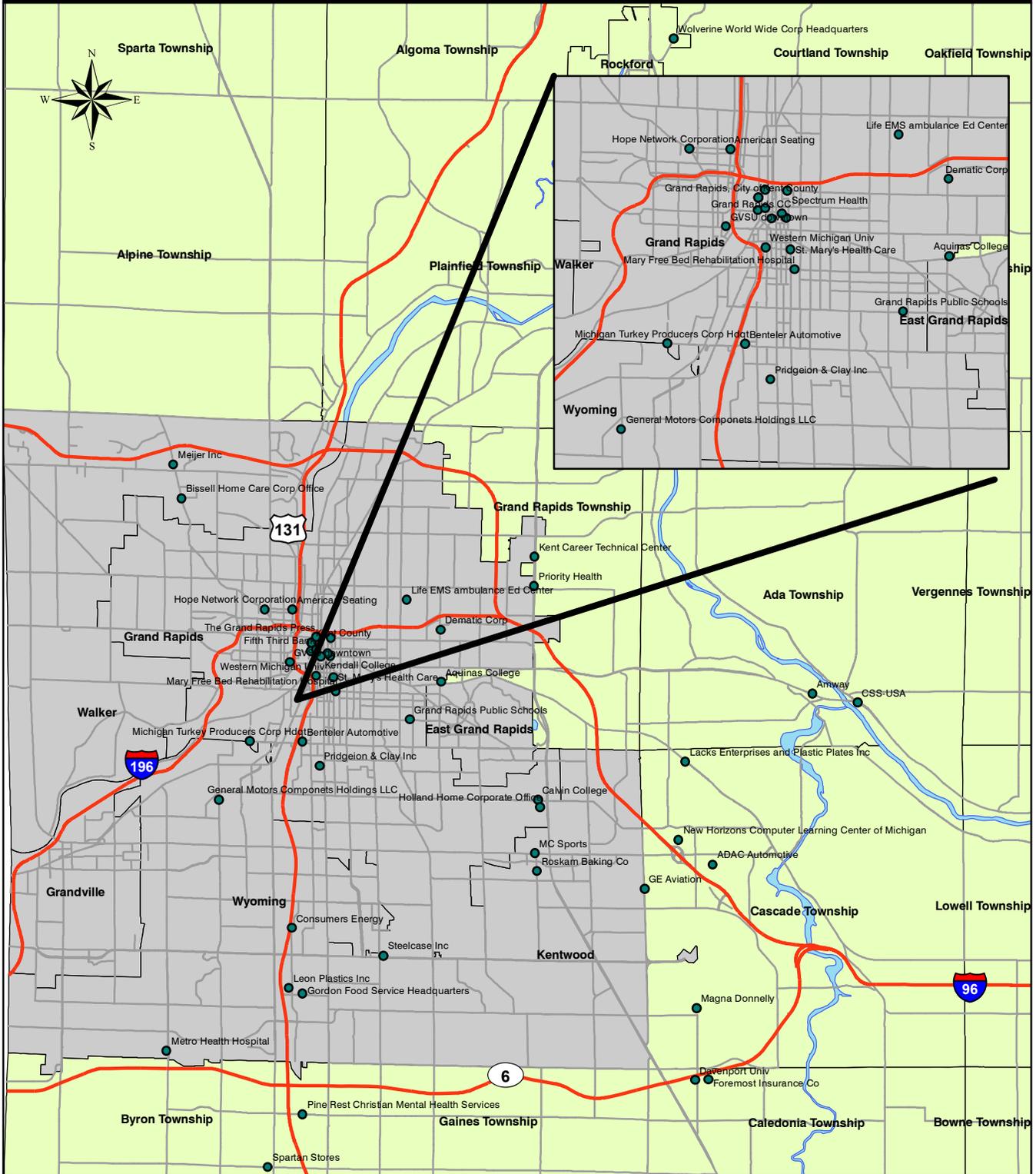
- 23 - 65
- 66 - 157
- 158 - 321
- 322 - 602
- 603 - 1345

ITP Service Area  
 Study Area

**Kent County  
Transit Needs Assessment**

# Exhibit V-56

## Locations of Major Employers in Metro Grand Rapids



- Major Employers
- ITP Service Area
- Study Area

**Kent County  
Transit Needs Assessment**

Outside of downtown Grand Rapids there are an additional twelve (12) employment sites that were identified. Most are accessible by bus routes operated by The Rapid. The bus stops at or near these destinations did not have boarding activity of significance to indicate riders are using bus service to travel to and from work.

Overall, the vast majority of the major employers in Kent County are served by The Rapid. Except for downtown Grand Rapids and the four locations noted above, there does not appear to be significant commuter travel by bus to these work locations.

### **Kent County Journey to Work Analysis**

The Kent County Journey to Work analysis identified travel patterns within the county using 2000 census data. This analysis is focused on the following three Journey to Work travel patterns:

- ◆ Travel to work from the City of Grand Rapids to locations in Kent County
- ◆ Travel to work to locations in the City of Grand Rapids from Kent County
- ◆ Travel to work in downtown Grand Rapids from Kent County

It should be noted that the Journey to Work analysis does not account for shift times, multiple locations, or the ability to connect origins and destinations effectively with a bus route. It does, however, provide a proxy for demand.

Data indicates that most Kent County residents work locally in the Grand Rapids area with 40 percent working in the City of Grand Rapids. Another 15 percent of residents in the Grand Rapids area work in other areas of Kent County. Of all the workers employed within Kent County, 91 percent also live in Kent County and do not travel significant distances to work.

All areas within the City of Grand Rapids are served by public transit, therefore, most employment sites are accessible by bus. Beyond the city limits in Kent County there are several large employers that are not served by public transit. These include:

Ada: Amway and CSS-USA  
Byron: Spartan Stores Corporate Office  
Cascade: Lacks Enterprises & Plastic Plates; New Horizons Computer Learning Center; ADAC Automotive; Magna Donnelly  
Caledonia: Foremost and Farmers Insurance and Davenport University  
Rockford: Wolverine World Wide Headquarters  
Walker: Meijer Corporate Office and Bissell Home Care Corporate Office

### **Travel from City of Grand Rapids to Work Locations in Kent County**

The following is a summary of the findings of Journey to Work travel patterns for people originating in the City of Grand Rapids and traveling to destinations within Kent County including a description of potential public transit services.

**East County:** Kentwood, Grand Rapids Township, Cascade and Ada

In northern Grand Rapids Township, there is Kent Career Technical Center and Celebration Village with over 1,000 people traveling to work in this area. Bus service is available to this location.

In Ada where Amway and CSS-USA is located, there are over 1,300 people traveling to this area for work from the city. There is no bus service to Ada.

In Kentwood adjacent to Cascade, over 3,900 are traveling to work from the city followed by a bordering tract with over 1,900 traveling to work. This area includes Calvin College, Holland Home Corporate Office, MC Sports, and Roskam Baking. In addition, in Cascade where the airport and GE Aviation are located, over 3,700 people travel to work from the city. These areas have bus service. However, a segment of this tract extends east of I-96 in Cascade, and includes two large employers, including New Horizons Computer Learning Center and ADAC Automotive. Neither of these employers has bus service.

In between the airport and SR 6 is the Magna Donnelly Company. This area of Cascade is included in the same census tract as the airport. Although it is likely that the majority of commuters are traveling to the airport or adjacent work sites where bus service is available, some of these commuters may also be traveling to Magna Donnelly, which has no bus service.

**West County:** City of Walker

West of the City of Grand Rapids is the City of Walker. Journey to Work data indicates over 2,000 commuters originate in the City of Grand Rapids and travel to destinations throughout the City of Walker. The City of Walker is home to Meijer Corporate Office and Bissell Homecare Corporate Office.

Regular bus service is provided to the City of Walker along the Leonard Street NW and SR 45 corridors. However, no bus service is provided to the location of the Meijer and Bissell company headquarters.

**North County:** Plainfield, Alpine and Rockford

North of the City of Grand Rapids beyond I-96 are the Plainfield, Alpine and Rockford communities. Rockford is the location of Wolverine World Wide headquarters.

Journey to Work data indicates about 400 to 600 commuters traveling to various areas throughout the north county area. Except for the southeast segment of Alpine, there are no bus services to the north county area.

**South County:** Caledonia, Wyoming and Byron

In the Township of Caledonia, just south of SR 6, is the location of Farmers and Foremost Insurance companies and the Davenport Campus. Journey to Work data indicates just over 400 people traveling to work from the city to this area. There is no bus service to these work and education locations.

Collectively, the number of trips from the City of Grand Rapids to the numerous census tracts comprising the City of Wyoming indicates a major work related travel destination. Major employers include Metro Health Hospital, Steelcase, Consumers Energy, Gordon Food Service, Leon Plastics and Pine Rest Christian Mental Health Services. In addition, the Journey to Work data from Census 2000 would include commuters traveling to General Motors in the City of Wyoming. However, that work site has been closed. There is established bus service throughout the City of Wyoming.

In Byron Township, just south of the City of Wyoming, the Journey to Work data indicates over 600 commuters traveling from the city. This is the location of Spartan Stores corporate headquarters. There is no bus service to this location.

### **Transit Demand from City of Grand Rapids to County Destinations**

It does not appear from the Journey to Work data that there is sufficient county employment demand to warrant stand-alone commuter bus service. First consideration should be to aggressively promote Rideshare programs and vanpools from Grand Rapids to these outlying employers. Green Rides and Western Michigan Rideshare should play an important role in accomplishing this. Exhibit V-57 shows the volume of trips to each U.S. Census block group in Kent County from block groups within the City of Grand Rapids.

A second consideration should be given to route extensions to areas of higher employment. If a significant number of employees are on the route headed to the employer, it is likely that additional ridership will be generated. Routes 5 or 17 can be extended further into Cascade east of I-96 and Route 10 can be extended to Byron.

### **Travel from Kent County Communities to Work in the City of Grand Rapids**

The following is a summary of the findings of Journey to Work travel patterns for people originating in Kent County and traveling to employment sites within the City of Grand Rapids. Exhibit V-58 shows the volume of trips to Grand Rapids from block groups in the study area.

#### **County Origins to Work in the City of Grand Rapids**

**East County:** Kentwood, Grand Rapids Township, Cascade and Ada

The Grand Rapids Township data indicate some moderate demand for travel to work to the City of Grand Rapids from the area near Celebration Village (1,000+). There is bus service from this area.

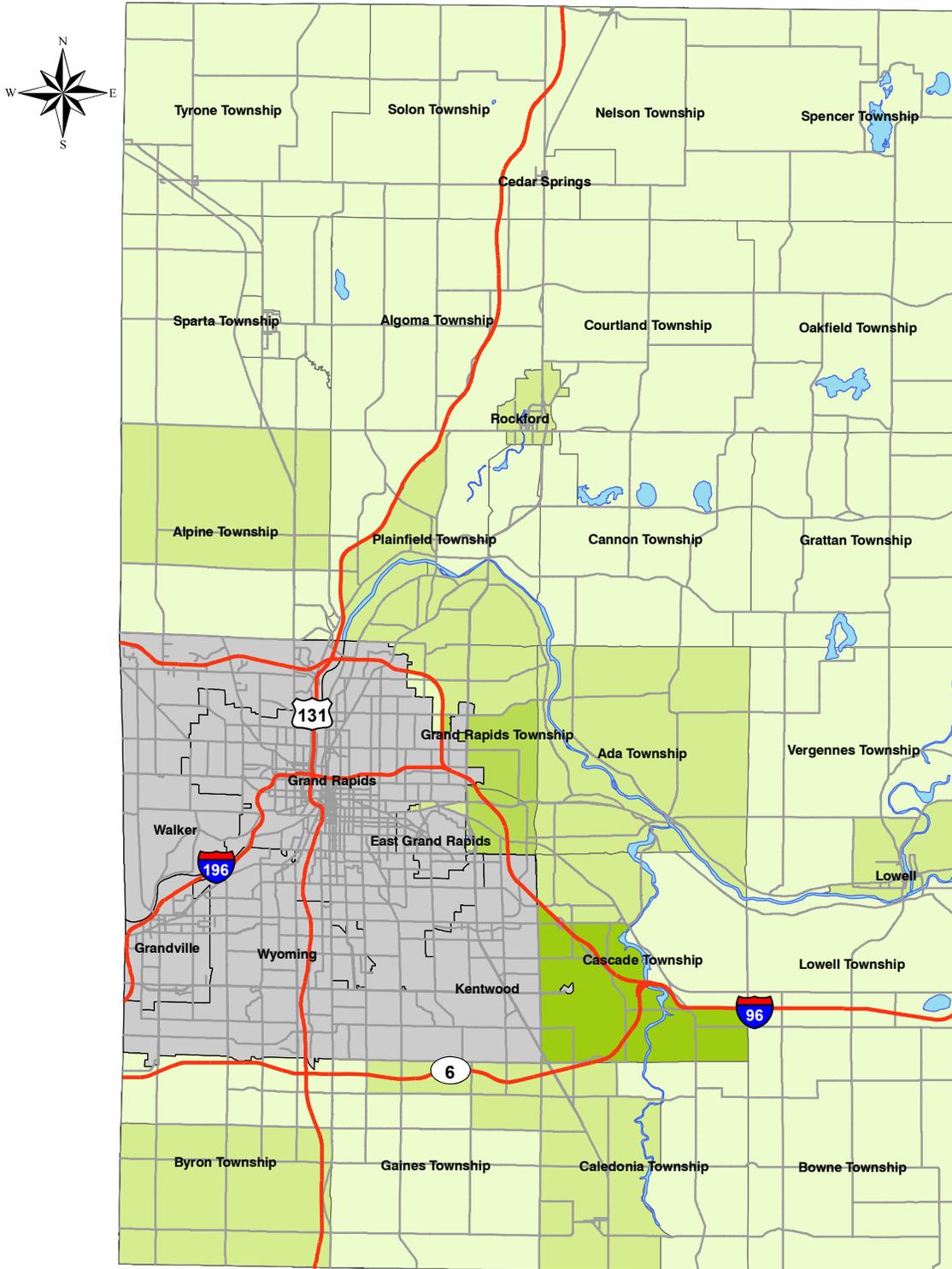
Along the Hwy 21 corridor from Lowell via Ada collectively over 4,000 people travel to the City of Grand Rapids for work. This corridor has no bus service currently.

Overall, Kentwood generates a large number of commuters traveling to the city for work. Bus service is available throughout the Kentwood area to the City of Grand Rapids.

The number of commuters from Cascade is about 1,800 originating from areas north of I-96 and bordering with Ada. These are not currently served with The Rapid service.

# Exhibit V-57

## Trips From Grand Rapids to Kent County



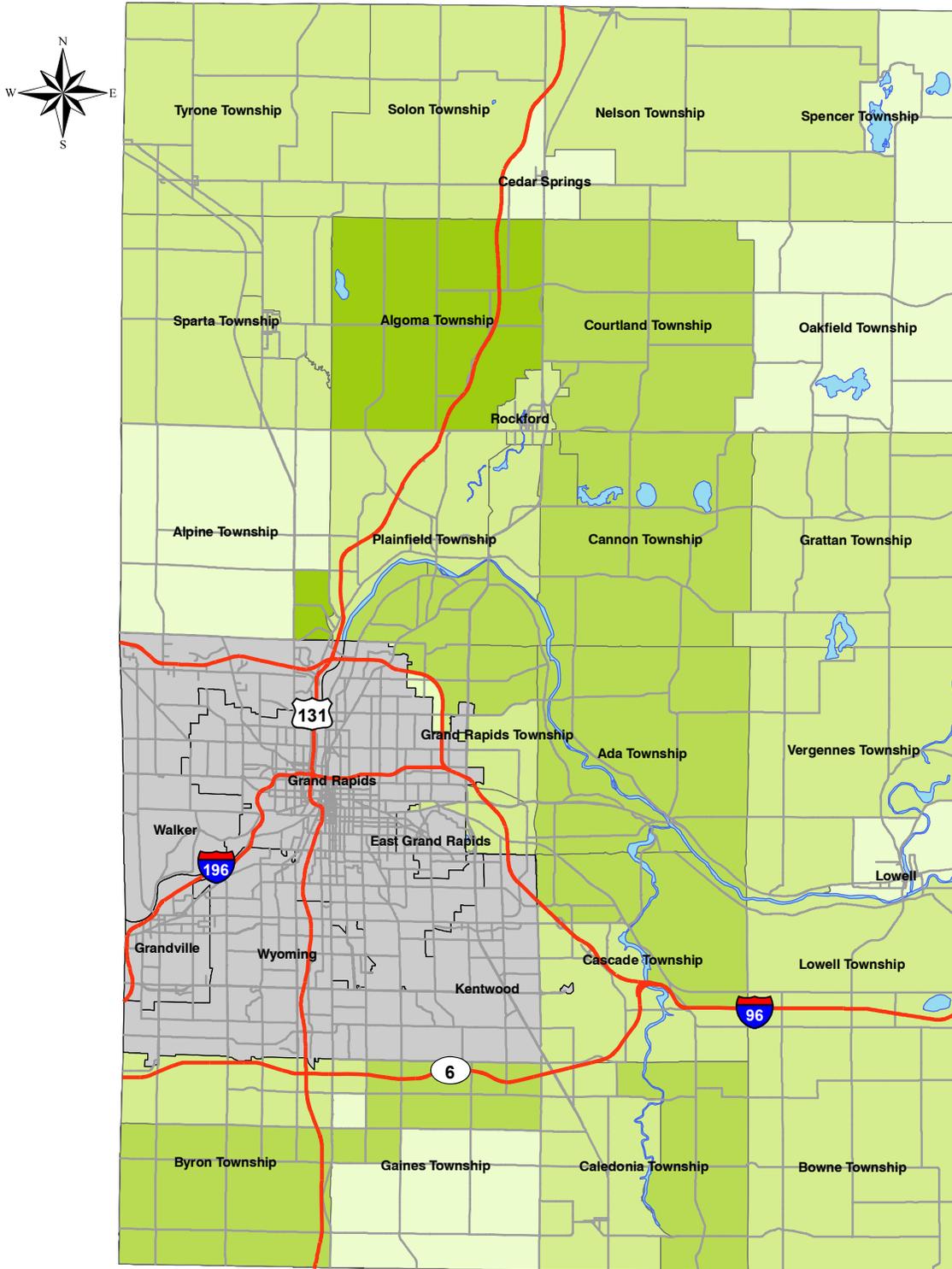
**From City**

- 0 - 294
- 295 - 881
- 882 - 2644
- 2645 - 3990

### Kent County Transit Needs Assessment

# Exhibit V-58

## Trips to Grand Rapids From Kent County



**To City**

- 179 - 423
- 424 - 677
- 678 - 1009
- 1010 - 1713

### Kent County Transit Needs Assessment

**West County:** City of Walker

The City of Walker is a major origin for those traveling to work in the City of Grand Rapids. Regular bus service is provided between the City of Walker and the City of Grand Rapids along the Leonard Street NW and Hwy 45 corridors.

**North County:** Plainfield, Alpine, Sparta and Rockford

These communities, north of the City of Grand Rapids, are mostly along the US 131 and Hwy 37 corridors. This area is large and collectively there is significant travel to the City of Grand Rapids for work. From Rockford to the north, there are approximately 3,600 employees commuting to Grand Rapids in the US 131 corridor. There is no commuter service to Rockford currently.

The southern portion of Alpine has bus service. Over 1,500 residents from Alpine commute to Grand Rapids.

**South County:** Caledonia, Gaines, Wyoming and Byron

The Caledonia and Gaines area along the Hwy 37 corridor south of Hwy 6 shows minimal demand for travel to work in the City of Grand Rapids. There is no bus service from these areas.

Byron's Journey to Work data includes an area of Gaines Township just east of Hwy 131. It shows stronger demand for commuters traveling to the city. Except for the most northern portions of Byron and Gaines, there is no bus service from these areas.

The city of Wyoming overall generates significant travel to work to the City of Grand Rapids. Wyoming is served throughout by several transit routes.

County Origin to Specific City Locations

There are a number of work locations throughout the City of Grand Rapids. Although most job opportunities are downtown, major employers or groups of employment sites are found in other neighborhoods. All communities within the City of Grand Rapids are served by public transit with most routes originating in downtown Grand Rapids.

The following information describes the largest clusters by census tract of Journey to Work activity for commuters traveling from the county to work to specific areas in the City of Grand Rapids.

**Downtown Grand Rapids**

Downtown Grand Rapids is by far the most significant work destination for commuters originating outside in Kent County. Over 16,000 non-Grand Rapids Kent County residents travel to work in the central and east downtown areas. This represents a substantial potential market.

**To West Downtown**

The areas just west of downtown on the other side of the Grand River collectively generate over 4,200 commuters from the county. The area south of I-196 is the location of the GVSU Campus and the areas north of I-196 is where Hope Network Corporation and American Seating Headquarters are located.

### **To North Downtown**

North of downtown just past I-196 approaching the Belnap and Highland Park neighborhoods is a small area showing Journey to Work data of over 1,300 people commuting from the county.

### **To South Downtown**

In a small area south of downtown between Hwy 131 and the Grand River (Black Hills) is where a St. Mary's Clinic and Michigan Turkey Producers Headquarters are located. Journey to Work data indicates over 1,800 commuters traveling from the county to this area.

To the east on the other side of Hwy 131 in Roosevelt Park is a segment with over 960 commuters traveling from the county. This segment is where Benteler Automotive and Pridgeion & Clay Inc. are located.

### **To Fulton Heights**

This neighborhood east of downtown generates nearly 4,000 commuters from the county. Major employers in this area include a Spectrum Health Clinic, Aquinas College and Dematic Corporation.

Just to the north on the other side of I-196 is where a Hope Network clinic, two hospitals, GRCC Technical Center and the Kent County Jail are located. This segment shows over 1,500 commuters from the county.

### **To Garfield Park**

Near the Garfield Park area and bordering the city limits attracts over 1,000 commuters from the county according to the Journey to Work data. There do not appear to be any large employers in this area.

### **To South Grand Rapids**

Areas bordering the City of Kentwood collectively generate nearly 5,000 commuters traveling to work from the county. Some of the employers in this area include: Steelcase, Hope Network, Davenport Career Center, several retail centers and several medical clinics including a Spectrum Health Clinic.

### **To Southeast Grand Rapids**

According to the Journey to Work data, the southeast area of Grand Rapids generates over 6,800 commuters traveling from the county.

A small area near the Oakdale neighborhood borders the City of East Grand Rapids shows over 1,000 commuters traveling to this area from the county. Metropolitan Hospital and Metro Health Clinic are located here.

Adjacent to the above area, there are over 3,200 and 2,400 commuters traveling to work from the county. The employment sites located in these two areas are: Holland Home Corporate Office, Calvin College, WMU Campus and Centerpointe Mall. Two employers are just south of the city limits and may be counted within this census tract. The businesses are MC Sports and Roskam Bakery.

### Transit Demand from the County to the City of Grand Rapids

Downtown Grand Rapids is a focal point of the region. There are many employment opportunities due to the large number of businesses and services, city, state and federal offices, higher education, hotels, retail, dining and entertainment. The downtown and adjacent areas generate over 16,000 commute to work trips from outside the city. Many of the largest employers in Kent County are located in the downtown area. Among the largest are the City of Grand Rapids, the County of Kent, Spectrum Health, Amway Grand Plaza Hotel, Mary Free Bed Rehabilitation Hospital, The Grand Rapids Press, Grand Rapids Community College and several other higher education institutions. Exhibit V-59 shows the volume of daily trips to Grand Rapids from locations within the study area.

Although downtown Grand Rapids is a major destination, employment sites are located throughout the city and several of the large employers are located in communities beyond the city limits. Commuters relying on bus service would likely be required to transfer to continue their trip thus reducing the potential market of choice riders.

The majority of commuters to downtown Grand Rapids from the county (about 10,000) originate within the service delivery area of The Rapid bus route network while the balance of about 6,000 commuters originate where no public transit service is available.

Due to the characteristics of the area regarding multiple employment site locations and home origins, and distances involved, attracting the choice commuter rider to transit will be very challenging. The most likely market to capture would be commuters destined to Grand Rapids.

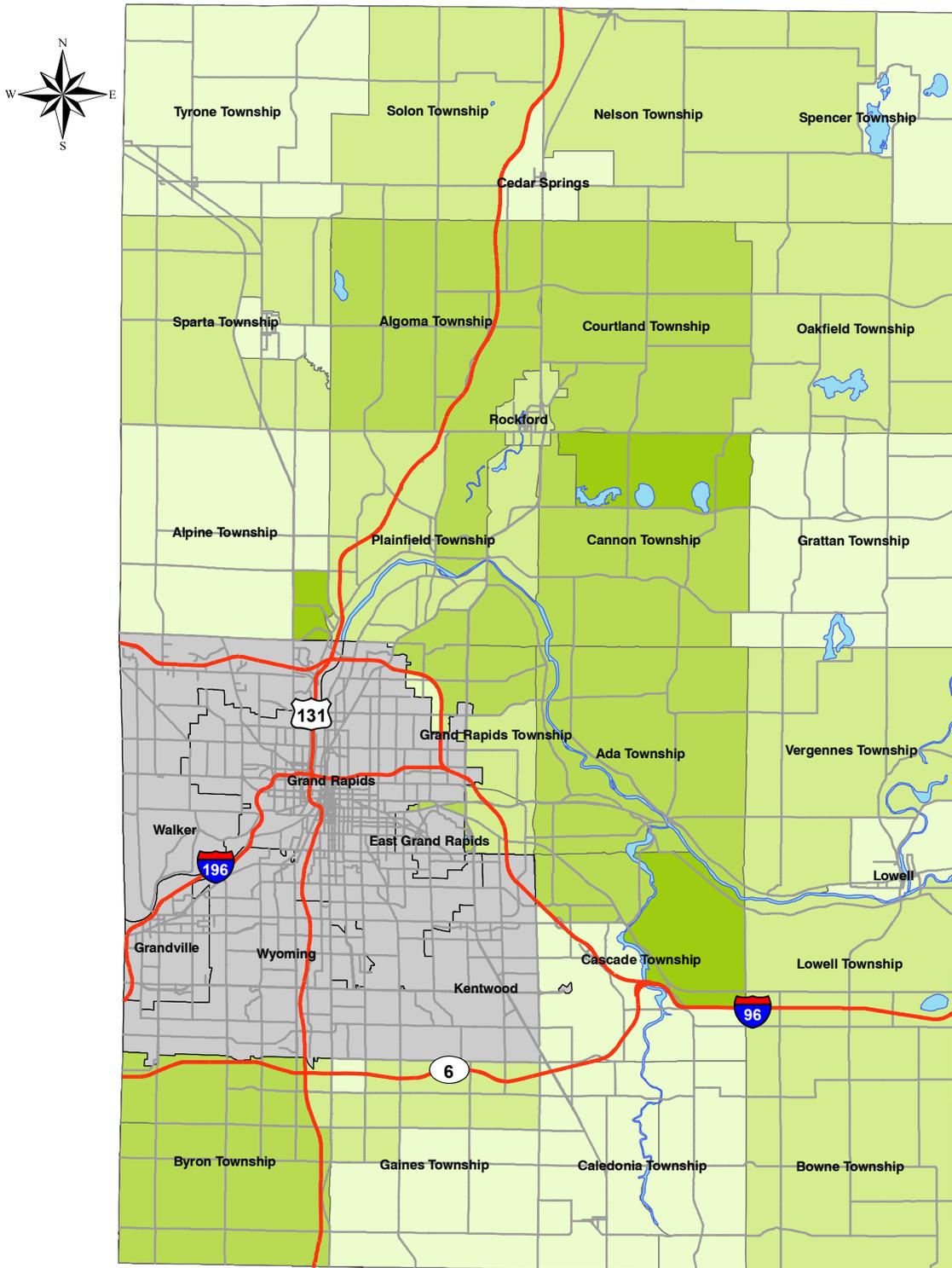
The US 131 and SR 21 corridors have large draw areas, and appear to have sufficient residents working in Grand Rapids to make commuter service successful. Specific amenities need to support any commuter services include park and ride facilities and fast/direct bus service that is scheduled to meet work shift times and transfer connections.

The size of a potential market was developed using two different assumptions. A planning level assumption for the size of a transit market is one percent of the existing Journey to Work market. This does not account for non-work trips, but for commuter markets, this is a reasonable proxy for demand. The mode split will increase if factors such as fares, traffic congestion, distance, travel time, connecting transit services, limited and/or high priced parking, employment density and financial incentives are available to influence the commuter market. Except for downtown Grand Rapids, these factors are not significant issues within Kent County.

The most likely market for commuters from the county are those destined to downtown Grand Rapids. Other commuters would need to transfer at least once to complete their trip and extending their travel time significantly. Therefore, the trip distribution and two different planning level mode split assumptions were analyzed. Exhibit V-60 shows the volume of trips to the six cities.

# Exhibit V-59

## Journey to Work Downtown



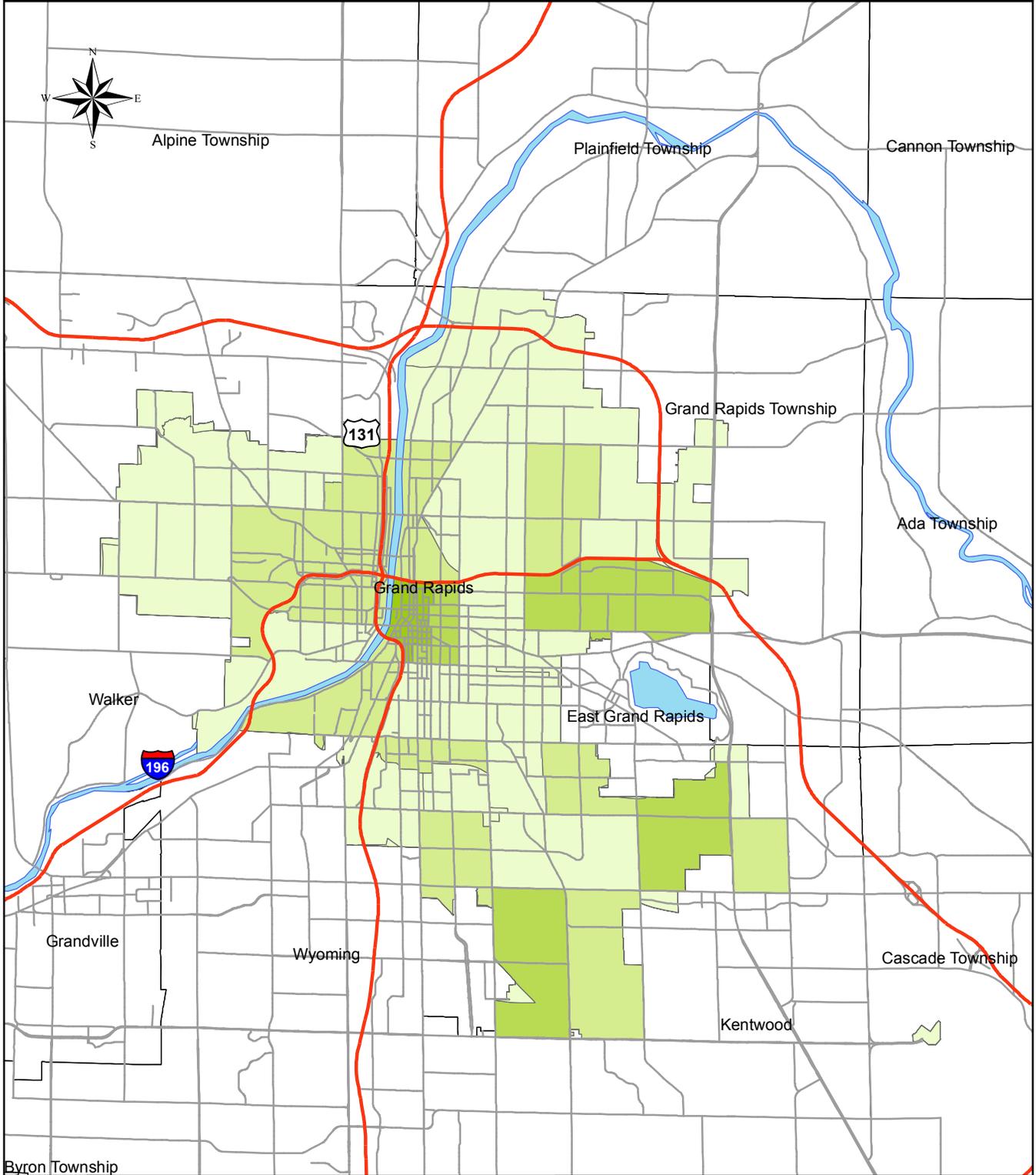
### Trips to Downtown



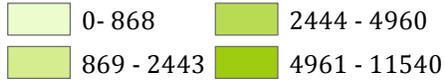
## Kent County Transit Needs Assessment

# Exhibit V-60

## Journey to the Six Cities



### Trips to Downtown



## Kent County Transit Needs Assessment

Exhibit V-61 shows the size of the downtown commuter market for several different corridors leading out of Grand Rapids.

**Exhibit V-61**  
**Transit Mode Split for Trips to Downtown Grand Rapids**

<b>Highway Corridor</b>	<b>JTW Commuter Trips to Downtown</b>	<b>1% Mode Split</b>	<b>Number of Bus Trips Needed</b>	<b>5% Mode Split</b>	<b>Number of Bus Trips Needed</b>
21 East	985	10	0	49	1
37 North	430	4	0	22	1
37 South	190	2	0	10	0
44 East	1,465	15	0	73	2
96 East	880	9	0	44	1
131 North	1,600	16	0	80	2
131 South	440	4	0	22	1

Note: JTW trips are inclusive of all trips and not based on time of day. The number of bus trips needed is based on 35 passengers per bus.

As noted previously, factors such as congestion, parking availability, and parking cost all influence whether transit is competitive. In downtown Grand Rapids, both parking availability and cost can potentially influence transit needs, and thus a higher potential mode split may be viable.

The Journey to Work tables show that the US 131 North and Highway 44 East Corridors have the highest potential for commuter service. Most of the other corridors appear to have limited demand for commuter service, and would be more appropriate to be served by rideshare options.

### **Major Employers Survey**

In order to get a more detailed look at potential demand for employer transportation, major employers in Kent County were inventoried and contacted.

### **Inventory of Major Employers**

Using data from Kent County, the Chamber of Commerce, and on-line searches, major employers throughout Kent County were identified. A total of 50 employers with more than 500 employees or students were found. The table in Exhibit V-62 lists these employers.

Each of these employers was contacted for an appointment to complete an in-person interview with Team staff. A total of fourteen different employers responded and interviews were scheduled for the week of June 21, 2010.

## Exhibit V-62

### Major Employers and Education Institutions in Kent County

Employers and Education Institutions in Kent County	Address	City	Employment or Student Population Size
ADAC Automotive	5920 Tahoe Dr SE	Cascade	500+
American Seating	801 Broadway Ave NW	Grand Rapids	500+
Amway	7575 Fulton St E	Ada	4,000
Amway Grand Plaza Hotel	187 Monroe Ave NW	Grand Rapids	500+
Aquinas College	1607 Robinson Rd SE	Grand Rapids	2,160
Benteler Automotive	320 Hall St SW	Grand Rapids	500+
Bissell Home Care Corp Office	2345 Walker Ave NW	Walker	500+
Calvin College	3201 Burton St SE	Grand Rapids	4,171
Cascade Engineering, Inc	3400 Innovation Ct SE	Grand Rapids	500+
Consumers Energy	4000 Clay SW	Kentwood	500+
CSS-USA	8066 Fulton St E	Ada	500+
Davenport Univ	6191 Kraft Ave SE	Caledonia	3,751
Dematic Corp	507 Plymouth Ave NE	Grand Rapids	3,751
Ferris State College	151 Fountain St NE	Grand Rapids	1,183
Fifth Third Bank	111 Lyon St NW	Grand Rapids	500+
Fishbeck, Thompson, Carr & Huber, Inc	1515 Arboretum Dr SE	Cascade	200+
Foremost Insurance Co	5600 Beech Tree Lane	Caledonia	500+
GE Aviation	3290 Patterson Ave SE	Grand Rapids	1,400
General Motors Components Holdings LLC	2100 Burlingame Ave SW	Wyoming	515
Gordon Food Service Headquarters	333 50th St. SW	Kentwood	500+
Grand Rapids CC	143 Bostwick Ave NE	Grand Rapids	15,000
Grand Rapids Public Schools	1331 Franklin St SE	Grand Rapids	500+
Grand Rapids, City of	300 Monroe Ave NW	Grand Rapids	500+
GVSU downtown	401 Fulton St W	Grand Rapids	500+
Holland Home Corporate Office	2100 Raybrook St SE	East Grand Rapids	500+
Hope Network Corporation	751 Stocking Ave NW	Grand Rapids	500+
Kendall College	17 Fountain St NW	Grand Rapids	1,352
Kent Career Technical Center	1655 E Beltline Ave NE	Grand Rapids Charter Township	2,502
Kent County	300 Monroe Ave NW	Grand Rapids	500+
Lacks Enterprises and Plastic Plates Inc	5460 Cascade Road SE	Cascade	1,750
Leon Plastics Inc	4901 Clay Ave SW	Kentwood	331
Life EMS ambulance Ed Center	1275 Cedar St NE	Grand Rapids	1,342
Magna Donnelly	5085 Kraft Ave SE	Kentwood	4,225
Mary Free Bed Rehabilitation Hospital	235 Wealthy St SE	Grand Rapids	500+
MC Sports	3160 28th St SE	East Grand Rapids	500+
Meijer Inc	2929 Walker Ave NW	Walker	8,441
Metro Health Hospital	5900 Byron Center Ave SW	Wyoming	1,560
Michigan Turkey Producers Corp Hdqt	1100 Hall St SW	Grand Rapids	500+
New Horizons Computer Learning Center of Michigan	5315 28th St Court SE	Grand Rapids	4,480
Pine Rest Christian Mental Health Services	300 68th St SE	Gaines	500+
Pridgeion & Clay Inc	50 Cottage Grove St SW	Grand Rapids	500+
Priority Health	1231 E Beltline Ave NE	Grand Rapids	500+
Roskam Baking Co	3061 Shaffer Ave SE	Kentwood	2,000
Spartan Stores	850 76 <sup>th</sup> St SW	Byron Center	3,040
Spectrum Health	100 Michigan St NE	Grand Rapids	11,453
St. Mary's Health Care	200 Jefferson Ave SE	Grand Rapids	2,700
Steelcase Inc	901 44 <sup>th</sup> St SE	Kentwood	5,000
The Grand Rapids Press	155 Michigan St NW	Grand Rapids	500+
Western Michigan Univ	200 Ionia Ave SW	Grand Rapids	1,335
Wolverine World Wide Corp Headquarters	9341 Courtland Dr NE	Rockford	500+

## **Employer Interview Summaries**

### **Calvin College**

Calvin College had approximately 4,000 students, with 2,400 of them residing on campus. The majority of classroom activity takes place on the primary campus near E Beltline and Burton Street. Some smaller destinations such as the Ladies Literary Club Venue, and art studio are located in downtown Grand Rapids.

Approximately half of students have automobiles on campus. Students pay an annual parking fee of \$75. In addition to students, there are between 600 and 700 staff. The typical work time for staff is an 8:00 a.m. to 5:00 p.m. shift. Parking is free for staff. Parking on-campus is available and there is no shortage of parking.

Calvin College is served by two different Rapid routes. Every student receives a reduced fare card, where they pay only \$0.50 per ride. Calvin College pays The Rapid \$0.45 per ride for each ride taken. According to the past several months, Calvin College student ridership on The Rapid is 4,300 every month. Downtown Grand Rapids, the Mall, and 28th Street are the major student destinations.

Calvin College has tried to create its own carpool program, but thus far no one has signed up. There are no vanpools. There was no awareness of the Rideshare/Guaranteed Ride Home programs that are currently offered by The Rapid.

The Rapid service is seen as decent for getting students to the Mall or Downtown. Other destinations are less desirable, as the transfer penalty and associated waiting times are seen as too long.

### **Lack's**

Lack's is an auto-parts manufacturer with fourteen different facilities throughout the Grand Rapids suburbs. Lack's has a total of about 1,700 employees, 1,400 of which are employed in Kentwood in a series of plants that are all within 2 miles of each other.

Transportation is not an issue for recruiting, and is not seen as an overall issue for retaining employees. Starting wages are \$10.50 per hour, and employees can afford cars. There is an appreciation, however, for the fact that most plants do have some bus service to them, something that was not the case ten years ago. Parking is free and there are no parking capacity issues.

As seen in Exhibit V-63, Lack's operates three different shifts, which could have different start and end times. The early start time of the first shift and the late ending of the second shift may preclude The Rapid from being an effective transportation option.

**Exhibit V-63**  
**Lack's Work Shifts**

1 <sup>st</sup> Shift	2 <sup>nd</sup> Shift	3 <sup>rd</sup> Shift
6:00 a.m. – 2:00 p.m.	2:00 p.m. – 10:00 p.m.	10:00 p.m. – 6:00 a.m.
7:00 a.m. – 3:00 p.m.	3:00 p.m. – 11:00 p.m.	11:00 p.m. – 7:00 p.m.

Lack's looked at setting up an internal carpool program when gas prices went up in 2008, but then business dropped off, so the need for carpooling dropped as well. Lack's was not aware of the rideshare program offered by The Rapid.

Exhibit V-64 shows the locations of Lacks employees in Kent County. The largest concentration of employees by zip code lives near the Kentwood facilities in Wyoming, Kentwood and Caledonia. Many also live within the transit district and have access to bus service. A potential market is the transit dependent and those who are environmentally conscience, but there is not that high of a propensity for transit as there is free parking and the locations are scattered throughout the area. Ridesharing appears to be the most appropriate way to serve Lacks facilities.

**Kent County ISD**

The Regional Career Technical Education Supervisor of Kent ISD was contacted to discuss transportation needs of the ISD. Kent ISD is located at 2930 Knapp NE, Grand Rapids. It is served by The Rapid's Route 15.

Kent County ISD represents all educational endeavors in Kent County, including parochial, public, and home schooled children. Kent ISD transports children throughout the County.

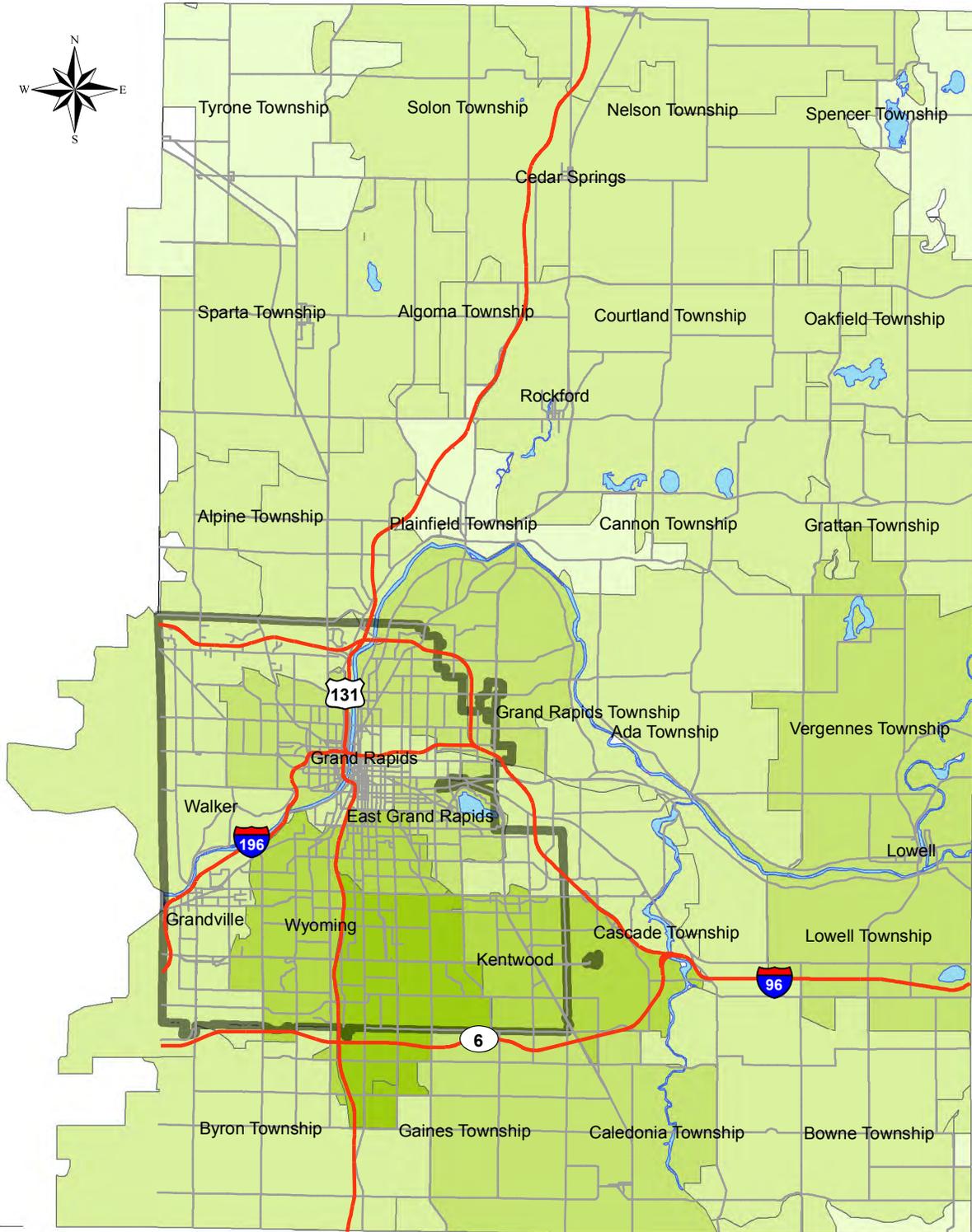
The Career and Technical training program partners with hundreds of businesses and post-secondary partners. Approximately 2,300 Kent County high school students are in this program, and ISD provides transportation to get students between classrooms and their training sites.

Three times a day buses from throughout the county converge on the Kent ISD Career/Technical Center and then distribute students to their various destinations. Destinations include the aviation maintenance program at Gerald Ford Airport (125 students), Grand Valley State University (50 students), Central High School (50 students), Metro Health Hospital (125 students), and Grand Rapids Community College (50 students).

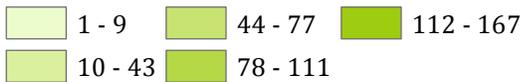
One of the challenges faced by this transportation network is the need to have students conveniently travel from one program to another in an expeditious manner. Timing continues to be an issue with the routes, as not all students have the same start and stop times. The three session times are 6:55 a.m. – 9:15 a.m., 9:20 a.m. – 11:00 a.m., and noon – 2:15 p.m. The first and third sessions are the most popular. Students cannot drive to GVSU and GRCC – there is no place to park and ISD provides transportation.

# Exhibit V-64

## Lacks Enterprises, Inc. Employee Residences



### Employee ZIP



## Kent County Transit Needs Assessment

Transportation costs are a major factor for the ISD. Some schools cannot afford to do more than one session (two bus trips) due to the transportation costs.

The Rapid has not been seen as an alternative for school trips, even though the Career/Technical Center is connected well with downtown Grand Rapids and GVSU and GRCC.

Outreach with the Kent County ISD by the Rapid is recommended to ascertain the ability for Route 15 to take over some of the functions of school shuttles at a much lower cost.

### **Spartan Stores**

Heather Baldwin, the Human Resources Manager, was contacted to discuss transportation needs for employees for Spartan Stores. Spartan Stores is located at 850 – 76th Street SW, Grand Rapids 49518. The closest Rapid service is Route 1, which is just over one mile away.

Spartan Foods is both a distributor and retailer of groceries, and has over 99 locations throughout Michigan. Overall, Spartan Stores has approximately 9,000 employees.

Company headquarters are at the 850 – 76th Street SW location, and between 600-700 employees are employed at the headquarters. Most employees have work times of 8 a.m. to 5 p.m. Some employment growth could happen in the future, but the size of the office complex would likely have to be increased to accommodate more staff.

Spartan Stores operates a warehouse behind the headquarters complex which employees between 400 – 500 people. These employees are on 24 hour shifts.

Overall, transportation has not been seen as an issue for employees. According to Ms. Baldwin, the draw area from Spartan Stores is from throughout western Michigan, and not necessarily concentrated in Grand Rapids. There is no company carpool program. During the 2008 gas spike, Spartan Stores used the Rapid's carpool rideshare program.

For many of the headquarters staff, the need to travel to stores or other locations is essential. Spartan Foods does offer several pool cars at the headquarters complex. One potential disincentive for using alternative modes to access work was mentioned. If more employees began carpooling, Spartan Stores would need to provide more pool cars.

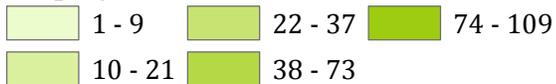
There may be some opportunity to attract some riders to Spartan Stores via an extension of Route 1 or 10. The employee distribution shown in the graphic below shows that most Spartan Stores employees do not reside in areas served by The Rapid. As can be seen in Exhibit V-65, the biggest Kent County concentrations are located in the south suburbs. Carpool and rideshare options appear to be the best options for improving mobility for Spartan Stores employees.

# Exhibit V-65

## Spartan Stores Headquarters Employee Residences



### Employee ZIP



## Kent County Transit Needs Assessment

## **Western Michigan University (WMU)**

Dr. James Schultz, the Director of the Grand Rapids Campus of Western Michigan University, was contacted to discuss transportation needs for both employees and students of WMU. The downtown campus is located at 200 Ionia Avenue SW in Grand Rapids. A second Grand Rapids campus is located at 2333 East Beltline Avenue SE. The Rapid serves both locations.

WMU in Grand Rapids serves approximately 1,500 students. About 900 students attend the Beltline location and the remaining 500 attend the downtown Grand Rapids location. WMU's target market is for full time employees furthering their education on a part-time basis. The majority of students are working on an advanced degree. Approximately 30 employees work in the downtown campus.

Parking is an issue at the downtown campus, particularly when events are occurring at the arena, which is a couple of blocks away. A new parking ramp was constructed that has alleviated most of the parking capacity concerns.

Parking is free for employees. Employees have option of receiving a transit pass in lieu of a parking subsidy.

Students must pay to park at the downtown campus. Parking is free for both students and staff at the Beltline location. Students have requested discounted parking passes as well as DASH student discounts in order to reduce the impacts of parking costs.

In downtown, WMU is working with the parking commission to obtain safer enclosed bicycle parking. Some WMU employees vanpool from points further west.

Based on the map in Exhibit V-66 showing the distribution of downtown students, downtown campus WMU-GR students are scattered throughout Kent County. It appears that half are within The Rapid service area. Attending school before or after work makes using transit services challenging due to the various class times and job locations. There is a potential to attract the environmentally conscience market to use transit, as WMU has direct service from locations throughout Grand Rapids. The most likely market is for those who live within the transit district and their work/school locations are conveniently accessed by bus.

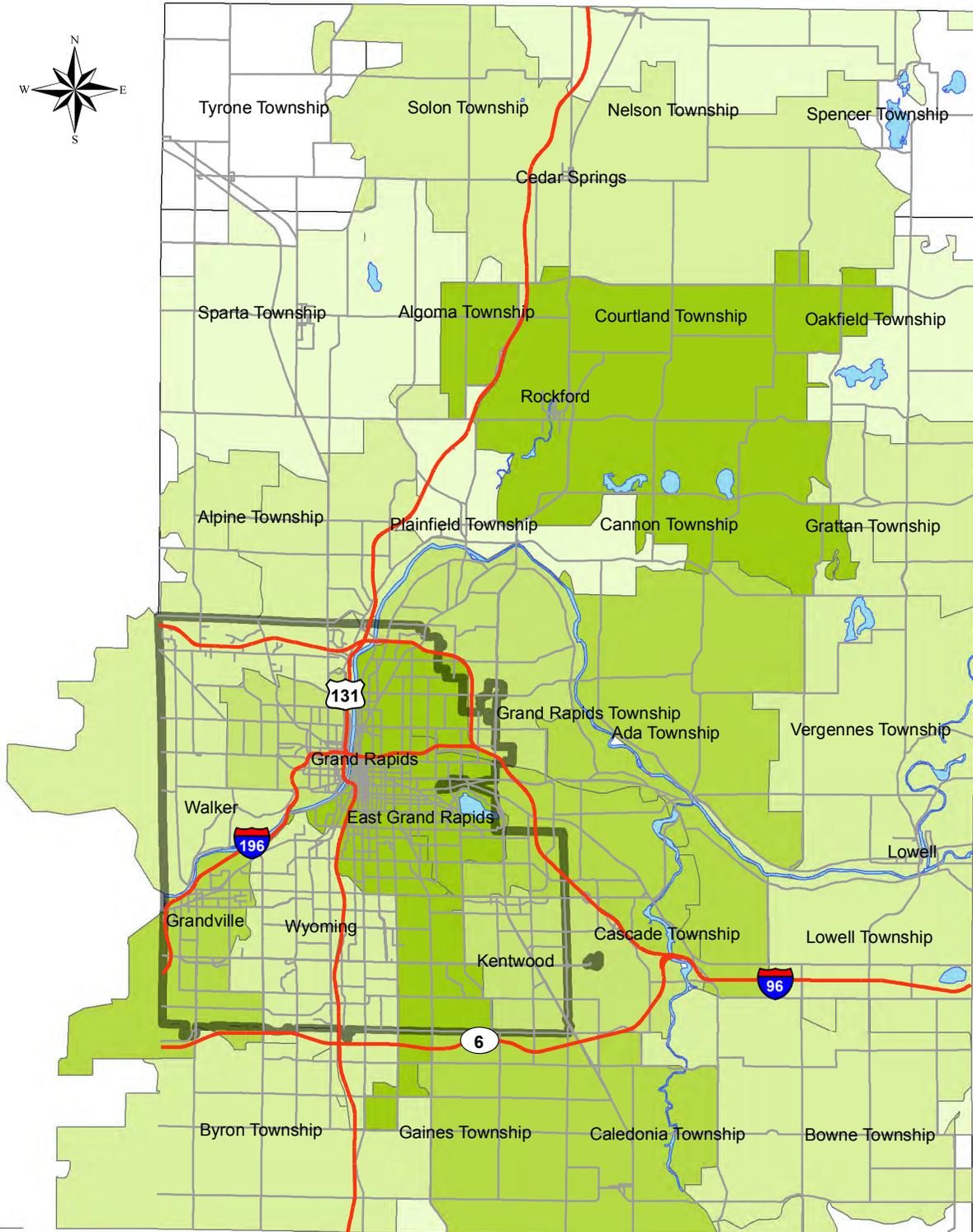
## **American Seating**

The transportation needs of American Seating employees were discussed with Paul Dieterle, the Vice President of Human Resources. American Seating is located at 801 Broadway Avenue NW. The corporate headquarters location is within several blocks of two American Seating factories.

American Seating employs 475 persons just northwest of downtown Grand Rapids. Of these 160 are in corporate headquarters and have an 8 a.m. to 5 p.m. shift time. The remainder work either first or second shift. American Seating's shift times depend on how many orders are available. During busy times, both first and second shifts work on ten hours (5 a.m. – 3:20 p.m. and 3:20 p.m. – 11:40 p.m.) while during less busy times the shift times are from 6 a.m. – 2:20 p.m. and 2:20 p.m. – 10:40 p.m. There are approximately 215 employees in first shift and 100 in the second shift.

# Exhibit V-66

## Western Michigan University Student Distribution



### Trips to WMU



### Kent County Transit Needs Assessment

The shift times for a ten hour workday are either too early or too late for employees to utilize Rapid service to come to work. Corporate employees have the opportunity to use the bus. Route 9 is several blocks from headquarters.

There is no carpool program, and any carpool activities that do take place are made through word of mouth.

Parking is free at all three American Seating locations, and there are no capacity issues. Transportation is not an issue during the hiring process. American Seating tends to have between 30 and 60 new hires annually.

The bulk of American Seating's employees are unable to use Rapid service due to either early start times or late end times.

### **Metro Health**

The Director of Human Resources for Metro Health indicated that Metro Health is a new hospital complex located at 2122 Health Drive in Southwest Grand Rapids. It is the southern terminus of Route 16.

Metro Health used to be located near downtown Grand Rapids, but three years ago moved to a new campus in the southeast suburbs. On a daily basis, there are 2,100 employees, 200 volunteers, and 100 contract staff – for a total of 2,400 persons coming to work daily. There was turnover as a result of the move, as certain staff no longer had convenient commutes.

Work shifts are typical health care shifts, and include the 7:00 a.m. to 7:00 p.m. and 7:00 p.m. to 7:00 a.m. shifts, as well as the 7:00 a.m. to 3:00 p.m., 3:00 p.m. to 11:00 p.m., and 11:00 p.m. to 7:00 a.m. shifts.

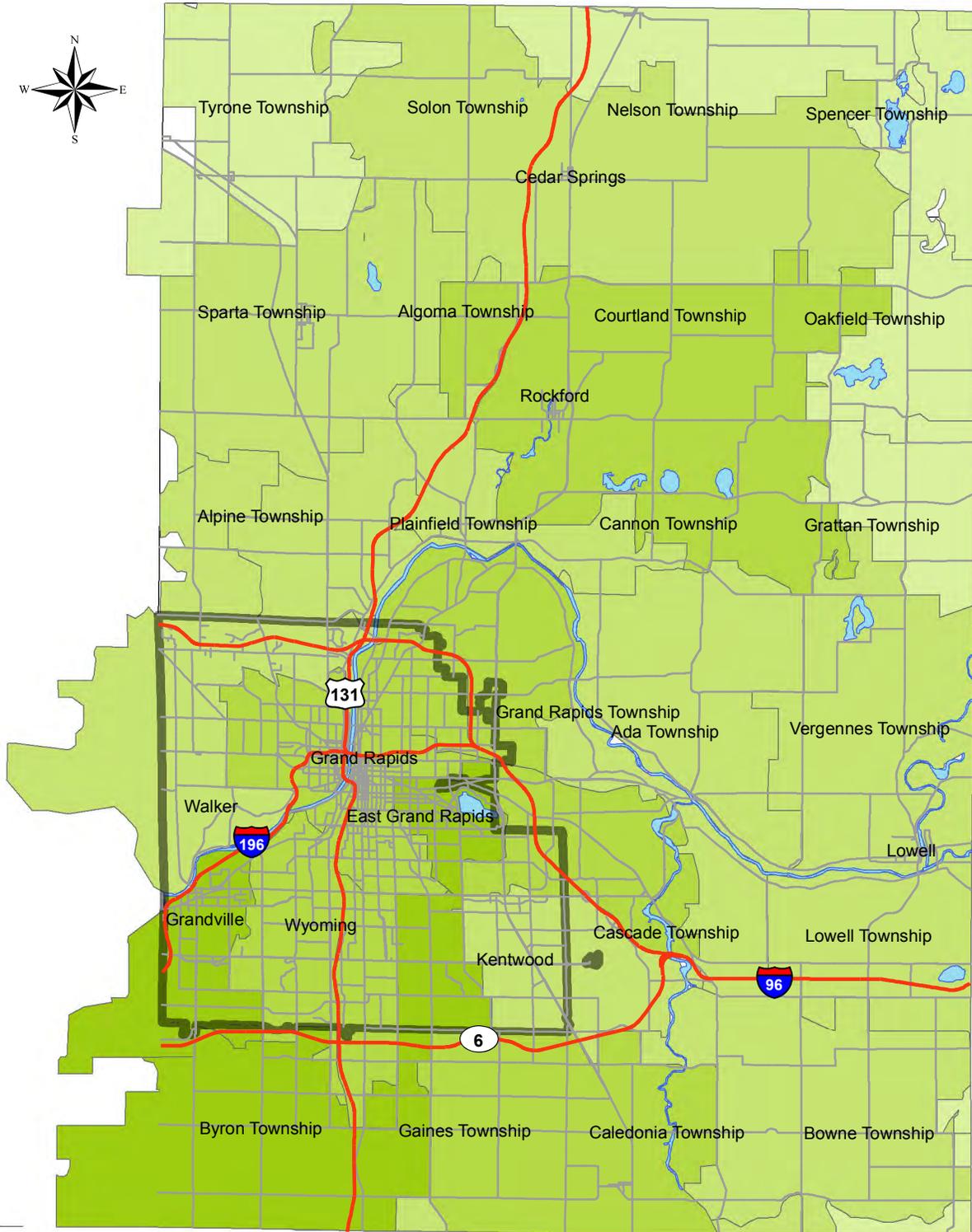
The Director of Human Resources does not feel that transportation is an issue for most employees. Some people are using Route 16, but there is no quantifying how many. There are no parking issues as parking is free and there is ample supply. There is special parking for carpools, but this is a result of the building being LEED certified, and not due to transportation issues. There are carpools that are organized through Green Rides as there is no official Metro Health carpool program.

An examination of the employee distribution in Exhibit V-67 shows that the highest concentrations of employees are in the south suburbs (Wyoming, Kentwood, Caledonia, and Bryon) and in Grand Rapids. Route 16 can accommodate many of these employee concentrations and does operate early enough to accommodate all first shift employees.

An extension of Route 16 to Bryon may attract additional ridership. Additional analysis should be considered regarding extending Route 16 south into Byron to identify shift times and actual origins. Considering the widely scattered number of employees throughout Kent County, enhancing Rideshare potential should also be examined.

# Exhibit V-67

## Metro Health Employee Residences



### Employee ZIP



## Kent County Transit Needs Assessment

## **Spectrum Health**

Spectrum Health is located in downtown Grand Rapids and is currently served by many Rapid Routes. There are 16,000 employees at Spectrum Health, and they work a variety of different shifts. There are the typical three healthcare worker shifts, but the majority of staff works an 8 a.m. to 5 p.m. schedule. Staff does not pay to park at Spectrum Health. In addition, Spectrum has its own shuttle service connecting parking lots and different buildings.

Spectrum does provide a transit pass in the form of the employee identification tag. Spectrum Health does provide a subsidy for transit users. 4,000 employees a month ride The Rapid. The employee identification card is used as a fare media, and operators punch a button on the farebox to track the number of riders. Mr. Bailey mentioned that The Rapid has reached the limit for adding employee identification as a form of payment as there are no more vacant farebox buttons.

Spectrum uses the Green Rides System to match employees with potential carpool partners. The system is internal Spectrum use only, but the software does have an option to connect employee information to Western Michigan Rideshare.

The analysis showed that 5,000 employees live within walking distance of The Rapid service. The largest concentration of non-Grand Rapids employees lives in the southwest suburbs as well as the northeast suburbs.

A Spectrum Health representative felt that many Spectrum staff still cannot see themselves riding a bus, even though the buses are now cleaner and operate better. Increased frequency on key routes would attract more riders. In addition, people do not like transfers at Central Station, as it creates an out-of-direction trip and a longer wait for many different trip patterns. Transit mode share to Spectrum could be higher with more direct service. Rockford may be an area where potential expansion of service would be warranted.

## **Grand Valley State University**

The Assistant Vice President for Operations, Pew Campus, and Regional Centers and the Manager of Operations for Grand Valley State University (GVSU) were interviewed.

GVSU has a staff of 2,000 employees and approximately 24,000 students. There are two campuses – one just west of downtown Grand Rapids and the other in Allendale. Approximately 10,000 students live in areas adjacent to GVSU in Allendale.

GVSU has been contracting with The Rapid to provide intra-campus service since 2000. Both students and staff can ride any Rapid route, including the non-GVSU ones, and show their ID as fare payment. Transit is rolled into the tuition payment.

GVSU embraces a “Culture of Transit” that is supported from the University President on down. It is used in recruiting, during visits, when new hires are made, and during orientation. Parents hear about the transit options for their children and get the message that transit is one of the keys to the affordability of GVSU. Transit information is included in direct mail campaigns to students. Individual route plans are also created if requested.

This “Culture of Transit” has led to significant ridership on The Rapid. Approximately 20,000 riders per day are made on campus routes and an additional 1,000 daily rides are made on non-GVSU funded Rapid routes. Approximately 15-20 percent of staff use transit. The program has been so successful that there is now surplus parking, and parking utilization has been decreasing.

GVSU uses The Green Rides program to promote ridesharing. There is also an electronic transportation bulletin board to request matches for riders. There is no financial support for vanpools.

GVSU conducts annual surveys to determine if transportation needs have changed and route adjustments are made as a result.

Several different ways to improve Rapid service to GVSU were identified. Evening and second shifts need later service. All buildings are open until 10 p.m., and students and employees need a way to get back home. There is a desire not to transfer at Central Station, as it adds up to 15 minutes of travel time. Many people heading to GVSU live in Lakeshore, and an expansion of service to Lakeshore should be examined.

### **Grand Rapids Community College**

The Executive Vice President for Business & Finance was interviewed to ascertain transportation challenges for Grand Rapids Community College (GRCC).

GRCC has two different campuses and several smaller locations. The main campus is located in downtown Grand Rapids. Enrollment is 17,500 for credit students and 13,000 non-credit program students. There are approximately 1,200 staff. A smaller campus with an enrollment of 3,000 is located on Lakeshore outside of Grand Rapids. Smaller locations include a technical center (MTech) and learning corners in three Grand Rapids locations, all of which are located in close proximity to bus routes. Sixty percent of students are part-time, and the remaining 40 percent are full-time students. Enrollment is at its peak currently.

Campus access is a very significant issue. The downtown GRCC campus is located just south of Spectrum Health, and there are parking capacity issues. GRCC currently has approximately 2,930 stalls in ramps and an additional 450 stalls remotely. A GRCC-funded shuttle connects the remote parking with the main campus, which costs GRCC \$80,000 annually.

The vision for the future is less parking. Some of this is driven because of parking ramp replacement costs, but it is also driven by how to accommodate more students into the existing footprint. The goal is to reduce the parking needs and move more students and staff to public transportation and shuttles.

GRCC does not have a transit program. Transit passes may be purchased at the bookstore, but there is no UPass or student pass program. GRCC desires to learn more about transit pass programs.

The carpool program is not highly used, and there are no incentives for students or staff to carpool. In addition to a student pass program, Mr. Partridge suggested several improvements to The Rapid service. The speed of Rapid is seen as a detriment to attracting new riders – the new Division BRT line will go a long way toward improving the attractiveness of bus service.

Several outlying areas, such as Ada, Fulton, and Plainfield should be served by The Rapid.

According to the student address distribution, in Exhibit V-66, major student distributions outside of Grand Rapids are in the northeast suburbs, but virtually all close in zip codes have significant concentrations of students. GRCC clearly draws from all of Kent County. The Division corridor does indeed look like a decent draw for GRCC students.

### **Kent County**

An interview was conducted with the Kent County Human Resources Manager. Kent County has 1,800 employees scattered through multiple locations. Approximately 1,500 are in the downtown location in three different buildings, and 120 are located in the facility near the airport. The typical shift for county employees is from 8:00 a.m. to 5:00 p.m.

Most County employees do not use transit. DASH, however, is used as the county pays for the remote parking. It appears that the DASH branding has successfully worked to attract people to ride a bus that otherwise would not be interested.

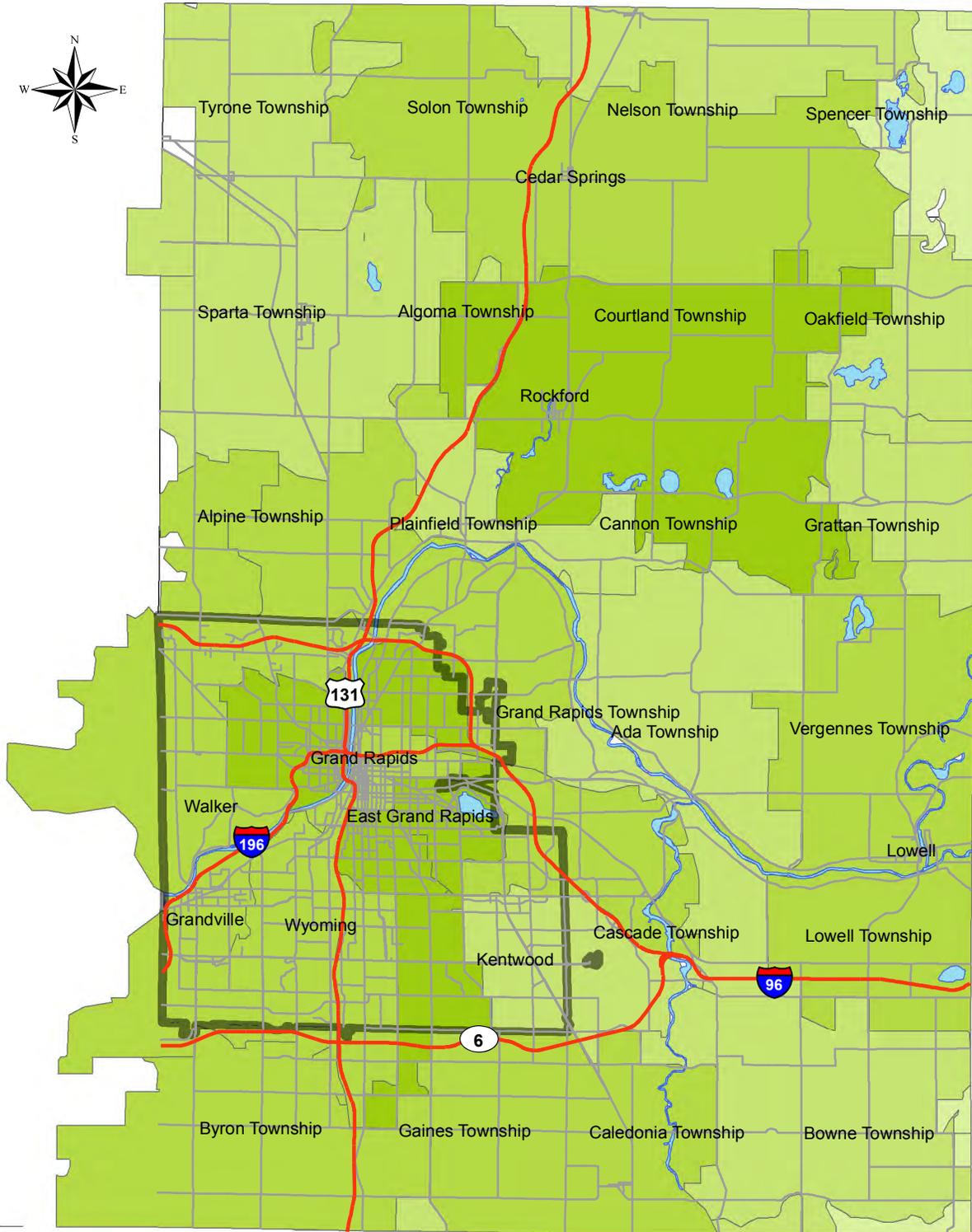
The County pays for all employee parking, although some of that may be remote and only accessible with DASH. There is no corresponding transit pass program.

Persons interested in carpooling are referred to Western Michigan Rideshare.

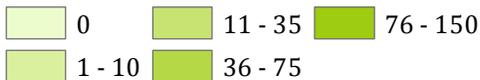
Transportation is not an issue for recruitment. The feeling is that County jobs pay well and there is no need to use transit. In addition, Grand Rapids is fairly small, so there is no incentive to not drive. According to a map of the residences of Kent County employees, in Exhibit V-68 the Northeast suburbs have a high concentration of employees outside of The Rapid service area. The largest concentrations of employees appear to reside within Grand Rapids.

# Exhibit V-68

## Kent County Government Employee Residences



### Employee ZIP



### Kent County Transit Needs Assessment

## **Employee Interview Conclusions**

Several themes were consistent among the interviews.

- ◆ None of the suburban large employers had a defined need that bus service could successfully meet, although strategic extensions of The Rapid's Routes 1, 10, and 16 could potentially serve some major employment sites.
- ◆ Enhanced carpooling appears to be the most appropriate method to improve mobility to many different employers.
- ◆ Downtown Grand Rapids employers and schools clearly had transportation needs that could be addressed by additional transit service. A lack of inexpensive or free parking is the primary reason for this need. More direct and commuter service is desired.
- ◆ Based on zip code scattergram analyses of residence locations, it appears that trips to downtown from the northeast and southwest suburbs had the highest demand. These locations correspond with the Journey-to-Work analysis.

## **DEMOGRAPHIC ANALYSIS**

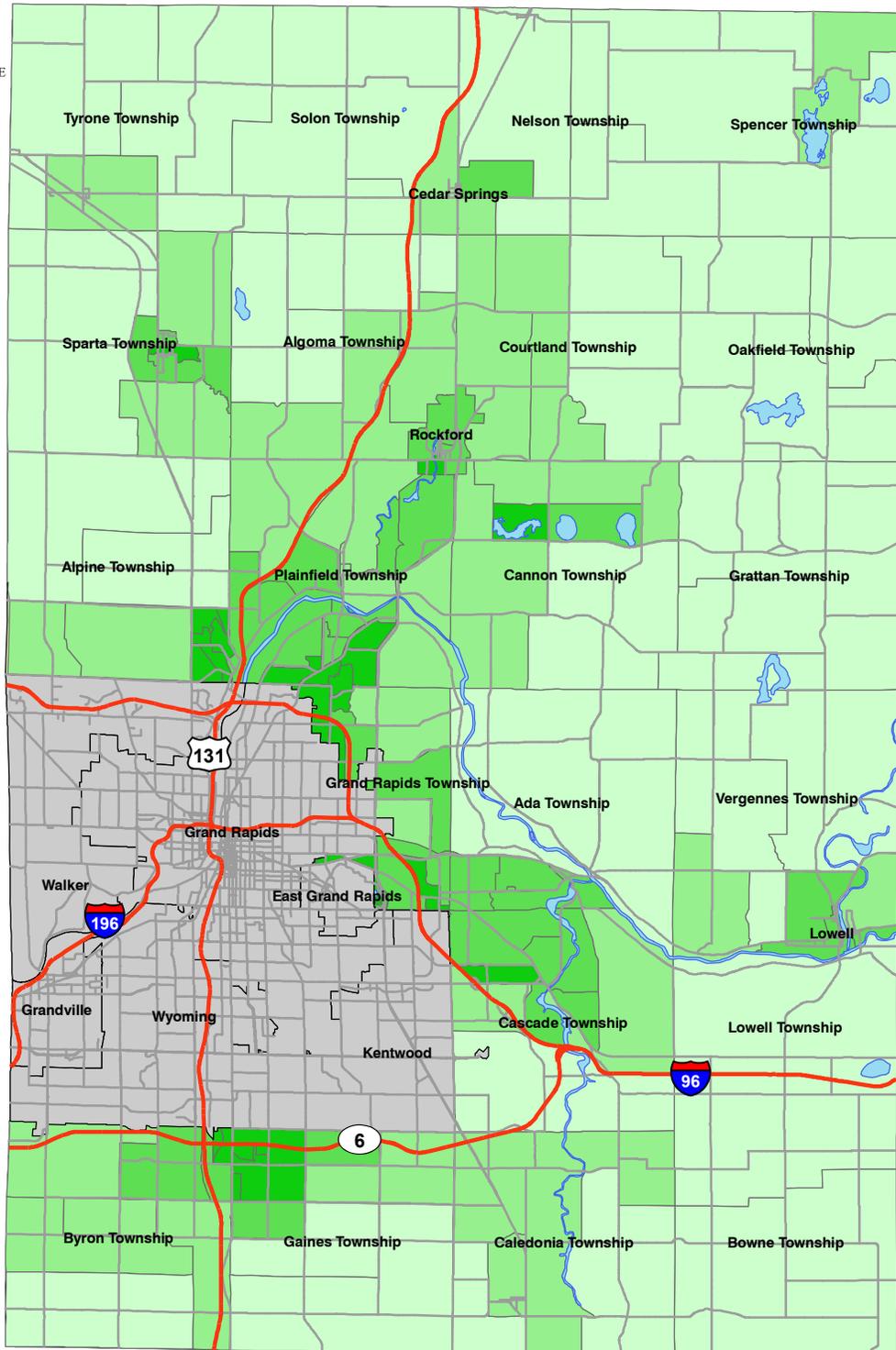
### **Transit Propensity**

Transit propensity is a measure of the likelihood that a local population will use transit service, were it available to them, taking into account their demographic characteristics. The model was derived through research completed on transit trip generation. The end result is an estimate of the relative propensity for transit per census block group.

To calculate transit propensity, U.S. Bureau of the Census 2000 data were gathered at the block group level for the entire county. The data included: total population, land area by square mile, population density, number of persons age 65 and older, number of households, and the number of occupied housing units with zero vehicles available. These figures were entered into the previously cited model to determine each block group's transit propensity, measured by the number of potential transit trips per square mile. This information is graphically depicted in the map in Exhibit V-69.

Areas of highest projected transit demand had transit propensities of greater than 36,421 trips per square mile. These areas had a combination of the greatest population densities, largest elderly populations, and had the highest numbers of occupied housing units without an available vehicle. Block groups in this category are located in Rockford, Alpine Township, Gaines Township, Grand Rapids Township, and Plainfield Township.

# Exhibit V-69 Transit Propensity



## Transit Propensity / Square Mile

925 - 3589	9455 - 36420
3590 - 9454	36421 - 170637

## Kent County Transit Needs Assessment

Areas of moderately high transit propensity, with potential trips of 47,253 to 87,089 trips per square mile, were in the block groups located throughout the county, with a concentration in Cedar Springs, Lowell, Plainfield Township, Grand Rapids Township, Cascade Township, and Sparta Township.

Areas of moderate transit propensities, with potential trips per square mile of 3,590 to 9,454 were located in the less densely populated areas of the county. These block groups have lower density of senior citizen populations, and zero-vehicle households. Block groups in this category tend to be located in more rural areas. These areas include the lower density areas surrounding the six city area to the north with a large concentration in Cannon Township, Courtland Township, Algoma Township to the North and in Byron Township and Caledonia Township to the South.

## **PUBLIC MEETINGS**

A series of public meetings were held during the week of June 14, 2010. The purpose of these meetings was to solicit input from the public on perceived transportation needs.

The first public meeting of The Kent County Needs Assessment was held in the City of Lowell. The meeting took place in the City Council Chambers, located at 301 East Main Street in Lowell. There were 20 individuals in attendance. The purpose of the meeting was to obtain an understanding of transportation needs that exist in the county.

Many points of interest were brought up during the meeting, and included the following:

- ◆ Currently the access to service is very limited and in many cases rationed.
- ◆ To use the existing County Connection service requires advanced scheduling.
- ◆ The County Connection service is costly, with fares of \$14 for trips scheduled a day in advance and \$19 for trips scheduled the same day.
- ◆ There is an existing need for transportation service for seniors in Lowell.
- ◆ Many different agencies provide transportation through the ride link program. These organizations include The Rapid, Hope Network, (UNCH), and Senior Neighbors.
- ◆ Currently there is no county service for individuals who are not a senior or do not have a disability.
- ◆ There needs to be multiple levels of service, because seniors, individuals with disabilities, and general users have different needs.
- ◆ The addition of transportation to the county would allow choice riders the freedom to choose transit or drive a car.
- ◆ Park and ride options have a strong potential for work and shopping trips. This kind of service is also favored, because it is environmentally friendly.
- ◆ Use of private providers should be looked at as an alternative option to public systems.
- ◆ Express bus systems provide options that would be useful in lower density areas.
- ◆ Options like Zipcars have the potential to work in county areas.
- ◆ Partnerships between existing transportation providers are key in ensuring the system will function well.
- ◆ There is a need for transportation from Lowell to Grand Rapids for work trips.

The second public meeting of The Kent County Needs Assessment was held in Gaines Township. The meeting took place in the community room, located at 8555 Kalamazoo Avenue Gaines Township. There were 17 individuals in attendance. The purpose of the meeting was to obtain an understanding of transportation needs that exist in the county.

Many points of interest were brought up during the meeting, and included the following:

- ◆ Go! Bus does not provide adequate access to family and doctors, especially for those who live outside of contracted townships.
- ◆ The cost of County Connection is too expensive to justify short trips.
- ◆ Go! Bus has limited service area of the six cities and contracted townships.
- ◆ North Kent transit is a good service, but limits on number of rides are an issue.
- ◆ Bike paths could provide a good connection to public transportation.
- ◆ It is currently difficult to identify bus stops, because of placement behind shopping centers.
- ◆ Highway M6 provides a potential road for public transportation, because of its access to medical facilities and shopping.
- ◆ There is a need for east and west transit in addition to a need for north south transportation to Grand Rapids.
- ◆ There is a need for public transportation on 68<sup>th</sup> Street to and from gains market.
- ◆ There is a need for transportation, like van pools offered by The Rapid, which can be used for work trips.
- ◆ There was well-used public transportation to Davenport University, but the contract expired and service was canceled.
- ◆ Artificial service boundaries like city and township lines create transportation limits.
- ◆ Township contracts differ by location. This can be confusing and create additional limits. It appears inefficient for a Go! Bus to pass through a Township without providing any rides.
- ◆ Go! Bus has a limit of 16 rides per month. This makes using Go! Bus for work trips difficult.
- ◆ Go! Bus requires a one day notice. This can cause scheduling problems in the case of an emergency or sudden appointment.
- ◆ The Kent County Needs Assessment should work with The Rapid's master plan, which is looking at express service and other county options.
- ◆ North and south transportation on highway 131 to Cutlerville is a needed service for shopping and work trips.
- ◆ Service from Rockford to Davenport University is needed for work trips.
- ◆ Transit dependent riders are limited to working within existing service areas.

The third public meeting of The Kent County Needs Assessment was held in the City of Cedar Springs. The meeting took place in the Council Chambers, located at 66 South Main Street in Cedar Springs. There were 12 individuals in attendance. The purpose of the meeting was to obtain an understanding of transportation needs that exist in the county.

Many points of interest were brought up during the meeting, and included the following:

- ◆ The North Kent Transit has a limit of six trips per month, making it difficult to use the service for medical or work trips.
- ◆ The cost of County Connection is very high at \$14 one way.

- ◆ County Connection runs well generally, while North Kent Transit is often over booked and requires in long waits.
- ◆ North Kent Transit has different limitations on number of rides in each township.
- ◆ Any transit needs to be convenient for user. This means the service should be timely and frequent.
- ◆ The 14 Mile Cascade and Cedar Springs Park and Ride lot is a popular service and has the potential of working well with public transportation.
- ◆ Car travel from North Kent County is costly. This makes public transportation appealing to commuters.
- ◆ Transportation would help the parking and congestion of downtown Grand Rapids.
- ◆ Transportation from the northern part of the county to Grand Rapids for medical, work, and shopping is needed.
- ◆ The North Kent Mall S-curve had a park and ride that was well used, and might be a good location for a public transportation service.
- ◆ Public transportation would provide an alternative option to the expressway, which is often slow due to repairs and accidents.
- ◆ High occupancy vehicle Lanes and express bus lanes would make public transportation more appealing.
- ◆ The recent growth of Cedar Springs has made the area a better candidate for public transportation than it would have been in the past.
- ◆ Cost of any new service can be an issue and lead to lost support of officials.
- ◆ Cost of Go! Bus to Cascade is high and creating a strain on funding that cannot be maintained.
- ◆ Work transportation for one vehicle or zero vehicle households would be useful.

The fourth public meeting of The Kent County Needs Assessment was held at Hope Network. The meeting took place in the Education Center, located at 755 36<sup>th</sup> Street SE in Wyoming. There were 20 individuals in attendance. The purpose of the meeting was to obtain an understanding of transportation needs that exist in the county.

Many points of interest were brought up during the meeting, and included the following:

- ◆ There is a current lack of transportation service to work as well as service times that meet the needs of individuals who work.
- ◆ There is no service to areas outside of the six cities or areas that do not have contracts.
- ◆ County boundaries create transit restrictions for individuals who may work outside of the county.
- ◆ Jobs outside of the bus line pay more on average, but there is no access by bus, so transportation dependent individuals cannot access those jobs.
- ◆ Any created service should improve quality of life including shopping, community access, and not just work access.
- ◆ Countywide transportation is needed. The existing service leaves many without any options and those with options have very limited choices.
- ◆ The current systems make it difficult to get timely service and require advanced notices, which are sometimes impossible to give.
- ◆ Go! Bus pickups and drop offs can be early or late and create timing issues.
- ◆ Door-to-door service provides safer service and is the preferred method of many current riders.

- ◆ Medical appointments out of Grand Rapids are costly and can be limited due to a lack of services.
- ◆ Cascade and Plainfield Township have had issues transporting people to medical appointments due to service boundaries.
- ◆ Employers and public transit have a disconnect that could be improved through the use of needs marketing and information.
- ◆ Employers want people with a driver's license, because under the current system they are more dependable.
- ◆ The general public has a poor understanding of public transportation and what services it can provide.
- ◆ Reverse commute for areas outside of existing service contracts is need and imperative to make the system work properly.
- ◆ The ability to change a scheduled ride not only cancel would provide additional flexibility.
- ◆ Circulator routes that connected to express buses would be useful in areas of higher population densities.
- ◆ Trips need to be able to handled people with groceries and other goods.
- ◆ Cost of transit is an issue form many people and especially for people who receive no assistance.
- ◆ Limit of 16 rides per month in Caledonia creates a strain on individuals who use transit for work and medical trips.
- ◆ A fee based on income system would be preferred by groups who help individuals with low income find jobs.
- ◆ There is a need for information about public transportation and what it can do for individuals.

The Fifth public meeting of The Kent County Needs Assessment was held in Plainfield Township. The meeting took place in the Board Room located at 6161 Belmont Avenue in Plainfield Township. There were 13 individuals in attendance. The purpose of the meeting was to obtain an understanding of transportation needs that exist in the county.

Many points of interest were brought up during the meeting, and included the following:

- ◆ Advanced notice is needed, and service is not always available for the existing county services.
- ◆ Individual addresses determine who has access to public transportation, based on Go! Bus contracts.
- ◆ Access to employment is limited to individuals in the county, because they do not have an adequate means of transportation to get to work.
- ◆ Young adults and college students are a potential market and should not be over looked.
- ◆ Parking and congestion issues downtown make a transportation service from the county appealing.
- ◆ Grand Valley College contributes 1 million rides to The Rapid each year. It is very likely some of this demand exists in the county out side of the current service area.
- ◆ Park and Ride lots have been successful throughout the county and have the potential of acting as locations for public transportation service.
- ◆ Trips require advanced notice and result in missed medical rides when emergencies arise.
- ◆ Convenient, fast, and modern amenities such as wireless internet would make county transportation attractive to commuters.
- ◆ Transit to Alpine Avenue and the ball field would be a popular recreational route.

- ◆ Rather than one large county system, use a system that connects areas of higher density.
- ◆ The East Beltway, 5 Mile, and the Plainfield apartments provide a potential route for work trips and shopping.
- ◆ There is a need for transit from Grand Rapids to Comstock Park.
- ◆ Lack of existing transportation hurts the quality of life and creates a negative impact socially.
- ◆ To use transportation for school commutes would reduce the need for county residents to drive downtown and fight congestion and parking.
- ◆ Townships create phony divisions that are the underlying issue to many of the existing transportation problems.

A separate public input meeting was held at the Grandville Senior Center. The meeting took place in the center located at 3380 Division SW, Grandville. The meeting was attended by seniors who participate at the center.

Many points of interest were brought up during the meeting, and included the following:

- ◆ The high cost of County Connection makes the service impractical for everyday use.
- ◆ Transportation service is needed to the medical offices on the beltline.
- ◆ Transportation service is needed to the IRS offices in Plainfield Township on 3 Mile.
- ◆ Transportation service is needed to the medical offices in Walker.
- ◆ A service that provided rides between Cedar Springs, Rockford, and Grand Rapids would be useful for shopping and travel.
- ◆ There is currently no Sunday service, and it is difficult to get to church services in Kentwood or Fulton.
- ◆ There is a need for transportation to Eagle Park medical offices in Cascade.
- ◆ The current system requires two reservations for a doctor's appointments and can be difficult to schedule.
- ◆ Door-to-door trips for medical and grocery trips is preferred.
- ◆ There is lack of knowledge as to what services currently exist and who is eligible to use them.

## VI. SERVICE ALTERNATIVES

---

Several transit service improvements were defined for the study area. A major source for the fixed route portion of the service alternatives is The Rapid's *Transit Master Plan* that was completed in July 2010. Other sources for these alternatives include ideas and suggestions made at Steering Committee meetings and public forums, as well as an analysis of services provided in peer cities.

### **COMMUTER EXPRESS**

Park and ride lots throughout the county provide support for express service to downtown Grand Rapids. Express bus routes from park and ride locations to downtown Grand Rapids also provide the opportunity to connect with other Rapid routes at its downtown transit center.

Several potential express routes have been identified. These would utilize park and ride lots to provide peak hour trips to and from downtown Grand Rapids. Initially, a minimum of three morning inbound trips and three afternoon outbound trips would be provided for each express route. Inbound trips would be scheduled to serve shift times that begin at 8:00 a.m., 8:30 a.m., and 9:00 a.m. Outbound afternoon trips would serve work times ending at 4:30 p.m., 5:00 p.m., and 5:30 p.m. Potential locations are described below.

#### **Cedar Springs/Rockford**

This route would operate mostly along US 131 from an existing park and ride lot located at 17-Mile Road and US 131 in Cedar Springs. It would also stop at a new park and ride lot at 10-Mile Road and US 131 near Rockford before arriving in downtown Grand Rapids.

#### **Ada/Lowell**

These express trips to downtown Grand Rapids would run along Fulton Street (M 21), I-96, and I-196. It would serve an existing park and ride lot in Lowell and a new park and ride lot in Ada in the vicinity of Fulton Street and Ada Drive.

#### **Byron/Gaines**

This route would run between a stop in the vicinity of US 131 and 68<sup>th</sup> Street and downtown Grand Rapids mostly along US 131. A park and ride lot in this vicinity would need to be provided.

#### **Caledonia/Cascade**

An express route serving two park and ride lots in Caledonia and Cascade Townships would operate mostly along I-96 and I-196 to and from downtown Grand Rapids.

Exhibit VI-1 shows the location of possible park and ride lots serving these commuter express routes. A 2.5 mile distance from the park and ride locations was used to estimate the population within its service area. This is the assumed distance that passengers would be willing to travel to access an express bus route, which is about a five minute drive. The park and ride lots located in Gaines and Byron Townships have nearby block groups with the highest population, 2,497 people and over. The remaining park and ride lots have nearby block groups with 1,470 to 2,496 individuals. Only the park and ride lot located in Caledonia Township does not contain a block group with over 1,469 people.

Exhibit VI-2 depicts a potential alignment for the downtown Grand Rapids portion of these express routes. This alignment is designed to serve medical facilities from Michigan Avenue, Grand Valley Community College, as well as the core of downtown Grand Rapids.

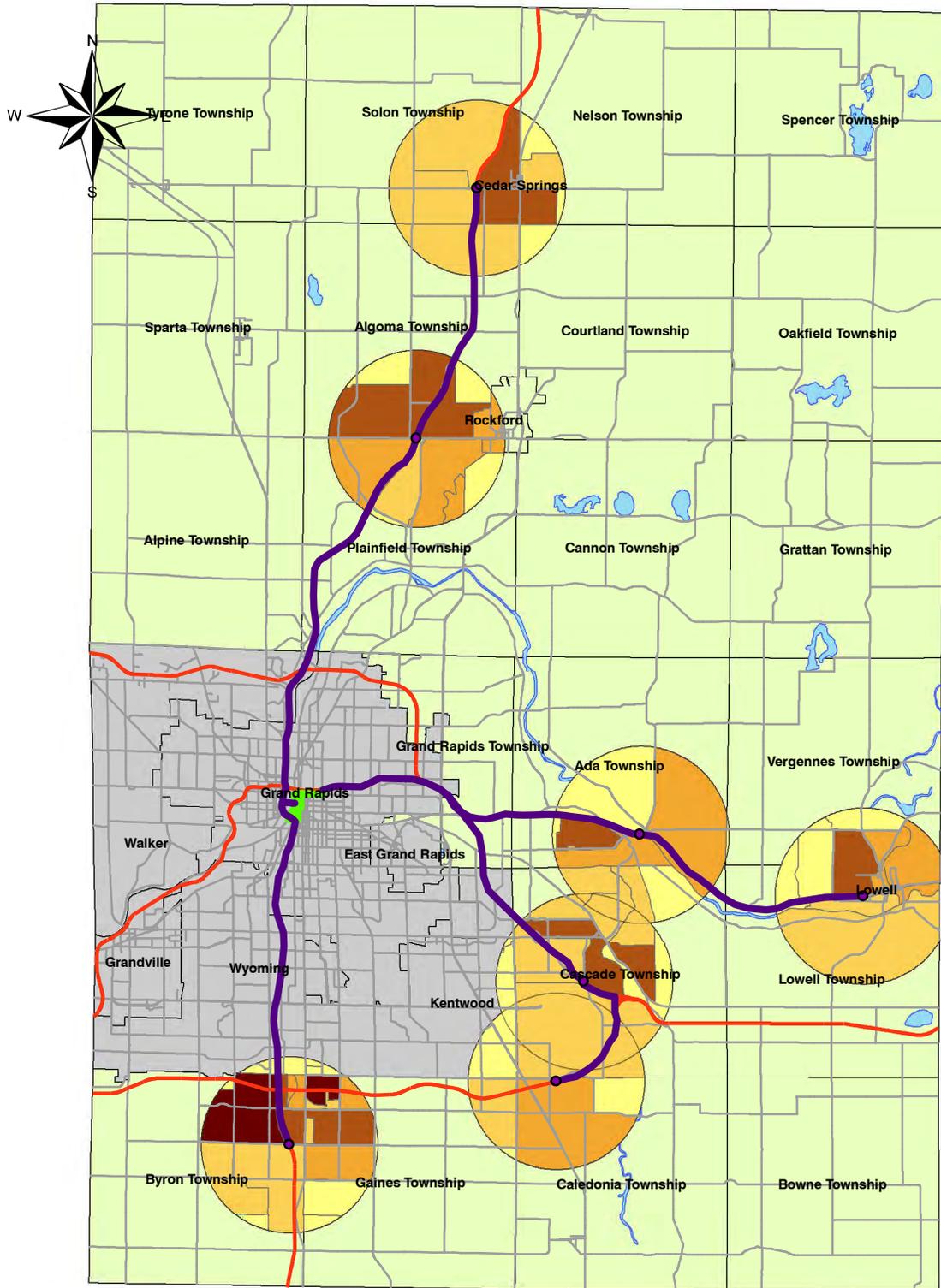
Exhibit VI-3 includes a profile of the four proposed commuter express routes. Each would operate during the weekday peak hours with three morning inbound trips and three afternoon return trips. Estimated vehicle requirements, revenue hours, and revenue miles are included for each route.

Exhibit VI-4 summarizes the estimated population that currently live within 2.5 miles of the current or proposed park and ride location. The table shows that the park and ride located in Byron and Gaines Townships is estimated to have the largest population, with 19,196. The second largest population is at the Cascade Township park and ride, with 8,021. This is paired with the Caledonia park and ride which together have a route total of 12,355. The Ada Township park and ride serves an estimated population of 7,511, and Lowell serves an estimated 6,332 individuals for a route total of 13,843. The third highest population is in the vicinity of the Rockford park and ride lot, with 7,980. With the Cedar Springs park and ride serving a population of 5,457, the Rockford/Cedar Springs route totals 13,437 persons within its service area.

**Exhibit VI-4  
Population Served by Express Bus Service**

<b>Commuter Express Park and Ride</b>	
<b>Location</b>	<b>Population Within 2.5 Miles</b>
Cedar Springs	5,457
Rockford	7,980
<i>Route Total</i>	<i>13,437</i>
Ada Townships	7,511
Lowell	6,332
<i>Route Total</i>	<i>13,843</i>
Byron/Gaines Townships	19,196
<i>Route Total</i>	<i>19,196</i>
Caledonia Township	4,334
Cascade Township	8,021
<i>Route Total</i>	<i>12,355</i>

# Exhibit VI-1 Proposed Park and Ride Locations

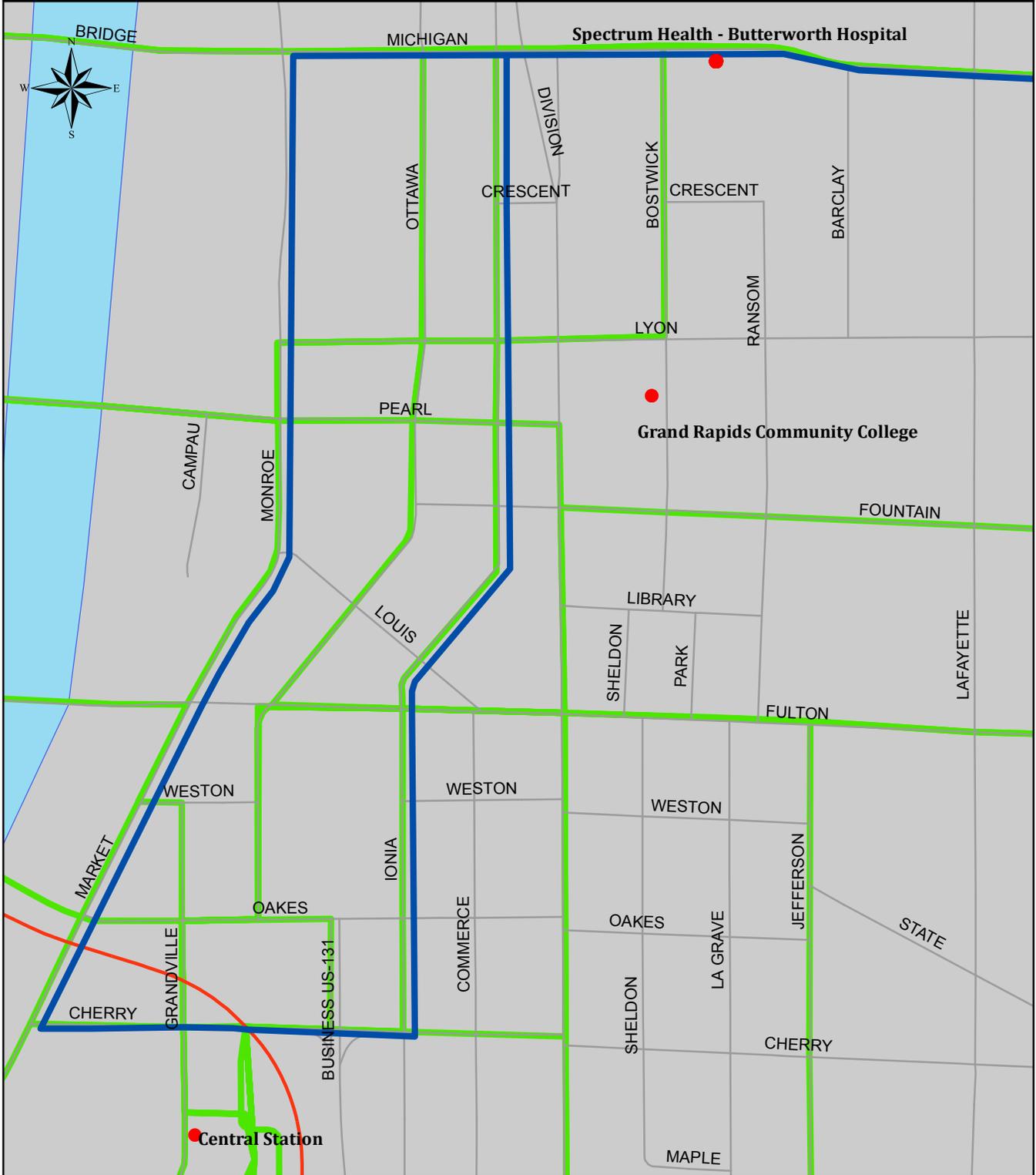


### Total Population

- |                      |            |                 |
|----------------------|------------|-----------------|
| ● Park and Ride Lot  | 10 - 400   | 1470 - 2496     |
| — Downtown Alignment | 401 - 923  | 2497 - and over |
| — Express Routes     | 924 - 1469 |                 |

## Kent County Transit Needs Assessment

# Exhibit VI-2 Express Downtown Alignment



- Current Routes
- Proposed Downtown Alignment

**Kent County  
Transit Needs Assessment**

**Exhibit IV-3  
Proposed Express Route Profile**

Route	Service Span			Vehicle Required				Frequency				Revenue Hours			Revenue Miles		
	Weekday	Sat.	Sun.	PK	MD	Eve.	Sat.	Sun.	PK	MD	Eve.	Sat.	Sun.	Wday	Sat.	Sun.	
Cedar Springs/Rockford	7:15a-8:45a 4:45p-6:15p	--	--	2	--	--	--	--	30	--	--	--	--	4.2	127.2	--	
Ada/Lowell	7:15a-8:45a 4:45p-6:15p	--	--	2	--	--	--	--	30	--	--	--	--	3.8	114.0	--	
Byron/Gaines	7:15a-8:45a 4:45p-6:15p	--	--	2	--	--	--	--	30	--	--	--	--	3.6	108.0	--	
Caledonia/Cascade	7:15a-8:45a 4:45p-6:15p	--	--	2	--	--	--	--	30	--	--	--	--	2.3	69.0	--	

## **ROUTE EXTENSIONS AND NEW ROUTES**

Route extensions and new routes are designed to meet the needs of individuals outside of the existing core service area The Rapid. A number of proposed new routes and route extensions were identified in the *Rapid Master Plan*. It is assumed that a basic level of service be provided on these extensions mostly consisting of 30 minute frequencies from 5:00 a.m. to 6:00 p.m. on weekdays and Saturdays.

### **Route 16 - Metro Health to Byron Center**

This is a three mile extension of Rapid Route 16 from its current terminus at the Metro Health Center along Byron Center Avenue to the vicinity of 84<sup>th</sup> Street.

### **Route 10 - Clyde Park to 76th Street**

This extension is 2.5 miles in length extending from the current Route 10 terminus at the Meijer Shopping Center at Clyde Park Avenue and 52<sup>nd</sup> Street to 76<sup>th</sup> Street.

### **Route 1 - Division to 76th Street**

This route would be extended from 68<sup>th</sup> Street along Division Avenue to 76<sup>th</sup> Street in Gaines Township. This extension is 0.9 miles.

### **Route 4 - Eastern to 76th Street**

This is a two mile extension along Eastern Avenue from 60<sup>th</sup> Street to 76<sup>th</sup> Street into Gaines Township.

### **Route 2 - Kalamazoo to Gaines Marketplace**

This is a three mile extension from 44<sup>th</sup> Street to Gaines Marketplace in Gaines Township north of 68<sup>th</sup> Street.

### **Route 9 - Alpine Avenue/Belmont/Rockford**

Route 9 currently ends at Alpine and Lamoreaux Drive. This extension would run along Lamoreaux Drive to Comstock Park, continue north on West River Road to Belmont, and continue north on Belmont Avenue and 10-Mile Road to Rockford. Overall, this would add 12.6 miles to this route.

### **Route 11 - Plainfield Avenue**

This extension would restore the part of the Route 11 that used to operate in Plainfield. This proposal would extend this route to Northland Drive.

### **Route 28 – 28th Street/Cascade**

Route 28 is an east-west crosstown route. This is a 3.5 extension of Route 28 west into Cascade Township.

### **East Fulton Street/Ada**

Local service along Fulton Street to Ada is not contemplated to be an extension of any Rapid route. Instead, this would be a new route that would run between Ada and Downtown Grand Rapids.

### **Rockford/East Beltline**

This route would run between Rockford and a potential satellite transfer center in the vicinity of East Beltline and Knapp.

### **60th Street/68th Street Circulator**

This route would serve the northern portion of Gaines Township. It would operate mostly along 60<sup>th</sup> and 68<sup>th</sup> Streets between Division and Kraft Avenues.

Exhibit VI-5 is a profile of the proposed route extensions and new routes. With the exception of the Route 28 extension, these route extensions and routes would operate generally between 5:00 a.m. and 6:00 p.m. on weekdays, and between 5:30 a.m. and 6:00 p.m. on Saturdays, depending on the current schedule. During other times, routes with proposed extensions would operate its current alignment. Frequencies would mostly be 30 minutes on weekdays and 60 minutes on Saturdays. On routes that have 15 minute or other frequencies, short turns will be necessary.

Traffic Analysis Zone (TAZ) data were used to show the population density within  $\frac{3}{4}$  mile of these route extensions. Exhibit VI-6 shows this information. Alpine, Gaines and Byron Townships have TAZs with the highest population density, with over 4,561 persons per square mile. The City of Rockford and Plainfield Township had the second highest density, with areas of the population ranging from 2,560 to 4,561 persons per square mile. Cascade Township had TAZs in the third highest population range of 1,508 to 2,559 persons per square mile.

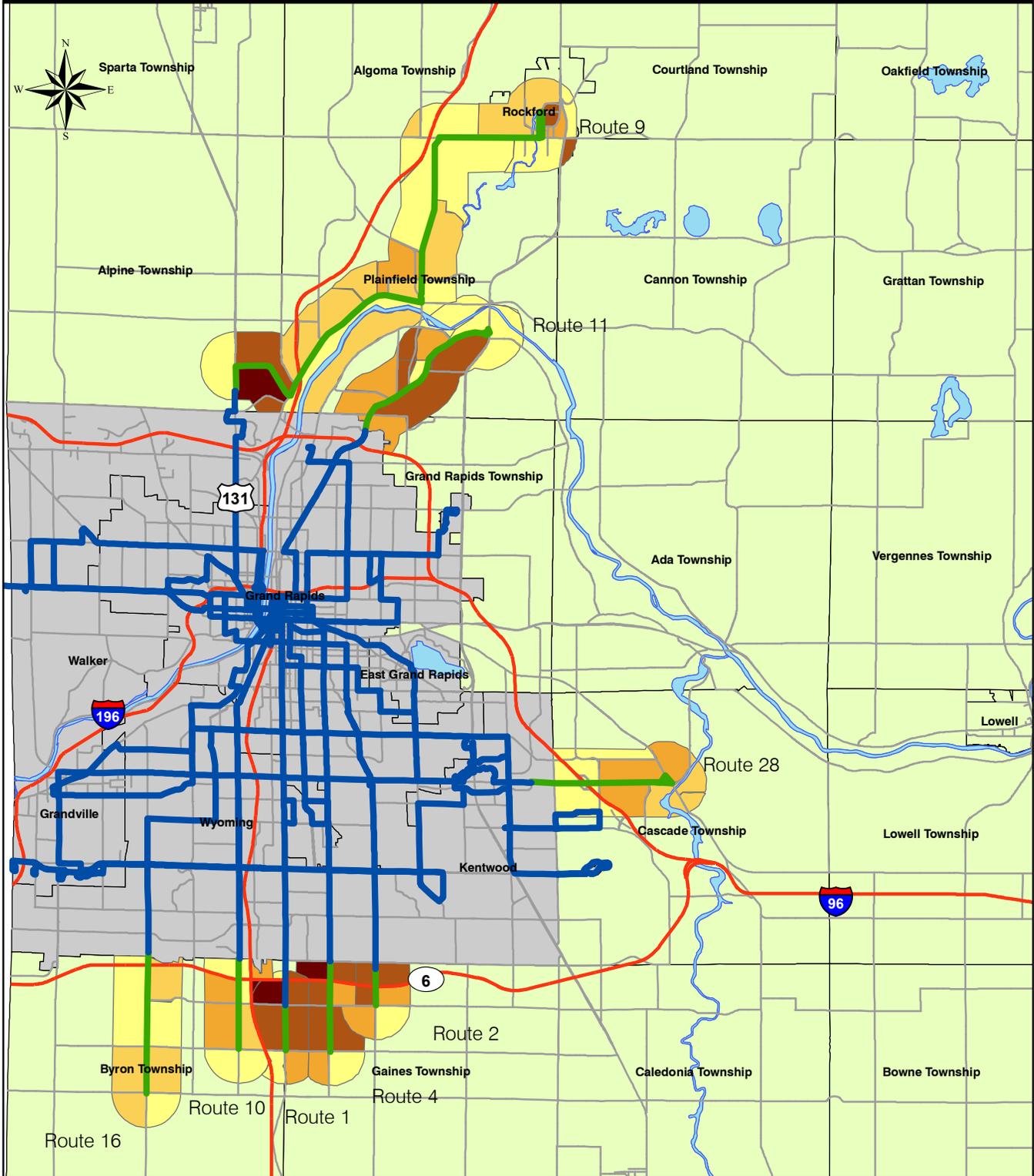
Exhibit VI-7 shows the 65 and over population density by block group within  $\frac{3}{4}$  mile of the proposed route extensions. Gaines, Plainfield, and Alpine Townships show the highest densities of individuals 65 and over. Block groups in these areas have densities of 828 to 1,709 persons per square mile. Block groups in Gaines Township have 65 and older densities greater than 1,709. The majority of areas along route extension corridors have densities ranging from 14 to 500.

The density of zero vehicle households along the route extension corridors is shown in Exhibit VI-8. The areas with the highest densities, over 163 zero vehicle households per square mile, are located in Alpine, Plainfield, and Gaines Townships. Areas in the city of Rockford, Alpine, and

**Exhibit I\* -5**  
**Proposed Route Extension Profile**

Route	Service Span		Vehicle Required				Frequency			Revenue Hours			Revenue Miles					
	Weekday	Sat.	Sun.	PK	MD	Eve.	Sat.	Sun.	MD	Eve.	Sat.	Sun.	Wday	Sat.	Sun.			
Route 16 - Byron Center	5:17a-6:00p	5:32a-6:00p	--	1	1	--	1	--	30	30	--	60	12.7	12.5	--	157.5	155.0	--
Route 10 - 76th Street	5:11a-6:00p	5:41a-6:00p	--	1	1	--	1	--	30	30	--	60	12.8	12.3	--	102.4	98.4	--
Route 1 - 76th Street	5:00a-6:00p	5:23a-6:00p	--	1	1	--	1	--	30	30	--	60	13.0	12.6	--	52.0	50.4	--
Route 4 - 76th Street	4:35a-6:00p	5:20a-6:00p	--	1	1	--	1	--	30	30	--	60	13.4	12.6	--	107.2	100.8	--
Route 2 - Gaines Marketplace	4:48a-6:00p	6:53a-6:00p	--	1	1	--	1	--	30	30	--	60	13.2	11.1	--	52.8	44.4	--
Route 9 - Rockford	4:33a-6:00p	5:06a-6:00p	--	4	4	--	2	--	30	30	--	60	50.0	23.8	--	1200.0	571.2	--
Route 11 - Plainfield Avenue	5:13a-6:00p	5:31a-6:00p	--	1	1	--	0.5	--	30	30	--	60	12.8	12.5	--	99.8	97.5	--
Route 28 - Cascade	5:30a-11:31p	7:07a-10:37p	--	1	1	0.5	0.5	--	30	30	60	60	18.0	15.5	--	144.0	124.0	--
New Route - East Fulton/Ada	6:00a-6:00p	6:30a-6:00p	--	4	4	--	2	--	30	30	--	60	44.0	21.0	--	352.0	168.0	--
New Route - Rockford/East Beltline	6:00a-6:00p	6:30a-6:00p	--	1	1	--	1	--	60	60	--	60	12.0	11.5	--	96.0	92.0	--
New Route - 60th/68th Street	6:00a-6:00p	--	--	1	1	--	--	--	60	60	--	--	12.0	--	--	96.0	--	--

# Exhibit VI-6 Route Extension Corridors - Population Density



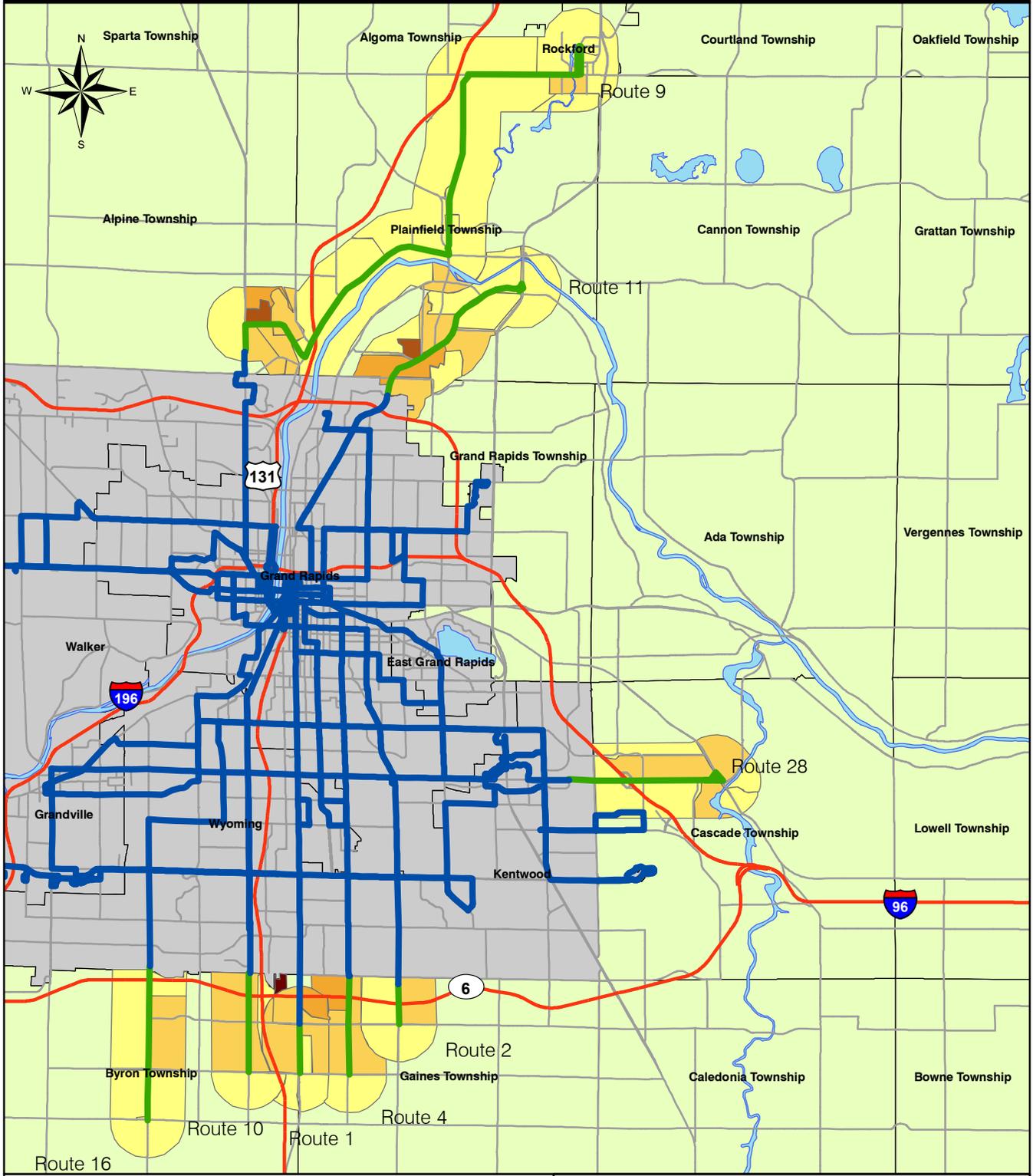
### Population Per Square Mile

- |  |   |  |  |  |  |  |
|--|---|--|--|--|--|--|
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #ffffcc; border: 1px solid black; margin-right: 5px;"></span> 0 - 708 | <span style="display: inline-block; width: 15px; height: 10px; background-color: #ffcc99; border: 1px solid black; margin-right: 5px;"></span> 709 - 1507 | <span style="display: inline-block; width: 15px; height: 10px; background-color: #ff9966; border: 1px solid black; margin-right: 5px;"></span> 1508 - 2559 | <span style="display: inline-block; width: 15px; height: 10px; background-color: #ff6666; border: 1px solid black; margin-right: 5px;"></span> 2560 - 4561 | <span style="display: inline-block; width: 15px; height: 10px; background-color: #990000; border: 1px solid black; margin-right: 5px;"></span> 4562 - and over | <span style="display: inline-block; width: 15px; border-bottom: 2px solid blue; margin-right: 5px;"></span> Current Routes | <span style="display: inline-block; width: 15px; border-bottom: 2px solid green; margin-right: 5px;"></span> Proposed Route Extensions |
|--|---|--|--|--|--|--|

## Kent County Transit Needs Assessment

# Exhibit VI-7

## Route Extension Corridors - 65 and Over Population



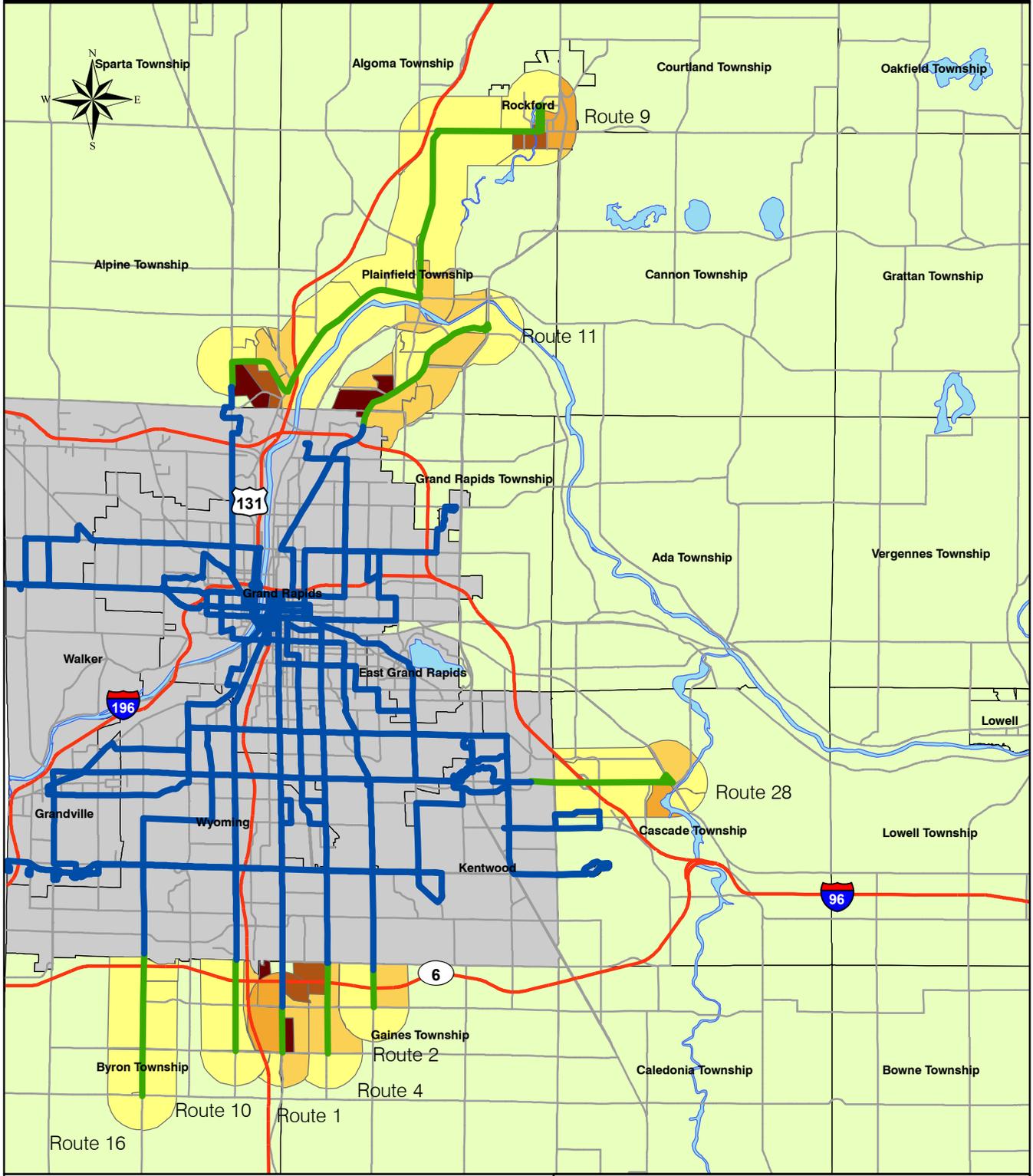
**Individuals 65 and Over Per Square Mile**

- 14 - 212
- 213 - 500
- 501 - 827
- 828 - 1709
- 1710 - and over
- Current Routes
- Proposed Route Extensions

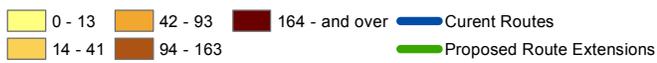
## Kent County Transit Needs Assessment

# Exhibit VI-8

## Route Extension Corridors - Zero Vehicle Households



### Zero Vehicle Households Per Square Mile



## Kent County Transit Needs Assessment

Gaines Townships have block groups with the second highest densities, of 94 to 163. Several areas with densities between 42 and 93 are found in Rockford.

The map in Exhibit VI-9 shows the households below poverty densities in the area of the potential routes/route extensions. The areas with the greatest densities are located in Alpine, Bryon, Plainfield, and Gaines Townships. These townships have block groups with over 156 households below the poverty line per square mile. The second highest densities are located in the City of Rockford and in Plainfield Township. These block groups have a density between 556 and 156 poverty level households per square mile.

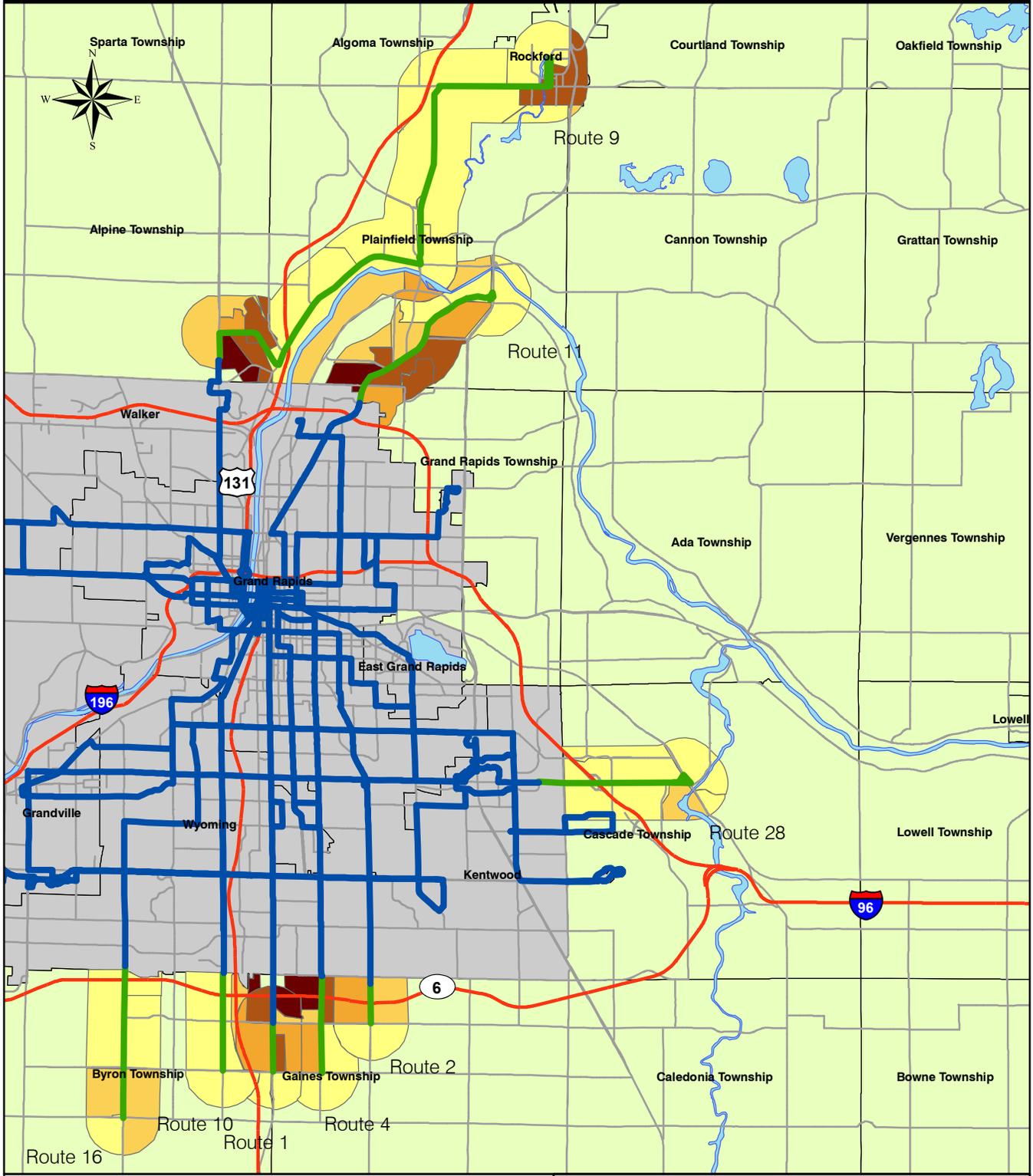
Exhibit VI-10 shows the population density for the portions of the TAZ that are within  $\frac{3}{4}$  mile of these potential routes/route extensions. The Plainfield Route has the highest population density, with TAZs containing over 4,561 people. Both routes have zones with densities between 2,560 and 4,561 and zones with between 1,508 and 2,559. These zones are distributed throughout the routes with no one area of concentration.

The map in Exhibit VI-11 shows the population density of individuals 65 and older within  $\frac{3}{4}$  mile of the potential routes/route extensions. The map shows a concentration of these people in the area surrounding Rockford. There are block groups in Rockford with densities over 1,709 individuals 65 and older, as well as several block groups with densities ranging from 828 to 1,709. The proposed route along East Beltline has areas of slightly lower densities. However, there are still block groups with densities ranging from 828 to 1,709 and between 213 and 500 on that route.

Exhibit VI-12 shows the densities of zero vehicle households within  $\frac{3}{4}$  mile of the potential routes/route extensions. The proposed route to Ada Township has the highest concentrations of zero vehicle households located just outside of the existing Rapid service area. Most block groups in this area have a density between 94 and 163 households per square mile, with the most densely populated block group having over 163 households per square mile with no vehicle. The proposed route to Rockford has the highest concentration of zero vehicle households in the Rockford area. These block groups have between 37 and 58 households and between 59 and 156 zero vehicle households.

Exhibit VI-13 shows the densities of households below the poverty line for the potential routes/route extensions. These routes all contain block groups with 31 to 58 households below the poverty level. The proposed route through Plainfield contains block groups of higher densities, ranging from 59 to 156 households per square mile under the poverty level.

# Exhibit VI-9 Route Extension Corridors - Households Below Poverty Level

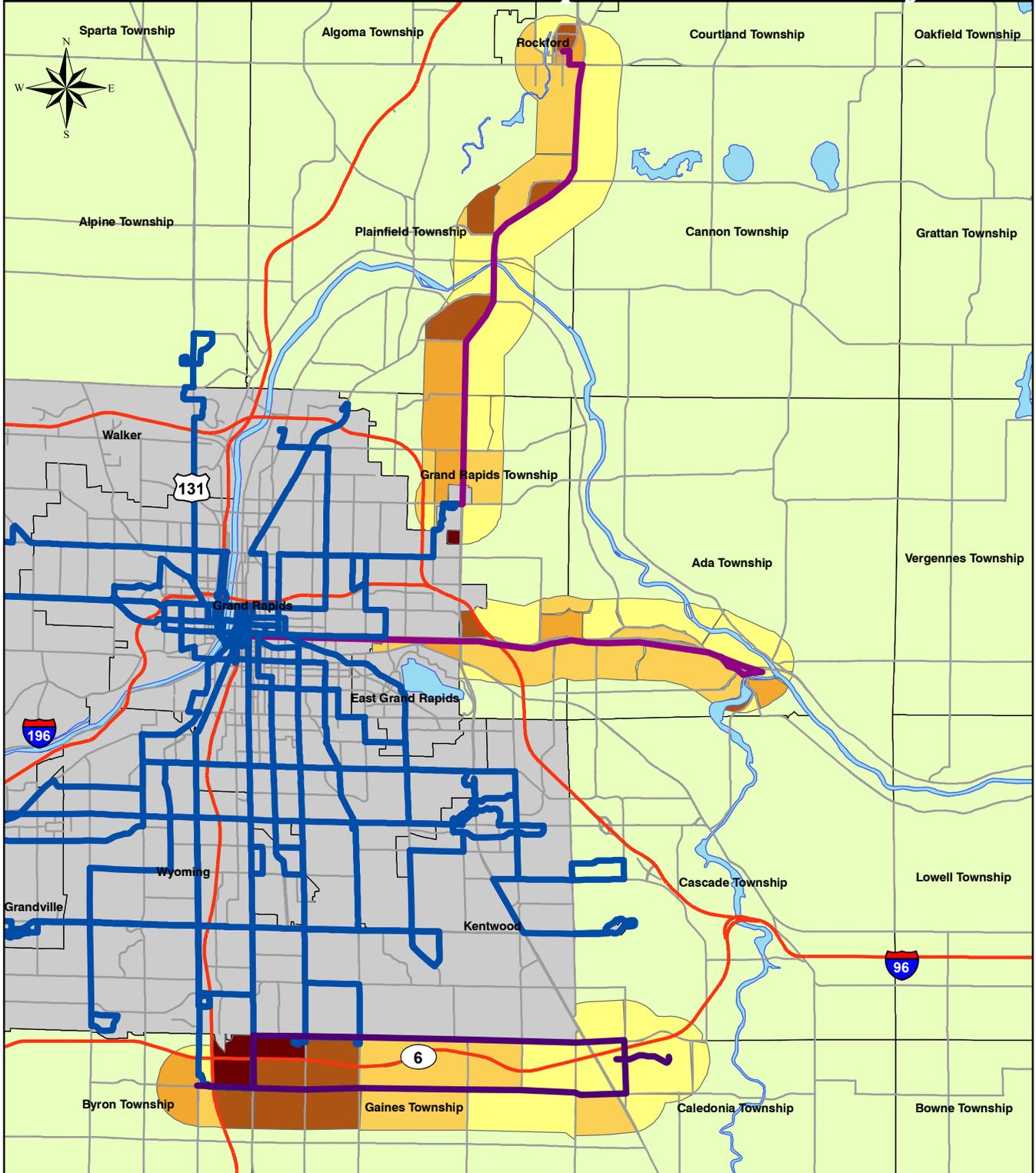


**Households Under The Poverty Level Per Square Mile**

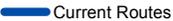
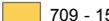
<span style="display: inline-block; width: 15px; height: 10px; background-color: #ffffcc; border: 1px solid black;"></span> 0 - 12	<span style="display: inline-block; width: 15px; height: 10px; background-color: #ffcc99; border: 1px solid black;"></span> 13 - 30	<span style="display: inline-block; width: 15px; height: 10px; background-color: #ff9966; border: 1px solid black;"></span> 31 - 58	<span style="display: inline-block; width: 15px; height: 10px; background-color: #ff6633; border: 1px solid black;"></span> 59 - 156	<span style="display: inline-block; width: 15px; height: 10px; background-color: #cc3300; border: 1px solid black;"></span> 157 - and over	<span style="display: inline-block; width: 15px; border-bottom: 2px solid blue;"></span> Current Routes
					<span style="display: inline-block; width: 15px; border-bottom: 2px solid green;"></span> Proposed Routes

**Kent County  
Transit Needs Assessment**

# Exhibit VI-10 Potential Route - Population Density

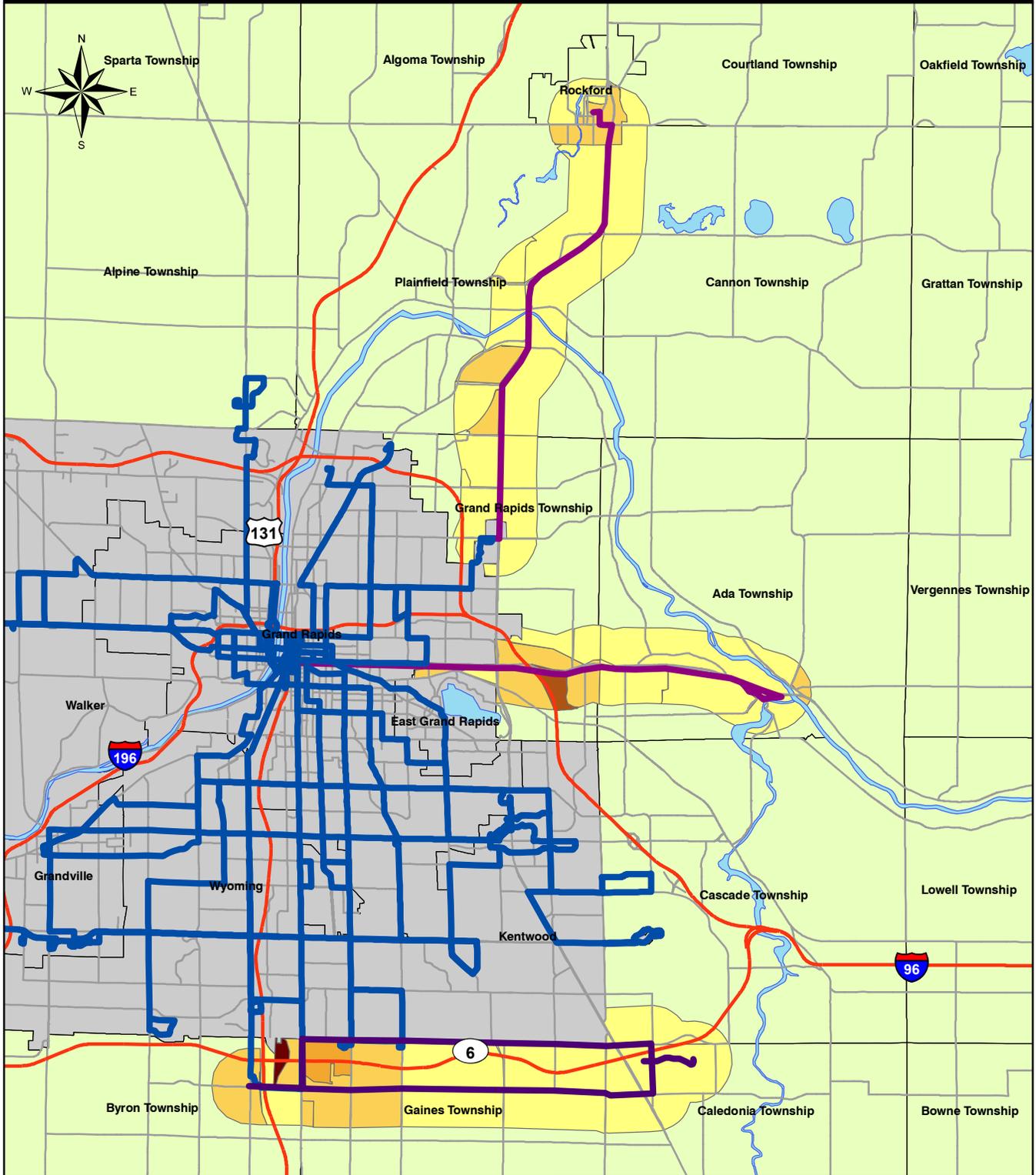


## Population Per Square Mile

- |  |   |   |   |
|--|---|---|---|
|  7 - 708    |  1508 - 2559 |  4562 - and over |  Current Routes  |
|  709 - 1507 |  2560 - 4561 |   |  Proposed Routes |

## Kent County Transit Needs Assessment

# Exhibit VI-11 Potential Routes - 65 and Over Population

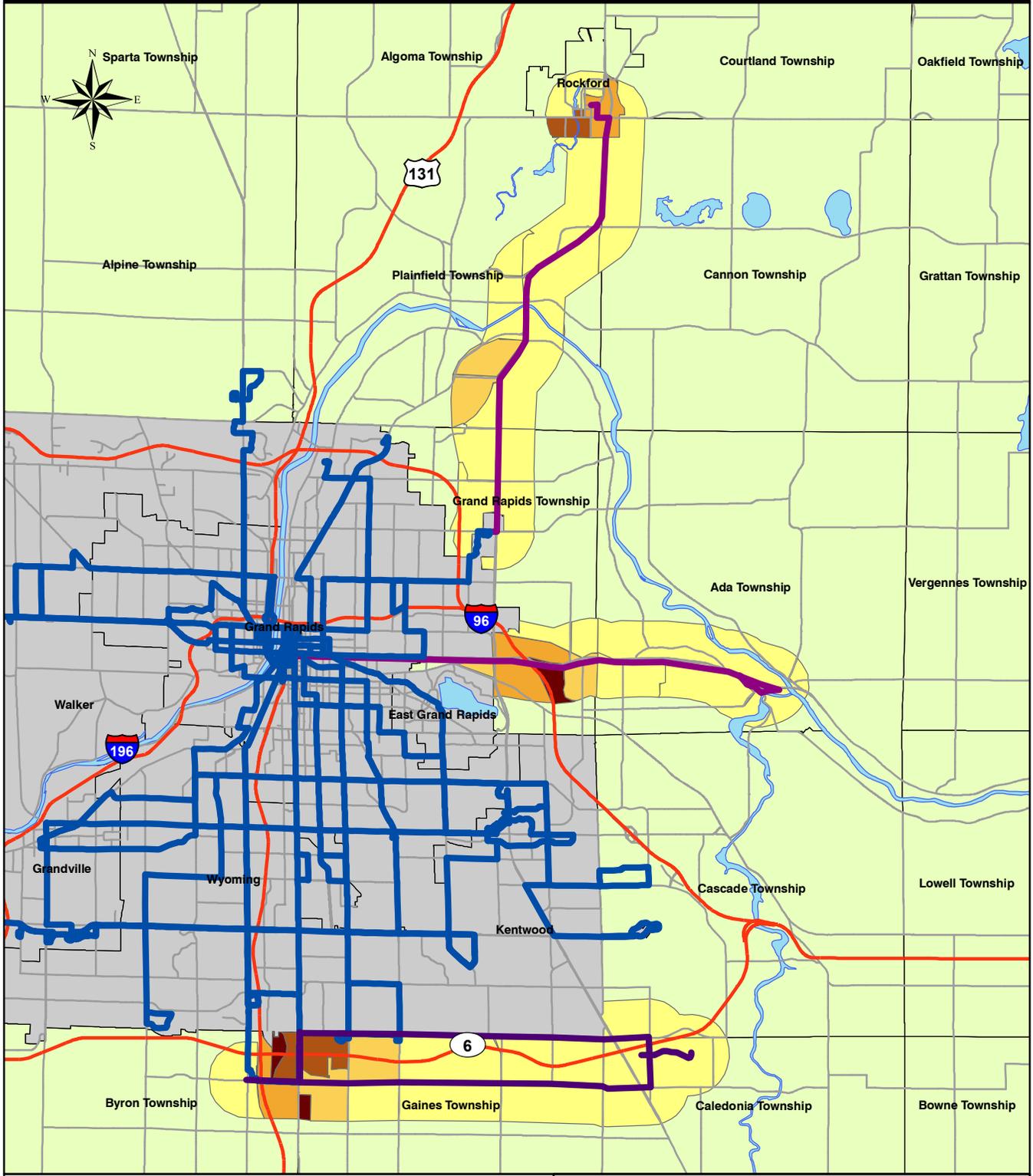


### Individuals 65 and Over Per Square Mile



## Kent County Transit Needs Assessment

# Exhibit VI-12 Potential Routes - Zero Vehicle Households



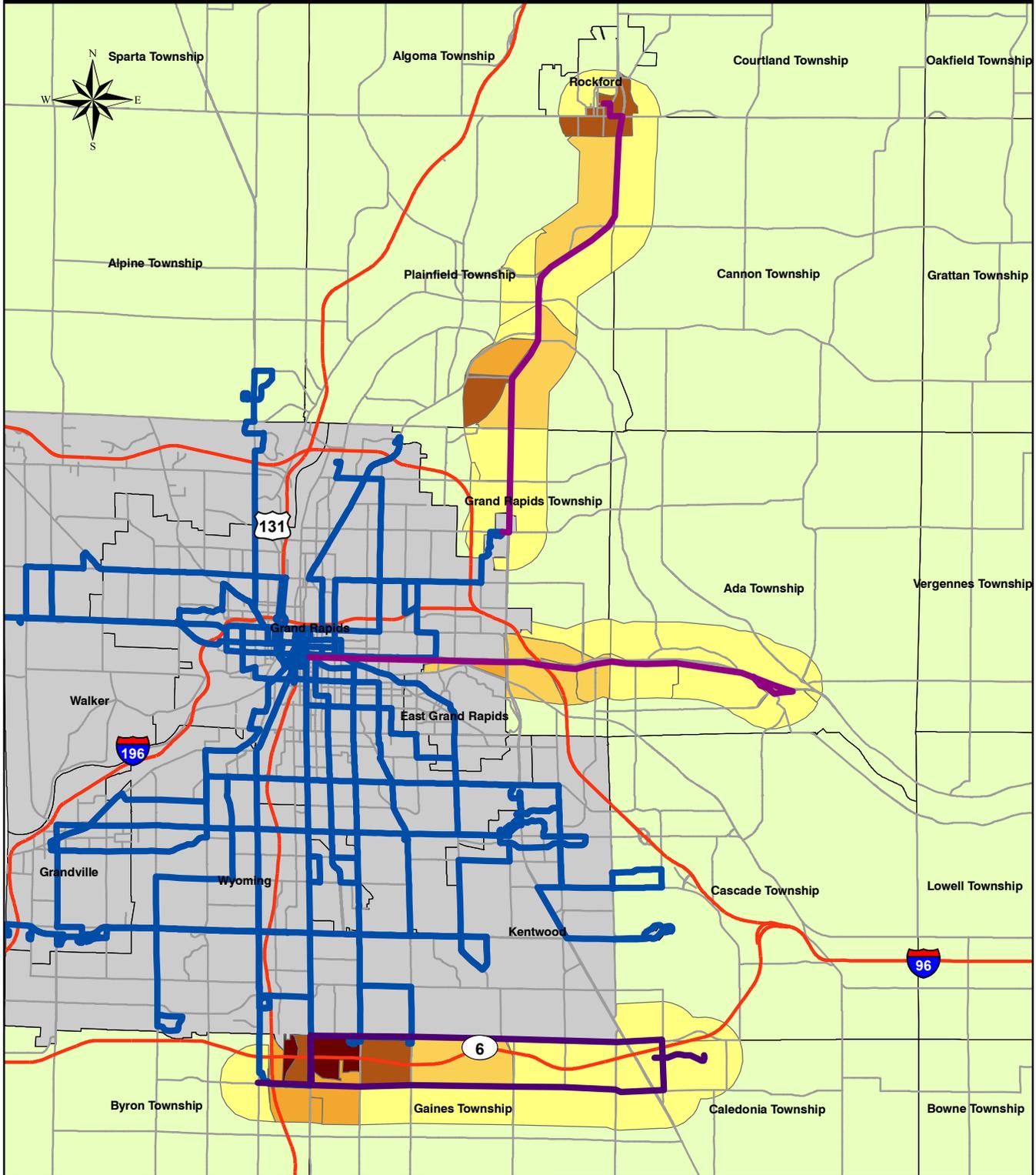
**OV Households Per Square Mile**



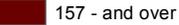
## Kent County Transit Needs Assessment

# Exhibit VI-13

## Potential Routes - Poverty Level Households



### Households Under The Poverty Level Per Square Mile

- |   |  |  |   |
|---|--|--|---|
|  0 - 12  |  31 - 58  |  157 - and over |  Current Routes  |
|  13 - 30 |  59 - 156 |  |  Proposed Routes |

## Kent County Transit Needs Assessment

Exhibit VI-14 summarizes the demographic data within 3/4<sup>th</sup> mile of the three new routes and eight route extensions. The 60<sup>th</sup>/68<sup>th</sup> Street circulator would serve the greatest population, over 65 population, and zero vehicle households; the Route 4 extension would serve the greatest average population density; and the Route 9 extension would serve the greatest number of poverty level households.

**Exhibit VI-14  
Demographic Data for Proposed New Routes and Route Extensions**

<b>Proposed Route Extension</b>	<b>Population</b>	<b>Population Density</b>	<b>Over 65</b>	<b>0-Vehicle Households</b>	<b>Poverty Level Households</b>
Route 16	4,008	760	561	34	45
Route 10	4,235	609	818	29	37
Route 1	7,149	2,770	723	160	180
Route 4	8,442	3,047	785	95	147
Route 2	4,888	2,153	499	24	61
Route 9	23,448	1,284	2,349	321	485
Route 11	13,641	1,963	1,464	198	319
Route 28	4,945	1,050	967	64	35
Rockford/E. Beltline	20,258	1,167	1,863	237	323
East Fulton/Ada	8,730	925	1,462	241	66
60 <sup>th</sup> /68 <sup>th</sup> Street	25,961	1,485	2,937	333	447

**Expanded Go!Bus Service**

With the expansion of the fixed route service area, a parallel expansion of the Go!Bus ADA complementary paratransit service is required. Based on the current service levels, an estimated 30,162 vehicle hours, 448,583 vehicle miles, and 14 vehicles would need to be added to the Go!Bus fleet.

**DEMAND RESPONSE SERVICE IMPROVEMENTS**

A countywide demand response service would provide a door to door service from any point in the county to any destination in the county. This alternative would serve residents of Kent County who live outside of The Rapid’s “six city” core service area. It would operate during weekdays and Saturdays and offer the flexibility of door to door service. Two types of demand response service are described. One would be open to the general public similar to the current County Connection service. The other would be limited to seniors and disabled persons.

**County General Public**

Countywide general public service is currently open to all residents of Kent County under the County Connection program. People who are eligible for GO!Bus complimentary paratransit service under the Americans With Disabilities Act (ADA) would also eligible for Countywide

service. The service area for ADA paratransit service is limited to  $\frac{3}{4}$  of a mile from the fixed routes. The service area for County demand response service encompasses all of Kent County, but is targeted to residents outside The Rapid's core service area.

Under this alternative, the current GO!Bus policies and procedures would be modified and the service expanded. This would include service hours, fares, eligibility, and access policies.

### **Service Hours**

Service hours would be weekdays and Saturdays 5:00 a.m. to 6:00 p.m.

### **Eligibility**

All residents of Kent County would continue to be eligible for countywide service. However, special discounts for seniors and disabled persons would be implemented.

### **Fare Structure**

The following fare structure is assumed for this alternative.

**\$5.00 Adult Cash Fare:** The fare paid by an individual who is not registered as a senior or passenger with a disability.

**\$4.00 Reduced Fare Demand Response:** The fare paid by a certified senior citizen or person with a disability for a demand response trip.

**\$3.00 ADA GO!BUS Fare:** The fare paid by an individual certified as ADA eligible within the Rapid fixed route service area.

Children who are accompanied by an adult would ride for free.

### **Operating Policies**

For most riders the service would be curb-to-curb, the same as the current County Connection service. However, a door-to-door option would be offered. Passengers who need additional assistance due to their disability can request door-to-door service. Drivers will assist door-to-door certified passengers from the first entry door of the passenger's pick-up address into the vehicle and from the vehicle to the first entry door of the passenger's destination address when requested. To receive door-to-door service, passengers must be certified by The Rapid.

### **Countywide Service for Seniors and Disabled Persons**

This would be a new program designed to serve seniors and persons with disabilities. It would incorporate the policies and fares of the expanded County Connection service described above,

with the exception that it would only be open to persons over 60 years of age and those with a disability.

## **DEMAND ESTIMATES**

A number of techniques were used to estimate the demand for the various service alternatives presented in this section. These are described below.

### **Commuter Express Service**

#### **Peer Analysis**

Information on other commuter express services were collected to help estimate potential ridership. This includes in cities similar in size and population to Grand Rapids as well as one larger city. The peer group includes express routes in Lansing, Toledo, Cincinnati, Dayton, and Indianapolis.

The map in Exhibit VI-15 depicts the CATA Route 48. This route provides service from Williamston and Webberville to downtown Lansing. It is estimated that 8,538 people live within a 2.5 mile radius of a park and ride along the route. The ridership on this route is 8,992 trips annually.

Exhibit VI-16 shows the park and ride lot in the Toledo area along TARTA Route 29X. There is an estimated population of 5,997 people living with a 2.5 mile radius of this park and ride lot. The annual ridership of the route is 36,370 passenger trips, according to TARTA staff.

The map in Exhibit VI-17 depicts the Cincinnati Anderson Express, Route 75X. This route provides service to downtown Cincinnati. It is estimated that 28,465 people live within a 2.5 mile radius of a park and ride along the route. The annual ridership of this route is 80,012.

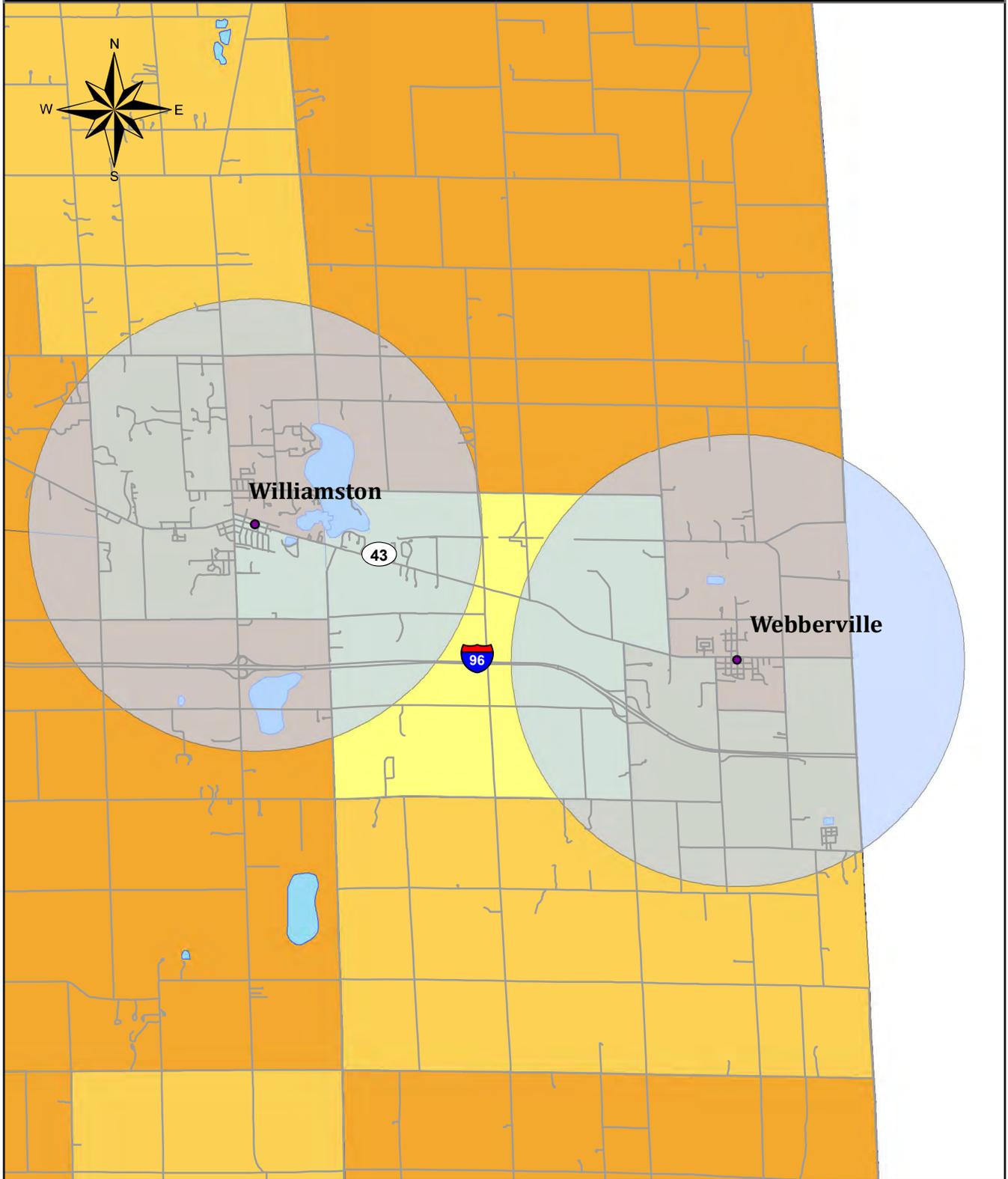
Exhibit VI-18 shows the Dayton park and ride along RTA Route 5X. There is an estimated population of 23,594 people living with a 2.5 mile radius of this park and ride lot. The annual ridership for this route is 93,894.

The CIRTAs park and ride lot served by the Carmel Express is depicted in Exhibit VI-19. An estimated 20,447 live within a 2.5 mile radius of the route, which provides commuter service between Carmel and Indianapolis. The annual ridership for this route is 53,909.

Exhibit VI-20 includes a summary of relevant data for each of the peer cities including the examples of commuter express routes. As shown, there is some correlation between commuter express bus ridership and the population served, the size of the area population, the cost of parking, and the relative attraction of its downtown for employment. Fares for each of these services are similar, ranging between \$1.00 and \$2.00. Based on these data, annual ridership of about 15,000 for each route, or 60,000 total, is a reasonable expectation.

# Exhibit VI-15

## CATA Williamston - Webberville Limited



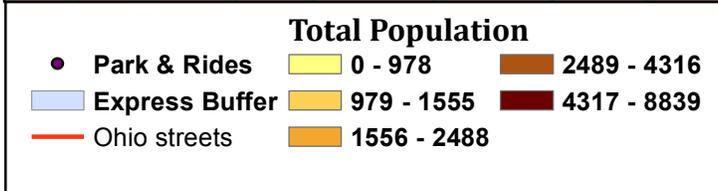
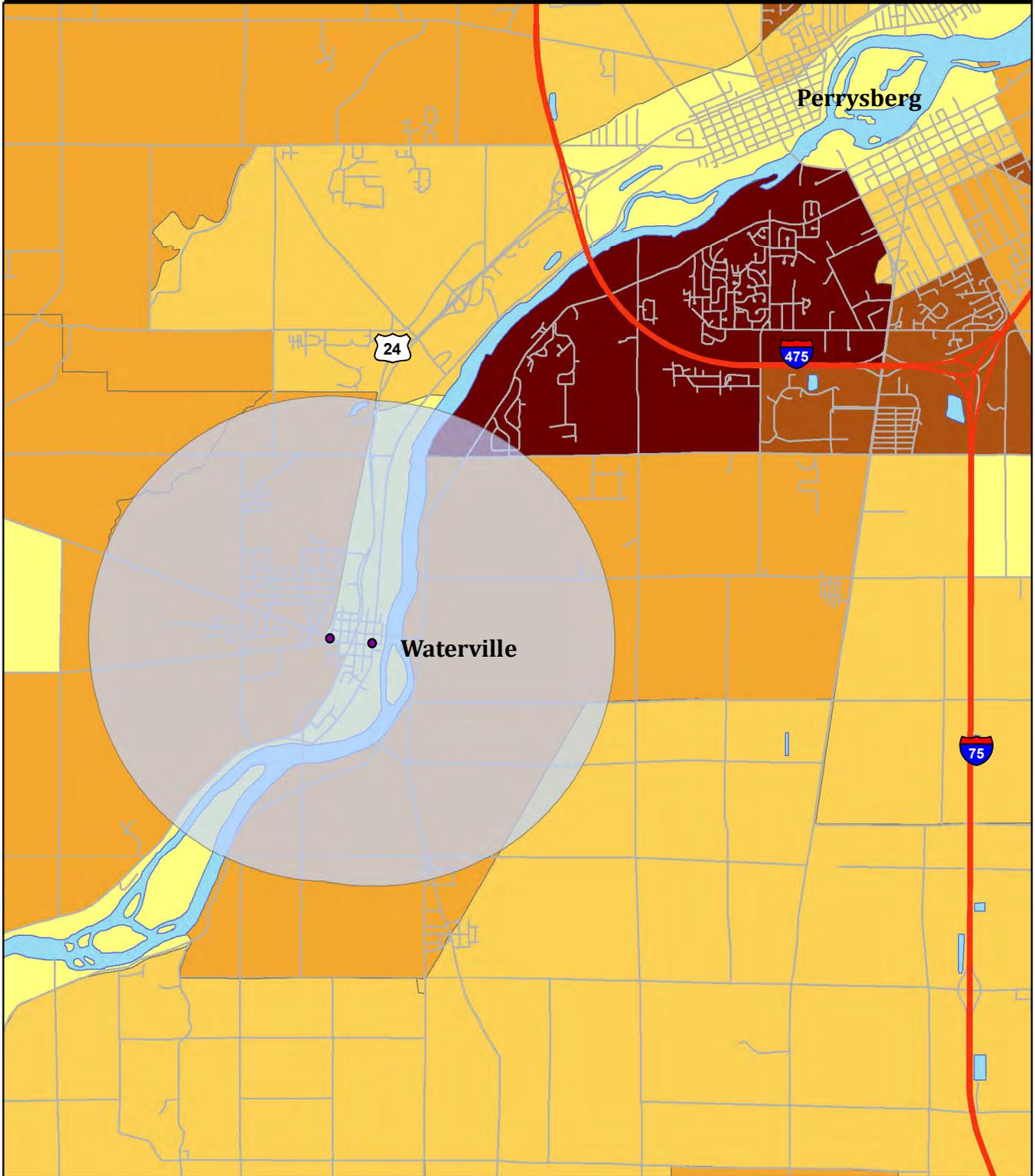
**Total Population**

- Park & Ride
- Express Buffer
- 0 - 969
- 970 - 1508
- 1509 - 2399
- 2400 - 4107
- 4108 - 5934

### Kent County

## Transit Needs Assessment

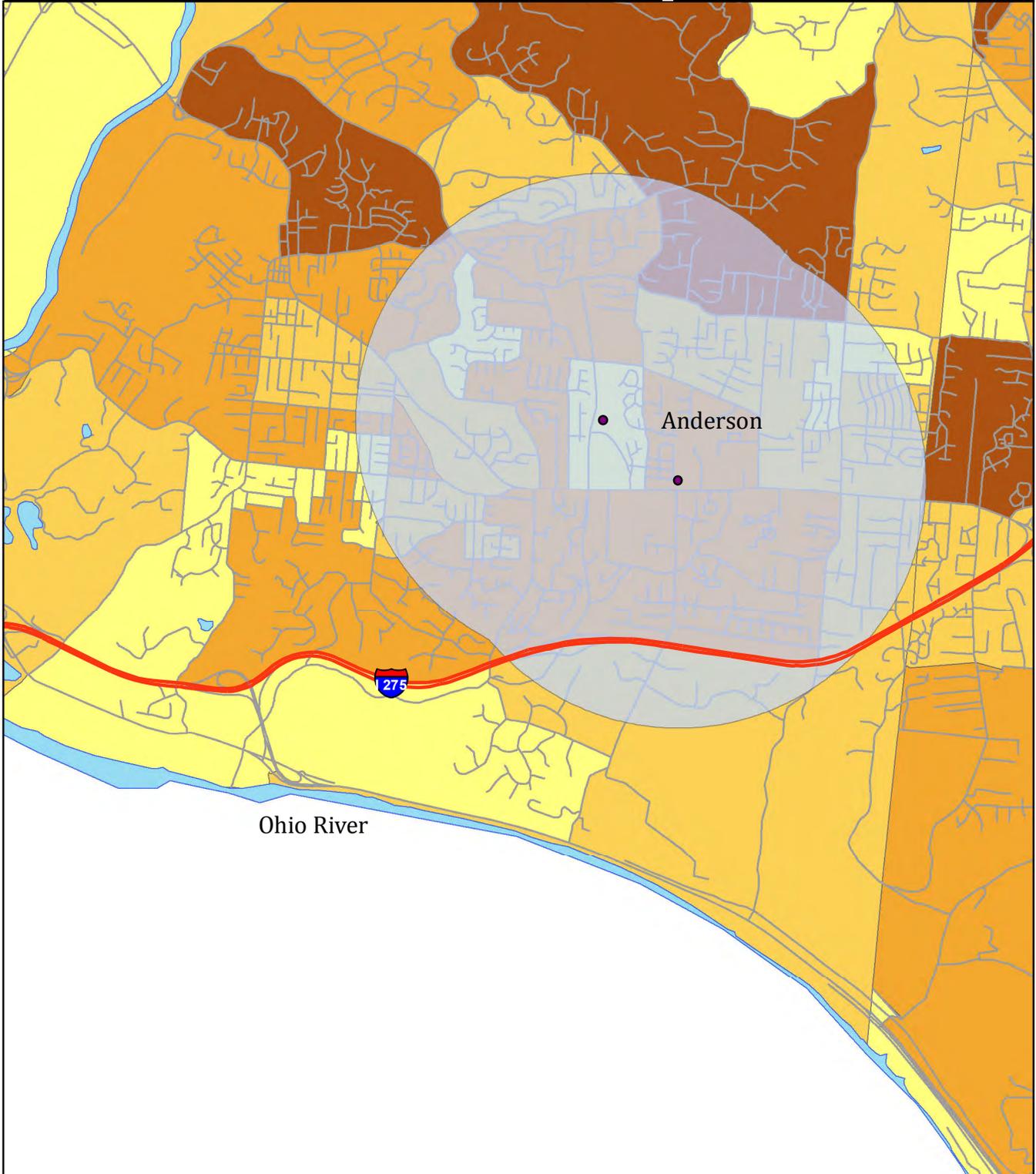
# Exhibit VI-16 TARTA Route 29x



**Kent County  
Transit Needs Assessment**

# Exhibit VI-17

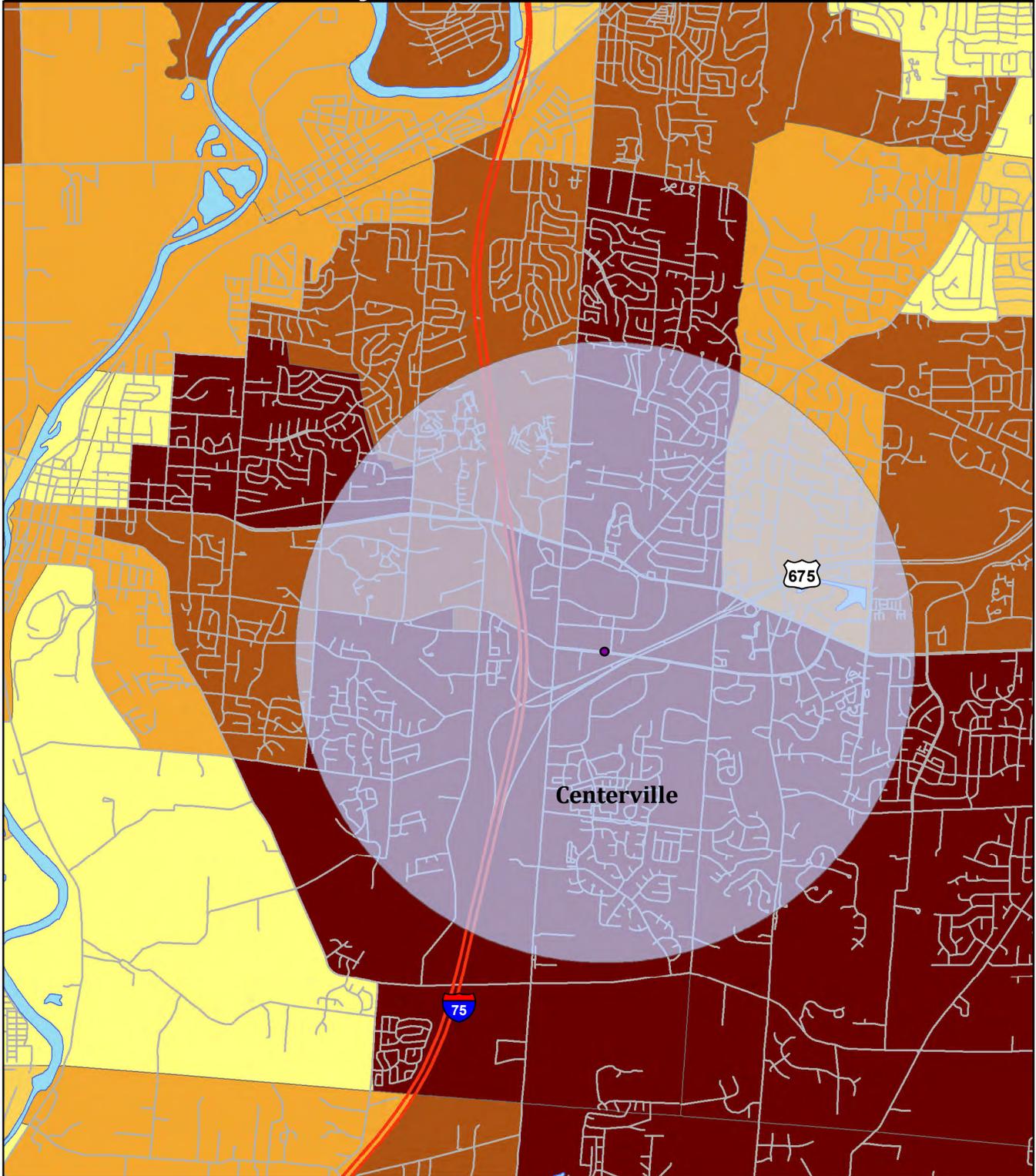
## Cincinnati Metro Anderson Express Route 75x



<b>Total Population</b>		
<ul style="list-style-type: none"> <li>● Park &amp; Rides</li> <li>— Ohio streets</li> <li>■ Express Buffer</li> </ul>	<ul style="list-style-type: none"> <li>■ 0 - 978</li> <li>■ 979 - 1555</li> <li>■ 1556 - 2488</li> </ul>	<ul style="list-style-type: none"> <li>■ 2489 - 4316</li> <li>■ 4317 - 8839</li> </ul>

**Kent County  
Transit Needs Assessment**

# Exhibit VI-18 Dayton RTA Route 5x



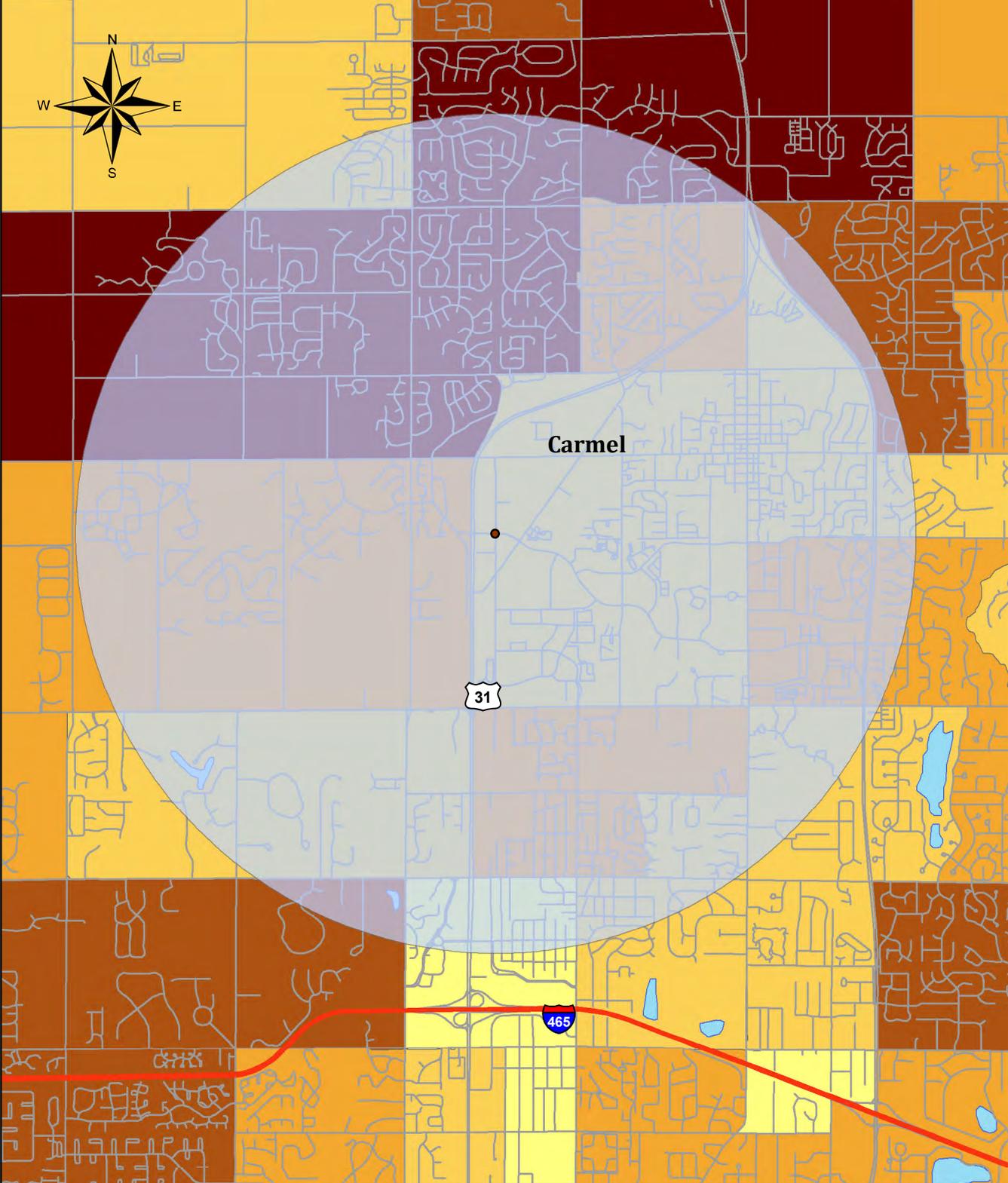
**Total Population**

- Park & Rides
- Express Buffer
- 0 - 978
- 979 - 1555
- 1556 - 2488
- 2489 - 4316
- 4317 - 8839

**Kent County  
Transit Needs Assessment**

# Exhibit VI-19

## Central Indiana Carmel Express



● Park & Ride	<b>Total Population</b>	0 - 1041	2995 - 5362
□ Express Buffer		1042 - 1759	5363 - 13737
		1760 - 2994	

### Kent County Transit Needs Assessment

**Exhibit VI-20**  
**Peer Commuter Express**

City	Population within 2.5 Miles of Park and Ride	Annual Ridership	Urban Area Population	Downtown Daily Parking Cost	Downtown Office Space
Lansing	8,538	8,992	299,938	\$10.00	n/a
Toledo	5,997	36,370	503,158	\$7.00	n/a
Cincinnati	28,465	80,012	1,502,688	\$15.00	27,051,320
Dayton	23,594	93,894	703,255	\$5.00	4,900,000
Indianapolis	20,447	53,909	1,219,952	\$17.00	26,150,395
<b>Grand Rapids</b>			<b>539,913</b>	<b>\$7.00</b>	<b>18,449,005</b>
Cedar Springs/Rockford	13,437				
Ada/Lowell	13,843				
Byron/Gaines	19,196				
Caledonia/Cascade	12,355				

**Household Survey**

Results of the Kent County household survey were also used to estimate potential ridership on the proposed commuter express routes. Assumptions on the relative likelihood of actual usage were made, coupled with the stated frequency of use, to arrive at an estimated number of trips.

The projections are approximations based on survey respondents' intent and understanding of the nature of transit service at the time of the survey. However, many things can intervene in determining the final actual usage, including the ability of respondents to accurately forecast their own behavior. Other factors include at least the following:

- ◆ The expansion or contraction of opportunities for work, shopping, and other activities at the destinations served.
- ◆ The nature of the transit service provided, including routes, timing, and quality.
- ◆ The price of the service provided.
- ◆ Ease of access to the service provided, including shelters, sidewalks, park and ride, etc.
- ◆ The cumulative pricing and availability of alternatives (i.e. a vehicle, gasoline and parking costs).
- ◆ The size of the population in the target areas at the time service is offered.

These estimates of latent demand for express service were arrived at as follows:

- ◆ Respondents living in the townships to be served by the express routes were asked how likely they were to use an express route serving their specific township. Also, because such services are commuter oriented, only those who also said they commute to work in the City of Grand Rapids were included.
- ◆ Those meeting these criteria and expressing interest constitute a "Likely Market" in the sense that this is the group of people who would seriously consider using the service

both because their points of origin would be served, their commuting destination is City of Grand Rapids, and because of their expressed interest.

- ◆ Because these are commuters, they may face particular barriers to using transit to commute. Two of the primary barriers are having to drop off or pick up children from school or child care, and/or having to use one’s own vehicle for work-related purposes during the work day. Those indicating they had to do so were dropped from the computation.
- ◆ It is also known that between the level of positive intent to use a service expressed in a survey and real-world consumer behavior there are substantial losses. The reason is that for the consumer to fully imagine his or herself using a specific service is very different from confronting the actual use of the service, in spite of the realistic description of the service used in the survey. For example, most of these people have never used the bus, and becoming a regular user is always a major step.
- ◆ For this reason we have to reduce the pool of relatively likely users. We do this by assigning a probability factor reflecting how responsive the market will prove to be based on the strength of their positive response. For those who said they would “definitely” use such a service, we assume initially that all of them would use the service. Thus we assign an initial value of 100%. For those saying they were “very likely” to use demand response service, we assign a value of 50%, meaning that we believe that approximately half of them would eventually use the service. For those who said they were somewhat likely, the factor is .02. This gives us an “Upper Bound” for the estimate – i.e. the maximum probable use. A lower bound of the estimate can be set at half those rates.

Exhibit VI-21 includes the results of this estimate.

**Exhibit VI-21  
Estimated Commuter Express Market in Number of Persons**

	Total Likely Market	Upper Bound Likelihood	Lower Bound Likelihood
Definitely use it	614	614	307
Be very likely to use it	765	383	191
Be somewhat likely to use it	872	17	9
<b>Total</b>	<b>2,251</b>	<b>1014</b>	<b>507</b>

Finally, to compute the likely frequency of use, respondents were asked how many days a week they would be likely to use the service. Using the means for those who were very likely to use it (2.47 days) and those somewhat likely to do so (1.05 days), and assuming round trips in all cases, total weekly and annual trips are computed. Results of this estimate are summarized in Exhibit VI-22. The estimated range of annual ridership is between 82,801 and 165,601.

**Exhibit VI-22  
Estimated Commuter Express Passenger Trips**

	Upper Bound		Lower Bound	
	Trips/Week	Annual Trips	Trips/Week	Annual Trips
Definitely use it	2063		1032	
Be very likely to use it	1209		604	
Be somewhat likely to use it	40		20	
<b>Total</b>	<b>3312</b>	<b>165,601</b>	<b>1656</b>	<b>82,801</b>

**Route Extensions and New Routes**

The population and ridership was collected for existing The Rapid route segments with similar population densities and demographics as the proposed new routes and route extensions. These targeted segments include portions of routes 16, 10, 4, 28, 9, and 11.

First, the number of bus stops between each time point was identified. With information from The Rapid boarding and alighting counts, the total number of passengers for each bus stop was calculated. The resulting total provided the average daily number of passenger boardings. To estimate the hours of service for each segment the total time between points was multiplied by the daily frequency of the trip. This yielded the average hours of service between the time segments. From the average number of daily passengers and the average hours of service, the number of passengers per hour was calculated. Also, using the total population served by each route, an average number of trips per 1000 people was calculated. This information is summarized in Exhibit VI-23.

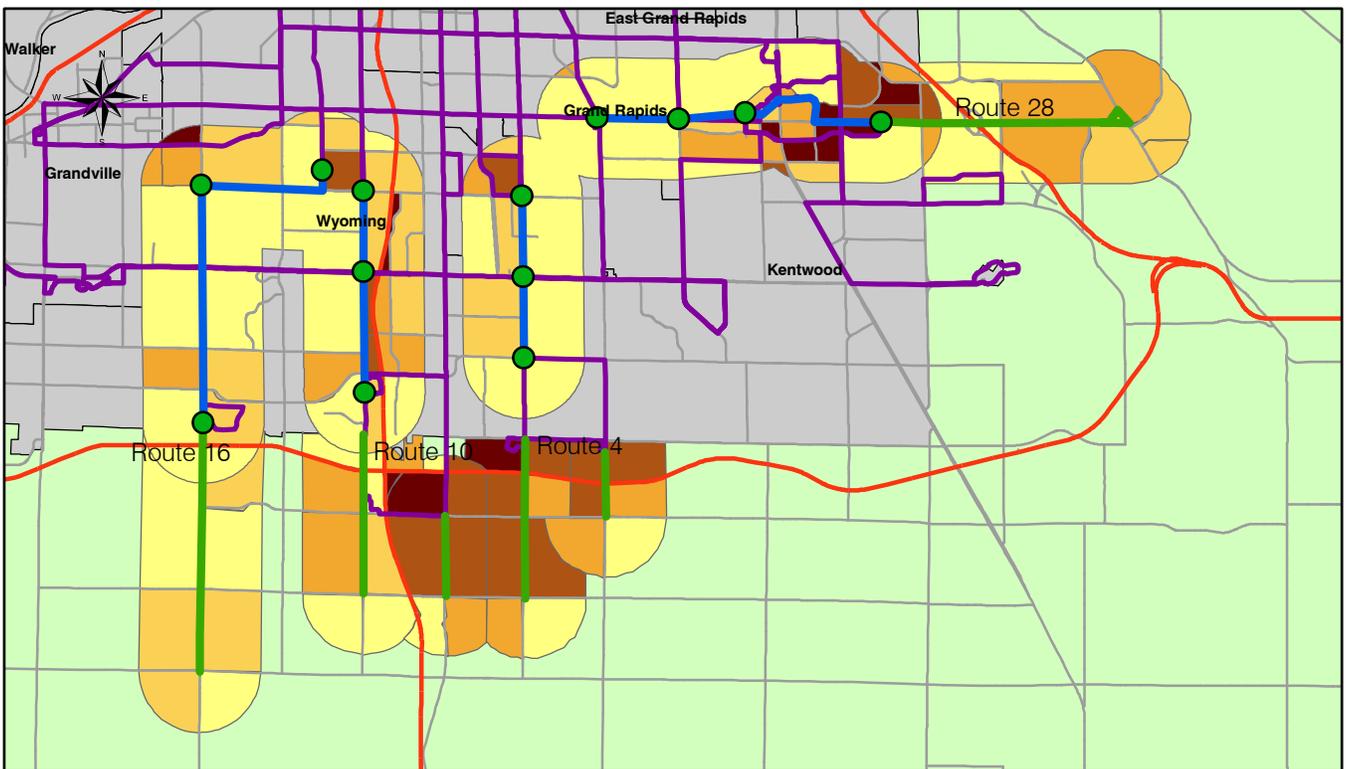
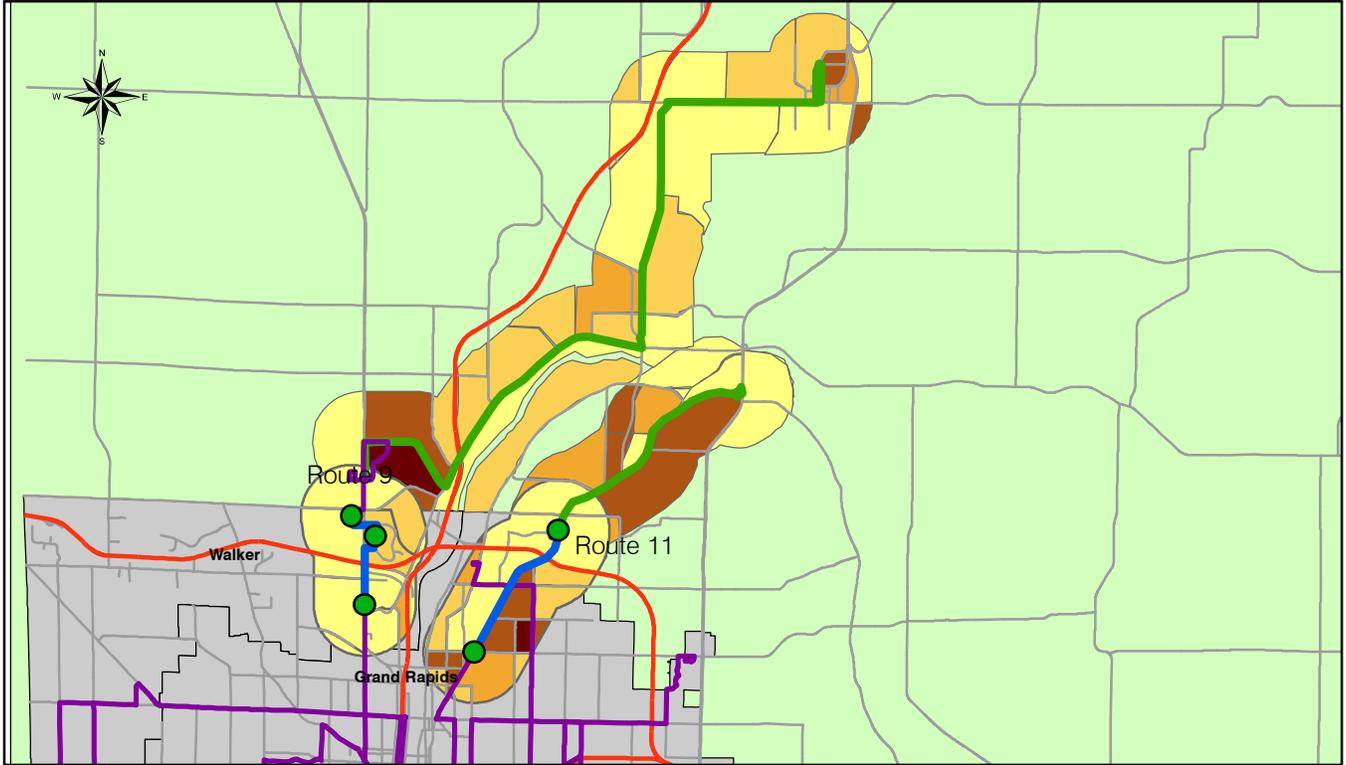
**Exhibit VI-23  
Peer Route Segment Population**

	Segment	Total Population	Riders	Revenue Hours	Pass./ Hour	Trips/ 1000
Route 16	Wyoming Library- Metro Health	5,766	99	10.7	9.3	17.2
Route 10	Clyde Park & 36 <sup>th</sup> – 54 <sup>th</sup> St. Meijer	5,377	204	8.0	25.5	37.9
Route 4	Easter & 36 <sup>th</sup> – 52 <sup>nd</sup> & Eastern	2,778	275	6.4	43.0	99.0
Route 28	28 <sup>th</sup> St. Meijer – 28 <sup>th</sup> & Acquest	11,088	604	27.7	21.8	54.5
Route 9	Alpine Meijer – Old Orchard Apts	1,983	218	8.2	26.6	109.9
Route 11	Plainfield & Knapp – Plainfield & Elmdale	7,415	224	7.0	32.0	30.2

The map in Exhibit VI-24 depicts the population density based on 2009 TAZ population estimates and the targeted segments used in the peer analysis. The maps identify the segment of the existing fixed route which was sampled. The collected sample yielded an average ridership of 58.1 per 1000 persons or a productivity of 26.3 passengers per hour.

# Exhibit VI-24

## Peer Route Extensions



- Time Points
  - Rapid Routes
  - Proposed Route Extensions
  - Peer Segment
- |   |   |
|---|---|
| <span style="background-color: #ffffcc; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> 45 - 708    | <span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> 2560 - 4561   |
| <span style="background-color: #ffcc00; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> 709 - 1507  | <span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> 4562 - 190000 |
| <span style="background-color: #ff9900; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> 1508 - 2559 |   |
- Population Per Square Mile**

**Kent County**  
**Transit Needs Assessment**

The average number of daily trips per 1000 persons for these route segments was then applied to the proposed route extensions and new routes, with the exception of 60<sup>th</sup>/68<sup>th</sup> Street circulator. Because this is a different type of route, a separate peer comparison was made. The result was an estimate of 15 passengers per revenue hours was used to estimate its ridership. The result is predicted ridership for each. Exhibit VI-25 displays these estimates.

**Exhibit VI-25  
Route Segment/New Route Ridership Estimate**

<b>Route Extension</b>	<b>Population Served</b>	<b>Avg. trips/capita for existing segments*</b>	<b>Estimated Ridership for Route Extension</b>
Route 16	4,008	58.1	233
Route 10	4,235		246
Route 1	7,149		415
Route 4	8,442		490
Route 2	4,888		284
Route 9	23,448		1,362
Route 11	13,641		793
Route 28	4,945		287
Rockford/E. Beltline	20,258		1,177
East Fulton/Ada	8,730		507
60 <sup>th</sup> /68 <sup>th</sup> Street	25,961	--	180

\*Daily trips per 1,000 people

The estimated total ridership for all of these is 5,795 passengers per weekday. The 60<sup>th</sup>/68<sup>th</sup> Street route was not included in this estimate since the population it serves is the same population as some proposed route extensions. This translates to approximately 1,657,406 trips annually.

**Expanded Go!Bus Service**

Based on the current ADA ridership, the estimated number of trips for this service area is 60,324 annually.

**Household Survey**

Results of the Kent County household survey were also used to estimate potential ridership on the proposed route extension and new routes. Assumptions on the relative likelihood of actual usage were made and, coupled with the stated frequency of use, an estimated number of trips

was made. These estimates of latent demand for route extension service were arrived at as follows:

- ◆ Respondents living in the townships to be served by the route extensions were asked how likely they were to use a service extending a specific route to their specific township. Further, only those who also said they travel into Grand Rapids weekly were included.
- ◆ Those expressing interest constitute a “Likely Market” in the sense that this is the group of people who would seriously consider using the service both because their points of origin would be served, their destination set includes the City of Grand Rapids, and because of their their expressed interest.
- ◆ We know also that between the level of positive intent to use a service expressed in a survey and real-world consumer behavior there are substantial losses. The reason is that for the consumer to fully imagine his or herself using a specific service is very different from confronting the actual use of the service, in spite of the realistic description of the service used in the survey. For example, most of these people have never used the bus, and becoming a regular user is always a major step. Moreover, although their township would be served, and the route was specified in the question, the actual service might not be nearby, or their might be a lack of sidewalks, And so forth.
- ◆ For this reason we have to reduce the pool of relatively likely users. We do this by assigning a probability factor reflecting how responsive the market will prove to be based on the strength of their positive response. For those who said they would “definitely” use such a service, we assume initially that all of them would use the service. Thus we assign an initial value of 100%. For those saying they were “very likely” to use demand response service, we assign a value of 50%, meaning that we believe that approximately half of them would eventually use the service. For those who said they were somewhat likely, the factor is .02%. This gives us an “Upper Bound” for the estimate – i.e. the maximum probable use. A lower bound of the estimate can be set at half those rates.

Exhibit VI-26 includes the estimate of the market for route extensions and new routes.

**Exhibit VI-26**  
**Estimated Route Extensions/New Routes Market in Number of Persons**

	Total Likely Market	Upper Bound Likelihood	Lower Bound Likelihood
Definitely use it	4,295	4,295	2148
Be very likely to use it	9,249	4,625	2312
Be somewhat likely to use it	14,005	280	140
Total	27,459	9,200	4600

To compute the likely frequency of use, respondents were asked how many days a week they would be likely to use the service. Using the simple average number of days means for those who were “definite” (1.64 days), very likely to use it (1.31 days) and those somewhat likely to do so (1.28 days), and assuming round trips in all cases, weekly and annual trips were computed. Exhibit VI-27 summarized the results of this analysis. As shown, the estimated annual trips range from 679,751 to 1,359,503.

**Exhibit VI-27  
Estimated Route Extensions/New Routes Passenger Trips**

	Upper Bound		Lower Bound	
	Trips/Week	Annual Trips	Trips/Week	Annual Trips
Definitely use it	14,088		7044	
Be very likely to use it	12,116		6058	
Be somewhat likely to use it	717		359	
<b>Total</b>	<b>26,921</b>	<b>1,359,503</b>	<b>13460</b>	<b>679,751</b>

**Demand Response Service**

**Peer Analysis**

These peer services were also chosen based on similarities to suburban/rural Kent County in size, population, or geographic composition.

**Capital Area Transportation Authority**

Lansing’s Capital Area Transportation Authority (CATA) offers several different types of demand response services. This includes Spec-Tran Service, and Curb-to-Curb Services that includes Redi-Ride and CATA Rural Services (CRS). Spec-Tran is Americans with Disabilities Act (ADA) complementary paratransit service. Redi-Ride and CRS are paratransit services provided in addition to the required ADA service. In total, these demand response services provided 514,382 annual trips using 95 vehicles during the peak periods.

Redi-Ride service is a curb-to-curb service that provides local trips in Mason, Williamston, Delhi and Meridian Townships. The service operates as a deviated fixed route and facilitates the transfer of riders to the fixed route service. Fares are \$1.25 one-way and include free transfers to the fixed-route service. Seniors receive a reduced fare. Transferring to the CRS services is possible but requires the difference in fare to be paid.

The CATA CRS service is a rural curb-to-curb service offered in the outlying areas of Ingham County. Fares range from \$2.25 to \$3.25 based on the length of trip. This service provides transportation from any location in the county to any destination in the county. According to CATA, the CRS service had a ridership of 77,947 in 2007.

## **Metro Transit**

Metro Transit in Kalamazoo provides fixed route service and complementary paratransit service included as part of its County Connect service. County Connect provides an estimated 99,530 trips per year and operates 33 vehicles during the peak hour.

County Connect is a county wide service that is open to the general public. Reduced fares are offered to seniors and disabled persons. County Connect is a curb-to-curb service that provides transportation from any location in the county to any destination in the county.

## **METRO Regional Transit Authority**

METRO Regional Transit Authority is the public transportation provider in Akron, Ohio. METRO operates 30 fixed routes and one express route. The demand response service comprised of ADA paratransit and Summit County Area Transit (SCAT) provide 104,796 trips per year.

SCAT also provides a countywide service available to individuals over 62 or individuals with disabilities. The service will pickup and drop off anywhere in Summit County. Fares are \$2.00 each way. SCAT provides door-to-door services and drivers will assist with parcels and accessibility.

## **Capital Area Transit**

Capital Area Transit (CAT), located in Harrisburg, Pennsylvania, has a Fixed Route Division and a Share-A-Ride Division consisting of ADA paratransit and countywide demand response. The demand response services provide 193,174 trips per year. During peak hours the demand response services operate 55 vehicles.

CAT's Share-A-Ride service is operated in Dauphin County, the urbanized area of Cumberland County, and occasionally into adjacent counties. The service is opened to the general public. Fares are \$13.00 to the general public and \$1.95 for seniors up to 3.9 miles. After 3.9 miles fares are charged on a zone structure. Share-A-Ride provides door-to-door services to those individual who are in need of assistance.

## **Toledo Area Regional Transit Authority**

The Toledo Area Regional Transit Authority (TARTA) operates fixed route service and TARPS, the ADA complementary paratransit service. In addition TARTA provides Call-A-Ride, a curb-to-curb service. The demand response services provide an estimate of 134,696 rides per year and use 94 vehicles during peak operation according to the NTD. The TARTA Call-A-Ride is a curb-to-curb service available to select townships in the Toledo area. Call-A-Ride is available in Maumee, Perrysburg, Rossford, Spencer Township, Sylvania, Sylvania Township and Waterville. Fares are \$1.00 one way for the general public and \$.50 for seniors and people with disabilities.

The table in Exhibit VI-28 summarizes the transportation services provided this peer group. Each of the services are identified by the type of service: Americans with Disabilities (ADA), service for seniors and disabled persons (E&D), and General Public (GP). They are further identified by the area in which they provide service. The fares charged for each service is identified. Ridership and service miles are provided for each service, and the ridership per capita is calculated. Overall, demand response services provided by The Rapid are comparable to the peer group. However, these are for services that are provided both inside and outside of urban areas.

### Exhibit VI-28 Countywide Demand Response Services

Location	Service	Type	Service Area	Fare	Total Ridership	Total Revenue Miles	Trips per Capita
Grand Rapids	Go!Bus	ADA	¾ of Fixed Route	\$3.00	263,769*	2,534,546	0.55
		ADA	¾ of Fixed Route	\$7.00			
		E&D	Ada, Cascade, Alpine, Byron, and Gaines Townships	\$7.00			
	County Connection	GP	Kent County	\$14.00			
	PASS	GP	Area Outside of Fixed Route	\$3.00			
	Ride Link	E	Kent County	Donation			
Lansing	Spec-Tran	ADA	¾ of Fixed Route	\$2.50-\$5.00	514,382	2,753,812	1.86
	Redi-Ride	GP	Mason, Williamston, Delhi, and Meridan Townships	\$1.25			
	CRS	GP	Ingham County	\$2.25 to \$3.50			
Kalamazoo	County Connect	ADA	¾ of Fixed Route	\$3.00	123,026	526,229	0.54
		GP	Kalamazoo County	\$12.00			
		E&D	Kalamazoo County	\$4.00			
Akron, OH	METRO ADA	ADA	¾ of Fixed Route	\$2.50	214,000	1,368,414	0.39
	SCAT	E&D	Summit County	\$2.00			
Harrisburg, PA	SET	ADA	¾ of Fixed Route	\$3.50-5.90	193,174	1,371,817	0.47
	Share-A-Ride	GP	Dauphin and Cumberland County	\$13.00			
		E	Dauphin and Cumberland County	\$1.95 (+ zone charge)			
		D	Dauphin and Cumberland County	\$2.60 (+ zone charge)			
Toledo, OH	TARPS	ADA	¾ of Fixed Route	\$2.00	134,696	1,178,667	0.32
	Call-a-Ride	GP	Maumee, Perrysburg, Rossford, Spencer Township, Sylvania, Sylvania Township and Waterville	\$1.00			
		E&D	Maumee, Perrysburg, Rossford, Spencer Township, Sylvania, Sylvania Township and Waterville	\$0.50			
Peer Average					235,856	1,439,788	0.72

Exhibit VI-29 provides a comparison with services provided in rural areas in Michigan. Ridership for Kent County was calculated using ridership from The Rapid township contracts, North Kent Transit, County Connection, and a the portion of Ride Link trips that are taken by residents outside of The Rapids service district. As shown, Kent County provides a much lower level of service than these locations.

**Exhibit VI-29  
Rural Demand Response Transportation Services**

<b>County</b>	<b>Total Ridership</b>	<b>Vehicle Hours</b>	<b>Population</b>	<b>Trips/ Capita</b>
Clinton	59,999	28,628	64,753	0.9
Barry	74,030	15,545	56,755	1.3
Eaton	149,082	43,232	103,655	1.4
Ingham	90,570	23,043	37,021	2.4
Kent*	53,357	n/a	265,046	0.2

\*includes township contracts, North Kent Transit, County Connection and portion of Ride Link

**Demand Models**

**TCRP Report #3 – Estimating Rural Transit Demand**

The Transportation Cooperative Research Program (TCRP) sponsors a variety of research projects in the transportation industry. TCRP Report #3 involves a methodology for estimating public transportation demand in rural areas. The estimation of rural demand utilizes a methodology of specific populations, the size of the service area, and the level of service available. This methodology is designed to be utilized in rural areas with a population density less than 1,000 people per square mile. This model is designed to estimate the demand, defined as the expected ridership under an estimated level of service. The information provided is not representative of the total transportation need, but the expected demand.

This estimation demand was created for planning, operation, and funding agencies involved in public transportation service. The model was developed after reviewing previous estimation methods and conducting estimates for 39 rural counties across the United States<sup>1</sup>. The final methodology was designed encompassing the following factors:

- ◆ Persons aged 60 and over;
- ◆ Persons aged 15 to 64 with mobility limitations;

---

<sup>1</sup> SG Associates, inc., Leigh, Scott & Cleary, inc., C.M. Research, inc., TCRP Report 3: Workbook for Estimating Demand for Rural Passenger Transportation. Transportation Research Board, National Academies, Washington, DC., 1995.

- ◆ Persons aged 64 or less residing in households having incomes below the poverty level;
- ◆ Service area size; and
- ◆ Annual vehicle-miles.

The area used to estimate rural demand is the study area of Kent County located outside of The Rapid's taxing district where there is an estimated population of 228,210. Of that population, it is estimated that 30,640 are over age 60. The population of people with disabilities is estimated at 24,193. The population of individuals under the poverty level and under age 65 is estimated to be 6,332.

The population of individuals over age 60 was obtained through block group census information. The total population of individuals over 60 in block groups located outside of The Rapid's service area were calculated, resulting in a population of 30,640 individuals. This population was then entered into to the estimation formula to predict the increase in ridership demand of individuals over 60.

By using information gathered from the SIPP Survey it was possible estimate the population of individuals 15 to 64 with mobility limitations. The survey indicates that 4.8 percent of individuals between the ages of 15 and 24 have a mobility limitation, and 3.1 percent of individuals between 25 to 64 have a mobility limitation. By using these percentages an estimate of 6,281 individuals with mobility limitations was calculated for 2010 within the study area. This information was then entered into the model to predict the ridership demand of individual with mobility limitations.

The population of individuals under 65 years of age who live below the poverty level was compiled using U.S. census information. The resulting population of 6,332 individuals was used as another factor in the TCRB model.

The result is an estimate of demand based on the availability of additional 10 and 20 vehicles for public transportation services. The estimates both use an area of 743 square miles for the study area and an estimated 16,870 annual miles per vehicle.

Exhibit VI-30 reflects the TCRB rural demand estimate with the addition of 10 vehicles countywide . The result is an estimated increase in demand of 53,370 trips annually. Of these, 35,176 are from persons over 60 years of age, 10,175 are from persons with mobility limitations between 15 and 64 years of age, and 8,020 are from persons under 65 living below the poverty level.

**Exhibit VI-30  
Demand for Rural Passenger Transportation TCRB Model  
Kent Count with the Addition of 10 Countywide Vehicles**

<b>County Size</b>		
	Size (Square Miles)	743
<b>Population 60 and over</b>		
	Number of Persons 60 and Over	30,640
	Vehicle-Miles Available	160,870
	Vehicle-Miles Available Per Square Mile	216.5
<b>Persons with Mobility Limitations</b>		
	Persons with Mobility Limitations Age 15-64	6,281
	Vehicle-Miles Available	160,870
	Vehicle-Miles Available Per Square Mile	216.5
<b>Persons in Families with Incomes Below the Poverty Level</b>		
	Number of individuals below the poverty level under 65	6,332
	Vehicle-Miles Available	160,870
	Vehicle-Miles Available Per Square Mile	216.5
<b>Estimation of Non-Program Demand Service Factors</b>		
	60 and Over Service Factors	956.69090
	60 and Over Service Factor	0.00096
<b>Estimation of Non-Program Demand Service Factors</b>		
	Mobility Limitation Service Factors	1,349.9
	Mobility Limitation Service Factor	0.00135
<b>Estimation of Persons in Families in Poverty</b>		
	Poverty Level Service Factors	1,055.5
	Poverty Level Service Factor	0.00106
<b>Persons 60 and Over</b>		35,176
<b>Persons 15-64 with Mobility Limitations</b>		10,175
<b>Persons Under 65 Below the Poverty Level</b>		8,020
<b>Total</b>		53,370

Exhibit VI-31 reflects the TCRB rural demand estimate with the addition of 20 vehicles countywide. The result was an estimated increase in demand of 81,314 person trips annually. Of these, 56,526 are from persons over 60 years of age, 12,737 are from persons with mobility limitations between 15 and 64 years of age, and 12,050 are from persons under 65 living below the poverty level.

**Exhibit VI-31**  
**Demand for Rural Passenger Transportation TRB Model**  
**Kent Count with the Addition of 20 Countywide Vehicles**

<b>County Size</b>		
	Size (Square Miles)	743
<b>Population 60 and over</b>		
	Number of Persons 60 and Over	30,640
	Vehicle-Miles Available	321,740
	Vehicle-Miles Available Per Square Mile	433.0
<b>Persons with Mobility Limitations</b>		
	Persons with Mobility Limitations Age 15-64	6,281
	Vehicle-Miles Available	321,740
	Vehicle-Miles Available Per Square Mile	433.02826
<b>Persons in Families with Incomes Below the Poverty Level</b>		
	Number of individuals below the poverty level under 65	6,332
	Vehicle-Miles Available	321,740
	Vehicle-Miles Available Per Square Mile	433.0
<b>Estimation of Non-Program Demand Service Factors</b>		
	60 and Over Service Factors	1,537.38180
	60 and Over Service Factor	0.00154
<b>Estimation of Non-Program Demand Service Factors</b>		
	Mobility Limitation Service Factors	1,689.9
	Mobility Limitation Service Factor	0.00169
<b>Estimation of Persons in Families in Poverty</b>		
	Poverty Level Service Factors	1,585.9
	Poverty Level Service Factor	0.00159
<b>Persons 60 and Over</b>		56,526
<b>Persons 15-64 with Mobility Limitations</b>		12,737
<b>Persons Under 65 Below the Poverty Level</b>		12,050
<b>Total</b>		81,314

**TCRP Project B-36**

A methodology was developed to estimate demand for public transportation in rural areas. This model estimates the potential demand for public transportation based on a combination of demographic factors and the following service factors. These include:

- ◆ annual vehicle miles
- ◆ annual vehicle hours,
- ◆ service area size,
- ◆ vehicle miles for individuals with mobility limitations, and
- ◆ taxi/non-taxi vehicle miles available to the general public.

The TCRP report defines demand as the estimated number of trips generated within the study area in a given year<sup>2</sup>. Using this methodology, an estimate of trips within the study area was made.

Estimates for the service factors were developed based on existing service provided in Kent County. These include transportation service provided by The Rapid, Hope Network, and other agencies. The total estimated general public rural vehicle miles currently provided are 544,019, which is the level of service for County Connection. Annual vehicle hours are estimated at 36,579, and the study area is approximately 743 square miles. The total annual vehicle-miles available to persons over 60 include all programs provided by The Rapid and Hope Network. The total vehicle-miles available to persons with mobility limitations age 16 to 64 is estimated at 1,827,461 and is based on services provided by Hope Network. This information is outlined in Exhibit VI-32.

**Exhibit VI-32  
Available Service Inputs**

<b>General Public Rural Demand</b>	
Study Area Current Vehicle-Miles	544,019 Annual Vehicle-Miles
Study Area Vehicle-Hours	36,579 Annual-Vehicle Hours
<b>Service Availability Inputs</b>	
Size of Service Area	743 Square Miles
Vehicle-Miles Available to Persons Age 60 and Above	522,143 Annual Vehicle-Miles
Taxi Vehicle-Miles Available to General Public	0 Annual Vehicle-Miles
Non-Taxi Vehicle-Miles Available to General Public	544,019 Annual Vehicle-Miles

This TCRP model utilizes demographic information from the 2008 American Community Survey (ACS) to identify portions of the population likely to use available public transportation. The demand estimation is comprised of demographic data relating to the following groups:

- ◆ Total population;
- ◆ Total population and persons age 60 and over;
- ◆ Total population of individuals with mobility limitations age 16 to 64; and
- ◆ Total population of individuals under 64 living under the poverty level.

Exhibit VI-33 contains this information for the study area.

---

<sup>2</sup> Spielberg, Frank, Stoddard, A.T., Erickson, Jeanne, TCRP Project B-36: Methods for Forecasting Demand and Quantifying Need for Rural Passenger Transportation. Transportation Research Board, National Academies, Washington, D.C., December 2009.

**Exhibit VI-33  
Study Area Demographics**

<b>Demographic Inputs</b>	
Total Population	265,046
Persons Age 60 and Over	35,898
Mobility Limited Age 16 to 64	10,438
Persons Age 64 or Less Living Below Poverty	30,996

The number of estimated individuals between 16 and 64 with mobility limitations was obtained through the ACS. This number was generated by multiplying the number of individuals with disabilities in the study area by the percent of the population who indicated a “go-outside-the-home disability.” The analysis resulted in an estimated 10,438 individual with mobility limitations living within the study area.

To estimate the population of individual under 65 living below the poverty level, ACS estimates of male and female populations under the poverty level were obtained. The resulting analysis of the study indicated approximately 30,996 individuals age 64 and less are living under the poverty level.

This information was then entered into the demand estimate model to predict the transportation demand for the study area. Exhibit VI-34 summarizes the results.

**Exhibit VI-34  
Rural Transportation Demand**

<b>General Public Rural Non-Program Demand</b>	
Estimate of Rural Transit Trips Based on Vehicle-Miles	108,804 Annual Passenger Trips
Estimate of Rural Transit Trips Based on Vehicle-Hours	135,342 Annual Passenger Trips
<b>Non-Program Demand Based on TCRP Methodology</b>	
Demand for Persons 60 and Above	104,200 Annual Passenger Trips
Demand for Persons With Mobility Limitations Age 16 to 64	54,900 Annual Passenger Trips
Demand for General Public	69,000 Annual Passenger Trips
<b>Total Demand</b>	<b>228,100 Annual Passenger Trips</b>

The result was a projected 104,200 annual trips for individuals over 60. There was an estimated demand of 54,900 annual trips from persons with mobility limitations. The number of persons living below the poverty level was used to estimate demand from general public riders. The resulting analysis estimates the general public demand to be 69,000 annual trips. Therefore, the estimated total demand for the portion of Kent County within the study area is 228,100 annual trips.

### Household Survey

Results of the Kent County household survey were also used to estimate potential ridership on a general public demand response service. Assumptions on the relative likelihood of actual usage were made and, coupled with the stated frequency of use, an estimated number of trips was made. These estimates of latent demand for door to door service were arrived at as follows:

- ◆ Respondents indicating any interest in using door-to-door service were filtered on the basis of age (65+), disability (yes or no), and income (<\$35,00 household income), thus providing a market, which, experience shows, are relatively more likely to actually use demand response service. This provides a “Likely Market” in the sense that this is the group of people who would seriously consider using the service both because of their demographics and their expressed interest.
- ◆ We know also that between the level of positive intent to use a service expressed in a survey and real-world consumer behavior there are substantial losses. The reason is that for the consumer to fully imagine his or herself using a specific service is very different from confronting the actual use of the service, in spite of the realistic description of the service used in the survey. This is especially true of demand response service with the initial appeal of inexpensive door to door service offset by its requirements for calling ahead, holding open a time-window for pickup, and spending time while others are taken to their destinations.
- ◆ For this reason we have to reduce the pool of relatively likely users. We do this by assigning a probability factor reflecting how responsive the market will prove to be based on the strength of their positive response. For those who said they were very likely to use demand response service, we assign a value of 50%, meaning that we believe that approximately half of them would eventually use the service and use it as often as they said in the survey. For those who said they were somewhat likely, the factor is 25%. This gives us an “Upper Bound” for the estimate – i.e. the maximum probably use. A lower bound of the estimate can be set at half those rates.

Exhibit VI-35 includes the results of this estimate.

**Exhibit VI-35**  
**Estimated Demand Response Service Market in Number of Persons**

	Total Likely Market	Upper Bound Likelihood	Lower Bound Likelihood
Be very likely to use it	5,075	2,538	1269
Be somewhat likely to use it	9,723	2,431	1215
Total	14,798	4,968	2484

To compute the likely frequency of use, respondents were asked how many days a week they would be likely to use the service. Using the means for those who were very likely to use it (2.47 days) and those somewhat likely to do so (1.05 days), and assuming round trips in all cases, the weekly and annual trips were computed. Exhibit VI-36 summarized the results of this analysis. As shown, the estimated annual trips range from 220,498 to 440,996.

**Exhibit VI-36  
Estimated Demand Response Service Passenger Trips**

	Upper Bound		Lower Bound	
	Trips/Week	Annual Trips	Trips/Week	Annual Trips
Be very likely to use it	6,268		3134	
Be somewhat likely to use it	2,552		1276	
<b>Total</b>	<b>8,820</b>	<b>440,996</b>	<b>4410</b>	<b>220,498</b>

**SUMMARY**

Exhibit VI-37 provides a summary of predicted ridership and levels of service for the described demand response services, route extensions/new routes, and commuter express routes. It also includes an estimate of total operating costs for each group.

**Exhibit VI-37  
Summary of Proposed Service Improvements**

	<b>Ridership</b>	<b>Vehicle Hours</b>	<b>Vehicle Miles</b>	<b>Cost</b>
<b>Demand Response Service</b>				
Peer Goup	235,856			
TCRP #4	81,314*			
TCRP B-36	228100*			
Household Survey	220,498-440,996*			
Consensus	150,000	75,000	1,650,000	\$ 3,547,344
<b>Route Extensions/New Routes</b>				
Peer Group	1,657,406			
Household Survey	679,751-1,359,503			
Consensus				
Fixed Route	1,200,000	62,105	705,317	\$ 3,789,665
ADA Paratransit	60,324	30,162	448,583	\$ 1,840,485
<b>Commuter Express</b>				
Peer Group	65,000			
Household Survey	82,801-165,601			
Consensus	80,000	3,555	106,641	\$ 216,908

\*In addition to current ridership

The predicted demand for demand response service is 150,000 trips annually. This would require an estimated 75,000 vehicle hours and 1.6 million vehicle miles and a total annual cost of \$3.5 million. The cost for the group of route extensions and new routes is \$4.9 million annually. About 1.2 million annual passenger trips would be generated. The commuter express routes have an estimated ridership of about 80,000 trips annually and cost \$278,062 in its initial year.

## VII. FINANCIAL ALTERNATIVES

### CURRENT FIXED ROUTE SERVICE COSTS

All fixed route service in Kent County is currently being provided by The Rapid. As described in Section II, total operating costs are approximately \$26 million. Fare revenues approach \$4 million.

### CURRENT DEMAND RESPONSE SERVICE COST

The majority of demand response services that are available in Kent County are provided by The Rapid, Hope Network, and through the Ridelink program. A breakdown of the costs of these services is provided in Exhibit VII-1. The individual costs for each of the Hope Network and The Rapid programs was based on the total operating cost for each agency and the ridership levels for each program. Ridelink revenues comes from the County Board of Commissioners and a voter approved property tax levy supporting senior citizen programs. It is managed by the Area Agency on Aging of Western Michigan on behalf of the County. This amount is contracted to several organizations including The Rapid for scheduling and dispatching services, Hope Network, and several other agencies for transportation services. Also, The Rapid is the recipient of the funding for the Network 180 program, and contracts with Hope Network to provide this service.

**Exhibit VII-1**  
**Estimated Operating Costs for Demand Response Services in Kent County**

<b>Program</b>	<b>Annual Operating Cost</b>	<b>Funding Source</b>
<b>The Rapid</b>	<b>\$8,578,660</b>	
Go!Bus	\$4,815,598	Rapid GF
PASS	\$337,226	Rapid GF
County Connection	\$800,147	JARC
Township Contracts	\$212,405	Townships
Network 180	\$2,374,000	CMH
Other	\$39,284	Rapid GF
<b>Hope Network</b>	<b>\$824,174</b>	
Specialized Group Services	\$63,645	private pay/ins.
North Kent Transit	\$64,695	Townships/CDBG
Competitive Employment	\$92,696	JARC, Spec. Svcs.
Care Resources	\$567,745	Care Resources
Other	\$35,392	private pay/ins.
<b>Ridelink</b>	<b>\$600,000</b>	Senior Millage
<b>Total</b>	<b>\$10,002,834</b>	

A variety of funding sources are used to provide these services. The Rapid uses its base allocation of federal, state, and local levy funding to provide the Go!Bus and PASS services. County Connection utilizes Federal Transit Administration (FTA) Job Access Reverse Commute (JARC) grant funding. The Township Contracts are paid directly by each participating Township. North Kent Transit is provided by participating townships. Other Hope Network transportation services are provided by program-related funding as shown.

While a network of transit services exists throughout Kent County, most are program related where a person would have to qualify for a specific program in order to receive transportation. Other issues identified for these services include:

- ◆ Latent demand for public transportation services has been documented;
- ◆ A patchwork of transportation services exist in Kent County with much of it having program eligibility requirements;
- ◆ This variety of transportation services can be difficult for the public to understand how to access them;
- ◆ Current users experience a rationing of transportation services indicating that there is unmet demand;
- ◆ Development continues to occur in areas outside of the current service district of the Rapid, leaving major destinations and residential areas without public transportation;
- ◆ The current network of transportation services do not parallel existing travel patterns, particularly to growing suburban areas located outside of the Rapid service area.

## **COST AND REVENUE PROJECTIONS OF PROPOSED SERVICES**

As described in Technical Memorandum #3, the potential transit services for Kent County include extensions of current The Rapid routes, new routes, GoBus expansion, commuter express service, and county demand response services. The operating and capital costs for these services were estimated and projected over a twenty five year period. These are summarized in this section.

It should be noted that the implementation of the Kent County demand response service would replace two existing programs: North Kent Transit and County Connection. All other agency program transportation is assumed to continue service, including the Rideline program transportation services.

### **Annual Cost of Service Improvements**

Annual operating costs were estimated for the proposed service improvements. Estimates were made for each of the express routes, route extensions, new routes, Go!Bus complementary ADA paratransit service expansion, and the countywide demand response service. The average cost of The Rapid service, which is \$61.02 per vehicle hour, was used to estimate operating costs for each of these service improvements. A summary of this information appears in Exhibit VII-2.

**Exhibit VII-2**  
**Estimated Annual Operating Costs of Proposed Service Improvements**

Route	Annual Vehicle Hours	Annual Vehicle Miles	Annual Operating Cost	Annual Ridership*	Fare Revenues	Net Operating Cost
<b>Express Routes</b>	<b>3,555</b>	<b>106,641</b>	<b>\$ 216,908</b>	<b>150,000</b>	<b>\$ 72,129</b>	<b>\$144,779</b>
Cedar Springs/Rockford	1,081	32,436	\$ 65,975			
Ada/Lowell	969	29,070	\$ 59,128			
Byron/Gaines	918	27,540	\$ 56,016			
Caledonia/Cascade	587	17,595	\$ 35,788			
<b>New Routes/Route Extensions</b>	<b>62,105</b>	<b>705,317</b>	<b>\$ 3,789,665</b>	<b>1,200,000</b>	<b>\$ 577,028</b>	<b>\$3,212,637</b>
Route 16 - Byron Center	3,889	48,217	\$ 237,276			
Route 10 - 76th Street	3,904	31,229	\$ 238,198			
Route 1 - 76th Street	3,970	15,881	\$ 242,262			
Route 4 - 76th Street	4,072	32,578	\$ 248,486			
Route 2 - Gaines Marketplace	3,943	15,773	\$ 240,614			
Route 9 - Rockford	13,988	335,702	\$ 853,523			
Route 11 - Plainfield Avenue	3,914	30,529	\$ 238,832			
Route 28 - Cascade	5,396	43,168	\$ 329,264			
New Route - East Fulton/Ada	12,312	98,496	\$ 751,278			
New Route - Rockford/East Beltline	3,658	29,264	\$ 223,211			
New Route - 60th/68th Street	3,060	24,480	\$ 186,721			
<b>GoBus ADA Expansion</b>	<b>30,162</b>	<b>448,583</b>	<b>\$ 1,840,485</b>	<b>60,324</b>	<b>\$ 129,623</b>	<b>\$1,710,862</b>
<b>Countywide Demand Response</b>	<b>75,000</b>	<b>1,650,000</b>	<b>\$ 4,576,500</b>	<b>80,000</b>	<b>\$ 340,000</b>	<b>\$4,236,500</b>
<b>Total for New Services</b>	<b>170,822</b>	<b>2,910,541</b>	<b>\$ 10,423,558</b>	<b>1,490,324</b>	<b>\$ 1,118,780</b>	<b>\$9,304,778</b>

\*Note - Ridership estimate is at full maturity. It will take three (3) to five (5) years to reach this level.

As shown in Exhibit VII-2, the four proposed express routes have a total annual operating cost of \$216,908. With an estimated annual ridership of 150,000, fare revenues would total \$72,129 based on the current average fare for The Rapid riders. The net cost for the express routes would be \$144,779 annually.

Also shown in Exhibit VII-2, total annual operating costs for the eight route extensions and three new routes would be almost \$3.8 million. The estimated annual ridership of 1.2 million would yield \$577,028 in fare revenues. The net annual operating cost for these improvements would be over \$3.2 million. The total annual cost for the Go!Bus ADA complementary paratransit serving the route extensions/new routes areas, is an estimated \$1.8 million or a net annual cost of \$1.7 million.

The county demand response service is estimated to cost \$4.6 million annually, or a net operating cost of \$4.2 million. This brings the total annual operating cost for all service improvements to \$10.4 million, or a net cost of \$9.3 million.

**Projection of Costs and Revenues**

Three different service package options were created along with three different revenue scenarios to determine their adequacy to fund these different levels of services. These are described on the following pages.

### **Service Option 1 – Express, New/Expanded Routes and Demand Response Services**

Twenty five year cost and revenue projections were made for the potential service improvements including express bus service, new and expanded fixed routes, and demand response services. The projections include operating and capital costs. Exhibit VII-3 summarizes the results. Note that these projections start in 2012 while Exhibit VII-2 contains 2011 estimates.

These projections were distributed among seven categories based on the current budgeting of The Rapid. The first six categories are for directly operated service and include labor, fringe, services, materials and supplies, utilities, and casualty/liability. The estimated operating costs for the express routes, route extensions, new routes and Go!Bus ADA service were assumed to be directly operated service. The seventh category is purchased transportation. The county demand response operating costs were placed in the purchased transportation line.

Total operating costs for the proposed service improvements are projected to grow from \$10.7 million in 2012 to \$14.0 million in 2021, and \$21.2 million by 2035. This is based on an assumed three (3) percent annual inflation factor.

Capital costs include the purchase of vehicles for fixed route and demand response service. The useful life of a coach used by The Rapid for fixed route service is twelve years or 500,000 miles. Therefore, vehicles purchased in 2012 would not be eligible for replacement until 2024, based on the age criteria. A total of twenty-five (25) vehicles would be needed for express routes, new routes, and route extensions. With each of these estimated to cost \$400,000 in 2012, a total of \$10.0 million would be needed initially for fixed route vehicles.

Demand response vehicles are estimated to cost \$74,000 in 2012. A total of thirty five (35) paratransit vehicles will be needed for the proposed countywide demand response and Go!Bus services, for a total of \$2.6 million needed for paratransit vehicles. This type of vehicle has a useful life of six years, thus vehicles purchased in 2012 would be eligible for replacement in 2018 and 2024. It was assumed for the purpose of these scenarios that federal and/or state funding possibilities are virtually non-existent and they would not be available. Therefore, revenue to finance these capital costs would need to be raised one hundred percent locally.

Two revenue scenarios are presented. Both are based on the assumption that a countywide millage would be approved. The first assumes passage of a property tax millage of 0.0005, and the second assumes passage of 0.00025.

The first scenario also assumes that State Operating Assistance will be available initially at a rate of 31.41 percent of net operating costs, but decreasing by .66 percent annually. This is reflecting current trends in State Operating Assistance. It was also assumed that the State would not provide the 20 percent of the cost for vehicle purchases, as is currently the practice. With a 0.0005 millage, the result is a surplus of between \$3 million and \$4 million in most years.



### Exhibit 3 (cont.) - Cost and Revenue Projections

#### Operating Costs

	2022	2024	2026	2028	2030	2032	2034	2035
<b>Total Labor</b>	\$ 3,802,176	\$ 4,033,729	\$ 4,279,383	\$ 4,539,997	\$ 4,816,483	\$ 5,109,807	\$ 5,420,994	\$ 5,583,624
<b>Total Fringe Benefits</b>	\$ 2,112,108	\$ 2,240,735	\$ 2,377,196	\$ 2,521,967	\$ 2,675,555	\$ 2,838,497	\$ 3,011,361	\$ 3,101,702
<b>Total Services</b>	\$ 539,429	\$ 572,280	\$ 607,132	\$ 644,107	\$ 683,333	\$ 724,948	\$ 769,097	\$ 792,170
<b>Total Material &amp; Supplies</b>	\$ 1,237,215	\$ 1,312,562	\$ 1,392,497	\$ 1,477,300	\$ 1,567,268	\$ 1,662,714	\$ 1,763,973	\$ 1,816,893
<b>Total Utilities</b>	\$ 182,239	\$ 193,337	\$ 205,111	\$ 217,603	\$ 230,855	\$ 244,914	\$ 259,829	\$ 267,624
<b>Total Casualty &amp; Liability</b>	\$ 220,529	\$ 233,959	\$ 248,207	\$ 263,323	\$ 279,359	\$ 296,372	\$ 314,422	\$ 323,854
<b>Purchased Transportation</b>	\$ 6,334,946	\$ 6,720,745	\$ 7,130,038	\$ 7,564,257	\$ 8,024,920	\$ 8,513,638	\$ 9,032,119	\$ 9,303,082
<b>Total Cost of New Service</b>	\$ 14,428,643	\$ 15,307,347	\$ 16,239,564	\$ 17,228,554	\$ 18,277,773	\$ 19,390,889	\$ 20,571,794	\$ 21,188,948
<b>Capital Costs</b>								
<b>Fixed Route Vehicles (25)</b>		\$ 13,750,000						
<b>Demand Response Vehicles (35)</b>		\$ 3,325,000			\$ 4,025,000			
<b>Total Capital Cost</b>		\$ 17,075,000			\$ 4,025,000			
<b>Total Capital and Operating</b>	\$ 14,428,643	\$ 32,382,347	\$ 16,239,564	\$ 17,228,554	\$ 22,302,773	\$ 19,390,889	\$ 20,571,794	\$ 21,188,948

#### Revenue Scenario I - 0.0005 millage

	2022	2024	2026	2028	2030	2032	2034	2035
<b>Passenger Fares</b>	\$ 1,342,536	\$ 1,342,536	\$ 1,342,536	\$ 1,611,043	\$ 1,611,043	\$ 1,611,043	\$ 1,611,043	\$ 1,611,043
<b>Property Tax</b>	\$ 14,258,406	\$ 15,126,743	\$ 16,047,962	\$ 17,025,283	\$ 18,062,123	\$ 19,162,106	\$ 20,329,078	\$ 20,938,951
<b>MDOT Operating Assistance</b>	\$ 3,045,923	\$ 3,005,245	\$ 2,965,109	\$ 2,925,510	\$ 2,886,440	\$ 2,847,891	\$ 2,809,857	\$ 2,791,031
<b>Federal - Capital</b>								
<b>Total Revenues</b>	\$ 18,646,866	\$ 19,474,524	\$ 20,355,607	\$ 21,561,836	\$ 22,559,605	\$ 23,621,040	\$ 24,749,978	\$ 25,341,025
<b>Surplus/(shortfall)</b>	\$ 4,218,223	\$ (12,907,823)	\$ 4,116,043	\$ 4,333,282	\$ 256,833	\$ 4,230,151	\$ 4,178,184	\$ 4,152,076

#### Revenue Scenario II - 0.0025 millage

	2022	2024	2026	2028	2030	2032	2034	2035
<b>Passenger Fares</b>	\$ 1,342,536	\$ 1,342,536	\$ 1,342,536	\$ 1,611,043	\$ 1,611,043	\$ 1,611,043	\$ 1,611,043	\$ 1,611,043
<b>Property Tax</b>	\$ 7,129,203	\$ 7,563,372	\$ 8,023,981	\$ 8,512,641	\$ 9,031,061	\$ 9,581,053	\$ 10,164,539	\$ 10,469,475
<b>MDOT Operating Assistance</b>	\$ 3,045,923	\$ 3,005,245	\$ 2,965,109	\$ 2,925,510	\$ 2,886,440	\$ 2,847,891	\$ 2,809,857	\$ 2,791,031
<b>Federal - Capital</b>								
<b>Total Revenues</b>	\$ 11,517,663	\$ 11,911,152	\$ 12,331,626	\$ 13,049,195	\$ 13,528,544	\$ 14,039,987	\$ 14,585,439	\$ 14,871,549
<b>Surplus/(shortfall)</b>	\$ (2,910,980)	\$ (20,471,195)	\$ (3,907,938)	\$ (4,179,359)	\$ (8,774,229)	\$ (5,350,902)	\$ (5,986,355)	\$ (6,317,399)

In addition to the 0.00025 millage and the State Operating Assistance, the second scenario assumes that state operating assistance will be available at a 2011 rate of 0.317 of net operating costs. The result is that deficits appear in all ten years, ranging from \$1.6 million in 2012 to over \$3.0 million in 2021.

The previously described funding package alternatives include countywide property tax levies. It was shown that a millage rate of 0.0005 is enough to finance these improvements, while a rate of 0.00025 is not. This would indicate that if a property tax levy is pursued to fund the proposed transit service improvements that either a millage rate between 0.0005 and 0.00025 is chosen, or the group of service improvements is either increased or decreased.

### **Service Option 2 – County Demand Response and GoBus Expansion Only**

Costs and revenues were also projected for a package of transportation service improvements that include the County Demand Response service and the expansion of GoBus ADA service. County Demand Response service would serve residents currently outside the Rapid core service area. The expansion of the GoBus ADA service area would extend service to additional major trip attractions in Kent County such as a regional shopping center and medical facilities. Exhibit VII-4 shows the projected operating and capital costs along with Revenue Scenario II.

Total operating costs are estimated at \$6.6 million in 2010 growing to \$8.6 million in 2021, and \$13.0 million by 2035. A total of \$2.6 million would be needed initially for the purchase of vehicles to operate these services.

Benefits from a County Demand Response service and GoBus expansion would provide benefits to all Kent County communities. Therefore, revenue scenario II from Service Option 1 was used in these projections. While not adequate to fund all potential commuter express, fixed route and demand response service improvements, a 0.00025 countywide millage along with MDOT Operating Assistance is adequate to fund both capital and operating costs associated with Service Option 2. The first ten years of these projections show a surplus in the years when vehicles are not purchased. However, after 2030 there is a consistent and growing operating deficit.

### **Service Option 3 – Supplemental Rural/Suburban Demand Response Only**

Costs and revenues were also projected for implementation of the Countywide Demand Response service only. This would apply only to residents of Kent County living outside of the current The Rapid core service area. Exhibit VII-5 shows the projected operating and capital costs along with a new Revenue Scenario III.

Total operating costs are estimated to increase from \$4.7 million in 2010 to \$6.2 million in 2021, and \$9.3 million in 2035 based on inflationary increases. A total of \$1.9 million would be needed initially for the purchase of vehicles to operate this service.

**Exhibit 4 - Cost and Revenue Projections**

Operating Costs - County Demand Response and GoBus Expansion											
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
Total Labor	\$ 1,862,966	\$ 1,918,855	\$ 1,976,420	\$ 2,035,713	\$ 2,096,784	\$ 2,159,688	\$ 2,224,478	\$ 2,291,213	\$ 2,359,949	\$ 2,430,748	
Total Fringe Benefits	\$ 1,034,877	\$ 1,065,923	\$ 1,097,901	\$ 1,130,838	\$ 1,164,763	\$ 1,199,706	\$ 1,235,697	\$ 1,272,768	\$ 1,310,951	\$ 1,350,280	
Total Services	\$ 264,306	\$ 272,235	\$ 280,402	\$ 288,814	\$ 297,479	\$ 306,403	\$ 315,595	\$ 325,063	\$ 334,815	\$ 344,859	
Total Material & Supplies	\$ 606,203	\$ 624,389	\$ 643,121	\$ 662,414	\$ 682,287	\$ 702,755	\$ 723,838	\$ 745,553	\$ 767,920	\$ 790,957	
Total Utilities	\$ 89,292	\$ 91,971	\$ 94,730	\$ 97,572	\$ 100,499	\$ 103,514	\$ 106,620	\$ 109,818	\$ 113,113	\$ 116,506	
Total Casualty & Liability	\$ 108,053	\$ 111,295	\$ 114,634	\$ 118,073	\$ 121,615	\$ 125,263	\$ 129,021	\$ 132,892	\$ 136,879	\$ 140,985	
Purchased Transportation	\$ 2,643,798	\$ 2,723,112	\$ 2,804,805	\$ 2,888,949	\$ 2,975,618	\$ 3,064,886	\$ 3,156,833	\$ 3,251,538	\$ 3,349,084	\$ 3,449,557	
Total Cost of New Service	\$ 6,609,495	\$ 6,807,780	\$ 7,012,013	\$ 7,222,373	\$ 7,439,045	\$ 7,662,216	\$ 7,892,082	\$ 8,128,845	\$ 8,372,710	\$ 8,623,892	
					<b>Capital Costs</b>						
Demand Response Vehicles (35)	\$ 2,590,000										
Total Capital Cost	\$ 2,590,000						\$ 2,800,000				
Total Capital and Operating	\$ 9,199,495	\$ 6,807,780	\$ 7,012,013	\$ 7,222,373	\$ 7,439,045	\$ 7,662,216	\$ 10,692,082	\$ 8,128,845	\$ 8,372,710	\$ 8,623,892	

**Revenue Scenario II - 0.00025 millage countywide**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Passenger Fares	\$ 234,812	\$ 352,217	\$ 469,623	\$ 469,623	\$ 469,623	\$ 563,548	\$ 563,548	\$ 563,548	\$ 563,548	\$ 563,548
Property Tax	\$ 5,304,797	\$ 5,463,941	\$ 5,627,859	\$ 5,796,695	\$ 5,970,595	\$ 6,149,713	\$ 6,334,205	\$ 6,524,231	\$ 6,719,958	\$ 6,921,557
MDOT Operating Assistance	\$ 2,002,288	\$ 1,988,873	\$ 1,975,547	\$ 1,962,311	\$ 1,949,164	\$ 1,936,104	\$ 1,923,132	\$ 1,910,247	\$ 1,897,449	\$ 1,884,736
Total Revenues	\$ 7,541,896	\$ 7,805,031	\$ 8,073,029	\$ 8,228,629	\$ 8,389,382	\$ 8,649,365	\$ 8,820,885	\$ 8,998,026	\$ 9,180,954	\$ 9,369,840
Surplus/(shortfall)	\$ (1,657,598)	\$ 997,251	\$ 1,061,016	\$ 1,006,255	\$ 950,338	\$ 987,149	\$ (1,871,198)	\$ 869,181	\$ 808,244	\$ 745,948

Note: It is assumed that County Connection and North Kent Transit programs would end. Other township and agency program services are assumed to continue including Ridelink.

**Exhibit 4 (cont.) - Cost and Revenue Projections**

<b>Operating Costs - County Demand Response and GoBus</b>										
	2022	2024	2026	2028	2030	2032	2034	2035		
<b>Total Labor</b>	\$ 2,503,670	\$ 2,656,143	\$ 2,817,903	\$ 2,989,513	\$ 3,171,574	\$ 3,364,723	\$ 3,569,635	\$ 3,676,724		
<b>Total Fringe Benefits</b>	\$ 1,390,788	\$ 1,475,487	\$ 1,565,344	\$ 1,660,674	\$ 1,761,809	\$ 1,869,103	\$ 1,982,931	\$ 2,042,419		
<b>Total Services</b>	\$ 355,205	\$ 376,837	\$ 399,787	\$ 424,134	\$ 449,963	\$ 477,366	\$ 506,438	\$ 521,631		
<b>Total Material &amp; Supplies</b>	\$ 814,686	\$ 864,300	\$ 916,936	\$ 972,778	\$ 1,032,020	\$ 1,094,870	\$ 1,161,547	\$ 1,196,394		
<b>Total Utilities</b>	\$ 120,001	\$ 127,309	\$ 135,062	\$ 143,288	\$ 152,014	\$ 161,272	\$ 171,093	\$ 176,226		
<b>Total Casualty &amp; Liability</b>	\$ 145,215	\$ 154,058	\$ 163,440	\$ 173,394	\$ 183,954	\$ 195,156	\$ 207,041	\$ 213,253		
<b>Purchased Transportation</b>	\$ 3,553,043	\$ 3,769,424	\$ 3,998,982	\$ 4,242,520	\$ 4,500,889	\$ 4,774,993	\$ 5,065,790	\$ 5,217,764		
<b>Total Cost of New Service</b>	\$ 8,882,608	\$ 9,423,559	\$ 9,997,454	\$ 10,606,299	\$ 11,252,222	\$ 11,937,483	\$ 12,664,476	\$ 13,044,410		
<b>Capital Costs</b>										
<b>Demand Response Vehicles (35)</b>										
<b>Total Capital Cost</b>		\$ 3,325,000			\$ 4,025,000					
<b>Total Capital and Operating</b>	\$ 8,882,608	\$ 12,748,559	\$ 9,997,454	\$ 10,606,299	\$ 15,277,222	\$ 11,937,483	\$ 12,664,476	\$ 13,044,410		

<b>Revenue Scenario II - 0.0025 millage countywide</b>										
	2022	2024	2026	2028	2030	2032	2034	2035		
<b>Passenger Fares</b>	\$ 563,548	\$ 563,548	\$ 563,548	\$ 676,257	\$ 676,257	\$ 676,257	\$ 676,257	\$ 676,257		
<b>Property Tax</b>	\$ 7,129,203	\$ 7,563,372	\$ 8,023,981	\$ 8,512,641	\$ 9,031,061	\$ 9,581,053	\$ 10,164,539	\$ 10,469,475		
<b>MDOT Operating Assistance</b>	\$ 1,872,108	\$ 1,847,106	\$ 1,822,437	\$ 1,798,099	\$ 1,774,085	\$ 1,750,392	\$ 1,727,015	\$ 1,715,444		
<b>Total Revenues</b>	\$ 9,564,859	\$ 9,974,025	\$ 10,409,966	\$ 10,986,997	\$ 11,481,403	\$ 12,007,702	\$ 12,567,811	\$ 12,861,177		
<b>Surplus/(shortfall)</b>	\$ 682,251	\$ (2,774,534)	\$ 412,512	\$ 380,699	\$ (3,795,819)	\$ 70,219	\$ (96,664)	\$ (183,233)		

**Exhibit 5 - Cost and Revenue Projections**

Operating Costs - County Demand Response Only											
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
Total Labor	\$ 1,328,640	\$ 1,368,499	\$ 1,409,554	\$ 1,451,841	\$ 1,495,396	\$ 1,540,258	\$ 1,586,465	\$ 1,634,059	\$ 1,683,081	\$ 1,733,574	
Total Fringe Benefits	\$ 738,059	\$ 760,201	\$ 783,007	\$ 806,497	\$ 830,692	\$ 855,613	\$ 881,281	\$ 907,720	\$ 934,951	\$ 963,000	
Total Services	\$ 188,499	\$ 194,154	\$ 199,979	\$ 205,978	\$ 212,157	\$ 218,522	\$ 225,078	\$ 231,830	\$ 238,785	\$ 245,949	
Total Material & Supplies	\$ 432,335	\$ 445,305	\$ 458,664	\$ 472,424	\$ 486,597	\$ 501,195	\$ 516,231	\$ 531,717	\$ 547,669	\$ 564,099	
Total Utilities	\$ 63,682	\$ 65,592	\$ 67,560	\$ 69,587	\$ 71,675	\$ 73,825	\$ 76,039	\$ 78,321	\$ 80,670	\$ 83,090	
Total Casualty & Liability	\$ 77,062	\$ 79,374	\$ 81,755	\$ 84,208	\$ 86,734	\$ 89,336	\$ 92,016	\$ 94,777	\$ 97,620	\$ 100,549	
Purchased Transportation	\$ 1,885,518	\$ 1,942,084	\$ 2,000,346	\$ 2,060,356	\$ 2,122,167	\$ 2,185,832	\$ 2,251,407	\$ 2,318,949	\$ 2,388,518	\$ 2,460,173	
Total Cost of New Service	\$ 4,713,795	\$ 4,855,209	\$ 5,000,865	\$ 5,150,891	\$ 5,305,418	\$ 5,464,580	\$ 5,628,518	\$ 5,797,373	\$ 5,971,294	\$ 6,150,433	
<b>Capital Costs</b>											
Demand Response Vehicles (25)	\$ 1,850,000						\$ 2,000,000				
Total Capital Cost	\$ 1,850,000						\$ 2,000,000				
Total Capital and Operating	\$ 6,563,795	\$ 4,855,209	\$ 5,000,865	\$ 5,150,891	\$ 5,305,418	\$ 5,464,580	\$ 7,628,518	\$ 5,797,373	\$ 5,971,294	\$ 6,150,433	

Revenue Scenario III - 0.0005 millage in Suburban/Rural Kent County only											
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
Passenger Fares	\$ 170,000	\$ 255,000	\$ 340,000	\$ 340,000	\$ 340,000	\$ 408,000	\$ 408,000	\$ 408,000	\$ 408,000	\$ 408,000	\$ 408,000
Property Tax	\$ 4,986,509	\$ 5,136,104	\$ 5,290,187	\$ 5,448,893	\$ 5,612,360	\$ 5,780,731	\$ 5,954,152	\$ 6,132,777	\$ 6,316,760	\$ 6,506,263	
MDOT Operating Assistance	\$ 1,427,206	\$ 1,417,644	\$ 1,408,146	\$ 1,398,711	\$ 1,389,340	\$ 1,380,031	\$ 1,370,785	\$ 1,361,601	\$ 1,352,478	\$ 1,343,416	
Total Revenues	\$ 6,583,715	\$ 6,808,748	\$ 7,038,333	\$ 7,187,604	\$ 7,341,699	\$ 7,568,762	\$ 7,732,937	\$ 7,902,378	\$ 8,077,238	\$ 8,257,679	
Surplus/(shortfall)	\$ 19,920	\$ 1,953,539	\$ 2,037,468	\$ 2,036,713	\$ 2,036,282	\$ 2,104,181	\$ 104,419	\$ 2,105,004	\$ 2,105,944	\$ 2,107,246	

Note: It is assumed that County Connection and North Kent Transit programs would end. Other township and agency program services are assumed to continue including Ridelink.

**Exhibit 5 (cont.) - Cost and Revenue Projections**

<b>Operating Costs - County Demand Response Only</b>									
	2022	2024	2026	2028	2030	2032	2034	2035	
Total Labor	\$ 1,785,581	\$ 1,894,323	\$ 2,009,687	\$ 2,132,077	\$ 2,261,920	\$ 2,399,671	\$ 2,545,811	\$ 2,622,186	
Total Fringe Benefits	\$ 991,890	\$ 1,052,296	\$ 1,116,381	\$ 1,184,368	\$ 1,256,496	\$ 1,333,017	\$ 1,414,198	\$ 1,456,624	
Total Services	\$ 253,327	\$ 268,755	\$ 285,122	\$ 302,486	\$ 320,907	\$ 340,450	\$ 361,184	\$ 372,019	
Total Material & Supplies	\$ 581,022	\$ 616,406	\$ 653,945	\$ 693,771	\$ 736,021	\$ 780,845	\$ 828,399	\$ 853,250	
Total Utilities	\$ 85,583	\$ 90,795	\$ 96,325	\$ 102,191	\$ 108,414	\$ 115,017	\$ 122,021	\$ 125,682	
Total Casualty & Liability	\$ 103,565	\$ 109,872	\$ 116,563	\$ 123,662	\$ 131,193	\$ 139,183	\$ 147,659	\$ 152,089	
Purchased Transportation	\$ 2,533,979	\$ 2,688,298	\$ 2,852,015	\$ 3,025,703	\$ 3,209,968	\$ 3,405,455	\$ 3,612,847	\$ 3,721,233	
Total Cost of New Service	\$ 6,334,946	\$ 6,720,745	\$ 7,130,038	\$ 7,564,257	\$ 8,024,920	\$ 8,513,638	\$ 9,032,119	\$ 9,303,082	
<b>Capital Costs</b>									
Demand Response Vehicles (25)		\$ 2,375,000			\$ 2,875,000				
Total Capital Cost		\$ 2,375,000			\$ 2,875,000				
<b>Total Capital and Operating</b>	<b>\$ 6,334,946</b>	<b>\$ 9,095,745</b>	<b>\$ 7,130,038</b>	<b>\$ 7,564,257</b>	<b>\$ 10,899,920</b>	<b>\$ 8,513,638</b>	<b>\$ 9,032,119</b>	<b>\$ 9,303,082</b>	

**Revenue Scenario III - 0.0005 millage in Rural/Suburban Kent County only**

	2022	2024	2026	2028	2030	2032	2034	2035
Passenger Fares	\$ 408,000	\$ 408,000	\$ 408,000	\$ 489,600	\$ 489,600	\$ 489,600	\$ 489,600	\$ 489,600
Property Tax	\$ 6,701,451	\$ 7,109,569	\$ 7,542,542	\$ 8,001,883	\$ 8,489,198	\$ 9,006,190	\$ 9,554,667	\$ 9,841,307
MDOT Operating Assistance	\$ 1,334,415	\$ 1,316,594	\$ 1,299,011	\$ 1,281,662	\$ 1,264,546	\$ 1,247,657	\$ 1,230,995	\$ 1,222,747
Total Revenues	\$ 8,443,866	\$ 8,834,163	\$ 9,249,553	\$ 9,773,145	\$ 10,243,343	\$ 10,743,447	\$ 11,275,262	\$ 11,553,654
Surplus/(shortfall)	\$ 2,108,920	\$ (261,581)	\$ 2,119,515	\$ 2,208,888	\$ (656,577)	\$ 2,229,809	\$ 2,243,143	\$ 2,250,572

Since service is provided to the area in Kent County outside the current The Rapid district, a property tax would only be levied in this area resulting in an estimated \$5.0 million from a 0.0005 millage. Along with additional MDOT Operating Assistance, this would be sufficient to finance capital and operating costs for Service Option 3. MDOT Operating Assistance would be channeled through the Rapid, like Network 180 funding, since The Rapid is the designated recipient.

## VIII. GOVERNANCE ALTERNATIVES

---

To facilitate implementation of the proposed service improvements, five governance alternatives were created. The first would maintain the current transportation authority with service being expanded through the current method of using purchase of service contracts between The Rapid and individual townships, cities and/or Kent County. The second would expand the current method of service contracting to include Kent County as the primary contractor. The third would expand the current public transportation authority to include additional cities, townships, and/or villages in Kent County. The fourth would create a new public transportation authority that would include all of Kent County as its service area. The fifth alternative includes the creation of a second public transportation authority in Kent County. These five alternatives are organized with respect to the degree of change to the current ITP Board of Directors. This is as follows:

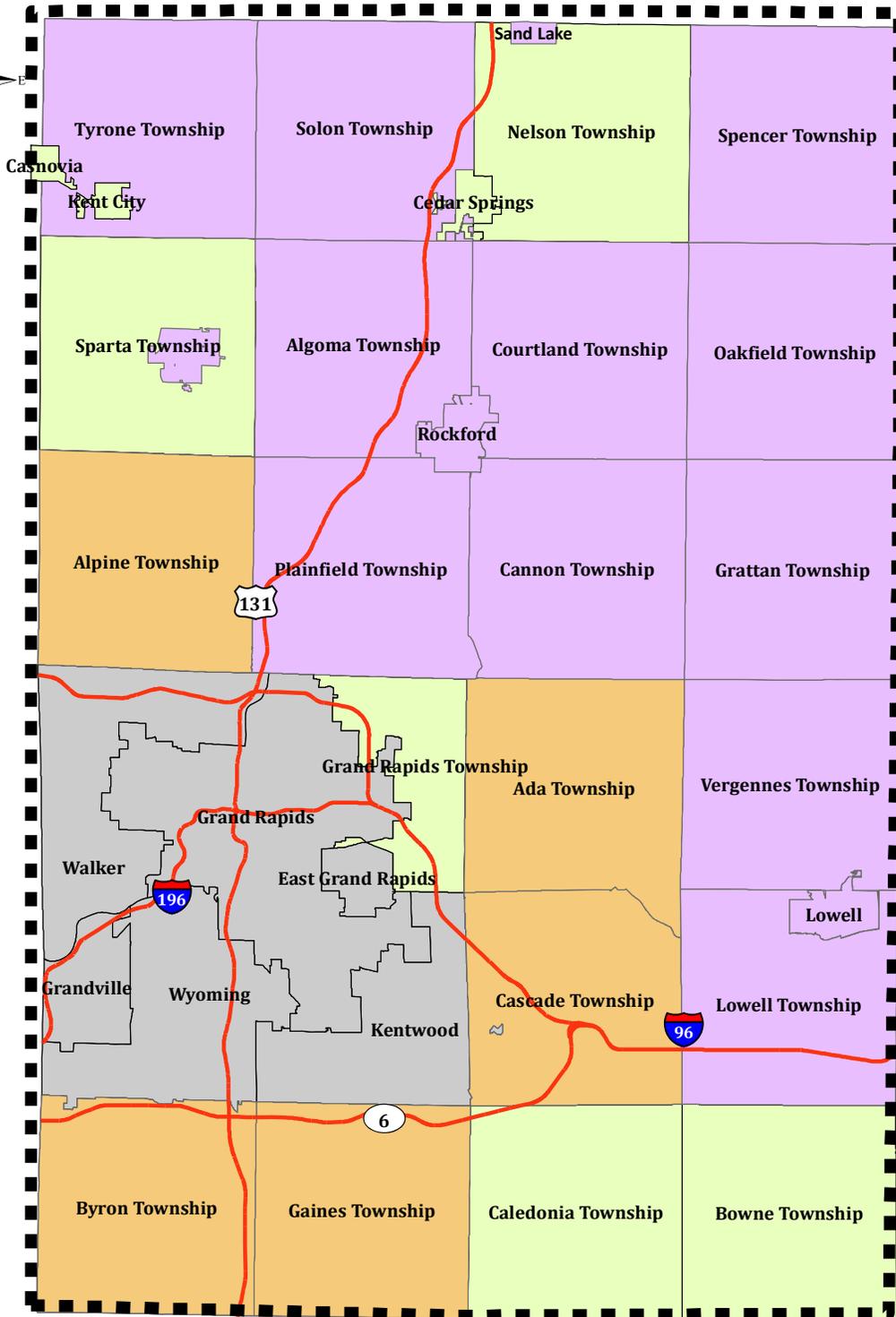
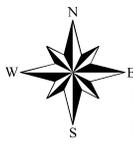
- ◆ Options 1 and 2 – Keep the current ITP Board membership unchanged.
- ◆ Option 3 – Expand the current public transportation authority by adding new members to ITP.
- ◆ Option 4 – Replace current public transportation authority with a new authority with representation of the entire Kent County.
- ◆ Option 5 – Create a second public transportation authority in Kent County and keep the current ITP Board membership unchanged.

### **OPTION I - EXPANDED SERVICE CONTRACTS WITH TOWNSHIPS, VILLAGES AND CITIES**

This option is a continuation of the current governance structure. Any proposed services outside of the current ITP service area would be provided on a contractual basis with individual townships or cities. Individual townships enter into a contract for transportation services with The Rapid, Hope Network, or other transportation provider. Examples of this currently include Go!Bus township contracts and North Kent Transit. Exhibit VIII-1 shows the municipalities that participate in these services.

Currently under this system, access to transportation is limited and restricted. Contracts limit the number of rides that may be taken each month and limit the origin of the trip to a contracted township or service area. Ridership eligibility can also be restricted and vary by contract. This results in gaps in services for certain populations.

# Exhibit VIII-1 Kent County Transit Services



- ITP Core Service Area
- North Kent Transit
- GO!Bus Township Contracts
- County Connection

## Kent County Transit Needs Assessment

## Advantages/Disadvantages

### Advantages

- ◆ Township and/or cities would pay the exact amount of what the service costs.
- ◆ There would be no effort needed to change the governance structure.
- ◆ Current experience shows success at the individual township level.

### Disadvantages

- ◆ The current method of expanding transportation services has left gaps in service coverage, connectivity, and levels of service.
- ◆ Since residents receiving service outside of The Rapid service area are not taxed and only pay a portion of the full cost of a trip, they are not represented on the ITP Board and have no say in policy decisions.

*Applicable Service/Financial Scenarios – All Service Options Possible/Status Quo Revenue Scenario*

## **OPTION II – KENT COUNTY SERVICE CONTRACT**

This option is also a continuation of the current governance structure. But it is a significant change in the way public transportation services outside of The Rapid core service area would be funded. Under Option II, Kent County would provide funding to assure that public transportation is available throughout Kent County. In another location in Michigan, the county commissioners place a levy on the ballot to provide this funding. This particular levy applies to the entire County so it therefore finances both rural public transportation provided outside the core service area and part of the ADA complementary paratransit services provided in the core service area. When passed, the County then contracts with the public transportation authority to provide the desired transportation services.

Because the levy to fund public transportation would be partially outside of the ITP member communities, the Kent County Board of Commissioners would need to place the levy on the ballot.

## Advantages/Disadvantages

### Advantages

- ◆ There would be no effort needed to change the governance structure.
- ◆ This would provide a new source of transit funding.
- ◆ This would allow the townships and cities that are currently contracting for public transportation to divert these funds to other projects or to lower property taxes.
- ◆ This would also improve transportation service for residents of The Rapid core service area.

- ◆ It could eliminate gaps in service area and limits placed on numbers of trips and other service levels.

### **Disadvantages**

- ◆ Getting a new property tax levy passed by the voters can be a difficult task.
- ◆ An additional hurdle to implementation exists since the county commissioners must act to place the levy on the ballot.

### *Applicable Service/Financial Scenarios – Service Option 2/Revenue Scenario II*

## **OPTION III - EXPAND THE CURRENT PUBLIC TRANSPORTATION AUTHORITY**

A political subdivision or a portion of one may join an existing public transportation authority as a result of a resolution adopted by its legislative body and approved by the existing authority's board. In this option, individual cities, villages, or townships could choose to join the Interurban Transit Partnership (ITP). This would create a governance structure that would serve the current ITP service area along with the political subdivisions that vote to join. This would create a more integrated transportation system if it continues to expand, and allow for participation of all political subdivisions in the authority.

Funding for transportation services could be generated from an expanded tax levy(s). The applied tax rate could also be based on the level of service generated to that municipality or portion of one.

### **Advantages/Disadvantages**

#### **Advantages**

- ◆ Increasing membership on the ITP Board provides better representation for areas where more of the transportation services are located.
- ◆ Allows for growth of the service area and taxing district.
- ◆ The current governance structure would remain intact.

#### **Disadvantages**

- ◆ The rate for revenues raised locally must match the existing rate levied in the current six city core service area. This is likely to be a deterrent since demand is lower outside this area.
- ◆ Willingness of a municipality to join the ITP Board does not necessarily reflect the need for public transportation. High levels of demand may exist in communities, both inside and outside the urban area, which may not choose to join the ITP.
- ◆ Municipalities that join are subject to the same millage rate as current members. This will tend to exclude the more rural townships that don't have the same level of demand.

## **OPTION IV - CREATION OF A COUNTYWIDE PUBLIC TRANSPORTATION AUTHORITY**

This option would create a single public transportation authority that would provide service to throughout Kent County. This would create a single entity representing all political subdivisions in the county. A countywide public transportation authority can be created under Act 196 of the Michigan state statutes. Act 196 was adopted in 1986 and updated in 1988 and 1999. The act allows for the formation of a public transportation authority with specified general powers and duties. These functions are summarized below.

### **Powers and Duties**

#### **Membership**

- ◆ A political subdivision, including a county, city, village, or township, (or portion of a city, village, or township) may join together to develop a public authority by resolution of a majority vote of the local legislative body.

#### **Provide Transportation Services**

- ◆ The act establishes the transit authority as the entity responsible for planning, operating, and funding public transportation within the designated area.

#### **Acquire Land/Transportation Facilities**

- ◆ The law states that the authority has the right to acquire land and facilities for the purpose of providing public transportation.

#### **Enter into Contracts**

- ◆ The authority may enter into contracts which are necessary for the provision of public transportation. This includes services and operating contracts.

#### **Issue Bonds**

- ◆ Revenue bonds may be issued by the authority to conduct improvements. These bonds must be backed by the authority's ability to raise revenues through fares or other means.

### **Fund Other Transportation Providers**

- ◆ The authority may contract with other transit providers and act as a pass-through funding source.
- ◆ Through contracts, sub-providers may be used to provide transportation services under an authority.

### **Determine Fares, Routes, Schedules**

- ◆ The authority may establish and enforce the collection of fares. These fares will be a direct revenue source to the transit authority.
- ◆ Routes and schedules may be determined and implemented by an authority. An authority reserves the right to change or modify these routes to better meet the needs of public transportation.

### **Apply for Grants and Loans**

- ◆ The transit authority is eligible for grants and loans that are used to fund capital and operating expenses incurred by and within the authority.

### **Levy Taxes or Fees**

- ◆ The authority may levy a tax on all of the taxable property within the limits of the public authority.

### **Creation of a Public Transportation Authority**

A public transportation authority may be formed by a political subdivision or a combination of two or more subdivisions. This includes cities, villages, townships, and counties. The act requires that the articles of incorporation be adopted by the affirmative vote of a majority of the members serving on the legislative body of each political subdivision. A printed copy of this information must be filed with the secretary state, county clerk, the director of the State Department of Transportation, and circulated throughout the County.

### **Governing Board**

Act 196 does not explicitly identify who will serve on the authority's board. The Act states that the adoption of bylaws and rules of administration be developed. These documents should identify the board's composition and appointment or election method.

Under Act 196, a public transportation authority may be created by the affirmative vote of a majority of the members serving on the legislative body of a political subdivision. The powers and duties of the new public transportation authority are described in the articles of incorporation passed by these legislative bodies.

## **Levy Taxes**

A public transportation authority has the power to levy taxes as expressed in Section 6 of Article IX in the Constitution of Michigan of 1963. The authority may levy a tax on all taxable property with the designated limits of transportation service area. This tax must not exceed five mills of the state equalized valuation on each dollar of assessed valuation. Additionally the tax may not be levied without the approval of a majority of the registered electors residing the public authority. Tax levies are limited to one per year and may not be levied at a rate and period over five years. In addition to the tax levied by the authority any member of the public authority may levy a tax in the taxable property and grant or contribute the proceeds to the public authority<sup>3</sup>.

A countywide transportation authority would provide representation throughout Kent County in the administration of a countywide millage, if one were adopted. The creation of a countywide authority under Act 196 would have to minimally include a 1.12 mill rate since that is what is currently levied in The Rapid core service area and the service leveraged by the property tax would have to be maintained. Act 196 specifies that there can only be one question. If the existing rate is higher like the 1.47 rate that is being proposed, then that would have to be the countywide rate. This poses a problem for this option.

## **Implications for Existing Public Transportation Authority**

At the formation of a countywide public transportation authority, the current public transportation authority would be dissolved subject to the six member cities and ITP Board's approval, and subject to maintaining the millage rate those cities have passed. For gradual transition, an interim governing board could be put in place. This interim board, which would eventually become the new governing board, would be advisory until it is ready to assume responsibilities from the existing ITP Board. Activities of the interim Board would include establishing bylaws, creating policies and procedures, and providing input for the creation of any new countywide transportation services. Key aspects of the by-laws should include the composition of the Board, term length, responsibility for appointing the Board members, and voting procedures.

## **Advantages/Disadvantages**

### **Advantages**

- ◆ Current travel patterns will be better reflected in the expanded public transportation services area.

---

<sup>3</sup> State of Michigan. Legislative Council, State of Michigan. *Public Transportation Authority Act*. Act 196 of 1986. 1986, and 1999.

- ◆ Countywide representation on the governing board will be more reflective of a countywide public transportation millage, if this is adopted.

### **Disadvantages**

- ◆ A significant change in the governance structure will be needed with the replacement of the ITP with a new county-based Board.
- ◆ Since the rate for revenues raised locally must match the existing rate that the Act 196 in the current core service area, and because the rural areas will have to subsidize activities in the urbanized areas, this option would be difficult to implement.
- ◆ Currently, a regional transportation authority is not allowed to levy taxes at different rates within its service area; therefore, tax rates would not match the different levels of demand experienced in rural and urban areas.
- ◆ There is a current levy in place that is dedicated for The Rapid services. A change in the governance structure may jeopardize this levy.

*Applicable Service/Financial Scenarios – Service Options 1 and 2/Revenue Scenarios 1 and 2*

## **OPTION V – CREATE A SECOND PUBLIC TRANSPORTATION AUTHORITY**

In this option a second public transportation authority would be created to serve all or part of Kent County outside ITP jurisdiction. This new public transportation authority would have all the powers and duties of ITP but with a different service area.

Following procedures outlined in Public Act 196, this public transportation authority would be created by action of a group of township and cities. The member townships and cities would then appoint representatives to its board of directors. It could also place a levy on the ballot to finance any desired new services.

### **Advantages/Disadvantages**

#### **Advantages**

- ◆ There would be no effort needed to change the ITP governance structure.
- ◆ Member municipalities will have more control over operating policies than under the current purchase of service arrangements.
- ◆ Services can be focused on the demand that exists in rural and suburban parts of Kent County.

#### **Disadvantages**

- ◆ A new public transportation authority would have to be created by one or more townships and/or cities in Kent County.

- ◆ A new organizational structure to operate and administer a new public transportation system would have to be created.
- ◆ The Grand Rapids urbanized area would be split between the two public transportation authorities. This adds complications to the distribution of federal transit funding.

*Applicable Financial Scenarios – Service Option 3/Revenue Scenario III*

**SUMMARY**

The current practice of service contracting with individual townships, villages and cities has resulted in significant gaps in service. Continuation of the status quo will not address this problem. Creating a new regional transit authority is a difficult and time consuming undertaking. Adding new members to the existing ITP will apply only to communities that are willing to pay the full levy for The Rapid service. This is a disincentive for most communities that are not considering fixed route service at all or are considering fixed route service for only a portion of their municipality. The most direct and equitable approach is to request the Kent County Commissioners to place a levy on the ballot, which if passed, would be used as for a service contract(s) to expand public transportation throughout the County.

## **IX. KENT COUNTY TRANSIT SERVICE PLAN**

---

The Kent County Transit Service Plan includes the identification of service priorities, a capital plan, financial plan, recommended governance structure, and a marketing/communications plan. These are described below.

### **SERVICE PRIORITIES**

Two service priorities were identified through the study process. The first is to implement County Demand Response service along with the expansion of Go!Bus service. The second is to implement the potential new routes, route extensions, express routes. These are described below.

#### **First Priority – County Demand Response and Go!Bus Expansion**

##### **Service Description**

A new County Demand Response service and the expansion of Go!Bus service would increase demand response service significantly for seniors, the disabled and the general public. The County Demand Response service would provide transportation to Kent County residents living outside The Rapid core service area. Go!Bus would be expanded to the approximate urban boundaries of Kent County which includes the major destinations that exist outside the current service area.

As part of the County Demand Response service, route deviation would be provided in the more densely populated parts of the service area. This type of service operates in a designated area with scheduled stops at major destinations. Passengers would need to call for a pick-up or walk to one of the designated stops to access service. These deviated routes are expected to emerge in the higher demand areas but the following are likely candidates for them:

- ◆ Byron/Gaines Townships/Cutlerville – 60<sup>th</sup> and 68<sup>th</sup> Streets area;
- ◆ Plainfield Township – Plainfield Avenue;
- ◆ Alpine/Plainfield Townships/Belmont/Rockford;
- ◆ Ada/Grand Rapids Townships – Fulton Street/East Beltline Avenue.

##### **Service Days and Hours**

The Go!Bus expansion and the County Demand Response service follow the description included in the Service Alternatives section with one exception. Evening service was added to both services so that they would operate to 10:00 p.m. on weekdays. Exhibit IX-1 show the profile of the two services.

**Exhibit IX-1  
First Priority Service Profile**

Service	Service Span			Vehicle Required				Revenue Hours			Revenue Miles		
	Weekday	Sat.	Sun.	Wday	Eve.	Sat.	Sun.	Wday	Sat.	Sun.	Wday	Sat.	Sun.
County Demand Response	6:00a-10:00p	8:00a-6:00p	--	21	5	9	--	285.1	134	--	5871.9	2935.9	--
GoBus Expansion	6:00a-10:00p	8:00a-6:00p	--	9	2	4	--	115.3	53.8	--	1596.4	798.2	--

**Service Area**

The service area for the County Demand Response service is all of Kent County. Eligibility for the County Demand Response service is residents of Kent County living outside the Rapid core service area that includes the cities of Grand Rapids, East Grand Rapids, Walker, Grandville, Wyoming, and Kentwood.

The service area for Go!Bus would expand to encompass more of the urban area that exists in Kent County. Exhibit IX-2 shows the proposed service area for Go!Bus.

**Fare Structure**

The fare structure for the new services should be compatible with the current Go!Bus fare structure. Exhibit IX-3 displays a fare structure with such characteristics.

**Exhibit IX-3  
Fare Structure**

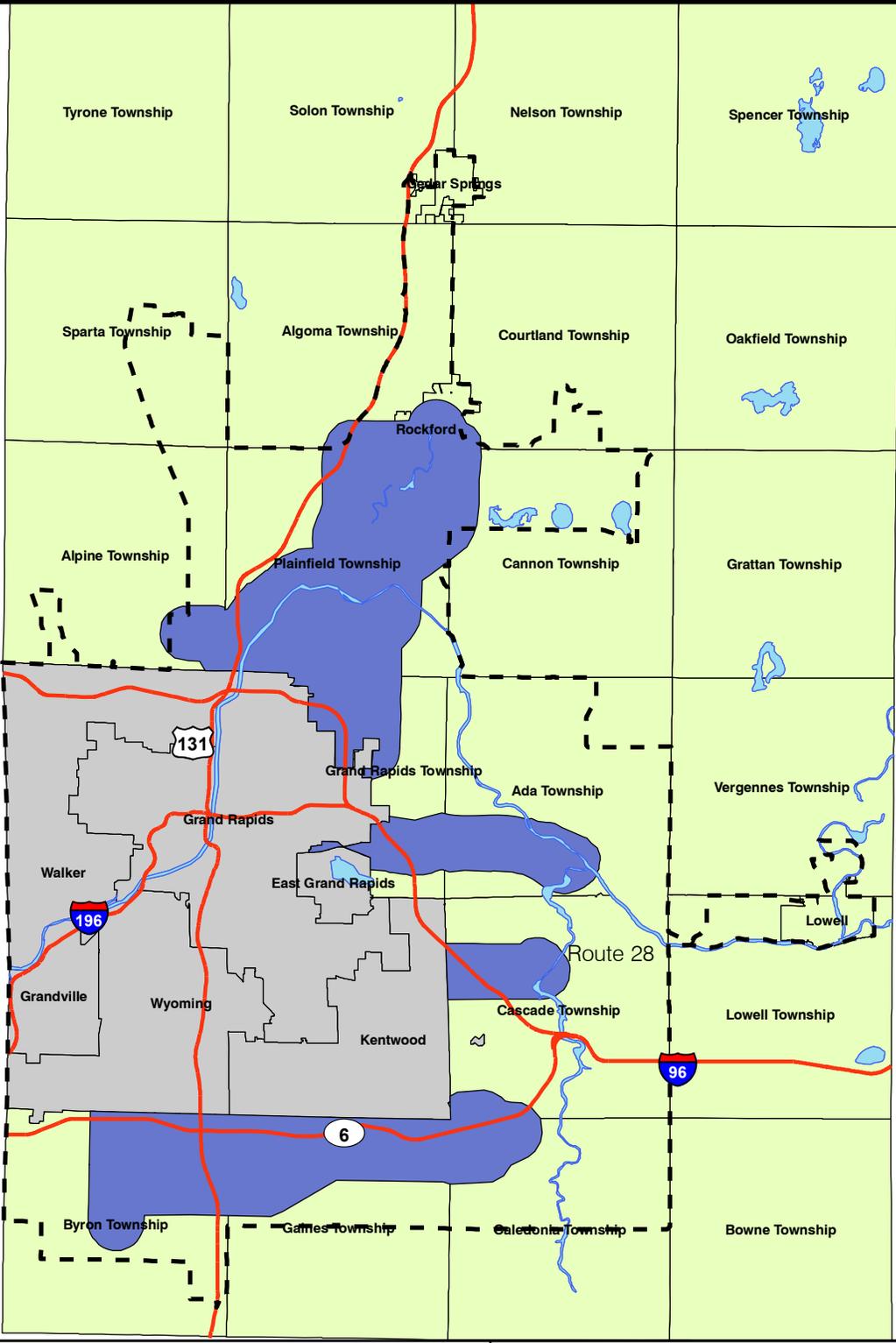
	People with Disabilities	Non-disabled over 65	Regular Fare	
			Up to 10 Miles	Over 10 Miles
GoBus	\$3.00	\$7.00	—	—
County Demand Response	\$3.00	\$7.00	\$7.00	\$8.00

**Second Priority – Fixed Route Expansion and Commuter Express**

**Service Description**

The second priority includes new fixed routes, route extensions and express bus service. The new routes and route extensions are designed to expand the service area of The Rapid fixed route system. Express Bus service would operate only in the weekday peak periods to bring to work and school in downtown Grand Rapids.

# Exhibit IX-2 Go!Bus Expansion



Urbanized Area  
 Go!Bus Expansion

## Kent County Transit Needs Assessment

**Service Days and Hours**

The service span for the new routes, extended routes and commuter express routes follow that described in the service alternatives section. Profiles of these routes appear in Exhibit IX-4. The fixed routes would run on weekdays and Saturdays, mostly during the daytime period. The commuter express routes would operate during the weekday peak periods only.

**Service Area**

The locations of these routes appear in Exhibit IX-5. They cover most of the urbanized area in Kent County that exists outside The Rapid core service area.

**Fare Structure**

The fare structure for the new routes and route extensions would be the same as the current fares for The Rapid’s fixed route service. The fares for the commuter express should be higher. Exhibit IX-6 includes the potential fares for the fixed route and commuter express services.

**Exhibit IX-6  
Second Priority Fare Structure**

	<b>Adult Fare</b>	<b>Senior/Disabled</b>
Fixed Route	\$1.50	\$.75
Commuter Express	\$2.00	\$1.00

**GOVERNANCE STRUCTURE**

The current governance structure for managing public transportation services would be used to implement the new transit services. The ITP member communities would not change. But instead of The Rapid placing a levy on the ballot for expanding transit services throughout Kent County, the Kent County Commissioners would be requested to take that action. The County Commissioners would then contract with The Rapid, and possibly another transportation provider, to operate the new transit services. The Rapid would also be the recipient of any state or federal funding used for these new transit services. Therefore, a new non-voting member would be added to The Rapid’s Board of Directors who would represent, and be appointed by, the Kent County Commissioners.

**CAPITAL COSTS**

The capital costs associated with the First Priority service improvements are as follows:

- ◆ Thirty five (35) cutaway vans for Go!Bus and County Demand Response services - \$2.6 million initially with replacements every six years.

## Exhibit IX-4 Route Profiles

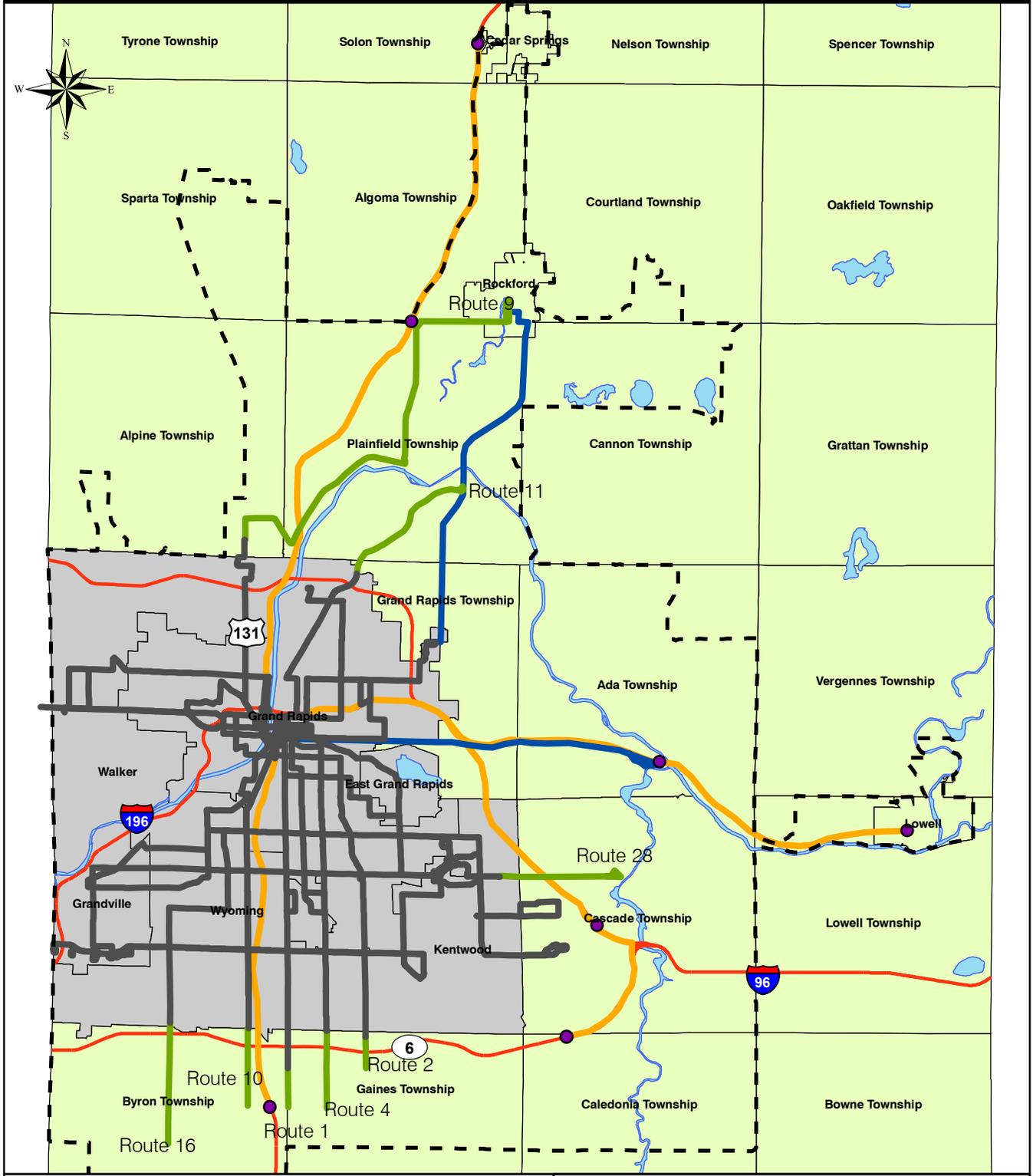
### Commuter Express Routes

Route	Service Span		Vehicle Required			Frequency			Revenue Hours			Revenue Miles					
	Weekday	Sat.	Sun.	PK	MD	Eve.	Sat.	Sun.	PK	MD	Eve.	Sat.	Sun.	Wday	Sat.	Sun.	
Cedar Springs/Rockford	7:15a-8:45a																
	4:45p-6:15p	--	--	2	--	--	--	--	30	--	--	4.2	--	127.2	--	--	--
Ada/Lowell	7:15a-8:45a																
	4:45p-6:15p	--	--	2	--	--	--	--	30	--	--	3.8	--	114.0	--	--	--
Byron/Gaines	7:15a-8:45a																
	4:45p-6:15p	--	--	2	--	--	--	--	30	--	--	3.6	--	108.0	--	--	--
Caledonia/Cascade	7:15a-8:45a																
	4:45p-6:15p	--	--	2	--	--	--	--	30	--	--	2.3	--	69.0	--	--	--

### New Routes and Route Extensions

Route	Service Span		Vehicle Required			Frequency			Revenue Hours			Revenue Miles				
	Weekday	Sat.	Sun.	PK	MD	Eve.	Sat.	Sun.	PK	MD	Eve.	Sat.	Sun.	Wday	Sat.	Sun.
Route 16 - Byron Center	5:17a-6:00p	5:32a-6:00p	--	1	1	--	1	--	30	30	--	12.7	12.5	157.5	155.0	--
Route 10 - 76th Street	5:11a-6:00p	5:41a-6:00p	--	1	1	--	1	--	30	30	--	12.8	12.3	102.4	98.4	--
Route 1 - 76th Street	5:00a-6:00p	5:23a-6:00p	--	1	1	--	1	--	30	30	--	13.0	12.6	52.0	50.4	--
Route 4 - 76th Street	4:35a-6:00p	5:20a-6:00p	--	1	1	--	1	--	30	30	--	13.4	12.6	107.2	100.8	--
Route 2 - Gaines Marketplace	4:48a-6:00p	6:53a-6:00p	--	1	1	--	1	--	30	30	--	13.2	11.1	52.8	44.4	--
Route 9 - Rockford	4:33a-6:00p	5:06a-6:00p	--	4	4	--	2	--	30	30	--	50.0	23.8	1200.0	571.2	--
Route 11 - Plainfield Avenue	5:13a-6:00p	5:31a-6:00p	--	1	1	--	0.5	--	30	30	--	12.8	12.5	99.8	97.5	--
Route 28 - Cascade	5:30a-11:31p	7:07a-10:37p	--	1	1	0.5	0.5	--	30	30	60	18.0	15.5	144.0	124.0	--
New Route - East Fulton/Ada	6:00a-6:00p	6:30a-6:00p	--	4	4	--	2	--	30	30	--	44.0	21.0	352.0	168.0	--
New Route - Rockford/East Beltline	6:00a-6:00p	6:30a-6:00p	--	1	1	--	1	--	60	60	--	12.0	11.5	96.0	92.0	--

# Exhibit IX-5 Potential Service



- Current Routes
- Potential Express Routes
- Potential Route Extensions
- Potential Park and Ride Lot
- Potential New Routes
- Urbanized Area

## Kent County Transit Needs Assessment

Implementation of the Second Priority service improvements would trigger the need of a new maintenance facility along with the purchase of vehicles for fixed route and express service. Passenger shelters would also be needed at key stops on these routes. These are summarized below:

- ◆ Twenty five (25) buses for the expansion of the fixed route service area and new commuter express routes - \$10.0 million with replacements every twelve (12) years;
- ◆ New maintenance facility - \$6.3 million in 2012.
- ◆ Fifteen (15) Bus Shelters and other Passenger Amenities - \$150,000 in 2012.
- ◆ Three (3) Park and Ride Lots - \$300,000 in 2012

## **FINANCIAL PLAN**

### **County Demand Response and Go!Bus Expansion**

Operating and capital costs for the County Demand Response service and Go!Bus expansion were projected through 2035. A three (3) annual inflation rate was used to project costs. A one year delay in the implementation of service was assumed. This would be the time needed to acquire vehicles, hire drivers and other personnel, and have the revenue available from a new property tax levy.

Exhibit IX-7 shows these projections. As shown, total operating costs for these services are projected to grow from \$7.3 million in 2013 to \$13.9 million by 2035. These costs are divided between line items reflecting directly operated costs, such as Labor and Fringe Benefits, and Purchased Transportation. These reflect current practices of The Rapid as its contracts some service to Hope Network and other transportation providers.

Potential revenues are also listed and projected in Exhibit IX-7. Passenger fares, MDOT operating assistance, and a 0.00025 local property tax levy. MDOT operating assistance is set at about 31 percent of net operating costs and decreases by two thirds (2/3) of a percent annually. Passenger fare revenue increases over the span of three years while ridership reaches its full potential. Two fare increases are then assumed through 2035. The property tax millage is projected to increase at three (3) percent annually. In the first ten years when vehicles do not need to be replaced, revenue surpluses appear. After 2022, deficits appear on a regular basis. However, these revenues are adequate overall over the twenty five year period.

### **Fixed Route Expansion and Commuter Express**

Operating and capital cost projections for the expansion of fixed route service and new commuter express service appear in Exhibit IX-8. As is the case in the Go!Bus/County Demand Response service projections, a three (3) annual inflation rate and a one year delay in the implementation of service was assumed. Total operating costs for these services are projected to grow from \$4.1 million in 2013 to \$7.9 million in 2035. All of these projected costs were assumed to be directly operated services by The Rapid.

**Exhibit IX-7 - Cost and Revenue Projections**

Operating Costs - County Demand Response and GoBus Expansion											
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
Total Labor	--	\$ 2,049,136	\$ 2,110,610	\$ 2,173,928	\$ 2,239,146	\$ 2,306,320	\$ 2,375,510	\$ 2,446,775	\$ 2,520,178	\$ 2,595,784	
Total Fringe Benefits	--	\$ 1,138,294	\$ 1,172,443	\$ 1,207,617	\$ 1,243,845	\$ 1,281,160	\$ 1,319,595	\$ 1,359,183	\$ 1,399,959	\$ 1,441,957	
Total Services	--	\$ 290,719	\$ 299,440	\$ 308,423	\$ 317,676	\$ 327,206	\$ 337,023	\$ 347,133	\$ 357,547	\$ 368,274	
Total Material & Supplies	--	\$ 666,782	\$ 686,785	\$ 707,389	\$ 728,611	\$ 750,469	\$ 772,983	\$ 796,173	\$ 820,058	\$ 844,659	
Total Utilities	--	\$ 98,215	\$ 101,162	\$ 104,197	\$ 107,323	\$ 110,542	\$ 113,858	\$ 117,274	\$ 120,792	\$ 124,416	
Total Casualty & Liability	--	\$ 118,851	\$ 122,417	\$ 126,089	\$ 129,872	\$ 133,768	\$ 137,781	\$ 141,915	\$ 146,172	\$ 150,557	
Purchased Transportation	--	\$ 2,907,998	\$ 2,995,238	\$ 3,085,095	\$ 3,177,648	\$ 3,272,978	\$ 3,371,167	\$ 3,472,302	\$ 3,576,471	\$ 3,683,765	
Total Cost of New Service	\$ -	\$ 7,269,996	\$ 7,488,095	\$ 7,712,738	\$ 7,944,120	\$ 8,182,444	\$ 8,427,917	\$ 8,680,755	\$ 8,941,177	\$ 9,209,413	
<b>Capital Costs</b>											
Demand Response Vehicles (35)	\$ 2,590,000						\$ 2,800,000				
Total Capital Cost	\$ 2,590,000						\$ 2,800,000				
Total Capital and Operating	\$ 2,590,000	\$ 7,269,996	\$ 7,488,095	\$ 7,712,738	\$ 7,944,120	\$ 8,182,444	\$ 11,227,917	\$ 8,680,755	\$ 8,941,177	\$ 9,209,413	
<b>Revenue Scenario - 0.00025 millage countywide</b>											
Passenger Fares	\$ 5,304,797	\$ 234,812	\$ 384,623	\$ 384,623	\$ 384,623	\$ 461,548	\$ 461,548	\$ 461,548	\$ 461,548	\$ 461,548	
Property Tax	--	\$ 5,463,941	\$ 5,627,859	\$ 5,796,695	\$ 5,970,595	\$ 6,149,713	\$ 6,334,205	\$ 6,524,231	\$ 6,719,958	\$ 6,921,557	
M/DOT Operating Assistance	--	\$ 2,209,751	\$ 2,194,946	\$ 2,180,240	\$ 2,165,632	\$ 2,151,122	\$ 2,136,710	\$ 2,122,394	\$ 2,108,174	\$ 2,094,049	
Total Revenues	\$ 5,304,797	\$ 7,908,503	\$ 8,207,428	\$ 8,361,558	\$ 8,520,851	\$ 8,762,384	\$ 8,932,462	\$ 9,108,173	\$ 9,289,679	\$ 9,477,153	
Surplus/(shortfall)	\$ 2,714,797	\$ 638,508	\$ 719,333	\$ 648,819	\$ 576,730	\$ 579,940	\$ (2,295,455)	\$ 427,418	\$ 348,502	\$ 267,741	

Note: It is assumed that County Connection and North Kent Transit programs would end. All other agency program services are assumed to continue including RideInk.

**Exhibit IX-7 (cont.) - Cost and Revenue Projections**

<b>Operating Costs - County Demand Response and GoBus</b>									
	2022	2024	2026	2028	2030	2032	2034	2035	
<b>Total Labor</b>	\$ 2,673,657	\$ 2,836,483	\$ 3,009,225	\$ 3,192,487	\$ 3,386,909	\$ 3,593,172	\$ 3,811,996	\$ 3,926,356	
<b>Total Fringe Benefits</b>	\$ 1,485,216	\$ 1,575,666	\$ 1,671,624	\$ 1,773,426	\$ 1,881,427	\$ 1,996,006	\$ 2,117,563	\$ 2,181,090	
<b>Total Services</b>	\$ 379,322	\$ 402,423	\$ 426,930	\$ 452,930	\$ 480,514	\$ 509,777	\$ 540,822	\$ 557,047	
<b>Total Material &amp; Supplies</b>	\$ 869,999	\$ 922,982	\$ 979,192	\$ 1,038,825	\$ 1,102,089	\$ 1,169,206	\$ 1,240,411	\$ 1,277,623	
<b>Total Utilities</b>	\$ 128,149	\$ 135,953	\$ 144,233	\$ 153,016	\$ 162,335	\$ 172,221	\$ 182,709	\$ 188,191	
<b>Total Casualty &amp; Liability</b>	\$ 155,074	\$ 164,518	\$ 174,537	\$ 185,167	\$ 196,443	\$ 208,407	\$ 221,099	\$ 227,731	
<b>Purchased Transportation</b>	\$ 3,794,278	\$ 4,025,350	\$ 4,270,493	\$ 4,530,566	\$ 4,806,478	\$ 5,099,192	\$ 5,409,733	\$ 5,572,025	
<b>Total Cost of New Service</b>	\$ 9,485,695	\$ 10,063,374	\$ 10,676,234	\$ 11,326,416	\$ 12,016,195	\$ 12,747,981	\$ 13,524,333	\$ 13,930,063	
<b>Capital Costs</b>									
<b>Demand Response Vehicles (35)</b>									
<b>Total Capital Cost</b>		\$ 3,325,000			\$ 4,025,000				
<b>Total Capital and Operating</b>	\$ 9,485,695	\$ 13,388,374	\$ 10,676,234	\$ 11,326,416	\$ 16,041,195	\$ 12,747,981	\$ 13,524,333	\$ 13,930,063	
<b>Revenue Scenario II - 0.0025 millage countywide</b>									
	2022	2024	2026	2028	2030	2032	2034	2035	
<b>Passenger Fares</b>	\$ 461,548	\$ 461,548	\$ 461,548	\$ 553,857	\$ 553,857	\$ 553,857	\$ 553,857	\$ 553,857	
<b>Property Tax</b>	\$ 7,129,203	\$ 7,563,372	\$ 8,023,981	\$ 8,512,641	\$ 9,031,061	\$ 9,581,053	\$ 10,164,539	\$ 10,469,475	
<b>MDOT Operating Assistance</b>	\$ 2,080,019	\$ 2,052,240	\$ 2,024,832	\$ 1,997,790	\$ 1,971,110	\$ 1,944,785	\$ 1,918,813	\$ 1,905,956	
<b>Total Revenues</b>	\$ 9,670,770	\$ 10,077,160	\$ 10,510,361	\$ 11,064,289	\$ 11,556,028	\$ 12,079,696	\$ 12,637,209	\$ 12,929,289	
<b>Surplus/(shortfall)</b>	\$ 185,075	\$ (3,311,214)	\$ (165,872)	\$ (262,127)	\$ (4,485,167)	\$ (668,286)	\$ (887,124)	\$ (1,000,774)	

**Exhibit IX-8 - Cost and Revenue Projections - Local and Express Bus**

	Operating Costs											
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021		
Total Labor	--	\$ 1,938,633	\$ 1,996,792	\$ 2,056,696	\$ 2,118,397	\$ 2,181,949	\$ 2,247,407	\$ 2,314,829	\$ 2,384,274	\$ 2,455,802		
Total Fringe Benefits	--	\$ 1,076,910	\$ 1,109,218	\$ 1,142,494	\$ 1,176,769	\$ 1,212,072	\$ 1,248,434	\$ 1,285,887	\$ 1,324,464	\$ 1,364,198		
Total Services	--	\$ 275,041	\$ 283,292	\$ 291,791	\$ 300,545	\$ 309,561	\$ 318,848	\$ 328,414	\$ 338,266	\$ 348,414		
Total Material & Supplies	--	\$ 630,825	\$ 649,750	\$ 669,242	\$ 689,319	\$ 709,999	\$ 731,299	\$ 753,238	\$ 775,835	\$ 799,110		
Total Utilities	--	\$ 92,919	\$ 95,706	\$ 98,578	\$ 101,535	\$ 104,581	\$ 107,719	\$ 110,950	\$ 114,279	\$ 117,707		
Total Casualty & Liability	--	\$ 112,442	\$ 115,815	\$ 119,290	\$ 122,869	\$ 126,555	\$ 130,351	\$ 134,262	\$ 138,290	\$ 142,438		
Purchased Transportation	--	\$ --	\$ --	\$ --	\$ --	\$ --	\$ --	\$ --	\$ --	\$ --		
Total Cost of New Service	\$ -	\$ 4,126,770	\$ 4,250,574	\$ 4,378,091	\$ 4,509,433	\$ 4,644,716	\$ 4,784,058	\$ 4,927,580	\$ 5,075,407	\$ 5,227,669		
				<b>Capital Costs</b>								
Fixed Route Vehicles (25)	\$ 10,000,000											
Maintenance Facility							\$ 7,600,000					
Bus Stop Amenities/Shelters		\$ 150,000										
Park and Ride Lots				\$ 300,000								
Total Capital Cost	\$ 10,000,000	\$ 150,000		\$ 300,000			\$ 7,600,000					
Total Capital and Operating	\$ 10,000,000	\$ 4,276,770	\$ 4,250,574	\$ 4,678,091	\$ 4,509,433	\$ 4,644,716	\$ 12,384,058	\$ 4,927,580	\$ 5,075,407	\$ 5,227,669		
				<b>Revenue Scenario - 0.000175 millage</b>								
Passenger Fares	--	\$ 129,831	\$ 259,663	\$ 389,494	\$ 519,325	\$ 623,191	\$ 623,191	\$ 623,191	\$ 623,191	\$ 623,191		
Property Tax	\$ 3,713,358	\$ 3,824,759	\$ 3,939,501	\$ 4,057,686	\$ 4,179,417	\$ 4,304,800	\$ 4,433,944	\$ 4,566,962	\$ 4,703,971	\$ 4,845,090		
MDOT Operating Assistance	--	\$ 1,255,439	\$ 1,247,027	\$ 1,238,672	\$ 1,230,373	\$ 1,222,129	\$ 1,213,941	\$ 1,205,808	\$ 1,197,729	\$ 1,189,704		
Total Revenues	\$ 3,713,358	\$ 5,210,029	\$ 5,446,191	\$ 5,685,853	\$ 5,929,115	\$ 6,150,120	\$ 6,271,075	\$ 6,395,960	\$ 6,524,890	\$ 6,657,984		
Surplus/(shortfall)	\$ (6,286,642)	\$ 933,258	\$ 1,195,618	\$ 1,007,762	\$ 1,419,682	\$ 1,505,403	\$ (6,112,983)	\$ 1,469,381	\$ 1,449,483	\$ 1,430,315		

Note: It is assumed that County Connection and North Kent Transit programs would. All other agency program services are assumed to continue including Ridelink.

**Exhibit IX-8 (cont.) - Cost and Revenue Projections**

Operating Costs									
	2022	2024	2026	2028	2030	2032	2034	2035	
<b>Total Labor</b>	\$ 2,529,476	\$ 2,683,522	\$ 2,846,948	\$ 3,020,327	\$ 3,204,265	\$ 3,399,405	\$ 3,606,429	\$ 3,714,621	
<b>Total Fringe Benefits</b>	\$ 1,405,124	\$ 1,490,696	\$ 1,581,479	\$ 1,677,791	\$ 1,779,969	\$ 1,888,369	\$ 2,003,370	\$ 2,063,471	
<b>Total Services</b>	\$ 358,866	\$ 380,721	\$ 403,907	\$ 428,505	\$ 454,601	\$ 482,286	\$ 511,658	\$ 527,007	
<b>Total Material &amp; Supplies</b>	\$ 823,083	\$ 873,209	\$ 926,387	\$ 982,804	\$ 1,042,657	\$ 1,106,155	\$ 1,173,520	\$ 1,208,726	
<b>Total Utilities</b>	\$ 121,238	\$ 128,622	\$ 136,455	\$ 144,765	\$ 153,581	\$ 162,934	\$ 172,857	\$ 178,042	
<b>Total Casualty &amp; Liability</b>	\$ 146,711	\$ 155,646	\$ 165,125	\$ 175,181	\$ 185,850	\$ 197,168	\$ 209,175	\$ 215,451	
<b>Purchased Transportation</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
<b>Total Cost of New Service</b>	\$ 5,384,499	\$ 5,712,415	\$ 6,060,301	\$ 6,429,374	\$ 6,820,923	\$ 7,236,317	\$ 7,677,009	\$ 7,907,319	
<b>Capital Costs</b>									
<b>Fixed Route Vehicles (25)</b>		2024	2026	2028	2030	2032	2034	2035	
Maintenance Facility		\$ 13,750,000							
Bus Stop Amenities/Shelters									
<b>Total Capital Cost</b>		\$ 13,750,000			\$ -				
<b>Total Capital and Operating</b>	\$ 5,384,499	\$ 19,462,415	\$ 6,060,301	\$ 6,429,374	\$ 6,820,923	\$ 7,236,317	\$ 7,677,009	\$ 7,907,319	
<b>Revenue Scenario II - 0.00175 millage</b>									
	2022	2024	2026	2028	2030	2032	2034	2035	
<b>Passenger Fares</b>	\$ 623,191	\$ 623,191	\$ 623,191	\$ 747,829	\$ 747,829	\$ 747,829	\$ 747,829	\$ 747,829	
<b>Property Tax</b>	\$ 4,990,443	\$ 5,294,360	\$ 5,616,787	\$ 5,958,849	\$ 6,321,743	\$ 6,706,737	\$ 7,115,178	\$ 7,328,633	
<b>MDOT Operating Assistance</b>	\$ 1,181,733	\$ 1,165,951	\$ 1,150,379	\$ 1,135,016	\$ 1,119,858	\$ 1,104,902	\$ 1,090,146	\$ 1,082,842	
<b>Total Revenues</b>	\$ 6,795,366	\$ 7,083,502	\$ 7,390,357	\$ 7,841,694	\$ 8,189,430	\$ 8,559,468	\$ 8,953,152	\$ 9,159,304	
<b>Surplus/(shortfall)</b>	\$ 1,410,867	\$ (12,378,913)	\$ 1,330,056	\$ 1,412,320	\$ 1,368,507	\$ 1,323,151	\$ 1,276,144	\$ 1,251,985	

Potential revenues are also listed and projected in Exhibit IX-8. Passenger fares, MDOT operating assistance, and a 0.00017 local property tax levy. Like the Go!Bus/County Demand Response service projections, MDOT operating assistance is set at about 31 percent of net operating costs and decreases by two thirds (2/3) of a percent annually. Passenger fare revenue increases over the span of five years while ridership reaches its full potential. Two fare increases are then assumed through 2035. The property tax millage is projected to increase at three (3) percent annually. Despite having revenue surpluses appear in the years when vehicles do not need to be purchased, the high costs of purchasing these buses make building capital reserves essential. Overall, these revenues are adequate over the twenty five year period.

## **MARKETING AND COMMUNICATIONS**

The marketing and communication of any of the new services to the public can be effectively accomplished through the creation of an office of Mobility Management.

### **Mobility Manager**

Mobility management is a transition from traditional methods of public and/or human service agency transportation service delivery to a comprehensive method. The mobility management concept is influenced by the demands of the local public and human service agency consumers, but does not necessarily involve a drastic change from the current transportation operating procedures of each provider. Instead, mobility management concentrates, or directs, the actions of the existing network of public and human service agency transportation providers so that all resources are coordinated to the maximum benefit of the passengers, potential passengers, and stakeholder organizations.

A mobility manager is a person or an organization that responds to the needs and demands of the transportation riders, potential riders, and local stakeholder organizations. The mobility manager develops appropriate strategies that encourage collaboration among transportation providers, thereby improving the utilization of all transportation resources. The mobility manager has an objective of understanding the unmet needs or gaps in transportation services and/or resources, and organizing solutions to improve service.

There is a wide-range of mobility management models and any variation can be applied to suit a specific community. The most comprehensive model is to consolidate the resources of multiple agencies into a single transportation program. Other effective models encourage collaboration (but not consolidation) between multiple organizations with the ultimate goal of improving the efficiency and effectiveness of service to the entire community.

A collaborative, partnership approach is the most appropriate model for Kent County because it emphasizes the success of the area's largest transportation programs without impacting the funding resources or struggling with the limitations created by jurisdictional boundaries. Continued collaboration between The Rapid and HOPE Network and other agencies is recommended because of the large and complex operational requirements of these two

providers. These two providers should continue to collaborate while remaining autonomous in terms of scheduling trips and maintaining fleets.

New avenues for collaboration between existing transportation providers is recommended under this model. It is recommended that all of the public transportation providers will collaborate by sharing their policies and scheduling procedures with a Mobility Management Office. The Mobility Management Office will represent a countywide public transportation program that offers a simplified approach for the public and removes the confusion about which provider to contact for a trip. Instead of choosing from multiple providers, the traveler will have only one point of contact to schedule a trip anywhere in Kent County – The Mobility Management Office.

Communication and leadership are the keys to successful mobility management. This is why it will be important for an existing or new organization to become the Kent County Mobility Management Office to lead the effort with support from other participating transportation providers, local officials, the public, and other key stakeholders. The Mobility Management Office will direct the successful deployment of information about how to use the new County Demand Response transportation system through a new public education and outreach program. The ‘behind the scenes’ implementation will not be much different to the providers who continue with their current day-to-day responsibilities. But the current and potential passengers will view the new approach to countywide public transportation as an improved service because of the simplified scheduling process and easy access to information about the transportation resources in their community.

### **Organizational Structure**

The organizational structure will involve hiring a mobility manager to lead the effort and establishing an organizational structure in which that person will be managed and supported. Potentially, an existing organization could hire the mobility manager and add the position to its organizational structure. Regardless of where the mobility manager is employed, it is important that his or her reporting structure involves a lead organization, governing board, and advisory committee that are impartial and respected by other participating transportation providers and agencies.

### **Lead Organization**

A lead organization within the mobility management organizational structure is the organization that manages and supports the mobility manager. This organization is typically the hiring entity and provides office space for the mobility manager. It is recommended that The Rapid becomes the lead organization and that the Mobility Management Office becomes a part of The Rapid organizational structure.

The most appropriate lead organization for the mobility management effort should be one that empowers other participating organizations to collaborate on transportation issues. Such an

organization should have the capacity to hire a mobility manager and the impartiality to manage him or her in a way that promotes trust and cooperation between all participants and the general public. A strong lead organization will have no bias toward any specific transportation provider. It should also understand the scope of transportation services available in Kent County as well as the roles, motivating factors, and funding possibilities available to each provider.

The Rapid is recommended as the lead organization based on the following factors:

1. The Rapid has the facilities, staffing capacity, technology, and public transportation experience to schedule trips with multiple transportation providers.
2. The Rapid is an eligible recipient for Federal Transit Administration (FTA) program funding that could support a mobility management program (i.e., Section 5316/Job Access and Reverse Commute funding could be available.)
3. The Rapid is recognized by the community as a trusted transportation resource and would be a logical source for distribution of information about how to use public transportation.

The Rapid will continue to act as a call center for anyone in Kent County who needs transportation offered by The Rapid and other programs operated by other providers like HOPE Network. However, with the addition of the Mobility Management Office, The Rapid will also provide information and referrals to a traveler who would be more appropriately served by other participating transportation providers.

### **Mobility Manager Functions**

A mobility manager will be hired to work in the Mobility Management Office. In fact, he or she may be the only member of the Mobility Management Office unless demand increases to the level that warrants additional staff. The mobility manager will be charged with duties to coordinate the distribution of information about the transportation services available throughout Kent County and develop new strategies to address the unmet transportation needs. Responsibilities will include but not be limited to the following:

- 1) Matching travelers with the appropriate transportation provider at a centralized location for information and referral (i.e., The Rapid's call center).
- 2) Development of new inter-agency agreements/ Memoranda of Understanding with the organizations that are participating in the mobility management effort.
- 3) Design and deployment of public outreach efforts.
- 4) Creating and updating a database of transportation providers and their operating characteristics (i.e., hours of operation, service area, fare structure, eligibility).
- 5) Recommend transportation services that satisfy the unmet transportation needs and gaps in service for the general public throughout Kent County.

The mobility manager's day-to-day responsibilities will include working with all participating transportation providers to:

- ◆ Develop solutions to unmet transportation needs;
- ◆ Improve communication with the public about how to access and use the existing transportation resources;
- ◆ Negotiate agreements between organizations that provide transportation;
- ◆ Update the inventory of resources to ensure that the call center has the most current information about each transportation provider in the county;
- ◆ Research and report generation for all mobility management partner organizations;
- ◆ Actively reach-out to businesses, non-profit organizations, and local officials to educate them about the successes as well as the unmet needs and gaps in service; and,
- ◆ Plan community events that promote new public transportation services in Kent County.

### **Advisory Committee**

In addition to the day-to-day responsibilities, the mobility manager will also organize and facilitate productive quarterly meetings of a Coordinated Transportation Advisory Group (CTAG). Participation in the group should include a representation from organizations that provide and/or use human service agency and public transportation in Kent County. The CTAG will work together to disseminate information about existing resources, share information about new opportunities for coordinated procurement and funding opportunities, and update the mobility manager about changes in transportation services.

In addition to supporting the mobility manager and advising him or her about transportation goals and objectives for the community, the CTAG will also suggest improvements to the lead organization about the mobility management approach, as appropriate.

### **A Countywide Transportation Partnership**

The countywide transportation partnership model represents a collaborative effort for the public and human service agency transportation providers. Collaboration can be an intimidating word, but in reality, it will not require much variation from the existing day-to-day operations of the transportation providers in Kent County. Instead, the recommended collaboration is more of a transportation management partnership involving passenger fare programs and a shared public education effort.

Each of the transportation providers will continue to operate under their existing policies and procedures with the exception of information sharing, reporting, and public outreach. Opportunities for other transportation providers, such as the American Red Cross of West Central Michigan and Fish for My People (G.R.A.C.E) are also included in the following recommendations. Many times, the smaller transportation providers are better connected to the traveler, their participation in the effort will help the mobility manager to develop strategies designed to address unmet transportation needs of the community, including the needs of the general public passengers who may not be eligible for human service agency transportation.

### **Information and Referral Process**

The mobility manager will create a shared information database containing basic traveler information such as name, age, mobility limitations, and address. While the traveler is on the phone, the mobility manager (or other call center staff) will enter the traveler's basic information into the database. The mobility manager or call taker will also review the list of providers participating in the transportation partnership and explain to the traveler which provider is most appropriate for his or her trip request. The traveler's information will remain in the shared information and referral database so that all participating providers have access. The database will reduce the amount of time that the scheduler and repeat customer are on the phone to schedule rides.

The Mobility Management Office will include information and referral for all participating public transportation services, ADA, and human service agencies. It will schedule trips with participating programs that agree to coordinate scheduling responsibilities through the Office (i.e., trips for The Rapid and Ride Link will continue to be scheduled as they are today). Or, callers will be referred to the transportation providers that do not consolidate scheduling procedures.

### **Implementation Pre-Requisites**

All participating transportation providers must share their program policies pertaining to eligibility and service area, vehicle information, hours of operation, and driver training with the Mobility Manager Office. It will be vital to the success of the Office for call takers to have a database of existing resources that is current and accurate. Information provided to the callers must be as accurate as possible so that the caller will be encouraged to call again the next time he or she needs a trip.

### **Reporting Requirements**

All countywide transportation partners in Kent County will be responsible for collecting, recording, and reporting post-trip service data to the mobility manager. Service statistics will assist the Mobility Management Office with measuring program success. For example, an increase in overall ridership could be an indication that the Mobility Manager Office is improving access to transportation resources.

The monthly post-trip data that should be provided to the mobility manager will include but not be limited to:

- ◆ Revenue Vehicle Hours
- ◆ Revenue Vehicle Miles
- ◆ Total Ridership
- ◆ Operating Expenses (including, fuel, driver salaries/fringe, and vehicle maintenance)

### **The Public Education and Outreach Effort**

The Mobility Management Office will be publicized as the central point of contact for public and human service agency transportation in Kent County.

### **Countywide Service Branding and Logo**

A brand and logo that represent the new Countywide Transportation Partnership should be created and shared among the participating transportation providers. It is recommended that each participating transportation provider adopt the shared brand and logo that communicates to the public that their organization is participating in the partnership. The new brand or logo may be displayed on the vehicles, websites, brochures and other printed materials in addition to the organization's individual brand and/or logo.

As time passes and service improves, Kent County residents will begin to recognize the Partnership brand as a trustworthy source for transportation service.

### **Telephone Assistance**

Telephone assistance is part of the public education process. When a traveler calls the Mobility Management Office, the call taker will provide him or her with only the travel options that are most likely to be appropriate. The options offered by the Office will include fixed route, ADA, human service agency, taxi, and all other appropriate options. If the information is available, the options can also include information about transportation options in neighboring counties.

If the traveler will be utilizing a transportation service that is scheduled through the Mobility Management Office, the trip will be scheduled while he or she is on the phone. If the trip should be provided by another organization that has not consolidated scheduling at the Office, the traveler will be referred to the appropriate transportation provider.

For example, if a private taxi operator is the most appropriate mode of service for the traveler and no taxi organizations are scheduled through the Mobility Management Office, the caller will be referred to the taxi dispatcher.

### **Printed and Web-Based Materials**

To avoid duplication of informational materials that can create confusion for an individual who is trying to figure out how to access transportation, the mobility manager will develop a promotional and informational guide that contains information about all of the available resources in Kent County. To access additional information about a transportation service, printed materials will instruct the traveler to call the Mobility Management Office. The call taker will listen to the traveler's request and simplify his or her search by referring to the appropriate provider or scheduling the trip while the traveler is on the phone.

In addition to printed materials, a new website for the Countywide Transportation Partnership could be created with links to all of the participating transportation providers. The one-stop website can be linked to County, City and/or Township government, or human service agency websites to further expand outreach.

### **Travel Trainer**

A customer-oriented Travel Trainer position will be created. The Travel Trainer will work one-on-one with individuals as they learn to use public and/or human service agency transportation, read schedules, and call to schedule a trip. The Travel Trainer will assist travelers until they feel comfortable scheduling a trip and boarding and disembarking a vehicle alone.

The Travel Trainer could be a volunteer or a few volunteers who work part-time and assist the mobility manager with activities to educate the public about transportation resources and then assist them with overcoming fear or confusion about how to utilize a transportation service that is available to them. The most effective volunteer, in many cases, is someone to whom the traveler can relate, such as another older adult or an individual with a disability.

The Travel Trainer program promotes independence, especially for individuals with disabilities and frail elderly individuals who might otherwise be too fearful to use public transportation. It involves communication between the transportation providers and the passengers to ensure top quality service is provided by all participating organizations.

And, it could result in increased ridership as more people become familiar and comfortable with the services that are offered.

Travel Training programs are an eligible expense under the Federal Transit Administration's New Freedom Initiative (Section 5317). A 50 percent local match is required for Section 5317 operating funding, or a 20 percent match for capital. Any non-U.S. DOT funding can be used as local match.

Sustaining volunteer support will require dedication and consistent support and effort from participating organizations and the mobility manager. Volunteers must be trained to provide assistance, as appropriate.