



# Status Report: Transit Master Plan

## Ann Arbor Transportation Authority Board

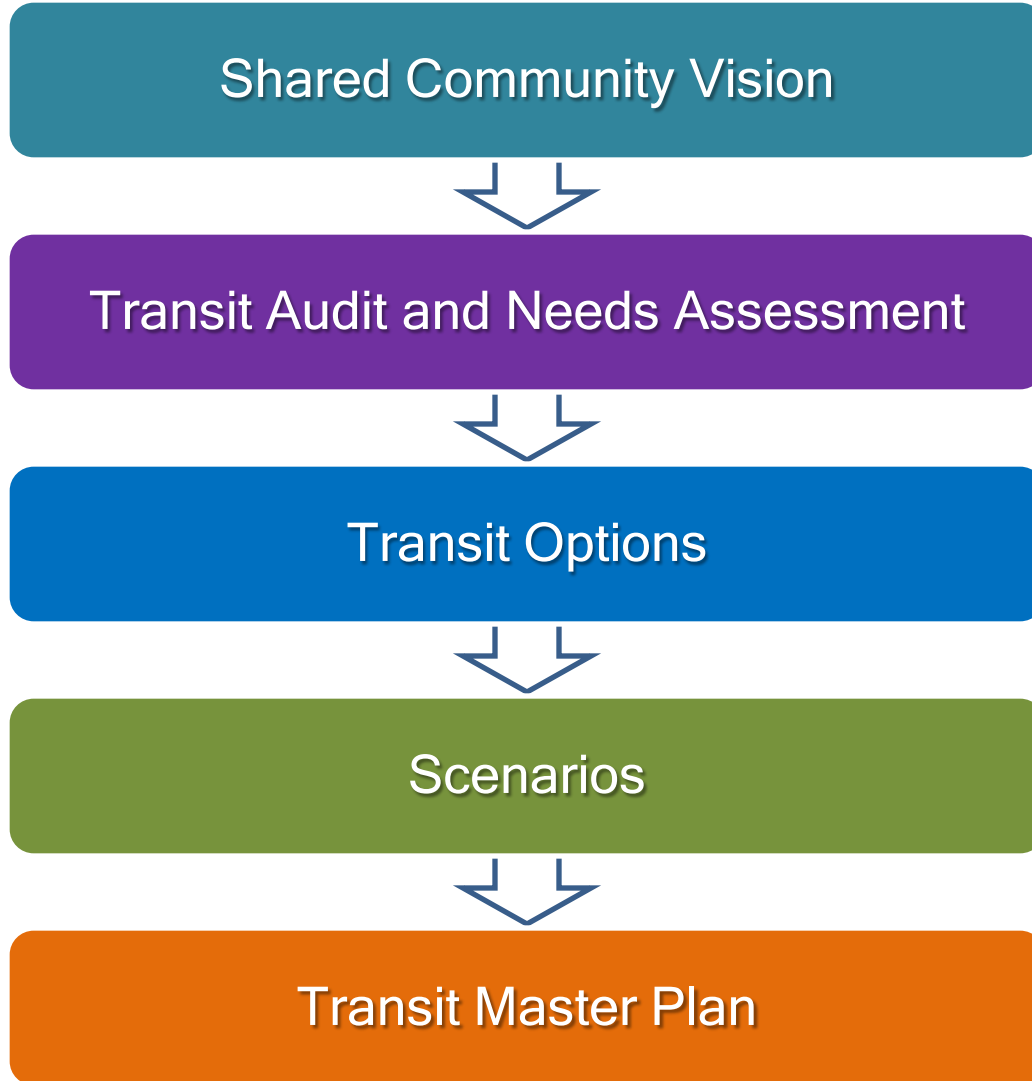
November 18, 2010



# Objectives of this Presentation

- Information
- Education
- Common language
- Obtain your acceptance of the work products produced to date

# Building a Transit Master Plan, Step-by-Step



What **COMMUNITY GOALS** must a county-wide transit system serve?

What **UNMET NEEDS** must a county-wide transit system address?

What **PROJECTS and SERVICES** can a county-wide transit system contribute to meeting unmet needs?

In what ways can a county-wide transit system help achieve community goals?  
**(ALTERNATIVE NETWORKS)**

What is the *best* way a county-wide transit system can help achieve community goals? **(PREFERRED SCENARIO)**

# Plan Documents

Document	Release Date	Comments By
Shared Community Vision Report	October 8, 2010	October 22
Transit Audit and Needs Assessment	October 28	November 5
Transit Options	November 5	November 12
Three Scenarios	January 5, 2011	
Transit Master Plan <ul style="list-style-type: none"> <li>• Implementation Plan</li> <li>• Funding Strategies</li> </ul>	April 8	

# Shared Community Vision

Support economic growth in Washtenaw County

Promote livability in Washtenaw County

Improve access for all

Protect the environment

Improve safety and security for all

Facilitate a healthier community

What **GOALS** must a county-wide transit system serve?

# Why are these Goals important?

- Ensure the Transit Master Plan supports the wider goals of the community
- Provide the basis for an evaluation framework
- Standard technical measures
  - Deliverability measures
    - feasibility
    - acceptability
    - timescale for its implementation
  - Transportation performance measures
    - potential demand
    - financial and economic performance.
    - key state and federal goals and objectives.

# Are these goals complete?



- Review of nearly 50 planning documents
- Extensive public meetings
- One-on-one meetings
- Leadership Group
- Technical Committee

# Take-away #1

How does transit contribute to each of these goals?

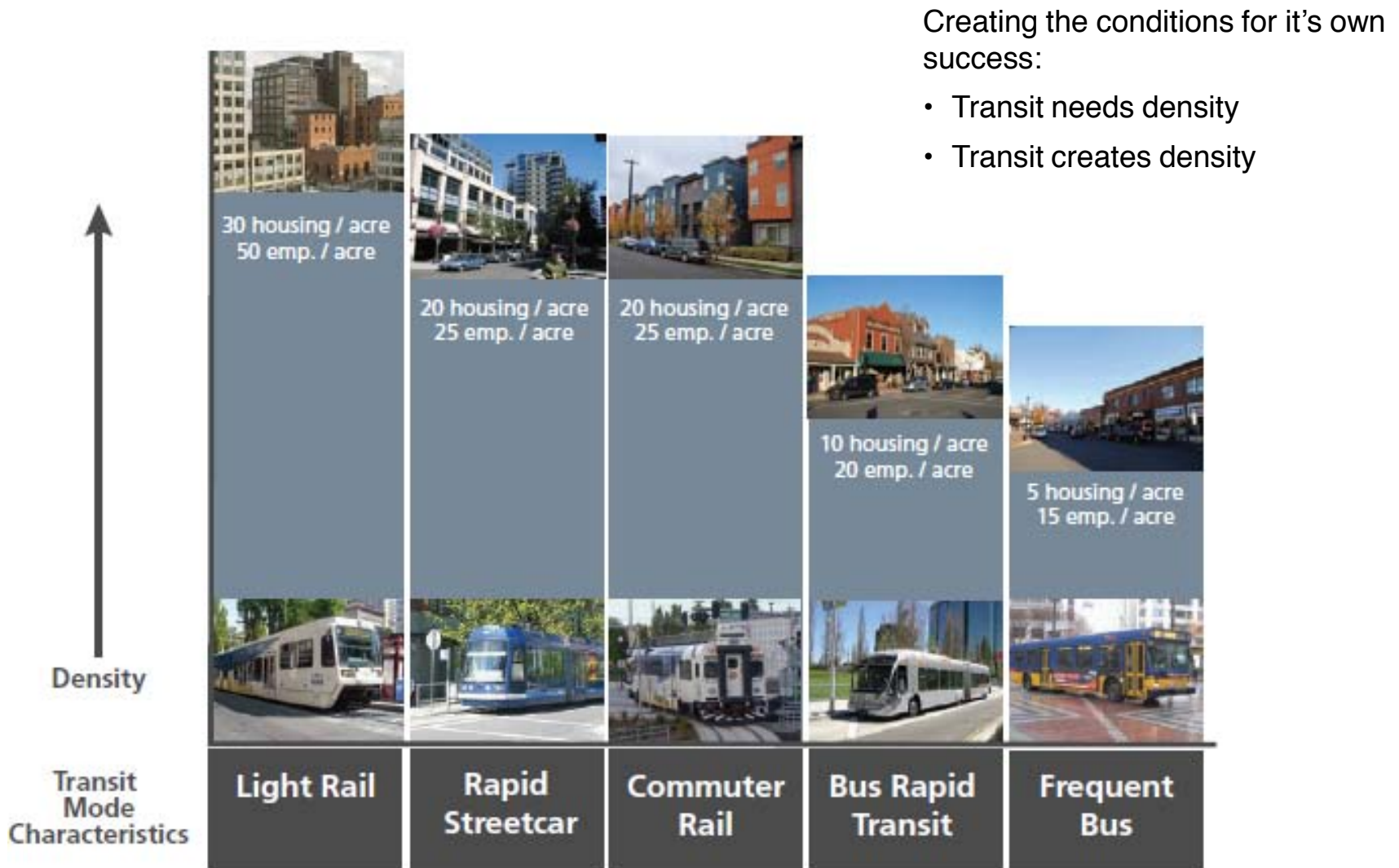


# How does transit...

## Support economic growth in Washtenaw County?

- Attracts investment in businesses and property development; Improves property values
- Decreases congestion and thus improves travel times and reliability for the entire transportation network; and
- Improves access to:
  - labor markets for employers.
  - jobs for prospective employees
  - retail, restaurants, entertainment, etc.

“Having a bus line would be very beneficial to us, as approximately 5-10% of our prospective residents choose to live elsewhere since we do not have access to a bus. This is usually one of the first questions we receive when discussing amenities Ford Lake Landing is able to offer. Also, as our residents are moving out, I would estimate 1 out of 5 people choose to move somewhere else because a bus line is available.” - *from the manager of a large apartment complex in Ypsilanti Township.*



Land Use Impacts: Concentrating development where it is appropriate

# How does transit...

## Promote livability in Washtenaw County?

- Supports sustainable housing and employment growth.
- Improves access to recreational and open space facilities.
- Preserves open space and protecting the natural landscape.
- Provides access to the arts and entertainment.

# How does transit...

## Improve access for all?

- Improves access to employment opportunities, particularly for socially deprived groups, rural communities and people with disabilities.
- Improves access to key services, particularly for socially deprived groups, rural communities and people with disabilities, seniors, young people, and children.
- Provides an attractive option for “choice riders”
- Provides an option for drivers who cannot use their car on a given day due to breakdown, weather, or injury.
- Reduces highway congestion
- Provides options for out-of-town visitors

# How does transit...

## Protect the environment?

- Reduces air, noise, and water pollution from auto transportation.
- Reduces the need for highway facilities that consume land and other resources.
- Promotes compact land-use patterns that reduce the need for travel in general.
- Addresses climate change through reduced carbon emissions.

# How does transit...

## Improve safety and security for all?

- Reduces auto traffic volumes and the number of associated crashes.
- Provides access to jobs and thereby reducing crime associated with unemployment.
- Provides an alternative to auto travel when market disruptions cause fuel shortages or price increases.
- Provides an option for non-auto users

# How does transit...

## Facilitate a healthier community?

- Provides services that are naturally integrated with healthy and more active such as walking and biking.
- Provides access to health care facilities
- Provides access to a wider range of shopping (e.g. fresh food) and recreational opportunities
- By reducing airborne pollutants that caused lung disease.

# Key Transit Issues

Transit Dependents: Insufficient access to vital lifeline destinations

Congestion: Increase in travel times on highway corridors

Aging Boomers: Increase in mobility needs due to an aging population

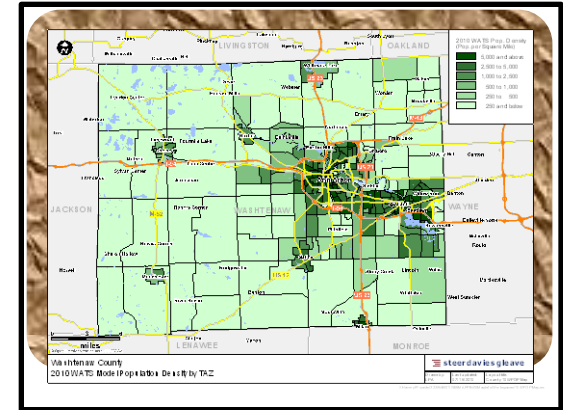
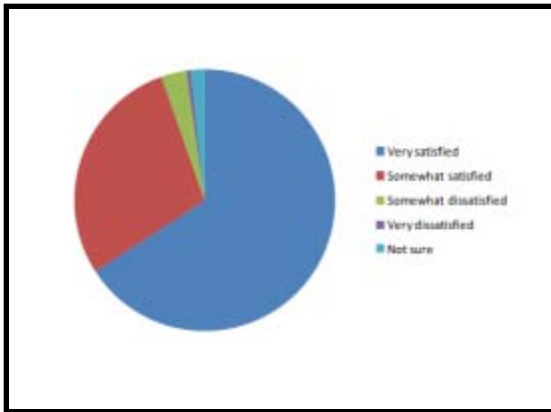
Choice Riders: Transit currently has a limited appeal to those who own automobiles.

Regionalism: Lack of transit connectivity throughout the county to support the economic relationships among the different areas

What **UNMET NEEDS** must a county-wide transit system address?



# Have we properly identified the issues?



- 2000 Census data
- WATS demographic data
- WATS model outputs
- MOSAIC
- 2009 AATA On-Board Survey
- Extensive public meetings
- One-on-one meetings
- Leadership Group
- Technical Committee

# Take-away #2

What are the major transit issues facing the County?

# Key Transit Issues

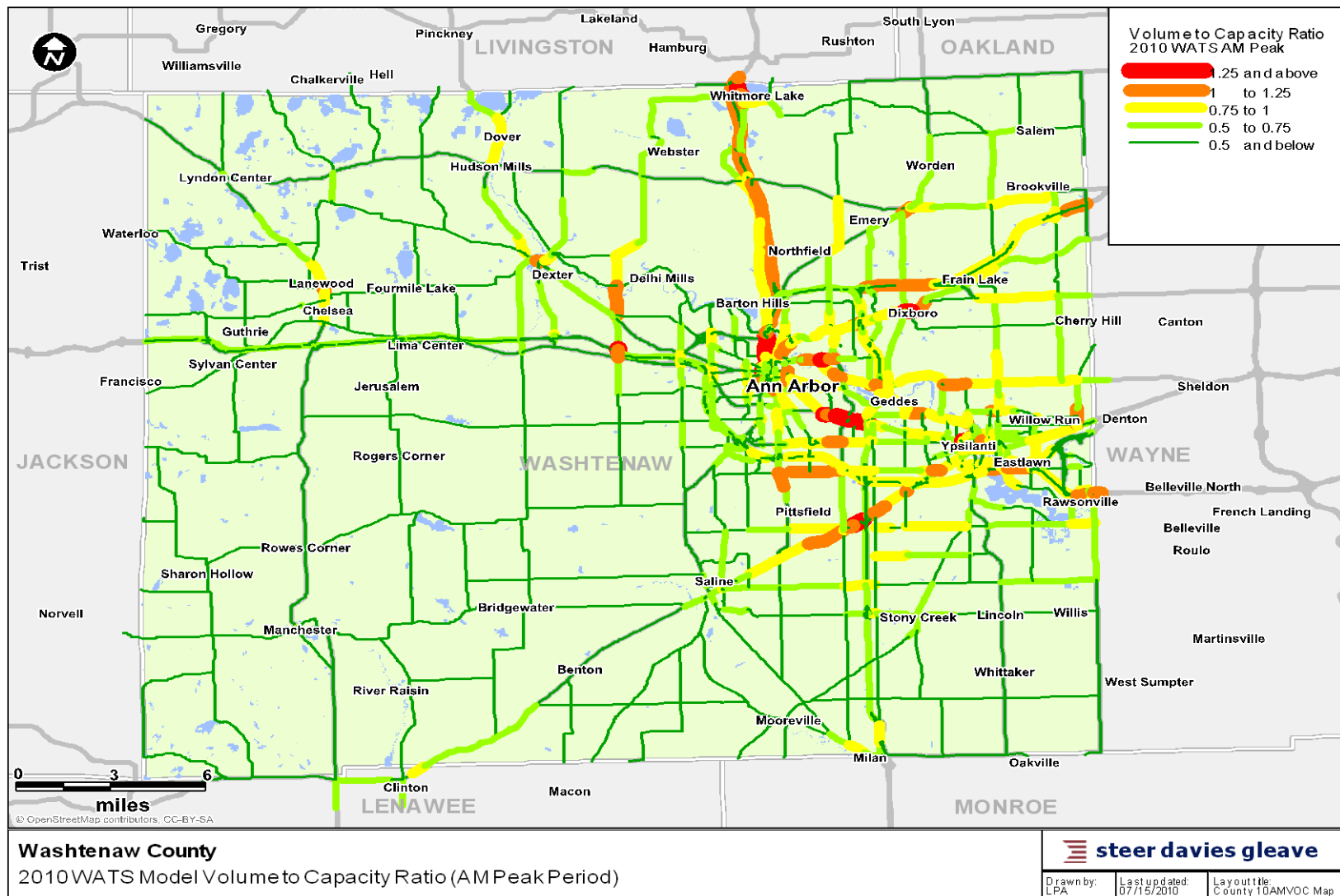
## Transit Dependents: Insufficient access to vital lifeline destinations

- Fixed route services are virtually non-existent outside of AA / Ypsilanti area (exception: The WAVE)
- Access to door-to-door services is geographically inconsistent.
  - Wide areas of the county are unserved
  - Limited by time of day
  - Limited by trip purpose or eligibility
- 13 of TheRide's 27 routes provide Sunday service
- 14 of TheRide's 27 routes provide Saturday service
- 19 of TheRide's 27 routes provide evening service

# Key Transit Issues

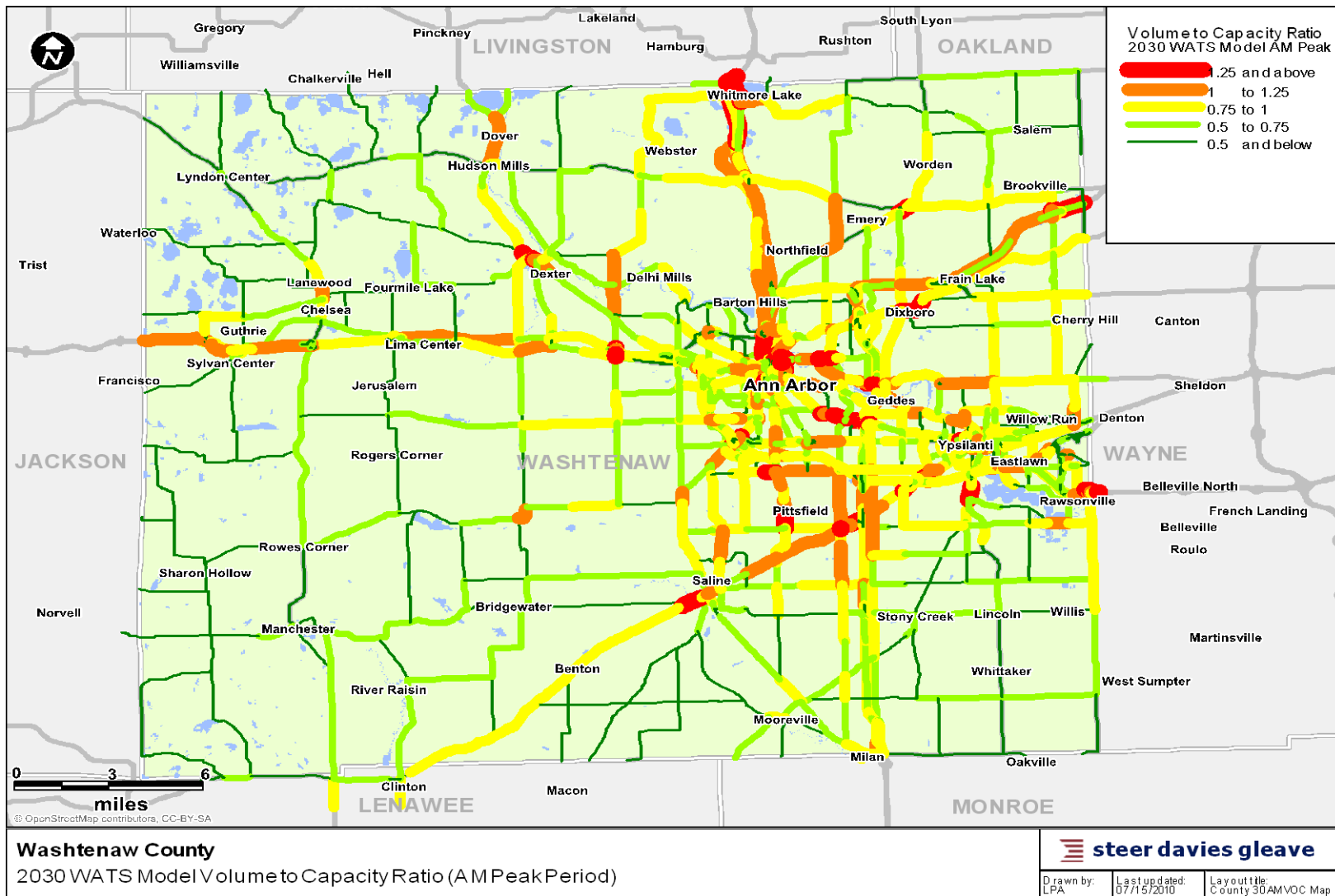
## Congestion: Increase in travel times on highway corridors

- Population is set to increase by around 8.7% while employment is forecast to grow by 17.4%.
- With a continuation of the dispersed pattern of living and working this is expected to lead to an increase in commuting and congestion
- Travel times on the roads in Washtenaw County are expected to rise significantly:
  - M-14 from the eastern county border to US-23: 115% increase
  - US-23 from northern county border to M-14: 250% increase
  - I-94 from western county border to M-14: 53% increase
  - US-23 from southern county border to I-94: 50% increase
  - I-94 from eastern county border to US-23: 52% increase
  - (Data from the WATS model 2010-2035, figures are approximate)



# Traffic congestion across Washtenaw County in 2010

WATS Model



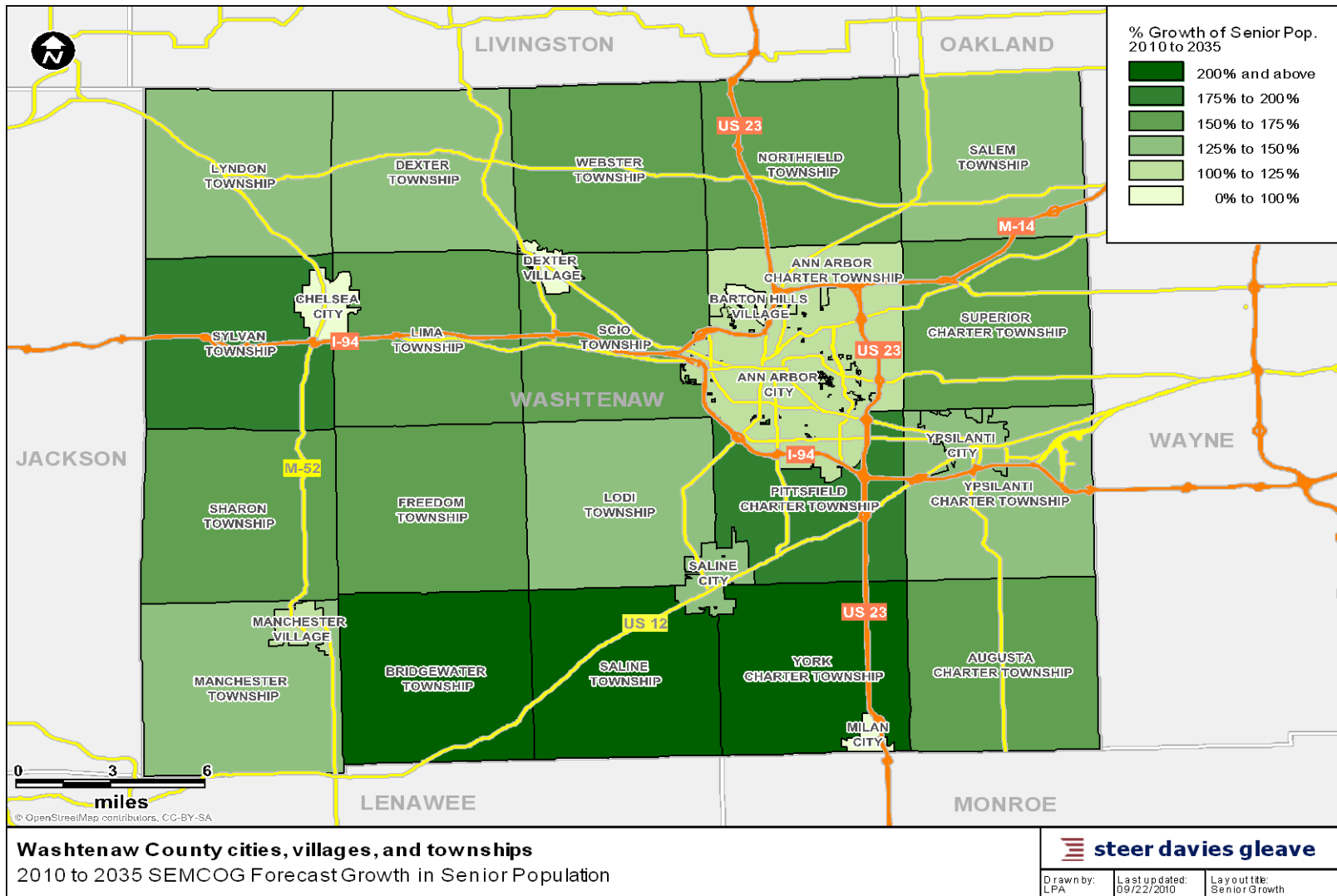
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Forecast traffic congestion across Washtenaw County in 2030  
WATS Model

# Key Transit Issues

Aging Boomers: Increase in mobility needs due to an aging population

- Every hour 10 more Michiganders turn 65  
(Oct 3rd 2010 - Detroit Free Press)
- Today there are approximately 36,100 seniors in Washtenaw County
- By 2035 it is expected that there will be around 86,400
- This is an increase of approximately 139%  
(SEMCOG forecasts)
- According to the National Institute on Aging, more than 600,000 American seniors stop driving every year



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# Forecast growth in Washtenaw County seniors, 2010 to 2030

SEMCOG



# Key Transit Issues

Choice Riders: Transit currently has a limited appeal to those who own automobiles.

- Washtenaw County auto ownership is 93.2%
- Transit ridership is 3.2% (2000 Census)
- 37% of TheRide riders own or have access to a car but choose to ride the bus according to AATA's 2009 Onboard Survey
- Potential users can be discouraged by:
  - Longer travel times compared with private auto use
  - The need to make a transfer
  - A lack of information or easily understandable information
  - Actual or perceived safety and security concerns
  - Lower comfort levels compared with private auto use.
- Potential users can be encouraged by:
  - Time freed to work, read, sleep, relax, type, etc
  - Freedom from auto ownership and associated costs
  - Parking policies that discourage travel by car

# Key Transit Issues

Regionalism: Lack of transit connectivity throughout the county to support the economic relationships among the different areas

Forecasts indicate that the patterns of employment and population growth are likely to be different - this will make the interrelationships between different areas even more important.

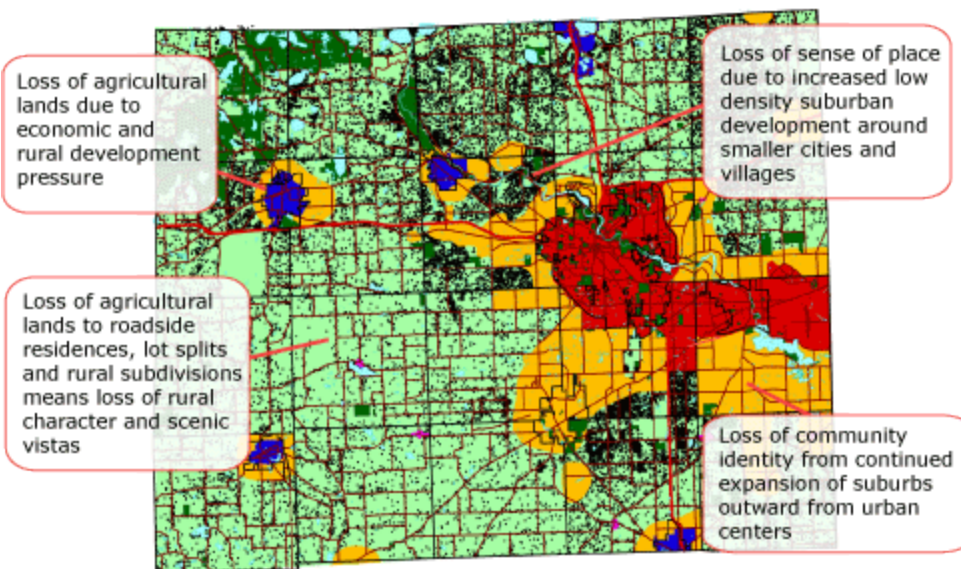
Trips that cannot be made by transit (from our outreach meetings):

- School trip - Manchester to Washtenaw Community College
- Health care trip - Milan to Saline's St. Joseph Hospital
- Work trip - Dexter to Ypsilanti
- Entertainment trip - Ann Arbor to Chelsea
- Shopping trip - Webster Township to Briarwood

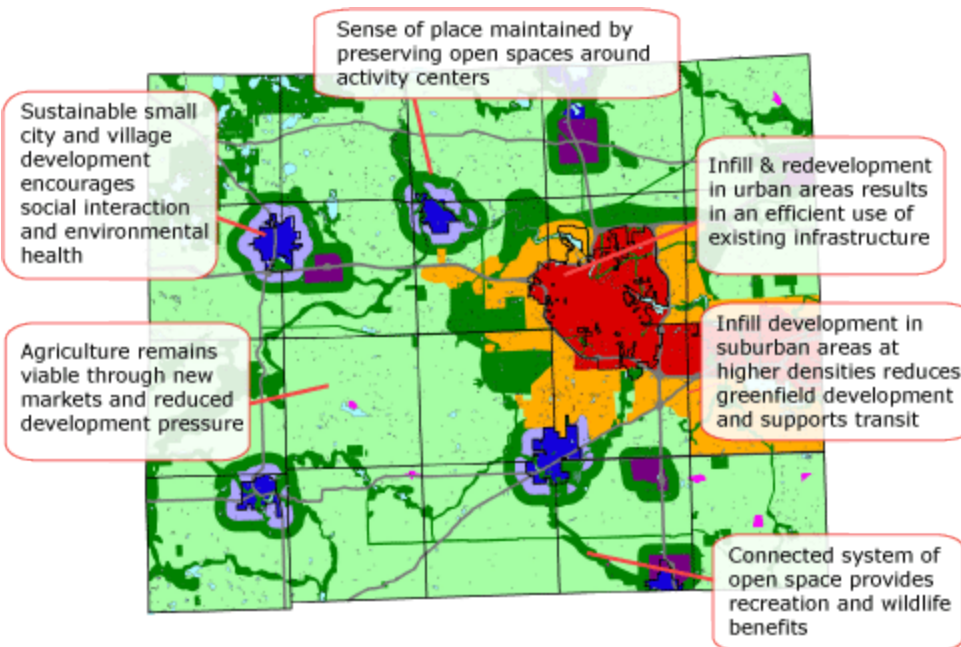
Who is hurt? Travelers, merchants, employers, hospitals, theater, restaurants

# Land Use: An Over-Arching Issue

If current trends continue...



If sustainable planning, zoning and development tools are used...



# Transit Options

(Organized by “Theme”)

Creating local connections

Creating countywide connections

Creating regional connections

In urban areas... enhancing the existing bus system

In urban areas... providing more capacity

Creating attractive downtowns

What **MODES AND POLICIES** can a county-wide transit system offer?

# What is an “Option”?

## Potential solutions for helping to achieve an objective, often addressing one or more issues

- Options will help satisfy unmet transit needs
- Options could be **capital**, such as building a rail line
- Options could be **operational**, such as changing or adding a bus route
- Options can also be **policies**, for example about fares or communication
- Options are used to build **scenarios**, like this...



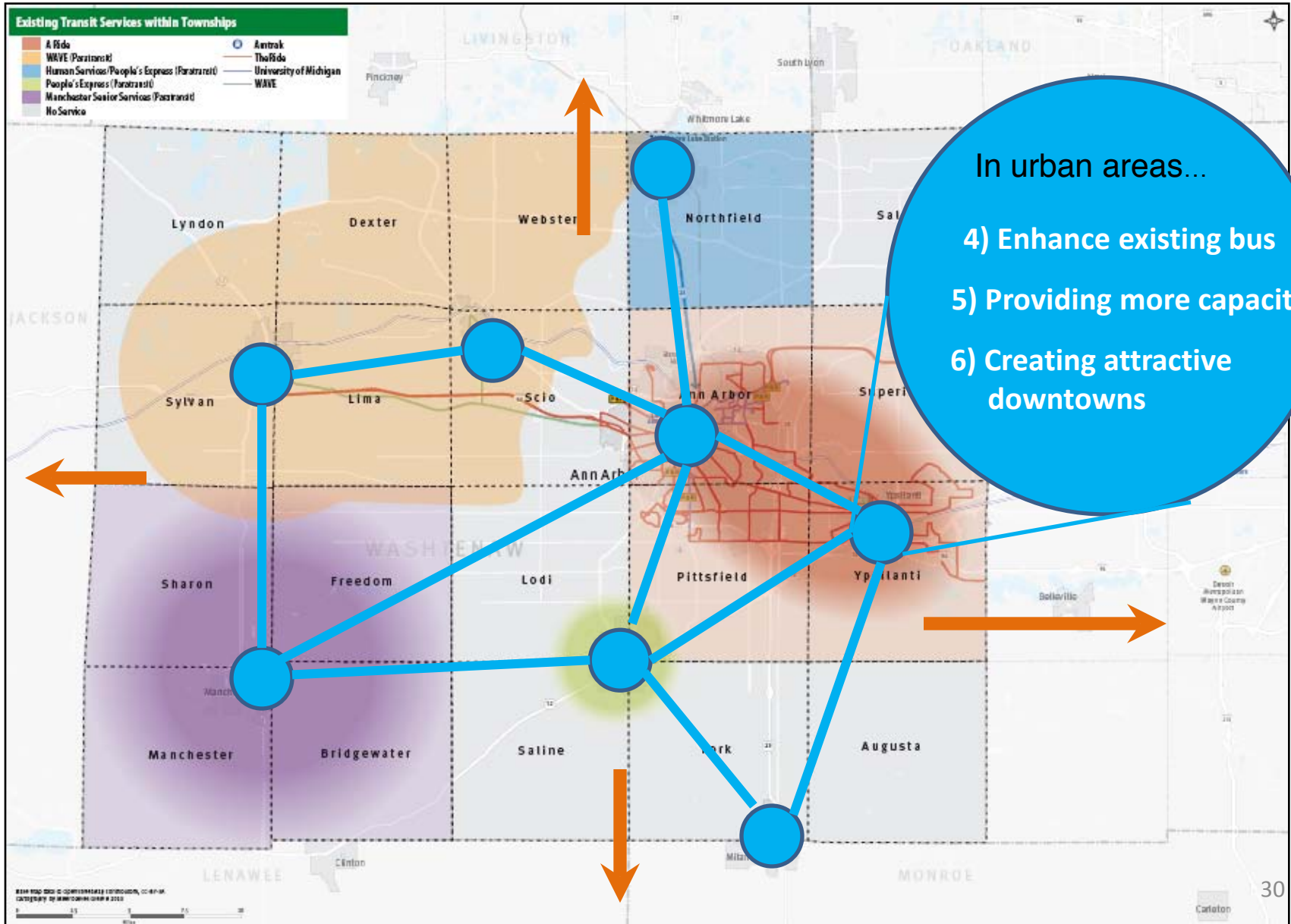
1) **Creating Local Connections** (within population Centers)



2) **Creating Countywide Connections** (between population centers)



3) **Creating Regional Connections** (to / from Washtenaw County)



# Take-away #3

What are the potential transit solutions for achieving the goals and satisfying unmet needs?



# Transit Options

## 1) Creating local connections

### What are they?

Local connections provide **lifeline access** to fresh food, healthcare, education and other essential places and services in the local area. These services particularly benefit **disadvantaged groups** such as seniors, people with disabilities or people on low incomes

### Appropriate vehicles and methods include:

- Dial-a-ride
- Local circulators





# Focus on: Local Circulators



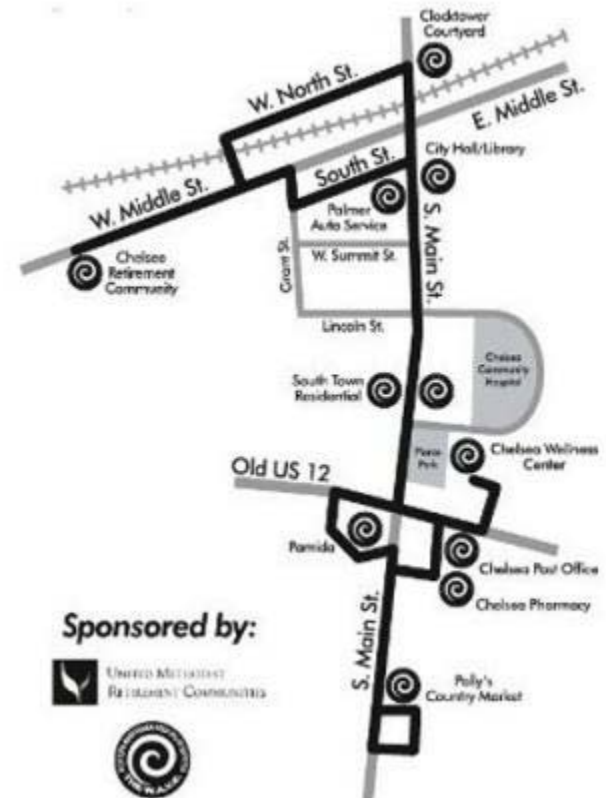
**Ride the W.A.V.E.**  
Western-Washtenaw Area Value Express

For example:

- The Link  
(cancelled service previously operated by AATA)
- Chelsea Community Ride

Features:

- Covering a small local area
- Either a loop or shuttle
- Typically a small vehicle
- Connecting key destinations



# Focus on: 'Dial-a-Ride'

For example:

- The A-Ride in Ann Arbor and Ypsi
- Manchester Area Senior Services
- People's Express in Northfield Township

Features:

- Includes door-to-door, curb-to-curb and specialized services
- Typically serves people who can not use regular transit
- Often restricted by hours or journey purpose



# Transit Options

## 2) Creating countywide connections

### What are they?

Connections between population centers in the County that will help **integrate the local economies** and connect communities. These will primarily serve commuters but anyone can use them

### Appropriate vehicles and methods include:

- Express transit buses of any size
- Coach services
- Park and Ride



# Focus on: Express Buses

For example:

- A2 Express to Chelsea
- A2 Express to Canton

Features:

- Limited number of stops to make journey times attractive
- Can be a transit bus or a higher quality vehicle
- Ideal for commuter services from nearby settlements or Park & Ride services





# Focus on: Coach Services

For example:

- The Greyhound services from Ann Arbor to Battle Creek, Jackson and Detroit
- The Michigan Flyer (operated by Indian Trails) - from South Ann Arbor to Detroit Metropolitan Airport, East Lansing and Jackson

Features:

- Typically over longer distances
- Very limited number of stops
- Greater emphasis on comfort



# Focus on: Park & Ride

For example:

AATA operations from

- Plymouth Road Lot
- Green Road Lot
- Miller Road Lot
- Pioneer High School Lot
- State Street Commuter Lot / UM Tennis Center

Features:

- Typically offer cost savings compared with driving all the way to destination
- Can be operated with regular stopping transit bus services or express bus services
- Often higher frequencies / faster travel times help to attract choice riders



# Transit Options

## 3) Creating regional connections

### What are they?

Transit connections between **regional destinations** such as Lansing or Jackson which will help **integrate** the regional economy and provide **access to jobs** and opportunities



### Appropriate vehicles and methods include:

- Express transit bus services
- Coach services
- Commuter rail services

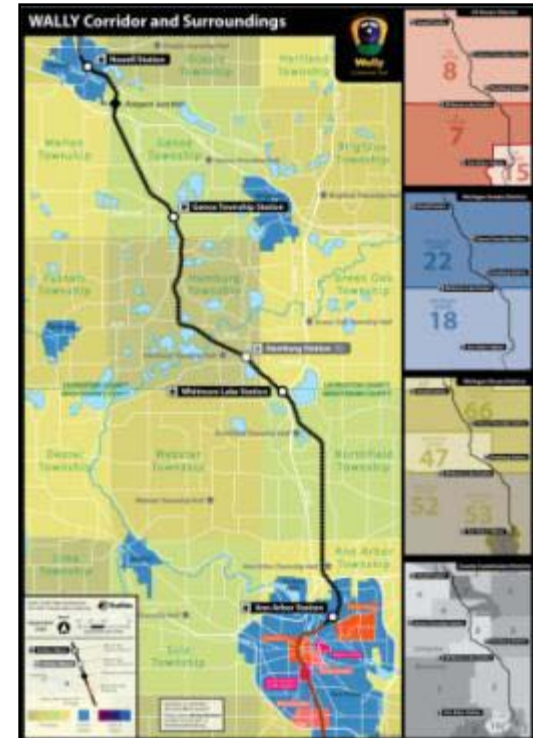
# Focus on: Commuter Rail

For example:

- WALLY
- Capital Metro Commuter Rail in Austin, Texas
- Music City Star in Nashville, Tennessee
- Trimet Westside Express Service in Washington County, Oregon

Features:

- Sometimes called Suburban Rail
- Connects suburbs or commuter settlements to the dominant downtown
- Heavy / mainline rail infrastructure is used and tracks can be shared with intercity services
- Heavy rail speeds are intentionally compromised by frequency of stops
- Typically longer distances and lower density settlements than light rail





# Transit Options

## 4) In urban areas... enhancing the existing bus system

### What are they?

Transit connections **linking local neighborhoods and destinations** in the urban area which help support the urban **economy** and **concentrate density** where it is appropriate



### Appropriate vehicles and methods include:

- Buses, minibuses, and/or Park and Ride
- Higher frequencies
- Highway and signal priorities
- Simple, available information
- Quality and comfort
- Fares and Ticketing

# Focus on: Bus Priority and Bus Lanes

For example:

- Minneapolis - bike and bus lanes
- Tucson - bike and bus lanes
- Pittsburgh - 3 busways and additional tunnels

Features:

- Giving buses priority at signals using technologies or junction design
- Providing buses with faster lanes (off or on the highway and physically separated or signed and enforced) either dedicated for buses or combined with High Occupancy Vehicle Lanes or other uses



# Transit Options

## 5) In urban areas... providing more capacity

### What are they?

**High capacity** transit options connecting urban destinations that will **support economic development** and help **concentrate development** on existing urban corridors



### Appropriate vehicles and methods include:

- High frequency bus services
- Express transit bus services
- Bus rapid transit - with partially segregated running
- Light rail transit, streetcars or trolleys
- Transit orientated development



# Focus on: Bus Rapid Transit

For example:

- Emerald Express (EmX) in Eugene-Springfield, Oregon  
Opened in 2008 and ridership doubled in the first year
- HealthLine in Cleveland, Ohio  
Implemented in 2008 by the end of 2009 ridership had increased by 47%
- MAX System in Fort Collins, Colorado
- Under construction now

Features:

- High capacity bus corridors
- Ticketing / payment before boarding in stations or at stops
- Mixture of segregated running, dedicated lanes, HOV lanes or running in normal traffic
- Can achieve journey times comparable to Light Rail Transit
- Flexible operation and integrates well with other bus services and in downtown environments with restricted space





# Focus on: Light Rail Transit, Streetcars or Trolleys

For example:

- Kenosha Transit in Kenosha, Wisconsin
- Tacoma Link in Tacoma, Washington
- RTA in Cleveland, Ohio

APTA definition:

- An electric\* railway with a 'light volume' traffic capacity compared to heavy rail. Light rail may use shared or exclusive rights-of-way, high or low platform loading and multi-car trains or single cars

\*Some diesel systems call themselves 'light rail'

Features:

- 'Light' loads (people not freight)
- 'Light' infrastructure costs compared with heavy / intercity / mainline rail
- Fast journey times
- On-street or segregated running
- Requires dense development (and potentially land use policy) to provide patronage to support it



# Focus on: Transit Orientated Development

For example:

- Reimagining Washtenaw Avenue Proposals

Features:

- Attractive 'local' area with high quality urban design
- 'Creating places' or 'spaces' for people to work, play, live, wander, sit etc
- Easy and safe to walk and cycle
- High density development
- Mixed use to encourage local trips
- Transit is central to the design
- High frequency and capacity transit
- Reducing the need to use cars



# Washington Metro Station Areas

- Aerial view of [Rosslyn-Ballston corridor](#) in [Arlington, Virginia](#).
- High density, mixed use development is concentrated within  $\frac{1}{4}$ – $\frac{1}{2}$  mile from the [Rosslyn](#), [Court House](#) and [Clarendon](#) [Washington Metro](#) stations (shown in red), with limited density outside that area.





# Tempe, Arizona Transit Center



Arizona's first bike station—The Bicycle Cellar—provides secure indoor parking, showers, lockers, bike repairs, and rental bicycles. The courtyard is a popular gathering place for pedestrians, bicyclists, transit patrons, and visitors.

A multi-use green facility that is not only a transportation hub, but also a gathering spot for the community.

A multimodal, mixed-use facility, the center integrates the downtown light-rail stop, the main city bus station, and the state's first "bike station," which offers secure on-site storage and repairs.

The center, which replaced a 2.7-acre surface parking lot, provides much-needed public amenities, including a community room and a shaded public plaza.

Additional uses include a transit store, a café, shops, and offices, including the city of Tempe's Transportation Division.



# San Mateo Co., California TOD Incentives



- City/County Association of Governments of San Mateo County (C/CAG)
- Provides financial incentives for local land use authorities to develop housing near transit stations.
- A jurisdiction receives incentive funds based on the number of bedrooms in the housing units. Typically, eligible projects receive up to \$2,000 per bedroom.
- Housing must be within one-third of a mile of a rail transit station, and density must be at least 40 units per acre.
- In addition to direct transportation improvements, some general improvements such as landscaping, lighting, sidewalks, plazas, and recreational projects are allowed.

*" Redwood City is proud to have received the first-ever TOD Incentive grant from C/CAG for Franklin Project Phase I. This project has been well received by the community and will provide 206 new residential units, including 31 affordable units, and convenient retail - all within walking distance to the Caltrain Station and Downtown District employment/services. "*

- Maureen Riordan, Senior Planner, City of Redwood City

# Charlotte, NC Urban Street Design Guidelines



The effect of the Urban Street Design Guidelines is apparent on Elizabeth Avenue, where people, cars, and buses coexist and attractive tree-planting is accommodated.

The Urban Street Design Guidelines have been nationally recognized as a model for expanding conventional street design to include infrastructure, green space, and overall impact.

Over time, these improved street designs will encourage more walking, bicycling, and transit trips, which will help reduce traffic congestion and air pollution, and create a more attractive, sustainable Charlotte.

# Transit Options

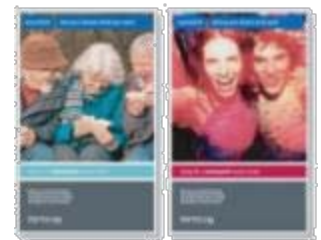
## 6) Creating attractive local and downtown environments

### What do they do?

Help create vibrant downtowns and attractive places to live, work and play

### What can we do?

- Information is simple and available
- Transit Centers are safe and attractive places to visit and wait
- Transfers are easy to make
- “Complete Streets” - Sidewalks and roads are safe for vulnerable users
- There are more shelters, benches and bike stands



# Focus on: Transit Centers / Potential Hubs

For example:

- Blake Transit Center
- Ypsilanti Transit Center
- Central Campus
- Briarwood Mall
- UM Hospital

Features:

- Safe
- Attractive
- Multi-modal - walking, cycling, taxi, drop off zones, coaches
- Mixed use - retail and cafes, potentially office or residential above





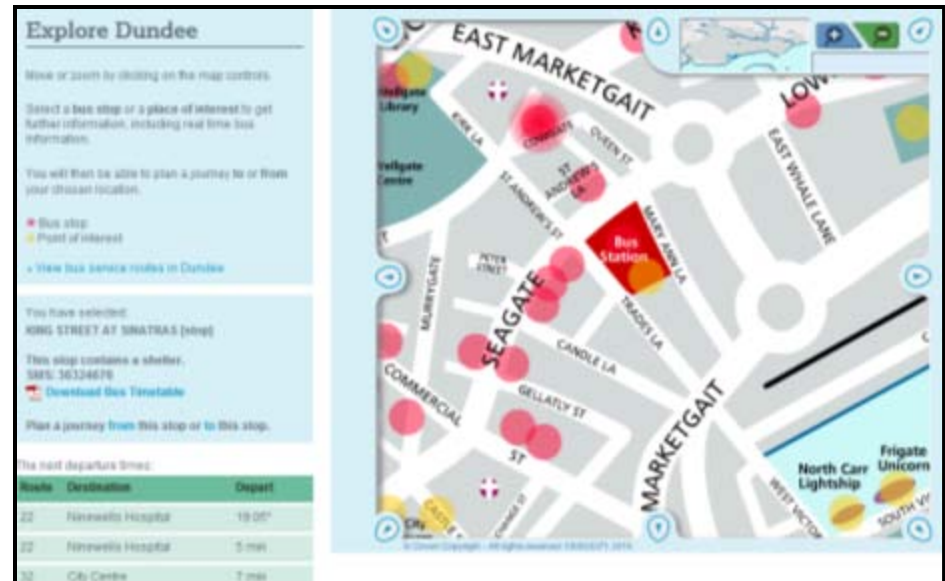
# Focus on: Simple, Accessible Information

For example:

- On-street 'wayfinding'
- Online or cell phone technology
- Transit maps and timetables
- Fares & ticketing information

Features:

- Simple
- Intuitive / easy to understand for first time users / visitors
- Accessible for people with disabilities
- Easy to find



# Focus on: Walking and Cycling

For example:

- Safe
- Attractive
- Understandable / Easy
- Fun

Features:

**Biking:** Designated routes, segregated lanes, more lane signage, biking training programs, more parking, lockers and showers for bicyclists, 'zip-bike'

**Walking:** Designated routes, more and wider sidewalks, signage with indicative walking times, green paths - off roads, greater provision of walking maps



# Upcoming Work

# Building a Transit Master Plan, Step-by-Step

Shared Community Vision

What **COMMUNITY GOALS** must a county-wide transit system serve?

Transit Audit and Needs Assessment

What **UNMET NEEDS** must a county-wide transit system address?

Transit Options

What **PROJECTS and SERVICES** can a county-wide transit system contribute to meeting unmet needs?

Scenarios

In what ways can a county-wide transit system help achieve community goals?  
**(ALTERNATIVE NETWORKS)**

Transit Master Plan

What is the *best* way a county-wide transit system can help achieve community goals? **(PREFERRED SCENARIO)**



# What is a “Scenario”?

**A group of options for assessment using the evaluation criteria and framework**

- A whole package of options that could form the Transit Master Plan
- Options may be packaged together because their cumulative impact may be better than their individual impact
- Scenarios cover the short, medium and long term

# Coming Soon: 3 Scenarios

- Report: Early January
- Public Meetings: Late January / February
- Leadership Group Meeting
- Technical Committee Meeting
- On-going Board Involvement
- Differences between the scenarios will frame the debate over what the Transit Master Plan should look like

# Objectives of this Presentation Revisited

How did we do?

- Information
- Education
- Common language
- Obtain your acceptance of the work products produced to date