The
Regional Transit Plan
for Southeast Michigan

"The Detroit Regional Mass Transit Initiative"

By the **Regional Transit Coordinating Council**

January 2009

The Regional Transit Plan for Southeast Michigan

- **Objectives:**
  - Enhance/Expand Existing Transit Services
  - Introduce NEW rapid transit service/corridors
  - Assure connectivity between existing & new service.
  - Identify/Access Funding

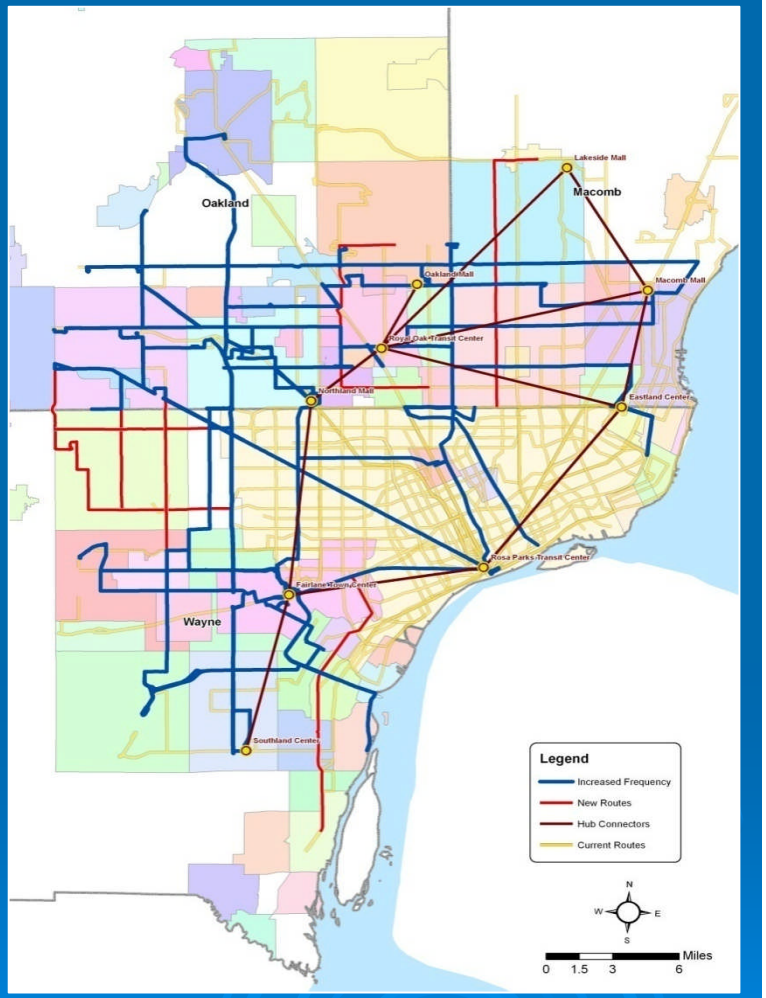
Enhancement through Coordination

- **Things agencies can do quickly to improve customer experience**
  - Coordinate or Integrate Para-transit Services
  - Common Phone Number for transit information
  - Regional System Map
  - Improve Communications Integration between fixed route and community transit services
  - Improve schedule integration between SMART and DDOT
  - Common Signage between SMART and DDOT
  - Shared Transfer with The People Mover

Proposed Enhancements to Existing Services

- **Fixed Routes**
  - New Routes
  - Increased Frequency
  - Comprehensive coverage of three-county region
  - Bus Stop Enhancements
  - Hub (Job) Connectors allow riders to travel long distances quickly between transit hubs
- **Community and Para-transit**
  - Increase by 50%
- **Enhance major corridors** with **Arterial Rapid Transit……**

Requires additional funding



Proposed Fixed Route Service Enhancements with Hub-connectors

The ART Strategy

- **Arterial Rapid Transit is the key to the network…**
  - Provide upgraded transit in shorter period of time than with BRT or LRT
  - Relatively Low cost to implement
  - Upgrade to higher level service *(BRT or LRT)* "if and only if" ridership warrants and funding sources are identified.

Arterial Rapid Transit (ART)

- **Arterial Rapid Transit (ART) corridors include:**
  - ADA & eco-friendly, low fuel consumption hybrid buses
  - Enhanced stops with shelters that provide more protection
  - Traffic signal priority
  - Next-bus information
  - Specific branding of buses and stops
  - Wider stop spacing

Capital Costs: $300,000-$450,000 per mile
Vehicle Costs: $500,000 - $600,000 each
Operating Costs: $127 per vehicle hour

Other Rapid Transit Modes

- Bus Rapid Transit (BRT)
- Light Rail Transit (LRT)
- Commuter Rail Transit (CRT)
- Inter-City Rail (ICR)

Bus Rapid Transit (BRT)

- Buses *emulate the reliability and convenience of rail transit*.
- Less costly than light rail
- BRT features:
  - Reserved Lanes
  - Express Operations
  - Special Vehicles
  - Enhanced Passenger Facilities

Capital Costs: $9.1 million - $21 million per mile
Vehicle Costs: $1 million - $1.2 million
Operating Costs: $135 per vehicle hour

Light Rail Transit (LRT)

- Light Rail Transit (LRT) is an electrically powered rail passenger system used for urban transportation.
- There are two types of LRT:

Light rail vehicle

Modern Streetcar

Light Rail Transit (LRT) – Modern Streetcar

- Designed to travel in urban cores
- Light and maneuverable
- Used in areas where there are many stations
- Fast acceleration minimizes the effect that short station spacing has on travel times

Capital Costs: $16 million - $29 million per mile
Vehicle Costs: $3 - $3.5 million
Operating Costs: $173 per vehicle hour

Light Rail Transit (LRT) – Light Rail Vehicles

- Larger trains designed to operate in mixed traffic and on dedicated right of way
- Capable of high speed (55 mph) and being connected to travel in multiple units
- Stations for light rail vehicles are generally spaced a minimum of half mile intervals to allow the vehicles to reach higher speeds

Capital Costs: $59 million - $69 million per mile
Vehicle Costs: $4 million - $5 million each
Operating Costs: $217 per vehicle hour

Commuter Rail

- Rail passenger service, operated on tracks shared with freight traffic
- Typically provides at least several inbound and outbound weekday trains, focused on work trips
- Normally operated with trips spaced through the day.

Capital Costs: $1.7 million - $3.3 million per mile
Vehicle Costs*: $2.5 million - $3.5 million (Used)
$7 million - $15 million (New)
*One engine and five passenger cars
Operating Costs: $476 per vehicle hour

Inter-City Rail

- Transit between metropolitan areas such as Detroit-Chicago.
- May implement high-speed rail technology.
- Not included in the Regional Transit plan.
- Should be a part of a state or Great Lakes Region transit plan.

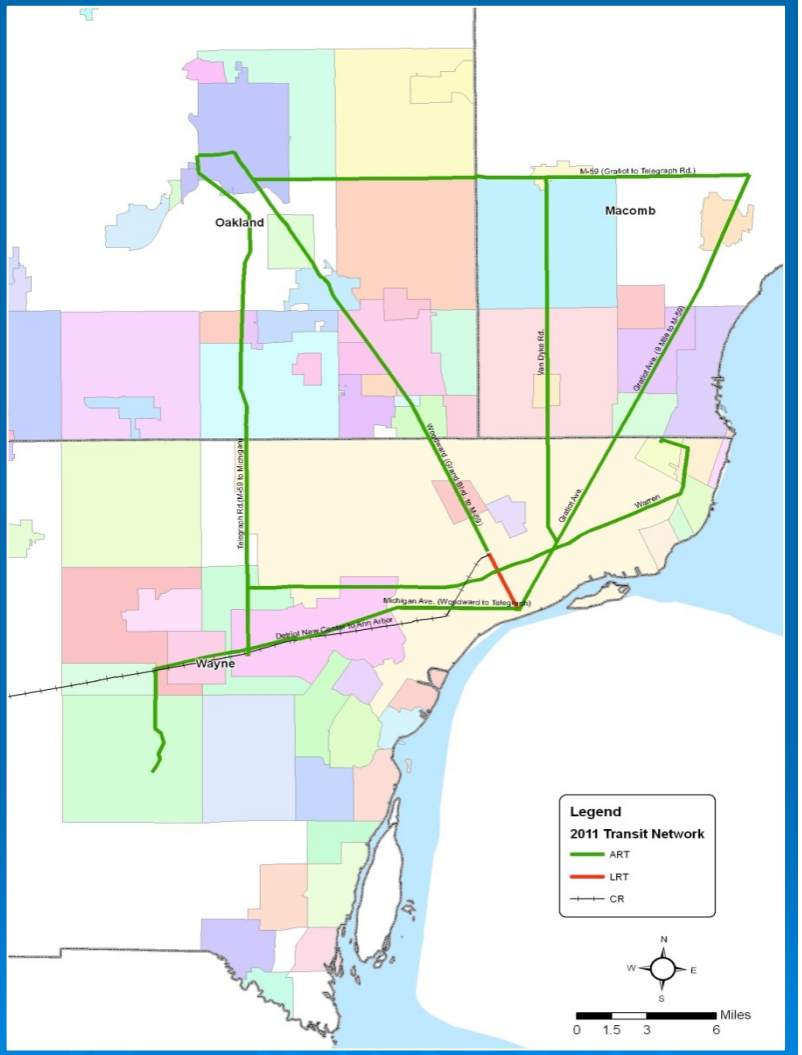
Rapid Transit Corridors

Corridors were selected with the purpose of building a rapid transit network for Southeast Michigan

- They were selected on a variety of factors:
  - Potential ridership
  - Physical layout of the street
  - Potential for economic/jobs benefits for the corridor
- A Phased Approach
  - Corridors will move to a higher level of service ***if and only if*** ridership warrants the improvement
  - Will be supported by the enhancements of existing services
  - Existing services modified to support corridor services

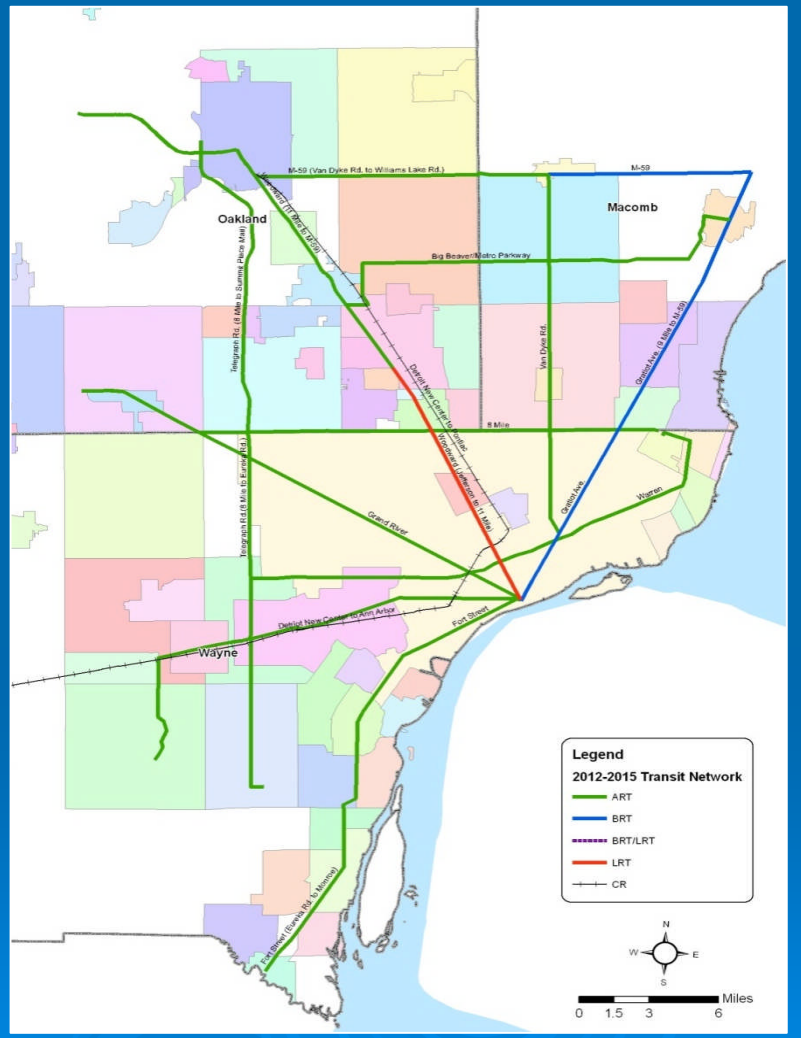
2012 - Potential Service

- **LRT**
  - **Woodward** (*Phase 1*): *Jefferson to Grand Blvd*. (**By 2011)**
- **ART**
  - **Gratiot**: *Woodward to M-59*
  - **M59:** *Gratiot to Telegraph*
  - **Michigan**: *Woodward to Metro Airport*
  - **Telegraph:** *M-59 to Michigan*
  - **Van Dyke:** *Gratiot to M-59*
  - **Warren**: *8 Mile to Telegraph*
  - Woodward: *Grand Blvd. to M-59*
- **Commuter Rail**
  - Detroit to Ann Arbor with stops in Dearborn, North of Metro Airport and Ypsilanti. **(By 2011)**



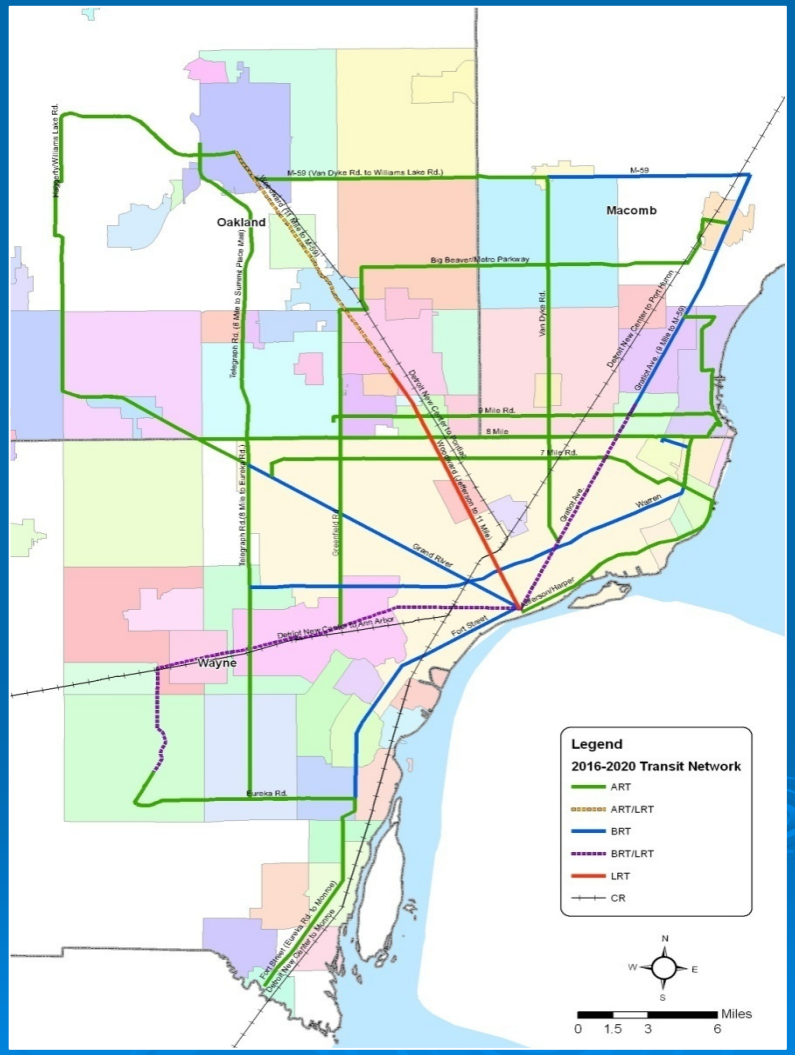
2012 – 2015 Potential Service

- Proposed Network Additions
  - LRT
    - Woodward (Phase 2) *extended to 11 Mile*
  - BRT
    - Gratiot & M59 *(Gratiot to Van Dyke)*
  - ART
    - 8 Mile
    - Big Beaver/Metro Parkway
    - Fort St.
    - Grand River
    - Jefferson (?)
  - Commuter Rail
    - Detroit to Pontiac with stops in Royal Oak and Birmingham



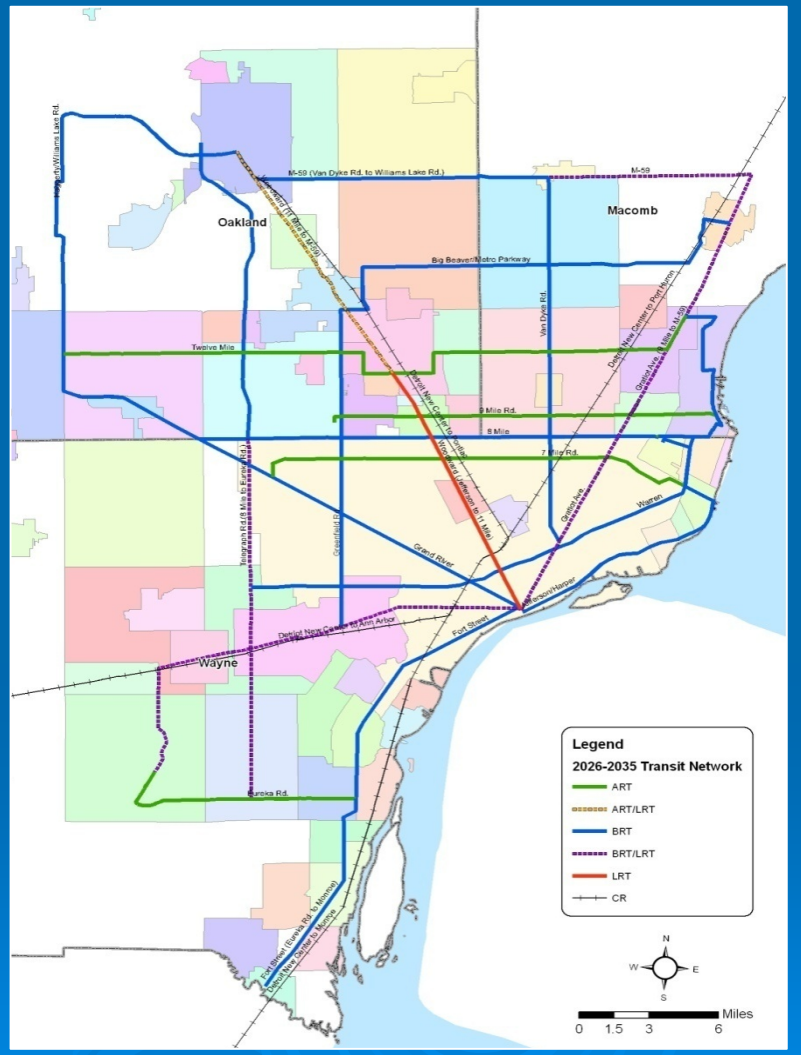
2016 – 2020 Potential Service

- Proposed Network Additions
  - BRT/LRT
    - Michigan
  - BRT
    - Fort St.
    - Grand River
    - Warren
  - ART/LRT
    - Woodward extended to M-59
  - ART
    - Several more corridors added
  - Commuter Rail
    - Detroit – Monroe
    - Detroit – Port Huron



2026 – 2035 Potential Service

- Proposed Network Additions
  - BRT/LRT
    - Telegraph: 8 Mile – Eureka Rd.
  - BRT
    - Fort St: Eureka Rd. – Monroe
    - Greenfield Rd.
    - Grand River: Telegraph – Haggerty
    - Haggerty/Williams Lake Rd.
    - Jefferson/Harper



Economic Development

- For each $1 invested in transit $4-$8 dollars can be returned to the regional economy when combined with a good regional economic development plan.
- Transit can make ‘good plans’ become ‘great plans’
- Direct development benefits in station areas (TOD)
- Maximum benefit with light rail, but strong impact with BRT or ART
- A strong transit system is a noted factor in corporate location decisions

Economic Development Benefits (cont'd)

- Conducted SE Michigan research on 4 representative / illustrative corridors studied in different types of development environments.
  - Woodward
  - Telegraph
  - 8 Mile
  - M 59

- Value of new development directly related to transit

Economic Development Benefits (cont'd)

- Economic and Fiscal impacts of the 4 proposed corridors
  - 30,000 new jobs (direct and indirect)
  - $1.4 billion in payroll
  - 10,800 new housing units created
  - $1.9 billion in new development value created
  - $224 million in annual retail sales
- Fiscal Impact – *effect of economic impact on tax revenue*
  - $87 million in annual tax revenue to State and local jurisdictions

Update

- The RTCC BOD approved the plan with a unanimous vote of support on December 8, 2008
- Legislation enabling the start of the privately funded Woodward Light Rail project (**M1 Rail**) was passed in late December 2008 and signed by the Governor in January 2009

Next Steps

by June 30, 2009

- Regional Transit Authority
- Funding Plan