



# **The Connector Alternatives Analysis Project Introduction**

**[aaconnector.com](http://aaconnector.com)**

**February 6, 2013**



**Presented By:**

**URS**

**Partnering Agencies:**



**CITY OF  
Ann Arbor**



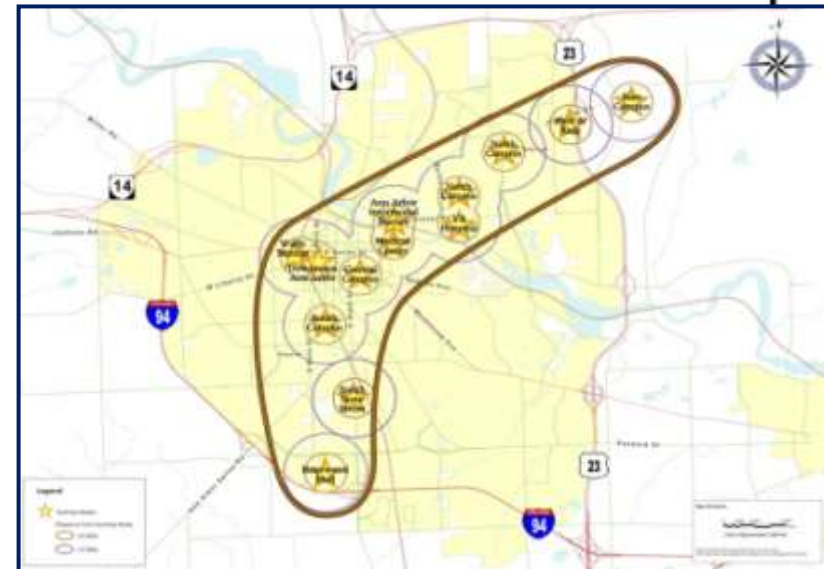


# What is the Connector?



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- The Connector is a plan for a high-capacity transit system from northeast to south Ann Arbor, connecting major destinations including downtown, commercial, and residential areas, and the University of Michigan campuses including the Medical Center.



- A *Feasibility Study* determined that a Connector is technically feasible and that the number of people expected to use the Connector warrants a high-capacity system
- The Connector would support a sustainable system of transportation and land use consistent with the City of Ann Arbor Master Plan



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# Purpose of the Alternatives Analysis



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- Confirm the need for an advanced transit system to serve the Ann Arbor area
- Define specific transit alternatives to meet the defined transportation needs including mode / technology, guideway alignment, operations and station locations
- Evaluate the benefits and costs, environmental impacts, and transportation effectiveness of the transit alternatives
- Engage the community in the study process to select a locally preferred alternative
- Identify potential sources of funding and help to position the project for phased implementation



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# Why are We Studying Transit Options?



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- Roads and buses are crowded – new transit options are needed to meet the needs of the community
- Expected new development will add to traffic congestion
- Bus performance is negatively impacted by roadway congestion
- Better transit makes Ann Arbor a more desirable place to live and work
- Transit is an alternative to building more parking



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# Why are We Studying Transit Options?



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Previous studies by the City, County, AATA, DDA, U-M and WATS have identified common themes that have led to this study:



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# Why are We Studying Transit Options?



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## Traffic Congestion

- Key Corridors are Congested:
  - Plymouth Road
  - State Street
- Bus Performance is negatively Impacted by roadway congestion
- Currently: 25-30% of transit travel time is Waiting for Signals!!



Source: City of Ann Arbor 2009  
Transportation Plan Update



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# Why are We Studying Transit Options?

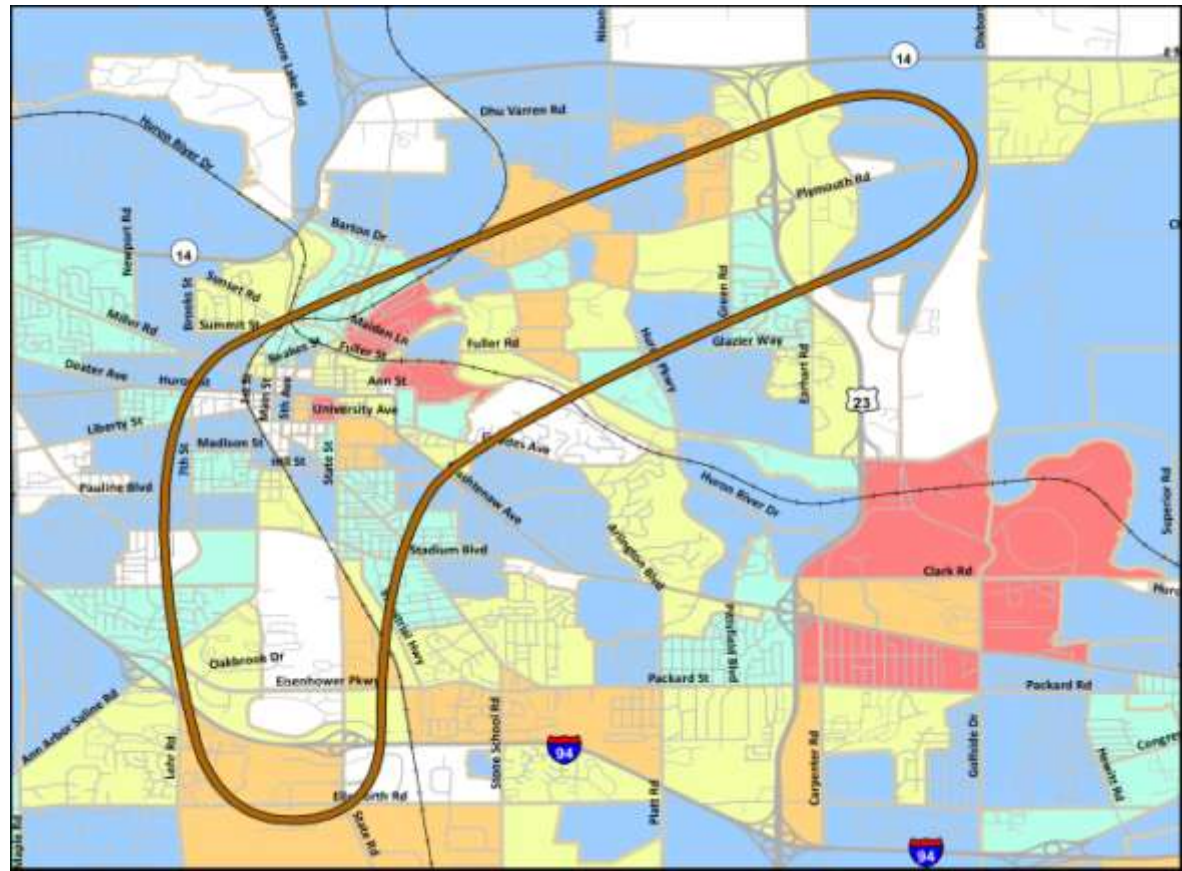


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- Expected employment growth will add to traffic congestion
- Bus travel times will become less reliable



## 2010 to 2035 Employment Change



Source: URS Corporation and  
the WATS Travel Demand Model



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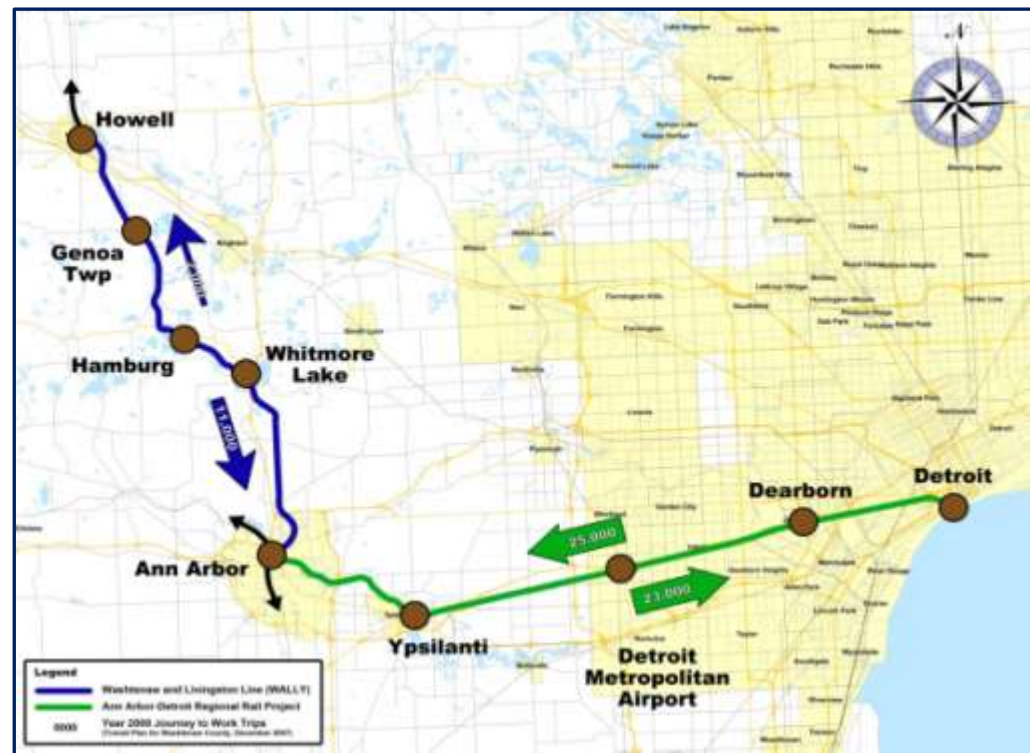
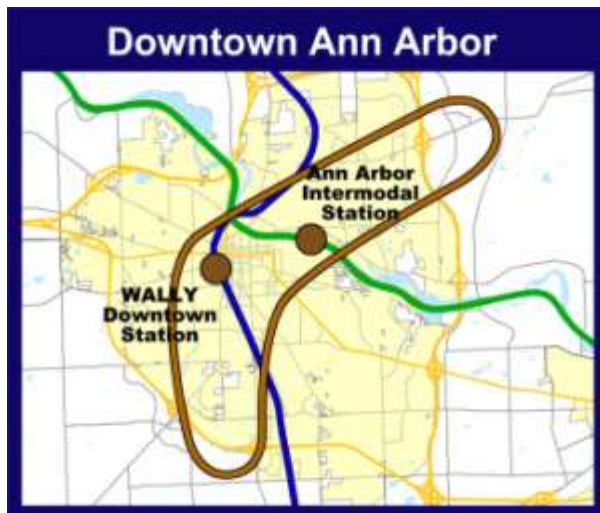
# Why are We Studying Transit Options?



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## Regional Connectivity

- Connector for intercity rail initiatives
- Support for county-wide transit
- Attract the 'choice' riders
- Park and ride intercept service



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# Why are We Studying Transit Options?



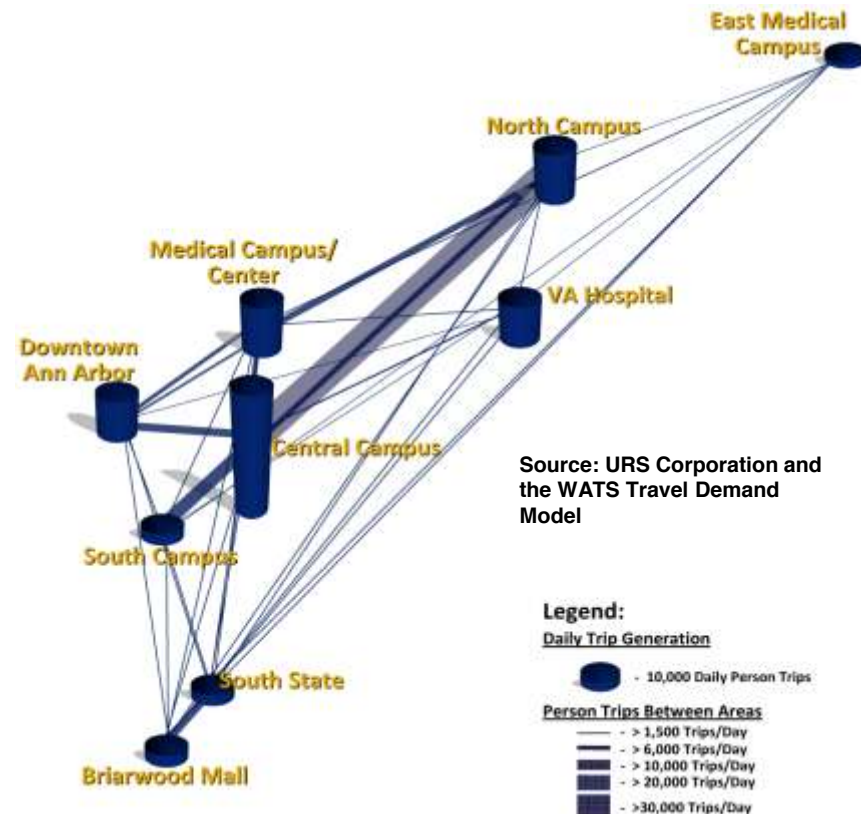
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## Key Corridors for Existing AATA Service

- Primary Destinations
  - UM Medical Center
  - Downtown
  - UM Central Campus
- Standing loads occur frequently
- Extra buses added to accommodate peak ridership

	Service Frequency	Riders per Weekday
Plymouth Road	15 Minute	2,286
State Street	7 Minute	2,771

Source: AATA



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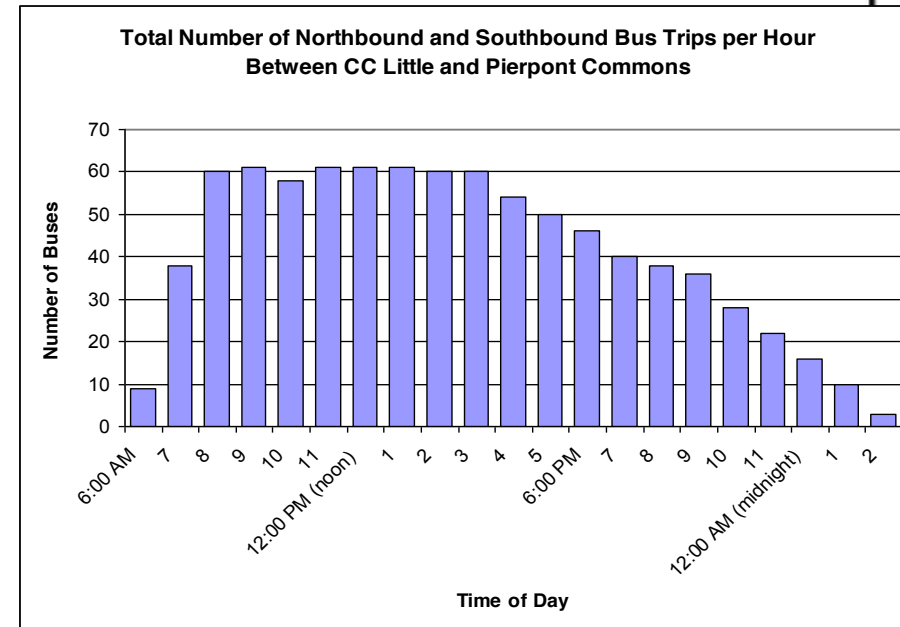
# Why are We Studying Transit Options?



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## UM Inter-Campus Bus System Operates at Critical Capacity:

- Buses run every 2 – 3 Minutes during peak periods
- Peak periods last from 8:00 am to 4:00 pm
- Buses in peak periods are standing room only
- Ridership Between North and Central Campus :
  - 30,700 Rider per Day
  - 2,100 Riders in Peak Hour
  - 780 riders in peak 15 Mins.
- Peak Buses between Campuses: 60 Per Hour



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Source: URS Corporation counts conducted September 2010



# Why are We Studying Transit Options?



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## Community Vitality

- Better transit makes Ann Arbor a more desirable place to live and work
  - Maintain jobs
  - Accessible work force
  - Enhance tax base
  - Affordable housing
  - Improved mobility
- Transit is an alternative to building more parking



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# Alternative Travel Modes



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- Bus



- Enhancements to the existing bus system
- Standard buses operating on existing streets

- Bus Rapid Transit – BRT



- Dedicated bus transitway
- High capacity vehicles
- Upgraded stations, passenger amenities

- Streetcar/ Light Rail Transit (LRT)



- Electrified vehicle operating in dedicated trackway
- Streetcar (single car) or LRT (multi-car) operations
- Upgraded stations, passenger amenities

- Automated Guideway Transit



- Elevated, grade-separated guideway
- Automated, multi-car operations
- Upgraded stations, passenger amenities



Source: URS Corporation



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# Standard Bus



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- Operates on city streets with frequent stops
- Diesel or dual-fuel rubber tired buses
- Operates at grade, in mixed flow
- Simple stations or stops



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Connector



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# Standard Bus

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# Bus Rapid Transit (BRT)



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- Integrated system of guideway, stations, service and amenities that collectively improves the speed, reliability and identity of bus transit
- Diesel or dual-fuel rubber tired buses
- Generally operates at grade
- Either mixed-flow or exclusive guideway



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# Bus Rapid Transit (BRT)



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34<sup>th</sup> Street, Manhattan



Denver-Boulder BRT



Boston Silverline



Healthline, Cleveland



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# Bus Rapid Transit (BRT)



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Orange Line, California



Silverline, Boston

Queens, NY



Kansas City MAX



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# Streetcar / Light Rail Transit (LRT)



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- Electric powered transit vehicles operating on standard railroad tracks with single or multiple car trains
- Power is provided by overhead wires
- Generally operates at grade
- Either mixed-flow or exclusive guideway



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# Streetcar / Light Rail Transit (LRT)



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Portland Streetcar



Charlotte Streetcar



Tucson Streetcar



Tacoma Streetcar



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# Streetcar / Light Rail Transit (LRT)



[aaconnector.com](http://aaconnector.com)



Charlotte Light Rail



San Diego Light Rail

Minneapolis Light Rail



Portland Light Rail







# Elevated Guideway Transit



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- Automated system of electrically powered vehicles operating in an exclusive guideway with single or multiple car trains
- Power is in the guideway
- Grade separated throughout
- Elevated stations



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# Elevated Guideway Transit



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## Las Vegas Monorail



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# Elevated Guideway Transit



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## AGT (Automated Guideway Transit)



Phoenix Sky Harbor Airport



Detroit People Mover



Clarian Health System, Indianapolis



Dallas Fort Worth Airport



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- Elevated, grade-separated guideway
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Source: URS Corporation



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# Public Involvement



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- Alternatives Analysis is a process to help the community select a locally preferred alternative (LPA)
- Guided by Project Management Committee (City, DDA, AATA, UM, WATS, MDOT, SEMCOG)
- Over 275 people attended public workshops in December (See results in Newsletter)
- Web Site – [aaconnector.com](http://aaconnector.com)
- Next public meetings in April 2013



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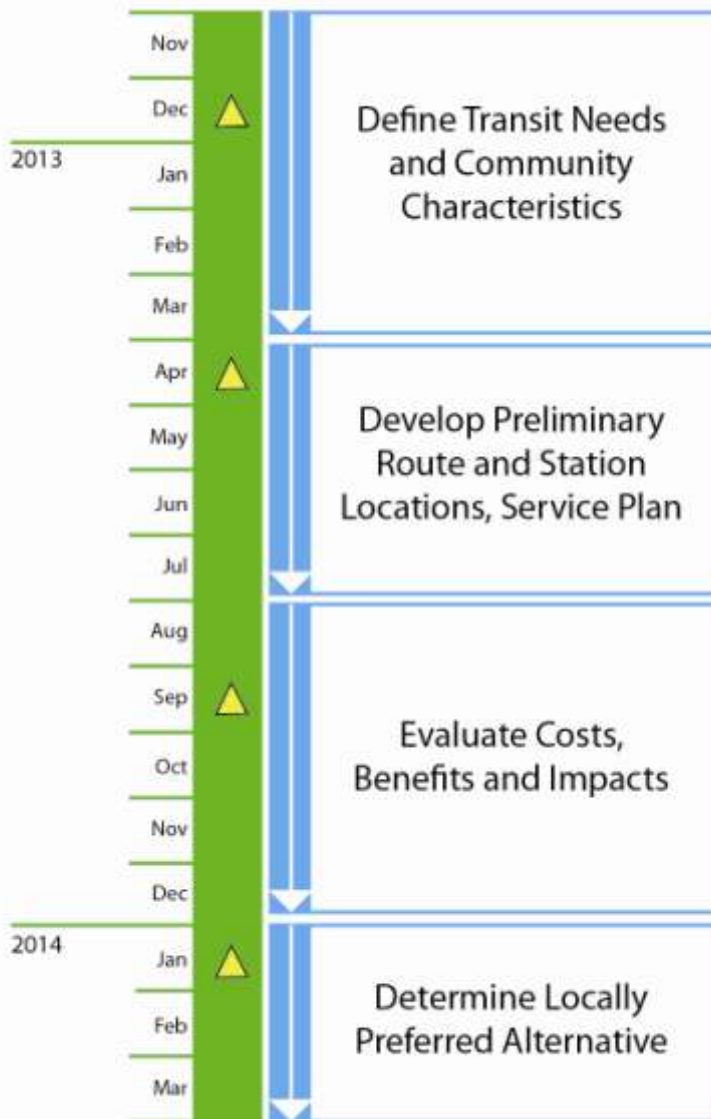




# Project Timeline



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▲ Planned Community Workshop



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# Discussion Questions



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1. Do you think there is a need for additional transit options in Ann Arbor?
2. What do you feel are the top issues and opportunities related to The Connector?
3. At this point, which Connector mode would support your vision for the future of Ann Arbor?
4. What questions / concerns do you have about the project?
5. What additional information / resources would be helpful for your constituency?



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