



BEST:

Michigan Avenue

**Technical Committee Meeting
Wednesday, January 13, 2016**



RTA

**REGIONAL
TRANSIT AUTHORITY**
OF SOUTHEAST MICHIGAN

Agenda

1. Welcome and Introductions
2. Project Update
3. Recap from Last Meeting
4. Public / Stakeholder Involvement Activities
5. Final Detailed Definition of Alternatives
6. Draft Tier 2 Evaluation Results
7. Next Meeting / Next Steps

Project Update

Project Committee Roles

Technical Committee

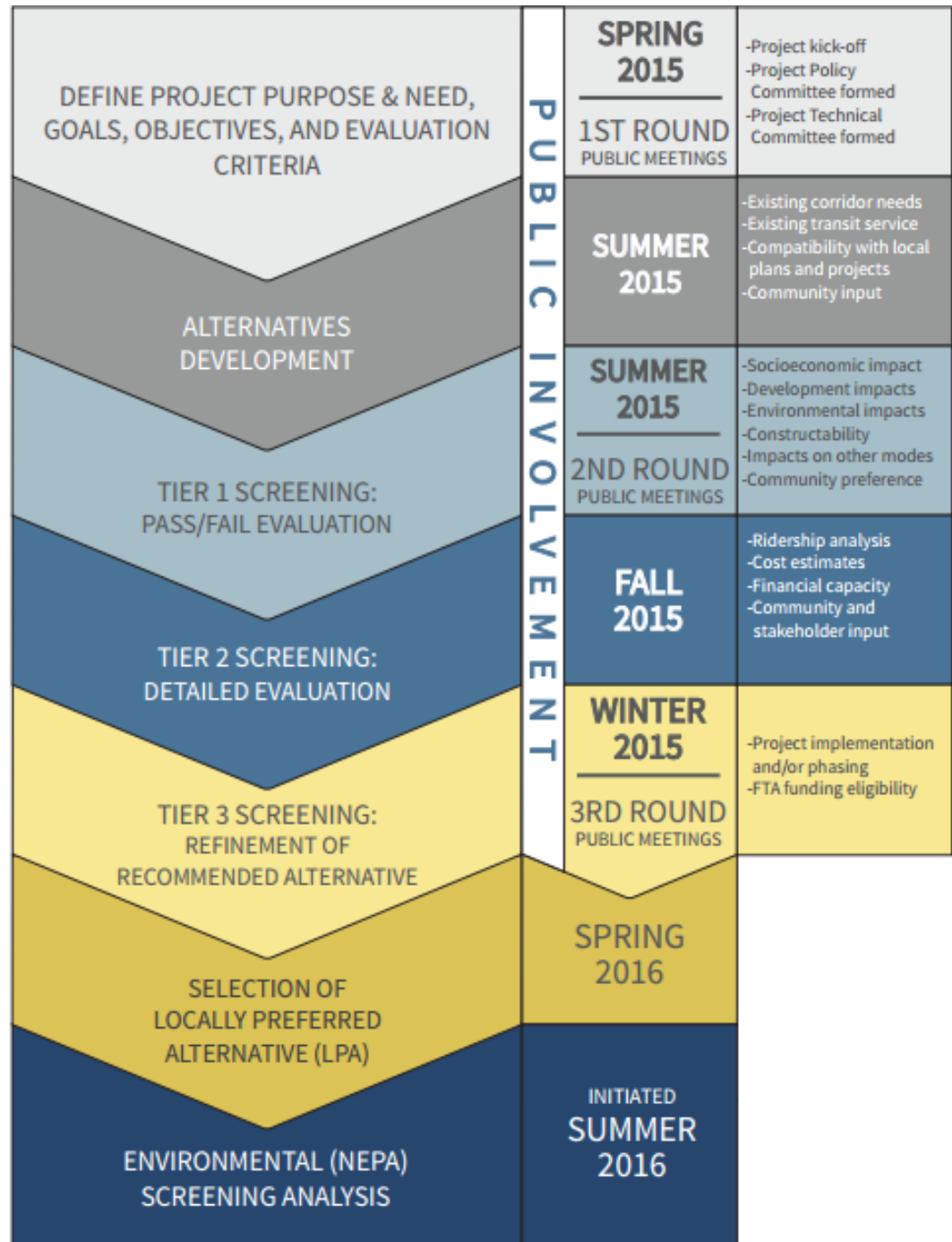
- Community and agency staff
- Meets Frequently (Monthly/Semi-Monthly)
- Offer technical guidance and data to support team
- Suggest stakeholders and outreach methods
- Report back to colleagues and community

Policy Committee

- Community and agency leadership
- Meets occasionally (e.g., quarterly) to review key decisions:
 - Official project goals
 - Description of detailed alternatives
 - Evaluation and selection of preferred alternative
- Provide support for implementation and funding of preferred alternative

Study Process and Schedule

We are here →



Recap from Last Meeting

Recap from Last Meeting (Dec. 9th)

- Reviewed recent public / stakeholder involvement, including results from downtown Detroit commuter surveys
- Reviewed comments and edits for Tier 2 Alternatives
 - Discussion of rail service levels and addition of western Washtenaw extension
- Discussion of the Tier 2 Evaluation Structure and Criteria

Public / Stakeholder Involvement Activities

Recent Stakeholder Meetings

DATE / TIME	LOCATION
December 14	Dearborn Living Street Project
December 15	Downtown Detroit BRT Alignment Workshop
December 16	Michigan Avenue Business Association (SW Detroit)

Phase 3 Preview

- Phase 3 public outreach to be scheduled for late February and early March
- Multiple locations in corridor as well as on-line and in-person participation with corridor stakeholders
- Purposes:
 - Review Tier 2 Analysis Results
 - Present and gather feedback on recommendations for locally preferred alternative(s)
 - Outline implementation timeline and next steps

Final Detailed Definition of Alternatives Report

Detailed Alternatives

- **No Build**
 - Existing system with any programmed improvements
- **Commuter Rail**
 - Pilot service defined by MDOT / SEMCOG
- **Regional Rail**
 - More frequent service
 - Additional stations
- **Bus Rapid Transit or Premium Bus Rapid Transit**
 - Mixed Traffic
 - Dedicated Center Lane
 - Dedicated Curb Lane

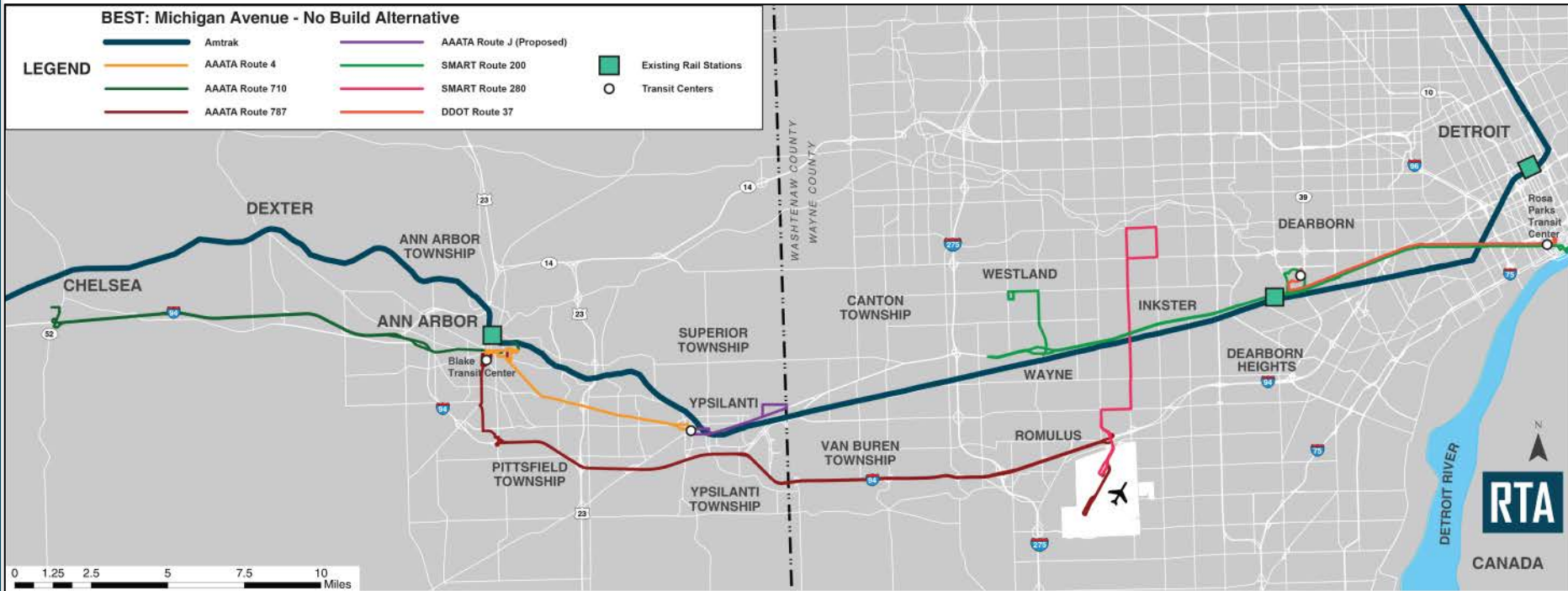
Final Edits to the Report

- All Technical Committee comments have been addressed
- Inclusion of intercity rail in service plan tables

Rail Alternative	Commuter / Regional Rail Round Trips	Intercity Rail Round Trips	Total Round Trips
Commuter Rail	5 (+1 bus cleanup)	6	11
Regional Rail A (New Center)	8	6	14
	15	6	21
Regional Rail B (Corktown)	8	6	14
	15	6	21

- Revised maps to show additions / modifications to transit service

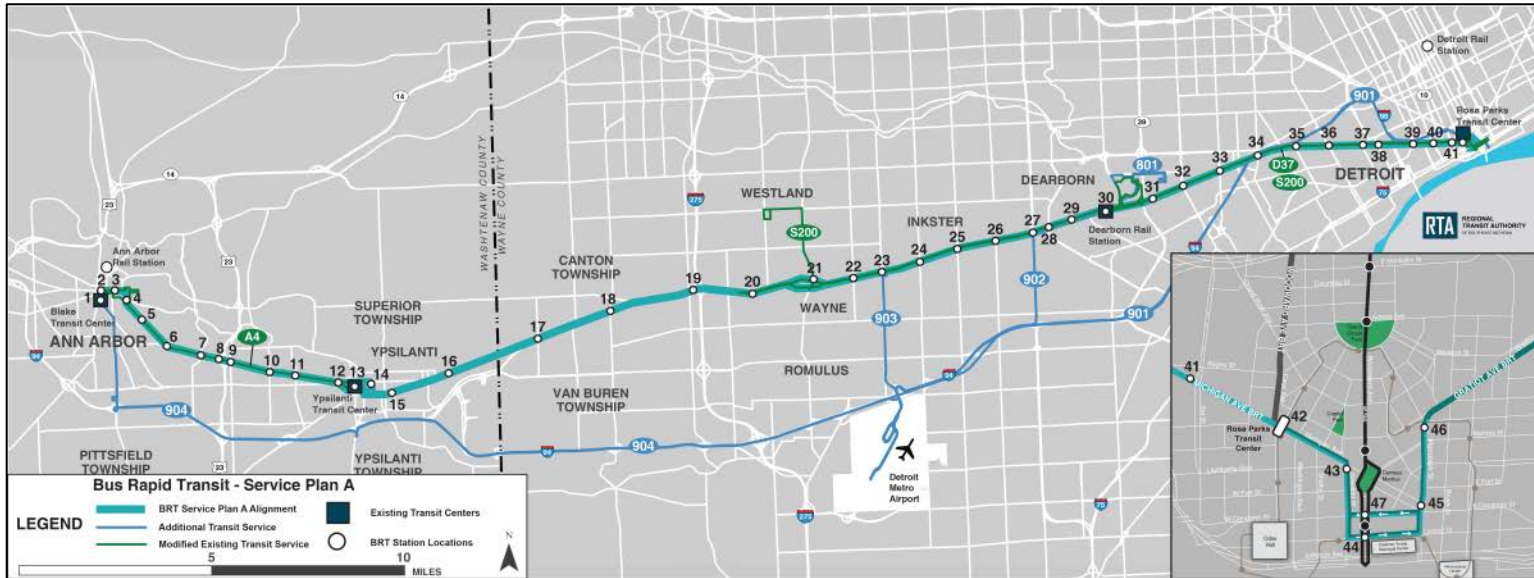
No Build Alternative



Build Alternatives



Bus Rapid Transit – Five Service Plans



Ann Arbor

28 – 35 mins

Ypsi

25 – 29 mins

Wayne



22 – 26 mins

Dearborn

33 – 38 mins

Detroit

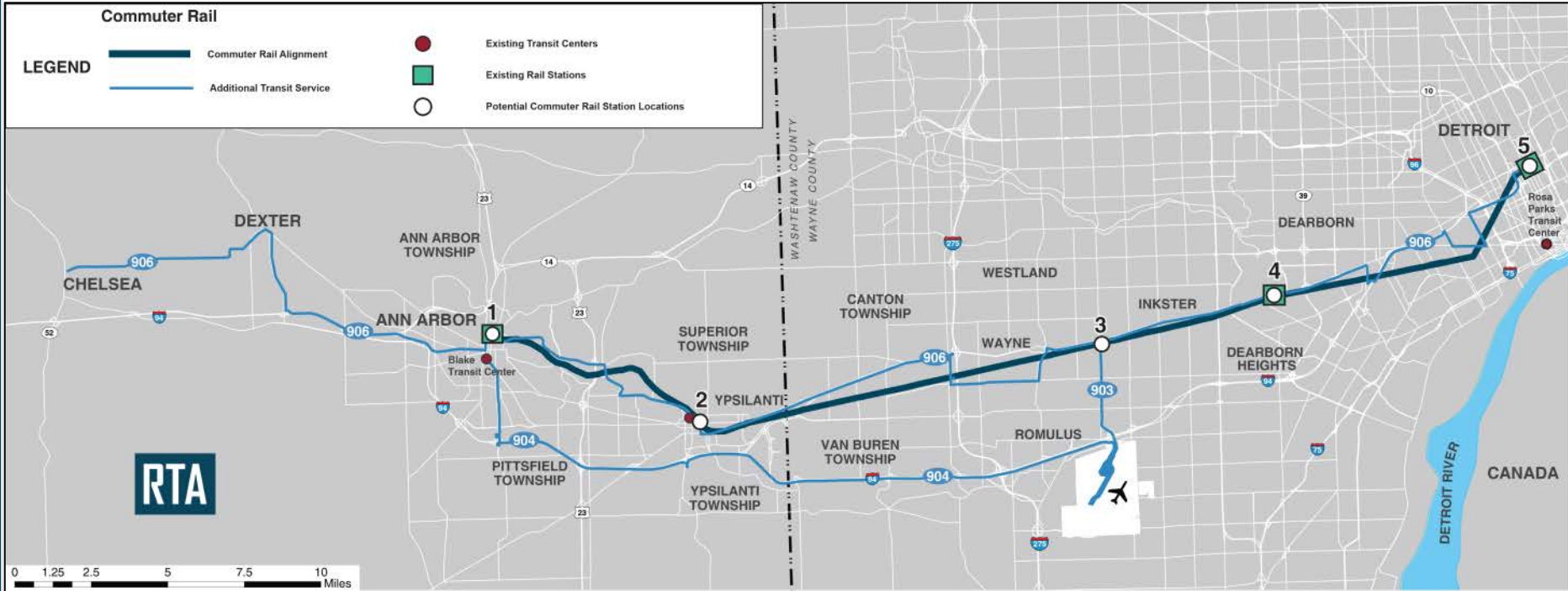
Bus Rapid Transit – Five Service Plans



DTW to Detroit
47 – 63 minutes



Commuter Rail



Ann Arbor to Detroit - 45 minutes

Regional Rail – Alignment A



Chelsea to Detroit - 72 minutes

Regional Rail - Alignment B



Chelsea to Detroit - 67 minutes

Draft Tier 2 Evaluation Results

Detailed Evaluation Criteria

BRT + Rail Station Area

- Population and employment densities
- Equitable access to the transit investment
- Connectivity to the transit network
- Connectivity to the regional transportation network
- Development potential

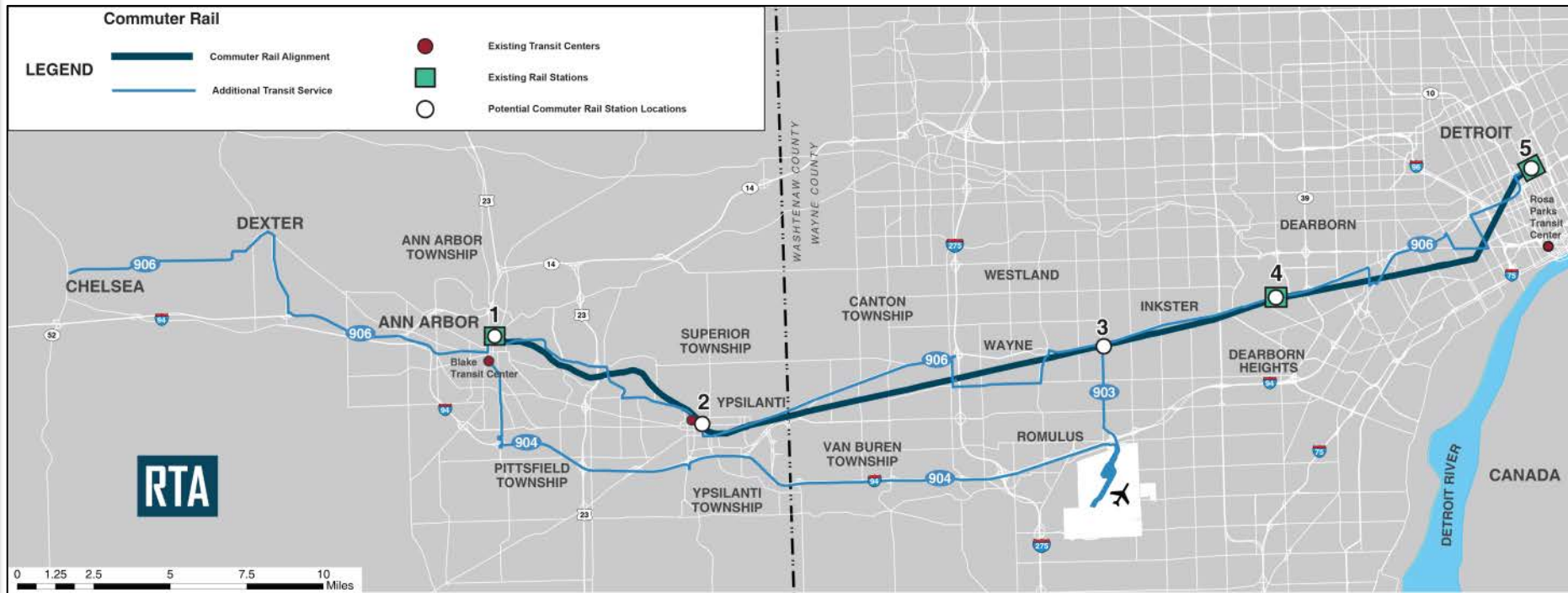
BRT Segment / Runningway + Rail Alignment

- O&M costs
- Travel time
- Ridership
- Traffic impacts
- Capital costs
- Cost effectiveness
- Bike and ped mobility impacts
- ROW / parking impacts
- Environmental impacts
- Safety impacts

BRT Segment + Rail Alignment

- Cultural and historic impacts
- Environmental Justice
- Natural resources

Detailed Evaluation of Commuter Rail



Commuter Rail Evaluation

Stations	Population Density*	Employment Density*	Connectivity to Transit Network ¹	Connectivity to Regional Transportation Network ²	Development Potential ³
Ann Arbor Amtrak	6,643	13,369	12	2	10
Depot Town	4,586	3,027	7	0	7
Airport Connector	3,269	1,448	1	0	5
John Dingell Transit Center	1,082	4,150	3	1	7
Detroit Amtrak	2,781	10,195	10	5	10

* Population and employment densities represent density within ½ mile of stations and are based on Census 2010 data

¹ Number of existing bus routes within ½ of station

² Number of regional transit network facilities (highways, park and rides, etc) within ½ mile of station

³ Total development potential score based on land development policy, proximity to major generators and recent development, development potential, and zoning

Detailed Evaluation of Regional Rail



Regional Rail Evaluation

Stations	Population Density*	Employment Density*	Connectivity to Transit Network ¹	Connectivity to Regional Transportation Network ²	Development Potential ³
Chelsea Rail Station	1,972	1,972	0	0	4
Dexter Rail Station	1,458	876	0	0	6
Ann Arbor Amtrak	6,643	13,369	12	2	10
UM Medical Center	6,558	4,324	8	0	10
US-23/E Huron River Dr	466	1,272	1	1	4
Depot Town	4,586	3,027	7	0	7
Haggerty Rd/I-275	1,147	407	0	1	2
S. Wayne Road	3,986	2,486	1	0	4
Airport Connector	3,269	1,448	1	0	5
John Dingell Transit Center	1,082	4,150	3	2	7
Schaefer Road	3,166	6,415	3	1	8
Michigan Avenue / Clark Avenue	3,711	1,219	6	3	6
Detroit Amtrak	2,171	2,975	7	5	10
Corktown (Vernor Hwy)	2,781	10,195	10	3	8

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Detailed Evaluation of BRT - Segment A



BRT Segment A Evaluation

Stations	Population Density*	Employment Density*	Connectivity to Transit Network ¹	Connectivity to Regional Transportation Network ²	Development Potential ³
Blake Transit Center	13,237	33,322	19	3	10
4th Avenue/Huron Street	10,828	31,406	19	4	10
Huron Street/Glen Avenue	11,848	21,019	13	0	7
UM Central Campus	15,166	28,733	11	0	9
Washtenaw Ave/Vinewood Blvd	8,058	4,223	2	0	3
Washtenaw Ave/Stadium Blvd	3,068	2,227	2	1	5
Washtenaw Ave/Huron Pkwy	1,795	2,968	3	1	7
Arborland Mall	2,794	3,550	3	1	7
Washtenaw Ave/Carpenter Rd	4,133	3,245	3	1	2
Washtenaw Ave/Golfside Rd	5,678	1,568	4	0	4
Washtenaw Ave/Hewitt Rd	3,768	1,477	2	0	2
EMU	7,463	1,873	5	0	8
Ypsilanti Transit Center	6,901	3,754	9	1	8
Depot Town	4,586	3,027	9	1	10

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Detailed Evaluation of BRT – Segment B



BRT Segment B Evaluation

Stations	Population Density*	Employment Density*	Connectivity to Transit Network ¹	Connectivity to Regional Transportation Network ²	Development Potential ³
Prospect Rd	2,803	2,050	3	1	6
Holmes Rd	1,039	315	1	0	3
Denton Rd	868	251	0	0	2
Canton Center Rd	1,438	1,082	0	0	3
Haggerty Rd/I-275	1,280	407	0	1	2

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Detailed Evaluation of BRT – Segment C



BRT Segment C Evaluation

Stations	Population Density*	Employment Density*	Connectivity to Transit Network ¹	Connectivity to Regional Transportation Network ²	Development Potential ³
Ford Michigan Assembly	1,508	2,278	1	0	3
S Wayne Rd	3,986	2,486	1	0	6
Venoy Rd	3,175	1,562	1	0	2

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Detailed Evaluation of BRT – Segment D



BRT Segment D Evaluation

Stations	Population Density*	Employment Density*	Connectivity to Transit Network ¹	Connectivity to Regional Transportation Network ²	Development Potential ³
Merriman Rd	3,133	1,448	1	0	2
Middlebelt Rd	3,815	406	2	0	3
Inkster Rd	3,501	592	1	0	3
Beech Daly Rd	4,181	1,810	1	0	3
Telegraph Rd	4,328	3,781	2	0	2
Outer Drive	4,137	5,585	2	0	2
Mason St	3,522	6,348	3	1	9

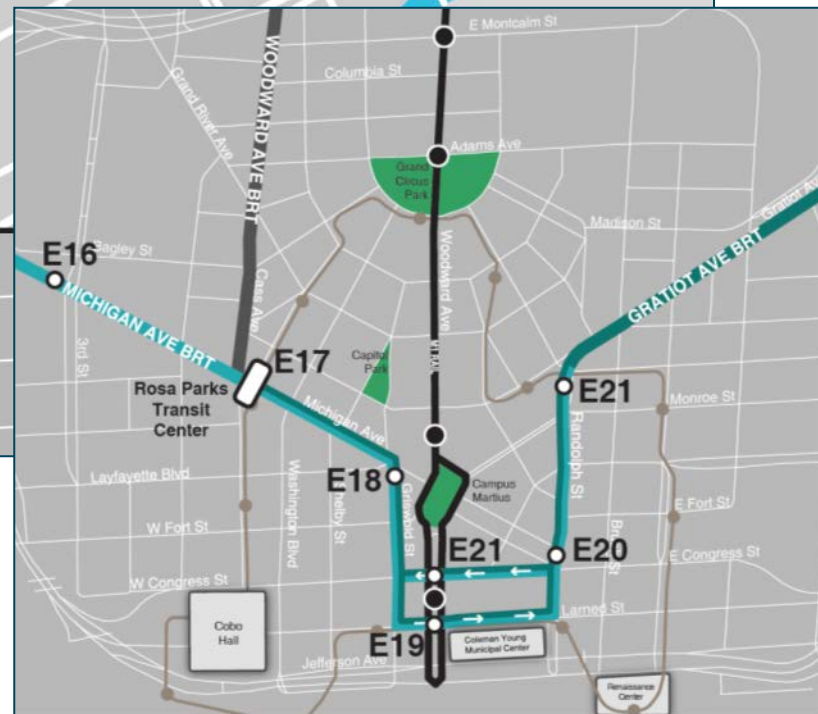
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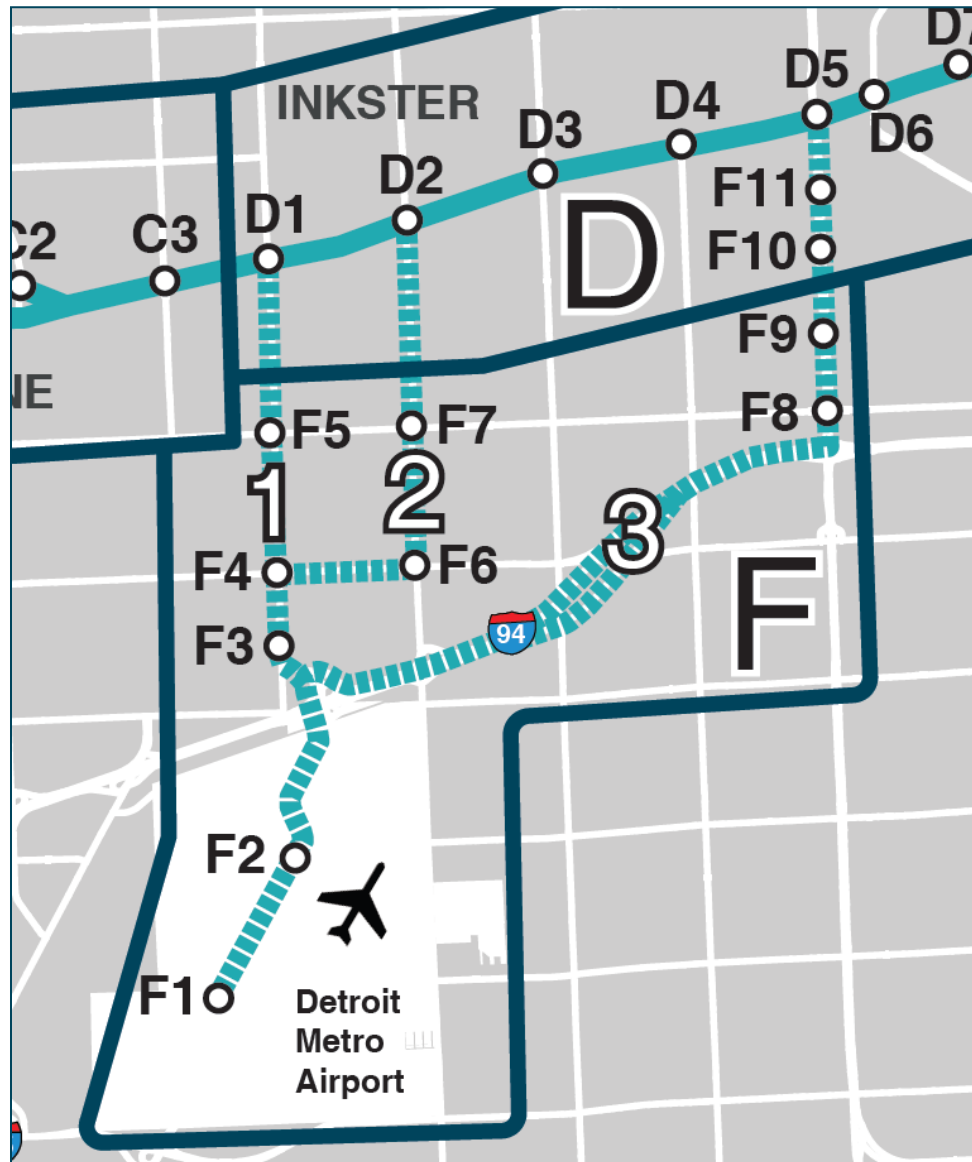
Detailed Evaluation of BRT – Segment E



BRT Segment E Evaluation

Stations	Population Density*	Employment Density*	Connectivity to Transit Network ¹	Connectivity to Regional Transportation Network ²	Development Potential ³
John Dingell Transit Center	1,154	4,150	3	1	7
Evergreen Rd Transit Center	565	7,498	5	1	4
Fairlane North	1,062	7,811	5	1	3
Hubbard Dr/Mercury Dr	3,068	15,539	2	1	3
Dearborn Civic Center	3,238	6,400	3	1	4
Greenfield Rd	6,223	4,597	3	1	2
Schaefer Rd	8,998	7,121	4	1	8
Wyoming Ave	3,172	2,248	4	2	2
Central Ave	7,740	1,594	3	1	2
Livernois Ave	7,067	1,203	5	1	2
Clark Ave	3,711	1,219	6	1	6
Grand Blvd	3,060	1,341	7	2	5
Vernor Hwy/14th St	2,570	4,042	7	3	8
Trumbull Ave	2,048	12,801	10	4	8
3 rd St	4,097	31,472	34	4	7
Rosa Parks Transit Center	4,038	49,035	34	5	10
Campus Martius	4,028	56,258	34	5	10
Larned St/Woodward Ave	2,880	52,572	34	3	10
Randolph St/Cadillac Square	3,620	57,032	31	3	9
Randolph St/Gratiot Ave	4,696	61,617	34	3	9
Congress St/Woodward Ave	3,335	55,727	34	5	10

Detailed Evaluation of BRT – Segment F



BRT Segment F Evaluation

Stations	Population Density*	Employment Density*	Connectivity to Transit Network ¹	Connectivity to Regional Transportation Network ²	Development Potential ³
DTW McNamara Terminal	0	988	1	1	3
DTW North Terminal	0	1,299	2	1	3
Merriman Rd/Smith Rd	298	967	1	1	5
Merriman Rd /Ecorse Rd	581	1,080	1	1	4
Merriman Rd/Van Born Rd	2,780	861	0	0	4
Middlebelt Rd/Ecorse Rd	1,632	809	1	1	4
Middlebelt Rd/ Van Born Rd	485	1,277	1	0	2
Telegraph Rd/Van Born Rd	3,611	933	1	1	4
Telegraph Rd/ Annapolis St	5,707	1,087	1	1	3
Telegraph Rd/Carlyle St	6,037	1,434	1	0	3
Telegraph Rd/Princeton St	5,752	1,820	1	0	3

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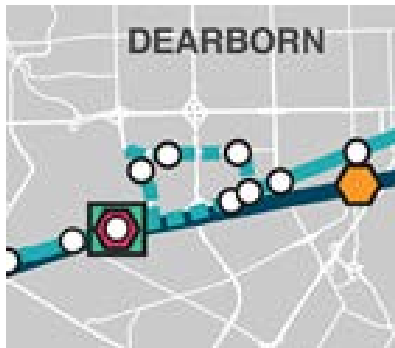
Comparison – Airport Alignments



	F1 Merriman	F2 Middlebelt	F3 Telegraph
Travel Time (RPTC to DTW North)	63 min. (mixed) 54 min. (dedicated)	63 min. (mixed) 53 min. (dedicated)	56 min. (mixed) 47 min. (dedicated)
# of Stations (RPTC to DTW North)	23	23	20
Avg. Pop. Density*	2,298 per sq. mi.	2,070 per sq. mi.	5,276 per sq. mi.
Avg. Emp. Density*	1,023 per sq. mi.	992 per sq. mi.	1,319 per sq. mi.
Avg. Dev. Potential*	3.43	3.43	3.25

**for stations south and west of Telegraph and Michigan Ave.*

Comparison – Dearborn Alignments



	E Michigan	E4 Hubbard
Travel Time (Dingell TC to RPTC)	33 min. (mixed) 28 min. (dedicated)	37 min. (mixed) 32 min. (dedicated)
# of Stations (RPTC to DTW North)	11	14
Avg. Pop. Density*	1,647 per sq. mi.	1,565 per sq. mi.
Avg. Emp. Density*	8,842 per sq. mi.	10,283 per sq. mi.
Avg. Dev. Potential*	4.00	3.33

**for non-shared stations*

Results Still to Come

- Ridership
- Operations and Capital Costs
- Cost effectiveness
- Right-of-Way and Parking Impacts
- Environmental Impacts
- Safety Impacts
- Cultural and Historic Impacts
- Environmental Justice
- Natural Resources

**Next
Meeting /
Next Steps**

Next Meeting / Next Steps

- **Next meetings**
 - Joint Policy and Technical Committee Meeting
 - Wednesday, February 10, 2016
- **Next steps**
 - Finalize the Tier 2 Evaluation Analysis and Report
 - Begin the Tier 3 Analysis



OF SOUTHEAST MICHIGAN