SEMCOG Public Notice

For immediate release: April 11, 2024
Contact: SEMCOG Information Center, 313-324-3330

SEMCOG invites public comment on an amendment to the FY 2023-2026 Transportation Improvement Program

SEMCOG, the Southeast Michigan Council of Governments, announces the public comment period for an amendment to the FY 2023-2026 Transportation Improvement Program (TIP). The TIP is a list of specific projects which implement the policies of the 2045 Regional Transportation Plan (RTP), a long-range vision and strategy that directs investment in the regional transportation system. TIP projects are recommended by cities, villages, county road agencies, transit providers, and the Michigan Department of Transportation (MDOT) over a four-year period. SEMCOG's Executive Committee makes the final approval of the TIP project list.

Background
Amendment 24-2 revises 72 phases:

- 39 Additions
- 19 Deletions
- 6 Cost Change
- 2 Scope Changes
- 1 Change to Cost and Scope
- 1 Change to Cost and from Federal to State Budget
- 1 Change from Federal to State Budget
- 3 Change from State to Federal Budget

General Program Accounts (GPAs) are groupings of similar routine transportation projects within the TIP as permitted in Federal regulation 23 CFR 450.324 (f) under 23 CFR 771.117(c) and (d) and/or 40 CFR part 93. Projects of this nature are programmed under an appropriate GPA by jurisdiction and type, such as Local Road, Trunkline Road, or Transit Capital. When the total cost of all the projects within a GPA equals or exceeds 125% of the GPA's current federally approved limit, an amendment is required to reflect this change in size. The GPAs in this amendment are programmed to at least 115% of the approved baseline.

The proposed changes to 4 GPAs can be found in the table below and with the other amendment materials on SEMCOG's TIP webpage.

DRAFT 23/26 TIP Amendment 24-2 (Full) - GPAs

FY	Type	GPA Name	Previously Approved	New Cost
2026	Local	Bridge	$0	$18,073,000
2025	Trunkline	Livability & Sustainability	$0	$1,078,520
2025	Trunkline	Bridge	$10,300,240	$15,570,693
2026	Trunkline	Road	$10,873,402	$14,377,349

The GPA amendment, as proposed, primarily pertains to changes in projects related to pavement and bridge rehabilitation where project costs are under $10 million.

Amendment evaluations
The amendment requires all proposed projects undergo a series of evaluations, including identification of financial resources, an air quality conformity analysis, an environmental justice analysis, an environmental sensitivity analysis, an assessment for consistency with the regional Intelligent Transportation System (ITS) architecture and Congestion Management Process, and a public comment process.

Project details and evaluation results are available on SEMCOG's TIP webpage or by contacting SEMCOG's Information Center at 313-324-3330.

How to comment
Please address written comments to SEMCOG Information Center, 1001 Woodward Avenue, Suite 1400, Detroit, MI 48226; send faxes to 313-961-4869; call 313-324-3330, or e-mail InfoCenter@semcog.org. Comments can also be made during the following in-person meetings, in which the amendment will be considered:

- Transportation Coordinating Council, Thursday, April 18, 2024 at 9:30 a.m., 1001 Woodward Avenue, Suite 1400, Detroit, MI 48226;
- Executive Committee, Friday, May 3, 2024, 1 p.m., 1001 Woodward Avenue, Suite 1400, Detroit, MI 48226.

Coverage of this notice
Public notice of public participation activities and time established for public review of, and comments on, the TIP will satisfy the Program of Projects (POP) requirements of the Federal Transit Administration (FTA).

SEMCOG

Transportation Coordinating Council

Lev Wood, Chairperson
Councilmember, City of Grosse Pointe Farms

DATE: May 3, 2024

TO: Executive Committee

SUBJECT: 2024-2 (Full) Amendment to the 2023-2026 Transportation Improvement Program (TIP) for Southeast Michigan

ACTION REQUESTED

Summary of action requested

The Transportation Coordinating Council (TCC) is recommending Executive Committee approval of the 2024-2 (Full) Amendment to the 2023-2026 Transportation Improvement Program for Southeast Michigan (TIP) and the 2045 Regional Transportation Plan (RTP).

Background

The Transportation Improvement Program (TIP) is a list of specific projects which implement the policies of the 2045 Regional Transportation Plan (RTP), a long-range vision and strategy that directs investment in the regional transportation system. TIP projects are recommended by cities, villages, county road agencies, transit providers, and the Michigan Department of Transportation (MDOT) over a four-year period. SEMCOG's Executive Committee makes the final approval of the TIP project list.

General Program Accounts (GPAs) are groupings of similar routine transportation projects within the TIP as permitted in Federal regulation 23 CFR 450.324 (f) under 23 CFR 771.117(c) and (d) and/or 40 CFR part 93. Projects of this nature are programmed under an appropriate GPA by jurisdiction and type, such as Local Road, Trunkline Road, or Transit Capital. When the total cost of all the projects within a GPA equals or exceeds 125% of the GPA's current federally approved limit, an amendment is required to reflect this change in size. The GPAs in this amendment are programmed to at least 115% of the approved baseline.

TIP Amendment Frequency and Nomenclature

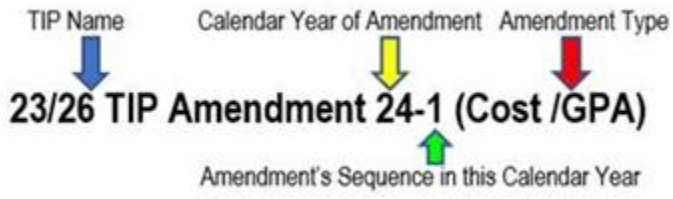
SEMCOG has recently expanded the annual number of TIP amendments from three to five. Three of these amendment periods formerly designated Spring, Summer, and Winter. During the Spring, Summer, and Winter amendment periods, changes can be made to S/TIP Line-Item projects (projects not under a GPA) for any reason (cost, scope, etc.). Changes could also be made to GPAs to increase the total amount of funding available for the projects programmed under one or more GPAs. The two new amendments are cost-only and are limited to amendment of S/TIP Line-item projects for cost changes of 25% or more, and adjustments to GPAs, when necessary, to increase total funding available for projects programmed under them.

While increasing the number of amendments has provided more flexibility to the FACs, transit agencies, and MDOT in TIP project programming, it also has the potential to cause

confusion as to what changes can be made in which amendment period if the old naming convention continues to be used. The addition of the two new amendments has also caused the names of the amendments to become more unwieldy using the old naming convention.

Therefore, SEMCOG has implemented a new naming convention for the five annual TIP amendment periods. Under the new naming convention, there will be three amendment types:

- *Cost/GPA*, for the two cost-only S/TIP line-item amendments and GPA cost amendments;
- *Full*, for the three amendments formerly named Spring, Summer, and Fall, where any S/TIP line-item project can be added, deleted, or changed, and GPAs can be cost-adjusted; and
- *Special*, for any special amendments that may be necessary.



23/26 TIP Amendment 24- 2 (Full)

Amendment 24-2 revises 72 phases:

- 39 Additions
- 19 Deletions
- 6 Cost Change
- 2 Scope Changes
- 1 Change to Cost and Scope
- 1 Change to Cost and from Federal to State Budget
- 1 Change from Federal to State Budget
- 3 Change from State to Federal Budget

General Program Accounts (GPAs)

This amendment includes several proposed cost adjustments to GPAs. The proposed changes to 4 GPAs can be found in the table below and with the other amendment materials on SEMCOG's TIP webpage.

DRAFT 23/26 TIP Amendment 24-2 (Full) - GPAs

FY	Type	GPA Name	Previously Approved	New Cost
2026	Local	Bridge	$0	$18,073,000
2025	Trunkline	Livability & Sustainability	$0	$1,078,520
2025	Trunkline	Bridge	$10,300,240	$15,570,693
2026	Trunkline	Road	$10,873,402	$14,377,349

All revisions in Amendment 24-2 will be incorporated in the RTP. Many of the projects within this amendment, as proposed, pertain to changes to bridge rehabilitations and replacements projects.

Amendment Evaluations

The amendment requires all proposed projects undergo a series of evaluations – identification of financial resources, air quality conformity analysis, environmental justice analysis, environmental sensitivity review, assessment for consistency with the regional Intelligent Transportation System (ITS) architecture, and a public comment process. The results of these evaluations are summarized below:

- The fiscal constraint analysis indicates the RTP and TIP remain fiscally constrained.
- An updated air quality conformity analysis was **not** required for this amendment since none of the proposed projects were designated as *not exempt* from the requirement to determine conformity by the Michigan Transportation Conformity Interagency Workgroup (MITC-IAWG).
- The environmental sensitivity review summarizes possible impacts of RTP (including TIP projects) projects on environmentally sensitive resources.
- The environmental justice analysis indicates impacts related to implementation of the RTP (including TIP projects) remain balanced across the region.
- The projects are consistent with the regional Congestion Management Process.

The public comment period for the amendment officially began on April 11, 2024 and will end with Executive Committee action on May 3, 2024.

Action Requested

The Transportation Coordinating Council (TCC) is recommending Executive Committee approval of the 2024-2 (Full) Amendment to the 2023-2026 Transportation Improvement Program for Southeast Michigan (TIP) and the 2045 Regional Transportation Plan (RTP).

Executive Committee Resolution
to Amend the FY 2023-2026 Transportation Improvement Program
for Southeast Michigan and the 2045 Regional Transportation Plan for Southeast Michigan

WHEREAS, the Transportation Improvement Program (TIP) and Regional Transportation Plan (RTP) support this vision:

> *All the people of Southeast Michigan benefit from a connected, thriving region of small towns, dynamic urban centers, active waterfronts, diverse neighborhoods, premiere educational institutions, and abundant agricultural, recreational, and natural areas.*

WHEREAS, SEMCOG is responsible for developing a long-range regional transportation plan
and a Transportation Improvement Program that funds projects to implement the plan;

WHEREAS, the 2045 RTP was developed pursuant to the transportation planning provisions of
Title 23 of United States Code (USC) Section 134 and Title 49 USC Section 5303;

WHEREAS, the 2045 RTP requires periodic updates to include projects not fully developed at the
time the 2045 RTP was originally adopted, to take advantage of new funding and reflect changing
priorities;

WHEREAS, SEMCOG is required to develop amendments to the FY 2023-2026 TIP pursuant to
Title 23 of the United States Code (USC) Section 134;

WHEREAS, the 2045 RTP and FY 2023-2026 TIP were analyzed in accordance with 40 CFR 51
for air quality conformity and found not to exceed present and future emission budgets in all
analysis years;

WHEREAS, the amendments to the FY 2023-2026 TIP are consistent with the 2045 RTP policies,
were financially constrained to identified funding resources, and the amendment process actively
encouraged public and agency review and comment;

WHEREAS, SEMCOG certifies that all projects funded in total or in part with State Transportation
Economic Development Fund (TEDF) Category C funds are eligible for funding under PA 231 of

1987, as amended, and meet the goals and objectives of the program;

WHEREAS, General Program Accounts (GPA) are used to group smaller, routine transportation projects together in the TIP;

WHEREAS, when the total cost of projects programmed in a GPA equals or exceeds 125% of the GPA's currently authorized amount, that GPA needs to be amended;

WHEREAS, the 2045 RTP, as amended, remains consistent with regional goals and objectives
and federal planning factors and were examined for potential impacts on environmentally sensitive resources;

WHEREAS, impacts resulting from the FY 2023-2026 TIP as amended, are balanced across the region, so that no one population bears a disproportionate negative impact, and the benefits are shared across the region;

WHEREAS, SEMCOG has determined that the amendment to the 2045 RTP and the FY 2023-2026 TIP conform to the State Implementation Plan for Air Quality as required by provisions of Title 40 Code of Federal Regulations (CFR) 51 and Title 23 CFR 450;

NOW THEREFORE BE IT RESOLVED, this 3rd day of May, 2024 THAT the Executive Committee of SEMCOG, the Southeast Michigan Council of Governments, approves the amendment of projects to the 2045 RTP and FY 2023-2026 TIP;

AND BE IT FURTHER RESOLVED THAT the Executive Committee of SEMCOG approves the amendment of four GPAs in the FY2023-2026 TIP;

AND BE IT FURTHER RESOLVED THAT the Executive Committee of SEMCOG submits this
amendment to the 2045 RTP and the FY 2023-2026 TIP to the Michigan Department of Transportation, as designee for the Governor's Office of the State of Michigan, for review and transmittal to the Michigan Department of Environment, Great Lakes, and Energy; Michigan Department of Natural Resources; Federal Highway Administration; Federal Transit Administration; and U.S. Environmental Protection Agency.

ATTEST: _____ DATE: May 3, 2024

Committee Clerk

23/26 TIP Amendment 24-2 (Full) DRAFT Project List
SEMCOG April 11, 2024

Line Item	Job#	Phase	Fiscal Year	County	Responsible Agency	Project Name	Limits	Length	Primary Work Type	Project Description	AC/ACC Budget	ACC Year(s)	Federal Budget	Fund Source	State Budget	Local Budget	Total Phase Cost	Amendment Type	Air Quality	RTP Goal
1	106613	ROW	2024	Wayne	MDOT	OLD M-14	over the Middle Rouge River	0.0	Bridge Replacement	Bridge Replacement			$ 8,185.00	ST	$ 1,588.00	$ 227.00	$ 10,000.00	Add	Exempt	1
2	111354	CON	2026	Macomb	MDOT	I-94	Stephens Drive to 11 Mile Road	1.6	Reconstruction	Reconstruct			$ 23,463,000.00	IM	$ 2,607,000.00	$ -	$ 26,070,000.00	Delete	Exempt	1
3	111354	PE	2024	Macomb	MDOT	I-94	Stephens Drive to 11 Mile Road	1.6	Reconstruction	Reconstruct			$ 2,133,000.00	IM	$ 237,000.00	$ -	$ 2,370,000.00	Delete	Exempt	1
4	111354	ROW	2025	Macomb	MDOT	I-94	Stephens Drive to 11 Mile Road	1.6	Reconstruction	Reconstruct			$ 90,000.00	IM	$ 10,000.00	$ -	$ 100,000.00	Delete	Exempt	1
5	113501	CON	2026	Washtenaw	MDOT	US-23 BR	I-94 BL to M-14	1.2	Reconstruction	Reconstruct possible ASCRL in sections			$ 20,331,540.00	NH	$ 3,944,902.00	$ 563,558.00	$ 24,840,000.00	Add	Exempt	1
6	127665	CON	2026	Wayne	MDOT	M-153	over the Rouge River	0.0	Bridge Replacement	Deck Replacement, Epoxy Overlay, Deck Patch, Steel and Substructure Repairs			$ 8,690,409.00	BFP	$ 1,743,522.00	$ 183,552.00	$ 10,617,480.00	Add	Exempt	1
7	128981	CON	2026	Oakland	MDOT	Telegraph Rd	from Vanguard to Elizabeth Lake, City of Pontiac	0.5	New Facilities	Sidewalk extension/installation.			$ 325,894.00	HSIP	$ 31,684.00	$ 4,526.00	$ 362,104.00	Delete	Exempt	3
8	129977	ROW	2025	Washtenaw	MDOT	US-23	14 bridges on US-23 in Washtenaw County	0.0	Bridge Replacement	Bridge Replacement, Epoxy Overlay, Deck Patching			$ 8,185.00	BFP	$ 1,815.00	$ -	$ 10,000.00	Add	Exempt	1
9	201225	CON	2025	Wayne	MDOT	I-94 E	Pelham to Oakwood	3.5	Reconstruction	Reconstruct, Conc Pavt Rprs, Conc Pavt Inlay, and misc work			$ 49,110,000.00	NH	$ 9,937,125.00	$ 952,875.00	$ 60,000,000.00	Cost and Scope Change	Exempt	1
10	205628	ROW	2025	Monroe	MDOT	I-75	Ready Road over I-75	0.0	Bridge Replacement	Bridge Replacement			$ 9,000.00	BFPI	$ 1,000.00	$ -	$ 10,000.00	Add	Exempt	1
11	208609	CON	2025	Wayne	MDOT	I-94	Wayne Road to Middlebelt Road	3.1	Reconstruction	Reconstruct			$ 29,700,000.00	IM	$ 140,500,000.00	$ -	$ 170,200,000.00	Cost Change	Exempt	1
12	208656	UTL	2023	Monroe	MDOT	I-75 Connector	I-75 Connector over NS & GTW Railroad	0.0	Bridge Replacement	Bridge Replacement			$ -		$ 25,000.00	$ -	$ 25,000.00	Delete	Exempt	1
13	210081	CON	2026	Oakland	MDOT	M-150	M-59 to Avon Road	2.8	Road Rehabilitation	Milling and Two Course Asphalt Resurfacing			$ 14,512,005.00	NH	$ 2,815,746.00	$ 402,249.00	$ 17,730,000.00	Add	Exempt	1
14	210219	CON	2025	Oakland	MDOT	M-59	M-150 over M-59	0.0	Bridge CPM	Substructure Patching, Epoxy Overlay			$ 385,727.00	BFP	$ 85,534.00	$ -	$ 471,260.00	State Budget to Federal	Exempt	1
15	210986	PE	2023	Wayne	MDOT	I-94 E	Barrett Street over I-94	0.0	Bridge Replacement	Bridge Replacement			$ 81,850.00	BO	$ 18,150.00	$ -	$ 100,000.00	Delete	Exempt	1
16	210987	PE	2023	Wayne	MDOT	I-94 W	Lemay St over I-94	0.0	New Structure	New Structure			$ 81,850.00	BO	$ 18,150.00	$ -	$ 100,000.00	Delete	Exempt	1
17	210988	PE	2023	Wayne	MDOT	I-94 E	Malcolm Ave Walkover over I-94	0.0	Bridge Replacement	Bridge Replacement			$ 81,850.00	ST	$ 18,150.00	$ -	$ 100,000.00	Delete	Exempt	1
18	210989	PE	2023	Wayne	MDOT	I-94 W	Conner Creek Greenway (Iron Belle Trail) over I-94	0.0	New Structure	New Structure			$ 81,850.00	ST	$ 15,881.00	$ 2,269.00	$ 100,000.00	Delete	Exempt	1
19	210991	PE	2023	Wayne	MDOT	I-94 E	Beaubien St over I-94, Seminole St Walkover over I-94, McClellan over I-94	0.0	Bridge Miscellaneous	Bridge Removal			$ 81,850.00	ST	$ 18,150.00	$ -	$ 100,000.00	Delete	Exempt	1
20	211017	CON	2024	Livingston ,Monroe, Washtena	MDOT	US-23 N	US-23 Freeway Signing: Monroe, Washtenaw, and Livingston Counties	80.5	Traffic Safety	TSC-wide - US-23 Freeway Signing Engineering, Design and Update			$ 3,825,000.00	STG		$ -	$ 5,475,000.00	Cost Change	Exempt	2
21	211426	CON	2025	Wayne	MDOT	I-94	Middlebelt Rd to Beech Daly Rd	2.4	Reconstruction	Reconstruct			$ 105,259,100.00	NH,NHFP	$ 20,924,228.00	$ 2,416,672.00	$ 128,600,000.00	Cost Change	Exempt	1
22	211875	PE	2024	Wayne	MDOT	I-75 N CD/M-10 N Ramp	M-10 at Vernor (D04 of 82111) Station ID 880	0.0	Operation Improvements	Pump Station Rehabilitation			$ 122,775.00	ST	$ 27,225.00	$ -	$ 150,000.00	State Budget to Federal	Exempt	1
23	213262	CON	2023	Macomb	Macomb County	28 Mile Rd	28 Mile Road over Deer Creek	0.0	Bridge Miscellaneous	Bridge Removal			$ 214,753.00	HIC	$ -	$ -	$ 214,753.00	Delete	Exempt	1
24	213262	PE	2023	Macomb	Macomb County	28 Mile Rd	28 Mile Road over Deer Creek	0.0	Bridge Miscellaneous	Bridge Removal			$ 19,000.00	HIC	$ -	$ -	$ 19,000.00	Delete	Exempt	1
25	213479	PE	2024	Wayne	MDOT	US-24	US-24, Pennsylvania to Connector	0.8	Road Capital Preventive Maintenance	Milling & One Course Asphalt Overlay			$ 49,110.00	NH	$ 10,890.00	$ -	$ 60,000.00	State Budget to Federal	Exempt	1
26	214116	CON	2026	Wayne	MDOT	US-12	Pershing to E of Henry Ruff	3.4	Reconstruction	Reconstruction and Milling & One Course Asphalt Overlay			$ 58,932,000.00	NH	$ 12,739,012.00	$ 328,988.00	$ 72,000,000.00	Delete	Exempt	1
27	214116	ROW	2024	Wayne	MDOT	US-12	Pershing to E of Henry Ruff	3.4	Reconstruction	Reconstruction and Milling & One Course Asphalt Overlay			$ 736,650.00	NH	$ 159,238.00	$ 4,112.00	$ 900,000.00	Delete	Exempt	1
28	214556	CON	2025	Washtenaw	Saline	Woodland Dr E	Woodland and Maple	0.4	Road Rehabilitation	Resurface			$ 540,670.00	ST,STU	$ -	$ 398,330.00	$ 939,000.00	Scope Change	Exempt	1
29	214921	CON	2025	Washtenaw	Ann Arbor	Dexter Rd	Dexter Ave	0.9	Roadside Facilities - Improve	Sidewalk Gap Filling	$ 400,000.00	2026	$ 400,000.00	STU	$ -	$ 1,080,000.00	$ 1,480,000.00	Delete	Exempt	3
30	215069	CON	2024	Macomb, Oakland	MDOT	I-696	21 Structures Over I-696 from Barkman to Couzens	0.0	Bridge Replacement	Deck Replacements and Miscellaneous Preventative Maintenance			$ 10,902,708.00	BFPI,BOI	$ 1,211,411.00	$ -	$ 12,114,118.00	Scope Change	Exempt	1

23/26 TIP Amendment 24-2 (Full) DRAFT Project List
SEMCOG April 11, 2024

Line Item	Job#	Phase	Fiscal Year	County	Responsible Agency	Project Name	Limits	Length	Primary Work Type	Project Description	AC/ACC Budget	ACC Year(s)	Federal Budget	Fund Source	State Budget	Local Budget	Total Phase Cost	Amendment Type	Air Quality	RTP Goal
31	215078	PES	2023	Macomb	Macomb County	North Ave	North Avenue over East Branch of Coon Creek	0.0	Bridge Replacement	Design work for Bridge Replacement			$ 30,000.00	HIC	$ -	$ -	$ 30,000.00	Delete	Exempt	1
32	215809	CON	2024	Macomb	Macomb County	E 10 Mile Rd	10 Mile Road from Lorraine Avenue west to Ryan Road	1.5	Reconstruction	Road Reconstruction			$ 8,342,552.00	ST,STU	$ -	$ 1,849,937.00	$ 10,192,489.00	Cost Change	Exempt	1
33	215809	CON	2024	Macomb	Macomb County	E 10 Mile Rd	10 Mile Road from Lorraine Avenue west to Ryan Road	1.5	Reconstruction	Road Reconstruction			$ 8,342,548.00	ST,STU		$ 1,849,936.00	$ 10,192,484.00	Cost Change	Exempt	1
34	217033	CON	2026	Macomb, Oakland	State Wide	Statewide	Four Structures Statewide	0.0	Bridge Replacement	Bridge Replacements			$ -		$ 9,119,578.00	$ -	$ 9,119,578.00	Federal Budget to State	Exempt	1
35	217039	CON	2025	Livingston ,Monroe	State Wide	Statewide	Two Structures Statewide	0.0	Bridge Replacement	Bridge Replacements			$ -		$ 6,811,392.00	$ -	$ 6,811,392.00	Cost Change, Federal Budget to State	Exempt	1
36	217039	PE	2024	Livingston ,Monroe	State Wide	Statewide	Two Structures Statewide	0.0	Bridge Replacement	Bridge Replacements			$ -		$ 20,000.00	$ -	$ 20,000.00	Add	Exempt	1
37	217681	CON	2024	Macomb	Warren	Frazho Rd	Frazho Road from Hoover Road to Schoenherr Road	1.0	Reconstruction	Road Reconstruction	$ 1,808,885.00	2027	$ 1,309,600.00	STU	$ -	$ 2,500,400.00	$ 3,810,000.00	Add	Exempt	1
38	217817	CON	2024	Washtenaw	Washtenaw County	Dexter Chelsea Rd	Dexter-Chelsea Road over Letts Creek	0.0	Bridge Replacement	Superstructure Replacement			$ 1,350,764.00	HIC	$ -	$ -	$ 1,350,764.00	Delete	Exempt	1
39	217817	PES	2023	Washtenaw	Washtenaw County	Dexter Chelsea Rd	Dexter-Chelsea Road over Letts Creek	0.0	Bridge Replacement	Superstructure Replacement			$ 30,000.00	HIC	$ -	$ -	$ 30,000.00	Delete	Exempt	1
40	218272	CON	2024	Kent,Menominee,Macomb,W	MDOT	STATEWIDE	MDOT Wetland Mitigation	0.0	Environmental	Aerial Herbicide Application			$ -	ST	$ -	$ -	$ 50,000.00	Add	Exempt	5
41	219312	CON	2025	Oakland	Troy	E Wattles Rd	Wattles Road`	0.2	New Facilities	Wattles Road Sidewalk/Pathway			$ 392,000.00	CRU	$ -	$ 98,000.00	$ 490,000.00	Add	Exempt	3
42	219316	CON	2026	Wayne	Grosse Pointe Woods	Mack Plz	City of Grosse Pointe Woods	0.1	Air Quality Improvement	Public EV Charging Stations			$ 500,000.00	CRU	$ -	$ 125,000.00	$ 625,000.00	Add	Exempt	5
43	219373	CON	2024	Wayne	Detroit	West Chicago Avenue	West Chicago Avenue to Oakman Boulevard	0.3	New Facilities	New Non-Motorized Path			$ 1,386,216.00	HIPE	$ -	$ 3,640,488.00	$ 5,026,704.00	Cost Change	Exempt	3
44	219416	CON	2024	Oakland	Berkley	Coolidge Hwy	City of Berkley - City-wide	0.1	Operation Improvements	City of Berkley Streetlight Conversion	$ 108,000.00	2025	$ 108,000.00	CRU	$ -	$ 135,000.00	$ 243,000.00	Add	Exempt	4
45	219594	CON	2024	Livingston	Livingston County	Challis Rd	Challis at Bauer Road	0.8	Traffic Safety	Construct single-lane roundabout			$ 1,250,000.00	CRU	$ -	$ 312,500.00	$ 1,562,500.00	Delete	Exempt	2
46	219594	CON	2024	Livingston	Livingston County	Challis Rd	Challis at Bauer Road	0.8	Traffic Safety	Construct single-lane roundabout			$ 1,250,000.00	CRU	$ -	$ 312,500.00	$ 1,562,500.00	Add	Exempt	2
47	219827	CON	2026	Wayne	MDOT	M-8 E/S I 75 Ramp	Str# 11377, S05-82104, EB M-8 RMP TO I-75 over S SERVICE DRIVE, M-8	0.0	Bridge Replacement	Deck Replacement			$ 2,251,530.00	BFP	$ 499,270.00	$ -	$ 2,750,800.00	Add	Exempt	1
48	219827	PES	2024	Wayne	MDOT	M-8 E/S I 75 Ramp	Str# 11377, S05-82104, EB M-8 RMP TO I-75 over S SERVICE DRIVE, M-8	0.0	Bridge Replacement	Deck Replacement			$ 203,235.00	BFP	$ 45,067.00	$ -	$ 248,302.00	Add	Exempt	1
49	219827	PE	2024	Wayne	MDOT	M-8 E/S I 75 Ramp	Str# 11377, S05-82104, EB M-8 RMP TO I-75 over S SERVICE DRIVE, M-8	0.0	Bridge Replacement	Deck Replacement			$ 29,681.00	BFP	$ 6,582.00	$ -	$ 36,263.00	Add	Exempt	1
50	219863	PE	2024	St. Clair	St. Clair County	Shea Rd	Shea Road at Starville Road	0.2	Traffic Safety	Construct New Compact Roundabout			$ 19,300.00	HRRR	$ -	$ 19,300.00	$ 38,600.00	Add	Exempt	2
51	219863	CON	2025	St. Clair	St. Clair County	Shea Rd	Shea Road at Starville Road	0.2	Traffic Safety	Construct New Compact Roundabout			$ 347,400.00	HRRR	$ -	$ 38,600.00	$ 386,000.00	Add	Exempt	2
52	220127	CON	2025	Wayne	Northville	S Center St	Intersection of 7 Mile Rd and Sheldon Rd/Center St	0.4	Traffic Safety	New Roundabout Construction			$ 670,500.00	HSIP	$ -	$ 74,500.00	$ 745,000.00	Add	Exempt	2
53	220156	CON	2025	St. Clair	St. Clair County	Wadhams Rd	Wadhams Rd at St. Clair Highway	1.0	Traffic Safety	New Roundabout Construction			$ 336,000.00	HSIP	$ -	$ 84,000.00	$ 420,000.00	Add	Exempt	2
54	220238	CON	2025	Macomb	Macomb County	Jefferson Ave	Sutton Rd. to Meldrum Drain; Meldrum Drain from Jefferson to Middle School	0.4	New Facilities	New non-motorized pathway			$ 525,810.00	TA	$ -	$ 135,000.00	$ 676,808.00	Add	Exempt	3
55	220321	CON	2025	Oakland	Oakland County	Spaulding Rd	Spaulding Road Str #8202 over Novi-Lyon Drain, Oakland County	0.0	Bridge Replacement	Bridge Replacement			$ 1,952,250.00	BO	$ -	$ 650,750.00	$ 2,603,000.00	Add	Exempt	1
56	220323	CON	2025	Oakland	Oakland County	Martindale Rd	Martindale Road STR #8201 over Novi-Lyon Drain, Oakland County	0.0	Bridge Replacement	Bridge Replacement			$ 2,209,500.00	BRT	$ -	$ 736,500.00	$ 2,946,000.00	Add	Exempt	1
57	220548	CON	2026	Wayne	Wayne County	S Sheldon Rd	S Sheldon Road Str #12268 over Lower Rouge River, Wayne County	0.0	Bridge Replacement	Bridge Replacement			$ 2,973,750.00	BO	$ -	$ 991,250.00	$ 3,965,000.00	Add	Exempt	1
58	220549	CON	2026	Macomb	Macomb County	Romeo Plank Rd	Romeo Plank Road Str #6300 over Newland Drain Macomb County	0.0	Bridge Replacement	Bridge Replacement			$ 1,485,600.00	BO	$ -	$ 371,400.00	$ 1,857,000.00	Add	Exempt	1
59	220551	CON	2026	Wayne	Wayne County	S Sheldon Rd	S Sheldon Road Str #12267 over Sines Drain, Wayne County	0.0	Bridge Replacement	Bridge Replacement			$ 1,533,750.00	BO	$ -	$ 511,250.00	$ 2,045,000.00	Add	Exempt	1
60	220552	CON	2026	St. Clair	St. Clair County	Palms Rd	Palms Road Str #10155 over Rattle Run Creek, St. Clair County	0.0	Bridge Replacement	Bridge Replacement			$ 1,487,200.00	BO	$ 278,850.00	$ 92,950.00	$ 1,859,000.00	Add	Exempt	1

23/26 TIP Amendment 24-2 (Full) DRAFT Project List
SEMCOG April 11, 2024

Line Item	Job#	Phase	Fiscal Year	County	Responsible Agency	Project Name	Limits	Length	Primary Work Type	Project Description	AC/ACC Budget	ACC Year(s)	Federal Budget	Fund Source	State Budget	Local Budget	Total Phase Cost	Amendment Type	Air Quality	RTP Goal
61	220553	CON	2026	Macomb	Macomb County	21 Mile Rd	21 Mile Road Str #6206 over Salt Slang Gloede Drain, Macomb County	0.0	Bridge Replacement	Bridge Replacement			$ 2,560,000.00	BRT	$ -	$ 2,560,000.00	$ 5,120,000.00	Add	Exempt	1
62	220567	CON	2025	Oakland	Oakland County	Oakwood Rd	Oakwood Rd (e/o Hadley to M-24) & Oxford Rd (Ray to Gardner)	7.1	Road Rehabilitation	Road Rehabilitation	$ 749,000.00	2026	$ 734,000.00	STL	$ -	$ 1,119,750.00	$ 1,853,750.00	Add	Exempt	1
63	220682	CON	2026	Livingston	Livingston County	Marr Rd	Marr Road Str #5818 over South Branch Shiawassee River Livingston County	0.0	Bridge Replacement	Bridge Replacement			$ 1,269,600.00	BO	$ 158,700.00	$ 158,700.00	$ 1,587,000.00	Add	Exempt	1
64	220685	CON	2026	Washtenaw	Washtenaw County	Main St Whitmore	Main Street Whitmore Str #10999 over Horseshoe Lake Outlet Washtenaw County	0.0	Bridge Replacement	Bridge Replacement			$ 1,852,800.00	BRT	$ -	$ 463,200.00	$ 2,316,000.00	Add	Exempt	1
65	220739	CON	2024	Macomb	St. Clair Shores	Harper Ave	City of St. Clair Shores	0.2	Air Quality Improvement	EV Charger Installation			$ 68,000.00	CRU	$ -	$ 17,000.00	$ 85,000.00	Add	Exempt	5
66	220743	CON	2025	Macomb	Roseville	VFW Memorial Dr	City of Roseville	0.1	Air Quality Improvement	City of Roseville EV Charging Stations			$ 720,000.00	CRU	$ -	$ 180,000.00	$ 900,000.00	Add	Exempt	5
67	220801	CON	2024	Oakland	Pontiac	Pike Street Clinton River Trail Connector	Pike Street Clinton River Trail Connector	2.8	New Facilities	New Non-Motorized Path			$ 12,940,000.00	RAIS	$ -	$ 3,235,000.00	$ 16,175,000.00	Add	Exempt	3
68	220801	PE	2024	Oakland	Pontiac	Pike Street Clinton River Trail Connector	Pike Street Clinton River Trail Connector	2.8	New Facilities	New Non-Motorized Path			$ 3,388,000.00	RAIS	$ -	$ 847,000.00	$ 4,235,000.00	Add	Exempt	3
69	220806	CON	2024	Monroe	Monroe County	Brandon Rd	Various	0.0	Bridge Rehabilitation	Rehabilitation of Six Bridges in Monroe County	$ 680,999.00	2025	$ 973,999.00	ST,STL,STU,STUL	$ 154,369.00	$ 1,082,345.00	$ 2,210,713.00	Add	Exempt	1
70	220843	CON	2025	Monroe	Monroe	E 1st St	East First Street	0.6	Road Capital Preventive Maintenance	HMA Mill and Fill	$ 330,300.00	2026	$ 441,545.00	ST,STUL	$ -	$ 501,455.00	$ 943,000.00	Add	Exempt	1
71	220874	PE	2024	Wayne	MDOT	US-12	County Line to Denton Rd	1.4	Road Rehabilitation	Concrete Inlay			$ 1,399,635.00	NH	$ 310,365.00	$ -	$ 1,710,000.00	Add	Exempt	1
72	220874	ROW	2025	Wayne	MDOT	US-12	County Line to Denton Rd	1.4	Road Rehabilitation	Concrete Inlay			$ 40,925.00	NH	$ 9,075.00	$ -	$ 50,000.00	Add	Exempt	1

The ten 'Overarching Regional Transportation Policies for Southeast Michigan' as noted on page 4 of the 2045 RTP, are as follows:

1. Preserve Infrastructure through fiscally-responsible, data-driven asset management practices.
2. Increase Safety for all travelers, regardless of mode.
3. Increase Access to jobs and core services, regardless of race, gender, ethnicity, national origin, age, physical ability, or income.
4. Utilize Technology to cost-effectively improve the transportation system.
5. Integrate Environmental Protection into the transportation system, enhancing community health and increasing the overall resiliency of infrastructure.
6. Support the Regional Economy through the reliable movement of goods, efficient trade connections, expanded labor mobility, and support for tourism and local placemaking.
7. Educate and Collaborate with local governments, transportation agencies, utility providers, and residents to improve understanding and operation of the transportation system.
8. Increase Funding and Expand Local Options to provide resources that are sufficient to meet regional transportation needs.
9. Anticipate the Socio-economic Challenges of an Aging Region including sustaining mobility for all ages and mitigating labor shortages.
10. Measure Transportation System Performance to facilitate strategic investment through developing, collecting, analyzing, and disseminating data.

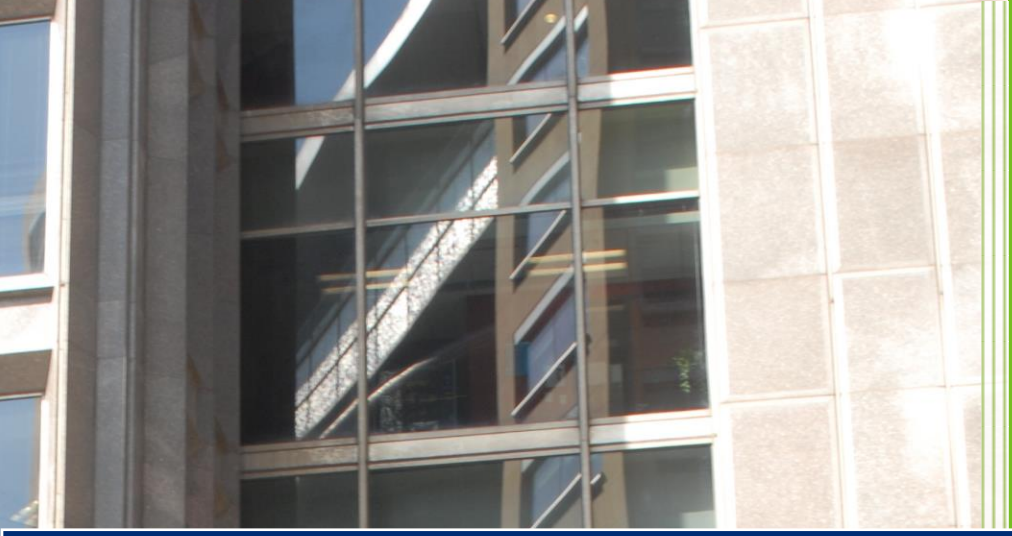
DRAFT 23/26 TIP Amendment 24-2 (Full) - GPAs

FY	Type	GPA Name	Previously Approved	New Cost
2026	Local	Bridge	$0	$18,073,000
2025	Trunkline	Livability & Sustainability	$0	$1,078,520
2025	Trunkline	Bridge	$10,300,240	$15,570,693
2026	Trunkline	Road	$10,873,402	$14,377,349

Possible Project Impacts

Project Type (Total Number of Projects Planned)	Number of Projects Potentially Impacting Resources										
	Water Resources[1]	Wetlands	Flood Prone Areas	Groundwater Resources[2]	Woodlands	Parks & Recreation Areas	Historic Sites	Cemeteries	Heritage Routes Natural Beauty Roads	Historic Bridges	Nonmotorized Facilities
Bridge (138 projects)	74	46	58	4	127	30	6	1	8	4	16
Congestion - Capacity (22 projects)	19	19	8	2	22	3	0	1	1	1	5
Congestion - Non-Capacity (44 projects)	25	24	10	6	44	13	4	2	7	0	4
Nonmotorized (23 projects)	12	8	7	2	20	9	5	1	4	0	2
Pavement (271 projects)	210	186	112	21	262	71	28	25	19	3	49
Rail (3 projects)	0	0	0	0	3	0	0	0	0	0	1

[1]Water resources consist of lakes and streams, designated trout lakes/streams, and Natural Rivers.
[2]Groundwater resources consist of wellhead protection areas and sinkholes.
Source: SEMCOG.



Spring Amendment, 2024

Environmental Justice Technical Analysis

SEMCOG Southeast Michigan Council of Governments

Developing Regional Solutions

SEMCOG. . . Developing Regional Solutions

Mission

SEMCOG, the Southeast Michigan Council of Governments, is the only organization in Southeast Michigan that brings together all governments to develop regional solutions for both now and in the future. SEMCOG:

- Promotes informed decision making to improve Southeast Michigan and its local governments by providing insightful data analysis and direct assistance to member governments;
- Promotes the efficient use of tax dollars for infrastructure investment and governmental effectiveness;
- Develops regional solutions that go beyond the boundaries of individual local governments; and
- Advocates on behalf of Southeast Michigan in Lansing and Washington

Environmental Justice Technical Analysis - 2045 Regional Transportation Plan and the fiscal year (FY) 2023 – FY 2026 Transportation Improvement Program

Spring amendment, 2024

$00.00

Acknowledgements

This report was written by SEMCOG staff.

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Tables

Figures

1. Introduction

1.1. Definition of Environmental Justice

The Environmental Justice office of US Environmental Protection Agency defines it as:

"Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Fair treatment means that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial operations or policies

Meaningful Involvement means that:

- people have an opportunity to participate in decisions about activities that may affect their environment and/or health;
- the public's contribution can influence the regulatory agency's decision;
- their concerns will be considered in the decision making process; and
- the decision makers seek out and facilitate the involvement of those potentially affected."

Title VI of the 1964 Civil Rights Act (42 U.S.C. 2000d-1) states that, "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." In the same spirit, President Clinton issued Executive Order 12898 on February 11, 1994, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. The stated purpose of this order is to make achieving environmental justice part of (each Federal agency's) mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. Similar orders followed from the U.S. Department of Transportation (USDOT) and Federal Highway Administration. The USDOT order specifically defines the five populations that must be included in environmental justice (EJ) analyses

1.2. SEMCOG's Approach

Transportation investments have both positive and negative impacts that may be localized in a particular community or portion of a community. Environmental justice requires that these impacts be distributed fairly among population groups especially focusing on population groups that have been traditionally disadvantaged. SEMCOG, in its response to this important challenge, enhanced a process to assess the impacts of the transportation planning process, on the target populations.

The target populations consist of minorities (African-American, Asian-American, Native American, and Hispanics), low-income households, senior citizens and households without cars. SEMCOG identified three principles to ensure environmental justice considerations were properly integrated into the transportation planning process:

- Adequate public involvement of target populations in regional transportation decision making,

- Assess (i.e., travel time) whether there were disproportionately high and adverse impacts on the target populations resulting from federal programs, and
- Ensure that the target populations receive an equitable share of benefits of federal transportation investments.

Although the quantitative measures included with this analysis cannot consider every possible aspect of environmental justice, SEMCOG believes they are good indicators as to whether significant environmental justice issues are present.

This appendix provides demographics information for the Southeast Michigan seven county region and the results of the identified measures applied to the transportation projects in the 2045 Regional Transportation Plan (RTP) and FY 2023- FY2026 Transportation Improvement Program.

2. Demographics

Demographic data for the special or target population used in SEMCOG's Environmental Justice analysis was compiled from synthesized households and population based on Census 2015 American Community Survey (ACS). Since Census 2015 doesn't provides 100 percent count data, SEMCOG synthesized disaggregated households and persons with essential attributes such as age, race, income and auto ownership using Census 5-year ACS estimates and PUMS samples. In order to further analyze the data through travel demand model, data was then aggregated to Traffic Analysis Zones (TAZs). There are 2,811 internal TAZs in the SEMCOG region. The impacted demographic groups are described below along with maps showing the regional distribution of those groups (section 2.2).

2.1. Special Population

Minority Population: The U.S. Department of Transportation (DOT) Order (5610.2) on EJ defines "Minority" as the following:

- Black (having origins in any of the black racial groups of Africa).
- Hispanic (of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race).
- Asian American (having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands).
- American Indian and Alaskan Native (having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).

In addition SEMCOG includes the following groups as defined by the U.S. Census Bureau:

- Black or African American alone - not Hispanic or Latino.
- American Indian and Alaska Native alone - not Hispanic or Latino.
- Asian alone - not Hispanic or Latino.
- Native Hawaiian and Other Pacific Islander alone —not Hispanic or Latino.
- Some other race alone - not Hispanic or Latino.
- Persons of two or more races - not Hispanic or Latino.

Based on 2015 ACS, the SEMCOG region had a minority population of 1,446,089 which equates to about 30.6% of the total population. Figure 1 indicates the location of minority populations in the region. Traffic Analysis zones located in central cities and urban communities have higher proportions of minority population in the Southeast Michigan region.

Low Income Households: Poverty thresholds vary among different federal agencies and for different programs; hence SEMCOG used a derived measure to estimate low-income households. SEMCOG's Environmental Justice analysis includes all households that are in the lowest income quartile as low income households. SEMCOG's travel demand model uses households at TAZ level which are generated by synthesizing individual households at block group level from 2015 PUMS (Public Use Microdata Sample). These synthesized households were categorized into four income quartiles based on their household income. Lowest income quartile for SEMCOG region was identified as $26,143, and all households with household income at or below $26,143 are considered as low-income households for the purpose of this Environmental Justice analysis.

In 2015, there were 465,635 (25% of all households) low-income households in the region. Figure 2 shows the location and distribution of low-income households in the Southeast Michigan region. While higher proportions of low-income households are spread across the region, Detroit has considerable higher number of TAZs which have more than 60 percent of the households in low income category.

Senior Population: Southeast Michigan region, along with the nation is going through the demographic shifts associated with aging of baby boomers. Mobility barriers and age are linked together. Not every Seniors individual has mobility challenges, but the likelihood of a challenge increases as an individual ages. Population aged 65 and older is considered as senior population.

In 2015, SEMCOG region had 696,810 persons (14.8%) who were 65 years of age or older. Figure 3 shows the distribution of senior population in the region. Similar to the national trends, minority population in the Southeast Michigan region tend to be younger than white population and as a result central and older cities that have higher concentrations of minority population have much lower concentrations of senior population. On the contrary, exurban and emerging suburban communities have much higher proportions of persons who are 65 or older.

Zero Car Households: Persons in households that have no vehicles available are critical part of "transit dependent," population i.e., those who must rely on public transit for their daily travel needs and who have limited mobility. It is recognized that not owning a personal automobile may be a lifestyle choice for some, but for others automobile ownership is unattainable due to various constraints, including income or disability.

In 2015, Southeast Michigan had 158,368 households or 8.5 percent of households had no personal vehicle at their disposal. Figure 4 illustrates the distribution of zero car households in SEMCOG region. Central cities and block groups surrounding these central cores had relatively higher proportions of households with no vehicle available.

Estimating 2045 Target and non-Target Populations by Zone

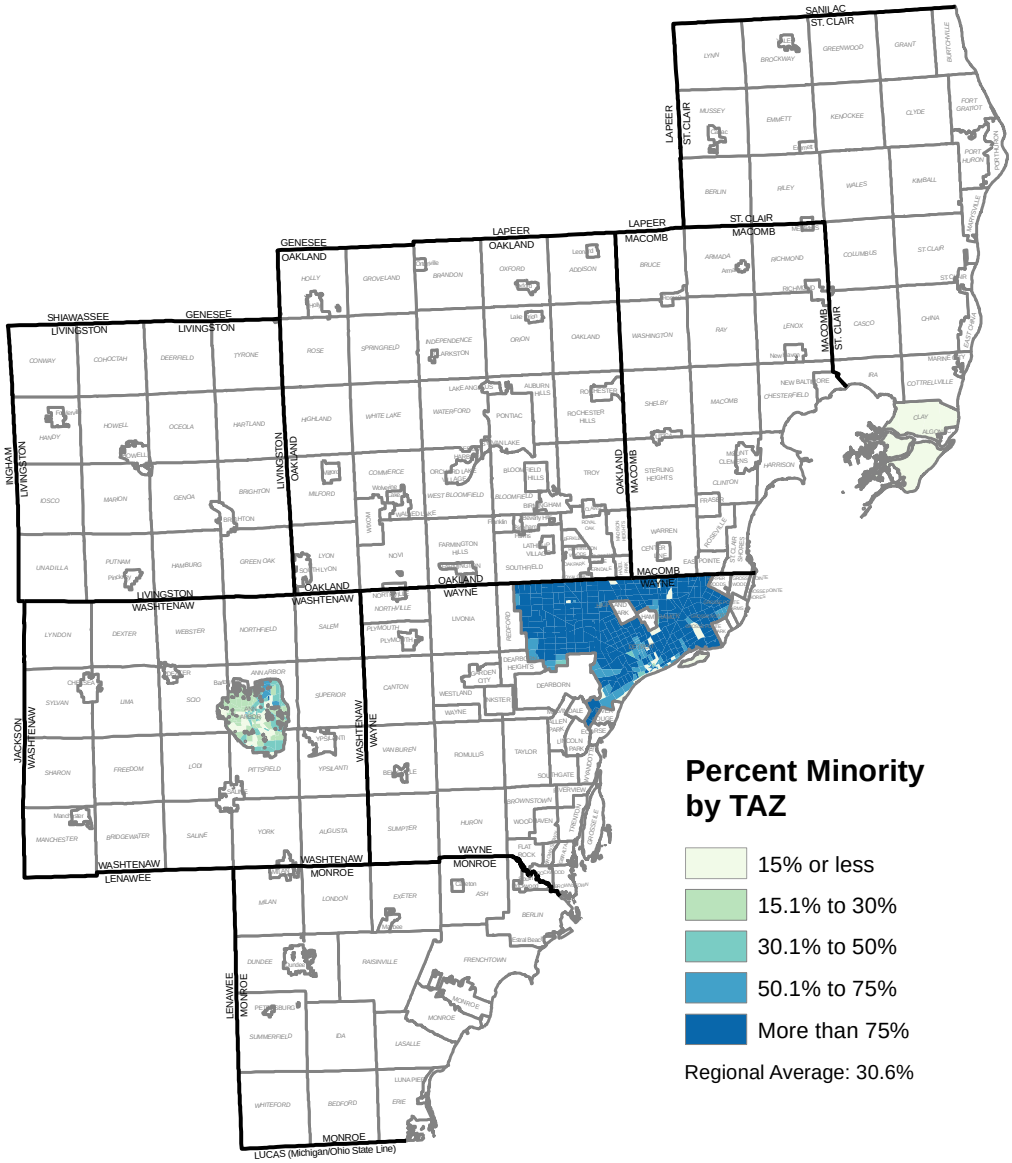
In order to create population-based measures, it is necessary to estimate the target and non-target population within each TAZ. SEMCOG utilizes a separate land use simulation model called UrbanSim to simulate land development for future years in the seven County region of SEMCOG. UrbanSim simulates the location decision for both new and existing households and firms, place households and jobs in parcels, and anticipate parcel level changes in Land development based on any known future events and land development constraints.

Input data for UrbanSim model consisted of a list of all households, with current locations (by building), household size (number of members), age of the household head, race, number of workers, children and autos. Household data along with persons in those households were synthesized using 2011 - 2015 American Community Survey estimates at Census Block Group level. Subsequently these households and persons were placed on individual building using building's housing attributes and synthesized household attributes.

The output from the UrbanSim model is parcel level socio-economic data including households by type (income, age, race, household size, presence of children, vehicles available, and number of workers), jobs by type (industry and number of employees), and land use by type for all future years till 2045. The parcel level output data is aggregated to TAZs and the results are used as inputs for SEMCOG's travel demand model and for the Environmental Justice Analysis.

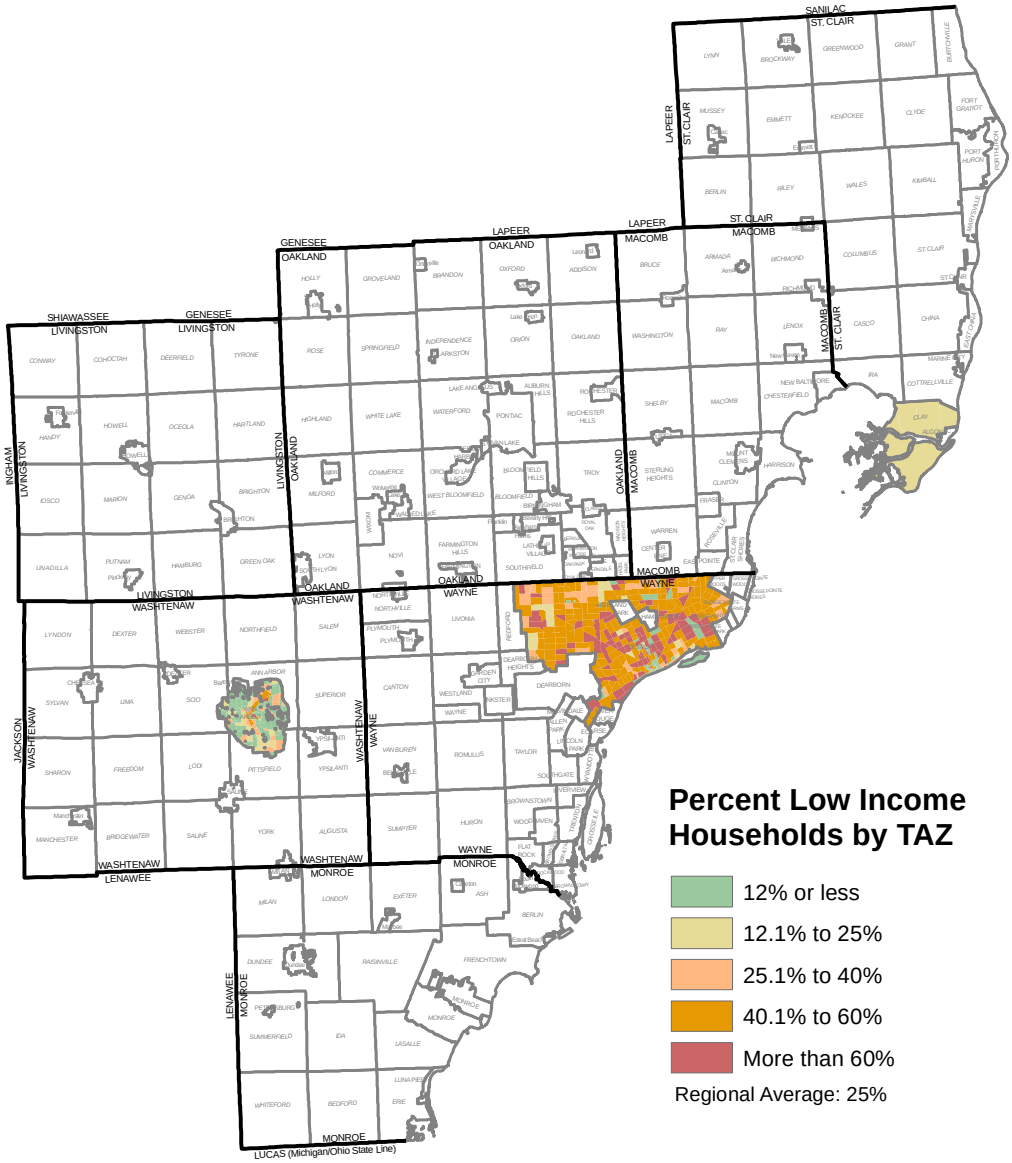
2.2. Distribution of Selected Population

Figure 1
Distribution of Minority Population, 2015.Southeast Michigan



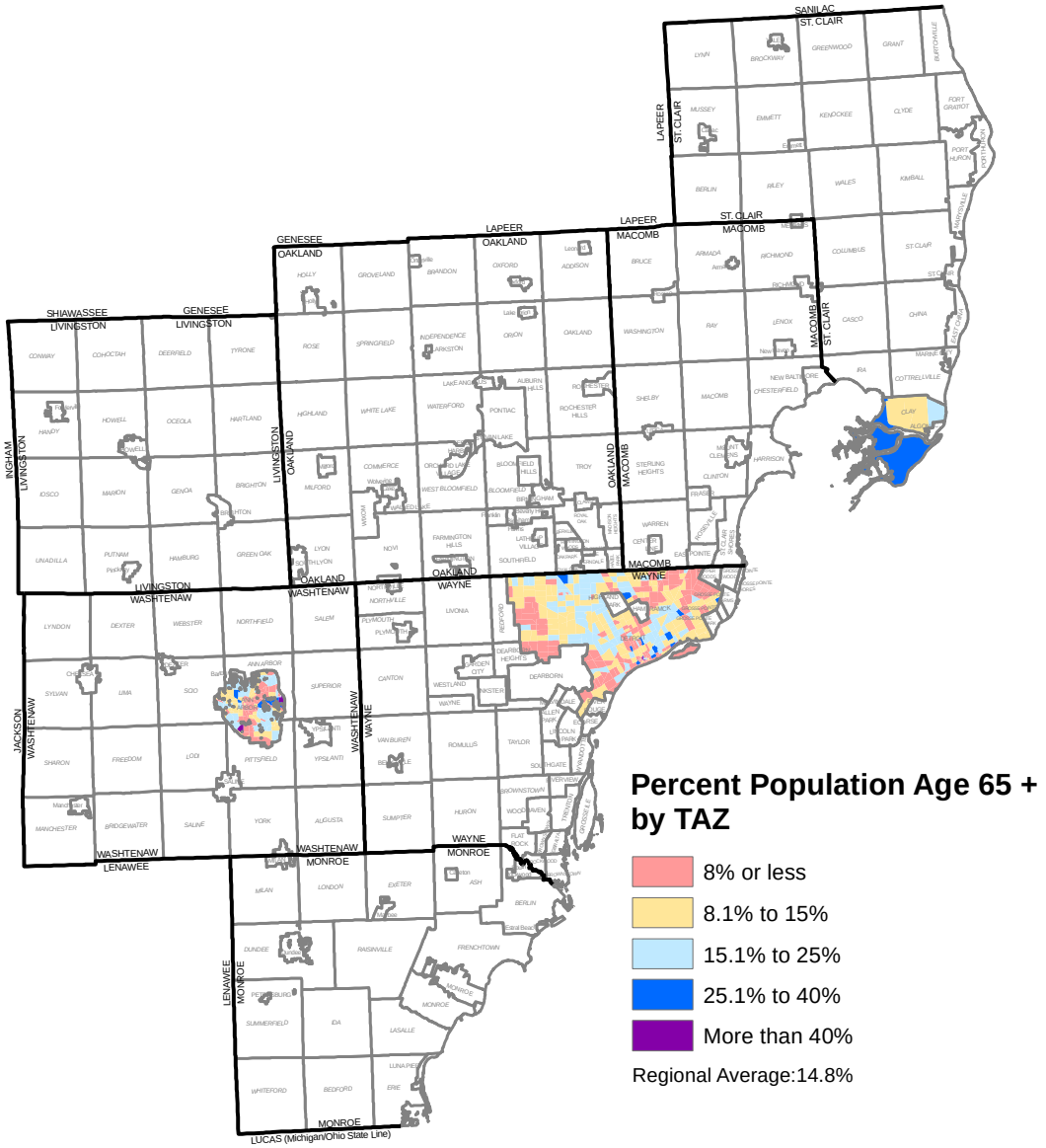
Source: SEMCOG

Figure 2
Distribution of Low Income Households, 2015. Southeast Michigan



Source: SEMCOG

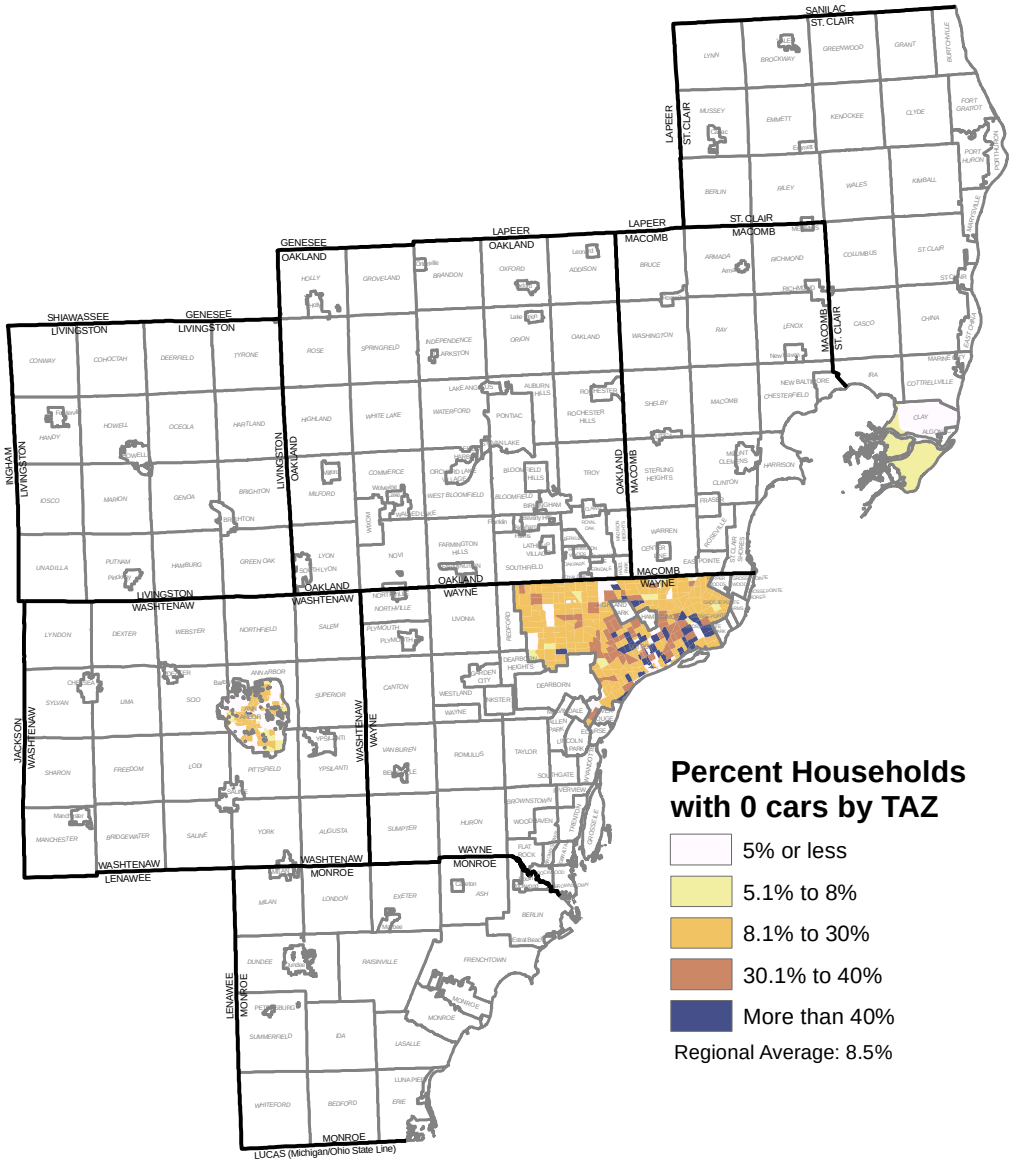
Figure 3
Distribution of Senior Population, 2015. Southeast Michigan



Source: SEMCOG

Figure 4

Distribution of Households with No Vehicles Available, 2015. Southeast Michigan



Source: SEMCOG

3. Quantitative Measures

3.1. Measures Methodology

This section describes all the quantitative measures identified for this technical analysis. The accessibility or travel time measures were developed based on travel time estimates from SEMCOG's 4-step travel demand forecast model (TDFM). These estimates are available for highway and transit networks, for current and future build and no-build conditions. Section 2 describes demographics data used in the process.

3.2. Measures Identified for Application

Several measures are identified for this analysis based on the data and tools available. Measures are calculated for three scenarios;

1. 2015 base year
2. 2045 no-build conditions assuming no new transportation projects constructed after 2015 despite the population and socioeconomic growth
3. 2045 build conditions assuming all the projects in the long range plan are constructed

Average Number of Job opportunities

This measure estimates the average number of jobs accessible from each origin or home TAZ to every other destination or work TAZ within a specified travel time. The 2045 Regional Plan employment input to the model use Bureau of Economic Analysis Equivalent Job (BEA-EJ) dataset. These jobs includes wage and salary principal jobs, self-employed jobs, and secondary jobs. Travel time estimates, commonly known as travel-time skims, for the A.M. peak period are used for auto and transit modes. Time thresholds of 25 minutes by auto and 50 minutes by transit are selected; these times reflect the regional average trip length for work trips. Employment data for each TAZ is available from SEMCOG's Regional Demographics and Socio-economic Forecast.

Job opportunities within 25 minutes by auto and 50 minutes by transit are aggregated from each origin TAZ. These jobs numbers are weighted by each group within the TAZ. Average number of jobs was calculated for each group by aggregating weighted jobs for each group for the region divided by group regional totals.

Average Shopping opportunities

This measure estimates the average retail shopping area (acres) accessible within a specified travel time.

SEMCOG maintains building data layer representing digital footprint of each building in the region. Retail square footage (converted to acres) was extracted from the footprints layer and aggregated by Traffic Analysis Zones.

Time thresholds of 15 minutes by auto and 30 minutes by transit are selected; these times reflect the regional average trip length for shopping trips. Shopping opportunities within 15 minutes by auto and 30 minutes by transit during the mid-day period are calculated from each TAZ. The number of shopping

centers accessible from each TAZ is then weighted by each target population group within the TAZ to get a weighted average of the number of shopping centers accessible to each group.

Average Number of Non-Shopping opportunities

This measure estimates the average number of non-shopping opportunities accessible within a specified travel time. SEMCOG currently maintains GIS coverage of k-12 schools, libraries, parks, hospitals and medical centers. For 2045 RTP, this data will be used to measure non-shopping opportunities.

The measurement methodology is same as for shopping or job opportunities.

Time thresholds of 15 minutes by auto and 30 minutes by transit are selected; these times reflect the regional average trip length for other trips. Non-shopping opportunities within 15 minutes by auto and 30 minutes by transit during the mid-day period are calculated from each TAZ. The number of non-shopping opportunities accessible from each TAZ is then weighted by each target population group within the TAZ to get a weighted average of the number of shopping centers accessible to each group.

The next three measures analyze the population groups covered by a major destination location.

Percent of Population close to a College

This measure estimates the percentage of population groups within a specified travel time to a college location. First, a list of major college campuses in the region is established; see Table 22 for list of colleges. From these college locations, the share of population groups within specified travel times are calculated.

TDFM skims for A.M. peak period are used to calculate travel time from each college TAZ to every other TAZ. Population groups in each TAZ that is within 25 minute by auto or 50 minute by transit are aggregated and divided by the total population for that group to get percentage of each population group covered by colleges within a specified travel time.

Percent of Population close to a Hospital

This measure is developed in the same manner as for colleges. Table 23 shows a list of major hospitals in the region. This list does not include smaller medical facilities and clinics. From these hospital locations, the share of population groups within specified travel times are calculated.

TDFM skims for mid-day time period are used to calculate travel time from each hospital to each TAZ. Population groups in each TAZ that is within 15 minutes by auto or 30 minute by transit are aggregated and divided by the total population for that group to get percentage of each population group covered by hospital within a specified travel time.

Percent of Population close to a Major Retail Center

This measure also used the same measurement methodology as for colleges. Table 24 shows a list of major retail centers in the region. This list includes major regional shopping malls, lifestyle centers (such as Partridge Creek, Clinton Twp), destination centers (such as IKEA, Canton) and outlet malls. From these major retail locations, the share of population groups within specified travel times are calculated.

TDFM skims for mid-day time period are used to calculate travel time from major retail centers to each TAZ. Population groups in each TAZ that is within 15 minute by auto or 30 minute by transit are

aggregated and divided by the total population for that group to get percentage of each population group covered by major retail centers within a specified travel time.

Average Travel time for work purpose

This measure estimates the average travel time for work purpose. TDFM provides an estimate of person trips and travel time for work from each origin TAZ to employment TAZ. The total person trips are multiplied by target population shares (based on socio-economic distribution) for each TAZ to get trips for minority, seniors, and zero car households. Only exception is the low-income group, where the trips made by low income group are readily available from the TDFM. Travel time skims for work purpose are then weighted by population groups to calculate average travel time for work purpose for auto. Transit skims are used to calculate average transit travel time.

Average Travel time for shopping purpose

This measure estimates the average travel time for shopping purpose. TDFM provides an estimate of person trips and travel time for shopping purpose from each origin TAZ to destination TAZ. The total person trips are multiplied by target population shares (based on socio-economic distribution) for each TAZ to get trips for minority, seniors, and zero car households. Only exception is the low-income group, where the trips made by low income group are readily available from the TDFM. Travel time skims for shopping purpose are then weighted by population groups to calculate average travel time for shopping purpose. Transit skims are used to calculate average transit travel time.

Average Travel time for other purposes

This measure estimates the average travel time for other purposes. TDFM provides an estimate of person trips and travel time for other purposes from each origin TAZ to destination TAZ. The total person trips are multiplied by target population shares (based on socio-economic distribution) for each TAZ to get trips for minority, seniors, and zero car households. Only exception is the low-income group, where the trips made by low income group are readily available from the TDFM. Travel time skims for other purposes are then weighted by population groups to calculate average travel time for other purposes. Transit skims are used to calculate average transit travel time.

Average Travel time for All purposes

This measure estimates the average travel time for all internal purposes. Internal purposes include home based work, shopping, school, other, non-home based work and non-home based other. TDFM provides an estimate of person trips and travel time for all purposes from each origin TAZ to destination TAZ. The total person trips are multiplied by target population shares (based on socio-economic distribution) for each TAZ to get trips by each population group. Travel time skim for mid-day is then weighted by population groups to calculate average travel time for all purposes. Transit skims are used to calculate average transit travel time.

Per Capita Transportation Funding

In developing the regional transportation plan, each project was initially assigned a set of counties that the project is geographically located in. Further work was done to localize individual projects along roads and at intersections where possible. For these projects, a buffer was applied to represent the area impacted by

the project. Projects involving freeways were buffered by 2.5 miles, while all other projects that could be mapped were buffered by 0.5 miles.

In order to analyze transportation investment by population group, representation of each project – weighted by project cost – was geographically overlaid with the representation of the selected population groups by Traffic Analysis Zone (TAZ) in 2015 and as forecasted by SEMCOG in 2045. Each of the four population groups – minorities, low-income households, seniors, and no car households – were analyzed separately. As a result of the overlay, project costs were distributed on a per capita basis for the minority and senior population, and on a per household basis for low-income and no car households. Per capita and per household investment is then summarized by adding up total investment by population group and dividing by the total of persons or households in the population group in 2015 and 2045. Finally, these numbers are compared to equivalent numbers for the balance of the population or households to assess equity.

4. Results

This section presents the results of all the measure identified for this analysis. The results are compared across the three scenarios, year 2015, 2045 No build, 2045 build. The data tables are included in Attachment A.

Average Number of Job opportunities

Figures 5 and 6 show the target population on average have access to more jobs as compared to non-target population in each scenario. When compared across scenarios, the build conditions shows access to more jobs than no-build scenario by auto. The improvement in accessibility appears to be benefiting target and non-target groups in the same way. It appears that for this measure, there are no prominent disproportionate negative impacts of the transportation projects among the population groups.

Figure 5
Average Number of Jobs within 25 minutes – AM peak by auto

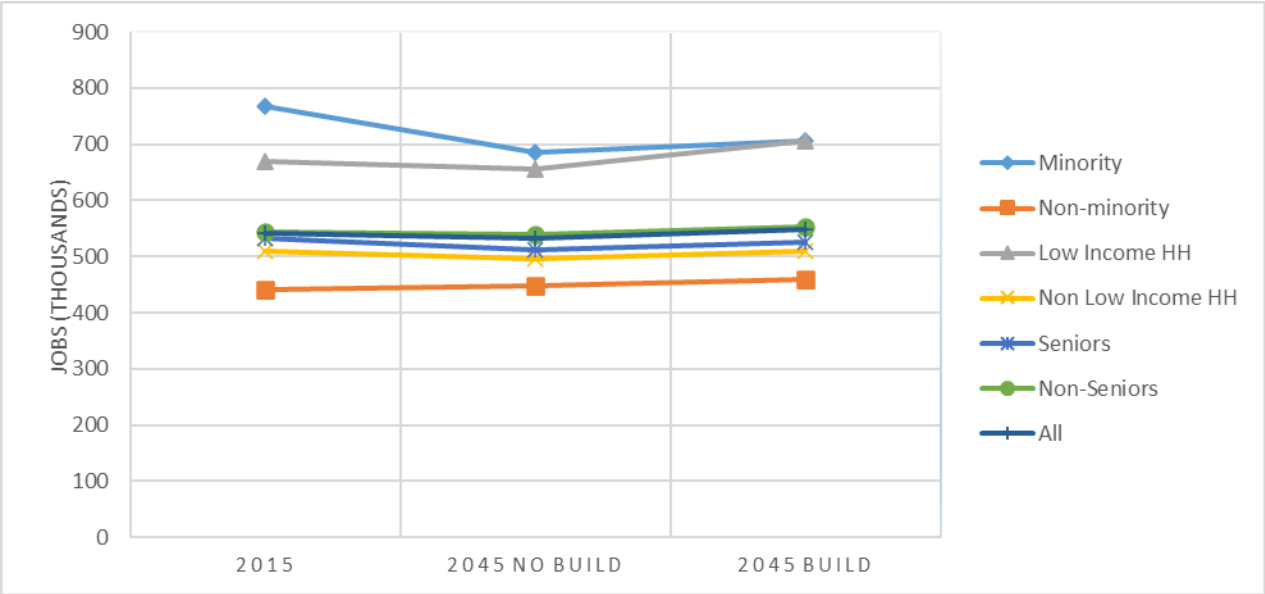
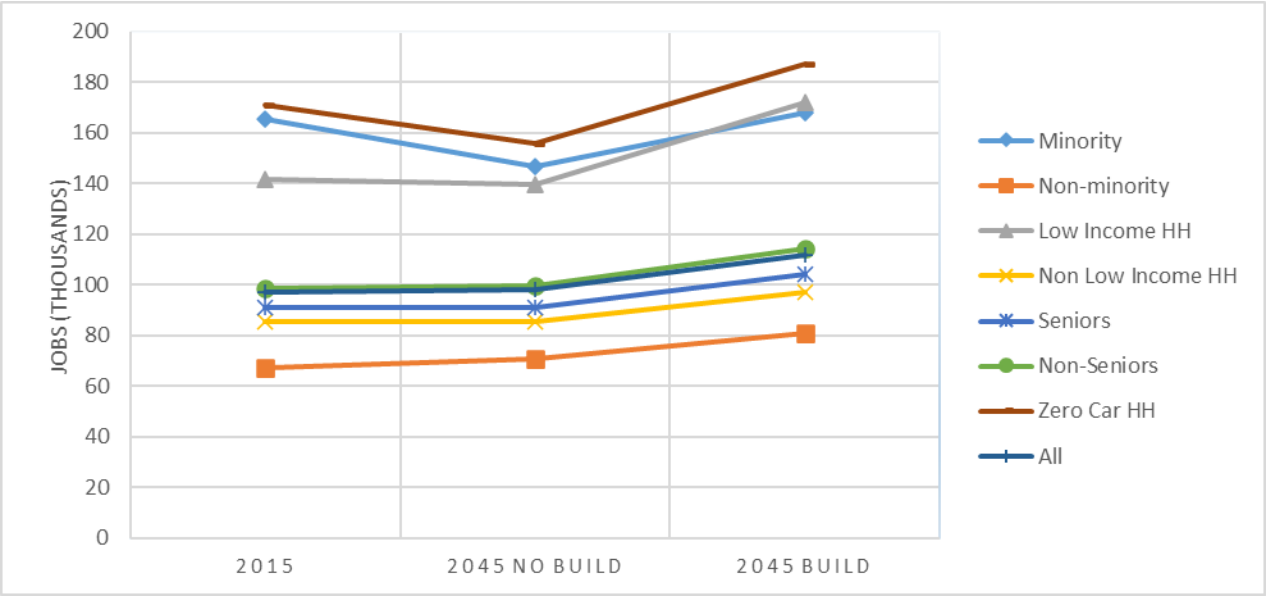


Figure 6
Average Number of Jobs within 50 minutes - AM peak by transit



Average Shopping opportunities

Figures 7 and 8 show the target populations on average have access to more shopping opportunities (acres) as compared to non-target population in each scenario. When compared across scenarios, the build condition shows access to more shopping opportunities than no-build scenario by auto. The improvement in accessibility appears to be benefiting target and non-target groups in the same way.

It appears that for this measure, there are no prominent disproportionate negative impacts of the transportation projects among the population groups.

Figure 7
Average Shopping Opportunities within 15 minutes – Mid-day period by auto

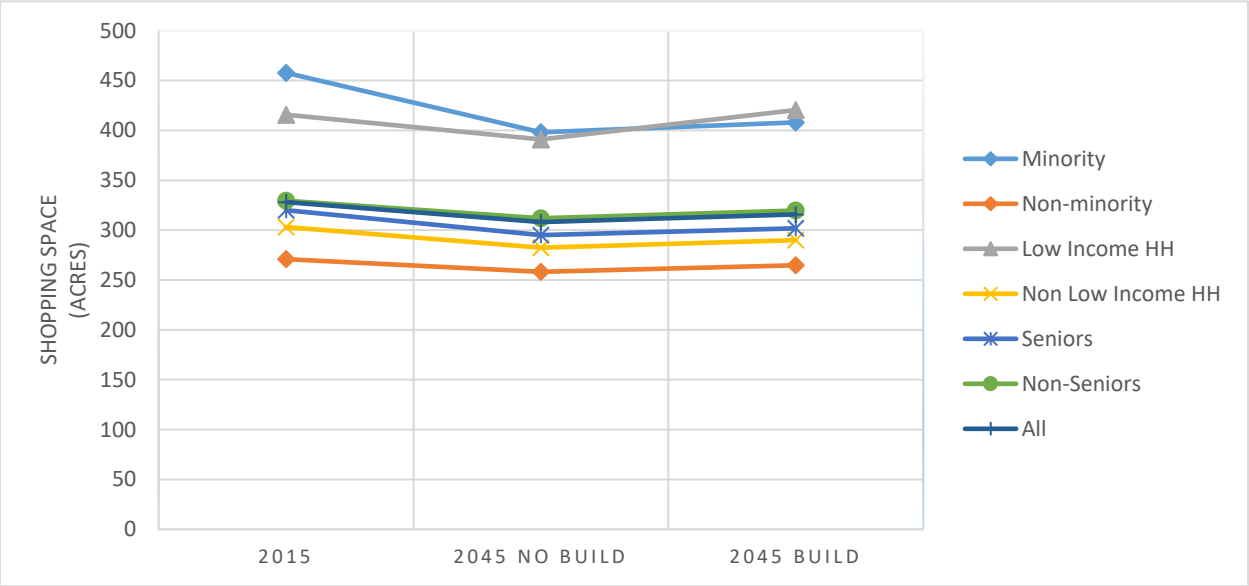
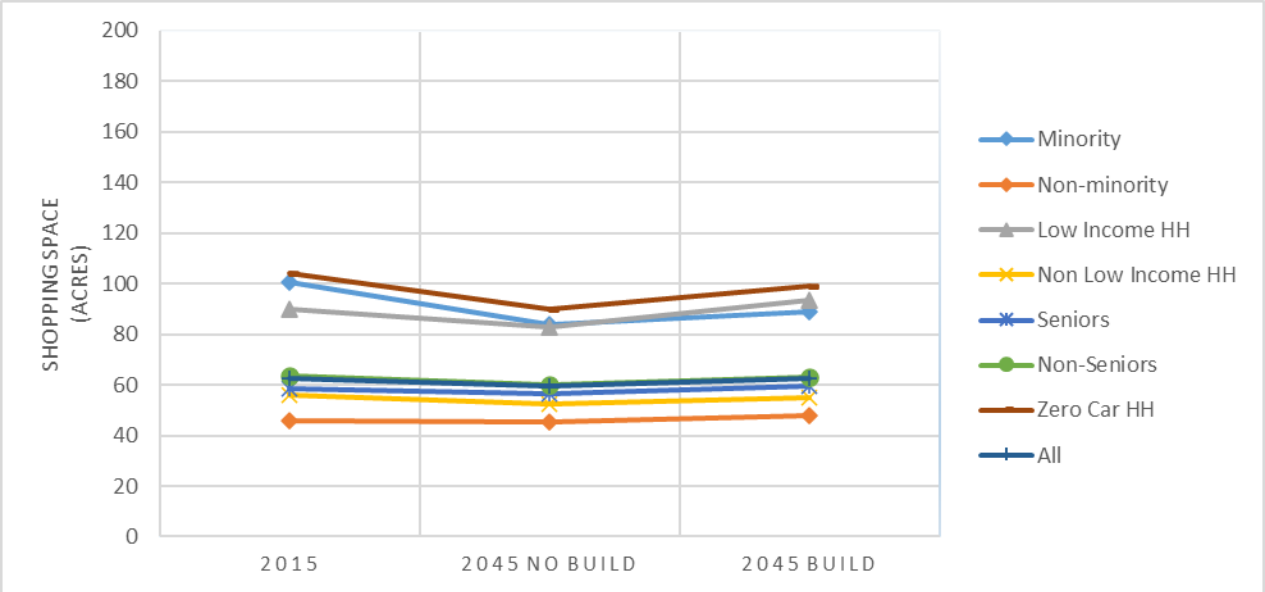


Figure 8
Average Shopping Opportunities within 30 minutes - Mid-day period by transit



Average Number of Non-Shopping opportunities

Figures 9 and 10 show the target population on average have access to more non-shopping opportunities as compared to non-target population in each scenario. When compared across scenarios, the build

condition shows access to more non-shopping opportunities than no-build scenario by auto. The improvement in accessibility appears to be benefiting target and non-target groups in the same way.

It appears that for this measure, there are no prominent disproportionate negative impacts of the transportation projects among the population groups.

Figure 9
Average Non-Shopping Opportunities within 15 minutes - Mid-day period by auto

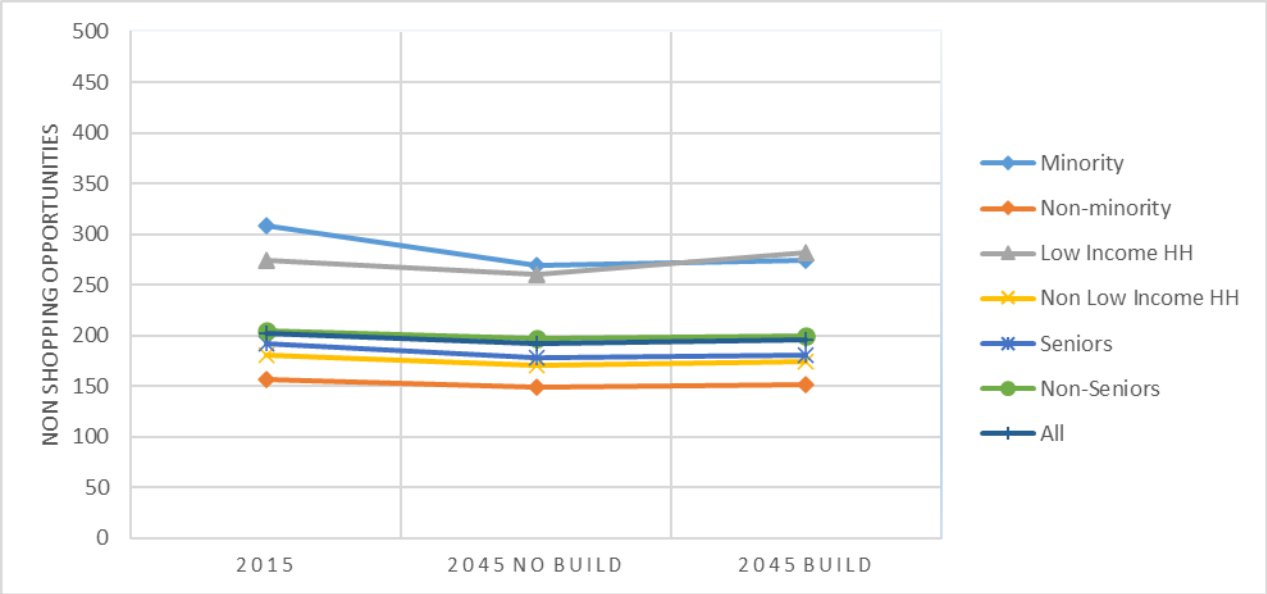
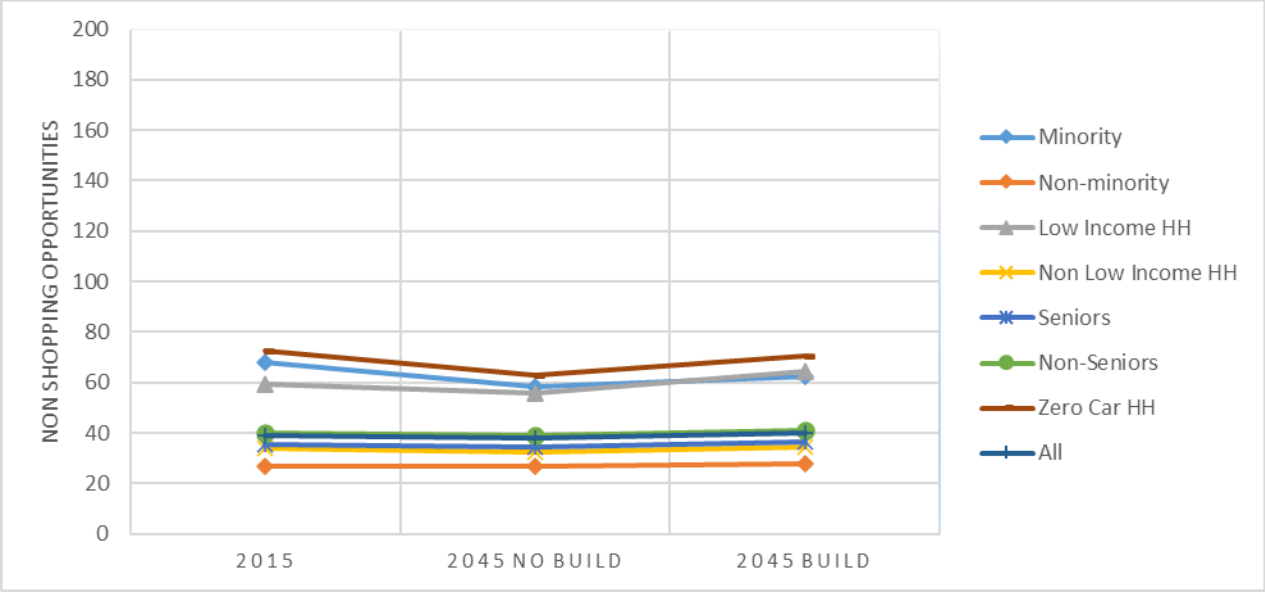


Figure 10
Average Non-Shopping Opportunities within 30 minutes - Mid-day period by transit



Percent of Population close to a College

Figure 11 shows a higher percentage of target groups within 25 minutes by auto in the A.M peak period to a college campus as compared to non-target groups. This is true for each scenario. When compared across scenarios, the build condition shows slightly higher percentages then no-build scenario. The improvement in accessibility appears to be benefiting target and non-target groups almost similarly. .

It appears that for this measure, there are no prominent disproportionate negative impacts of the transportation projects among the population groups.

Figure 11
% Population within 25 minutes AM peak to a College by auto

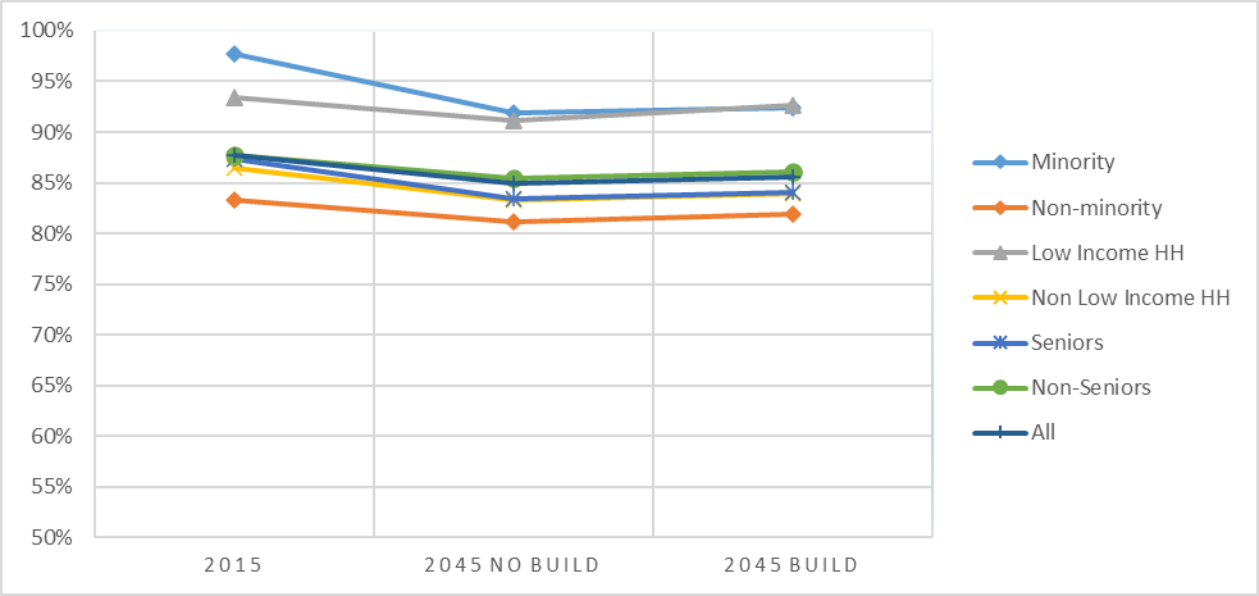
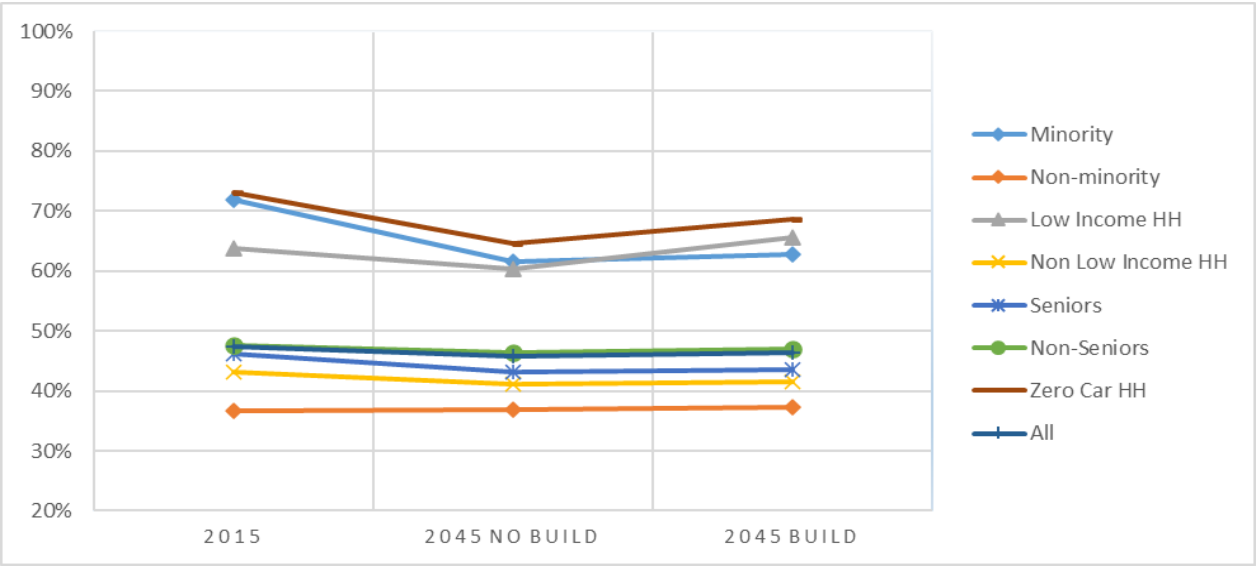


Figure 12
% Population within 50 minutes AM peak to a College by transit



Percent of Population close to a Hospital

Figure 13 shows a higher percentage of target groups within 15 minutes by auto during the mid-day period to a major hospital as compared to non-target groups. This is true for each scenario. When compared across scenarios, the build condition shows slightly higher percentages then no-build scenario. The improvement in accessibility both by auto and transit appears to be benefiting target and non-target groups almost similarly.

It appears that for this measure, there are no prominent disproportionate negative impacts of the transportation projects among the population groups.

Figure 13
% Population within 15 minutes Mid-day period to a Hospital by auto

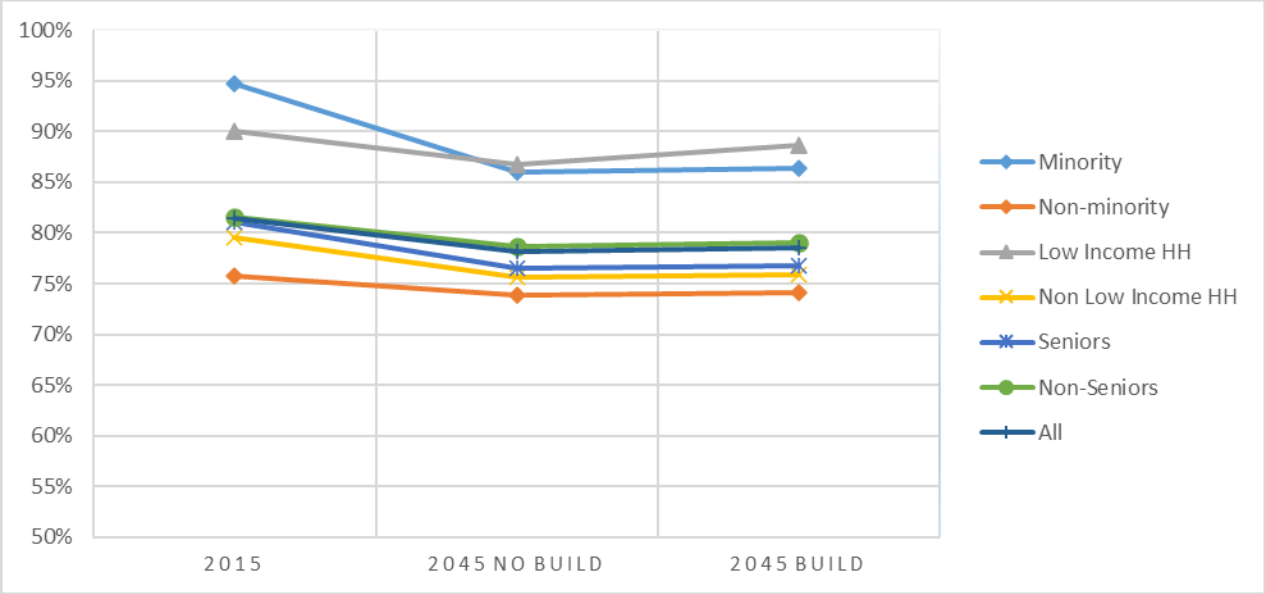
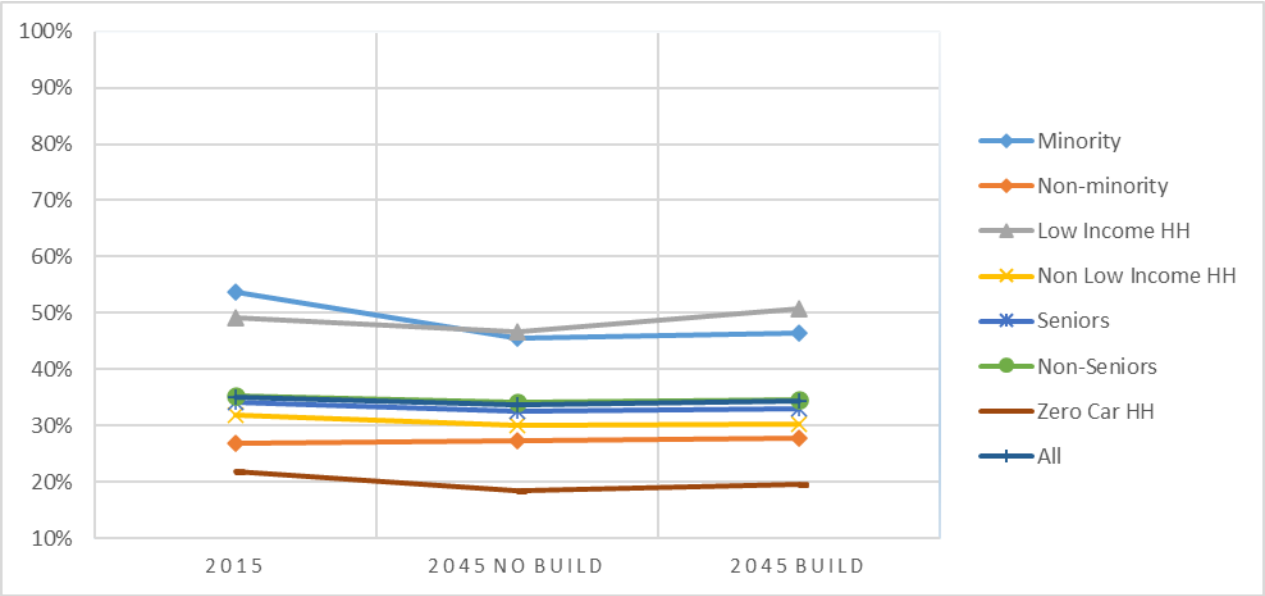


Figure 14
% Population within 30 minutes Mid-day period to a Hospital by transit



Percent of Population close to a Major Retail Center

Figure 15 shows a higher percentage of target groups within 15 minutes by auto during the mid-day period to a major retail center as compared to non-target groups. This is true for each scenario. When compared across scenarios, the build condition shows slightly higher percentages then no-build scenario. The improvement in accessibility appears to be benefiting target and non-target groups almost similarly.

It appears that for this measure, there are no prominent disproportionate negative impacts of the transportation projects among the population groups.

Figure 15
% Population within 15 minutes Mid-day period to a Major Retail by auto

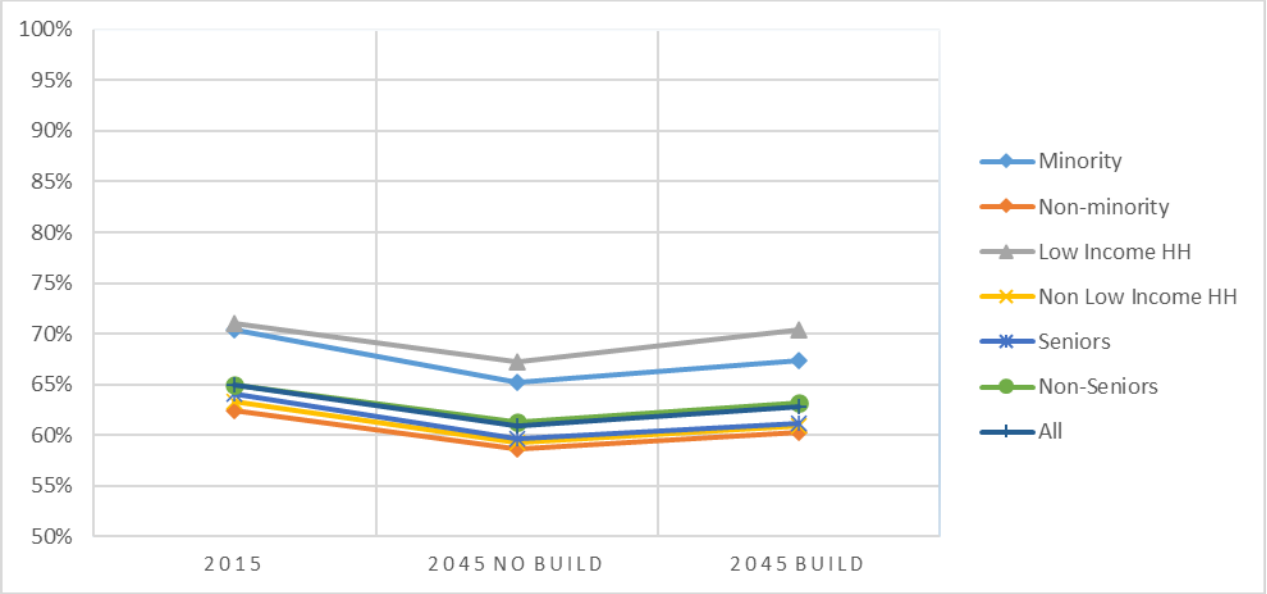
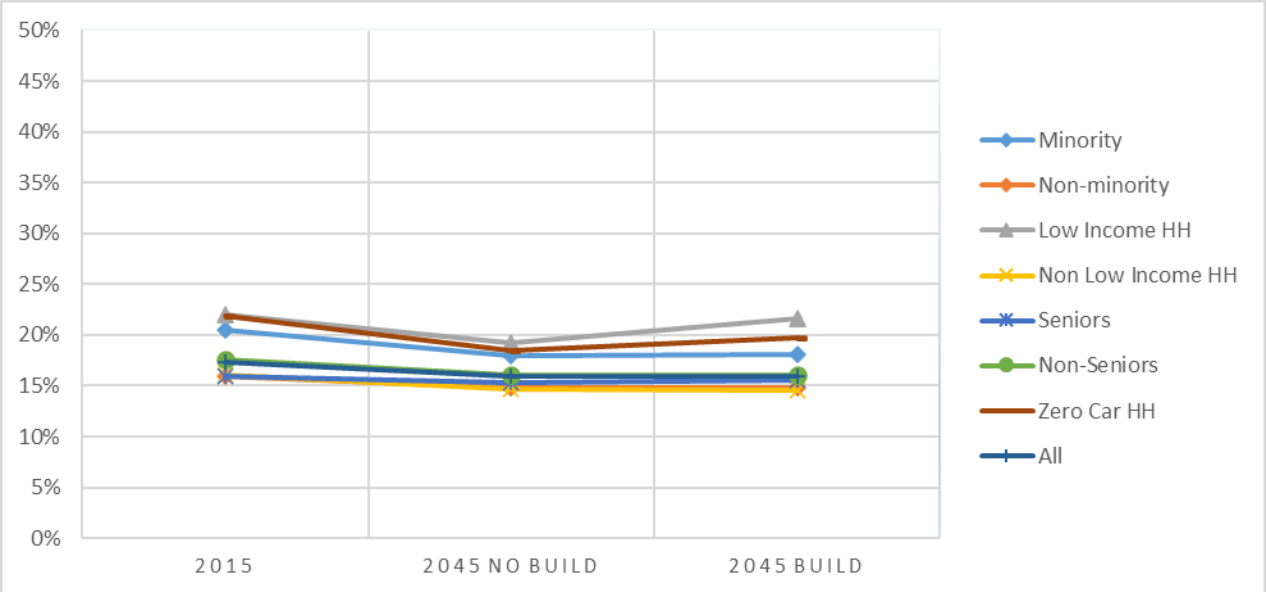


Figure 16
% Population within 30 minutes Mid-day period to a Major Retail by transit



Average Travel time for Work purpose

Figure 17 shows that the regional average auto travel time for work trip is less for target groups as compared to non-target groups, in each scenario. When compared across scenarios, the build scenario travel times are less for each population group than no-build. Travel time savings are relatively similar for each of the target or non-target group. Transit travel times for some target population groups are slightly higher as compared to non-target group in some instances, but in most cases the difference is within 5%. However, the benefits of travel time savings due to improved service seems just.

Figure 17
Average Auto Travel time for Work

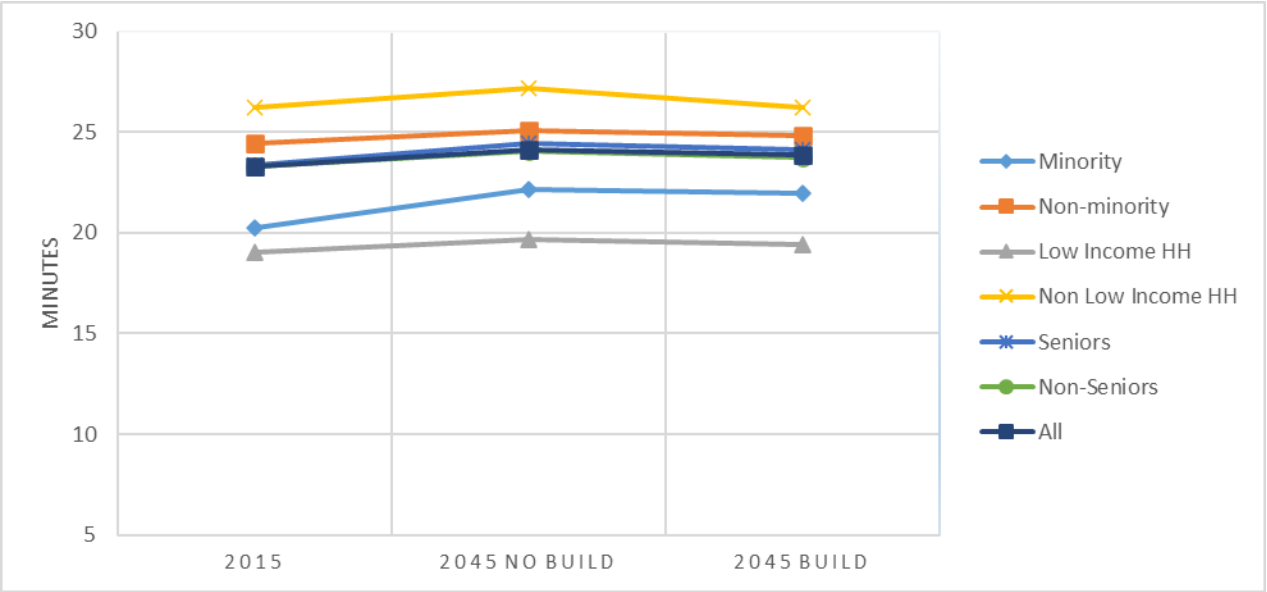
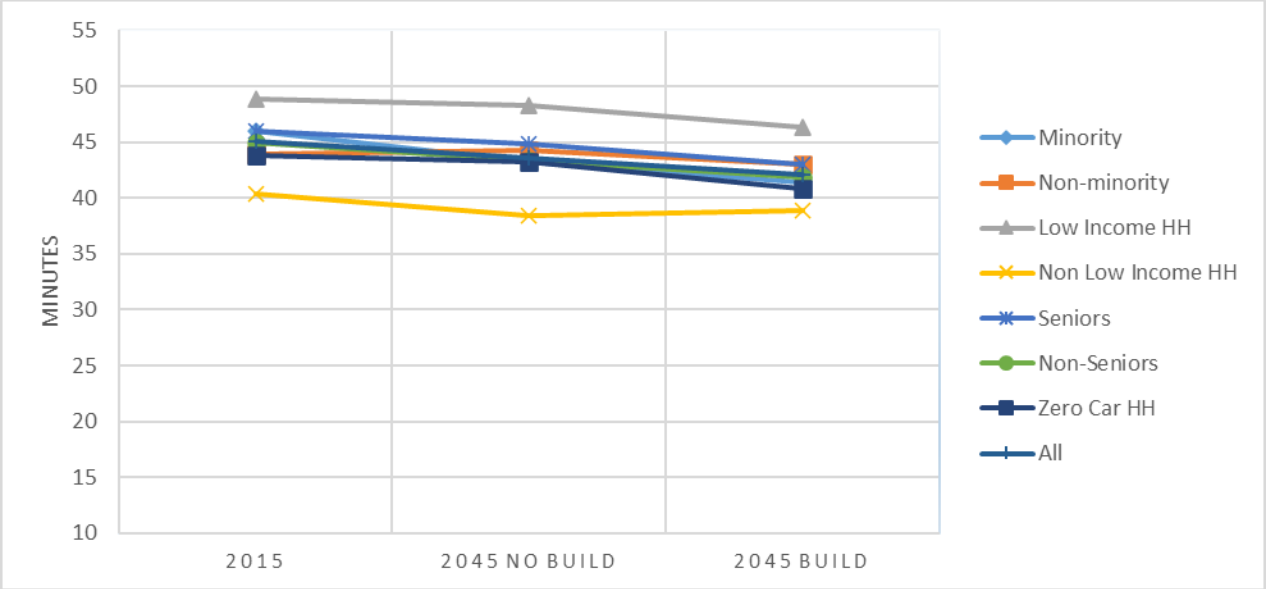


Figure 18
Average Transit Travel time for Work



Average Travel time for Shopping purpose

Figure 19 shows that the regional average auto travel time for shopping trip is less for target groups as compared to non-target groups, in each scenario. When compared across scenarios, the build scenario travel times are less for each population group than no-build. Travel time savings are relatively similar for each of the target or non-target group. Transit travel times for some target population groups are slightly higher as compared to non-target group in some instances, but in most cases the difference is within 5%. However, the benefits of travel time savings due to improved service seems just.

Figure 19
Average Auto Travel time for Shopping

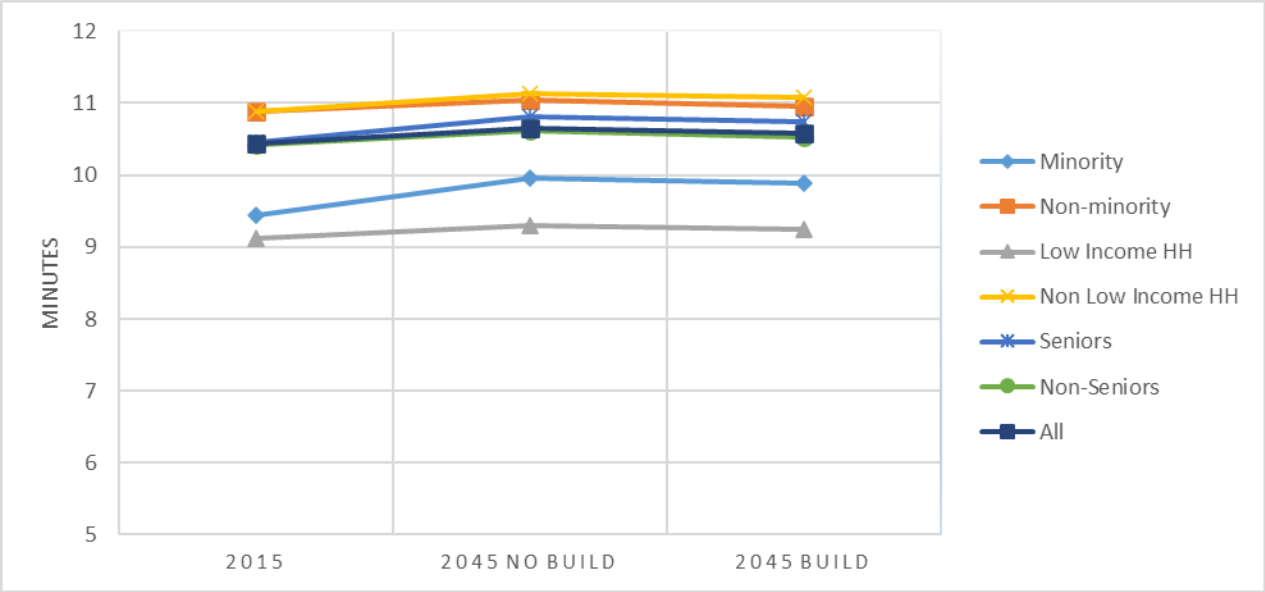
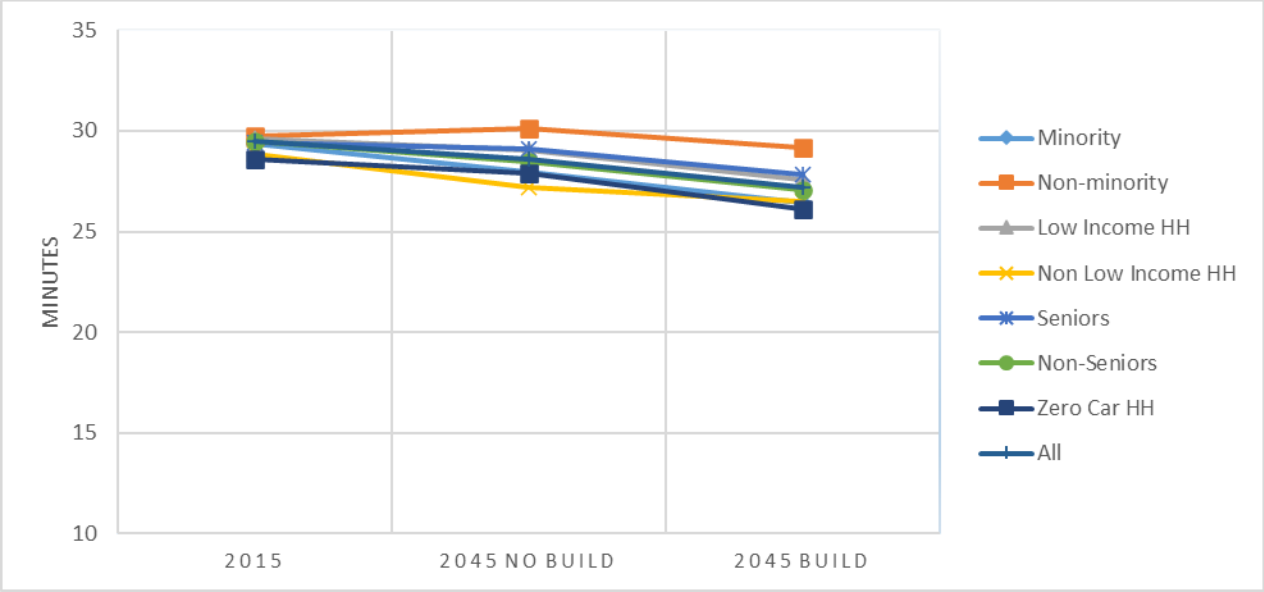


Figure 20
Average Transit Travel time for Shopping



Average Travel time for Other purposes

Figure 21 shows that the regional average auto travel time for other purpose trip is less for target groups as compared to non-target groups, in each scenario. When compared across scenarios, the build scenario travel times are less for each population group than no-build. Travel time savings are relatively similar for each of the target or non-target group. Transit travel times for some target population groups are slightly

higher as compared to non-target group in some instances, but in most cases the difference is within 5%. However, the benefits of travel time savings due to improved service seems just.

Figure 21
Average Auto Travel time for Other purpose

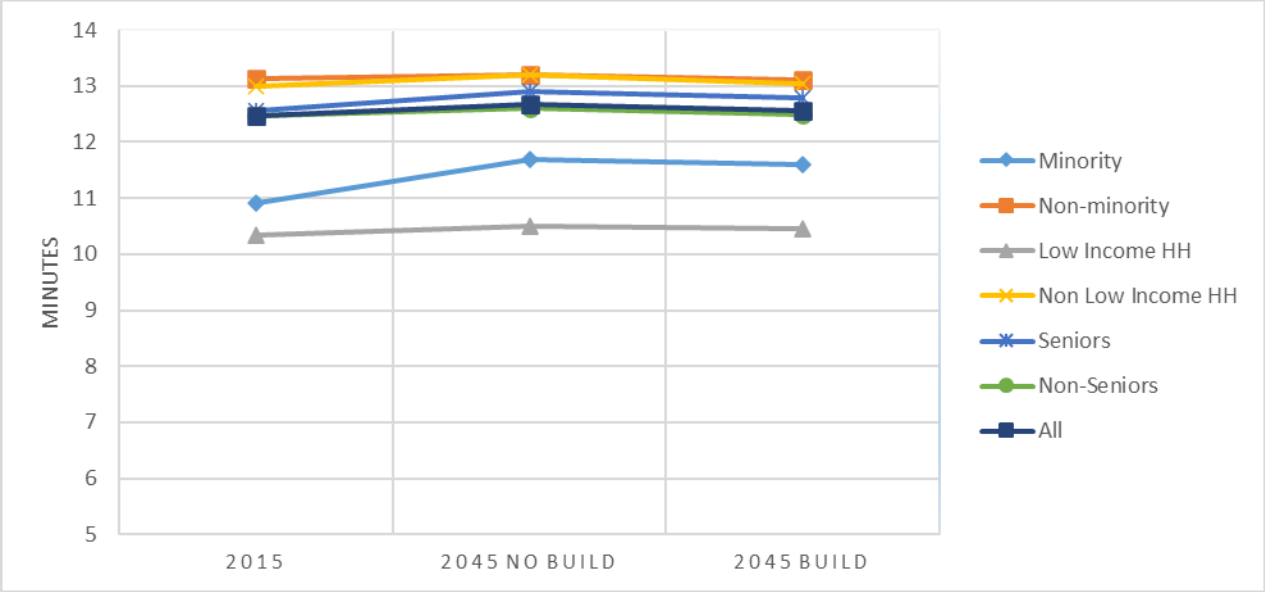
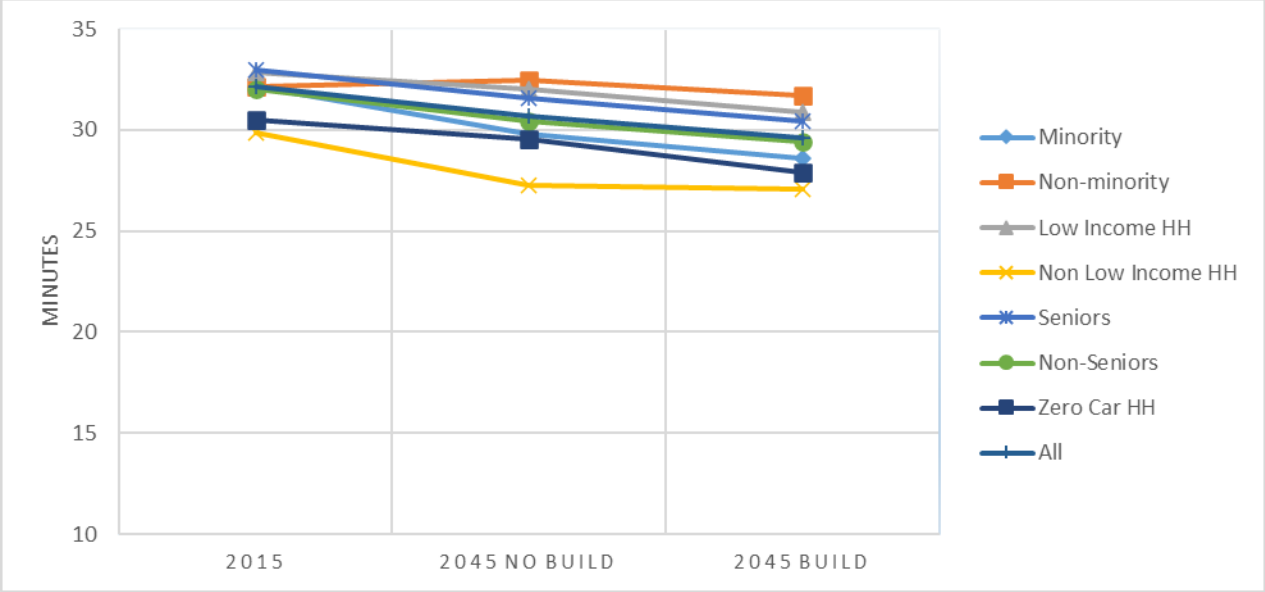


Figure 22
Average Transit Travel time for Other purpose



Average Travel time for All purposes

Figure 23 shows that the regional average auto travel time for all purposes combined is less for target groups as compared to non-target groups, in each scenario. When compared across scenarios, the build

scenario travel times are less for each population group than no-build. Travel time savings are relatively similar for each of the target or non-target group.

Figure 23
Average Auto Travel time for All purposes

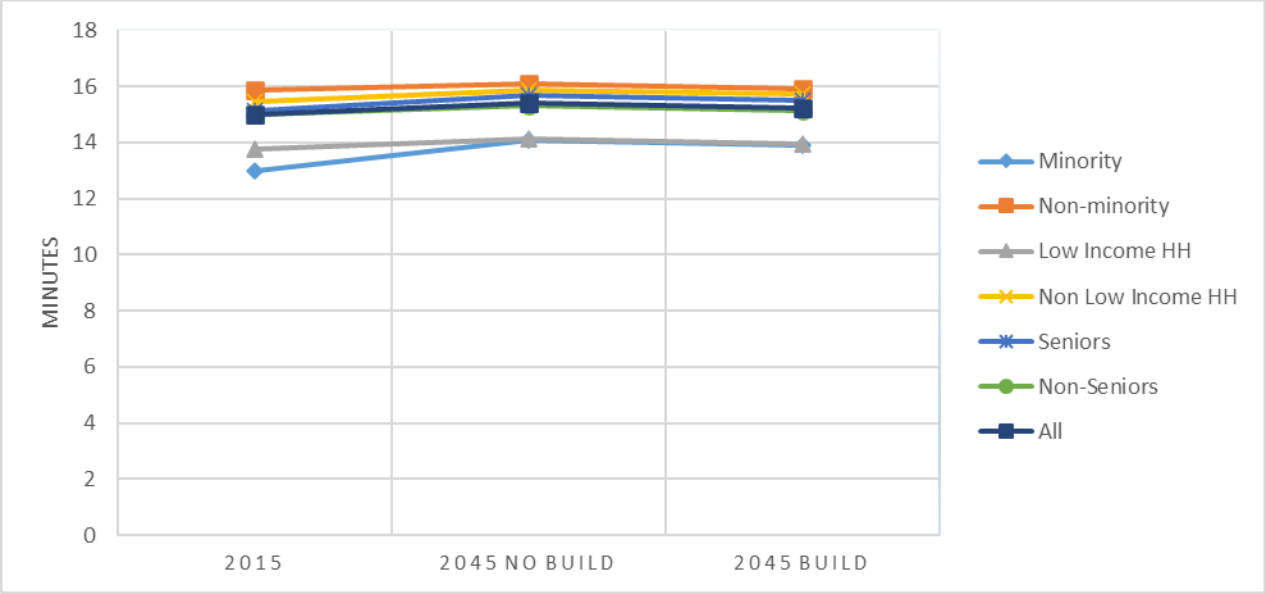
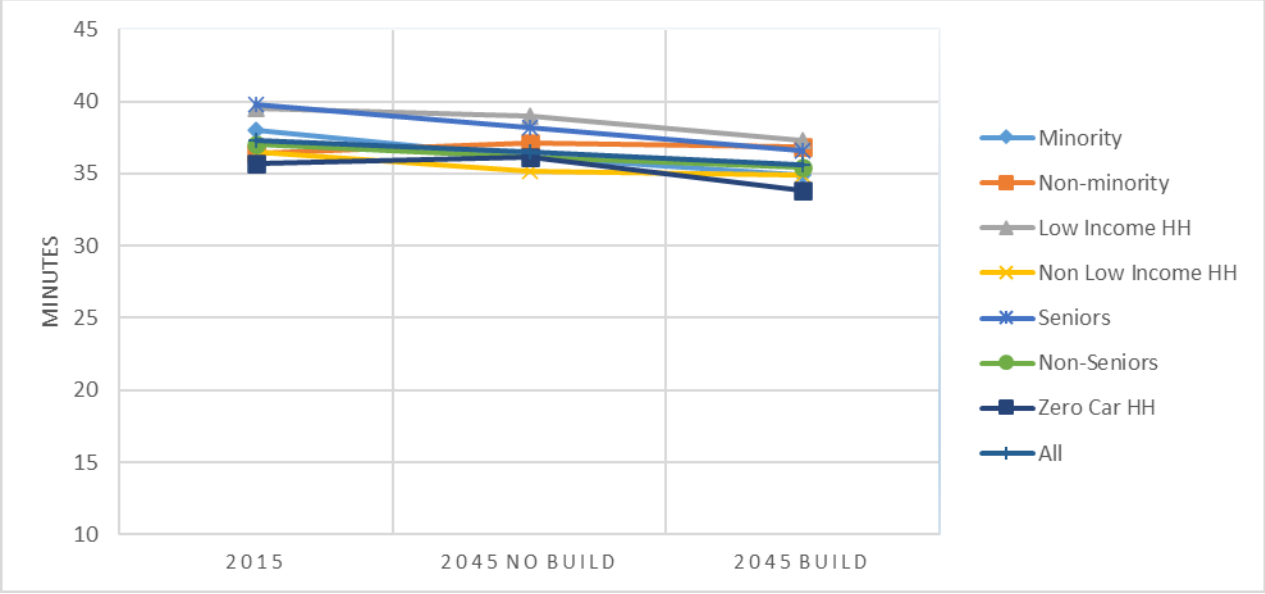


Figure 24
Average Transit Travel time for All purposes



Per Capita Transportation Funding

Table 1 shows that the minority population in 2015 accrues a benefit from these projects of nearly $2,300 more per person in project costs compared to the balance of the population and $1,700 more for the forecasted 2045 minority population. Low income households in 2015 and those forecasted in 2045 are getting allocated roughly $3,900 and $3,100 respectively more per household in project costs compared to the balance of households. Additional analysis shows equity for seniors (persons age 65 or older) and for no car households.

Table 1
Per Capita Transportation Funding

	Minorities	Non-Minorities
Population in 2015	1,446,083	3,276,681
% of Population in 2015	30.6%	69.4%
% of Total Project Costs	36.7%	63.3%
Per Capita Funding in 2015	$9,878	$7,527
Per Capita Funding in 2045	$8,726	$7,022

	Low Income	Non-Low Income
Households in 2015	465,635	1,396,869
% of Households in 2015	25.0%	75.0%
% of Total Project Costs	28.5%	71.5%
Per Household Funding in 2015	$23,828	$19,940
Per Household Funding in 2045	$21,082	$17,939

	Seniors	Non-Seniors
Population in 2015	696,810	4,025,954
% of Population in 2015	14.8%	85.2%
% of Total Project Costs	14.5%	85.5%
Per Capita Funding in 2015	$8,114	$8,270
Per Capita Funding in 2045	$7,400	$7,697

	No Car Households	Households with Cars
Households in 2015	158,368	1,704,136
% of Households in 2015	8.5%	91.5%
% of Total Project Costs	10.8%	89.2%
Per Household Funding in 2015	$26,515	$20,391
Per Household Funding in 2045	$22,288	$18,377

5. Summary

The purpose of this analysis was to demonstrate the impact of the transportation plan on the various demographic groups in the region using quantitative measures, and to assess if there is a disproportionate negative impact of the plan on the target groups. Although these measures cannot encompass all the environmental justice issues, SEMCOG believes they are good indicators as to whether significant environmental justice issues are present.

In general, the measures did not suggest environmental justice issues at the regional system-wide level. In all the transportation scenarios, the target groups seem to have access to more jobs, shopping and other activities, or are close to a college, hospital or major shopping center. Average travel times for various purposes are also lower for target groups.

Comparing current and future no-build condition shows regional development pattern impact, without the transportation system improvements. Future land use policy should be studied to minimize the development impact on accessibility.

Attachment A – Data Tables

Table 2
Average Number of Jobs Accessible within 25 minutes AM peak period by auto

	2015	% of Total	2045 No Build	% of Total	2045 Build	% of Total	% Over No Build
Minority	768,484	27.70%	685,864	23.17%	706,431	23.87%	3.00%
Non-Minority	441,860	15.93%	447,768	15.13%	460,290	15.55%	2.80%
Low Income HH	669,862	24.15%	655,274	22.14%	705,951	23.85%	7.73%
Non Low Income HH	508,531	18.33%	496,845	16.79%	509,011	17.20%	2.45%
Seniors	533,120	19.22%	512,508	17.31%	526,429	17.78%	2.72%
Non-Seniors	543,385	19.59%	538,591	18.20%	554,031	18.72%	2.87%
All	541,870	19.53%	532,678	18.00%	547,811	18.51%	2.84%
Total Jobs in the region		2,774,223		2,959,998		2,959,998	

Table 3
Average Number of Jobs Accessible within 50 minutes AM peak period by transit

	2015	% of Total	2045 No Build	% of Total	2045 Build	% of Total	% Over No Build
Minority	165,435	5.96%	146,543	4.95%	167,935	5.67%	14.60%
Non-Minority	67,215	2.42%	70,874	2.39%	81,071	2.74%	14.39%
Low Income HH	141,656	5.11%	139,466	4.71%	171,878	5.81%	23.24%
Non Low Income HH	85,367	3.08%	85,319	2.88%	97,256	3.29%	13.99%
Seniors	91,129	3.28%	91,182	3.08%	104,319	3.52%	14.41%
Non-Seniors	98,356	3.55%	99,816	3.37%	114,180	3.86%	14.39%
Zero-Car HH	170,770	6.16%	155,742	5.26%	186,908	6.31%	20.01%
All	97,290	3.51%	97,859	3.31%	111,958	3.78%	14.41%
Total Jobs in the region		2,774,223		2,959,998		2,959,998	

Table 4
Average Shopping Area (acres) Accessible within 15 minutes mid-day period by auto

	2015	% of Total	2045 No Build	% of Total	2045 Build	% of Total	% Over No Build
Minority	458	8.17%	398	7.10%	408	7.28%	2.49%
Non-Minority	271	4.83%	258	4.61%	265	4.73%	2.56%
Low Income HH	416	7.42%	391	6.98%	420	7.50%	7.52%
Non Low Income HH	303	5.41%	282	5.04%	290	5.17%	2.69%
Seniors	320	5.71%	295	5.26%	302	5.39%	2.34%
Non-Seniors	330	5.88%	312	5.57%	320	5.70%	2.50%
All	328	5.85%	308	5.50%	316	5.63%	2.47%
Retail building space (acres) in the region		5,604		5,604		5,604	

Table 5
Average Shopping area (acres) Accessible within 30 minutes mid-day period by transit

	2015	% of Total	2045 No Build	% of Total	2045 Build	% of Total	% Over No Build
Minority	101	1.80%	84	1.50%	89	1.59%	5.83%
Non-Minority	46	0.82%	46	0.81%	48	0.85%	5.05%
Low Income HH	90	1.61%	83	1.48%	94	1.67%	12.91%
Non Low Income HH	56	1.00%	52	0.93%	55	0.98%	4.78%
Seniors	59	1.05%	57	1.01%	60	1.06%	5.11%
Non-Seniors	64	1.13%	60	1.07%	63	1.13%	5.32%
Zero-Car HH	104	1.86%	90	1.60%	99	1.77%	10.47%
All	63	1.12%	59	1.05%	63	1.12%	5.93%
Retail building space (acres) in the region		5,604		5,604		5,604	

Table 6
Average Number of Non-Shopping Opportunities Accessible within 15 minutes mid-day period by auto

	2015	% of Total	2045 No Build	% of Total	2045 Build	% of Total	% Over No Build
Minority	308	8.11%	270	7.09%	275	7.22%	1.82%
Non-Minority	156	4.10%	150	3.93%	152	4.00%	1.60%
Low Income HH	275	7.22%	260	6.83%	282	7.42%	8.62%
Non Low Income HH	181	4.75%	170	4.48%	174	4.58%	2.29%
Seniors	192	5.06%	178	4.68%	181	4.76%	1.80%
Non-Seniors	204	5.37%	197	5.17%	200	5.25%	1.58%
All	203	5.33%	192	5.06%	196	5.14%	1.66%
Number of non-shopping opportunities identified		3,803		3,803		3,803	

Table 7
Average Number of Non-Shopping Opportunities Accessible within 30 minutes mid-day period by transit

	2015	% of Total	2045 No Build	% of Total	2045 Build	% of Total	% Over No Build
Minority	68	1.78%	58	1.53%	62	1.64%	6.87%
Non-Minority	27	0.70%	27	0.70%	28	0.74%	5.26%
Low Income HH	59	1.56%	56	1.47%	64	1.69%	15.05%
Non Low Income HH	34	0.89%	32	0.85%	34	0.90%	6.19%
Seniors	35	0.93%	34	0.90%	37	0.96%	6.40%
Non-Seniors	40	1.05%	39	1.02%	41	1.08%	5.91%
Zero-Car HH	73	1.91%	63	1.65%	70	1.85%	12.12%
All	39	1.03%	38	1.00%	40	1.06%	6.07%
Number of non-shopping opportunities identified		3,803		3,803		3,803	

Table 8

Percent of Population or Households within 25 minutes AM peak period to a College by auto

	2015	2045 No Build	2045 Build
Minority	97.7%	91.9%	92.5%
Non-Minority	83.3%	81.2%	82.0%
Low Income HH	93.4%	91.1%	92.8%
Not Low Income HH	86.4%	83.3%	84.0%
Seniors	87.3%	83.4%	84.1%
Non-Seniors	87.7%	85.5%	86.2%
All	87.7%	85.0%	85.7%

Table 9

Percent of Population or Households within 50 minutes AM peak period to a College by transit

	2015	2045 No Build	2045 Build
Minority	71.9%	61.6%	62.8%
Non-Minority	36.7%	36.9%	37.3%
Low Income HH	63.8%	60.4%	65.6%
Not Low Income HH	43.2%	41.2%	41.6%
Seniors	46.2%	43.2%	43.5%
Non-Seniors	47.7%	46.4%	47.1%
Zero-Car HH	73.2%	64.7%	68.7%
All	47.4%	45.7%	46.3%

Table 10
Percent of Population or Households within 15 minutes mid-day period to a Hospital by auto

	2015	2045 No Build	2045 Build
Minority	94.7%	86.0%	86.4%
Non-Minority	75.7%	73.8%	74.1%
Low Income HH	90.0%	86.7%	88.7%
Not Low Income HH	79.5%	75.6%	75.9%
Seniors	81.0%	76.5%	76.7%
Non-Seniors	81.6%	78.6%	79.0%
All	81.5%	78.1%	78.5%

Table 11
Percent of Population or Households within 30 minutes mid-day period to a Hospital by transit

	2015	2045 No Build	2045 Build
Minority	53.7%	45.5%	46.4%
Non-Minority	26.9%	27.3%	27.7%
Low Income HH	49.1%	46.6%	50.7%
Not Low Income HH	31.8%	30.1%	30.3%
Seniors	34.2%	32.6%	33.0%
Non-Seniors	35.3%	34.1%	34.7%
Zero-Car HH	56.4%	49.3%	52.2%
All	35.1%	33.8%	34.3%

Table 12

Percent of Population or Households within 15 minutes mid-day period to a Major Retail Center by auto

	2015	2045 No Build	2045 Build
Minority	70.4%	65.2%	67.3%
Non-Minority	62.4%	58.6%	60.3%
Low Income HH	71.0%	67.2%	70.4%
Not Low Income HH	63.3%	59.3%	60.9%
Seniors	64.0%	59.6%	61.1%
Non-Seniors	65.0%	61.3%	63.2%
All	64.9%	60.9%	62.8%

Table 13

Percent of Population or Households within 30 minutes mid-day period to a Major Retail Center by transit

	2015	2045 No Build	2045 Build
Minority	20.5%	18.0%	18.1%
Non-Minority	16.0%	14.8%	14.8%
Low Income HH	22.0%	19.2%	21.6%
Not Low Income HH	16.1%	14.7%	14.6%
Seniors	16.0%	15.3%	15.6%
Non-Seniors	17.6%	16.1%	16.1%
Zero-Car HH	21.9%	18.5%	19.7%
All	17.3%	15.9%	16.0%

Table 14
Average Auto Travel Time for Work purpose

	2015	2045 No Build	% Inc over 2015	2045 Build	% Inc Over 2015	2045 Build Vs No Build	
						Minutes Saved	% Minutes Saved
Minority	20.23	22.13	9.4%	21.93	8.4%	0.20	0.90%
Non-Minority	24.42	25.1	2.8%	24.8	1.6%	0.3	1.20%
Low Income HH	19.05	19.66	3.2%	19.41	1.9%	0.25	1.27%
Not Low Income HH	26.23	27.16	3.5%	26.21	-0.1%	0.95	3.50%
Seniors	23.38	24.41	4.4%	24.15	3.3%	0.26	1.07%
Non-Seniors	23.3	24.04	3.2%	23.77	2.0%	0.27	1.12%
All	23.31	24.13	3.5%	23.86	2.4%	0.27	1.12%

Table 15
Average Transit Travel Time for Work purpose

	2015	2045 No Build	% Inc over 2015	2045 Build	% Inc Over 2015	2045 Build Vs No Build	
						Minutes Saved	% Minutes Saved
Minority	45.97	43.21	-6.0%	41.44	-9.9%	1.77	4.10%
Non-Minority	43.94	44.24	0.7%	43.04	-2.0%	1.2	2.71%
Low Income HH	48.9	48.23	-1.4%	46.28	-5.4%	1.95	4.04%
Not Low Income HH	40.36	38.41	-4.8%	38.9	-3.6%	-0.49	-1.28%
Seniors	46.01	44.79	-2.7%	43.02	-6.5%	1.77	3.95%
Non-Seniors	44.93	43.34	-3.5%	41.87	-6.8%	1.47	3.39%
Zero-Car HH	43.76	43.19	-1.3%	40.81	-6.7%	2.38	5.51%
All	45.07	43.64	-3.2%	42.1	-6.6%	1.54	3.53%

Table 16
Average Auto Travel Time for Shopping purpose

	2015	2045 No Build	% Inc over 2015	2045 Build	% Inc Over 2015	2045 Build Vs No Build	
						Minutes Saved	% Minutes Saved
Minority	9.45	9.96	5.4%	9.89	4.7%	0.07	0.70%
Non-Minority	10.88	11.05	1.6%	10.96	0.7%	0.09	0.81%
Low Income HH	9.13	9.3	1.9%	9.25	1.3%	0.05	0.54%
Not Low Income HH	10.89	11.13	2.2%	11.08	1.7%	0.05	0.45%
Seniors	10.46	10.81	3.3%	10.74	2.7%	0.07	0.65%
Non-Seniors	10.42	10.61	1.8%	10.53	1.1%	0.08	0.75%
All	10.43	10.65	2.1%	10.58	1.4%	0.07	0.66%

Table 17
Average Transit Travel Time for Shopping purpose

	2015	2045 No Build	% Inc over 2015	2045 Build	% Inc Over 2015	2045 Build Vs No Build	
						Minutes Saved	% Minutes Saved
Minority	29.33	27.96	-4.7%	26.45	-9.8%	1.51	5.40%
Non-Minority	29.75	30.13	1.3%	29.16	-2.0%	0.97	3.22%
Low Income HH	29.63	29.02	-2.1%	27.57	-7.0%	1.45	5.00%
Not Low Income HH	28.87	27.21	-5.7%	26.48	-8.3%	0.73	2.68%
Seniors	29.43	29.12	-1.1%	27.81	-5.5%	1.31	4.50%
Non-Seniors	29.46	28.46	-3.4%	27.07	-8.1%	1.39	4.88%
Zero-Car HH	28.57	27.88	-2.4%	26.12	-8.6%	1.76	6.31%
All	29.46	28.58	-3.0%	27.21	-7.6%	1.37	4.79%

Table 18
Average Auto Travel Time for Other purpose

	2015	2045 No Build	% Inc over 2015	2045 Build	% Inc Over 2015	2045 Build Vs No Build	
						Minutes Saved	% Minutes Saved
Minority	10.91	11.68	7.1%	11.59	6.2%	0.09	0.77%
Non-Minority	13.14	13.21	0.5%	13.10	-0.3%	0.11	0.83%
Low Income HH	10.34	10.51	1.6%	10.45	1.1%	0.06	0.57%
Not Low Income HH	12.99	13.19	1.5%	13.05	0.5%	0.14	1.06%
Seniors	12.55	12.9	2.8%	12.8	2.0%	0.1	0.78%
Non-Seniors	12.47	12.61	1.1%	12.5	0.2%	0.11	0.87%
All	12.48	12.67	1.5%	12.57	0.7%	0.1	0.79%

Table 19
Average Transit Travel Time for Other purpose

	2015	2045 No Build	% Inc over 2015	2045 Build	% Inc Over 2015	2045 Build Vs No Build	
						Minutes Saved	% Minutes Saved
Minority	32.12	29.82	-7.2%	28.62	-10.9%	1.2	4.02%
Non-Minority	32.14	32.44	0.9%	31.71	-1.3%	0.73	2.25%
Low Income HH	32.86	31.99	-2.6%	30.86	-6.1%	1.13	3.53%
Not Low Income HH	29.88	27.24	-8.8%	27.05	-9.5%	0.19	0.70%
Seniors	33	31.59	-4.3%	30.44	-7.8%	1.15	3.64%
Non-Seniors	32	30.45	-4.8%	29.41	-8.1%	1.04	3.42%
Zero-Car HH	30.51	29.52	-3.2%	27.92	-8.5%	1.6	5.42%
All	32.13	30.66	-4.6%	29.61	-7.8%	1.05	3.42%

Table 20
Average Auto Travel Time for All purposes

	2015	2045 No Build	% Inc over 2015	2045 Build	% Inc Over 2015	2045 Build Vs No Build	
						Minutes Saved	% Minutes Saved
Minority	12.97	14.06	8.4%	13.92	7.3%	0.14	1.00%
Non-Minority	15.85	16.11	1.6%	15.93	0.5%	0.18	1.12%
Low Income HH	13.74	14.12	2.8%	13.96	1.6%	0.16	1.13%
Not Low Income HH	15.44	15.84	2.6%	15.73	1.9%	0.11	0.69%
Seniors	15.12	15.67	3.6%	15.51	2.6%	0.16	1.02%
Non-Seniors	14.98	15.31	2.2%	15.15	1.1%	0.16	1.05%
All	15	15.39	2.6%	15.23	1.5%	0.16	1.04%

Table 21
Average Transit Travel Time for All purposes

	2015	2045 No Build	% Inc over 2015	2045 Build	% Inc Over 2015	2045 Build Vs No Build	
						Minutes Saved	% Minutes Saved
Minority	38	36.12	-4.9%	34.86	-8.3%	1.26	3.49%
Non-Minority	36.45	37.09	1.8%	36.82	1.0%	0.27	0.73%
Low Income HH	39.55	38.99	-1.4%	37.25	-5.8%	1.74	4.46%
Not Low Income HH	36.47	35.19	-3.5%	34.88	-4.4%	0.31	0.88%
Seniors	39.8	38.18	-4.1%	36.57	-8.1%	1.61	4.22%
Non-Seniors	36.99	36.12	-2.4%	35.42	-4.2%	0.7	1.94%
Zero-Car HH	35.67	36.16	1.4%	33.86	-5.1%	2.3	6.36%
All	37.32	36.52	-2.1%	35.64	-4.5%	0.88	2.41%

Table 22
Major Regional Colleges

Eastern Michigan University
Henry Ford Community College
Lawrence Technological University
Macomb Community College, Central Campus
Macomb Community College, South Campus
Madonna University
Marygrove College
Monroe County Community College
Oakland Community College, Auburn Hills Campus
Oakland Community College, Highland Lakes Campus
Oakland Community College, Orchard Ridge Campus
Oakland Community College, Royal Oak Campus
Oakland Community College, Southfield Campus
Oakland University
Schoolcraft College
St. Clair County Community College
University of Detroit Mercy
University of Michigan-Ann Arbor
University of Michigan-Dearborn
Walsh College
Washtenaw Community College
Wayne County Community College District, Downriver Campus
Wayne County Community College District, Downtown Campus
Wayne County Community College District, Eastern Campus
Wayne County Community College District, Northwestern Campus
Wayne County Community College District, Western Campus
Wayne State University

Table 23
Major Regional Hospitals

Beaumont Health System, Grosse Pointe
Beaumont Health System, Royal Oak
Beaumont Hospital, Dearborn
Beaumont Hospital, Farmington Hills
Beaumont Hospital, Taylor
Beaumont Hospital, Trenton
Beaumont Hospital, Wayne
Beaumont Hospital, Troy
Crittenton Hospital Medical Center
Detroit Medical Center, Receiving Hospital
Detroit Medical Center, Hutzel Women'S Hospital
Detroit Medical Center, Harper University Hospital
Detroit Medical Center, Rehabilitation Institute
Detroit Medical Center, Children'S Hospital
Forest Health Medical Center
Garden City Hospital
Henry Ford Health Center,Brownstown
Henry Ford Hospital
Henry Ford Medical Center, Cottage
Henry Ford Medical Center, Detroit Northwest
Henry Ford Medical Center, Fairlane
Henry Ford Medical Center, Sterling Heights
Henry Ford West Bloomfield Hospital
Henry Ford Wyandotte Hospital
Huron Valley-Sinai Hospital
Lake Huron Medical Center

Mclaren Macomb
Mclaren Oakland
Mclaren Port Huron
Oakland Regional Hospital
Oakwood Healthcare Center
Pontiac General Hospital
Promedica Monroe Regional Hospital
Providence Hospital
Providence Park Hospital
Saint Joseph Mercy Livingston Hospital
Select Specialty Hospital - Macomb County
Sinai-Grace Hospital
Southeast Michigan Surgical Hospital
St John Hospital And Medical Center
St John Macomb-Oakland Hospital, Macomb Center
St John Macomb-Oakland Hospital, Madison Heights
St John River District Hospital
St Joseph Mercy Hospital
St Joseph Mercy Oakland
St Mary Mercy Hospital
St. John Providence Health System
St. Joseph Mercy Chelsea
Straith Hospital For Special Surgery
University Of Michigan Health System

Table 24
Major Regional Shopping Centers

Birchwood Mall
Briarwood Mall
Cabela's Inc.
Eastland Center
Fairlane North
Fairlane Town Center
Fountain Walk
Great Lakes Crossing Mall
IKEA (Redevelopment)
Lakeside Mall
Macomb Mall
Oakland Mall
Somerset Collection North
Southland Mall
Tanger Outlets of Howell, MI
The Mall at Partridge Creek
The Village of Rochester Hills
Twelve Oaks Mall
West Oaks
Westland Mall
Birchwood Mall
Briarwood Mall
Cabela's Inc.
Eastland Center
Fairlane North
Fairlane Town Center