

CHAPTER FIVE: IMPACTS OF NORTHWEST METRO TRANSIT STUDY FINAL PLAN

OPERATING BUDGET

Development of the Northwest Metro Transit Study Final Plan has two elements: baseline improvements that could take place within currently available funding (“existing resources scenario”) and future improvements (“growth scenario”) that require additional funding. Due to budget constraints, the “existing resources scenario” must have total service hours requirements generally equivalent to existing levels. Figures 16 and 17 show the daily operational impacts by individual route in the Final Plan.

The Final Plan is designed to be flexible to accommodate the future Bottineau Bus Rapid Transit (BRT) project. However, most of the proposed BRT project is not included in the existing resources scenario version of the Plan. Elements from Phase I of the Bottineau BRT service plan are included in the growth scenario described in Chapter Seven.

EFFICIENCY AND EFFECTIVENESS ELEMENTS

A principal goal in developing the Northwest Metro Transit Study Final Plan is to improve the efficiency and effectiveness of transit service to enable the mobility of transit riders. The final plan route network is more efficient, operating more in-service hours and generating more riders within the same number of total platform hours as operated today, even though in some cases fewer trips may travel on longer routes. Several elements will improve efficiency and effectiveness:

ROUTE STRUCTURE AND COVERAGE CHANGE IMPACTS

In restructuring service in the Northwest Metro Transit Study area, the planning team worked extensively to refine the proposed plan to minimize significant negative rider impacts while maintaining the proposed effectiveness and efficiency improvements. In the end less than 0.3 percent of current riders in the study area will not have service within a ¼-mile of the final network as described in Figures 18 and 19. Transit service is retained for more than 99 percent of Northwest Metro Transit Study area riders.

PRODUCTIVITY MEASURES

Routes currently operating in the Northwest Metro Transit Study area have an estimated average productivity of 30.3 passengers per platform hour on weekdays, 30.5 passengers per platform hour on Saturdays, and 29.8 passengers per platform hour on Sunday. The service in the Final Plan will maintain these productivity standards and will aim to increase the number of passengers per platform hour without any increase in service hours or vehicles. All routes are projected to have a minimum of 15 passengers per hour. In addition, routes in the Final Plan meet the regional subsidy standards.

Figure 16-Summary of Daily Operational Impacts (One-Way Trips)

Route	Weekday				Saturday				Sunday			
	Existing	Final	Change	% Change	Existing	Final	Change	% Change	Existing	Final	Change	% Change
5*	270	258	-12	-4.4%	209	193	-16	-7.7%	149	144	-5	-3.4%
7*	81	87	6	7.4%	82	82	0	0.0%	81	53	-28	-34.6%
14*	139	145	6	4.3%	126	128	2	1.6%	63	94	31	49.2%
19*	126	155	29	23.0%	87	134	47	54.0%	76	80	4	5.3%
22*	122	122	0	0.0%	88	89	1	1.1%	64	83	19	29.7%
29	0	0	0	0.0%	56	0	-56	-100.0%	52	0	-52	-100.0%
32*	64	43	-21	-32.8%	0	0	0	0.0%	0	0	0	0.0%
705	0	28	28	100%	0	0	0	0%	0	0	0	0.0%
714	0	38	38	0%	0	0	0	0%	0	0	0	0.0%
715	41	0	-41	-100%	15	0	-15	-100%	0	0	0	0.0%
716	31	35	4	12.9%	14	26	12	85.7%	0	0	0	0.0%
717	43	0	-43	-100.0%	0	0	0	0.0%	0	0	0	0.0%
720	0	26	26	100.0%	0	26	26	100.0%	0	18	18	100.0%
721	30	31	1	3.3%	0	0	0	0.0%	0	0	0	0.0%
722	70	77	7	10.0%	46	58	12	26.1%	36	48	12	33.3%
723	30	34	4	13.3%	26	22	-4	-15.4%	20	20	0	0.0%
724	82	79	-3	-3.7%	63	64	1	1.6%	37	39	2	5.4%
754/755/756	58	22	-36	-62.1%	0	0	0	0.0%	0	0	0	0.0%
758	8	14	6	75.0%	0	0	0	0.0%	0	0	0	0.0%
760	19	19	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
761	10	10	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
762	6	4	-2	-33.3%	0	0	0	0.0%	0	0	0	0.0%
763	12	12	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
764	8	8	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
765/766	65	72	7	10.8%	0	0	0	0.0%	0	0	0	0.0%
767	0	6	6	100.0%	0	0	0	0.0%	0	0	0	0.0%
768	0	4	4	100.0%	0	0	0	0.0%	0	0	0	0.0%
801	29	29	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
TOTAL	1344	1358	14	1.0%	812	822	10	1.2%	578	579	1	0.2%

Maple Grove and Plymouth local and limited-stop/express routes are not included in the Northwest Metro Transit Study.

* All trips are included for through-routes that also operate outside the study area.

Figure 17-Summary of Daily Operational Impacts (In Service Hours)

Route	Weekday				Saturday				Sunday			
	Existing	Final	Change	% Change	Existing	Final	Change	% Change	Existing	Final	Change	% Change
5*	312	283	-29	-9.3%	240	219	-21	-8.8%	168	160	-8	-4.8%
7*	58	60	2	3.4%	42	54	12	28.6%	42	37	-5	-11.9%
14*	129	139	10	7.8%	91	115	24	26.4%	57	81	24	42.1%
19*	142	93	-49	-34.5%	89	76	-13	-14.6%	78	45	-33	-42.3%
22*	83	163	80	96.4%	54	112	58	107.4%	39	103	64	164.1%
29	0	0	0	0.0%	10	0	-10	-100.0%	9	0	-9	-100.0%
32*	34	26	-8	-23.5%	0	0	0	0.0%	0	0	0	0.0%
705	0	19	19	100%	0	0	0	0%	0	0	0	0.0%
714	0	13	13	0%	0	0	0	0%	0	0	0	0.0%
715	12	0	-12	-100%	5	0	-5	-100%	0	0	0	0.0%
716	12	14	2	16.7%	4	10	6	150.0%	0	0	0	0.0%
717	8	0	-8	-100.0%	0	0	0	0.0%	0	0	0	0.0%
720	0	9	9	100.0%	0	9	9	100.0%	0	6	6	100.0%
721	15	11	-4	-26.7%	0	0	0	0.0%	0	0	0	0.0%
722	14	14	0	0.0%	9	11	2	22.2%	7	9	2	28.6%
723	11	14	3	27.3%	10	9	-1	-10.0%	7	8	1	14.3%
724	36	36	0	0.0%	20	20	0	0.0%	12	12	0	0.0%
728	0	2	2	100%	0	0	0	0%	0	0	0	0.0%
754/755/756	40	17	-23	-57.5%	0	0	0	0.0%	0	0	0	0.0%
758	7	10	3	42.9%	0	0	0	0.0%	0	0	0	0.0%
760	17	17	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
761	7	8	1	14.3%	0	0	0	0.0%	0	0	0	0.0%
762	2	2	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
763	9	9	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
764	6	6	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
765/766	50	50	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
767	0	5	5	100.0%	0	0	0	0.0%	0	0	0	0.0%
768	0	4	4	100.0%	0	0	0	0.0%	0	0	0	0.0%
801	16	16	0	0.0%	0	0	0	0.0%	0	0	0	0.0%
TOTAL	1020	1040	20	2.0%	574	635	61	10.6%	419	461	42	10.0%

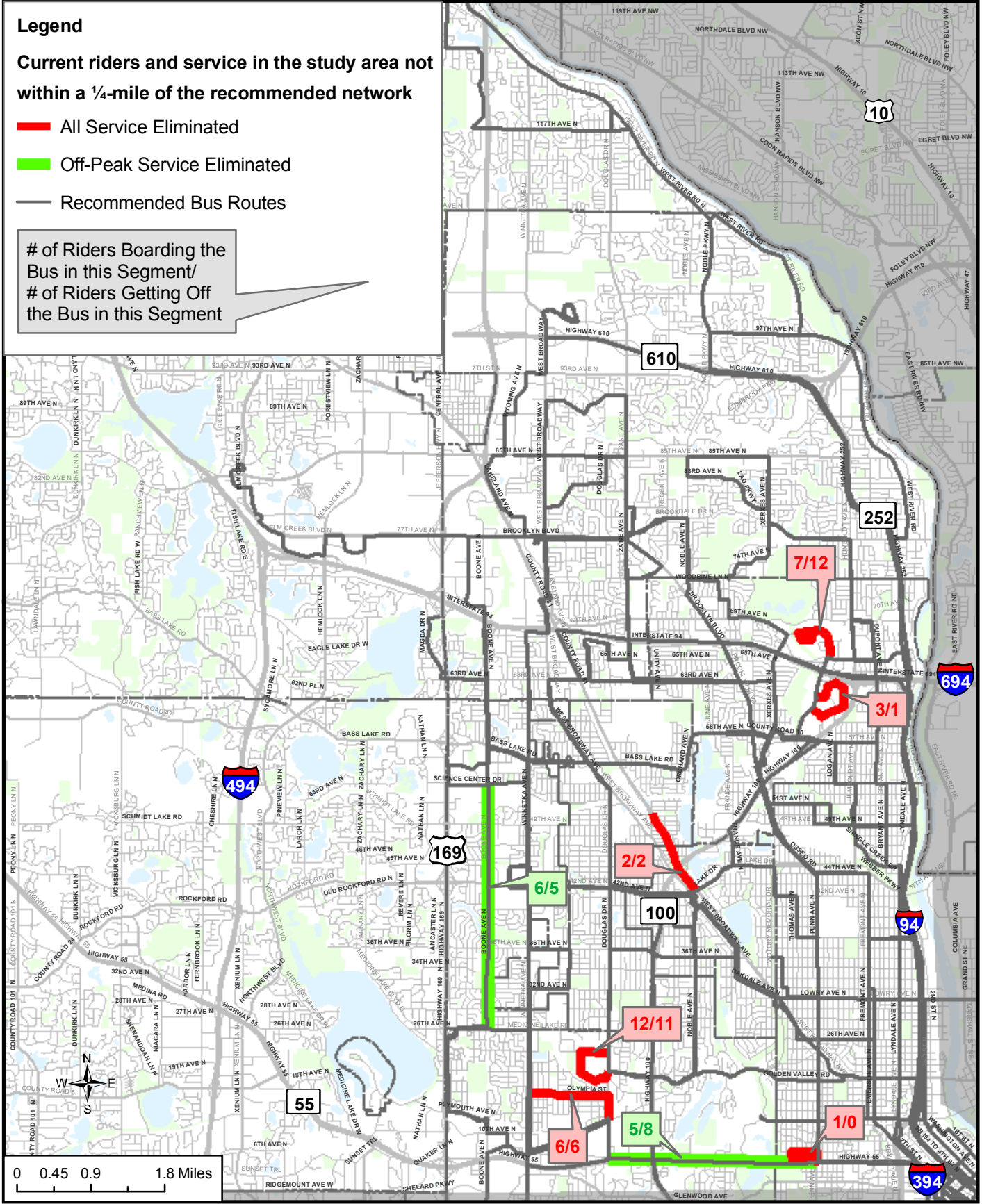
Maple Grove and Plymouth local and limited-stop/express routes are not included in the Northwest Metro Transit Study.

* All trips are included for through-routes that also operate outside the study area.

**Figure 18-Ridership on Eliminated Route Segments
(based on Winter 2001-2002 sector ridechecks)
WEEKDAY**

Current Route	Segment	Time of Day	Total		More than 1/4 mile from alternative service	
			On	Off	On	Off
14	J branch north of Robbinsdale Transit Center	all times	2	2	2	2
19	P branch west of Penn Ave	all times	4	0	1	0
19	Honeywell	all times	16	19	12	11
22	Webber Pkwy and 45th Ave	all times	27	29	0	0
22	Shingle Creek Pkwy north of 65th Ave	all times	13	19	7	12
22	John Martin-Earle Brown-Summit Dr loop	all times	4	5	3	1
721	Boone Ave between 73rd Ave and Brooklyn Blvd	all times	6	19	0	0
721	73rd Ave	all times	2	5	0	0
721	Northland Terrace	all times	7	10	0	0
721	Hennepin Technical College parking lot	all times	16	19	0	0
723	65th Ave east of Brooklyn Blvd	all times	10	6	0	0
723	North Hennepin Comm. College parking lot	all times	20	53	0	0
755	Olympia between Winnetka Ave and Douglas Dr	all times	7	7	6	6
755	Dover Hills	all times	2	0	0	0
755	Boone Ave between Medicine Lake and 42nd Ave	offpeak	7	5	6	5
755/756	Laurel Ave	all times	1	0	0	0
755/756	Hwy 55 east of Douglas Dr	offpeak	5	8	5	8
762	65th Ave west of Brooklyn Blvd	all times	1	0	0	0
762	Unity Ave between 63rd Ave and 65th Ave	all times	0	0	0	0
766	I-94 ramps between 49th Ave and 53rd Ave	all times	8	1	0	0
TOTAL			158	207	42	45

	Total	More than 1/4 mile from alternative service
Northwest Metro Transit Study Area Weekday Boardings	24,336	24,336
Percent of Riders Impacted	0.6%	0.2%
Percent of Riders Not Impacted	99.4%	99.8%



Ridership Impact (Weekday Only)

Figure 19

Northwest Metro Transit Study Final Plan



April 16, 2007 (Revised)

IMPROVE OPERATING SPEEDS

The attractiveness and efficiency of transit service will increase with improved operating speeds. Strategies towards this goal include:

- Bus stop spacing. Aggressively implement bus stop spacing in accordance with the current policy of eight stops per mile.
- Fare collection. Currently, most riders with pre-paid passes or transfers have to insert them into a ticket reader, which takes a significant amount of time. The upcoming implementation of the GoTo Card fare system, which requires no physical contact with the farebox, should dramatically improve boarding times.
- Traffic signal coordination and priority. There are opportunities to improve operating speeds through better traffic signal timing and development of transit signal priority. Metro Transit currently is working with the City of Minneapolis on a pilot project to implement signal priority along West Broadway in north Minneapolis, as part of the Bottineau BRT project.
- Traffic bottlenecks. Just like freeways, arterial streets experience significant traffic bottlenecks at peak times, resulting in reduced reliability and higher operating costs for transit. Metro Transit has had significant success in developing transit advantages such as bus-only freeway shoulders and bus lanes, and should continue to pursue these programs when feasible.

RESTRUCTURE ROUTES AND NETWORK

Analysis of existing service identifies some route segments and network elements that are unproductive and ineffective. While maintaining good coverage within the study area, the route structure was trimmed, with service redeployed in areas or at times of day that warranted additional service.

METRO MOBILITY

Metro Mobility services within the study area also are impacted by changes outlined in the Northwest Metro Transit Study Plan. This door-to-door service for the disabled is mandated by the Americans with Disabilities Act and is provided by the Metropolitan Council. Since Metro Mobility's service hours and areas are determined by the fixed route transit network, changes to the fixed route service hours or routing impact Metro Mobility's complementary paratransit services as well.

TITLE VI ANALYSIS OF POTENTIAL DISPARATE IMPACT

The changes to current transit service included in this plan (as modified to address public comments) were evaluated using Federal Transit Administration (FTA) Title VI and Metropolitan Council guidelines to understand impacts on low-income and minority populations. The following group definitions were used.

MINORITY POPULATION

Minority population is defined as non-white persons, those of Hispanic origin, or those not having origins in any of the original peoples of Europe, North Africa, or the Middle East. Using 2000 Census data, the average minority population (non-white) within the metro area communities served by public transit (transit taxing district) is

20.6%. All census tracts with minority population greater than 20.6% are defined as minority tracts. Figure 20 shows the minority census tracts in the study area.

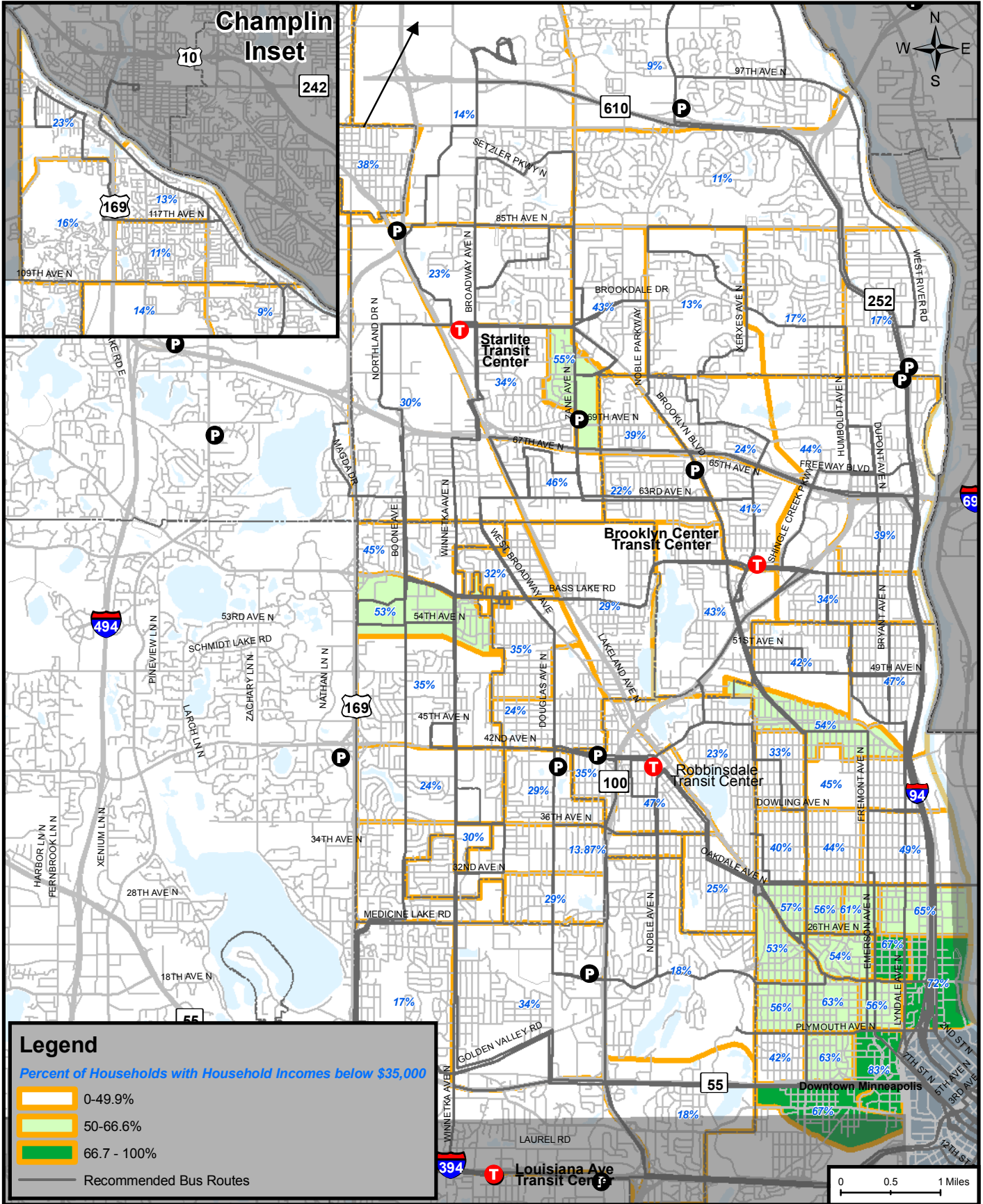
LOW-INCOME HOUSEHOLDS

The 2000 Census defines \$57,000 as the median income for the seven-county metropolitan area. The 2000 Census also defines poverty as a household of four people with an income of less than \$17,000. The Census provides the number of households according to graduated household income ranges. The Metropolitan Council's standard for low-income households is \$35,000, which is approximately halfway between the median and poverty level incomes.

To determine the percentage of low-income households, the number of households with income under \$35,000 was divided by the total number of households in each census tract. Figure 21 shows the census tracts with greater than 50% of households below \$35,000.

To analyze the change between current service (March 2006 data) and the Northwest Metro Transit Study Final Plan, the number of trips within a quarter-mile of individual bus stops and route segments were calculated. Next, U.S. Census tract boundaries were used to determine which bus stops serve each Census tract. By integrating route schedule information with Census data, the service levels by census tract can be determined.

see Champlin inset at left



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Low-Income Households

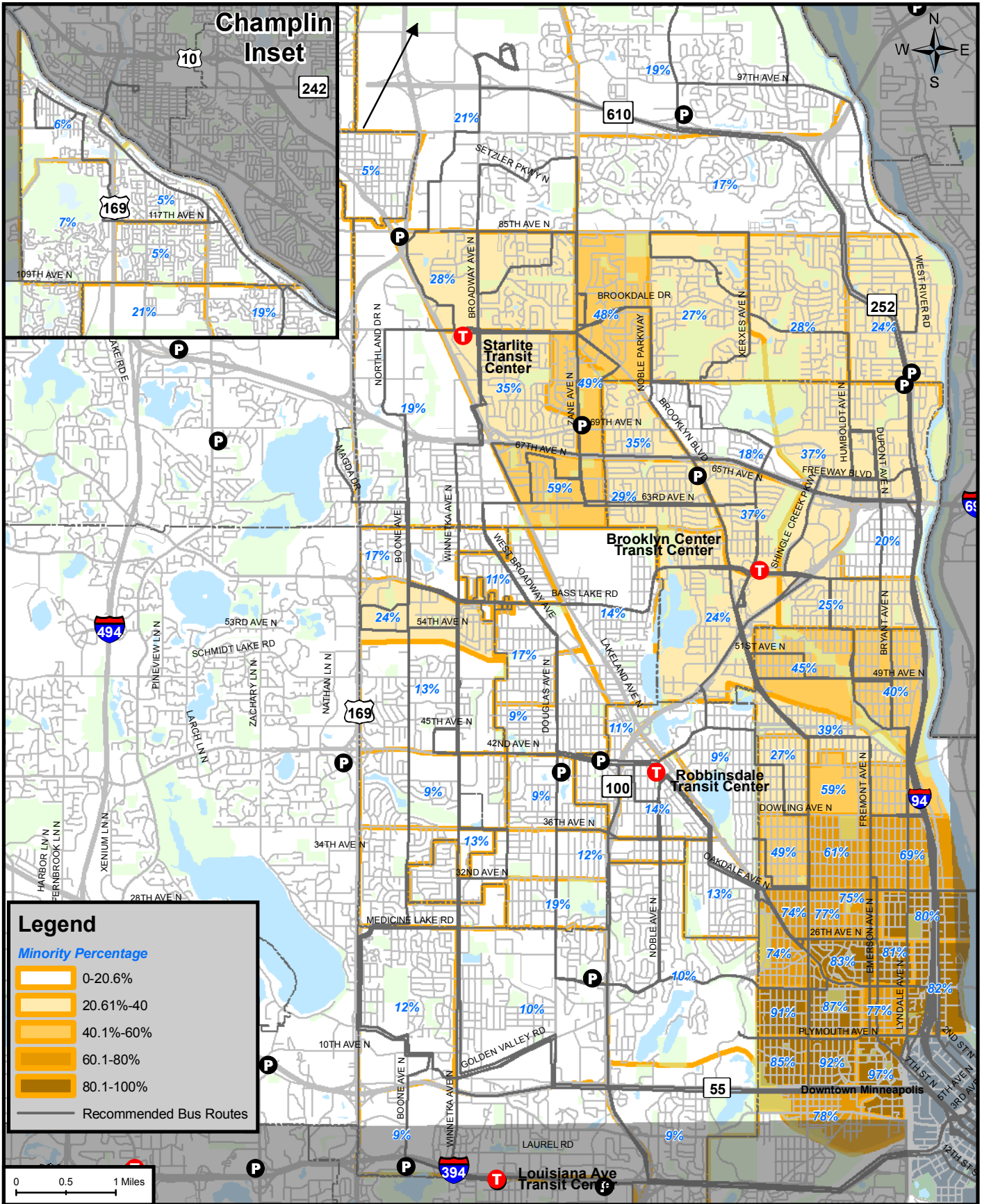
Figure 21

Northwest Metro Transit Study Final Plan



December 11, 2006 (Revised)

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H:\ServDev\PROJECTS\Sector Studies\Final Concept Plan Mapping\WXD\Figure 20 - Minority Population.mxd

Minority Population

Figure 20

Northwest Metro Transit Study Final Plan



December 11, 2006 (Revised)

To evaluate the service changes in the Northwest Metro Transit Study, staff compared the number of trips by Census tract currently operated with those included in the Final Plan. Figure 22 indicates the changes in levels of weekday service and highlights minority and low-income Census tracts.

Overall, minority and low-income Census tracts have a 4 percent increase in the number of weekday trips. As a comparison, the entire Northwest Metro Transit Study area has a one percent increase in weekday trips. In both minority and low-income tracts and in other areas, some Census tracts have an increase in the number of trips and others have decreases. The following minority and low-income Census tracts have decreases in the number of trips, which staff has reviewed in more detail to verify there are no disparate impacts in the community:

- In Brooklyn Park, the elimination of the Route 22J branch impacts the number of trips in the minority Census tracts north of 73rd Avenue. The J branch currently has very limited service, with trips every 3-4 hours in the off-peak. Route 763 express service covers this area during rush hours. Even though the 67 percent decrease is a high number, the overall number of trips eliminated is fairly low. Also, restructuring Route 22 so that all of the off-peak trips serve BCTC and its many route connections benefits many riders in minority and low-income Census tracts in north Minneapolis and Brooklyn Center. A total of 27 J branch riders will not have access to alternative service within ¼ mile at comparable times, which is an average of less than two riders per trip.
- The restructuring of Route 22 in Brooklyn Center is responsible for the decrease in trips in two minority Census tracts east of Highway 100 and in one minority Census tract north of I-94. In order to have all Route 22 off-peak trips serve the BCTC, the bus service on Shingle Creek Parkway has changed. Most riders will still have a reasonable level of service provided by Route 722. Also, although the off-peak frequency of Route 22 remains unchanged, the new branch via 49th and 51st Avenues means that service on the Bryant and Humboldt Avenue branches is reduced.
- Low-income and minority Census tracts along Lowry Avenue and Washington Avenue in north Minneapolis show a slight reduction in the number of weekday trips due to the Route 32 changes. The small decrease in frequency in the off-peak along Lowry Avenue impacts four Census tracts. The Washington Avenue corridor reflects the reduction in downtown trips on the Y branch of Route 32; however most the riders on these trips live further north and west and will have other service options.

Overall the Saturday and Sunday patterns are similar to weekdays. Minority and low-income Census tracts have a larger increase in the number of trips in comparison to the entire study area—17 percent on Saturdays and 5 percent on Sundays in minority and low-income tracts.

This evaluation finds that the recommended changes do not have a disparate impact to minority or low-income populations in this study area. Additional information regarding the Title VI analysis of the Final Plan is available through Metro Transit's Office of Diversity.

