
Southwest Transitway Alternatives Analysis



*Technical Memorandum No. 5
Operating Plans*

*Prepared for
Hennepin County Regional Railroad Authority*

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1. Introduction

This technical memorandum documents the methodology, assumptions, and results of the Operations Planning task for the Southwest Transitway Alternatives Analysis (Southwest Transitway AA).

The task of developing the operating plans followed the selection of appropriate transit modes and the development of alignments (stations and routes). That process resulted in an Enhanced Bus alternative, two BRT alternatives, and eight LRT alternatives. Operating plans were developed for all eleven alternatives.

2. Background

Development of operating plans for the various Southwest Transitway AA alternatives began with a review of current and planned transit infrastructure and service within both the study area and the region. Additions to the current and planned transit service were identified for each alternative beginning with the Enhanced Bus alternative. The operating plans for the BRT and LRT alternative are built upon the operating plan developed for the Enhanced Bus alternative. The changes included in the Enhanced Bus alternative form the basis for the bus service enhancements included in the “build” (BRT and LRT) alternatives.

Study Area Existing Transit Service

Metropolitan Council, Metro Transit, and SouthWest Metro Transit are the primary transit operators in the study area. Metro Transit operates twenty-two routes within the study area: seven local, two limited stop, and thirteen express routes. SouthWest Metro Transit operates a total of twenty-three routes: eleven local and twelve express routes. In addition, Metropolitan Council contracts for services on several routes serving the area, such as Routes 604 and 615. Operating plans developed for the Southwest Transitway alternatives assume the future (2030) service network will closely resemble the dense route structure and extensive facilities of the existing system, with route additions (in other, non-Southwest Transitway areas of the region) reflected in the regional travel model maintained by the Metropolitan Council. The following paragraph details these route additions.

Transit 2030 Plan

The Metropolitan Council produces a long-range transit plan for the region called the Transit 2030 Plan. This plan is part of the Metropolitan Council’s Transportation Policy Plan (TPP), which is updated every four years and submitted to the Federal Transit Administration (FTA). This plan assumes the region will double the current transit ridership by 2030 through bus service expansion and the implementation of transitways including the Southwest Transitway. Other transitways included in the Transit 2030 plan are the Hiawatha light rail transit (LRT) line, the Northstar commuter rail service between Big Lake and Minneapolis, the Central Corridor LRT service between downtown Minneapolis, the University of Minnesota, and downtown St. Paul, the Bottineau Boulevard BRT service between Rogers and downtown Minneapolis, the I-35W BRT service from Lakeville to downtown Minneapolis, the Cedar Avenue BRT service from Lakeville to downtown Minneapolis, the Red Rock commuter rail service between Hastings and St. Paul, and the Rush Line transitway between Pine County and St. Paul.

Transit Infrastructure Advantages

Through a partnership called Team Transit, Minnesota Department of Transportation (Mn/DOT,) the Metropolitan Council, transit agencies, cities and counties cooperate to provide a system of advantages for transit vehicles on the region's roadway system. These advantages include authorized use of shoulders for bus operations during congested periods, ramp meter bypasses, bus-only freeway ramps, and High Occupancy Vehicle (HOV) lanes. Currently, there are 223 miles of shoulder bus operations, 88 ramp meter bypasses, at least 4 bus-only freeway ramps, and HOV lanes on I-394 and I-35W.

Operating plans for each of the alternatives maximize the use of these travel advantages.

3. Methodology and Assumptions

Operating plans for each alternative were developed in a series of meetings with Metropolitan Council, Metro Transit, and SouthWest Metro Transit. The service concept for all of the alternatives is to provide high frequency, line-haul transit service to serve the transit travel needs of the study area. Based upon the transit travel needs of the study area, documented in *Technical Memorandum No. 1, Purpose and Need Statement*, the study area warrants high frequency, line-haul transit service similar to that which exists in the I-394, I-35 W and the Hiawatha corridors. Overall service headways and hours of service included in the operating plans are on par with Hiawatha LRT operations which are 7.5 minutes peak headways and 10-20 minutes off-peak and weekends, with operations extending from approximately 4:00 a.m. to 2:00 a.m. (21-22 hours) daily. The operating plans for the Enhanced Bus, BRT, and LRT alternatives are intended to provide a comparable level of service in the Southwest Transitway area.

The first step in developing the operating plans was to identify enhancements to the existing transit system to accommodate the high volume of service warranted in the study area. This new service package evolved into the Enhanced Bus alternative. The Enhanced Bus alternative includes lengthening or truncating some existing transit routes to better connect to transit stations, increasing route frequencies, and in a few cases, adding new routes or reinstating recently discontinued routes to provide an adequate level of service to accommodate the transit travel demand.

Once the Enhanced Bus alternative was developed and reviewed by Metro Transit and SouthWest Metro Transit staff, it became the route structure basis for the BRT and LRT alternatives. In a limited number of cases under the BRT and LRT alternatives, bus routes currently operating into downtown Minneapolis were truncated at stations, which would require passengers to transfer from the feeder bus to the BRT or LRT service to complete their trips downtown. On BRT alternatives, a limited number of routes would be rerouted onto the BRT exclusive guideway into downtown Minneapolis. However, existing bus routes which offer faster service to downtown Minneapolis than could be achieved through transferring at BRT or LRT stations, or routing on the BRT alignment, would continue to operate through to downtown Minneapolis on their highway alignments, to provide maximum benefit to all transit users. Where these conditions occur, the buses may not connect at a station. In addition, at a number of stations where feeder bus service was not seen as beneficial or necessary and where coverage is provided by buses feeding adjacent stations, no feeder bus service was provided.

The study did not recommend specific service increases (in terms of frequency, or changes in alignments or travel times) on Saturday, Sunday, or during the holidays for corridor bus routes.

However, the study assumed that Saturday, Sunday and holiday service volumes increase over existing levels proportionally with the significant weekday service volume increases found within bus operating plans for the Enhanced Bus, LRT and BRT alternatives. This assumption was carried out in the operating and maintenance (O&M) annualization factor.

The annualization factor converted Saturdays, Sundays and holidays into weekday equivalents used to estimate annual O&M costs; to perform this conversion, the annualization factor applied increases in weekday service volume to the lower overall weekend service. Using this methodology, the annualization factor captured the estimated O&M costs of an increased weekend service volumes. *Technical Memorandum 8, Operating and Maintenance Costs*, provides greater detail about this annualization methodology.

4. Operating Plans

The operation of each alternative is described in the material which follows.

A. Enhanced Bus Alternative

The Federal Transit Administration (FTA) requires the development of a baseline bus option for inclusion in an alternatives analysis study. The FTA web site defines baseline bus as:

... the best that can be done for mobility without constructing a new transit guideway. An acceptable baseline alternative emphasizes transportation system upgrades such as intersection improvement, minor road widening, traffic engineering actions, bus route restructuring, shortened bus headways, expanded use of articulated buses, reserved bus lanes, contra-flow lanes for buses and High Occupancy Vehicle (HOVs) on freeways, special bus ramps on freeways, expanded park/ride facilities, express and limited-stop service, signalization improvement, and timed-transfer operations.¹

The Enhanced Bus option is used as the basis for comparison to the build alternatives, which are defined as BRT and LRT for this study.

Description

The Enhanced Bus alternative includes two new limited stop routes serving the study area, minor modifications to the existing express service, and restructuring of the local bus service to provide access to the two new limited stop routes. The two new limited stop routes provide bi-directional service from Eden Prairie to downtown Minneapolis on a combined frequency of 7.5 minutes during the peak periods. The new limited stop routes serve selected stops (similar to the station locations in the BRT and LRT alternatives), then travel non-stop on the regional highways using bus shoulder lanes and/or the I-394 HOV lane into downtown Minneapolis. This allows the limited stop services to offer more attractive travel times, and increases options for commuters in the corridor than operations on regular routes.

In addition to the new routes, the Enhanced Bus alternative includes increases in service frequency for many Metro Transit and SouthWest Metro Transit bus routes to improve the overall level of transit service in the corridor. These changes form the basis for the bus service enhancements recommended in all the alternatives, and in most cases are carried through as elements of all of the

¹ <http://www.fta.gov>

“build” alternatives. There are also several new routes, mostly shuttle or circulator routes that operate as neighborhood circulators and feeders to the longer distance routes in the enhanced bus alternative, and function as feeder-distributor routes for the rail or bus alternatives under the BRT and LRT alternatives.

Existing Express Bus Routes

SouthWest Station Express Route 690 via I-394

Starting from SouthWest Station in Eden Prairie, this route uses TH 5, TH 212, and TH 169, using shoulder lanes on TH 169 where available, to access the I-394 HOV lane. Buses exit I-394 at 12th Street to enter downtown Minneapolis, where buses would make multiple downtown stops at locations to be determined at a later stage of project development.

SouthWest Station Express Route 681 via I-35W

Starting from SouthWest Station in Eden Prairie, this route uses TH 5, TH 212, and TH 62, using shoulder lanes where available, to access the I-35W HOV lane. Buses exit I-35W at 11th Street to enter downtown Minneapolis, where buses would make multiple downtown stops at locations to be determined at a later stage of project development.

SouthWest Metro Transit is considering future changes to its express routes, including eliminating the off-highway portions of Route 681 and its routing through Uptown Station. Routes 681 and 690 will continue to operate as high-frequency express routes between SouthWest Station and downtown Minneapolis, although exact routings may change.

New Limited Stop Routes

Limited-Stop Route “A” – Eden Prairie, Hopkins, St. Louis Park to Downtown Minneapolis

This route begins at the park-and-ride lot at Mitchell Road and Technology Drive. The route enters TH 5 to SouthWest Station on Technology Drive to Singletree Lane to Prairie Center Drive to Flying Cloud Drive to the bus-only shoulder lanes on TH 212. From the bus-only shoulder lanes of TH 212 the route enters the bus-only shoulder lanes on TH 169 to Excelsior Boulevard in Hopkins. The route continues in mixed traffic along Excelsior Boulevard then northbound in mixed traffic on Blake Road to TH 7. The route continues in mixed traffic along TH 7 to TH 100. From TH 100 the route enters the I-394 High Occupancy Vehicle (HOV) lanes to downtown Minneapolis, where buses would make multiple stops at locations to be determined at a later stage of project development.

Stops occur at the following locations:

- Mitchell Road/TH 5 (park-and-ride lot), Eden Prairie
- SouthWest Station (park-and-ride lot), Eden Prairie
- Flying Cloud Drive, Eden Prairie
- TH 212 at Shady Oak Road (park-and-ride lot), Eden Prairie
- TH 169 at Bren Road, Minnetonka
- TH 169 at Excelsior Boulevard, Hopkins
- Excelsior Boulevard at Blake Road, Hopkins
- Blake Road just south of TH 7, Hopkins
- TH 7 at Texas Avenue (park-and-ride lot), Louisiana Avenue and Wooddale Avenue, St. Louis Park.

Limited-Stop Route “B” – Minnetonka, Hopkins, St. Louis Park to Downtown Minneapolis

This route begins at the intersection of Shady Oak Road and Excelsior Boulevard. The route then travels in mixed traffic along Excelsior Boulevard to Blake Road. From Blake Road the route travels north to TH 7, then westbound on TH 7 to TH 100. From TH 100 the route enters the I-394 High Occupancy Vehicle (HOV) lanes to downtown Minneapolis, where buses make multiple stops at locations to be determined at a later stage of project development.

Stops occur at the following locations:

- Shady Oak Road and Excelsior Boulevard, Minnetonka
- Excelsior Boulevard at 8th Avenue/downtown Hopkins (park-and-ride lot)
- Excelsior Boulevard at TH 169, Hopkins
- Excelsior Boulevard at Blake Road, Hopkins
- Blake Road at TH 7, Hopkins
- TH 7 at Texas Avenue, St. Louis Park (park-and-ride lot)
- TH 7 at Louisiana Avenue, St. Louis Park
- TH 7 at Wooddale Avenue, St. Louis Park

The approximate line length between the Hopkins Transit Center and the edge of downtown Minneapolis is 9.5 miles.

Service Plan

The weekday service frequencies are listed below. When combined for the overlapping segment from Hopkins to downtown Minneapolis, the resulting frequencies are 10 minutes in the early morning, 7.5 minutes during the morning peak, 10 minutes for the mid-day, 7.5 minutes during afternoon peak, and 15 minutes during the evening.

Table 1 Enhanced Bus Service Plan

Weekdays	Morning (4:00 - 6:00 AM)	Morning Peak (6:00- 9:00 AM)	Mid-Day (9:00 AM – 3:00 PM)	PM Peak (3:00- 6:00 PM)	Evening (6:00 PM - 2:00 AM)
Route “A”	20	15	20	15	30
Route “B”	20	15	20	15	30
Combined	10	7.5	10	7.5	15
Weekends	20-60 minutes	20-60 minutes	20-60 minutes	20-60 minutes	20-60 minutes

Source: Parsons Brinckerhoff, 2006.

Connecting Transit Service – Enhanced Bus Alternative

The following analysis identifies those routes that intersect with Limited Stop Routes A and B at the stops specified between Eden Prairie and downtown Minneapolis, and indicates changes to those routes recommended under the Enhanced Bus alternative.

Mitchell Road/TH 5: Route 631 connects to this park-and ride lot.

Route 631 is a circulator that connects Eden Prairie and surrounding communities to Eden Prairie Town Center and SouthWest Stations. (Note: the City of Eden Prairie requested in September 2006 that “Town” be added to this station name.) Service on route 631 increases from an hourly service to a frequency of 15 minutes during peak periods, and operates hourly in the evenings until 10:00 PM.

SouthWest Station: SouthWest Metro Transit Routes 603, 631, 636, 680, 681, 681 Circulator, 685, 685A, 690, 690A, 690B, 691, 694, 698, and 699A connect with Limited Stop Route A at this transit park-and-ride station, which also serves as the hub of SouthWest Metro Transit's bus operations.

Route 603 is a circulator that serves the area surrounding Eden Prairie Town Center. The circulator, which currently operates only in the clockwise direction, operates in both directions under the Enhanced Bus operating plan, effectively doubling the existing 30 minute peak, 60 minute off-peak frequency. Service also changes to bi-directional serves with an hourly headway in the evenings until 10:00 PM.

Changes to Route 631 are described above under Mitchell Road/TH-5.

Route 636 is a circulator servicing Eden Prairie. Route 636 remains unchanged during peak periods, and midday service is eliminated.

Route 680 is not changed under this alternative.

Route 681 combines with 690 and 690A to operate a high frequency bi-directional service between SouthWest Station and downtown Minneapolis. The off-highway segment of its alignment serving the Golden Triangle area is eliminated.

Route 681 Circulator is a new route serving Eden Prairie and Golden Triangle, replacing the eliminated segment of the existing route 681 serving the Golden Triangle area. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Routes 690, 690A and 690B are combined with route 681 to provide high frequency, bi-directional service between SouthWest Station and downtown Minneapolis. Connecting with the Limited Stop Route A at the SouthWest Station allows these bus routes to take advantage of the bus only ramp that connects eastbound TH-5 with the station. In addition to 681 and 690, SouthWest Metro Transit Express Routes 685, 685A, 691, 694, 698, and 699A operate between SouthWest Station and Downtown Minneapolis.

Flying Cloud Drive: Route 685 connects with Limited Stop Route A at this stop. Route 685 is not changed under this alternative.

TH 212/Shady Oak: Route 681 connects with Limited Stop Route A at this stop. Route 681 is described above under SouthWest Station.

Bren: Route 568 connects with Limited Stop Route A at this stop. This route is not changed under this alternative.

Shady Oak: Route 664 connects with Limited Stop Route B at this stop. Route 664 is extended from its current terminus south on CR 101 to cover a portion of the former alignment of the recently discontinued route 612. Route 664 will offer an off-peak service similar to the discontinued 612. Under the Enhanced Bus alternative, the route alternative operates on its former alignment and schedule.

Hopkins: Routes 12, 615, 661, 664 and 665 connect with Limited Stop Route B at this park-and-ride lot station.

Service frequencies on route 12 are increased slightly to 15 minutes bi-directional, all day on the trunk portion of the route (frequencies on the branches remain unchanged).

Peak service frequency on route 615 increase from 60 to 30 minutes, and off peak frequency is 60 minutes. The route operates to midnight

Route 661 is a recently discontinued Metro Transit route that is reinstated in the Enhanced Bus alternative with a slightly modified alignment (eliminating its branch to Golden Triangle) and operates at a 30 minute peak/60 minute off-peak service frequency. The route operates at a 30 minute headway in each direction during each peak period and a 120 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Changes to Route 664 are described under Shady Oak.

Service frequency on Route 665 is increased from 3 trips during each peak period, in the peak direction only, to a 30 minute headway (6 trips) during each peak period in the peak direction, and a 60 minute headway (3 trips) during each peak period, in the off peak direction.

TH 169: Limited Stop Routes A and B connect to Route 12, Changes to these Route 12 are described above under Hopkins.

Excelsior at Blake: Limited Stop Routes A and B connect to Routes 12, 17 and 668 at this stop.

Changes to these Route 12 are described above under Hopkins.

Route 17 Lake Street branch is extended to Blake and Excelsior to serve this stop. Service frequency increases from 3 trips in the peak direction and 2 trips in the off-peak during each peak period to 30 minute headways (6 trips in each direction) during the peak period.

Route 668 is extended to connect to Excelsior and Blake and the Library-Lane loop is eliminated.

Blake at TH 7: Limited Stop Routes A and B connect to Routes 17.

Route 17 Lake Street branch serves the stop. Changes to Route 17 are described under Excelsior at Blake.

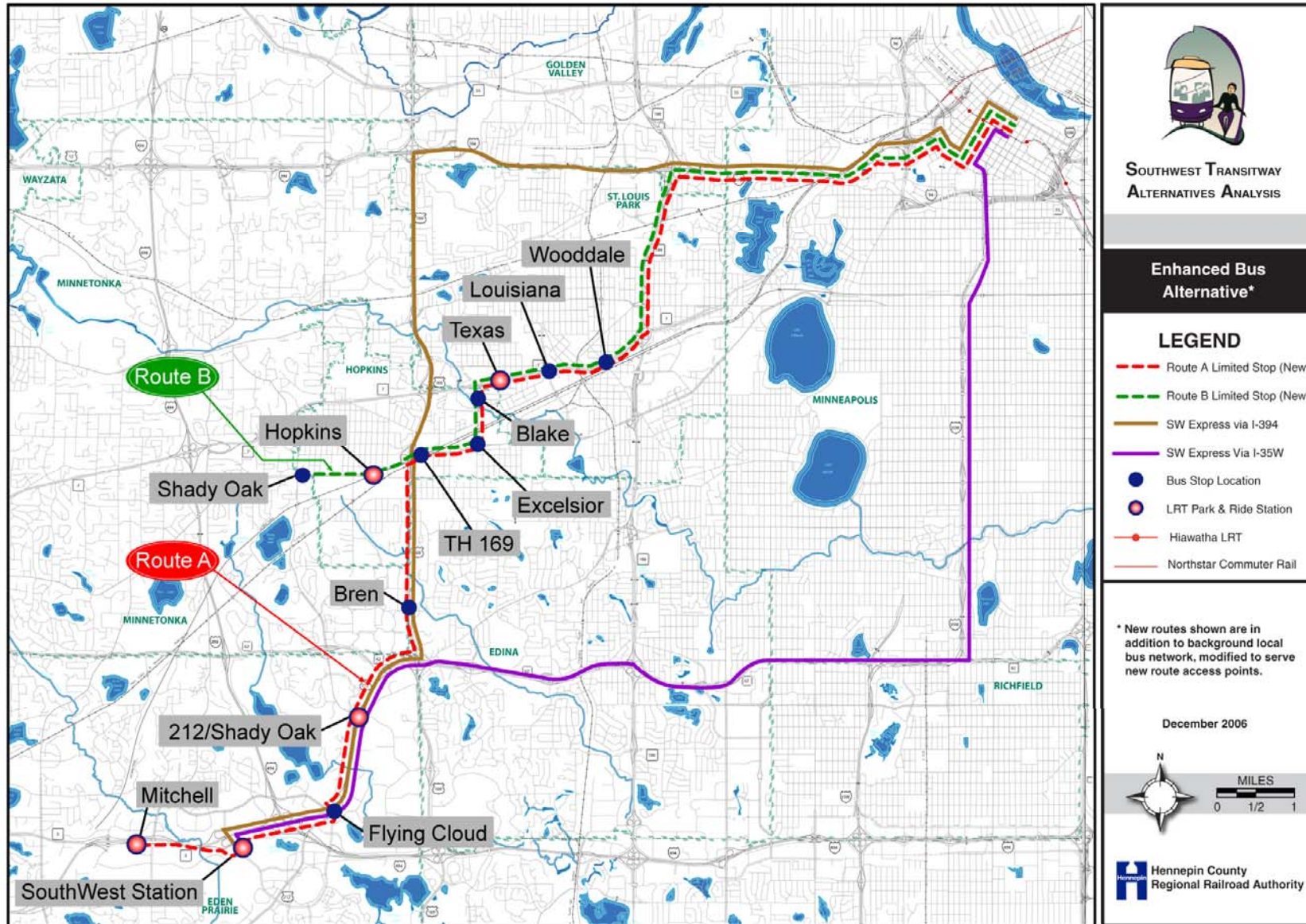
Texas: Limited Stop Routes A and B would connect to Route 668 at this stop.

Route 668 connects to the stop at Blake and TH 7 and the Library-Lane loop is eliminated. Changes to Route 668 are described under Excelsior at Blake.

Louisiana: Limited Stop Routes A and B connect with route 604 at this stop. Route 604 is increased in service frequency under this alternative, from 2 trips in each direction during each peak period to a 30-minute headway (6 trips) in each direction during each peak period.

Wooddale: Route 615 connects to Limited Stop Routes A and B at this location. Changes to Route 615 are described under Hopkins.

Figure 1: Enhanced Bus



Source: Parsons Brinckerhoff, 2006.

B. Build Alternatives

1. *Bus Rapid Transit (BRT) Alternatives*

The Southwest Transitway Alternatives Analysis BRT is assumed to include the following characteristics:

- High-frequency, bi-directional, limited-stop bus service.
- Exclusive (bus-only) guideway, with grade separations at major intersecting facilities. (Segments which serve key destinations but for which exclusive right-of-way is not feasible may be included as “exception segments”.)
- On-line, high-amenity stations with platforms designed to accommodate both standard and low-floor buses. Stations provide bus pull-outs, with passing lanes, access for pedestrians, cyclists, and local buses, drop-off points for autos, with park-and-ride lots sized to accommodate projected passenger demand.
- Vehicles with a unique paint scheme to “brand” Southwest BRT buses as distinctive. Low-floor vehicles are used for the guideway line-haul service. However, all Twin Cities buses are accommodated within the guideway, to leverage maximum efficiency from the guideway investment.
- Intelligent Transportation Systems (ITS) technologies including traffic signal priority at signalized intersections where feasible, automatic transit vehicle location, and real-time passenger information at stations.
- Off-vehicle “proof of payment” fare collection and fare media options consistent with the Hiawatha LRT transit service.

Characteristics of the service which affect its operation include route length, route structure, service span, service frequency, and station spacing. These elements are reflected in the operating plans of the Southwest Transitway AA BRT alternatives:

- Line-haul buses operate on the exclusive guideway and all stop at all stations
- All stations are on-line
- Express bus routes that operate the initial and terminal portions of their alignments on local streets access the guideway for some express segments of their alignments
- Service span and frequency consistent with Hiawatha LRT service: 7 ½ minute peak period headways, 10 minute midday headways, 15 minute evening headways
- Service span consistent with Hiawatha LRT (5:00 am to 2:00 am)
- Station spacing 1-2 miles in second ring suburban communities and ¼ - 1 mile apart in first ring suburban communities and Minneapolis.

The two primary routes under the Enhanced Bus alternative, Limited Stop Routes “A” and “B” operate as the principal BRT routes under the BRT alternatives. In addition, a number of South West Metro Transit and Metro Transit express routes use the BRT alignment for portions of their routes.

BRT 1: HCRRA Right-of-Way, TH 5 to Downtown Minneapolis

The BRT 1 alignment runs from TH 5 in Eden Prairie to downtown Minneapolis, providing service to Eden Prairie, Minnetonka, Hopkins, St. Louis Park, and Minneapolis. BRT 1 uses a new two-lane roadway located in existing HCRRA right-of-way to bus-only lanes in downtown Minneapolis.

BRT 1 begins at SouthWest Station, proceeding west via TH 5 on bus shoulder lanes, exiting at Mitchell Road to follow local streets to the intersection of Highway 5 and the HCRRA's Southwest Corridor. From that point the route enters a new exclusive (bus-only) guideway in the HCRRA's Southwest Corridor to West Lake Street in Minneapolis. Just north of West Lake Street the route enters an exclusive guideway in the HCRRA's Kenilworth Corridor to Penn Avenue. At Penn Avenue the route enters an exclusive BRT guideway in the HCRRA's Cedar Lakes Corridor. When it reaches the new Van White Boulevard, the route exits the exclusive guideway and follows new reserved bus-only lanes along Dunwoody Boulevard and Hennepin Avenue into downtown Minneapolis, where buses would make multiple stops at locations to be determined at a later stage of project development.

Service Plan

Table 2 BRT 1 Service Plan

Weekdays	Morning (4:00 - 6:00 AM)	Morning Peak (6:00- 9:00 AM)	Mid-Day (9:00 AM – 3:00 PM)	PM Peak (3:00- 6:00 PM)	Evening (6:00 PM - 2:00 AM)
Route "A"	20	15	20	15	30
Route "B"	20	15	20	15	30
Combined	10	7.5	10	7.5 (to 7:30 pm)	15
Weekends					
Route "A"	30-60	30-60	20	20	30-60
Route "B"	30-60	30-60	20	20	30-60
Combined	15-30	15-30	10	10	15-30

Source: Parsons Brinckerhoff, 2006.

Connecting Transit Service - BRT 1

TH 5 Station: Routes 631, 636 681, 685, 685A, 690, 690A, 690B, 691, 694, 698, and 699A serve this station.

Routes 631 and 636 are circulators that connect Eden Prairie and surrounding communities to Eden Prairie Town Center and SouthWest Stations. (Note: the City of Eden Prairie requested in September 2006 that "Town" be added to this station name.) Service on route 631 is increased from hourly service to a frequency of 15 minutes during peak periods, and service operates hourly in the evenings until 10:00 PM. Route 636 remains unchanged during peak periods, and midday service will be eliminated.

SouthWest Metro Transit Express Routes 681, 685, 685A, 690, 690A, 690B, 691, 694, 698, and 699A operate from the existing SouthWest Station via TH 5 shoulder lanes to enter the BRT right-of-way at TH 5 station.

TH 62 Station: Routes 661, 681 Circulator serve this station.

Route 661 is a recently discontinued Metro Transit route that is reinstated with a slightly modified alignment (eliminating its branch to Golden Triangle) in the BRT 1 alternative and operates at a 30 minute peak/60 minute off-peak service frequency. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Route 681 Circulator is a proposed new route serving Eden Prairie and Golden Triangle, replacing part of the alignment of existing route 681, which will not operate from SouthWest Station on TH 212. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Rowland Station: No routes serve this station.

Shady Oak Station: Route 12 serves this station. Changes to route 12 are described below under West Lake Station.

Hopkins Station: Routes 12, 615, 661, 664 and 665 serve this station.

Changes to Route 12 are described below under West Lake Station.

Route 615, which currently runs between the Ridgedale Shopping Center in Minnetonka and Excelsior and Grand, is extended to the Beltline Station (which is near Excelsior and Grand). Peak frequency increases from 60 to 30 minutes, and off peak frequency is be 60 minutes. The route operates to midnight.

Changes to Route 661 are described above under TH 62 Station.

Route 664 is extended from its current terminus south on CR 101 to cover a portion of the former alignment of the recently discontinued route 612. Route 664 will offer an off-peak service similar to the discontinued 612. Peak period service operates on the BRT alignment between Hopkins Station and downtown Minneapolis. Off-peak service operates between Hopkins Station and the terminal on CR 101. Off-peak riders with destinations east of Hopkins Station transfer to other services at the Hopkins Station. The route operates on the BRT alignment between Hopkins Station and downtown Minneapolis.

Route 665 is rerouted from its current highway alignment and enters the BRT alignment at Hopkins Station for its connection to downtown Minneapolis. Service frequency be increases from 3 trips during each peak period, in the peak direction only, to a 30 minute headway (6 trips) during each peak period in the peak direction, and a 60 minute headway (3 trips) during each peak period, in the off peak direction.

Blake Station: Routes 17, 615, 664, 665, 668 and 670 serve this station.

Route 17 Lake Street branch is extended to Blake Station, and service frequency increases from 3 trips in the peak direction and 2 trips in the off-peak during each peak period to 30 minute headways (6 trips in each direction) during the peak period.

Changes to Routes 615, 664 and 665 are described above under Hopkins Station.

Route 668 is extended to connect to Blake Station and the Library-Lane loop is eliminated. The route operates on the BRT right-of-way between West Lake Station and downtown Minneapolis.

Route 670 is rerouted to operate on the BRT alignment between Blake Station and downtown Minneapolis. The route, which now operates as a peak period, peak direction route on a one hour peak period headway, operates bi-directionally at half hour headways in the BRT 1 alternative and is given midday and evening (to midnight) service at a one hour headway.

Louisiana Avenue Station: Route 604 serves this station.

Route 604 is extended to Beltline Station, and increases in service frequency from 2 trips in each direction during each peak period to a 30 minute headway (6 trips) in each direction during each peak period.

Wooddale Station: The 36th Street branch of route 17 and Route 615 serve this station. Changes to route 17 are described above under Blake Station. Changes to Route 615 are described under Hopkins Station.

Beltline Station: The 36th Street branch of route 17, route 604 and route 615 serve this station.

Changes to Route 17 are described above under Blake Station.

Changes to Route 604 are described above under Louisiana Station.

Changes to Route 615 are described above under Hopkins Station.

West Lake Station: The 6 Shuttle route and routes 12, 17, 21, 25, and 53 serve this station.

The 6 Shuttle is a new route that operates along France Avenue serving Edina between Southdale and the West Lake Station. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Route 12 terminates at this station and its segment connecting to downtown Minneapolis is eliminated, and service frequencies are increased slightly to 15 minutes bi-directional, all day on the trunk portion of the route (frequencies on the branches remain unchanged).

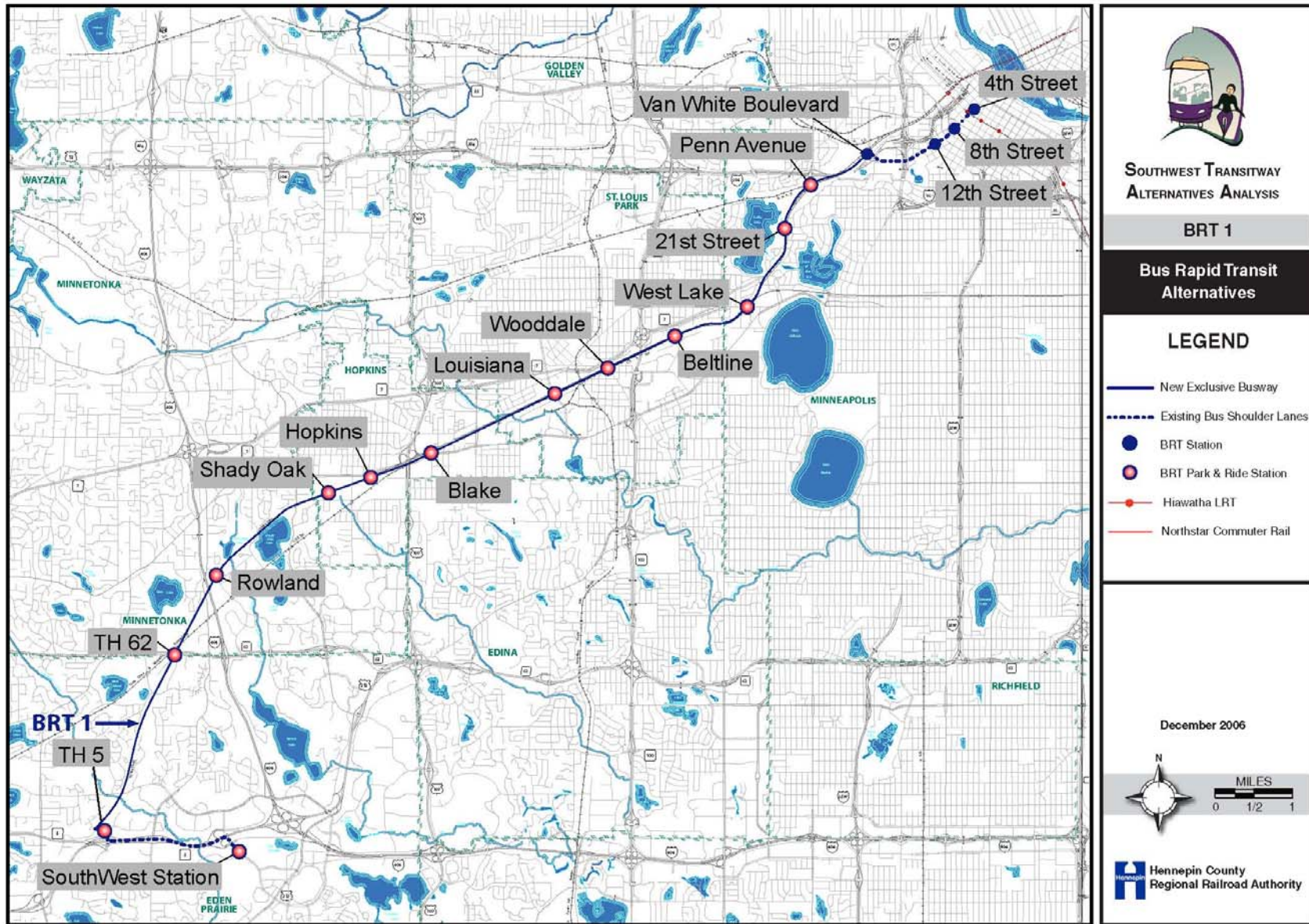
Changes to Route 17 are described above under Blake Station.

Routes 21 and 53 are extended from Uptown Station to connect to this station to provide crosstown connectivity along Lake Avenue.

Route 25 is extended south to connect to this station to provide service to the Kenwood Park area.

21st Street Station: Route 25 connects to this station. Changes to Route 25 are described above under West Lake Station.

Figure 2 BRT 1



Source: Parsons Brinckerhoff, 2006.

BRT 2: Mitchell Road/Eden Prairie Town Center/Golden Triangle/Opus/Hopkins, HCRRA Right-of-Way to Downtown Minneapolis

BRT 2 operates from Mitchell Road in Eden Prairie to downtown Minneapolis, providing service to Eden Prairie, Minnetonka, Hopkins, St. Louis Park, and Minneapolis.

The BRT 2 alignment begins at TH 5 Station and proceeds east on the bus shoulder lanes on TH 5 to SouthWest Station. From there it follows a new bus only lane through the Eden Prairie Town Center along Prairie Center Drive. The bus lane converts to an exclusive busway alignment at US 212 at Valley View Parkway and proceeds north along TH 212 to the Golden Triangle Station, south of Shady Oak Road. An alternate alignment in this area bypasses Eden Prairie Town Center and follows the shoulder lanes on TH 5 to TH 212 through the interchange of those two highways with I-494 in Eden Prairie.

The alignment continues north on dedicated guideway to the City West station, near the TH 212-TH 62 interchange. The BRT then crosses TH 62 and continues north along a bus only lane along internal roadways in the Opus development to the Opus Station on Bren Road. The alignment then turns east as a bus only lane along Bren Road to TH 169, where the alignment follows a bus shoulder Lane north to the HCRRA's Southwest Corridor alignment. From that point the route enters a new exclusive bus-only guideway in the HCRRA's Southwest Corridor to West Lake Street in Minneapolis.

Just north of West Lake Street the route enters an exclusive bus-only guideway in the HCRRA's Kenilworth Corridor to Penn Avenue. At Penn Avenue the route enters an exclusive LRT guideway in the HCRRA's Cedar Lakes Corridor. When it reaches the new Van White Boulevard, the route exits the exclusive bus-only guideway and follows new reserved bus-only lanes along Dunwoody Boulevard and Hennepin Avenue into downtown Minneapolis, where it makes multiple stops.

Service Plan

Table 3 BRT 2 Service Plan

Weekdays	Morning (4:00 - 6:00 AM)	Morning Peak (6:00- 9:00 AM)	Mid-Day (9:00 AM – 3:00 PM)	PM Peak (3:00- 6:00 PM)	Evening (6:00 PM - 2:00 AM)
Route "A"	20	15	20	15	30
Route "B"	20	15	20	15	30
Combined	10	7.5	10	7.5	15
Weekends				(to 7:30 pm)	
Route "A"	30-60	30-60	20	20	30-60
Route "B"	30-60	30-60	20	20	30-60
Combined	15-30	15-30	10	10	15-30

Source: Parsons Brinckerhoff, 2006.

Connecting Transit Service - BRT 2

Mitchell Road Station: Routes 631 and 636 serve this station.

Routes 631 and 636 are circulators that connect Eden Prairie and Surrounding communities to Eden Prairie Town Center and SouthWest Stations. Service on route 631 is increased from hourly service to a frequency of 15 minutes during peak periods, and service would operate hourly in the evenings until 10:00 PM. Route 636 remains unchanged during peak periods, and midday service is eliminated.

SouthWest Station: SouthWest Metro Transit Routes 603, 631, 636, 680, 681, 681 Circulator, 685, 685A, 690, 690A, 690B, 691, 694, 698, and 699A serve this station, which also serves as the hub of SouthWest Metro Transit's bus operations.

Route 680 is not changed under this alternative.

Route 603 is a circulator that serves the area surrounding Eden Prairie Town Center. The circulator, which currently operates only in the clockwise direction, operates in both directions in the BRT 2 alternative, effectively doubling the existing 30 minute peak, 60 minute off-peak frequency. Service also operates bi-directionally on an hourly headway in the evenings until 10:00 PM.

Changes to Routes 631 and 636 are described above under TH 5.

Route 681 is combined with 690 and 690A to operate a high frequency bi-directional service between SouthWest Station and downtown Minneapolis via the BRT alignment, and the off-highway segment of its alignment serving the Golden Triangle area is eliminated.

Route 681 Circulator is a new route serving Eden Prairie and Golden Triangle, replacing the eliminated segment of the existing Route 681 serving the Golden Triangle area. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

As noted above, Routes 690, 690A and 690B are combined with Route 681 to provide high frequency, bi-directional service between SouthWest Station and downtown Minneapolis via the BRT alignment. In addition to 681 and 690, SouthWest Metro Transit Express Routes 685, 685A, 691, 694, 698, and 699A operate on the BRT alignment between SouthWest Station and Downtown Minneapolis.

Eden Prairie Town Center Station: Routes 636 and 681 Circulator serve this station. Route 636 is described above under TH5 Station. Route 681 is described above under SouthWest Station.

Golden Triangle Station: Routes 631 and 681 Circulator serve this station. Route 631 is described above under TH 5 Station. Route 681 is described above under SouthWest Station.

City West Station: No bus routes serve this station.

Opus Station: Routes 12 and 661 serve this station. Changes to Route 12 are described below under West Lake Station.

Route 661 is a recently discontinued Metro Transit route that is reinstated with a slightly modified alignment (eliminating its branch to Golden Triangle) and operates at a 30 minute peak/60 minute off-peak service frequency. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Shady Oak Station: Route 12 serves this station. Changes to route 12 are described below under West Lake Station.

Hopkins Station: Routes 12, 615, 661, 664 and 665 serve this station. Changes to route 12 are described below under West Lake Station.

Route 615, which currently runs between the Ridgedale Shopping Center in Minnetonka and Excelsior and Grand, is extended to the Beltline Station (which is near Excelsior and Grand) in the BRT 2 alternative. Peak frequency increases from 60 to 30 minutes, and off peak frequency is 60 minutes. The route operates to midnight.

Changes to route 661 are described above under TH 62 Station.

Route 664 is extended from its current terminus south on CR 101 to cover a portion of the former alignment of the recently discontinued route 612. Route 664 will offer an off-peak service similar to the discontinued 612. Peak period service operates on the BRT alignment between Hopkins Station and downtown Minneapolis. Off-peak service operates between Hopkins Station and the terminal on CR 101. Off-peak riders with destinations east of Hopkins Station transfer to other services at the Hopkins Station. The route operates on the BRT alignment between Hopkins Station and downtown Minneapolis.

Route 665 is rerouted from its current highway alignment and enters the BRT alignment at Hopkins Station for its connection to downtown Minneapolis. Service frequency is increased from 3 trips during each peak period, in the peak direction only, to a 30 minute headway (6 trips) during each peak period in the peak direction, and a 60 minute headway (3 trips) during each peak period, in the off peak direction.

Blake Station: Routes 17, 615, 664, 665, 668 and 670 serve this station.

Route 17 Lake Street branch is extended to Blake Station, and service frequency increases from 3 trips in the peak direction and 2 trips in the off-peak during each peak period to 30 minute headways (6 trips in each direction) during the peak period.

Changes to routes 615, 664 and 665 are described above under Hopkins Station.

Route 668 is extended to connect to Blake Station and the Library-Lane loop is eliminated. The route would operate on the BRT guideway between West Lake station and downtown Minneapolis.

Route 670 is rerouted to operate on the BRT guideway between Blake Station and downtown Minneapolis. The route, which now operates as a peak period, peak direction route on a one hour peak period headway, operates bi-directionally at half hour headways and operates midday and evening (to midnight) service at a one hour headway.

Louisiana Avenue Station: Route 604 serves this station. Route 604 is extended to Beltline Station, and is increased in service frequency from 2 trips in each direction during each peak period to a 30 minute headway (6 trips) in each direction during each peak period.

Wooddale Station: The 36th Street branch of Route 17 and Route 615 serve this station. Changes to Route 17 are described above under Blake Station. Changes to Route 17 are described under Hopkins Station.

Changes to route 615 are described above under Blake station.

Beltline Station: The 36th Street branch of route 17, route 604 and route 615 serves this station. Changes to route 17 are described above under Blake Station.

Changes to route 604 are described above under Louisiana Avenue Station.

Changes to route 615 are described above under Hopkins Station.

West Lake Station: The 6 Shuttle route and Routes 12, 17, 21, 25, and 53 serve this station.

The 6 Shuttle is a new route that operates along France Avenue serving Edina between Southdale and the West Lake Station. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Route 12 terminates at this station and its segment connecting to downtown Minneapolis is eliminated, and service frequencies increase slightly to 15 minutes bi-directional, all day on the trunk portion of the route (frequencies on the branches remain unchanged).

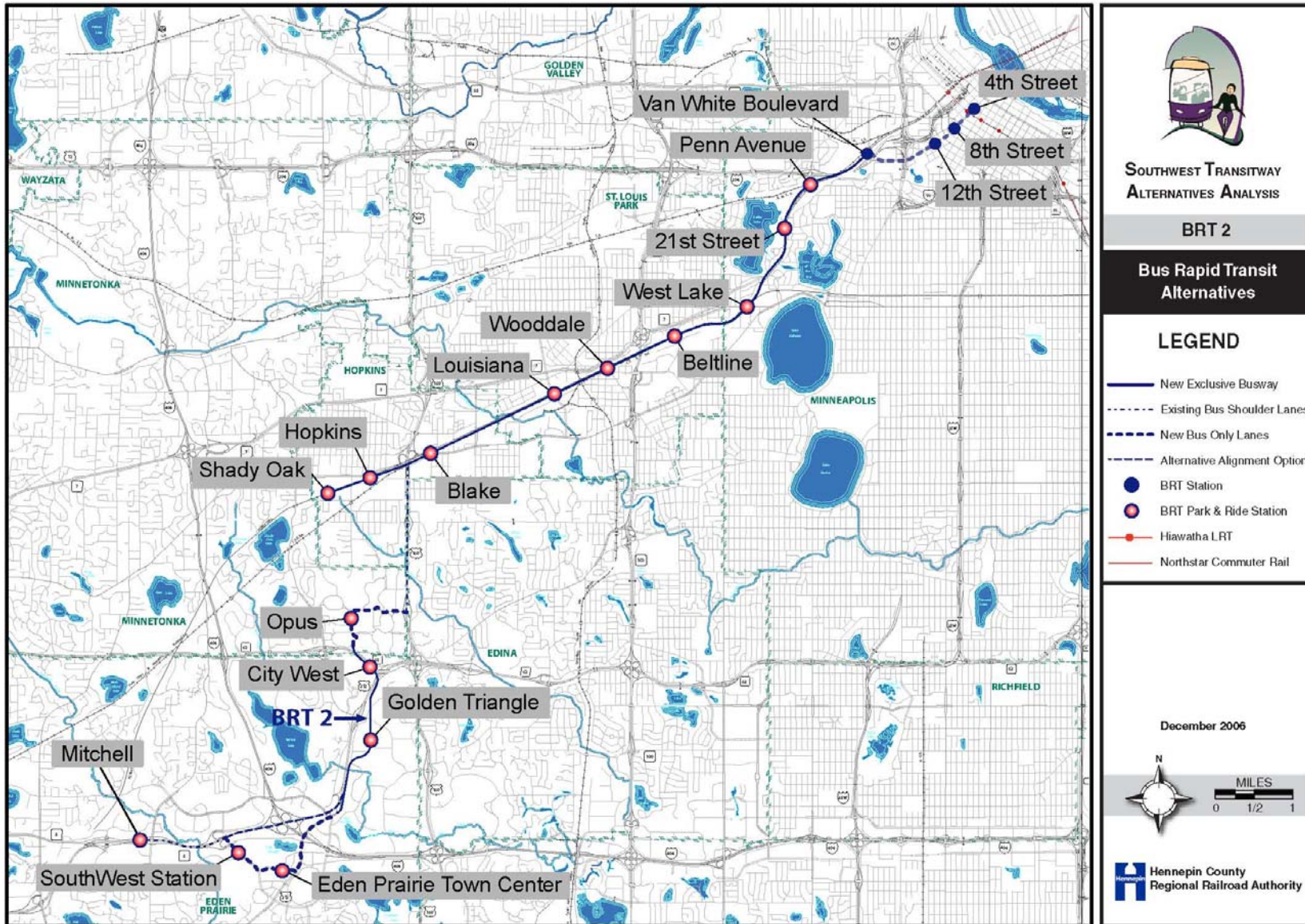
Changes to Route 17 are described above under Blake Station.

Routes 21 and 53 are extended from Uptown Station to connect to this station to provide crosstown connectivity along Lake Avenue.

Route 25 is extended south to connect to this station to provide service to the Kenwood Park area.

21st Street Station: Route 25 connects to this station. Changes to route 25 are described above under West Lake Station.

Figure 3 BRT 2



Source: Parsons Brinckerhoff, 2006.

2. Light Rail Transit (LRT) Alternatives

Light rail transit service is also characterized by service that is frequent, direct, easy to understand, comfortable, reliable, operationally efficient, and rapid.

Southwest Transitway AA LRT alternatives are assumed to include the following characteristics:

- High-frequency, bi-directional service.
- Exclusive rail-only guideway, with grade separation at major intersecting facilities outside the Minneapolis central business district.
- On-line, high-amenity stations. Stations provide bus drop off areas, access for pedestrians, cyclists, and local buses, drop-off points for autos, with park-and-ride facilities sized to accommodate projected passenger demand.
- Low-floor Vehicles consistent with the Hiawatha LRT service.
- Intelligent Transportation Systems (ITS) technologies including traffic signal priority at signalized intersections where feasible, automatic transit vehicle location, and real-time passenger information at stations.
- Off-vehicle “proof of payment” fare collection and fare media options consistent with the Hiawatha LRT transit service.

Characteristics of the service which affect LRT operation include route length, route structure, service span, service frequency, and station spacing. Southwest Corridor LRT operating plans are based on the existing Hiawatha LRT service, and feature:

- Exclusive guideway with the exception of downtown Minneapolis sections of the various routes, where LRT operates within city streets.
- All stations are on-line, and all LRT alternatives stop at all stations
- Feeder bus route lengths vary based on local markets served before transferring passengers to LRT at stations
- Service frequency is consistent with Hiawatha LRT service: 7 ½ minute peak period headways, 10 minute midday headways, 15 minute evening headways
- Service span is consistent with Hiawatha LRT (5:00 am to 1:00 am)
- Station spacing 1-2 miles in second ring suburban communities and ¼ - 1 mile apart in first ring suburban communities and in Minneapolis.

LRT alternatives are defined using a combination of two designations: 1, 2, 3 or 4; and A or C (e.g. 1A, 2A, 1C, 2C, etc.). The numbers designate the four possible routings west of Louisiana Avenue Station in St. Louis Park. The letters (A or C) designate the two possible routes east of Louisiana Avenue Station in St. Louis Park.

Alternatives numbered “1” designate routes that use the HCRRA’s Southwest Corridor exclusively through Eden Prairie, Minnetonka, Hopkins, and St. Louis Park. Alternatives numbered “2” designate routes that use TH 5 and I-494 right-of-way predominantly in Eden Prairie and Minnetonka, and then use HCRRA’s Southwest Corridor through Hopkins and St. Louis Park. Alternatives numbered “3” use a combination of new exclusive rights-of-way through Eden Prairie, Minnetonka and part of Hopkins, and then use the HCRRA’s Southwest Corridor through Hopkins and St. Louis Park. Alternatives numbered 4 use the HCRRA’s Southwest Corridor and terminate at Shady Oak Station.

The letter “A” designates routes that use the HCRRA’s Southwest Corridor through St. Louis Park, and the HCRRA’s Kenilworth and Cedar Lake Corridors in Minneapolis. The letter “C” designates routes that use the HCRRA’s Southwest Corridor in St. Louis Park, the HCRRA’s Midtown Corridor in Minneapolis, and a shallow tunnel under Nicollet Avenue between 29th Street and Franklin Avenue in Minneapolis. LRT “A” alternatives connect to the Intermodal station, planned to be constructed by the Northstar Commuter Rail service and Hiawatha LRT line extension.

The service plans of the LRT alternatives are summarized in the following paragraphs and illustrated in the figures which follow.

LRT 1A

The LRT 1A alternative operates from TH 5 Station in Eden Prairie to downtown Minneapolis, providing service to Eden Prairie, Minnetonka, Hopkins, St. Louis Park, and Minneapolis.

Service Plan

Table 4 LRT1A Service Plan

	Morning (4:00 - 6:00 AM)	Morning Peak (6:00- 9:00 AM)	Mid-Day (9:00 AM – 3:00 PM)	PM Peak (3:00- 6:00 PM)	Evening (6:00 PM - 2:00 AM)
Weekday	15-30	7.5	10	7.5	15-30
Saturday	15-30	15-30	10	10 (to 7:30 PM)	15-30
Sunday/ Holiday	15-30	15-30 (to 10:00 AM)	10	10	15-30

Source: Parsons Brinckerhoff, 2006.

Connecting Transit Service - LRT 1A

TH 5 Station: Routes 631 and 636 serve this station.

Routes 631 and 636 are circulators that connect Eden Prairie and surrounding communities to Eden Prairie Town Center and SouthWest Station. Service on Route 631 is increased from hourly service to a frequency of 15 minutes during peak periods, and service operates hourly in the evenings until 10:00 PM. Route 636 remains unchanged during peak periods, and midday service is eliminated.

TH 62 Station: Routes 661 and 681 Circulator serve this station.

Route 661 is a recently discontinued Metro Transit route that is reinstated with a slightly modified alignment (eliminating its branch to Golden Triangle) and operates at a 30 minute peak/60 minute off-peak service frequency. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Route 681 Circulator is a new route serving Eden Prairie and Golden Triangle, replacing part of the alignment of existing route 681, which will not operate from SouthWest Station on TH 212. The route separates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Rowland Station: No routes serve this station.

Shady Oak Station: Route 12 serves this station. Changes to Route 12 are described below under West Lake Station.

Hopkins Station: Routes 12, 661, 615, 664 and 665 serve this station. Changes to Route 12 are described below under West Lake Station. Changes to route 661 are described above under TH 62 Station.

Route 615, which currently runs between the Ridgedale Shopping Center in Minnetonka and Excelsior and Grand, is extended to the Beltline Station (which is near Excelsior and Grand) in the LRT 1A alternative. Peak frequency increases from 60 to 30 minutes, and off peak frequency is 60 minutes. The route operates to midnight.

Route 664 is extended from its current terminus south on CR 101 to cover a portion of the former alignment of the recently discontinued route 612. Route 664 will offer an off-peak service similar to the discontinued 612. The route terminates at Hopkins Station, with passengers completing their travel to downtown Minneapolis on the Light rail line.

Route 665 is increased in service frequency from 3 trips during each peak period, in the peak direction only, to a 30 minute headway (6 trips) during each peak period in the peak direction, and a 60 minute headway (3 trips) during each peak period, in the off peak direction.

Blake Station: Routes 17, 615, and 668 serve this station.

Route 17 Lake Street branch is extended to Blake Station, and service frequency increases from 3 trips in the peak direction and 2 trips in the off-peak during each peak period to 30 minute headways (6 trips in each direction) during the peak period.

Changes to route 615 are described above under Hopkins Station.

Route 668 is extended to connect to Blake Station and the Library-Lane loop is eliminated.

Louisiana Avenue Station: Route 604 serves this station.

Route 604 is extended to Beltline Station, and is increased in service frequency from 2 trips in each direction during each peak period to a 30 minute headway (6 trips) in each direction during each peak period.

Wooddale Station: The 36th Street branch of Route 17 and Route 615 serve this station. Changes to Route 17 are described above under Blake Station. Changes to Route 17 are described under Hopkins Station.

Beltline Station: The 36th Street branch of is Route 17, Route 604 and Route 615 would serve this station.

Changes to Route 17 are described above under Blake Station.

Changes to Route 604 are described above under Louisiana Avenue Station.

Changes to Route 615 are described above under Hopkins Station.

West Lake Station: The 6 Shuttle route and Routes 12, 17, 21, 25, and 53 serve this station.

The 6 Shuttle is a new route that operates along France Avenue serving Edina between Southdale and the West Lake Station. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and would operate from 6:00 am to midnight.

Route 12 terminates at this station and its segment connecting to downtown Minneapolis is eliminated, and service frequencies are increased slightly to 15 minutes bi-directional, all day on the trunk portion of the route (frequencies on the branches remain unchanged).

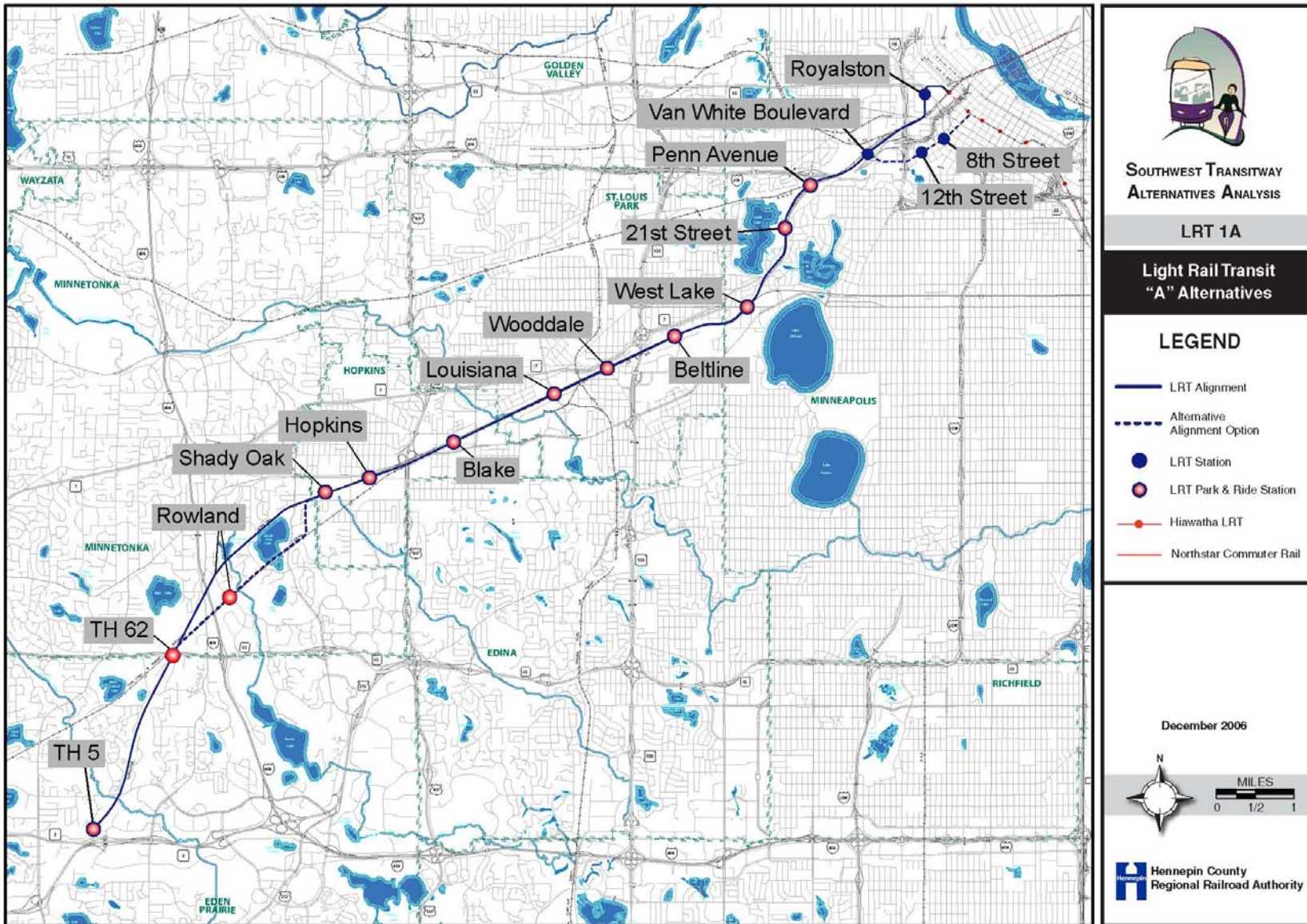
Changes to Route 17 are described above under Blake Station.

Routes 21 and 53 are extended from Uptown Station to connect to this station to provide crosstown connectivity along Lake Avenue.

Route 25 is extended south to connect to this station to provide service to the Kenwood Park area.

21st Street Station: Route 25 connects to this station. Changes to route 25 are described above under West Lake Station.

Figure 4 LRT 1A



Source: Parsons Brinckerhoff, 2006.

LRT 2A

LRT 2A operates from Mitchell Road in Eden Prairie to downtown Minneapolis, providing service to Eden Prairie, Minnetonka, Hopkins, St. Louis Park, and Minneapolis.

Service Plan

Table 5 LRT 2A Service Plan

	Morning (4:00 - 6:00 AM)	Morning Peak (6:00- 9:00 AM)	Mid-Day (9:00 AM – 3:00 PM)	PM Peak (3:00- 6:00 PM)	Evening (6:00 PM - 2:00 AM)
Weekday	15-30	7.5	10	7.5	15-30
Saturday	15-30	15-30	10	10 (to 7:30 PM)	15-30
Sunday/ Holiday	15-30	15-30 (to 10:00 AM)	10	10	15-30

Source: Parsons Brinckerhoff, 2006.

Connecting Transit Service - LRT 2A

Mitchell Road Station: Routes 631 and 636 serve this station.

Routes 631 and 636 are circulators that connect Eden Prairie and Surrounding communities to Eden Prairie Town Center and SouthWest Station. Service on Route 631 is increased from hourly service to a frequency of 15 minutes during peak periods, and service operates hourly in the evenings until 10:00 PM. Route 636 remains unchanged during peak periods, and midday service is eliminated.

SouthWest Station: SouthWest Metro Transit Routes 603, 631, 636, 680, 681, 681 Circulator, 685, 685A, 690, 690A, 690B, 691, 694, 698, and 699A serve this station, which also serves as the hub of SouthWest Metro Transit's bus operations.

Routes 680, 685, 685A, 691, 694, 698 and 699A are not changed under this alternative.

Route 603 is a circulator that serves the area surrounding Eden Prairie Town Center. The circulator, which now operates only in the clockwise direction, operates in both directions in the LRT 2A alternative, effectively doubling the existing 30 minute peak, 60 minute off-peak frequency. Service also operates bi-directionally on an hourly headway in the evenings until 10:00 PM.

Changes to Routes 631 and 636 are described above under TH 5.

Route 681 is combined with 690 and 690A to operate a high frequency bi-directional service between SouthWest Station and downtown Minneapolis via TH 212, TH 62, and I-35W, and the off-highway segment of its alignment serving the Golden Triangle area is eliminated.

Route 681 Circulator is a new route serving Eden Prairie and Golden Triangle, replacing the eliminated segment of the existing route 681 serving the Golden Triangle area. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

As noted above, Route 690, 690A and 690B are combined with route 681 to provide high frequency, bi-directional service between SouthWest Station and downtown Minneapolis. 690 continues to use its existing alignment of TH 212 to TH 169 and I-394.

Valley View Station: Routes 685 and 685A serve this station. Apart from a stop at the station, these routes are not changed under this alternative.

TH 62 Station: Routes 661 and the 681 Circulator serve this station.

Route 661 is a recently discontinued Metro Transit route that is reinstated with a slightly modified alignment (eliminating its branch to Golden Triangle) and operates at a 30 minute peak/60 minute off-peak service frequency. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

The 681 Circulator is described above under SouthWest Station.

Rowland Station: No routes serve this station.

Shady Oak Station: Route 12 serves this station. Changes to route 12 are described below under West Lake Station.

Hopkins Station: Routes 12, 615, 661, 664 and 665 serve this station. Changes to route 12 are described below under West Lake Station. Changes to route 661 are described above under TH 62 Station.

Route 615, which currently runs between the Ridgedale Shopping Center in Minnetonka and Excelsior and Grand, is extended to the Beltline Station (which is near Excelsior and Grand). Peak frequency increases from 60 to 30 minutes, and off peak frequency would be 60 minutes. The route operates to midnight.

Route 664 is extended from its current terminus south on CR 101 to cover a portion of the former alignment of the recently discontinued route 612. Route 664 will offer an off-peak service similar to the discontinued 612. The route terminates at Hopkins Station, with passengers completing their travel to downtown Minneapolis on the Light rail line.

Route 665 increases in service frequency from 3 trips during each peak period, in the peak direction only, to a 30 minute headway (6 trips) during each peak period in the peak direction, and a 60 minute headway (3 trips) during each peak period, in the off peak direction.

Blake Station: Routes 17, 615, and 668 serve this station.

Route 17 Lake Street branch is extended to Blake Station, and service frequency increases from 3 trips in the peak direction and 2 trips in the off-peak during each peak period to 30 minute headways (6 trips in each direction) during the peak period.

Changes to route 615 are described above under Hopkins Station.

Route 668 is extended to connect to Blake Station and the Library-Lane loop is eliminated.

Louisiana Avenue Station: Route 604 serves this station.

Route 604 is extended to Beltline Station, and is increased in service frequency from 2 trips in each direction during each peak period to a 30 minute headway (6 trips) in each direction during each peak period.

Wooddale Station: The 36th Street branch of Route 17 and Route 615 serve this station. Changes to Route 17 are described above under Blake Station. Changes to Route 17 are described under Hopkins Station.

Beltline Station: The 36th Street branch of Route 17, Route 604 and Route 615 serve this station.

Changes to Route 17 are described above under Blake Station.

Changes to Route 604 are described above under Louisiana Avenue Station.

Changes to Route 615 are described above under Hopkins Station.

West Lake Station: The 6 Shuttle route and Routes 12, 17, 21, 25, and 53 serve this station.

The 6 Shuttle is a new route that operates along France Avenue serving Edina between Southdale Station and the West Lake Station. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and would operate from 6:00 am to midnight.

Route 12 terminates at this station and its segment connecting to downtown Minneapolis would be eliminated. Service frequency increases slightly to 15 minutes bi-directional, all day on the trunk portion of the route (frequencies on the branches remain unchanged).

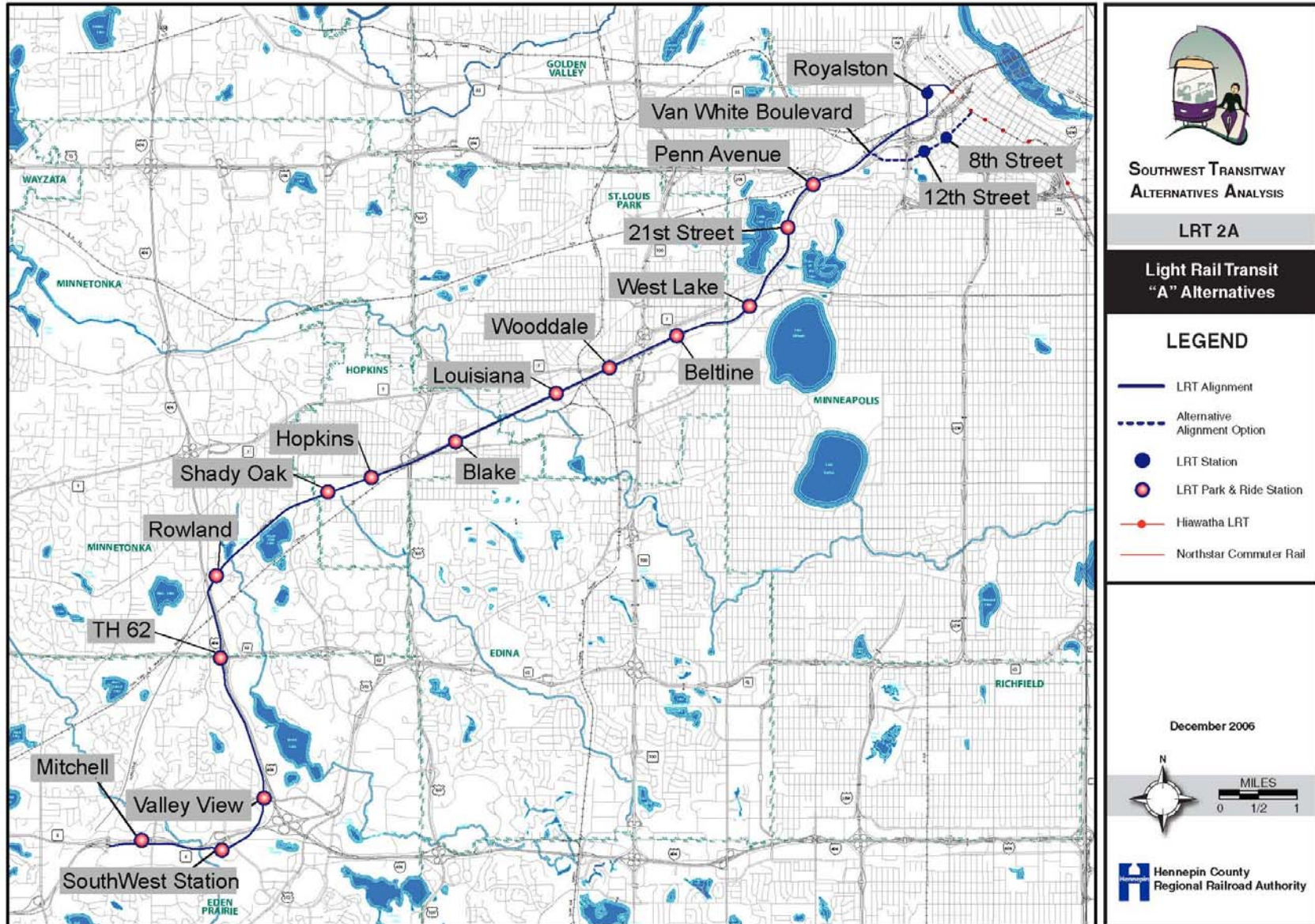
Changes to Route 17 are described above under Blake Station.

Routes 21 and 53 are extended from Uptown Station to connect to this station to provide crosstown connectivity along Lake Avenue.

Route 25 is extended south to connect to this station to provide service to the Kenwood Park area.

21st Street Station: Route 25 connects to this station. Changes to route 25 are described above under West Lake Station.

Figure 5 LRT 2A



Source: Parsons Brinckerhoff, 2006.

LRT 3A

LRT 3A operates from Mitchell Road in Eden Prairie to downtown Minneapolis, providing service to Eden Prairie, Minnetonka, Hopkins, St. Louis Park, and Minneapolis.

Service Plan

Table 6 LRT 3A Service Plan

	Morning (4:00 - 6:00 AM)	Morning Peak (6:00- 9:00 AM)	Mid-Day (9:00 AM – 3:00 PM)	PM Peak (3:00- 6:00 PM)	Evening (6:00 PM - 2:00 AM)
Weekday	15-30	7.5	10	7.5	15-30
Saturday	15-30	15-30	10	10 (to 7:30 PM)	15-30
Sunday/ Holiday	15-30	15-30 (to 10:00 AM)	10	10	15-30

Source: Parsons Brinckerhoff, 2006.

Connecting Transit Service - LRT 3A

Mitchell Road Station: Routes 631 and 636 serve this station.

Routes 631 and 636 are circulators that connect Eden Prairie and Surrounding communities to Eden Prairie Town Center and SouthWest Station. Service on Route 631 is increased from hourly service to a frequency of 15 minutes during peak periods, and service operates hourly in the evenings until 10:00 PM. Route 636 remains unchanged during peak periods, and midday service will be eliminated.

SouthWest Station: SouthWest Metro Transit Routes 603, 631, 636, 680, 681, 681 Circulator, 685, 685A, 690, 690A, 690B, 691, 694, 698, and 699A serve this station, which also serves as the hub of SouthWest Metro Transit’s bus operations.

Routes 680, 685, 685A, 691, 694, 698 and 699A are changed under this alternative.

Route 603 is a circulator that serves the area surrounding Eden Prairie Town Center. The circulator, which now operates only in the clockwise direction, operates in both directions in the LRT 3A alternative, effectively doubling the existing 30 minute peak, 60 minute off-peak frequency. Service also is operates bi-directionally on an hourly headway in the evenings until 10:00 PM.

Changes to routes 631 and 636 are described above under TH 5.

Route 681 is combined with 690 and 690A to operate a high frequency bi-directional service between SouthWest Station and downtown Minneapolis via TH 212, TH 62, and I-35W, and the off-highway segment of its alignment serving the Golden Triangle area is eliminated.

Route 681 Circulator is a new route serving Eden Prairie and Golden Triangle, replacing the eliminated segment of the existing route 681 serving the Golden Triangle area. The route operates

at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

As noted above, routes 690, 690A and 690B are combined with route 681 to provide high frequency, bi-directional service between SouthWest Station and downtown Minneapolis. Route 690 continues to use its existing alignment of TH 212 to TH 169 and I-394.

Eden Prairie Town Center Station: Routes 636 and 681 Circulator serve this station. Route 636 is described above under TH5 Station. Route 681 is described above under SouthWest Station.

Golden Triangle Station: Routes 631 and 681 Circulator serve this station. Route 631 is described above under TH5 Station. Route 681 is described above under SouthWest Station.

City West Station: No bus routes serve this station.

Opus Station: Routes 12 and 661 serve this station. Changes to Route 12 are described below under West Lake Station.

Route 661 is a recently discontinued Metro Transit route that is reinstated with a slightly modified alignment (eliminating its branch to Golden Triangle) and operates at a 30 minute peak/60 minute off-peak service frequency. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Shady Oak Station: Route 12 serve this station. Changes to route 12 are described below under West Lake Station.

Hopkins Station: Routes 12, 615, 661, 664 and 665 serve this station. Changes to Route 12 are described below under West Lake Station. Changes to route 661 are described above under TH 62 Station.

Route 615, which currently runs between the Ridgedale Shopping Center in Minnetonka and Excelsior and Grand, is extended to the Beltline Station (which is near Excelsior and Grand). Peak frequency increases from 60 to 30 minutes, and off peak frequency is 60 minutes. The route operates to midnight.

Route 664 is extended from its current terminus south on CR 101 to cover a portion of the former alignment of the recently discontinued route 612. Route 664 will offer an off-peak service similar to the discontinued 612. The route terminates at Hopkins Station, with passengers completing their travel to downtown Minneapolis on the Light rail line.

Route 665 increases in service frequency from 3 trips during each peak period, in the peak direction only, to a 30 minute headway (6 trips) during each peak period in the peak direction, and a 60 minute headway (3 trips) during each peak period, in the off peak direction.

Blake Station: Routes 17, 615, and 668 serve this station.

Route 17 Lake Street branch is extended to Blake Station, and service frequency increases from 3 trips in the peak direction and 2 trips in the off-peak during each peak period to 30 minute headways (6 trips in each direction) during the peak period.

Changes to Route 615 are described above under Hopkins Station.

Route 668 is extended to connect to Blake Station and the Library-Lane loop is eliminated.

Louisiana Avenue Station: Route 604 serves this station.

Route 604 is extended to Beltline Station, and is increased in service frequency from 2 trips in each direction during each peak period to a 30 minute headway (6 trips) in each direction during each peak period.

Wooddale Station: The 36th Street branch of Route 17 and Route 615 serve this station. Changes to Route 17 are described above under Blake Station. Changes to Route 17 are described under Hopkins Station.

Beltline Station: The 36th Street branch of Route 17, Route 604 and Route 615 would serve this station.

Changes to Route 17 are described above under Blake Station.

Changes to Route 604 are described above under Louisiana Avenue Station.

Changes to Route 615 are described above under Hopkins Station.

West Lake Station: The 6 Shuttle route and Routes 12, 17, 21, 25, and 53 serve this station.

The 6 Shuttle is a new route that operates along France Avenue serving Edina between Southdale Station and the West Lake Station. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Route 12 terminates at this station and its segment connecting to downtown Minneapolis is eliminated, and service frequencies are increased slightly to 15 minutes bi-directional, all day on the trunk portion of the route (frequencies on the branches remains unchanged).

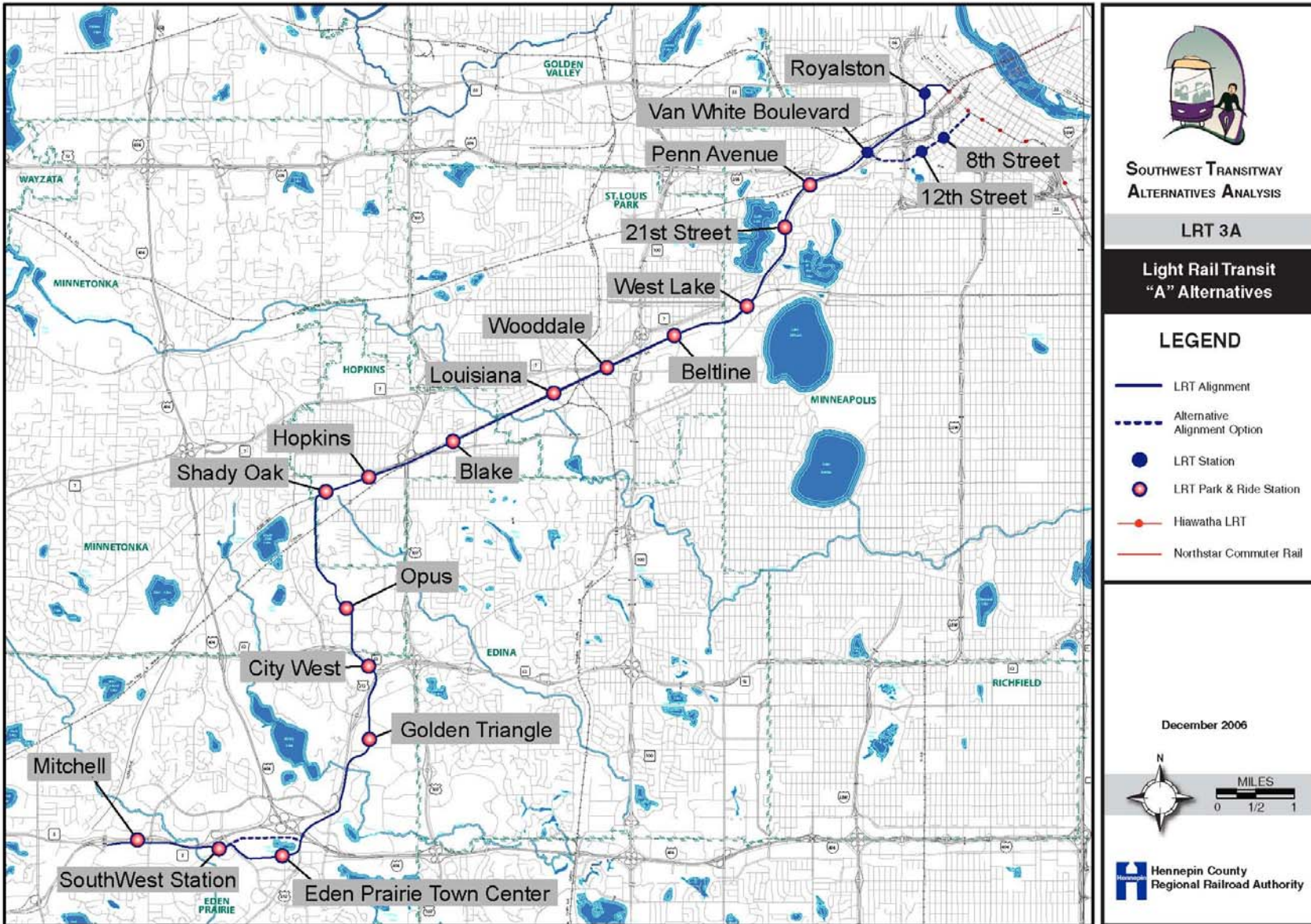
Changes to Route 17 are described above under Blake Station.

Routes 21 and 53 are extended from Uptown Station to connect to this station to provide crosstown connectivity along Lake Avenue.

Route 25 is extended south to connect to this station to provide service to the Kenwood Park area.

21st Street Station: Route 25 connects to this station. Changes to Route 25 are described above under West Lake Station.

Figure 6 LRT 3A



Source: Parsons Brinckerhoff, 2006.

LRT 4A

The LRT 4A alternative is assumed to operate from Shady Oak Road in Minnetonka to downtown Minneapolis, providing service to Minnetonka, Hopkins, St. Louis Park, and Minneapolis.

Service Plan

Table 7 LRT 4A Service Plan

	Morning (4:00 - 6:00 AM)	Morning Peak (6:00- 9:00 AM)	Mid-Day (9:00 AM – 3:00 PM)	PM Peak (3:00- 6:00 PM)	Evening (6:00 PM - 2:00 AM)
Weekday	15-30	7.5	10	7.5	15-30
Saturday	15-30	15-30	10	10 to 7:30 PM)	15-30
Sunday/ Holiday	15-30	15-30 (to 10:00 AM)	10	10	15-30

Source: Parsons Brinckerhoff, 2006

Connecting Transit Service - LRT 4A

Shady Oak Station: Route 12 serves this station. Changes to Route 12 are described below under West Lake Station.

Hopkins Station: Routes 12, 615, 661, 664, 665 and Limited Stop Route “A” serve this station. Changes to route 12 are described below under West Lake Station.

Route 615, which currently runs between the Ridgedale Shopping Center in Minnetonka and Excelsior and Grand, is extended to the Beltline Station (which is near Excelsior and Grand) in the LRT 4A alternative. Peak frequency increases from 60 to 30 minutes, and off peak frequency is 60 minutes. The route operates to midnight.

Route 664 is extended from its current terminus south on CR 101 to cover a portion of the former alignment of the recently discontinued Route 612. Route 664 will offer an off-peak service similar to the discontinued 612. The route terminates at Hopkins Station, with passengers completing their travel to downtown Minneapolis on the Light rail line.

Route 661 is a recently discontinued Metro Transit route that is reinstated with a slightly modified alignment (eliminating its branch to Golden Triangle) and would operate at a 30 minute peak/60 minute off-peak service frequency. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Route 665 is increased in service frequency from 3 trips during each peak period, in the peak direction only, to a 30 minute headway (6 trips) during each peak period in the peak direction, and a 60 minute headway (3 trips) during each peak period, in the off peak direction.

Limited Stop Route “A” is a version of the new long-distance service route from Eden Prairie that features as one of the key new routes in the Enhanced Bus and BRT alternatives. In this alternative, the route terminates at Hopkins Station. Travelers to downtown Minneapolis transfer there to the light rail line. The route operates from the TH 5 park-and-ride at Wallace Road to

Hopkins via TH 5, TH 212, and TH 169. The route essentially meets every other LRT trip, operating at a 20 minute headway early morning and midday, 15 minutes during the peak periods and 30 minutes in the evenings.

Blake Station: Routes 17, 615, and 668 serve this station.

Route 17 Lake Street branch is extended to Blake Station, and service frequency would increase from 3 trips in the peak direction and 2 trips in the off-peak during each peak period to 30 minute headways (6 trips in each direction) during the peak period.

Changes to Route 615 are described above under Hopkins Station.

Route 668 is extended to connect to Blake Station and the Library-Lane loop is eliminated.

Louisiana Avenue Station: Route 604 serves this station.

Route 604 is extended to Beltline Station, and is increased in service frequency from 2 trips in each direction during each peak period to a 30 minute headway (6 trips) in each direction during each peak period.

Wooddale Station: The 36th Street branch of Route 17 and Route 615 serve this station. Changes to Route 17 are described above under Blake Station. Changes to Route 17 are described under Hopkins Station.

Beltline Station: The 36th Street branch of Route 17, Route 604 and Route 615 serve this station.

Changes to Route 17 are described above under Blake Station.

Changes to Route 604 are described above under Louisiana Avenue Station.

West Lake Station: The 6 Shuttle route and Routes 12, 17, 21, 25, and 53 serve this station.

The 6 Shuttle is a new route that operates along France Avenue serving Edina between Southdale Station and the West Lake Station. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Route 12 terminates at this station and its segment connecting to downtown Minneapolis is eliminated, and service frequencies are increased slightly to 15 minutes bi-directional, all day on the trunk portion of the route (frequencies on the branches remains unchanged).

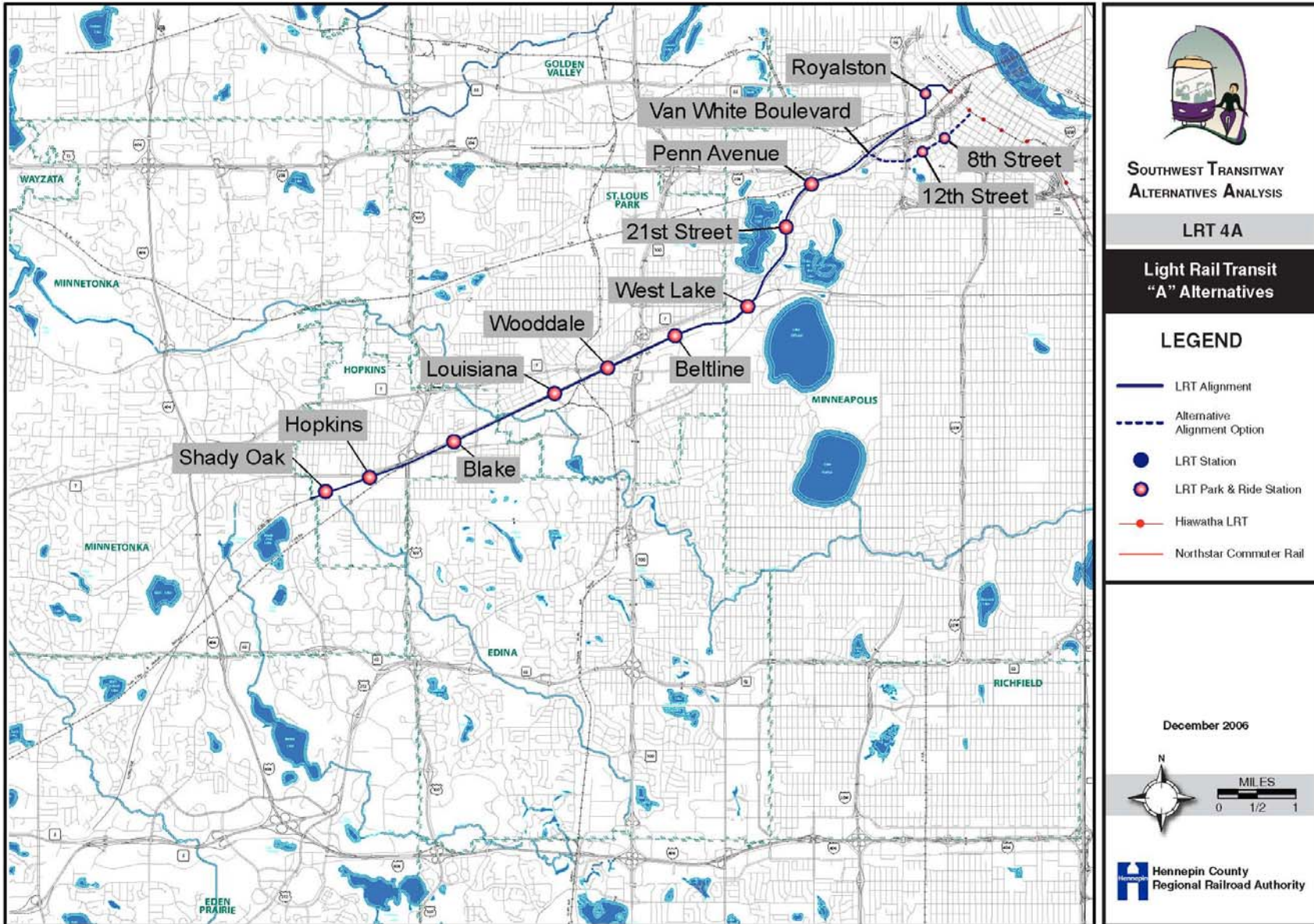
Changes to Route 17 are described above under Blake Station.

Routes 21 and 53 are extended from Uptown Station to connect to this station to provide crosstown connectivity along Lake Avenue.

Route 25 is extended south to connect to this station to provide service to the Kenwood Park area.

21st Street Station: Route 25 connects to this station. Changes to route 25 are described above under West Lake Station.

Figure 7 LRT 4A



Source: Parsons Brinckerhoff, 2006.

LRT 1C

LRT 1C operates from Highway 5 in Eden Prairie to downtown Minneapolis, providing service to Eden Prairie, Minnetonka, Hopkins, St. Louis Park, and Minneapolis.

Service Plan

Table 8 LRT 1C Service Plan

	Morning (4:00 - 6:00 AM)	Morning Peak (6:00- 9:00 AM)	Mid-Day (9:00 AM – 3:00 PM)	PM Peak (3:00- 6:00 PM)	Evening (6:00 PM - 2:00 AM)
Weekday	15-30	7.5	10	7.5	15-30
Saturday	15-30	15-30	10	10 to 7:30 PM)	15-30
Sunday/ Holiday	15-30	15-30 (to 10:00 AM)	10	10	15-30

Source: Parsons Brinckerhoff, 2006

Connecting Transit Service - LRT 1C

TH 5 Station: Routes 631 and 636 serve this station.

Routes 631 and 636 are circulators that connect Eden Prairie and Surrounding communities to Eden Prairie Town Center and SouthWest Station. Service on Route 631 increases from hourly service to a frequency of 15 minutes during peak periods, and service operates hourly in the evenings until 10:00 PM. Route 636 remains unchanged during peak periods, and midday service will be eliminated.

TH 62 Station: Routes 661, 681 Circulator serve this station.

Route 661 is a recently discontinued Metro Transit route that is reinstated with a slightly modified alignment (eliminating its branch to Golden Triangle) in the LRT 1C alternative and operates at a 30 minute peak/60 minute off-peak service frequency. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Route 681 Circulator is a new route serving Eden Prairie and Golden Triangle, replacing part of the alignment of existing route 681, which will not operate from SouthWest Station on TH 212. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Rowland Station: No routes serve this station.

Shady Oak Station: Route 12 serves this station. Changes to Route 12 are described below under Uptown Station.

Hopkins Station: Routes 12, 615, 661, 664 and 665 serve this station. Changes to Route 12 are described below under Uptown Station. Changes to route 661 are described above under TH 62 Station.

Route 615, which currently runs between the Ridgedale Shopping Center in Minnetonka and Excelsior and Grand, is extended to the Beltline Station (which is near Excelsior and Grand). Peak frequency increases from 60 to 30 minutes, and off peak frequency is 60 minutes. The route operates to midnight.

Route 664 is extended from its current terminus south on CR 101 to cover a portion of the former alignment of the recently discontinued route 612. Route 664 will offer an off-peak service similar to the discontinued 612. The route terminates at Hopkins Station, with passengers completing their travel to downtown Minneapolis on the light rail line.

Route 665 is increased in service frequency from 3 trips during each peak period, in the peak direction only, to a 30 minute headway (6 trips) during each peak period in the peak direction, and a 60 minute headway (3 trips) during each peak period, in the off peak direction.

Blake Station: Routes 17, 615, and 668 serve this station.

Route 17 Lake Street branch is extended to Blake Station, and service frequency increases from 3 trips in the peak direction and 2 trips in the off-peak during each peak period to 30 minute headways (6 trips in each direction) during the peak period.

Changes to Route 615 are described above under Hopkins Station.

Route 668 is extended to connect to Blake Station and the Library-Lane loop is eliminated.

Louisiana Avenue Station: Route 604 serves this station.

Route 604 is extended to Beltline Station, and increases in service frequency from 2 trips in each direction during each peak period to a 30 minute headway (6 trips) in each direction during each peak period.

Wooddale Station: The 36th Street branch of Route 17 and Route 615 serve this station. Changes to Route 17 are described above under Blake Station. Changes to Route 17 are described under Hopkins Station.

Beltline Station: The 36th Street branch of Route 17, Route 604 and Route 615 serve this station.

Changes to Route 17 are described above under Blake Station.

Changes to Route 604 are described above under Louisiana Avenue Station.

Changes to Route 615 are described above under Hopkins Station.

West Lake Station: The 6 Shuttle route and Routes 12, 17, and 25 serve this station.

The 6 Shuttle is a new route that operates along France Avenue serving Edina between Southdale and the West Lake Station. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Changes to Route 12 are described below under Uptown Station.

Changes to Route 17 are described above under Blake Station.

Route 25 is extended south to connect to this station to provide service to the Kenwood Park area.

Uptown Station: Routes 6, 12, 17, 21, 23, 53, 114, and 115 serve this station. Routes 6, 21, 23, 53, 114 and 115 are unchanged under this alternative.

Route 12 terminates at this station and its segment connecting to downtown Minneapolis is eliminated, and service frequencies are increased slightly to 15 minutes bi-directional, all day on the trunk portion of the route (frequencies on the branches remains unchanged).

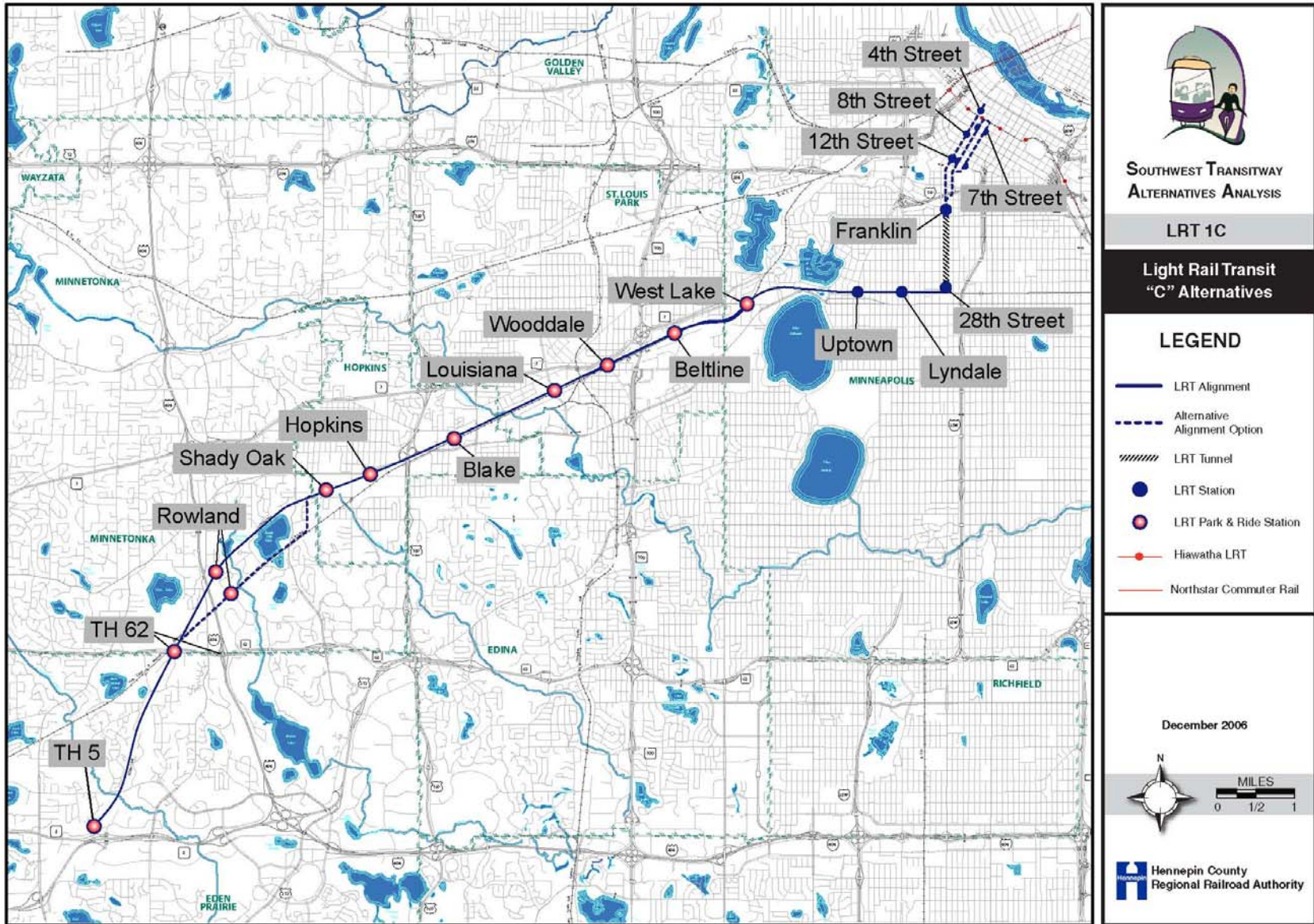
Changes to Route 17 are described above under Blake Station.

Lyndale Station: Routes 4, 21, 53, and 113 serve this station. These routes are unchanged under the alternative.

28th Street Station: Routes 18, 21, 53 and 568 serve this station. These routes are unchanged under the alternative.

Franklin Station: Routes 2, 18, 53 and 568 serve this station. These routes are unchanged under the alternative.

Figure 8 LRT 1C



Source: Parsons Brinckerhoff, 2006.

LRT 2C

LRT 2C operates from Mitchell Road in Eden Prairie to downtown Minneapolis, providing service to Eden Prairie, Minnetonka, Hopkins, St. Louis Park, and Minneapolis.

Service Plan

Table 9 LRT 2C Service Plan

	Morning (4:00 - 6:00 AM)	Morning Peak (6:00- 9:00 AM)	Mid-Day (9:00 AM – 3:00 PM)	PM Peak (3:00- 6:00 PM)	Evening (6:00 PM - 2:00 AM)
Weekday	15-30	7.5	10	7.5	15-30
Saturday	15-30	15-30	10	10 to 7:30 PM)	15-30
Sunday/ Holiday	15-30	15-30 (to 10:00 AM)	10	10	15-30

Source: Parsons Brinckerhoff, 2006.

Connecting Transit Service - LRT 2C

Mitchell Road Station: Routes 631 and 636 serve this station.

Routes 631 and 636 are circulators that connect Eden Prairie and Surrounding communities to Eden Prairie Town Center and SouthWest Station. Service on Route 631 increases from hourly service to a frequency of 15 minutes during peak periods, and service operates hourly in the evenings until 10:00 PM. Route 636 remains unchanged during peak periods, and midday service is eliminated.

SouthWest Station: SouthWest Metro Transit Routes 603, 631, 636, 680, 681, 681 Circulator, 685, 685A, 690, 690A, 690B, 691, 694, 698, and 699A serve this station, which also serves as the hub of SouthWest Metro Transit’s bus operations.

Routes 680, 685, 685A, 691, 694, 698 and 699A are unchanged under this alternative.

Route 603 is a circulator that serves the area surrounding Eden Prairie Town Center. The circulator, which now operates only in the clockwise direction, is operated in both directions in the LRT 2C alternative, effectively doubling the existing 30 minute peak, 60 minute off-peak frequency. Service also is operated bi-directionally on an hourly headway in the evenings until 10:00 PM.

Changes to Routes 631 and 636 are described above under TH 5.

Route 681 is combined with 690 and 690A to operate a high frequency bi-directional service between SouthWest Station and downtown Minneapolis via TH 212, TH 62, and I-35W, and the off-highway segment of its alignment serving the Golden Triangle area is eliminated.

Route 681Circulator is a new route serving Eden Prairie and Golden Triangle, replacing the eliminated segment of the existing Route 681 serving the Golden Triangle area. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

As noted above, route 690, 690A and 690B is combined with route 681 to provide high frequency, bi-directional service between SouthWest Station and downtown Minneapolis. 690 continues to use its existing alignment of TH 212 to TH 169 and I-394.

Valley View Station: Routes 685 and 685A. Apart from a stop at the station, these routes are not changed under this alternative.

TH 62 Station: Routes 661 and the 681 Circulator serve this station.

Route 661 is a recently discontinued Metro Transit route that would be reinstated with a slightly modified alignment (eliminating its branch to Golden Triangle) and would operate at a 30 minute peak/60 minute off-peak service frequency. The route would operate at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and would operate from 6:00 am to midnight.

The 681 Circulator is described above under SouthWest Station.

Shady Oak Station: Route 12 serves this station. Changes to Route 12 are described below under Uptown Station.

Rowland Station: No routes serve this station.

Hopkins Station: Routes 12, 615, 661, 664 and 665 serve this station.

Changes to Route 12 are described below under Uptown Station.

Route 615, which currently runs between the Ridgedale Shopping Center in Minnetonka and Excelsior and Grand, is extended to the Beltline Station (which is near Excelsior and Grand). Peak frequency increases from 60 to 30 minutes, and off peak frequency is 60 minutes. The route would operate to midnight.

Changes to Route 661 are described above under TH 62 Station.

Route 664 is extended from its current terminus south on CR 101 to cover a portion of the former alignment of the recently discontinued route 612. Route 664 will offer an off-peak service similar to the discontinued 612. The route terminates at Hopkins Station, with passengers completing their travel to downtown Minneapolis on the Light rail line.

Route 665 increases in service frequency from 3 trips during each peak period, in the peak direction only, to a 30 minute headway (6 trips) during each peak period in the peak direction, and a 60 minute headway (3 trips) during each peak period, in the off peak direction.

Blake Station: Routes 17, 615, and 668 serve this station.

Route 17 Lake Street branch is extended to Blake Station, and service frequency increases from 3 trips in the peak direction and 2 trips in the off-peak during each peak period to 30 minute headways (6 trips in each direction) during the peak period.

Changes to Route 615 are described above under Hopkins Station.

Route 668 is extended to connect to Blake Station and the Library-Lane loop is eliminated.

Louisiana Avenue Station: Route 604 serves this station.

Route 604 is extended to Beltline Station, and increases in service frequency from 2 trips in each direction during each peak period to a 30 minute headway (6 trips) in each direction during each peak period.

Wooddale Station: The 36th Street branch of Route 17 and Route 615 serve this station. Changes to Route 17 are described above under Blake Station. Changes to Route 17 are described under Hopkins Station.

Beltline Station: The 36th Street branch of Route 17, Route 604 and Route 615 serve this station.

Changes to Route 17 are described above under Blake Station.

Changes to Route 604 are described above under Louisiana Avenue Station.

Changes to Route 615 are described above under Hopkins Station.

West Lake Station: The 6 Shuttle route and Routes 12, 17, and 25 serve this station.

The 6 Shuttle is a new route operates along France Avenue serving Edina between Southdale and the West Lake Station. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Changes to Route 12 are described below under Uptown Station.

Changes to Route 17 are described above under Blake Station.

Route 25 is extended south to connect to this station to provide service to the Kenwood Park area.

Uptown Station: Routes 6, 12, 17, 21, 23, 53, 114, and 115 serve this station. Routes 6, 21, 23, 53, 114 and 115 are unchanged under this alternative.

Route 12 terminates at this station and its segment connecting to downtown Minneapolis is eliminated, and service frequencies are increased slightly to 15 minutes bi-directional, all day on the trunk portion of the route (frequencies on the branches remains unchanged).

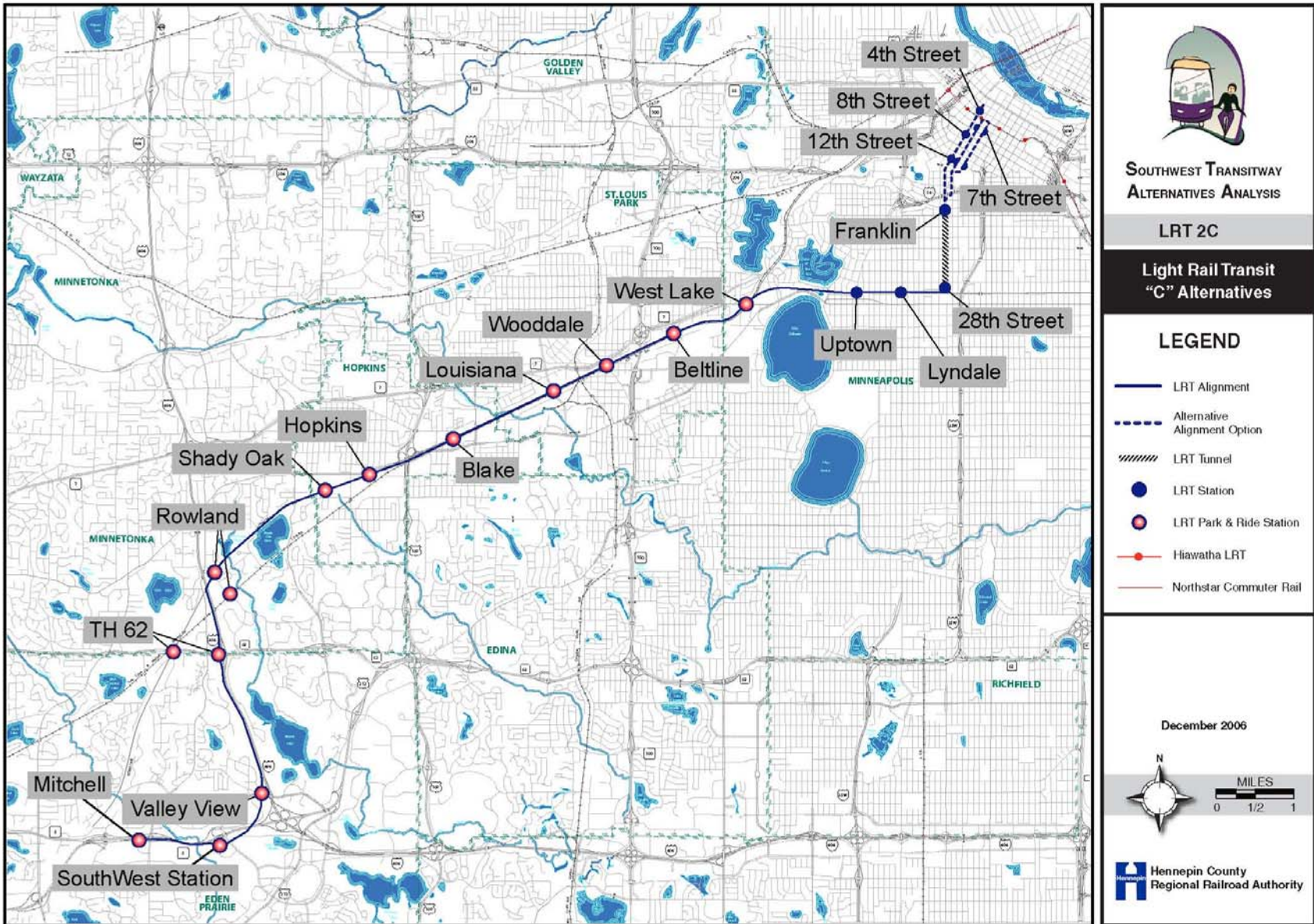
Changes to Route 17 are described above under Blake Station.

Lyndale Station: Routes 4, 21, 53, and 113 serve this station. These routes are unchanged under the alternative.

28th Street Station: Routes 18, 21, 53 and 568 serve this station. These routes are be unchanged under the alternative.

Franklin Station: Routes 2, 18, 53 and 568 serve this station. These routes are unchanged under the alternative.

Figure 9 LRT 2C



Source: Parsons Brinckerhoff, 2006.

LRT 3C

LRT 3C operates from Mitchell Road in Eden Prairie to downtown Minneapolis, providing service to Eden Prairie, Minnetonka, Hopkins, St. Louis Park, and Minneapolis.

Service Plan

Table 10 LRT 3C Service Plan

	Morning (4:00 - 6:00 AM)	Morning Peak (6:00- 9:00 AM)	Mid-Day (9:00 AM – 3:00 PM)	PM Peak (3:00- 6:00 PM)	Evening (6:00 PM - 2:00 AM)
Weekday	15-30	7.5	10	7.5	15-30
Saturday	15-30	15-30	10	10 to 7:30 PM)	15-30
Sunday/ Holiday	15-30	15-30 (to 10:00 AM)	10	10	15-30

Source: Parsons Brinckerhoff, 2006.

Connecting Transit Service - LRT 3C

Mitchell Road Station: Routes 631 and 636 serve this station.

Routes 631 and 636 are circulators that connect Eden Prairie and Surrounding communities to Eden Prairie Town Center and SouthWest Stations. Service on Route 631 increases from hourly service to a frequency of 15 minutes during peak periods, and service operates hourly in the evenings until 10:00 PM. Route 636 remains unchanged during peak periods, and midday service is eliminated.

SouthWest Station: SouthWest Metro Transit Routes 603, 631, 636, 680, 681, 681 Circulator, 685, 685A, 690, 690A, 690B, 691, 694, 698, and 699A serve this station, which also serves as the hub of SouthWest Metro Transit's bus operations.

Routes 680, 685, 685A, 691, 694, 698 and 699A are unchanged under this alternative.

Route 603 is a circulator that serves the area surrounding Eden Prairie Town Center. The circulator, which now operates only in the clockwise direction, operates in both directions in the LRT 3C alternative, effectively doubling the existing 30 minute peak, 60 minute off-peak frequency. Service also is operated bi-directionally on an hourly headway in the evenings until 10:00 PM.

Changes to Routes 631 and 636 are described above under TH 5.

Route 681 is combined with 690 and 690A to operate a high frequency bi-directional service between SouthWest Station and downtown Minneapolis via TH 212, TH 62, and I-35W, and the off-highway segment of its alignment serving the Golden Triangle area is eliminated.

Route 681 Circulator is a new route serving Eden Prairie and Golden Triangle, replacing the eliminated segment of the existing route 681 serving the Golden Triangle area. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

As noted above, Routes 690, 690A and 690B are combined with route 681 to provide high frequency, bi-directional service between SouthWest Station and downtown Minneapolis. 690 continues to use its existing alignment of TH 212 to TH 169 and I-394.

Eden Prairie Town Center Station: Routes 636 and 681 Circulator serve this station. Route 636 is described above under TH5 Station. Route 681 is described above under SouthWest Station.

Golden Triangle Station: Routes 631 and 681 Circulator would serve this station. Route 631 is described above under TH5 Station. Route 681 is described above under SouthWest Station.

City West Station: No bus routes serve this station.

Opus Station: Routes 12 and 661 serve this station. Changes to Route 12 are described below under Uptown Station.

Route 661 is a recently discontinued Metro Transit route that is reinstated with a slightly modified alignment (eliminating its branch to Golden Triangle) and operates at a 30 minute peak/60 minute off-peak service frequency. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Shady Oak Station: Route 12 serves this station. Changes to Route 12 are described below under Uptown Station.

Hopkins Station: Routes 12, 615, 661, 664 and 665 serve this station. Changes to Route 12 are described below under Uptown Station. Changes to Route 661 are described above under TH 62 Station.

Route 615, which currently runs between the Ridgedale Shopping Center in Minnetonka and Excelsior and Grand, is extended to the Beltline Station (which is near Excelsior and Grand). Peak frequency increases from 60 to 30 minutes, and off peak frequency is 60 minutes. The route operates to midnight.

Route 664 is extended from its current terminus south on CR 101 to cover a portion of the former alignment of the recently discontinued Route 612. Route 664 will offer an off-peak service similar to the discontinued 612. The route terminates at Hopkins Station, with passengers completing their travel to downtown Minneapolis on the light rail line.

Route 665 be increases in service frequency from 3 trips during each peak period, in the peak direction only, to a 30 minute headway (6 trips) during each peak period in the peak direction, and a 60 minute headway (3 trips) during each peak period, in the off peak direction.

Blake Station: Routes 17, 615, and 668 serve this station.

Route 17 Lake Street branch is extended to Blake Station, and service frequency increases from 3 trips in the peak direction and 2 trips in the off-peak during each peak period to 30 minute headways (6 trips in each direction) during the peak period.

Changes to route 615 are described above under Hopkins Station.

Route 668 is extended to connect to Blake Station and the Library-Lane loop is eliminated.

Louisiana Avenue Station: Route 604 serves this station.

Route 604 is extended to Beltline Station, and increases in service frequency from 2 trips in each direction during each peak period to a 30 minute headway (6 trips) in each direction during each peak period.

Wooddale Station: The 36th Street branch of Route 17 and Route 615 serve this station. Changes to Route 17 are described above under Blake Station. Changes to Route 17 are described under Hopkins Station.

Beltline Station: The 36th Street branch of Route 17, Route 604 and Route 615 serve this station.

Changes to Route 17 are described above under Blake Station.

Changes to Route 604 are described above under Louisiana Avenue Station.

Changes to Route 615 are described above under Hopkins Station.

West Lake Station: The 6 Shuttle route and Routes 12, 17, and 25 serve this station.

The 6 Shuttle is a new route that operates along France Avenue serving Edina between Southdale and the West Lake Station. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Changes to Route 12 are described below under Uptown Station.

Changes to Route 17 are described above under Blake Station.

Route 25 is extended south to connect to this station to provide service to the Kenwood Park area.

Uptown Station: Routes 6, 12, 17, 21, 23, 53, 114, and 115 serve this station. Routes 6, 21, 23, 53, 114 and 115 are unchanged under this alternative.

Route 12 terminates at this station and its segment connecting to downtown Minneapolis is eliminated, and service frequencies increase slightly to 15 minutes bi-directional, all day on the trunk portion of the route (frequencies on the branches remain unchanged).

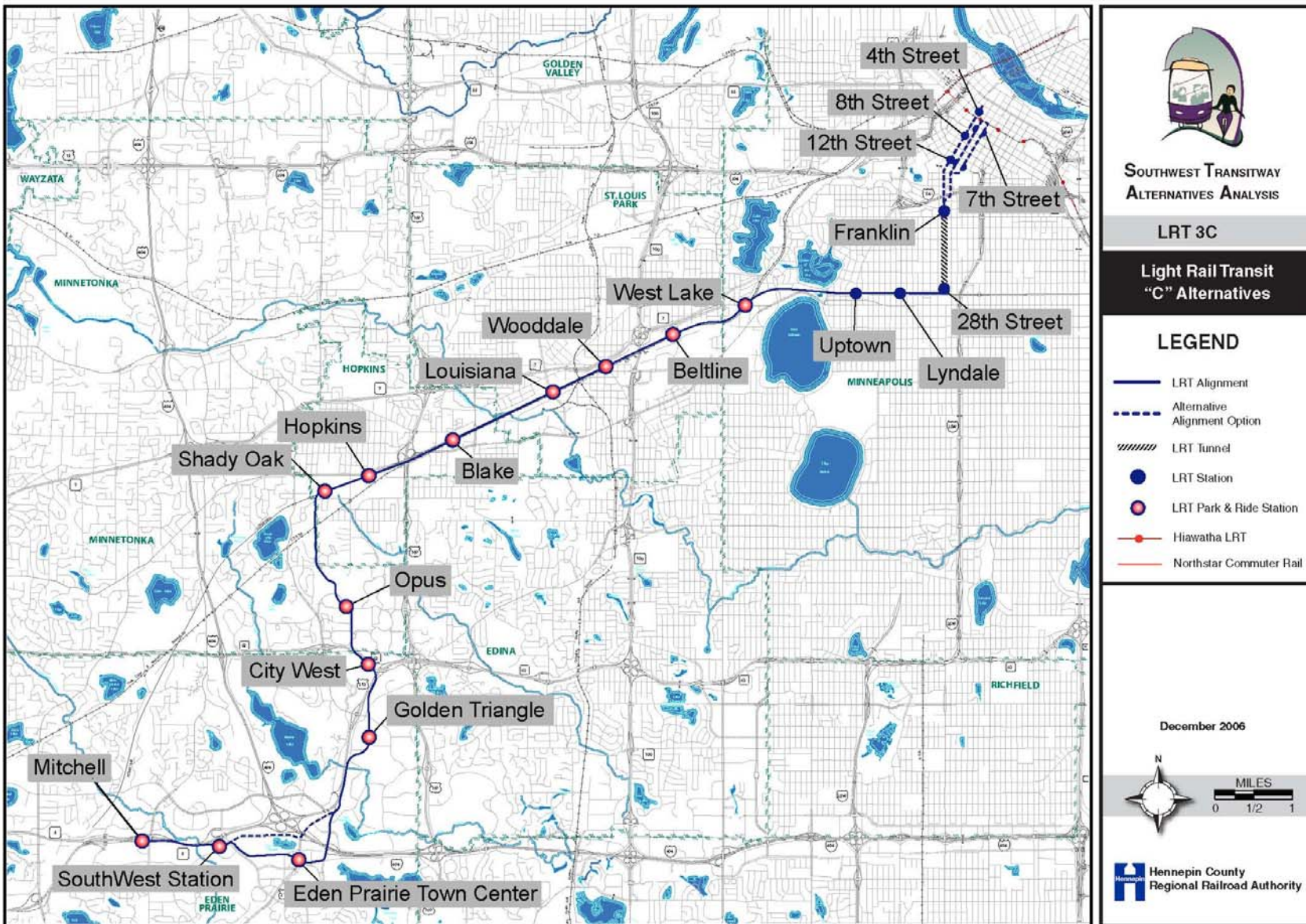
Changes to Route 17 are described above under Blake Station.

Lyndale Station: Routes 4, 21, 53, and 113 serve this station. These routes are unchanged under the alternative.

28th Street Station: Routes 18, 21, 53 and 568 serve this station. These routes are unchanged under the alternative.

Franklin Station: Routes 2, 18, 53 and 568 serve this station. These routes are unchanged under the alternative.

Figure 10 LRT 3C



Source: Parsons Brinckerhoff, 2006.

LRT 4C

LRT 4C operates from Shady Oak Road in Minnetonka to downtown Minneapolis, providing service to Eden Prairie, Minnetonka, Hopkins, St. Louis Park, and Minneapolis.

Service Plan

Table 11 LRT 4C Service Plan

	Morning (4:00 - 6:00 AM)	Morning Peak (6:00- 9:00 AM)	Mid-Day (9:00 AM – 3:00 PM)	PM Peak (3:00- 6:00 PM)	Evening (6:00 PM - 2:00 AM)
Weekday	15-30	7.5	10	7.5	15-30
Saturday	15-30	15-30	10	10 to 7:30 PM)	15-30
Sunday/ Holiday	15-30	15-30 (to 10:00 AM)	10	10	15-30

Source: Parsons Brinckerhoff, 2006.

Connecting Transit Service - LRT 4C

Shady Oak Station: Route 12 serves this station. Changes to route 12 are described below under Uptown Station.

Hopkins Station: Routes 12, 615, 661, 664, 665 and Limited Stop Route “A” serve this station. Changes to route 12 are described below under Uptown Station.

Route 615, which currently runs between the Ridgedale Shopping Center in Minnetonka and Excelsior and Grand, is extended to the Beltline Station (which is near Excelsior and Grand). Peak frequency increases from 60 to 30 minutes, and off peak frequency is 60 minutes. The route operates to midnight.

Route 661 is a recently discontinued Metro Transit route that is reinstated with a slightly modified alignment (eliminating its branch to Golden Triangle) and operates at a 30 minute peak/60 minute off-peak service frequency. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Route 664 is extended from its current terminus south on CR 101 to cover a portion of the former alignment of the recently discontinued route 612. Route 664 will offer an off-peak service similar to the discontinued 612. The route terminates at Hopkins Station, with passengers completing their travel to downtown Minneapolis on the Light rail line.

Route 665 increases in service frequency from 3 trips during each peak period, in the peak direction only, to a 30 minute headway (6 trips) during each peak period in the peak direction, and a 60 minute headway (3 trips) during each peak period, in the off peak direction.

Limited Stop Route “A” is a version of the new long-distance service route from Eden Prairie that features as one of the key new routes in the Enhanced Bus and BRT alternatives. In this alternative, the route terminates at Hopkins Station. Travelers to downtown Minneapolis transfer there to the light rail line. The route operates from the TH 5 park-and-ride at Wallace Road to

Hopkins Station via TH 5, TH 212, and TH 169. The route would essentially meet every other LRT trip, operating at a 20 minute headway early morning and midday, 15 minutes during the peak periods and 30 minutes in the evenings.

Blake Station: Routes 17, 615, and 668 serve this station.

Route 17 Lake Street branch is extended to Blake Station, and service frequency increases from 3 trips in the peak direction and 2 trips in the off-peak during each peak period to 30 minute headways (6 trips in each direction) during the peak period.

Changes to Route 615 are described above under Hopkins Station.

Route 668 is extended to connect to Blake Station and the Library-Lane loop is eliminated.

Louisiana Avenue Station: Route 604 serves this station.

Route 604 is extended to Beltline Station, and increases in service frequency from 2 trips in each direction during each peak period to a 30 minute headway (6 trips) in each direction during each peak period.

Wooddale Station: The 36th Street branch of Route 17 and Route 615 serve this station. Changes to Route 17 are described above under Blake Station. Changes to Route 17 are described under Hopkins Station.

Beltline Station: The 36th Street branch of Route 17, Route 604 and Route 615 would serve this station.

Changes to Route 17 are described above under Blake Station.

Changes to Route 604 are described above under Louisiana Avenue Station.

Changes to Route 615 are described above under Hopkins Station.

West Lake Station: The 6 Shuttle route and routes 12, 17, and 25 serve this station.

The 6 Shuttle is a new route that operates along France Avenue serving Edina between Southdale Station and the West Park Station. The route operates at a 30 minute headway in each direction during each peak period and a 60 minute headway during the midday and evening period, and operates from 6:00 am to midnight.

Changes to Route 12 are described below under Uptown Station.

Changes to Route 17 are described above under Blake Station.

Routes 21 and 53 are extended from Uptown to connect to this station to provide crosstown connectivity along Lake Avenue.

Route 25 is extended south to connect to this station to provide service to the Kenwood Park area.

Uptown Station: Routes 6, 12, 17, 21, 23, 53, 114, and 115 serve this station. Routes 6, 21, 23, 53, 114 and 115 are unchanged under this alternative.

Route 12 terminates at this station and its segment connecting to downtown Minneapolis is eliminated, and service frequencies increase slightly to 15 minutes bi-directional, all day on the trunk portion of the route (frequencies on the branches remain unchanged).

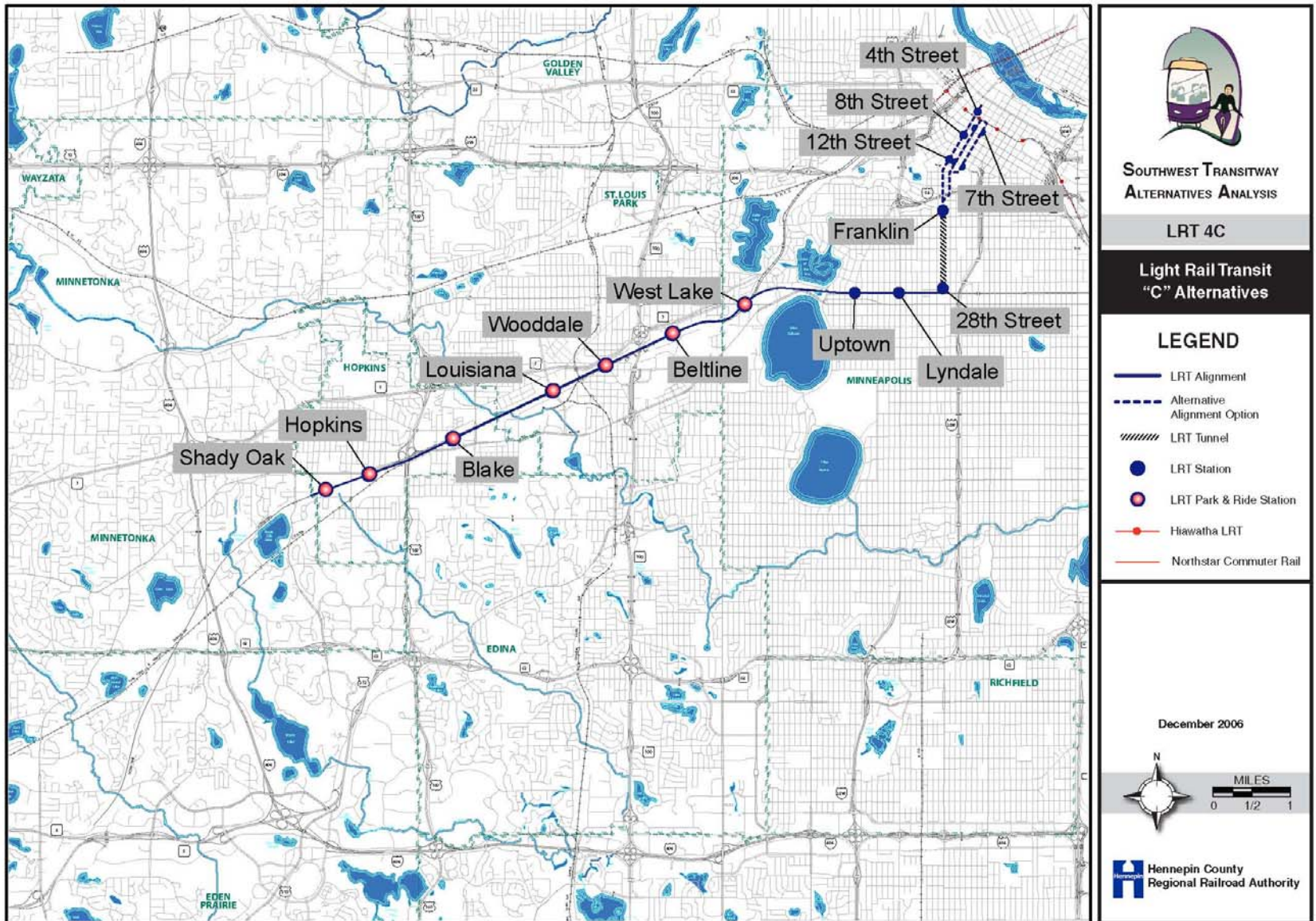
Changes to Route 17 are described above under Blake Station.

Lyndale Station: Routes 4, 21, 53, and 113 serve this station. These routes are unchanged under the alternative.

28th Street Station: Routes 18, 21, 53 and 568 serve this station. These routes are unchanged under the alternative.

Franklin Station: Routes 2, 18, 53 and 568 serve this station. These routes are unchanged under the alternative.

Figure 11 LRT 4C



Source: Parsons Brinckerhoff, 2006.