

## Southwest LRT Minneapolis Alignment Issue: Kenilworth vs Uptown

Proposed Southwest LRT has two alignment options into Minneapolis

- Kenilworth routing (3A) runs through low-density neighborhood/park
- Uptown routing (3C2) runs through high-density neighborhood;  
Downtown-Uptown is busiest transit corridor in entire metro area

Ridership forecast is equal between both options

- 27,500 per day for each option
- Defies common sense that it could be so based on demographics alone
- Concerns on origin and destination and mode choice assumptions
- Ridership modeling based on peak weekday only; no allowance for stronger weekend traffic for Uptown option
- Ridership critique attached (see Appendix 1)

Ridership for Uptown option likely 20–30% higher than Kenilworth option

- Uptown alignment stations are major origin and destination locations
- Hennepin, 12<sup>th</sup> (Nicollet Mall), Lyndale and Uptown stations will be the busiest stations on the entire Southwest LRT
- Elapsed travel time from western metro equal on Uptown routing as downtown Minneapolis stations are located on “natural” southwest side
- Uptown option has more traffic potential during peak hours, during off-peak hours and during evenings and weekends; demand is more robust
- Incremental ridership of Uptown option (6,000–9,000 per day) is equivalent to that of 2 Northstar commuter rail systems

Capital cost differential of the Uptown option vs the Kenilworth option has skyrocketed from \$150 million to \$600 million with no public explanation provided

- Potential cost savings on Uptown alignment and mitigation requirements on the Kenilworth option can bring this differential down to \$200 million
- Capital cost reduction critique attached (see Appendix 2)

With higher ridership and lowered capital costs, the Uptown option will be financially competitive with the lower capital cost Kenilworth option

Growing public support for the Uptown option with over 3,500 petitions collected across a broad range of locations and more canvassing is planned

The PAC and Metro Council should defer making a final decision on the Minneapolis alignment (Kenilworth vs Uptown) until a new ridership forecast

and a final capital cost forecast has been prepared, the details released to the public, and another forum for public comment has been convened.

Prepared by Concerned Citizens for Optimized Southwest LRT Service  
 September 17, 2009  
 Appendix 1: Critique of Southwest LRT Ridership Forecast

Southwest LRT Ridership Forecast per Technical Memorandum No. 6 dated September 9, 2009

Ridership expressed in passenger boarding's per day

Station/Route	3A-Kenilworth	3C2-Uptown
Mitchell	2300	2200
Southwest	1300	1200
Eden Prairie Town Center	2000	1800
Golden Triangle	500	450
Citywest	450	450
Opus	1000	900
Shady Oak	1500	1400
Hopkins	1300	1200
Blake	1500	1450
Louisiana	1150	1050
Wooddale	1200	1150
Beltline	1400	1400
West Lake	2800	2000
Subtotal	18400	16650
21 <sup>st</sup> Street	1000	
Penn	600	
Van White	350	
Subtotal	1950	
Uptown		1100
Lyndale		1300
28 <sup>th</sup> Street		1450
Franklin		1000
12 <sup>th</sup> Street (Nicollet Mall)		300
11 <sup>th</sup> /12 <sup>th</sup> Street (Hennepin)		1400
Subtotal		6550
Royalston	1900	400
Intermodal	600	600
Central LRT connect	4700	3300
Subtotal	7200	4300
Grand total	27550	27500

## | Appendix 1: Critique of Southwest LRT Ridership Forecast (Cont'd)

The ridership forecast document is described as preliminary yet is being used to make decisions about the route alignment through western Minneapolis. There has been no formal public review of this document nor have critical details of the forecast including station boardings by origin and destination been released. We believe the forecast completely lacks credibility. In the following paragraphs are described some of the major obvious shortcomings of the forecast.

The overall ridership forecast is identical between the two options despite the fact that the 3A-Kenilworth alignment runs through an ultra low-density neighborhood and a park whilst the Uptown alignment runs through the busiest transit corridor (Downtown-Uptown) in the metro area.

The boarding forecast for the 21<sup>st</sup> Street station on the Kenilworth option of 1,000 per day are similar to those for the Uptown station on the Uptown option of 1,100 per day. This makes no sense whatsoever. 21<sup>st</sup> Street station is located in an ultra-low density neighborhood; Uptown is located in a high density neighborhood. The 21<sup>st</sup> Street station forecast is ridiculously high while the Uptown station forecast is vastly understated.

The projected boarding's for the 12<sup>th</sup> Street (Nicollet Mall) station on the Uptown option are only 300 per day despite this station's prime location on the western side of downtown Minneapolis. This should be the busiest station on the entire Southwest LRT line. By contrast, boarding's for the Royalston station on the Kenilworth option are projected at 1,900 per day despite there being no substantial housing or businesses in this area located next to the Hennepin County Incinerator. And the Royalston station is located ½ mile to the north of downtown Minneapolis so it cannot really function as a downtown station. With the Uptown alignment option, the boardings forecast for Royalston are reduced to 400 per day, still 100 more than the 12<sup>th</sup> Street (Nicollet Mall) station. Again, this all makes no sense.

The boarding's for all stations on the western side of the Southwest LRT line (Mitchell to West Lake) and 10% higher for the Kenilworth option than the Uptown option in spite of the higher traffic potential of stations along the Uptown option and in spite of shorter elapsed travel times to the primary downtown Minneapolis station at 12<sup>th</sup> Street (Nicollet Mall). Again, this makes no sense.

There appears to be a miniscule amount of Downtown-Uptown journeys projected for the Uptown route despite this being the busiest transit corridor in the metro area.

The forecast also appears to seriously underestimate the amount of connecting traffic for the Uptown option. The key stations along this route will generate a large amount of connecting traffic to the existing Hiawatha LRT line (serving the airport and the Mall of America) and to the planned Central LRT line (serving the U. of Minnesota and St. Paul). Yet the connect forecast for the Uptown route is 30% lower than that of the Kenilworth option.

The forecast is based on peak weekday ridership patterns. Yet the Uptown route will generate much greater traffic on weekends (and in the evenings) than the Kenilworth option because key stations along the Uptown route will be both origin and destination stations and these stations are places people want to visit on weekends and in the evenings.

The forecast for the Southwest LRT alignment decision (Kenilworth v Uptown) needs to be completely reworked. The present forecast is riddled with flaws that deny it any credibility.

Prepared by Concerned Citizens for Optimized Southwest LRT Service  
September 17, 2009

**| Appendix 2: SOUTHWEST LRT – CAPITAL COST COMPARISONS  
September 2, 2009**

SUMMARY (please see below for detail on each item)

	Low	High
<b>Estimated Cost Difference (8/10/2009)</b>	<b>580</b>	<b>630</b>
Baisdell at-grade	64	56
1st Ave at-grade	88	77
At-grade stations	56	56
Embedded Track	-0.45	-0.45
Fencing	-0.4	-0.4
<b>Total Savings of At-Grade vs. Tunnel</b>	<b>207.15</b>	<b>188.15</b>
Eliminate parking structure	7	7
Eliminate flyover	10	8
<b>Total Savings at W. Lake Station</b>	<b>17</b>	<b>15</b>
Eliminate 11th/12th bridge widening	20	20
Use existing 1st Ave bridge	10	10
Greenway stops not “underground”	25	25
<b>Additional Savings</b>	<b>55</b>	<b>55</b>
Cut-and-Cover Tunnel	49	56
Bored Tunnel	75	75
Fencing	0.18	0.18
<b>Additional 3A Mitigation Costs</b>	<b>124.18</b>	<b>131.18</b>
<b>ADJUSTED COST DIFFERENCE</b>	<b>176.67</b>	<b>240.67</b>

(Note: Chart figures are in Millions of Dollars)

Estimated capital costs, 8/10/09

Route 3A                      \$1.1–1.25 billion

Route 3C2                     \$1.68–1.88 billion

Differential                    \$580–630 million

(It should be noted that this differential has expanded from roughly \$150 million to the current figures without any explanation by the HCRRA staff and consultants).

Potential Cost Reduction on Route 3C2:

Traveling at grade on a Blaisdell/1st Av. couplet instead of in tunnels:

\$56 – 64 million    \$70–80 million per tunnel mile (per Katie Walker) times  
0.8 miles on Blaisdell from the Greenway to Franklin

\$77 – 88 million    \$70–80 million per tunnel mile times 1.1 miles on 1<sup>st</sup>  
Av. From the Greenway to I-94

\$56 million            Four stations at grade (\$3.5 million each per Katie  
Walker) instead of subterranean (\$17.5 million each per Katie  
Walker)

–\$0.45 million            Less cost of embedded tracks at 28<sup>th</sup>, 26<sup>th</sup>, 24<sup>th</sup>,  
and Franklin crossings at a cost differential of \$4.5 million  
per mile (per Katie Walker) times 0.1 miles of track

–\$0.40 million            Less cost of fencing two sides of the LRT for 1.9  
miles at \$100,000 per mile (based on cost of fence along  
Greenway)

**\$188 – 207 million    Total 3C At-Grade Savings**

(Running the LRT at grade on Blaisdell and 1<sup>st</sup> Av. S. also resolves the  
problem of the the bike and pedestrian path crossing the LRT in the  
Greenway trench, as the LRT could be elevated to grade on the south side  
of the trench before it turns onto 1<sup>st</sup> Av. or off of Blaisdell)

Relocation of W. Lake St. station to rear of Calhoun Village Mall

\$7 million            Eliminate need for a parking structure for 500 cars at  
\$14,000 per parking stall (per Katie Walker) by leasing  
existing ramp from Calhoun Village Mall

\$8 – 10 million    Avoid flyover from Lake St. to W. Lake St. station at  
\$40–50 million per mile (per Katie Walker) times 0.2 miles

**\$15 – 17 million Total 3C W. Lake Relocation Savings**

Avoid costs of 11<sup>th</sup> and 12<sup>th</sup> St. bridge widening across I-394

\$20 million            11<sup>th</sup> and 12<sup>th</sup> Sts. are two lane, one-way streets on the  
bridges crossing I-394. 11<sup>th</sup> and 12<sup>th</sup> Sts. merge north of I  
-394 where they become Royalston Av., which does not  
connect with Olsen Memorial Highway. These streets are not  
significant connectors for traffic coming from or headed to

the Minneapolis north side, and one lane of auto traffic on each bridge will suffice . A traffic count shows that use of both streets is minimal. Cost saving for not replacing both with wider bridges.

Avoid replacement of 1<sup>st</sup> Av. bridge crossing I-94

\$10 million Existing 1<sup>st</sup> Av. bridge over I-94 permits truck traffic. Prohibiting truck traffic, replacing it with one LRT track, will avoid reconstruction of the bridge.

5. Provide pedestrian ramps and elevator for Greenway trench stops at Hennepin and Lyndale

\$25 million Cost of \$5 million each versus a subway station stop cost of \$17.5 million (per Katie Walker)

**\$55 million Total Additional 3C Savings**

Avoid mitigation costs on Kenilworth corridor not currently included in capital cost estimates

\$49 – 56 million Cut and cover tunnel from Lake St. to Cedar Lake Parkway in narrow portion of corridor at \$70–80 per miles (per Katie Walker) times 0.7 miles

\$75 million Bored tunnel underneath of Cedar Lake/Lake of the Isles channel at cost of \$150 million per mile times 0.5 miles

\$0.18 million Fencing along both sides of LRT on Kenilworth corridor along balance of route at \$100,000 miles times 1.8 miles

**\$124 – 131 million Total Additional 3A Mitigation** (assumes grade separation at Cedar Lake Parkway is already included in capital costs)

**\$389 – 403 million POTENTIAL ADJUSTMENT TO CAPITAL COST**

In conclusion, Route 3C will still have a \$177 – 241 million cost premium over Route 3A, but this should be more than compensated for in the CEI by higher ridership on 3C2 over 3A.

