

Bottineau Transitway

Alternatives Analysis Study

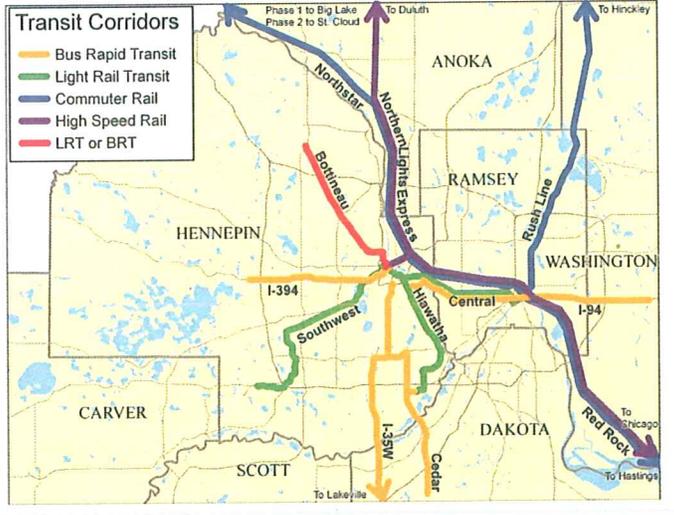


Alternative Evaluation Results

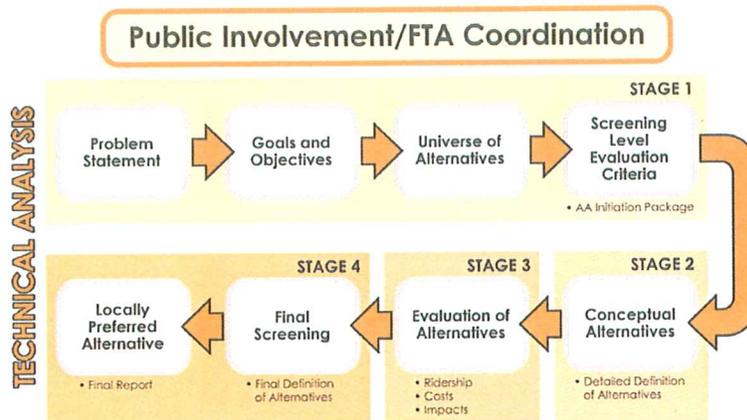


October 20, 2009
Minneapolis Transportation & Public Works Committee

2030 Transitway System Plan



Project Approach



Suburban Segment Alternatives

Segment A

Maple Grove terminal to I-694 via Arbor Lakes Parkway/77th Ave/BNSF

Stations:

- Hemlock Lane (P&R)
- Zachary Lane (P&R)
- Boone Ave
- 71st Ave (if no B segment)



Suburban Segment Alternatives

Segment B

Target North Campus to I-694 via West Broadway/BNSF

Stations:

- 97th Ave
- 93rd Ave (P&R)
- 85th Ave
- Brooklyn Blvd



Suburban Segment Alternatives

Segment A & B

Both suburban terminals to I-694

Stations:

- Hemlock Lane (P&R)
- Zachary Lane (P&R)
- Boone Ave
- 97th Ave
- 93rd Ave (P&R)
- 85th Ave
- Brooklyn Blvd



Central Segment Alternative

Segment C
I-694 to 36th Avenue
via BNSF

Stations:

- 63rd Avenue (P&R)
- Bass Lake Road
- Robbinsdale Transit Center (P&R)



Minneapolis Segment Alternatives LRT/BRT

Segment D1
36th Avenue to
Minneapolis Transit Hub

Alignment:

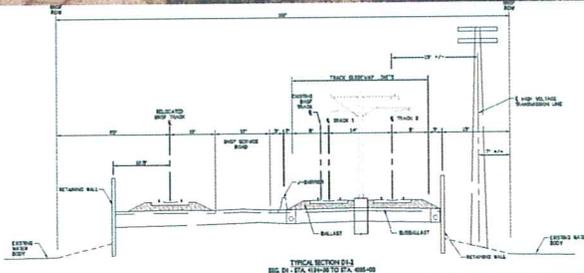
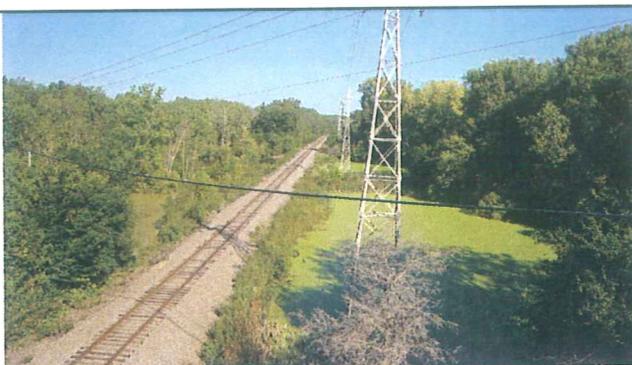
BNSF to Olson Highway

Stations:

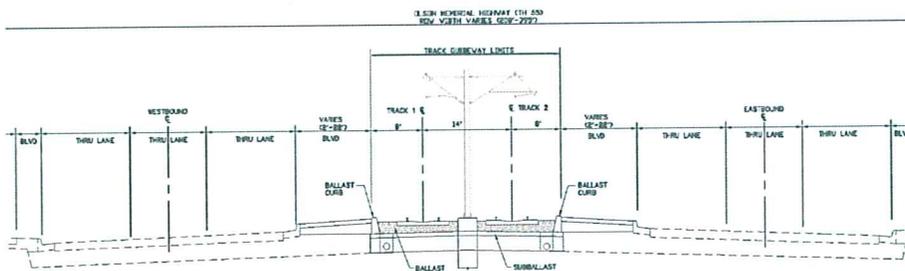
- Golden Valley Road
- Penn Ave
- Van White Blvd



BNSF Rail Corridor



Highway 55- Center Running in Median



Minneapolis Segment Alternatives LRT/BRT

Segment D2

36th Avenue to
Minneapolis Transit Hub

Alignment:

Broadway to Penn Ave to
Olson Highway

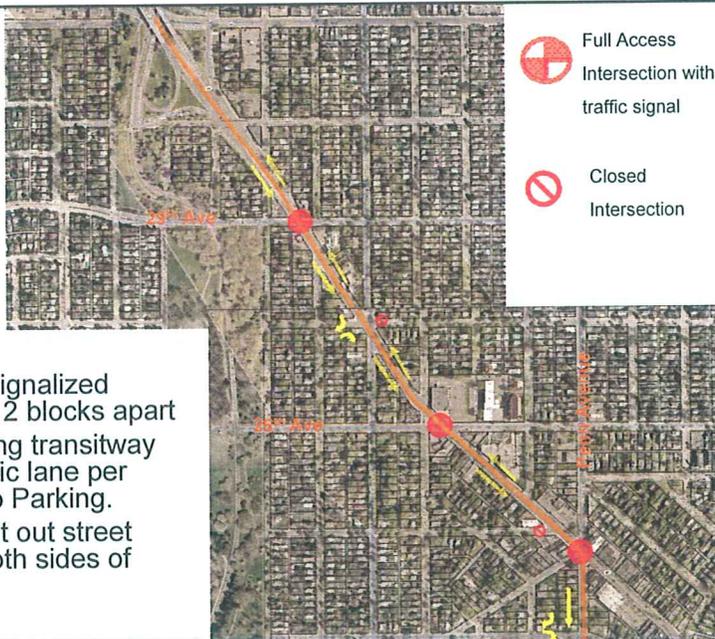
Stations:

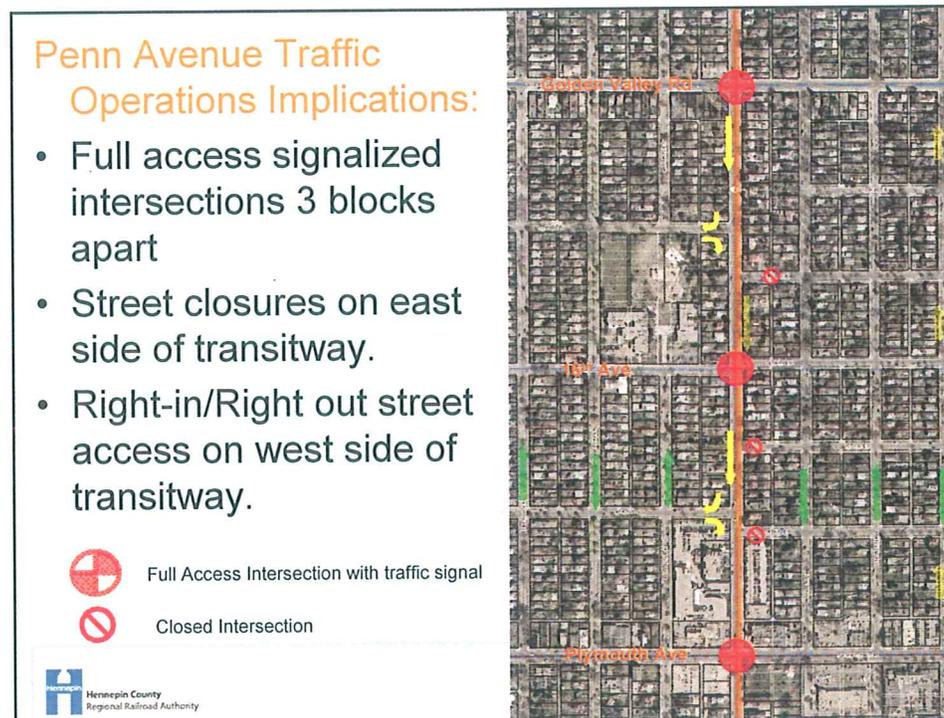
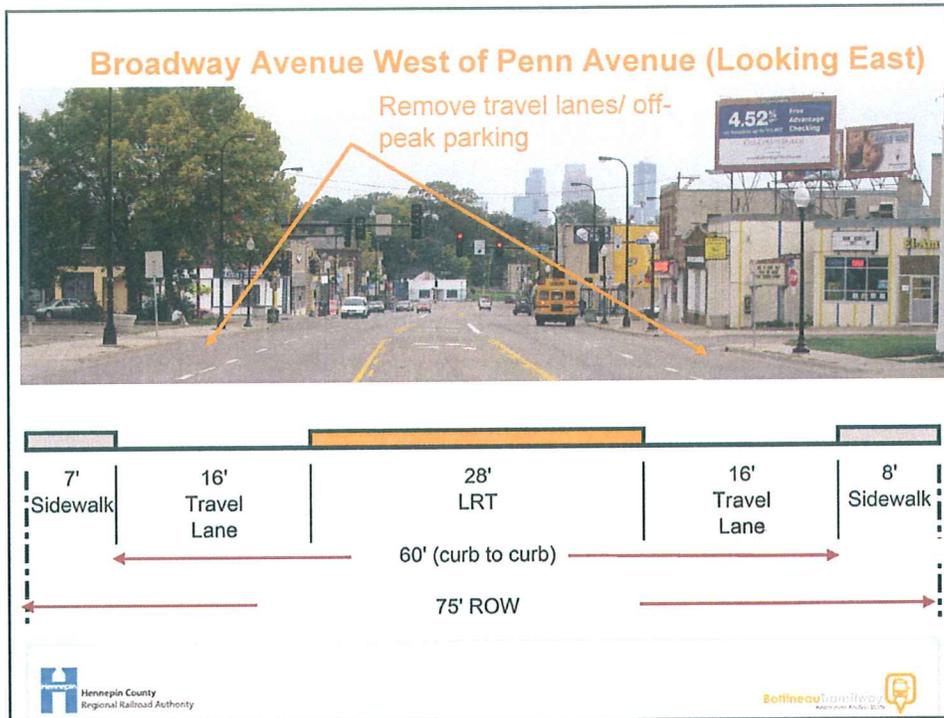
- North Memorial
- Broadway/Penn
- Penn/Plymouth
- Van White Blvd



West Broadway Avenue Traffic Operations Implications:

- Full access signalized intersections 2 blocks apart
- Center running transitway with one traffic lane per direction, No Parking.
- Right-in/Right out street access on both sides of transitway.





Penn Avenue with LRT Transitway (Looking South)



Minneapolis Segment Alternatives LRT/BRT

Segment D3

36th Avenue to
Minneapolis Transit Hub

Alignment:

Lowry Ave to Lyndale Ave

Stations:

- North Memorial
- Lowry/Penn
- Lowry/Fremont-Emerson
- Lyndale/Broadway



Lowry Avenue Traffic Operations Implications: Hwy 81 to Penn Avenue

- Full access signalized intersections 3 to 5 blocks apart
- Center running transitway with one traffic lane per direction, No Parking.
- Right-in/Right out street access on both sides of transitway.

 Full Access Intersection with traffic signal 

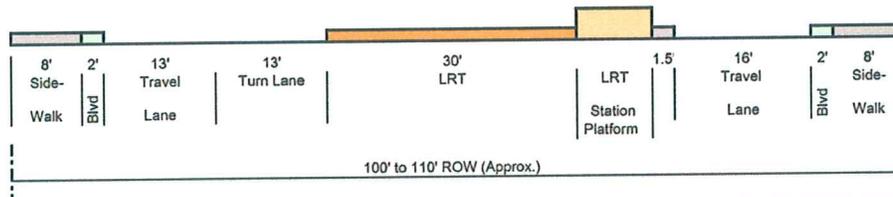


Lowry Avenue West of Penn Avenue (Looking East)

Eliminates Parking, Blvd Trees, Bus Shelter, Monuments.



Reduce traffic capacity from four lanes to two lanes plus left turn lanes.



Lowry Avenue Traffic Operations Implications: (Penn Ave to Humboldt Ave)

- Full access signalized intersections 3 to 5 blocks apart
- Center running transitway with one traffic lane per direction, No Parking.
- Right-in/Right out street access on both sides of transitway.

 Full Access Intersection with traffic signal
  Closed Intersection



Lowry Avenue Traffic Operations Implications: (Humboldt Ave to Lyndale Ave)

- Full access signalized intersections 3 to 5 blocks apart
- Center running transitway with one traffic lane per direction, No Parking.
- Right-in/Right out street access on both sides of transitway.

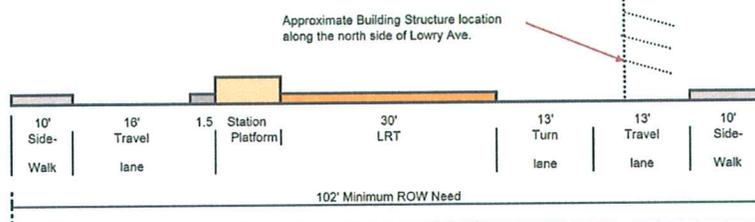
 Full Access Intersection with traffic signal
  Closed Intersection



Lowry Avenue East of Emerson Avenue (looking west)



Minimum section eliminates parking, bike lanes, boulevards.



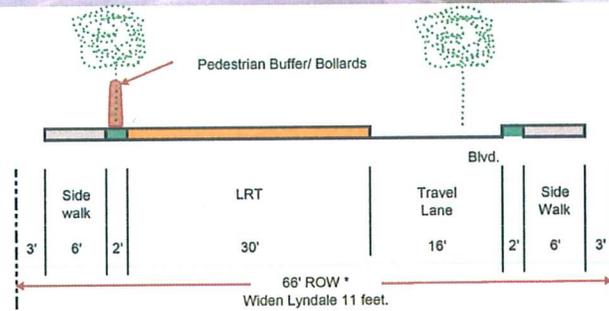
Lyndale Avenue Traffic Operations Implications North of Broadway:

- Full access signalized intersections 3 blocks apart
- Street closures on east side of transitway.
- Right-in/Right out street access on west side of transitway.

- Full Access Intersection with traffic signal
- Closed Intersection



Lyndale Avenue: Lowry Ave to 21st Avenue (Looking South)



Lyndale Avenue Traffic Operations Implications South of Broadway:

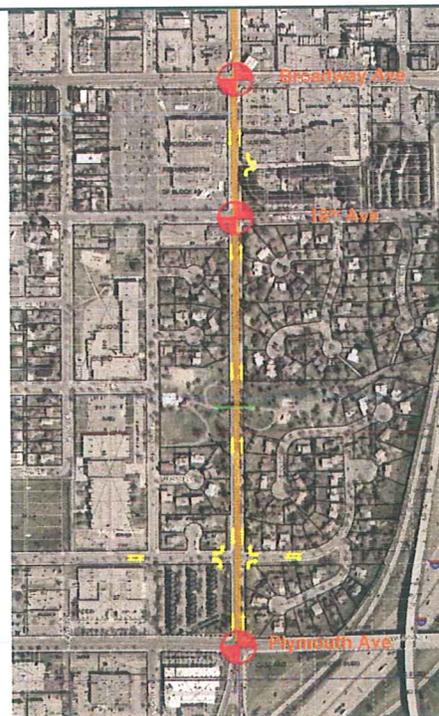
- Full access signalized intersections 3 blocks apart
- Street closures on east side of transitway.
- Right-in/Right out street access on west side of transitway.

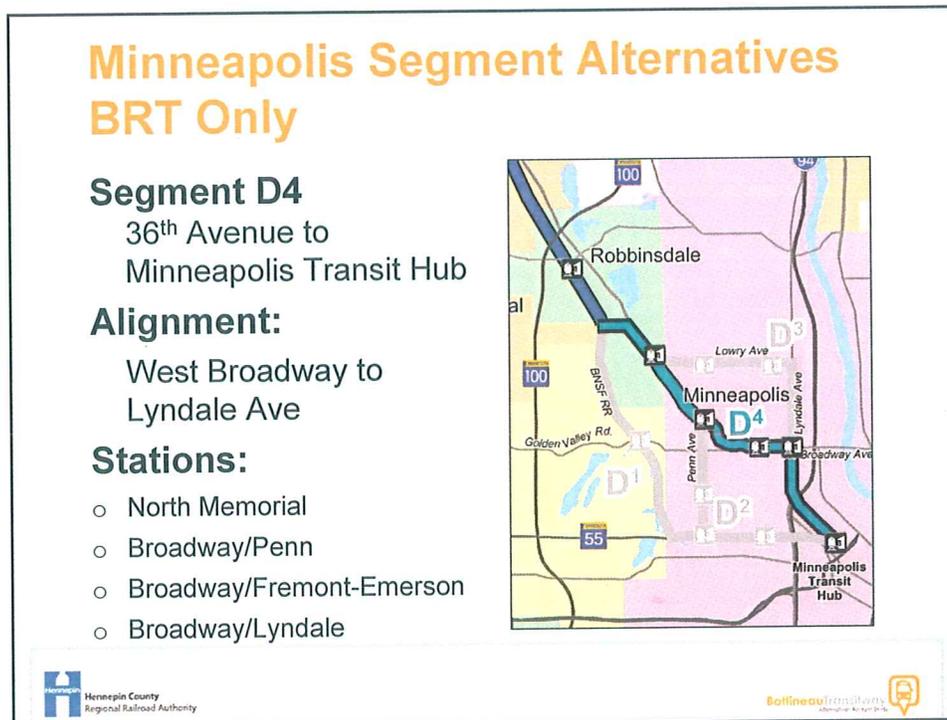
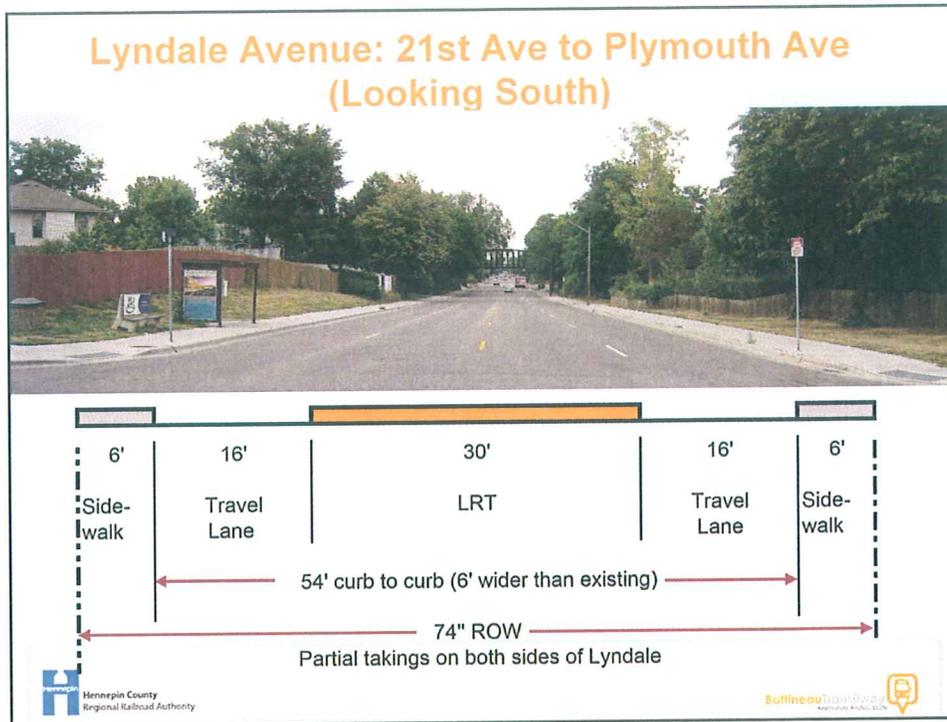


Full Access Intersection with traffic signal



Closed Intersection



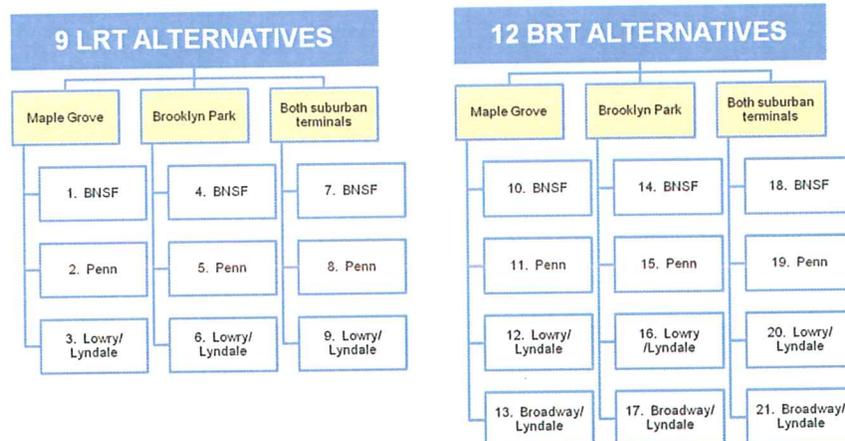


Broadway Ave between Penn and Lyndale Avenues

- High traffic volumes
- On street parking valued by adjacent businesses
- Mixed operations proposed for transit.

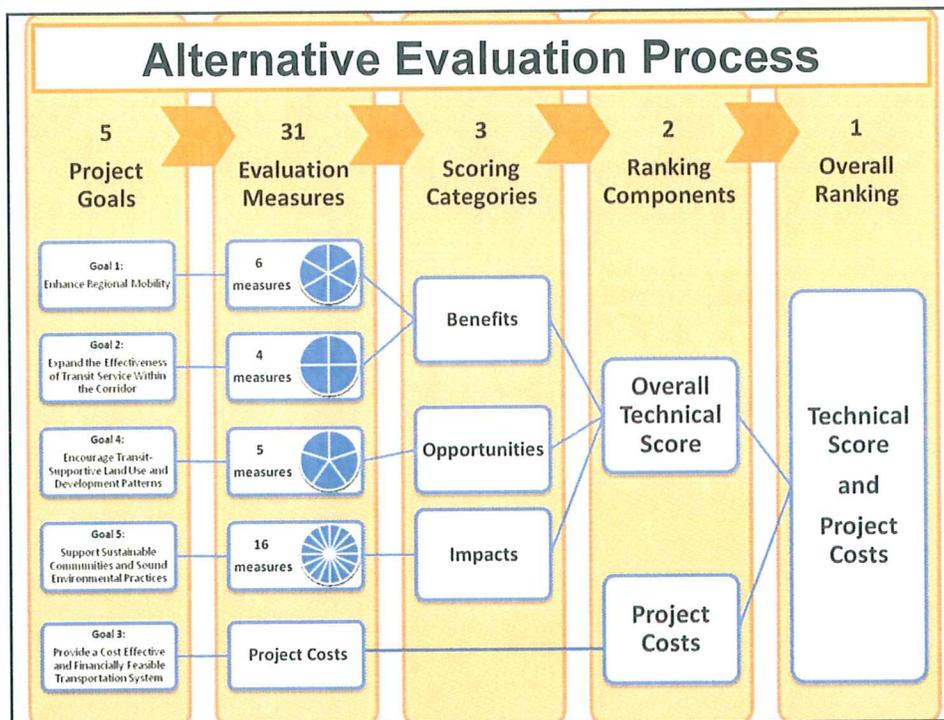


21 Build Alternatives Evaluated



Evaluation Criteria

- **Goal 1:** Enhance Regional Mobility
- **Goal 2:** Expand the Effectiveness of Transit within the Corridor
- **Goal 3:** Provide a Cost-Effective and Financially Feasible System
- **Goal 4:** Encourage Transit-Supportive Land Use and Development Patterns
- **Goal 5:** Support Sustainable Communities and Sound Environmental Practices



			TECHNICAL SCORE	PROJECT COSTS	OVERALL EVALUATION RANKING
1	LRT A+C+D1	Maple Grove-BNSF/Olson	●	●	●
2	LRT A+C+D2	Maple Grove-Penn/Olson	⊙	●	⊙
3	LRT A+C+D3	Maple Grove-Lowry/Lyndale	⊙	●	⊙
4	LRT B+C+D1	Brooklyn Park-BNSF/Olson	●	●	●
5	LRT B+C+D2	Brooklyn Park-Penn/Olson	●	●	●
6	LRT B+C+D3	Brooklyn Park-Lowry/Lyndale	●	●	●
7	LRT AB+C+D1	Both branches-BNSF/Olson	●	○	⊙
8	LRT AB+C+D2	Both branches-Penn/Olson	●	○	⊙
9	LRT AB+C+D3	Both branches-Lowry/Lyndale	●	○	⊙
10	BRT A+C+D1	Maple Grove-BNSF/Olson	⊙	●	●
11	BRT A+C+D2	Maple Grove-Penn/Olson	●	●	●
12	BRT A+C+D3	Maple Grove-Lowry/Lyndale	○	○	○
13	BRT A+C+D4	Maple Grove-Broadway/Lyndale	⊙	⊙	⊙
14	BRT B+C+D1	Brooklyn Park-BNSF/Olson	○	●	○
15	BRT B+C+D2	Brooklyn Park-Penn/Olson	○	●	○
16	BRT B+C+D3	Brooklyn Park-Lowry/Lyndale	○	○	○
17	BRT B+C+D4	Brooklyn Park-Broadway/Lyndale	●	●	●
18	BRT AB+C+D1	Both branches-BNSF/Olson	⊙	○	●
19	BRT AB+C+D2	Both branches-Penn/Olson	●	○	○
20	BRT AB+C+D3	Both branches-Lowry/Lyndale	⊙	○	●
21	BRT AB+C+D4	Both branches-Broadway/Lyndale	⊙	○	⊙

Key to Symbols: ● Best ● Good ⊙ Fair ○ Poor ○ Poorest

Best LRT Prospect: Maple Grove to Minneapolis via BNSF

- Arbor Lakes Parkway to BNSF to Olson Highway (12 miles)
- Running Time: 26 minutes
- Daily Ridership: 19,500 (2030)
- Construction Cost: \$885 million (2016 dollars)



LRT Prospect: Brooklyn Park to Minneapolis via BNSF

- West Broadway to BNSF to Olson Highway (12.6 miles)
- Running Time: 28 minutes
- Daily Ridership: 16,500 (2030)
- Construction Cost: \$932 million (2016 dollars)



LRT Prospect: Maple Grove to Minneapolis via Penn

- Arbor Lakes Parkway to BNSF to Broadway via 36th to Penn to Olson Highway (11.9 miles)
- Running Time: 31 minutes
- Daily Ridership: 18,500 (2030)
- Construction Cost: \$929 million (2016 dollars)



Best BRT Prospect: Maple Grove to Minneapolis via BNSF

- Arbor Lakes Parkway to BNSF to Olson Highway (12 miles)
- Running Time: 31 minutes
- Daily Ridership: 13,000 (2030)
- Construction Cost: \$464 million (2016 dollars)



Stakeholder Involvement/ Public Outreach

- ARCC, CAC, PAC
- Open houses (6:00 to 8:00 p.m.)
 - Wednesday, September 30 (Crystal City Hall)
 - Thursday, October 1 (Maple Grove City Hall)
 - Tuesday, October 6 (Harrison Neighborhood Association)
 - Wednesday, October 7 (Brooklyn Park City Hall)
 - Thursday, October 8 (North Regional Library)



Next Steps in Study Process

