

# Central Corridor Light Rail Transit

Central Corridor Management  
Committee

November 12, 2008



*Improving  
mobility*

*Easing  
congestion*

*Strengthening  
our communities*

# Today's Agenda



- BAC and CAC Reports
- Traffic Analysis
  - Downtown St. Paul
  - University Avenue
- Washington Ave Transit/Ped Mall
- Washington Ave Bridge Pedestrian Deck Retrofit
- West Bank
- Public Art

## Central Corridor Light Rail Transit



# BAC and CAC Reports

Karri Plowman

Central Corridor Partnership

Robin Caufman

Manager of Public Involvement



- Business listening sessions held
  - CDC/NDC working group
  - Hallie Q Brown Center
  - Midway Chamber
  - Episcopal Homes
  - Vietnam Center
  - BAC
- Responding to requests for additional sessions

# CAC Report



- Reviewed DBE Mixer
- Discussed University Ave. traffic analysis; community concerns
- Provided Washington Ave. bridge update
- Reviewed issues raised during DEIS and SDEIS hearing; engineering solutions

## DBE Mixer



Susan Rani of Rani Engineering, who worked on the Hiawatha LRT line and is working on the engineering phase of the Central Corridor project, shares some advice with Amanda Hastings at the DBE Mixer held on September 25<sup>th</sup>, 2008.

# Central Corridor Light Rail Transit



## Downtown Saint Paul Traffic Modeling

Dan Soler  
Traffic Engineer

# Downtown Saint Paul Traffic Modeling



- Determine impacts to roadway and intersection operations in the Downtown Saint Paul area
- Used SYNCHRO software to model traffic
  - 2008 existing
  - 2014 no build and 2014 with LRT
  - 2030 no build and 2030 with LRT

# Study Analysis and Methodology



- Studied on-corridor and off-corridor intersections in the Downtown Saint Paul area
- Methodology
  - Existing conditions analysis based on traffic count
  - Future year analysis based on the Regional Travel Demand Model

- Intersection studied



No Level of  
Service E or F  
for any  
scenarios  
modeled



# Central Corridor Light Rail Transit



## University Ave. Traffic Modeling

Dan Soler  
Traffic Engineer

# Traffic Modeling University Ave.



- Determine impacts to roadway and intersection operations between 29<sup>th</sup> and Robert
- Used VISSIM and SYNCHRO software to model traffic
  - 2008 existing
  - 2014 no build and 2014 with LRT
  - 2030 no build and 2030 with LRT

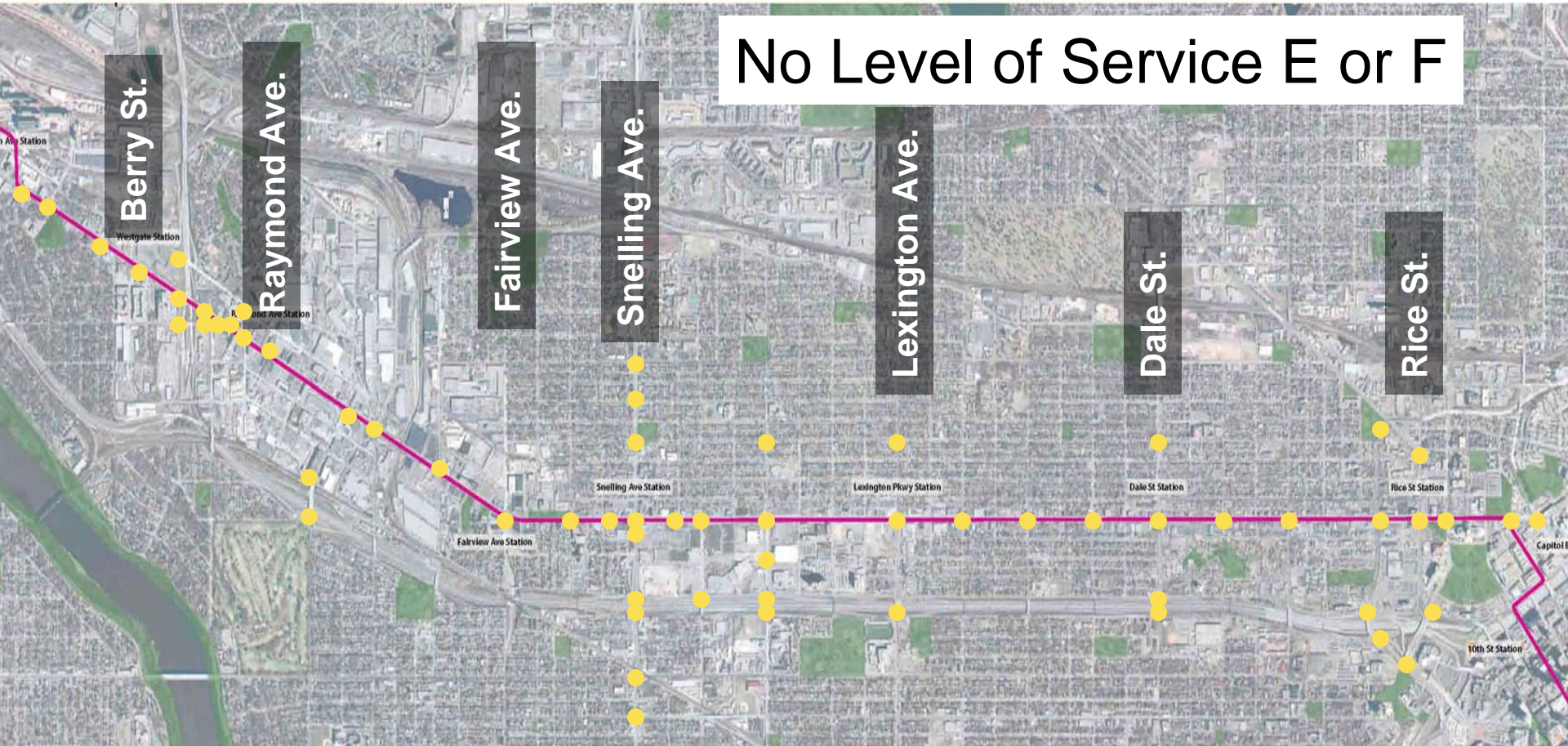
# Traffic Modeling University Ave.



- Studied 61 intersections
  - 31 off-corridor
  - 30 on-corridor
- Looked at AM and PM peak traffic volumes

# VISSIM Traffic Modeling 2008 and 2014 - AM and PM

No Level of Service E or F

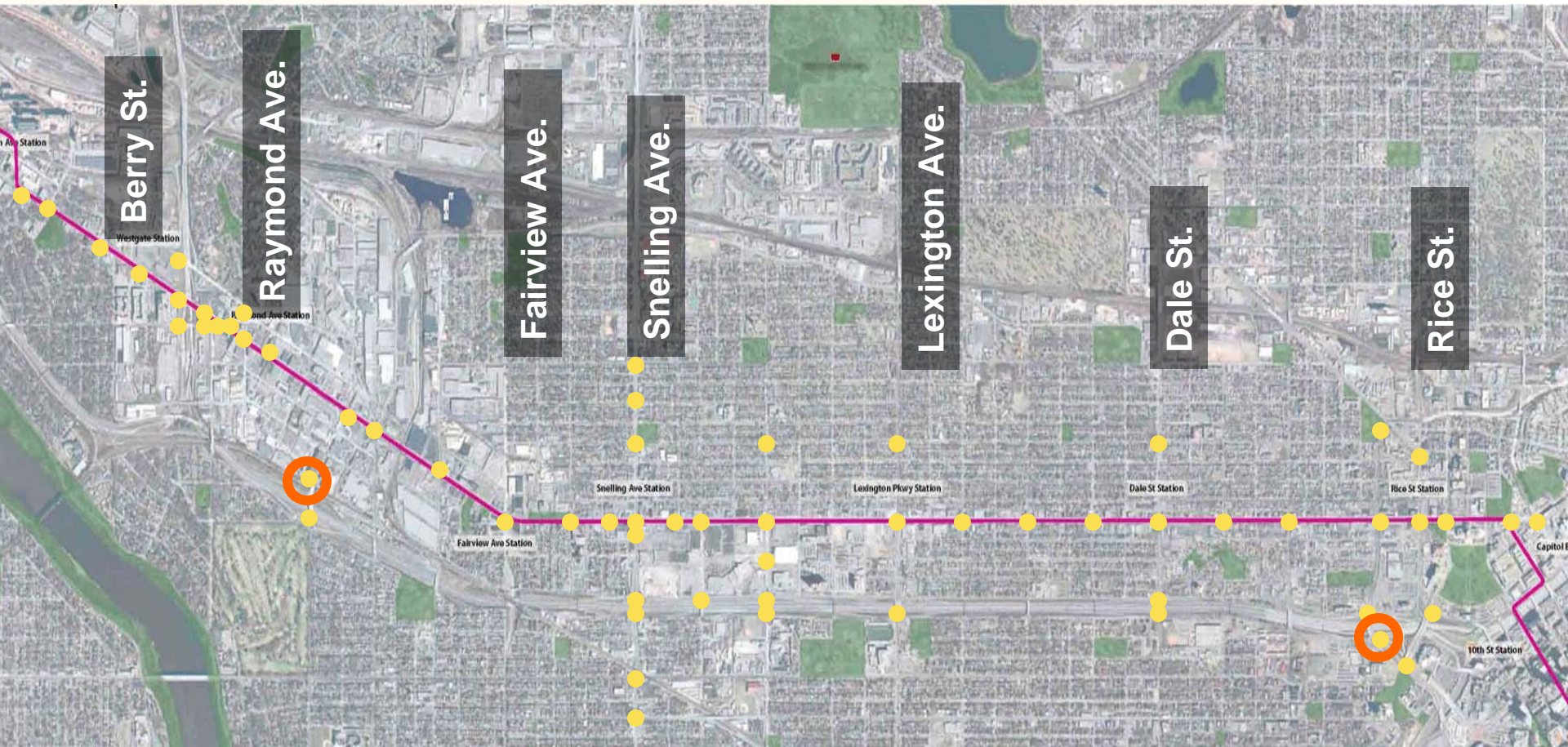


○ LOS E or F

● Intersection studied

# Central Corridor Light Rail Transit

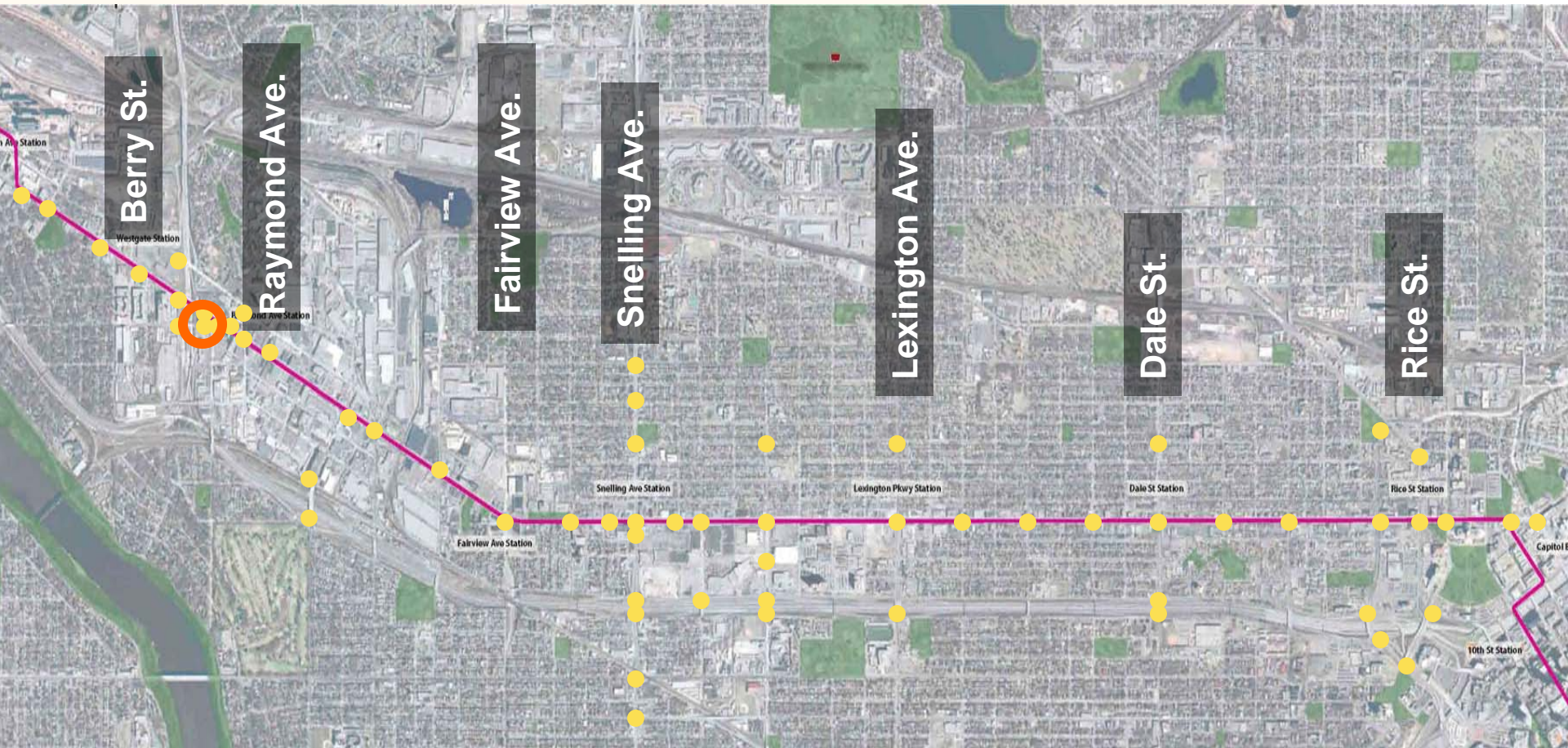
# VISSIM Traffic Modeling 2030 No Build



○ LOS E or F

● Intersection studied

# VISSIM Traffic Modeling 2030 with LRT

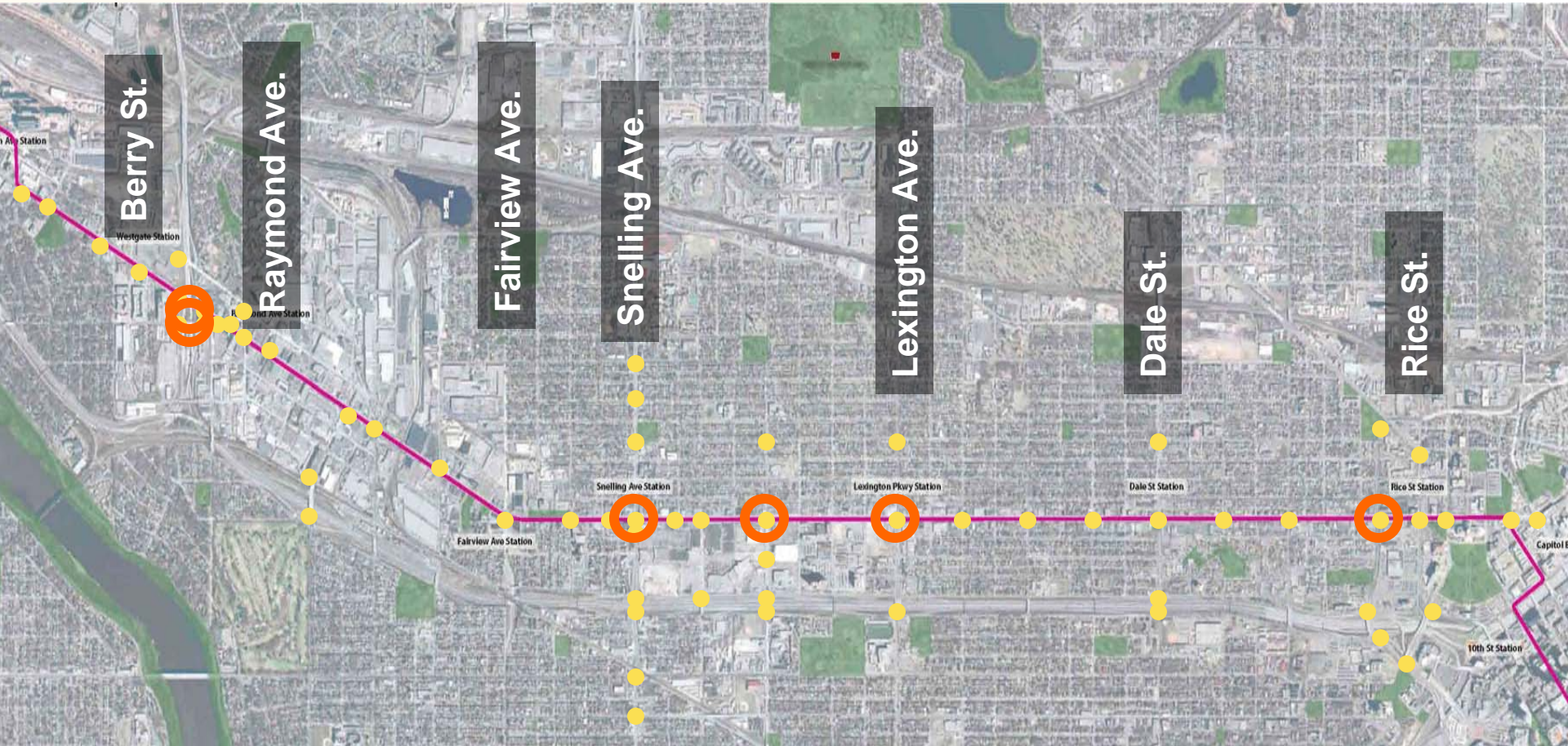


○ LOS E or F

● Intersection studied

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# Traffic Modeling SYNCHRO & VISSIM Results 2030 w/ LRT, PM Peak



○ LOS E or F    ● Intersection studied

# Traffic Modeling University Ave. Next Steps



- Develop mitigation for impacted intersections
  - Operational
  - Geometric

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## Washington Ave. Transit/Pedestrian Mall

Mark Fuhrmann  
Project Director



- June MOU #1 executed
- July-August
  - Established design groups
  - Developed design principles
  - Developed alternatives
  - Held design charrette #1
  - Held public meeting
- September
  - Refined alternatives
- October-November
  - Evaluated and refined alternatives

# Collaborative Groups



- Collaborative groups composed of stakeholder representatives
  - Met Council
  - Hennepin County, Ramsey County
  - University of Minnesota
  - City of Minneapolis, City of Saint Paul
- Group 1: Stakeholder staff – core design group
- Group 2: Stakeholder staff – subject matter experts
- Group 3: Policy level

# Design Principles Group #1 Approved



- Serve as desirable world class civic/academic space
- Meet FTA Cost Effectiveness Index (CEI)
- Provide safe & efficient operations of peds, bicycles, LRT, buses and emergency vehicles
- Accommodate emergency response & access
- Provide pedestrian & passenger comfort in all seasons

# Design Principles Group #1 Approved



- Construct with durable & maintainable materials
- Incorporate sustainable design principles
- Integrate spaces along Wash. Ave.
- Maximize ped realm to extent practical
- Facilitate maintenance operations
- Optimize visual and aesthetic impacts of campus open spaces adjacent to Wash. Ave.

# Transit/Ped Mall Options



- Developed two operating concepts
  - LRT has **dedicated lane**; buses/emergency vehicles/bikes share lane
  - LRT and buses **share lane**; emergency vehicles/bikes share bypass lane
- Developed three station configuration concepts
  - A: Center 25' platform with median pedestrian zone
  - B: Split-side 12' platforms
  - E: Center 20' platform with median landscaped zone

# Revised Option Overview



- Single center platform
- Center pedestrian zone
- Design elements
  - Vehicle lane width
  - Curb treatment
  - Pedestrian zone edge treatment

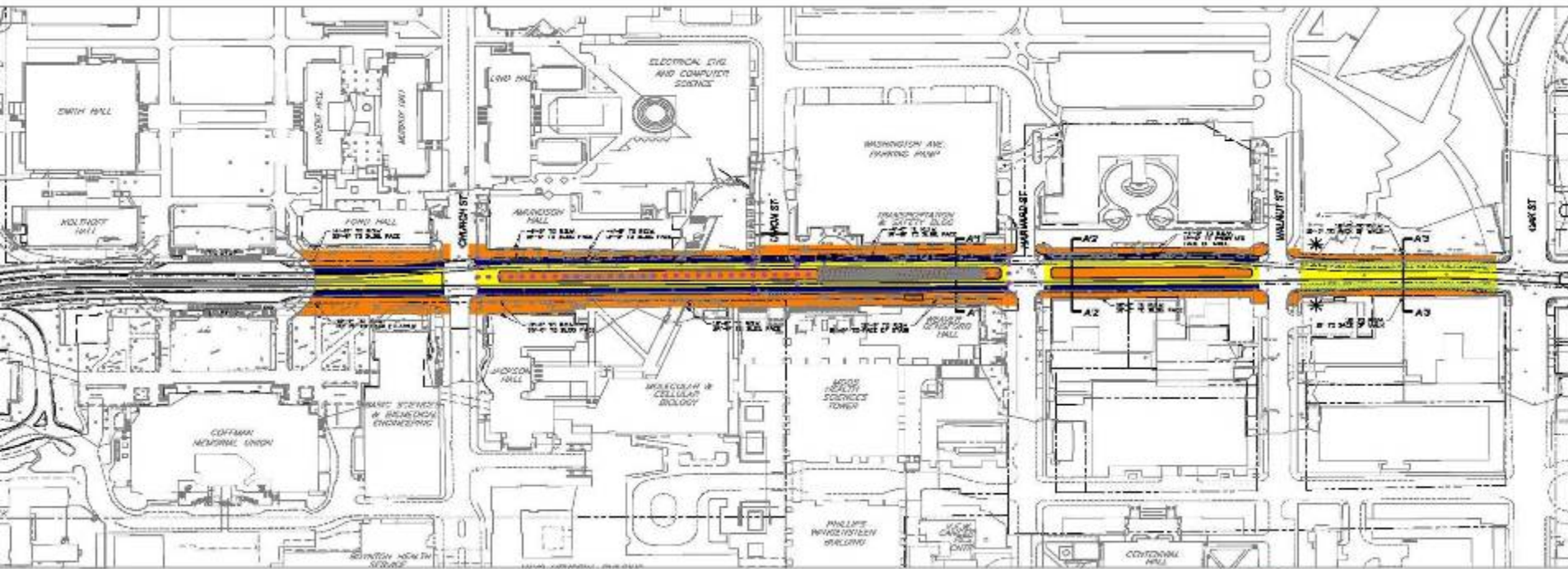
# Revised Option Operating Concept



- Trains and buses share lane
- Demonstration plan proposal
  - Shared lane for LRT/buses in each direction for 1 year
  - Dedicated lanes for LRT/buses in each direction for 1 year
  - Evaluate operating concepts based on performance and safety metrics

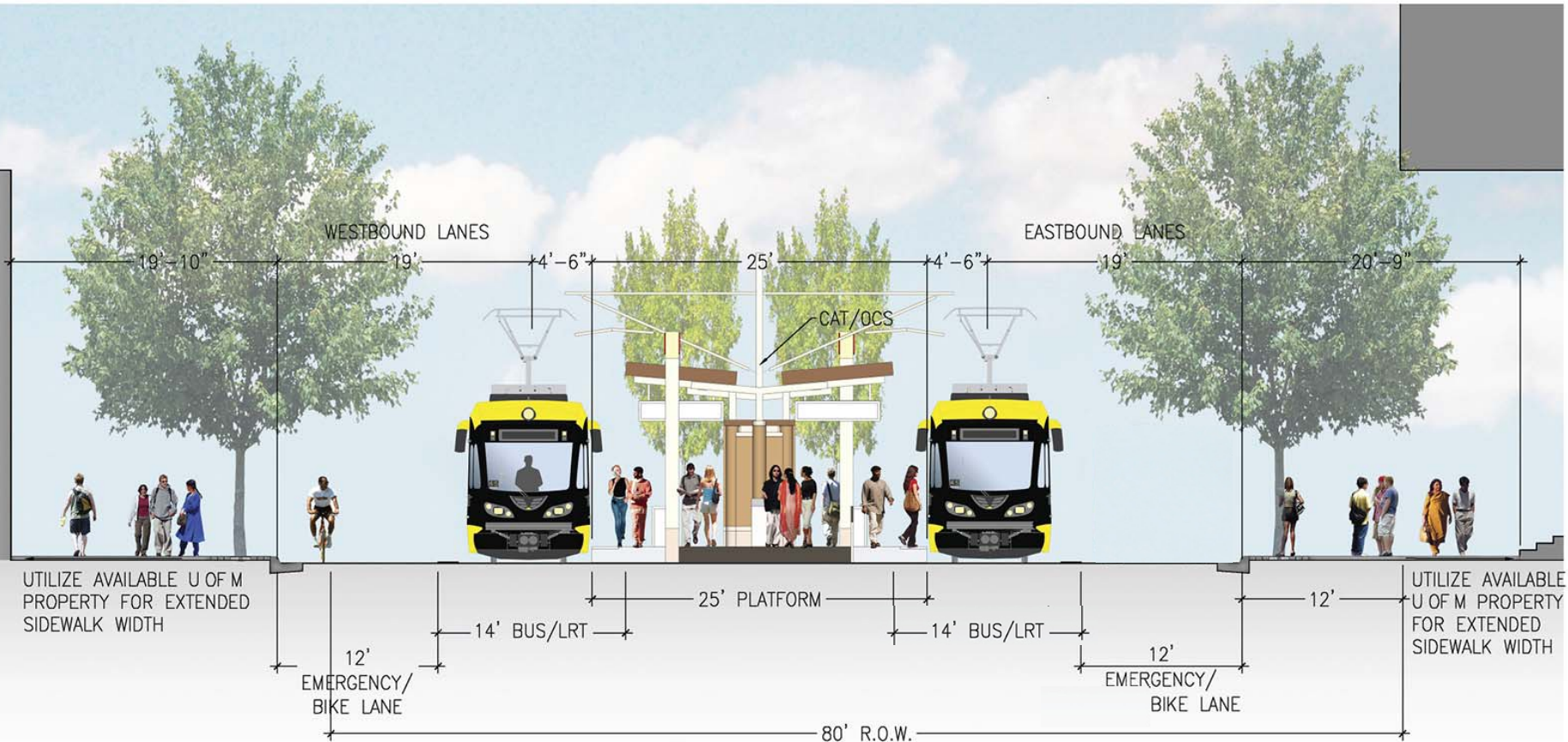
# Revised Option

## 25' Center Platform, 20' Center Pedestrian Zone



# Revised Option

## 25' Center Platform, 20' Center Pedestrian Zone



# Revised Option

25' Center Platform, 20' Center Pedestrian Zone



# Revised Option

25' Center Platform, 20' Center Pedestrian Zone



# Transit/Pedestrian Mall Next Steps



- ✓ Reconvene Group 3 November 10 to identify preferred option
- Hold design charrette in December to finalize design treatments on recommended option – Groups 1 & 2
- Continue to refine design – Group 1

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# Washington Ave Bridge Pedestrian Deck Retrofit

Jim Alexander  
Manager of Design

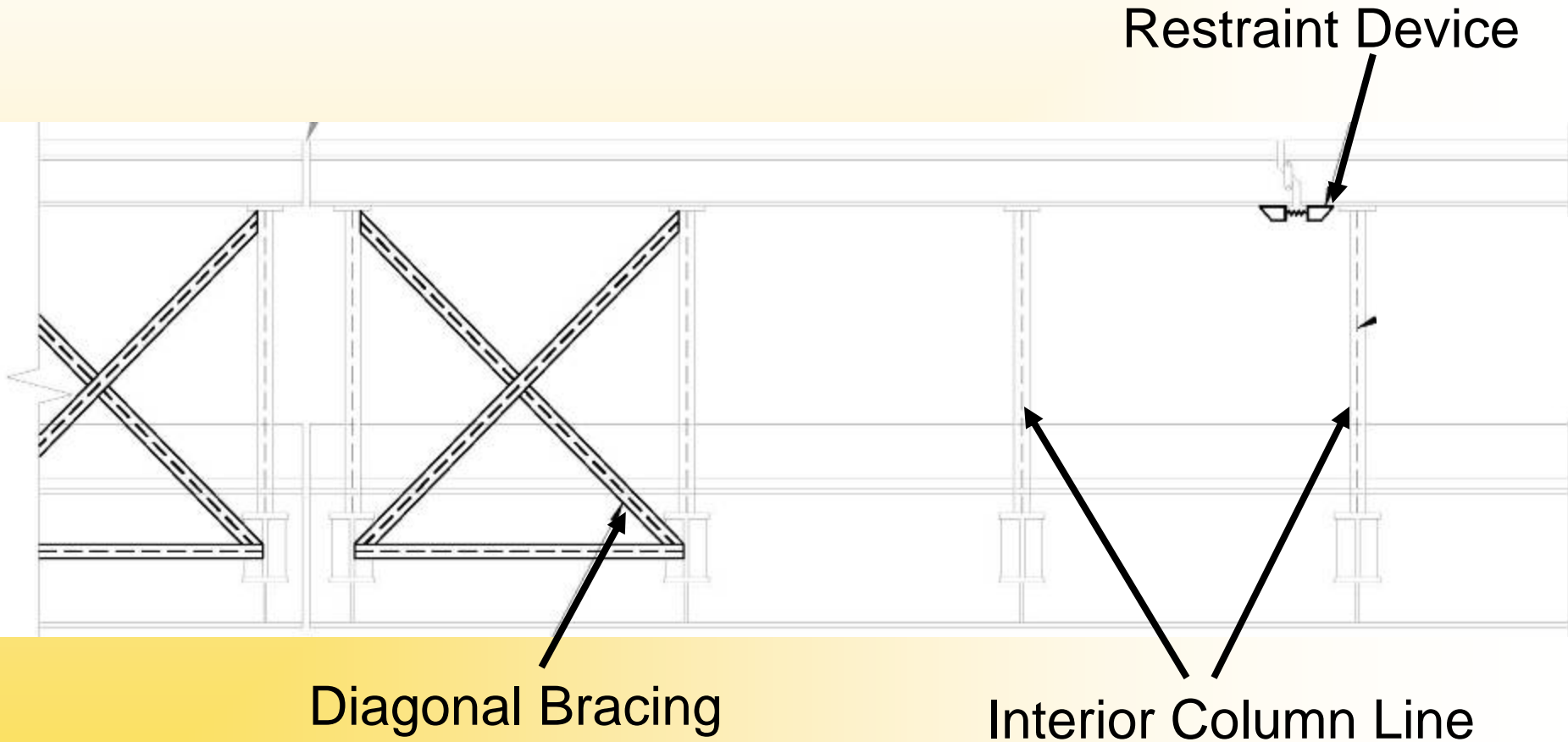
# WAB Pedestrian Deck

(Not part of CCLRT Scope)



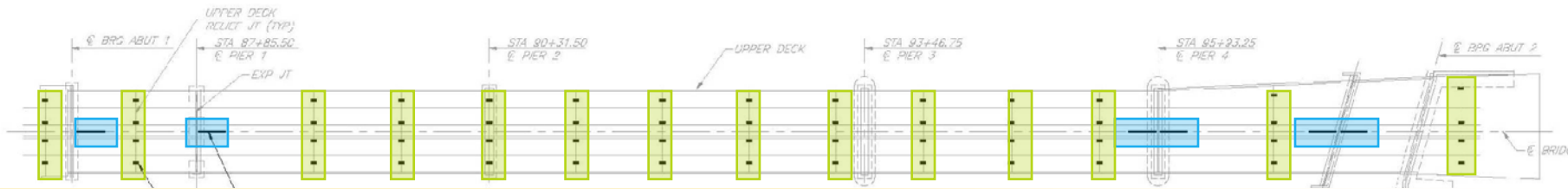
- **Concerns**
  - Integrity of columns supporting upper deck
- **Interim solution**
  - Reduced allowable pedestrian loadings to approx. 14' path
  - Hennepin Co. accelerating design and construction of interim improvements

# WAB Pedestrian Deck Column Retrofit



# WAB Pedestrian Deck Column Retrofit

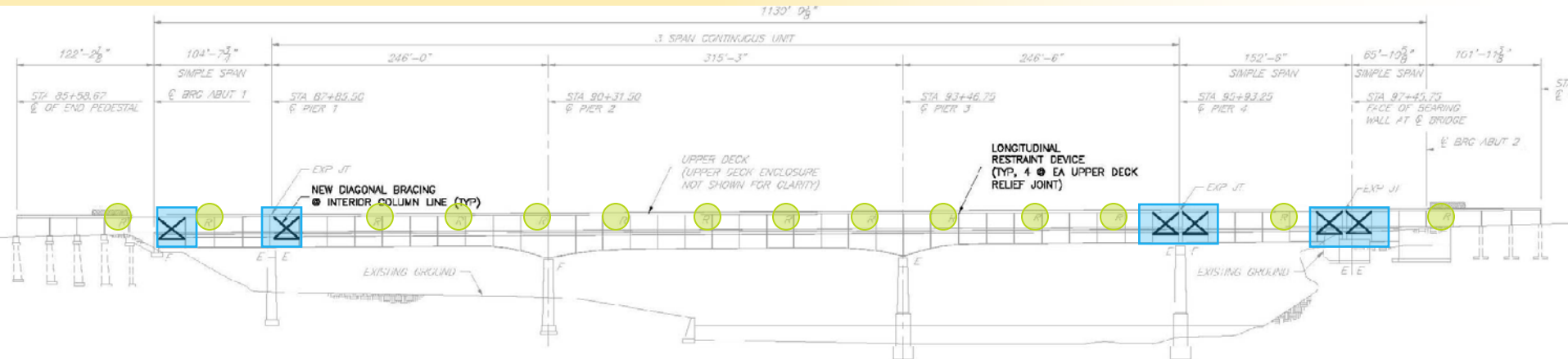
Plan View



West Bank

East Bank

Cross Section View



Diagonal bracing at interior column line bays

Restraint device at 14 relief joints

# WAB Pedestrian Deck Next Steps

Hennepin County's pedestrian deck retrofit



Nov 15

90% Design

Dec 15

Final Design

Jan '09

Construction begins

Apr '09

Complete construction

# Washington Ave. Bridge Next Steps

## CCLRT main deck retrofit



Nov

Inspection & testing  
report

Dec

Preliminary bridge  
retrofit recommend-  
ations

Jan '09

Preliminary design  
plans and estimate

# Central Corridor Light Rail Transit



## West Bank Ramp Configurations in 35W/West Bank Area

Dan Soler  
Traffic Engineer

# West Bank/35W Ramp Study Area



# West Bank/35W Ramp

## Existing



# West Bank/35W Ramp

## PE Plan



# West Bank Ramp Update



- Comments raised on SDEIS and during PE
  - Mn/DOT concerns with ramp geometry
  - Track alignment
  - Development opportunities
  - Access to station

# West Bank/35W Ramp

## Consolidated Ramps West of Cedar Avenue



# West Bank/35W Ramp

Consolidated Washington Ave. Entrance Ramps  
and Cedar Ave. Exit Ramps



# West Bank/35W Ramp

## Preferred Option



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## Public Art

Robin Caufman  
Manager of Public Involvement

# Public Artist Contracts Selection Process

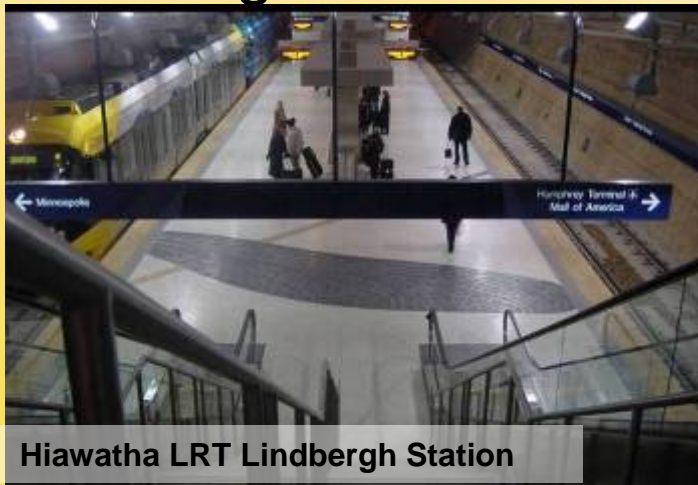
- Step 1: Request for Qualifications
  - Received 87 responses, 66 eligible
  - Artists Selection Committee composed of project partners reviewed qualifications
  - Selected 10 finalists based on criteria
- Step 2: Request for Proposals
  - Asked 10 finalists to submit concept proposal
  - ASC and Met Council Selection Panel interviewed
  - Selected 5 artists based on criteria

# Public Artist Contracts Selection Criteria

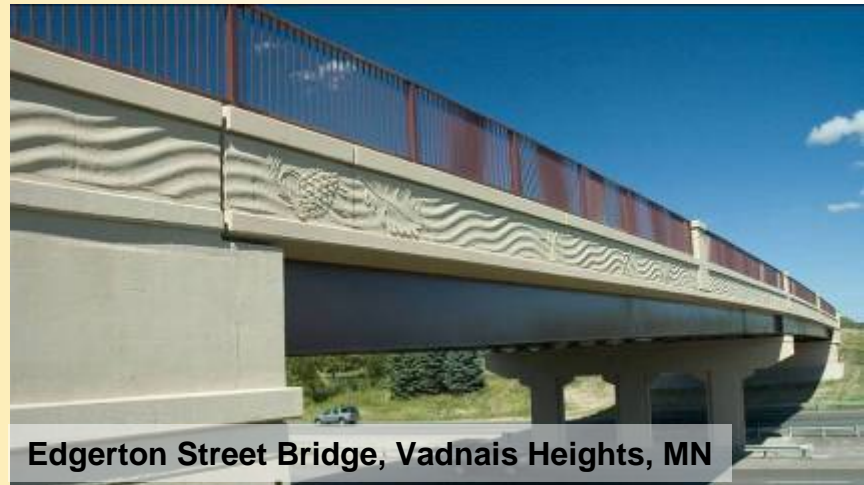


- Artistic merit
- Materials and durability
  - Outdoor environment
  - Maintenance
  - Vandalism
- Demonstrated grasp of the work
- Neighborhood/local identity
- Public involvement approach
- Impact on transit customers
- Successful completion of similar projects

- Stockholm, WI, (former Twin Cities residents)
- Previous work: LRT stations, public work projects and airport
- Materials: Aluminum, stone, terrazzo, bronze, steel, and concrete
- Public Involvement: work with neighborhood organizations, hold visioning session and public meetings



Hiawatha LRT Lindbergh Station



Edgerton Street Bridge, Vadnais Heights, MN

# Janet Lofquist

- Minneapolis resident for 38 yrs, studios in Mpls/Paul
- Previous work: LRT stations, college campuses and institutions
- Materials: Stainless steel, painted steel, stone, cast and sheet bronze, cast concrete, wood, and concrete pavers
- Public Involvement: Explores relationship of station location with local architecture and community



Hiawatha LRT VA Station



St. Cloud State University, St. Cloud, MN

## Central Corridor Light Rail Transit

# Seitu Jones

- Lives & works in St. Paul's Frogtown neighborhood
- Previous work: Public infrastructure and plazas
- Materials: Bronze, granite, concrete, steel, and wood
- Public Involvement: collaborating with groups of people including neighborhood residents, engineers, school children



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# Roberto L. Delgado

- Los Angeles, CA
- Previous work: LRT stations and public buildings
- Materials: Fired ceramic tile, stone, and metal
- Public Involvement: Area photos, schools, interviews, research of community's culture, history and archival graphics



## Central Corridor Light Rail Transit

# Nancy Blum

- New York resident
- Previous work: Transit stations, airports and public works projects
- Materials: Cast iron, cast resin, cast aluminum & cast bronze
- Public Involvement: Engage small businesses, diverse residents and local organizations



# Central Corridor Light Rail Transit

# Artists by Station



# Public Artists Next Steps



- Negotiate contracts and issue notice to proceed
- Create community art committees for each station
- Create involvement plans to engage the community
- Develop integrated artwork into stations with CCPO design team
- Complete substantive station design work by end of March 09



## Central Corridor Light Rail Transit

# More Information

Check out our website:

- [www.centralcorridor.org](http://www.centralcorridor.org)

Contact Central Corridor Project Office:

- 540 Fairview Avenue North  
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- Comment Line: 651-602-1645
- Email: [centralcorridor@metc.state.mn.us](mailto:centralcorridor@metc.state.mn.us)

