

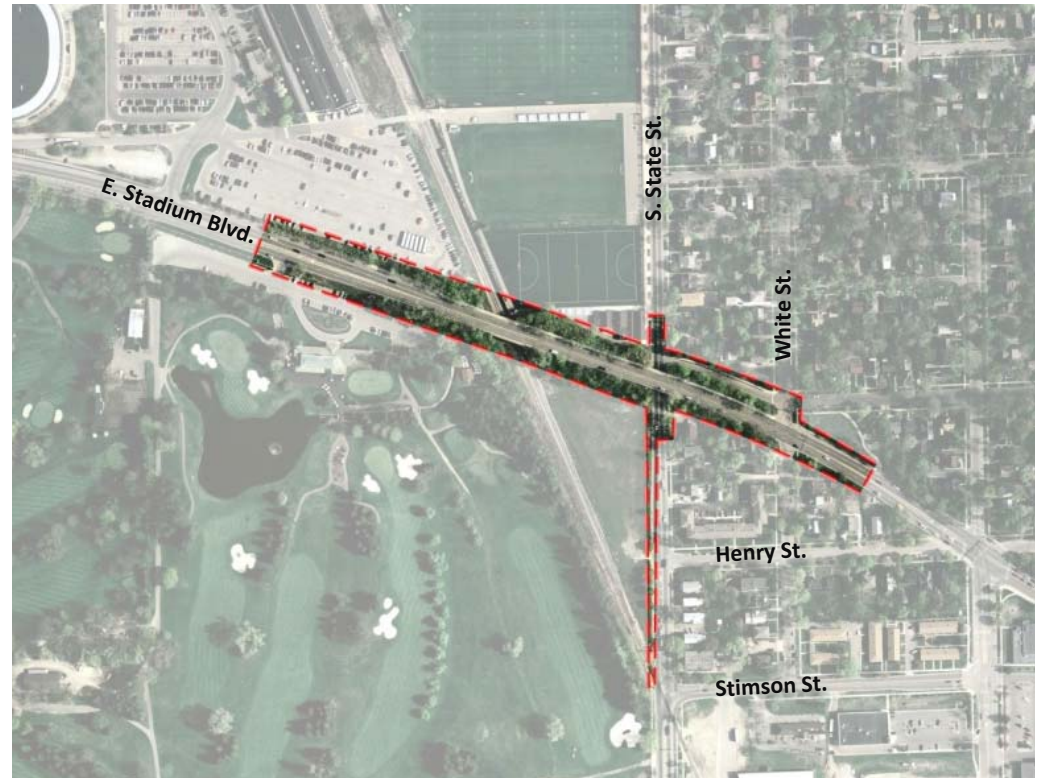


East Stadium Bridges  
Replacement Project - 2009

# the project

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**Preliminary design for the replacement of the East Stadium bridges over South State Street and the Ann Arbor Railroad**



East Stadium Bridges Replacement

# tonight's agenda

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**6:30 – 6:45 Sign in**

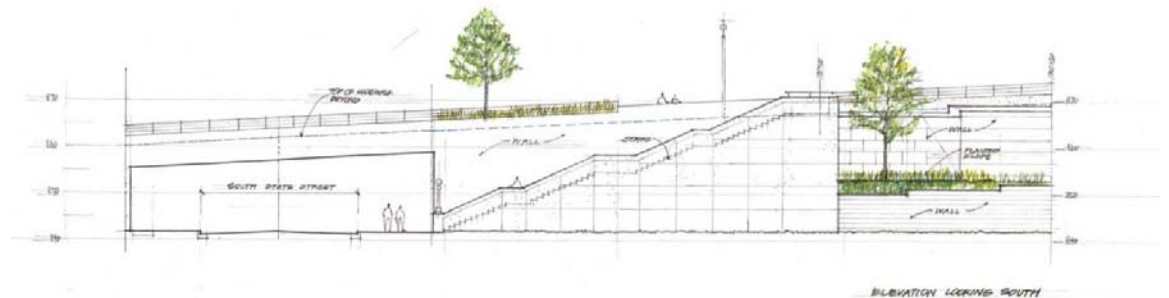
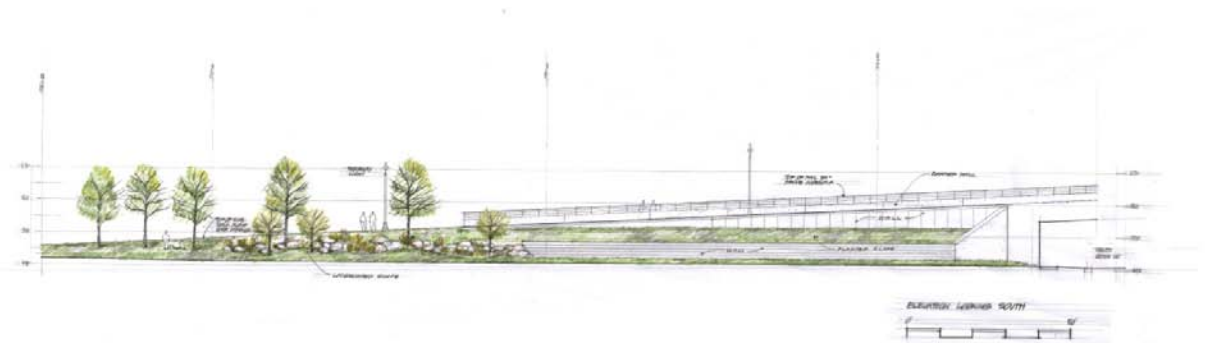
**6:45 – 7:10 Status report**

**7:10 – 7:40 Q&A “stations”**

**7:40 – 8:10 Design element options**

- **Barriers/railings**
- **Retaining walls**
- **Stairways**
- **Lighting**

**8:10 – 8:20 Next steps**



# status report

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## Planning history

## Project re-definition

## Current planning

- Project limits
- Project “givens”
- Design options
- The plan
- Estimated costs
- Funding scenarios
- Project schedule
- Detours



Photo courtesy [www.a2gov.org](http://www.a2gov.org)



East Stadium Bridges Replacement

# planning history

## 2007 – A larger “package” of related projects

- Bridges replacement
- New roadway alignment + pavement (S. Industrial to S. Main)
- Sidewalk and bike lane additions
- Raw water main upgrading
- S. Main bike/pedestrian improvements
- Stormwater improvements



East Stadium Bridges Replacement

# planning history (cont.)

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- **Two community meetings (September and October 2007)**
- **Additional meetings with adjacent property owners**
- **No state/federal funding available for construction**
- **February 2009 – stimulus funds available on a competitive basis**
- **Project re-defined and timeline developed**



# project re-definition

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- **Regular monitoring/inspection of bridge over S. State Street**
- **Deterioration continues**
- **Weight restrictions and lane closures implemented**
- **Removal of damaged beams (in November 2009)**



Photo courtesy [www.a2gov.org](http://www.a2gov.org)



# project re-definition

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**August 2009 – City staff recommend and Council approves moving forward with preliminary design for bridges replacement only BECAUSE:**

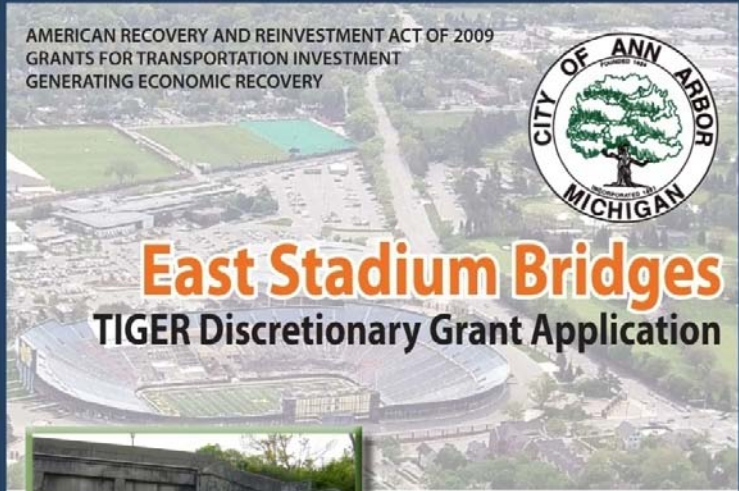

- **E. Stadium and S. State are critical to city-wide traffic movement**
- **S. State bridge emergency closure is a possibility**
- **Bridge repair is not a long-term solution**
- **Vertical and horizontal clearances are deficient on both bridges**



# project re-definition



- Both bridges are old, functionally obsolete and require replacement
- Preparation of bridge replacement plans takes time
- New competitive grant funding is available for “shovel ready” projects (TIGER)

AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009  
GRANTS FOR TRANSPORTATION INVESTMENT  
GENERATING ECONOMIC RECOVERY




## East Stadium Bridges

### TIGER Discretionary Grant Application



**Project:** East Stadium Bridges  
**Applicant:** City of Ann Arbor  
**Contact:** Homayoon Pirooz, P.E.  
Project Management Division  
City of Ann Arbor Public Services  
301 E. Huron Street  
Ann Arbor, MI 48107-8647  
Phone (734) 794-6411  
Fax (734) 994-1744  
Email: [hpirooz@a2gov.org](mailto:hpirooz@a2gov.org)

**USDOT**  
**TIGER**  
DOT.GOV



9.15.2009

Photo courtesy [www.a2gov.org](http://www.a2gov.org)



East Stadium Bridges Replacement

# current planning – project limits



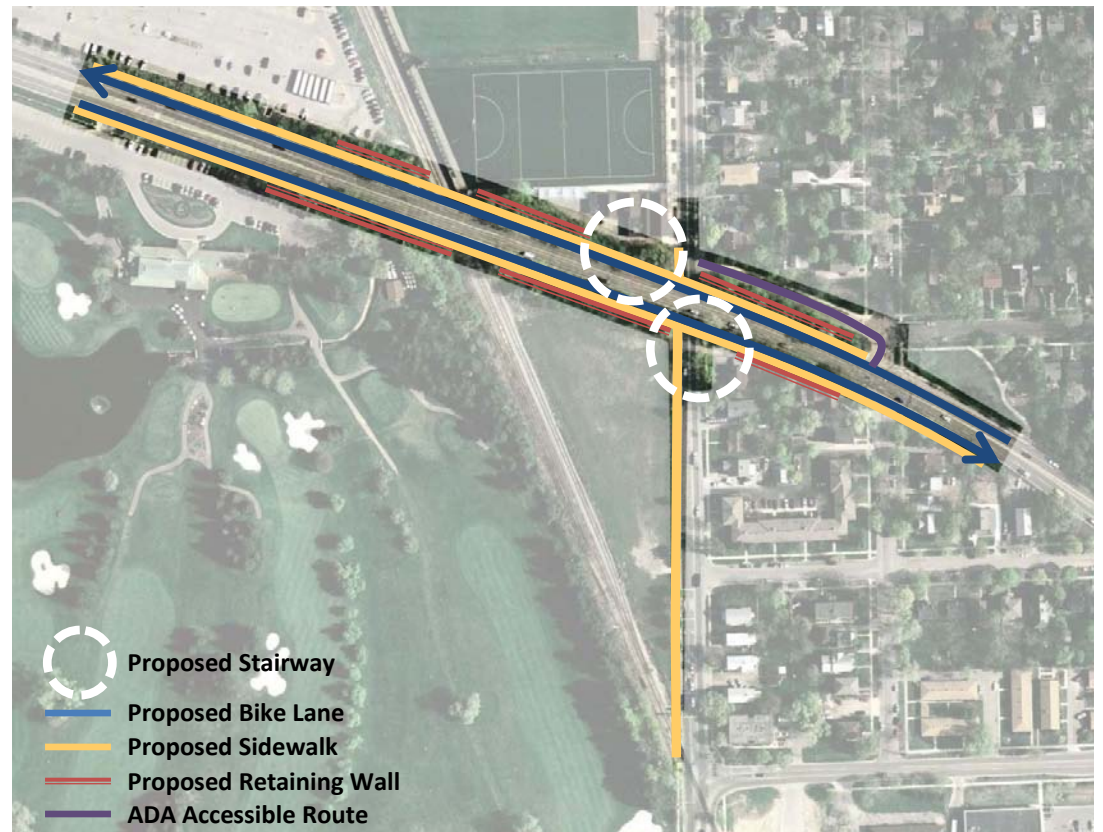
East Stadium Bridges Replacement

# current planning – project “givens”

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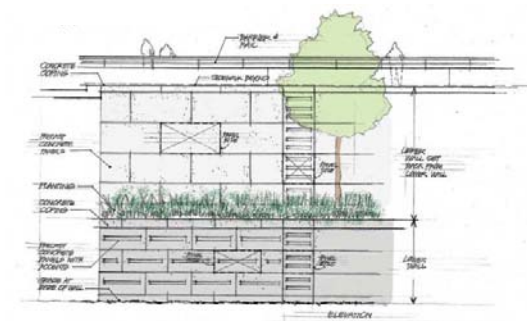
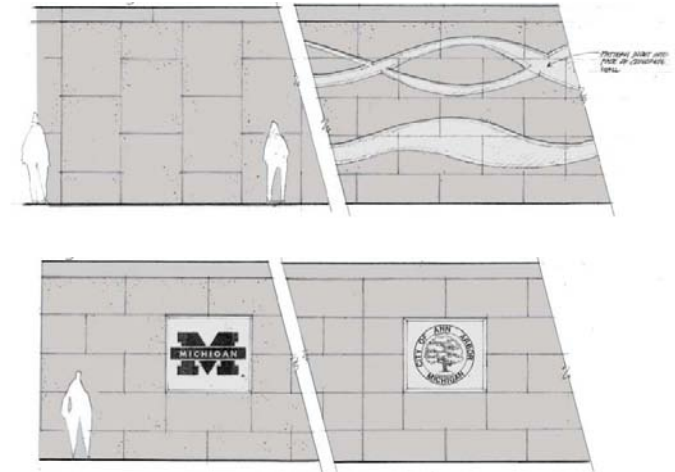
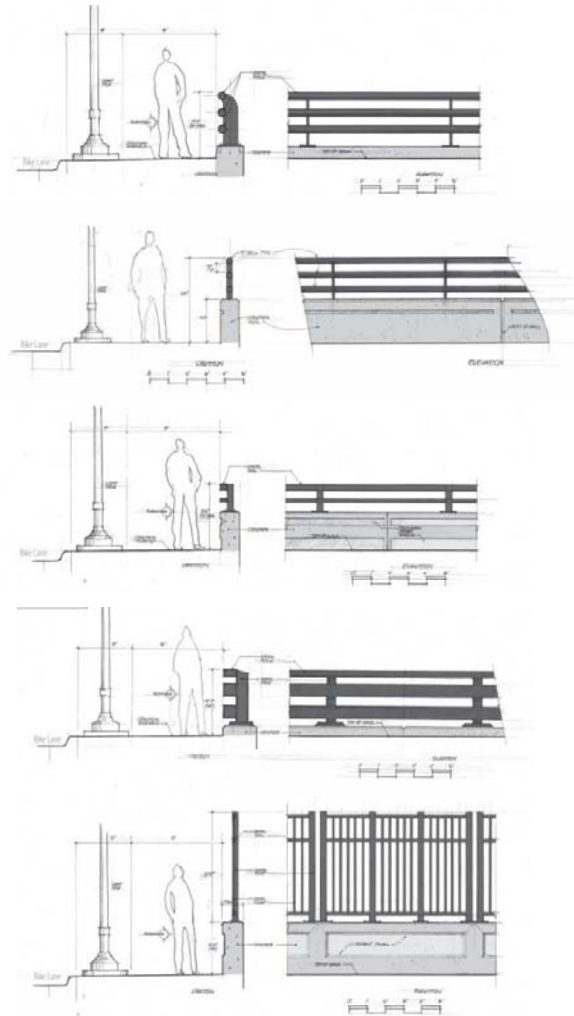
## **DESIGN FOR THE NEXT 75 YEARS!**

- Meet required vertical and horizontal clearances
- Adjust State Street elevation and re-pave
- Build retaining walls
- Add bike lanes
- Add sidewalks (ADA accessible)
  - South side of bridge
  - West side of S. State Street
- Create pedestrian connections
  - Stairways at NE and SW “corners”
  - ADA accessible route (State to E. Stadium)



# current planning – design options

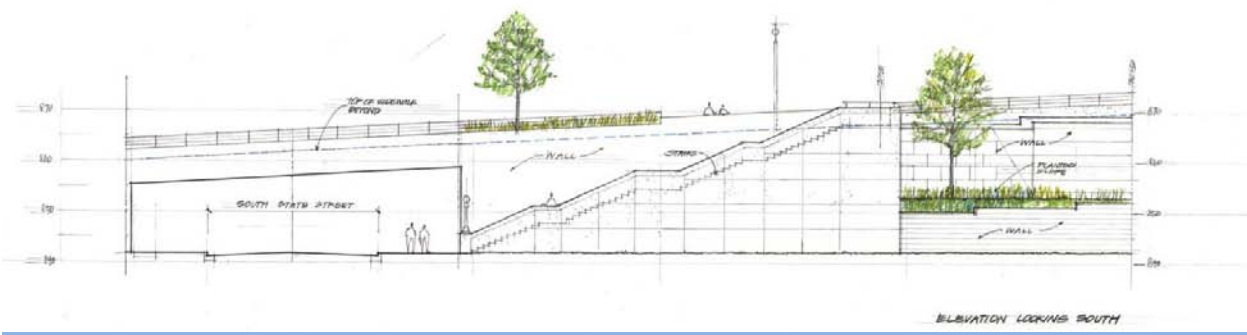
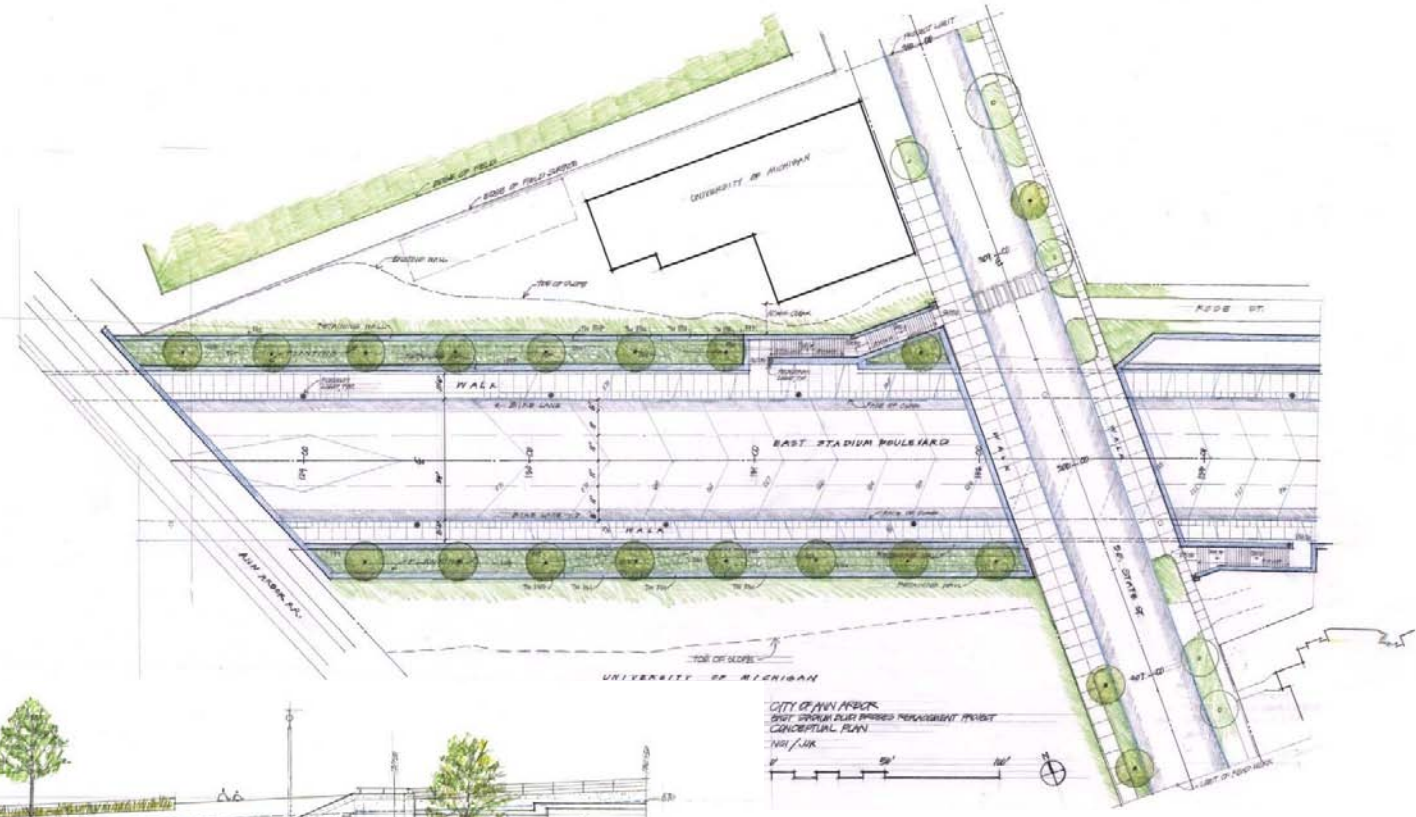
- Barriers/railings
- Retaining walls
  - Texture
  - Colors
  - Surface patterns
- Lighting
- Stairways



East Stadium Bridges Replacement

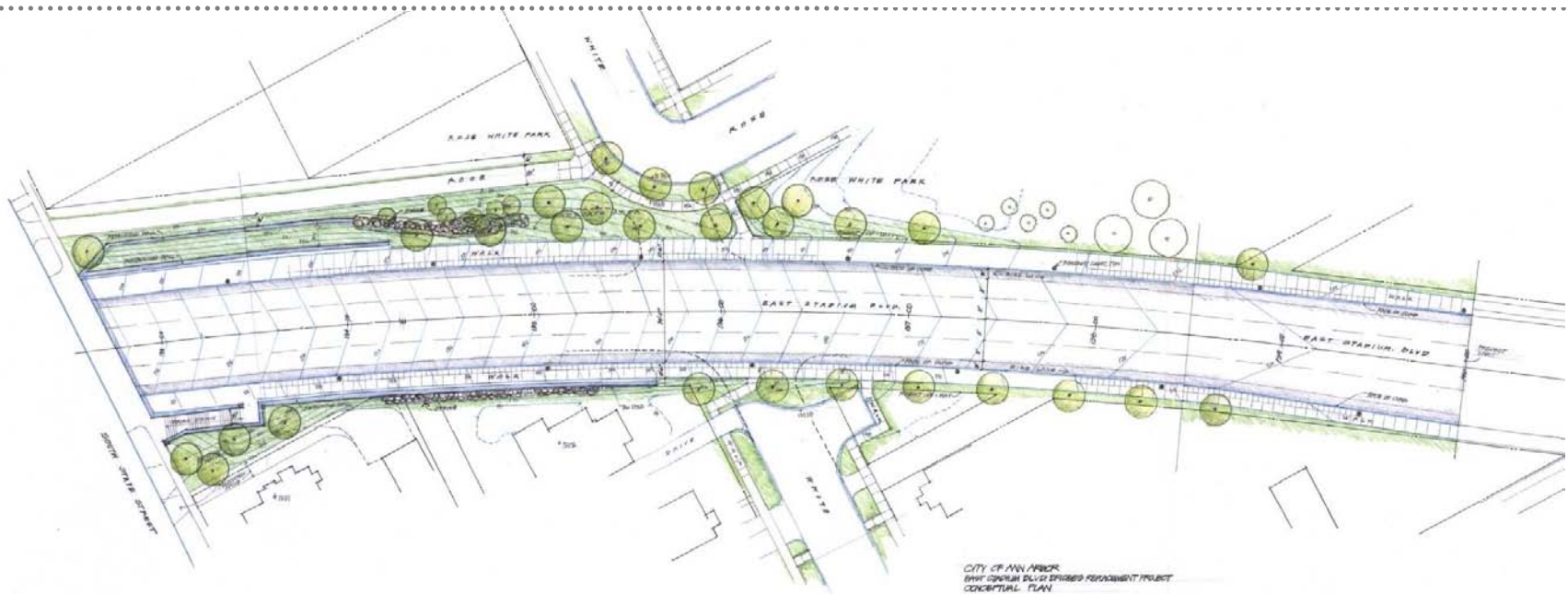


# current planning – the plan

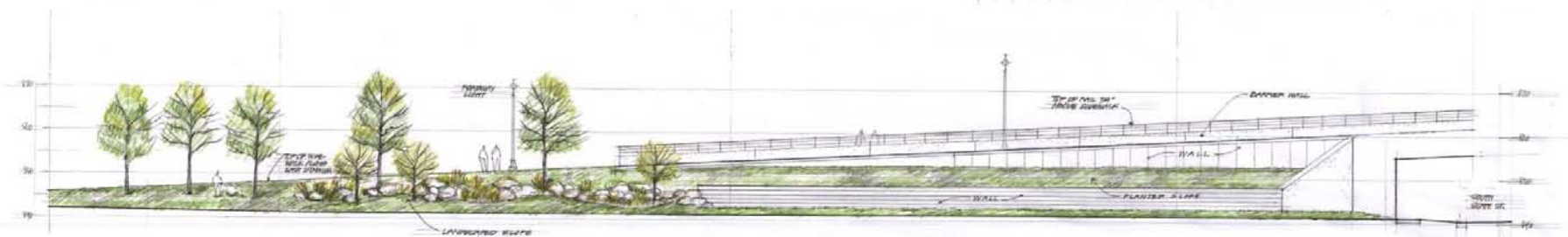


## East Stadium Bridges Replacement

# current planning – the plan



CITY OF ANN ARBOR  
EAST STADIUM BRIDGES REPLACEMENT PROJECT  
CONCEPTUAL PLAN  
N/A / N/A  
0' 50' 100' N



ELEVATION LOOKING SOUTH  
0' 50'



## East Stadium Bridges Replacement

# current planning – estimated costs

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## **Design** **\$2,626,000**

- Engineering 2,327,600
- ROW, easements 298,400

## **Construction** **\$16,296,000**

- S. State bridge 2,305,800
- AARR bridge 3,295,700
- Retaining walls 4,840,900
- Approach roadways 4,038,500
- Utilities, street lights, etc. 1,337,400
- DTE overhead line relocation 340,000

## **Construction engineering and inspection**

**\$4,078,000**

- PM/Inspection 3,262,900
- Materials testing 815,100

## **TOTAL**

**\$23,000,000**



East Stadium Bridges Replacement

# current planning – funding scenarios

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## BEST CASE

### State and federal grants \$21.0 million

- 2012 Michigan Local Bridge Program  
*June 2009 application*
- TIGER Discretionary Funding  
*September 2009 application*
- Federal Highway Bill Re-Authorization

### Local funds \$ 2.0 million

- 2006 Street Re-construction Millage –  
*Design only*

## PROJECT SUPPORTERS

- Terri Blackmore, WATS
- John Chipala, AARR
- Cynthia Wilbanks, VP Government Relations, UM
- Carmine Palombo, SEMCOG
- Rebekah Warren, State Representative 33<sup>rd</sup> District
- Debbie Stabenow, U. S. Senator
- Congressman John Dingell





# current planning – funding scenarios

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## **PROBABLE CASE**

Some combination of state/federal grants and local funds

## **Potential funding**

\$4 million – AA Street Re-construction Millage

\$6 million - State Infrastructure Bank Loan

\$3 million - State Local Bridge Program

\$3 million - Federal Non-motorized Enhancement Program

\$3 million - State Economic Development Fund

\$4 million – Federal Highway Bill Re-Authorization (High Priority Projects)

\$23 million TOTAL



East Stadium Bridges Replacement

# current planning – schedule

## E. STADIUM BRIDGES RECONSTRUCTION PROJECT Project Schedule

13-Aug-09

2009												2010												2011												2012																							
J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D												
Project Design																																																											
Public Involvement for Final Design																																																											
Complete Construction Plans																																																											
Acquire ROW/Easements																																																											
Advertise Project for Construction / Receive Bids / Award Contract / NTP																																																											
Relocate DTE Energy Lines																																																											
Perform Pre-Construction Activities																																																											
Start Construction																																																											



East Stadium Bridges Replacement

# current planning – schedule

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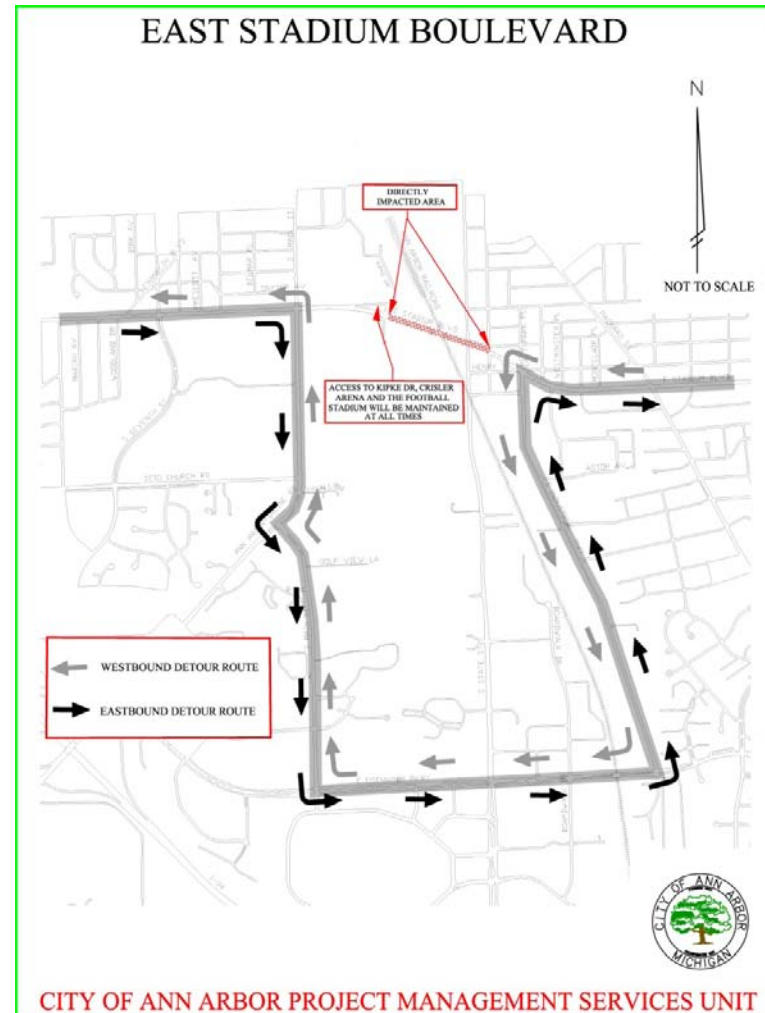
## **IMPORTANT!**

- **TIGER grants require funding to be obligated and spent, and the project substantially completed, by 2012**
- **In Michigan's climate, this means open to traffic in November 2011**



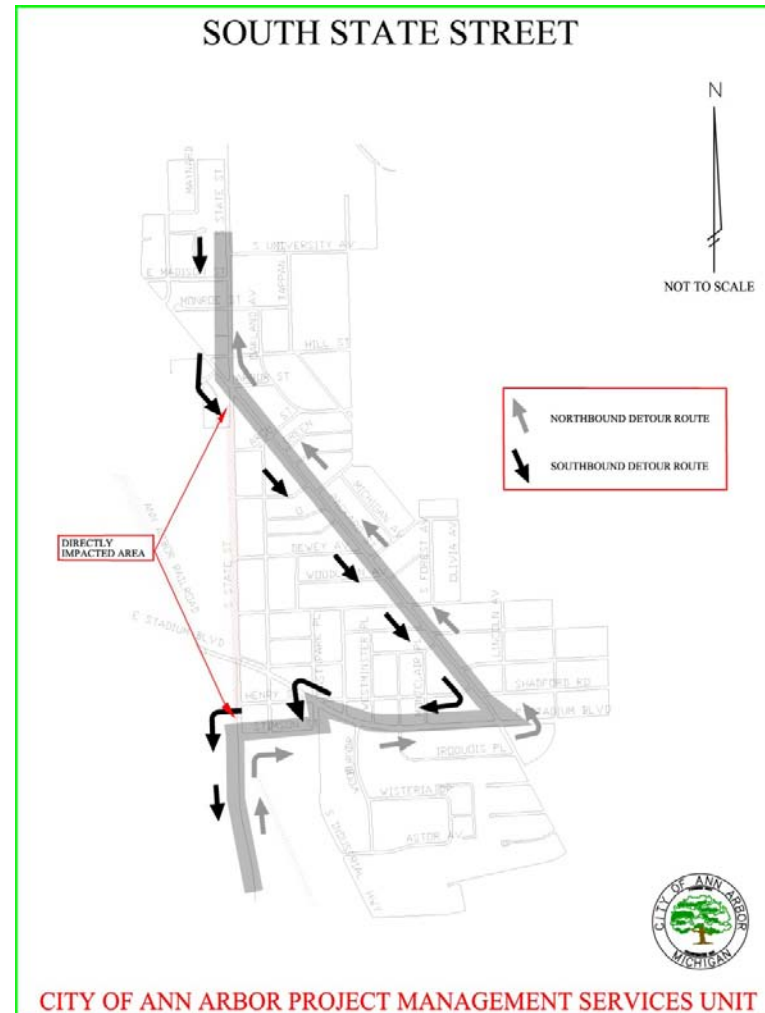
# current planning – construction detours

- **East Stadium bridge over South State Street closed during construction**
- **Impacts on neighborhood side streets minimized**



# current planning – construction detours

- **South State Street closed for short periods (1-2 days) periodically (bridge demo; beam erection)**



q + a

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### **Station #1**

- Project limits
- Project “givens”
- The plan

### **Station #2**

- Alternative project concepts
- Estimated costs
- Funding options
- Project schedule

### **Station #3**

- Construction detours
- Temporary work (2009)



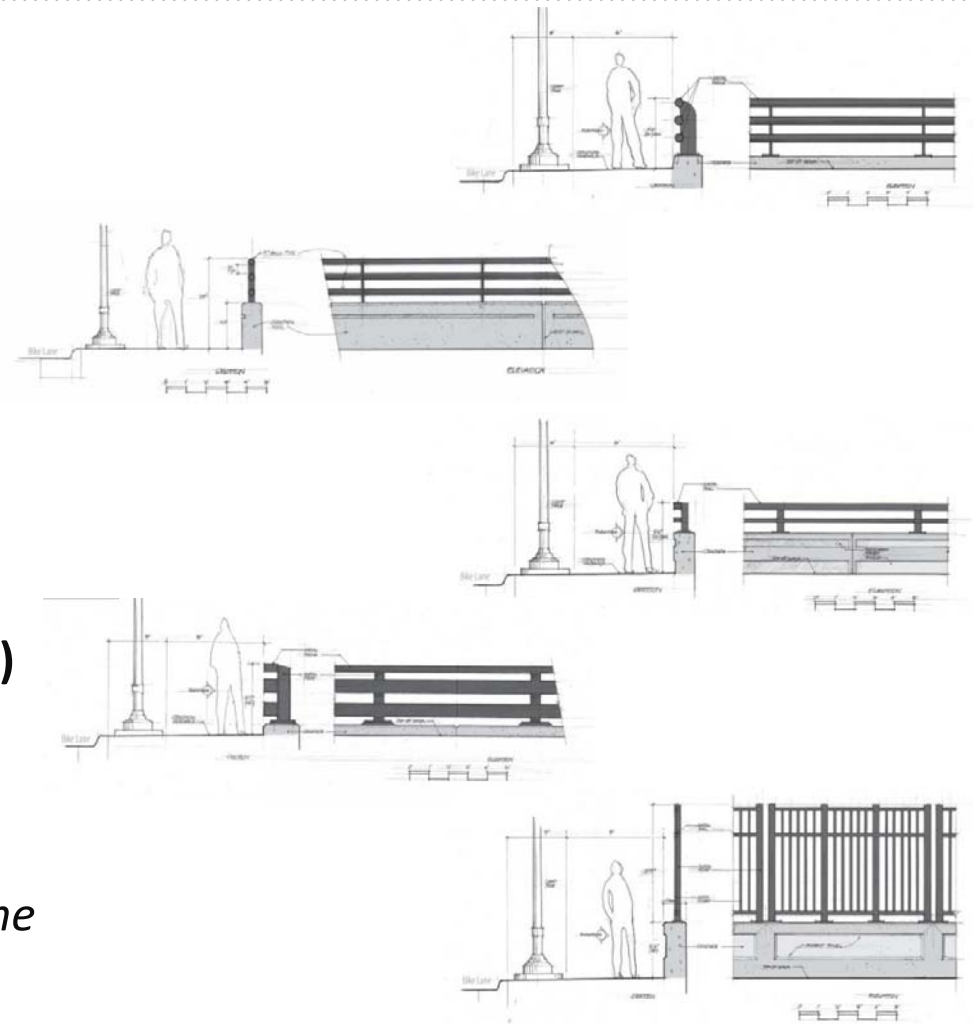
# design options – barriers/railings

## CHOICES

- **Concrete curb vs. concrete wall**
- **Rail design**
- **Rail color/finish**
  - Galvanized steel
  - Painted
  - Other (e.g., stainless steel)
- **Overall height (42" min. required)**

*FHWA approval required (previously crash tested)*

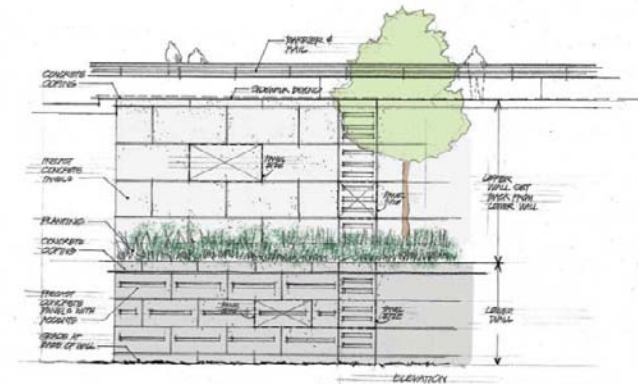
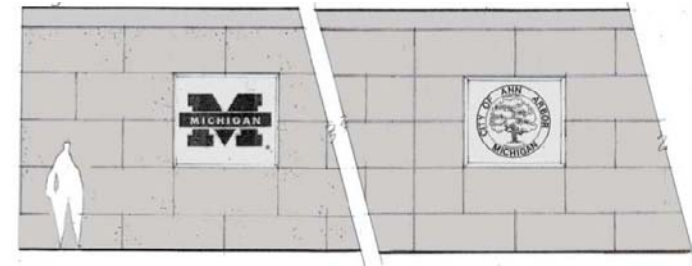
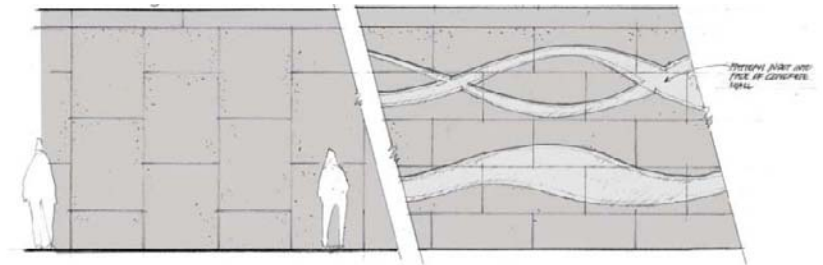
*Barriers/railings extend throughout the project area*



# design options - retaining walls

## CHOICES

- **Texture and color**
- **Pattern**
  - Primary wall
  - Lower wall segments
- **Logos**

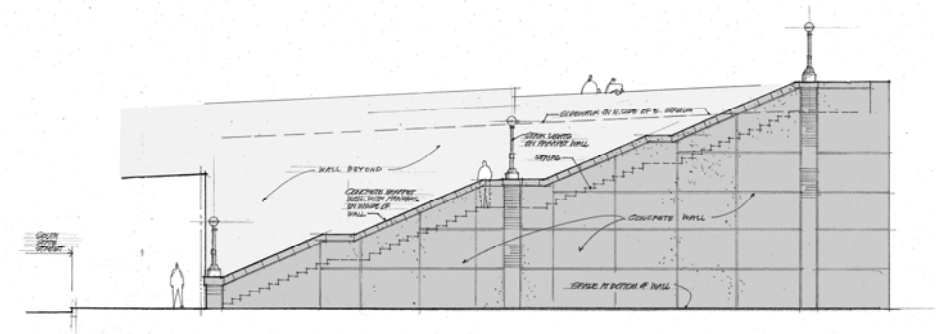
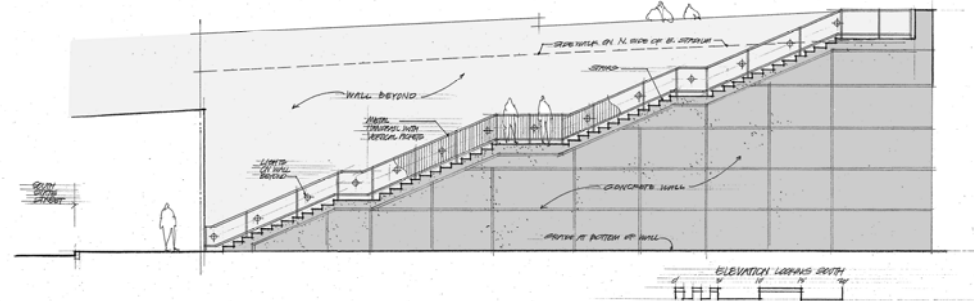


# design options - stairways

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## CHOICES

- Solid parapet wall vs. open railing
- Lights mounted on/above parapet wall vs. wall mounted



# design options – lighting

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## CHOICES

- **Street lights**
- **Lighting under bridge**
  - Wall mounted
  - Stair and pedestrian-scale street lights

