Coordinating projects with economic development - the Kalamazoo Story

Bobbi Welke, Southwest Region Engineer
Michigan Department of Transportation
August 6, 2014
The $100M Kalamazoo Story

Partnership story in collaboration with

• Kalamazoo Area Transportation Study
• City of Kalamazoo
• Kalamazoo County Road Commission
• Oshtemo Charter Township
• Local Developers, esp. AVB
The $100M Kalamazoo Story

Excellent Access to:
- Western Michigan University
- Kalamazoo College
- Downtown Kalamazoo
- WMU School of Medicine
- Portage
- Oshtemo Township
- Texas Township
- US-131, Interstate 94 and M-43
The $100M Kalamazoo Story

How a $7 million transportation investment grew to a $32.5 million transportation investment along with a $74 million private investment and 600 Jobs!

So this is really a $106M public/private story; not a $100M story.
Stadium Drive over US-131

- Stadium Drive is I-94BL and US-131BR
- Stadium Drive is home to WMU’s Waldo Stadium
Stadium Drive over US-131

- 2007: Bridge condition study
- Recommended full replacement
- Cost, condition, underclearance, functionality
Stadium Drive over US-131

2008: Replacement of Bridge (Job #1)

Programmed in Five Year Plan Call for Projects
2008 Reconstruction of Stadium (Job # 2)

One mile: 11\(^{\text{th}}\) to 0.5 miles east of Seneca Lane
Stadium Drive over US-131

- Kalamazoo Area Transportation Study (KATS)
- TIP Amendment #1: August 2008
- Bridge replacement - design and ROW phases added for FY2013 construction
- Road reconstruction - design and ROW phases added for FY2013 construction
Stadium Drive over US-131

Kalamazoo Area Transportation Study (KATS)

TIP Amendment #2: June 2010

FY2011-14 TIP Bridge replacement – added construction phase via delayed program or as illustrative project

FY2011-14 TIP Road reconstruction – added construction phase via delayed program or as illustrative project
Stadium Drive over US-131

- Reconstruction of Stadium (R&R, CMAQ)
- Reconstruction of Drake (Local CMAQ)
  - Dual left turns at all four quadrants
  - Job #3
- Add New Car Pool Lot
  - Job #4
Stadium Drive over US-131

Kalamazoo Area Transportation Study (KATS)

TIP Amendment #3: May 2011

- Dual left turns – added to Stadium and Drake intersection
- New car pool lot – added as new project

TIP Amendment #4: September 2011

- Dual left turns - changed design FY
- New car pool lot – changed construction FY
Stadium Drive over US-131

- Kalamazoo Area Transportation Study (KATS)
- **TIP Amendment #5: December 2011**
  - Dual left turn lanes - changed construction cost distribution
- **TIP Amendment #6: June 2012**
  - Road reconstruction - increased cost within delayed program
  - New car pool lot - added design phase
Stadium Drive over US-131

- Kalamazoo Area Transportation Study (KATS)
- TIP Amendment #7: October 2012
- Bridge replacement – advanced the construction phase from delayed program
- Road reconstruction - advanced the construction phase from delayed program

This sets a record for the region for TIP Amendments – but we have more . . .
Stadium Drive over US-131

Thank you KATS Policy Committee!
Thank you KATS Staff!
Thank you Darrell Harden!
Stadium Drive over US-131
Stadium Drive over US-131

Traffic Signal Upgrades at Stadium and Seneca Lane (T&S) (Job #5)
Stadium Drive over US-131

Kalamazoo Area Transportation Study (KATS)

TIP Amendment #8: December 2012

Stadium and Seneca Lane Intersection – added traffic signal upgrade project
Stadium Drive over US-131

Operational/Geometric Study
Stadium Drive over US-131

Mobility Plans – Detour Coordination
Stadium Drive over US-131

Precast concrete elements at Piers & Abutments
Stadium Drive over US-131

- Steel beams in lieu of concrete beams
- Due to bridge size and height above road (+$1M)
Stadium Drive over US-131

Kalamazoo Area Transportation Study (KATS)

**TIP Amendment #9: February 2013**
- Bridge replacement – increased construction cost
- Dual left turn lanes - changed FY design
- Dual left turn lanes – increased construction cost

**TIP Amendment #10: April 2013**
- Road reconstruction – increased construction cost
- Traffic signal upgrade – changed construction FY
Stadium Drive over US-131

Report

Geotechnical Exploration on:
I-94 BL (Stadium Drive) over US-131
Kalamazoo County, Michigan

Prepared for:
Michigan Department of Transportation
Lansing, Michigan

NTH Project No. 73-110747-10
August 8, 2013
Stadium Drive over US-131

- Challenging soils
# Stadium Drive over US-131

<table>
<thead>
<tr>
<th>Structure</th>
<th>Abutment A</th>
<th>Center Pier</th>
<th>Abutment B</th>
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<tbody>
<tr>
<td>Pile Type</td>
<td>HP 12X84</td>
<td>HP 12X84</td>
<td>HP 12X84</td>
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<tr>
<td></td>
<td>(600 kip)</td>
<td>(600 kip)</td>
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<tr>
<td>Factored Resistance (kip)</td>
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<td>(φdyn=0.65)</td>
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<td>Factored Downdrag (kip)</td>
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<td>Bearing Elevation</td>
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<td>827 ft</td>
<td>836.5 ft*</td>
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<tr>
<td>Bottom of Footing Elevation</td>
<td>898.5</td>
<td>898.5</td>
<td>898.0</td>
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Note: * - estimated 5-foot embedment into dense and very dense granular layer or until bearing capacity is achieved.
Stadium Drive over US-131

Kalamazoo Area Transportation Study (KATS)

TIP Amendment #11: June 2013
Bridge replacement – increased construction cost

TIP Amendment #12: August 2013
Traffic signal upgrade – changed construction FY

This is the new record for the region for TIP Amendments – Hope never to have so many again!
Stadium Drive over US-131

Kalamazoo Area Bridge Aesthetic Guide
August 2013 finishing touches for plan turn in:

- Letting on 12/6/13
- Construction complete by November 2014
"Have I got a deal for you"
August 22, 2013
Stadium Drive over US-131

- 39 acre development between Drake and US-131, north of Stadium
- Repurposed Kmart on east side of Drake
- Partnerships
- Public benefits - Jobs!
- No TEDF criteria
Stadium Drive over US-131

The Corner @ Drake
Stadium Drive over US-131

$74M investment
Costco in 2014
Rest in 2015+
The City’s Drake Road southbound dual left turns need to be shortened by 300’ with northbound dual left turn lanes constructed, etc.
Stadium Drive over US-131

- Design/Coordination Time
- Letting Date and Steel Beams Delivery Dates
- Accepted for Traffic Date = Costco Open for Business
Stadium Drive over US-131

- Advertised: January 24, 2014
- Letting: February 21, 2014
“Michigan Infrastructure & Transportation Association (MITA) has reviewed the constructability timeframe . . . Due to the long lead time required for the fabrication of the steel girders, the completion date of November 1, 2014 is not achievable.”
Stadium over US-131
Stadium over US-131

- Letting: April 4, 2014
- Award: April 28, 2014
- Contractor: April 21, 2014
- Extension of Time #1: 6 calendar days
- Free sand – take it now
- $2M under Estimate & 2nd bid
- Saves 13,000 trips
Stadium Drive over US-131
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Stadium Drive over US-131

November 1, 2014
You’re Invited to the Grand Opening
Stadium Drive over US-131