US 231
How to get a State Highway built when the funding falls short!

Presented by:

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Tippecanoe County Highway Department

Purdue Road School, March 12, 2014
The Area Plan Commission was designated the MPO for the Lafayette Metropolitan Area following the 1970 Census when the urbanized population Exceeded 50,000 persons. The MPO’s First long-range Transportation Plan, Adopted in 1978, included the US 231 Relocation project.
The 1978 plan expected that between 1991 and 1995 the southernmost section would be constructed, right-of-way would be purchased for the middle section and design would be completed for the Northernmost section.
Project Study Area
US 231
Approximate Location of Relocated Indiana Route 231 (In Final Design Phase)
1992 Record of Decision, $18 million
$14 million construction
$4 million right-of-way estimate

2003 Environmental Assessment, $59 million
$48 million construction
$10 million right-of-way estimate
$1 million utility

2006 Major Moves, $87 million
$62 million construction
$23 million right-of-way estimate
$2 million utility

2007, $98 million
$62 million construction
$23 million right-of-way estimate
$13 million utility
INDOT communicated to the local community that they will not spend more than $75 million on the project, and asked the local community to eliminate the $23 million gap by contributing funds and/or suggesting design changes that reduce the estimate cost.

2008 before negotiation - $98 million
$62 million construction
$24 million right-of-way estimate
$12 million utility
• All construction cost overruns will be INDOT’s responsibility
• INDOT assumptions
  1. Relocation costs are included in the right-of-way amount
  2. Approx. 23 property owners north of SR 26 - approx. 10 relocations
  3. Purdue share = $14 million right-of-way and $10 million utilities

2008 after negotiation - $88.7 million (INDOT funding available $76 million)
$56.2 million construction
$22.5 million right-of-way estimate
$10 million utility
An Organized approach to providing all of the essential functions at the LOWEST cost.

~ H. Stewart Kline & Associates
~ Kevin Hall
Alignment Option #1

Savings: $3,676,000.00
Alignment Option #2

Savings: $2,639,000.00
231 Median Options
Southern Section (River Rd to State St)

► Option A
- Widen median to 12 meters and eliminate slotted drain and barrier.
- Advantages – simplifies drainage structures, shoulder width reduced.
  total savings of $1,500,000.
- Disadvantages – require more area to mow.

► Option B
- Design as 45 mph Urban Arterial.
- Advantages – Eliminates barrier and slotted drain, and reduces pavement.
  total savings of $2,300,000.
- Disadvantages – Would be inconsistent with the section south of the project.
Reduce Median Width by 10 ft.

- Meets design standards
- Right-of-way needs reduced by 2.6 acres
- Structure lengths reduced

Savings: $354,000.00
Other Options Considered

- Change back/front slopes in ditches
- North leg – reduce median to 10’ barrier
- North leg – reduce grass area
- One contract instead of Two
Total Savings

- Option 1 Alignment = $3,676,000.00
- Option B Median = $2,415,000.00
- North median width = $354,000.00

Grand Total = $6,445,000.00
## Project Summary

### US 231

<table>
<thead>
<tr>
<th>Cost Reductions</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Value Engineering</td>
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<tr>
<td>Redesign Costs</td>
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<tr>
<td>Reduced Estimate for Weather Station</td>
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<tr>
<td>Utility Cost Reduction (PU)</td>
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<tr>
<td>Value Engineering</td>
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<td><strong>Total Cost Reductions</strong></td>
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<td><strong>Revised Project Cost</strong></td>
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### Funding Summary

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<tr>
<th>Source</th>
<th>Amount</th>
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<tr>
<td>INDOT</td>
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<td>Tippecanoe County</td>
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<td>MPO/STP</td>
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<td>Purdue University/PRF</td>
<td>2,000,000 (commitment)</td>
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<td><strong>Total</strong></td>
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QUESTIONS?
US 231

Thank you for your time!

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