MANDATORY PRE-BID MEETING

FOR I-471 PROJECT

CID No. 12-1002

FEBRUARY 24, 2012 LETTING

CONSTRUCTION PROJECT NUMBER	ITEM NUMBER

IMNH 4714(034)	6-2021.00

CAMPBELL COUNTY

JANUARY 25, 2012
SITE OVERVIEW

PROJECTbegins at the I-471 / US 27 intersection and ends at the north end of the truss span of the bridge over the Ohio River.

**FIVE INTERCHANGES**

- I-275 – 8 RAMPS
- US 27 – 4 RAMPS
- GRAND AVE – 5 RAMPS
- MEMORIAL PKWY – 4 RAMPS
- KY 8 – 4 RAMPS

- 5.8 MILE PROJECT WITH OVER 4500 FT OF BRIDGES ON I-471 PER DIRECTION
- MOSTLY 3-LANE ROADWAY
- CONCRETE MEDIAN BARRIER FROM I-275 TO THE NORTH, OVER HALF IS 16 FT WIDE PLANTER TYPE MEDIAN WITH DENSE SHRUBBERRY
ALTERNATE PAVEMENTS

• Limits of Alternate Pavement
  – South End of Project to South End of 6th Street Bridge
  – Includes All Ramps at the I-275, US 27, Grand Avenue and Memorial Parkway Interchanges

• Alternate Pavement Types
  – Jointed Plain Concrete (JPC) Pavement
  – Asphalt Pavement

• No Pavement Alternate Areas
  – JPC Pavement Required for Widening I-275 WB
  – Asphalt Pavement Required from 6th Street Bridge to Ohio River Bridge
JPC PAVEMENT ALTERNATE

13” JPC Pavement
4” Crushed Stone Base
   Or JPC Drainage Blanket
12” Cement Stabilized Roadbed

17” Total Pavement Depth

Alternate Asphalt Outside Shoulder
Will be bid by the SY – See Sheet R2
ASPHALT PAVEMENT ALTERNATE

1.25” CL4 Asphalt Surface 0.38A PG76-22
3” CL4 Asphalt Base 1.00D PG76-22
3.5” CL4 Asphalt Base 1.00D PG64-22
4” CL4 Asphalt Base 1.00D PG64-22
4” CL4 Asphalt Base 1.00D PG64-22
4” Drainage Blanket Type II - Asph
4” DGA
12” Cement Stabilized Roadbed

23.75” Total Pavement Depth
ASPHALT PAVEMENT - NO ALTERNATE

Accelerated Construction Section From North End of 6th Street Bridge to Ohio River Bridge

Same as Asphalt Pavement Alternate Except:

• All Mainline Shoulders Same as Mainline Pavement
• All Ramp Pavement Same as Mainline Pavement
• All Ramp Shoulders Same as Mainline Pavement
JPC PAVEMENT - NO ALTERNATE

For Widening of I-275 WB for Widening of Ramp A to Two Lanes

13” JPC Pavement
4” JPC Drainage Blanket
12” Cement Stabilized Roadbed

May Require Coordination With I-275 Contractor
PROJECT HIGHLIGHTS

• A+B Bidding
• Contractor to Assume Maintenance Responsibility for All Pavement Within Project Limits:
  – From Award to Completion
  – See General Notes Sheet R2at
• All Existing Mainline Concrete Pavement To Be Replaced Full Depth
• Cement Stabilization of Subgrade Required
• Existing PCC Shoulder Will be Sawed 2 foot From and Along Concrete Median Barrier and Barrier Left in Place
• All Existing Ramp Pavement (Except Ramps K & L and Portion of Ramp A at KY 8) Will be Replaced Full Depth
• Only the Gore Areas of the I-275 Interchange Ramps to be Constructed With This Project (Except Ramp A)
PROJECT HIGHLIGHTS

• Miscellaneous Pavement Summary (Sheet R2ak)
• Additional ML Pavement Along Longitudinal Crack on Inside Shoulders Summary
  – Specifies Locations Where Crack is Closer Than 2’ to Wall and Additional Pavement Will Be Required
  – See Saw Cut Details on Sheet R136
• Random Crack Repair Summary – KY 8 Ramps L & K
• PCC Pavement Repair Summary – Full Depth JPC Pavement Repairs on KY 8 Ramp L
• Repair Curb Summary – All Work on KY 8 Ramp K
• Longitudinal and Transverse Joint Sealing for KY 8 Ramps A, K and L
  – Shown on No Alternate Pavement Summary (Sheet R2af)
• Proposal Bridge Work –
  – Latex Overlays and Joint Replacements or Eliminations on All Bridge Decks on I-471 Except the 2100+ Feet Long I-471 Bridges over 6th Street
  – I-471 Bridges over 6th Street Will have Joint Seal Replacements and Experimental Seal Coats Placed on Their Decks
  – Ramp E Bridge Over Grand Avenue - Latex Overlay, One Joint Replacement and One Joint Elimination
  – Cleaning of Lower Chords of Ohio River Bridges
  – Replacement of Safety Chain Link Fence on Highland Avenue Bridge Over I-471
  – Construction of 6” Concrete Slopewall at I-275 EB Bridge over I-471 SB
PROJECT HIGHLIGHTS

• The I-471 SB ramp to I-275 WB (Ramp A) will be widened to two lanes
  – Requires Widening I-275 WB bridge over Three Mile Road to the Outside
    • See Detailed Bridge Plans
    • See Special Note for Utility Line Hanger for Bridges
  – Requires Widening I-471 SB to the Inside to Provide An Additional Lane to Exit onto Ramp A
    • Requires Replacement of Approximately 1500 Feet The SB Barrier of Existing 16 foot Raised Median
  – Ramp A will be Widened Into An Existing Rock Cut
    • No Blasting Permitted!
    • Removal of Existing Wire Mesh Rockfall Protection Incidental to Roadway Excavation
PROJECT HIGHLIGHTS

- I-471 SB to Be Restriped From the Ohio River Bridge to the Memorial Parkway Exit Ramp From Three to Four Lanes
  - Remove Existing Crash Cushion in Gore Area of the SB Exit Ramp to KY 8 (Ramp B) and Construct New One Farther Down Ramp
  - Remove Existing Shoulder Barrier Wall Along Ramp B and Along Outside of I-471 SB to Limits Shown in Plans
  - Construct New Shoulder Barrier as Shown in Plans
  - Reconfigure the Intersection of I-471 SB and Entrance Ramp K From KY 8
PROJECT HIGHLIGHTS

- Existing Lighting Will Be Completely Replaced
  - From Beginning of Project to North Side of I-275
    Replaced With I-275 Project
      • Coordination With I-275 Contractor Required
  - Rest of Job With This Project
    • High Mast Lighting
    • Conventional Lighting
- Existing Lighting to be Maintained Until New Lighting in Place and Activated
PROJECT HIGHLIGHTS

• Signing Plans Included for Change in Traffic Patterns on I-471 SB Due to Restriping and Ramp A Widening
• Proposal Plans to Replace All Planning Loops
• All Traffic Signal Loops on Ramps Will be Replaced
• Coordination will be required with the contractor performing the ongoing work on I-275 Westbound and associated ramps. This work has a September 1, 2012 completion deadline.
CONSTRUCTION PHASING

• All I-471 Northbound Work Must be Completed by December 1, 2012
  – No Traffic Impacts on I-471 SB or Any SB Ramps Until NB Work is Completed
  – The Contractor will Have to Make Any Pavement Repairs on I-471 SB Using Temporary Lane Closures During Non-Peak Hours
• No Traffic Impacts on I-471 or Any Ramps From December 1, 2012 Until April 1, 2013
• All I-471 Southbound Work Must be Completed by December 1, 2013.
• All Work on I-471 NB or SB from the Beginning of the Project to the I-275 Interchange Must be Completed When NKU is Not in a Spring or Fall Semester
MOT WORK IN OHIO

• MOT Operations Require Lane and Ramp Closures in Ohio
  – Will Require Close Coordination With O.D.O.T. and City of Cincinnati Traffic Personnel
  • Must Provide 30 Days Notice of Proposed Lane or Ramp Closure
  – No Signing Required On SB I-471 Until Work Begins in 2013
  – No Lane Closures or Ramp Closures Allowed in Ohio Except for 32 Days for Accelerated Construction Between 6th Street Bridge and North of End of Project in the Southbound Direction
ACCELERATED CONSTRUCTION

For Each of the Following Accelerated Construction Areas
The Contractor Will Have 16 Consecutive Days (Three Weekends and Two Work Weeks) in Each Phase to Complete All Work, Including Any Bridge Work, Shown in The Plans for That Area:

- I-471 NB from US 27 to I-275 NB Sta 53+00 – Phases 2 and 3
  - Must be Done Between NKU’s Spring and Fall Semesters

- I-471 SB From I-275 Ramp C to US 27 at South End of Project Must Be Constructed Between NKU’s Spring and Fall Semesters But Not as Accelerated Construction
ACCELERATED CONSTRUCTION

- I-471 NB Between Grand Avenue Entrance Ramp K and Memorial Parkway Exit Ramp D Including all Work on the Ramps, Their Gore Areas and All Work on the I-471 NB Bridge over Chesapeake Avenue – Phase 3 Only

- I-471 SB between Grand Avenue Exit Ramp H and Memorial Parkway Entrance Ramp A Including All Work on the Ramps, Their Gore Areas and All Work on the I-471 SB Bridge over Chesapeake Avenue – Phase 3 Only
ACCELERATED CONSTRUCTION

- I-471 NB from the I-471 Bridge Over 6th Street to the North Limits of the Project Including Work on KY 8 Ramps A and L and Work on The 6th Street Bridge and Ohio River Bridges – Phases 2 and 3

- I-471 SB from the I-471 Bridge Over 6th Street to the North Limits of the Project Including Work on KY 8 Ramps B and K and Work on The 6th Street Bridge and Ohio River Bridges – Phases 2 and 3

- Phase 3 Must Follow Phase 2 Immediately
MAINTENANCE OF TRAFFIC

PHASE 1

• Shift Traffic to the Inside Two Lanes and Inside Shoulder (3 Lane Section)
• Replace the Existing 6 inch Concrete Outside Shoulders Which Will be Used for Maintenance of Traffic in Phase 2
• Replace the Guardrail, Curb, Etc. on the Shoulders Being Replaced
• Three lanes of Traffic Must be Maintained From Station 85+00 to the North End of the Project
• If the Existing Inside Shoulder Pavement Fails:
  – Contractor Allowed to Reduce Traffic to Two Lanes
  – Contractor Must Repair Failed Shoulder Pavement and Have Three Lanes Open Within Five Weekdays
  – Any Days Past Five Weekdays Will Be Counting Against the Number of Days the Contractor Selected for Two Lane Reductions in Part B of His Bid
MAINTENANCE OF TRAFFIC PHASES
MAINTENANCE OF TRAFFIC

PHASE 2

• Shift Traffic to the Outside and Replace the Inside Shoulder, Inside Lane, and Half of the Center Lane (Three Lane Sections)
• Complete the Bridge Work on the Available Area of the Bridges
• Construct the I-471 SB Widening Including Removing the Existing Concrete Median Barrier and Constructing the New Barrier
• Ramps B, E & D at the I-275 Interchange May be Closed for a Maximum of 9 Consecutive Days, One Work Week and Two Weekends, to Complete All Work on the Ramps
MAINTENANCE OF TRAFFIC

PHASE 3

• Shift Traffic to the Inside and Replace the Outside Shoulder, Outside Lane, and Half of the Center Lane (Three Lane Sections)
• Perform the Bridge Work on the Available Area on the Bridges
• Ramps C & G at the I-275 Interchange May be Closed for a Maximum of 9 Consecutive Days, One Work Week and Two Weekends, to Complete All Work on the Ramps
• The Contractor Will be Permitted to Close All Ramps at the US 27, Grand Avenue and Memorial Parkway Interchanges for 16 Consecutive Days, Two Work Weeks and Three Weekends, to Complete All Work on the Ramps
• Only One Ramp May be Closed at a Time Unless Otherwise Stated in the Plans or Approved by the Engineer
MAINTENANCE OF TRAFFIC

PHASE 3 – RAMP A CONSTRUCTION

• Reduce the I-275 Westbound Traffic to Two Lanes and Shift Traffic to the Inside Lane and Shoulder
• Construct a Slip Ramp From Ramp A to I-275 WB Which Will Become the Third Lane on I-275 WB
• Widen I-275 WB to the Outside
• Widen the I-275 WB Bridge over Three Mile Road to the Outside
• Begin the Ramp A Widening While Under Traffic
• Close Ramp A for a Maximum of 16 Consecutive Days (Two Work Weeks and Three Weekends) to Complete the Ramp Widening and All Other Work on the Ramp
• Re-open Ramp A With One Lane of Traffic, Construct the New Slip Ramp to I-275 WB and Complete the I-275 WB Widening Work
• When All I-275 WB Widening Work is Complete, Open Both Lanes of Ramp A and return I-275 WB to its normal three lane configuration
A + B Bidding
Special Note for Fixed Completion Date and Disincentive Fees A+B

Paul Looney, PE
KYTC, Division of Highway Design

January 25, 2012
Fixed Completion Date

- **December 1, 2012**
  - All mainline work Northbound
- **December 1, 2013**
  - All mainline work Southbound
  - ALL work associated with project
- **Disincentive(s)**
  - $10,000 per day
  - Will be charged December-March
“B” Time Component

- For phases with only 2-lanes open NB or SB
  - Station 85+00 to Ohio River
    - I-471 mainline north of I-275
- Weekdays during peak hours
  - Northbound: 6am-10am
  - Southbound: 2pm-7pm
- Maximum 150 days per direction
“B” Component Values

- $B_{\text{North}} = \$25,000 \text{ per day}$
- $B_{\text{South}} = \$50,000 \text{ per day}$
“B” Component Disincentive

- Charged for any weekday only 2 lanes are open beyond the number of weekdays bid
  - $B_{\text{North}}$
  - $B_{\text{South}}$

- Disincentives

<table>
<thead>
<tr>
<th>Time of Closure</th>
<th>Disincentive Fee ($/hr) Northbound</th>
<th>Disincentive Fee ($/hr) Southbound</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00am-10:00am</td>
<td>$6,250</td>
<td>N/A</td>
</tr>
<tr>
<td>2:00pm-7:00pm</td>
<td>N/A</td>
<td>$10,000</td>
</tr>
</tbody>
</table>
Ramp Work

- Perform work on ramps during 9 or 16-day closures
  - Begin Closure - Friday, 8:00 PM
  - End Closure - Monday, 6:00 AM
- Disincentives

<table>
<thead>
<tr>
<th>Time of Closure</th>
<th>Disincentive Fee ($/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Hour</td>
<td>$4,000</td>
</tr>
<tr>
<td>Successive Hours</td>
<td>$8,000</td>
</tr>
</tbody>
</table>
Restricted Work Days

- NONE
Questions?