



## CUYAHOGA COUNTY DEPARTMENT of PUBLIC WORKS

### INTEROFFICE MEMORANDUM

DATE: JUNE 12, 2013  
TO: James J. Hazimihalis, P.E., Maintenance Superintendant Bridges and Roads  
FROM: Matthew A. Pastorelle, Engineer I  
RE: Veterans Memorial Bridge

The following is a comprehensive list of areas to be chipped under the Veterans Memorial Bridge. These are our recommendations based on our preliminary up-close cursory inspection in preparation for the upcoming bridge tours.

#### **Span 1A**

- Floor Beam 2 – West face marked with the X's

#### **Span 1B**

- Column 9 L – Corbel

#### **Span 1**

- Column 4 R – Corbel

#### **Span 2**

- Jack Arch between Columns 6 L – 7 L
- Jack Arch between Columns 7 L – 8L
- Jack Arch between Columns 8 L – 9 L
- Column 11 R – Corbel
- Column 14 L – Corbel
- Column 14 R – Corbel
- Column 15 L – Corbel
- Column 15 R – Corbel

#### **Span 3 – Need traffic control below, area is over a parking lot/street**

- Floor Beam 3 – East Face – Marked in red hatching
- Column 3 L – Corbel
- Remove the loose utility sheet metal hanging cover near Column 5 R
- Floor Beam 7 – Bottom Face
- Jack Arch between Columns 10 R – 11 R
- Jack Arch between Columns 10 L – 11 L
- Jack Arch at Column 13 L – Bottom Face near the column
- Column 13 L – South West edge
- Jack Arch at Column 13 R – Bottom Face near the column

### **Span 5**

- Floor Beam 11 – All three faces (West, East and Bottom)

### **Span 6**

- Column 4 L – Corbel

### **Span 7 – Need traffic control below, area is over a parking lot/street**

- Column 4 L – Corbel (South East corner)
- Column 6 L – Corbel (South East corner)
- Jack Arch between Columns 10 R – 11 R – Near column 10

### **Span 8**

- Column 2 L – North West face
- Column 7 R – Corbel – North West corner
- Jack Arch between Columns 8 R – 9 R
- Jack Arch between Columns 13 L – 14 L
- Jack Arch between Columns 13 R – 14 R

### **Span 9 - Need traffic control below, area is over a parking lot/street**

- Column 5 L – South West Corbel
- Jack Arch between Columns 5 L – 6 L – Close to column 5
- Column 7 L – South East Corbel and Column
- Column 9 L – Corbel and Column – South Face
- Jack Arch between Columns 9 L – 10 L
- Column 10 L – Corbel – South West corner
- Jack Arch between Columns 10 L – 11 L

### **Span 12**

- Jack Arch between Columns 11 L – 12 L
- Column 12 L

### **Span E.S.S.**

- Jack Arch between Columns 4 L - 5 L – Both East and West faces
- Jack Arch between Columns 5 L – 6 L

### **Span E.S.**

- North CMU Block Wall between Columns 1 -2 and 3 – 4

### **West 25<sup>th</sup> Street Tunnel – As detailed on plan sheet**

- West wall at the street car
  - Remove loose vertical reinforcement in spall near corner
  - Large 100+ SF spall/delamination near bracket for utility
  - Column 35 – Corbel and column

## **West Tunnels – Many areas marked with orange paint**

- Ceiling between Columns A 2–5 and B 2–5
- Zip tie loose sanitary sewer cover that runs between columns 4-5 in all bays
- Column D 4 – Corbel – South West corner
- Ceiling between Columns B 11–12 and C 11–12
- Ceiling between Columns A 13–14 and Annex Entrance
- Jack Arch between Columns B 13-14 – North and South bottom faces
- Ceiling between Columns B 13–14 and C 13-14
- Jack Arch between Columns C 13-14
- Jack Arch between Columns C 14-15
- Jack Arch between Columns C 15-16 – North Face
- Column C 15
- Jack Arch between Columns B 16-17 – Bottom and South face
- Jack Arch between Columns C 16-17 – Bottom and North face
- Jack Arch between Columns B 18-19 – Bottom face
- Jack Arch between Columns C 18-19 – Bottom and North face
- Column B 20 – North East corbel
- Column C 20 – North face
- Ceiling between Columns B 20-21 and C 20-21
- Jack Arch between Columns C 20-21 – Bottom face
- Column C 21
- Jack Arch B 22-23 – South face marked with X's
- Jack Arch C 22-23 – Bottom and North faces marked with X's
- Column C 24 – West face of Corbel, East face of Column and up into Jack Arch on bottom edge
- Jack Arch B 24-25 – South face
- Jack Arch C 24-25 – North and Bottom faces
- Column C 24 – South face
- Ceiling between Columns B 26-27 and C 26-27 – Along the Spall
- Jack Arch B 26-27 – South face
- Jack Arch C 26-27 – North face
- Column B 27 – Corbel – West face
- Column C 27 – North face marked with X's
- Jack Arch C 27-28 – Lower North edge
- Column C 28 – Corbel – East face
- Jack Arch B 28-29 – South and Bottom faces
- Jack Arch C 28-29 – North face
- Column B 29 – South face above Corbel
- Column C 29 – Corbel North East corner and North East edge of Column below Corbel
- Ceiling between Columns B 29-30 and C 29-30 – Along spall
- Remove the wooden overhead trolley tracks between Columns B 29-31 and C 29-31

- The wooden tracks are split at the bolt holes on both ends at the steel connections to the ceiling, I cannot guarantee they won't fall/drop in the near to immediate future
- Jack Arch C 30-31 – North Face at spall and south face corbel
  - South face is cracked and delaminated. There is an electrical conduit attached to this portion of the column that will need to have the power killed and be removed before this delamination can safely be removed
- Cantilevered Ceiling/Floor/Floor Beam End – Column Lines B and C adjacent to Span 1A
  - Delamination is at top of the cantilever, the floor beam is cracked longitudinally and leaking. The area adjacent to this along Column line A has already spalled off

**Theater - A line columns = Right**

- Jack Arch between Columns 4 R and 5 R
- Column 6 R – Corbel and North East corner of the column
- Column 7 R – Corbel

Additionally we have the following recommendations:

- Move the street car in the West 25<sup>th</sup> Street tunnel up to deter people from going near the deteriorated area
- Fencing off the South walkway in the West approach along the old bathrooms due to continued saturation and slippery conditions
- Fencing off the area from Columns A 2-5 and B 2-5, due to slippery floor conditions and limited clearance due to overhead conduits that will restrict chipping the ceiling
- Lock the gate to the North catwalk in span E.S.

If you have any questions or need anything cleared up, please feel free to contact me.



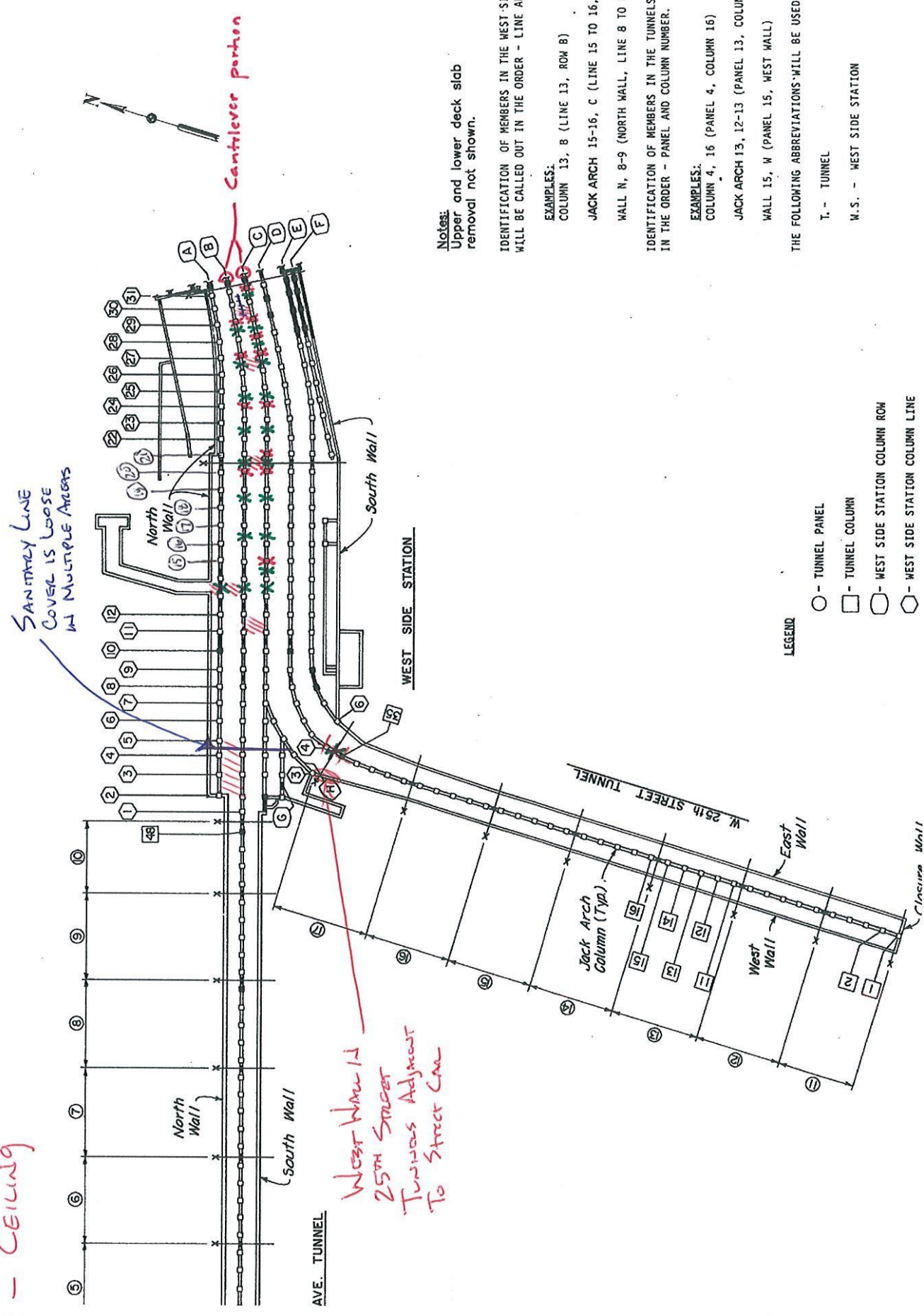
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Matthew A. Pastorelle  
Engineer I - BIM

FYHA REGION	STATE	PROJECT
6	OHIO	

CUYAHOGA COUNTY  
CUY - 6 - 14.89

**KEY**  
 - - - - - Wooden Street Car Conduit in Ceiling.  
 X - Column  
 X - JACK ARCH  
 |||| - Ceiling



**Notes:**  
 Upper and lower deck slab removal not shown.

IDENTIFICATION OF MEMBERS IN THE WEST-SIDE STATION WILL BE CALLED OUT IN THE ORDER - LINE AND ROW.

**EXAMPLES:**  
 COLUMN 13, 8 (LINE 13, ROW 8)

JACK ARCH 15-16, C (LINE 15 TO 16, ROW C)

WALL N, 8-9 (NORTH WALL, LINE 8 TO LINE 9)

IDENTIFICATION OF MEMBERS IN THE TUNNELS ARE CALLED IN THE ORDER - PANEL AND COLUMN NUMBER.

**EXAMPLES:**  
 COLUMN 4, 16 (PANEL 4, COLUMN 16)

JACK ARCH 13, 12-13 (PANEL 13, COLUMN 12 TO COL

WALL 15, W (PANEL 15, WEST WALL)

THE FOLLOWING ABBREVIATIONS WILL BE USED:

T. - TUNNEL

M.S. - WEST SIDE STATION

- LEGEND**
- - TUNNEL PANEL
  - - TUNNEL COLUMN
  - - WEST SIDE STATION COLUMN ROW
  - - WEST SIDE STATION COLUMN LINE