

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering

Washington, D.C. 20594

March 7, 2008



A. ACCIDENT

Place : Minneapolis, Minnesota
Date : August 1, 2007
Vehicle : I-35W Bridge 9340
NTSB No. : HWY07MH024
Investigator : Gary Van Etten

B. DETAILS

This document contains 25 pages of photographs of the I-35W Bridge collapse in four sections.

Precollapse
Postcollapse Overall
Postcollapse Investigation
Flats Layout



A view of the west side of the deck truss portion of the bridge, looking northeast.



A view of the east side of the deck truss portion of the bridge, looking northwest.



Overhead view to the northeast on the day of the accident.



Overhead view to the east on the day of the accident.



Looking east at the center span of the deck truss from a boat in the lock on July 31, 2007.



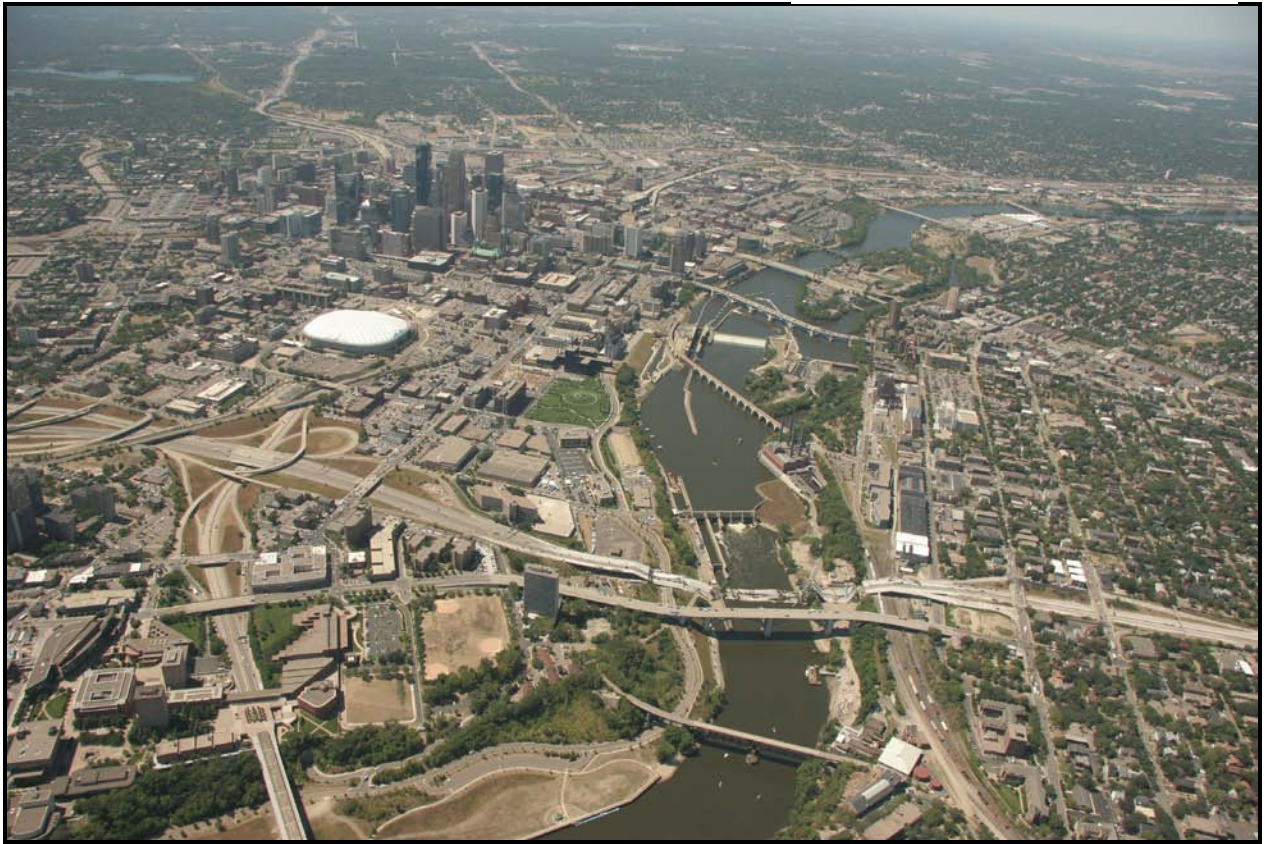
Looking northwest at node U10 East of the deck truss.



Node U10 West, viewed looking northwest from inside the structure.



Node U10 East, viewed looking northeast from inside the structure.



Post collapse view of the bridge and surrounding area, viewed looking west.



Post collapse view of the bridge and surrounding area, viewed looking east.



Post collapse, viewed looking west.



Post collapse, viewed looking east and slightly south.



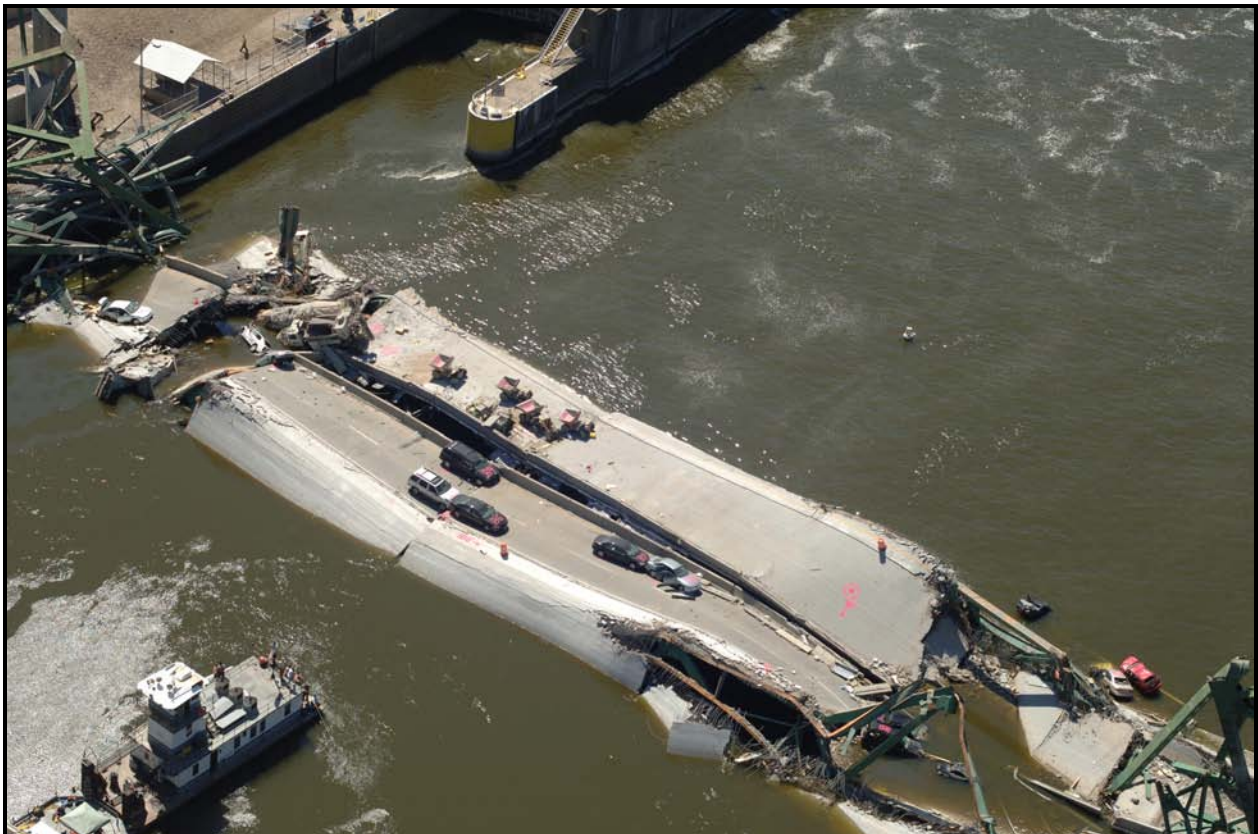
North portion of the collapsed bridge, viewed looking north and east.



Damaged portion of the deck truss at pier 7, on the north side of the river, viewed looking north.



Collapsed portion of the deck truss over the river, viewed looking east and south.



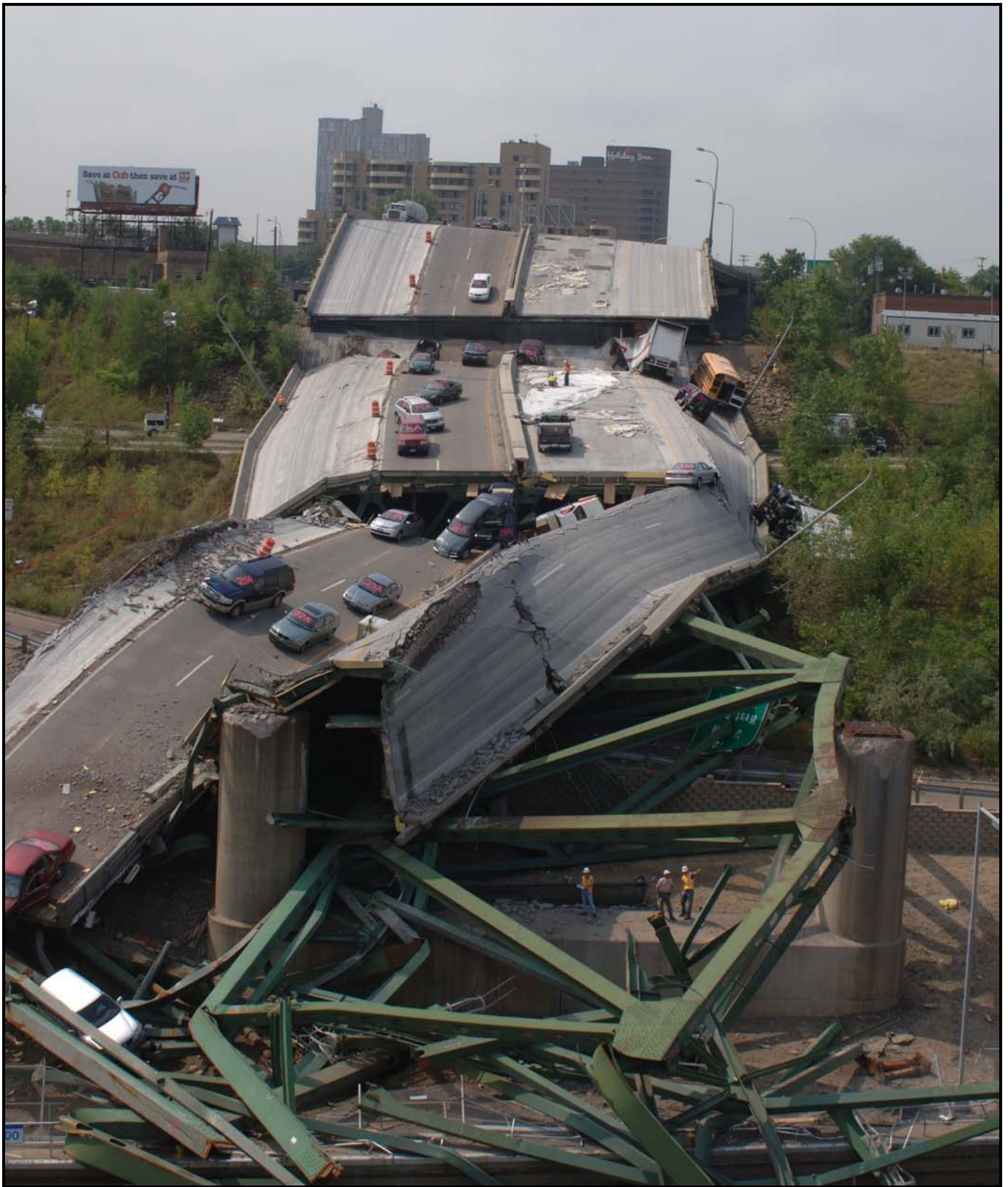
Collapsed portion of the deck truss over the river, viewed looking west and south.



South portion of the center span, viewed looking south.



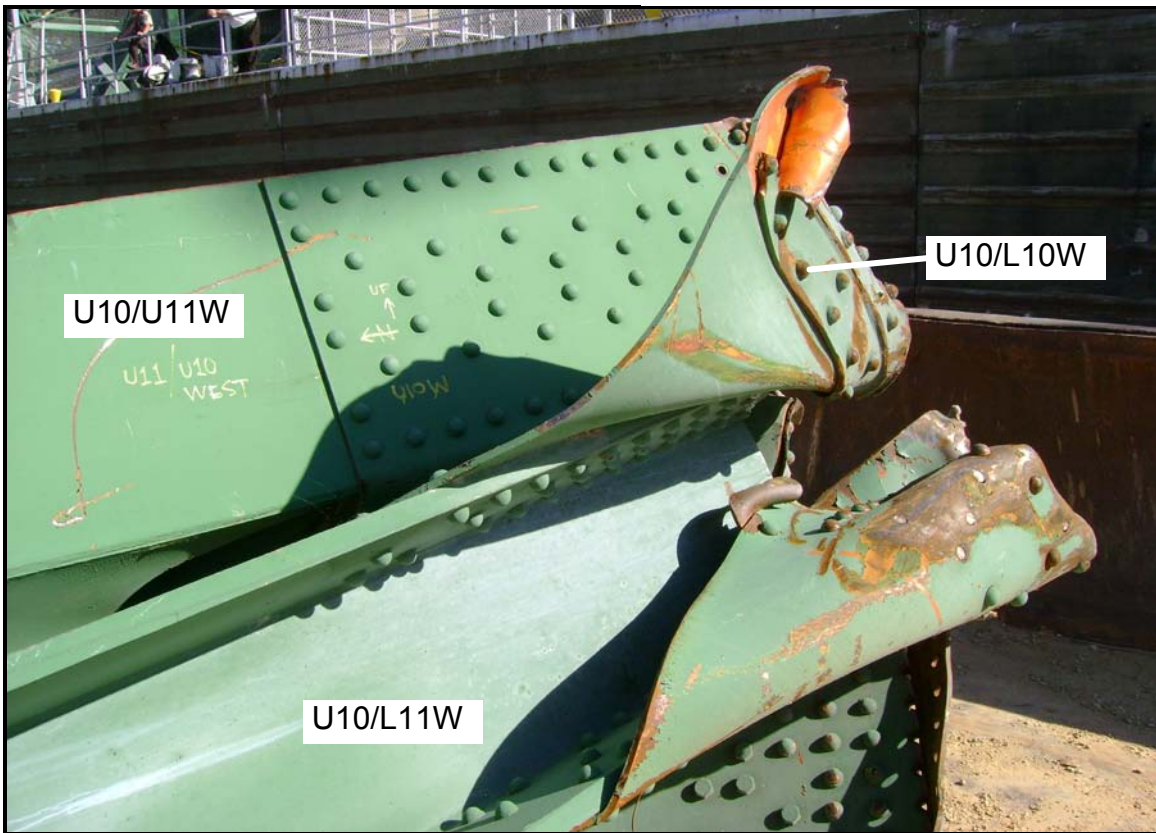
Deck truss structure on the south bank of the river, viewed looking south.



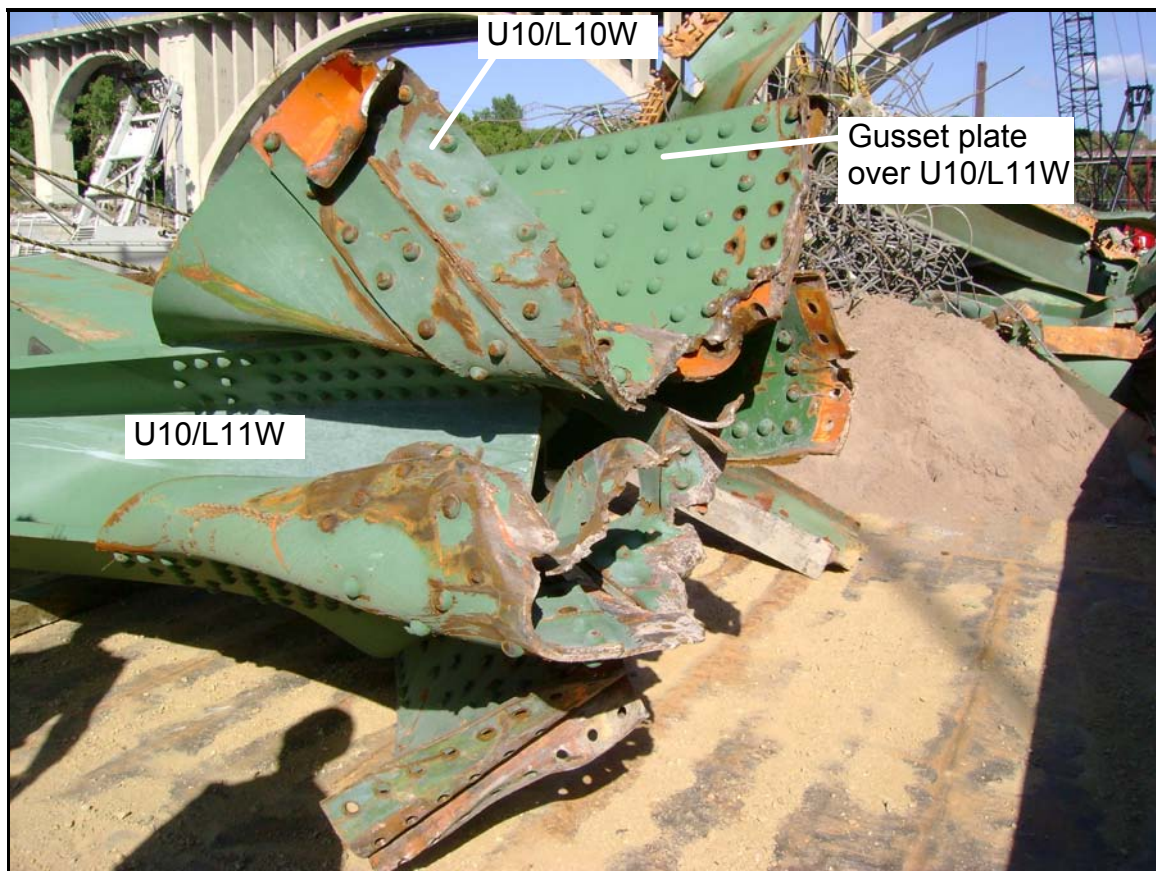
South approach spans and south portion of the deck truss, viewed looking south.



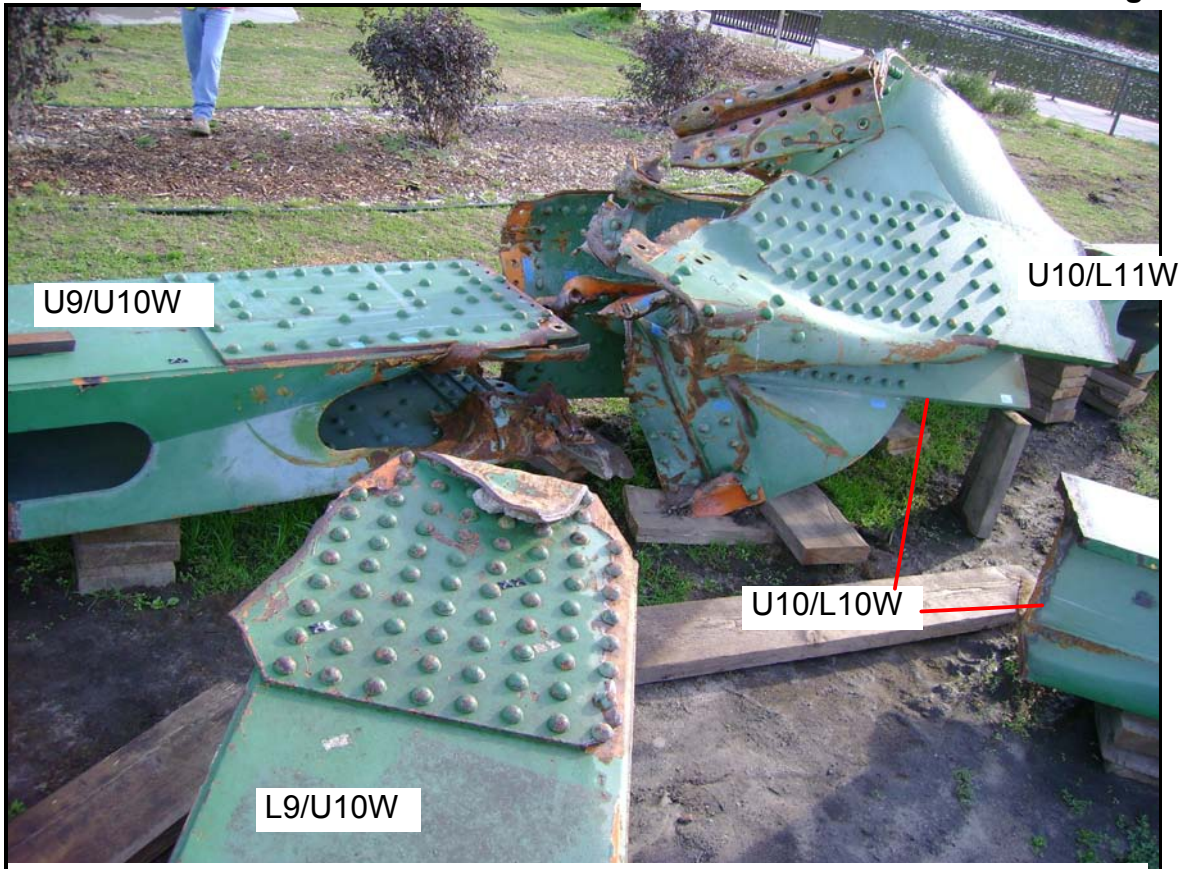
Looking south at the U10 West node. The south ends of upper chord member U10/U11W and diagonal U10/L11W are sticking nearly vertically out of the water with diagonal L9/U10W seen diagonally across floor truss 9 in the background.



A piece of node U10 West, showing upper chord member U10/U11W, diagonal U10/L11W and a portion of vertical U10/L10W on a barge after removal from the water.



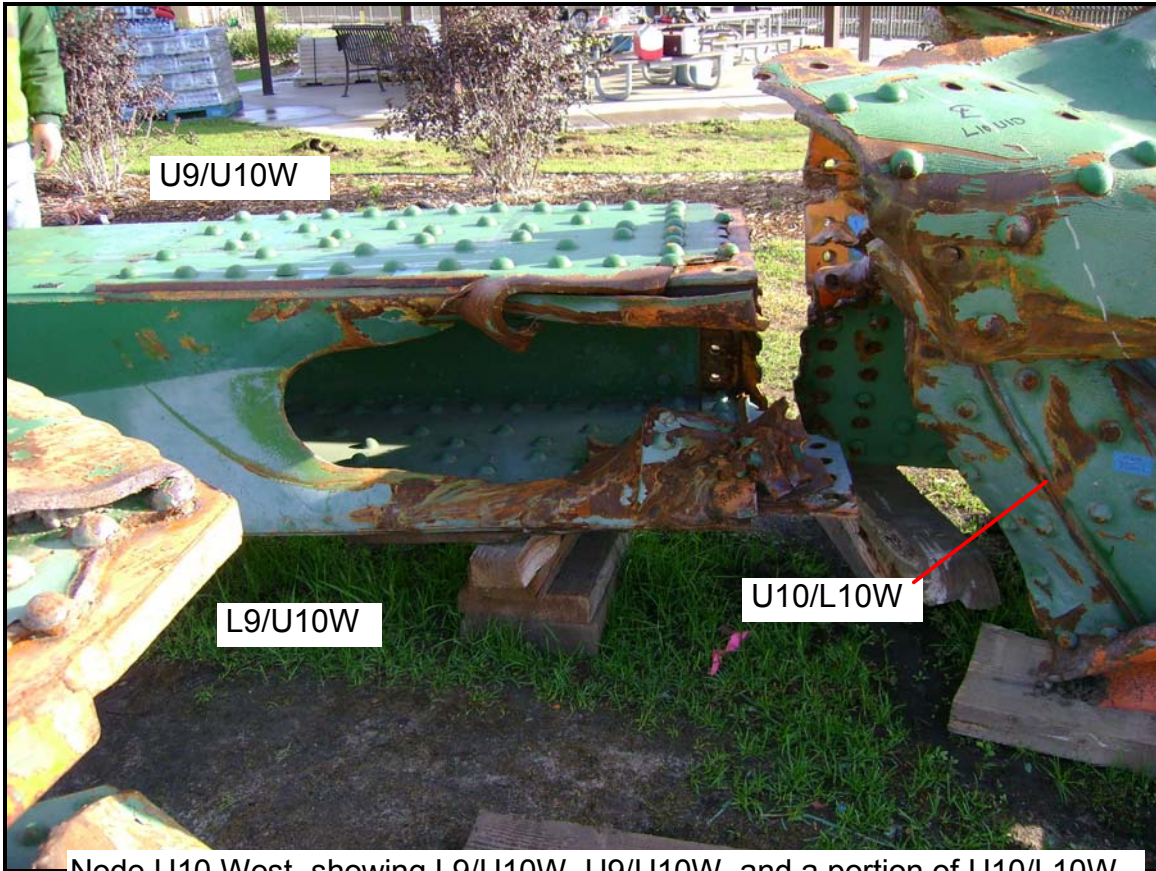
A piece of node U10 West, showing upper chord member U10/U11W, diagonal U10/L11W and a portion of vertical U10/L10W on a barge after removal from the water.



Node U10 West, showing U9/U10W, L9/U10W, U10/U11W, U10/L11W and a portion of U10/L10W.



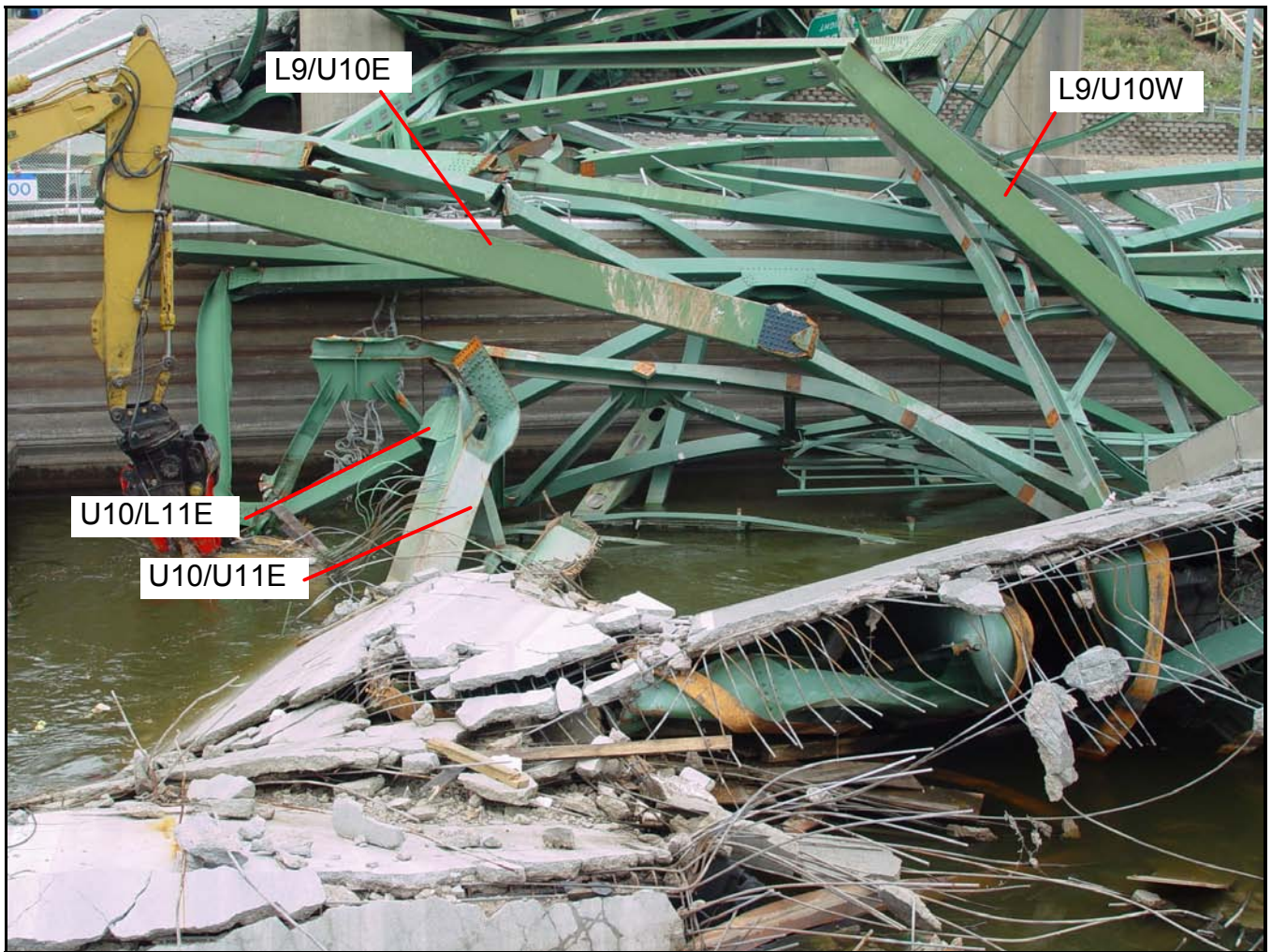
Node U10 West, showing L9/U10W in foreground and U9/U10W in background.



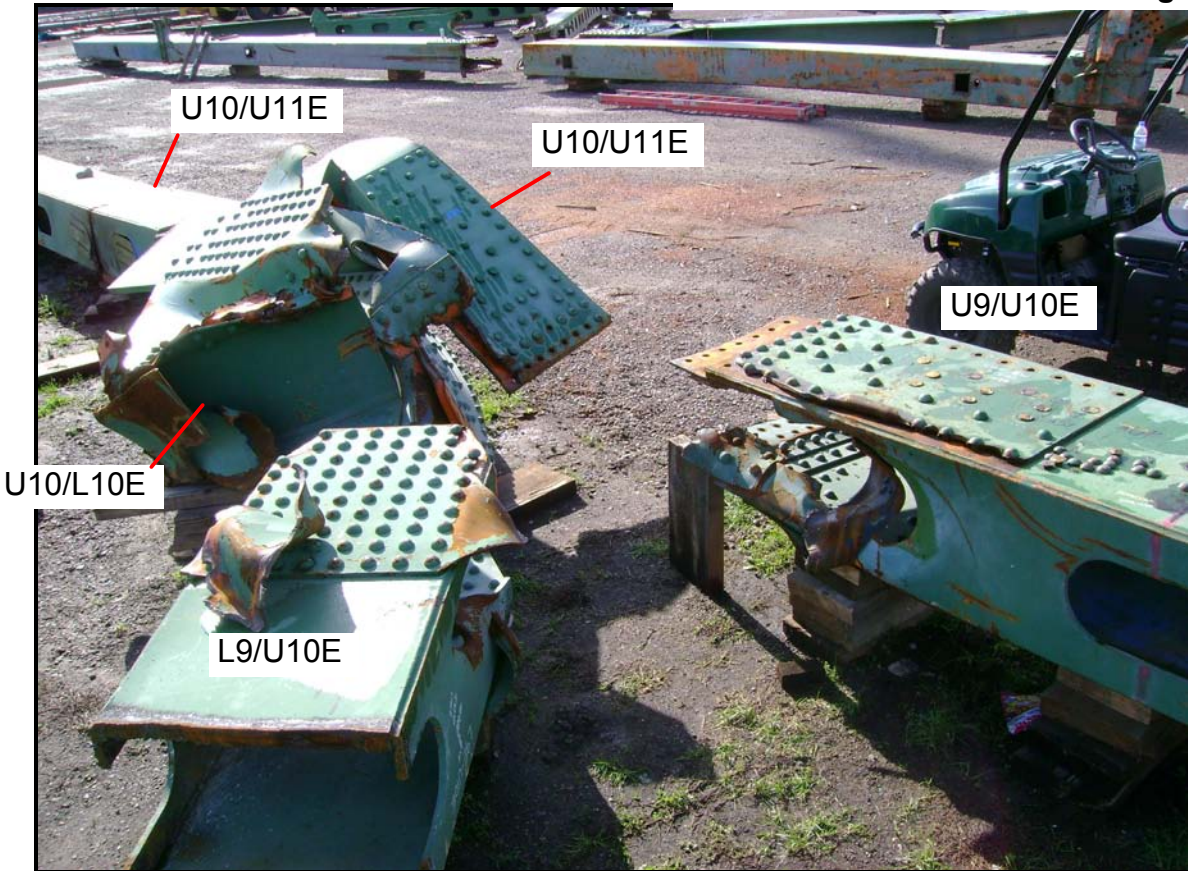
Node U10 West, showing L9/U10W, U9/U10W, and a portion of U10/L10W.



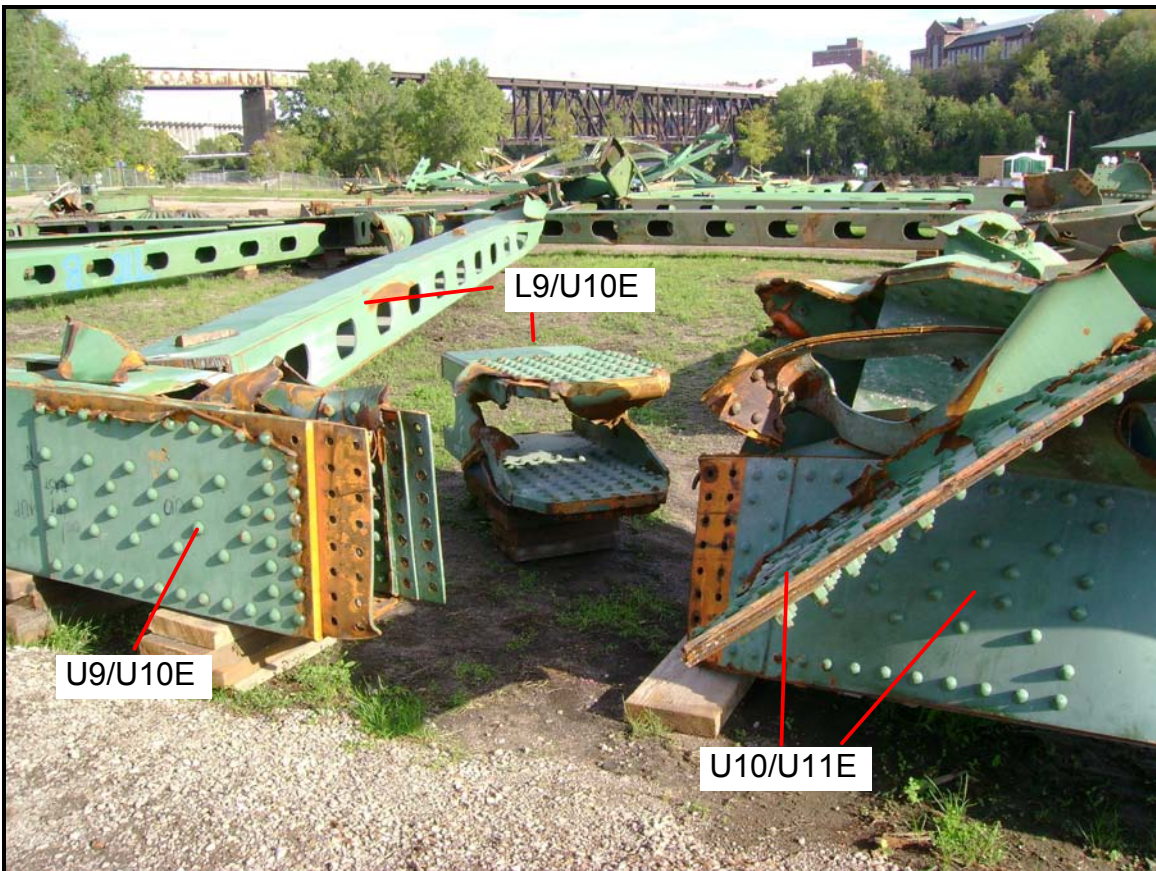
Node U10 West, showing the portion of the east gusset plate on U9/U10W.



Looking south at the U10 East node. U10/U11E and U10/L11E are sticking out of the water with L9/U10E seen diagonally across the guide wall in the background.



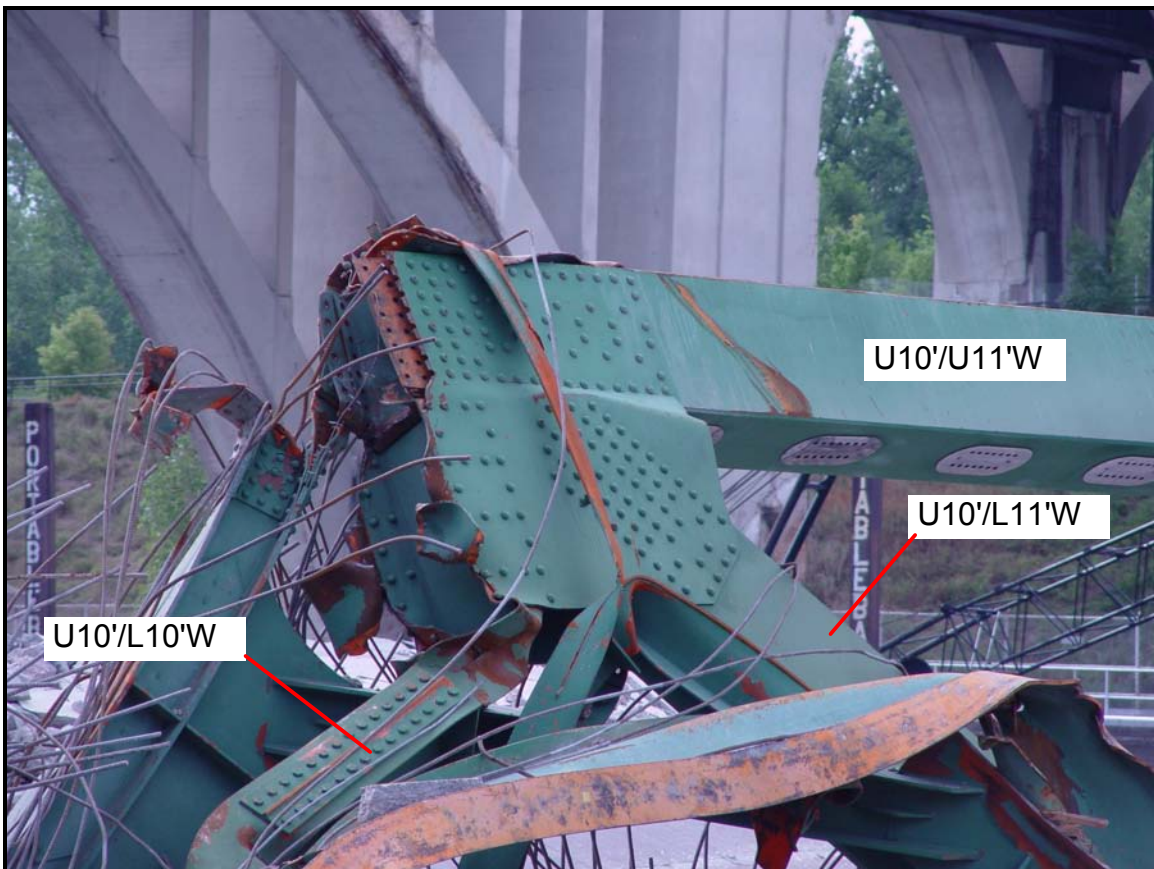
Node U10 East, showing L9/U10E, U9/U10E, U10/U11E, U10/L11E and U10/L10E after recovery.



Node U10 East, showing L9/U10E, U9/U10E, U10/U11E, U10/L11E and U10/L10E after recovery.



Looking south at node U10' West, showing U10'/U11'W, U10'/L11'W, L10'/U10'W and FT10'.



Looking southeast at node U10' West, showing U10'/U11'W, U10'/L11'W, L10'/U10'W and FT10'.



The end of U9/U10'W, showing the fractured west gusset plate.



The end of U9/U10'W, showing the fractured west gusset plate.



Node L11 West, with one side plate at the end of L11/U12W at center; other members to right.



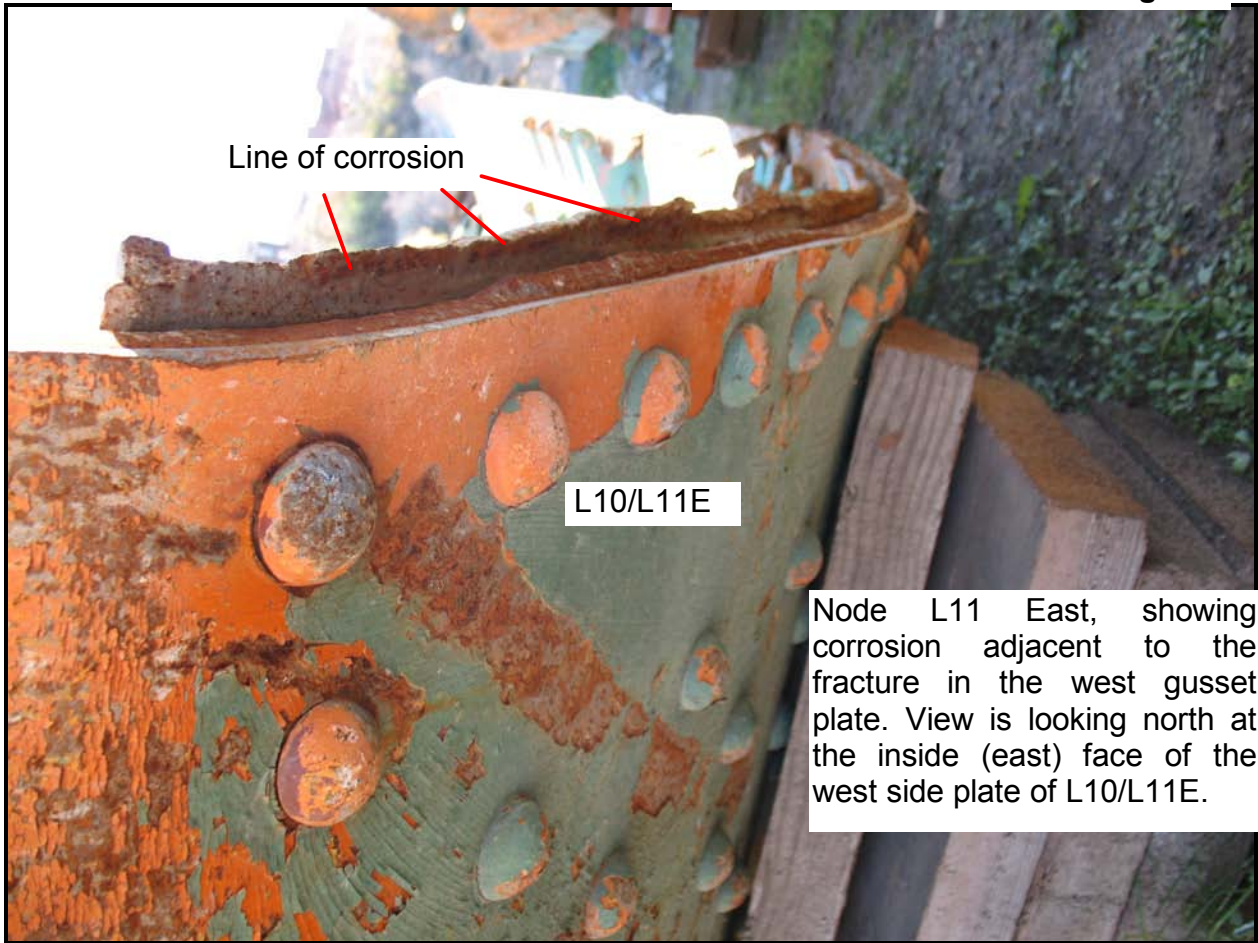
Node L11 West, with the other curved side plate at the end of L11/U12W.



Node L11 East, looking along L11/U12E. Node L11 West in the background.



Node L11 East, end of L11/U12E and part of U11/L11E.



Node L11 East, showing corrosion adjacent to the fracture in the west gusset plate. View is looking north at the inside (east) face of the west side plate of L10/L11E.



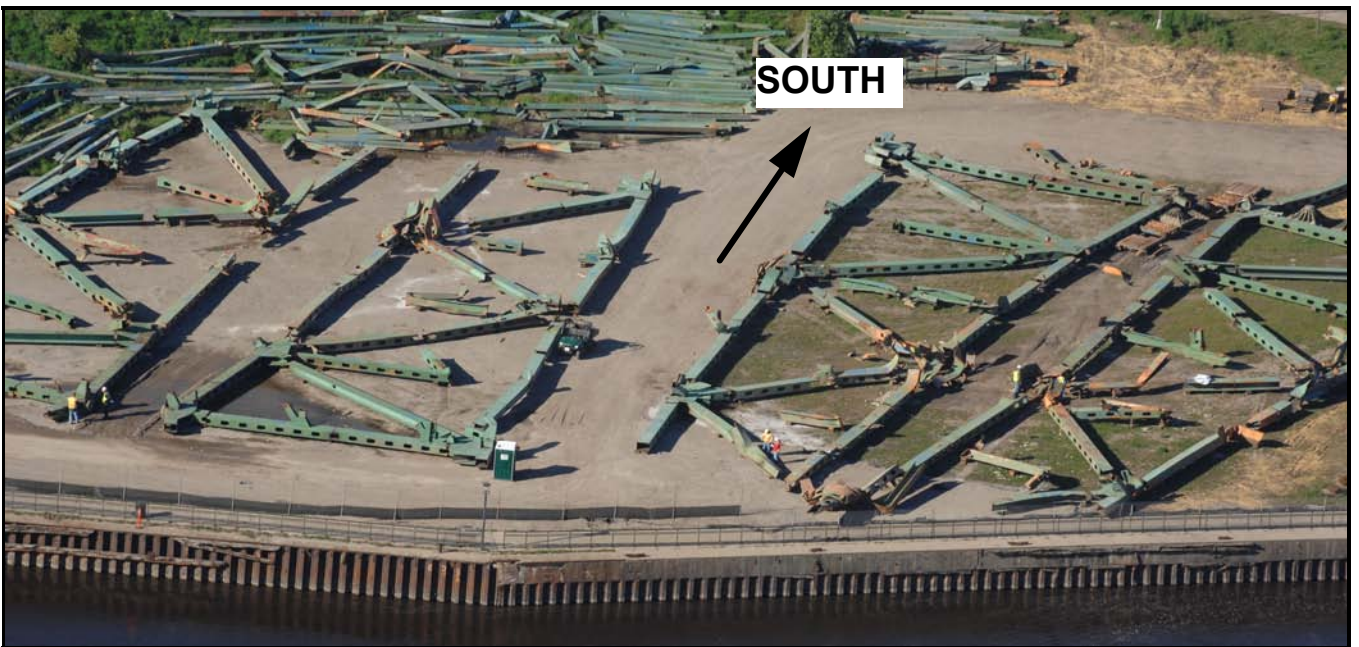
Node L11 West, showing corrosion adjacent to the fracture in the west gusset plate.



Bohemian Flats layout of the members of the center span of the deck truss. Floor trusses are on right, and main truss members are on the left. Looking west (geographically).



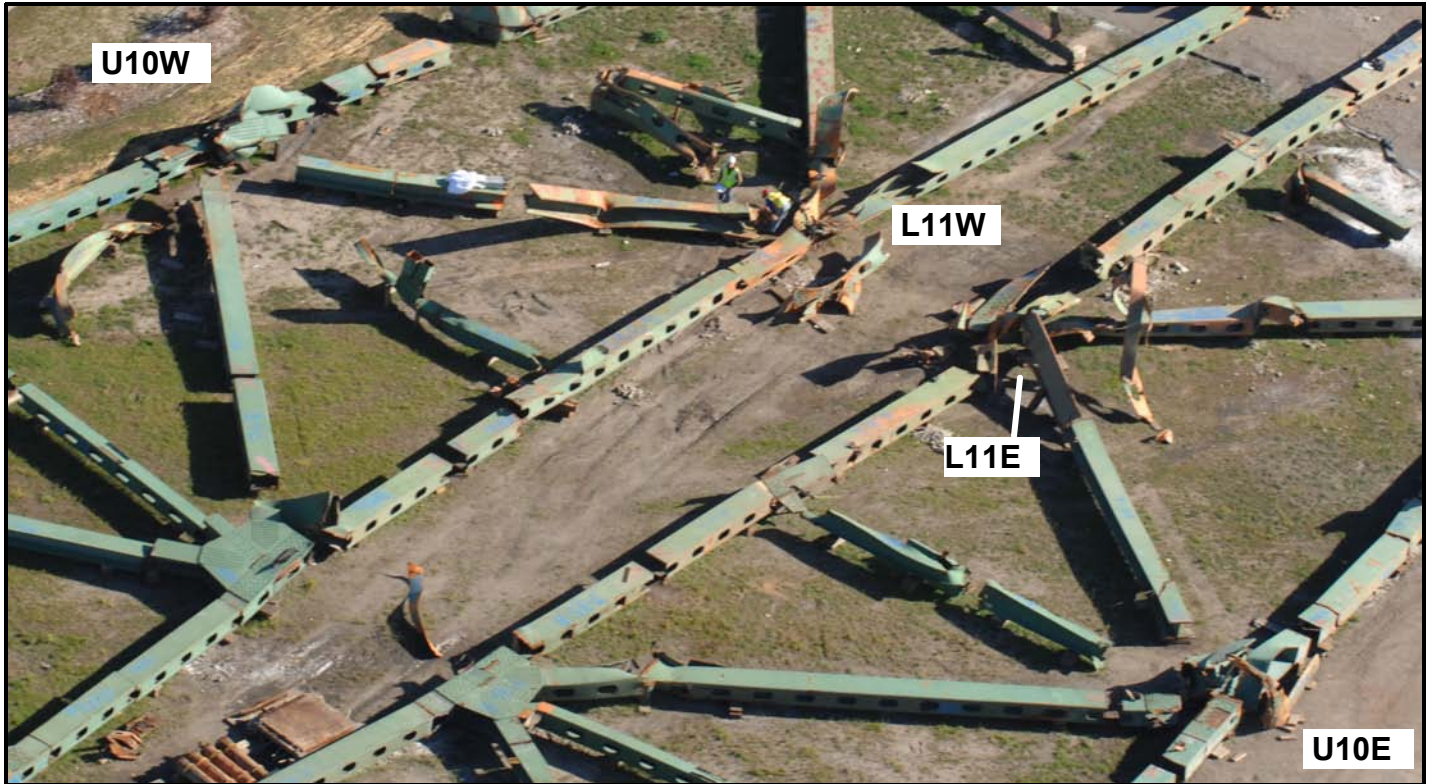
Bohemian Flats Layout showing the floor trusses, with the east ends of the floor trusses closer to the top of the photograph.



Bohemian Flats Layout showing the main trusses, with the south ends of the pieces closer to the top of the photograph.



Bohemian Flats Layout, showing the main truss members from the south portion of the center span, with the south ends of the members to the lower left corner of the photograph.



Bohemian Flats Layout, main truss nodes U10 and L11. The south ends of the members are to the lower left corner of the photograph.