



The HRI system informs approaching motorists of potential delays due to a blocked at-grade railroad crossing at the Washington Street and Camp Street (IL Route 8), Main Street and Camp Street, or the Washington Street (adjacent to the East Peoria Public Safety Building) railroad crossings. This advisory warning is communicated to approaching motorists using a flashing beacon that is placed above a static advanced warning sign.

The HRI system transmits the railroad crossing blocking contact closure status from the traffic signal controllers to a communications cabinet at the East Peoria Public Safety building via fiber optic cable (IFS DT-1810 and DR-1810). The contact closures status are read in by an Ethernet to contact closure converter (Advantech ADAM6060) and processed by an event message processor (Broadax Systems RMS-6104 rack mounted computer). The Modbus communication protocol over Ethernet is used to communicate between the Ethernet to contact closure converter and event message processor. A response based on the inputs is formulated and is transmitted to the appropriate HRI signs via the Ethernet to contact closure converter and wireless contact mapping transmitter and receivers (Encom 7328).

A visual display is shown on a video monitor at the East Peoria Public Safety Building to provide operators with status information on each of the monitored at-grade crossings.