November 25, 2008

To: Alderman Helding, Chairman

Public Works & Services Committee

From: John C. Rooney, Asst. Commissioner of Public Works/Engineering

**RE:** Item 08-2953

This item pertains to the 2008 Underwater, Fracture Critical, and Routine Bridge Inspection Report submitted to the City of Racine on November 11, 2008. Ayres Associates was hired by the City of Racine under Resolution 08-0790 to perform this work. "Fracture Critical" and "Routine" bridge inspections are conducted every other year and "Underwater" bridge inspections are conducted every 5 years. "Fracture Critical" means bridges have NO load path (requires three or more girders), structural (single span), or internal (welded girders) redundancies. These "Fracture Critical" components are thoroughly inspected because if any one component fails, the structure fails. "Routine" inspections examine structural components of a bridge that are not fracture critical. "Underwater" bridge inspections provide the opportunity to view the effects of scour or damage to the structure below the surface of the water.

Annually, the City of Racine is included in all of the 13,819 bridges reported in the state of Wisconsin (5,026 state & 8,793 municipal), and part of 573,922 reported nationally. The state of Wisconsin average for functionally obsolete (too narrow, not enough capacity, not enough vertical clearance, etc. by today's standards) and structurally deficient (deck, superstructure or substructure rated 4 or less (poor or worse condition)) bridges is 5% and 9%, respectively. The national average for functionally obsolete and structurally deficient bridges is 12.7% and 9.5%, respectively.

It is good news to report that all bridges in the City of Racine are in fair to excellent condition. No bridges were reported as functionally obsolete or structurally deficient. If applicable, the bridges have been submitted to the WisDOT HSIS (Highway Structure Information System). There are some maintenance items identified in the report, but they are minor issues that will be done by City of Racine personnel or contracted out. It is my recommendation that the committee receive and file the report.

Attach.