3.11.3. Permanent Roadside Elements

All permanent roadside design elements including but not limited to highway guiderail, vehicle barriers, sign supports, drainage outlets, railings, curbs, light poles, gates, and fences shall be designed in accordance with the most current AASHTO Roadside Design Guide and the AASHTO Manual for Assessing Safety Hardware 2016 (MASH). MASH TL-5 barriers shall be used on I-195 and all ramps leading to and from I-195. All other barriers shall be MASH TL-4. All W-Beam guardrail shall meet MASH TL-3. All transitions from W-Beam to concrete barrier shall include a thrie-beam connection at the barrier. All end terminals and/or crash cushions shall meet MASH TL-3.

New signage shall be provided as required for the proposed design in accordance with State and MUTCD standards and specifications.

A protective coating is required on the exposed surfaces of all permanent median barriers in accordance with the Specification for Section 820 – Concrete Surface Treatment – Protective Sealer.

The DB Entity shall include, with the approval of RIDOT, mitigation/countermeasures in the design to reduce the potential for wrong way vehicular entry at interchange ramps. Potential elements could include signage, striping, lighting, delineation, ITS, bi-directional arrows, and/or Wrong Way sign activation via radar.