ORIGINATOR Director, Bureau of Highway Operations		8-1-4
CHAPTER 8	Detector and Controller Logic	
SECTION 1	Vehicle Detection	
SUBJECT 4	Construction Considerations	

The construction staging of road projects *may* have a direct influence on the loop size used for detection. For example, construction of a three-lane approach *may* be staged for the placement of two lanes first and the third lane in a different pour. Advance detector placement *may* be one 6' x 20' loop covering the first construction stage and a single 6' x 6' for the second construction stage. Loop placement *should not* cross asphalt to concrete, or concrete-to-concrete joints, unless detectors are placed in the base below the pavement. Construction staging *may* also make it practical to install other types of detection. The use of these other types of detection *should* be discussed with the maintaining authority.

Loop lead-in *should not* cross pavement fault lines due to the possibility of shear failure by pavement movements. Lead-in *should* be placed below the pavement into the base course.

Loops *may* be installed in two general methods. See the Standard Detail Drawings in the FDM for the specific information on each type.

Loops-in-Conduit:

Pavement-Overlaid Loops - Used anyplace where the entire loop will be within an area of new, overlaid, milled and replaced, or seal-coated pavement. The excavation and patching required are easily covered by the pavement work. When properly installed, loop failure is very minimal.

Saw cut Loops - Used if the loop or any part of the loop would end up in an existing pavement that will not be modified by any of the methods above. When properly installed, loop failure is minimal.

Below-Pavement Loops - Used at locations where entire pavement is new or rebuilt construction. Loops are generally placed in base course.

Loops-Not-in-Conduit:

Saw cut Loops - Loops are installed directly into saw cut and then sealed with an approved loop sealer. Loop life for this type of loop is shorter compared to the conduit-encased loops. Although not recommended by WisDOT for long-term installations, signals under local jurisdiction *may* use saw cut loops. Uses of saw cut loops include temporary signals, intersections scheduled for reconstruction, and permanent signals under local jurisdiction.