VISION ZERO
zero deaths
zero serious injuries

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MEMORANDUM

From:	Henry Henning, P.E., Bridge Inspection Engineer	HCH
Date:	4/23/2021	
Subject:	Interim Guidance for Bridge Inventory Direction and Nomenclature	

In the past, there has been no official guidance to determine how bridge inventory direction is defined. To reduce any confusion in the field or in the office and to be consistent with any previous inspections, use the following hierarchy to determine bridge inventory direction:

Bridge Inventory Direction

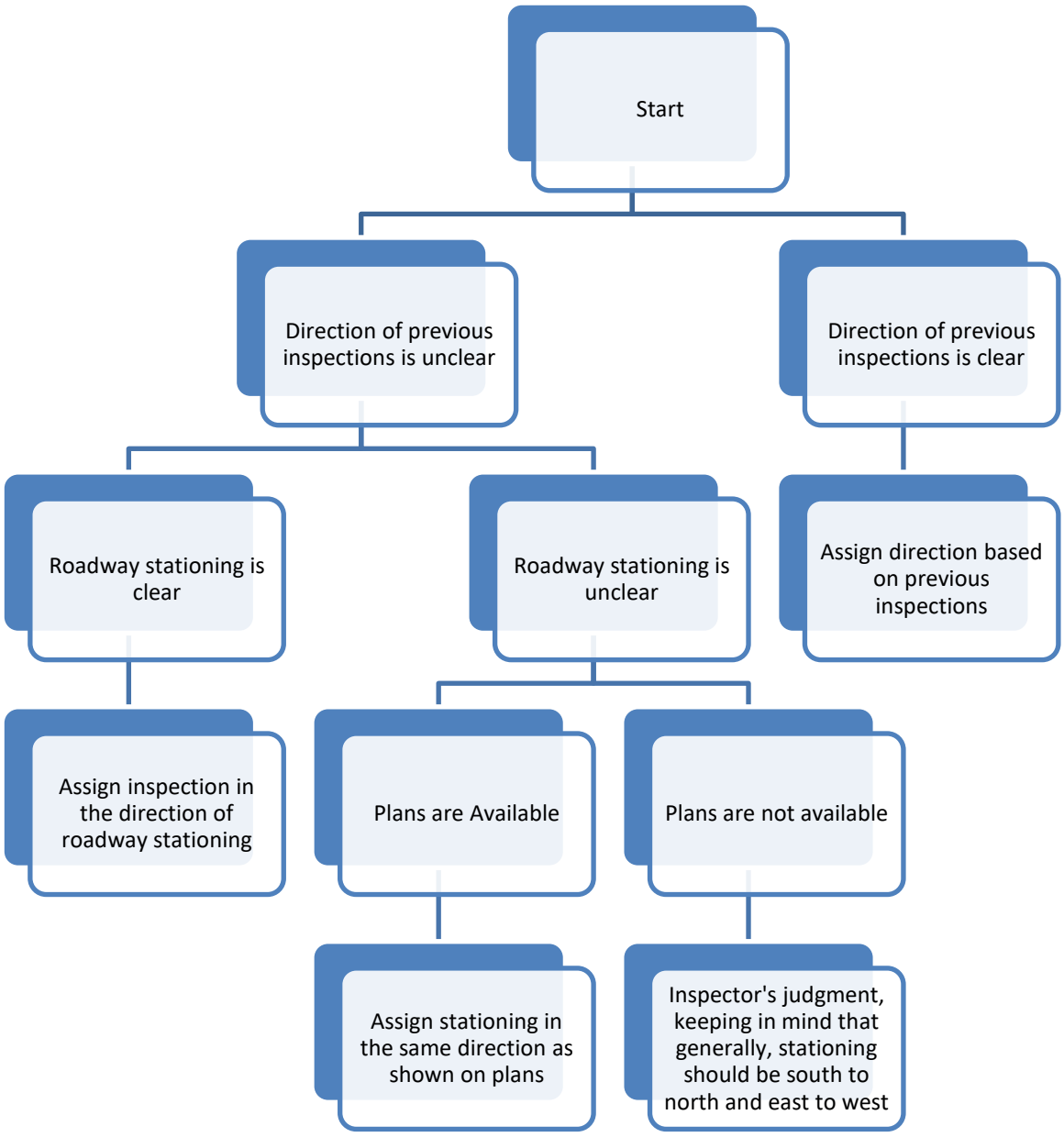
1st Priority: Bridge inventory direction that has been used in previous inspections should be perpetuated forward. This should be done even if the bridge has been inspected using an unconventional bridge inventory direction in the past. If a bridge has been inspected using an unconventional bridge inventory direction in the past, add a note in the general bridge notes using the nomenclature guidance below and the update the Bridge Inventory Direction SMS attribute.

2nd Priority: For routes with mile posts, bridge inventory direction is defined in order of increasing mile post or stationing. For example, if mile post 1 is South of the bridge and mile post 2 is North of the bridge, bridge inventory direction would run from South to North.

3rd Priority: For routes with no obvious defined stationing, bridge inventory direction should be assigned using the direction on the plans. When plans are not available, stationing should be assigned using the inspector's best judgement but should generally run from South to North or West to East.

Enter a description of the bridge inventory direction in the general inspection notes for **every** inspection using suggested nomenclature below. Once bridge inventory direction is determined, select the appropriate direction from the drop-down box in the SMS attribute named Bridge Inventory Direction located in Chapter A of the Attributes tab. MDT has arc map available to help define stationing when mile posts are not present.

Determining Bridge Inventory Direction-Flow Chart



Bridge Nomenclature

Once bridge inventory direction is defined at a bridge, use nomenclature such as “North”, “East”, etc… to describe which direction the bridge is being inventoried in. In addition, terms such as “upstream” and “downstream” may be used to describe the orientation relative to features crossed or features near the structure (utilities, erosion, approaches, etc…). This is especially important to clarify if there is a new bridge being inventoried, anytime that there has been a change in bridge inventory direction in the past, or if the bridge inventory direction conflicts with as-builts.

Once bridge inventory direction has been established and defined, bridge elements should be defined in the following manner:

a. Bridge bents will be numbered starting with Abutment 1 then moving up the inventory direction to subsequent bents (i.e., Abutment 1, Bent 2 (or Pier 2), Bent 3 (or Pier 3), Abutment 4).
b. Bridge elements (girder, piles, etc.…) are numbered looking up in the direction of the inventory (starting at Abutment 1 looking to subsequent bents). Numbering is then done from left to right starting with #1 (Pile 1 and Girder 1 is the left most element, then Pile 2, Pile 3, etc.…).
    i. Sister girders on timber bridges have slightly different nomenclature. (see *Guidance for Quantifying Sister Girders on Timber Bridges* for more details).