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zero deaths
zero serious injuries

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MEMORANDUM

From:	Henry Henning, P.E., Bridge Inspection Engineer	HCH
Date:	4/28/2021	
Subject:	Interim Guidance for Quantifying Timber Pile Element (228)	

In the past, there has been no clearly written guidance on whether to include wingwall piles in element 228 (Timber Piles) quantity. There is confusion as to whether to or when to include some or all wingwall piles in the Timber Pile (228) quantity. To simplify this assessment in the field and to be consistent with the substructure measurement form, use the following guidance to quantify element 228:

- Include only timber piles that directly carry load transferred from the superstructure, through the girders, through the cap and into the pile.
- Do not include piles that only provide bending support to wingwalls or that support wingwall caps which do not support girders.
- As per 5.4.4, of the MDT Bridge Inspection and Rating Manual, *some* piles, where the "wingwall" is monolithic, will still be assessed as part of the Timber Abutment Element (216). However, these ***ARE NOT*** to be included in Element 228 quantity and not numbered if they do not support a cap that supports superstructure girders, as stated in previous bullets (see sketch below).

Pile Numbering

Only pile that are included in the Timber Pile (228) quantity should be numbered (P1, P2, etc.). Wingwall piles that are not included in the Timber Pile (228) quantity should be labeled and identified in the timber abutment element 216 in a way that they are easily located (e.g., Abutment 1 Left Exterior Wingwall Pile, Northeast Outside Wingwall Pile, etc…)

