Document Title: PTI DC10.5-xx Standard Requirements for Design and Analysis of Shallow Post-Tensioned Concrete Foundations on Expansive and Stable Soils **Ballot DC-10-1903:** Response to Public Review Comments	Ballot Start Date:	March 21, 2019
	Ballot End Date:	April 21, 2019

Comment #	Item / Section #	Comment	Committee Response
1	R4.1.4	I am not an expert on expansive soil, but is this formula correct: SG = (Wslab/2000)(b/L)(m) is right? If we are looking at the section for b=L/2; then we get SG = (Wslab/2000) (L/2) /L)(m) = (Wslab/2000) (/2) (m). We are taking an extra half??? (Wslab/1000)(b/L)(m)??	Proposed resolution: Revise formula to $SG = (W_{slab}/2000)\beta/[L/2])(\mu)$
2	R4.1.4	Pages 19-20: The description of u range in R4.1.4 applies for general cases and Fig. R4.2 gives an example of 5in.-thick slab. However, the u values mentioned in the text are not clarified if they are "average subsequent movements". Plus, in the text u values for polyethylene are 0.6-0.75 ("first movement"), but in the Fig. R4.2 it is ca. 0.9 which exceeds this range. In general, this part of u is not clear. Proposed resolution: Make the text and Fig. R4.2 to be consistent with each other and clear.	Background: • This commentary section was originally copied from DC10.1-08 Design of Post-Tensioned Slabs-on-Ground. • DC10.1-08 is currently being updated and the following wording has been balloted and approved by DC-10. • Further editorial changes to the section are recommended as shown in track changes below. Change as shown below:
		Public Review Text to be Replaced	Proposed text replacement
		R4.1.4 — Loss of prestress Two factors were identified to have an important effect on the magnitude of the coefficient of friction μ. These factors are the amount of movement the slab experiences as a result of shrinkage and temperature effects between the time it is cast and the time it is prestressed, and the material over which sliding occurs. Measured slab movements indicate that summertime concrete placement results in effective μ values in the range of 0.50 to 0.60 for UTFs cast on polyethylene sheeting. Winter placement, which occurs in the southern climates of the United States, may	An extensive review of the technical literature was made in order to determine the value of the coefficient of friction that might be expected ~~to be effective~~ during tendon stressing. As a result of this review three factors were identified as having an important effect upon ~~the magnitude of~~ the coefficient of friction. These factors are: 1) the amount of movement the slab experiences as a result of shrinkage and temperature effects between the time it is cast and the time it is prestressed, 2) temperature of soil at time of stressing, and 3) the material over which sliding occurs.

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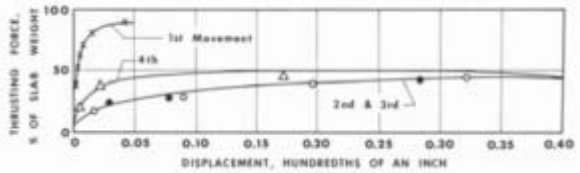
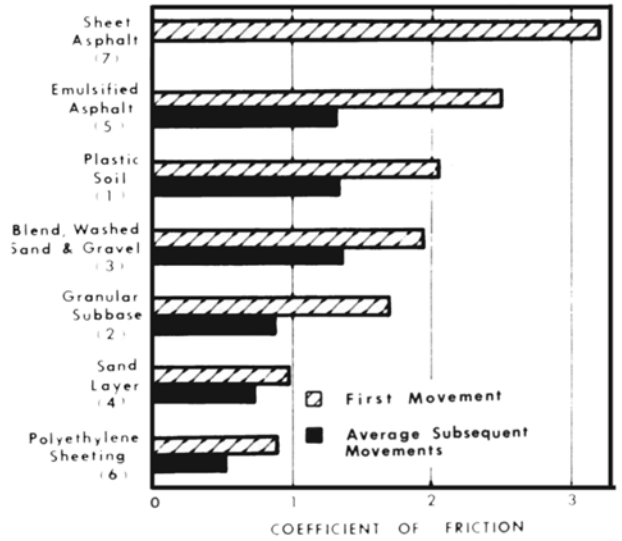
		result in displacements corresponding to coefficients still operating on the "1st movements" curve in Fig. R6.1. The effective coefficient for these conditions ranges between 0.60 and 0.75 for polyethylene sheeting. For slabs cast directly on a sand layer, the coefficient has an effective value between 0.75 and 1.00.	 ~~Fig. 2-16 Effect of successive slab movements on Timm's 5 in. thick slab cast on polyethylene sheeting~~ ~~Fig. 2-16 is representative of the effect slab movement has on the magnitude of the friction coefficient. As can be seen, a~~A large force is required to induce movement when the slab has not been previously moved. Once this "first movement" displacement has occurred, subsequent movements require only a fraction of the force initially necessary for movement. Research also shows~~It is also seen~~ that if slab movements remain very small, the coefficient is also smaller than the maximum value.  *Fig. ~~2-17~~R4.1 Summary of Coefficients of friction for 5 in. slabs*

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			~~Fig. 2-17~~R4.1 is representative of the effect different sliding mediums have on the magnitude of the friction coefficient. As can be seen in Fig. ~~2-17~~R4.1, even if polyethylene is not required or specified as a vapor retarder, it may prove desirable to place it below the slab in order to achieve a reduction in the friction coefficient. Measured slab movements indicate that concrete placement during hot weather results in effective coefficient of friction values in the range of 0.50 - 0.60 for uniform thickness foundations cast on polyethylene sheeting. Concrete placement during cold weather may result in ~~displacements corresponding to~~higher coefficients. ~~still operating on the "first movements" curve in Fig. 2-16.~~ The effective coefficient for these conditions ranges between 0.60 and 0.75 for polyethylene. For slabs cast directly on a sand layer, the coefficient has an effective value between 0.75 and 1.00. Propose replacing the section of DC10.5-19 to closely match DC10.1-xx.
3	R4.1.4	Page 19, paragraph 4, should be “Fig. R4.1” Page 20, paragraph 2, should be “Fig. R4.2” Proposed resolution: Check and correct if needed	Editorial - Change as proposed.
4	5.0	There is no Section 7.2? should it be Sections 7.0 and 7.1? Proposed resolution: Check and correct if needed	Editorial - Change reference to Section 5.1 and 5.2
5	all	Reference index in the text is not subscript in many items, e.g. R4.1.4 paragraph 2&3, 10.2, etc.	Editorial - Updated in editing process.

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6	9.1.1	Notation should be $\%_{-200}$, $\%_{-2u}$? Otherwise, it's confusing in the question in 9.1.1.6. Plus in the equation "#" should be deleted? Proposed resolution: Check and correct if needed	Editorial - Change as proposed.
7	4.2.3	Typo "restress", should be "prestress" ? Proposed resolution: Check and correct if needed	Editorial - Change as proposed.