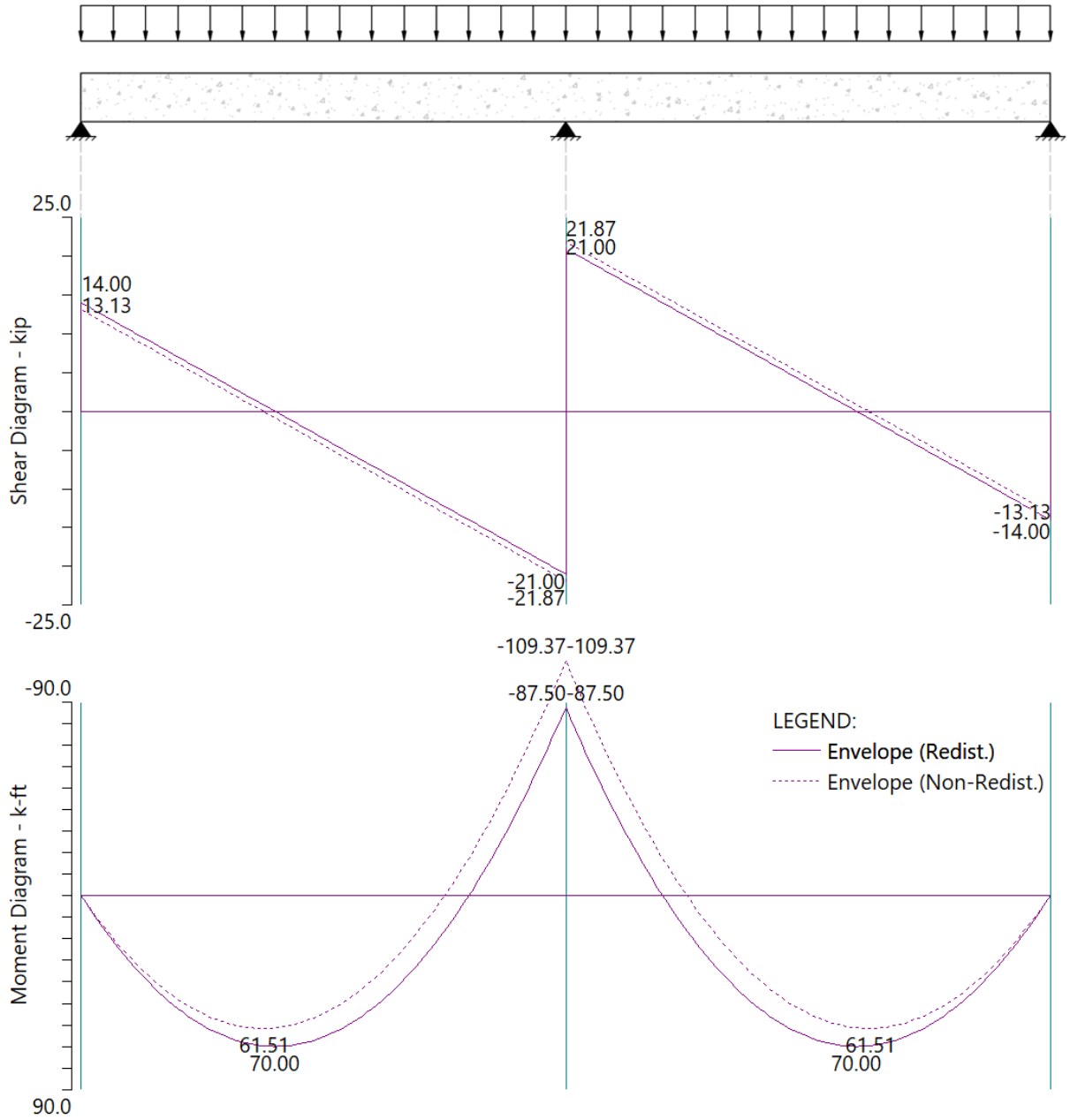


spSlab/spBeam Moment Redistribution Applications



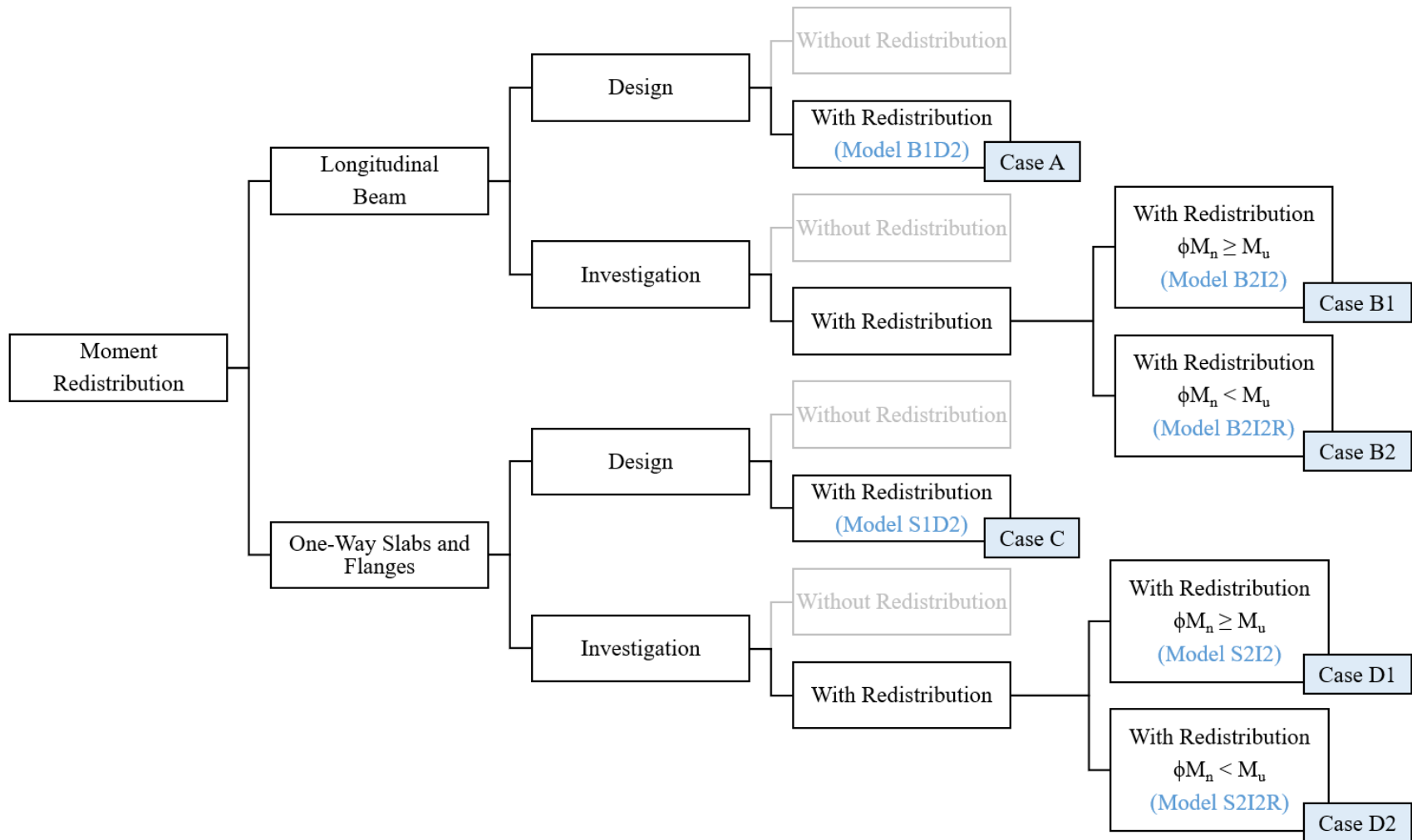
spSlab/spBeam Moment Redistribution Applications

The solve options in [spSlab/spBeam](#) offer users the flexibility to customize design options, punching shear options, and deflection calculations options. However, it is crucial to exercise sound engineering judgment and remain aware of how these options are implemented within the software to ensure the most accurate representation of the physical model and its conversion to an analytical model. It is also important to understand the consequences of each solve option and how it impacts the analysis and design results.


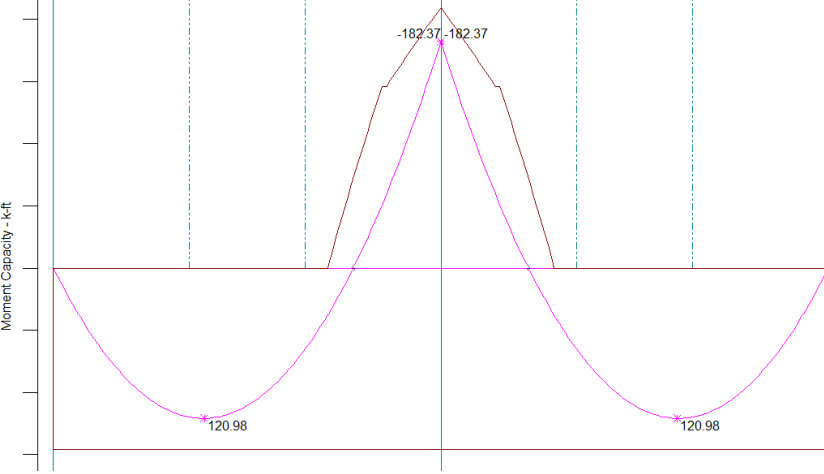
This technical article examines the implications of activating the moment redistribution solve option under design and investigation run modes in [spSlab/spBeam](#). Unlike the design run mode, the applications of moment redistribution while investigating existing as-built beams and slabs requires added care and has limitation imposed by the program. By reviewing scenarios documented in this article, engineers and designers can distinguish between several conditions based on the relationship of the required moment to the moment capacity of the member. The scenarios discussed in this article are shown in the following figure, based on the selection between longitudinal beams or one-way slabs. This will provide insights to make informed decisions for optimal structural analysis and design outcomes using the moment redistribution feature. StructurePoint encourages the reader of this article to return their opinions and thoughts on this important topic and engage our engineering and development team in a constructive discussion of any constructive feedback.

References

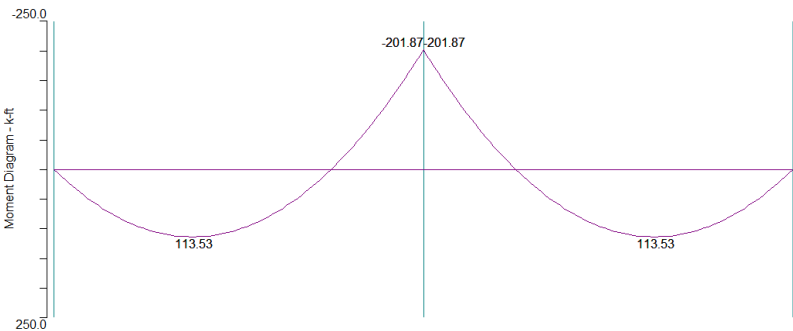
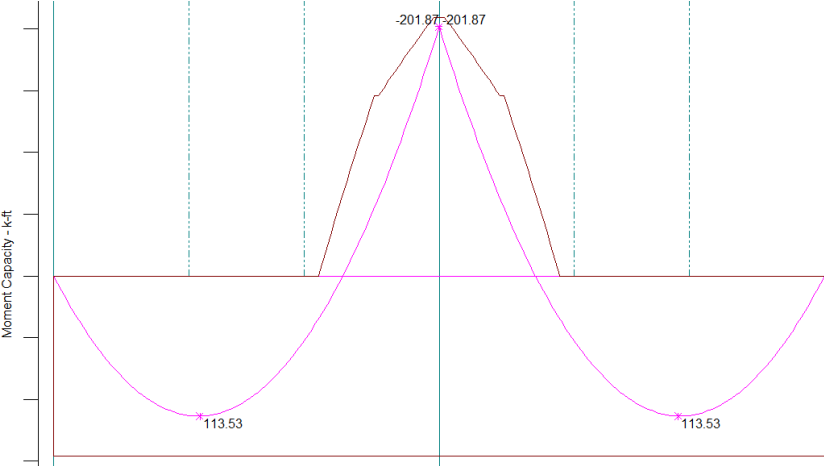
- [spSlab/spBeam](#) Engineering Software Program [Manual](#) v5.50, [STRUCTUREPOINT](#), 2015
- “[Continuous Beam Design with Moment Redistribution \(ACI 318-14\)](#)” Design Example, [STRUCTUREPOINT](#), 2018
- “[Continuous Beam Design with Moment Redistribution \(ACI 318-11\)](#)” Design Example, [STRUCTUREPOINT](#), 2018
- “[Continuous Beam Design with Moment Redistribution \(CSA A23.3-14\)](#)” Design Example, [STRUCTUREPOINT](#), 2018
- Contact Support@StructurePoint.org to obtain supplementary materials (spBeam models: B1D2, B2I2, B2I2R, S1D2, S2I2, and S2I2R)



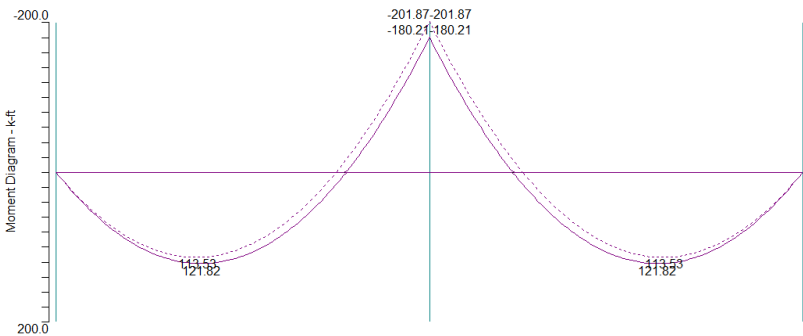
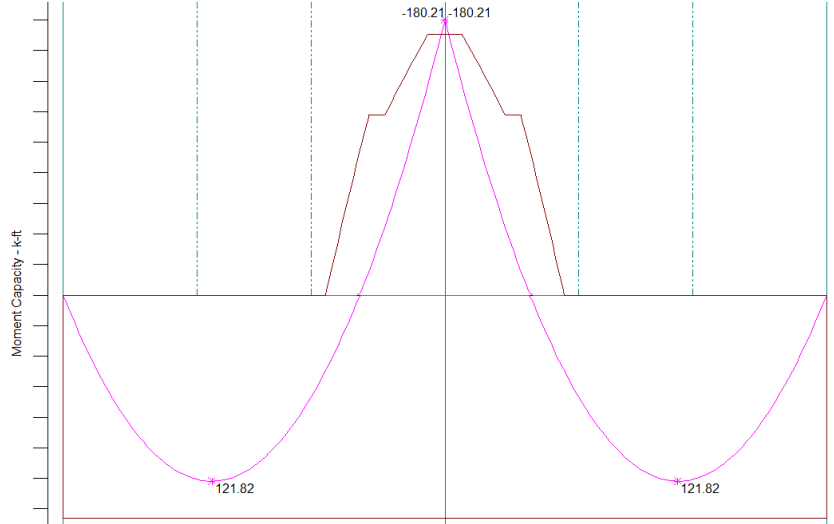
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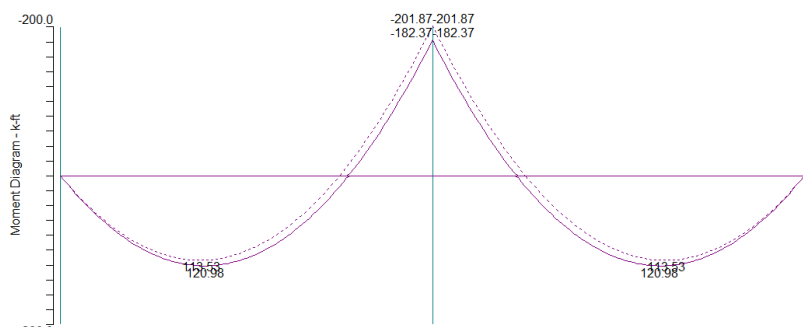
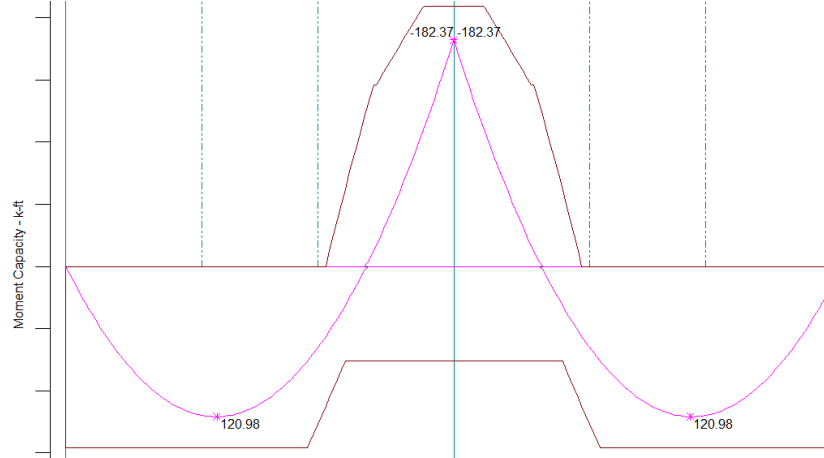
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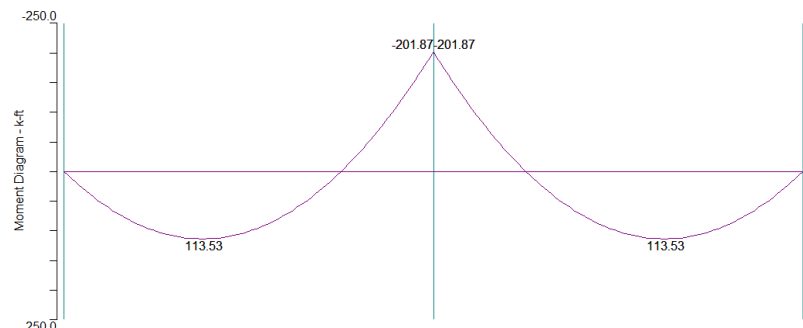
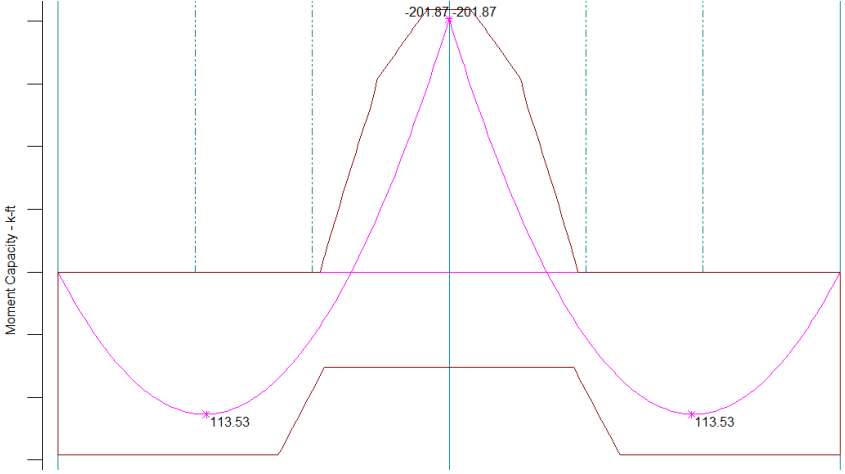
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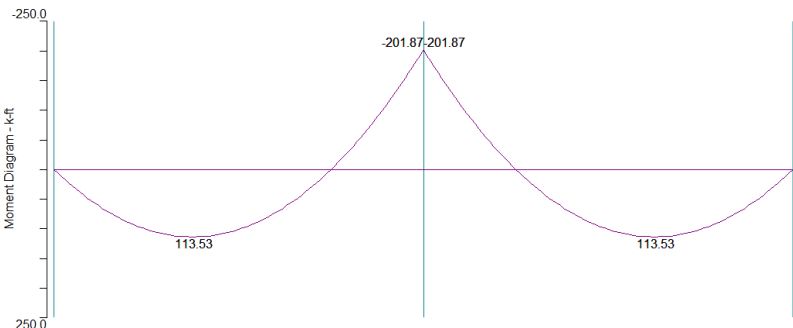
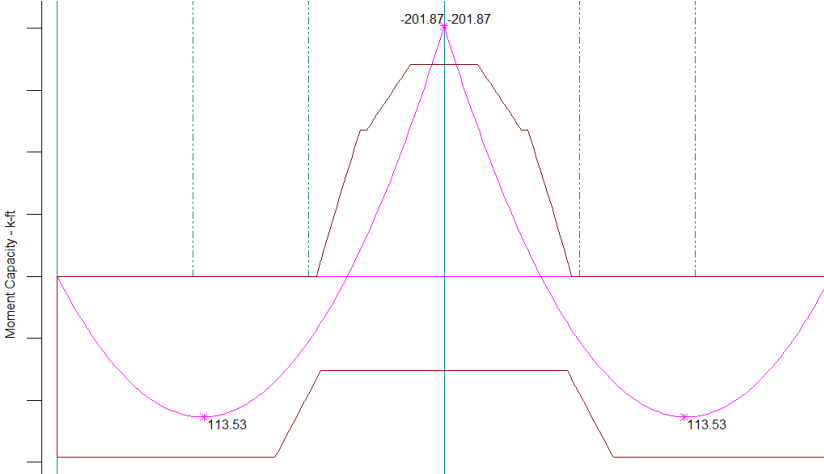
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