

Evaluation Method for Shear Strength of RC Pile Foundation Footing with Small Shear Span Ratio

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The authors investigate the shear failure properties of pile foundation footings with a small shear span ratio of 1.0 or less and an equation to calculate the effective width used for shear strength evaluation. The result showed that the shear strength increases with a smaller shear span ratio even when the shear span ratio is less than 1.0. In contrast, when using the conventional equation to calculate the shear strength in design, the shear strength calculated tends to be smaller as the shear span ratio is smaller, when the shear span ratio is approximately 1.0 or less. To solve this problem, we have proposed an equation to calculate the effective width used for shear strength evaluation so that the shear strength is not calculated too small even if the shear span ratio is smaller.