



15)) : *Plaxis 3D - Piled-Raft foundation as Mohr-Coulomb model (MC)*

COMBINED PILE RAFT FOUNDATION GEOTECHNICAL CALCULATION (1) - Rolf Katzenbach

**ADVANTAGES OF PILED RAFT FOUNDATION - PART 2** *midas Software Solutions for Geotechnical Pile raft 2015-05-28 Midas GTS NX Introduction: Pile Raft Foundation Analysis Behavior of Piled Raft Foundation on Heterogeneous Clay ...*

As a solution to the settlement problem of high-rise buildings, a number of piles are used and a new type of foundation - called a piled raft foundation - is coming up in a big way. In some designs, approach piles are used for reducing the settlement and a load is carried by raft only.

(PDF) [ISSMGE Combined Pile-Raft Foundation Guideline](#)

The piled raft foundations are designed to support the structure against static and dynamic loads to satisfy the requirements for bearing capacity and maximum settlement. The raft is 78 m long, 53 m wide, and 1.8 m thick and made of reinforced concrete.

**INTERNATIONAL JOURNAL OF SCIENTIFIC & TECHNOLOGY RESEARCH ...**

Small J. C., Zhang H. H., (2002), "Behavior of Piled Raft Foundations Under Lateral and Vertical Loading", The International Journal of Geomechanics, Vol. 2, 29 - 45. Yue Mao-guang., Wang Ya-yong., (2008), "Soil-Structure Interaction of High-rise Building Resting on Soft Soil", Electronic Journal of Geotechnical Engineering.

[PILED- RAFT FOUNDATION FOR HIGH RISE INDUSTRIAL STRUCTURE](#)

**Piled Raft Foundation International Journal Of Civil**

The foundation area is about 2900 [m<sup>2</sup>] founded on Frankfurt clay at a depth of 14.5 [m] under the ground surface. Raft thickness varies from 4.65 [m] at the middle to 3 [m] at the edge. A total of 40 bored piles with equal diameter and length, each 30 [m] length and 1.3 [m] in diameter.

[Discussion of "3D Numerical Model for Piled Raft ...](#)

Abstract. Load sharing of piled raft foundations is known as an economical design for deep foundations. Nevertheless, research in this area has been lagging because of the complexity of the problem and lack of field data. Numerical modeling can be used to provide valuable data with a high level of success. A three-dimensional finite-element model of a piled raft foundation was developed to simulate the case of a piled raft foundation.

**Piled raft foundations: design and applications**

"An experimental investigation on behavior of piled raft foundation", International Journal of Geomatics and Geosciences, 5(2), 300. Phoon, K.K. and Kulhawy, F.H. (1999). "Characterization of geotechnical variability", Canadian Geotechnical Journal , 36(4), 612-624.

*3D Numerical Model for Piled Raft Foundation ...*

International Journal for Numerical . ... The piled-raft foundation systems have started to be a very popular design method that is commonly used for especially high-rise buildings. In this ...

[Analysis of piled raft foundation Mechanics of Barrette and Combined Pile Raft Foundation Systems | Deepankar Choudhry | IACMAG Piled raft foundation in Abaqus Bengt H Fellenius: Piled Raft](#)

[Foundation Response for a Container Port. Pile Raft Foundation by Prof. Noppadol Phien Wej \[GTS NX\] Pile Raft Foundation Analysis with Superstructure and Substructure - midas GTS NX Webinar](#)

[Pile Raft Foundation Analysis with Superstructure and Substructure - midas GTS NX \*\*CSI SAFE PILE RAFT FOUNDATION DESIGN IN SAFE PART-3/3 Pile Raft Foundation in STAAD Foundation\*\*](#)

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[SAFE PART-1/3 PILED RAFT FOUNDATION - PART 1 - INTRODUCTION \u0026 APPLICATION Raft foundation or Mat foundation details design | types of foundations | Green House Construction Raft Foundation Explained](#)

[Bored Piling Method BASEMENT EXCAVATION - BORED PILE](#)

[Raft foundation construction according to drawing plan](#)

[What is Raft Foundation? purpose of Raft Foundation - Design of Raft Foundation \*\*Raft Foundation Construction Method\*\* Construction of Mat Footing](#)

[Floating foundations vs. caisson \(pile\) foundations](#)

[Use of Raft Foundation Advantage and Disadvantages RAFT VS PILE FOUNDATION , CT II VIDEO ASSIGNMENT](#)

[Zygmunt Meyer: Analysis of Combined Pile Raft Foundation based on a static load test](#)

[Residential Building Design : Pile Raft foundation| Pile Mat Foundation Design](#) □□□□□□□□□□  
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**ADVANTAGES OF PILED RAFT FOUNDATION - PART 2** *midas Software Solutions for Geotechnical Pile raft 2015-05-28 Midas GTS NX Introduction: Pile Raft Foundation Analysis*

Abstract Disconnected piled raft (DPR) foundations have been widely adopted as an effective foundation system where the piles are separated from the raft by a granular layer, which can limit the shear forces and moments transmitted between the raft and the piles.

[Pseudostatic Approach to Analyze Combined Pile-Raft Foundation](#)

Pile raft foundation behavior is evaluated with many researches and the effect of pile length; pile distance, pile arrangement and cap thickness are determined under vertical or horizontal static and dynamic loading. In the present paper the influence of pile length configurations on behavior of multi-storied are evaluated under vertical loading.

[Piled raft foundation - Designing Buildings Wiki](#)

Jun Yang. The original paper investigated the performance of piled raft foundations under vertical loading by three-dimensional (3D) FEM numerical simulation. The topic is interesting, and the findings on the effects of the key parameters governing the performance of this type of foundation are instructive. However, there are two serious issues that should be addressed and corrected, as discussed herein.

[Simplified Design Method for Piled Raft Foundations ...](#)

One of the Technical Committees of the International Society for Soil Mechanics and Foundation Engineering (ISSMFE) focussed its efforts in the period 1994-7 towards piled raft foundations, collected considerable informa- tion on case histories and methods of analysis and design, and

produced comprehensive reports on these activities (O'Neill et al., 1996; van Impe & Lungu, 1996).

**Performance of piled raft foundations subjected to static ...**

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*Influence of Variable Rigidity Design of Piled Raft ...*

International Journal of Technical Innovation in Modern Engineering & Science (IJTIMES) Impact Factor: 5.22 (SJIF-2017), e-ISSN: 2455-2585 Volume 4, Issue 11, November-2018 IJTIMES-2018@All rights reserved 89 PILED- RAFT FOUNDATION FOR HIGH RISE INDUSTRIAL STRUCTURE

K.Bhaskarreddy1, Dr.c.sashidhar2, B.Sreenivas3

**Piled Raft Foundation International Journal**

Abstract. A piled raft foundation comprises both piles and a pile cap that itself transmits load directly to the ground. The aim of such a foundation is to reduce the number of piles compared with a more conventional piled foundation where the bearing effect of the pile cap, or raft, is ignored. This paper describes a 'hybrid' approach for the analysis of piled raft foundations, based on a load transfer treatment of individual piles, together with elastic interaction between different ...

**Piled Raft Foundation - ELPLA**

If there are one or more ineffective piles, the raft can allow some degree of load redistribution to other piles, reducing the influence of the pile's weakness on the overall performance of the foundation. In an Unconnected Piled Raft Foundation (UCPRF), the piles are not directly connected to the raft, but are separated from it by a structural fill 'cushion' (such as a compacted sand-gravel mixture or compacted soil) which redistributes load between the raft and piles. This can be a ...

[An approximate analysis procedure for piled raft foundations](#)

Fig 1: Concept of piled raft foundation a) piles, b) raft, c) piled raft. International Journal of Advanced Engineering Technology E-ISSN 0976-3945 IJAET/Vol.II/ Issue IV/October-December, 2011/191-195. c) When the clay layer has intermediate strength, alternative (b) may not be feasible, as the bearing capacity may not be adequate, or settlements may be excessive, which may also cause distresses to adjacent structures.

[Piled Raft Foundation for Seismic Performance of Tall ...](#)

Over the past two decades, a number of researchers studied different aspects of the unconnected piled raft foundation (UPRF) system. In this system, a structural fill cushion is inserted between the raft and the concrete piles (PC) where the cushion transfers the loads from the superstructure to the piles. They showed that UPRF could increase the load-bearing share of the raft relative to that of the concrete piles, which leads to a favourable economic impact.

*BEHAVIOURAL STUDY OF PILED RAFT FOUNDATION IN LAYERED SOIL ...*

Principal findings from the present study are: 1) The stiffness and the resistance of the single pile in piled raft foundations are different from those observed in the isolated single piles of the same size, due to the difference in the confining stress condition around the piles; 2) Piles play important roles in increasing horizontal ultimate resistance of piled raft foundations; 3) The initial horizontal stiffness of a piled raft is not always higher than that of a raft (alone) as the ...