2.5 Foundations and Superstructure

2.5.1 Special Foundations

General Guidelines

Intent
Special foundation systems are those systems other than standard shallow foundations that are required by unusual geotechnical conditions or special building loading conditions.

Resources
Resources available to designers are the professional staff of the Facilities Planning and Construction Office and the State Construction Office.

Documentation
Documentation should include geotechnical reports and recommendations, loading conditions of the building program, proposed systems, complete details of the proposed system, and construction process impacts to adjacent structures. Specific construction monitoring and testing documentation requirements will be determined based upon the specific system chosen for each project.

Design Criteria
At a minimum, special foundations should comply with NC State Building Code and State Construction Office requirements. Special foundations should be dependent upon specific geotechnical conditions and the specific loading conditions of the building program and should be reviewed on a per-project and case-by-case basis.

Typically university building projects have longer life expectancies than most commercial building projects and the superstructure and Foundations should be designed accordingly. A useful life of 75 years (if not longer) is suggested as a minimum. These life expectancies would apply to other standard foundation systems and projects as well.