

Requirements for Boring Layout

(From NAVFAC DM7-1 Table 6, adapted to metric.)

Areas for Investigation	Boring Layout
New site of wide extent	Space preliminary borings 60 to 150m apart so that area between any four borings is approximately 10% of total area. In detailed exploration, add borings to establish geological sections at the most useful orientations.
Site development on soft, compressible strata.	Space borings 30 to 60m at possible building locations. Add intermediate borings when building sites are determined.
Large structure with separate closely spaced footings	Space borings approximately 15m in both directions, including borings at possible exterior foundation walls at machinery or elevator pits, and to establish geologic sections at the most useful orientations.
Low-load warehouse building of large defined area	Minimum of four borings at corners plus intermediate borings at interior foundations sufficient to establish subsoil profile.
Isolated rigid foundations in area 250m ² to 1000m ²	Minimum of three borings around perimeter. Add interior borings depending on initial results.
Isolated rigid foundation in area less than 250m ²	Minimum of two borings at opposite corners. Add more for erratic condition.
Major waterfront structures (e.g. dry docks)	If definite site is established, space borings generally not farther than 15m adding intermediate borings at critical locations, such as deep pump-well gate seat, tunnel, or culverts.
Long bulkhead or wharf wall	Preliminary borings on line of wall at 60m spacing. Add intermediate borings to decrease spacing to 15m. Place certain intermediate borings inboard and outboard of wall line to determine materials in scour zone at toe and in active wedge behind wall.
Slope stability, deep cuts, and high embankments	Provide three to five borings on line in the critical direction to provide geological section for analysis. Number of geological sections depends on extent of stability problem. For an active slide, place at least one boring up slope of sliding area.
Dams and water retention structures	Space preliminary borings approximately 60m over foundation area. Decrease spacing on centerline to 30m by intermediate borings. Include borings at location of cutoff, critical spots in abutment, spillway and outlet works.