

**NHBRC**  
**Technical and Operations : Subsidy Sector**  
**Geotechnical Evaluation**

**Province: Sub**  
**Ref. No:**  
**Project:**

**GEOTECHNICAL SITE INVESTIGATION FOR HOME ENROLMENT**

**1. Minimum requirements** in accordance with the Geotechnical Site Investigations for Housing Development, Generic Specification (GFSH-2 and GFSH-6).

Reporting requirements in accordance with GFSH-2.

**Table 1: Report Structure and Contents**

Description	Included		Acceptable		
	Yes	No	Yes	No	
Executive summary					
<b>1. Introduction</b>					
<b>2. Information</b>					
<i>2.1 Description and list of information assimilated and used in the study</i>					
<i>2.2 General location and description of site</i>					
2.2.1 Locality plan of site boundaries with co-ordinates					
<i>2.3 Evaluation procedures used in the investigation</i>					
<i>2.5 Geotechnical conditions and constraints including discussion, where relevant, of:</i>					
2.5.1 Ground conditions (outcrops, soil cover etc.)					
2.5.2 Ground water conditions					
2.5.3 Geotechnical conditions of the site					
2.5.3.1 Inundation/flooding					
2.5.3.2 Active soils (potentially expansive soils)					
2.5.3.3 Excavatibility (excavation to 1,5 m)					
2.5.3.4 Slope instability (both natural & man-made)					
2.5.3.5 Sinkhole formation (doline & sinkhole formation in dolomitic land)					
2.5.3.6 Collapse potential (soils with collapse grain structure.					
2.5.3.7 Subsidence/consolidation (undermined land & dumping sites)					
2.5.3.8 Erodebility					
2.5.3.9 Dispersivity					
2.5.3.10 Acidic soils (from mine activities, slimes dams, etc.)					
2.5.3.12 Groundwater table (shallow water table)					
2.5.3.13 Permeability (rate of water infiltration into the ground may cause ponding)					
2.5.7 Confirmed and refined residential site classes with respect to each erf					
2.5.8 Geotechnical interpretation of each soil profile unit					

2.5.9 Foundation recommendations by Site Classification unit					
2.6 Terrain mapping units GFSH-2 and NHBRC Site Class					
2.6.2 Drawing of site with terrain mapping units					
2.6.3 Discussion of process followed to arrive at terrain mapping units					
2.7 Profiling procedures for the installation of services					
2.8 Soil profiles from service trenches at intervals <100 m or where soil types change					
2.9 Justified supplementary site investigation					
2.10 Undisturbed soil samples & laboratory tests at every five points profiled					
2.11 Site plan with profiled positions					
2.12 Records of all profiles					
2.13 Township layout plan with individual erven site classes					
2.14 Submission of co-coordinated detailed drawings showing all surface and underground operations, in the case where land ownership history includes a mining operator.					
<b>3. Impact of the geotechnical character of the site on subsidy housing developments</b>					
3.1 Land use					
3.2 Installation of services					
3.3 House construction					
3.4 Housing subsidy variations					
3.5 Foundations and structural nature of residential housing					
<b>4. Conclusions and recommendations</b>					

**Table 2:** Sampling of soil (disturbed and undisturbed soil samples) must be done and the samples must be taken for laboratory testing. The tests must include:

Conducted Tests	Yes	No	Comments
i) Particle size distribution/grading			
ii) Atterberg limits			
iii) Moisture content			
iv) Compressibility/potential collapse			
v) Swell under load			
vi) PH & conductivity			
vii) Compaction (moisture : density relationship)			

**Table 3: General**

Description	Yes	No	Comments
Were the report and drawings submitted in electronic format?			
Does the author (or co-author) fulfill the requirements defined for a <b>Competent Person (Geotechnics)</b> ?			