

## Geotechnical Reports For Subdivisions

### 1. Purpose

The Commission has been requested to reconsider the need for geotechnical reports as prerequisites to subdivision approvals. The purpose of this bulletin is to advise local government and client bodies of the matters to be considered in respect of the need for geotechnical reports, and to seek any comments by 15 March 1996.

### 2. Geotechnical Report

A geotechnical report involves the evaluation of the physical suitability of land to sustain a particular activity, in this case the impact of works associated with subdividing the land and the subsequent development of the land. A geotechnical report is usually produced by a civil engineer. It may involve test-boring (or otherwise excavating) a site to investigate the type of material on the site and its ability to physically accommodate subdivisional works and development in terms of stability, compaction, strength and the like.

The Commission imposes the following condition on subdivisions, where such a condition is considered appropriate :

*The applicant providing a geotechnical report on the soil conditions of the property to the satisfaction of the Western Australian Planning Commission. (LA)*

Concern has been expressed that some local authorities are advising potential subdividers that geotechnical reports will be required as a condition of all subdivisions. Such condition would be implemented either by the local authority requesting the Commission to impose the relevant condition on the subdivision, or by the local authority clearing engineering drawings only where a satisfactory geotechnical report is provided.

However, there is a view that requirements for such reports are more appropriately imposed as a development condition, to enable the report to be site-specific and therefore of some value to the subsequent builder; a report provided at the subdivision stage would be too generalised and may leave the developer, his consultant, and possibly the clearing authority open to claims in the event of subsequent problems. Even if a study was to be carried out on every proposed lot, there would be no guarantee that the test was undertaken in the correct position of the proposed building.

### **3. The Commission's Role**

The Commission's policy DC 1.1 (Subdivision of Land - General Principles) is relevant in this regard. Under the heading Suitability for Development, point 3.5.1 of the policy refers to the need for all new lots to be physically capable of development for their intended use. It is accepted practice that development should be able to proceed on a subdivided lot with little or no preparation and on standard footings. On receipt of an application for subdivision the Commission, following consultation with the relevant authorities, imposes conditions relating to drainage, fill, and other matters, or alternatively refuses to approve a subdivision because it believes that the land is unsuitable for such.

With respect to the general need for submission of geotechnical reports, it is a fact that the vast majority of land proposed for subdivision in Western Australia is suitable, in terms of its physical properties, to accommodate the development for which it is ultimately intended. Land which is not suitable for subdivision is likely to be designated for purposes other than those which involve subdivision or development. Nevertheless the Commission is from time to time faced with an application involving land which is entirely unsuitable for subdivision, or land which requires engineering certification to establish suitability for subdivision (with or without the application of filling, stabilisation, etc.).

It is relevant to note that whether or not a local authority clears engineering drawings does not prevent the Commission from clearing a subdivision if the Commission is satisfied that the relevant condition has been met. However, regardless of the Commission's authority in this respect, consideration must be given to the reasons for, and the appropriateness of, such a condition.

### **4. Commission Practice**

It has been common practice for the Commission, when requested by a local authority, to impose the condition relating to a geotechnical report; generally this has occurred without objection from the subdivider. The circumstances in which a local authority has requested the Commission to impose the condition have included one or more of the following:

- where a significant amount of fill is required to be placed on a subdivision;
- where trenching for major services results in the need for substantial backfilling;
- where there is reason to doubt the ability of the land to support development (with or without treatment), from past experience in the particular area, or knowledge of the type of soil or terrain.

- where there is reason to doubt the ability of the land to safely accept on-site effluent disposal.

The Commission relies on the advice of the local authority in respect of the need for a geotechnical report. This process appears to have worked satisfactorily in the past.

## 5. Revised Subdivision Condition

The Commission is considering rewording the condition to specifically outline the requirements of the geotechnical report. Such a condition would be more in line with the decision of the Town Planning Appeal Tribunal in the case of Hill, in that it would ensure the condition contained finality, would fairly and reasonably relate to the subdivision, is relevant to planning policy, and can be reasonably imposed.

The condition as presently worded is relatively general, in that it states that a geotechnical report be submitted on the soil conditions of the property. This could be said to be lacking finality as there is no indication of the proposed outcome of the report in terms of the suitability of the land for development following its subdivision, even though this would be the obvious intention of the condition and report. A more appropriate condition would include reference to the filling or backfilling, and compaction of the fill, and the capability of the land to sustain development. There may also be situations where no filling is required but a geotechnical report is needed to certify the suitability of the land for development. To cover both of these situations it would be appropriate to have two separate conditions, as follows:

*The applicant providing a geotechnical report certifying that the land is physically capable of development, to the satisfaction of the Western Australian Planning Commission. (LA)*

and

*The applicant providing a geotechnical report certifying that any filling or backfilling has been adequately compacted, to the satisfaction of the Western Australian Planning Commission. (LA)*

In many situations both conditions will need to be applied.

In terms of the site-specific nature of the condition/s, there may be circumstances where knowledge of the land indicates a potential problem area which could be site-specific to a proposed lot or part of a proposed lot. Consequently it would not be appropriate to state, in a standard subdivision condition, that the condition could not be site-specific. It would be more appropriate to deal with the particular

circumstances of a proposal and if necessary add to the standard condition/s by referring to a particular proposed part lot, lot or lots.

## **6. Conclusion**

There may be a need for the submission of a geotechnical report to support a subdivision proposal in some circumstances and the Commission will need to continue to rely on the advice of local authorities in this regard. However, the wording of the standard condition is presently too general in respect of its intended outcome, and should be altered to explain its objectives.

## **7. Submissions**

Written submissions on the content of this bulletin and the proposed revised subdivision conditions are requested before 15 March 1995. Submissions should be forwarded to:

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