THE ZONING CONCEPT IN ENGINIEERING GEOLOGICAL MAPPING. EXAMPLE FROM ÖK 52 ST. PETER IN DER AU

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Wat should be shown on an engineering geological map depends largely on why the map is being produced, in other word ist purpose.

It is in the tipe of iformation that need to be shown, and in how the information is presented, that an engineering geological map differs from a conventional geological map.

Here are decribed the standart methods for preparing engineering map, bat the way should be left open for developments in mapping techniques both in methods of data acquisition and in final presentation on the map sheet.

Engineering geological mapping involvs lines (ARCS) on a map around areas (POLYGONS) homogeneous units. Each map units comprises in general terms a zone - an acceptable concept for an encloed area. Homogeneity is related to particular geological conditions or engineering properties (INFO) and the concept may be applied to all maps csales.

The zoning concept has bin developed into a hierarchy:

region

area

zone

district,

each appropriate to particular map scales. Zoning has been applied to delemit different types of engineering geological areas and zones. Zones are delimited on the basis of the general character and structural arrangement of engineering formations.

Geological, hydrogeological and present geodynamic conditions are listed for each zone together with general estimations of engineering geological conditions for construction purposes.

Engineering geological zones of the north part of ÖK 52 St. Peter in der Au are discriminated on

a) general uniformity of lithological character

b) the arrangement of engineering formations in the uper most 10m below the ground surface.

Engineering geological zones are subdividet into subzones on the bases of sequence and thecknesses of individual soil and rock types. Conditions in the subzones are represented by chematic cross-sections of the soils and rocks. Individual zones are indicated by symbols expressing both the genesis and lithology of roks and soils involved.

As a supporting tool for engineering geological maps und zoning concept has been used the GIS-ARC/INFO.The major advantage of a ARC/INFO is that it allows as to identify the special reltionship betwen eningeering geological map features like hydrogeological conditions and geodynamic processes(landslides, gully erosion etc.)