

**RECONNAISSANCE GEOLOGICAL REPORT OF PROPOSED SITE OF
SHRI JAIPRASAD S/o SHRI HARINAND FOR THE CONSTRUCTION OF
OWNER DRIVEN CONSTRUCTION FOR HOUSING (ODCH)
VILLAGE GURADI, TEHSIL- MORI- DISTRICT UTTARKASHI, UTTARAKHAND
KHASARA No. – 3312 & AREA – 0.030 ha.**

Date of Inspection: 17/01/2014

In a 'World Bank' funded programme, Government of Uttarakhand has provided teams of Consultant Geologists and Consultant Associate Geologists to Director, Geology and Mining Unit, Uttarakhand for geological studies in proposed sites for Owner Driven Construction For Housing (ODCH) in disaster affected districts of Uttarakhand.

Director, Geology and Mining Unit, Directorate of Industries, Uttarakhand has issued an Office Order No.1612 Aa. Pra./Bhu.Ni./Bhu.Khani.E./2013-14 dated 10thDecember 2013 regarding geological studies in disaster affected five districts of Uttarakhand, Uttarkashi is one of them. Thus, undersigned have taken geological observation during traverses and collected field geological data under the management of cosignatory departmental 'Assistant Geologist'.

In the above mentioned questioned area, the reconnaissance geological investigation was carried out in the presence and co-operation of Shri Prem Lal, Home guard, Mori, Uttarkashi. It is 18Km approx from Tehsil Headquarter Mori, Uttarkashi, Uttarakhand and the site is 500m approx on Netwar- Guradi motar marg through bridle path. It falls on coordinate – N 31° 03'0.6" E 78° 06'7.9" El. 1669m. The site is in Pitriya Tok of village Guradi, which is least populated.

The proposed site is on colluvial overburden material varying in thickness range from 2-3m approx at places, man-made cultivated terraces are present. The uphill slope is 25°-30° and the downhill slope is 20°-25° sloping in north-west direction. Around the proposed site location least mix vegetation of Banjh, Apple, etc., is present at about 20m-25m approx in uphill side. A seasonal flow is passing from S side at about 30m-35m approx flowing in W direction.



Proposed site

Close view of the proposed site

The proposed site is on colluvial overburden material thus no insitu rock is found but a few boulders varying in size range from 0.2m to 0.5m approx are found embedded in the brownish soil with fragments of gneiss of 1cm-5cm approx size. The soil is consolidated; the

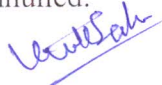
rate of infiltration is low making the soil water saturation low. At the proposed site location the water seepage is low. The trees at the uphill slopes are standing straight.

RECOMMENDATIONS:

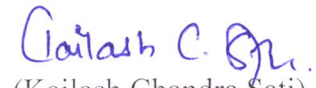
1. Inclined retaining wall of 2m approx height and 3m approx length at the SE backside boundary, S nala side boundary and also in the NW toe boundary of the site of 3m approx length, with provisions of weep holes and sufficient gap of about 2-3feet in between the backside retaining wall and the proposed construction should be constructed. And also, proper drainage system between the retaining wall and the wall of house should be developed.
2. The surface drainage should be properly planned through lined drain/pipe, so both rain water as well as waste water from the existing houses to be release safe place in W direction along a channel.
3. The foundation depth of the houses must be as per the compactness of the overburden material at the proposed site.
4. Framed structure with deep column and light roof must be constructed as the area falls in the earthquake zone IV, so it is essential that the house must be constructed with latest earthquake resistive techniques.
5. The soak pits and toilet foundations must be quiet away in W side from the house so that the foundations are not directly affected from subsidence due to excessive seepage.
6. The premises of house must be made 'pukka' in order to avoid excessive seepage of the surface water.

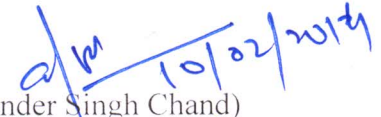
CONCLUSION:

Prima-facie, presently, the proposed site of Shri Jaiprasad S/o Shri Harinand is geologically feasible for the proposed construction, only if, the above mentioned recommendations will be followed strictly, otherwise, in their contravention; geologically suitability will be deemed annulled.

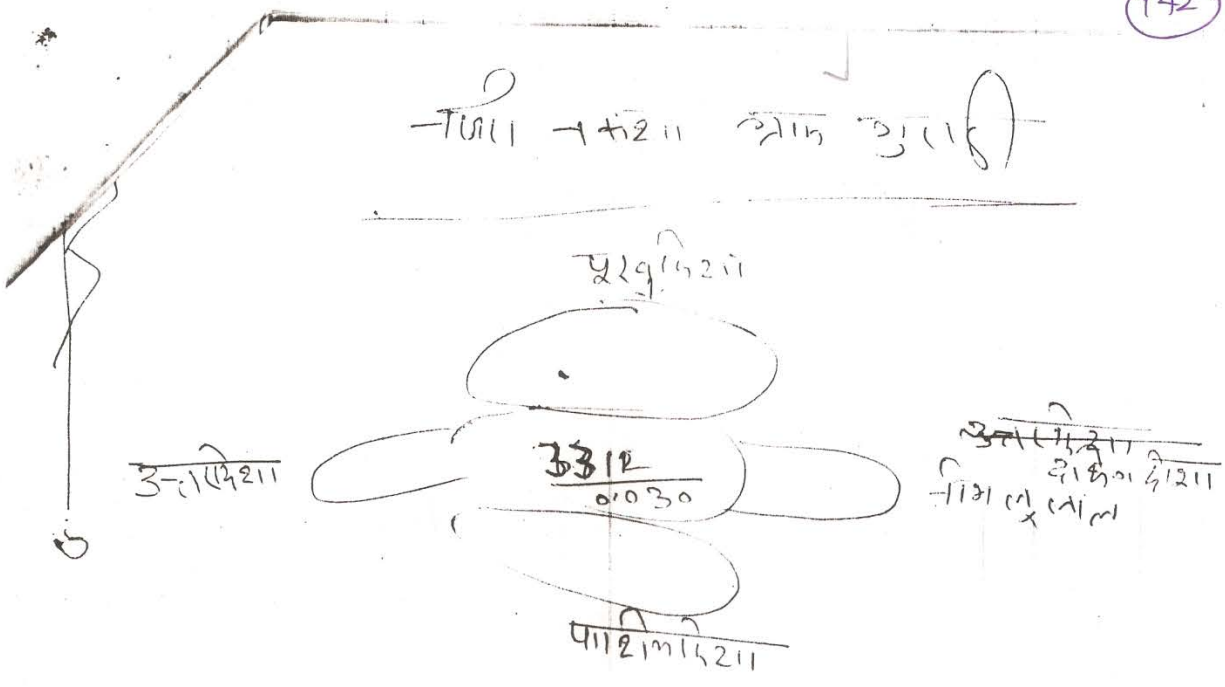


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उत्तरदिशि क्षेत्र में 3312
 पूरुवदिशि क्षेत्र में 0030
 पाश्चिमादिशि क्षेत्र में 0020

- घर की चोटी —
- 1) पूरुवदिशि के क्षेत्र में
 - 2) पाश्चिमादिशि के क्षेत्र में
 - 3) उत्तरदिशि के क्षेत्र में
 - 4) क्षेत्र में नाम लाल लाल

3312