



परियोजना का नाम:-


मा० मुख्यमंत्री घोषणा में राज्य योजना के अन्तर्गत जनपद चमोली में कर्णप्रयाग-नौटी-पैठाणी राज्य मार्ग 34 से मालई तक मोटर मार्ग के नव निर्माण हेतु।


भू-वैज्ञानिक की आख्या

भू-वैज्ञानिक की आख्या संलग्न है।

  
अमीन

  
कनिष्ठा अभियन्ता  
अस्थाई खण्ड लो०नि०वि०  
गौचर

  
सहायक अभियन्ता  
अस्थाई खण्ड लो०नि०वि०  
गौचर

  
अधिशासी अभियन्ता  
अस्थाई खण्ड लो०नि०वि०  
गौचर

कार्यालय प्रमुख अभियन्ता एवं विभागाध्यक्ष  
उत्तराखण्ड लोक निर्माण विभाग,  
देहरादून।

पत्र सं० - 340  
फाईल सं० - 4510  
दिनांक - 13/3/14

भू - गर्भीय निरीक्षण आख्या एस0जी0- 529/सड़क/पुल समरेखण/गढ़वाल/2014

**Geological Assessment of the Alignment proposed for  
SH-34 to Malai motor road, District- Chamoli  
(Uttarakhand).**

26-फरवरी-2014

REC  
3/2/14  
13/3

**Geological Assessment of the Alignment proposed for SH-34 to  
Malai motor road, District- Chamoli (Uttarakhand).**

**Vijay Dangwal**

**26-02-2014**

**1. Introduction:-** Temporary Division, Public Works Department Gauchar, (Chamoli) has proposed new construction of 1.625 km long motor road namely Nauti-Paithani SH-34 to Malai motor road under state sector. On the request of Er. Manoj Bhatt, Executive Engineer I carried out the geological assessment of the proposed alignment on 13.02.2014 in presence of Er. J.N Patwal, Asstt. Engineer and Er. Arjun Kumar Sharma, Jr. Engineer PWD, Gauchar.

**2. Location:-** The alignment of the proposed road originates from km 39.00 of SH 34, namely Karanprayag- Nauti- Painthani State Highway located in Distt. Chamoli Garhwal.

**3. Geological Assessment:** Geologically the proposed alignment of SH- 34 to Malai motor road lies in the Garhwal Lesser Himalayan Belt. The autochthon, rocks of Krol Nappe and Garhwal Group form the lithology of the area which are traversed by various linear discontinuities and they are sheared, shattered, tectonized and jointed in nature. Owing to their grade of deformation, chemical composition, texture and climatic condition these rocks are subjected to various degree of weathering and decomposition. Most of the alignment of Malai motor road passes through the slopes oriented in N 280 to N 100 direction which by and large are inclined at moderate angle and covered with the dispersive soils bearing low shear strength. The alignment slopes manifest the signature of slope failure in the past but they have attained natural stability in the present time. Any anthropogenic activity like box cut and full excavation on the slope for road construction will disturb the natural equilibrium of binding soils and the shear strength of the slope forming natural may decrease abruptly, resulting in slope failure, therefore, the road must be constructed by half cut- half fill techniques.

By and large the alignment slopes look stable and free from any active sliding.

On the basis of the geological / geotechnical studies carried at the site the construction of the proposed road failing to these the report will be treated as cancelled.



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#### **4. Recommendations:-**

- (i) Form the road by half cut- half fill techniques and the loose fill material must be compacted by dynamic compaction..
- (ii) The road must have extra wide lined long hill side drain with adequate arrangements of cross drainage. The drained water must be disposed on the stable ground.
- (iii) The top of the road must be sealed shoulder to shoulder cement concrete this is so as to check the infiltration of water into the sub surface material.
- (iv) The road and the overall stability of the slope must be protected by constructing suitably designed retaining walls/ brest walls all along the road.
- (v) Do not dispose the excavated waste on the downhill otherwise it will damage the lower arm and the slope bearing the road.
- (vi) All the construction activity must be carried out as per the standards and norms following the BIS codes prescribed for the similar civil construction in Himalayan Zone.

**5. Conclusion:-** On the basis of the geological / geotechnical studies carried at the site and with the above recommendations, the proposed alignment was found geologically suitable for the construction of 1.625 km long namely SH- 34 to Malai motor road under state sector.

*V. Dangwal*  
26/2/2014  
(Vijay Dangwal)

Sr. Geologist  
Office of the Engineer in Chief,  
PWD Dehradun


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मा० मुख्यमंत्री घोषणा में राज्य योजना के अन्तर्गत जनपद चमोली में कर्णप्रयाग-नौटी-पैठाणी राज्य मार्ग 34 से मालई तक मोटर मार्ग के नव निर्माण हेतु।


भू-वैज्ञानिक की संस्तुतियों/ सुझावों का अनुपालन किये जाने का प्रमाण-पत्र।

प्रमाणित किया जाता है कि विषयगत परियोजना के निर्माण हेतु भू-वैज्ञानिक द्वारा दिये गये सुझावों/संस्तुतियों का अनुपालन सुनिश्चित किया जायेगा।

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