

कार्यालय प्रमुख अभियन्ता एवं विभागाध्यक्ष
उत्तराखण्ड लोक निर्माण विभाग,
देहरादून

भू-गर्भीय निरीक्षण आख्या ए0जी0- 263 / सड़क / पुल / सम्प्रेषण / उत्तराखण्ड / गढ़वाल-2019

**Geological assessment for the widening to double lane motor road with
foot path of existing 3.00 km long single lane Doodhli-Chandmari-
Missarwala-Lachiwala bridge motor road, in Doiwala block, distt.
Dehradun.**

16 सितम्बर 2019

Geological assessment for the widening to double lane motor road with foot path of existing 3.00 km long single lane Doodhli-Chandmari-Missarwala-Lachiwala bridge motor road, in Doiwala block, distt. Dehradun

Shiv Kumar Rai

16.09.2019

1- Introduction:- The Temporary Division, Public Works Department, Rishikesh vide C.M declaration no. 105/2017 and G.O. no. 5726/III(2)/18-23 (एम०एल०ए०)/2017 TC-II dated 29.11.2018 has been instructed for the widening to double lane motor road with foot path of the existing 3.00 km long single lane Doodhli-Chandmari Missarwala-Lachiwala bridge motor road, in Doiwala block, distt. Dehradun. With reference to the letter no. 2295/C dated 31.08.2019, Er. Balram Mishra, Executive Engineer requested to the undersign for the geological assessment of the above mentioned site which was being carried out by me on 13.09.2019 in the presence of Er. Rajesh Kumar, Add. Asst. Engineer, T.D, PWD, Rishikesh.

2- Location:- The single lane Doodhli-Chandmari-Missarwala-Lachiwala bridge motor road originates from km 2 ch. 1/10 of Doiwala-Doodhli motor road passing completely through reserved forest area having total length of 3.00 km with no. HP bend with flat topography, in Doiwala block, distt. Dehradun.

3- Geological Assessment:- Geologically, the existing single lane Doodhli-Chandmari-Missarwala-Lachiwala bridge motor road fall in the geodynamic blocks of Main Himalayan Belt (MHB) comprise Shivalik sediments (north extent of Doon valley) and RBM of Doon Group (Doon sediment) as low land. These domains are dissected by the prominent tectonic lineament of the Himalaya known as the Main Boundary Thrust (MBT) which in this segment runs almost parallel to the arms of the proposed road. The terrain containing this road is characterized by the flat topography with thick vegetation cover. The underneath zone have thick soil cover of Doon sediments and Shivalik formation. The Doon Valley lies along NW-SE regional Himalaya Strike in Garhwal subdivision where doon valley depression is filled with alluvium in a form of large alluvial fan that descent from Lesser Himalayan.

The Shivalik rock masses represented by conglomerate in sandy-silty matrix and friable grey coloured sandstone. It bears horizontal/flat topography.

By and large the ground is occupied by the Doon sediment with the subordinate rock belonging to Sivalik Group. These rock masses along the alignment corridor are represented by the conglomerate, friable, sandstone and thick soil cover.

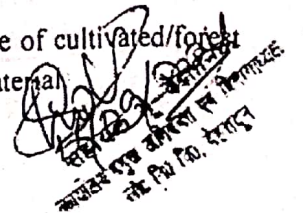
By and large the alignment slopes are stable and presently free from any ground subsidence activities.

On the basis of the geological inspection of the site studies carried and the facts give above, the following recommendations are being made for the construction of the proposed road failing to these this report will be automatically treated as cancelled.

4- Recommendations:-

1. On either side of the road, construct longitudinal drain with proper cross drainage arrangement at defined interval.

2. Do not dispose the excavated waste in the nearby portion due to the presence of cultivated/forest land nearby. Therefore should be dump Yard for the disposal of the cutting material.


SHIV KUMAR RAI
ADD. ASST. ENGINEER, T.D, PWD, RISHIKESH

3. The entire surface of the road from outer edge to inner edge must be sealed this is so as to check the water infiltration into the sub soil.
4. All the construction activity must be carried out as per the Indian standards codes of practice and norms prescribed by the BIS.

5- Conclusion:- On the basis of the geological/geotechnical studies carried at the site and with the above recommendations, the single lane Doodhli-Chandmari-Missarwala-Lachiwala bridge 3 km long motor road is geologically feasible for the widening to double lane motor road with foot trek, in Doiwala block, distt. Dehradun.

Photo copy.
H. B. S.

सहायक अभियन्ता
अस्थायी खण्ड, लो0नि0वि0,
अधिकेश
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(Shiv Kumar Rai)
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Office of the Engineer in Chief,
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