## Additional Attachment -2.29



परियोजना का नाम – कूल विरखन से सूड़ होते हुए प्यूड़ा इन्टर कॉलेज तक मोटर मार्ग निर्माण हेतु समेकित वन भूमि हस्तान्तरण प्रस्ताव ।

## टॉस्क फोर्स की संस्तुतियाँ मान्य होने का प्रमाण-पत्र

प्रमाणित किया जाता है कि जनपद नैनीताल में विकासखण्ड रामगढ़ तहसील नैनीताल के अर्न्तगत प्रस्तावित परियोजना कूल विरखन सूड़ से प्यूड़ा इन्टर कॉलेज तक स्वीकृत मोटर मार्ग ल0 4.00 कि0मी0 में प्रयुक्त वन भूमि के हस्तान्तरण में टॉस्क फोर्स की आवश्यक संस्तुतियॉ निर्माण खण्ड लोक निर्माण विभाग नैनीताल को मान्य होगी।

जा L अमीन

कनिष्ठ अभियन्ता

सहायक अभियन्ता (तृतीय) नि०ख०लो०नि०वि० नैनीताल

अधिशासी अभियन्ता यन्त। निप्याक्तिकानीकविक निज्जानीकार्यक निनीताल

## Task Force Certificate

Lay out of the Land-be followed as far as possible. (i)

Heavy cutting/filling be avoided-as far as possible. The technology of (ii) cut and fill method is to be adopted. Steep hill slopes also to be avoided.

Unstable/slide-prone areas to be avoided. For identifying such areas (iii) the advice of Geotechnical engineers and geologists to be taken during the survey for alignment.

Comparison of various possible alignments with reference to erosion potential be made and the alignment involving minimum erosion risks

be preferred.

A part from the stage of planning the road alignment, effective steps are also required to be taken by ground engineer during the process of road construction for minimized ecological disturbance to the hill roads Broadly the measures to be taken have been identified as :-

Cut and fill method to be adopted while excavating for road formation (i) and heavy earth cutting is to be avoided Box cutting is to be avoided

to the extent possible.

(ii) Blasting by explosives is to be restricted to the minimum. Lay out (ii) of holes to be drilled for blasting is to be planned keeping is view the line of least resistance and the existence of joints Controlled blasting should be repeated using low charge and care be taken to avoid activating slide zones or widening fissures and cracks in roak. Use of delay detonators in large scale basting work is to be made for anaoline dispersion of chock waves, so that minimum disturbance is caused to

the rock stratum as a result of the blasting process.

(iii) All cut slopes, unusable hill side and slide prone erosion prone (iii) areas are to be provided with suitable correction measures by using one or the other of the techniques developed by CRRI. Several techniques have been sponsored by CRRI. like simple vegetative turning, bitumen much treatment and slide treatment by jute netting coir netting of these simple vegetative turning seems to be the most appropriate preventive measure in many situations. This should be established in the denuded slopes immediately after the excavation is made

Adequate drainage measures and protective structures like intercepting (v)catch water drains, longitudinal drains/culvers, breast walls, retaining and the walls are provided for purposes of establishing the slips

Growth vegetative cover is stimulated in the disturbed hill slops above the road level by planting suitable fast growing shrubs and plants. In certain selected unstable areas terraced afforestation has also been plasticized as a stabilizing measure with go d results.

(vi) Over the past few years the roads wing of the Ministry of Shipping and transport has issued instruction laying down broad guidelines and check list of the preparation of road construction projects which provide an inbuilt mechanism of tacking land slides/erosion control for the guidance and follow up action by engineers of state 'PWD' Border Roads Organization and other engaged in construction of hill roads these should be observed.

प्रमाणित किया जाता है कि योजना आयोग द्वारा गठित टास्क फोर्स की उपरोक्त संस्तुतियाँ याचक विभाग को मान्य हैं।

> ह0/-प्रयोक्ता एजेन्सी

अधिशासी अभियन्ता निठखंठ, लोठनिठविठ

नै**नीताल**ा ...

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