

Name of the Work- Construction of Dam Across Ramganga River For Drinking Water Supply of Gairsain Town and adjoining population in District Chamoli

Comparison between identified alignment of approach road

S. No.	Variables	Alignment No-1	Alignment No-2
1	Topography	Mountainous	Mountainous
2	Length of Road	1.300 km	1.500 km
3	Bridging requirement No. and Length	Nil	Nil
4	Geometric		
	(a) Gradients	01:20	01:20
	(b) Curves, H.P Bends	00 numbers of H.P. Bends	02 numbers of H.P. Bends
5	Existing Means of communication, mule path, jeep, Tracks etc.	By mule path	By mule path
6	Right of way, bringing out. construction on account of built up areas, monuments and other structures.	Right of way is available for carrying out the construction work. There are no built up area, monuments or other important structures along this alignment	Right of way is available for carrying out the construction work. There are no built up area, monuments or other important structures along this alignment
7	(a) Terrain & Soil Condition.	The terrain is hilly and the soil is a mix of Earth and Boulders, Soft Rock and Hard Rock.	The terrain is hilly and the soil is a mix of Earth and Boulders, Soft Rock and Hard Rock.
	(i) Cliffs and gorges.	(i) None	(i) None
	(ii) Drainage characteristics of the area including susceptibility to flooding.	(ii) The natural Drainage characteristics of the area is good and there is no susceptibility to flooding	(ii) The natural Drainage characteristics of the area is good and there is no susceptibility to flooding.

S. No.	Variables	Alignment No-1	Alignment No-2				
	(iii) General elevation of the road indicating maximum and minimum height negotiated by main ascends and descends.	(iii) The General elevation of the road is 1590 m. The elevation at the starting point of the road is 1585 m and the elevation at the end point of the road is 1594 m.	(iii) The General elevation of the road is 1610 m. The elevation at the starting point of the road is 1623 m and the elevation at the end point of the road is 1594 m.				
	(iv) Variations extant and types.	50/ 100 (Attached after comprative)	50/100 (Attached after comprative)				
8	Climate Condition:						
	(a) Temperature Monthly max. & min. reading.	(a) Temperature Monthly max. & min. reading (Avg. data of 12 years)	(a) Temperature Monthly max. & min. reading (Avg. data of 12 years)				
		Month	Temperature (in ⁰ C)	Month	Temperature (in ⁰ C)		
			Max.	Min.		Max.	Min.
		January	18	-1	January	18	-1
		Feb.	22	7	Feb.	22	7
		March	27	13	March	27	13
		April	33	18	April	33	18
		May	35	20	May	35	20
		June	32	21	June	32	21
		July	31	21	July	31	21
		August	30	23	August	30	23
		September	30	21	September	30	21
		October	29	17	October	29	17
		November	26	12	November	26	12
December	21	-1	December	21	-1		
	(b) Rainfall data average annual peak intensities monthly distribution (to the extent available) .	(b) Rainfall data average annual peak intensities monthly distribution	(b) Rainfall data average annual peak intensities monthly distribution				
		Month	Average Rainfall Data (in mm)	Month	Average Rainfall Data (in mm)		
		January	21	January	21		
		Feb.	7	Feb.	7		
		March	32	March	32		
		April	36	April	36		

S. No.	Variables	Alignment No-1		Alignment No-2	
		May	89	May	89
		June	194	June	194
		July	302	July	302
		August	264	August	264
		September	189	September	189
		October	2	October	2
		November	2	November	2
		December	23	December	23
	(c) Snowfall data average annual peak intensities monthly distribution (to the extent available) .	(c) Snowfall occurs in the month of December and January upto 30 cm in depth on an average.		(c) Snowfall occurs in the month of December and January upto 30 cm in depth on an average.	
	(d) Wind direction and velocities.	(d) Owing to the nature of terrain local affect are pronounced and when the general prevailing winds not too strong to mask these effect, there is a tendency for diurnal reversal of winds, the flow being anabatic during the day and katabatic at night, the latter being of considerable force.		(d) Owing to the nature of terrain local affect are pronounced and when the general prevailing winds not too strong to mask these effect, there is a tendency for diurnal reversal of winds, the flow being anabatic during the day and katabatic at night, the latter being of considerable force.	
	(e) Fog Condition.	(e) Generally there are no fog conditions in the area. However, during the month of December and January, slight foggy conditions prevail during night, with clear sky in the day.		(e) Generally there are no fog conditions in the area. However, during the month of December and January, slight foggy conditions prevail during night, with clear sky in the day.	
	(f) Exposure to sun.	(f) The site is exposed to sun throughout the year.		(f) The site is exposed to sun throughout the year.	
	(g) Unusual weather condition like cloud burst etc.	(g) There is no record of unusual weather condition like cloud burst in the area where the site is located.		(g) There is no record of unusual weather condition like cloud burst in the area where the site is located.	
	Facilities resources.				
	(a) Landing ground.	(a) None		(a) None	

S. No.	Variables	Alignment No-1	Alignment No-2
9	(b) Dropping Zone.	(b) None	(b) None
	(c) Food stuffs.	(c) Haldi, Adrak, Mirch, Lehsoon, Dhan, Ghehun, Aloo etc.	(c) Haldi, Adrak, Mirch, Lehsoon, Dhan, Ghehun, Aloo etc.
	(d) Labour local availability and need for import.	(d) Local labour is available for construction work.	(d) Local labour is available for construction work.
	(e) Construction material (Timber, Bamboo, Sand, Stone, Shingle etc. extent of their availability and lead involved.	(e) Stone required for the construction work shall be made available locally as it shall be obtained from hill side cutting. However, sand required for the construction work shall be procured from the approved quarry with a distance of 40 km.	(e) Stone required for the construction work shall be made available locally as it shall be obtained from hill side cutting. However, sand required for the construction work shall be procured from the approved quarry with a distance of 40 km.
10	Value of land, agricultural land, Irrigated land, built up land, forest land etc,	Value of the land required for the construction of the road in this alignment is as under-	Value of the land required for the construction of the road in this alignment is as under-
		Van panchayat land, 4.950 hectare @ Rs. 584.00/sq = Rs.....	Van panchayat land, 5.50 hectare @ Rs. 584.00/sq = Rs.....
		Thus total value of land = Rs. 28908000.00	Thus total value of land = Rs. 32120000.00
11	Approximate Const. Cost.	Rs. 6535.64 lacs	Rs. 7000.00 lacs
12	Access point indicating possibility of induction of equipment.	Access point available for induction of equipment	Access point available for induction of equipment
13	Period required for construction.	24 months	24 months
14	Strategic Consideration.	Deployment of skilled manpower and efficient equipment / machinery shall be made for completion of the project.	Deployment of skilled manpower and efficient equipment / machinery shall be made for completion of the project.

S. No.	Variables	Alignment No-1	Alignment No-2
15	Important villages, towns and markets centers to be connected.	The road shall provide connectivity to proposed Dam.	The road shall provide connectivity to proposed Dam.
16	Recreational potential.	Nil	Nil
17	Economic Factors:		
	(a) Population served by the alignment.	(a) 251 numbers	(a) 251 numbers
	(b) Agricultures and economic potential of the area.	(b) Water will be supplied to cultivations by gravitational means (i.e.. Through channel) shall enhance the economical condition of the people residing in this area. Potential of the development of pisciculture in lake and tourism also.	(b) Water will be supplied to cultivations by gravitational means (i.e.. Through channel) shall enhance the economical condition of the people residing in this area. Potential of the development of pisciculture in lake and tourism also.
18	Other major development projects being taken up electric projects etc.	None	None
19	(i) Misc. Such as camping sites	(i) Camping sites to be located along the alignment of the road.	(i) Camping sites to be located along the alignment of the road.
	(ii) Law and order problem	(ii) There is no significant law and order problem in the area and the local administration takes care of such matters.	(ii) There is no significant law and order problem in the area and the local administration takes care of such matters.
	(iii) Royalty	(iii) Royalty is paid to the Revenue Department.	(iii) Royalty is paid to the Revenue Department.
	(iv) Availability of contractors for collection and carriage of construction material	(iv) Available	(iv) Available
	(v) Working period available for construction of work.	(v) 09 months in a year	(v) 09 months in a year

S. No.	Variables	Alignment No-1	Alignment No-2
20	Total No. of trees to be removed .	955 numbers	Approximately 1100 numbers.
21	Average Density of forest cover .	-	-
22	Total No. of Merits	-	-
23	Total No. of Demerits	-	-

RECOMMENDATIONS:


Alignment no. -1 is Recommended for approval being more economical, useful & technically


J.E.


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अधिकासी अभियन्ता
सिवाई खण्ड, थराली


वन क्षेत्राधिकारी
लोहवा वन क्षेत्र गैरसैण


दुर्गा प्रसाद कपलाना
रा.उ. निरीक्षण
तहसील...
जनपद...


तहसील...
गैरसैण


प्रभागीय वनाधिकारी
केदारनाथ वन्य जीव प्रभाग
गोपेश्वर।