

TIME BOUND-MOST URGENT

**GOVERNMENT OF ARUNACHAL PRADESH
PUBLIC WORKS DEPARTMENT**

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**OFFICE OF THE CHIEF ENGINEER(EZ)
PWD, AP, ITANAGAR**

NO.: CEAP(EZ)/ WTC-37/TAHW/2008-09/

Dt: Itanagar, the 23rd Oct, 2008.

To

The Superintending Engineers,
Naharlagun/Basar/Aalo Circles,
PWD, Arunachal Pradesh.

Sub:- Submission of chainage wise Details for requirements of Land Acquisition, compensation for displacements of assets, shifting of utilities etc for NH-229

The Feasibility Report of the Nechipu-Khodaso-Hoj sector of the Trans-Arunachal Highway (NH-229) is already under scrutiny in the Transport Ministry, Government of India, New Delhi. One of the shortfalls observed during the scrutiny is the non-submission of costs of Project ancillaries indicated below:

1. Land Acquisition
2. Compensatory Afforestation/ Net Present Value
3. Compensation for shifting of temporary, semi-permanent and permanent structures
4. Compensation for agricultural/horticultural/plantation lands
5. Shifting of utilities like HT/LT Lines, telephone lines/cables, water lines etc.

Since, the data was required urgently by the Ministry, this office has attempted to evaluate the tentative costs of the above Project Ancillaries, based on the Land Use Pattern wherever submitted in the segments covering the Nechipu-Khodaso-Hoj Sector in the Pre-feasibility Reports. The evaluation has since been submitted to the Ministry for Nechipu-Hoj sector and a copy of the same is enclosed herewith for guidance.

Since, the Feasibility Report of the **Potin-Pangin** Sector of NH-229 is under compilation in this office, the following details may be submitted on or before 12 Noon of 25th October 2008 (Saturday).

1. Submission of chainage wise Land Use pattern showing therein the details of Unclassified State Forest, built-up and agricultural/horticultural land through which the Right of Way (ROW) of the said alignment will pass. **The Right of Way (ROW) shall be 45 metres for both the open and built-up areas as telephonically intimated by the CE (P-10), MoRTH, New Delhi on 23-10-2008.** The existing KM stone of the BRO may be referred in case of **Potin-Pangin** sector.
2. Evaluation of cost of Land acquisition, compensatory afforestation, Net Present Value (NPV), compensation for shifting of temporary/semi-permanent/permanent

structures, compensation for agricultural/horticultural land, shifting of HT/LT Lines, telephone cables, water lines etc. The cost of these items have to be ascertained from the Deputy Commissioners/Forest Department/ BSNL/Power Department/PHE by the concerned SEs.

3. A sample format submitted by Mariyang Division for Pasighat-Mariyang-Yingkiong Road under SARDP is enclosed herewith for guidance for submission of the quantified information after site verification.
4. It is understood that BRO has obtained Forest & Environmental clearance for most roads under their control. It has to be ascertained from them the ROW for which the clearances have been obtained and balance required, for ROW of 45 m is to be indicated. Financial implication for shifting/ removing of any assets/utility falling within the ROW of 45 m width shall be assessed and compiled.
5. There are portions where re-alignment of the road may be involved. In such cases, the existing length and the re-aligned length may be indicated. Start/end points of original Km-Stone may be followed.

One officer from Eastern Zone PWD will be proceeding to Delhi to submit the details in the Ministry on 26th October 2008 (SUNDAY). Therefore, it is requested to submit these details **after site verification within 1-2 days** by fax, e-mail etc for facilitating the compilation of the Feasibility Report of the Potin-Pangin Sector of NH-229.

This may be treated as **Most Urgent** as the Ministry has already notified the EOI of these sectors which may be seen in the PWD website.

Enclo: **As stated.**



(Bora Ete)
Chief Engineer,
Eastern Zone, PWD, AP.

Copy to:-

- 1) The Chief Engineer, Western Zone, PWD, AP, Itanagar for information and necessary action please along with the above stated enclosures.
- 2) The Superintending Engineer, Rupa/Sagalee/Naharlagun Circle, PWD, AP for information and necessary action along with the above stated enclosures. They may also start collection of the details for the Nechipu -Hoj Sector and prepare a separate DPR for the same. SE, Naharlagun is also requested to provide the chainage wise details of RW/BW for the Potin to Daporijo segment.
- 3) The Executive Engineers, Bomdila /Seppa /Sagalee /Doimukh/ Ziro /Daporijo /Dumporijo/ Aalo for information and necessary action along with the above stated enclosures.



Chief Engineer

ABSTRACT OF COSTS OF PROJECT ADDITIONALS FOR NECHIPU-SEPPA-HOJ ROAD

(All Financial Figures in Rs. Lakhs)

Sl.No	Item	Calculations for Quantity	Unit	Quantity	Rate	Cost	Remarks
<u>NECHIPU-SEPPA-HOJ (311 Km)</u>							
1)	Land Acquisition						
	a) Open Areas (ROW: 45m)	$((45-5.95) \times 265.74 \times 1000) / 10000 =$	1037.71 Hectares	Hectares	1037.71	1.50	1556.57 Market Rate
	b) Built-up Areas (ROW: 45m)	$((45-5.95) \times 44.25 \times 1000) / 10000 =$	172.80 Hectares	Hectares	172.80	1.50	259.19 Market Rate
2)	Compensatory Afforestation	$2 \times ((45-5.95) \times 265.74 \times 1000) / 10000 =$	2075.43 Hectares	Hectares	2075.43	0.85	1764.11
3)	Net Present Value of Forest	$((45-5.95) \times 265.74 \times 1000) / 10000 =$	1037.71 Hectares	Hectares	1037.71	5.90	6122.52
4)	Compensation for shifting of buildings						Notified by Forest Department
	a) Temporary Structures	$(45-5.95) \times 26.51 \times 1000 \times 0.80 \times 0.50 =$	414086.20 Sqm	Sqm	414086.20	0.00525	2173.95 Market Rate
	b) Semi-Permanent Structures	$(45-5.95) \times 26.51 \times 1000 \times 0.10 \times 0.50 =$	51760.78 Sqm	Sqm	51760.78	0.10	5176.08 Market Rate
	c) Permanent Structures	$(45-5.95) \times 26.51 \times 1000 \times 0.10 \times 0.50 =$	51760.78 Sqm	Sqm	51760.78	0.15	7764.12 Market Rate
5)	Compensation for Agricultural/ Horticultural Lands, etc.	$((45-5.95) \times 17.74 \times 1000) / 10000 =$	69.27 Hectares	Hectares	69.27	0.30	20.78 Market rate
6)	Shifting of Electric HT/LT lines, telephone cables, etc						
	a) HT Lines	HT: $13 \times 0.20 \times 26.51 =$	69 Nos	Nos	69	0.0370	2.55 Market rate
	a) LT Lines	LT: $24 \times 0.80 \times 26.51 =$	509 Nos	Nos	509	0.0160	8.14 Market rate
7)	Shifting of Water Lines	@ 45 metres per Km (45x311)	13995.00 Metres	Metres	13995.00	0.00150	20.99 Market rate
Total:						24869.01	

Chief Engineer
Eastern Zone, PWD, AP
Itanagar

LAND USE PATTERN

Sl.No	Chainage		Land Use Pattern (Length in Km)			Utilities	Remarks
	From (Km)	To (Km)	Forest	Built-Up	Agricultural/ Horticultural Land		
SECTOR: NECHIPU TO SEPPA (97.53 Km)							
1	0.000	0.300	0.30				
2	0.300	4.050		3.75			
3	4.050	16.450	12.40				
4	16.450	16.600		0.15			
5	16.600	17.500	0.90				
6	17.500	17.650		0.15			
7	17.650	19.150	1.50				
8	19.150	19.780		0.63			
9	19.780	38.000	18.22				
10	38.000	40.300		2.30			
11	40.300	50.450	10.15				
12	50.450	50.700		0.25			
13	50.700	60.000	9.30				
14	60.000	61.919			1.92		
15	61.919	63.411		1.49			
16	63.411	63.831	0.42				
17	63.831	64.055		0.22			
18	64.055	64.516			0.46		
19	64.516	65.550	1.03				
20	65.550	66.000		0.45			
21	66.000	73.953	7.95				
22	73.953	74.000		0.05			
23	74.000	80.732	6.73				
24	80.732	80.970		0.24			
25	80.970	81.278	0.31				
26	81.278	81.588		0.31			
27	81.588	81.715	0.13				
28	81.715	81.835		0.12			
29	81.835	82.177	0.34				
30	82.177	82.267		0.09			
31	82.267	82.923	0.66				
32	82.923	83.139		0.22			
33	83.139	88.231	5.09				
34	88.231	88.321		0.09			
35	88.321	88.923	0.60				
36	88.923	89.961			1.04		
37	89.961	90.137		0.18			
38	90.137	90.579			0.44		
39	90.579	91.482		0.90			
40	91.482	92.036	0.55				
41	92.036	92.279		0.24			
42	92.279	92.770	0.49				
43	92.770	93.166			0.40		
44	93.166	93.346		0.18			
45	93.346	93.826			0.48		
46	93.826	97.000	3.17				
47	97.000	97.400		0.40			
48	97.400	97.530	0.13				

Sub-Total: 80.39 12.41 4.74

Sl.No	Chainage		Land Use Pattern (Length in Km)			Utilities	Remarks
	From (Km)	To (Km)	Forest	Built-Up	Agricultural/ Horticultural Land		

SECTOR: SEPPA TO KHODASO (110.45 Km)

1	0.000	0.900		0.90			
2	0.900	20.000	19.10				
3	20.000	21.000		1.00			
4	21.000	26.500	5.50				
5	26.500	32.500		6.00			
6	32.500	42.000	9.50				
7	42.000	42.500		0.50			
8	42.500	50.000	7.50				
9	50.000	51.500			1.50		
10	51.500	69.300	17.80				
11	69.300	69.500		0.20			
12	69.500	74.000			4.50		
13	74.000	74.500		0.50			
14	74.500	110.450	35.95				
Sub-Total:			95.35	9.10	6.00		

SECTOR: KHODASO TO HOJ (102.00 Km)

90.00	5.00	7.00
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TOTAL: 265.74 26.51 17.74

SAMPLE FORMAT

UTILITIES/BUILDINGS/AGRICULTURAL/HORTUCULTURAL LANDS TO BE SHIFTED

Chainage (Km)		Structures/ Utilities within 45 metre ROW																				Remarks							
		HT line (m)	LT line (m)	Telephone Lines (m)	Water pipe line (m)			Bamboo houses(Sqm)			Semi permnt bldg (Sqm)						Permanent bldg (Sqm)												
											Pvt			Govt			Pvt			Govt									
17.500	18.000					500			240													740	Bamboo-Garden	.	=	0.30	Hec		
17.500																	24						24						
20.296	20.416																								Agri-land	.	=	0.30	Hec
20.679	20.799																								Agri-land	.	=	0.30	Hec
20.939	21.890																								Agri-land	.	=	0.30	Hec
21.045	21.579																								Agri-land	.	=	0.30	Hec
21.879	22.6																								Hollock Garden	.	=	0.50	Hec
22.046	22.316																								Agri-land	.	=	0.30	Hec
22.346	22.496																								Agri-land	.	=	0.30	Hec
22.736	22.826																								Agri-land	.	=	0.20	Hec
22.826	22.856																								Agri-land	.	=	0.50	Hec
22.886	22.931																								Agri-land	.	=	0.30	Hec
22.931	22.961																								Agri-land	.	=	0.30	Hec
22.961	23.081																								Agri-land	.	=	0.20	Hec
23.111	23.141																								Agri-land	.	=	0.40	Hec
23.171	23.291																								Agri-land	.	=	0.40	Hec
23.321	23.351																								Agri-land	.	=	0.40	Hec
23.531	23.621																								Agri-land	.	=	0.40	Hec
23.711	23.771																								Agri-land	.	=	0.40	Hec
23.891	23.944																								Agri-land	.	=	0.40	Hec
24.334	24.939								920														920	Agri-land	.	=	0.40	Hec	
24.950																36							36	Agri-land	.	=	0.50	Hec	
255.180	25.578																							Horti garden	.	=	0.50	Hec	
26.231	26.267																								Agri-land	.	=	0.50	Hec
266.290	26.719																								Agri-land	.	=	0.50	Hec
26.689	26.914																								Agri-land	.	=	0.80	Hec
26.689	26.749																								Agri-land	.	=	0.50	Hec
26.806	26.890																								Agri-land	.	=	0.50	Hec
27.934	27964																								Agri-land	.	=	0.50	Hec
28.054	28.2																								Agri-land	.	=	1.50	Hec
28.416	28.5																								Agri-land	.	=	0.50	Hec
28.620	28.71																								Agri-land	.	=	0.50	Hec
28.870	28.95																								Agri-land	.	=	0.50	Hec

28.770									200									36								236	Agri-land	.=	0.50	Hec
28.770	31.882					3112																				3112	Agri-land	.=	0.50	Hec
29.870	29.977																										Agri-land	.=	0.50	Hec
30.397	30.559																										Agri-land	.=	0.50	Hec
33.015	33.105																										Agri-land	.=	0.50	Hec
33.688	34.176																										Agri-land	.=	1.50	Hec
34.490	34.896																										Agri-land	.=	1.60	Hec
36.054	37.331																										Agri-land	.=	2.00	Hec
37.911								35				40						35								110	Agri-land	.=	0.50	Hec
38.334	38.975																													
38.454												100						125								225	Agri-land	.=	0.50	Hec
38.454								120																		120	Agri-land	.=	0.50	Hec
38.334	38.675																										Bamboo Garden	.=	0.50	Hec
39.395	39.815							450																		450	Agri-land	.=	0.50	Hec
39.905	40.205																										Agri-land	.=	0.50	Hec
42.432	42.704																										Bamboo& Agri-land	.=	0.50	Hec
44.624	44.954																										Agri-land	.=	1.50	Hec
45.074			24																							24	Agri-land	.=	1.50	Hec
52.073	52.133																										Agri-land	.=	0.50	Hec
53.411	53.550																										Agri-land	.=	0.50	Hec
54.067	54.100																										Agri-land	.=	0.50	Hec
54.237	54.300																										Agri-land	.=	0.20	Hec
54.356																											Agri-land	.=	0.40	Hec
54.566																											Agri-land	.=	0.30	Hec
55.214																											Horti garden	.=	0.30	Hec
55.075																											Agri-land	.=	0.30	Hec
55.810								35																		35				
55.860																											Agri-land	.=	0.30	Hec
56.305																											Bamboo-Garden	.=	0.15	Hec
56.425								40			1	x	120	=	120											281				
56.595											1	x	60	=	60											121				
56.267																											Agri-land	.=	0.30	Hec
57.000																	30									30				
57.015																	45									45				
57.205	57.305																25									25				
																	40									40				
57.525	57.405																										Agri-land	.=	1.00	Hec
																											Agri-land	.=	1.00	Hec
58.272	58.230																										Agri-land	.=	0.80	Hec