

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI
ORIGINAL APPLICATION NO. 261/2024
(EARLIER ORIGINAL APPLICATION NO. 1055/2024-PB)**

In the matter of:

Tribunal on its own motion Suo Moto based on News Item titled "Unscientific work by NHA led to Shirur landslide Geological Survey of India report" appearing in the Indian Express dated 02.08.2024

VERSUS

National Highways Authority of India & Ors.

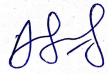
...Respondent(s)

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Respondent No. 1

Through:



For

Mital & Mital Advocates
347, First Floor, Block- C
Defence Colony, Delhi- 110024
E: ankurmittallawyer@gmail.com
aviraj.pandey@outlook.com
M: +91 9958500980

Place: New Delhi

Date: 01.02.2025

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI
ORIGINAL APPLICATION NO. 261/2024
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Tribunal on its own motion Suo Moto based on News Item titled "Unscientific work by NHAI led to Shirur landslide Geological Survey of India report" appearing in the Indian Express dated 02.08.2024

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**SUBMISSIONS ON BEHALF OF RESPONDENT NO. - 1 (NHAI) IN
COMPLIANCE OF THE ORDER DATED 26.11.2024**

1. That in view of the submissions made by Respondent No. 1, this Hon'ble Tribunal vide order dated 26.11.2024 was pleased to direct NHAI to place on record the implementation of measures advised by Professor T.G. Sitharam in his Report dated 17.03.2017 and 30.08.2018, Project Highway completion status and Environmental Clearance.
2. That Concessionaire had engaged Prof. T.G. Sitharam, Department of Civil Engineering, Indian Institute of Science, Bengaluru. Prof. T.G. Sitharam in his report dated 17.03.2017 and 30.08.2018 had advised on the high hill slopes treatment issues and gave measures to be undertaken to prevent landslides. That measures advised by Professor T.G. Sitharam were implemented while carrying out the construction.


**DGM (T) & Project Director
NHAI, PIU-Honnar**

3. That in view of the aforesaid submissions made by Respondent No. 1, this Hon'ble Tribunal was pleased to direct NHAI to place on record the implementation of measures advised by Professor T.G. Sitharam in his Report dated 17.03.2017 and 30.08.2018.
4. That the recommendations of Professor T.G. Sitharam Report dated 17.03.2017 and 30.08.2018 have been mentioned hereunder in tabulated format along with the measures taken by NHAI against the said recommendations:

Sr. No.	Chainage location	Recommendations of Prof. TG Sitharam Report dated 17.03.2017 and 30.08.2018	Compliance Status
1	Km.246.500 to Km. 246.900	<p>Provide a lined drain at the top with a minimum of 1.5m vertical lining on both sides and bottom.</p> <p>Ensure perforated pipes are provided at closer spacing to handle large water inflow.</p> <p>Flatten the slope to a ratio of 1V:2H for better stability.</p> <p>Treat the surface with additional weep holes/drain pipes at closer spacing.</p> <p>Apply a shotcrete layer to protect the slope surface and reduce erosion. (See Page 38-39 of our Reply)</p>	<p>NHAI vide letter dated- 29.11.2019 accorded approval for slope cutting, storm drain from Km.246.210 to 246.950 amounting to Rs.13,34,18,354/.</p> <p>The photographs and NHAI letter dated 29.11.2019 of the said chainage would show that NHAI/ Concessionaire has implemented the said recommendation, same are marked and annexed herewith as Annexure A (Colly).</p>


DGM (T) & Project Director
NHAI, PIU-Honnavar

2	Km 192.200 Km 199.440 Km 167.700 Km 165.100	<p>Flatten the slopes to a ratio of 1V:2H.</p> <p>Additional land for flattening of slope.</p> <p>Apply shotcrete on the surface as per specifications to prevent erosion of lithomargic clay.</p> <p>(See Page 38-39 of our Reply)</p>	<p>The recommendations were implemented by NHAI/ Concessionaire.</p> <p>Further, additional forest land has been diverted especially for the slope protection works. The details for the said chainage is mentioned below in Para 5 and 6.</p> <p>The photographs of the said chainage are marked and annexed herewith as Annexure A (Colly).</p>
3	Km 165.050	<p>Construct a breast wall (PCC/UCR) of about 2m height to confine lithomargic clay and prevent slope collapse. Backfill the gap between the breast wall and slope with granular or lateritic soil for support.</p> <p>Provide a toe drain at the base to manage water flow.</p> <p>(See Page 38-39 of our Reply)</p>	<p>NHAI vide letter no.3448 dated-29.11.2019 accorded approval for slope protection works at Km.165.050 amounting to Rs.3,82,07,232/- and the work as per the recommendation was undertaken and completed.</p> <p>The photographs of the said chainage showing the same are marked and annexed herewith as Annexure A (Colly).</p>
4	Km. 160.020 Km 190.640 Km 246.900	It is the observed shallow seated failures in Lithomargic clay and murrum soil layers, excavated slopes are found to be unsafe. Thus,	<p>The recommendations were implemented by NHAI/ Concessionaire.</p> <p>The photographs of the said chainage showing</p>

M. Anand
01/10/2020

		as remedial measures soil nailing and benching shall be provided. (See Page 64-65 of our Reply)	the same are marked and annexed herewith as Annexure A (Colly) .
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5. It is submitted that recommendations of the Professor T.G. Sitharam Report dated 30.08.2018 for chainages Km 192.200, Km 199.440, Km 167.700, Km 165.100, the Project Director, PIU - Mangalore vide letter dated 03.07.2017 informed Deputy Commissioner, Karwar that remedial measures require additional land for taking up the protection works to avoid future sliding of hills. Project Director, PIU - Mangalore submitted the proposal for acquiring additional land to the Forest Department for flattening of slope.
6. That in pursuance to the above, Ministry of Environment, Forest and Climate Change (“**MoEFCC**”), vide letter dated 17.09.2021 accorded stage-1 in principle approval for the diversion of 28.2187 Hectares of Forest land in Baad Binaga - Arga and 20 other villages in Uttar Kannada and Udupi Districts (Karwar, Honnavar and Kundapur Forest Divisions). The copy of above-mentioned letters and communications dated 03.07.2017 and 17.09.2021 are marked and annexed herewith as **Annexure B (Colly)**.
7. It is submitted that NHAI has thoroughly complied with all the recommendations outlined in relations to areas prone to landslide by Professor T.G. Sitharam in his Report dated 17.03.2017 and 30.08.2018.


DGM (T) & Project Director
NHAI, PIU-Honnavar

of the Environmental Clearance dated 19.02.2014 is marked and annexed herewith as **Annexure D**.

12. In light of the aforementioned submissions, NHAI has made all reasonable attempts and efforts as recommended by the experts at the time of construction of project highway to avoid sliding of hills.

Place: New Delhi

Date: 01.02.2025

Through:

Filed by:

Respondent No.1

M. Anurag
01/02/25 7
DGM (T) & Project Director
NHAI, PIU-Honnagar

A.S.

Mital & Mital Advocates
347, First Floor, Block-C,
Defence Colony, Delhi- 110024
Email: ankurmittallawyer@gmail.com
aviraj.pandey@outlook.com
Mobile: +91 9958500980

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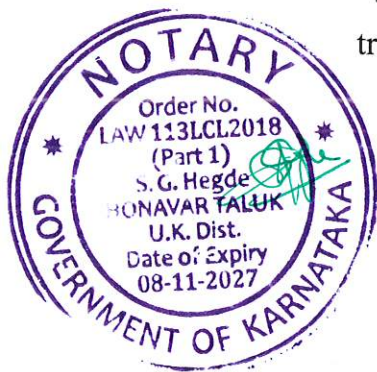
National Highways Authority of India & Ors.

...Respondent(s)

AFFIDAVIT

I, M. Shivakumar, s/o B. Madaiah. aged about 54 years, working as the Project Director, PIU- Honnavar, National Highways Authority of India, having office at 2nd Floor, Under Construction Building, Adjacent to HDFC Bank, Masthikatte, Part-1, Vasudeva Business Park, Honnavar do hereby solemnly affirm and declare as under:

1. That in my official capacity as stated above, I am authorised and competent to swear this affidavit. I am well acquainted with the facts and circumstances of the present case based on my knowledge derived from official record.
2. That the accompanying submission to the application has been drafted by my counsel under my instructions and the contents of the same are true and correct to my knowledge derived from official record.



NUMBER OF CORRECTIONS: Nil.

M. Shivakumar
01/02/25
**DGM (T) & Project Director
NHAI, PIU-Honnavar**

3. That the documents/Annexure appended with the accompanying reply of the application are true/ true photocopies of the respective originals.

[Handwritten Signature]
DEPONENT

VERIFICATION:

**DGM (T) & Project Director
NHAI, PIIJ-Honnavar**

Verified at Honnavar on this 01 day of February 2025 that the contents of the aforesaid affidavit are true to my knowledge based on the record of the case, no part of it is false and nothing material has been concealed there from.



[Handwritten Signature]
DEPONENT

**DGM (T) & Project Director
NHAI, PIIJ-Honnavar**

SWORN AND SIGNED BEFORE ME

[Handwritten Signature]
S. G. Hegde B. Sc., LLB (Spl.)
Advocate & Notary
HONAVAR Taluk
U. K. District, Karnataka State
INDIA

[Handwritten Signature]
NUMBER OF CORRECTIONS.....*[Handwritten]*

[Handwritten Signature]
SL. No. 817 Page: 47
Voll: I Date: 1/2/25

PHOTOGRAPHS:

From Km.246.500 to 246.900 Shotcreteing and soil nailing has been done.



Slope flattened to ratio 1V:2H at Km 192.200 :



Slope flattened to ratio 1V:2H and shotcreting from Ch.199.830 to Ch.200.150

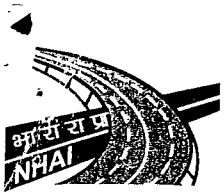


Slope flattened to ratio 1V:2H at shotcreting at Km 167.700:



Slope flattened to ratio 1V:2H & shotcrete & soil nailing at Km 165.100:





भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय)

National Highways Authority of India

(Ministry of Road Transport and Highways)

कर्नाटक क्षेत्र, क्षेत्रीय कार्यालय, बेंगलुरु

Karnataka Region, REGIONAL OFFICE, BENGALURU

बेंगलुरु - तुमकूर सड़क (एन.एच-४), एम. एस. रामय्या इंकलेव, नागसंद्रा मेट्रो स्टेशन के बगल में, बेंगलुरु - ५६० ०७३.
Bengaluru - Tumakuru Road (NH-4), M.S. Ramaiah Enclave, Beside Nagasandra Metro Station, Bengaluru - 560 073

Tele : 080 - 2839711

: 080 - 2839711

Fax : 080 - 28377171

Email : robangalore@nhai.org
ronhaibangalore@gmail.com



भारतमाला
प्रगति के पथ पर अग्रसर
BHARATMALA
ROAD TO PROSPERITY

No: NHAI/RO-BNG/15019/42/2019/3448

Date: 29.11.2019

Change of Scope Order

To:

Authorized Signatory,

M/s.IRB Westcoast Tollway Pvt. Ltd.,

3rd Floor, IRB Complex, Chandivali Farm,

Chandivali Village, Andheri (E),

Mumbai-400 072

Sub: 4/6 laning of Goa Karnataka Border - Kundapur Section of NH-17 (Km. 93.700 to 283.300) (NHA/DBFO/DPR/01) to be executed as BOT (Toll) Project on DBFO Pattern under NHDP -**Consolidated Detailed Change of Scope proposal (10 Nos. of Estimates)- reg**

- Ref: 1. PD, PIU-Mangalore letter No.12011/6/2010/PIU (Mnglr)/788 dated 08.11.2019 (received on 11.11.2019)
2. IE letter No.AECOM/HWH/2017-18/GOA/4784 dated 08.11.2019
3. Concessionaire letter No.IRBWTP/CTO/KKBOT/4531/2019 dated 31.10.2019
4. NHAI HQ letter No.NHAI/Phase-III/Kun-Goa/KNT Bdr/COS/2016/140384 dated 02.09.2019
5. This office letter No.NHAI/RO-BNG/15019/41/2019/1242 dated 05.07.2019 addressed to NHAI HQ
6. This office letter No.NHAI/RO-BNG/15019/39/2019/191 dated 11.04.2019 addressed to NHAI HQ
7. NHAI HQ e-mails dated 21.01.2019, 07.12.2019, 30.11.2018
8. This office letter No.NHAI/RO-BNG/15019/39/2018/2735 dated 30.11.2018 addressed to NHAI HQ
9. This office letter No.NHAI/RO-BNG/15019/39/2018/2609 dated 24.11.2018 addressed to NHAI HQ
10. This office letter No.NHAI/RO-BNG/15019/39/2018/2612 dated 24.11.2018 addressed to NHAI HQ
11. This office letter No. NHAI/RO-BNG/15019/33/2018/285 dated 25.04.2018 addressed to NHAI HQ
12. NHAI HQ policy circular No.18.24/2017 dated 21.08.2017

Sir,

This is with reference to PD, PIU-Mangalore letter cited 1st above, wherein has submitted detailed cost estimates (10 Nos.) amounting to Rs.42,99,96,352/-, under Change of Scope, for approval of Competent Authority:

2. Pursuant to "in-principle approval communicated by NHAI HQ vide letter cited 4th above, approval of Competent Authority, 'Change of Scope order' under Clause 16.2.3 of Concession Agreement is hereby notified, for taking up the following works immediately, amounting to **Rs. 41,94,76,366/- including 12% GST (scrutinized amount):**

Contd...2

-2-

Estimate No.	Description	In-Principle approval accorded by Competent Authority	Amount as recommended by PD & IE (in Rs.)	Amount as scrutinized in this office (in Rs.)
1	Construction of additional Service road at Mirjan Gram Panchayath limits from Km.162+295 to. Km. 163+040 (i.e 0.745km) and One number of Foot over Bridge (FOB) at Mirjan village	52127807	50484980	49711818
2	Construction of Retaining Wall at Kali Bridge Approach A-2 side (RHS) of Major Bridge at Km. 102+470	9897242	10303316	10303316
3	Providing the lined side drains, RCC crash barriers and RCC retaining wall at the tunnel shaft location at Km.245.450 of four laning work in Railway land at Byndoor Village	3767742	3839309	3839309
4	Construction of additional 2 Nos. of Box Culverts, i.e. at Km 107+299 and 107+235 and PCC Drain on the downstream side to protect the houses adjacent to the existing Nalla	11490024	11553977	11553977
5	Construction of additional Box Culverts @ Km. 144+960, Km. 145.600, Km.165.000 and Pipe Culverts @ Km. 156.420 & Km.180.150	6840308	7070848	7070848
6	<u>Construction of VUP on LHS & RHS keeping Brahma Jataka Temple at Hiregutti village in Kumta Taluk in the median from Km.153+000 to Km. 153+820 along NH-66</u>	148294728	141702086	<u>141702086</u>
7	Construction of Built-up Concrete drain on RHS for Approximate length of 150m for drainage of storm water smoothly in to the Nalla and Extension of apron on Upstream and Down Stream side of Minor Bridge at Km.232+700 in Mud-Bhatkal village at Bhatkal taluk	1400000	1249478	1249478
8	Slope protection works & Junction development works at Sirsi road at Km.165+050	36415895	38207232	38207232
9	Additional slope cutting, storm drain and service road from Km.246+210 to Km.246+950 (Byndoor Village)	130093994	133418354	133418354
10	Construction of sea bird site office in Navy Area	31341167	32166770	21739454
Grand Total (in Rs.)		431668907	429996350	418795872

Contd...3

-3-

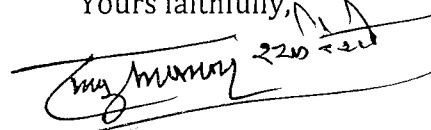
The above approval is subject to following conditions:

- a) The circumstances on allowing slope-protection works in this project were different unlike those in Parwano-Solan (GR Infra) & Beawar-Palo-Pindwara (L&T). Therefore, EC directed not to quote this case as a precedence.
- b) The Construction of VUP at Km.154 which was not started yet, should be delinked from Completion and shall be taken up during O&M.

Further, you are requested to commence the work immediately and complete as per the provisions under Concession Agreement & time schedule assessed by IE, M/s. AECOM Asia Company Ltd., in Association with Rodic Consultants Pvt. Ltd.,

Thanking you,

Yours faithfully,



(R.K.Suryawanshi)
Regional Officer

Encl: scrutinized calculation sheet

Copy to:

1. GM (T), Karnataka, NHAI HQ - for information
2. ✓ PD, PIU-Mangalore -**for information with direction to liaise with Concessionaire to complete the work within the time frame of IE. Further, PD shall ensure realization on account towards Mangalore Negative Change of Scope already approved before release of any amount on positive Change of Scope work.**
3. M/s. AECOM Asia Company Ltd., in Association with Rodic Consultants Pvt. Ltd., C/o Nagashree Building, Rajithagiri, KHB Colony, Honnavara - 581334 - **for information & to finalize scheduled programme for commencement and completion of subject work as per provisions under CA, on priority in co-ordination with PD, PIU-Mangalore & Concessionaire**

National Highways Authority of India
Regional Office, Bengaluru

Sl. No.	Description of Item	Amount as scrutinized in this office and submitted to NHAI HQ and approved in-principally by NHAI HQ	Detailed proposal now submitted for approval	Detailed proposal scrutinized in this office	Remarks
A Addition Part					
1	Hume Pipe Culvert @ Km.162.952	0	1909449	1909449	
2	Main Carriageway with Service Road from Km.162.295 to Km.163.040	76330831	48947301	48947301	There was error in the abstract sheet and the same is corrected
3	RCC Drain from Km.162.295 to Km.163.040 BHS		17094526	17094526	
2	FOB at Km.162.870	10757487	10521762	10092962	
<p>Geotechnical investigation items amounting to Rs.4,28,000/- brought out in the estimate towards 150mm dia borings in soft rock, weathered rock & hard rock etc., may not be required for FOB. Soil Investigation if at all required may be done with trial pits, cost of which may be met under the LS provision provided for Electrical items & contingencies amounting to Rs.3,25,000/-. Accordingly, the scrutinized amount towards FOB works out to Rs.1,00,92,962/-.</p> <p>Further, as details towards Electrical items (LS) not provided, same may be met as per actual requirement during execution and other contingencies if any also may be met out of the LS provision amounting to Rs.3,25,000/-.</p>					
	Submission of Design & Drawings Charges @ 2% of estimated cost	0	210435	0	These charges are not allowed based on the COS proposals being approved by NHAI HQ duly disallowing this provision
	Annual Maintenance Cost of FOB @ 5% of Construction cost/year	0	0	0	
Sub Total (in Rs.)		87088318	78683473	78044238	
B Deletion Part					
1	Hume Pipe Culvert	0	(-) 1531228	(-) 1531228	
2	Main Carriageway with Service Road from Km.162.295 to Km.163.040	(-) 34960511	(-)32069264	(-)32069264	
3	RCC Drain from Km.162.295 to Km.163.040 BHS		(-)58194	(-)58194	
Sub Total (in Rs.)		52127807	(-) 33658686	(-) 33658686	
Total (in Rs.)		52127807	45024787	44385552	
GST @ 12%		0	5402974	5326266	
Grand Total (in Rs.)		52127807	50427761	49711818	

Contel.. 8

Sl. No.	Description of Item	Amount as scrutinized in this office and submitted to NHAI HQ and approved in-principally by NHAI HQ	Detailed proposal now submitted for approval	Remarks
Deletion Part				
A	Highway	22556881	22237914	
	Dismantling of existing structures	0	0	
	RCC	0	17363	
	Road Furniture	0	257660	
B	Box Culvert Ch.153.045 (reconstruction)	1602634	1579453	
C	Box Culvert Ch.153.260 (widening)	390849	381681	
D	Minor Bridge Ch.153.570	13939621	13766305	
E	Box Culvert Ch.153.760	387209	392107	
Sub Total A to E		(-) 38877194	(-) 38632483	
Addition Part				
A	Highway	80982894	49783396	
	Dismantling of existing structures	0	92609	
	RCC Drain	0	25739255	
	Road Furniture	0	408221	
	Contingency @ 3%	0	0	
B	Box Culvert Ch.153.080	1705350	0	
C	Box Culvert Ch.153.045	0	1704336	
D	Box Culvert Ch.153.760 (reconstruction)	0	806406	
E	HPC Ch.153.259	530047	0	
F	Double Cell LVUP Ch.153.475 (2x 10.5m x 4.5m)	85277084	53063987	
	Retaining Wall	0	17857331	
	Design Charges @ 3%	0	0	
	Contingency @ 3%	0	0	
G	Minor Bridge Ch.153.570	17880132	15696662	
H	Box Culvert Ch.153.760	796415	0	
Sub Total A to H		187171922	165152203	
Total Negative & Postive Scope (Addition & Deletion)		148294728	126519720	
Add GST @ 12%		0	15182366	
Grand Total (in Rs.)		148294728	141702086	

Sl. No.	Description	Detailed Amount as approved by Competent Authority vide letter No.99087 dated 01.05.2017	Revised In-principal amount approved by NHAI HQ	Detailed proposal now submitted for approval	Detailed proposal scutinized in this office	Remarks
1	Sea Bird Site Office	32228766	63747004	30379168	30379168	
	Electification			2937111	2937111	
	Plumbing & Sanitary			1586927	1586927	
	Contingencies @ 3%			911375	911375	
	Establishment Charges @ 2%			607583	0	Disallowed based on the approval being received from NHAI HQ
2	Preparation of site area and approach road	0	0	12583900	12583900	
3	Utility Provision	0	0	8702520	0	Lumpsum provision towards Electrical supply amounting to Rs.10,00,000/- & Water Supply from outsource amounting to Rs.5,00,000/- is restricted to Rs.10,00,000/- keeping in view of the contingencies provided @ 3% amounting to Rs.9,11,375/-
4	Design Charges for sea bird site office = 1.5%	0	0	0	0	
5	Carriage of Material Charges	388375	134647	134194	134194	
Total Estimated Cost		32617142	63881651	57842778	48532675	
GST @ 12%		0	76658	6941133	5823921	
Grand Total		32617142	63958309	64783911	54356596	

13. Revised approval for additional amount works out to Rs.2,17,39,454/- (Rs.5,43,56,596/- - Rs. 3,26,17,142/-)

Contd..24

ANNEXURE - B (Colly)

भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन एवं राजमार्ग मंत्रालय)

National Highways Authority of India

(Ministry of Road Transport & Highways)

परियोजना कार्यान्वयन इकाई-मंगलूर/ Project Implementation Unit - Mangalore.

डोर नं. 3-29, 'बेतेल', थारेथोटा, पंपवेल के पास (NH.66), मंगलूर - 575005.

Door No. 3-29, "Bethel", Tharethota, Near Pumpwell (NH.66), Mangalore - 575005.

टेलिफोन / Telephone : 91-824-4264499

टेलिफैक्स / Telefax : 91-824-4254499

ई-मेल / e-mail: man@nhai.org

18

O/C

No.12013/1/2010/PIU (Mnglr)/272

July 3, 2017

To
The Deputy Commissioner,
Uttara Kannada District
Karwar

Sub: 4/6 laning of Goa Karnataka Border - Kundapur Section of NH-66 (formerly NH-17) (Km.93.700 to Km. 283.300) (NHAI/DBFOII/DPR/01) to be executed as BOT (Toll) Project on DBFO Pattern under NHDP.

- Proceedings of Meeting held on 14.06.2017 regarding safety works to be taken up on NH-66 - reg.

- Ref: 1) Proceedings dated 14.06.2017
2) Deputy Commissioner, Karwar letter No.CAL:CR-1/2017-18 dt 19.06.2017
3) Safety Consultant's letter No.LION/RSC/NHAI/KUND-GOIA Border(NH-17)/19-H/3284 dt 29.06.17
4) M/s. IRB Letter No.IRBWTPL/CTO/KKBOT/2490/2017 dt 28.06.17
5) M/s. IRB Letter No.IRBWTPL/CTO/KKBOT/2498/2017 dt 29.06.17

Sir,

This has reference to the proceedings of meeting held on 14.06.17 regarding safety works to be taken up on NH-66, wherein it has been instructed to take preventive measures on the dangerous and vulnerable locations and to conduct inspection by the Road Safety Consultants & to submit report.

2. Further, the details of dangerous locations identified for taking up preventive measures with additional land acquisition to avoid future disasters, as submitted by the Asst Commissioner, Bhatkal, Kumta and Karwar have been sent to this office vide letter cited at SL.no.2.

3. In this regard, the following action has been initiated:-

- (i) The Road Safety Consultants from NHAI M/s. Lion Engineering Consultants have conducted the inspection of the project highway from 26.06.17 to 28.06.2017 and submitted detailed report vide letter cited at SL.No.(3), wherein the Consultants have suggested certain remedial measures and to acquire additional land for taking up the protection works to avoid future sliding of hills. A copy of the report is enclosed herewith for kind perusal. Brief details of the observations and recommendations are as under:-

Observations	Recommendation
1) Steep hill cutting along the project highway leading land slide.	The Concessionaire shall construct gentle cut slope instead of steep cut to avoid land slide, for which additional land is to be acquired and handed over to the Concessionaire. The Concessionaire has provided the requirement of additional land to be acquired. Further recommended to construct lined drain (wherever required as per prevailing site

TRUE COPY


	situation) at the top of Hill beyond the edge of slope, so that hill water can be diverted and flow of rain water can be avoided to flow over cut slope as much as possible to avoid land slide in future.
2) Safety measures like sign boards, barricades are missing at some diversions	The concessionaire shall provide necessary sign boards and barricades as per IRC:SP-55-2014 , as suggested by the Safety Consultants.
3) Some signage having poor visibility due to deposition of dust/mud due to rains	The Concessionaire shall carryout regular maintenance and cleaning of sign boards wherever required.
4) Barricading is missing at high embankment approaches, deep excavation.	The Concessionaire shall provide necessary barricading as per IRC:SP-55-2014 , as suggested by the Safety Consultants.
5) Railing/Parapet wall are damaged and having poor visibility at existing major & minor bridges along project highway	Concessionaire shall repair railing wherever required and to provide reflective tape on railing at all locations.
6) Minor roads are meeting at/near diversion locations. Minor road traffic is entering in a very high speed, which may hazards for safe movement of traffic.	The Concessionaire shall provide speed breaker at approach of minor junctions and provide speed limit sign boards at main carriageway as per IRC:SP-84-2014 .
7) Minor roads are meeting project highway with steep ascending/ descending gradient	The Concessionaire shall provide speed breaker at approach of minor junctions and provide speed limit sign boards at Main Carriageway as per IRC:SP-84-2014 .
8) The Safety Consultant observed during the safety audit that most of the accidents occur due to over-speeding, overtaking, drunken driving, careless driving and not following the traffic rules and regulations, etc.	The Concessionaire shall provide Cautionary sign boards showing message like speed limit, driving with caution, go slow, construction work zone, men at work, etc at all locations of construction zones and at/before habitat area.

- (ii) The Independent Engineer and the Concessionaire have been directed to send the proposal for acquisition of additional land required for carrying out preventive measures at the locations suggested by the AC-Bhatkal, Kumta and Karwar.
- (iii) Further, the Concessionaire has engaged Prof T.G.Sitaram (Professor in Civil Engineering), Dept of Civil Engineering, Indian Institute of Science Bangalore for carrying out site inspection from 30th June 2017 to 1st July 2017. The report of the Professor is awaited.
- (iv) The EPC Contractor M/s. Modern Road Makers Pvt Ltd., have submitted the compliance report vide letter No.MRMPL/KKBOT/CGM/OUT/1040/2017 dt 16.06.17. A copy of the same is enclosed herewith for kind perusal.

4. This is for your kind information.

Thanking you,

Yours faithfully,


3/07/17
Project Director
PIU - Mangalore

Encl: as above

- Copy to:
- 1) GM (TRO), NHAI RO Bangalore – for information please.
 - 2) The Team Leader, M/s. Aecom-Rodic Consultants, Honnavar
 - 2) M/s. IRB West Coast Tollway Pvt Ltd., Mumbai
 - 3) The Project Manager, M/s. IRB WTPL, Kumta
 - 4) The Asst. Commissioner, Karwar
 - 5) The Asst. Commissioner, Kumta



सत्यमेव जयते

भारत सरकार
GOVERNMENT OF INDIA
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE
समन्वित क्षेत्रीय कार्यालय
INTEGRATED REGIONAL OFFICE
Kendriya Sadan, IVth Floor, E& F Wings, 17th Main Road,
IInd Block, Koramangala, Bangalore - 560 034.
Tel.No.080-25635908, E.Mail: rosz.bng-mef@nic.in



20

BY SPEED POST

F.No.4-KRC1250/2020-BAN/
Dated the 17th September, 2021

631

To

The Additional Chief Secretary to Government of Karnataka,
Forest, Ecology & Environment Department,
M.S. Building, Dr. Ambedkar Veedhi,
Bangalore - 560 001.

Subject: Diversion of 28.218 ha of forest land in Baad, Binaga-Arga and 20 other villages in Uttara Kannada and Udupi Districts (Karwar, Honnavar and Kundapura Forest Divisions) for slope protection of Four laning of Goa-Karnataka Border to Kundapur Section of NH-66 (formerly NH-17) from KM 93.700 to KM 283.300 in favour of National Highways Authority of India (PIU), Mangalore -reg.

Sir,

I am directed to refer to the State Government's letter No. FEE 27 FLL 2020 dated 19/06/2020 and No. FEE 27 FLL 2020 (e) dated 17/03/2021 seeking prior approval of the Central Government under Section '2' of the Forest (Conservation) Act, 1980 for the above project.

The proposal was examined by the Regional Empowered Committee constituted under sub-rule (1) of rule 4A of the Forest (Conservation) Rules, 2003 in its meeting held on 31/08/2021.

After careful examination of the proposal of the State Government and on the basis of the approval of the Regional Empowered Committee, **in-principle approval /Stage-I clearance** of the Central Government is hereby granted for diversion of 28.218 ha of forest land in Baad, Binaga-Arga and 20 other villages in Uttara Kannada and Udupi Districts (Karwar, Honnavar and Kundapura Forest Divisions) for slope protection of Four laning of Goa-Karnataka Border to Kundapur Section of NH-66 (formerly NH-17) from KM 93.700 to KM 283.300 in favour of National Highways Authority of India (PIU), Mangalore, subject to the following conditions:-

A: Conditions which need to be complied prior to handing over of forest land by the State Forest Department.

1. The User Agency shall transfer online, the Net Present Value (NPV) of the forest land being diverted under this proposal, as per the orders of the Hon'ble Supreme Court of India, dated 28.03.2008, 24.04.2008 and 09.05.2008 in Writ Petition (Civil) No.202/1995 and the guidelines issued by this Ministry vide its letter No. 5-3/2007-FC dated 05.02. 2009. The requisite funds shall be transferred through online portal into CAMPA account of the State Concerned.

2. The User Agency shall transfer the cost of raising and maintaining the Compensatory Afforestation over double the extent of degraded forest land in Sy.No. 178, Honnebail RF, Ankola Taluk, Karwar Division, Uttara Kannada District at the current wage rate, in consultation with State Forest Department in the account of CAMPA of the concerned State through online portal. The scheme shall include demarcation of CA area using appropriate fencing and tall plants for better survival, provision for watering and SMC works to be included and appropriate provision to be provided for anticipated cost escalation for the works scheduled for subsequent years.
3. The User Agency shall restrict the felling of trees to minimum number in the diverted forest land and the trees shall be felled under the strict supervision of the State Forest Department and the cost of felling of trees shall be deposited by the User Agency with the State Forest Department.
4. All the funds received from the user agency under the project shall be transferred/deposited in CAMPA account only through e-portal (<https://parivesh.nic.in/>). Amount deposited through other mode will not be accepted as compliance of the Stage-I clearance.
5. The user agency should take up measure to rectify the alignment and slope of trench excavated as an emergency measure in Byndoor, so as to drain out the excess water to a common drainage point without creating water stagnation or water logging in forest area or private areas. The user agency should also ensure establishment of suitable safety measures like 6 ft high chain-link fence all along the trench to prevent accident fall of humans and animals. The side slope of the trench should be made gentle in few locations to facilitate safe passage of animals, in case, if any animal falls in to the trench.
6. The old road in the forest area that will be left abandoned after re-alignment should be resumed by the forest department.
7. The user agency should restore the forest area where the excavated soil has been dumped.
8. The tree planting along the side of NHAI road should be completed on priority.
9. The KML file of the area diverted and CA area shall be uploaded on the e-green watch portal with all requisite details and same shall be submitted along with compliance report.
10. The compliance report shall be uploaded on e-portal (<https://parivesh.nic.in/>).
11. The State Government shall complete settlement of rights, in term of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006, if any, on the forest land to be diverted and submit the documentary evidence as prescribed by this Ministry in it's letter No. 11-9/1998-FC dated 3rd August 2009 read with 05.07.2013 with necessary enclosures, in support thereof.
12. The boundary of the diverted forest land shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, distance from pillar to pillar and GPS co-ordinates.

13. Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as prescribed in para 1.21 of Chapter 1 of the Handbook of comprehensive guidelines of Forest (Conservation) Act, 1980 as issued by this Ministry's letter No. 5-2/2017-FC dated 28.03.2019.

B: Conditions which need to be strictly complied on field after handing over of forest land to the user agency by the State Forest Department but the compliance in form of undertaking shall be submitted prior to Stage-II approval:

1. Legal status of the diverted forest land shall remain unchanged.
2. Compensatory Afforestation shall be raised over double the extent of degraded forest land within three years from the date of Stage –II Clearance and maintained thereafter by the State Forest Department at the cost of the User Agency and at least 1000 plants per hectare shall be planted over identified degraded forest land within three years of grant of final approval. If it is not possible to plant so many saplings in the area identified for CA, the balance saplings will be planted in any other forests as per prescriptions of approved working plan with provision for ten years on subsequent maintenance.
3. At the time of payment of the Net Present Value (NPV) at the then prevailing rate, the User Agency shall furnish an undertaking to pay the additional amount of NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India.
4. Tree felling shall be restricted to the barest minimum possible and under confirmation from the local forest officials.
5. Suitable signages for speed regulation and animal safety will be erected along the road through forest areas.
6. The User Agency / concessionaire at their cost shall take up strip plantation on both sides and central verge of the road as per the IRC norms, wherever possible in consultation with State Forest Department as per the guidelines issued by Ministry vide letter No.FC-11/39/2020-FC dated 08/09/2021.
7. The period of diversion under this approval shall be co-terminus with the period of lease to be granted in favour of the user agency or the project life, whichever is less.
8. No labour camp shall be established on the forest land.
9. No additional or new path will be constructed inside the forest area for transportation of construction materials for execution of the project work.
10. Sufficient firewood, preferably the alternate fuel, shall be provided by the User Agency to the labourer after purchasing the same from the State Forest Department or the Forest Development Corporation or any other legal source of alternate fuel.
11. The forest land shall not be used for any purpose other than that specified in the project proposal.

12. The forest land proposed to be diverted shall under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government.
13. No damage to the flora and fauna of the adjoining area shall be caused.
14. User Agency shall obtain the Environmental Clearance as per the provisions of the Environment (Protection) Act, 1986, if applicable.
15. The layout plan of the proposal shall not be changed without the prior approval of the Central Government.
16. The User Agency shall submit the annual self-compliance report in respect of the above stated conditions to the State Government and Integrated Regional Office, Bangalore by the end of March every year.
17. The user agency shall comply with all the provisions of the all Acts, Rules, Regulations, Guidelines, Hon'ble Court Order (s) and NGT Order (s) pertaining to this project, if any, for the time being in force, as applicable to the project.

After receipt of compliance report on fulfilment of the conditions mentioned above, the proposal shall be considered for final approval under Section-2 of the Forest (Conservation) Act, 1980. The User Agency shall take up the work as per the Guidelines in force and after ensuring that all necessary clearances for the entire stretch are in place. Working permission, if any issued, shall be intimated to IRO, Bengaluru. Transfer of forest land shall not be effected till final approval is granted by the Central Government in this regard.

Further, it may also be noted that this in-principle approval shall be valid for a period of 5 years from the date of issue of this letter. In the event of non-compliance of the above conditions, this in-principle approval shall be revoked after 5 years.

Yours sincerely,



(R. Padmawathe)

Deputy Inspector General of Forests (Central)

Copy to:-

1. The Principal Chief Conservator of Forests (HoFF), Forests Department, Govt. of Karnataka, Aranya Bhavan, 18th Cross, Malleswaram, Bangalore – 560 003.
2. The Principal Chief Conservator of Forests (FC) /Nodal Officer (FCA), Office of the Principal Chief Conservator of Forests, Forests Department, Govt. of Karnataka, Aranya Bhavan, 18th Cross, Malleswaram, Bangalore – 560 003.
3. The Project Director, Project Implementation Unit, National Highway Authority of India, Door No. 3-29, Bethel, Tharethota, Near Pumpwell, NH-66, Mangalore -575 005.
4. Guard file.



(R. Padmawathe)

Deputy Inspector General of Forests (Central)

In association with

Ref: AECOM/HWH/2019-20/GOA/091

Date: 31/01/2020

To,
The Authorized Representative,
IRB Westcoast Tollway Pvt Ltd
Kadikodi Village, Kumta
Karnataka

Subject: Four Laning of Goa/Karnataka border – Kundapur Section of NH-17 (Now NH 66) from Km.93.700 to km.283.300 in the state of Karnataka under NHDP phase IV on design build Operate Transfer (DBFOT) toll basis- Issuance of **Provisional Completion Certificate - (Length 141.000 km).**

Ref: 1. Concessionaire Letter No. IRBWTP/CTO/KKBOT/4591/2019, dated: 07.12.2019.
2. Concessionaire Letter No. IRBWTP/CTO/KKBOT/4611/2019, dated: 23.12.2019.
3. IE Letter No. AECOM/HW/IE Goa-Kundapur/2019-20/923, dated: 24.12.2019
4. IRB Board Resolution dated 2nd January 2020 authorising Mr R K Menon as Authorized Representative
5. NHAI Letter No. NHAI /RO-BNG/15019/42/2020/4213 dated 15.01.2020.

Dear Sir,

With reference to the request made by the Concessionaire vide letter No. IRBWTP/CTO/KKBOT/4591/2019, dated: 07.12.2019 for issuance of Provision Completion Certificate and subsequent approval of Competent Authority received vide NHAI letter no. NHAI /RO-BNG/15019/42/2020/4213 dated 15.01.2020, the Provision Completion Certificate of the subject Project is hereby issued today **31st January 2020** in accordance with Clause 14.3.2 of Concession Agreement.

The list of outstanding items of works (Punch List-A and Punch List -B) is appended as Annexure-A and Annexure-B respectively alongwith the work programme for completion of outstanding works (Annexure-C).

This is for your kind information and necessary action please.

Thanking you

Yours faithfully,
For **AECOM Asia Company Ltd. In Association with**
RODIC Consultants Pvt Ltd.


(Prashant Kumar)
Independent Engineer

Encls:

- 1) Provision Completion Certificate
- 2) Annexure A - Punch list A
- 3) Annexure B - Punch list B
- 4) Annexure C – Programme for Outstanding Works

Copy to:

1. The Regional Officer, National Highways Authority of India, Bengaluru –560073.
2. The Project Director, NHAI, P'U, Mangalore.
3. The Team Leader, AECOM-Rodic JV, Honnavar.

PROVISIONAL CERTIFICATE

1. I, M/s. AECOM Asla Company Ltd., In association with Rodic Consultants Pvt. Ltd, acting as Independent Engineer, under and in accordance with the Concession Agreement dated 25.03.2013 (the "Agreement"), for Four laning of Goa / Karnataka Border to Kundapur Section of NH-17 from Km. 93.700 to Km. 283.300 in the state of Karnataka under NHDP Phase IV on Design Build, Operate, Transfer (DBFOT) toll basis through M/s. IRB West Coast Tollway Pvt. Ltd, hereby certify that the tests specified in Article 14 and Schedule-I of the Agreement have been undertaken to determine compliance of the Project Highway with the provisions of the Agreement for the sections given in **Appendix-I. (141.000 Km).**
2. Construction works that were found to be incomplete and/or deficient have been specified in the Punch List appended hereto, and the Concessionaire has agreed and accepted that it shall complete and / or rectify all such works in the time and manner set forth in the Agreement. (Some of incomplete works have been delayed as a result of reasons attributable to the Authority or due to Force Majeure and the Provisional Certificate cannot be withheld on this account). I am satisfied that having regards to the nature and extent of such incomplete works, it would not be prudent to withhold commercial operation of the Project Highway, pending completion thereof.

In view of the foregoing, I am satisfied that part of the Project Highway as listed in **Appendix-I (Length – 141.000 Km)** can be safely and reliably placed in commercial service of the users thereof, and in terms of the Agreement, the Project Highway is hereby provisionally declared fit for entry into commercial operation on this the **31st Day of January 2020.**

**ACCEPTED, SIGNED, SEALED
AND DELIVERED**

For and on behalf of
IRB West Coast Tollway Pvt Ltd:



R.K. MENON
Asst. Vice President
1101, Hiranandani Knowledge Park,
11th Floor, Technology Street,
Hill Side Avenue, Opp. Hiranandani
Hospital, Powai, Mumbai-400076.
Ph: +91 022 6733 6400

**SIGNED, SEALED AND
DELIVERED**

For and on Behalf of
AECOM Asia Company Ltd.
In association with Rodic
Consultants Pvt Ltd:

Prashant Kumar
Independent Engineer
3/F, Tower A, Building No. 8,
DLF Cyber City, DLF Phase II,
Gurgaon-122002, Haryana.
Ph: +91 124 4871 413

APPENDIX-I

Stretches Considered for PCOD			
Sr. No.	Chainage		Length 'KM'
	From	To	
1	093+700	105+150	11.450
2	108+230	108+550	0.320
3	108+730	109+650	0.920
4	110+500	111+200	0.700
5	115+080	119+100	4.020
6	125+500	128+470	2.970
7	128+550	129+880	1.330
8	130+370	136+200	5.830
9	136+800	143+730	6.930
10	146+000	146+500	0.500
11	147+950	152+200	4.250
12	154+150	166+040	11.890
13	166+500	167+550	1.050
14	168+100	169+750	1.650
15	170+200	170+540	0.340
16	178+620	183+700	5.080
17	185+050	187+850	2.800
18	190+500	190+900	0.400
19	193+860	207+120	13.260
20	207+450	209+300	1.850
21	210+000	219+320	9.320
22	220+540	224+570	4.030
23	225+110	228+200	3.090
24	231+670	232+020	0.350
25	234+270	280+940	46.670
TOTAL FOUR LANING LENGTH 'KM'			141.000



Handwritten signature: *Rashid*
 Stamp: THE WESTERN REGIONAL DEVELOPMENT CORPORATION

PROVISIONAL CERTIFICATE

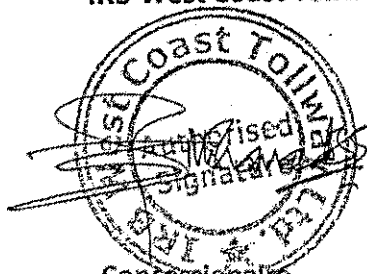
1. M/s. Theme Engineering Services Pvt. Ltd., acting as Independent Engineer, under and in accordance with the Concession Agreement dated: 25.03.2013 (the "Agreement"), for Four laning of Goa / Karnataka Border to Kundapur Section of NH-17 from Km. 93.700 to Km. 283.300 in the state of Karnataka under NHDP Phase IV on Design Build, Operate, Transfer (DBFOT) toll basis through M/s. IRB West Coast Tollway Ltd, hereby certify that the tests specified in Article 14 and Schedule-I of the Agreement have been undertaken to determine compliance of the Project Highway with the provisions of the Agreement for the sections given in Appendix-I. (20.050 Km) in addition to earlier accorded 141.0 Km. i.e. Total of 161.05 Km .

2. Construction works that were found to be incomplete and/or deficient have been specified in the Punch List appended hereto, and the Concessionaire has agreed and accepted that it shall complete and / or rectify all such works in the time and manner set forth in the Agreement. (Some of incomplete works have been delayed as a result of reasons attributable to the Authority or due to Force Majeure and the Provisional Certificate cannot be withheld on this account). I am satisfied that having regards to the nature and extent of such incomplete works, it would not be prudent to withhold commercial operation of the Project Highway, pending completion thereof.

In view of the foregoing, I am satisfied that part of the Project Highway as listed in Appendix-I (Length – 161.050 Km) can be safely and reliably placed in commercial service of the users thereof, and in terms of the Agreement, the Project Highway is hereby provisionally declared fit for entry into commercial operation on this the 28th February '2022.

**ACCEPTED, SIGNED, SEALED
AND DELIVERED**

For and on behalf of
IRB West Coast Tollway Ltd

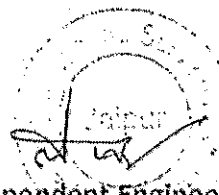


Concessionaire

1101, Hiranandani Knowledge Park,
Hill Side Avenue, Opp. Hiranandani
Hospital, Powai, Mumbai-400076,
Ph: +91 022 6733 6400

**SIGNED, SEALED AND
DELIVERED**

For and on Behalf of
Theme Engineering Services
Pvt. Ltd.



Independent Engineer

B-24, Gokul Vatika, Jawahar Circle,
Jaipur-302018, Rajasthan.
Ph: +91 141 2724495-96-97

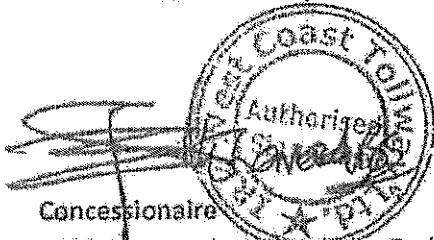
PROVISIONAL CERTIFICATE

1. M/s. Theme Engineering Services Pvt. Ltd., acting as Independent Engineer, under and in accordance with the Concession Agreement dated: 25.03.2013 (the "Agreement"), for Four laning of Goa / Karnataka Border to Kundapur Section of NH-17 from Km. 93.700 to Km. 283.300 in the state of Karnataka under NHDP Phase IV on Design Build, Operate, Transfer (DBFOT) toll basis through M/s. IRB West Coast Tollway Ltd, hereby certify that the tests specified in Article 14 and Schedule-I of the Agreement have been undertaken to determine compliance of the Project Highway with the provisions of the Agreement for the sections given in Appendix-I. 9.93 Km in addition to earlier accorded 161.050 Km i.e. **Total of 170.98 Km.**
2. Construction works that were found to be incomplete and/or deficient have been specified in the Punch List appended hereto, and the Concessionaire has agreed and accepted that It shall complete and / or rectify all such works in the time and manner set forth in the Agreement. (Some of Incomplete works have been delayed as a result of reasons attributable to the Authority or due to Force Majeure and the Provisional Certificate cannot be withheld on this account). I am satisfied that having regards to the nature and extent of such incomplete works, it would not be prudent to withhold commercial operation of the Project Highway, pending completion thereof.

In view of the foregoing, I am satisfied that part of the Project Highway as listed in Appendix-I (Length - 170.98 Km) can be safely and reliably placed in commercial service of the users thereof, and in terms of the Agreement, the Project Highway is hereby provisionally declared fit for entry in to commercial operation on this date 19th March-2023.

**ACCEPTED, SIGNED, SEALED
AND DELIVERED**

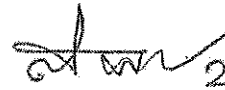
For and on behalf of
IRB West Coast Tollway Ltd



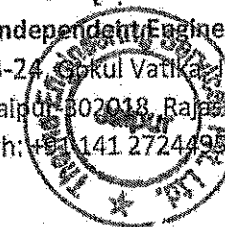
Concessionaire
1101, Hiranandani Knowledge Park,
Hill Side Avenue, Opp. Hiranandani
Hospital, Powai, Mumbai-400076.
Ph: +91 022 6733 6400

**SIGNED, SEALED AND
DELIVERED**

For and on Behalf of
**Theme Engineering Services
Pvt. Ltd.**

 24.03.2023

Independent Engineer
B-24, Gokul Vatika, Jawahar Circle,
Jaipur-302018, Rajasthan.
Ph: +91 141 2724495-96-97



Four laning of Goa/KNT Border to Kundapur Section of NH-66 (Old NH-17) in the State of Karnataka				
SR NO	CHAINAGE		TOTAL LENGTH (Km)	Remarks
	FROM	TO		
1	93700	105150	11.450	PCOD-1
2	105150	105350	0.200	PCOD -3
3	105350	106892	1.542	COD
4	106892	108230	1.338	PCOD-2
5	108230	108550	0.320	PCOD-1
6	108550	108730	0.180	PCOD-2
7	108730	109650	0.920	PCOD-1
8	109650	110300	0.650	PCOD -3
9	110300	110500	0.200	PCOD-2
10	110500	111200	0.700	PCOD-1
11	111200	111440	0.240	PCOD-2
12	111440	111620	0.180	PCOD -3
13	111620	113480	1.860	COD
14	113480	115080	1.600	PCOD -3
15	115080	119100	4.020	PCOD-1
16	119100	119660	0.560	PCOD-2
17	119660	119780	0.120	PCOD -3
18	119780	119800	0.020	COD
19	119800	120000	0.200	PCOD-2
20	120000	120200	0.200	PCOD -3
21	120200	120500	0.300	PCOD-2
22	120500	120540	0.040	PCOD -3
23	120540	120980	0.440	PCOD-2
24	120980	121030	0.050	COD
25	121030	121200	0.170	PCOD -3
26	121200	121700	0.500	PCOD-2
27	121700	122600	0.900	COD
28	122600	122800	0.200	PCOD -3
29	122800	123000	0.200	COD
30	123000	123450	0.450	PCOD-2
31	123450	124150	0.700	COD
32	124150	124350	0.200	PCOD-2
33	124350	124440	0.090	PCOD -3
34	124440	124600	0.160	COD
35	124600	125200	0.600	PCOD-2
36	125200	125500	0.300	COD
37	125500	128470	2.970	PCOD-1
38	128470	128550	0.080	COD
39	128550	129880	1.330	PCOD-1
40	129880	130370	0.490	PCOD -3
41	130370	136200	5.830	PCOD-1
42	136200	136580	0.380	PCOD-2
43	136580	136800	0.220	COD
44	136800	143730	6.930	PCOD-1

Four laning of Goa/KNT Border to Kundapur Section of NH-66 (Old NH-17) in the State of Karnataka				
SR NO	CHAINAGE		TOTAL LENGTH (Km)	Remarks
	FROM	TO		
45	143730	143950	0.220	PCOD-2
46	143950	144030	0.080	COD
47	144030	144140	0.110	PCOD -3
48	144140	145200	1.060	COD
49	145200	145420	0.220	PCOD -3
50	145420	146000	0.580	PCOD-2
51	146000	146500	0.500	PCOD-1
52	146500	146900	0.400	PCOD-2
53	146900	147320	0.420	PCOD -3
54	147320	147950	0.630	COD
55	147950	152200	4.250	PCOD-1
56	152200	153330	1.130	PCOD-2
57	153330	153590	0.260	COD
58	153590	154150	0.560	PCOD -3
59	154150	166040	11.890	PCOD-1
60	166040	166200	0.160	COD
61	166200	166500	0.300	PCOD-2
62	166500	167550	1.050	PCOD-1
63	167550	168100	0.550	PCOD -3
64	168100	169750	1.650	PCOD-1
65	169750	170200	0.450	COD
66	170200	170540	0.340	PCOD-1
67	170540	170750	0.210	PCOD-2
68	170750	171460	0.710	PCOD -3
69	171460	172000	0.540	COD
70	172000	172380	0.380	PCOD -3
71	172380	172470	0.090	COD
72	172470	172700	0.230	PCOD -3
73	172700	173060	0.360	PCOD-2
74	173060	173130	0.070	COD
75	173130	173700	0.570	PCOD -3
76	173700	174500	0.800	COD
77	174500	175000	0.500	PCOD-2
78	175000	176800	1.800	COD
79	176800	178620	1.820	PCOD-2
80	178620	183700	5.080	PCOD-1
81	183700	185050	1.350	PCOD-2
82	185050	187850	2.800	PCOD-1
83	187850	188260	0.410	PCOD-2
84	188260	188350	0.090	PCOD -3
85	188350	189850	1.500	PCOD-2
86	189850	190500	0.650	PCOD -3
87	190500	190900	0.400	PCOD-1
88	190900	191250	0.350	PCOD-2

Four laning of Goa/KNT Border to Kundapur Section of NH-66 (Old NH-17) in the State of Karnataka				
SR NO	CHAINAGE		TOTAL LENGTH (Km)	Remarks
	FROM	TO		
89	191250	191800	0.550	PCOD -3
90	191800	192400	0.600	PCOD-2
91	192400	193860	1.460	COD
92	193860	207120	13.260	PCOD-1
93	207120	207450	0.330	PCOD-2
94	207450	209300	1.850	PCOD-1
95	209300	209450	0.150	PCOD-2
96	209450	209740	0.290	PCOD -3
97	209740	209850	0.110	COD
98	209850	209940	0.090	PCOD -3
99	209940	210000	0.060	PCOD-2
100	210000	219320	9.320	PCOD-1
101	219320	219620	0.300	COD
102	219620	220540	0.920	PCOD-2
103	220540	224570	4.030	PCOD-1
104	224570	225010	0.440	PCOD -3
105	225010	225110	0.100	PCOD-2
106	225110	228200	3.090	PCOD-1
107	228200	228550	0.350	PCOD-2
108	228550	228680	0.130	PCOD -3
109	228680	229050	0.370	PCOD-2
110	229050	231040	1.990	COD
111	231040	231670	0.630	PCOD-2
112	231670	232020	0.350	PCOD-1
113	232020	232270	0.250	PCOD-2
114	232270	232700	0.430	COD
115	232700	234270	1.570	PCOD-2
116	234270	280940	46.670	PCOD-1
			187.240	

PCOD 1	141
PCOD 2	20.048
PCOD 3	9.93
COD	16.262
	187.24

F.No.10-107/2011-IA.III
 Government of India
 Ministry of Environment & Forests
 (IA-III Section)

Paryavaran Bhawan,
 CGO Complex, Lodhi Road,
 New Delhi - 110 003,

Dated: 19th February, 2014

To
 The Chief General Manager (LA),
 M/s National Highways Authority of India,
 G- 5&6, Sector - 10, Dwarka,
 New Delhi - 110075

Contact Person Details:

Shri V.K. Sharma,
 Tel. No. 011-25074100, 25074200
 Fax No. 011-25093543
 Email: vksharma@nhai.org

Subject: Environmental and CRZ Clearance for widening and upgradation of existing carriageway to 4/6 laning of Goa - Karnataka Border (km 93.700) to Kundapur (km 283.300) Section of NH- 17 in the State of Karnataka by M/s. NHAI - Reg.

This has reference to your letter No: 1013/1/2k/GM(Env.)/375 dated 24.09.2013 and subsequent letters dated 12.12.2013 and 12.12.2013 and 20.12.2013 Environmental and CRZ Clearance under the Environment Impact Assessment Notification, 2006 and Coastal Regulation Zone Notification, 2011. The proposal has been appraised as per prescribed procedure in the light of provisions under the Coastal Regulation Zone Notification, 2011 and EIA Notification - 2006 and on the basis of the mandatory documents enclosed with the application viz., the Questionnaire, recommendation of State Coastal Zone Management Authority, EIA, EMP and the additional clarifications furnished in response to the observations of the Expert Appraisal Committee constituted by the competent authority in its meetings held on 28th - 30th October, 2013 and 20th - 23rd November, 2013 and 22nd -24th January, 2014.

2. It is interalia, noted that the proposal involves widening and upgradation of existing carriageway to 4/6 laning of Goa - Karnataka Border (Km 93.700) to Kundapur (Km 283.300) Section of NH-17 in the State of Karnataka. Project road is part of NH-66 (formerly NH-17) starts from Goa - Karnataka border at km 93.700 and ends in Kundapur in Udupi District, Karnataka at km 283.300. The proposed road passes towards south from Goa-Karnataka Border through congested town/villages viz. Karwar, Karwar Port, Navy's Sea Bird Project, Amadalli, Kumta, Haldipura, Honnavara, Kasarkod, Shirali, Bhatkal, Shirur, Byndoor, Maravanthe and Tallur. The proposed project is a part of NHDP programme of 4/6 laning and has total length of 189.600 km, whereas proposed length is 187.240km. The existing RoW width varies from 11m to 45m from km 93.600 to km 241.000 and from Km 241.000 to Km 283.300 it is 45m on the project road (11m in mountainous terrain to 45m in plain terrain). As per NHAI Notification, a uniform width of 60m will be maintained throughout the project stretch for 4/6 lane carriageway

along the project road. Therefore widening of the road would require additional lands to accommodate the proposed RoW width throughout the project length. The project stretch passes through 120.130km of plain terrain, 24.20km of hilly terrain and 45.67km of rolling and hilly terrain. Land use along the highway is predominantly built-up and agriculture. The entire stretch of the project road falls under Seismic Zone-III of India. Patches of reserved forests are situated along the existing RoW. The existing RoW is not sufficient and for accommodating 60m of RoW width, acquisition of forest area would be required thus affecting forests. Approximately 162.429 Ha of forest land is required to be acquired including 2.629 ha mangroves area. Few sections of the existing highway fall under CRZ and the road is proposed on silt in mangroves. The Project is located within 10km of proposed Catigaoon Wildlife Sanctuary, Goa. There are about 23,491 plants/trees along the roadside which are likely to be affected due to the proposed development. The land which is required to be acquired all along the project road for widening of the existing 2-lane road to 4-lane is 525.16 ha, where the available RoW is less than design requirements. There are 13 major bridges, 40 minor bridges and 606 nos. of culverts along the existing road. Existing bridges and culverts along the existing road will be upgraded or reconstructed during the proposed development. There are 2 pedestrian/cattle underpasses, 4 numbers of RUBs and 2 numbers of ROBs along the existing alignment. In the proposed development, 22 underpasses (3 vehicular, 19 pedestrian and cattle), 4 new flyovers have been proposed. There are 15 major junctions along the existing alignment. A total of 4 number of truck lays and 53 number of bus bays have been proposed. 3 new Toll Plazas have been proposed. 7m wide service roads of 60.742km are proposed on both sides at urban and rural built up stretches. The total water requirement would be 1829.868 KLD. 59.09 lakh cum of soil, 33.17 lakhs cum of aggregate and 2.07 lakh cum of sand shall be required and is proposed to be taken from nearby quarries/borrow areas. Cost of Environmental Management Plan is Rs. 45.00 Crore. It was informed that 1132 structures will be affected and the total cost of R&R is Rs. 328.32 Crore. The total cost of the project is Rs. 1756.32 Crore.

3. The project was considered by EAC in its meeting held on 10th - 11th January, 2012 and finalised ToR including conduct of Public Hearing. The Public Hearing was conducted on 05.12.2012 at Byndoor, 02.04.2013 at Kumta. The major issues raised are tree cutting, forests land involvement etc.

4. The Karnataka Coastal Zone Management Authority has recommended the project vide letter no. FEE 136 CRZ 2013 dated 12.09.2013.

5. The proposal was discussed in the EAC meeting in October, 2013 and the Committee decided that Shri S.K. Sinha, Member, EAC, will go through the original map and provide comments since it is not giving clear CRZ boundary. Though, the Project Proponent has prepared the CRZ maps of 1:4000 scale through IRS, Anna University, however they have not submitted maps of scale in view of the large size and numbers. In 128th meeting of the EAC held in November, 2013, the Member informed that the total length of Proposed Right of Way (PROW) is 189.6 km (from chainage 93.7 km to 283.3 km). The intersections of PROW with CRZ Zone are CRZ I (A) - 2.13 km, CRZ I (B) - 9.75 km, CRZ II - nil and CRZ III - 34.32 km. CRZ I crossings are mainly over the creeks. The PROW directly overlaps 10.5 hectares of mangrove area. All the above estimates are based on the original survey/mapping generated by IRS which was offered for examination.

6. While processing of the project, complaints from Rastriya Heddari Bhuswa Dhina Virodhi Horata Samitee, Uttar Kannada - Karwar and copy of complaint from Bhuswadhin a Virodhi Samittee filed before National Human Rights Commission, were received against the

project. Main issues are land acquisition, forest and Wildlife Clearance, destruction of mangroves, involving blasting operation for making tunnel in forests area, submission of false data to Ministry etc. Copy of the complaint was provided to the NHAI for comments. NHAI has submitted detailed response on the complaint and details on tunnels. Tunnel is proposed after London Bridge in Karwar bypassing the Karwar Port. The tunnel has a length of 550 m on LHS and 594 m on RHS. Total length of the tunnel is 1144 m.

7. The Expert Appraisal Committee, after due consideration of the relevant documents submitted by the project proponent and additional clarifications furnished in response to its observations, have recommended for the grant of Environmental and CRZ Clearance for the project. Accordingly, the Ministry hereby accords necessary Environmental and CRZ Clearance for the above project as per the provisions of Coastal Regulation Zone Notification, 2011 and EIA Notification, 2006, subject to strict compliance of the terms and conditions as follows:

8. **SPECIFIC CONDITIONS:**

- (i) Road in Mangrove areas shall be on stilts. It is noted that the proposed ROW overlaps 10.5 ha of mangrove area. The Project Proponent shall carry out mangrove plantation in an area of 50 ha. in consultation with Forest Department.
- (ii) As the project is located within 10 km of proposed Catigaon Wildlife Sanctuary, Goa, prior clearance from NBWL shall be obtained.
- (iii) The project involves diversion of 162.429 ha protected forest land including 2.629 ha mangroves area for which the proponent shall obtain the requisite FC. The proponent can execute the above project on the entire stretch located in non-forest land, provided that the proponent submits an undertaking while making application to get FC that the execution of work on non-forest land shall not be cited as a reason for grant of FC and in case FC is declined, width of the portion of road falling in the forest land will be maintained at its existing level.
- (iv) It is indicated that 23491 nos. of trees are proposed to be cut for the project. Necessary permission from competent authority shall be obtained for tree cutting. Necessary compensatory plantation shall be carried out and cost provision should be made for regular maintenance.
- (v) It is noted that according to NHAI, the impact zone is 50-200 m and the nearby habitation is Karwar Town at 600 m. However, NHAI shall intimate local authority before carrying out the blasting. If there are any damage caused due to blasting, NHAI shall compensate 100 % under the notice of local Authority.
- (vi) All the other required clearances for carrying out blasting shall be obtained from the competent Authority including Forests / Wildlife.
- (vii) The blasting shall be restricted only from 8 am to 6 pm.
- (viii) The technique adopted for controlled blasting at identified locations is non-electric detonating technique.

- (ix) Explore the possibilities of using cold mix technology wherever possible particularly near Wildlife Sanctuary.
- (x) Permission for ground water drawl shall be obtained from competent Authority.
- (xi) Rain water harvesting including oil and grease trap shall be provided. Water harvesting structures shall be located at every 500 mts along the road. Vertical drain type rainwater harvesting structures shall be set up to minimize surface runoff losses of rainwater.
- (xii) R&R shall be as per the guidelines of State/Central Government.
- (xiii) IRC guidelines shall be followed for widening & up-gradation of road.
- (xiv) The responses/commitments made during public hearing shall be complied with letter and spirit.
- (xv) All the recommendation of the EMP shall be complied with letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-RO.
- (xvi) Green belt development shall be undertaken as suggested in EMP.
- (xvii) The seismic nature of the area shall be taken into account while designing the project.
- (xviii) The project proponent shall obtain necessary permission from the State Irrigation Department before drawing water from the river sources for the purpose of the proposed construction activity.
- (xix) Sidewalk shall be provided along the bridges.
- (xx) The drain shall be at least 1 m. away from the toe of the embankment of the road adopting IRC guidelines.
- (xxi) Longitudinal drains shall be provided all along the project road to ensure proper drainage of the area. In addition, adequate number of under passes and culverts to act as cross drainage structures shall also be provided.
- (xxii) The solid waste generated shall be used for rehabilitating the borrow areas.
- (xxiii) For providing safety to the crossing animals and avoid road accidents speed breakers/rumbled strips shall be constructed at the identified locations of the animal movements. Enough hoardings and signages shall also be put up for the public and vehicles convenience.
- (xxiv) Minimum of three times the number of trees to be cut shall be planted. It shall be ensured that the trees planted as a part of the afforestation shall be looked after by NHAI. Tree plantation shall be of the same species/local species and survival

shall be monitored. Transplantation of trees shall be carried out wherever possible. The tree plantation shall be taken up on the extreme end of the road.

- (xxv) Necessary clearance from the State Government shall be obtained for extraction of sand from the rivers.
- (xxvi) Proper signage shall be installed at appropriate locations for the convenience of the traffic movement.
- (xxvii) The embankments/slopes and the slopes left after cutting shall be provided with vegetative turning to avoid soil erosion.
- (xxviii) The hot mix plant shall be located at least 500 mts. Away from habitation and on the barren land to avoid its adverse impact on the human population.
- (xxix) Rehabilitation and payment of compensation to the project affected people (PAPs) shall be made as per the policy of the State Government.
- (xxx) Noise barriers shall be provided at appropriate locations particularly in the areas where the alignment passes through inhabited areas so as to ensure that the noise levels do not exceed the prescribed standards.
- (xxxi) For road safety, IRC guidelines in respect of road signages, service roads, bus bays, inter-sections, pedestrians crossings, etc. shall be strictly adhered to.

9. GENERAL CONDITIONS:

- (i) Adequate provision for infrastructure facilities including water supply, fuel and sanitation must be ensured for construction workers during the construction phase of the project to avoid any damage to the environment.
- (ii) Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.
- (iii) Borrow sites for each quarry sites for road construction material and dump sites must be identified keeping in view the following:
 - (a) No excavation or dumping on private property is carried out without written consent of the owner.
 - (b) No excavation or dumping shall be allowed on wetlands, forest areas or other ecologically valuable or sensitive locations.
 - (c) Excavation work shall be done in close consultation with the Soil Conservation and Watershed Development Agencies working in the area, and
 - (d) Construction spoils including bituminous material and other hazardous materials must not be allowed to contaminate water courses and the dump sites for such materials must be secured so that they shall not leach into the ground water.

- (iv) The construction material shall be obtained only from approved quarries. In case new quarries are to be opened, specific approvals from the competent authority shall be obtained in this regard.
- (v) Adequate precautions shall be taken during transportation of the construction material so that it does not affect the environment adversely.
- (vi) Borrow pits and other scars created during the road construction shall be properly levelled and treated.
- (vii) Adequate financial provision must be made in the project to implement the aforesaid safeguards.
- (viii) The project proponent will set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.
- (ix) Full support shall be extended to the officers of this Ministry/ Regional Office by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.
- (x) A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry regarding the implementation of the stipulated conditions.
- (xi) Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.
- (xii) The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.
- (xiii) In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment and Forests.
- (xiv) The project proponents shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.
- (xv) A copy of the clearance letter shall be marked to concerned Panchayat/local NGO, if any, from whom any suggestion/ representation has been made received while processing the proposal.
- (xvi) Safety provision such as bus bays, service roads intersection improvement etc., will be carried out by the project proponent. The project proponent shall provide adequate facilities as per IRC norms/guidelines.

(xvii) State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Center and Collector's Office/Tehsildar's office for 30 days.

10. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 2006, including the amendments and rules made thereafter.

11. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.

12. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental and CRZ Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at <http://www.envfor.nic.in>. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry.

13. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

14. This Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.

15. Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.

16. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.

17. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of Clearance conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.


(Lalit Kapur)
Director (IA-III)

Copy to:

- (1) The Secretary, Department of Environment, Government of Karnataka, Bangalore.
- (2) The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 110 032.
- (3) The Member Secretary, Karnataka Coastal Zone Management Authority & Director, Environment Technical Cell, Department of Forests, Ecology and Environment, Govt. of Karnataka.
- (4) The Member Secretary, Karnataka State Pollution Control Board, "Parisara Bhavan, 4th & 5th Floor, # 49, Church Street, Bangalore-560 001.
- (5) The CCF, Regional Office, Ministry of Environment & Forests(SZ), Kendriya Sadan, 1Vth floor, E&F wings, 17th Main Road, Koramangala II Block, Bangalore - 560 034.
- (6) IA - Division, Monitoring Cell, MOEF, New Delhi - 110003.
- (7) Guard file.



(Lalit Kapur)
Director (IA-III)