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Tender	DIVISION BR. SEAT NO- 115	ADISHREE MISHRA
0 . H. C.–97 - A]		N.BARIK, D.K.NAIK,
	In the High Court of Orissa	
IA- 7045/24	ORDER SHEET	s.s. Kashyer (CGC)
	BLAPL/W. P. (C) No. 14993/2024 of 20_	S.S. Karhyer (CG.C) Umert Ch. Mohanty.
	M/S. TPF GETINSA EUROESTUDIOS S.L. BH	ADRAK Petitioner Cop-1)
	Versus	ANR
· · ·	NATIONAL HIGHWAYS AUTHORITY OF INDIA	· · ·
		Opposite-Party

	Sl. Nù, of Order	Date of Order	ORDER WITH SIGNATURE	Office note as to action (if any), taken on Order
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FC2	208563			SUPERINTENDENT COMPUTER FILING SECTION
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IN THE HIGH COURT OF ORISSA, AT CUTTACK

<u>W.P (C) No. 14993 of 2024</u> <u>And</u> I.A. No. 7045 of 2024

M/s TPF Getinsa Euroestudios S.L. Bhadrak Petitioner

Ms. Adishree Mishra, Adv.

National Highways Authority of India, Jajpur and another *Vs*.

Opposite Parties

Mr. S.S. Kashyap, CGC

CORAM:

DR. JUSTICE B.R. SARANGI MR. JUSTICE G. SATAPATHY

<u>ORDER</u>

02.07.2024

Order No. 01. This matter is taken up through hybrid mode.

2. Heard Ms. Adishree Mishra, learned counsel appearing for the petitioner and Mr. S.S. Kashyap, learned Central Government Counsel appearing for the Union of India.

3. The petitioner has filed this writ petition challenging the order dated 11.01.2024 passed by the opposite party no.1 under Annexure-30, by which the petitioner has been debarred for a period of one year as per NHAI Policy Circular No.18.63/2021 dated 08.01.2021 and also imposed a penalty of Rs.20.00 lakhs.

4. Ms. Adishree Mishra, learned counsel appearing for the petitioner vehemently contended that while issuing the order dated 11.01.2024, the basis on which the order of debarment was passed, i.e., NHAI Policy Circular No.18.63/2021 dated 08.01.2021, was not made available. Rather, the said policy was superseded vide Policy Circular No.16.12/2022 dated 18th January, 2022. Therefore, the penalty imposed on a non-existent circular cannot be sustained in the eye of law. Apart from the same, though notice

Page 1 of 2



of show cause was issued, it is a mere formality and, as such, no observation was made whether on the basis of such show cause notice the penalty can be imposed on the petitioner. Therefore, on the basis of an incomplete show cause notice since the penalty has been imposed, the order impugned cannot be sustained in the eye of law.

5. Issue notice to the opposite parties in the main case as well as in the interlocutory application.

6. Since Mr. S.S. Kashyap, learned Central Government Counsel has already entered appearance on behalf of opposite party no.2-Union of India, one extra copy of the writ petition be served on him within three working days enabling him to obtain instructions or file counter affidavit.

6. Steps for service of notice on the opposite party no.1 by speed post be taken within three working days. Office shall send notice to the said opposite party fixing an early returnable date.

(DR. B.R. SARANGI) JUDGE

(G. SATAPATHY) JUDGE

Ashok

D·WPC)-23355/2094 IN THE HIGH COURT OF ORISSA

WP(-Case No. 14993/2024

OFFICE NOTES

Sl. No. of Date of Order for Notes and action taken on order with Order for compliance signature of Dealing Assistant and Superintendent compliance 54 5/202 a prasad sing T, REGISTRAR defect -6 removed No defect. 7.4.6.24 Bench Ainoun Hansolah 24-6-24 Susmita Behena IIC Mamo No 22192 De 10 07/24 01. 02.7.24 Almon Notice issued to op no. 1 by speed post with AD fixing \$t. 26.07.24 for their appearance 9 file show cacere 9.7.24

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OGP-MP-DTP-U1-(H.C.) 7-50,000-14-09-2023

IN THE HIGH COURT OF ORISSA

Case No. WP(L) 14993/2024

OFFICE NOTES

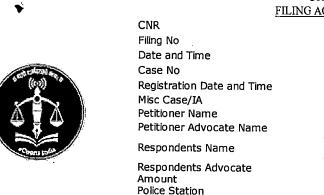
Sl. No. of Date of Order for Notes and action taken on order with Order for compliance signature of Dealing Assistant and Superintendent compliance AIN too admission 0 Q. 4.2 2 1) Frenchles order on IA No 7045/24 at flog (A) for/stay 11) AD not received from OP-1 in this regarcid 19 Trocking Report of OP-1 stating "Hem deleverced" to at flag (k) may kindly be see Service of 1 entracip 111) Receipt/ recepterching not yet received. IV) Counter not yet received. instruction by laurence (CGC Obtaining Appremo not yet received form learned CGIC. Mr. S.S. Kaihja Umerh chandroe Nothanty entro vie)/NIS Smi enterced appearcance on behalf of op-1 by filing v-nama No 9213/24 & at flag B Vccc)

IN THE HIGH COURT OF ORISSA

Case No. W/() NO 14993/2024

OFFICE NOTES

Sl. No. of Date of Order for Notes and action taken on order with Order for compliance signature of Dealing Assistant and Superintendent compliance A/N 01 02. 07 · 2024 For Admission 1) Frest-these order on IA No Four 24 is ad flag (A) for stay 1) IA NO 9213/29 & at flag 'B' for modification of order dtd 2.7.24 (2nd Copy not served) (2nd Copy not served) (1) Receipt regarding service of 1 extra logy 11) Receipt regarding not yet received. IV) Cocenter not yet received v) obtaining instruction by learned CGG vi) MLS Shri Umesh ch. Mohanty & associates enterced appearcance on behald of op-1 by ficing n-nama vii) A/memo not received from let GG.G Mr. S. S. Kashyap. ACS. to 10.12.2004 Bench Niharcika Poryactarcohini G.12, 2024 SabetaRath



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ORISSA HIGH COURT <u>FILING ACKNOWLEDGEMENT SLIP</u> ODHC010387772024 D- WP(C)/0023355/2024 20/05/2024-11:22:36 WP(C)/14993/2024 24/06/2024 7045/2024 M/S. TPF GETINSA EUROESTUDIOS S.L. BHADRAK ADISHREE MISHRA NATIONAL HIGHWAYS AUTHORITY OF INDIA, JAJUR



Monday 24th of June 2024 11:24:00 AM

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Case No

Amount Police Station

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Date and Time

Misc Case/IA

Petitioner Name

Respondents Name

Respondents Advocate

Registration Date and Time

Petitioner Advocate Name



ORISSA HIGH COURT FILING ACKNOWLEDGEMENT SLIP ODHC010387772024 D- WP(C)/0023355/2024 20/05/2024-16:54:24

7045/2024 M/S. TPF GETINSA EUROESTUDIOS S.L. BHADRAK ADISHREE MISHRA NATIONAL HIGHWAYS AUTHORITY OF INDIA, JAJUR



Monday 20th of May 2024 04:55:55 PM

STAMP REPORT WPG-CASE NO. 14993/2024

NATURE OF DEFECT

- 1. COURT FEE DEFICIENT N 61-Paid
- 2. VALUATION OF THE PROPERTY NOT GIVEN
- 3. AUTHENTICATION FEE IS DEFICIENT
- 4. AFFIDAVIT / VERIFICATION NOT PROPER
- 5. SECOND COPY OF THE PETITION NOT FILED
- 6. RECEIPT SHOWING SERVICE OF COPY TO AG / CG / IT / CT ETC. NOT FILED
- 7 VAKALATNAMA :
 - (i). NOT PROPERLY STAMPED / EXECUTED / ACCEPTED
 - (ii) NAMES IN CAPITAL LETTERS / ENROLMENT NUMBERS / MOBILE PHONE NUMBERS OF ALL THE SIGNING ADVOCATES NOT INDICATED
- 8. CAUSE TITLE NOT IN ORDER
- 9. PROVISION OF LAW NOF INDICATED ON TOP OF CAUSE TITLE
- 10. SUBJECT CODE NOT FURNISHED / INCORRECTLY MENTIONED
- 11. NEAT, LEGIBLE, ATTESTED ANNEXURES NOT FILED
- 12. ASSESSMENT SLIP NOT FILLED IN PROPERLY
- 13. NOT PROPERLY INDEXED
- 14. PETITIONS/APPEALS/APPLICATIONS:
 - (i) NOT IN SUPERIOR QUALITY A4 SIZE PAPER / LESS THAN 75 GSM PAPER
 - (ii) NOTIN PROPER FONT / NOT IN PROPER FONT SIZE
 - (iii) MARGIN NOT PROPER / LINE SPACING NOT PROPER
 - (iv) NOMENCLATURE NOT CORRECTLY INDICATED
 - (v) ALL PAPERS NOT PROPERLY SIGNED
 - (vi) NAME OF THE FILING ADVOCATE NOT IN CAPITAL LETTERS / ENROLMENT NUMBER NOT INDICATED WHEREVER SIGNATURE OF SUCH ADVOCATE APPEARING IN THE PETITION / APPEAL / APPLICATION

Penalty

VV.

- 15. APPLICATION CONTAINS MORE THAN ONE PRAYER
- 16. LIMITATION PERIOD EXPIRED γ
- 17. REFERENCE CERTIFICATE NOT FURNISHED
- 18. CERTIFIED COPY OF TRIAL / APPELLATE COURT ORDER NOT FILED
- 19. UNDERTAKING FOR FILING OF TRANSLATED COPY NOT FILED
- 20. VERNACULAR CERTIFICATE NOT FURNISHED
- 21. STATUTORY DEPOSIT / AWARDED AMOUNT NOT DEPOSITED

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OTHER DEFECT (IF ANY) 22.

DEFECTIVE/READY

SUBJECT-SUB-CATEGORY

SINGLE JUDGE/DIVISION BENCH (Put ✓ mark)

OGP-MP-DTP-U1 (H. C.) 20-200000-3-11-2021

RAJENDRA PRASAD SINGH

(Full signature of Stamp Reporter)

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	D-23353724
1.	RFA/RSA/FAO/SAO/LPA/SPA/CRP/Review pet/O. Ref/EXFA/EXSA/SM/APP Tr. P(c) WP (c)/WA/SCLP/Co. Appl/Co. Pet/Co. Case/Co. App/Bkg, P/Mat. A/Mat Ref/RP (FAMCT) Test Case / Intest. Case/L.A. Ref/ RCFA/ L.A.A./RCSA/RE Rev/MAC/MAC APP/EL Pet/ ELAPP/Arb, P/Arb. A/Arb. A/Insurance Ref/Cont. Cas(c)/Coutd. App (c) / MFA(name of the Act)/MSA/SP. JC (name of the Act) Cri A/Cri. Rev/CkI. M. C/ BLAPI/Cal. MAPPI/WP (crl) CUSREF STREV.
	Case Type W. P.C No 14993 / 2024 Date of Regn.
2 . ·	If 'State' is Party, Name of the Deptt: (Pet/Res) [Put Mark]
	If Public Undertakings (Specify name): (Pet/Res) [Put Mark]
3.	(a) Number of Category under which the matter fails:
	<u>28</u> 20 08
	If Others, Specify the subject
	(b) Which is applicable? [Put Mark]
	(Single Bench/Div. Bench/Three Judge Bench/Five Judge Bench) Article of the Constitution/Act (Central/State) [Put Mark]
 5.	Section/Sub-Section Involved Under Anticle 226 of the construct
6.	Rules Involved
7 . _.	Whether any other matter is pending in this Court on the same point of law : If so, give the number of matter :
8.	Whether any other matter is pending against the impugned order/Judgement? (
	Whether the matter is covered by any judgement of the Supereme Court this Court or any other High Court, If so give the details of the judgement
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	Point of law involved in the matter A Nrcetpetition praging the Obb-porty for quarking of the implugment letter later
	Point of law involved in the matter A Nreitpetition praging the Off-porty for quashing of the implugment letter later 1/1/2024 bearing NO NH14/11014/8/2024/PIU/CDL/82 issued the off-party No-1.

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IN THE HIGH COURT OF ORISSA: CUTTACK

W.P. (C) NO. <u>14993</u> / 2024

CODE: 383008

In the matter of: M/s. TPF Getinsa Euroestudios, S.L, in association with Segmental Consulting and Infrastructure Advisory Private Limited

... Petitioner

Versus

- 1. National Highways Authority of India, Ministry of Road Transport and Highways, Government of India; and
- 2. Union of India, Ministry of Road Transport and Highways, Director General, Paryavaran Bhawan, 1, Sansad Marg, New Delhi – 110001.

... Opposite Parties

Sr. No.	Particulars	Annexure	Pages
1.	Synopsis		(vi)
2.	List of Dates		(vii-xi)
3.	Writ Petition under Article 226 of the Constitution of India		1-46

Sr. No.	Particulars	Annexure	Pages
4.	Copy of the Authority Letter dated 15.04.2024 issued by the Petitioner.	1	47
5.	Copy of the invitation for proposals issued by the Opposite Party No. 1 dated 28.02.2018.	2	48-53
6.	Copy of the letter of acceptance issued by the Opposite Party No. 1 dated 29.05.2019	3	54
7.	Copy of the Memorandum of Understanding dated 21.06.2019 executed by and between M/s. TPF Getinsa Euroestudios, S.L., and Segmental Consulting and Infrastructure Advisory Private Limited	4	55-62
8.	Copy of the Contract Agreement dated 26.06.2019 executed by and between the Opposite Party No. 1 and the Petitioner.	5	63-144
9.	Copy of the Non-Destructive Test Report dated 20.11.2019 carried out by Balaji Scientific Laboratories	6	145-156
10.	Copy of the Non-Destructive Test Report dated 10.06.2022 carried out by Balaji Scientific Laboratories	7	157-186
11.	Copy of the letter issued by the Petitioner to the Concessionaire, i.e., DBL Chandikhole Bhadrak Highways Limited dated 22.07.2022	8	187-184

B. MISHRA NOTARY, CUTTACX ODISHA

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Sr. No.	Particulars	Annexure	Pages
12.	Copy of the Letter dated 23.07.2022 issued by the Opposite Party No. 1 along with the Safety Report dated 23.07.2022 issued by M/s. Chaitanya Projects Consultancy Private Limited	9	190 - 192.
13.	Copy of the letter dated 21.12.2015 bearing No. NHAI/CGM(CMC)/2015/75902 issued by the Opposite Party No. 1	10	193-195
14.	Copy of the Provisional Certificate issued by the Petitioner dated 19.08.2022 and the approval granted by the Opposite Party No. 1 <i>vide</i> letter dated 18.08.2022	11 (colly)	196 - 214
15.	Copy of the letter issued by the Opposite Party No. 1 dated 11.08.2022 to the Petitioner.	12	215-216
16.	Copy of the letter dated 17.02.2023 issued M/s. Chaitanya Project Consultancy Private Limited	13	&17 - A1 8
17.	Copy of the letter dated 05.05.2023 issued by the Petitioner.	14	219-222.
18.	Copy of the letter issued by the Opposite Party No. 1 dated 06.06.2023	15	223-224
19.	Copy of the letter issued by the Petitioner to the Opposite Party No. 1 dated 09.06.2023	16	225-227

B. MISHRA NOTARY, CUTTACK ODISHA .

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Sr. No.	Particulars	Annexure	Pages
20.	Copy of the letter issued by the Opposite Party No. 1 to the Petitioner dated 10.06.2023	17	228-22
21.	Copy of the Completion Certificate issued by the Petitioner on 10.06.2023	18	2 30-231
22.	Copy of the Incident Report dated 18.07.2023	19	235-238
23.	Copy of the Report dated 04.08.2023 submitted the Expert Committee	20	239-25
24.	Copy of the letter dated 14.08.2023 issued by the Opposite Party No. 1 to the Petitioner	21	253
25.	Copy of the clarificatory letter dated 19.08.2023 issued by the Petitioner to the Opposite Party No. 1	22	254-255
26.	Copy of the show-cause notice issued by the Opposite Party No. 1 dated 13.11.2023	23	256
27.	Copy of the reply to the show- cause notice dated 18.11.2023 issued by the Petitioner to the Opposite Party No. 1	24	257-258
28.	Copy of the letter dated 11.01.2024 issued by the Opposite Party No. 1 along with the NHAI Policy Circular No. 18.63/2021 dated 08.01.2021	25 (colly)	259-261

Sr. No.	Particulars	Annexure	Pages
29.	Copy of the letter dated 29.01.2024 issued by the Petitioner to the Opposite Party No. 1 in response to the debarment letter dated 11.01.2024 issued by the Opposite Party No. 1	26	262-273
30.	Copy of NHAI Policy CircularNo.16.12/202218.01.2022	27	274 - 279
31.	Copies of the letters dated 11.01.2024 issued by the Opposite Party No. 1 to the Concessionaire and M/s. Gammon India Limited	28 (colly)	280 - 28 2
32.	A copy of the letter dated 01.11.2017 issued by the Opposite Party No. 1	29	283 - 2 88
33.	Copy of the letter dated 11.01.2024 issued by the Opposite Party No. 1 to M/s. Sheladia Associates.	30	289
34.	VAKALATNAMA		\

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By the Petitioner through



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DATE: 20.05.2024

Ms. Adishree Mishra D/4047/2015 +91 – 9438088743

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SYNOPSIS

The Petitioner has preferred the present Writ Petition before this Hon'ble Court praying for issuance of a writ of mandamus and/ or a writ of certiorari and/ or any other appropriate writ of like nature and direction(s) or order(s) to the Opposite Parties for quashing of the impugned letter dated 11.01.2024 bearing No. NHAI/11014/8/2024/PIU/CDL/82 issued by the Opposite Party No. 1 to the Petitioner whereby the Petitioner has been imposed with a penalty of INR 20,00,000/- (Rupees Twenty Lakhs) and has been debarred for a period of 1 (one) year on illegal and arbitrary grounds.



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LIST OF DATES

Date	Particulars
21.12.2015	The Opposite Party No.1 had issued certain revised guidelines for issuance of Completion Certificate or Provisional Completion Certificate in respect of PPP Projects by the Independent Engineer. In pursuance of these revised guidelines, the Opposite Party No.1 mandated that the Regional Officer shall be associated during conduct of all tests prior to the completion of the Project highway.
28.02.2018	The Opposite Party No. 1 invited proposals for an Independent Engineer on the basis of the International Competitive Bidding for provision of Independent Engineer Services for rehabilitation and upgradation of four lane to six laning of Chandikhole – Bhadrak, section 5 of NH-5 in the state of Odisha to be executed on Hybrid Annuity mode under NHDP - Phase V.
09.04.2018	The Opposite Party No.1 entered into a Concession Agreement with DBL Chandikhole Bhadrak Highways Private Limited for the Project.
29.05.2019	The Petitioner emerged as the H1 bidder in the combined score as per the technical and financial evaluation and the NHAI accepted its proposal through a Letter of Acceptance.
21.06.2019	TPF Getinsa Euroestudios, S.L. Spain and Segmental Consulting & Infrastructure Advisory Private Limited entered into a Memorandum of Understanding for the purposes of forming a Joint Venture in order to jointly provide consultancy services for the project.
26.06.2019	The Opposite Party No. 1 has entered into a Contract Agreement by and between National Highways Authority of India and TPF Getinsa Euroestudios, S.L. Spain in association with Segmental Consulting & Infrastructure Advisory Private Limited for

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Date	Particulars
	Independent Engineer Services for rehabilitation and upgradation of four lane to six laning of Chandikhole – Bhadrak, section 5 of NH-5 in the State of Odisha to be executed on Hybrid Annuity mode under NHDP – Phase V.
20.11.2019	Test Report of Non-Destructive Test issued by Balaji Scientific Laboratories of the Chandikhole to Bhadrak Section of NH-16.
10.06.2022	Non-Destructive Test was conducted by Balaji Scientific Laboratories on the request of M/s. Dilip Buildcon Limited and a Test Report was issued in relation thereto.
21.07.2022	A site visit was conducted by Mr. Nigamananda Adhikari, Engineer in Charge of the Petitioner.
22.07.2022	The Petitioner issued a letter to the Concessionaire (i.e., DBL Chandikhole Bhadrak Highways Private Limited) about its observations during the joint site inspection with regards to the application for issuance of a provisional commercial operation date.
23.07.2022	M/s. Chaitanya Projects Consultancy Private Limited issued a Safety Report of the Project certifying that the Project highway is safe and reliable for road users and recommended for commercial operation and provisional completion of the same.
23.07.2022	The Opposite Party No. 1 issued a letter to the Petitioner inviting their comments/ recommendations of the report of the safety consultant (i.e., M/s. Chaitanya Projects Consultancy Private Limited)
10.08.2022- 11.08.2022	Site inspection by the CGM (Tech) & RO of the Opposite Party No. 1. Pursuant to the inspection conducted, the CGM (Tech) & RO of the Opposite Party No. 1 issued a letter with certain observations.

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Date	Particulars
18.08.2022	The Opposite Party No. 1 provided its concurrence for granting the Provisional Certificate by the Petitioner.
19.08.2022	Petitioner by adhering to the Opposite Party No. 1 guidelines laid down in the letter dated 21.12.2015 bearing No. NHAI/CGM(CMC)/2015/75902 and with concurrence of the Opposite Party No. 1, issued the Provisional Completion Certificate to the Concessionaire (i.e., DBL Chandikhole Bhadrak Highways Limited).
17.02.2023	M/s. Chaitanya Project Consultancy Private Limited (Safety Consultant) <i>vide</i> a letter issued to the Opposite Party No. 1 recommended the issuance of the Completion Certificate.
05.05.2023	Petitioner intimated the Opposite Party No. 1 that it intends to issue Completion Certificate and requested for concurrence of the Opposite Party No.1.
06.06.2023	The Opposite Party responded to the letter issued by the Petitioner and made certain recommendations which were required to be acted upon by the Concessionaire before issuance of the Completion Certificate.
09.06.2023	The Petitioner intimated the Project Director of the Opposite Party No.1 that the Concessionaire has submitted the compliance in relation to the observations communicated during the joint inspection by the Project Director along with representatives of the Petitioner and Concessionaire. It was further intimated that the Concessionaire has taken up the rectification work, most of which has been completed and the remaining works shall be completed shortly.
10.06.2023	The Opposite Party No. 1 responded to the letter dated 09.06.2023 by directing the Petitioner to



Date	Particulars
	ensure that any kind of deficiencies cited in the O&M inspection report should be rectified, failing which the Opposite Party No. 1 shall be entitled to recover damages from the Concessionaire.
	The Opposite Party No. 1 also instructed the Petitioner to take appropriate action for issuance of the Completion Certificate.
10.06.2023	The Petitioner issued a Completion Certificate and declared the Project to be fit for entry into commercial operation with effect from 19.02.2023.
18.07.2023	At around 7.00 am a girder of P1-A1 of 72.5 mtr of a major bridge at km. 79+614 on Chandikhole – Bhadrak section of NH-16 collapsed.
	The NHAI issued an incident report regarding the collapse of a girder of P1-A1 on the RHS at the km. 79+614 on Chandikhole-Bhadrak section of NH-16.
	The Project Director, PIU Chandikhole, NHAI also constituted an expert committee comprising of Shri A.K. Shrivastava, Dr. S.K. Sharma and Shri Alok Pandey for inspecting the said site so as to ascertain the cause of damage and to suggest remedial measures.
22.07.2023	The Expert Committee constituted by the Project Director, PIU Chandikhole, NHAI, Shri Amit Kumar Ghosh, Additional Secretary of the Opposite Party No. 2 visited the said site.
04.08.2023	The Expert Committee formed by the NHAI issued an Inspection Report regarding the collapse of a bridge (i.e., span A1-P1 of bridge at km 79.614) on NH-16.
14.08.2023	The NHAI issued a letter to the Petitioner informing about the findings of the Inspection Report of Expert Committee regarding the collapse of a certain section



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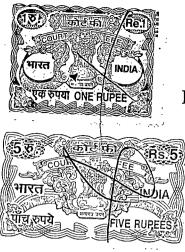
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Date	Particulars 2. U. MAY 702
	of bridge (i.e., span A1-P1 of bridge at km 79.614)- on NH-16 and sought for clarifications from the Petitioner.
19.08.2023	The Petitioner responded to the letter issued by the NHAI on 14.08.2023 with clarifications.
13.11.2023	The Opposite Party No. 1 issued a show cause notice.
18.11.2023	The Petitioner issued a reply to the show cause notice.
11.01.2024	The Opposite Party No. 1 intimated the Petitioner that the Competent Authority has decided to impose a penalty of INR 20,00,000/- and has debarred the Petitioner for 1 year as per NHAI Policy Circular No. 18.63/2021 dated 08.01.2021.
	The Opposite Party No. 1 also issued a letter to M/s. Sheladia Associates (Design Consultant) debarring it for a period of 1 year due to deficiency of design in the collapsed bridge.
	The Opposite Party No. 1 also issued letters to the Concessionaire and M/s. Gammon India Limited imposing monetary penalty due to the collapse of the bridge.
29.01.2024	The Petitioner issued a letter to the Opposite Party No. 1 in response to the debarment letter dated 11.01.2024 issued by the Opposite Party No. 1.



IN THE HIGH COURT OF ORISSA: CUTTACK



W.P. (C) NO. ____ 14993 / 2024

CODE: 282008

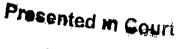
A Writ Petition under Article 226 of the In the matter of: Constitution of India.

In the matter of: A petition under Article 14 of the Constitution of India.

In the matter of: A Writ Petition praying for issuance of a writ of mandamus and/ or a writ of certiorari and/ or any other appropriate writ of like nature and direction(s) or order(s) to the Opposite Parties for quashing of the impugned letter dated 11.01.2024 bearing No. NHAI/11014/8/2024/PIU/CDL/82 issued by the Opposite Party No. 1 to the Petitioner whereby the Petitioner has been imposed with a penalty of INR 20,00,000/- (Rupees Twenty Lakhs) and has been debarred for a period of 1 (one) year.

M/s. TPF Getinsa Euroestudios, S.L, in association with Segmental Consulting and Infrastructure Advisory Private Limited, having its project office at 3rd Floor, Above SBI Bank, Jagannathpur, P.O. Madhabnagar, Bhadrak, Odisha - 756181 through Mr. Sagar Mohanty, authorised representative.

... Petitioner Versus **B. MIŠHRA** NOTARY, CUTTACK **ODISHA**



In the matter of:

1. National Highways Authority of India, Ministry of Road Transport and Highways, Government of India

having Project Implementation Unit at NHAI Complex, Neulpur, Chandikhole, Jajpur, Odisha – 755024.

Also at:

National Highways Authority of India, Project Implementation Unit, Plot No. 1086, Chandmaripadia, Sahadevkhunta, Balasore, Odisha – 756001.

Union of India, through the Ministry of Road Transport and Highways, Director General, Paryavaran Bhawan, 1, Sansad Marg, New Delhi – 110001.

... Opposite Parties

(The issue in the present Writ Petition was never before this Hon'ble Court was never before this Hon'ble Court in any manner whatsoever)

To,

The Hon'ble Chief Justice of the Orissa High Court and his Lordship's Companion Justices of the said Hon'ble Court.

The humble petition of the Petitioner above named:

B. MISHRA NOTARY, CUTTACK ODISHA

NS. ADTSHREE MISHRA D/4047/2015 9438088743.



MOST RESPECTFULLY SHEWETH:

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- That M/s. TPF Getinsa Euroestudios, S.L, is a company organised and existing under the laws of Spain, having its office at D-206, Global Business Park, M.G Road, Gurugram, Haryana-122002 and having its site office in association with M/s Segmental Consulting and Infrastructure Advisory Private Limited at 3rd Floor, Above SBI Bank, Jagannathpur, P.O. Madhabnagar, Bhadrak, Odisha – 756181.
- That M/s. TPF Getinsa Euroestudios, S.L, is a premier 2. consulting engineering company formed for providing engineering consultancy civil services to the Government and specialised consultancy services to semi-government and private organisations. It is a leading international consulting organisation specialising in highways and bridges, structures, urban and regional infrastructure development, water supply, water resources development and management, traffic and transportation, institutional strengthening and capacity building and socio-economic and environmental impact assessment. It is a leading consulting organisation with the Ministry of Road, Transport and Highways for providing consultancy services for all types of road projects, bridge projects, construction supervision of highways and bridges etc.
- That Segmental Consulting and Infrastructure Advisory 3. Private Limited is a company incorporated under the Companies Act, 1956 and validly existing under the Companies Act, 2013 and having CIN No. U74140HR2009PTC114856 with similar credentials and is engaged in similar business activities as that of TPF Getinsa Euroestudios, S.L. Segmental M/s. Consulting and Infrastructure Advisory Private Limited jointly/ in association with M/s. TPF Getinsa Euroestudios, S.L., is executing several projects for different organizations in India.

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4. That the present Writ Petition is being filed through Mr. Sagar Mohanty who has been duly authorised by the Petitioner *vide* Authority Letter dated 15.04.2024 to represent the Petitioner to file and institute the present Writ Petition and as such is entitled to the rights and privileges guaranteed under the Constitution of India and laws framed thereunder.

Copy of the Authority Letter dated 15.04.2024 is annexed herewith and marked as ANNEXURE 1.

- 5. That the Opposite Party No. 1 was set up by an act of the Parliament, namely, National Highways Authority of India Act, 1988. The said Act was formulated for the constitution of an Authority for the development, maintenance and management of national highways and for matters connected therewith or incidental thereto. The Opposite Party No. 1 has been entrusted with National Highways Development Project, which alongwith other minor projects, has vested in it 50,329 kms of National Highways for development, maintenance and management. It is mandated to implement National Highways Development Project (NHDP) which is India's largest ever Highways Project in a phased manner. The National Highways have a total length of 1,32,499 (approx) km to serve as the arterial network of the country.
- 6. That the Opposite Party No. 2 is an administrative ministry of the Opposite Party No.1 and is an apex organisation under the Central Government, is entrusted with the task of formulating and administering, in consultation with other Central Ministries/Departments, State Governments/UT Administrations, organisations and individuals, policies for Road Transport, National Highways and Transport Research with a view to increasing the mobility and efficiency of the road transport system in the country.

- 7. That the Petitioner being aggrieved by the impugned letter dated 11.01.2024 bearing No. NHAI/11014/8/2024/PIU/CDL/82 issued by the Opposite Party No. 1 to the Petitioner whereby the Petitioner has been imposed with a penalty of INR 20,00,000/- (Rupees Twenty Lakhs) and has been debarred for a period of 1 (one) year, has filed the present Writ Petition before this Hon'ble Court.
- 8. That the facts and circumstances leading to the filing of the present Writ Petition are enunciated herein below:
 - That the Opposite Party No. 1 on 28.02.2018 (i) invited proposals for engaging an Independent Engineer on the basis of the International Competitive Bidding for provision of Independent Engineer Services for rehabilitation and upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500), section of NH-5 in the state of Odisha to be executed on Hybrid Annuity Mode under NHDP - Phase V (hereinafter referred to as the "Project").

Copy of the invitation for proposals issued by the Opposite Party No. 1 dated 28.02.2018 is annexed herewith and marked as ANNEXURE 2.

- (ii) That the Opposite Party No.1 entered into a Concession Agreement dated 09.04.2018 with DBL Chandikhole Bhadrak Highways Private Limited (hereinafter referred to as "Concessionaire") for the Project.
- (iii) That the Petitioner in response to the aforementioned invitation submitted its bid/ proposal with the Opposite Party No. 1 for being appointed/ engaged as the Independent Engineer for the Project. The Petitioner had

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emerged as the H1 bidder in the combined score as per the technical and financial evaluation. Accordingly, the Opposite Party No. 1 issued a letter of acceptance dated 29.05.2019 bearing No. NHAI/ NHDP -V/ Tech/ OR/ 2017/ CHB/ IE/ 135700 to the Petitioner accepting its bid/ proposal.

Copy of the letter of acceptance issued by the Opposite Party No. 1 dated 29.05.2019 is annexed herewith and marked as ANNEXURE 3.

 (iv) That M/s. TPF Getinsa Euroestudios, S.L., and Segmental Consulting and Infrastructure Advisory Private Limited entered into a Memorandum of Understanding dated 21.06.2019 for jointly providing overall performance of the consultancy services for the Project.

> Copy of the Memorandum of Understanding dated 21.06.2019 has been annexed herewith and marked as ANNEXURE 4.

(v) That thereafter, on 26.06.2019, the Petitioner and the Opposite Party No. 1 entered into a contract agreement in relation to the provision of independent engineer services for the Project.

Copy of the Contract Agreement dated 26.06.2019 has been annexed herewith and marked as ANNEXURE 5.

(vi) That the relevant provisions of the Contract Agreement have been extracted and reproduced hereunder for better appreciation:

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- (a) Clause 2.5 of the General Conditions of Contract

"Entire Agreement:

The Contract contains all covenants, stipulations and provisions agreed by the Parties. No agent or representative of either Party has authority to make, and the Parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth therein."

(b) Clause 2.6 of the General Conditions of Contract

"Modification

<u>Modification of the terms and conditions</u> of this Contract, including any <u>modification of the scope of the Services</u>, <u>may only be made by written agreement</u> <u>between the Parties as the case may be</u>, <u>has been obtained</u>. Pursuant to Clause GC 7.2 hereof, however, each Party shall give due consideration to any proposals for modification made by the other Party."

(c) Clause 9 of the General Conditions of Contract

"Fake CV

If any case of fake/incorrect/inflated CV is found, it shall be dealt with very severely and would result in all possible penal action including blacklisting from future projects of NHAI. This would also

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apply even when the consulting firm is not successful in getting the assignment. In case CV of a person is turned out to be fake/ incorrect/ inflated during the assignment, the consultancy firm will have to refund the salary and perks drawn including interest @12% per annum in respect of the person apart from other consequences. In addition to the above, 10% of the salary and perks to be refunded shall be recovered from the firm as penalty."

(vii) That the concessionaire of the Project i.e., DBL Chandikhole Bhadrak Highways Limited through its holding company M/s. Dilip Buildcon Limited has conducted a Non-Destructive Test in the year 2019 by engaging Balaji Scientific Laboratories, Faridabad, Haryana. Balaji Scientific Laboratories submitted its report to Dilip Buildcon Limited on 20.11.2019. The objective of the test was to examine the uniformity, grade of concrete and strength of concrete.

> A copy of the Non-Destructive Test Report dated 20.11.2019 carried out by Balaji Scientific Laboratories has been annexed herewith and marked as ANNEXURE 6.

(viii) That thereafter, another Non-Destructive Test conducted was by Balaji Scientific Laboratories on the request of M/s. Dilip Buildcon Limited in the year 2022 and a Test Report in this regard was submitted on 10.06.2022. The objective of the test was to examine the uniformity and strength of concrete and state of corrosion of reinforcement.

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A copy of the Non-Destructive Test Report dated 10.06.2022 carried out by Balaji Scientific Laboratories has been annexed herewith and marked as ANNEXURE 7.

(ix) That a site visit was conducted by Mr. Nigamananda Adhikari, Engineer in Charge of the Petitioner on 21.07.2022. Pursuant to the inspection carried out by the Petitioner's Engineer, the Petitioner wrote a letter dated 22.07.2022 to the Concessionaire (i.e., DBL Chandikhole Bhadrak Highways Limited) pointing out various defects and deficiencies in relation to the construction of the Project and requesting the Concessionaire to work upon the said defects/ deficiencies.

> A copy of the letter issued by the Petitioner to DBL Chandikhole Bhadrak Highways Limited dated 22.07.2022 has been annexed herewith and marked as ANNEXURE 8.

(**x**) That as the matter stood thus, the Opposite Party No. 1 issued a letter dated 23.07.2022 to the Petitioner and enclosed a Safety Report dated 23.07.2022 issued by M/s. Chaitanya Projects Consultancy Private Limited (i.e., the Safety Consultant for the Project appointed by the Opposite Party No. 1) wherein it certified that the Project highway is safe and reliable for road users and recommended for commercial operation and provisional completion of the same. The Opposite Party No. 1 requested the Petitioner submit to its comments/ recommendations on the Safety Report issued by the M/s. Chaitanya Projects Consultancy Private Limited.

Copy of the Letter dated 23.07.2022 issued by the Opposite Party No. 1 along with the Safety Report dated 23.07.2022 issued by M/s. Chaitanya Projects Consultancy Private Limited has been annexed with and marked as ANNEXURE 9.

(xi) That the NHAI had issued certain revised guidelines in the letter dated 21.12.2015 bearing No. NHAI/CGM(CMC)/2015/75902 for issuance of Completion Certificate or Provisional Completion Certificate in respect of PPP Projects by the Independent Engineer. In pursuance of these revised guidelines, the NHAI mandated that the Regional Officer shall be associated during conduct of all tests prior to the completion of the Project highway. Further, prior to the issuance of the Provisional Completion Certificate or Completion Certificate, the Independent Engineer shall notify of its intention of doing so along with details to the Regional Officer along with a copy to the Opposite Party No. 1. Upon receipt of the Report from the Independent Engineer, the Regional Officer shall conduct inspection of the Project and thereby either concur with the opinion of the Independent Engineer or shall communicate the reasons for such disagreement.

> Copy of the letter dated 21.12.2015 bearing No. NHAI/CGM(CMC)/2015/75902 issued by the Opposite Party No. 1 has been annexed herewith and marked as ANNEXURE 10.

(xii) That the Petitioner by adhering to the guidelines laid down in the letter dated 21.12.2015 bearing No. NHAI/CGM(CMC)/2015/75902 issued by the

Opposite Party No. 1 and with concurrence of the Opposite Party No. 1, issued the Provisional Completion Certificate to the Concessionaire (i.e., DBL Chandikhole Bhadrak Highways Limited) on 19.08.2022. It must be noted here that the said Provisional Certificate was granted to the Concessionaire (i.e., DBL Chandikhole Bhadrak Highways Limited) only upon successfully conducting all tests recommended by the Safety Consultant in concurrence with the CGM (Tech) and Regional Officer – NHAI. The Petitioner had concurred for granting its approval for issuance of the Provisional Completion Certificate vide its letter dated 18.08.2022.

A copy of the Provisional Certificate issued by the Petitioner dated 19.08.2022 and the approval granted by the Opposite Party No. 1 *vide* letter dated 18.08.2022 has been collectively annexed herewith and marked as ANNEXURE 11 (colly).

(xiii) That the issuance of the Provisional Completion Certificate was preceded by a site inspection by the CGM (Tech) & RO of the Opposite Party No. 1 on 10.08.2022. The same has been recorded in the letter dated 11.08.2022 issued by the CGM (Tech) & RO of the Opposite Party No. 1 to the Petitioner wherein certain observations were made by the CGM (Tech) & RO of the Opposite Party No. 1. The site inspection of the Project was preceded by a letter issued by the Petitioner on 23.07.2022 along with a recommendation letter dated 23.07.2022 issued by the Safety Consultant (M/s. Chaitanya Project Consultancy Private Limited) recommending for issuance of the Provisional Completion Certificate which has annexed as ANNEXURE 9 above.



A copy of the letter issued by the Opposite Party No. 1 dated 11.08.2022 has been annexed herewith and marked 'as ANNEXURE 12.

(xiv) That M/s. Chaitanya Project Consultancy Private Limited vide its letter dated 17.02.2023 issued to the Opposite Party No. 1 recommended the issuance of the Completion Certificate. The said letter was issued by M/s. Chaitanya Project Consultancy Private Limited pursuant to a project site inspection conducted by them on 15.02.2023 and 16.02.2023. M/s. Chaitanya Project Consultancy Private Limited in the said letter has certified that the Project is safe and reliable for road users and recommended for its commercial operation.

> A copy of the letter dated 17.02.2023 issued M/s. Chaitanya Project Consultancy Private Limited has been annexed herewith and marked as ANNEXURE 13.

(xv) That thereafter, the Petitioner vide its letter dated 05.05.2023 conveyed to the Opposite Party No. 1 that it intends to issue Completion Certificate and requested for concurrence of the Opposite Party No.1 in this regard.

A copy of the letter dated 05.05.2023 issued by the Petitioner has been annexed herewith and marked as ANNEXURE 14.

(xvi) That in response to the letter dated 05.05.2023 issued by the Petitioner, the Opposite Party No. 1 made certain recommendations which were required to be acted upon by the Concessionaire before issuance of the

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Completion Certificate *vide* its letter dated 06.06.2023.

A copy of the letter issued by the Opposite Party No. 1 dated 06.06.2023 has been annexed herewith and marked as ANNEXURE 15.

(xvii) That the Petitioner intimated the Project Director of the Opposite Party No.1 vide its letter dated 09.06.2023 that the Concessionaire has submitted the compliance in relation to the observations communicated during the joint inspection by the Project Director along with representatives of the Petitioner and Concessionaire. It was further intimated that the Concessionaire has taken the up rectification work, most of which has been completed and the remaining works shall be completed shortly.

> A copy of the letter issued by the Petitioner to the Opposite Party No. 1 dated 09.06.2023 has been annexed herewith and marked as ANNEXURE 16.

(xviii) That the Opposite Party No. 1 responded to the letter dated 09.06.2023 vide letter dated 10.06.2023 and directed the Petitioner to ensure that any kind of deficiencies cited in the O&M inspection report should be rectified, failing which the Opposite Party No. 1 shall be entitled to recover damages from the Concessionaire. The Opposite Party No. 1 also instructed the Petitioner to take appropriate action for issuance of the Completion Certificate in accordance with the guidelines circulated by the NHAI vide its letter dated

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21.12.2015 bearing NHAI/CGM(CMC)/2015/75902.

A copy of the letter issued by the Opposite Party No. 1 to the Petitioner dated 10.06.2023 has been annexed herewith and marked as ANNEXURE 17.

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(xix) That the Petitioner after receiving the concurrence of the Opposite Party No. 1 vide its letter dated 10.06.2023 on the issue of Completion Certificate, issued a Completion Certificate vide its letter dated 10.06.2023 and declared the Project to be fit for entry into commercial operation with effect from 19.02.2023.

A copy of the Completion Certificate issued by the Petitioner on 10.06.2023 has been annexed herewith and marked as ANNEXURE 18.

That the Project after having received the (xx)Completion Certificate, a tragic incident unfolded on the morning of 18.07.2023 at 7.00 am when a girder of P1-A1 of 72.5 mtr of a major bridge at km. 79+614 on Chandikhole – Bhadrak section of NH-16 collapsed. However, the tragic incident did not claim any precious lives and there was no loss of life or property. The Project Director, PIU Chandikhole after having assessed the situation issued an Incident Report dated 18.07.2023. The Project Director, PIU Chandikhole, NHAI also constituted an expert committee comprising of Shri A.K. Shrivastava, Dr. S.K. Sharma and Shri Alok Pandey for inspecting the said site so as to ascertain the cause of damage and to suggest remedial measures.

A copy of the Incident Report dated 18.07.2023 has been annexed herewith and marked as ANNEXURE 19.

(xxi) That the Expert Committee constituted by the Project Director, PIU Chandikhole, NHAI, Shri Amit Kumar Ghosh, Additional Secretary of the Opposite Party No. 2 visited the said site on 22.07.2023. The mandate of the Expert Committee was to visit the bridge site, to carry out necessary inspection and analyse to find the root cause of collapse of bridge. The Expert Committee after having inspected the said site of collapse submitted a detailed report on 04.08.2023.

> A copy of the Report dated 04.08.2023 submitted the Expert Committee has been annexed herewith and marked as ANNEXURE 20.

(xxii) That the Opposite Party No. 1 issued a letter dated 14.08.2023 to the Petitioner seeking for clarifications as to why actions should not be taken against it for collapse of the bridge.

> A copy of the letter dated 14.08.2023 issued by the Opposite Party No. 1 to the Petitioner has been annexed herewith and marked as ANNEXURE 21.

(xxiii) That the Petitioner responded to the letter dated 14.08.2023 issued by the Opposite Party No. 1 vide its letter dated 19.08.2023. The Petitioner stated that in accordance with the terms of the Concession Agreement, a new major bridge was supposed to be constructed at Km.79+679

on LHS and the existing bridge on RHS was only required to be repaired which included general cleaning of expansion joints and drainage spouts. Further, it was also clarified that in accordance with the terms of the Concession Agreement, visual inspection and Non-Destructive Test was carried out by M/s. Balaji Scientific Laboratory for the assessment of the health conditions of the existing structure in order to finalise its repair and rehabilitation. Further, it was also clarified that as per visual inspection and Non-Destructive Test, no distress was observed in the existing bridge. Furthermore, apart from the regular routine check-ups, the joint visual inspection of all bridges was being conducted prior to every monsoon.

It was further clarified that all the requisite tests had been carried out prior to the issuance of the Provisional Completion Certificate along with a site inspection carried out by the Regional Officer. Thus, only after receiving concurrence from the Opposite Party No. 1, the Project had received its Provisional Completion Certificate on 19.07.2023. Similarly, the Completion Certificate for the Project was issued by the Petitioner after conducting the requisite tests (joint visual inspection, Non-Destructive Test, etc.) and after receiving concurrence from the Opposite Party No. 1.

Furthermore, the Petitioner also stated that the collapse of the existing major bridge constructed by M/s. Gamon Infra Private Limited in the year 2007-08 may have occurred due to an inadequate design and reinforcement detailing for the loading coming on the pier cap. The Petitioner reaffirmed that there was no negligence committed on their part as regards

the construction of the highway and its maintenance.

A copy of the clarificatory letter dated 19.08.2023 issued by the Petitioner to the Opposite Party No. 1 has been annexed herewith and marked as ANNEXURE 22.

(xxiv) That the Opposite Party No. 1 thereafter issued a show cause notice dated 13.11.2023 to the Petitioner based on the findings of the Expert Committee Report dated 04.08.2023.

> A copy of the show-cause notice issued by the Opposite Party No. 1 to the Petitioner dated 13.11.2023 has been annexed herewith and marked as ANNEXURE 23.

(xxv) That the Petitioner in response to the show-cause notice issued by the Opposite Party No. 1 dated 13.11.2023, submitted its clarifications to the Petitioner vide letter dated 18.11.2023. The Petitioner issued the same clarifications as issued in its earlier letter dated 19.08.2023.

A copy of the reply to the show-cause notice dated 18.11.2023 issued by the Petitioner to the Opposite Party No. 1 is annexed herewith and marked as ANNEXURE 24.

(xxvi) That the Opposite Party No. 1 vide its letter dated 11.01.2024 intimated the Petitioner that the submission on show-cause made on 18.11.2023 does not stand on merit. Further, the Competent Authority/Opposite Party No. 1 imposed a penalty of INR 20,00,000/- and debarred the Petitioner for 1 (one) year as per NHAI Policy Circular No. 18.63/2021 dated 08.01.2021 considering the observations made by the Expert Committee.

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A copy of the letter dated 11.01.2024 issued by the Opposite Party No. 1 along with the NHAI Policy Circular No. 18.63/2021 dated 08.01.2021 have been collectively annexed herewith and marked as ANNEXURE 25 (colly).

(xxvii) That the Petitioner vide a letter dated 29.01.2024 bearing TPF/GAS/23no. 24/HO/2611 responded to the letter dated 11.01.2024 issued by the Opposite Party No. 1 to the Petitioner pursuant to which the Petitioner was debarred and also imposed with a penalty. The Petitioner, in the aforesaid letter to the Opposite Party No. 1, requested the Opposite Party No. 1 to consider and revoke the debarment because the debarment was ordered in light of an erstwhile circular of the Opposite Party No. 1 (i.e., NHAI Policy Circular No. 18.63/ 2021 dated 08.01.2021) which was not valid and had in fact been superseded by another circular of the Opposite Party No. 1 (i.e., NHAI Policy Circular No. 16.12/2022 dated 18.01.2022). Further, the Petitioner also highlighted in the said letter that under the latter circular, prior to debarment of an entity, a notice of 15 days was required to be given to such entity to furnish its written reply and also allow a personal hearing.

> A copy of the letter dated 29.01.2024 issued by the Petitioner to the Opposite Party No. 1 in response to the letter dated 11.01.2024 issued by the Opposite Party No. 1 has been annexed herewith and marked as ANNEXURE 26.

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A. <u>LETTER DATED 13.11.2023 CANNOT BE</u> <u>TERMED AS A SHOW CAUSE NOTICE</u>

That the letter dated 13.11.2023 issued by the Opposite Party No. 1 to the Petitioner cannot be considered to be a show cause notice. The aforesaid letter dated 13.11.2023 refers to some of the issues raised by the Expert Committee in their Inspection Report on the collapse of the bridge at km 79+614 on NH-16 and only indicates that the Petitioner is required to submit its clarifications in relation to why necessary action should not be initiated against the Petitioner for collapse of the bridge.

The operative portion of the said letter dated 13.11.2023 is reproduced hereinbelow for the reference of this Hon'ble Court:

".... It is therefore, requested to submit your clarification that why necessary action will not be initiated against you for the incident. Your clarification has to be submitted within two days from the date of issuance of this letter."

It is pertinent to note that the aforesaid letter nowhere mentions the penal action or punishment or penalty which Opposite Party No. 1 intends to impose on the Petitioner and merely asks for clarifications to be submitted by the Petitioner in relation to the collapse of the bridge. There is not even a whisper in the said letter dated 13.11.2023 that the Opposite Party No. 1 intended to debar the Petitioner or to pass any similar order. It may be noted that prior to the letter dated 13.11.2023, the Opposite Party No.1 had issued another letter to the Petitioner on 14.08.2023 in relation to the collapse of the bridge wherein the Opposite Party No.1 had also asked the Petitioner to

only submit its clarifications within a period of 4 (four) days.

The penal actions imposed by the Opposite Party No. 1 in the letter dated 11.01.2024 has no nexus with the letter dated 13.11.2023 issued to the Petitioner.

It is a settled principle of law that it is the very essence of civilised jurisprudence that a person <u>against whom any action is sought to be taken or</u> whose right or interests are being affected should be given a reasonable opportunity to defend himself. The basic principle of natural justice is that before adjudication starts, the authority concerned should give the affected party a notice to defend himself and such notice should be adequate and the grounds necessitating action as well as the penalty/ punishment proposed should be mentioned specifically and unambiguously. If such conditions are not satisfied, the person cannot be said to have been granted any reasonable opportunity of being heard.

Further, it is an established legal position that specifically, in the context of blacklisting/ debarment of a person or an entity by the state or a state corporation. the requirement of a valid. particularized and unambiguous show cause notice is particularly crucial due to the severe consequences of blacklisting and the stigmatization that accrues to the person/ entity being blacklisted. Blacklisting essentially has the effect of denying a person or an entity the privileged opportunity of entering into government contracts. This privilege arises because it is the state who is the counterparty in government contracts and as such, every eligible person is to be afforded an equal opportunity to participate in such

contracts, without arbitrariness and discrimination. Not only does blacklisting take away this privilege, also tarnishes but the blacklisted person's reputation. Blacklisting also has long-lasting civil consequences for the future business prospects of the blacklisted entity. Blacklisting is equivalent to civil death of a person because it is stigmatic in nature and debars a person/ entity from participating in government tenders thereby precluding him from the award of government contracts. Thus, furnishing a valid show cause notice is critical and a failure to do so would be render the order of blacklisting/ debarment invalid.

Therefore, in light of the above, it is clearly evident from the contents of the letter dated 13.11.2023 issued by the Opposite Party No. 1 to the Petitioner that the said letter merely indicates that the Petitioner should submit its clarifications in relation to the collapse of the bridge and nowhere in the letter spells out anything in relation to penal action proposed to be imposed by Opposite Party No.1. In fact, the Opposite Party No.1 has never issued any letter/ notice to the Petitioner in the nature of a show-cause notice. The Opposite Party No. 1 has treated the consequences of blacklisting/ debarment in a very lackadaisical and casual manner, which is why the Opposite Party No.1 after having issued such an improper notice have issued a subsequent letter dated 11.01.2024 whereby the Opposite Party No. 1 has arbitrarily imposed a penalty of Rs. 20,00,000/- and had debarred the Petitioner for a year, without adhering to the principles of natural justice and without considering the dire after-effects of blacklisting/ debarment, which have been time and again discussed and upheld in a plethora of judgments passed by the Hon'ble Supreme Court of India as well as various High Courts in India.

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It is a settled principle of law that any order having civil or economic consequences should bear application of mind. A perusal of the impugned letter dated 11.01.2024 would not indicate even a semblance of application of mind on the part of the Opposite Party No.1 which has snatched away the right of the Petitioner to enter into a trade for a period of 1 year. Such an order which has a sweeping ramification should not have been passed in such a casual manner by the Opposite Party No.1.

It is also an established principle of law that arbitrariness is contrary to rule of law, equity, fair play and justice. Hence, the letter dated 13.11.2023 is only a clarificatory letter and under no circumstances can be considered as a show cause notice issued to the Petitioner.

B. <u>NO RIGHT OF OPPOSITE PARTY NO. 1 TO</u> <u>DEBAR THE PETITIONER UNDER THE</u> <u>CONTRACT AGREEMENT</u>

That the action of the Opposite Party No. 1 of debarring the Petitioner travels beyond the bounds of the contract agreement dated 26.06.2019 executed between the Petitioner and the Opposite Party No.1. Clause 9 of the <u>General Conditions of Contract provides that if any</u> case of fake/ incorrect/inflated CV is found, it would result in all possible penal action including blacklisting from future projects of the Opposite Party No.1. This would also apply even when the consulting firm is not successful in getting the assignment. In case CV of a person is turned out to be fake/ incorrect/ inflated during the assignment, the consultancy firm will have to refund the salary and perks drawn including interest @12% per annum in respect of the person apart from other consequences. In addition to the above, 10% of the salary and perks to be refunded shall be recovered from the firm as penalty. It is

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worthwhile to note that the aforesaid clause is the only provision in the entire contract agreement (which comprises of both the General Conditions of **Contract and Special Conditions of Contract) which** gives the right to the Opposite Party No.1 to blacklist/ debar the Petitioner. It indicates that the Opposite Party No. 1 can blacklist/ debar the Petitioner only when it is a case of fake CV. Both the Petitioner and the Opposite Party No.1 are legally bound by the terms of the contract agreement executed between the parties. Unless a particular right of either party to a contract is specifically enumerated in such contract or unless such a right can be inferred from the terms of the contract, neither party can exercise such a right against the other party to the contract. Therefore, when there is no right conferred upon the Opposite Party No. 1 in the contract agreement to blacklist/ debar the Petitioner, other than when the case squarely falls within the said Clause 9 of the contract agreement dealing with fake CV, the action of the Opposite Party No.1 of debarring the Petitioner for a year is beyond the four corners of the contract agreement and is thus, arbitrary, whimsical and illegal.

C. <u>DEBARMENT OF PETITIONER BY OPPOSITE</u> <u>PARTY NO. 1 ON THE BASIS OF INVALID NHAI</u> <u>POLICY CIRCULAR</u>

That the letter dated 11.01.2024 issued by the Opposite Party No. 1 to the Petitioner states that the debarment of the Petitioner for 1 (one) year is as per NHAI Policy Circular No. 18.63/ 2021 dated 08.01.2021. It is pertinent to note that the aforesaid policy circular is invalidated with effect from 18.01.2022 since NHAI Policy Circular No. 16.12/2022 dated 18.01.2022 has superseded the erstwhile policy circular dated 08.01.2021. Paragraph

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3 of the Policy Circular No. 16.12/2022 dated 18.01.2022 clearly states that the NHAI Policy Circular No. 16.12/2022 dated 18.01.2022 supersedes the NHAI Policy Circular No. 18.63/ 2021 dated 08.01.2021. On this ground itself, the action of the Opposite Party No. 1 of debarring the Petitioner on the basis of an invalid Policy Circular is unwarranted and unjustified and should be held illegal and untenable in the eyes of law.

Further, even if, for the sake of arguments, it was to be argued that the Opposite Party No. 1 debarred the Petitioner on the basis of the NHAI Policy Circular No. 16.12/2022 dated 18.01.2022 instead of the earlier circular i.e., Policy Circular No. 18.63/ 2021 dated 08.01.2021, it is pertinent to note that Clause 7 of the said policy clearly provides that prior to deciding an Independent Engineer as a non-performer or debarring/ penalizing it, the concerned technical division shall issue a notice to the Independent Engineer by giving 15 days' time to furnish its written reply and allow personal hearing if so desired by the Independent Engineer before the member concerned. Therefore, had the debarment of the Petitioner by the Opposite Party No. 1 been as per the aforesaid policy circular of 2022, which is not the case in the present scenario, even then, it was mandatory that the Opposite Party No. 1 issued a notice to the Petitioner and allowed a time period of 15 days' to the Petitioner to submit a written reply and also allow personal hearing if the Independent Engineer desired so. However, in the present case, the Opposite Party No. 1 has debarred the Petitioner on the basis of an invalid Policy Circular, which renders such action of the Opposite Party No. 1 as illegal, unreasoned and fallacious.

It is clearly evident from such actions of the Opposite Party No. 1 that it is arbitrarily and quixotically resorting

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to debar/ blacklist entities from its projects without following the due process of law and without paying any heed to the serious consequences which follow such debarment/ blacklisting of any entity. This elucidates the high-handedness attitude of Opposite Party No. 1 in treating entities engaged in its projects as inferior and subjecting them to illegal imposition of penalty and/or debarment. Such actions on the part of the Opposite Party No. 1 only goes on to show the casual and indifferent attitude adopted by the Opposite Party No. 1 towards debarment/ blacklisting of an entity which has grave consequences on the debarred entity, such consequences having been equated with civil death by the Apex Court. Hence, the debarment of the Petitioner as per the letter dated 11.01.2024 issued by the Opposite Party No. 1 in light of an invalid policy circular is unsubstantiated, baseless and misplaced.

A copy of the NHAI Policy Circular No. 16.12/2022 dated 18.01.2022 has been annexed herewith and marked as ANNEXURE 27.

D. <u>DEBARMENT ON THE BASIS OF AN</u> <u>INCONCLUSIVE AND AMBIGUOUS</u> <u>INSPECTION REPORT</u>

That pursuant to the collapse of the span A1-P1 of the bridge at km 79.614 of the Project on NH-5 (new NH-16) on 18.07.2023, an Expert Committee comprising of 3 (three) members was constituted by the Opposite Party No.1 on the same day with for inspecting and analysing the reasons for the collapse of the said bridge. The Expert Committee submitted its report on 04.08.2023. As per the Inspection Report, the Expert Committee has prepared the report based on the site visit and interaction with the stakeholders as well as review of available documents. The Expert Committee also visited the

bridge site on 22.07.2023 alongwith all the stakeholders (i.e., representatives of, the Contractor, Concessionaire and the Opposite Party No.1) and inspection was carried out. The Additional Secretary (MoRTH) Sh. Amit Kumar Ghosh also visited the site on 22.07.2022.

Paragraph 5.1 of the Inspection Report provides for the 'Committee Observations on Bridge Site Inspection', Paragraph 6 of the Inspection Report provides for the 'Possible Causes of Failure of Pier Cap P1' and Paragraph 7 of the Inspection Report provides for the 'Recommendation/Suggestion'. The relevant points of the Inspection Report as provided for in the aforesaid paragraphs are reproduced below for better appreciation of this Hon'ble Court:

"5.1 Committee Observation on Bridge Site Inspection:

5.1.1 Design and Good for Construction Drawings of the bridge were not available. Only "As Built Drawings" were made available which were with poor readability.

5.1.5 Increased bar spacing at some places as compared to the "As Built Drawings".

6. Possible Causes of Failure of Pier Cap P1

(i) Shear failure of pier cap at pier edge interface due to corrosion and tensile failure of transvers steel reinforcement (along the width of the pier). Possible deficiency in provision of reinforcement in the pier cap. In this connection the committee observed "there is a mismatch in the spacing of reinforcement placed along the width of the pier cap top as measured at site vis a vis the spacing of the reinforcement indicated in "As Built

> B. MISHRA NOTARY, CUTTACK ODISHA

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Drawings" vide bar mark 15. Further, the spacing of reinforcement placed along the length of the pier cap top could not be ascertained/measured at site which is shown as bar mark 10 in As Built Drawing".

7. Recommendation/Suggestion

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7.1 Possibility of differences in the pier cap reinforcement between Good for Construction (GFC) Drawings and actual provision of the same at site, could not be assessed by the committee due to non-availability of Good for Construction Drawings.

7.2 Accordingly, analysis & design for the pier cap may be reviewed by the design consultant to check the adequacy of the reinforcement for pier cap P1/P2.

<u>It is pertinent to note from the above observations</u> made by the Expert Committee in Paragraph 6 (i) of its Report that the Expert Committee has clearly indicated towards some defect/ default in the design of bridge, which could be a possible cause for the failure of Pier Cap P1 and may have resulted in the collapse of the bridge. This is evident from the observation made by the Expert Committee that there is a mismatch in the spacing of reinforcement placed along the width of the pier cap top as measured at site vis a vis the spacing of the reinforcement indicated in "As Built Drawings". However, as noted by the Expert Committee in Paragraph 7.1 of the Inspection Report, due to absence/ non-availability of the Design and Good for Construction Drawings of the bridge, the difference/ mismatch observed by the Expert Committee could be ascertained/ evaluated. Accordingly, Expert the Committee noted in Paragraph 7.2 of the Report that the analysis and design for the pier cap should be reviewed by the design consultant in order to check the adequacy of the reinforcement for pier cap.

Further, it is pertinent to note that the Expert <u>Committee</u> has prepared and submitted the Inspection Report only on the basis of one document i.e., the As Built Drawings, which also as has been noted in the Report was of poor readability/ illegible. It is clearly evident from the Inspection Report that although the Expert Committee had conducted a site visit, however, since the Design and Good for Construction Drawings of the bridge were not available and the As Built Drawings were of poor reading quality, the observations made by the Committee could not be corroborated and further analysed/ assessed in order to reach a logical conclusion as to why the bridge had collapsed. However, the Expert Committee, in spite of, absence of necessary documents and only on the basis of certain illegible documents concluded that there was deficiency in services of the Independent Engineer/ Contractor and laxity on their part. The Opposite Party No. 1, rather than acknowledging the loopholes/ lacunae in the Inspection Report and issuing directions for making the necessary documents (such as the Design and Good for Construction Drawings of the bridge and legible As Built Drawings) available to the Expert Committee so that the Committee could prepare a Report based on proper analysis and investigation, suddenly issued the letter dated 11.01.2024 debarring the Petitioner for a period of 1 (one) year, without furnishing a proper show cause notice.

Further, in spite of the recommendation/ suggestion of the Expert Committee to have a review done by the design consultant for analysis and design of the pier cap in order to check the adequacy of the reinforcement for the pier cap was completely ignored by the Opposite Party No. 1. This shows that the Opposite Party No.1 is blindly relying on the Inspection Report and is debarring an entity. The Opposite Party No.1 also did not take any

steps for addressing the recommendations/ suggestions of the Expert Committee.

It is most humbly submitted by the Petitioner that the Inspection Report submitted by the Expert Committee is faulty, ambiguous, inconclusive and questionable because the Committee has made a baseless observation regarding the deficiency of services of the Independent Engineer/ Contractor. There is no ground whatsoever noted or explained by the Committee in the Report based on which the Committee has arrived at such a conclusion. In fact, the Committee has raised a very crucial aspect i.e., a mismatch in the spacing of reinforcement placed along the width of the pier cap top of the bridge as measured at site vis-a-vis the spacing of the reinforcement indicated in the As-Built Drawings, which the Committee itself suspected to be a possible cause for the collapse of the bridge. However, without delving further into this aspect and conducting a holistic investigation in order to submit a Report which does not lack lucidity and explicitness, the Committee simply concluded that there was deficiency in the services of the Independent Engineer/ Contractor.

Additionally, the Expert Committee has not taken certain crucial factors into consideration while conducting the investigation, such as, exponential increase of traffic on the bridge over the past years, causing excessive load on the bridge, which may have also been one of the reasons resulting in the collapse of the bridge. It is also likely that such exponential increase in the traffic may not have been foreseeable when the bridge was designed and constructed in the year 2007-2008, which is more than 15 (fifteen) years ago. Further, other reasons such as the immediate traffic load and condition of the bridge as well as occurrence of any other incident on the bridge, just

prior to the collapse, which may have led to the collapse of the bridge have also not been factored in by the Expert Committee, while conducting its investigation. Thus, the Expert Committee Report is silent on such aspects which may have also been one of the reasons for the collapse of the bridge. Hence, the Expert Committee ignored important elements during its investigation and has hastily drawn conclusions in its Report which suffers from unfairness and inconsistencies.

An investigating or inspection by an Expert Committee in an incident relating to collapse of a bridge must be based on transparency, review and analysis of adequate and correct information/ documents, delving deep into the root cause for examining and evaluating the possible causes resulting in the incident. However, it is clearly evident from the contents/ observations made by the Expert Committee in their Inspection Report that the inspection was conducted in a haphazard manner without keeping in mind the aforementioned factors/ parameters and the Report has also been submitted without any substantive explanations or grounds. Therefore, the Inspection Report cannot be considered to be conclusive or reliable and has been prepared only on the basis of conjectures.

Further, it is extremely pertinent to note that Paragraph 1.5 of the Policy Circular i.e., Circular No. 18.63/2021 dated 08.01.2021 based on which the Opposite Party No. 1 has debarred the Petitioner vide its letter dated 11.01.2024 specifically provides that "in case the outcome of investigation is unclear or on the basis of conjectures, no action of debarment shall be taken and only suitable monetary penalty shall be imposed on all contracting/ consulting firms engaged in construction/ maintenance." Even the subsequent Policy Circular dated 18.01.2023 which has superseded the aforesaid

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Policy Circular dated 08.01.2021 provides the same provision in note no. (iv) to Paragraph 4.2. In light of the above submissions, the Inspection Report of the Expert Committee should be discarded because it is unclear and based on conjectures and accordingly, the Opposite Party No. 1 cannot debar the Petitioner.

E. <u>DEBARMENT LETTER DATED 11.01.2024 IS</u> <u>NOT A SPEAKING ORDER</u>

That it is a principle of natural justice that every decision/ order that leads to civil consequences and affects civil rights of a person/ entity must be reasoned out. There must be a detailed reasoning behind every decision taken by the adjudicating body/ authority.

<u>Blacklisting/ debarring of companies without</u> <u>providing sufficient reasoning or material basis for</u> <u>such reasoning goes against the principles of natural</u> <u>justice. It tends to provide a free hand to the State or</u> <u>its instrumentalities or agencies to blacklist/ debar</u> <u>companies without providing sufficient reasoning</u> <u>and takes away the very element of fairness and</u> <u>accountability on the part of the State. This</u> <u>adversely impacts the way entities function and their</u> <u>willingness to enter into a contract with the</u> <u>Government/ State.</u>

In the present case, the letter dated 11.01.2024 issued by the Opposite Party No.1 to the Petitioner is not a speaking order as it does not indicate any reasons/ explanations/ grounds for debarring the Petitioner and imposing a monetary penalty. Instead, the said letter only quotes an observation made by the Expert Committee in the Inspection Report submitted on 04.08.2023, which itself is questionable and has been dealt with in detail in the foregoing paragraphs. This

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indicates that the Opposite Party No. 1 without appreciating the serious consequences attached with blacklisting/ debarring has arbitrarily and without assigning any reasons debarred/ blacklisted the Petitioner.

Therefore, the impugned letter dated 11.01.2024 cannot be said to be a speaking order and is against the principles of natural justice.

F. DEBARMENT IS IN VIOLATION OF ARTICLE 14 AND ARTICLE 298 OF THE CONSTITUTION OF INDIA

That it is pertinent to note that the Opposite Party No. 1 has not debarred the Contractor i.e., M/s. Gammon India Limited and the Concessionaire i.e., M/s. DBL Chandikhole Bhadrak Highway Limited and has only imposed monetary penalty on each of them, which is evident from the letters dated 11.01.2024 issued by the Opposite Party No. 1 to the aforesaid entities, however, on the other hand, the **Opposite Party No. 1 has debarred the Petitioner as** well as imposed a monetary penalty of Rs. 20 lakhs. As has been submitted in the foregoing paragraphs, the Expert Committee set up by the Opposite Party No.1 has observed in its Inspection Report that there was deficiency in services of the Independent Engineer and Contractor. Insite of the Expert Committee noting a similar observation in the Inspection Report for both the Petitioner (i.e., the Independent Engineer) and the Contractor, the Opposite Party No. 1 arbitrarily decided to debar the Petitioner only and not the Contractor or the Concessionaire. The Opposite Party No. 1 arbitrarily decided only to impose monetary penalty on the Contractor and the Concessionaire. Moreover, the Opposite Party No. 1, without following the due process

laid down under law of furnishing a show cause notice and without having any right to debar the Petitioner under the terms of the contract agreement and by just relying on an inconclusive and ambiguous Inspection Report of the Expert Committee, illegally debarred the Petitioner. This clearly speaks volumes about the arbitrary actions on the part of the Opposite Party No. 1 which are in violation of Article 14 and Article 298 of the Constitution of India.

Copies of the letters dated 11.01.2024 issued by the Opposite Party No. 1 to the Concessionaire and M/s. Gammon India Limited have been annexed herewith and marked as ANNEXURE 28 (*colly*).

It is a well settled doctrine of law that the constitutional principle of equality is inherent in the rule of law. The rule of law is satisfied when laws are applied or enforced equally, that is, even-handedly, free of bias and without irrational distinction. The concept of equality allows differential treatment but it prevents distinctions that are not properly justified. Non-arbitrariness is a necessary concomitant of the rule of law. Any unjust condition thrust by the State would attract the wrath of Article 14 of the Constitution of India. It is trite that the State in all its activities must not act arbitrarily. Equity and good conscience should be at the core of all the governmental actions. An arbitrary action is one that is irrational and not based on sound reason or as one that is unreasonable. Any decision, if taken without considering the relevant facts and circumstances shall be considered as an arbitrary decision and violative of the mandate of Article 14 of the Constitution. Actions of the State or its instrumentality, uninformed by reason, amounts to being arbitrary and is liable to be questioned.

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Arbitrariness is contrary to the rule of law, equity, fair play and justice.

The power of the State in the sphere of exercise of its constitutional power including those contained in Article 298 of the Constitution inheres in it a duty towards the public, whose money is being invested. Article 298 confers a prerogative upon the State to carry on trade or business. While doing so, the State must fulfil its constitutional obligations. It must oversee protection and preservation of the rights adumbrated in the Constitution of India. When the State or its instrumentality has entered into a contract with a third party in exercise of its powers under Article 298, a decision of the State or its agency or instrumentality can be impeached on the ground that it is arbitrary or violative of Article 14. Though the State or any of its agencies or instrumentalities are free to enter into any contracts with any third parties, its action would offend Article 14 if it acts arbitrarily. The State need not enter into contracts but if it does, it must do so fairly without discrimination and without unfair procedure. The activities of the State or its agency or instrumentality have a public element and therefore, there should be fairness and equality. The State or its agency cannot choose to exclude persons by discrimination. The order of blacklisting/ debarment has the effect of depriving a person/ entity of the equality of opportunity in the matter of public contracts. An entity who is on the approved list is unable to participate or enter into an advantageous relation with the Government because of such order of blacklisting/ debarment.

If the State unfairly puts a party on blacklist, it will amount to denial of an equal opportunity of being able to compete with his adversaries. Blacklisting any person/ entity would mean deprival of an equal

opportunity of competing with others. Thus, where? [] MAY 2024 valuable rights are sought to be taken away by the state in depriving a person/ entity, 'Rule of Law' demands OURT OF that writ courts shall intervene to do justice to the aggrieved party.

JUSTICE?

In light of the above submissions, the actions of the Opposite Party No. 1 are in violation of Article 14 and Article 298 of the Constitution of India.

G. <u>LOSS OF BUSINESS OF THE PETITIONER AND</u> <u>LOSS OF LIVELIHOOD OF THE EMPLOYEES</u>

That the Opposite Party No. 1 miserably failed to appreciate that the impugned letter dated 11.01.2024 will have devastating and cascading effects on the business of the Petitioner, besides causing severe civil consequences. The Petitioner has submitted several bids/ tenders recently with multiple other companies/ firms and the same will not be considered for evaluation because of the impugned debarment by the Opposite Party No.1, resulting in serious prejudice to the Petitioner. The Petitioner has already been rejected from various tenders due to the debarment order of the Opposite Party No. 1 which has resulted in huge financial losses to the Petitioner and such losses are continuing. It is also worthwhile to mention that there are more than 1000 employees associated with the Petitioner and the livelihood of more than 2000 families consisting of more than 10,000 persons including women and children are at stake directly and several others indirectly who all will have to bear the catastrophic impact of the debarment alongwith the Petitioner.

It must be noted here that the impact of blacklisting would effectively exclude the Petitioner from carrying

on its work/ business and in all probability may lead to shutting down its business, the adverse impact of which would be overwhelming.

Therefore, unless the impugned letter dated 11.01.2024 issued by the Opposite Party No.1 debarring the Petitioner is intervened with and set aside by this Hon'ble Court, the submission and acceptance of the future tenders of the Petitioner shall be seriously jeopardized and the livelihood of many will be severely impacted and the Petitioner will not be able to recoup/ revive from the financial distress being suffered by it due to the debarment order of the Opposite Party No.1.

H. <u>NO DEFICIENCY IN SERVICES ON THE PART</u> <u>OF THE PETITIONER AS ALLEGED BY THE</u> <u>OPPOSITE PARTY NO.1</u>

That the Petitioner has undertaken all the actions and has discharged all its obligations in relation to the Project with the concurrence of the Opposite Party No. 1. It may be noted that there was a consensus between the Petitioner and the Opposite Party No. 1, prior to issuance of the Provisional Completion Certificate as well the Completion Certificate as to the Concessionaire. All the requisite tests had been carried out prior to the issuance of the Provisional Completion Certificate along with a site inspection carried out by the Regional Officer of the Opposite Party No.1. Thus, only after receiving concurrence from the Opposite Party No. 1, the Project had received its Provisional Completion Certificate and similarly, the Completion Certificate for the Project was also issued by the Petitioner after conducting the requisite tests (i.e., joint visual inspection, Non-Destructive Test, etc.) and after receiving concurrence from the Opposite Party No. 1. As per the visual inspection and Non-Destructive

Test, no distress was observed in the existing bridge. Further, apart from the regular routine check-ups, the joint visual inspection of all bridges was being conducted prior to every monsoon.

Further, in light of the revised guidelines issued by the Opposite Party No.1 for issuance of Completion Certificate/ Provisional Completion Certificate in respect of PPP Projects by the Independent Engineer, it was mandatory for the Regional Officer of the Opposite Party No.1 to be associated during conduct of all tests prior to the completion of the Project highway. This is evident of the fact that all the tests carried out prior to completion of the Project was done under the aegis of the Opposite Party No.1.

In addition to the above, it must be noted that the Opposite Party No. 1 had provided for certain clarifications in relation to the pre-bid queries raised by bidders vide its letter dated 01.11.2017. In the said letter, a query was raised by one of the bidders wherein details were sought of all major bridges to be repaired/ rehabilitated i.e., to confirm if all the bridges are designed to withstand a load of 385 tonnes as per MoRTH Circular No. RW.NH.35075/9/2006.S&R(B) and if not whether all the existing bridges need to be dismantled and to be newly constructed as per the abovementioned codal provisions. The Opposite Party No. 1 in Serial No. 12 of Annexure – I in relation to the said query replied stating that the existing structures shall be investigated as per the respective codal design and the same shall be inspected by a specialised agency having relevant experience and expertise. Both visual inspection and non-destructive testing shall be carried out for assessment of condition of the structure and to finalize its repair and rehabilitation. Based on the defects observed and test results, a comprehensive

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repair and rehabilitation plan shall be prepared for repair and rehabilitation of the distressed bridge components. Both testing and repair and rehabilitation plan shall be approved from Independent Engineer.

In this regard, it is pertinent to note that the Concessionaire had carried out visual inspection and Non-Destructive tests through a specialized agency i.e., M/s. Balaji Scientific Laboratory for the assessment of the health conditions of the existing structure in order to finalize its repair and rehabilitation plan and had accordingly submitted the report as annexed herein and marked as ANNEXURE 6 above. As per the visual inspection and Non-Destructive Test report, no distress was observed in the existing bridge and as per the preliminary survey carried out jointly by the Concessionaire and the Petitioner's representative on 09.10.2020 and taking into consideration the findings of the aforementioned report, the proposal for repair and rehabilitation methodology was submitted by the Concessionaire and subsequently, the same was executed on the site. The proposal only included the replacement of handrailing with crash barrier along with some minor maintenance works.

Thus, it is worthwhile to mention that it was not possible to identify any design lapses in the structure of the bridge through the investigation methodologies suggested by the Opposite Party No. 1 (as a response to the pre-bid queries), even though the Concessionaire along with the Petitioner had conducted all the relevant tests and inspections.

A copy of the letter dated 01.11.2017 issued by the Opposite Party No. 1 has been annexed herewith and marked as ANNEXURE 29.

B. MISHRA NOTARY, CUTTACK ODISHA



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Therefore, the Petitioner has throughout acted under the supervision of the Opposite Party No. 1 and accordingly, all actions initiated/ undertaken by the Petitioner have been concurred with by the Opposite Party No. 1. Therefore, the Opposite Party No.1 now cannot shift the entire blame on the Petitioner and hold the Petitioner liable for the collapse of the bridge.

Further, it is pertinent to note that the Opposite Party No.1 has debarred M/s. Sheladia Associates vide its letter dated 11.01.2024 for 1 (one) year on the ground that the Expert Committee found deficiency in the design of the collapsed bridge.

A copy of the letter dated 11.01.2024 issued by the Opposite Party No.1 to M/s. Sheladia Associates is annexed herewith and marked as ANNEXURE 30.

The Petitioner never had any connection or relation with M/s. Sheladia Associates, who were the design consultants of the Project at the time of construction of the Project because the Petitioner had no role to play in the construction of the Project. The Petitioner only came into the picture in the year 2019 when the entire structure of the bridge was already constructed and was in existence since more than 10 (ten) years. It may be noted that the Expert Committee had observed in its Inspection Report that the possible cause of the collapse of the bridge could be associated with a defect in the design of the bridge.

The fact that the Opposite Party No. 1 debarred the design consultant i.e., M/s. Sheladia Associates on the basis of the deficiency in design of the bridge observed bv the Expert Committee clearly establishes that the Opposite Party **No.1** acknowledged and admitted to the fact that the collapse of the bridge was due to the default in its design in consonance with the observations of the Expert Committee. However, in spite of being well

aware that the Petitioner had no role in the construction of the bridge and accordingly, the collapse could have never happened due to any default on the part of the Petitioner, the Opposite Party No.1, without any substantive grounds, issued a letter to the Petitioner on 11.01.2024 debarring the Petitioner for 1 (one) year and at the same time imposing a monetary penalty of Rs. 20,00,000/- on account of deficiency in services. Such actions of the Opposite Party No.1 only go on to prove that the Opposite Party No.1 takes advantage of its position and thrusts its whimsical and arbitrary decisions which are arrived at without any evidence or material. The Opposite Party No.1 failed to appreciate the fact that the Petitioner would have to bear calamitous consequences due to such a wrong decision of the Opposite Party No.1 of debarring the Petitioner without any justified reasons.

It is for this very reason that the Hon'ble Supreme Court of India has time and again cautioned that the consequences which follow blacklisting/ debarment ought to be treated seriously and not casually and accordingly, has opined that an adequate and proper show cause notice explicitly mentioning the penal actions proposed to be imposed on the entity (such as blacklisting/ debarment) is mandatorily required to be given to such entity. However, in the present case, the Opposite Party No.1 has acted in derogation to the principles laid down by the Hon'ble Supreme Court of India and has debarred the Petitioner without bothering to issue a proper show cause notice to the Petitioner, besides the fact that there was no default or deficiency in services on the part of the Petitioner.

I. OBLIGATIONS OF PARTIES TO BE ALTERED ONLY WHEN THERE IS A CHANGE IN APPLICABLE LAW

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As per Clause 5.3 of the General Conditions of Contract stipulated in the Contract Agreement, only upon a change in the applicable law after the date of the contract agreement, with respect to taxes and duties, shall the obligations (including payment obligations of the Opposite Party No.1) be altered. However, in the present scenario, there has not been any change in the applicable law in relation to taxes and duties, therefore, by debarring/blacklisting the Petitioner in such an arbitrary manner, alters the performance of services of the Petitioner, which is in contravention of the Contract Agreement. This clause 5.3 is the only provision enumerated in the Contract Agreement, when the obligations of parties can be altered. Since, there has been no change in the applicable law, such actions on the part of the Opposite Party No. 1 rendering an alteration in the obligations of the parties is clearly in breach of the Contract Agreement.

- 10. That the Opposite Party No.1 and 2 are instrumentalities or agencies of the State and Project in relation to which the impugned order of debarment dated 11.01.2024 has been passed is within the territorial jurisdiction of Odisha. Further, the Opposite Party No.1 has its regional office/ project implementation unit located at Chandikhole and Balasore. The entire cause of action for issuing the debarment order by the Opposite Party No. 1 is in connection with the Project which is based at Odisha. Therefore, this Hon'ble Court has the jurisdiction to entertain the present writ petition filed by the Petitioner.
- 11. That the Petitioner, having no other equally efficacious and alternative remedy available, has approached this Hon'ble Court by filing the present writ petition and the remedy prayed for hereunder, if granted, shall render justice and equality to the Petitioner.

12. That the Petitioner craves leave of this Hon'ble Court to add additional grounds or amend the grounds stated herein during the pendency of the writ petition.

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- 13. That the Petitioner has not filed any other writ petition nor instituted any proceeding(s) before this Hon'ble Court or any other court in relation to the impugned letter dated 11.01.2024 issued by the Opposite Party No. 1 to the Petitioner.
- 14. That this petition has been filed bonafide and for the ends of justice.

B. MISHRA NOTARY, CUTTACK **ODISHA**

PRAYER

It is therefore most humbly prayed that this Hon'ble may graciously be pleased to:

Admit the present writ petition, call for the records, after hearing the Parties and thereby issue a Writ of Mandamus and/ or Writ of Certiorari and/ or any other appropriate writ of like nature and pass direction(s) or order(s):

- A. Issue a rule calling for the records and calling upon the Opposite Parties to show cause as to why a Writ in the nature of Manadmus or Certiorari or any other appropriate writ should not be issued for setting aside or quashing the letter dated 11.01.2024 issued by the Opposite Party No. 1 to the Petitioner debarring the Petitioner for a period of 1 (one) year and imposing a penalty of Rs. 20,00,000/-.
- B. Pass such other further orders, as this Hon'ble Court may deem fit and proper, in the facts and circumstances of the present case as also in the interest of justice.

Date: 20.05.2024

By the Petitioner through

Place: Cuttack

Advocate

Ms. Adishree Mishra D/4047/2015 +91 - 9438088743

B. MISHRA NOTARY, CUTTACK **ODISHA**



IN THE HIGH COURT OF ORISSA: CUTTACK

W.P. (C) No. 14993 of 2024 COUR

In the matter of: M/s. TPF Getinsa Euroestudios, S.L, in association with Segmental Consulting and Infrastructure Advisory Private Limited. through its Authorised Representative, Mr. Sagar Mohanty

... Petitioner

Versus

1. National Highways Authority of India, Ministry of Road Transport and Highways, Government of India; and

2. Union of India, Ministry of Road Transport and Highways, Director General, Paryavaran Bhawan, 1, Sansad Marg, New Delhi – 110001.

... Opposite Parties

<u>AFFIDAVIT</u>

 I, Sagar Mohanty, aged about 32 years, at present residing at K-3, 325B, Ghatikia, Near Sum Ultimate Hospital, Bhubaneswar - 751003;

2. Father's Name: Shri Rabindra Mohanty

3. Number of proceedings pending in the High Court or 20 MAY 2020 would be instituted (caveat): Nil

- 4. Statement of Facts: As per averments in the Writ Petition.
- 5. The facts stated are true to the best of knowledge and belief of the deponent.

CERTIFICATE

I, Sagar Mohanty, son of Shri Rabindra Mohanty, aged about 32 years, at present residing at K-3, 325B, Ghatikia, Near Sum Ultimate Hospital, Bhubaneswar - 751003, being the deponent/ petitioner above named do hereby solemnly affirm that the facts stated in Paragraphs 1 to 14 are true to the best of my knowledge and Paragraphs 1 to 14 are true to the best of my information, which I obtained from my advocate, personal sources and official records.

I believe the information to be true for the following reasons: basing upon official records or information.

Solemnly declare at the above said this 17th day of 2024. Identified by Advocate DEPON

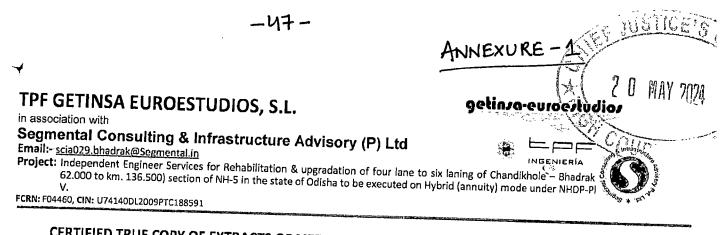
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•	Solemnly affin	rmed before me	e by <u>Sag</u>	ar Mo	hanty
\	who is	identified	before	me	(by
TAD	Adishree	Mishra	whom I per	rsonally k	now.
B. MISHRA B. MISHRA CUTTACK TOWN Regd.No-0-06/2018	This 17 th This 17 th Advocate	day of	May B. Miss NOTARY, C ODISI otary Public,	UTTACK	024. 55724

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CERTIFIED TRUE COPY OF EXTRACTS OF MEETING OF (M/S TPF Getinsa Euroestudios S.L. in association with Segmental Consulting and Infrastructure Advisory Pvt Ltd.) HELD ON 15th April, 2024

Authority of Mr. Sagar Mohanty S/o Rabindra Mohanty to file claim/suits/writ/complaint etc. on behalf of JV against the Company.

"RESOLVED THAT a suit/ complaint may be filed before the Court of competent jurisdiction/authority in the matter pertaining to Consultancy services for Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole – Bhadrak (km. 62.000 to km. 136.500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V.

RESOLVED FURTHER THAT Mr. Sagar Mohanty, be and hereby authorized and empowered to do the following:

- To sign, authenticate, file claim and pursue the suit/complaint, writ petitions, applications etc. (Civil as well as criminal) before any court of law/arbitrator against Govt. of India / State Govts. and their officials pertaining to aforesaid contract.
- 2. To apply for execution of any Decree/Award passed by Court/Arbitrator in respect of the case and to initiate any other proceedings.
- 3. To engage a lawyer, to appear before the Hon'ble Court/Arbitrator on behalf of Company.
- 4. To give specific power of attorney to any other employee of the JV to sign, authenticate, file and pursue the suits/complaint, petitions, applications etc. (Civil as well as criminal) before any court of competent jurisdiction/authority as well as other legal proceedings including damages etc.
- 5. To do alt other act(s) including swearing affidavits, giving statements etc. as may be required for the above purpose.

RESOLVED FURTHER THAT whatsoever acts, deeds and things that Mr. Sagar Mohanty shall lawfully do so or cause to be done on behalf of the JV, by virtue of the authority hereby conferred, be approved, ratified and confirmed by the JV.

Certified to be true/For TPF Getinsa Euroestudios S.L. in association with Segmental Consulting and Infrastructure Advisory Pvt Ltd.

Authorized Representative

Date: 15th April, 2024

ATTESTED TO BE TRUE COPY

ANNEXURE - 2



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण (सड़क परिवहन और राजमार्ग मंत्रालय) National Highways Authority of India (Ministry of Road Transport and Highways) जी-5 एवं 6, सेक्टर-10, द्वारका, नई दिल्ली-110075 G-5 & 6, Sector-10, Dwarka, New Delhi-110075

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दूरभाष / Phone : 91-11-25074100/25074200 फैक्स / Fax : 91-11-25093507 / 25093514

NHAI/NHDP-V/Tech/OR/2017/ChB/IE/113580

Dt. 28.02.2018

То

All Bidders/Consultants,

Sub.: Consultancy services for Independent Engineer services for Rehabilitation & Upgration of four lane to Six Laning of Chandikhole - Bhadrak (km. 62.000 to Km. 136.500) Section of NH-5 in the State of Odisha to be executed on Hybrid (Annuity) Mode

1. The National Highways Authority of India (NHAI) invites proposals for engaging an Independent Engineer (IE) on the basis of International Competitive Bidding for the following contract package in the State of Odisha under NHDP Phase -V programme.

S No	Package	NH No.		Project Stretch	Project Length (Km)/Total Project Cost (Cr.)	Assignmen t period (months)
	Services for	NH-5 (New NH-16)	Odisha	Chandikhole - Bhadrak (km. 62.000 to km. 136.500)	Length 74.500 Project Cost -Rs. 1210.55 Cr.	

TABLE 1: DETAILS OF PROJECT

2. The RFP shall be received through "INFRACON" (<u>www.infracon.nic.in</u>) and will be evaluated based on details furnished on "INFRACON". As such before submitting the proposal, the Consultant (the firm and all key personnel) shall mandatorily register and enlist themselves, on the MoRTH portal "INFRACON" and upload all relevant information to enable correct evaluation of RFP.

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All the bidders registered on "INFRACON" shall form a Team on "INFRACON" which would be assigned unique INFRACON Team ID. Bidders while submitting the RFP proposal shall furnish registration details including INFRACON Team ID. A copy of INFRACON Operation Procedure is enclosed for bidder's reference

- 3. Selection of IE shall be as per selection procedures given in the Model Concession Agreement and general procurement methods followed in NHAI. The selected IE shall be intimated to the Concessionaire.
- 4. The proposal shall be submitted in English Language and all correspondence would be in the same language.
- 5. The HAM projects basically constitute up-gradation involving construction of 2/4/6lane highway including Bridges; widening and rehabilitation of bridges and culverts; construction of high embankment/elevated structures/ROBs wayside amenities etc. along the existing highways including provision of realignment and bypasses. The proposed construction works will involve use of modern equipment and construction practices/techniques.
- 6. NHAI intends to appoint a Consultant to act as Independent Engineer for implementation of this HAM project. As per the Terms and Conditions of the Concession Agreement (s), the Independent Engineer is broadly required to: (i) independently review activities associated with design, design review, during construction, required quality assurance and quality control tests and operation and maintenance of the project on behalf of both NHAI and Concessionaire so as to ensure compliance of the requirements of the provisions of Concession Agreement (ii) report to NHAI on the Financial, Technical and physical progress of implementation aspects of the project, (iii) assist the parties in arriving at an amicable settlement of disputes, if any. The selection of Independent Engineer shall follow the laid down procedures given in the Concession Agreement signed between NHAI and the Concessionaire for this HAM project.
- 7. The interested consultancy firms may download the RFP document from the eportal of the Employer w.e.f 28.02.2018 to 02.04.2018 upto 1100 hrs. The Consultant who download the RFP document from the e-portal will be required to pay the non- refundable fee of Rs. 5,000/- at the time of the submission of the Bid proposal, through e-payment gateway. The RFP will be invited through e-tendering portal. Refer Procedure under e-tendering for submission of RFP through etendering.
- 8. The proposal should be submitted by consultancy firms in two parts. The two parts of the proposal are <u>Part 1</u>: Technical Proposal and <u>Part 2</u>: Financial Proposal. The Financial Proposal is to be submitted only in Electronic Form (to be uploaded on e-portal). The Technical Proposal in original should be submitted in hard bound form and should be enclosed in an envelope marked as "Technical Proposal". A copy of the Technical Proposal should also be uploaded on the e portal.. For a given HAM Project, Stage -1 of the Evaluation shall consider the evaluation of the Technical Proposal (i.e. Part 1). The firms scoring the qualifying marks (minimum 75%) as mentioned in RFP shall be listed in the descending order of their technical score and 5 top ranking firms shall only be considered for further evaluation provided none of them is in conflict of interest with the Concessional e.



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The firms in conflict of interest shall be substituted by next ranking firm not having conflict of interest with the Concessionaire. Under stage 2, the financial proposal of such five firms as selected above shall be opened and evaluated. The weightage of Technical and Financial score shall be 80% & 20% respectively. The final selection of the firm shall be based on the highest combined score of Technical and Financial Proposal.

- 9. The total time period for the assignment as Independent Consultant will be for 48 Months, (Construction period- 30 months, O&M and development period 48 months). In case the Consultant is onboarded during/ after Development period and Construction period remains 30 months then O&M period will be increased such that total time period of assignment remains a 48 months. In case the Construction period exceeds 30 months then O&M period will be reduced such that total time period of assignment remains as 48 months.
- 10. Consultants may apply either as a sole firm or forming Joint Venture with other consultants. In case of Joint Venture, the maximum number of Joint Venture partners is limited to 2 (i.e. one lead + 1 JV partner). Formulation of more than one JV with different partners for the same work is not allowed and all such proposal involving the firms shall be treated as non-responsive.
- 11. (A) The Applicant whether a sole applicant or lead member with joint venture may include any number of Associate to provide technology in assignment (refer para 10 (iii) of data sheet). The associate firm can provide equipment based road inspection services for any of the 4 equipment viz., (i) Network Survey Vehicle including all modules required as per technical specifications, (ii) Falling Weight Deflectometer, (iii) Mobile Bridge Inspection Unit and (iv) Retro Reflectometer. However, the associate(s) cannot be common for 2 or more bidders. If any associate is common with 2 or more bidders, all those bids shall be declared non-responsive. Hence, the bidder may ensure on his own that the associate proposed by him is not proposed by any other bidder participating in the same assignment and the bidder is solely responsible in this regard.

(B) In addition, the applicant whether a sole applicant or lead member with joint venture may also include an Associate for providing key personnel. In such case, the applicant should submit a MOU with associate regarding role and responsibility of Associate Company. However the maximum no. of key personnel from Associate firm during RFP proposal and implementation of contract should be limited to two (2).

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12. Consulting firms meeting the following criteria and not in conflict of interest with the Concessionaire are only eligible for applying for this assignment. Firms not meeting these criteria need not apply.



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For time period more than 48 months, specific approval with higher time period may be got approved by Competent Authority on case to case basis before inviting the RFP

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1	Experience of the firm in last 7 years				
S No	Preparation of DPR/Feasibility Study cum Preliminary Design Report (NH/SH/Equivalent)				
	The firm should have minimum experience of preparation of detailed Project Report/Feasibility Study cum Preliminary Design Report of 2/4/6**- laning project of aggregate length equal to 2 times i.e. 149.00 km or more of similar category for which RFP is invited.	The firm should have minimum experience of Project Supervision/IC of 2/4/6**-laning project of aggregate length equal to 3 times (i.e. 223.50 km) or more of similar category for which RFP is invited.	Annual turnover (updated average of last 5 years or in each of the preceding two years) of the firm from consultancy business should be equal to or more than 2% (i.e. Rs. 24.22 cr) of Total Project Cost (TPC).		
1 (b)		Firm should also have experience of Project Supervision/IC of at least one project of similar category of two/four/six** laning of length equal to 40% (i.e. 29.8 km) of project length.			
		Additional requirement in case of specialized projects***			

A) Eligibility criteria for sole applicant firm.

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- Similar project means 2/4/6 lane as applicable for the project for which RFP is invited. For 2-lane projects experience of 4/6 lane also to be considered with a multiplication factor of 1.5. Experience of 4/6 lane shall be considered interchangeably for 4/6 laning projects. For 4/6 laning projects, experience of 2 lane will be considered with a multiplication factor of 0.4, but only for those 2 lane projects whose cost of consultancy services was more than Rs.3.0 crores
- *** In case the project includes any specialized nature of work such as tunnels, specialized structures etc. in substantial quantum, this requirement may be suitably included by suitably adjusting marks of other attributes.
- B) Eligibility Criteria for partner in case of JV (not more than 1 JV partner shall be



The lead partner must fulfill atleast 50% of requirements at 1(a) of table in para (A) above and other JV partner should fulfill atleast 40% of eligibility criteria as indicated at 1(a) of table in para (A) above. Also the lead partner and JV partner jointly should meet not less than 1.20 times the eligibility criteria as mentioned at 1(a) of table in para (A) above. Lead partner should meet the criteria 1 (b) of table in para (A) above.

- Note: The weightage given for experience of a firm would depend on the role of the firm in the respective assignments. The firm's experience would get full credit if it was the sole firm in the respective assignment. Experience weightage for firms joining Lead partner JV partner shall be considered in the same proportion as payment has been received *** by the firm towards consultancy work in the project.
- *** For weightage of experience in any past Consultancy assignment experience certificate from the client shall be accepted. In the absence of experience certificate from the client, proportion of payment received towards Consultancy work duly certified by statutory body like Chartered Accountant or Independent Auditors who are competent to do so as recognised by the State concerned shall be accepted. Annual turnover duly certified by Chartered Accountant shall be accepted. In case of non-availability of such documents no weightage of turnover/experience will be considered.
- 13. Following enhancement factor will be used for the cost of services provided and for the turnover from consultancy business to a common base value for works completed in India:

Year of completion of services /	
turnover	Enhancement factor
Financial year in which RFP invited	1.00
One year prior to RFP	1.10
Two year prior to RFP	1.21
Three year prior to RFP	1.33
Four year prior to RFP	1.46
Five year prior to RFP	1.61
Six year prior to RFP	1.77
Seven year prior to RFP	1.95

Applicant should indicate actual figures of costs and amount for the works executed by them without accounting for the above mentioned factors.

In case the financial figures and values of services provided are in foreign currency, the above enhancement factors will not be applied. Instead, current market exchange rate (State Bank of India BC Selling rate as on last date of submission of the bid) will be applied for the purpose of conversion of amount in foreign currency into Indian Rupees.



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- 14. The Bidder including individual or any of its Joint Venture Member should, in the last 2 years, have neither failed to perform for the works of Expressways, National Highways, ISC (Inter State Connectivity) & EI (Economic Importance) works, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award against the Bidder including individual or any of its Joint Venture Member, as the case may be, nor has been expelled or terminated by Ministry of Road Transport & Highways or its implementing agencies for breach by such Bidder including individual or any of its Joint Venture Member. Consultants (sole firm or lead firm and any of the JV partners) who donot fulfil the aforesaid condition as on last date of submission of proposal, need not apply as their RFP proposal will not be entertained.
- 15. NHAI will not be responsible for any delay, loss or non-receipt of RFP document sent by post/courier. Further, NHAI shall not be responsible for any delay in receiving the proposal and reserves the right to accept/reject any or all applications without assigning any reason thereof.
- 16. The Technical proposal (in Original) must be submitted in a hard bound form with all pages numbered serially, along with an index of submission. (Hard bound implies binding between two covers through stitching or otherwise whereby it may not be possible to replace any paper without disturbing the documents). Spiral bound form, loose form, etc. will be not accepted. A copy of the Technical Proposal should also be uploaded on the e-portal. Financial Proposals shall have to be submitted only in Electronic Form (to be uploaded on the e-portal). In the event, any of the instructions mentioned herein have not been adhered to, NHAI may reject the Proposal
- 17. Employer will be at liberty to keep the credentials submitted by the Consultants at bidding stage, in public domain and the same may be uploaded by Employer on Employer's web-site. Consultants should have no objection if Employer uploads the information pertaining to their credentials as well as of their key personnel.
- 18. The individual key personnel proposed in the bid by the consultants or any replacement thereof should undertake that they shall have no objection in uploading/hoisting of their credentials by Employer in public domain.
- 19. RFP submission must be received not later than 03.04.2018, 1100 hrs on in the manner specified in the RFP document at the address given below.

28/0/18

Vishnu Murti General Manager (Technical) Odisha Division, NHAI (HQ)

Copy to: Media for publishing in Leading News papers as per NHAI Policy/guidelines

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ANNEXURE-3



# भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय)

National Highways Authority of India

(Ministry of Road Transport and Highways) जी-5 एवं 6, सेक्टर-10, द्वारका, नई दिल्ली-110075 G-5 & 6, Sector-10, Dwarka, New Delhi-110075

No.NHAI/NHDP-V/Tech/OR/2017/CHB/IE / 135700

<u>Original</u> Date: 29.05.2019

दूरभाष / Phone : 91-11-25074100/25074200

फैक्स / Fax : 91-11-25093507 / 25093514

To,

M/s TPF Getinsa Eurostudios S. L. with Segmental Consulting & Infrastructure Advisory Pvt. Ltd. Unit 305, Subcity Business Tower, Golf Course Road, Sector-54, Gurgaon - 122002, Haryana Email: <u>info@segmentel.in</u>; <u>ikumar@segmental.com</u>; Ph: 0124 - 4211847

Sub: Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) section of NH-5 in the State of Odisha to be executed on Hybrid (Annuity) mode under NHDP-Phase-V.- Letter of Acceptance - Reg.

Sir,

This is with reference to your technical and financial proposal submitted on 03.04.2018 and the subsequent opening of financial bid on 10.04.2019 for consultancy services in subject

2. It is to inform that Competent Authority has accepted your proposal for a Contract price of Rs.8,07,15,099/- (Rs.Eight Crores Seven Lakhs Fifteen Thousand Ninety Nine Only) (net of taxes) payable in India. The above Contract Price is inclusive of all taxes (other than GST), duties, fees, levies and other imposition as may be levied under the Applicable law and NHAI shall deduct taxes as applicable, out of the eligible payments to be made to the Consultant. The amount towards GST shall be paid by NHAI separately on reimbursement basis, after submission of proof of depositing the same with the concerned Authorities.

3. You are requested to sign the duplicate copy of the Letter of Acceptance (LoA) and return the same as your acknowledgment within 7 (Seven) days of receipt of LoA. It is also details mentioned in Clause no.16 of Section-6 of RFP (TOR), for an amount equivalent to 2.5% of the Total Contract Value towards Performance Security. This Bank Guarantee shall be as per relevant format given in the RFP. This Performance Security shall be valid up to 2 months beyond the expiry of the Contract Period.

4. Upon submission of required Performance security, you are also required to sign the Contract Agreement. As per clause 3.4 (iv) (g) of Section-2 of RFP, 'In case CV of a person is turned out to be fake/incorrect/inflated during the assignment, the consultancy firm shall have to refund the salary and perks drawn in respect of the person apart from other consequences'.

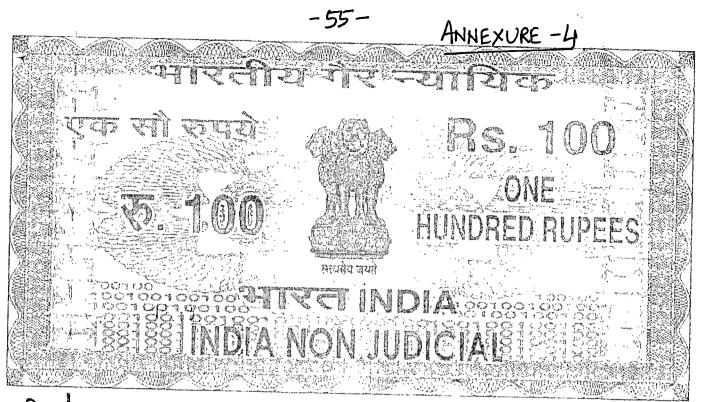
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Yours faithfully.

(P.N.Gawasane) General Manager (T)- Odisha

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## हरियाणी HARYANA

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#### Memorandum of Understanding for Consultancy Services for

Independent Engineer services for Rehabilitation & Upgration of four lane to Six Laning of Chandikhole – Bhadrak (km. 62.000 to Km. 136.500) Section of NH-5 in the State of Odisha to be executed on Hybrid (Annuity) Mode.

#### 1. FORM OF AGREEMENT

∯ This Memorandum of Understanding (MOU) executed on this June 21st, 2019 at Gurgaon Haryana between:

TPF Getinsa Euroestudios, S.L., a company organized and existing under the laws of Spain, having its principal place of business at Ramon de Aguinaga, 8 Madrid (28028), and India Branch office: Unit 305, Suncity Business Tower, Golf Course Road - Sector 54, Gurgaon, 122002 (Haryana), INDIA hereinafter referred to as 'GETINSA EUROESTUDIOS', which expression shall unless repugnant to the context thereof, include its successors and assigns of the FIRST PART

No. AND Segmental Consulting & Infrastructure Advisory Pvt. Ltd, a company incorporated under the Companies Act, 1956, having its Registered Office at Unit No. 421, Tower B-4, 4th Floor Space Flech Park, Sector 49, Sohna Road, Gurgaon-122002, INDIA Ph. 91 124 421 1847, 48, 49 Fay. 91 124 421 1850 Hàrvana, India (Hereinafter referred to as Segmental, which expression shall unless reprinting to the de text thereof, include (in 1997) its successors and assigns of the SECOND PART. GURUG Reg. No. ą The expressions of ETINSA EUROESTUDIOS, SEGMENTAL (which expression shall unless repugnant to the context or meaning thereof mean and Stechesofe and Eassignees) shall collectively be referred to as "the "Patties" or Membere and individual d Member SCIA · Adv ED TO BE TRUE COPY

#### WHEREAS

- A. GETINSA EUROESTUDIOS is a leading global multidisciplinary company from Spain, specialized in integrated professional services with regard to engineering, architecture and consulting.
- B. SEGMENTAL is a leading multidisciplinary consulting company from India.

#### WHEREAS

National Highway Authority of India (Client) has invited Request for Proposal for Independent Engineer services for Rehabilitation & Upgration of four lane to Six Laning of Chandikhole – Bhadrak (km. 62.000 to Km. 136.500) Section of NH-5 in the State of Odisha to be executed on Hybrid (Annuity) Mode.

AND WHEREAS the Parties now have reached an understanding on the following points with respect to the Parties' rights and obligations towards each other, manning schedule, fee sharing, billing and receipt of the fee, and their working relationship.

### NOW THEREFORE THE PARTIES INTENDING TO BE LEGALLY BOUND, AGREE AS FOLLOWS:

The following documents shall be deemed to form and be read and construed as an integral part of this MOU.

- i) Notice for Bid, and
- ii) Bidding document
- iii) Any Addendum/Corrigendum issued by National Highway Authority of India.
- iv) The bid submitted on behalf of Consortium.

The `Parties' have studied the documents and have agreed to participate in submitting a `bid' jointly.

GETINSA EUROESTUDIOS agrees that it will not change the billing rates given by the other partners, unless the same has been agreed by each partner while submitting the bid to the client.

#### 2. PURPOSE

The "Association" of – GETINSA EUROESTUDIOS, SEGMENTAL, if successful in winning this Project, agree to work together as an Association of consultants (hereinafter called the "Association") for the project with each Member having the specific Role(s) as hereunder defined, for the works as mentioned in the RFP document of National Highway Authority of India, for which the Association shall be responsible for the performance on his part, and for which the Members shall be separately and directly be compensated.

GETINSA EUROESTUDIOS is designated as the lead Member (Leader) of the Association to National Highway Authority of India and shall represent the Association in all contractual dealings with the National Highway Authority of India. Notwithstanding, the Members of the Association will have right of access to the **Client** after obtaining authorization from the leader.

The sole purpose of the 'Association' shall be the overall performance of the consultancy services to the Contract agreed by the Members. This agreement shall not create partnership or other legal entity between the members nor give rise to any agency one for the other.

The Lead Member of the Association shall have no authority or right, nor shall he hold himself out as having the authority or right to incur any cost or expense or assume, create or undertake any obligation of whatsoever kind, express or implied, on behalf of or in the name of the Association or any other Party except as may be permitted under this Association Agreement or specifically authorized by the Association Steering Committee or as mutually agreed upon By the representatives of the consultants named as signatories to this agreement or their duly authorized persentatives.

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#### 3. DUTIES AND RESPONSIBILITIES

The form and style of co-operation between the Parties shall be as follows:

Each Member shall assign staff with suitable expertise and experience to undertake the obligations, responsibilities and scope of work under the Contract by performing the assignments allocated to the Member (the Role (s)).

### 4. RESPONSIBILITY

GETINSA EUROESTUDIOS being lead firm will be responsible to the client for due performance of the services as per the Scope of Work.

### 5. INDEMNIFICATION

Each Member shall indemnify and save harmless the other Members against all losses, expense, damages and liability of any nature whatsoever arising out of (1) that Member's failure to perform its responsibilities in accordance with the terms of this Agreement and (2) that Member's actions or failure to act when action is required, as a Member in this Association. Each of the Members warrants that it will indemnify and keep indemnified the other Members against all legal liabilities arising out of or in connection with the indemnifying Member purporting to bind, make any commitment on behalf of or otherwise purporting to act, contract or incur any obligation or responsibility on behalf of, another Member, or on behalf of the Members jointly, without prior authority expressed in writing in accordance with this clause.

### 6. PERFORMANCE BANK GUARANTEE

GETINSA EUROESTUDIOS, the lead member, shall furnish Performance Guarantee to the Client as per the provision of the Main Contract to be signed after receipt of Letter of Award from the NHAI.

### 7. EXCLUSIVITY

The Members shall co-operate on the basis of exclusivity, i.e., none of them shall enter an arrangement with any other firm on matters falling under the scope of this Agreement. Each of the Members warrants that the principle of exclusivity will also be adhered to by its subsidiaries, and other firms or individuals over which it may exercise control.

### 8. ASSIGNABILITY

No Member shall assign, sell, transfer or in any way encumber its interests in the Association without first obtaining the consent in writing of all the other Members.

### 09. INSOLVENCY

In the event of insolvency of a Member, the other Members are irrevocably constituted and appointed attemptionin-fact for such insolvent Member to act for it in all matters affecting performance of this Agreement.

### 10. ETHICS

Code of Business Practice: The Association Members confirm that they have to honour and abide the Codes of Conduct and ethicat numbers practices of the other Members.

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A. Subject to the provision of this Agreement, if a member agrees to, or offers to, provide additional services that are not reimbursable under the Services Agreement or variations to the Services Agreement, then the cost of such services shall be borne by the member concerned unless other members of the Association agree to share or reimburse such costs in whole or in part by way of prior written agreement between all the members of the Association.

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- B. No member shall undertake additional professional services required through variations without first advising other members and receiving "no objection" confirmation. In case of an objection, the additional services shall be referred to the Steering Committee for a final decision.
- C. An Association Management Committee will be formed with the purpose of facilitating the day to day work and operations of the Association and to resolve any issues relating to disputes, technical issues, coordination and interface as well as escalation to the Steering Committee any issues they are unable to resolve at that level. The Association Management Committee shall be responsible for agreeing, allocating and recording the activities and tasks assigned to each Member to the extent possible. Being part of the Association the Management Committee will not be remunerated. Decisions will be accepted only with the approval of all the parties
- D. GETINSA EUROESTUDIOS as lead Member will be in charge of invoicing to the client incorporating the invoice received from Segmental and combining it with its own before submission of one comprehensive Client invoice, with a recommendation for direct payments to each partner in the association based on respective inputs for the corresponding period. GETINSA EUROESTUDIOS and SEGMENTAL will each receive direct payments from the NHAI based on their portion of the inputs for the period on the project.
- E. A Steering Committee shall be formed consisting of senior representatives of each partner, to resolve issues that cannot be decided by the Management Committee and to provide overall guidance to the team, if required. Steering Committee will decide about all matters concerning invoices to the client and invoices from the parties and disbursal of the payments. Being part of the Association the Steering Committee will not be remunerated. Decisions will be accepted only with the approval of the Lead Member (GETINSA EUROESTUDIOS) and 'Associate' (Segmental).

#### 12. THE RISKS AND COVERAGES

GETINSA EUROESTUDIOS, the lead member, will arrange the following insurances themselves as per the conditions of the RPF/ Main Contract Agreement with NHAI, at their own costs:

- i. Employer's liability and workers' compensation insurance in respect of the personnel of the members and of sub consultants in accordance with relevant provisions of Applicable Law, as well as, with respect to such personnel, any such life, health, personal accident, travel, household or other insurance as may be appropriate;
- ii. Professional Liability Insurance with a minimum coverage equal to total their individual contract value as per the agreement with the client;
- iii. Third party motor vehicle liability insurance as required under Motor Vehicles Act 1988 in respect of motor vehicles operated in India by the Consultants or their Personnel or any Sub-Consultants or their Personnel for the period of Services; and
- iv. Third party liability insurance, with adequate coverage, as specified by the client per year for the period of Services;



of the Contract between the Client and the Association (whichever shall first occur).

The present Agreement shall be terminated:

- (a) At the conclusion of the assignment as governed by the main consultancy agreement with National Highway Authority of India.
- (b) In case of termination of the main consultancy agreement with National Highway Authority of India
- (c) In case any further agreement between partners is signed, on award of the work
- (d) In case of not being awarded consultancy services by National Highway Authority of India
- (e) In case of mutual agreement to terminate the agreement.

Notwithstanding, the present Agreement shall only be terminated after all rights and obligations arising from it have ceased.

#### 14. COPYRIGHT

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Subject the provisions in the Consultancy Contract with National Highway Authority of India, copyright in all Work procured or prepared by a Member remains with, and the property of, that Member. Each Member acknowledges that no proprietary or other rights in or to intellectual property of another Member or its affiliates, including copyright in Work, will be conferred upon, devolve or be transferred to another Member.

#### 15. CONFIDENTIALITY

This Agreement and any information, data, intellectual property or other material in the possession of or which comes into the possession of a Party pursuant to this Agreement or otherwise in respect of the Proposal, will be kept secret and maintained in strict confidence and will not be divulged or disclosed by the recipient Member, directly or indirectly, to any person other than as is necessary to perform that Member's responsibilities under this Agreement. No Member may use any information, data, intellectual property or other material to which this paragraph applies for any purposes other than the purposes contemplated by this Agreement.

#### 16. LAW AND ARBITRATION

This Agreement shall in all respects be governed by and interpreted in accordance with the laws of India.

The parties will endeavour to find an amicable solution to any difficulties/ disputes which may arise concerning this Agreement.

Any dispute relating to or arising out of this Agreement shall be resolved through Arbitration to be conducted by the sole Arbitrator if agreed by all members or otherwise through three Arbitrators, one appointed by each of the party to the dispute or difference and the two Arbitrators se appointed in turn shall appoint the third Presiding Arbitrator. The Arbitration proceedings shall be carried out in accordance with the provision of Arbitration and Conciliation Act, 1996 Government of India.

Performance atthis Agreement and the Main contract shall not be affected by reasons of any Arbitrator

Droceedings. Geu The langue of this / greement shall b 705

#### 17. GENERAL PROVISIONS

- i. In consideration of the mutual agreements and undertakings, the Parties have inter se granted rights and accepted obligations set out in this Agreement. The adequacy of the exchange of rights and obligations as valid consideration shall never be called in question by either Party.
- ii. Nothing contained in this Agreement shall be read or construed to imply the existence of an agency or a partnership between the Parties. The Association is an unincorporated one.
- iii. This Agreement may be executed in any number of counterparts. The counterparts shall be deemed to constitute one instrument.
- iv. Failure or delay on the part of either party to exercise any right, power or privilege under this Agreement shall not operate as a waiver thereof; nor shall any single or partial non exercise of any right, power or privilege preclude any other future exercise thereof.
- v. This Agreement is severable in that if any provision hereof is determined to be illegal or unenforceable, the offending provision shall be stricken without affecting the remaining provisions of this Agreement, in which case, if appropriate and necessary, the Parties shall immediately consult with each other in order to find an equitable solution.
- vi. This Agreement and all attachments shall constitute the entire agreement of the Parties with respect to the subject matter of this Agreement and supersede all prior agreements, understandings and representations, written and oral. In case of any inconsistency between this Agreement and any prior understanding this Agreement shall prevail; and if there is inconsistency between any provision of this Agreement and the Annexures and Schedules attached hereto, the provisions of the Main Contract Agreement shall prevail.
- vii. In case of any decisions taken by the Steering Committee or Management Committee which affect the provisions of this contract, this contract will be suitably modified and superseded upon mutual, unanimous written consent of all parties subject that these modifications do not violate or are in conflict with the provisions of the main contract.
- viii. This Agreement may be amended only by an instrument in writing signed by duly authorized representatives of each of the Parties.

### 18 SHARING OF FEE & BROAD RESPONSIBILITY

The financial survey

Each member will be entitled to have share consultancy fee & responsibility as tabulated below:

		Ar	nount
S.N.	Currency	TPF Getinsa Euroestudios (FIRST	Segmental (SECOND PARTY)
S S		26.630.000 INR	54.085.099 INR

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### Resources committed by TPF Getinsa Euroestudios

#### Key Professionals Staff

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S. Nº	Position	Man-Months	
1	Team Leader cum Senior Highway Engineer	36	
2.	Bridge/Structural Engineer	36	
3.	Senior Pavement Specialist	30	*********
4.	Senior Quality cum Material Expert	30	
	Total	132	

Resources committed by Segmental Consulting & Infrastructure Advisory Pvt. Ltd:

#### Key Professionals Staff

S. №		
	Position	Man-Months
5.	Resident cum Highway Engineer	48
6.	Road Safety Expert	16
	Total	64

#### Sub Professional Staff

S. Nº	Position	Staff-Months
7.	Survey Engineer	38
8.	Assistant Highway Engineer (2 Nos)	78
9.	CAD Expert	16
10.	Environmental Engineer	6
11.	Assistant Bridge Engineer	30
12.	Assistant Quality cum Material Expert (2 Nos)	60
13.	Electrical Engineer	7
14.	HTMS/Toll Expert	2
15.	Quantity Surveyor	
16.	Horticulture cum Landscaping Expert	18
	Total	273

In addition, Segmental will provide all the support staff of the project besides making all office, road survey vehicle, and other logistical arrangements except vehicles.

* On production of copy of deposit proof the Service Tax shall be reimbursable as per provision of RFP/ Main Contract Agreement.

IN WITNESS WHEREOF the Members hereto have put their hand on the date first above mentioned

### 1. The breakdown of total Man-Months for Key Staff is as follow:

	TPF Getinsa Euroestudios SPAIN	132		possible function for an
ļ	Segmental Consulting & Infrastructure Advisory Pvt. Ltd		14 . F	NOCUSTON

2. T	he breakdown of total Man-Months for Sub Professionals Staff	is as follows:	aning-surgering
	TPF Getinsa Euroestudios SPAIN	0	The second s
	Segmental Consulting & Infrastructure Advisory Pvt: Ltd	273	HEF
	A solution A law and a law	707	INGENICAIA

3. The breakdown of total Man-Months for Support Staff is as follows:

TPF Getinsa Euroestudios SPAIN	0
Segmental Consulting & Infrastructure Advisory Pvt. Ltd	192

### 4. The breakdown of the total Financial Distribution is as follows:

	Description	TPF Getinsa Euroestudios	SCIA	Total	
1	Remuneration for Local Professional Staff	19.050.000	27.060.000	46.110.000,00	
11	Supporting Staff	0	13.680.000	13.680.000,00	
	Transportation	7.080.000	0	7.080.000,00	
IV	Duty Travel to Site	0	600	600,00	
V	Office Rent	0	3.840.000	3.840.000,00	
VI	Office Supplies, Utilities and Communication	D	4.320.000	4.320.000,00	
VII	Office Furniture and Equipment	0	2.160.000	2.160.000,00	
VIII	Reports and Documents printing	0	81.500	81.500,00	
IX	Survey Equipment	0	2.442.999	2.442.999,00	
X	Contingencies	500.000	500.000	1.000.000,00	
	Sub total:	26.630.000	54.085.099	80.715.099,00	
Consultar	ncy services Tax payable in India @ 189	%		14.528.717,82	
OTAL CO	95.243.817				

eight hundred and seventeen Only.

For TPF Getinsa Euroestudios, S.L. Spain

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Name : Jatin Kumar Title : Authorized Representative

ATTESTED TO BE TRUE COP

For Segmental Consulting and Infrastructure Advisory (P) Ltd.

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Name : Ambikesh Tripathi Title : Authorized Representative

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ATTESTED TO BE/TRU

# ANNEXURE -5

# **CONTRACT AGREEMENT**

For

Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V.



NATIONAL HIGHWAYS AUTHORITY OF INDIA G-5 & G-6, Sector 10, Dwarka, New Delhi - 110075

And

### getinza-euroeztudioz

INGENIERÍA

TPF GETINSA EUROESTUDIOS, S.L. SPAIN

Nº8, Ramon de Aguinaga Road - 28028 Madrid, Spain

In association with



### Segmental Consulting & Infrastructure Advisory Pvt. Ltd. Unit No. 421, Tower B-4, Spaze IT Park, Sector 49, Sohna Road Gurgaon-122002 (Haryana)-INDIA

26th June, 2019



## CONTRACT FOR CONSULTANT'S SERVICES

-64-

Between

NATIONAL HIGHWAYS AUTHORITY OF INDIA (Ministry of Road Transport & Highways)

And

### TPF GETINSA EUROESTUDIOS, S.L. SPAIN

In association with

Segmental Consulting & Infrastructure Advisory Pvt. Ltd.

FOR

Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole – Bhadrak (km. 62.000 to km. 136.500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

Date of Agreement: 26th June, 2019



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# I. FORM OF CONTRACT

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# INDIA NON JUDICIAL

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# Government of National Capital Territory of Delhi

### e-Stamp

Certificate No. Certificate Issued Date Account Reference Unique Doc. Reference Purchased by Description of Document Property Description Consideration Price (Rs.) First Party Second Party Stamp Duty Paid By Stamp Duty Amount(Rs.)	<ul> <li>IN-DL08605170215504R</li> <li>24-Jun-2019 03:17 PM</li> <li>IMPACC (IV)/ dl883903/ DELHI/ DL-DLH</li> <li>SUBIN-DLDL88390323288264255383R</li> <li>TPF GETINSA EUROESTUDIOS SL</li> <li>Article 5 General Agreement</li> <li>Not Applicable</li> <li>0     (Zero)</li> <li>NATIONAL HIGHWAYS AUTHORITY OF INDIA</li> <li>TPF GETINSA EUROESTUDIOS SL</li> <li>TPF GETINSA EUROESTUDIOS SL</li> <li>100     (One Hundred only)</li> </ul>
	Please write or type below this line
(	CONTRACT AGREEMENT
muchennen chaineel Servic	es for Rehabilitation & Up-gradation to six laning of Chandikhole -
This CONTRACT (hereinafter between, on the one hand Na Dwarka, New Delhi-110075 (hi EUROESTUDIOS, S.L. in asso	called the "Contract") is made on <u>26</u> ^H day of the month of June, 2019 ational Highways Authority of India (NHAI), G-5 & G-6, Sector-10, ereinafter Called the "Client) and on the other hand M/s. TPF GETINSA ciation with Segmental Consulting & Infrastructure Advisory Pvt. Ltd. ower, Gelf Course Road, Sector - 54, Gurgaon - 122002, (Haryana)



#### -2

#### WHEREAS

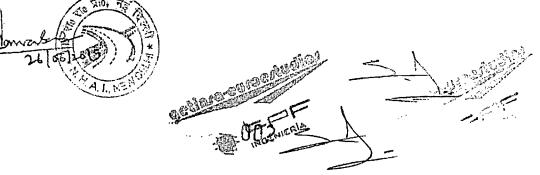
- the Client has requested the Consultants to provide certain consulting services as defined in the General Conditions of Contract attached to this Contract (hereinafter called the "Services");
- (b) the Consultants, having represented to the Client that they have the required professional skills, personnel and technical resources, have agreed to provide the Services on the terms and conditions set forth in this Contract;

NOW THEREFORE the parties hereto hereby agree as follows:

- 1. The following documents attached hereto shall be deemed to form an integral part of this Contract:
  - (a) The General Conditions of Contract (hereinafter called "GC")'
  - (b) The Special Conditions of Contract (hereinafter called "SC");
  - (c) The following Appendices :

Description of the Services
Reporting Requirements
Key Personnel and Sub-consultants
Medical Certificate
Hours of Work for Key Personnel
Duties of the Client
Cost Estimates in local currency
Form of Performance Bank Guarantee
Form of Bank Guarantee for Advance Payments
Letter of invitation
Letter of Award
Minutes of Pre-Bid Meeting
Memorandum of Understanding

- 2. The mutual rights and obligations of the Client and the Consultants shall be as set forth in the Contract; in particular
  - (a) The Consultants shall carry out the Services in accordance with the provisions of the Contract; and
  - (b) The Client shall make payments to the Consultants in local currency only in accordance with the Provisions of the Contract.





IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names as of the day and year first above written.

FOR AND ON BEHALF OF (National Highways Authority of India)



(Prashant N. Gawasane) General Manager (Tech.) – Odisha National Highways Authority of India G-5 & G-6, Sector-10, Dwarka, New Delhi-110075.

In presence of

,

1. Signature: Ween Trat

Name: NIKRANT THAKUR Address: NKAZ HQ

2. Signature: Allentin Name: siddhart singhai Address: NHAI, HS FOR AND ON BEHALF OF

M/s. TPF GETINSA EUROESTUDIOS, S.L. in association with Segmental Consulting & Infrastructure Advisory Pvt. Ltd.

Ву

**เทเตรวม อิงห์**ว

(Vivek Sukhwani Igleslas) Authorized Signatory M/s. TPF Getinsa Euroestudios, S.L. in association with Segmental Consulting & Infrastructure Advlsory Pvt. Ltd. Unit 305, Suncity Business Tower, Golf Course Road, Sector 54, Gurgaon- 122002, (Haryana)

1. Signature:

Address:

Name:

.. . .

JATIN KUMAR Sohna Road, Cuynen

2. Signature: Millandhoiry

Name: Shailendha Chaudholy Address: Sotria Posd, ingan







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### INDIA NON JUDICIAL

## Government of National Capital Territory of Delhi

### e-Stamp

Certificate No. : Certificate Issued Date : Account Reference :	IN-DL08606276231482R 24-Jun-2019 03:18 PM
Unique Doc. Reference Purchased by Description of Document Property Description	IMPACC (IV)/ di883903/ DELHI/ DL-DLH SUBIN-DLDL88390323285857607312R TPF GETINSA EUROESTUDIOS SL Article 5 General Agreement
Consideration Price (Rs.)	Not Applicable 0 (Zero)
Second Party Stamp Duty Paid By Stamp Duty Amount(Rs.)	NATIONAL HIGHWAYS AUTHORITY OF INDIA TPF GETINSA EUROESTUDIOS SL TPF GETINSA EUROESTUDIOS SL 100 (One Hundred only)



MAY 200 Π अतः

 (क) ग्राहक ने परामर्शदाता से जैसा कि इस संविदा के साथ संलग्न सविंदा की सामान्य शर्तो में परिभाषित किया गया है, कुछ परामर्शी सेवाएं (जिसे इसमें इसके बाद "सेवाएं" कहा गया है) प्रदान करने का अनुरोध किया है;
 (ख) परामर्शदाता ने, ग्राहक को यह बताने के वाद कि उनके पास अपेक्षित व्यावसायिक कौशल, कार्मिक एवं तकनीकी

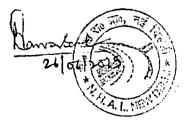
संसाधन उपलव्ध हैं, इस संविदा में विहित शर्तों पर सेवायें प्रदान करने के लिए अपनी सहमती दे दी है;

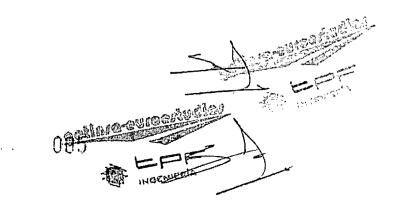
अतः अत्र दोनों पक्ष एतदद्वारा निम्नलिखित के लिए सहमत हो गए हैं :

- इसके साथ संलग्न निम्नलिखित दस्तावेज इस संविदा के अभिन्न अंग माने जायेंगे :-
- (क) संविदा की सामान्य शर्ते (जिसे इसमें इसके बाद "सा.श." कहा गया है);
- (ख) संविदा की विशेष शर्ते (जिसे इसमें इसके बाद "विं.श." कहा गया है);
- (ग) निम्नलिखित परिशिष्ट;
  - परिशिष्ट क: सेवाओं का विवरण |
  - परिशिष्ट ख: रिपोर्टिंग अपेक्षाएं |
  - परिशिष्ट ग: प्रमुख कार्मिक और उप परामर्शदाता |
  - परिशिष्ट घ: चिकित्सा प्रमाण पत्र |
  - परिशिष्ट ड: प्रमुख कार्मिको के कार्य के घंटे |
  - परिशिष्ट च: ग्राहक के दायित्व |
  - परिशिष्ट ज: स्थानीय मुद्रा में लागत अनुमान ।
  - परिशिष्ट झ: निष्पादन बैंक गारंटी का पपत्र l
  - परिशिष्ट ञ: अग्रिम शुगतानों के लिए बैंक गारंटी का प्रपत्र |
  - परिशिष्ट ट: आमंत्रण पत्र |
  - परिशिष्ट ठ: ठेका देने संबंधी पत्र |
  - परिशिष्ट ड: बोली-पूर्व बैठक का कार्यवृत्त |
  - परिशिष्ट ढ: समझौता ज्ञापन l

2. ग्राहक और परामर्शदाता के पारस्पारिक अधिकार और दायित्व संविदा करार में किये गए उल्लेख के अनुसार होंगे; विशेष रूप से:

- (क) परामर्शदाता संविदा में किये गए प्रावधानों के अनुसार सेवाएं प्रदान करेगा;
- (ख) ग्राहक संविदा में किये गए प्रावधानों के अनुसार परामर्शदाता को केवल स्थानीय मुद्रा में भुगतान करेगा ।





डमके साध्यस्वरूप दोनों पक्षों ने सम्बंधित नामो से इस करार पर पहले ऊपरलिखित तिथि और वर्ष को अपने-अपने हस्ताक्षर किए ।

साक्षी:

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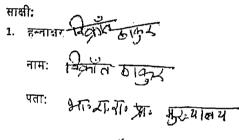
भारतीय राष्ट्रीय राजमार्ग प्राधिकरण के लिए और उसकी ओर से



(प्रशांत एन. गावसाने) महाप्रबंधक (तकनीकी) - ओडिशा भारतीय राष्ट्रीय राजमार्ग प्राधिकरण जी-5 एवं जी-6, सेक्टर-10, द्वारका, गई दिल्ली-110075 मेसर्स टी पी एफ जेटिन्सा यूरोस्टुडिब्रोस एस. एल. इन एसोसिएशन विद सेगमेंटल कन्सल्टिंग एंड इन्फ्रास्ट्रक्चर एडवाइजरी प्राइवेट लिमिटेड के लिए और उसकी ओर से,

NDEMERIA

(विवेक सुखवानी इग्लेसियस) पर गण्डकाडगांव अधिकृत हस्ताक्षरकर्ता मेसर्स टी पी एफ जेटिन्सा यूरोस्टुडिओस एस. एल. इन एसोसिएशन विद सेगमेंटल कन्सल्टिंग एंड इन्फ्रास्ट्रक्चर एडवाइजरी प्राइवेट लिमिटेड यूनिट नंचर 305, सनसिटी टॉवर, गोल्फ कोर्स रोड सेक्टर-54, गुड़गांव – 122002, हरियाणा



2. हस्ताक्षर कुर्वाध्वर्य नामः सि दान्त रसिंघई पताः भा रा रा भा नई दिल्ली

1. ERATBER June ATTE: States a, JIS UAT: 2-TEEN Stip, JSJ)A. 2. ERATBER Melandhaly ATTE: Shailendha Chaudhaly UATE: Sohna Rood, Gruga on



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# **II. GENERAL CONDITIONS OF CONTRACT**

Comments for the second

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#### 11. GENERAL CONDITIONS OF CONTRACT

#### 1. **General Provisions**

Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

#### 1.1 Definitions

- "Applicable Law" means the laws and any other instruments having the (a) force of law in the Government's country [or in such other country as may be specified in the Special Conditions of Contract (SC)], as they may be issued and in force from time to time.
- "Contract means the Contract signed by the Parties, to which these (b) General Conditions of Contract are attached, together with all the documents listed in Clause 1 of such signed Contract;
- "Effective Date' means the date on which this Contract comes into force (C) and effect pursuant to Clause GC 2.1;
- 'foreign currency' means any currency other than the currency of the (d) Government;
- 'GC means these General Conditions of Contract; (e)
- "Government" means the Government of Client's Country; (f)
- 'Local currency' means the Indian Rupees; (g)
- "Consultant" wherever mentioned in this Contract Agreement means the (h) "Independent Consultant (IE)" and includes and sub-consultants or Associates engaged by the primary consultant.
- "Member", in case the Consultants consist of a joint venture of more (i) than one entity, means any of these entities, and "Members" means all of these entities;
- "Party' means the Client or the Consultants, as the case may be, and (j) Parties means both of them;
- "Personnel" means persons hired by the Consultants or by any Sub-(k) Consultants and or Associates as Employees and assigned to the performance of the Services or any part thereof; "Foreign Personnel" means such persons who at the time of being so hired had their domicile outside the Government's Country, "Local Personnel" means such persons who at the time of being so hired had their domicile inside the Government's Country; and 'key personnel' means the personnel referred tokin Glause GC 4.2 (a).

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- (l) "SC" means the Special Conditions of Contract by which these General Conditions of Contract may be amended or supplemented;
- (m) "Services" means the work to be performed by the Consultants pursuant to his contract, as described in Appendix A hereto. The scope of work will be strictly as given in various Clauses in TOR. The approach and methodology to be adopted by the Consultant for carrying out the assignment as Independent Engineer may be modified depending on the site requirements and work programme of the Concessionaire after mutual discussions with NHAI, the Concessionaire and the Independent Engineer. The work plan as indicated by the Consultant may be modified accordingly to the site requirements.
- "Sub-consultant and or Associates " means any entity to which the Consultants subcontract any part of the Services in accordance with the provisions of Clause GC 3.7; and
- (0) "Third Party" means any person or entity other than the Government, the Client, the Consultants or a Sub-consultant.

#### 1.2 Relation between the Parties

Nothing contained herein shall be construed as establishing a relation of master and servant or of principal and agent as between the Client and the Consultants. The Consultants, subject to this Contract, have complete charge of Personnel and Sub- consultants, if any, performing the Services and shall be fully responsible for the Services performed by them or on their behalf hereunder.

#### 1.3 Law Governing Contract

This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Law.

#### 1.4 Language

This Contract has been executed in the language specified in the SC, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.

#### 1.5 Headings

The headings shall not limit, alter or affect the meaning of this

#### Contract. 1.6 Notices

1.6.1 Any notice, request or consent required or permitted to be given or made pursuant to this Contract shall be in writing. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the Party to whom the communication is

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addressed, or when sent by registered mail, telegram or facsimile to such Party at the address specified in the SC.

- 1.6.2 Notice will be deemed to be effective as specified in the SC.
- 1.6.3 A Party may change its address for notice hereunder by giving the other Party notice of such change pursuant to the provisions listed in the SC with respect to Clause GC 1.6.2.

#### 1.7 Location

The Services shall be performed at such locations as are specified in Appendix A hereto and, where the location of a particular task is not so specified, at such locations. whether in Government's Country or elsewhere, as the Client may approve.

#### 1.8 Authority of Member in Charge

In case the Consultants consist of a joint venture of more than one entity, the Members hereby authorize the entity specified in the SC to act on their behalf in exercising all the Consultants' rights and obligations towards the Client under this Contract, including without limitation the receiving of instructions and payments from the Client.

#### 1.9 Authorized Representatives

Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by the Client or the Consultants may be taken or executed by the officials specified in the SC.

#### 1.10 Taxes and Duties

Unless otherwise specified in the SC, the Consultants, Sub-consultants and Personnel shall pay such taxes, duties, fees and other impositions as may be levied under the Applicable Law. NHAI shall reimburse only Goods and service tax on production of project specific proof of payment of Goods and service tax.

#### 2. Commencement, Completion, Modification and Termination of Contract

#### 2.1 Effectiveness of Contract

This Contract shall come into force and effect on the date (the "Effective Date") of the Client's notice to the Consultants instructing the Consultants to begin carrying out the Services. This notice shall confirm that the effectiveness conditions, if any, listed in the SC have been met.



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## 2.2 Termination of Contract for Failure to Become Effective

If this Contract has not become effective within such time period after the date of the Contract signed by the Parties as shall be specified in the SC, either Party may, by not less than four (4) weeks' written notice to the other Party, declare this Contract to be null and void, and in the event of such a declaration by either Party, neither Party shall have any claim against the other Party with respect hereto.

#### 2.3 Commencement of Services

The Consultants shall begin carrying out the Services at the end of such time period after the Effective Date as shall be specified in the SC.

### 2.4 Expiration of Contract

Unless terminated earlier pursuant to Clause GC 2.9 hereof, this Contract shall expire when services have been completed and all payments have been made at the end of such time period after the Effective Date as shall be specified in the SC.

#### 2.5 Entire Agreement

This Contract contains all covenants, stipulations and provisions agreed by the Parties. No agent or representative of either Party has authority to make, and the Parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein.

#### 2.6 Modification

Modification of the terms and conditions of this Contract, including any modification of the scope of the Services, may only be made by written agreement between the Parties as the case may be, has been obtained. Pursuant to Clause GC 7.2 hereof, however, each Party shall give due consideration to any proposals for modification made by the other Party.

#### 2.7 Force Majeure

#### 2.7.1 Definition

(a) For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party, and which makes a Party's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible in the circumstances, and includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial action (except where such strikes, lockouts or other industrial action are within the

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power of the Party invoking Force Majeure to prevent), confiscation or any other action by government agencies.

(b) Force Majeure shall not include (i) any event which is caused by the negligence or intentional action of a party or such Party's Sub-consultants or agents or employees, nor (ii) any event which a diligent Party could reasonably have been expected to both (A) take into account at the .time of the conclusion of this Contract and (B) avoid or overcome in the carrying out of its obligations hereunder.

(C) Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

#### 2.7.2 No Breach of Contract

The failure of a Party to fulfill any of its obligations hereunder shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event has taken all reasonable precautions, due care" and reasonable alternative measures, all with the objective of carrying out the terms and conditions of this Contract.

#### 2.7.3 Measures to be Taken

- (a) A Party affected by an event of Force Majeure shall take all reasonable measures to remove such Party's inability to fulfill its obligations hereunder with a minimum of delay.
- (b) A Party affected by an event of Force Majeure shall notify the other Party of such event as soon as possible, and in any event not later than fourteen (14) days following the occurrence of such event, providing evidence of the nature and cause of such event, and shall similarly give notice of the restoration of normal conditions as soon as possible.
- (c) The Parties shall take all reasonable measures to minimize the consequences of any event of Force Majeure.

#### 2.7.4 Extension of Time

Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

#### 2.7.5 Payments

Revent of Force Majeure, the Consultants shall be entitled to be 230

Independent Engineer, Sarvices for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136:500 Section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

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reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the Services and in reactivating the Services after the end of such period.

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#### 2.7.6 Consultation

Not later than thirty (30) days after the Consultants, as the result of an event of Force Majeure, have become unable to perform a material portion of the Services, the Parties shall consult with each other with a view to agreeing on appropriate measures to be taken in the circumstances.

#### 2.8 Suspension

The Client may, by written notice of suspension to the Consultants, suspend all payments to the Consultants hereunder if the Consultants fail to perform any of their obligations under this Contract, including the carrying out of the Services, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the Consultants to remedy such failure within a period not exceeding thirty (30) days after receipt by the Consultants of such notice of suspension.

#### 2.9 Termination

#### 2.9.1 By the Client

The Client may, by not less than thirty (30) days' written notice of termination to the Consultants (except in the event listed in paragraph (f) below, for which there shall be a written notice of not less than sixty (60) days), such notice to be given after the occurrence of any of the events specified in paragraphs (a) through (h) of this Clause GC 2.9.1, terminate this Contract.

- (a) if the Consultants fail to remedy a failure in the performance of their obligations hereunder, as specified in a notice of suspension pursuant to Clause GC 2.8 hereinabove, within thirty (30) days of receipt of such notice of suspension or within such further period as the Client may have subsequently approved in writing;
- (b) if the Consultants become (or, if the Consultants consist of more than one entity, if any of their Members becomes) insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;
- (c) if the Consultants fail to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause GC 8 hereof;

(d) if the Consultants submit to the Client a statement which has a material effect on the rights, obligations or interests of the Client and which the Consultants know to be false:

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- if, as the result of Force Majeure, the Consultants are unable to perform (e) a material portion of the Services for a period of not less than sixty (60) days; or
- if the Client, in its sole discretion and for any reason whatsoever, decides (f) to terminate this Contract.
- if the consultant, in the judgment of the Client has engaged in corrupt or (g) fraudulent practices in competing for or in executing the Contract. For the purpose of this clause:

"corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the selection process or in contract execution.

"fraudulent practice" means a misrepresentation of facts in order to influence a selection process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among consultants (prior to or after submission of proposals) designed to establish prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition.

if Concessionaire represents to NHAI that the Consultant is not (h) discharging his duties in a fair, efficient and diligent manner and if the dispute remains unresolved, NHAI may terminate this contract.

#### 2.9.2 By the Consultants

The Consultants may, by not less than thirty (30) days' written notice to the Client, such notice to be given after the occurrence of any of the events specified in paragraphs (a) through (d) of this Clause GC 2.9.2, terminate this Contract:

- (a) if the Client fails to pay any money due to the Consultants pursuant to this Contract and not subject to dispute pursuant to Clause 8 hereof within forty-five (45) days after receiving written notice from the Consultants that such payment is overdue;
- if the Client is in material breach of its obligations pursuant to this (b) Contract and has not remedied the same within forty-five (45) days (or such longer period as the Consultants may have subsequently approved in writing) following the receipt by the Client of the Consultants' notice specifying such breach;
- if, as the result of Force Majeure, the Consultants are unable to perform (C) a material portion of the Services for a period of not less than sixty (60) days; or

(d) Whe client fails to comply with any final decision reached arbitration pursuant to Clause GC 8 hereof. B 232 NBAS

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#### 2.9.3 Cessation of Rights and Obligations

Upon termination of this Contract pursuant to Clauses GC 2.2 or GC 2.9 hereof, or upon expiration of this Contract pursuant to Clause GC 2.4 hereof, all rights and obligations of the Parties hereunder shall cease, except:

- (i) such rights and obligations as may have accrued on the date of termination or expiration;
- (ii) the obligation of confidentiality set forth in Clause GC 3.3 hereof;
- (iii) the Consultants' obligation to permit inspection, copying and auditing of their accounts and records set forth in Clause GC 3.6 (ii) hereof; and
- (iv) any right which a Party may have under the Applicable Law

#### 2.9.4 Cessation of Services

Upon termination of this Contract by notice of either Party to the other pursuant to Clauses GC 2.9.1 or GC 2.9.2 hereof, the Consultants shall, immediately upon dispatch or receipt of such notice, take all necessary steps to bring the Services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum. With respect to documents prepared by the Consultants and equipment and materials furnished by the Client, the Consultants shall proceed as provided, respectively, by Clauses GC 3.9 or GC 3.10 hereof.

#### 2.9.5 Payment upon Termination

Upon termination of this Contract pursuant to Clauses GC 2.9.1 or GC 2.9.2 hereof, the Client shall make the following payments to the Consultants (after offsetting against these payments any amount that may be due from the Consultant to the Client}:

- (a) remuneration pursuant to Clause GC 6 hereof for Services satisfactorily performed prior to the effective date of termination;
- (b) reimbursable expenditures pursuant to Clause GC 6 hereof for expenditures actually incurred prior to the effective date of termination; and
- (c) except in the case of termination pursuant to paragraphs (a) through (d) of Clause GC 2.9.1 hereof, reimbursement of any reasonable cost incident to the prompt and orderly termination of the Contract including the cost of the return travel of the Consultants' personnel and their eligible dependents.

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If either Party disputes whether an event specified in paragraphs (a) through (e) of Clause GC 2.9.1 or in Clause GC 2.9.2 hereof has occurred, such Party may, within forty-five (45) days after receipt of notice of termination from the other Party, refer the matter to arbitration pursuant to Clause GC 8 hereof, and this Contract shall not be terminated on account of such event except in accordance with the terms of any resulting arbitral award.

3. Obligation of the Consultants

#### 3.1 General

#### 3.1.1 Standard of Performance

The Consultants shall perform the Services and carry out their obligations hereunder with all due diligence, efficiency and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe and effective equipment, machinery, materials and methods" The Consultants shall always" act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to the Client, and shall at all times support and safeguard the Client's legitimate interests in any dealings with Sub-consultants or Third Parties.

#### 3.1.2 Law Governing Services

The Consultants shall perform the Services in accordance with the Applicable Law and shall take all practicable steps to ensure that any Sub- consultants and or Associates, as well as the Personnel of the Consultants and any Sub- consultants and or Associates, comply with the Applicable Law. The Client shall advise the Consultants in writing of relevant local customs and the Consultants shall, after such notifications, respect such customs.

#### 3.2 Conflict of Interests

### 3.2.1 Consultants Not to Benefit from Commissions, Discounts, etc.

The Remuneration of the Consultants pursuant to Clause GC 6 hereof shall constitute the Consultants' sole remuneration in connection with this Contract or the Services and, subject to Clause GC 3.2.2 hereof, the Consultants shall not accept for their own benefit any trade commission, discount or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations hereunder, and the Consultants shall use their best efforts to ensure that any Sub- consultants and or Associates, as well as the Personnel and agents of either of them, similarly shall not receive any such additional



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Independent Engineer/Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

3.2.2 If the Consultants, as part of the Services, have the responsibility of advising the Client on the procurement of goods, works or services, the Consultants shall comply with any applicable procurement guidelines of the Client (NHAI) and or Associates Bank or of the Association, as the case may be, and other funding agencies and shall at all times exercise such responsibility in the best interest of the Client. Any discounts or commissions obtained by the Consultants in the exercise of such procurement responsibility shall be for the account of the Client.

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## 3.2.3 Consultants and Affiliates Not to engage in Certain Activities

The Consultants agree that, during the term of this Contract and after its termination, the Consultants and any entity affiliated with the Consultants, as well as any Sub- consultant and or Associates and any entity affiliated with such Sub- consultant and or Associates, shall be disqualified from providing goods, works or services (other than the Services and any continuation thereof) for any project resulting from or closely related to the Services.

### 3.2.4 Prohibition of Conflicting Activities

The Consultants shall not engage, and shall cause their Personnel as well as their Sub-consultants and or Associates and their Personnel not to engage, either directly or indirectly, in any of the following activities:

- (a) during the term of this Contract, any business or professional activities in the Government's country which would conflict with the activities assigned to them under this Contract; and
- (b) after the termination of this Contract, such other activities as may be specified in the SC.

#### 3.3 Confidentiality

The Consultants, their Sub-consultants and the Personnel of either of them shall not, either during the term or within two (2) years after the expiration of this Contract, disclose any proprietary or confidential information relating to the Project, the Services, this Contract or the Client's business or operations without the prior written consent of the Client.

#### 3.4 Liability of the Consultants

Subject to additional provisions, if any, set forth in the SC, the Consultants' liability under this Contract shall be as provided by the Applicable Law.

### 3.5 Insurance to be Taken Out by the Consultants

The Consultants (i) shall take out and maintain, and shall cause any Subconsultants to take out and maintain, at their ( or the Sub-consultants as the an

Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole shadrak (km. 62.000 to km. 136.500), section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

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case may be) own cost but on terms and conditions approved by the Client, insurance against the risks, and for the coverages, as shall be specified in the SC, and (ii) at the Client's request, shall provide evidence to the Client showing that such insurance has been taken out and maintained and that the current premiums therefore have been paid.

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#### 3.6 Accounting, Inspection and Auditing

The Consultants (i) shall keep accurate and systematic accounts and records in respect of the Services, hereunder, in accordance with internationally accepted accounting principles and in such form and detail as will clearly identify all relevant time charges and cost, and the bases thereof (including such bases as may be specifically referred to in the SC); (ii) shall permit the Client or its designated representative periodically, and up to one year from the expiration or termination of this Contract, to inspect the same and make copies thereof as well as to have them audited by auditors appointed by the Client; and (iii) shall permit the client to inspect the Consultant's accounts and records relating to the performance of the Consultant and to have them audited by auditors appointed by the client.

#### Consultants' Actions Requiring Client's Prior Approval 3.7

The Consultants shall obtain the Client's prior approval in writing before taking any of the following actions:

- appointing such members of the Personnel as are listed in Appendix C (a) ("Consultants' Sub-consultants' Key Personnel") merely by title but not by name;
- entering into a subcontract for the performance of any part of the (b) Services, it being understood (i) that the selection of the Sub-consultant and the terms and conditions of the subcontract shall have been approved in writing by the Client prior to the execution of the subcontract, and (ii) that the Consultants shall remain fully liable for the performance of the Services by the Sub- consultant and its Personnel pursuant to this Contract; and
- any other action that may be specified in the SC (c)

#### 3.8 **Reporting Obligations**

The Consultants shall submit to the Client the reports and documents specified in Appendix B hereto, in the form, in the numbers and within the time periods set forth in the said Appendix.

#### 3.9 Documents Prepared by the Consultants to Be the Property of the Client

All plans, drawings, specifications, designs, reports, other documents and software prepared by the Consultants for the Client under this Contract shall become and remain the property of the Client, and the Consultants shall, not



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later than upon termination or expiration of this Contract, deliver all such documents to the Client, together with a detailed inventory thereof. The Consultants may retain a copy of such documents and software. Restrictions about the future use of these documents and software, if any, shall be specified in the SC.

## 3.10 Equipment and Materials Furnished by the Client

Equipment and materials made available to the Consultants by the Client, or purchased by the Consultants with funds provided by the Client, shall be the property of the Client and shall be marked accordingly. Upon termination or expiration of this Contract, the Consultants shall make available to the Client an inventory of such equipment and materials and shall dispose of- such equipment and materials in 'accordance with the Client's instructions. While in possession of such equipment and materials, the Consultants, unless otherwise instructed by the Client in writing, shall insure them at the expense of the Client in an amount equal to their full replacement value.

## 4. Consultants' Personnel and Sub-consultants and or Associates

#### 4.1 General

The Consultants shall employ and provide such qualified and experienced Personnel and Sub-consultants as are required to carry out the Services.

#### 4.2 Description of Personnel

- (a) The titles, agreed job descriptions, minimum qualification and estimated periods of engagement in the carrying out of the Services of each of the Consultants' Key Personnel are described in Appendix C. If any of the Key Personnel has already been approved by the clients his/her name is listed as well.
  - (b) If required to comply with the provisions of Clause GCC 3.1.1 hereof, adjustments with respect to the estimated periods "of engagement of Key Personnel set forth in Appendix C may be made by the Consultants by written notice to the Client, provided (i) that such adjustments shall not alter the originally estimated period of engagement of any individual by more than 10% or one week, whichever is larger, and (ii) that the aggregate of such adjustments shall not cause payments under this Contract to exceed the ceilings set forth in Clause GC 6.1(b) of this Contract. Any other such adjustments shall only be made with the Client's written approval.

(c) If additional work is required beyond the scope of the Services specified in Appendix A, the estimated periods of engagement of Key Personnel set forth in Appendix C may be increased by agreement in writing between the Chient and the Consultants, provided that any such increase shall not, except as otherwise agreed, cause payments under.

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this Contract to exceed the ceilings set forth in Clause GC 6.1 (b) of this Contract.

## 4.3 Approval of Personnel

The Key Personnel i.e. Professional Staff and Sub-consultants listed by title as well as by name in Appendix C are hereby approved by the Client. In respect of other Key Personnel which the Consultants propose, to use in the carrying out of the Services, the Consultants shall submit to the client for review and approval a copy of their biographical data and (in the case of Key personnel to be used within the country of the Government) a copy of a satisfactory medical certificate in the form attached hereto as Appendix D. If the Client does not object in writing (stating the reasons for the objection) within thirty (30) calendar days from the date of receipt of such biographical data and (if applicable) such certificate, such Key Personnel shall be deemed to have been approved by the Client.

## 4.4 Working Hours, Overtime, Leave, etc.

- (a) Working hours and holidays for Key Personnel are set forth in Appendix E hereto. To account for travel time, foreign Personnel carrying out Services inside the Government's country shall be deemed to have commenced (or finished) work in respect of the Services such number of days before their arrival in (or after their departure from) the Government's country as is specified in Appendix E hereto.
- (b) The Personnel of all types engaged by Consultant to provide Services on this Contract shall not be entitled to be paid for overtime nor to take paid sick leave or vacation leave <u>except as specified in Appendix E</u> hereto, and except as specified
- (c) In such Appendix, the Consultants' remuneration shall be deemed to cover these items. All leave to be allowed to the Personnel is included in the staff-months of service set for in <u>Appendix C</u>. Any taking of leave by Personnel shall be subject to the prior approval by the Client and the Consultants shall ensure that absence for leave purposes will not delay the progress and adequate supervision of the Services.

## 4.5 Removal and/or Replacement of Personnel

(a) Except as the Client may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Consultants, it becomes necessary to replace any of the Personnel, the Consultants shall forthwith provide as a replacement a person of equivalent or better qualifications.

(b) If the Client (i) finds that any of the Personnel has committed serious misconduct or has been charged with having committed a criminal action, the performance of any of the Personnel, then the Consultants shall, at the Client's written 238

Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km, Aby 500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

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request specifying the grounds therefore, forthwith provide as a replacement a person with qualifications and experience acceptable to the Client.

- Any of the Personnel provided as a replacement under Clauses (a) and (b) (C) above, the rate of remuneration applicable to such person as well as any reimbursable expenditures (including expenditures due to the number of eligible dependents) the Consultants may wish to claim as a result of such replacement, shall be subject to the prior written approval by the Client. Except as the Client may otherwise agree, (i) the Consultants shall bear all additional travel and other costs arising out of or incidental to any removal and/or replacement, and (ii) the remuneration to be paid to any of the Key Personnel provided as a replacement shall be 90% of the remuneration which would have been payable to the Key Personnel replaced. However, for the reason other than death/extreme medical ground, (i) for total replacement upto 33% of key personnel, remuneration shall be reduced by 5% (ii) for total replacement upto between 33% to 50%, remuneration shall be reduced by 10% and (iii) for total replacement upto between 50% to 66%, remuneration shall be reduced by 15% (iv) For total replacements beyond 66% of the key personnel the client shall initiate action of higher penalty/termination/debarment upto 2 years as considered appropriate.
- (d) In order to prevent the tendency of the personnel and consulting firm to submit incorrect and inflated CV, they should sign every page of CV before submission in order to authenticate that CV furnished by them is correct. The consulting firm and the personnel through consulting firm should be informed by NHAI while accepting CV of the new personnel that if CV is found in correct and inflated at a later date, the personnel accepted would be removed from his assignment and debarred from further NHAI works for for a period of three years and the new proposed personnel in place of removed personnel would be paid 15% less salary than the original personnel. 15% reduction in the salary will be imposed as a penalty for submitting the incorrect information. This penalty will be imposed only once. If the same consulting firm submits incorrect information again second time, necessary action will be taken by NHAI to black-list that firm.
- (e) In case of extension of contract, the Consultant can propose one time replacement of each key personnel without attracting any penalty or reduction in remuneration, subject to approval of the Authority taking into consideration the progress of work at site. Qualifications of replacements shall be better or equivalent to the original key personnel. Any further replacement will be governed as per contract provisions.

4.6 Resident Manager NGENIERIA 239 儲 Independent Engine Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. Services 62.000 to km. of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-5907 section Phase-V . . . . . 020

If required by the SC, the Consultants shall ensure that at all times during the Consultants' performance of the Services in the Government's country a resident project manager, acceptable to the Client, shall take charge of the performance of such Services.

### 5. Obligations of the Client

#### 5.1 Assistance and Exemptions

Unless otherwise specified in the SC, the Client shall use its best efforts to ensure that the Government shall:

- (a) provide the Consultants, Sub-consultants and Personnel with work permits and such other documents as shall be necessary to enable the Consultants, Sub- consultants or Personnel to perform the Services;
- (b) assist for the Personnel and, if appropriate, their eligible dependents to be provided promptly with all necessary entry and exit visas, residence permits, exchange permits and any other documents required for their stay in Government's country;
- (C) facilitate prompt clearance through customs of any property required for the Services and of the personal effects of the Personnel and their eligible dependents;
- (d) issue to officials, agents and representatives of the Government all such instructions as may be necessary or appropriate for the prompt and effective implementation of the Services;
- (e) assist the Consultants and the Personnel and any Sub-consultants and or Associates employed by the Consultants for the Services from any requirement to register or obtain any permit to practice their profession or to establish themselves either individually or as a corporate entity according to the Applicable Law;
- (f) grant to the Consultants, any Sub-consultants and or Associates and the Personnel of either of them the privilege, pursuant to the Applicable Law, of bringing into Government's country reasonable amounts of foreign currency for the purposes of the Services or for the personal use of the Personnel and their dependents and of withdrawing any such amounts as may be earned therein by the Personnel in the execution of the Services: and
- (g) Provide to the Consultants, Sub-consultants and or Associates and Personnel any such other assistance as may be specified in the SC.

#### 5.2 Access to Land

The Client warrants that the Consultants shall have, free of charge; unimpededaccess to all land in the Government's country in respect of which access is required for the performance of the Services. The Client will be responsible

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Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136,500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

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for any damage to such land or any property thereon resulting from such access and will indemnify the Consultants and each of the Personnel in respect of liability for any such damage, unless such damage is caused by the default or negligence of the Consultants or any Sub-consultant or the Personnel of either of them.

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#### 5.3 Change in the Applicable Law

If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties which increases or decreases the cost or reimbursable expenses incurred by the Consultants in performing the Services, then the remuneration and reimbursable expenses otherwise payable to the Consultants under this Contract shall be increased or decreased accordingly by agreement between the Parties hereto, and corresponding adjustments shall be made to the ceiling amounts specified in Clause GC 6.1(b).

#### 5.4 Services, Facilities and Property of the Client

The Client shall make available to the Consultants and the Personnel, for the purposes of the services and free of any charge, the services, facilities and property described in Appendix F at the times and in the manner specified in said Appendix F, provided that if such services, facilities and property shall not be made available to the Consultants as and when so specified, the Parties shall agree on (i) any time extension that it may be appropriate to grant to the Consultants for the performance of the Services, (ii) the manner in which the Consultants shall procure any such services, facilities and property from other sources, and (iii) the additional payments, if any, to be made to the Consultants as a result thereof pursuant to Clause GC 6.1(c) hereinafter.

#### 5.5 Payment

In consideration of the Services performed by the Consultants under this Contract, the Client shall make to the Consultants such payments and in such manner as is provided by Clause GC 6 of this Contract.

#### 5.6 Counterpart Personnel

(a) If so provided in Appendix F hereto, the Client shall make available to the Consultants, as and when provided in such Appendix F, and free of charge, such counterpart personnel to be selected by the Client, with the Consultants' advice, as shall be specified in such <u>Appendix F</u>. Counterpart personnel shall work under the exclusive direction of the Consultants. If any member of the counterpart personnel fails to perform adequately any work assigned to him by the Consultants which are consistent with the position occupied by such - member, the Consultants



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Independent Engineer Services/for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km, 196,500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

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may request the replacement of such member, and the Client shall not unreasonably refuse to act upon such request.

(b) If counterpart personnel are not provided by the Client to the Consultants as and when specified in Appendix F, the Client and the Consultants shall agree on (i) how the affected part of the Services shall be carried out, and (ii) the additional payments, if any, to be made by the Client to the Consultants as a result thereof pursuant to Clause GC 6.1(c) hereof.

#### 6. Payments to the Consultants

## 6.1 Cost Estimates; Ceiling Amount

- (a) An estimate of the cost of the Services payable in local currency is set forth in Appendix G .
- (b) Except as may be otherwise agreed under Clause GC 2.6 and subject to Clause GC 6.1(c), payments under this Contract shall not exceed the ceilings in local currency specified in the SC. The Consultants shall notify the Client as soon as cumulative charges incurred for the Services have reached 80% of either of these ceilings.
- (c) Notwithstanding Clause GC 6.1(b) hereof, if pursuant to clauses GC 5.3,5.4 or 5.6 hereof, the Parties shall agree that additional payments in local currency, shall be made to the Consultants in order to cover any necessary additional expenditures not envisaged in the cost estimates referred to in Clause GC 6.1(a) above, the ceiling or ceilings, as the case may be, set forth in Clause GC 6.1 (b) above shall be increased by the amount or amounts, as the case may be, of any such additional payments.

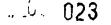
## 6.2 Remuneration and Reimbursable Expenditures

- Subject to the ceilings specified in Clause GC 6.1 (b) hereof, the Client shall pay to the Consultants (i) remuneration as set forth in Clause GC 6.2(b), and (ii) reimbursable expenditures as set forth in Clause GC 6.2(c). If specified in the SC, said remuneration shall be subject to price adjustment as specified in the SC.
- (b) Remuneration for the Personnel shall be determined on the basis of time actually spent by such Personnel in the performance of the Services after the date determined in accordance with Clause GC 2.3 and Clause SC 2.3 (or such other date as the Parties shall agree in writing) (including time for necessary travel via the most direct route) at the





Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V



rates referred to, and subject to such additional provisions as are set forth, in the SC.

(c) Reimbursable expenditures actually and reasonably incurred by the Consultants in the performance of the Services, as specified in the SC.

## 6.3 Currency of Payment

- (a) Local currency payments shall be made in the currency of the Government.
- (b) The SC shall specify which items of remuneration and reimbursable expenditures shall be paid, respectively, in local currency,

## 6.4 Mode of Billing and Payment

Billing and payments in respect of the Services shall be made as follows:

- (a) The Client shall cause to be paid to the Consultants an interest bearing advance payment as specified in the SC, and as otherwise set forth below. The advance payment will be due after provision by the Consultants to the Client of a bank guarantee by a bank acceptable to the Client in an amount (or amounts) and in a currency (or currencies) specified in the SC, such bank guarantee (I) to remain effective until the advance payment has been fully set off as provided in the SC, and (ii) to be in the form set forth in Appendix I hereto or in such other form as the Client shall have approved in writing.
- (b) As soon as practicable and not later than fifteen (15 days) after the end of each calendar month during the period of the Services, the Consultants shall submit to the Client, in duplicate, itemized statements, accompanied by copies of receipted invoices, vouchers and other appropriate supporting materials, of the amounts payable pursuant to Clauses GC 6.3 and 6.4 for such month. Monthly statements shall be submitted in respect of amounts payable in local currency. Each such separate monthly statement shall distinguish that portion of the total eligible costs which pertains to remuneration from that portion which pertains to reimbursable expenditures.
- (c) 75% of bill raised by the consultant shall be paid within 72 Hrs and remaining bill may be paid after due scrutiny. The Client shall cause the payment of the Consultants periodically as given in schedule of payment above within thirty (30) days after the receipt by the Client of bills with supporting documents.

(d) Only such portion of a monthly statement that is not satisfactorily supported may be withheld from payment. Should any discrepancy be found to exist between actual payment and costs authorized to be sneurred by the Consultants, the Client may add or subtract the difference from any subsequent payments. Interest at the rate specified

Independent Engineer, pervices for Rehabilitation & upgradation of four lane to six laning of Chandikhole: Bhadrak (km. 62.000 to km. 136.500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

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in the SC shall become payable as from the above due date on any amount due by, but not paid on. such due date.

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- (e) The final payment under this Clause shall be made only after the final report and a final statement, identified as such, shall have been submitted by the Consultants and approved as satisfactory by the Client. The Services shall be deemed completed and finally accepted by the Client and the final report and final statement shall be deemed approved by the Client as satisfactory ninety (90) calendar days after receipt of the final report and final statement by the Client unless the Client, within such ninety (90)-day period, gives written notice to the Consultants specifying in detail deficiencies in the Services, the final report or final statement. The Consultants shall thereupon promptly make any necessary corrections, and upon completion of such corrections, the foregoing process shall be repeated. Any amount which the Client has paid or caused to be paid in accordance with this Clause in excess of the amounts actually payable in accordance with the provisions of this Contract shall be reimbursed by the Consultants to the Client within thirty, (30) days after receipt by the Consultants of notice thereof. Any such claim by the Client for reimbursement must be made within twelve (12) calendar months after receipt by the Client of a final report and a final statement approved by the Client in accordance with the above.
- (f) All payments under this Contract shall be made to the account of the Consultants specified in the SC.

#### 7. Fairness and Good Faith

#### 7.1 Good Faith

The Parties undertake to act in good faith with respect to each other's rights under this Contract and to adopt all reasonable measures to ensure the realization of the objectives of this Contract.

### 7.2 Operation of the Contract

The Parties recognize that it is impractical in this Contract to provide for every contingency which may arise during the life of the Contract, and the Parties hereby agree that it is their intention that this Contract shall operate fairly as between them, and without detriment to the interest of either of them, and that, if during the term of this Contract either Party believes that this Contract is operating unfairly, the Parties will use their best efforts to agree on such action as may be necessary to remove the cause or causes of such unfairness, but no failure to agree on any action pursuant to this Clause shall give rise to a dispute subject to arbitration in accordance with Clause GC 8 hereof.



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#### 8.1 Amicable Settlement

The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or the interpretation thereof.

#### 8.2 Dispute Settlement

Any dispute between the Parties as to matters arising pursuant to this Contract which cannot be settled amicably within thirty (30) days after receipt by one Party of the other Party's request for such amicable settlement may be submitted by either Party for settlement in accordance with the provisions specified in the SC

#### 9. Fake CV

If any case of fake/incorrect/inflated CV is found, it shall be dealt with very severely and would result in all possible penal action including blacklisting from future projects of NHAI. This would also apply even when the consulting firm is not successful in getting the assignment. In case CV of a person is turned out to be fake/incorrect/inflated during the assignment, the consultancy firms will have to refund the salary and perks drawn including interest @12% per annum in respect of the person apart from other consequences. In addition to above, 10% of the salary and perks to be refunded shall be recovered from the Firm as penalty.

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Independent Engineer, Services, for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62,000 to km. 136,500)/section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

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# **III. SPECIAL CONDITIONS OF CONTRACT**

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#### III. SPECIAL CONDITIONS OF CONTRACT

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<u>GC Clause</u>

- A. Amendments of, and Supplements to, Clauses in the General Conditions of Contract
- 1.1 (a). The words" in the Government's country" are amended to read 'in INDIA"
- 1.4 The language is: English
- 1.6.1 The addresses are:

Client	:	National Highways Authority of India G-5 & G-6, Sector 10, Dwarka New Delhi 110075
Attention	:	Mr. Prashant N. Gawasane
Designation	:	General Manager (Tech) Odisha
Cable address	:	E-mail: prashant@nhai.org
Telex	:	Tel: - 011-25074100, 25074200
Fax		Fax: - 011-250093507
Consultant	:	TPF GETINSA EUROESTUDIOS, S.L. SPAIN Nº8, Ramon de Aguinaga Road - 28028 Madrid, Spain in association with Segmental Consulting and Infrastructure Advisory Pvt. Ltd. Unit No. 421, Spaze I Tech Park Sector 49, Sohna Road Gurgaon-122002 (Haryana) INDIA
	:	Vivek Sukhwani Iglesias
Attention		Authorised Representative
		TPF GETINSA EUROESTUDIOS, S.L. SPAIN
		TPF GETINSA EUROESTUDIOS, S.L. SPAIN Unit 305 Golf Course Road / Suncity Business Tower
Cable address	:	Unit 305 Golf Course Road / Suncity Business Tower
Cable address Telex	:	Unit 305 Golf Course Road / Suncity Business Tower Sector 54 Gurgaon - Haryana
	-	Unit 305 Golf Course Road / Suncity Business Tower Sector 54 Gurgaon - Haryana india.central@tpfingenieria.com
Telex	:	Unit 305 Golf Course Road / Suncity Business Tower Sector 54 Gurgaon - Haryana india.central@tpfingenieria.com +91 124 408 7153
Telex Facsimile	:	Unit 305 Golf Course Road / Suncity Business Tower Sector 54 Gurgaon - Haryana <u>india.central@tpfingenieria.com</u> +91 124 408 7153 +91-124 421 3016 Unit 305 Golf Course Road / Suncity Business Tower

1.6.2 Notice will be deemed to be effective as follows:

(b)

- (a) In the ase of personal delivery or registered mail, on delivery;

telexes, 24 hours following confirmed transmission;

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- (c) In the case of telegrams, 24 hours following confirmed transmission; and
- (d) In the case of facsimiles, 24 hours following confirmed transmission.
- 1.8 The Member in Charge is:

(Note: If the Consultants consist of a joint venture of more than one entity, the name of the entity whose address is specified in SC 1.6.1 should be inserted here. If the Consultants consist of one entity, this Clause 1.8 should be deleted from the SC)

#### 1.9 The Authorised Representatives are:

For the Client	:	National Highways Authority of India
For the Consultants	:	Vivek Sukhwani Iglesias TPF GETINSA EUROESTUDIOS, S.L. SPAIN Unit 305 Golf Course Road / Suncity Business Tower, Sector 54 Gurgaon – Haryana, in association with Segmental Consulting and Infrastructure Advisory Pvt. Ltd. Unit No. 421, Spaze i tech park Sector 49, Sohna Road Gurgaon-122002 (Haryana) INDIA

- 1.10 The Consultants, Sub-consultants and the Personnel shall pay the taxes, duties, fees, levies and other impositions levied under the existing, amended or enacted laws during life of this contract and the client shall perform such duties in regard to the deduction of such tax as may be lawfully imposed.
- 2.1 The effectiveness conditions are the following:
  - i) Approval of the Contract by the client
- 2.2 The time period shall be <u>four months</u> or such other time period as the parties may agree in writing.
- 2.3 The time period shall be <u>one month</u> or such other time period as the Parties may agree in `writing.
- 2.4 The time period shall be <u>36 months (3 Months for Development Period, 30 month for construction</u> period and <u>3 months for O&M period</u>)

## 3.4 Limitation of the Consultants' Liability towards the Client

- a. Except in case of gross negligence or willful misconduct on the part of the Consultants or on the part of any person or firm acting on behalf of the Consultants in carrying out the Services, the Consultants, with respect to damage caused by the Consultants to the Client's property, shall not be liable to the Client:
  - i) For any indirect or consequential loss or damage; and
- ii) Consultant will maintain at its expenses; Professional Liability Insurance including coverage for errors and omissions caused by Consultant's negligence in the performance of its duties under this agreement, (A) For the amount not exceeding total payments for Professional Fees and Reimbursable Expenditures made or expected to be made to the Consultants hereunder OR (B) the proceeds, the Consultants may be entitled to receive from any insurance maintained by the Consultants to cover such a liability, whichever of (A) or (B) is higher.
  - iii) The policy should be issued only from an Insurance Company operating in India,

iv) The patroy must clearly indicate the limit of indemnity in terms of "Any-One Accident" (AOA) and "Aggregate limit on the policy period" (AOP) and in no case should be for an amount less than stated in the contract.

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- v) If the Consultant enters into an agreement with Employer in a joint venture or 'in association', the policy must be procured and provided to Employer by the joint venture/in association entity and not by the individual partners of the joint venture / association.
- vi) The contract may include a provision thereby the Consultant does not cancel the policy midterm without the consent of Employer. The insurance company may provide an undertaking in this regard.
- b. This limitation of liability shall not affect the Consultants' liability, if any, for damage to Third Parties caused by the Consultants or any person or firm acting on behalf of the Consultants in carrying out the Services.
- c. Professional Liability Insurance may be accepted for initially one year which shall be extended annually for five years. PLI shall be uniformly taken for a period of five years.

#### 3.5 The risks and the coverage shall be as follows

- (a) Third Party motor vehicle liability insurance as required under Motor Vehicles Act, 1988 in respect of motor vehicles operated in India by the Consultants or their Personnel or any Subconsultants or their Personnel for the period of consultancy.
- (b) Third Party liability insurance with a minimum coverage, of Rs. 1.0 million for the period of consultancy.
- (c) Professional liability insurance as per 3.4 (a) (ii) of SC of the consultancy, with a minimum coverage equal to estimated remuneration and reimbursable.
- (d) Employer's liability and workers' compensation insurance in respect of the Personnel of the Consultants and of any Sub-consultant, in accordance with the relevant provisions of the Applicable Law, as well as, with respect to such Personnel, any such life, health, accident, travel or other insurance as may be appropriate; and
- (e) Insurance against loss of or damage to (i) equipment purchased in whole or in part with funds provided under this Contract, (ii) the Consultants' property used in the performance of the Services, and (iii) any documents prepared by the Consultants in the performance of the Services.
- 3.7 (c) the other actions are
- "(i) taking any action under a civil works contract designating the Consultants as "Authority's Engineer", for which action, pursuant to such civil works contract, the written approval of the Client as "Employer" is required".
- 3.9 The Consultants shall not use these documents for purposes unrelated to this Contract without the prior written approval of the Client.
- 4.6 "The person designated as Team Leader cum Sr. Highway Engineer in Appendix C shall serve in that capacity, as specified in Clause GC 4.6."
- 6.1(b) The amount payable Indian Rupee is: INR 8,07,15,099/- (Indian Rupees Eight Crores Seven Lakhs Fifteen Thousand Ninety Nine Only/-) Plus Service Tax payable in India.
- 6.2(a) "Payments for remuneration and reimbursable items made in accordance with Clause GC 6.2 (a) in local currency shall be adjusted as follows:
  - (i) Consultants shall be paid billing rates for services rendered by the personnel of all categories namely (i) key Personnel; (ii) sub-Professional personnel and (iii) Support staff on man-month basis. Billing rates of remaining items of the financial proposal, namely (i) transportation, (ii) Duty travel to site (iii) Office Rent, (iv) office supplies communication etc (v) reports & document printing and (vi) survey equipment etc shall be worked out month wise as per actual expenditure. Beginning 13th months from the last date of submission of bid, billing rates shall be increased to cover all items of contract i.e. remuneration, vehicle hire, office rent, consumables, furniture etc @ 5% every 12 months. However, for evaluation and award of the Bid proposals, the quoted initial rate (as applicable for first 12 months from last date of submission of bid) shall be multiplied by the total time input for each position on this contract, i.e. without considering the increase in the billing rates. All payments shall be made in Indian Rupees and shall be subjected to applicable industry.

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(ii) Remuneration paid pursuant to the rates set forth in Appendix G shall be adjusted every twelve (12) months (and, the first time, with effect for the billing rates earned in the 13th calendar month after the last date of submission of bid) by 5% every 12 month for personnel.

Notwithstanding any other provisions in the agreement in this regard, this provision will prevail and override any other provision to the contrary in this agreement.

- 6.2(b) (i) (1) Payment of Authority Engineer shall be released on approval of the monthly reports. Report shall be approved by the Authority only if it includes all the sections prescribed in the format and submitted as per specified timelines.
  - (2) Payment shall be released as per rates quoted in Appendix C3- Breakup of Local currency costs
  - (3) For equipment based road inspection to be conducted in O&M phase, payment shall be released as per actual use of equipment on road and rates quoted in Appendix C3- Breakup of Local currency costs.
  - (4) If any of the report is found to be misleading or containing incorrect information as determined by the Authority, 10% of payment linked to that report shall be deducted as penalty
  - (5) It is understood (i) that the remuneration rates shall cover (A) such salaries and allowances as the Consultants shall have agreed to pay to the Personnel as well as factors for social charges and overhead, and (B) the cost of backstopping by home office staff not included in the Personnel listed in Appendix C, and (C) the Consultants' fee; (ii) that bonuses or other means of profit-sharing shall not be allowed as an element of overhead, and (iii) that any rates specified for persons not yet appointed shall be provisional and shall be subject to revision, with the written approval of the Client, once the applicable salaries and allowances are known.
  - (6) Remuneration for periods of less than one month shall be calculated on an hourly basis for actual time spent in the Consultants' home office and directly attributable to the Services (one hour being equivalent to 1/240th of a month) and on a calendar-day basis for time spent away from home office (one day being equivalent to 1/30th of a month).
- 6.2(b) (ii) The rates for foreign & local Personnel are set forth in Appendix G.
- 6.3 (a) Deleted.
- 6.3(b)(i) Remuneration for local Personnel shall be paid in local currency.
- 6.4(a) The following provisions shall apply to the interest bearing advance payment and the advance payment guarantee:
  - An advance payment. of 10% of the contract price in proportion to the quoted Indian currency (INR) in the bid shall be made within 60 days after receipt and verification of advance payment bank guarantee. The advance payment will be set off by the Client in equal instalments against the statements for the first 12 months of the Service until the advance payment has been fully set off.
  - 2) The bank guarantee shall be in the amount and in the currency of the advance payment
  - 3) Interest rate shall be 10% per annum (on outstanding amount) for local currency.
- 6.4 (c) The interest rate is 6% per annum for local currency.
- 6.4(e) The accounts are:

For Local currency:

Bank





: HDFC Bank : 110240111 : 50200002106708 : Current Account : Getinsa – Payma S. L.

IFSC Code	: HDFC0000622
Address	: SCO -7, Sector 31-32 A, Main Market, Gurgaon-122001,
	Haryana

#### For Segmental Consulting and Infrastructure Advisory Pvt. Ltd.

Bank	: HDFC BANK LTD.
Account no.	: 50200038229797
Type of Account	: Current Account
Beneficiary	: SEGMENTAL CONSULTING & INFRASTRUCTURE
	ADVISORY PVT LTD
IFSC Code	: HDFC0009408
Address	: UGF 102, The Paradise Mall, Uppal Southern, Sector 49
	Gurgaon 122001, Haryana, INDIA

[Note: Insert account number, type of account and name and address of the Bank]

8.2 Disputes shall be settled by arbitration in accordance with the following provisions:

#### 8.2.1 Selection of Arbitrators

Each dispute submitted by a Party to Arbitration shall be heard by a sole arbitrator. NHAI shall within 30 days propose names of five (5) Arbitrators from the list of Arbitrators maintained by SAROD (Society for Affordable Redressal of Disputes) and Consultant shall within 30 days select one name from the list of five and the name so selected by the Consultant shall be the Sole Arbitrator for the matter in dispute. In case NHAI delays in providing the list of 5 names, President, SAROD will provide 5 names within 30 days of receipt of reference from aggrieved party in this regard. In case the Consultant fails in selecting one from the list of five, President, SAROD shall select one from the list of five provided by NHAI within 30 days of receipt of reference from aggrieved party in this regard.

#### 8.2.2 Rules of Procedure

Arbitration proceedings shall be conducted in accordance with the procedures of the Arbitration and Conciliation (Amendment) Act, 2015 of India unless the Consultant is a foreign national/ firm, where arbitration proceedings shall be conducted in accordance with the rules of procedure of arbitration of the United Nations Commission on International Trade Law (UNCITRAL) as in force on the date of this Contract.

#### 8.2.3 Substitute Arbitrators

If for any reason an arbitrator is unable to perform his function, a substitute shall be appointed in the same manner as the original arbitrator.

#### 8.2.4 **Qualifications of Arbitrators**

The list of five and the sole arbitrator selected pursuant to Clause 8.2.1 hereof shall be expert(s) with extensive experience in relation to the matter in dispute.

#### 8.2.5 Miscellaneous

In any arbitration proceeding hereunder:

- (a) Proceedings shall, unless otherwise agreed by the parties, be held in Delhi.
- (b) The English language shall be the official language for all purposes;
- (c) The decision of sole arbitrator shall be final and binding and shall be enforceable in any court of competent jurisdiction, and the Parties hereby waive any objections to or claims of immunity in respect of such enforcement; and

d) Ege structure shall be as given below:



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SI No.	Particulars	Maximum amount payable per Arbitrator/ per case*
1	Arbitrator fee	Rs. 25,000/- per day Or Rs 7 lacs (lump sum) subject to publishing the award within 6 months. Or Rs. 5 lakhs (Lump-sum) subject to publishing the Award after 6 months but before 12 months. Note:- The amount of fees already paid for the days of hearing @ Rs. 25,000/- would be adjusted in the lump- sum payment.
2	Reading Charges	Rs 25,000/- per Arbitrator per case including counter claim.
3	Secretarial Assistance and Incidental charges (telephone, fax, postage etc.)	Rs 20,000/-
4	Charges for Publishing /déclaration of the Award	Rs. 35,000/-
	Other expenses (As per actuals against bills subject to maximum of the prescribed ceiling given below)	
	Traveling Expenses	Economy class (By air), First Class AC (by train) and AC Car (By Road)
	Lodging and Boarding	a. Rs 15,000/- per day (in metro cities) b. Rs 7,000/- per day (in other cities) c. Rs 3,000/- per day, if any Arbitrator makes their own arrangements.
6	Local Travel	Rs. 1500/- per day
7	Extra charges for days other than hearing/meeting days (maximum for 2 days)	Rs. 5,000/- per day for outside Arbitrator
Note	<ol> <li>Lodging, boarding and travelling expenses shall be allowed only for those meml who are residing 100 kms away from place of meeting.</li> <li>Delhi, Mumbai, Chennai, Kolkata, Bangalore and Hyderabad shall be considered Metro cities.</li> </ol>	



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IV. APPENDICES

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# APPENDIX-A Description of the Services

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## SECTION 6: TERMS OF REFERENCE FOR INDEPENDENT ENGINEER 1.

#### Scope

- 1.1. These Terms of Reference for the Independent Engineer (the "TOR") are being specified pursuant to the Concession Agreement dated ...... (the "Agreement"), which has been entered into between the Authority and ...... (the "Concessionaire") for [Four-Laning and subsequent Six-Laning] of the ****section (km ** to km **) of National Highway No. ** in the State on Hybrid Annuity Mode (HAM), and a copy of which is annexed hereto and marked as Annex-A to form part of this TOR.
- 1.2. This TOR shall apply to construction, operation and maintenance of the [Four-Lane] Project Highway, and shall apply, *mutatis mutandis*, to [Six-Laning] thereof.

#### 2. Definitions and interpretation

- 2.1. The words and expressions beginning with or in capital letters used in this TOR and not defined herein but defined in the Agreement shall have, unless repugnant to the context, the meaning respectively assigned to them in the Agreement.
- 2.2. References to Articles, Clauses and Schedules in this TOR shall, except where the context otherwise requires, be deemed to be references to the Articles, Clauses and Schedules of the Agreement, and references to Paragraphs shall be deemed to be references to Paragraphs of this TOR.
- 2.3. The rules of interpretation stated in Clauses 1.2, 1.3 and 1.4 of the Agreement shall apply, *mutatis mutandis*, to this TOR.

## 3. Role and functions of the Independent Engineer

- 3.1. The role and functions of the Independent Engineer shall include the following:
  - i. review of the Drawings and Documents as set forth in Paragraph 4;
  - ii. review, inspection and monitoring of Construction Works as set forth in Paragraph 5;
  - iii. conducting Tests on completion of construction and issuing Completion/ Provisional Certificate as set forth in Paragraph 5;
  - iv. review, inspection and monitoring of O&M as set forth in Paragraph 6;
  - v. review, inspection and monitoring of Divestment Requirements as set forth in Paragraph 7;

vi. determining, as required under the Agreement, the costs of any works or services and or their reasonableness;

Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhöle¹¹ Bhådrak (km. 62.000 to km. 138.500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

- vii. determining, as required under the Agreement, the period or any extension thereof, for performing any duty or obligation;
- viii. assisting Authority in review and inspection of the books of accounts submitted by the Concessionaire to the Authority and the records maintained by Concessionaire as set forth in Paragraph 12
- ix, providing all requisite data on monthly basis in Monthly Progress Report (MPR) within a period of 7 days from the close of month, as required by Authority, for updating the project specific website and PMIS substantially in the format prescribed at Annexure - I and Annexure - II
- x. assisting the Parties in resolution of disputes as set forth in Paragraph 9;
- xi. carrying out minor design works such as design of drainage, blackspot removal design, etc upon request of Authority; and
- xii. undertaking all other duties and functions in accordance with the Agreement.
- **3.2.** The Independent Engineer shall discharge its duties in a fair, impartial and efficient manner, consistent with the highest standards of professional integrity and Good Industry Practice.

#### 4. Development Period

- 4.1. During the Development Period, the Independent Engineer shall undertake a detailed review of the Drawings to be furnished by the Concessionaire along with supporting data, including the geo-technical and hydrological investigations, characteristics of materials from borrow areas and quarry sites, topographical surveys and traffic surveys. The Independent Engineer shall complete such review and send its comments/observations to the Authority and the Concessionaire within 30 (thirty) days of receipt of such Drawings. In particular, such comments shall specify the conformity or otherwise of such Drawings with the Scope of the Project and Specifications and Standards.
- 4.2. The Independent Engineer shall review any modified Drawings or supporting Documents sent to it by the Concessionaire and furnish its comments within 15 (fifteen) days of receiving such Drawings or Documents.
- 4.3. The Independent Engineer shall review the Drawings sent to it by the Safety



Independent Engineer, Sel Figure 167, Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V



Consultant in accordance with Schedule-L and furnish its comments thereon to the Authority and the Concessionaire within 15 (fifteen) days of receiving such Drawings. The Independent Engineer shall also review the Safety Report and furnish its comments thereon to the Authority within 30 (thirty) days of receiving such report.

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- 4.4. The Independent Engineer shall review the detailed design, construction methodology and the procurement, engineering and construction time schedule sent to it by the Concessionaire and furnish its comments within 30 (thirty) days of receipt thereof.
- 4.5. Quality Assurance Manual and Plan forms the basis of quality of the work. It is therefore essential that the Quality Assurance Manual and Plan prepared by the Concessionaire be checked and approved. Thus, the Consultant shall check contents of Quality Assurance Plan and Manual of Concessionaire as per requirements of Quality Management System (as per ISO 9001), IRC: SP: 47-1998 and IRC: SP: 57-2000 for road bridges and roads respectively. The Consultant shall also offer their comments for modifying/ improving the document. After receiving the corrected document, the Consultant shall review and formally approve the QAM and Quality Plan and send one copy to the Authority.

#### 5. Construction Period

- 5.1. In respect of the Drawings, Documents and Safety Report received by the Independent Engineer for its review and comments during the Construction Period, the provisions of Paragraph 4 shall apply, mutatis mutandis.
- 5.2. The Independent Engineer shall review the monthly progress report furnished by the Concessionaire and send its comments thereon to the Authority and the Concessionaire within 7 (seven) days of receipt of such report.
- 5.3. On a daily basis, the concerned key personnel of Independent Engineer shall inspect the Construction Works. Following activities need to be undertaken during the visits.

Review of construction including progress, quality and safety of construction

Inspection of defects and deficiencies in construction works

Witnessing quality inspection tests at labs established by Concessionaire on a sample basis

Review of quality of work shall be done in reference to Quality Assurance Plan (QAP)/Manual and ISO 9001:2008, IRC: SP: 47-1998 and IRC: SP: 57-2000 for road bridges and roads respectively. The consultant also needs to capture following documents and send to NHAI field office via email on a daily basis

Scanned copy of filled RFI (Request for Inspection) form including commentary on 'Satisfactory/Unsatisfactory' nature of work completed by Concessionaire Daily inspection report Proforma as provided in Annexure I Readings of quality inspection tests witnessed by the Consultant 73 Nogewice IA

Independent Engine Services (or Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (Km. 62,000 to km. 136,5001 edition of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V Minimum 6 high resolution photographs supporting the remarks made by the Consultant in RFI form

Team Leader will be responsible for sending daily emails to NHAI field office

5.4. On a monthly basis, the Independent Engineer shall prepare a Monthly Inspection Report in accordance with the format prescribed in Annexure V setting forth an overview of the status, progress, quality and safety of construction, including the work methodology adopted, the materials used and their sources, and conformity of Construction Works with the Scope of the Project and the Specifications and Standards. In a separate section of the Inspection Report, the Independent Engineer shall describe in reasonable detail the lapses, defects or deficiencies observed by it in the construction of the Project Highway. The Independent Engineer shall send a copy of its Inspection Report to the Authority and the Concessionaire latest by 7th of every month. Key sections of the Monthly Progress Report are as follows.

S No.	Section	Sub-Sections
		1.1 Construction progress in current month
5	Executive Summary	1.2 Summary of strip plan
1		1.3 Detailed strip plan
		1.4 Current issues and recommended actions by IE
		2.1 Salient Features of the Project
2	Project Overview	2.2 Project Milestones
L	Project Overview	2.3 Location Map
		2.4 Key Plan
3	Critical issues and Action log	3.1 Pending issues and action log
	Childran issues and Action log	3.2 Obligations as per contract
4	Physical Progress	4.1 Detailed physical progress by component
	Land Acquisition and Clearances	5.1 LA summary
		5.2 LA detail by CALA
5		5.3 LA detail by village
-		5.4 Manpower with each CALA
		5.5 Clearances summary
		5.6 Status of utility shifting
5	Change of Scope	6.1 Status of pending CQS proposals
Ø		74 gradation of four lane to six laning of Chandikhole - Bhadra

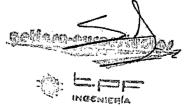
62,000 to km. 130,500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-

S No.	Section	Sub-Sections
7	Mobilization of Resources	7.1 Resource mobilization by contractor/ concessionaire
8	Financial Progress Details	8.1 Pen picture- Escrow
<u> </u>		8.2 Escrow details
9	Summary of quality control	9.1 Tests witnessed by IE/AE
	tests	9.2 Tests conducted by IE/AE
		10.1 Critical issues and action log
10	Monitoring of maintenance obligations during construction phase	10.2 Cumulative defects and deficiencies
	construction phase	10.3 Status of damages
11	Safety features	11.1 Pen picture on safety features at construction site
		11.2 Accident report
12		Annex 1: Detailed list of physical components as per Schedule G
12		Annex 2 onwards: Additional details provided by IE

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5.5. The Inspection Report shall also contain a review of the maintenance of the existing lanes. Condition survey of the existing highway shall be carried with network survey vehicle at the interval of six months to ascertain that the highway is generally in the same condition as reported in the Network Survey Vehicle (NSV) report of DPR consultant as per conditions of the agreement. For determining that the Construction Works conform to Specifications and Standards, the Independent Engineer shall require the Concessionaire to carry out, or cause to be carried out, tests on a sample basis, to be specified by the Independent Engineer in accordance with Good Industry Practice for quality assurance. For purposes of this Paragraph 5.5, the tests specified in the IRC Special Publication-11 (Handbook of Quality Control for Construction of Roads and Runways) and the Specifications for Road and Bridge Works issued by MORTH (the "Quality Control Manuals") or any modification/substitution thereof shall be deemed to be tests conforming to Good Industry Practice for quality assurance. The Independent Engineer shall issue necessary directions to the Concessionaire for ensuring that the tests are conducted in a fair and efficient manner, and shall monitor and review the results thereof. The sample size of the tests shall comprise 20% (twenty per cent) of the quantity or number of tests prescribed for each category or type of tests in the Quality Control Manuals.





Independent Engine Services (b) / Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136:500)/section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

5.6. The timing of tests referred to in Paragraph 5.5 and 5.6, and the criteria for acceptance/ rejection of their results shall be determined by the Independent Engineer in accordance with the Quality Control Manuals. The tests shall be undertaken on a random sample basis and shall be in addition to, and independent of, the tests that may be carried out by the Concessionaire for its own quality assurance in accordance with Good Industry Practice.

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- 5.7. In the event that the Concessionaire carries out any remedial works for removal or rectification of any defects or deficiencies, the Independent Engineer shall require the Concessionaire to carry out, or cause to be carried out, tests to determine that such remedial works have brought the Construction Works into conformity with the Specifications and Standards, and the provisions of this Paragraph 5 shall apply to such tests.
- 5.8. In the event that the Concessionaire fails to achieve any of the Project Milestones, the Independent Engineer shall undertake a review of the progress of construction and identify potential delays, if any. If the Independent Engineer shall determine that completion of the Project Highway is not feasible within the time specified in the Agreement, it shall require the Concessionaire to indicate within 15 (fifteen) days the steps proposed to be taken to expedite progress, and the period within which the Project Completion Date shall be achieved. Upon receipt of a report from the Concessionaire, the Independent Engineer shall review the same and send its comments to the Authority and the Concessionaire forthwith.
- 5.9. If at any time during the Construction Period, the Independent Engineer determines that the Concessionaire has not made adequate arrangements for the safety of workers and Users in the zone of construction or that any work is being carried out in a manner that threatens the safety of the workers and the Users, it shall make a recommendation to the Authority forthwith, identifying the whole or part of the Construction Works that should be suspended for ensuring safety in respect thereof.
- 5.10. In the event that the Concessionaire carries out any remedial measures to secure the safety of suspended works and Users, it may, by notice in writing, require the Independent Engineer to inspect such works, and within 3 (three) days of receiving such notice, the Independent Engineer shall inspect the suspended works and make a report to the Authority forthwith, recommending whether or not such suspension may be revoked by the Authority
- 5.11. If suspension of Construction Works is for reasons not attributable to the Concessionaire, the Independent Engineer shall determine the extension of dates set forth in the Project Completion Schedule, to which the Concessionaire is reasonably entitled, and shall notify the Authority and the Concessionaire of the same
- 5.12. The Independent Engineer shall carry out all the Tests specified in Schedule-I and issue a Completion Certificate or Provisional Certificate, as the case may be. For carrying out its functions under this Paragraph and all matters incidental thereto, the Independent Engineer shall act under and in accordance with the provisions of Article 14 and Schedule-I. The Consultant shall use following equipment in carrying



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Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 13655007 section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

S No	Key metrics of Asset	Equipment to be used
1	Surface defects of pavement	Network Survey Vehicle (NSV)
2	Roughness of pavement	Laser Profilometer
3	Strength of pavement	Falling Weight Reflectometer (FWD)
4	Bridges	Mobile Bridge Inspection Unit (MBIU)
5	Road signs and road markings	Retro-reflectometer

5.13.Upon reference from the Authority, the Independent Engineer shall make a fair and reasonable assessment of the costs of providing information, works and services as set forth in Article 16 and certify the reasonableness of such costs for payment by the Authority to the Concessionaire

5.14. The Independent Engineer shall aid and advise the Concessionaire in preparing the Maintenance Manual.

#### 6. Operation Period

- 6.1. The Independent Engineer shall review the annual Maintenance Programme furnished by the Concessionaire and send its comments thereon to the Authority and the Concessionaire within 15 (fifteen) days of receipt of the Maintenance Programme.
- 6.2. The Independent Engineer shall review the monthly status report furnished by the Concessionaire and send its comments thereon to the Authority and the Concessionaire within 7 (seven) days of receipt of such report

## 6.3. Visual Inspection of project highway

6.3.1. The Independent Engineer shall carry out visual inspection of entire highway stretch as per the frequency defined in the following table

		Frequency of inspection
ROA	DS	
(a)	Carriageway and paved shoulders	
(i)	Breach or blockade	Daily
(ii)	Pot holes	Daily
(iii)	Cracking	Weekly
(iv)	Rutting	Weekly
(y)	Bleeding	Weekly
Indeper 62,000 V	ident Engineer Scripter for Rehabilitation & upgradation of four lane to six laning of to km. 136.500 section of HHLS in the state of Odisha to be executed on Hybrid (anni H.A.I.	Chandikhole - Bhadrak (km. uity) mode under NHDP-Phase-

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Nature of defect or deficiency		Frequency of inspection	
(vi)	Ravelling/Stripping of bitumen surface	Weekly	
(vii)	Damage to pavement edges	Weekly	
(viii)	Removal of debris	Daily	
(b)	Hard/earth shoulders, side slopes, drains and culverts		
(i)	Variation by more than 2% in the prescribed slope of camber/cross fall	Weekly	
(ii)	Edge drop at shoulders	Weekly	
(iii)	Variation by more than 15% in the prescribed side (embankment) slopes	Weekly	
(iv)	Rain cuts/gullies in slope	Weekly	
(v)	Damage to or silting of culverts and side drains during and immediately preceding the rainy season	Weekly	
(vi)	Desilting of drains in urban/semi-urban areas	Daily	
(c)	Road side furniture including road signs and pavement r	narking	
(i)	Damage to shape or position;	Daily	
	poor visibility or loss of retro-reflectivity		
(d)	Street lighting and telecom (ATMS)		
(i)	Any major failure of the system	Daily	
<u>(ii)</u>	Faults and minor failures	Daily	
<u>(iii)</u>	Streetlight with Lux Meter	Weekly	
(e)	Trees and plantation	1	
(i)	Obstruction in a minimum head-room of 5 m above carriageway or obstruction in visibility of road signs	Daily	
(ii)	Deterioration in health of trees and bushes	Weeklý	
(iii)	Replacement of trees and bushes	Weekly	
(iv)	Removal of vegetation affecting sight line and road structures	Weekly	
(f )	Rest areas/Wayside amenities	- <b>-</b>	
(i)	Cleaning of toilets	Daily	
(ii)	Defects in electrical, water and sanitary installations	Daily	
(g)	Toll plaza[s]	icm-Stored	
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Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole Bhadrak (km. 62.000 to km. 136.500) section of NH25 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

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Natu	re of defect or deficiency	Frequency of inspection
(i)	Failure of toll collection equipment including ETC or lighting	Daily
(ii)	Damage to toll plaza	Weekly
(h)	Other Project Facilities and Approach roads	-
(i)	Damage or deterioration in Approach Roads, -[pedestrian facilities, truck lay-bys, bus-bays, bus- shelters, cattle crossings, Traffic Aid Posts, Medical Aid Posts and other works]	Daily
(j)	Incident Management	
(i)	Instances of Incident Management as reported including time of call, response time, services rendered and time of clearing of the Highway.	Daily
(ii)	List of the Incident Management Services rendered.	Weekly
BRID	GES	
(a)	Superstructure of bridges	
(i)	Cracks	Weekly
(ii)	Spalling/scaling	Weekly
(b)	Foundations of bridges	
(i)	Scouring and/or cavitation	Weekly
(c)	Piers, abutments, return walls and wing walls of bridges	
(i)	Cracks and damages including settlement and tilting	Weekly
(d)	Bearings (metallic) of bridges	
(i)	Deformation	Weekly
<u>(e)</u>	Joints in bridges	
(i)	Loosening and malfunctioning of joints	Weekly
(f)	Other items relating to bridges	
(i)	Deforming of pads in elastomeric bearings	Weekly
(ii)	Gathering of dirt in bearings and joints; or clogging of spouts, weep holes and vent-holes	Weekly
(iii)	Damage or deterioration in parapets and handrails	Weekly
(iv)	Rain-cuts or erosion of banks of the side slopes of approaches	Weekly
(v)	Damage to weating coat	Weekly (
(vi)	Damageon deterioration in approach slabs, pitching, apron	Weekly

Independent Engineer Services for Benabilitation & upgradation of four lane to six laning of Chandikhole -Bhadrak. (km. 62.000 to km. 136.500) service of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

Natu	re of defect or deficiency	Frequency of inspection
	toes, floor or guide bunds	
(vii)	Growth of vegetation affecting the structure or obstructing the waterway	Weekly

- 6.3.2. All elements which have daily inspection frequency shall be inspected weekly as well. Similarly, all elements which have weekly inspection frequency shall be inspected monthly as well.
- 6.3.3. Daily inspection report format and weekly inspection report format has been provided in Annexure II and III of this document respectively. Manpower which needs to conduct visual inspection and mode of reporting is defined in the following table

Frequency of inspection	Inspection to be carried out by	Mode of reporting
Daily	Sub-professional staff	Soft copy by Email
Weekly	Key personnel	Soft copy by Email
Monthly	Key personnel	Hard copy and Soft copy

- 6.3.4. High resolution photographs and video of the highway stretches having defects and/or deficiencies shall be submitted along with Weekly Inspection Report and Monthly Status Report. Summary of key observations around defects and deficiencies in highway stretch shall be reported in Monthly Progress Report and detailed inspection report shall be provided as Annexure to Monthly Progress Report.
- 6.3.5. The consultant shall also be responsible for inspection and monitoring of Wayside Amenities. ETC (Electronic Toll Collection) and ATMS (Advanced Traffic Management System) and incident management.

#### 6.4. Road conditions surveys

6.4.1. The carrying out of condition surveys will be one of the most important and crucial field tasks under the project. The Independent Engineer shall carry out condition surveys using equipment and following a frequency as defined under



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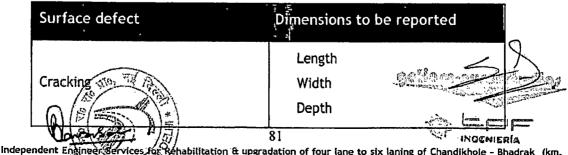
0 140	Asset	Equipment to be used	condition survey
 1	Surface defects of	Network Survey Vehicle	At least twice a year (As per survey months
	pavement	(NSV)	defined for the state basis rainy season)
	Roughness of		At least twice a year (As
2	pavement	Laser Profilometer	per survey months defined for the state basis rainy season)
3	Strength of	Falling Weight	At least once a year
	pavement	Reflectometer (FWD)	
			At least twice a year (As
4	Bridges	Mobile Bridge Inspection Unit (MBIU)	per survey months defined for the state basis rainy season)
5	Road signs	Retro-reflectometer	At least twice a year (As per survey months defined for the state basis rainy season)

The first equipment based inspection shall be conducted at the time of completion testing. The other inspections shall be conducted before and after the rainy seasons as per the schedule defined in Annexure IV, except for FWD testing which shall be conducted once a year.

Calibration of equipment, wherever needed, is required to be done in presence of Competent Authority. Once approval of equipment, the settings and a sample data set is provided by Competent Authority, network level data for entire project stretch can be collected. Month of survey for each state has been defined in Annexure IV of this document.

### 6.4.2. Measurement of pavement surface defects and roughness

i. The Independent Engineer shall use Network Survey Vehicles mounted with equipment such as Laser based automatic crack detection, high resolution digital cameras for RoW and pavement, high accuracy DGPS receiver and in vehicle data processing software or better technology to accurately measure following pavement surface properties



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Surface defect	Dimensions to be reported
Potholes	Area Depth
Raveling	Indicator % Area
Rutting	Depth Width
Concrete Joint/ Faulting	Length
Roughness	IRI in both wheel paths

ii. The following criteria shall be met by the process of defects detection

> Measurement of 3D road profile using such technologies as laser scanning or other proven technologies.

Ability to operate (collect data) at different speeds with a minimum speed of 40km/h.

Profile depth accuracy of 0.5mm

Capability for lane tracking to control driver wander' and ensure high repeatability of data between surveys.

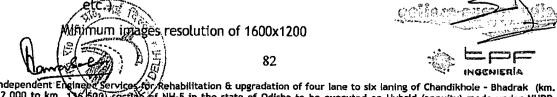
Measure at least 3.5m width of highway lane.

Transverse Profile including rut depth measurement of pavement surface widths of both carriageway and shoulders. The rut depth data must be convertible to different straightedge lengths (1.8m to 3.5m) and meet industry standards (ASTM E1703 / E1703M).

Pavement images with capability to automatically identify and rate distresses

Roughness measurement with outputs of both raw longitudinal profiles and International Roughness Index (IRI) calculation shall be reported at least 100m referenced to the preceding Location Reference Post (LRP). The roughness must meet ASTM-E950 (equivalent to Class I road profiler). The IRI shall be determined in both wheelpaths.

Ability to record images at user-defined intervals (e.g. every 5,



Independent Engineed Services for Rehabilitation & upgradation of four lane to six laning of Changikhole - Madrid (1.000) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-  $0 \Lambda \Lambda$ 

Outputs must include Standard JPEG image or similar industry standard Distance resolution of <1mm,

Capable of achieving distance accuracy of 0.1% (i.e. within 1m over 1km distance)

All data outputs should be in a non-proprietary format (e.g., CSV, .MDB, Excel) and not require specialist software in order to view or format data

Data should also be capable of being easily formatted into data compatible

with HDM-4

iii. The following are the set of deliverables which should be submitted after completion of survey as part of Monthly Progress Report

> Raw data generated from the equipment which are part of Network Survey covering the parameters mentioned in above table. It should also include

o Survey ID, Description, Date, Lane o

GPS referenced data for GIS mapping

Video logging

Pavement imagery (AVI/JPEG)

360 degree imagery (JPEG)

Interpretation report covering summary of entire survey and analysis of defects and deficiencies

#### 6.4.3. Measurement of pavement strength

- i. The Independent Engineer shall carry out structural strength surveys for existing pavements using Falling Weight Deflectometer technique in accordance with the procedure given in IRC:115-2014 (Guidelines for Structural Evaluation and Strengthening of Flexible Road Pavements Using Falling Weight Deflectometer (FWD) Technique) and IRC: 117-2015 (Guidelines for the Structural Evaluation of Rigid Pavement by Falling Weight Deflectometer)
- The interval at which deflection measurements are to be taken up are as per ii. IRC:115-2014. The sample size and the interval of the data to be collected depends on the length of the uniform section calculated and condition of the pavement section i.e 'good', 'fair' and 'poor' for each lane, established on the pavement condition data based on the criterion given in IRC:115-2014. For rigid pavements, the deflection data may be collected at interiors, corners, transverse joints and longitudinal joints in the outer lanes at intervals as specified in IRC:117-2015.

iii. The following are the set of deliverables which should be submitted after completion of inspection test as part of Monthly Progress Report 83 Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole Independ - Bhadra (km 62.000 to km 500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V H. A. I. 045

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Data report covering following parameters

o Deflection Bowl (Transient Deflections at seven different points)

- Corrected Elastic Modulus Bituminous E1
- o Corrected Elastic Modulus Granular E2
- Corrected Elastic Modulus Subgrade E3
- Subgrade CBR

Interpretation report covering summary of entire survey results and analysis of key parameters

- 6.4.4. The Independent Engineer shall carry out the condition and structural assessment survey of the bridges in accordance with IRC-SP; 35 with the use of Mobile Bridge Inspection unit (MBIU) or better technology.
- The following criteria shall be met by the process of bridge condition assessment i.

Automatic folding and unfolding of

platform 90 degree rotation of platform

Sufficient safety features to be incorporated such as dedicated power supply, emergency cut off system, etc.

Complete access to hidden parts of the bridge by the raters

Detailed bridge inspection report shall be submitted as per the Inspection ii. Proforma provided in IRC-SP 35

#### 6.4.5. Measurement of retroreflection of road signs

- The Independent Engineer shall measure Coefficient of retroreflected luminance i.  $R_A$  (nighttime retroreflection) of road traffic signs using a portable retroreflectometer.
- The following criteria shall be met by the process of roadsigns retroreflection ii. measurement

Measurement of retroreflective signs shall be conducted in accordance with ASTM E1709 and ASTM E2540

Measurement time after pressing trigger shall be less than or equal to 1

sec Observation angle adjustment from 0.2 degrees to 2.0 degrees

Entrance angle adjustment from -45 degrees to +45 degrees

Self-contained commercially available battery

Inbuilt data storage of at least 2,000 measurements so that data transfer requirement is minimized while the survey is being conducted

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Interface for transferring data from device to Computer

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Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

Built in GPS to capture GPS coordinates of road

sign Range shall be at least 0-2000  $cd/lx/m^2$ 

The following are the set of deliverables which should be submitted after iii. completion of survey as part of Monthly Progress Report

> System generated coefficient of retroreflected luminance RA (nighttime retroreflection) of all road signs

> Interpretation report covering analysis of road signs falling in different range of  $R_A$  and actions to be taken

- 6.5. The Independent Engineer shall carry out following inspections of ETC lanes at toll plazas on a month basis:
  - (a) Infrastructure:

Availability of civil infrastructure at toll plazas required for installation of ETC systems Adequacy of hardware, software and other related items as per IHMCL/NHAI technical specifications and requirements

b) Operations:

Phase-V

Adherence of various stakeholders (acquirer bank, system integrator, toll operator, issuer bank etc) of the ETC system to the service level agreements Efficacy of the ETC system (RFID tagging, AVC, WIM etc) in terms of accuracy and uptime

Tracking and reporting toll plaza experience metrics such as average waiting time, transaction times for different modes of payment (RFID, cash, smart cards, QR codes etc) and congestion levels (eg length of queue in different lanes) across 4 different times in a day Robustness of dispute resolution mechanisms in place for the tag holder and toll operators by the issuer and acquirer banks

6.6. The Independent Engineer shall prepare a Monthly Status Report in O&M phase of project in respect of its duties and functions under this Agreement and in accordance with the format prescribed in Annexure VI. 1st deliverable of the report which is an executive summary to the main report (Section 1) shall be submitted to the Authority and updated on the PMIS and project specific website by 4th of every month. Main report (Section 2 onwards) shall be submitted to the Authority and updated on the PMIS and project specific website by 7th of every month. Key sections of the Monthly Status Report are as follows,

S.No	Sections	Sub secti	ons
1	Executive Summary	1.1 Overall road condition	
		1.2 Key reporting metrics	
		1.3 Key maintenance activi	ities under <u>take</u> n
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ndepend	ent Engliseer Services for Rehabilita	tion & upgradation of four lane to six laning he state of Odisha to be executed on Hyb	g of Chandikhole - Bhadrak (km.

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.No	Sections	Sub sections
		1.4 Pending issues
4 40.00 A		1.5 Recommended actions by AE
		1.6 Strip plan for maintenance
		2.1 Key project details
	Project Overview	2.2 Location map
2		2.3 Key plan
		2.4 Summary of project features
		2.5 RoW availability
		3.1 Issue and action log
	Critical issues and action taken	3.2 Summary of deficiencies
3		3.3 Obligations as per contract
		3.4 Inspection schedule
		4.1 Summary of NCR issued
4	Monthly Inspection Report	4.2 Equipment based inspection report
		5.1 Monthly ETC Report
5	Monitoring of ETC Lanes	5.2 On-ground infrastructure report
		5.3 On ground ETC operations & SLA adherence
		6.1 Damages for non completion of project facilities
5	Status of damages	6.2 Damages for breach of maintenance activities
		6.3 Damages for non completion of major maintenance works
7	Change of Scope proposals	7.1 Change of Scope proposals
8	Status of pending disputes	8.1 Status of pending disputes
		9.1 Toll collection statement
		9.2 Accident Report
9	Reports	9.3 Details of user complaints
	1510, 718 3	9.4 Encroachment list

Independent Engineer be vices for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) Settium of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

S.No	Sections	Sub sections	20	MAY 2024
10	Annexures	Annex I- Detailed visual inspection report of project highway	COL	RTOFC
		Annex II onwards- Additional details provided by AE		

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6.7. The Independent Engineer shall in its O&M Inspection Report specify the tests, if any, that the Concessionaire shall carry out or cause to be carried out for the purpose of determining that the Project Highway is in conformity with the Maintenance Requirements. It shall monitor and review the results of such tests and the remedial measures, if any, taken by the Concessionaire in this behalf.

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- 6.8. In respect of any defect or deficiency referred to in Paragraph 3 of Schedule-K, the Independent Engineer shall, in conformity with Good Industry Practice, specify the permissible limit of deviation or deterioration with reference to the Specifications and Standards and shall also specify the time limit for repair or rectification of any deviation or deterioration beyond the permissible limit.
- 6.9. The Independent Engineer shall determine if any delay has occurred in completion of repair or remedial works in accordance with the Agreement, and shall also determine the Damages, if any payable by the Concessionaire to the Authority for such delay.
- 6.10. The Independent Engineer shall examine the request of the Concessionaire for closure of any lane(s) of the carriageway for undertaking maintenance/repair thereof, keeping in view the need to minimise disruption in traffic and the time required for completing such maintenance/repair in accordance with Good Industry Practice. It shall grant permission with such modifications, as it may deem necessary, within 3 (three) days of receiving a request from the Concessionaire. Upon expiry of the permitted period of closure, the Independent Engineer shall monitor the re-opening of such lane(s), and in case of delay, determine the Damages payable by the Concessionaire to the Authority under Clause 17.7.
- 6.11. The Independent Engineer shall monitor and review the curing of defects and deficiencies by the Concessionaire as set forth in Clause 19.4.
- 6.12. In the event that the Concessionaire notifies the Independent Engineer of any modifications that it proposes to make to the Project Highway, the Independent Engineer shall review the same and send its comments to the Authority and the Concessionaire within 15 (fifteen) days of receiving the proposal.
- 6.13. Upon request of Authority, the Independent Engineer shall carry out minor design works such as design of drainage, blackspot removal design, etc
- 6.14 The Independent Engineer shall undertake traffic sampling, as and when required by the Authority, under and in accordance with Concession Agreement .....

7. Termination

87 Ervices for Rehapfilitation & upgradation of four lane to six laning of Chandikhole Bhadrak (km. Independent Engineer 62.000 to km. 136.500) sention of NHO in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-H. A. I.,

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- 7.1. At any time, not earlier than 90 (ninety) days prior to Termination but not later than 15 (fifteen) days prior to such Termination, the Independent Engineer shall, in the presence of a representative of the Concessionaire, inspect the Project Highway for determining compliance by the Concessionaire with the Divestment Requirements set forth in Clause 38.1 and, if required, cause tests to be carried out at the Concessionaire's cost for determining such compliance. If the Independent Engineer determines that the status of the Project Highway is such that its repair and rectification would require a larger amount than the sum set forth in Clause 39.2, it shall recommend retention of the required amount in the Escrow Account and the period of retention thereof.
- 7.2. The Independent Engineer shall inspect the Project Highway once in every 15(fifteen) days during a period of 90 (ninety) days after Termination for determining the liability of the Concessionaire as per Concession Agreement, in respect of the defects or deficiencies specified therein. If any such defect or deficiency is found by the Independent Engineer, it shall make a report in reasonable detail and send it forthwith to the Authority and the Concessionaire.

#### 8. Determination of costs and time

- 8.1. The Independent Engineer shall determine the costs, and/or their reasonableness, that are required to be determined by it under the Agreement.
- 8.2. The Independent Engineer shall determine the period, or any extension thereof, that is required to be determined by it under the Agreement.

#### 9. Assistance in Dispute resolution

- 9.1. When called upon by either Party in the event of any Dispute, the Independent Engineer shall mediate and assist the Parties in arriving at an amicable settlement.
- **9.2.** In the event of any disagreement between the Parties regarding the meaning, scope and nature of Good Industry Practice, as set forth in any provision of the Agreement, the Independent Engineer shall specify such meaning, scope and nature by issuing a reasoned written statement relying on good industry practice and authentic literature.

#### 10. Other duties and functions

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The Independent Engineer shall perform all other duties and functions specified in the Agreement.

#### 11. Miscellaneous

11.1. All key personnel and sub professional staff of the Independent Engineer shall use the fingerprint based (biometric) attendance system for marking their daily attendance. Attendance shall be marked at least once a day and anytime during the day. 1 Biometric Attendance System shall be installed by the Independent Engineer at its own cost at the site office in order to facilitate the attendance marking. More systems can be installed near the project highway upto a maximum of 1 system per 50 km in order to encourage frequent visits of project highway by key personnel and sub professional staff A copy of monthly attendance records shall be attached with

Independent Engineer, services for Renabilitation & upgradation of four lane to six laning of Chalidikhole - Biladrak (km. 62.000 to km. 136.500) Section 47.14-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

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Monthly Status Report. Proper justification shall be provided for cases of absence of key personnel/ sub professional staff which do not have prior approval from Project Director of concerned stretch

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- 11.2. The Independent Engineer shall notify its programme of inspection to the Authority and to the Concessionaire, who may, in their discretion, depute their respective representatives to be present during the inspection.
- 11.3. A copy of all communications, comments, instructions, Drawings or Documents sent by the independent Engineer to the Concessionaire pursuant to this TOR, and a copy of all the test results with comments of the Independent Engineer thereon shall be furnished by the Independent Engineer to the Authority forthwith.
- 11.4. The Independent Engineer shall obtain, and the Concessionaire shall furnish in two copies thereof, all communications and reports required to be submitted, under this Agreement, by the Concessionaire to the Independent Engineer, whereupon the Independent Engineer shall send one of the copies to the Authority along with its comments thereon.
- 11.5. The Independent Engineer shall retain at least one copy each of all Drawings and Documents received by it, including 'as-built' Drawings, and keep them in its safe custody.
- **11.6.** Upon completion of its assignment hereunder, the Independent Engineer shall duly classify and list all Drawings, Documents, results of tests and other relevant records, and hand them over to the Authority or such other person as the Authority may specify, and obtain written receipt thereof. Two copies of the said documents shall also be furnished in micro film form or in such other medium as may be acceptable to the Authority.

#### 12. Assistance to Authority in review of book of accounts

12.1. Upon receipt of copy of books of accounts from Authority, the Independent Engineer shall review the Escrow account statements with respect to the provisions of the Escrow agreement, books of accounts for information pertaining (a) the traffic count (b) Fee determination thereof, and (c) Project costs, and (d) such other information relating or resulting from other duties and functions of Independent Engineer in accordance with the Agreement, as the Authority may reasonably require and submit its report within 10 days.

#### 13. PERFORMANCE CLAUSE

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Independent Engineers shall be expected to fully comply with all the provisions of the 'Terms of Reference', and shall be fully responsible for supervising the Designs, Construction and maintenance and operation of the facility takes place in accordance with the provisions of the Concession Agreement and other schedules. Any failure of the Independent Consultant in notifying to NHAI and the Concessionaire on non-compliance of the provisions of the Concession Agreement and other schedules by the Concessionaire, non-adherence to the provision of ToR and non-adherence to the time schedule prescribed under ToR shall amount to non-performance.

89 I, ß ginee Services for Rehabilitation & upgradation of four lane to six laning of Chandikhote Bhadrak (km. (36,500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Independent Engineer 62.000 to km. N. H. A. I. Phase-V N51

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The Independent Engineer shall appoint its authorized representative, who shall issue on behalf of the IE, the Provisional Completion Certification and Completion Certificate along with the Team Leader and shall carry out any such task as may be decided by NHAI. The IE shall take prior approval of NHAI before issuing Provisional Completion Certification and Completion Certificate. The proposal submitted shall also include the name of the authorized representative along with the authorization letter and power of attorney.

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#### 14. CONSULTANT'S PROPOSAL

- List of key personnel to be fielded by the Consultants shall be as below: 14.1.
  - i. Team Leader Cum Senior Highway Engineer
  - ii. Resident cum Highway Engineer
  - Bridge/Structural Engineer iii.
  - Senior Pavement Specialist iv.
  - Senior Quality cum Material Expert ۷.
  - **Road Safety Expert** vi.

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enclosed as Enclosure-B. However, higher marks shall be accorded to the Candidate with higher relevant gualification and experience. The Consultant should feel free to submit their proposal on the basis of the man-months which they consider to be necessary to undertake the assignment. All the CV's of the personals mentioned in Para 5.3 (iii) of Data Sheet shall be evaluated at the time of evaluation of technical proposal. The age of the Key Personnel should not be more than 65 years on the date of submission of proposal. Consultants are advised in their own interest to frame the technical proposal in an objective manner as far as possible so that these could be properly assessed in respect of points to be given as part of evaluation criteria. The bio-data of the key personnel should be signed on every sheet by the personnel concerned and the last sheet of each bio-data should also be signed by the authorised signatory for the Consultant. The key personnel shall also certify at the end of their bio-data proforma that they have not left any of the NHAI works without completing of their assignment and have not accepted any other offer at the time of signing of the bio-data and as such shall be available to work with the Independent Consultant, if the Project is awarded. In case the key personnel leaves the assignment without approval of NHAI, NHAI would be at liberty to take any appropriate action against that key personnel including debarment.

14.3. In addition to above, consultants are required to propose other key personnel, subprofessional staff and other field engineers as detailed in Enclosure-A and minimum qualification requirements for the same is enclosed in Enclosure-B

Server a EF 31 Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole Bhadrak (km. 62.000 to km. 136,500) section 1.15 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V Phase-V

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- 15.1. The services of an Independent Engineer will be in phases as per Contract / Concession Agreement.
  - 15.1.1. The appointment of the Independent Engineer shall initially be as per details given below.

The proposed manpower deployment for this period shall be matching the activities to be performed during the said period. The time frame for services during the deployment of key personnel during this period shall be as shown in Enclosure A.

### 16. PERFORMANCE SECURITY

The successful consulting firm shall have to submit a Bank Guarantee (BG) for an amount of 2.50% of the Contract Value within 15 days of issue of LOA. The BG shall be valid for a period upto 2 months beyond the expiry of the Contract period . The BG shall be in the format specified in Appendix H of draft contract form and furnished from a Nationalised Bank, IDBI or ICICI/ICICI Bank/Foreign Bank/EXIM Bank / Any Scheduled Commercial Bank approved by RBI having a networth of not less than 500 crore as per latest Annual Report of the Bank. In the case of a Foreign Bank (issued by a Branch in India) the networth in respect of Indian operations shall only be taken into account. In case of Foreign Bank, the BG issued by Foreign Bank should be counter guaranteed by any Nationalised Bank in India. In case of JV, the BG shall be furnished on behalf of the JV and not individually by the members.

Alternatively, a single Bank Guarantee to cover for the performance of all projects under NHAI may also be deposited as tabulated below, at the discretion of the consultant, instead of depositing separately again and again. The Consultant may initially provide the Performance Security for a period of two years provided that it shall procure the extension of the validity of the Performance Security at least one month prior to the date of expiry thereof. Once the appropriate single Bank Guarantee for Performance Security has been submitted by the Consultant, the existing BGs shall be returned. The Bank Guarantee be submitted in prescribed Performa.

Performance Sec	urity		
Remaining cumulative Value of Consultancy Fee as per Contracts under a Agency (NHAI) (Cr)	BG Value (in Rs. Crores.)		
0-20	0.5		
20-40	1		
40-100	2.50		
100-200	4.0		
Beyond 200	5.0		
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Independent Engineer, Services for Behabilitation & upgradation of four lane to six laning of Chandikhole Bhadrak (km. 62.000 to km. 136.500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

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### **Enclosure-A**

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### MAN MONTHS INPUT FOR KEY PROFESSIONAL STAFF

### INDEPENDENT ENGINEER (For project length 0 - 100 km)

S. No. A: Key Per	Key Personnel	Man-month in Construction period of 30 months	Man-month in Development and O&M period of 18 months	
1.	Team Leader Cum Senior Highway Engineer	30	6	
2.	Resident cum Highway Engineer	30	18	
3.	Bridge/Structural Engineer	30	6	
4.	Senior Pavement Specialist	30	0	
5.	Senior Quality cum Material Expert	30	0	
6,	Road Safety Expert	10	6	
	Sub Total	160	36	
	Total for Construction and O&M	196		
B: Sub Pr	ofessional Staff			
(a)	Survey Engineer	30	8	
(b)	Assistant Highway Engineer	2 x 30	1 X 18	
	(2 nos)			
(C)	CAD Expert	10	6	
(d)	Environmental Engineer	6	0	
(e)	Assistant Bridge Engineer	30	0	
(f)	Assistant Quality cum Material Engineer (2 nos)	2 x 30	0	
(g)	Electrical Engineer	5	20	
(h)	HTMS/Hall Expert	2		
Bank		92 5		

Independent Engineer, Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole⁻¹ Bhadrak (km. 62.000 to km. 136.500)/section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

5. No.	Key Personnel	Man-month in Construction period of 30 Months	Man-month in Development and O&M period of 18MonthsS
(i)	Quantity Surveyor	15	3
(j)	Horticulture cum Landscaping Expert	6	12
	Sub Total	224	49
	Total for Construction and O&M	273	

The Financial Expert or Legal expert may be required for the project for specific needs. Their deployment shall be arranged by the consultant on specific requisition from the Authority and the payment shall be made as per the actual deployment. The Financial Expert or Legal expert shall be paid at the rates quoted for Senior Pavement Specialist.





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Independent Engineer, Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) Section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V Note:. The other inputs like support staff shall be provided by the Consultant of an acceptable type commensurating with the roles and responsibilities of each position.

The Financial Expert or Legal expert may be required for the project for specific needs. Their deployment shall be arranged by the consultant on specific requisition from the Authority and the payment shall be made as per the actual deployment. The Financial Expert or Legal expert shall be paid at the rates quoted for Senior Pavement Specialist.

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Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.560) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

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### QUALIFICATION OF KEY PERSONNEL

#### TEAM LEADER CUM SENIOR HIGHWAY ENGINEER

This is the senior most position and the expert engaged as the team leader shall be responsible for reviewing the entire Project preparation and implementation activities of the Concessionaire. He shall check all the Designs being prepared by the Concessionaire, ensure execution of works on site as per specification and standards, and continuously interact with the NHAI and the Concessionaire. He shall undertake Project site visits and shall guide, supervise, coordinate and monitor the work of other experts in his team as well as those of the Concessionaire. The candidate is required to be a Senior Highway Engineer, who should have a proven record of supervising, organising and managing of construction of highway projects and also of Project preparation of large magnitudes projects, as defined below, financed by international lending agencies and others. Knowledge of Project management shall be an added advantage.

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He should have the following qualification / experience.

#### 1. Essential Qualifications.

- a) Graduate in Civil Engineering from recognized university.
- b) Total Professional Experience of 12 years in handling Highway Projects.
- c) At least 5 years experience as Team Leader/Project Manager or similar capacity in Highway Development Project.
- d) He should have handled as Team Leader/Project Manager or similar capacity of at least two projects in Construction Supervision / IC (of length 40% of project length or more of similar configuration (2/4/6 laning**)
- e) He should have handled as Team Leader or similar capacity of at least two Projects of project Preparation of major highway Project (of length 40% of project length or more of similar configuration (2/4/6 laning**).
- f) Experience as Team Leader/Project Manager or similar capacity in Operation and Maintenance of Major Highway Projects(of length 40% of project length or more of similar configuration (2/4/6 laning**).

### 2. Preferential Qualifications.

- a) Post Graduate Degree in Construction Management/Transportation/Highway Engineering//Structural Engineering/ any specialised stream of Civil Engineering
- b) Highway Development Projects (of length 40% of project length or more of similar configuration (2/4/6 laning**) taken up under PPP.
- c) Degree/Diploma/Certificate in Project Management
- Note: (1) Similar Capacity includes the following positions

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Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136, 500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

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i. On behalf of Consultant : Team Leader / Resident Engineer (Construction Supervision/IE).

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- ii. On behalf of Contractor : Project Manager (Construction/ Construction Supervision)
- iii. In Government Organizations : Superintending Engineer (or equivalent) and above

(2) Only those projects will be considered for evaluation at Sl. No. 1(d), 1(e) & 1(f) above, where the input of the personnel is 12 months, 9 months and 12 months respectively.

### **RESIDENT CUM HIGHWAY ENGINEER**

The Resident cum Highway Engineer shall be responsible for supervising the works of highway to be constructed by the Concessionaire for this project. He shall also inspect the pavement rehabilitation and repair works to be undertaken by the Concessionaire.

He should have the following qualification / experience.

### 1. Essential Qualifications.

- a) Graduate in Civil Engineering from a recognized University.
- b) Professional Experience of 10 years in supervision of Highway Projects.
- c) 5 years experience in similar capacity in Highway Development Project.
- d) Should have handled at least 2 major projects (of length 40% of project length or more of similar configuration (2/4/6 laning**) and above).

### 2. Preferential Qualifications.

- a) Post Graduate Degree in Transportation/Highway Engineering/Structural Engineering/Geotechnical Engineering/any specialised stream of Civil Engineering.
- b) Experience of Highway Project (of length 40% of project length or more of configuration (2/4/6 laning**) and above) of Construction / Construction Supervi on PPP Mode

### BRIDGE & STRUCTURAL ENGINEER

The Bridge & Structural Engineer Engineer shall be responsible for checking the designs of bridges, ROBs, interchanges and any other structure to be constructed in the Project highway and supervising the works of bridges, interchanges and any other structure to be constructed by the Concessionaire for this project. He shall also inspect the bridge rehabilitation and repair works to be undertaken by the Concessionaire. He should have thorough understanding and experience with international `best practices' of modern bridge construction technology.

He should have the following qualification / experience.

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Independent Engineer Services for Renabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

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### 1. Essential Qualifications.

- a) Graduate in Civil Engineering from a recognized University.
- b) Professional Experience of 10 years in handling Highway/Bridge projects.
- c) 5 years experience in Construction / Construction Supervision of bridge / interchange / any other structures.
- d) Experience in similar capacity in supervision of 2 Major Highway Bridges.
- e) Experience in supervision of Rehabilitation and repair of 2 nos Major Bridges.

### 2. Preferential Qualifications.

- a) Post Graduate Degree in Structural Engineering.
- b) He should have thorough understanding and experience of modern bridge construction technology . viz., Precast Segmental, Balanced Cantilever Construction, Extradosed Bridge, Full Span Launching, Incremental Launching.

### SENIOR PAVEMENT SPECIALIST

The expert shall be continuously interacting with the Concessionaire, for the review of highway designs and drawings using sophisticated computer software and also construction and O&M works and to ensure life cycle cost effectiveness and viable design of pavement including appropriate rehabilitation / strengthening of the existing two lane pavement which is significantly distressed. He shall also be responsible for ensuring complete adherence to maintenance standards during Construction and Operation period. Thus, the position requires a pavement specialist with thorough knowledge and understanding of international 'best practices' in the field of Design, Construction and maintenance of flexible/rigid type of pavements including latest Codal stipulations and specifications.

He should have the following qualification / experience.

- 1. Essential Qualifications.
  - a) Graduate in Civil Engineering from a recognized University.
  - b) Professional Experience of 10 years in Pavement Design / Pavement Construction / Pavement Maintenance of Highways / Roads / Airfield Runways
  - c) Experience of 5 years in similar capacity in Construction / Construction Supervision of 2/4/6 laning** of major highway projects.
  - d) Experience as Pavement / Geotechnical Engineer in Construction/Construction Supervision of at least 2 major highway projects(of length 40% of project length or more of similar configuration (2/4/6 laning**) and above).
- 2. Preferential Qualifications.
  - a) Post Graduate Degree in Highway Engineering / Pavement Engineering

Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136/500) Section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

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- b) Experience in similar capacity in Highway Development Project in innovative/non traditional technology and design
- c) Experience as a Pavement Specialist/Pavement Engineer in PPP project(of length 40% of project length or more of similar configuration (2/4/6 laning**) and above).

### SENIOR QUALITY/MATERIAL EXPERT

The Quality/Material Expert shall review the test results of bore holes, quarry and borrow area material to find out their strength characteristics and suitability for using them in construction. He shall inspect the Concessionaire's field laboratories to ensure that they are adequately equipped and capable of performing all the specified testing requirements of the contract. He shall look into the quality assurance aspect of the construction works and supervise the setting-up of the various Concessionaire's rock crushers and bituminous mixing plants to ensure that the specified requirements for such equipment are fully met. Experience in latest Quality Management techniques in highway projects shall have added advantage.

He should have the following qualification / experience.

- 1. Essential Qualifications.
  - a) Graduate in Civil Engineering from a recognized University.
  - b) Professional Experience of 10 years in handling Highway projects.
  - c) Experience of at least 5 years as Senior Quality/ Material Expert or in similar capacity in Construction / Construction Supervision / major highway projects
  - d) Experience as Senior Quality/ Material Expert or in similar capacity in handling of at least 2 similar highway projects. (of length 40% of project length or more of similar configuration (2/4/6 laning**) and above)

#### 2. Preferential Qualifications.

- a) Post Graduate Degree in Geotechnical Engineering / Foundation Engineering / Soil Mechanics.
- b) Experience in similar capacity in Highway Development Project in innovative/non traditional technology

### ROAD SAFETY EXPERT

Shall be responsible for the overall Road Safety Aspect of the Project. He shall ensure that safety provisions as per relevant codes are strictly followed at site during Construction of Road and also during the Maintenance Period

- 1. Essential Qualifications.
  - a) Graduate in Civil Engineering from a recognized University.

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b) Professional Experience of 10 years in handling Highway projects.

Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136,500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

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- c) Minimum 5 years experience in Road Safety works of Major Highway Projects (4 / 6 laning projects)
- d) Experience in similar capacity in Road Safety Audit of at least 2 nos 2/4/6 lane** highway / expressway project including 1 nos at design stage
- e) Experience in similar capacity in the field of Road Safety Management Plan.

### 2. Preferential Qualifications

- a) Post Graduate Degree in Traffic Transportation/Safety Engineering.
- b) Experience in similar capacity in identification and improvement of black spots on Major Highway Project.
- c) Experience in similar capacity in Preparation of Road Safety Management Plan for inter urban Highways.

#### SUB PROFESSIONAL

#### SURVEY ENGINEER

The candidate should be Graduate in Civil Engineering Firm may field Survey Engineer with diploma in Civil Engineering/Survey having at least 5 years experience in the field of surveying out of which at least 3 years should be in highway projects and they should have also dealt with at least 1 project of similar nature. This position requires thorough understanding of modern computer based method of surveying with total station digital level etc.

### ASSISTANT HIGHWAY ENGINEER

The Candidate should be Graduate in Civil Engineering.

### CAD EXPERT

He should be Graduate in Civil Engineering/Computer Science having experience in computer related design method for highway engineering.

#### ENVIRONMENTAL ENGINEER

The Candidate should be Graduate in Civil Engineering/Environmental Engineering or other relevant qualification. He should have at least 6 years experience out of which 2 years in highway projects. He should have good knowledge of MOEF guidelines/requirements for mitigation measures.

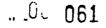
#### ASSISTANT BRIDGE ENGINEER

The Candidate should be Graduate in Civil Engineering with 3 years experience. He should have handled at least 1 major bridge project.



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Independent Engineer Services (or Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) settion of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V



### ASSISTANT QUALITY CUM MATERIAL ENGINEER

The Candidate should be Graduate in Civil Engineering or diploma in Civil Engineering with 3 years experience.

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#### ELECTRICAL ENGINEER

The Candidate should be Graduate in Electrical Engineering from recognised institute. He should have at least 6 years experience

### HTMS/TOLLING SYSTEM EXPERT

The candidate should be a senior Systems Engineer having experience of at least 15 Years. He should be an expert in preparation of standards for projects of toll collection and HTMS. He should have bachelors degree in Civil Engineering/Electronics/Computer Science/other relevant areas. He should have experience of international latest practices in the field of HTMS and tolling. He should have work experience on at least 2 similar projects in similar capacity.

### QUANTITY SURVEYOR

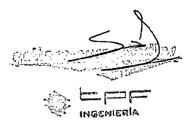
He should be Graduate or equivalent in Civil Engineering having Min. 5 years of professional experience in preparation of highway project estimates. He should have Min. 3 years experience in Preparation of Bill of Quantities/estimates for major highway projects costing Rs.100 Crore or above.

### HORTICULTURE CUM LANDSCAPING SPECIALIST

He should be a Graduate in Agriculture with specialization in Horticulture/Arboriculture having minimum 5 year of field experience in Horticulture/Arboriculture and landscaping. He should have minimum 5 years field experience.ss

<u>Note:</u> Upto 2 sub-professional can be a fresh graduate (zero/ less than minimum required work experience) with first class in graduation stream. Eligibility requirement in terms of minimum years of experience shall not be applicable for this sub professional.





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Independent Engine of Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

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Annexure I- Daily Inspection Report in construction pe	period	I
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Component	ltem Description	Description of inspection work carried out	Results of lab tests conducted (Test conducted, Pass/Fail)	Name of key personnel inspecting the work
1. Road works including culverts, and minor bridges	Embankment/ Sub Grade/ GSB/ WMM/ DBM/ BC			
2. Major Bridge works, Flyovers, ROB, RUB, VUP, PUP	Foundation/ Sub structure/ Super structure			
3. Approach to ROB/RUB/ Major Bridges/ Viaduct / RE wall	Foundation/ Sub structure/ Super structure			
4. Other Works				

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Independent Engineer, services for the abilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) section of Mi-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

### Annexure II- Daily Inspection Report in O&M period

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Nature of defect/ deficiency	Defect found (Yes/No)	lf defect found, Chainage & side	Compliance of previous defect (Yes/No/NA)	IE Remarks
ROADS				
Carriageway and paved sho	ulders			
Breach or blockade				
Pot holes				
Removal of debris				
Hard/earth shoulders, side	slopes, dra	ains and culve	erts	
Desilting of drains in				
urban/semi-urban areas				
Road side furniture includi	ng road sig	ns and paven	nent marking	
Damage to shape or position;				
poor visibility or loss of				
retro-reflectivity				
Street lighting and telecon	n (ATMS)			
Any major failure of the				
system				
Faults and minor failures				
Trees and Plantation		1		- <u>I</u>
Obstruction in a minimum				7
head-room of 5 m above				5
carriageway or obstruction in		ι		
visibility of road signs				in the particular
h ( A) \$	)	102		W? INRENIERIA

Independent Engineer Services for Renabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) service for Renabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) service for Renabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) service for Renabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) service for Renabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) service for Renabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) service for Renabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) service for Renabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km.

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Nature of defect/ deficiency	Defect found (Yes/No)	lf defect found, Chainage & side	Compliance of previous defect (Yes/No/NA)	IE Remarks
Rest areas		·		
Cleaning of toilets	,			
Defects in electrical, water and sanitary installations				
Toll plaza[s]		<b></b>	Ann Martin Anna ann an	
Failure of toll collection equipment including ETC or lighting				
Other Project Facilities and	I Approach	roads	<b>-</b>	•
Damage or deterioration in Approach Roads, - [pedestrian facilities, truck lay-bys, bus-bays, bus- shelters, cattle crossings, Traffic Aid Posts, Medical Aid Posts and other works]				



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Independent Engineer Services for Renabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) section of NHDP-Phase-V

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### Annexure III- Weekly Inspection Report in O&M period

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	e of defect or deficiency	found (Yes/No )	found, Chainage & side	Compliance of previous defect (Yes/No/NA)	IE Remarks
ROAD	S		r .		
(a)	Carriageway and paved sh	oulders			· · · · · · · · · · · · · · · · · · ·
(i)	Breach or blockade				
(ii)	Roughness value exceeding 2,500 mm in a stretch of 1 km (as measured by a standardised roughometer/bump integrator)				,
(iii)	Pot holes				
(iv)	Cracking in more than 5% of road surface in a stretch of 1 km				
(v)	Rutting exceeding 10 mm in more than 2% of road surface in a stretch of 1 km (measured with 3 m straight edge)				
(vi)	Bleeding/skidding				
(vii)	Ravelling/Stripping of bitumen surface exceeding 10 sq m				
(viii)	Damage to pavement edges exceeding 10 cm				
(ix)	Removal of debris			eellava-eue	the states
(b)	Hard/earth shoulders, sid	e slopes,			

Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) section of MTR in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

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Natui	re of defect or deficiency	Defect found (Yes/No )	If defect found, Chainage & side	Compliance of previous defect (Yes/No/NA)	IE Remarks
	drains and culverts				
(i)	Variation by more than 2% in the prescribed slope of camber/cross fall				
(ii)	Edge drop at shoulders exceeding 40 mm				a mar and an a second strain in the second strain in the second strain is a second strain in the second strain in the second strain is a second strain in the second strai
(iii)	Variation by more than 15% in the prescribed side (embankment) slopes				
(iv)	Rain cuts/gullies in slope				
(v)	Damage to or silting of culverts and side drains during and immediately preceding the rainy season				
(vi)	Desilting of drains in urban/semi-urban areas				
(c)	Road side furniture incluc signs and pavement mark				
(i)	Damage to shape or position; poor visibility or loss of retro-reflectivity				
(d)	Street lighting and teleco	om (ATMS)			
(i)	Any major failure of the system				
(ii)	Faults and minor failures				
(e)	Trees and plantation				
(i)	Obstruction in a minimum head-room of 5 m above carriageway or obstruction			<u>gellaneur</u>	
<u>ц.                                    </u>	Danielen Briden Billitatio	105		ix laning of Chandikhole -	ICRIA Bbadrak (km é

Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) section of NHP-Sin the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

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Natur	e of defect or deficiency	Defect found (Yes/No )	lf defect found, Chainage & side	Compliance of previous defect (Yes/No/NA)	lE Remarks
	in visibility of road signs				
(ii)	Deterioration in health of trees and bushes				
(iii)	Replacement of trees and bushes				
(iv)	Removal of vegetation affecting sight line and road structures				
(f )	Rest areas				
(i)	Cleaning of toilets				
(ii)	Defects in electrical, water and sanitary installations				
(g)	Toli plaza[s]				
(i)	Failure of toll collection equipment including ETC or lighting				
(ii)	Damage to toll plaza				
(h)	Other Project Facilities a Approach roads	nd			
(i)	Damage or deterioration in Approach Roads, - [pedestrian facilities, truck lay-bys, bus-bays, bus- shelters, cattle crossings, Traffic Aid Posts, Medical Aid Posts and other works]				
BRI	DGES				
(a)	Superstructure of bridge	5			- \
(i)	Cracks the TE Party			gelleroren	
L	A CONTACT	10		- رۇپ 🖴 ر	==

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		found (Yes/No )	found, Chainage & side	previous defect (Yes/No/NA)	Remarks
ii)	Spalling/scaling				
(b) I	Foundations of bridges	. 10 .	·		
(i) !	Scouring and/or cavitation				
	Piers, abutments, return w wing walls of bridges	alls and			
(i)	Cracks and damages including settlement and tilting				
(d)	Bearings (metallic) of bride	ges			
(i)	Deformation				
(e)	Joints in bridges				
(i)	Loosening and malfunctioning of joints				
(f)	Other items relating to bri	idges			
(i)	Deforming of pads in elastomeric bearings				
(ii)	Gathering of dirt in bearings and joints; or clogging of spouts, weep holes and vent-holes				
(iii)	Damage or deterioration in parapets and handrails				
(iv)	Rain-cuts or erosion of banks of the side slopes of approaches	;			
(v)	Damage to wearing coat				
(vi)	Damage or acterioration in			. Dellar Sal	-

executed on Hybrid (a 0.59

		- 142	-	(S)	2 0 MÁY 200	X
Natu	re of defect or deficiency	Defect found (Yes/No )	If defect found, Chainage & side	Compliance of previous defect (Yes/No/NA)	IE Remarks)	UNICASI
	approach slabs, pitching, apron, toes, floor or guide bunds	-				
(vii)	Growth of vegetation affecting the structure or obstructing the waterway					



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Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole - Bhadrak (km. 62.000 to km. 136.500) section of NH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

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### Annexure IV- Month of survey for equipment based road condition assessment

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Equipment based road inspection shall be done by the Consultant twice a year as per the month of the year defined in the following table.

However, since the first survey shall be conducted at the time of completion testing, the following modification to the schedule shall be adopted. For example, if majority of highway length (>50%) passes through a state, where defined survey months are May and November, if completion testing is conducted in April, then the first equipment based survey shall be conducted in the month of April. This shall be considered as the equipment based survey to be conducted in the month of May. The 2nd equipment based survey shall be conducted in the month of November, the 3rd survey shall be conducted in the month of May and so on. As regards FWD, the first test/survey shall be conducted in April. The 2nd test/survey shall be conducted in April of next year and so on.

Region	State	Survey before rains	Survey after rains
East	Bihar	May	Nov
East	Chhattisgarh	Мау	Nov
East	Jharkhand	May	Nov
East	Orissa	Мау	Nov
East	West Bengal	May	Nov
Central	Madhya Pradesh	May	Nov
NE	Arunachal Pradesh	Mar	Oct
NE	Assam	Mar	Oct
NE	Manipur	Mar	Oct
NE	Meghalaya	Mar	Oct
NE	Mizoram	Mar	Oct
NE	Nagaland	Mar	Oct
NE	Sikkim	Mar	Oct
NE AN	, Tripura	Mar	
Dangiere		109	

Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhola: ABhadrak (km. 62.000 to km. 136.500) section of HH-5 in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-144-

	Region	State	Survey before rains	Survey after rains
	North	Chandigarh	May	Nov
	North	Delhi	May	Nov
	North	Haryana	May	Nov
	North	Himachal	May	Nov
	North	Jammu And Kashmir	May	Nov
	North	Punjab	May	Nov
	North	Uttar Pradesh	May	Nov
	North	Uttaranchal	May	Nov
	South	Andaman And Nicobar Islands	Арг	Nov
	South	Andhra Pradesh	Арг	Nov
	South	Karnataka	Apr	Nov
	South	Kerala	Apr	Nov
	South	Pondicherry	Jun	Jan
	South	Tamil Nadu	Jun	Jan
	West	Dadar Nagar Haveli	Apr	Oct
	West	Daman And Diu	Apr	Oct
	West	Goa	May	Nov
	West	Gujarat	Apr	Oct
	West	Maharashtra	Мау	Nov
17.	West	Rajasthan	Apr	Oct
ATTESTED T	OBETHOL CONTIN	नइ y Progress Report in	Construction Phase	

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(*150) Independent Engineer Services for Rehabilitation & upgradation of four lane to six laning of Chandikhole Bhadrak (km. 62.000 to km. 136.500) section of NHD in the state of Odisha to be executed on Hybrid (annuity) mode under NHDP-Phase-V

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# TEST REPORT OF NON DESTRUCTIVE TEST

### SUBMITTED TO:

M/s. Dilip Buildcon Limited. Village- Samariapur, New Jyoti Convent School Bhadrak Odisha-756100 (India).

Site Name: "Six Laning of Chandikhole to Bhadrak Section NH-16"

Report No.: 20191107007

Date of Testing: 07.11.2019

Date of Issue: 20.11.2019



ANNEXURE - 6

### 2019

### **SUBMITTED BY**

### BALAJI SCIENTIFIC LABORATORIES 2K-18, NIT, FARIDABAD (HARYANA)

Phone No. 0129- 4158567, 9811118847 E mail:<u>bslindia2006@gmail.com</u>

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Laboratory : 2K-18, N.I.T. Faridabad - 121001 (Haryana) Mobile No. : 9811118847, Ph: 0129-4158567 : bslindia2006@gmail.com

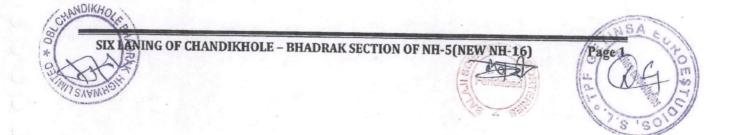
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### **REPORT OF NDT INVESTIGATION FOR**

### "SIX LANING OF CHANDIKHOLE TO BHADRAK SECTION NH-16

### CONTENTS

Sr. No.	CHAPTER	PAGE No.
1.	Introduction	2
2.	Objectives of Investigation	2
3.	Methodology	2-3
4.	Reference& Abbreviation	4
5.	Chainage 79+679 MJB	5
	<ul> <li>Lab Investigation</li> </ul>	6
	Site Photo	7-9
	Field data	10-11



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### NON-DESTRUCTIVE TESTING OF DILIP BUILDCON LIMITED.

#### 1.0 INTRODUCTION:

The testing of the Structures was undertaken by Balaji Scientific Laboratories for testing purpose. The Non-destructive Testing difference structure (MNB, MJB, PUP) at difference change located at Six-Laning of Chandikhole to Bhadrak section NH-16

2.0 OBJECTIVES:

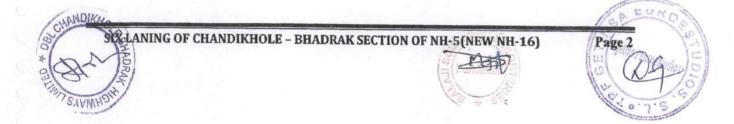
Objective of the study is to examine the uniformity, Grade of Concrete and strength of concrete

3.0 METHODOLOGY:

The following Non-destructive instruments were used to observe the various parameters of the Structure. A brief of these instruments is discussed below.

All the observations with the following NDT instruments were recorded at the following test locations.

(a) 79 +679 MJB



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#### 4.1 Rebound Hammer

The concrete rebound test hammer is intended for non destructive testing of the quality of concrete in the finished structure (ordinary building and bridge construction). When testing, the "Rebound Number" is measured which depends on the strength of the mortar (concrete without coarse aggregate particles) close to the surface. Since the strength of the mortar as a rule determines the strength of the concrete, the rebound number gives an indication of the strength of the concrete.

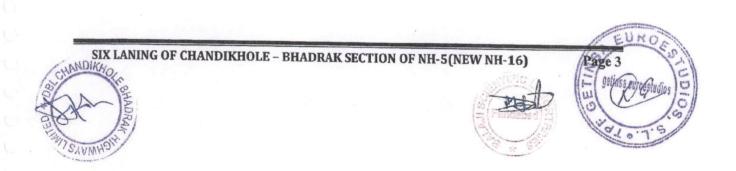
#### 4.2 Ultrasonic Pulse Velocity Test

The non destructive evaluation method adopted for detecting the weak zones and accessing the overall quality of concrete by using Ultrasonic Pulse Velocity.

The ultrasonic pulse velocity of concrete is mainly related to its density and modules of elasticity. This in turn depends upon the materials & mix proportions used in making concrete as well as methods of placing, compaction and curing of concrete for example, if concrete is not thoroughly compacted, or if there is segregation of concrete during pulse velocity will be lower, although the same materials and mix proportions are used.

The underlying principle of assessing the quality from ultrasonic pulse velocity method is that, comparatively higher pulse velocities are obtained when "quality" of concrete in terms of density, homogeneity and uniformity is good.

Since actual value of pulse velocity obtained depends on a number of parameters, any criterion as above for assessing the quality of concrete on basis of pulse velocity can be held satisfactory only to general extent. However, when the comparison is made amongst different parts of structure, which have been built at same time with supposedly similar materials, construction practices and supervision, the assessment of quality becomes more meaningful and reliable.



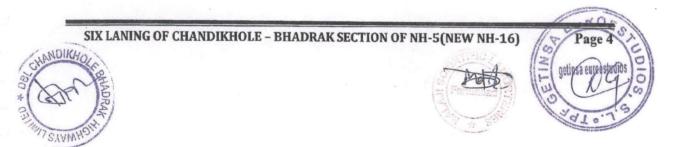
-149-



### **References & Abbreviation**

- 1. IS: 13311 (P-1) 1992 for ultrasonic pulse velocity(UPV)
- 2. IS: 13311 (P-2) 1992 for Rebound Hammer.(RH)
- 3. A Abutment
- 4. G-Girder

- 5. P-Pier
- 6. S-Slab



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# MAJOR BRIDGE CHAINAGE

# 79+679

# CHANDIKHOLE TO BHADRAK

### (NH-16)

# (Page No. 5 to 11)

SIX LANING OF CHANDIKHOLE - BHADRAK SECTION OF NH-5(NEW NH-16)

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Page 5

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### 5.0 LABORATORY INVESTIGATION

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A) Rebound Hammer Test, Ultrasonic Pulse Velocity Test & Core Test:

Sr. No.	LOCATION	REBOUND HAMMER AVG.VALUE	EQUILENT CUBE STRENGTH (N/mm ² )	ULTRASONIC PULSE VELOCITY (km/second)	CONCRETE QUALITY GRADING As Per IS 13311 (Part-1) Table -2	CORE EQUILENT CUBE STRENGTH (N/mm ² )
1	79 +679 MJB RS G-1	40	41	4.3	Good	
2.	79 +679 MJB RS G-2	40	41	3.8	Good	
3.	79 +679 MJB RS G-3	43	47	3.9	Good	
4.	79 +679 MJB RS G-4	43	47	3.9	Good	
5.	79 +679 MJB RS G-5	43	47	3.9	Good	
6.	79 +679 MJB RS A-1	42	45	3.8	Good	35.5
7.	79 +679 MJB RS P- cap	39	39	3.9	Good	
8.	79 +679 MJB RS P- cap	39	39	4.0	Good	
9.	79+679 MJB RS P-1	39	39	3.8	Good	
10.	79+679 MJB RS P-2	39	39	3.9	Good	
11.	79+679 MJB RS P-3	38	38	3.9	Good	
12.	79+679 MJB RS A-2	39	39	3.6	Good	

SIX LANING OF CHANDIKHOLE - BHADRAK SECTION OF NH-5(NEW NH-16)

CUNO

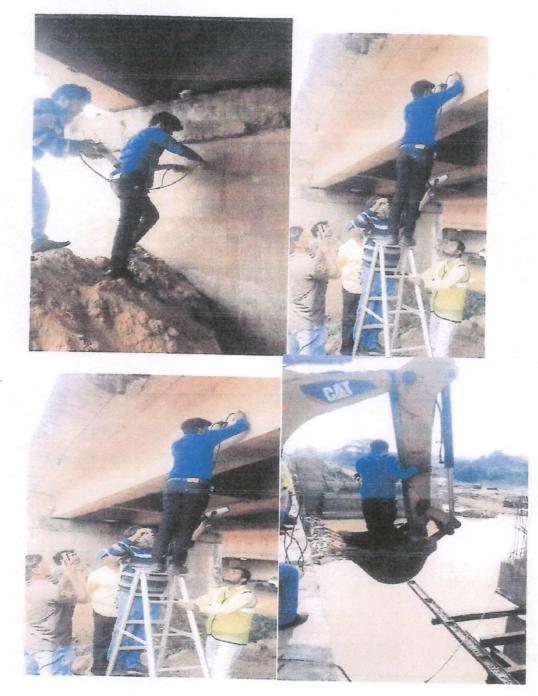
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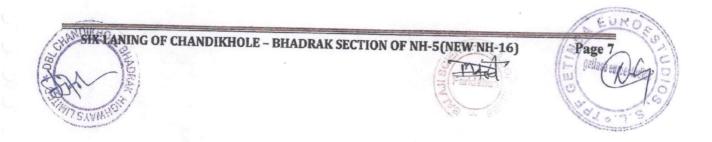
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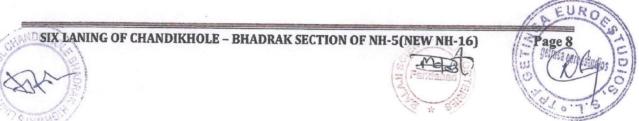
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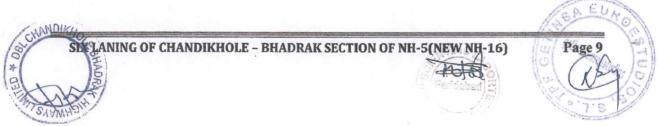










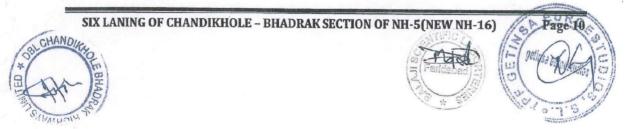


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### BSL BALAJI SCIENTIFIC LABORATORIES Laboratory : 2K-18, N.I.T. Faridabad - 121001 (Haryana) Mobile No. : 9811118847, Ph: 0129-4158567 E-mail : bslindia2006@gmail.com

### **C) DATA SHEET**

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### SL BALAJI SCIENTIFIC LABORATORIES Laboratory : 2K-18, N.I.T. Faridabad - 121001 (Haryana) Mobile No. : 9811118847, Ph: 0129-4158567 E-mail : bslindia2005@gmail.com

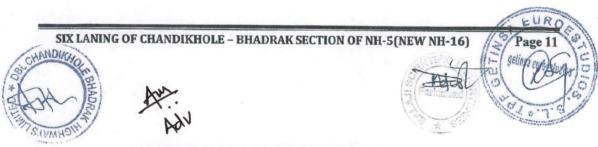
### Balaji Scientific Laboratories 2k-18, NIT Faridabad (Non-Distractive Test)

Name of Client: Whatton 1 Mig Jawing Anathonity of Indi-

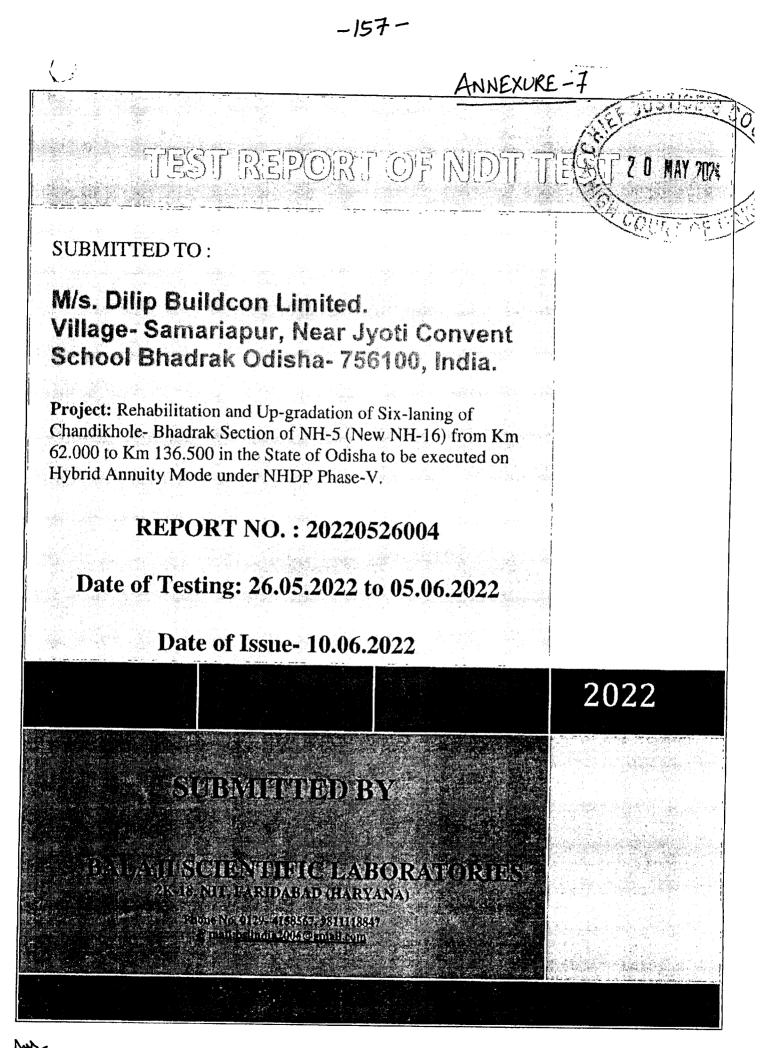
Name of Contractor: Lip Bullolon Und.

Name of Project: Strandard Standard Land Sector NH-16 Date of Testing: 7[11] 2019. Date of Casting:

					RH	Ridin	g						UPV		
Location	Direction	1	2	3	4	5	6	7	8	9	Avg. No.	Mode of Direction	Distance	Time	UPV
19+679MUR	P-1	00	40	38	36	40	40	$\rightarrow$					200	524	
71+679233	f-2	10	40	40	36	140	3%	7					2.00	51.7	
u .	8-3	40	38	36	38	38	40	7					200	50.9	
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### **BALAJI SCIENTIFIC LABORATORIES** -158-

### 2K-18 NIT FARIDABAD

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### **REPORT OF NDT INVESTIGATION FOR**

### M/s DILIP BUILDCON LIMITED.

### CONTENTS

<u>Sr. No.</u>	CHAPTER	PAGE No.
1.0	Introduction	2
2.0	Objectives of Investigation	2
3.0	Methodology	2
4.0	Reference	3
5.0	Lab Investigation	4-29
5.0	Field Investigation	30-129
5.0	Photo	130-139
6.0	Calibration	140-141

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62,0 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V. Page M/s Dilip Buildcon Ltd.

Tidana

## BALAJI SCIENTIFIC LABORATORIES -159-

2K-18 NIT FARIDABAD

### NON-DESTRUCTIVE TESTING

### 1.0 INTRODUCTION:

The testing of the MNB, Flyover, VUP, PUP, CUP, MJB was undertaken by Balaji Scientific Laboratories for testing purpose. The Non-destructive Testing

### 2.0 OBJECTIVES:

Objective of the study is to examine the uniformity and strength of concrete and state of corrosion of reinforcement.

3.0 METHODOLOGY:

The following Non-destructive instruments were used to observe the various parameters of the Girder. A brief of these instruments is discussed below.

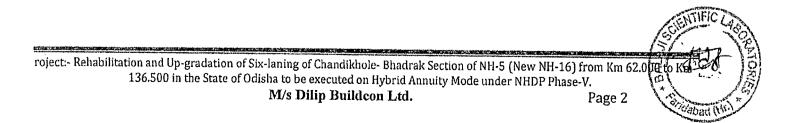
All the observations with the following NDT instruments were recorded at the following test

### 4.1 Rebound Hammer

The concrete rebound test hammer is intended for non destructive testing of the quality of concrete in the finished structure (ordinary building and bridge construction). When testing, the "Rebound Number" is measured which depends on the strength of the Moreetar (concrete without coarse aggregate particles) close to the surface. Since the strength of the Moreetar as a rule determines the strength of the concrete, the rebound number gives an indication of the strength of the concrete.

4.2 Ultrasonic Pulse Velocity Test

The non destructive evaluation method adopted for detecting the weak zones and accessing the overall quality of concrete by using Ultrasonic Pulse Velocity.



## **BALAJI SCIENTIFIC LABORATORIES** -160 --

#### **2K-18 NIT FARIDABAD**

The ultrasonic pulse velocity of concrete is mainly related to its density and modules of elasticity. This in turn depends upon the materials & mix proportions used in making concrete as well as methods of placing, compaction and curing of concrete for example, if concrete is not thoroughly compacted, or if there is segregation of concrete during pulse velocity will be

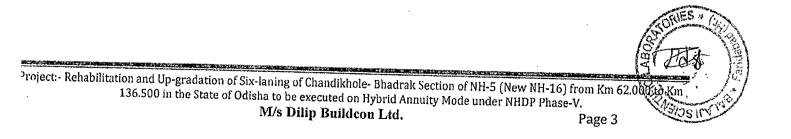
lower, although the same materials and mix proportions are used.

The underlying principle of assessing the quality from ultrasonic pulse velocity method is that, comparatively higher pulse velocities are obtained when "quality" of concrete in terms of density, homogeneity and uniformity is good.

Since actual value of pulse velocity obtained depends on a number of parameters, any criterion as above for assessing the quality of concrete on basis of pulse velocity can be held satisfactory only to general extent. However, when the comparison is made amongst different parts of structure, which have been built at same time with supposedly similar materials, construction practices and supervision, the assessment of quality becomes Moremeaningful and reliable.

### References

- 1. IS: 516(Part 5/Sec-4):2020 for Rebound Hammer.
- 2. IS: 516(Part 5/Sec-1):2018 for Ultrasonic Pulse Velocity.



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### **2K-18 NIT FARIDABAD**

#### 5.0 LABORATORY INVESTIGATION

## 5.1 Rebound Hammer & Ultrasonic pulse velocity test

The Rebound hammer values (RHV) obtained on the identified members and statistical parameters evaluated are given below:

······						REI	ORT	ring	OF RESU	LTS	······································	<u> </u>	·····
Sr. No.	Location	Direction					Readir		Rebound Hammer Average Reading	Equivalent Cube Compressive Strength, N/mm ²	Distance (mm)	UPV (km/se c.)	Concrete Quality Grading
<u>A.</u>	Chaina	ge No-		<u>-105</u>	5 M	NB	S/F	<b>(</b> L)	HS)		- 4n		
1.	A-1	<u> </u>	50	52	48	50	48	48	49	60	500	4.62	Excellent
2.	P-1		48	52	50	48	52	54	51	64	500	4.49	Good
3.	P-2		50	52	50	48	50	52	50	62	500	4.36	Good
	A-2	$\rightarrow$	50	48	50	52	50	50	50	62	500	4.48	Good
<u>B.</u>	Chaina	ge No-6	52+	105	M	NB	S/R	(R	HS)				J
5.	A-1	$\rightarrow$	48	50	52	50	56	54	52	66	500	4.82	Excellent
6.	P-1		52	52	50	48	52	54	51	64	500	4.90	Excellent
7.	P-2		54	56	54	56	54	52	54	70	500	4.49	Good
8.	A-1	→	50	48	46	50	48	48	48	58	500	4.52	Excellent
<u>C.</u>	Chaina	ge No-	62+	-105	5 M	NB	Ll	HS (	Wideni	ng) (MCV	$\overline{W}$	-L	(
9.	A-1	_→	48	52	50	46	50	52	50	62	500	4.39	Good
10.	P-1	_→	50	50	52	50	50	52	51	64	500	4.49	Good
11.	P-2		48	48	48	50	52	50	49	60	500	4.35	Good
12.	A-2	<u>→</u>	50	52	50	50	54	52	52	66	500	4.62	Excellent
<b>D.</b>	Chainag	<u>ge No-6</u>	7+(	050	M	<b>VB</b>	LH	IS (I	MCW)	Widenin	а)	<u>.                                    </u>	
13.	A-1	$\rightarrow$	48	50	50	52	50	54	51	64	500	4.61	Excellent
14.	P-1		50	52	54	56	50	48	52	66	500	4.72	Excellent
15.	A-2		50	50	50	54	50	48	50	62	500	4.81	Excellent
16. 17.	Slab		52	54	56	54	56	54	54	62	500	4.48	Good
	Slab	<u> </u>	54	56	54	56	54	52	54	62	500	4.91	Excellent
Ε.	Chainag	<u>ge No-6</u>		<u>523</u>	VU	JP	LH	S (N	(ICW)				
18.	A-1		48	52	50	52	50	52	51	64	500	4.62	Excellent
19.	A-2	→ 	50	50	52	56	50	48	51	. 64	500	4.57	Excellent
20.	Slab	<u>_</u>	54	56	54	50	56	52	54	62	500	4.49	Good
F.	Chainag	<u>e No-6</u>	7+6	523	VU	J <b>P</b>	RH	S (N	(ICW)				
21.	A-1	→	48	50	52	52	56	50	51	64	500	4.49	Good
22.	A-2		50	52	52	56	54	52	53	68	500	4.53	Excellent
23.	Slab	1	54	50	54	52	56	50	53	60	500	4.63	Excellent

³roject:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to Km-136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

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	÷ .					REP	ORT	ING	OF RESUL			13/	
Sr. No.	Location	Direction		Rebou					Rebound Hammer Average Reading	Equivalent Cube Compressive Strength, N/mm ²	Distance (mm)	URV (kn/sc c.)	Concrete Quality Grading
<b>G</b> .	Chaina	ge No-	69+	229	FI	yov	'er	LH	S				
24	A-1	·	50	50	50	48	50	52	50	62	500	4.62	Excellent
25.	P-2		50	48	52	50	52	50	50	62	500	4.51	Excellent
26.	G-1	$\rightarrow$	52	54	56	54	54	54	54	70	500	4.32	Good
27.	G-2		52	50	50	56	54	52	52	66	500	4.46	Good
28.	G-3	<b>→</b>	56	54	52	56	54	50	54	70	500	4.52	Excellent
29.	G-4	<u> </u>	50	52	56	54	52	56	53	68	500	4.61	Excellent
H.	Chaina	ge No-6	59+	229	Fl	yov	er	RH	S		<u> </u>		
30.	P-1		48	50	52	50	52	50	50	62	500	4.65	Excellent
31.	P-2	$\rightarrow$	50	56	46	48	52	50	50	62	500	4.44	Good
32.	G-1	$\rightarrow$	50	56	54	56	54	52	54	70	500	4.46	Good
33.	G-2		56	54	56	54	56	52	55	70	500	5.00	Excellent
34.	G-3	$\rightarrow$	50	54	52	50	56	54	53	68	500	4.81	Excellent
35.	G-4	$\rightarrow$	56	54	56	52	50	56	54	70	500	4.72	Excellent
<b>I.</b>	Chainag	ge No-7	70+	545	VI	UP	RH	S				1.1.2	LACOHOM
36.	A-1	→	48	50	50	52	50	50	50	62	500	4.61	Excellent
37.	A-2		50	48	46	50	46	48	48	58	500	4.49	Good
38.	Slab	Ļ	48	50	46	46	44	50	47	62	500	4.46	Good
J.	Chainag	ge No-7	/0+:	545	VI	J <b>P</b> ]	LH	S				1	
39.	A-l	$\rightarrow$	48	46	52	50	50	50	49	60	500	4.52	Excellent
40.	A-2		46	50	50	50	46	50	49	60	500	4.52	Excellent
41.	Slab	Ļ	48	50	52	54	50	48	50	68	500	4.39	Good
K.	Chainag	te No-7	1+4	100	M			ł			500	4.50	0000
42.	A-1		46	48	52			· · · · · · · · · · · · · · · · · · ·				, <u> </u>	
43.	P-1	→	50	50	48	50	50	52	50	62	500	4.61	Excellent
44.	P-2	$\rightarrow$	52	50	40 52	50 54	50	48	49	60	400	5.00	Excellent
45.	P-3		54	56	52	50	56	54	53	68	500	4.98	Excellent
46.	P-4		52	50	50	52	48	56	53	68	500	4.95	Excellent
47.	P-5	→	50	48	50	50	50 48	48	50	62	400	4.73	Excellent
48.	P-6		52	56	54	54	48 52	50	49	60	450	4.87	Excellent
49.	P-7		50	50	52	50	<u> </u>	50 48	53	68	500	4.75	Excellent
50.	P-8		52	50	52	50	54	48 50	50	62	500	4.65	Excellent
51.	A-2		50	52	50	48	50	50	51	64	450	4.53	Excellent
52.	P-14		52	50	50	50	48	48	50	62	500	4.65	Excellent
53.	P-15		50	50	48				50	62	500	4.70	Excellent
	1-15		50		40	46	52	54	50	62	500	4.48	Good

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V. 

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## **BALAJI SCIENTIFIC LABORATORIES** - 163-

#### **2K-18 NIT FARIDABAD**

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<b></b> )	<del> </del>								OF RESU				
Sr. No.	Location	Direction		Rebou	··		Readin		Rebound Hammer Average Reading	Equivalent Cube Compressive Strength, N/mm ²	Distance (mm)	UPV (km/se c.)	Concrete Quality Grading
54.	A-1+P-15 G-1	→	54	54	56	58	54	52	55	70	500	5.00	Excellent
55.	G-2	$\rightarrow$	56	54	56	.54	54	52	54	68	500	5.03	Excellent
56.	G-3	$\rightarrow$	52	54	56	56	54	50	54	68	500	5.41	Excellent
57.	G-4	$\rightarrow$	52	56	54	56	56	56	55	70	500	5.08	Excellent
58.	A-2+P-15 Slab	Ļ	46	48	50	46	46	46	47	62	500	4.81	Excellent
59.	P-13+14 Slab	↓	46	50	44	46	44	48	46	60	400	4.49	Good
60.	P-12×13 Slab	↓	50	52	50	46	48	48	49	66	500	4.52	Excellent
61.	P-12-11 Slab	, <b>, ,</b>	48	50	50	46	46	44	47	62	450	4.63	Excellent
62.	P-14+15 Slab	Ļ	48	50	48	48	48	48	48	64	400	4.50	Excellent
L.	Chainage	e No-72	+66	0 VI	JPI	LHS						<u>.</u>	
63.	A-1	$\rightarrow$	48	50	52	50	52	50	50	62	500	4.46	Good
64.	A-2	$\rightarrow$	50	52	50	48	.50	48	50	62	500	4.65	Excellent
65.	Slab	1	48	50	54	54	54	56	53	60	500	4.81	Excellent
М.	Chainage	e No-72	+66	0 VI	JP F	RHS	· · · · · · · · · · · · · · · · · · ·	·1	I				
66.	A-1	$\rightarrow$	48	50	50	48	46	50	49	60	500	4.65	Excellent
67.	A-2	$\rightarrow$	50	52	50	52	48	48	50	62	500	4.72	Excellent
68.	Slab	1	54	56	56	50	50	52	53	60	500	4.48	Good
<b>N</b> .	Chainage	e No-73-	+120	D PU	JP L	HS					· · · · · · · · · · · · · · · · · · ·	L	
69.	A-1	>	48	50	50	52	50	48	50	62	500	4.61	Excellent
70.	A-2	<b>&gt;</b>	50	52	50	46	50	52	50	62	500	4.49	Good
71.	Slab	<u></u>	54	52	54	50	56	50	53	60	500	4.52	Excellent
0.	Chainage	e No-73-	+12(	) PU	<b>PR</b>	HS						I	
72.	A-1	$\rightarrow$	48	50	52	50	56	56	52	66	500	4.62	Excellent
73.	A-2	_→	50	52	50	52	50	48	50	62	500	4.48	Good
74.	Slab	1	48	46	52	50	52	56	51	64	500	4.29	Good
<b>P.</b>	Chainag	ge No-7	4+	150	PU	<b>P</b> L	HS					-1.25	0000
75.	A-1	$\rightarrow$	48	50	52	50	52	50	50	62	500	4.49	Good
76.	A-2	$\rightarrow$	50	50	48	50	50	56	51	64	500	4.48	Good
77.	Slab	1	52	54	52	54	50	54	53	60	500	4.31	Good
<b>Q</b> .	Chainag	ge No-7	'4+]	150	PU	P R	HS				<u> </u>		
78.	A-1	$\rightarrow$	48	50	52	52	50	50	50	62	500	4.62	Excellent
79.	A-2		48	48	50	50	56	54	51	64	500	4.59	Excellent
80.	Slab	1	50	54	56	56	54	52	54	62	500	4.63	Excellent

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000-136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

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### **2K-18 NIT FARIDABAD**

Sr. No.         Location         Direction         Rebound Hammer Reading         Rebound Hammer Reading Reading         Equivalent Cube Compressive Brength, Name         UV Umb Bittage Brength, Name         Concrete Quily (tembs Brength, Name           81.         A-1         →         52         50         50         48         50         50         62         500         4.61         Excellent           82.         P-1         →         48         52         50         52         52         52         66         500         4.58         Excellent           83.         P-2         →         50         52         52         52         50         62         500         4.58         Excellent           84.         P-3         →         50         52         52         52         50         62         500         4.81         Excellent           85.         P-4         →         48         50         50         52         53         60         500         4.44         Good           86.         A-2         →         50         54         52         50         52         53         60         500         4.44         Good           87.		<u></u>	······································			I	REPO	RTI	NG (	<b>DF RESUL</b>	TS			
81.       A-1       →       52       50       50       62       500       4.61       Excellent         82.       P-1       →       48       52       50       50       50       50       50       50       52       50       62       500       4.75       Excellent         83.       P-2       →       50       52       52       52       56       500       4.61       Excellent         84.       P-3       →       48       50       50       52       50       52       66       500       4.61       Excellent         85.       P.4       →       48       50       50       52       50       52       66       500       4.61       Excellent         87.       A1 P1Slab       1       54       52       54       50       52       53       60       500       4.43       Good         88.       P1+P2 Slab       1       54       50       52       50       51       55       500       4.43       Good         91.       P4 A1 Slab       1       54       50       52       50       51       54       54       53	No.					nd Hai	nmer I	Readin	g,	Rebound Hammer Average Reading	Equivalent Cube Compressive		(km/se	Quality
82.       P-1       →       44       52       50       50       62       500       4.75       Excellent         83.       P-2       →       50       50       50       52       52       52       52       52       52       52       52       52       52       52       52       50       52       50       52       50       52       50       52       50       52       50       52       50       52       50       52       50       52       50       52       50       52       66       500       4.81       Excellent         85.       P.4       →       48       50       54       54       52       50       52       50       52       56       50       4.41       Good         86.       A-2       →       54       52       56       54       52       50       52       53       60       500       4.44       Good         89.       P2+P3 Slab       ↑       52       56       50       52       50       52       50       51       56       500       4.46       Good         91.       →       50		Chainag	e No-75			لحمصص معاوره		BS/	Roa	<u>d)</u>				
33.       P-2       →       50       50       52       52       52       56       500       4.58       Excellent         84.       P-3       →       48       50       52       52       52       56       500       4.58       Excellent         85.       P.4       →       48       50       50       52       50       62       500       4.31       Good         86.       A.2       →       50       54       54       52       54       50       52       53       60       500       4.41       Good         88.       P1+P2 Slab       ↑       54       56       54       52       50       54       53       60       500       4.44       Good         89.       P2+P3 Slab       ↑       52       56       54       52       50       54       53       60       500       4.44       Good         90.       P2+P3 Slab       ↑       54       56       50       52       50       51       56       500       4.44       Good         91.       P4       Sa       50       54       54       52       56       51 <td>}</td> <td>· · · · · · · · · · · · · · · · · · ·</td> <td>&gt;</td> <td></td> <td></td> <td></td> <td>1</td> <td>50</td> <td>50</td> <td>50</td> <td>62</td> <td>500</td> <td>4.61</td> <td>Excellent</td>	}	· · · · · · · · · · · · · · · · · · ·	>				1	50	50	50	62	500	4.61	Excellent
84.       P-3       →       50       52       52       54       50       52       66       500       4.61       Excellent         85.       P.4       →       48       50       50       42       50       52       50       62       500       4.31       Good         86.       A-2       →       50       54       54       52       50       52       50       62       500       4.31       Good         87.       A1 P1 Slab       ↑       54       52       50       52       53       60       500       4.44       Good         88.       P1+P2 Slab       ↑       54       56       54       52       50       51       56       500       4.43       Good         90.       P3+P4 Slab       ↑       50       52       50       52       50       51       56       500       4.44       Good         91.       P4 Slab       ↑       50       52       50       52       56       51       64       500       4.44       Good         92.       A-1       →       48       50       52       50       52       50			→	1				48	52	50	62	500	4.75	Excellent
85.       P-4       →       48       50       50       48       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       52       50       52       50       52       50       50       4.41       Good         87.       A1 P1 Slab       1       54       52       54       52       52       53       60       500       4.44       Good         88.       P1+P2 Slab       1       54       56       54       52       50       51       56       500       4.43       Good         90.       P3+P4 Slab       1       54       56       50       52       50       51       56       500       4.43       Good         91.       P4 A1 Slab       1       54       56       50       52       50       51       56       500       4.42       Excellent         92.       A-1       →       48       50       52       56       51       64       500       4.44       Good         93.       P-1       →       50       51						I	1	50	52	52	66	500	4.58	Excellent
86.       A-2       →       50       54       54       52       50       50       60       500       4.81       Excellent         87.       A1 P1 Slab       1       54       54       52       54       53       60       500       4.44       Good         88.       P1+P2 Slab       1       54       56       54       52       50       52       53       60       500       4.44       Good         90.       P3+P4 Slab       1       52       54       50       52       50       51       56       500       4.43       Good         90.       P3+P4 Slab       1       54       55       50       52       50       51       56       500       4.46       Good         91.       P4 A1 Slab       1       54       55       52       50       52       56       51       64       500       4.62       Excellent         92.       A-1       →       48       50       52       56       53       68       500       4.62       Excellent         93.       P-1       →       50       51       54       54       54       54 <td></td> <td></td> <td>·</td> <td></td> <td>į</td> <td></td> <td></td> <td></td> <td>50</td> <td>52</td> <td>66</td> <td>500</td> <td>4.61</td> <td>Excellent</td>			·		į				50	52	66	500	4.61	Excellent
87.       A1 P1 Slab       1       54       52       54       50       52       54       53       60       500       4.44       Good         88.       P1+P2 Slab       1       54       56       54       52       54       53       60       500       4.44       Good         89.       P2+P3 Slab       1       50       52       54       52       53       60       500       4.43       Good         90.       P3+P4 Slab       1       50       52       54       50       51       56       500       4.43       Good         91.       P4 A1 Slab       1       50       52       50       52       50       51       56       500       4.43       Good         92.       A-1       →       48       50       52       50       52       56       51       64       500       4.61       Excellent         93.       P-1       →       50       50       48       46       48       46       48       50       52       56       53       68       500       4.43       Good         93.       P-3       50       51			<b>→</b>	ļ			1	50	52	50	62	500	4.31	Good
88.       P1+P2 Slab       1       54       56       54       52       50       52       53       60       500       4.44       Good         89.       P2+P3 Slab       1       52       56       54       52       53       60       500       4.43       Good         90.       P3+P4 Slab       1       50       52       54       53       60       500       4.43       Good         91.       P4 Al Slab       1       54       56       50       52       50       51       56       500       4.46       Good         92.       A-1       →       48       50       52       50       52       56       51       64       500       4.61       Excellent         93.       P-1       →       50       50       48       46       48       46       48       50       00       4.61       Excellent         93.       P-1       →       50       48       50       50       48       46       48       49       60       500       4.41       Good         94.       P-2       →       50       48       50       50	86.	A-2	·	1		54	52	50	50	52	66	500	4.81	Excellent
89.       P2+P3 Slab       ↑       52       56       54       53       60       500       4.43       Good         90.       P3+P4 Slab       ↑       50       52       54       53       60       500       4.43       Good         91.       P4 A1 Slab       ↑       54       56       50       52       50       54       53       60       500       4.43       Good         92.       A-1       →       48       50       52       50       52       56       51       64       500       4.61       Excellent         93.       P-1       →       50       50       48       46       48       64       58       500       4.61       Excellent         93.       P-1       →       50       50       48       46       48       65       53       68       500       4.61       Excellent         94.       P-2       →       50       50       48       50       50       48       46       48       50       50       4.81       Excellent         95.       P-2       →       48       54       52       56       54       <	87.	A1 P1 Slab	1	54	52	54	50	52	54	53	60	500	4.44	Good
90.       P3+P4 Slab       ↑       50       52       50       51       56       500       4.46       Good         91.       P4 A1 Slab       ↑       54       56       50       52       50       51       56       500       4.46       Good         92.       A-1       →       48       50       52       50       52       56       51       64       500       4.61       Excellent         93.       P-1       →       50       50       48       46       48       46       48       58       500       4.62       Excellent         94.       P-2       →       50       51       54       54       52       56       53       68       500       4.62       Excellent         95.       P-3       →       50       85       54       84       84       49       60       500       4.62       Excellent         96.       P-4       →       48       54       56       54       56       54       56       54       50       4.33       68       500       4.32       Good         97.       A-2       →       48       5	88.	P1+P2 Slab	1	54	56	54	52	50	52	53	60	500	4.49	Good
91.       P4 AI Slab       1       54       56       50       52       51       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       51       50       50       4.52       Excellent         92.       A-1       →       48       50       52       50       52       56       51       64       500       4.61       Excellent         93.       P-1       →       50       51       54       54       52       56       53       68       500       4.62       Excellent         94.       P-2       →       50       48       50       50       48       46       48       49       60       500       4.81       Excellent         95.       P-3       →       50       54       56       54       53       60       400       4.63       Excellent         96.       P1-2       Slab       ↑       54       52       56 <t5< td=""><td>89.</td><td>P2+P3 Slab</td><td>1</td><td>52</td><td>56</td><td>54</td><td>52</td><td>50</td><td>54</td><td>.53</td><td>60</td><td>500</td><td>4.43</td><td>Good</td></t5<>	89.	P2+P3 Slab	1	52	56	54	52	50	54	.53	60	500	4.43	Good
S.       Chainage No-76+177 MJB LHS         92.       A-1       →       48       50       52       56       51       64       500       4.61       Excellent         93.       P-1       →       50       50       52       56       51       64       500       4.61       Excellent         94.       P-2       →       50       51       54       54       52       56       53       68       500       4.44       Good         95.       P-3       →       50       48       50       50       48       48       49       60       500       4.81       Excellent         96.       P-4       →       48       52       54       54       56       54       53       68       500       4.32       Good         97.       A-2       →       48       52       54       52       54       53       60       400       4.63       Excellent         99.       P1-P2 Slab       ↑       54       56       52       56       52       56       55       64       450       4.49       Good         101.       P3-P4 Slab       ↑	90.	P3+P4 Slab	1	50	52	54	50	50	50	51	56	500	4.46	Good
92.       A-1       →       48       50       52       50       52       50       51       64       500       4.61       Excellent         93.       P-1       →       50       50       48       46       48       46       48       58       500       4.62       Excellent         94.       P-2       →       50       51       54       54       52       56       53       68       500       4.44       Good         95.       P-3       →       50       48       50       50       48       48       49       60       500       4.81       Excellent         96.       P-4       →       48       52       54       56       54       53       68       500       4.49       Good         97.       A-2       →       48       54       52       54       53       60       400       4.63       Excellent         100.       P2-P3 Slab       ↑       54       56       52       50       54       62       500       4.63       Excellent         101.       P3-P4 Slab       ↑       54       56       52       56	91.	P4 A1 Slab	1	54	56	50	52	50	54	53	. 60	500	4.52	Excellent
93.       P-1       →       50       50       48       46       48       56       51       500       4.01       Excellent         94.       P-2       →       50       51       54       54       52       56       53       668       500       4.44       Good         95.       P-3       →       50       48       50       50       48       48       49       60       500       4.44       Good         96.       P-4       →       48       52       54       56       53       668       500       4.44       Good         97.       A-2       →       48       52       54       56       56       54       70       500       4.49       Good         98.       A1-P1Slab       ↑       54       56       52       56       54       50       54       62       500       4.69       Excellent         100.       P2-P3 Slab       ↑       54       56       52       56       52       56       55       64       450       4.49       Good         102.       P4 2 Slab       ↑       54       52       56       50 </td <td>S.</td> <td>Chainage</td> <td>e No-76</td> <td>+17</td> <td>7 M.</td> <td>JB I</td> <td>LHS</td> <td></td> <td></td> <td></td> <td>4</td> <td><b>4</b></td> <td>·</td> <td></td>	S.	Chainage	e No-76	+17	7 M.	JB I	LHS				4	<b>4</b>	·	
94.       P-2       →       50       51       54       54       52       56       53       68       500       4.44       Good         95.       P-3       →       50       48       50       50       48       49       60       500       4.44       Good         96.       P-4       →       48       52       54       54       56       53       68       500       4.44       Good         97.       A-2       →       48       52       54       54       56       54       70       500       4.49       Good         98.       A1-P1 Slab       ↑       54       54       52       54       52       54       53       60       400       4.63       Excellent         100.       P2-P3 Slab       ↑       54       56       56       52       56       54       56       52       56       54       54       62       500       4.63       Excellent         101.       P3-P4 Slab       ↑       54       56       52       56       52       56       55       64       450       4.49       Good         102.       P4	92.	A-I	$\rightarrow$	48	50	52	50	52	56	51	64	500	4.61	Excellent
94.       P-2       →       50       51       54       54       52       56       53       68       500       4.44       Good         95.       P-3       →       50       48       50       50       48       48       49       60       500       4.81       Excellent         96.       P-4       →       48       52       54       54       56       54       53       68       500       4.32       Good         97.       A-2       →       48       54       56       54       52       54       53       60       400       4.63       Excellent         99.       P1-P2 Slab       ↑       54       56       56       52       50       54       62       500       4.69       Excellent         100.       P2-P3 Slab       ↑       54       56       56       52       56       53       64       450       4.9       Good         101.       P3-P4 Slab       ↑       54       56       56       52       56       55       64       450       4.49       Good         102.       P4 A2 Slab       ↑       56       52	93.	P-1	<b>→</b>	50	50	48	46	48	46	48	58	500	4.62	Excellent
95.       P-3       →       50       48       50       50       48       48       49       60       500       4.81       Excellent         96.       P-4       →       48       52       54       54       56       53       68       500       4.32       Good         97.       A-2       →       48       54       56       54       53       60       400       4.63       Excellent         99.       A1-P1 Slab       ↑       54       54       52       54       50       54       62       500       4.69       Excellent         100.       P2-P3 Slab       ↑       54       56       52       56       52       50       54       62       500       4.63       Excellent         101.       P3-P4 Slab       ↑       56       52       56       52       56       55       64       450       4.99       Good         102.       P4 A2 Slab       ↑       56       52       56       50       50       50       50       64       450       4.49       Good         103.       A-1       →       48       50       52       56<	94.	P-2	$\rightarrow$	50	51	54	54	52	56	53	68	500		Good
96.       P-4       →       48       52       54       54       56       54       53       68       500       4.32       Good         97.       A-2       →       48       54       56       54       56       54       70       500       4.49       Good         98.       A1-P1 Slab       ↑       54       54       52       54       52       54       53       60       400       4.63       Excellent         99.       P1-P2 Slab       ↑       54       56       56       52       50       54       62       500       4.69       Excellent         100.       P2-P3 Slab       ↑       54       56       56       52       54       54       62       500       4.51       Excellent         101.       P3-P4 Slab       ↑       56       52       56       52       56       55       64       450       4.49       Good         102.       P4 A2 Slab       ↑       50       50       52       56       50       52       51       64       500       4.61       Excellent         103.       A-1       →       48       50	95.	P-3	$\rightarrow$	50	48	50	50	48	48		60			Excellent
97.       A-2       →       48       54       56       54       56       54       70       500       4.49       Good         98.       A1-P1 Slab       ↑       54       54       52       54       53       60       400       4.63       Excellent         99.       P1-P2 Slab       ↑       54       56       52       56       54       50       54       62       500       4.69       Excellent         100.       P2-P3 Slab       ↑       54       56       56       52       50       54       62       500       4.63       Excellent         101.       P3-P4 Slab       ↑       56       52       56       52       56       55       64       450       4.49       Good         102.       P4 A2 Slab       ↑       56       52       56       50       52       51       64       450       4.49       Good         103.       A-1       →       48       50       52       50       50       50       62       500       4.61       Excellent         104.       A-2       →       50       50       50       50       50	96.	P-4	>	48	52	54	54	56	54		68			
98.       A1-P1 Slab       ↑       54       54       52       54       52       54       53       60       400       4.63       Excellent         99.       P1-P2 Slab       ↑       54       56       52       56       54       50       54       62       500       4.69       Excellent         100.       P2-P3 Slab       ↑       54       56       56       52       50       54       62       500       4.63       Excellent         101.       P3-P4 Slab       ↑       56       52       56       52       56       55       64       450       4.49       Good         102.       P4 A2 Slab       ↑       56       52       56       52       51       64       500       4.61       Excellent         103.       A-1       →       48       50       52       56       50       50       50       62       500       4.49       Good         104.       A-2       →       50       50       50       50       50       50       50       62       500       4.61       Excellent         105.       Slab       ↑       54       52 <td>97.</td> <td>A-2</td> <td></td> <td>48</td> <td>54</td> <td>56</td> <td>54</td> <td>56</td> <td>56</td> <td></td> <td>70</td> <td></td> <td></td> <td>Good</td>	97.	A-2		48	54	56	54	56	56		70			Good
100.       P2-P3 Slab       1       54       56       56       56       57       56       54       62       500       4.09       Excellent         101.       P3-P4 Slab       1       54       56       56       52       50       54       62       550       4.51       Excellent         101.       P3-P4 Slab       1       54       56       54       56       52       54       54       62       400       4.63       Excellent         102.       P4 A2 Slab       1       56       52       56       55       64       450       4.49       Good         T.       Chainage No-76+410 PUP LHS       Excellent       104.       A-2 $\rightarrow$ 50       50       50       50       50       62       500       4.61       Excellent         104.       A-2 $\rightarrow$ 50       50       48       50       50       50       50       62       500       4.49       Good         105.       Slab       1       54       52       56       50       50       50       50       50       50       50       50       50       50       50       50	98.	Al-Pl Slab	1	54	54	52	54	52	54	53	60	400		Excellent
101.       P3-P4 Slab       1       54       56       52       54       54       62       550       4.51       Excertain Excertain         102.       P4 A2 Slab       1       56       52       56       52       54       54       62       400       4.63       Excellent         102.       P4 A2 Slab       1       56       52       56       52       56       52       56       55       64       450       4.49       Good         T.       Chainage No-76+410 PUP LHS       Excellent       103.       A-1 $\rightarrow$ 48       50       52       56       50       50       50       64       500       4.61       Excellent         104.       A-2 $\rightarrow$ 50       50       48       50       50       50       50       62       500       4.61       Excellent         104.       A-2 $\rightarrow$ 50       50       50       50       50       50       50       50       50       50       62       500       4.51       Excellent         105.       Slab       1       54       52       52       50       50       52       50 <t< td=""><td>99.</td><td>P1-P2 Slab</td><td>Î</td><td>54</td><td>56</td><td>52</td><td>56</td><td>54</td><td>50</td><td>54</td><td>62</td><td>500</td><td>4.69</td><td>Excellent</td></t<>	99.	P1-P2 Slab	Î	54	56	52	56	54	50	54	62	500	4.69	Excellent
102.       P4 A2 Slab $\uparrow$ 56       52       56       52       56       52       56       52       56       52       56       52       56       52       56       52       56       55       64       450       4.49       Good         T.       Chainage No-76+410 PUP LHS       Item       50       52       56       50       52       51       64       500       4.61       Excellent         103.       A-1 $\rightarrow$ 48       50       52       56       50       52       51       64       500       4.61       Excellent         104.       A-2 $\rightarrow$ 50       50       52       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       <	100.	P2-P3 Slab	1	54	56	56	56	52	50	54	62	550	4.51	Excellent
T.       Chainage No-76+410 PUP LHS         103.       A-1       →       48       50       52       56       50       52       51       64       500       4.61       Excellent         104.       A-2       →       50       50       50       50       50       62       500       4.49       Good         105.       Slab       ↑       54       52       56       50       50       50       62       500       4.49       Good         105.       Slab       ↑       54       52       56       50       50       56       53       60       500       4.51       Excellent         106.       A-1       →       48       50       46       50       52       52       50       62       500       5.00       Excellent         107.       A-2       →       46       52       52       50       50       52       58       500       4.67       Excellent         108.       Slab       ↑       56       54       52       52       50       52       58       500       4.67       Excellent         108.       Slab       ↑	101.	P3-P4 Slab	1	54	56	54	56	52	54	54	62	400	4.63	Excellent
103.       A-1 $\rightarrow$ 48       50       52       56       50       52       51       64       500       4.61       Excellent         104.       A-2 $\rightarrow$ 50       50       48       50       50       50       62       500       4.49       Good         105.       Slab $\uparrow$ 54       52       56       50       50       56       53       60       500       4.51       Excellent         U.       Chainage No-76+410 PUP RHS       V       Reset       Sign of the second	102.	P4 A2 Slab	1	56	52	56	56	52	56	55	64	450	4.49	Good
104.       A-2 $\rightarrow$ 50       50       48       50       50       50       50       62       500       4.49       Good         105.       Slab $\uparrow$ 54       52       56       50       50       50       62       500       4.49       Good         105.       Slab $\uparrow$ 54       52       56       50       50       56       53       60       500       4.49       Good         105.       Slab $\uparrow$ 54       52       56       50       50       56       53       60       500       4.49       Good         106.       A-1 $\rightarrow$ 48       50       46       50       52       52       50       62       500       4.81       Excellent         107.       A-2 $\rightarrow$ 46       52       52       50       50       52       58       500       4.81       Excellent         108.       Slab $\uparrow$ 56       54       52       52       50       52       58       500       4.67       Excellent         109.       A-1 $\rightarrow$ 48       50	T.	Chainage	e No-76-	+41(	) PU	<b>PL</b>	HS							````
104.       A-2 $\rightarrow$ 50       50       48       50       50       50       50       62       500       4.49       Good         105.       Slab $\uparrow$ 54       52       56       50       50       56       53       60       500       4.49       Good         U.       Chainage No-76+410 PUP RHS       V       Chainage No-76+410 PUP RHS       Substantial State       Substantis <td>103.</td> <td>A-1</td> <td></td> <td>48</td> <td>50</td> <td>52</td> <td>56</td> <td>50</td> <td>52</td> <td>51</td> <td>64</td> <td>500</td> <td>4.61</td> <td>Excellent</td>	103.	A-1		48	50	52	56	50	52	51	64	500	4.61	Excellent
U.       Chainage No-76+410 PUP RHS         106.       A-1 $\rightarrow$ 48       50       46       50       52       52       50       62       500       5.00       Excellent         107.       A-2 $\rightarrow$ 46       52       52       50       51       64       500       4.81       Excellent         108.       Slab $\uparrow$ 56       54       52       52       50       52       58       500       4.67       Excellent         108.       Slab $\uparrow$ 56       54       52       52       50       52       58       500       4.67       Excellent         108.       Slab $\uparrow$ 56       54       52       52       50       52       58       500       4.67       Excellent         V.       Chainage No-76+707       MJB LHS       Image No-76+707       MJB LHS       Image No-76+707       MJB Excellent       56       54       52       50       51       56       450       4.53       Excellent         110.       Slab $\uparrow$ 52       52       50       51       56       450       4.53       Excellent	104.	A-2	$\rightarrow$	50	50	48	50	50	50	50	62	500		Good
U. Chainage No-76+410 PUP RHS         106.       A-1 $\rightarrow$ 48       50       46       50       52       52       50       62       500       5.00       Excellent         107.       A-2 $\rightarrow$ 46       52       52       50       56       51       64       500       4.81       Excellent         108.       Slab $\uparrow$ 56       54       52       52       50       50       52       58       500       4.67       Excellent         V.       Chainage No-76+707 MJB LHS         109.       A-1 $\rightarrow$ 48       50       52       50       51       56       450       4.53       Excellent         109.       A-1 $\rightarrow$ 48       50       52       50       51       56       450       4.53       Excellent         110.       Slab $\uparrow$ 52       52       50       50       51       56       450       4.53       Excellent         111.       P-1 $\rightarrow$ 50       48       50       50       48       46       49       60       500       4.66       Excellent     <	105.	Slab		54	52	56	50	50	56	53	60	500		Excellent
107.       A-2 $\rightarrow$ 46       52       52       50       62       500       5.00       5.00       5.00       5.00       5.00       5.00       5.00       5.00       5.00       5.00       5.00       5.00       5.00       5.00       5.00       5.00       5.00       5.00       4.81       Excellent         108.       Slab $\uparrow$ 56       54       52       52       50       50       52       58       500       4.81       Excellent         V.       Chainage No-76+707       MJB LHS       LHS         109.       A-1 $\rightarrow$ 48       50       52       50       62       500       4.41       Good         110.       Slab $\uparrow$ 52       52       48       50       51       56       450       4.53       Excellent         111.       P-1 $\rightarrow$ 50       48       50       50       48       46       49       60       500       4.66       Excellent         112.       Slab $\uparrow$ 54       52       54       48       48       52       58       500       4.73       Excellent <td>U.</td> <td>Chainage</td> <td>e No-76-</td> <td>+41(</td> <td>) PU</td> <td><b>P</b>R</td> <td>HS</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td> h</td> <td></td>	U.	Chainage	e No-76-	+41(	) PU	<b>P</b> R	HS						h	
107.       A-2 $\rightarrow$ 46       52       52       50       56       51       64       500       4.81       Excellent         108.       Slab $\uparrow$ 56       54       52       52       50       50       52       58       500       4.81       Excellent         V.       Chainage No-76+707       MJB LHS       Use       50       52       50       62       500       4.41       Good         109.       A-1 $\rightarrow$ 48       50       52       50       50       62       500       4.41       Good         110.       Slab $\uparrow$ 52       52       48       50       51       56       450       4.53       Excellent         111.       P-1 $\rightarrow$ 50       48       50       50       48       46       49       60       500       4.66       Excellent         112.       Slab $\uparrow$ 54       54       52       54       48       48       52       58       500       4.73       Excellent	106.		······································					52	52	50	62	500	5.00	Excellent
108.       Slab $\uparrow$ 56       54       52       52       50       52       58       500       4.67       Excellent         V.       Chainage No-76+707       MJB LHS       LHS       50       52       50       62       500       4.67       Excellent         109.       A-1 $\rightarrow$ 48       50       52       50       62       500       4.41       Good         110.       Slab $\uparrow$ 52       52       48       50       52       50       62       500       4.41       Good         111.       P-1 $\rightarrow$ 50       48       50       50       51       56       450       4.53       Excellent         112.       Slab $\uparrow$ 54       54       52       54       48       48       52       58       500       4.73       Excellent         112.       Slab $\uparrow$ 54       54       52       54       48       48       52       58       500       4.73       Excellent	107.	A-2	$\rightarrow$	46	52	52	50	50						
V.       Chainage No-76+707       MJB LHS         109.       A-1 $\rightarrow$ 48       50       52       48       50       52       50       62       500       4.41       Good         110.       Slab $\uparrow$ 52       52       48       52       50       51       56       450       4.53       Excellent         111.       P-1 $\rightarrow$ 50       48       50       50       48       46       49       60       500       4.66       Excellent         112.       Slab $\uparrow$ 54       52       54       48       48       52       58       500       4.73       Excellent	108.	Slab*	<u>t</u>	56	54	52	52							
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	V.	Chainage	No-76-	+707	M.	<b>IB</b>	HS							
110.       Slab $\uparrow$ 52       52       48       52       50       51       56       450       4.53       Excellent         111.       P-1 $\rightarrow$ 50       48       50       50       51       56       450       4.53       Excellent         112.       Slab $\uparrow$ 54       54       52       54       48       48       52       58       500       4.73       Excellent			······					50	52	50	62	500	4.41	Good
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			1	52	52									
112.       Slab $\uparrow$ 54       52       54       48       48       52       58       500       4.73       Excellent	111.			50	48	50	50							
	112.	Slab	1	54	54	52	54					·····		
113. P-2 $\rightarrow$ 50 52 50 52 50 48 50 62 550 4.75 Excellent	113.	P-2	$\rightarrow$	50	52	50	52	50	48					Excellent

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000-to 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

M/s Dilip Buildcon Ltd.

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# BALAJI SCIENTIFIC LABORATORIES -165-

#### **2K-18 NIT FARIDABAD**

	***************************************				F	REPO	ORTI	NGO	OF RESUL	TS			
Sr. No.	Location	Direction		Rebou	nd Hau	nner f	Reading	3	Rebound Hammer Average Reading	Equivalent Cube Compressive Strength, N/mm ²	Distance (mm)	UPV (km/sc c.)	Concrete Quality Grading
114.	Slab	1	50	50	50	48	52	54	51	56	500	4.49	Good
115.	P-3	>	50	48	46	50	48	48	48	58	500	4.48	Good
116.	Slab	<u> </u>	50	48	48	50	52	50	50	54	500	4.49	Good
117.	P-4	→	48	48	50	50	50	52	50	62	400	4.51	Excellent
118.	Slab	1	50	50	50	48	50	48	49	52	450	4.63	Excellent
119.	P-5	$\rightarrow$	48	50	50	52	50	48	.50	62	400	4.48	Good
120.	Slab	1	48	50	52	50	52	50	50	54	450	4.36	Good
121.	P-6	→	50	52	50	52	48	46	50	62	600	4.56	Excellent
122.	Slab	Î	48	50	46	50	48	46	48	50	500	4.39	Good
123.	P-7	$\rightarrow$	50	46	50	52	50	50	50	62	450	4.47	Good
124.	Slab	1	52	50	50	48	50	50	50	54	400	4.52	Excellent
125.	P-8		50	48	52	50	56.	50	51	64	450	4.39	Good
126.	P-8 Slab	Î	52	50	50	52	50	52	51	56	500	4.61	Excellent
127.	P-7	$\rightarrow$	48	50	50	50	52	50	50	62	500	4.72	Excellent
128.	Slab	1	54	52	56	50	52	54	53	60	500	4.39	Good
129.	A-2	$\rightarrow$	50	48	50	48	46	50	49	60	500	4.59	Excellent
W.	Chainage	e No-77	+038	8 M.	JB I	LHS	L			4		H	
130.	A-1	>	48	50	52	50	50	52	50	62	500	4.61	Excellent
131.	P-1	<b>→</b>	50	50	48	52	50	50	50	62	500	4.51	Excellent
132.	P-2	>	52	50	50	52	54	56	52	66	500	4.49	Good
133.	P-3	>	54	54	56	52	50	54	53	68	500	4.50	Good
134.	P-4		59	56	54	50	50	56	53	68	500	4.41	Good
135.	A-1	$\rightarrow$	50	48	50	50	48	46	49	60	500	4.39	Good
136.	Al-Pl Slab	1	52	52	54	52	54	56	53	60	500	4.67	Excellent
137.	P1-P2 Slab	Î	54	56	54	56	52	54	54	62	500	4.43	Good
138.	P2-P3 Slab	1	56	54	50	56	54	56	54	62	500	4.65	Excellent
139.	P3-P4 Slab	1	54	50	52	50	56	50	52	58	500	4.75	Excellent
140.	P4 -A2 Slab	1	56	50	52	50	52	50	52	58	500	4.70	Excellent
<b>X.</b>	Chainage	e No-78-	+166	5 M.	JB I	HS			<u></u>				
141.	A-1	>	48	52	50	52	50	50	50	62	500	4.61	Excellent
142.	P-1	>	50	50	46	48	52	50	49	60	500	4.72	Excellent
143:	P-2	$\rightarrow$	50	52	50	50	52	50	51	64	500	4.49	Good
144.	P-3	$\rightarrow$	48	50	50	52	50	52	50	62	500	4.51	Excellent
145.	P-4	$\rightarrow$	48	50	52	54	54	56	52	66	500	4.49	Good
146.	A-2	$\rightarrow$	50	50	50	52	50	56	51	64	500	4.49	Good
147.	A1-P1 Slab	1	52	54	52	54	54	56	54	62	500	4.63	Excellent
148.	P1-P2 Slab	<u>↑</u>	54	56	52	52	56	50	53	60	500	4.60	Excellent
149.	P2-P3 Slab	1	56	50	52	56	56	54	54	62	500	4.61	Excellent

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to Km 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

M/s Dilip Buildcon Ltd.

## **BALAJI SCIENTIFIC LABORATORIES** -166 -

#### **2K-18 NIT FARIDABAD**

	<u> </u>	:			]	REP	ORT	ING	OF RESUL	TS			
Sr. No.	Location	Direction			und Ha	mmer	Readin		Rebound Hammer Average Reading	Equivalent Cube Compressive Strength, N/mm ²	Distance (mm)	UPV (km/se c.)	Concrete Quality Grading
150.	P3-P4 Slab	.1	54	56	50	52	54	56	54	62	500	4.52	Excellent
151.	P4 -A2 Slab	1	56	54	50	54	56	50	53	60	500	4.56	Excellent
Y.	Chainag	ge No-7	7 <b>9</b> +	167	' <b>M</b>	NB	(M	CW	' Widen	ing)	<b></b>		I <u></u>
152.	A-1		48	50	52	50	50	48	50	62	500	4.61	Excellent
153.	P-1		48	50	52	50	50	48	50	62	500	4.53	Excellent
154.	P-2	$\rightarrow$	50	48	48	46	48	46	48	58	500	4.55	Excellent
155.	P-3		50	48	50	50	48	50	48	58	500	4.61	Excellent
156.	A-1	$\rightarrow$	50	48	50	52	50	52	50	62	500	4.72	Excellent
157.	A1-PI Slab	Î	54	54	52	54	56	56	54	62	500	4.63	Excellent
158.	P1-P2 Slab	1	50	54	52	54	54	56	53	60	500	4.48	Good
159.	P2-P3 Slab	1	56	54	56	50	56	54	54	62	500	4.92	Excellent
161.	P3-A2 Slab	Î	56	54	52	54	54	56	54	62	500	4.72	Excellent
Z.	Chainag	ge No-7	79+	679	M	JB ]	LHS	5	·		· ··· ·· · · · ··· ··· ··· ··· ···		
162.	A-1	$\rightarrow$	48	50	52	50	50	50	51	64	500	4.49	Good
163.	- P-1	$\rightarrow$	50	52	52	50	50	50	51	64	500	4.48	Good
164.	P-2	$\rightarrow$	52	54	50	52	52	54	53	68	500	4.51	Excellent
165.	A-2	$\rightarrow$	48	48	50	52	50	52	50	62	500	4.39	Good
166.	Al+Pl Gl	$\rightarrow$		48	52	54	56	54	53	68	500	4.62	Excellent
167.	P1-P2 Box Slab	1		50	52	54	54	56	53	60	500	4.74	Excellent
168.	P1-A2 G1	→		50	52	54	50	48	52	66	500	4.59	Excellent
<b>A</b> .	Chainag	e No-8	80+9	931	PU	PL	HS			······	**** <u>- *****</u>	4	
169.	A-1	→	48	50	50	48	48	52	49	60	500	4.61	Excellent
170.	A-2	→	50	52	50	50	52	50	51	64	500	4.53	Excellent
171.	Slab	1	54	56	52	50	52	50	52	58	500	4.69	Excellent
<b>B.</b>	Chainag	e No-8	0+9	931	PU	PR	RHS					L <u></u>	······
172.	A-I	→	48	50	46	52	50	50	49	60	500	4.49	Good
173.	A-2	→	50	48	46	50	52	52	50	62	500	4.49	
174.	Slab	<u> </u>	52	54	54	54	52	50	53	60	500	4.44	Good
C.	Chainag	e No-8									500	7,4J	Good
175.	A-1		48	.50	50	52	50	48	50	62	500	4.62	Excellent
176.	A-2	$\rightarrow$	50	52	50	52	48	48	50	62	500	4.02	Good
177.	Slab	1	54	56	50	54	56	52	52	58	500		
<b>D</b> .	Chainag	e No-8		l	<u>(</u>			····-	J2	0	500	4.48	Good
178.	A-1		48						т				
1 / 0.	<u></u>		40	50	48	52	50	50	50	62	500	4.52	Excellent

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to Km 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

M/s Dilip Buildcon Ltd.

## **BALAJI SCIENTIFIC LABORATORIES**-167 ----

## **2K-18 NIT FARIDABAD**

$\overline{\mathbf{x}}$						<u>ZK-:</u>	<u>18 l</u>	JIT F	ARIDA	BAD			
	<u> </u>	<u> </u>				REP	ORT	ING	OF RESU	LTS		·····	
Sr. No.	Location	Direction		Rebo	und H	ammer			Rebound Hammer Average Reading	Equivalent Cube Compressive Strength,	Distance (nım)	UPV (km/s c.)	Source
179		$\rightarrow$	50	50	48	48	50	52	50	N/mm ²			
180	. Slab	1	52	54	50			_	50	62	500	4.39	
<b>E.</b>	Chaina	ge No-82	2+17	'5 M	INR	LH			52 V Widen	58	500	4.38	Good
181	. A-1	$\rightarrow$	48	50	52		50	48				·····	
182.	P-1	$\rightarrow$	50	50	48	50	52	48	50	62	500	4.62	Excellent
183.	P-2	$\rightarrow$	48	50	50	52	50	48	50	62	500	4.59	Excellent
184.	P-3	→	50	52	50	48	50	50	50	62	500	4.48	Good
185.	P-4		52	50	52	50	50	48	50	62	500	4.39	Good
186.	A-2		50	52	48	50	52	50	50	62	500	4.52	Excellent
F.	Chainag	ge No-84	+314				1 52	50	50	62	500	4.39	Good
187.	A-1		48	50	52	50	·····		r				
188.	A-2		48	52	50	48	56	50	51	64	500	4.49	Good
189.	Slab	1	54	52	50	48	50	50	50	62	500	4.68	Excellent
G.		e No-84					50	50	51	56	500	4.39	Good
190.	A-1		48	50	50					1			
191.	A-2		48	52	50	52	50	50	50	62	500	4.81	Excellent
192.	Slab	<u>↑</u>	54	56	50 54	52	56	50	51	64	500	4.72	Excellent
H.	Chainag	_ <u></u>				50	56	54	54	62	500	4.63	Excellent
193.	A-1		48	50	<u>CW</u>		NB	Wid	ening) I	LHS			
194.	P-1		50	50	52	50	48	50	50	62	400	4.61	Excellent
195.	P-2		48		52	50	52	50	.51	64	500	4.73	Excellent
196.	Al		50	48 50	54	50	54	50	51	64	500	4.51	Excellent
197.	A1+P1 Slab	<b>↑</b>	52	54	52	54	56	54	53	68	400	4.49	Good
198.	P1+P2 Slab	<u>↑</u>	52	56	54	56	54	54	54	62	350	4.44	Good
199.	P-A Slab		54		54	56	54	50	54	62	350	4.52	Excellent
[.					54	56	54	56	55	64	400	4.63	Excellent
	Chainag			1		BI	HS	•					
200.	<u>AI</u>						50	52	51	64	500	4.61	Excellent
201.	A2				50	52	50	48 [·]	51	64	500	4.39	Good
J.	Chainag	<u>e No-80</u>	5+6	90	S/R	LF	IS					-,J9	0000
.02.	A-1							48	50	62			
03.	P-1	$\rightarrow$ :	50 .	52 :	50			48	51	64	500	4.61	Excellent
04.	A2	·	18 1	50 :				50	50	62	500	4.71	Excellent
<b>S</b> .	Chainag	e No-86	6+69	))		RH		<u> </u>	<u> </u>	02	500	4.85	Excellent
05.	A-1	and the second se						<u>.</u>					
06.	P-1							50	49	60	500	4.23	Good
07.	A2	······						2	51	64	500	4.46	Good
						<u> </u>	<u>c   v</u>	0	51	64	500	4.72	Excellent

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to Km 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

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# BALAJI SCIENTIFIC LABORATORIES -168 -

## **2K-18 NIT FARIDABAD**

208.         209.         210.         M.         (211.         212.         213.         N.         (214.         215.         216.         O.         (217.         218.         219.	Location Chainag A-1 P-1 A2 Chainag A-1 P-1 A2 Chainag A1 A2 Slab Chainag A1 A2 Slab	$ \rightarrow \\ \rightarrow \\ ge No-8 \\ \rightarrow \\ \rightarrow \\ ge No-8 \\ \rightarrow \\ \rightarrow \\ \rightarrow \\ ge No-8 \\ \rightarrow \\ \rightarrow \\ ge No-8 \\ \rightarrow \\ $	48 50 52 <b>36+</b> 48 48 50 <b>36+</b> 50 48 54 54 <b>36+</b> 48	-69( 50 50 50 69( 50 52 785 48 50 52 785	0       N         50       48         54       54         0       N         52       50         46       50         50       46         50       48         50       48         54       54	Ammer INE 48 48 50 INE 50 50 48 UP 50 50 50 50	Readi         3 (IV         48         52         50         3 (IV         56         52         50         LH         48	ng 50 50 48 ICW 56 50 52	DF RESUL Rebound Hammer Average Reading /) LHS 49 49 51 /) RHS 52 50 50	TS Equivalent Cube Compressive Strength, N/mm ² 60 60 60 64 64 66 62 62 62	Distance (mm) 500 500 500 500 500 500	UPV (km/se c.) 4.63 4.45 4.52 4.52 4.54 5.00 5.01	Concrete Quality Grading Excellent Good Excellent Excellent Excellent Excellent
No.         Image: No.           L.         C           208.         209.           210.         Image: No.           M.         C           211.         212.           213.         Image: No.           N.         C           214.         215.           216.         Image: C           217.         218.           219.         Image: C           220.         Image: C	Chainag A-1 P-1 A2 Chainag A-1 P-1 A2 Chainag A1 A2 Slab Chainag A1 A2	$ge No-8$ $\rightarrow$ $ge No-8$ $\rightarrow$ $ge No-8$ $\rightarrow$ $ge No-8$ $\rightarrow$ $\rightarrow$ $ge No-8$ $\rightarrow$	48 50 52 <b>36+</b> 48 48 50 <b>36+</b> 50 48 54 54 <b>36+</b> 48	-69( 50 50 50 69( 50 52 785 48 50 52 785	0       N         50       48         54       54         0       N         52       50         46       50         50       46         50       48         50       48         54       54	INE         48         50         INE         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50	3 (N         48         52         50         3 (N         50         50         50         50         50         50         50         50         50         48         48	ICW 50 50 48 ICW 56 50 52 S	Hammer Average Reading /) LHS 49 49 51 /) RHS 52 50	Cube Compressive Strength, N/mm ² 60 60 60 64 66 66 62	(mm) 500 500 500 500	(km/se c.) 4.63 4.45 4.52 4.54 5.00	Quality Grading Excellent Good Excellent Excellent
208.         209.         210.         M.         211.         212.         213.         N.         214.         215.         216.         O.         217.         218.         219.         P.       C         220.	A-1 P-1 A2 Chainag A-1 P-1 A2 Chainag A1 A2 Slab Chainag A1 A2	$ \rightarrow \\ \rightarrow \\ ge No-8 \\ \rightarrow \\ \rightarrow \\ ge No-8 \\ \rightarrow \\ \rightarrow \\ \rightarrow \\ ge No-8 \\ \rightarrow \\ \rightarrow \\ ge No-8 \\ \rightarrow \\ $	48 50 52 <b>36+</b> 48 48 50 <b>36+</b> 50 48 54 54 <b>36+</b> 48	50 50 50 50 50 50 52 785 48 50 52 785	50 48 54 54 52 50 46 50 46 50 48 50 48 54	48       48       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50       50	48 52 50 <b>6</b> (N 56 52 50 <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b>	50           50           48           ICW           56           50           52           S	49 49 51 7) RHS 52 50	60 64 66 62	500 500 500 500	4.45 4.52 4.54 5.00	Good Excellent Excellent Excellent
209.         210.         M.       C         211.         212.         213.         N.       C         214.         215.         216.         O.       C         217.         218.         219.         P.       C         220.	P-1 A2 Chainag A-1 P-1 A2 Chainag A1 A2 Slab Chainag A1 A1 A2	$ \rightarrow \\                                  $	50 52 <b>36+</b> 48 48 50 <b>36+</b> 50 48 54 54 <b>36+</b> 48	50 50 50 50 52 785 48 50 52 785	48         54         52         50         46         5         50         48         54	48 50 50 50 48 UP 50 50 50	48 52 50 50 50 50 52 50 LH 48	50           50           48           ICW           56           50           52           S	49 49 51 7) RHS 52 50	60 64 66 62	500 500 500 500	4.45 4.52 4.54 5.00	Good Excellent Excellent Excellent
210.         M.         211.         212.         213.         N.         214.         215.         216.         O.         217.         218.         219.         P.         220.	A2 Chainag A-1 P-1 A2 Chainag A1 A2 Slab Chainag A1 A2 A1 A2	$\vec{J} = No-8$ $\vec{J} = \vec{J}$	52 <b>36+</b> 48 48 50 <b>36+</b> 50 48 54 <b>36+</b> 48 54	50 50 50 52 785 48 50 52 785	54           N           52           50           46           5           50           46           5           50           48           54	50 50 50 48 UP 50 50 50	50 50 56 52 50 LH 48	48 ICW 56 50 52 S	49 51 7) RHS 52 50	60 64 66 62	500 500 500 500	4.45 4.52 4.54 5.00	Good Excellent Excellent Excellent
M.       C         211.       211.         212.       213.         N.       C         214.       215.         216.       C         Q17.       C         218.       219.         P.       C         220.       C	Chainag A-1 P-1 A2 Chainag A1 A2 Slab Chainag A1 A1 A2	$ge No-8$ $\rightarrow$ $ge No-8$ $\rightarrow$ $ge No-8$ $\rightarrow$ $ge No-8$ $\rightarrow$ $\rightarrow$ $\rightarrow$	<b>36+</b> 48 48 50 <b>36+</b> 50 48 54 <b>36+</b> 48	69( 50 52 785 48 50 52 785	N           52           50           46           5           50           46           5           50           48           54	INE 50 50 48 UP 50 50	<b>b</b> (N 56 52 50 <b>LH</b> 48	ICW 56 50 52 S	7) RHS 52 50	64 66 62	500 500 500	4.52 4.54 5.00	Excellent Excellent Excellent
211.         212.         213.         N.       C         214.         215.         216.         O.       C         217.         218.         219.         P.       C         220.	A-1 P-1 A2 Chainag A1 A2 Slab Chainag A1 A2	$ \rightarrow \\ \rightarrow \\ ge \text{ No-8} \\ \rightarrow \\ \rightarrow \\ \rightarrow \\ ge \text{ No-8} \\ \rightarrow \\ $	48 48 50 <b>36+</b> 50 48 54 <b>36+</b> 48	50 50 52 785 48 50 52 785	52           50           46           5           50           46           5           50           48           54	50 50 48 <b>UP</b> 50 50	56 52 50 <b>LH</b> 48	56 50 52 <b>S</b>	7) RHS 52 50	66 62	500 500	4.54	Excellent Excellent
212.         213.         N.       C         214.         215.         216.         O.       C         217.         218.         219.         P.       C         220.	P-1 A2 Chainag A1 A2 Slab Chainag A1 A2	$ \rightarrow \\ \rightarrow \\ ge \text{ No-8} \\ \rightarrow \\ \rightarrow \\ ge \text{ No-8} \\ \rightarrow \\ \rightarrow \\ \rightarrow \\ \rightarrow $	48 50 <b>36+</b> 50 48 54 <b>36+</b> 48	50 52 785 48 50 52 785	50 46 5 P 50 48 54	50 48 UP 50 50	56 52 50 <b>LH</b> 48	56 50 52 <b>S</b>	52 50	62	500	5.00	Excellent
213.         N.       C         214.         215.         216.         O.       C         217.         218.         219.         P.       C         220.	A2 Chainag A1 A2 Slab Chainag A1 A2	$ $ $ \overrightarrow{ge No-8} $ $ \overrightarrow{\rightarrow} $ $ \overrightarrow{ge No-8} $ $ \overrightarrow{\rightarrow} $ $ \overrightarrow{\rightarrow} $ $ \overrightarrow{\rightarrow} $	50 <b>36+</b> 50 48 54 <b>36+</b> 48	52 785 48 50 52 785	46 5 P 50 48 54	48 UP 50 50	50 LH 48	50 52 S	50	62	500	5.00	Excellent
N.         C           214.         215.           216.         216.           O.         C           217.         218.           219.         P.         C           220.         220.         220.	Chainag A1 A2 Slab Chainag A1 A2	$\begin{array}{c c} ge \text{ No-8} \\ \hline \rightarrow \\ \hline \rightarrow \\ ge \text{ No-8} \\ \hline \rightarrow \\ \hline \rightarrow \\ \hline \rightarrow \end{array}$	<b>36+</b> 50 48 54 <b>36+</b> 48	785 48 50 52 785	5 <b>P</b> 50 48 54	UP 50 50	<b>LH</b> 48	52 S					
214.         215.         216. <b>O. C</b> 217.         218.         219. <b>P. C</b> 220.	A1 A2 Slab Chainag A1 A2		50 48 54 <b>36</b> +' 48	48 50 52 <b>785</b>	50 48 54	50 50	48	-TT				5.01	Excellent
215.         216. <b>O. C</b> 217.         218.         219. <b>P. C</b> 220.	A2 Slab Chainag A1 A2	$ \rightarrow \\ \rightarrow \\ ge \text{ No-8} \\ \rightarrow \\ \rightarrow \\ \rightarrow $	48 54 <b>6</b> + 48	50 52 7 <b>85</b>	48 54	50 50	48	-TT					
216. <b>O. C</b> 217.       2         218.       2         219. <b>P. C</b> 2         220.       C	Slab Chainag A1 A2	→ ge No-8 → →	54 <b>86</b> + 48	52 7 <b>85</b>	54		11		49 .	60	500	4.48	Good
O.         C           217.         218.           219.         P.           C         220.	Chainag A1 A2	ge No-8 → →	<b>86</b> +' 48	785			46	50	49	60	500	4.62	Excellent
217.       218.       219.       P.     C       220.	A1 A2	$\rightarrow$ $\rightarrow$	48		יחי	50	50	52	52	64	500	4.02	Excellent
217.       218.       219.       P.     C       220.	A1 A2	$\rightarrow$ $\rightarrow$	48		) ri	UP .	RH	- <del>L.</del>			500	4.70	Excellent
219.       P.     C       220.				50	50	50	52	48	50	62	500	4.81	Excellent
<b>P. C</b> 220.	Slab		50	52	50	50	52	48	50	62	500	4.61	·····
220.			54	56	54	52	50	52	53	64	500	4.02	Excellent Good
220.	Chainag	e No-8	7+(	020	M	NB	S/R	(RI				7.72	
221	Al		48	50	52	50	52	50	50	62	500	4.62	Excellent
	P-2		50	50	48	48	50	52	50	62	500	4.51	Excellent
222.	Slab	<u> </u>	52	54	56	50	52	54	53	60	500	4,49	Good
<u>Q.</u> C	Chainag	<u>e No-9</u>	1+5	560	M	NB (	(M(	CW	Wideni				
223.	Al	<u>→  </u>	48	50	50	48	46	48	48	58	500	4.61	Excellent
224.	P-1		50	50	50	52	50	48	50	62	500	4.72	Excellent
225.	P-2		52	50	50	52	48	48	50	62	500	4.84	Excellent
226.	A2		50	52	54	50	54	50	51	60	500	4.43	Good
	Slab	·	54	56	54	54	52	50	53	60	500	4.49	Good
	Slab	······	54	56	54	50	54	56	54	62	500	4.82	Excellent
	Slab	l.	52	56	54	50	52	56	52	58	500	4.84	Excellent
$\frac{\mathbf{R}}{\mathbf{CI}}$	hainage					<b>B</b> (I	MC	WV	Videnin	g) LHS			
230.	<u>A1</u>			50	50	50	52	50	50	62	500	4.71	Excellent
	P-1			52	52	50	48	48	50	62	500	4.44	Good
	P-2			52	50	50	48	50	50	62	500		Excellent
	A2				48	48		46	49	60	500	4.55	Excellent
	-P1Slab -P2Slab	/	<u> </u>	54	52			54	53	60	500	4.48	Good
	-P2Slab				54			50	53	60	500	4.39	Good
<u></u> n2-	-12 5180	3	50	52	50	52	54	54	52	60	500	4.62	Excellent

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.00046 Km 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V. NY TRACKNESS OF THE SAME DESCRIPTION OF THE OWNER OWNER OF THE OWNER OWNER

M/s Dilip Buildcon Ltd.

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## **BALAJI SCIENTIFIC LABORATORIES** - 169-

#### **2K-18 NIT FARIDABAD**

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		······			R	EPO	RTU	NGC	F RESUL	TS	- to		
Sr. No.	Location	Direction		Rebou					Rebound Hammer Average Rending	Equivalent Cube Compressive Strength, N/mm ²	Distance (mm)	UPV (km/se c.)	Concrete Quality Grading
S.	Chainage	e No-93	+70	0 VI	JPL	LHS							
237.	Al	$\rightarrow$	48	50	50	48	48	50	49	60	500	4.62	Excellent
238.	A2	>	52	50	52	50	52	50	51	64	500	4.49	Good
239.	Slab	$\rightarrow$	52	54	56	54	54	52	53	68	500	4.47	Good
T.	Chainage	e No-93	+70	0 V	UP ]	RHS	5						
240.	Al	$\rightarrow$	50	52	50	52	50	48	50	62	500	4.81	Excellent
241.	A2		50	48	48	48	50	52	49	60	500	4.39	Good
242.	Slab	1	52	54	56	54	54	52	54	70	500	4.62	Excellent
U.	Chainage	e No-95	+250	0 M.	JB I	LHS							
243.	A1→	48	50	50	50	52	50	46	50	62	500	4.61	Excellent
244.	P-1 →	50	50	52	56	52	48	48	51	64	500	4.51	Excellent
245.	$\begin{array}{c} \text{Alto P1} \rightarrow \\ \text{G1} \end{array}$	50	48	50	56	50	50	48	50	60	500	4.44	Good
246.	$\begin{array}{c} A1toP1 \rightarrow \\ G2 \end{array}$	50	48	52	54	56	52	52	52	66	500	4.53	Excellent
246.	AltoPI G3 $\rightarrow$	52	54	50	54	54	52	50	52	66	500	4.39	Good
247.	G1 →	52	48	48	50	50	50	48	49	60	500	4.65	Excellent
248.	P-1	$\rightarrow$	52	50	50	52	50	50	51	64	500	4.67	Excellent
249.	P1-A2 G1		52	54	56	54	56	50	54	70	500	4.49	Good
250.	G2		48	52	50	50	52	50	50	62	500	4.44	Good
251.	G3	$\rightarrow$	50	50	52	56	54	50	52	66	500	4.50	Good
252.	A2	$\rightarrow$	52	62	50	54	48	54	53	68	500	4.90	Excellent
V.	Chainage	e No-95	+54	0 M	NB (	(MC	ŻW)	LH	S			•	
253.	Al		48	52	50	50	52	50	50	62	500	4.61	Excellent
254.	Slab	1	50	52	50	50	52	50	51	56	400	4.93	Excellent
255.	P-1		50	52	50	48	50	52	50	62	400	4.52	Excellent
256.	Slab	<b>↑</b>	52	50	50	52	50	52	51	56	500	4.44	Good
257.	A2	$\rightarrow$	52	50	48	50	48	50	50	62	300	4.62	Excellent
W.	Chainage			Y					ning				
258.	<u>A1</u>	48	50	52	50	48	50	52	50	62	500	4.61	Excellent
259.	P-1	50	52	50	48	50	52	50	50	62	500	4.49	Good
260.	P-2	50	52	50	50	50	52	50	50	62	500	4.72	Excellent
<u>X.</u>	Chainag	<u>ge No-9</u>				NB	<u>(M</u>	CW	/) LHS	Widening	, ,		
261.	Al		48	50	52	50	52	48	50	62	500	4.61	Excellent
262.	P-2		50	52	50	52	56	56	53	68	500	4.70	Excellent
263.	A2	<u> </u>	52	56	52	50	56	50	52	66	500	4.63	Excellent

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to Km 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

M/s Dilip Buildcon Ltd.

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# BALAJI SCIENTIFIC LABORATORIES-170-

#### 2K-18 NIT FARIDABAD

						•			OF RESUL'				
Sr. No.	Location	Direction		Rebou					Rebound Hammer Average Reading	Equivalent Cube Compressive Strength, N/min ²	Distance (mm)	UPV (km/se c.)	Concrete Quality Grading
<b>Y</b> .	Chaina	ge No-9	96+	013	C	U <b>P</b> ]	LH	S		,			
264.	A1	$\rightarrow$	48	50	52	50	50	50	50	62	500	4.61	Excellent
265.	A2	$\rightarrow$	48	52	50	48	50	48	49	60	350	4.54	Excellent
266.	Slab	Ļ	52	50	50	46	52	54	51	70	400 ·	4.56	Excellent
<b>Z.</b>	Chaina	ge No-9	96+	013	Cl	U <b>P</b> :	RH	S					
267.	Al	$\rightarrow$	50	48	50	48	50	52	50	62	450	4.48	Good
268.	A2		52	54	54	50	48	50	-51	64	550	4.41	Good
269.	Slab	Ļ	48	50	46	50	48	48	48	64	500	4.39	Good
<b>A.</b>	Chaina	ge No-9	96+	350	MI	NB	MC	W	Wideni	ng	<b></b>		
270.	Al	$\rightarrow$	50	48	50	52	50	52	50	62	500	4.61	Excellent
271.	P-1	>	50	48	52	50	50	50	50	62	450	4.71	Excellent
272.	P-2	$\rightarrow$	50	52	50	52	54	50	51	64	500	4.49	Good
273.	A2	$\rightarrow$	52	50	48	48	50	48	49	60	450	4.50	Good
274.	Slab	î	54	54	56	52	50	52	53	60	500	4.53	Excellent
<b>B.</b>	Chaina	ge No-9	96+3	350	MI	NB	(S/I	R)R	HS New	v Constru	ction		
275.	A1		48	50	50	48	52	50	50	62	500	4.65	Éxcellent
276.	P-1	$\rightarrow$	50	52	50	54	54	52	52	66	450	4.72	Excellent
277.	P-2	$\rightarrow$	48	50	50	52	50	48	50	60	500	4.63	Excellent
278.	A-2	$\rightarrow$	56	54	50	48	48	50	51		500	4.70	Excellent
<b>C.</b>	Chainag	ge No-9	96+.	350	Sla	b (\$	SR)	LE	IS New	Construc	tion		<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>
279.	Slab	1	50	52	54	56	54	54	53	60	500	4.49	Good
280.	Slab	1	52	54	56	54	50	52	53	60	540	4.42	Good
281.	Slab	1	54	56	50	54	52	54	53	60	540	4.53	Excellent
282.	Slab	1	53	54	56	52	54	56	54	62	500	4.66	Excellent
<b>D.</b>	Chainag	ge No-9	)7+	865	PI	JPI	MC	W]	LHS				
283.	Al	$\rightarrow$	48	50	44	46	46	50	47	56	.500	4.61	Excellent
284.	A2	$\rightarrow$	48	46	48	48	46	46	47	56	400	4.49	Good
285.	Slab	1	48	50	48	48	50	52	49	52	500	4.52	Excellent
E.	Chainag	ge No-9	97+8	865	PU	JPI	MC	WI	RHS		·····	<u></u> 1	
286.	Al	$\rightarrow$	46	48	48	50	52	48	49	60	400	4.52	Excellent
287.	A2	>	48	48	46	48	48	52	48	60	500	4.62	Excellent
288.	Slab	<b>↑</b>	50	52	50	52	56	46	51	56	450	4.44	Good
F.	Chainag	ge No-9	)8+9	950	M	<b>NB</b>	(MC	CW	Widen	ing LHS)		•	···· • • • • • • • • • • • • • • • • •
289.	Al	$\rightarrow$	48	50	50	52	50	50	50	62	500	4.61	Excellent
290.	P-1		48	52	52	50	48	48	50	62	500	4.48	Good

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

M/s Dilip Buildcon Ltd.

# BALAJI SCIENTIFIC LABORATORIES - 171-

#### **2K-18 NIT FARIDABAD**

<b>F</b>			,		I	REPO	ORTI	NGO	OF RESUL	TS			
Sr. No.	Location	Directi on		Rebou					Rebound Hammer Average Reading	Equivalent Cube Compressive Strength, N/mm ²	Distance (mm)	UPV (km/se c.)	Concrete Quality Grading
291.	P-2	$\rightarrow$	52	50	50	48	46	48	49	60	500	4.61	Excellent
292.	P-3	$\rightarrow$	50	50	50	52	48	48	50	62	500	4.51	Excellent
293.	A2	$\rightarrow$	46	50	46	48	48	50	48	58	500	4.55	Excellent
294.	Slab	1	52	50	54	52	54	56	53	60	500	4.67	Excellent
295.	Slab	1	54	56	54	50	54	56	54	62	500	4.81	Excellent
296.	Slab	Î	54	52	54	54	56	50	53	60	500	4.83	Excellent
297.	Slab	<u> </u>	54	56	54	56	48	50	53	60	500	4.88	Excellent
G.	Chainag	ge No-9	99+	284	(M	CW	V W	lide	ning LI	HS)			<u> </u>
298.	A1	$\rightarrow$	48	50	50	52	50	50	50	62	500	4.62	Excellent
299.	P-1	$\rightarrow$	50	48	52	50	52	52	51	64	500	4.71	Excellent
300.	A1 Slab	$\rightarrow$	48	52	54	54	56	54	53	68	500	4.49	Good
301.	P-1 Slab	$\rightarrow$	52	54	56	54	50	52	53	68	500	4.59	Excellent
H.	Chainag	ge No-9	99+	802	Μ	NB	(M	CW	Widen	ning)	Ly n _e ,		
302.	Al	>	48	52	50	50	50	52	50	62	500	4.61	Excellent
303.	A2	$\rightarrow$	50	50	48	50	48	50	49	60	500	4.72	Excellent
304.	Slab	ţ	52	54	50	50	48	46	50	62	500	4.36	Good
305.	A1	$\rightarrow$	50	52	56	54	50	48	- 52	66	500	4.47	Good
306.	P-1	$\rightarrow$	50	50	48	48	50	52	50	62	500	4.31	Good
307.	P-2	→	52	50	52	50	50	50	51	64	500	4.61	Excellent
308.	A2		50	48	52	50	50	52	50	62	500	4.49	Good
309.	Slab		50	48	48	52	50	52	50	62	500	4.50	Good
310.	Slab	↓	48	50	50	52	50	48	50	62	500	4.39	Good
I.	Chainag	ge No-1	00-	+97:	5 V	<b>UP</b>	^o Mo	CW	LHS				
311.	A1	$\rightarrow$	52	48	48	50	50	48	49	60	500	4.52	Excellent
312.	A2	$\rightarrow$	48	52	54	54	50	50	51	64	500	4.62	Excellent
313.	Slab	1	48	50	50	52	48	50	50	54	500	4.71	Excellent
<b>J.</b>	Chainag	e No-1	.00-	+97:	5 V	<b>UP</b>	M	CW	RHS			L	
314.	A1	, >	50	48	52	50	50	48	50	62	500	4.49	Good
315.	A2	$\rightarrow$	48	50	50	48	52	52	50	62	600	4.51	Excellent
316.	Slab	1	46	50	48	48	50	50	49	52	500	4.66	Excellent
К.	Chainag	e No-1	01-	+53(	0 M	NB	(M		Territoria and a second	ning LHS		1	
317.	Slab		48	50	50	54	48	50	50	54	500	4.61	Excellent
318.	Al	->	48	48	50	52	50	52	50	62	500	4.54	Excellent
319.	P-1	$\rightarrow$	50	48	52	50	50	52	50	62	500	4.22	Good
320.	P-2		48	46	52	50	50	46	49	60	500	4.31	Good
321.	P-3	$\rightarrow$	50	48	48	48	50	52	49	60	500	4.48	Good

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000 for 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

M/s Dilip Buildcon Ltd.

## BALAJI SCIENTIFIC LABORATORIES - 172

#### **2K-18 NIT FARIDABAD**

					]	REP	ORT	ING (	OF RESUL	TS			<u></u>
Sr. No.	Location	Directi ou			ind Ha		Readin	g	Rebound Hammer Average Reading	Equivalent Cube Compressive Strength, N/mm ²	Distauce (mm)	UPV (km/se c.)	Concrete Quality Grading
322.	P-4	<u> </u>	46	50	48	50	48	48	48	58 -	500	4.40	Good
323.	P-5	<b>→</b>	48	50	48	50	48	46	48	58	500	4.49	Good
324.	A-2		50	50	46	48	48	50	49	60 ·	500	4.52	Excellent
325.	Slab	<u> </u>	54	54	56	52	50	50	47	48	500	4.46	Good
326. 327.	Slab	1	50	50	52	48	50	50	50	54	500	4.49	Good
527.	Slab	1	50	52	50	48	48	50	50	54	500	4.50	Good
L.	Chainag	e No-1	102	+06	0 M	INE	B (N	ICV	V Wide	ning LHS	)		
328.	Al	->	46	49	48	50	47	48	48	58	500	4.51	Excellent
329.	A2	$\rightarrow$	49	45	50	51	47	46	48	58	500	4.68	Excellent
330.	Slab	1	52	54	50	51	53	52	52	58	500	4.60	Excellent
М.	Chainag	e No-1	102-	+73	5 M	INF	S (N	ICV		ning LHS		1 4,00	Baconone
331.	Al	<b>→</b>	48	50	48	50	46	48	48	58	<u>)</u> 500	1.00	Dava 11 and
332.	A2	$\rightarrow$	48	46	48	52	50	48	49	60	500	4.66	Excellent
333.	Slab	1	52	52	50	54	54	50	52	58	500	4.49	Good Good
N.	Chainag	e No-1	03-	+70	2 V	<b>UP</b>	L	CW				4.30	0000
334.	A-1	_→	48	50	50	52	52	50	50	62	500	4.60	Excellent
335.	A-2	>	50	52	50	48	50	46	49	60	500	4.59	Excellent
336.	Slab	1	50	48	46	48	52 -	52	49	52	500	4.51	Excellent
0.	Chainage	e No-1	.03-	+702	2 V	UP	M	CW	RHS				
$\frac{337.}{220}$	A-1		48	50	48	48	48	52	49	60	650	4.57	Excellent
338.	A-2	·	50	50	50	46	48	50	49	60	500	4.16	Good
339.	Slab	1	52	52	48	48	52	52	51	56	500	4.49	Good
<b>P.</b>	Chainage	<u>e No-1</u>	04+	-20(	) <u>M</u>	NB	(M	CW	/ Wider	ing LHS	)		
340	<u>A1</u>	→	40	50	40	50	52	50	49	60	500	4.61	Excellent
341	A2	→ 	46	52	50	52	50	52	50	62	500	4.59	Excellent
342	P-1	→	48	48	46	46	48	52	48	58	500	4.49	Good
343	Slab	<u> </u>	50	52	52	54	50	50	51	56	500	4.39	Good
344	Slab	<u> </u>	54	50	54	56	50	48	52	58	500	4.42	Good
Q.	Chainage	No-1	04+	825	5 M	NB	<u>(</u> M	CW	Widen	ing LHS)	L		· · · · · · · · · · · · · · · · · · ·
345	Al		48	50	50	52	50	50	50	62	500	4.61	Excellent
346 347	P-1	<u>→</u>	50			50	56	50	51	64	500	4.31	Good
347 348	P-2 P-3		46			50		50	49	60	500	4.61	Excellent
349	P-3 P-4		50					46	48	58	400	4.80	Excellent
350	P-4 P-5		50		· · · · · · · · · · · · · · · · · · ·			52	51	64	300	4.72	Excellent
100	r-3	<u>→  </u>	50	54	50	54	50	48	51	64	500	4.63	Excellent

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V. M/s Dilip Buildcon Ltd.

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## **BALAJI SCIENTIFIC LABORATORIES** -173-

#### **2K-18 NIT FARIDABAD**

						-V-T	<u> N</u>		ARIDAE	BAD		•	
<b></b>					]	REPO	ORT	ING	OF RESU	LTS			
Sr. No.	Location	Directi on			ind Ha	mmer	Readin	)g	Rebound Hammer Average Reading	Equivalent Cube Compressive Strength, N/mm ²	Distance (mm)	UPV (km/se c.)	Concrete Quality Grading
351	P-6	$\rightarrow$	48	50	48	46	50	48	48	58	550	4.56	Excellent
352	A2	$\rightarrow$	48	48	50	50	50	52	50	62	500	4.72	Excellent
353	Slab	<u>  ↑</u>	52	54	56	54	46	50	52	58	500	4.39	Good
354	Slab	<u>  ↑</u>	52	54	56	54	56	54	54	62	500	4.49	Good
355	Slab	1	52	54	50	52	50	56	52	58	550	4.57	Excellent
356	Slab	<u> </u>	54	56	56	50	56	50	54	62	500	4.56	Excellent
357	Slab	1	54	50	52	54	56	54	53	60	500	4.81	Excellent
358	Slab	1	56	54	56	54	50	50	53	. 60	500	4.73	Excellent
<b>R</b> .	Chainag	e No-1	105	+13	0 M	INE	3 (N	1CV	V Wide	ning LHS	5)	_	·
359	A1		48	50	50	52	50	50	50	62	400	4.50	Eventlant
360	P-1	<b>→</b>	46	52	54	50	46	48	49	60	500	4.58	Excellent
361	P-2	→	48	50	52	50	54	56		64	390	4.69	Excellent
362	P-3		52	48	46	52	48	50	52			4.73	Excellent
363	A2	→	50	52	46	48	54	50	49	60	410	4.85	Excellent
364	Slab	1	54	52	56	50	54	56	50	62	450	4.59	Excellent
365	Slab	<u>_</u>	56	58	54	56	50	50	54	62	400	4.73	Excellent
366	Slab	1	54	56	52	58	52	56	55	64	510 500	4.82	Excellent
367	Slab	<u>^</u>	56	52	58	56	50	54	<u> </u>	64 62	480	4.75	Excellent
S.	Chainag	$\mathbf{N}_{0}$										4.70	Excellent
368		1							v Wide	ning LHS			
	<u>A1</u>		48	48	50	52	50	50	50	62	500	4.49	Good
369	A2		54	50	52	50	48	48	50	62	500	4.51	Excellent
370	Slab		46	48	48	50	52	50	49	52	500	5.00	Excellent
371	P-1		48	48	50	50	52	50	50	62	500	5.02	Excellent
372	P-2		48	46	44	52	50	52	51	64	500	4.99	Excellent
373	P-3	→ 	48	48	48	48	52	52	49	60	500	4.56	Excellent
374	Slab	1	54	56	54	56	52	50	54	62	500	5.02	Excellent
375	Slab	1	56	54	50	52	52	50	52	58	500	4.71	Excellent
<b>T.</b>	Chainage	No-1	05+	-85(	) M	NB	(M	CW	Wide	ning LHS	)		
376	A1	$\rightarrow$	48	50	52	50	50	52	50	62	500	4.61	Excellent
377	P-1		50	50	56	54	52	50	52	66	400	4.01	Excellent
378	P-2		50	50	52	54	50	50	51	64	400	4,61	Excellent
379	A2	$\rightarrow$	52	54	50	52	50	50	51	64	400	4,50	Good
380	Slab	1	52	54	56	54	56	54	54	62	400	4.63	Excellent
381	Slab	î	56	54	56	54	56	56	55	64	500	4.71	Excellent
382	Slab	1	58	56	50	50	52	50	53	60	500		Excellent
l.	······		!-									4.56	DACCHOIL

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000 ft 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

M/s Dilip Buildcon Ltd.



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## **BALAJI SCIENTIFIC LABORATORIES** -174-

### **2K-18 NIT FARIDABAD**

						REP	ORT	ING	OF RESUI	LTS			
Sr. No.	Location	Directi ou				mmer		0	Rebound Hammer Average Reading	Equivalent Cube Compressive Strength, N/nim ²	Distance (mm)	UPV (km/se c.)	Concrete Quality Grading
U.	Chaina	ige No-	<u>107</u>	+02	<u>21 N</u>	<u>AJE</u>	B L	HS	New Co	onstructio	n		
383	A-1		50	48	48	52	50	48	49	60	500	4.29	Good
384	P-1	→	48	50	46	50	48	48	48	58	500	4.61	Excellent
385	P-2		48	50	52	48	48	50	49	60	500	4.52	Excellent
386	P-3	→	50	48	46	52	52	52	50	62	500	4.71	Excellent
387	A-2	→	46	50	52	48	50	50	49	60	500	4.49	Good
388	Slab		50	48	50	46	48	50	49	52	500	4.46	Good
389	Slab	<u> </u>	50	48	46	52	50	52	50	54	500	4.71	Excellent
390	Slab	<u> </u>	50	46	48	48	50	50	49	52	500	4.50	Good
<u>V.</u>	Chaina	ge No-	107	+47	'5 V	VUI	? M	CW	/ LHS				L
391	A-I	$\rightarrow$	44	48	42	46	46	48	46	54	500	4.43	Good
392	A-2	$\rightarrow$	46	48	50	44	46	48	47	56	500	4.17	Good
393	Slab	1	44	42	46	48	44	46	45	44	500	4.04	Good
W.	Chaina	ge No-	107	+47	'5 N	/UI	• M	CW	RHS		L <u></u>		
394	A-1	$ \rightarrow$	46	44	46	44	48	44	45	52	500	4.37	Good
395	A-2	⊱→	48	46	44	50	46	48	47	56	500	4.80	Excellent
396	Slab	Î	50	48	46	46	46	50	47	48	500	4.07	Good
Х.	Chaina	ge No-1	107.	+90	0 N	INF		ICV					0000
397	A-1	$\rightarrow$	48	50	52	50	52	50	50	62	500	4.49	Good
398	P-1		46	48	48	46	52	50	48	58	500	4.49	Good
399	A2		48	48	50	52	50	48	49	60	500	4.40	Good
400	Slab	$\rightarrow$	50	52	50	48	48	52	50	62	500	4.57	Excellent
401	Slab	$\rightarrow$	52	50	50	52	54	56	52	66	500	4.59	Excellent
Y.	Chaina	ge No-1	07-	+90	0 1	INI	R SI		And a second	nstruction		4.59	
402	A-1		48	50	50	48	48					rr	
403	A-2		50	52	50	52	48 50	52	49	60	500	4.29	Good
404	Slab	<u>↑</u>	46	50	54	50	~~~~	50	51	64	500	4.71	Excellent
Z.							54	50	51	56	500	4.69	Excellent
405	A-1		50		10 10					istruction			
405	A-1 A-2	_→ 	50	48	48	50	50	48	49	60	500	4.59	Excellent
400	A-2 Slab	, ↑	52 54	50 54	48 52	48	48	48	49	60	500	4.57	Excellent
				L.		50	50	48	51	56	500	4.50	Good
A.	Chainag	ge INO-1								ction) LH	[S		
408	<u>A-1</u>	$\rightarrow$	48	50	42	46	48	50	47	56	500	4.32	Good
409	A-2	→	46	50	48	46	44	48	47	56	500	4.56	Excellent
410	Slab	<u> </u>	46	48	44	46	44	44	45	44	500	4.00	Good

**HANGEN** Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to Km 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

M/s Dilip Buildcon Ltd.

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# BALAJI SCIENTIFIC LABORATORIES -175-

**2K-18 NIT FARIDABAD** 

					R	EPO	RTI	NG (	OF RESUL	TS			
Sr. No.	Location	Direction	]	Reboun	d Ham	ımer R	cading		Rebound Hammer Average Reading	Equivalent Cube Compressive Strength, N/mm ²	Distance (mm)	UPV (km/se c.)	Concrete Quality Grading
<b>B.</b>	Chaina	ge No-	108-	+30	0 V	UP	(N	ew	Constru	uction) RI	IS		
411	A-1	<b>→</b>	48	48	48	46	44	46	47	56	500	4.48	Good
412	A-2	<u>→</u>	44	48	46	48	50	46	47	56	500	4.92	Excellent
413	Slab	<u> </u>	46	46	44	48	46	44	46	46	500	3.96	Good
<b>C</b> .	Chaina	ge No-1	108-	+90:	5 M	INB	5 <b>(</b> M	ICV	V Wide	ning) LH	S		
414	A-1	$\rightarrow$	48	50	52	5	50	50	50	62	500	4.59	Excellent
415	P-1	→	48	52	50	5 2	46	52	50	62	400	4.73	Excellent
416	P-2		50	50	54	46	48	50	50	62	400	4.82	Excellent
417	P-3		52	46	48	48	50	52	49	60	510	4.73	Excellent
418	A-1	→	50	52	46	46	52	50	49	60	360	4.80	Excellent
419	Slab	1	56	54	52	56	50	50	53	60	410	4.53	Excellent
420	Slab	1	50	56	52	58	54	54	54	62	420	4.73	Excellent
421	Slab	<u>↑</u>	52	54	58	56	52	56	55	64	500	4.98	Excellent
422	Slab	Î	54	52	56	54	58	52	54	62	390	4.70	Excellent
D.	Chaina	ge No-1	110-	+55(	) M	NB	(M	CV	V Wide	ning) LH	S	<u>ا</u> ل	
423	A-1	$\rightarrow$	48	50	50	52	50	50	50	62	500	4.61	Excellent
424	P-1		48	50	50	48	50	50	49	60	500	4.49	Good
425	P-2	$\rightarrow$ .	50	50	50	56	56	50	52	62	400	4.50	Good
426	P-3	$\rightarrow$	50	48	50	56	56	50	52	62	500	4.62	Excellent
427	P-4		48	48	50	52	50	50	49	60	450	4.73	Excellent
428	Slab	<u> </u>	52	54	56	54	56	58	55	64	500	4.81	Excellent
429	Slab	1	54	56	54	56	56	60	56	More than 64	300	4.63	Excellent
430	Slab	1	54	60	58	62	56	56	58	More than 64	300	4.99	Excellent
431	Slab	1	56	54	56	54	56	54	55	More than 64	300	4.81	Excellent
432	Slab	1	52	50	54	56	54	56	54	62	300	4.73	Excellent
<b>E.</b>	Chainag	ge No-1	111-	-58(	) M	NB	(M	[CV	V Wide	ning) LHS	S		
433	A-1		48	50	50	50	48	48	49	60	400	4.59	Excellent
434	P-1		50	48	50	50	50	48	49	60	500	4.63	Excellent
435	P-2		.50	56	56	50	48	50	52	64	380	4.58	Excellent
436	P-3	→	50	56	50	48	50	50	51	62	350	4.59	Excellent
437	P-4	→	50	48	48	46	50	46	48	58	450	4.63	Excellent
438	. P-5	$\rightarrow$	50	50	56	50	48	50	51	62	500	4.68	Excellent

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000-to 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

M/s Dilip Buildcon Ltd.

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# **BALAJI SCIENTIFIC LABORATORIES** - 176 -

### **2K-18 NIT FARIDABAD**

					R	EPO	RTI	NG O	F RESUL	TS	••• F•••••••••••••••••••••••••••••••••		·····
Sr. No.	Location	Directi on			und Ha		Readin	g	Rebound Hammer Average Reading	Equivalent Cube Compressive Strength, N/mm ²	Distance (mm)	UPV (km/se c.)	Concrete Quality Grading
439	P-6	>	52	50	53	54	49	50	51	62	500	4.59	Excellent
440	P-7	$\rightarrow$	50	54	47	48	50	54	51	62	420	4.82	Excellent
441	A1	$\rightarrow$	52	52	50	54	58	50	53	66	400	4.73	Excellent
442	Slab	1	54	56	55	52	50	52	53	60	450	4.80	Excellent
443	Slab	1	56	52	54	50	54	50	53	60	450	4.59	Excellent
444	Slab	1	52	56	54	52	56	58	55	64	500	4.73	Excellent
445	Slab	1	54	52	56	58	54	54	55	64	400	4.81	Excellent
446	Slab	<u> </u>	52	54	58	52	56	58	55	64	390	4.73	Excellent
447	Slab	1	58	52	56	54	54	50	54	62	420	4.59	Excellent
F.	Chainage	<u>No-1</u>	11-	+95	4 V	UP	M	CW	LHS				
448	A-I	$\rightarrow$	48	52	50	48	48	52	50	62	500	4.49	Good
449	A-2	$\rightarrow$	50	52	50	50	50	48	50	62	500	4.61	Excellent
450	Slab	Î	48	48	50	50	48	48	49	52	500	4.57	Excellent
G.	Chainage	No-1	11-	+954	4 V	UP	M	CW	RHS		I	. <b>t</b>	<u> </u>
451	A-1	$\rightarrow$	52	54		52	50.	48	52	66	500	4.60	Excellent
452	A-2	<b>→</b>	50	48	48	50	52	50	50	62	500	4.59	Excellent
453	Slab	1	50	48	48	50	50	50	49	52	500	4.71	Excellent
H.	Chainage	No-1	12-	-72:	5 M	NB	(M	CW	Wider	ning) LHS	5	J	
454	A-1	$\rightarrow$	48	50	50	50	50	52	50	62	400	4.52	Excellent
455	P-1	$\rightarrow$	50	52	50	50	52	50	51	64	500	4.65	Excellent
456	P-2	$\rightarrow$	50	52	50	52	54	50	51	.64	500	4.73	Excellent
457	P-3	<b>→</b>	52	54	50	54	52	54	53	68	400	4.85	Excellent
458	P-4		54	50	48	50	48	50	50	62	300	4.90	Excellent
459	Al		50	50	50	46	48	48	49	60	350	4,50	Good
460	Slab	1	52	54	54	56	58	50	54	62	410	4.59	Excellent
461	Slab	<u> </u>	52	54	56	54	52	46	52	58	420	4.73	Excellent
462	Slab	Î	54	58	56	50	52	56	54	62	400	4.82	Excellent
463	Slab	1	54	56	50	50	52	56	53	60	420	4.50	Good
464	Slab	<u> </u>	54	56	50	50	48	50	51	56	500	4.73	Excellent
I.	Chainage	<b>No-1</b>	13+	-202	2 M.	JB (	(Ne	w C	onstru	ction) LH	S		
465	A-1	$\rightarrow$	50	48	48	46	52	50	49	60	500	4.49	Good
466	P-1	$\rightarrow$	50	48	48	50	50	52	50	62	500	4.61	Excellent
467	P-2	$\rightarrow$	50	48	50	48	48	48	49	60	500	4.60	Excellent
468	A2	$\rightarrow$	48	50	52	50	50	52	50	62	500	4.52	Excellent
469	Slab	<u>↑</u> ·	48	52	50	52	50	52	51	64	500	4.62	Excellent
470	Slab	1	52	48	48	50	52	52	50	62	500	4.71	Excellent

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V. M/s Dilip Buildcon Ltd. Page 19 CONTRACTOR OF



## **BALAJI SCIENTIFIC LABORATORIES** -177 -**2K-18 NIT FARIDABAD**

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**REPORTING OF RESULTS** 

Sr.	Location	Directio	]	Reboun				JF R	Rebound Hammer	Equivale nt Cube Compress	Distance	UPV (km/s	Concrete Quality
No.									Average Reading	ive Strength, N/mm ²	(mm)	ec.)	Grading
J.	Chainage	No-113	3+45	54	VUI	<b>P</b> M	CW	/ LI	IS				
471	A-1	$\rightarrow$	50	48	46	46	48	48	48	58	500	4.71	Excellent
472	A-2	$\rightarrow$	48	46	50	50	52	50	49	60	500	4.65	Excellent
473	Slab	<u>_</u> 1	48	48	50	50	50	50	49	52	500	4.60	Excellent
К.	Chainage	No-11.	3+45	54 \	VUI	P M	CW	/ RI	HS				
474	A-I	_→	52	50	50	48	50	46	49	60	500	4.70	Excellent
475	A-2	$\rightarrow$	54	48	50	52	48	50	50	62	500	4.52	Excellent
476	Slab	Î	48	50	48	52	54	52	51	56	500	4.49	Good
L.	Chainage	No-114	4+25	50 N	<b>INF</b>	3 (N	ICV	VV	Videnin	g) LHS	5		
478	A-1		48	50	50	50	50	48	49	60	390	4.62	Excellent
479	P-1	$\rightarrow$	50	52	54	54	50	50	52	66	400	4.73	Excellent
480	P-2	$\rightarrow$	52	54	56	54	56	54	54	70	500	4.81	Excellent
481	Al	$\rightarrow$	54	56	50	50	50	48	51	64			
482	Slab	<b>↑</b>	52	54	56	54	50	54	53	60	500	4.59	Excellent
483	Slab	Î Î.	54	56	54	50	52	54	53	60	420	4.73	Excellent
484	Slab	1	56	50	56	54	56	54	53	. 60	390	4.80	Excellent
М.	Chainage	No-114	4+25	50 I	VIN.	<b>B</b> (	Nev	v Co	onstruc	tion) R	HS S/I	Road	
485	A-1	$\rightarrow$	48	50	50	48	48	52	49	60	500	4.39	Good
486	Slab	1	50	54	52	50	54	50	52	58	500	4.49	Good
487	A-2	$\rightarrow$	50	52	50	52	50	48	50	62	500	4.51	Excellent
488	Slab	1	50	48	54	54	50	50	51	56	500	4.50	Good
N.	Chainage	No-114	4+25	50 I	MN	<b>B</b> (	Nev	v Co	onstruc	tion) L	HS S/	Road	
489	A-2	$\rightarrow$	48	52	50	50	52	50	50	62	500	4.60	Excellent
490	Slab	Î	48	46	52	50	48	48	49	54	500	4.48	Good
491	A-1	$\rightarrow$	46	50	50	48	48	50	49	60	500	4.39	Good
492	Slab	1	48	54	54	52	52	56	53	60	500	4.37	Good
0.	Chainage	No-11:	5+6(	)5 ]	PUP	) (N	lew	Co	nstruct	ion) LH	IS		<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>
493	A-1	$\rightarrow$	52	+	50	48				60	500	4.60	Excellent
494	A-2		48	50	50	48	52	52		62	500	4.71	Excellent
495	Slab	1	50	48	48	48	48	52	49	52	500	4.61	Excellent
<b>P.</b>	Chainage	No-11	5+6(	)5 I	PUP	) (N	lew	Co	nstruct	ion) RI	IS		
496	A-1	$\rightarrow$	52	54		54		····		68	500	4.51	Excellent
497	A-2	$\rightarrow$	50	50	48	50	52	52		62	500	4.60	Excellent
498	Slab	1	52	50	48	46	50	50		52	500	4.57	Excellent

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000/ 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

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## BALAJI SCIENTIFIC LABORATORIES - 178 -

#### **2K-18 NIT FARIDABAD**

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Sr. No.	Location	Directio n			and Ha '	mmer l	Reading	,	Rebound Hammer Average Reading	Equivale nt Cube Compres sive Strength, N/mm ²	Distance (mm)	UPV (km/se c.)	Concrete Quality Grading
<u>Q.</u>	Chainage N	<u>lo-116+</u>	<u>-050</u>		<b>B</b> (V	Vide	ning	g) L]	HS		· · · · · · · · · · · · · · · · · · ·	~4	<u>.</u>
499	<u>A-1</u>		48	50	50	52	50	48	50	62	450	4.72	Excellent
500	P-1		50	50	50	52	50	50	50	62	400	4.81	Excellent
501 502	P-2 A2		56	50	50	50	48	50	51	64	350	4.63	Excellent
502	Slab	<u> </u>	50	48	50	50	48	50	49	60	300	4.59	Good
503	Slab	<u>  ↑</u>   ↑	52 54	54	56	58	50	56	54	62	400	4.60	Excellent
505	Slab	<u>   </u>   ↑	54	50	54 52	56 54	50	56	54	62	500	4.73	Excellent
R.	Chainage No	.L	L		i	<u> </u>	56	54	54	62	390	4.82	Excellent
506	A-1	$\rightarrow$	48	48		lenir		HS	···	1			
507	P-1		46	50	50 50	50 50	52	50	50	62	500	4.61	Excellent
508	P-2		48	52	50	50	48	46	48	58	500	4.50	Good
509	P-3		50	48	46	50	50	50	50	62	500	4.49	Good
510	A2		50	48	50	48	50 48	46	52	66	500	4.48	Good
511	Slab	<u>↑</u>	52	50	50	50	40 50	48	49	60	500	4.42	Good
512	Slab	1	54	50	52	5.0	<u> </u>	52	51	56	.500	4.49	Good
513	Slab	t t	54	52	50	50	48	52 48	51	56	500	4.47	Good
S.	Chainage No			L	MC				50	54	500	4.48	Good
514	Al	$\rightarrow$	48	50	52	50	48	48	LHS		<b>F</b> 00		
515	A2		52	50	50	52	48	48	49	60	500	4.62	Excellent
516	Slab		54	52	54	52	48	50	50	62	500	4.50	Good
Т.	Chainage No								<u>52</u>	58	500	4.31	Good
517	Al	$\rightarrow$	48	50	50	46		and the second se	LHS				·····
518	P1		50	52	56	54	50	52	49	60	500	4.59	Excellent
519	A2		48	50	56	54	50	50	52	64	450	4.63	Excellent
520	Slab	1	52	54	56		50	50	51	62	420	4.82	Excellent
521	Slab	 ↑	54	54	56	54	56	54	54	62	500	4.90	Excellent
522	Slab		54			56	54	50	54	62	350	4.73	Excellent
<u>U.</u>		117.00		56	54	56	50	56	54	62	300	4.85	Excellent
<u>523</u>	Chainage No-				<u>(SR)</u>				onstructi	on			
	A-1		48	50	52	50	52	50	50	62	500	4.49	Good
524	A-2		48	52	50	52	50	52	51	64	500	4.66	Excellent
525	P-1	<u> </u>	48	50	52	50	52	52	51	64	500	4.55	Excellent
526	Slab	1	48	48	52	52	50	52	50	54	500	4.67	Excellent
<u>V.</u>	Chainage No-				<u>(SR)</u>	· · · · · · · · · · · · · · · · · · ·	S N	ew C	onstructi	on		I	
527	A-1	→ 	48	48	46	50	50	52	49	60	500	4.60	Excellent
528	P-1	→ 	50	52	50	52	52	52	51	62	500	4.59	Excellent
529	A-2	→ 	48	50	50	52	54	50	51	62	500	4.62	Excellent
530	Slab	1	50	48	48	48	50	52	49	52	500	4.63	Excellent

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62,000 t 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

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# BALAJI SCIENTIFIC LABORATORIES -179-

**2K-18 NIT FARIDABAD** 

· <b>F</b>					REI	PORT	ING	OF R	ESULTS				·
Sr. No.	Location	Directio				Натте		÷ .	Rebound Hammer Average Reading	Equivalen t Cube Compress ive Strength, N/mm ²	Distance (mm)	UPV (km/se c.)	Concrete Quality Grading
W.	Chainage	<u>No-11</u>	8+1	55	PU	P (N	ew	Cor	nstructi	on) LH	[S		
531	A-1	<u> </u>	5	2 4	8 5	0 50				62	500	4.51	Excellent
532	A-2	$\rightarrow$	4					) 48	49	60	500	4.71	Excellent
533	Slab	↓	4							44	500	4.54	Excellent
<b>X.</b>	Chainage	No-11	8+1	55	PU	P (N	ew	Cor	structi	on) RH	IS		
534	A-1	$\rightarrow$	5							62	500	4.49	Good
535	A-2	$\rightarrow$	48	3 5	0 50	0 52	50	48	50	62	500	4.48	Good
536	Slab	↓	46	5 44	4 41	8 44	46	44	. 45	44	500	4.52	Excellent
Y.	<b>Chainage</b>	No-11	8+7	70	MJ	B (S	RN	lew	Constr	uction)	LHS		
537	Al	$\rightarrow$	48	50	48	50	48	52	49	60	600	4.47	Good
538	P1		52	56	52	58	52	56	54	70	550	5.00	Excellent
539	Slab	Î	48	50	52	52	50	52	51	56	500	4.47	Good
540	Slab	Î	50	52	52	54	54	54	51	56	500	3.00	Doubtful
Z.	<b>Chainage</b>	No-11	8+7	70	MJ	B (N	1CV	<b>WN</b>		structi		I	
541	A-1	$\rightarrow$	48	46	42	50	48	52	48	58	400	4.44	Good
542	P-1	$\rightarrow$	54	50	52	48	52	58	52	64	600	4.46	Good
543	A-1	>	48	50	52	48	46	52	49	60	600	4.20	Good
544	Slab	1	48	50	54	50	54	52	51	56	500	4.61	Excellent
545	Slab	1	50	50	48	54	54	52	51	56	500	4.71	Excellent
A.	Chainage I	No-119	9+5	17	VU]	P ( N	ACV	WN	ew Cor	structi	ion) LH	IS	
546	A-1	$\rightarrow$	48	50	50	52	50	50	50	62	500	4.61	Excellent
547	A-2	$\rightarrow$	50	50	48	48	48	50	49	60	500	4.66	Excellent
548	Slab	1	50	48	48	44	46	52	48	50	500	4.64	Excellent
<b>B.</b>	Chainage I	No-119	9+5	17	VUI	PIN	ACY	WN					
549	A-1	$\rightarrow$	52	52	50	52	50	48	51	64	500	4.67	Excellent
550	A-2		48	48	50	48	50	52	49	60	500	4.07	Excellent
551	Slab	1	48	50	50	52	50	52	50	54	500	4.46	Good
C.	Chainage I	No-12	1+0	50	MN	B (N						4.40 ]	
552	A-1	→	48	50	52	50	50	52	50	62	500	4.62	Excellent
553	P-1		50	52	50	50	52	50	51	64	500	4.58	Excellent
554	P-2	$\rightarrow$	48	50	48	50	48	48	49	60	400	4.73	Excellent
555	P-3	$\rightarrow$	50	52	50	52	50	50	51	62	300	4.85	Excellent
556	P-4		48	50	48	48	46	48	48	58	350	4.92	Excellent
557	P-5	$\rightarrow$	50	52	48	48	48	50	49	60	400	4.61	Excellent

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to Km 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

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# BALAJI SCIENTIFIC LABORATORIES -180-

### **2K-18 NIT FARIDABAD**

#### **REPORTING OF RESULTS**

Sr. No.	Location		Direct u	io		Rebou	ind Ha	mmer F	Çeadin	IJ	Rebound Hammer Average Reading	Equivale nt Cube Compress ive Strength, N/mm ²	Distance (mm)	UPV (km/s ec.)	Concrete Quality Grading
558	A-1		$\rightarrow$		52	54	56	50	50	48	52	66	300	4.59	Excellent
559	Slab		1		52	54	56	54	50	50	54	62	400	4.85	Excellent
560	Slab		1		54	56	54	56	50	46	53	60	500	4.62	Excellent
561	Slab		1		54	52	54	56	54	50	53	-60	450	4.55	Excellent
562	Slab		Î		52	54	56	54	56	52	54	62	400	4.50	Good
563	Slab		1		54	56	56	50	50	52	53	60	300	4.81	Excellent
Đ.	Chaina	ge ľ	No-1	21	+33	<b>30</b> ]	MN	<mark>B (</mark> 1	MC	WW	/idenir	ig) LH	S	- ł	
564	A-1		$\rightarrow$	4	8	50	52	50	50	52	50	62	500	4.61	Excellent
565	P-1		>	5	0	50	52	48	50	50	50	62	550	4.49	Good
566	P-2		$\rightarrow$	4	8	50	46	50	48	46	[°] 48	58	500	4.81	Excellent
567	P-3		$\rightarrow$	5	0	48	46	48	48	48	48	58	500	4.64	Excellent
568	A-2		$\rightarrow$	5	0	52	44	48	50	50	49	60	400	4.81	Excellent
569	Slab		Î	5	2	54	54	56	56	54	54	62	300	4.39	Good
570	Slab		1	5	4	56	54	56	52	50	54	62	300	4.48	Good
571	Slab		1	5	6	56	54	56	54	56	55	64	300	4.81	Excellent
572	Slab		1	5	4	50	56	54	56	56	54	62	400	4.62	Excellent
E.	Chaina	ge N	<b>No-1</b>	21.	+51	0 I	MN	B (N	AC	WW	idenin	g) LH	S		
573	A-l	Ţ -	→ [	48	50	56	54	56	54	53		68	<u>~</u> 500	4.61	Excellent
574	P-2		→	50	52	54	56	52	54	53		68	500	4.72	Excellent
575	P-1	-	→	50	50	52	54	50	48	51		64	550	4.61	Excellent
576	P-3	- 1	<b>→</b>	48	50	56	56	54	50	52		66	400	4.49	Good
577	A-2	-	→	50	56	54	56	54	50	53		68	400	4.81	Excellent
578	Slab	1	î 🛛	48	54	56	56	56	50	53		60	500	4.52	Excellent
579	Slab	1	t	50	54	56	52	50	50	52		58	500	4.55	Excellent
580	Slab	1	t	52	54	56	54	56	50	54		62	400	4.71	Excellent
581	Slab	1	1 1	48	50	48	48	48	52	49		52	400	4.74	Excellent
F.	Chaina	ge N	No-1	22-	+20	0 H	PUP	' (N	ew						
582	A-1			50	52	48	50	48	50	50		62	500	4.60	Excellent
583	A-2	_	→	50	52	48	52	52	48	50		62	500	4.61	Excellent
584	Slab	Ļ		46	44	46	48	46	44	46		60	500	4.52	Excellent
G.	Chainag	ge N	<b>Io-1</b>	22-	+20	L	1	انب محمد معالم						7,24	DAUGHUN
585	A-1	-		50	48	48	50	48	50	49		60	500	4.68	Excellent
586	A-2		<b>→</b>	48	50	48	52	50	48	49		60	500	4.72	Excellent
587	Slab	Ļ	,	46	44	44	48	48	48	46		60	500	4.69	Excellent

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

M/s Dilip Buildcon Ltd.

# BALAJI SCIENTIFIC LABORATORIES

											<u>(C_x</u>	/	
					I	REPO	ORTI	NG (	OF RESUL	TS	*	2	MAY 7071
Sr. Nò.	Location	Direction		Rebou	ind Ha	mmer ]	Readin	g	Rebound Hammer Average Reading	Equivalent Cube Compressive Strength, N/mm ²	Distance (mm)	knivse (knivse	Concrete Quality
H.	Chaina	ge No-1	123	+12	3	VUI		lew	Constr	uction) L	HS HS	L	
588	A-1	$\rightarrow$	48	50	52	52	50	50	50	62	500	4.49	Good
589	A-2		50	48	50	48	48	48	49	60	500	4.72	Excellent
590	Slab	Ļ	44	46	48	48	48	48	47	62	500	4.61	Excellent
I.	Chaina	ge No-1	123	+12	3 1	/UF	• (N	lew	A market water and the second s	uction) R			
591	A-1		48	48	50	50	48	48	49	60	500	4.29	Good
592	A-2	$\rightarrow$	46	52	50	50	52	48	50	62	500	4.31	Good
593	Slab	↓ ↓	46	46	48	50	48	48	48	64	500	4.61	Excellent
J.	Chaina	ge No-1	25	+12	5 N	AJE	3 (S	RN	lew Cor	istruction	) RHS	L	
594	A-1		48	50	50	50	50	50	50	62	500	4.61	Excellent
595	P-1-2 Slab	Ļ	48	52	52	48	50	46	49	66	550	4.52	Excellent
596	P-1	$\rightarrow$	52	54	54	54	52	50	.53	68	500	4.49	Good
597	P5-P6 Slab	Ļ	48	50	48	44	46	46	47	62	500	444	Good
598	P-2	→	52	50	48	48	48	52	50	62	500	4.51	Excellent
599	P-3	_→	48	50	48	48	52	52	50	62	500	4.49	Good
600	P-4		48	52	50	50	52	50	50	62	500	4.81	Excellent
601	P-7	$\rightarrow$	48	54	52	50	50	52	51	64	500	4.75	Excellent
602	A2		50	54	50	50	50	48	50	62	500	4.49	Good
603	P3-P4 Slab		52	54	48	48	48	56	51	70	500	4.48	Good
604	Slab		50	56	50	50	50	50	51	70	500	4.81	Excellent
605	P7-A2 Slab	Ļ	52	56	50	52	50	50	52	More than 70	500	4.49	Good
606	Slab	Ļ	50	54	50	52	52	48	51	70	500	4.48	Good
607	A1-P1-G1	$\rightarrow$	52	54	54	54	52	50	53	68	500	4.66	Excellent
608	A2-P7-G1		56	54	50	52	52	54	53	68	500	4.67	Excellent
609	A2-P7-G4		50	56	50	54	56	54	53	68	500	4.56	Excellent
610	A1-P1-G3	>	56	54	50	52	50	52	52	66	500	4.58	Excellent
<b>K.</b>	Chainag	ge No-1	25-	+68:	5 P	UP	<b>(M</b>	CV	V New C	Construct	on) LH	S.	
611	A-1	→	52	48	48	50	48	50	49	60	700	3.78	Good
612	A-2	→	54	52	48	44	50	46	49	60	500	4.25	Good
613	Slab	<u> </u>	48	46	50	44	46	48	47	62	500	4.44	Good
L.	Chainag	ge No-1	25-	-68:	5 P	UP	(M	CW	V New C	Constructi	on) RH	S	
614	A-1	>	48	46	42	48	50	46	47	56	500	3.90	Good
615	A-2	$\rightarrow$	46	48	50	46	44	48	47	56	500	4.10	Good
616	Slab	Ļ	42	50	51	46	44	46	47	62	600	4.30	Good

And a state of the property of the state of Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

M/s Dilip Buildcon Ltd.

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## BALAJI SCIENTIFIC LABORATORIES -182

#### **2K-18 NIT FARIDABAD**

-					F	REPO	RTI	NG C	OF RESUL	LTS			
Sr. No.	Location	Direction				inmer I			Rebound Hammer Average Reading	Equivalent Cube Compressive Strength, N/mm ²	Distance (mm)	UPV (km/se c.)	Concrete Quality Grading
М.	Chaina	ge No-]	126	+41	0 H	lyo	vér	(M	CW Ne	ew Constr	uction)	LHS	
617	A-1	$\rightarrow$	50	52	50	48	50	50	50	62	500	4.61	Excellent
618	A-2	$\rightarrow$	48	50	50	48	48	48	49	60	500	4.62	Excellent
619	Slab	· ↓	46	44	46	44	48	44	45	58	500	4.50	Good
N.	Chaina	ge No-1	126	+41	0 F	rlyo	ver	(M	CW No	ew Constr	uction)	RHS	
620	A-1	$\rightarrow$	50	50	48	50	48	52	50	62	500	4.49	Good
621	A-2	<b>→</b>	48	50	48	46	48	52	49	60	500	4.59	Excellent
622	Slab	Ļ	46	44	44	42	44	46	44	58	500	4.47	Good
0.	Chaina	ge No-1	126-	+96	2 N	AJE	<b>B</b> (N	ICV	V New	Construct	ion) L	HS	······
623	A-1	$\rightarrow$	48	50	50	48	48	50	49	60	500	4.66	Excellent
624	P-2	$\rightarrow$	48	50	48	48	50	50	49	60	500	4.54	Excellent
625	P-3	→	50	48	48	48	50	52	49	60	500	4.61	Excellent
626	A-2	$\rightarrow$	52	52	50	50	50	48	50	62	500	4.52	Excellent
627	Slab	↓	46	48	46	46	46	48	47	62	500	4.49	Good
628	Slab	$\checkmark$	46	44	44	46	46	48	46	60	500	4.03	Good
<b>P.</b>	Chaina	ge No-1	127-	+46	0 1	/UF	• (N	ICV	V New	Construct	ion) LH	IS	
629	A-1	>	50	50	52	52	50	50	51	64	500	4.51	Excellent
630	A-2	~>	48	48	52	50	50	52	50	62	500	4.60	Excellent
631	Slab	1	48	52	52	50	50	50	50	54	500	4.63	Excellent
Q.	Chainag	ge No-1	127-	+46	0 V	/UP	• (M	ICV	V New	Construct	ion) RI	IS	
632	A-1	$\rightarrow$	48	50	52	50	50	48	50	62	500	4.61	Excellent
633	A-2		48	52	50	52	50	48	50	62	500	4.49	Good
634	Slab	1	48	52	50	50	52	52	50	54	500	4.44	Good
R.	Chainag	ge No-1	129-	+41	0 F	lyo	ver	(M	ICW N	ew Consti	uction)	LHS	5
635	A-1	<b>→</b>	46	48	48	48	50	52	49	60	400	4.61	Excellent
636	P-1	$\rightarrow$	48	46	48	52	50	50	49	60	600	4.52	Excellent
637	A-2	→	48	52	50	52	50	52	51	64	500	4.39	Good
638	Slab	1	48	48	52	50	50	52	50	54	500	4.66	Excellent
639	Slab	1	48	50	52	50	52	50	50	54	500	4.54	Excellent
S.	Chainag	ge No-1	131-	+95	0 N	/IN]	B (1	MC	W Wid	lening) L	HS	••••••••••••••••••••••••••••••••••••••	
640	Al	·>	48	50	50	52	54	56	52	66	500	4.61	Excellent
641	A2	$\rightarrow$	50	52	50	54	56	50	52	66	500	4.44	Good
642	Slab	1	54	56	56	54	56	56	55	64	500	4.81	Excellent
643	P-1	$\rightarrow$	54	50	48	50	50	50	50	62	500	4.61	Excellent
644	Slab	1	52	54	54	56	54	56	54	62	500	4.87	Excellent

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

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## BALAJI SCIENTIFIC LABORATORIES -/83 --

#### **2K-18 NIT FARIDABAD**

					R	EPO	RTI	NG O	F RESUL	ГS			
Sr. No.	Location	Direction	1	Reboui	nd Han	nmer R	tending	, ,	Rebound Hammer Average Reading	Equivalent Cube Compressive Strength, N/mm ²	Distance (mm)	UPV (km/se c.)	Concrete Quality Grading
T.	Chainage	No-131-	+950	MI	NB (	SR I	New	Con	struction	) LHS			
645	A-1	$\rightarrow$	48	50	48	48	46	50	48	58	500	4.61	Excellent
646	A-2	→	50	52	50	50	46	48	49	60	. 500	4.74	Excellent
647	Slab	†	54	52	50	50	46	48	50	54	500	4.59	Excellent
U.	Chainage	No-131-	+950	M	NB (	SR I	New	Con	struction	) RHS			
648	A-1		48	50	52	50	50	52	50	62	500	4.59	Excellent
649	A-2	$\rightarrow$	46	48	48	48	50	52	49	60	500	4.53	Excellent
650	Slab	Î	54	52	50	50	48	46	50	54	500	4.52	Excellent
V.	Chainage	No-134-	+130	VI	JP (I	MCV	N N	ew C	Construct	ion) LHS			
651	A-1	·	46	48	50	50	48	50	56	More than 70	500	4.61	Excellent
652	A-2		48	46	48	50	52	50	49 [.]	60	500	4.62	Excellent
653	Slab	t	48	48	52	50	50	50	50	54	500	4.57	Excellent
W.	Chainage	No-134	+130	VI		MC	N N	ew C	Construct	ion) RHS			
654	A-1		48	48	50	52	50	50	50	62	500	4.51	Excellent
655	A-2	_→	50	50	48	48	46	50	49	60	500	4.21	Good
656	Slab	<u>↑</u>	48	50	52	50	50	52	50	54	500	4.61	Excellent
<b>X</b> .	Chainage	No-134	+535	M	NB (	MC	WV	Vide	ning) LF	IS			
657	Al	→	48	50	50	52	54	54	51	64	550	4.61	Excellent
658	A2	>	52	54	56	48	46	50	51	64	450	4.74	Excellent
659	Slab	<u>  ↑</u>	54	56	54	56	54	56	55	64	400	4.75	Excellent
<u>Y.</u>	Chainage	<u>No-134</u>				·			nstructio				·
660	A-1	<b>→</b>	48	50	52	50	52	50	50	62	500	4.61	Excellent
661	A-2		50	50	- 52	48	46	48	49	60	500	4.51	Excellent
662	Slab	<u>                                     </u>	54	50	52	56	54	50	53	60	500	4.62	Excellent
Ζ.	Chainage	No-134	+535	5 M			New	<u>/ Co</u>	nstructio	n) RHS			
663	A-1		48	50	52	50	46	50	49	60	500	4.61	Excellent
664	A-2	→	46	52	50	52	50	50	50 ·	62	500	4.73	Excellent
665	Slab	1	48	50	50	50	48	80	49	52	500	4.49	Good
<b>A.</b> '	Chainage	No-134	+756	<u>5 Cl</u>	J <b>P (</b> ]		WN	lew (	Construc	tion) LHS			
666	A-1		48	46	48	50	52	50	49	60	500	4.49	Good
667	A-2		48	48	50	50	48	48	49	60	500	4.38	Good
668	Slab	1	48	50	50	52	50	48	50	54	500	4.39	Good
<b>B</b> .	Chainage	No-134	+756	6 Cl	J <u>P (</u> ]	MC	<u>W</u> N	lew (	Construc	tion) RHS			
669	A-1		48	46	48	50	52	48	49	60	500	4.61	Excellent
670	A-2	$\rightarrow$	48	48	50	50	50	52	50	62	500	4.49	Good
671	Slab	Î	48	52	50	52	50	52	51	56	500	4.52	Excellent
C.	Chainage	No-135	+065	5 M	NB	(MC	WV	Vide	ning) Ll	IS			
672	Al		48	50	52	54	50	56	52	66	500	4.61	Excellent
673	A2	$\rightarrow$	50	52	54	56	50	56	53	68	500	4.72	Excellent
674	Slab	1 1	54	56	54	54	56	50	54	62	350	4.55	Excellent

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

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# BALAJI SCIENTIFIC LABORATORIES - 184-

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#### **2K-18 NIT FARIDABAD**

		····			· I	REPC	ORTI	NG (	OF RESUL	TS	*		<u> </u>
Sr. No.	Location	Direction		Rebou	nd Hai	nmer l	Readin	g	Rébound Hammer Average Reading	Equivalent Cube Compressive Strength, N/mm ²	Distance (mm)	UPV (km/se c.)	Concrete Quality Grading
D.	Chainage	e No-135	+065	5 M	NB (	SR	New	v Co	nstructio	n) LHS	·······		
675	A-1	>	48	50	50	46	48	46	48	58	500	4.61	Excellent
676	A-2		50	52	46	50	48	48	49	60	500	4.50	Good
677	Slab	1	46	48	48	48	52	52	. 49	52	500	4.39	Good
<b>E</b> .	Chainage	e No-135	+065	M	NB (	SR	New	v Co	nstructio	n) RHS			
678	A-1		50	52	50	52	50	48	50	62	500	4.48	Good
679	A-2	<u> </u>	48	48	52	50	50	50	50	62	500	4.57	Excellent
680 ·	Slab	<u> </u>	46	48	52	50	_52	52	50	54	500	4.53	Excellent
F.	Chainage	e No-135	+115	$\mathbf{M}$	NB (	MC	WV	Vide	ning) LH	IS			
681	AI	<u> </u>	48	50	50	52	50	52	50	62	500	4.61	Excellent
682	P-1	>	48	50	52	54	50	50	.51	64	450	4.53	Excellent
683	P-2		50	52	50	54	50	54	52	66	500	4.50	Good
684	A2	<u> </u>	50	54	48	56	50	46	51	62	500	4.62	Excellent
685	Slab	1	52	54	56	54	56	54	54	62	400	4.62	Excellent
686	Slab	<u> </u>	54	56	54	54	56	54	55	64	300	4.62	Excellent
687	Slab	<u> </u>	52	56	54	56	54	54	54	62	500	4.66	Excellent
G.	Chainage	e No-135	+115	M	NB (	SR	New	v Co	nstructio	n) LHS			
688	A-1		48	50	48	50	50	48	49	60	500	4.61	Excellent
689	A-2	$\rightarrow$	46	46	48	52	50	50	49	60	500	4.57	Excellent
690	Slab	↓ ↓	44	46	44	46	46	48	46	60	500	4.49	Good
Н.	Chainage	e No-135-	+115	M	NB (	SR	New	' <b>Co</b>	ustructio:	n) RHS			
691	A-1		48	52	50	50	52	52	51	64	500	4.51	Excellent
692	A-2	>	48	50	52	50	50	50	50	62	500	5.00	Excellent
***	Slab	<u> </u>	46	44	44	46	44	46	45 [′]	58	500	4.68	Excellent
I.	Chainage	No-135-	+453	VU	J <b>P (</b> I	MC\	WN	ew (	Construct	tion) LHS			
693	A-1	→ 48	50	52	50	52	2 5	0	50	62	500	4.39	Good
694 -	A-2	→ <u>48</u>		50	50	52	2 4	8	50	62	500	4.49	Good
695	Slab	↓ 48	50	52	50	50	) 5	0	50	68	500	4.49	Good
J.	Chainage	No-135-	+453	VU	JP (I	MC	N N	ew (	Construct	tion) RHS			······
696	A-1	→ 48			50	50			50	62	500	4.61	Excellent
697	A-2	→ <u>52</u>	50	50	52	48	3 5	0	50	62	500	4.61	Excellent
698	Slab	↓ 48						8	48	64	500	4.48	Good
<b>K</b> .	Chainage	the second se		<u> </u>		LH	S						
699	P-1	→ <u>50</u>				_		2	50	62	500	4.62	Excellent
700	P-2	→ <u>50</u>			_				50	62	500	4.51	Excellent
701	G-1	→ <u>52</u>				-			54	70	500	4.32	Good
702	G-2	→ 52		-					52	66	500	4.46	Good
703	G-3	<u>→ 56</u>							54	70	500	4.52	Excellent
704	G-4	→ 50	52	56	54	52	? 50	5	53	68	500	4.61	Excellent

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000 for Km 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

M/s Dilip Buildcon Ltd.

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## BALAJI SCIENTIFIC LABORATORIES - 185

#### **2K-18 NIT FARIDABAD**

<b>.</b>						RI	POR	TINC	G OF RESUL	TS			
Sr. No,	Location	Directio n	Rebound Hammer Reading						Rebound Hammer Average Reading	Equivalent Cube Compressive Strength, N/mm ²	Distance (mm)	UPV (km/sec .)	Concrete Quality Grading
L. Chainage No-69+229 Fly over LHS													
705	P-1		48	50	52	50	52	50	50	62	500	4.65	Excellent
706	P-2	_→	50	56	46	48	52	50	50	62	500	4.44	Good
707	G-1	>	50	56	54	56	54	52	54	70	500	4.46	Good
708	G-2	→ 	56	54	56	54	56	52	55	More than 70	500	5.00	Excellent
709	G-3.	>	50	54	52	50	56	54	53	68	500	4.81	Excellent
710	G-4	>	56	54	56	52	50	56	54	70	500	4.72	Excellent
<u>M.</u>	Chainage No-87+496 MNB (MCW) BHS												
711	A-1	>	50	52	48	50	48	50	50	62	500	4.62	Excellent
712	A-2	>	52	50	48	52	50	50	50	62	500	4.58	Excellent
713	Slab	1	54	52	56	54	52	54	54	62	400	4.49	Good
N.	Chainag	ge No-9	7+1.	30 N	IJB	(Cei	iter)						
714	A-1		50	52	48	50	52	56	51	64	500	4.26	Good
715	<b>P-1</b>	$\rightarrow$	52	54	52	52	50	48	- 53	68	400	4.73	Excellent
716	P-4	<u> </u>	56	50	52	50	52	54	52	66	500	4.68	Excellent
717	P-5		54	52	54	50	52	50	52	66	500	4.63	Excellent
718	P-6		50	52	54	52	50	52	52	66	500	4.75	Excellent
719	P-8		50	48	52	54	50	56	52	66	400	4.75	Excellent
720	P-9		52	50	52	50	52	50	51	64	500	4.82	Excellent
721	P-10	_→	52	50	56	54	50	56	53	68	500	4.79	Excellent
722	P-12		50	54	56	50	52	54	53	68	500	4.72	Excellent
724	P-14		56	50	52	52	50	56	53	68	400	4.58	Excellent
725	P-15		52	54	50	50	52	54	52	66	500	4.82	Excellent
726	P-17		52	50	52	56	50	52	51	64	500	4.63	Excellent
727	P-18		56	54	52	50	50	50	51	64	500	4.59	Excellent
728	P-19	→	52	50	54	52	50	56	52	66	400	4.98	Excellent
729	P-20	<u>&gt;</u>	50	52	52	50	54	54	52	66	500	4.75	Excellent
730	.P-21	<b>→</b>	48	54	50	52	50	56	52	66	500	4.54	Excellent
731	P-22	_ →	52	52	50	54	50	54	52	66	500	4.82	Excellent
732	A-2	→	52	50	54	56	56	54	51	64	500	4.59	Excellent
733	A-1 P-1 G-	·	58	60	62	62	60	58	53	68	400	4.69	Excellent
734	G-2	>	64	60	62	58	62	60	53	68	500	4.58	Excellent
735	P-1 P-2 G-3		60	62	64	62	58	62	53	68	500	4.82	Excellent
736	G-4	$\rightarrow$	62	60	58	58	62	60	52	66	500	4.59	Excellent
737.	P-2 P-3 G-1	_→	62	60	58	64	60	62	52	66	500	4.73	Excellent
738	G-4	$\rightarrow$	58	60	62	58	64	60	52	66	400	4.72	Excellent
739	P-3 P-4 G-3	→	58	60	62	60	58	64	52	66	500	4.59	Excellent
740	P-6 P-7 G-3		60	62	64 .	58	60	62	52	66	400	4.72	Excellent

Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000 (o.Kn 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.

M/s Dilip Buildcon Ltd.

## BALAJI SCIENTIFIC LABORATORIES -186-

#### **2K-18 NIT FARIDABAD**

REPORTING OF RESULTS													
Sr No.	Location	Directi on	Rebound Hammer Reading						Rebound Hammer Average Reading	Equivalent Cube Compressive Strength, N/mm²	Distance (mm)	UPV (km/sec .)	Concrete Quality Grading
741	G-4	_→	64	62	58	60	62	60	52	66	500	4.81	Excellent
742	P-8 P-9 G-1		60	62	64	62	60	62	52	66	500	4.93	Excellent
743	G-2	>	58	64	58	60	62	60	54	70	400	4.56	Excellent
744	P-10 P-9 G-3	$\rightarrow$	60	62	64	60	62	60	60	More than 70	500	4.59	Excellent
745	G-4	<b>&gt;</b>	60	60	58	62	60	64	61	More than 70	500	4.68	Excellent
746	P-15 P-16 G-2	>	62	60	58	58	60	62	61	More than 70	400	4.78	Excellent
747	G-4	_→	60	62	60	64	62	60	60	More than 70	500	4,52	Excellent
748	P-15 P-16 G-2	>	62	60	58	64	60	62	61	More than 70	500	4.90	Excellent
749	G-4	>	64	62	60	62	64	62	60	More than 70	500	4.81	Excellent
750	P-22 A-2 G-3	$\rightarrow$	62	60	58	58	60	62	60	More than 70	400	4.75	Excellent
751	G-4	<b>&gt;</b>	60	62	62	60	58	60	61	More than 70	500	4.82	Excellent

#### Velocity Criterion for Concrete Quality Grading

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# S. No.Ultrasonic Pulse Velocity (Km/sec)Concrete Quality Grading1.Above 4.50Excellent2.3.75 to 4.50Good3.Below 3.75Doubtful

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Project:- Rehabilitation and Up-gradation of Six-laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to KmC LA 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V.



Page 29 /

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#### **TPF GETINSA EUROESTUDIOS, S.L.**

in association with
Segmental Consulting & Infrastructure Advisory (P) Ltd..

Project Office :3rd Floor, Above SBI Bank, Jagganathpur, PO Madhabnagar, Bhadrak, Odisha - 756181 Email:- <u>scia029.bhadrak@Segmental.in</u>

Project: Independent Engineer services for Rehabilitation and up-gradation of Six laning of Chandikhole to Bhad section of NH-5 (New NH-16) from km. 62.000 to km. 136.500 in the state of Odisha to be executed as Hyk Annuity project on DBFOT Pattern under NHDP Phase-V

FCRN: F04460, CIN: U74140DL2009PTC188591

#### Ref: TPF-SCIA/IE/SCIA029/Concessionaire/2022-23/886

То

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The Authorized Signatory, DBL Chandikhole Bhadrak Highways Pvt Ltd. Village- Nalang, Near Sai Temple Bhadrak -756112, Odisha

<u>Subject</u>: Independent Engineer services for Rehabilitation & up-gradation of Six laning of Chandikhole – Bhadrak section of NH-05 (New NH-16) from km. 62.000 to km. 136.500 in the state of Odisha to be executed on Hybrid Annuity Mode under NHDP-Phase-V Bharatmala Pariyojana on Hybrid Annuity Mode – <u>Observations during Joint Site Inspection in regards to application for issuance of</u> <u>Provisional Commercial Operation Date</u>- Reg:

#### Reference:

#### Your letter no. DBL/NHAI/CB/2022/Site/1295 dated 17.07.2022

Dear Sir,

With reference to the above captioned subject, it is to mention that a site visit has been conducted by the undersigned on dated 21.07.2022. During site visit, various defects and deficiencies in regards to the construction of Project Highway has been pointed out and also communicated to your representative present in the site visit. The observations are as mentioned below:

- I. At several locations the construction of Project Highway is in progress.
- II. The median plantation work is very poor throughout the Project Highway. Plantation work needs to be expedited with Top Priority during this upcoming monsoon.
- III. The road marking at various stretches in piece of meal is yet to be completed. Also, the newly painted road marking at some stretches are peeled off.
- IV. There is jerk in Expansion joint at various Major Structures. Specially, the expansion joint in Flyover at Km. 78+781, Major Bridge at 78+225 & MJBR at Km. 97+130 needs to be repaired/ replaced.
- V. There is rain cut in shoulder. Also, the Damaged shoulder at various locations needs to be rectified. In addition to the above, at several locations the slope at high embankment sections neds to be repaired as per standard and specifications.







ANNEXURE -

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Date: 22.07.2022

-187-

## TPF GETINSA EUROESTUDIOS, S.L. in association with

#### getinra-euroestudios



2022

Project Office :3rd Floor, Above SBI Bank, Jagganathpur, PO Madhabnagar, Bhadrak, Odisha - 756181 Email:- <u>scia029.bhadrak@Segmental.in</u> Project: Independent Engineer services for Rehabilitation and up-gradation of Six laning of Chandikhole to Bhad section of NH-5 (New NH-16) from km. 62.000 to km. 136.500 in the state of Odisha to be executed as Hyt Annuity project on DBFOT Pattern under NHDP Phase-V

FCRN: F04460, CIN: U74140DL2009PTC188591

VI. Various sign board like safety signages, infirmity sign board needs to be placed at site. Overhead gantry as per drawing is yet to be fixed.

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VII. Hazard marker board at approaches of Minor Bridge is missing.

Segmental Consulting & Infrastructure Advisory (P) Ltd..

- VIII. The balance area at Toll Plaza needs to provide with paved surface. Road side Drain at Toll Plaza for drainage of surface water of Project Highway needs to be constructed. Also, Administration building, landscaping is not yet completed in Toll Plaza.
- IX. Floor protections work of various CD structures is not yet completed as per specification.
- X. As per the repair & rehabilitation methodology, the railing of parapet wall to be replaced by crash barrier is in progress but not yet completed.
- XI. Fixing & Painting of Hectometre/ Kilometre stone & Kerb work needs to be expedited.
- XII. Road side Boundary stones are yet to be fixed.
- XIII. As per Schedule-C of Contract Agreement, the minimum length for fixing of Metal Beam Crash Barrier is yet to be completed at site. In addition to the above, the end treatment of MBCB needs to be carried out as per specifications. Also, in general at some locations the height of MBCB seems to be less with compare to the specifications.
- XIV. Median plantations work is not yet completed. Unwanted vegetations in median and shoulder site needs to be removed.
- XV. CCTV camera & Emergency Call Box (ECB) are yet to be fixed as per relevant specifications and provision of Contract Agreement.
- XVI. Junctions as per provision of CA, needs to be developed properly for safety of traffic. Highway Lighting at several sections is not yet completed.
- XVII. As per provision of CA, the Chain linking Galvanised Fencing work is not yet started.

XVIII. The provision of utility duct as per Contract Agreement is yet to be completed.

In view of above, you are hereby advised to compliance of the above observations at the earliest for smooth traffic movement and safety of the traffic.

#### **TPF GETINSA EUROESTUDIOS, S.L.**

in association with

3,

Segmental Consulting & Infrastructure Advisory (P) Ltd..

Project Office :3rd Floor, Above SBI Bank, Jagganathpur, PO Madhabnagar, Bhadrak, Odisha - 756181 Email:- <u>scia029.bhadrak@Segmental.in</u>

Project: Independent Engineer services for Rehabilitation and up-gradation of Six laning of Chandikhole to Bhad section of NH-5 (New NH-16) from km. 62.000 to km. 136.500 in the state of Odisha to be executed as Hyl Annuity project on DBFOT Pattern under NHDP Phase-V FCRN: F04460, CIN: U74140D12009PTC188591

Thanks & regards

Yours sincered 0

Nigamanada Adhikari, Engineer in Charge, Chandikhole-Bhadrak. TPF GetinsaEuroestudios S L In Association With Segmental Consulting & Infrastructure Advisory (P) Ltd. <u>Copy submitted to:</u> 1. CGM (Tech) & RO- Odisha, NHAI – For kind information please.

2. Project Director, PIU, Balasore- For kind information please.



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-190-भारतीय राष्ट्रीय राजमार्ग प्राधिकरण (सड़क पारिबहन और राजमार्ग मंत्रालय, भारत सरकार) National Highways Authority of India (Ministry of Road Transport and Highways, Government of India) परियोजना कार्यान्वयन इकाई / Project Implementation Unit प्लाट सं - १०८६, चांदमारीपड़ीआ रोड़, सहदेवखुप्टा, बालेश्वर - ७५६००१ (ओड़िशा) Plot No. 1085, Chandmaripadia Road, Sahadevkhunta, Balasore - 756001 (Odisha) दूरभाष / Tel : 06782-263366 ई गेल /e mail : nhaibalasorc@gmail.com, plubalasore@nhai.org

NHAI/11014/15/IE/2022/PIU/BLS/ 921

July 2022

То

The Authorized Signatory, M/s TPF Getinsa Euroestudios S.L with Segmental Consulting & Infrastructure Advisory Pvt. Ltd., 3rd Floor, Above SBI Bank, Jagganathpur, PO: Madhabnagar, Dist - Bhadrak, Odisha - 756181

Sub.: Independent Engineer Services for Rehabilitation and Upgradation to Six-Laning of Chandikhole - Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to Km 136.500 in the State of Odisha to be executed as Hybrid Annuity Project under NHDP Phase V - Safety Audit for PCOD - reg.

Ref.: 1. Safety Consultant letter No.7206 dated 23.07.2022

2. This office letter No.902 dated 19.07.2022

3. Concessionaire letter No.1300 dated 19.07.2022

4. Safety Consultant letter No.7179 dated 15.07.2022

Sir,

With reference to the subject cited above, please find enclosed herewith the copy of letter No.7206 dated 23.07.2022 of Safety Consultant M/s Chaitanya Projects Consultancy Pvt. Ltd. certified therein the project highway is safe and reliable for road user and recommended for commercial operation and provisional completion.

In this regard, it is requested to go through the same and submit your comments/recommendation at the earliest to this office for taking further necessary action.

Encl.: As above

Yours sincerely,

(J. P. Verma) DGM (Tech.) & Project Director

## **ATTESTED TO BE TRUE COPY**

निगमित कार्यालय / Corporate Office : जि-5 एवं-6, सेक्टर-10, द्वारका, नई दिल्ली-110075/ G-5 & G-6, Sector-10, Dwarka, New Delhi - 110075 दूरभाष / Phone : 011-25074100/25074200, वेबसाइट / Website : nhai.gov.in



CIN NO.: U74140DL2004PTC124286 📞 (120) 4120472 | 41120472

Highways, Bridges & Expressways, Urban Infrastructures & Railways, (120) 4120472 | 41120472
 chaltanya.projects@gmail.com
 www.chaltanyaprojects.com

Date: 23.07.2022

Ref: CPC/RS-7/2020/HO/032/7206

To,

The Project Director, Project Implementation Unit -Balasore Plot No. 1086, Chandmari, Padi Road, Sahadikunta, Balasore-756001

Sub: Safety Consultant Services for Rehabilitation and up gradation by Six lanning of Chandikhole-Bhadhrakh section of NH-5(New NH-16) from Km. 62.000 to Km 136.500 in the State of Odisha under NHDP-IV on Hybrid Annuity Mode - PCOD Recommendation Letter-Reg.

Ref.:

- (I) Your office letter No: NHAI/11014/3/2022/PIU/BLS/835 dated: 04.07.2022
- (II) This office letter No: CPC/RS-7/2020/HO/031/7179 dated: 15.07.2022
- (III) Concessionaire letter No: DBL/NHAI/CB/2022/site/1300 dated: 19.07.2022
- (IV) Your office letter No. NHAI/11014/3/2022/PIU/BLS/902 dated: 19.07.2022

Sir,

We, The Chaitanya Projects Consultancy Pvt. Ltd., are appointed as a safety consultant Services for Rehabilitation and up gradation by Six lanning of Chandikhole-Bhadhrakh section of NH-5(New NH-16) from Km. 62.000 to Km 136.500 in the State of Odisha under NHDP-IV on Hybrid Annuity Mode:

As per your Letter referred at SI No. (I), we carried out site inspection on 09.07.2021 as per IRC: SP:88-2019 and issued the Pre-opening stage report with detailed observations with mitigation measures for compliance by concessionaire vide this office letter referred at SI No. (II).

We received the compliance report from the concessionaire, M/S DBL Chandikhole-Bhadhrakh Highway Pvt. Ltd. vide letter referred at SI No. (III) and same has been forwarded from your good office vide letter referred at SI. (IV). Subsequently the safety compliance report is attached herewith as Annexure I. The deficiencies that were identified during site audit along with required improvement, were recommended for modification in the report/ letter. It has been noticed that observations recommended have been satisfactorily implemented on the project highway to enhance safety of road users.

Accordingly, the provisional PCOD safety report is prepared conforming to article 18 of the concession agreements and being submitted in 5 Set of hard copies.

It is submitted that most of the safety improvement measures recommended have already been complied by concessionaire. As a Road Safety Consultant, it is certified that the above project road is safe and reliable for the road users and is hereby being recommended for the commercial operation and Provisional completion.

CORPORATE OFFICE: 101, 1st Floor, Tower No. 3, Okaya Center, Block-B, Sector-62, Noida 201301, India

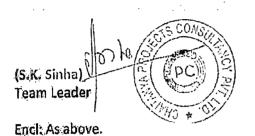


HEAD OFFICE: C-4 & C-5, 2nd Floor, R.K. Tower, Plot No. Sector-4, Vaishali, Ghaziabad - 201012 (U.A.  It is further submitted that the after observations mentioned in Punch List issued by Independent Engineer and compliance of safety measures, final COD shall be issued as per Schedule-L of the concession agreement

Thanking and assuring you of our best services at all time.

#### Yours Faithfully

For Chaltanya Projects Consultancy Pvt. Ltd.



Copy to:

- 1. Project Manager, M/s Dilip Buildcon Highway ltd. Odisha.
- Team Leader, M/S. TPF Getinsa Eurostudios S.L. in association with Segmental Consulting & Infrastructure Advisory Pvt. Etd, Odisha.

For info and n/a.



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-193.



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण ANNEXU

दूरभाष /Phone . 91-11-25074199/25074200 केस्ट/ Fex : 91-11-25093507 / 25093514

(सहक परिवरन और राजमार्ग मंगलय)

National Highways Authority of India

(Ministry of Road Transport and Highways) जो-5 एवं ६, सेक्टर-10, झाका, पर्द दिल्ली-110075 G-5 & 6, Sector-10, Owerka, New Delh-110075 NHAI/CGM(CMC)/2015 / 75902

21.12.2015

To

AII CGM(T)/GM(T), NHAI-HQ

Sub.: Issuance of Completion Certificate or Provisional Completion Certificate in respect of PPP projects by Independent Engineer.

Sir,

The issuance of Completion Certificate or Provisional Completion Certificate in respect of PPP Projects was deliberated by the Executive committee in its 238th meeting held on 23.04.2015 and it was decided that henceforth the Completion Certificate/ Provisional Certificate for PPP Project shall be issued by the IE without seeking prior clearance from NHAI or any other Authority as per the relevant provisions of the Concession agreement.

2. Accordingly, Technical Divisions were advised vide letter dated 24.04.2015 and to issue instructions to IEs appointed for PPP projects under their jurisdiction. Subsequently based on representation of NHBF, the above check-list/guidelines were also modified and Technical Divisions were advised vide letter dated 22.05.2015 to issue these modifications.

3. Ϊŧ has been observed that some IEs performing role 378 their perfunctorily/casually in this important issue and the Provisional Completion Certificates (PCC) or Completion Certificates are Issued without ensuring faithful compliance with the provisions of the Concession Agreement. In the project 4- jaming of Beawar-Pali-Pindwara section of NH-14 in the State of Rajasthan under NHDP Phase- III on DBFOT basis, IE had issued Provisional Completion Certificate even though the newly constructed carriageway deteriorated immediately after construction completion, Clearly, in the case, there has been an oversight and even irresponsible behaviour of the infirmities/irregularities in issuance IE. Other of Provisional Completion Certificate/Completion Certificate have also been noticed and with approval of Executive Committee, it is decided to modify the earlier issued guidelines/checklist. Accordingly, all technical division are requested to issue the enclosed letter to IEs appointed for PPP projects under the jurisdiction.

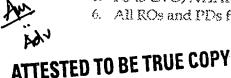
4. This has the approval of Competent Authority.

Encl: As above

(L.P.Padhy) CGM (T)-CMC

Copy to:-

- 1. PS to Chairman, NHAI
- 2. PS to Member (P), NHAI
- 3. PS to Member (F)/Member (A), NHA1
- 4. PS to Member (T), NHAI
- 5. PS to CVO, NHAI
- All ROs and PDs for information and necessary action please.



M/s_____

Sub.: Issuance of Completion Certificate or Provisional Completion Certificate in respect of PPP projects by Independent Engineer

Sir,

C

This has reference to NHAI's letter dated ________ and ______ on the above subject conveying the decision of NHAI that the Independent Engineer will issue Completion Certificate or Provisional Completion Certificate as the case may be without seeking prior clearance from NHAI or any other Authority as per relevant provisions of Concession Agreement.

2. It was clarified that since the IE will be the Authority to issue of Provisional Completion Certificate, they should take the entire responsibility for compliance of the provisions of the Concession Agreement before issue of the Completion Certificate. The IE was advised to act strictly as per the Concession Agreement keeping the overall public interest in view in a fair and impartial manner consistent with the highest standard of professional integrity. A checklist based guidelines to be followed by IEs for issue of Completion Certificate or Provisional Completion Certificate was also circulated. The checklist was only indicative and did not intend to alter or modify the role of IE as stipulated in the respective Concession Agreement.

3. It has, however, been observed that IEs are performing their role perfunctorily/casually in these matters and the Provisional Completion Certificates or Completion Certificates are issued without ensuring faithful compliance to the provisions of the Concession Agreement. In one of the projects in the State of Rajasthan, namely 4-laning of Beawar-Pail-Pindwara section of NH-14 under NHDP Phase-III on DBFOT basis, IE had issued Provisional Completion Certificate even though the newly constructed carriageway deteriorated immediately after construction completion. Several other infimities/irregularities in issuance of Provisional Completion Certificate/Completion Certificate have also been noticed.

4. Issuance of Completion Certificate is linked with the stari of tolling for the project. Untimely issuance of Completion Certificate without due regard to the 'safety & 'reliability' aspects and which are in contravention of the tenets of the Concession Agreement will surely invite complaints and public criticism.

S. In order to issue Provisional Completion Certificate or Completion Certificate in a fair and impartial manner, it has been decided to issue the following guidelines in partial modifications of the earlier guidelines:-

i) Regional Officer or his representative shall invariably be associated during conduct of Tests prior to likely completion of the Project Highway as per Clause 14.1 of the Concession Agreement. Upon completion of each Test, the Independent Engineer shall provide the copies of all Test data including detailed Test results to the Authority.

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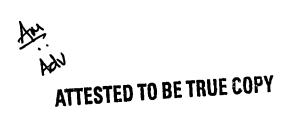
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Before issuing of Provisional Completion Certificate or Completion Certificate, the IE shall notify his intention of doing so along with details to the RO with a copy to NHAI Headquarter.

- (iii) Upon receipt of such report from IE, the RO shall conduct inspection of the Project Highway and convey his observations on the proposal of IE within 10 days with a copy to HQ. If RO concurs with the IE's proposal, IE shall proceed with issue of Provisional Completion Certificate or Completion Certificate. If RO is of the opinion that the project highway is not yet fit and safe for commercial service, he shall notify the IE/Concessionaire with reasons for disagreement. The IE shall thereupon re-assess the proposal and in the interim withhold issuing of Provisional Completion Certificate/Completion Certificate. It will be the responsibility of the IE to ensure that the Concessionaire remedies and rectifies such defects or deficiencies pointed out by the RO. IE shall satisfy himself that all the defects/deficiencies are remedied and rectified by the Concessionaire and thereafter IE shall proceed with the issuance of Provisional Completion Certificate or Completion Certificate as the case may be. It is, however, clarified that :
  - (A) Provisional Completion Certificate/Completion Certificate will be issued by IE.
  - (B) The IE may however proceed with the issuance of Provisional Completion Certificate or Completion Certificate, if notwithstanding the report of the RO, he is convinced that the Project Highway can be safely and reliably put in commercial operation. IE will record his detailed reasons in writing for non-acceptance of RO's observations and send a report in this regard to the Authority.
- iv) The checklist based guidelines issued earlier with NHAI's letter dated _____and letter dated _____shall remain applicable.

Yours faithfully

(.....)



ANNEXURE - 11 (coury)

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## **TPF GETINSA EUROESTUDIOS, S.L.**

in association with

Segmental Consulting & Infrastructure Advisory (P) Ltd..

Project Office :3rd Floor, Above SBI Bank, Jagganathpur, PO Madhabnagar, Bhadrak, Odisha - 756181 Email:- <u>scia029.bhadrak@Segmental.in</u>

Project: Independent Engineer services for Rehabilitation and up-gradation of Six laning of Chandikhole to Bhadra section of NH-5 (New NH-16) from km. 62.000 to km. 136.500 in the state of Odisha to be executed a Hybrid Annuity project on DBFOT Pattern under NHDP Phase-V

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FCRN: F04460, CIN: U74140DL2009PTC188591

#### Ref: TPF-SCIA/029/IE/Concessionaire/PCOD/2022-23/906

Date: 19.08.2022

То

The Authorized Signatory, DBL Chandikhole Bhadrak Highways Pvt Ltd. Village- Nalang, Near Sai Temple Bhadrak -756112, Odisha

<u>Subject</u>: Independent Engineer services for Rehabilitation & up-gradation of Six laning of Chandikhole – Bhadrak section of NH-05 (New NH-16) from km. 62.000 to km. 136.500 in the state of Odisha to be executed on Hybrid Annuity Mode under NHDP-Phase-V Bharatmala Pariyojana on Hybrid Annuity Mode – <u>Issuance of "Provisional Certificate" in accordance with Article 14 of Concession Agreement.</u> -Reg:

#### Reference:

- 1. Concession Agreement dated 09.04.2018.
- 2. Your letter No. DBL/NHAI/CB/2019-20/Site/1295 dated 17.07.2022
- 3. Safety Consultant letter no. CPC/RS-7/2020/HO/032/7206 dated 23.07.2022
- 4. Our letter No. TPF-SCIA/029/IE/NHAI/PCOD/2022-23/890 dated 24.07.2022
- 5. RO Odisha letter no. NHAI/11012/27/RO/OD/2580/2022 dated 18.08.2022
- 6. PIU letter no. NHAI/11014/8/DBL/2022/PIU/BLS/1033 dated 18.08.2022

Dear Sir,

In inviting reference to the above captioned subject, please refer to the letter under **reference (5)**, wherein the concurrence of the CGM (Tech.) & Regional Officer- NHAI, for the proposal of Issuance of Provisional Certificate for a length of 70.558 Km. out of total length of 74.50 Km. as per NHAI Policy Circular No. NHAI/CGM (CMC)/2015/75902 dated 21.12.2015 has been conveyed. In this connection, we would like to submit the following:

- Prima facie, it is pertinent to recapitulate that NHAI has entered into an Agreement with M/s. DBL Chandikhole Bhadrak Highways Ltd. for Rehabilitation and Up-gradation to Six-Laning of Chandikhole-Bhadrak Section of NH-5 (New NH-16) from Km. 62.000 to Km. 136.500 in the State of Odisha to be executed as Hybrid Annuity Project under NHDP Phase V. The Project has been awarded for a length of 74.5 Km. with a project cost amounting to Rs. 1522.00/ crore.
- 2. The brief history of the Project is mentioned below:

ATTESTED TO BE TRUE COPY

#### in association with

#### Segmental Consulting & Infrastructure Advisory (P) Ltd..

Project Office :3rd Floor, Above SBI Bank, Jagganathpur, PO Madhabnagar, Bhadrak, Odisha - 756181 Email:- scia029.bhadrak@Segmental.in

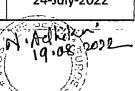
Project: Independent Engineer services for Rehabilitation and up-gradation of Six laning of Chandikhole to Bhadra section of NH-5 (New NH-16) from km. 62.000 to km. 136.500 in the state of Odisha to be executed a Hybrid Annuity project on DBFOT Pattern under NHDP Phase-V

FCRN: F04460, CIN: U74140DL2009PTC188591

SI. No	ltem	Description
1	Project	Rehabilitation and Up-gradation to Six-Laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km.62.000 to Km.136.500 in the state of Odisha to be executed as Hybrid Annuity Project under NHDP Phase V
2	Mode of Implantation	НАМ
3	Authority Engineer	TPF Getinsa Eurostudios, S.L. in association with Segmental Consulting & Infrastructure Advisory (P) Ltd.
4	Concessionaire	M/s. DBL Chandikhole Bhadrak Highways Ltd. (DBL CBHL).
5	Date of Agreement	9th April' 2018.
6	Appointed Date	16th December' 2018
7	Original Contract Price	Rs. 1522 Cr.
8	Original Length of Project	74.5Km.
9	Scheduled Completion Date	12.06.2021
10	Revised Schedule Completion Date	24.07.2022
11	Physical progress	90.50%
12	Financial progress	90.00%

4. Earlier, as per the request of Concessionaire, considering the impact of COVID-19, due to the delay not attributable to Concessionaire or beyond the control of Concessionaire, Competent Authority had conveyed for Extension of Time for Schedule Completion Date upto 24.07.2022. The revised Project Mile Stone are as here under:

Project Mile stone	Brief particulars	Occurrence from Appointed date	Scheduled date	Revised Date as approved EOT
Mile stone I	20% of Physical Progress	On 290 th day	01-10-2019	-
Mile Stone II	35% of Physical Progress	On 430 th day	18-02-2020	-
Mile Stone III	75% of Physical Progress	On 690 th day	04-11-2020	15-Dec-2021
Schedule Completion	Completion Project	On 910 th day	12-06-2021	24-July-2022





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in association with

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Segmental Consulting & Infrastructure Advisory (P) Ltd..

Project Office :3rd Floor, Above SBI Bank, Jagganathpur, PO Madhabnagar, Bhadrak, Odisha - 756181 Email:- scia029.bhadrak@Segmental.in

Project: Independent Engineer services for Rehabilitation and up-gradation of Six laning of Chandikhole to Bhadra section of NH-5 (New NH-16) from km. 62.000 to km. 136.500 in the state of Odisha to be executed a Hybrid Annuity project on DBFOT Pattern under NHDP Phase-V FCRN: F04460, CIN: U74140DL2009PTC188591

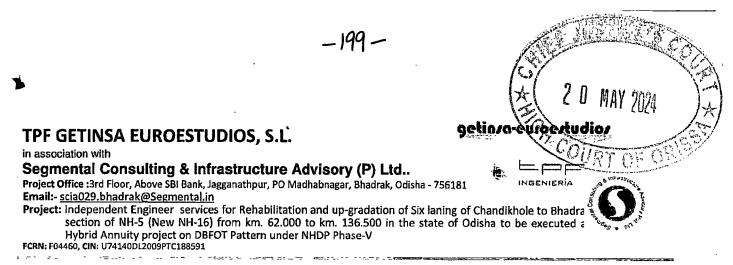
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5. The Project Highway has been constructed as per scope broadly outlined under Schedule B & C, and generally in conformity with the Technical Specifications and Standards set forth in Schedule-D of the Concession Agreement. The following stretches has been completed as under :

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SI. No.	From (Km.)	To (Km.)	Side	LHS Length (m.)	RHS Length (m.)	Remarks
1	62+000	68+800	BHS	6800	6800	
2	69+400	82+506	BHS	13106	13106	
3	82+506	83+210	RHS	0	704	2 Lane Existing Bridge available on LHS, additional 2 Lane Bridge in centre is Descoped.
4	83+210	88+000	BHS	4790	4790	
5	88+700	95+900	BHS	7200	7200	
6	95+900	96+170	RHS	0	270	
7	96+170	99+360	BHS	3190	3190	
8	99+750	100+000	BHS	250	250	
9	100+000	113+300	BHS	13300	13300	
10	113+300	114+000	LHS	700	· · · · · · · · · · · · · · · · · · ·	
11	114+000	122+070	BHS	8070	8070	
12	122+070	122+400	LHS	330		
13	122+400	122+700	BHS	300	300	
14	123+600	128+800	BHS	5200	5200	
15	128+800	129+500	LHS	700		
16	129+500	136+500	BHS	7000	7000	
	Tota	al Length (m.)		70936	70180	
	Total Lengt	h in BHS 3 Lan	ie (m.)	141	.116	•
	Total Len	gth in 6 Lane	(m.)	70	558	WF GET

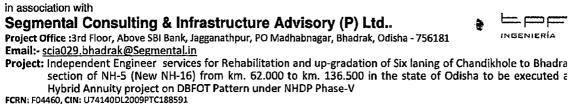


- **6.** All the relevant Tests in accordance with 14.1.2 and **Schedule** I of the Concession Agreement have been conducted in presence of representatives of IE, Concessionaire and witnessed by the Authority. The tests as per Schedule-I which are briefly summarized as here under:
  - (i) Visual and Physical Test
  - (ii) Test Drive
  - (iii) Riding Quality Test
  - (iv) Pavement Composition Test
  - (v) Cross Section Test
  - (vi) Structural Test for bridges and Flyovers:
    - a) Load Test
    - b) Ultrasonic Pulse Velocity
    - c) Rebound Hammer Test
  - (vii) Other Tests:
    - a) Material Testing
    - b) Network Survey Vehicle Test
  - (viii) Safety Audit
- It is submitted that detailed reports of all above tests conducted under provisions specified in clause 14.1.2 & Schedule-I Concession Agreement have been examined as per provisions of the relevant IRC and MoRTH guidelines and they have been found satisfactory.
- 8. The safety audit has been carried out by the Safety Consultant as per Schedule-L of the CA on 09.07.2022 at Completion stage and Safety Consultant submitted their report / observations which the Concessionaire complied vide their letter no. DBL/NHAI/CB/2022/Site/1300 dated 19.07.2022. After reviewing the compliance, Safety Consultant vide letter no. CPC/RS-7/2020/HO/032/7206 dated 23.07.2022 has recommended the following:

"most of the safety improvement measures recommended have already been complied by Concessionaire. As a Road Safety Consultant, it is certified that the above project road is safe and reliable for the road users and is hereby being recommended for the commercial operation and provisional completion certificate."

9. As per Clause No. 14.3.1 of the Concession Agreement, which reads as " subject to the provision of clause 14.3.2, the Independent Engineer may, at the request of the Concessionaire, issue a provisional certificate of completion substantially in the form set forth in Schedule – J (the "Provisional Certificate") if the Tests are successful and the Project car be safely and reliably placed

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for commercial operation though certain works or things forming part thereof are outstanding and not yet completed. In such an event, the Provisional certificate shall have appended thereto a list of outstanding items signed jointly by the Independent Engineer shall not withhold the Provisional Certificate for reason of any works remaining incomplete if the delay in completion thereof is attributable to the Authority provided further that the Punch List shall also include the cost of completion for each of the outstanding item".

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 Accordingly, pursuant to clause 14.3.1 of Concession Agreement, certain items have been proposed/considered in Punch list. Punch List A- for RCC drain at 05 nos of locations, construction of rest Area at Km.83+550, Landscaping at Km. 83+550 & Toll Plaza at Km.102+500, Median & Avenue Plantation, 1591 nos. of Electric Pole erection, ROW Fencing, Road Boundary Stone and Turfing from Km. 83+350 to Km. 83+650.

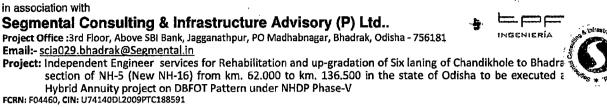
**Punch list-B** for MCW (Linear Length 7180m), Service Road (Linear length 11835m), RCC Drain (Linear length 17158m), Footpath & Separator Kerb (Linear length- 3817m). Bus Shelter (5 Nos.), Minor Junction (6 Nos.), New Minor Bridge- Service Road (2 Nos.), Box Culvert- SR (2 Nos.), Widening of Box Culvert- SR (1 No), Existing office/ Admin Building.

The details of Punch List A & B are also enclosed herewith for ready reference. Further, the cost of completion for each of the outstanding items included in the Punch list has been submitted by Concessionaire.

- 11. The completed works have been inspected on 10.08.2022 by the CGM (Tech.) & RO, Odisha along with the PD, IE & Concessionaire and a set of observations have been made by RO, NHAI, vide letter no. 2540 dated 11.08.2022. The Concessionaire has complied the observations made by RO, Odisha. Accordingly, vide letter under reference (6), the concurrence of Competent Authority has been conveyed for issuance of the Provisional Certificate by Independent Engineer, in accordance with NHAI circular No. NHAI/CGM (CMC)/2015/75902 dated 21.12.2015.
- 12. In view of the above, on successfully conducting all the Tests, based on recommendation of Safety Consultant, pursuant to Article 14 of the Concession Agreement, as per concurrence of the Competent Authority in accordance with NHAI circular No. NHAI/CGM (CMC)/2015/75902 dated 21.12.2015, the Provisional Certificate of Completion is hereby issued to the Concessionaire M/s DBL CHANDIKHOLE BHADRAK HIGHWAYS LIMITED for a length of 70.558 km. out of total length of 74.50 km. with effect from 24.07.2022, subject to the following condition:

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I. Items under punch to be completed within time line as specified in Concession Agreement or time line approved by the Competent Authority.

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- **II.** The time limit for completion of COS items as agreed in the Settlement Agreement may be strictly adhered to.
- III. Pursuant to Article 12.2(g), the Concessionaire shall furnish As Built Drawings within 90 days from the date of COD declared.

The "Provisional Certificate" in the form set forth in Schedule-J is hereby issued and enclosed by Independent Engineer with a list of items ("the Punch List") jointly signed by concessionaire.

Thanks & regards Yours sincerely,

JA 19.08

Nigamananda Adhikari, Engineer in-charge, Chandikhole-Bhadrak. TPF GetinsaEuroestudios S L In Association With Segmental Consulting & Infrastructure Advisory (P) Ltd. Enclosure: As stated above. <u>Copy submitted to:</u> 1. CGM Tech & RO, Odisha, NHAI- For kind information please.

2. Project Director- NHAI, PIU, Balasore- For kind information please.

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# **PROVISIONAL CERTIFICATE**

- I/We, TPF Getinsa Eurostudios S.L in Association with Segmental Consulting & Infrastructure Advisory Pvt. Ltd, acting as Independent Engineer, under and in accordance with the Concession Agreement Dated 9th April, 2018 (the "Agreement"), for development, operation, rehabilitation & up-gradation to Six-Laning of Chandikhole – Bhadrak Section of NH-5 (New NH-16) from Km. 62.000 to Km. 136.500 in state of Odisha to be executed as Hybrid Annuity Project under NHDP Phase V (the "Project") on design, build, operate and transfer (the "DBOT Annuity or Hybrid Annuity") basis through DBL CHANDIKHOLE BHADRAK HIGHWAYS LIMITED (Name of the Concessionaire), hereby certify that the Tests specified in Article 14 and Schedule-I of the Agreement have been undertaken for the Project/section "Rehabilitation and Up-gradation of Six-laning of Chandikhole – Bhadrak section of NH-05 (New NH-16) from Km. 62.000 to Km. 136.500 in the state of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V" of the Project to determine compliance thereof with the provisions of the Agreement.
- 2. Construction Works forming part of the Project/section of the Project 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 the 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. Through the remaining incomplete works have been delayed as a result of reasons attributable to the Concessionaire, I/We am/are satisfied that having regard to the nature and extent of such incomplete works, it would not be prudent to withhold commercial operation of the Project/section "Rehabilitation and Upgradation of six-laning of Chandikhole Bhadrak section of NH-05 (New NH-16) from Km. 62.000 to Km. 136.500 in the state of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V" of the Project, pending completion thereof.
- 3. In view of the foregoing, I/We am/are satisfied that the Project/section of the Project can be safely and reliably placed in commercial service of the Users thereof, and in terms of the Agreement, the Project/section of the Project is hereby provisionally declared fit for entry into commercial operation on this the 24th day of July 2022.

## ACCEPTED, SIGNED, SEALED AND DELIVERED

FOR AND ON BEHALF OF CONCESSIONAIRE by:

(Signature) Name: Manoj Kumar Tiwari Designation: Project Manager DBL Chandikhole – Bhadrak Highways Limited

### SIGHNED, SEALED AND DELIVERED

FOR AND ON BEHALF OF INDEPENDENT ENGINEER by:

(Signature)

Name: Mr. Nigamananda Adhikari Designation: Engineer In-charge TPF Getinsa Euroestudios S L In Association With Segmental Consulting & Infrastructure Advisory (P) Ltd.

#### PUNCH LIST -A

(Work to be Completed within 90 days after Issuance Of Provisional Completion Certificate)

Item No:-(1).Balance Works Detail of Drain

		' Chainage							
Sr.No.	Description	From	То	Side	Length	Unit	Status	Remark's	
1	RCC Drain	62+415	62+450	RHS	35	Rmt.	Work in progress		
2	RCC Drain	70+150	70+250	RHS	100	Rmt.	Work in progress		
3	RCC Drain	81+840	81+960	LHS	120	Rmt.	Work in progress		
4	RCC Drain	81+880	81+920	RHS	40	Rmt.	Work in progress		
5	RCC Drain	83+250	83+500	RHS	250	Rmt.	Work in progress		
I		Total	Linear Mete	r (Length)	545				
tem No:-(	(2) Balance Works for	Construction	of Rest Are	a	- <del>-</del>				
The second se		Chai	nage						
Sr.No.	Description	From	То	Side	Qty	Unit	Status	Remarks	
1	Rest Area	83+	550	LHS	1	No's	Work in progress		
tem No:-(	(3) Balance Works Deta	ail of Landsca	ping	······································					
				<u> </u>					
		Chai	nage		1				
Sr.No.	Description	Chai From	nage To	Side	Qty	Unit	Status	Remarks	
	· -	From		Side LHS	Qty 1	Unit No's	Status Work in progress	Remarks	

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Rehabilitation and Up-gradation to Six-laning of Chandikhole-Bhadrak Section of NH-5 (New NH-16) from Km.62.000 to Km.136.500 in the state of Odisha to be executed as Hybrid Annuity Project on DBFOT Pattern under NHDP Phase V. **PUNCH LIST -A** (Work to be Completed within 90 days after Issuance Of Provisional Completion Certificate) Item No:-(4) Balance Works Detail of Plantation Chainage Sr.No. Description Side Qty Unit Status Remarks From То Median Plantation 1 62+000 136+500 BHS 5000 Nos. Work in progress 2 Avenue Plantation 62+000 136+500 BHS 1800 Work in progress Nos. Item No:-(5).Balance Works Detail of Electric Pole Chainage Description Sr.No. Side Nos Ünit Status Remarks To From 1 Work in progress Electric Pole 62+000 136+500 BHS 1591 No's Item No:-(6).Balance Works Detail of ROW Fencing Chainage Description Sr.No. Side Nos Unit Status Remarks То From **ROW Fencing** 62+000 136+500 BHS 1 74.5 Km Work in progress 2 Road Boundary Stone 62+000 136+500 BHS 2565 No's Work in progress Item No:-(7).Balance Works Detail of Turfing Chainage Sr.No. Description Side Quantity Unit Status Remarks То From Turfing 83+350 83+650 RHS 2400 Work in progress 1 Sqm

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em No:- (1) I	Balance Works Detail of M	CW Road				
Sr.No.	Description	Chai	nage	1	0.4	
31.NO.	Description	From	То	Length	Side	Remarks
1	MCW	68+800	69+400	600	LHS	
2	MCW	68+800	69+400	600	RHS	
3	MCW	88+000	88+700	700	RHS	
4	MCW	88+000	88+700	700	LHS	
5	MCW	95+900	96+170	270	LHS	
6	MCW	99+360	99+750	390	LHS	
7	MCW	99+360	99+750	390	RHS	
8	MCW	113+300	114+000	700	RHS	
9	MCW	122+070	122+400	330	RHS	
10	MCW	122+700	123+600	900	LHS	
11	MCW	122+700	123+600	900	RHS	
12	MCW	128+800	129+500	700	RHS	
		Total Linea	ar Meter (Length)	7180.000		
em No:- (2) E	Balance Works Detail of Se	ervice Road				
Sr.No.	Description	Chai	nage	l an aith	0.4-	Demode
31.140.	Description	From	То	Length	Side	Remarks
1	Service Road	81+470	81+640	170	LHS	
2	Service Road	102+150	102+250	100	LHS	
3	Service Road	107+810	108+400	590	LHS	
4	Service Road	136+100	136+300	200 FF OF	LHS	

**PUNCH LIST -B** 

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Rehabilitation and Up-gradation to Six-laning of Chandikhole-Bhadrak Section of NH-5 (New NH-16) from Km.62.000 to
Km.136.500 in the state of Odisha to be executed as Hybrid Annuity Project on DBFOT Pattern under NHDP Phase V.

	( Following works can not be excuted due to delay in avalability of land and proposed in COS)										
5	Service Road	62+100	62+300	200	RHS						
6	Service Road	62+340	62+540	200	RHS						
7	Service Road	62+540	63+550	1010	RHS						
8	Service Road	63+935	63+950	15	RHS						
9	Service Road	64+100	64+800	700	RHS						
10	Service Road	64+800	65+160	360	RHS						
11	Service Road	65+160	65+630	470	RHS						
12	Service Road	67+480	68+080	600	RHS						
13	Service Road	68+080	68+100	20	RHS						
14	Service Road	68+425	68+445	20	RHS						
15	Service Road	74+480	75+080	600	RHS						
16	Service Road	80+400	80+450	50	RHS	_					
17	Service Road	88+700	90+400	1700	RHS						
18	Service Road	102+100	102+250	150	RHS						
19	Service Road	107+200	108+400	1200	RHS						
20	Service Road	115+300	115+900	600	RHS						
21	Service Road	120+880	121+050	170	RHS						
22	Service Road	122+050	122+470	420	RHS						
23	Service Road	125+340	125+380	40	RHS						
24	Service Road	128+650	129+500	850	RHS	-					
25	Service Road	131+600	132+400	800.57	RHS						

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PUNCH LIST -B

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26	Service Road	133+000	133+600	600	RHS	
		Total Linea	ar Meter (Length)	11835.000		
tem No:- (3) f	Balance Works Detail of Dr	ain work			· ,	·
Sr.No.	Description	Chair	nage	Length	Side	Remarks
31.140.	Description	From	То	Lenga	Side	Remarks
1	RCC Drain	62+450	62+543	93	RHS	
2	RCC Drain	62+615	63+585	970	RHS	
3	RCC Drain	63+800	64+050	250	RHS	
4	RCC Drain	64+050	66+000	1950	RHS	
5	RCC Drain	67+440	67+880	440	RHS	
6	RCC Drain	68+070	68+090	20	RHS	
7	RCC Drain	68+303	68+380	77	RHS	
8	RCC Drain	68+900	68+980	80	LHS	
9	RCC Drain	69+170	69+280	110	LHS	
10	RCC Drain	70+700	70+760	60	RHS	
11	RCC Drain	72+640	72+670	30	LHS	
12	RCC Drain	73+020	73+143	123	LHS	
13	RCC Drain	73+300	73+400	100	RHS	
14	RCC Drain	73+650	75+200	1550	RHS	
15	RCC Drain	77+840	77+940	100	LHS	
16	RCC Drain	77+840	77+940	-100	RHS	

PUNCH LIST -B

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	( Following works can	not be excuted du	e to delay in av	alability of land an	d proposed in COS)
17	RCC Drain	79+480	79+630	150	RHS
18	RCC Drain	81+380	81+640	260	LHS
19	RCC Drain	88+700	90+700	2000	RHS
20	RCC Drain	92+200	92+300	100	RHS
21	RCC Drain	92+500	92+650	150	RHS
22	RCC Drain	93+700	93+900	200	RHS
23	RCC Drain	94+000	94+080	80	RHS
24	RCC Drain	94+155	94+260	105	RHS
25	RCC Drain	94+700	94+800	100	RHS
26	RCC Drain	97+680	97+900	220	LHS
27	RCC Drain	106+500	106+550	50	RHS
28	RCC Drain	107+700	108+300	600	RHS
29	RCC Drain	108+300	108+400	100	RHS
30	RCC Drain	115+300	115+900	600	RHS
31	RCC Drain	117+560	117+630	70	RHS
32	RCC Drain	117+730	118+130	400	RHS
33	RCC Drain	119+740	119+950	210	RHS
34	RCC Drain	122+040	122+350	310	RHS
35	RCC Drain	125+300	125+450	150	RHS
36	RCC Drain	127+680	130+000	2320	RHS
37 .	RCC Drain	127+820	129+900	2080 CETT	LHS

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Rehabilitation and Up-gradation to Six-laning of Chandikhole-Bhadrak Section of NH-5 (New NH-16) from Km.62.000 to Km.136.500 in the state of Odisha to be executed as Hybrid Annuity Project on DBFOT Pattern under NHDP Phase V.

PUNCH LIST -B

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		P	UNCH LIST -B			
	( Following works ca	n not be excuted du	e to delay in ava	lability of land an	d proposed in	COS)
38	RCC Drain	131+550	132+400	850	RHS	
		Total Lines	ar Meter (Length)	17158		
tem No:- (4) I	Balance Works Detail of I	Footpath & Separator	Kerb			
Sr.No.	Description	Chai	nage	Longth	Side	Demoska
		From	То	Length	2106	Remarks
1	SR	62+340	62+450	110	RHS	
2	SR	68+330	68+450	120	RHS	
3	SR	83+350	83+500	150	RHS	1
4	SR	96+220	96+305	85	RHS	T
5	SR	96+348	96+420	72	RHS	1
6	SR	107+460	108+640	1180	LHS	
7	SR	124+840	125+410	570	RHS	
8	SR	128+620	130+150	1530	RHS	
		Total Linea	ar Meter (Length)	3817		
tem No:-(5).	Balance Works Detail o	of Bus Shelter				
Sr.No.	Description	Chainage	Side	Quantity	Unit	Remarks
1	Bus Shelter	68+200	RHS	1	Nos	
2	Bus Shelter	90+900	RHS	1	Nos	
KHO	EBA			<1. data		<u>+</u>

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Bus Shelter

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PUNCH LIST -B

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	( Following works ca	n not be excuted due	e to delay in avala	ability of land an	d proposed in	COS)
4	Bus Shelter	129+200	RHS	1	Nos	
5	Bus Shelter	135+200	RHS	1	Nos	
I		<u>-</u>	Total Qty	5	Nos	<u>+</u>
tem No:-(6).	Balance Works Detail o	of Minor Junction				
Sr.No.	Description	Chainage	Side	Quantity	Unit	Remarks
1	Minor Junction	76+610	RHS	1	Nos	
2 .	Minor Junction	79+543	LHS	1	Nos	
3	Minor Junction	97+838	LHS	1	Nos	
4	Minor Junction	108+224	RHS	1	Nos	
5	Minor Junction	108+673	LHS	1	Nos	1
6	Minor Junction	135+200	RHS	1	Nos	
	, <u> </u>		Total Qty	6	Nos	1

#### PUNCH LIST -B

#### Item No:-(7).Balance Works Detail of Minor Bridge

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Sr.No.	Description	Chainage	Side	Quantity	Unit	Remarks
1	New Minor Bridge - Service Road	84+925	RHS	1	Nos	<u></u>
2	New Minor Bridge - Service Road	107±900	BHS	1	Nos	
			Total Qty	2	Nos	

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**PUNCH LIST -B** 

( Following works can not be excuted due to delay in avalability of land and proposed in COS)

Item No:-(8).Balance Works Detail of Box Culvert

Sr.No.	Description	Chainage	Side	Quantity	Unit	Remarks
1	Box Culvert -SR	63+941	RHS	1	Nos	
2	Box Culvert -SR	68+432	RHS	1	Nos	
3	Widening of Box Culvert -SR	78+728	BHS	1	Nos	
			Total Qty	3	Nos	

Item No:- (9).Balance Works Detail of Existing office/Admin Buildings to be maintained during entire concession period

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Sr.No.	Description	Chainage		Nos.	Cide	Demoistre
		From	То	NO5.	Side	Remarks
1	Existing office/Admin Buildings	62+200 (Chandikhole)		1	LHS	
2	Existing office/Admin Buildings	122+300 (Gelpur, Bhadrak)		· 1	LHS	

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# भारतीय राष्ट्रीय राजमार्ग प्राधिकरण (सड़क परिवहन और राजमार्ग मंत्रालय, भारत सरकार)) National Highways Authority of India (Ministry of Road Transport & Highways, Govt. of India)



क्षेत्रीय कार्यालय, ओड़िशा /Regional Office, Odisha 301 - ए, तीसरी मंजिल, पाल हाईटस, प्लाद् नं जे/7, जयदेव विहार, भुवनेश्वर - 751013. ओड़िशा 301-A, 3rd Floor, Pal Heights, Plot No : J/7, Jayadev Vihar, Bhubaneswar- 751013, Odisha 37भाप /Ph.: 0674 - 2361470/ 570/670 (का/O),फेक्स /Fax : +91-674-2361770 दुरभाप /Ph.: 10674 - 2361470, 570/670 (का/O),फेक्स /Fax : +91-674-2361770 इं-मेल/e-mail : roodisha@nhai.org, ronhaiodisha@gmail.com, वेबसाइट/Web : www.nhai.gov.in

NHAI/11012/27/RO/OD/ 2580 /2022

18.08.2022

The Project Director National Highways Authority of India, Project Implementation Unit Balasore

- Sub: Rehabilitation and Upgradation to Six-Laning of Chandikhole Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to Km 136.500 in the State of Odisha to be executed as Hybrid Annuity Project under NHDP Phase V - <u>Issuance of</u> <u>"Provisional Certificate" for COD in accordance with Article 14 of</u> <u>Concession Agreement</u> - Reg.
- Ref: 1. Your letter No. 12.08.2022 and 971 dated 05.08.2022 2. This office letter no.2540 dated 11.08.2022
  - 3. IE letter no. 904 dated 12.08.2022 and 890 dated 24.07.2022

Sir,

To,

Please refer to your letter dated 05.08.2022 vide which a proposal for issuance of "Provisional Certificate" for COD to the Concessionaire, M/s DBL Chandikhole Bhadrak Highways Ltd. as per Article 14 of Concession Agreement has been recommended for concurrence by the Regional Officer in accordance with NHAI Policy circular dated 21.12.2015.

2. Pursuant to receipt of the above proposal, the site was inspected by the CGM (Tech) & Regional Officer on 10.08.2022 and a set of observations were conveyed vide this office letter dated 11.08.2022 cited U/r- (2). The Concessionaire vide letter no. 1366 dated 12.08.2022 has agreed to comply all the observations within a maximum period of 15 days or at the earliest as soon as the weather gets dry and the same has also been recommended by you vide your letter no.1010 dated 12.08.2022.

3. As per Article 14.3.1 of the CA, the Project can be safely and reliably placed in commercial operation though certain works or things forming part thereof are outstanding and not yet complete. In such an event, the Provision Certificate shall have appended thereto a list of outstanding items signed jointly by the IE and the Concessionaire (the "Punch List"); provided that the Independent Engineer shall not withhold the Provisional Certificate for the reason of any work remaining incomplete if the delay in completion thereof is attributable to the Authority; provided further that the Punch List shall also include the cost of completion for each of the outstanding items.

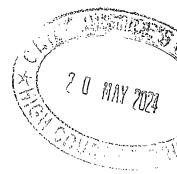
As per Article 14.4.1 of the CA, the following is mentioned:

"All items in the punch list shall be completed by the concessionaire within 90 days of the date of issue of the provisional certificate."

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निगमित कार्यालय / Corporate Office : जि-5 एवं -6, सेकटर -10, द्वारका, नई दिल्ली-110075 / G-5 & 6, Sector-10, Dwarka, New Delhi-110 075 दूरभाष / Phone : 011-25074100/25074200, वेबसाइट /website : nhai.gov.in



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Accordingly, Punch list-A has been proposed by IE and recommended by PD for RCC Drain at 5 No of locations, Construction of rest Area at Km.83+550, Landscaping at Km. 83+550 & Toll Plaza at Km.102+500, Median & Avenue Plantation, 1591 nos. of Electric Pole erection, ROW Fencing, Road Boundary Stone and Turfing from Km.83+350 to Km.83+650.

Punch list-B for MCW | Linear Length 7180m), Service Road ( Linear length 11835m), RCC Drain ( Linear length 17158m), Footpath & Separator Kerb ( Linear length 3817m), Bus Shelter ( 5 Nos.), Minor Junction ( 6 Nos.), New Minor Bridge- Service Road ( 2 Nos.), Box Culvert- SR ( 2 Nos.), Widening of Box Culvert- SR ( 1 No), Existing office / Admin Building has been proposed by IE and recommended by PD.

4. On successfully conducting all the Tests, examining the completed works, and reviewing compliance by the Concessionaire on observations of the Safety Audit Report, the IE has submitted their intent to issue Provisional Completion Certificate for a completed length of 70.558 km of 6 lane stretch out of 74.50 km as per provision of Clause 14.3 of the CA and NHAI Policy Circular No. NHAI/CGM (CMC)/2015/75902, dated 21.12.2015 along with **Punch list-A** and **Punch list-B** as mentioned above.

5. Based on your recommendations as well as recommendations of the Independent Engineer & Safety Consultant of the subject stretch and as per article 14 of the Concession Agreement and NHAI circular No. NHAI/CGM (CMC)/2015/75902 dated 21.12.2015, concurrence of the CGM (Tech) & Regional Officer is conveyed herewith for issuance of Provisional Certificate by the Independent Engineer for a length of 70.558 km out of total length of 74.50 km subject to compliance of the following conditions:

- 1. It must be ensured that work specified in the scope has been executed strictly as per provisions contained in the Concessionaire Agreement & extant NHAI guidelines in this regard.
- II. Clause 14 of the Concession Agreement and NHAI Circular No. NHAI/CGM (CMC)/2015/75902, dated 21.12.2015 may be strictly adhered to before issuance of Provisional Completion Certificate.
- III. It may be ensured that all the required tests have been successfully conducted and found satisfactory in accordance with the Concession Agreement.
- IV. Concessionaire has completed construction of 100% of the site made available to the concessionaire up to 180 days from the appointed date as stipulated in the Concession Agreement or time line approved by the Competent Authority in NHAI.
- V. Items under Punch list shall include only those as defined in the Concession Agreement and to be completed within time line as specified in the Concession Agreement or time line approved by the Competent Authority in NHAI.
- VI. Cost of punch list items may be assessed as per clause 14.3.1 of concession agreement prior to issuance of Provisional Completion Certificate.

-22-



VII. The Time limit for completion of CoS items as agreed in the settlement agreement may be strictly adhered to.

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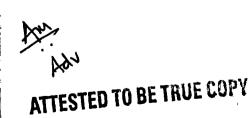
VIII. Necessary action including submission of proposal for negative CoS, if any, as per SOP circulated vide letter no. NHAI/Internal Guidelines/PPP (HAM)/2020 No. 8.3.37/2020 dated 14.08.2020 may be taken.

This issues with the directions of CGM (Tech) & Regional Officer, NHAI.

Yours faithfully,

.0 6 -----18 08 2022 (Sunil Kumar) Dy. General Manager (Tech)

Copy to : General Manager (Tech) - Odisha, NHAI HQ, New Delhi for kind information





# भारतीय राष्ट्रीय राजमार्ग प्राधिकरण ANNEXURE -12. (सड़क परिवहन और राजमार्ग मंत्रालय, भारत सरकार))

**National Highways Authority of India** 

- 215

(Ministry of Road Transport & Highways, Govt. of India) क्षेत्रीय कार्यालय, ओडिशा /Regional Office, Odisha

क्षत्राय कायालय, आगड्शा / Regional Onice, Ouisna 301 - ए, तीसरी मंजिल, पाल हाईटस, प्लाट् नं जे/7, जयदेव विहार, भुवनेश्वर - 751013. ओड़िशा 301-A, 3rd Floor, Pal Heights, Plot No : J/7, Jayadev Vihar, Bhubaneswar- 751013, Odisha दुरभाष /Ph.: 0674 - 2361470/ 570/670 (का/O), लेक्स /Fax : +91-674-2361770 ई-मेल/e-mail : roodisha@nhai.org, ronhaiodisha@gmail.com, वेवसाइट/Web : www.nhai.gov.in



सत्यमेव जयते

То

NHAI/11015/34/RO/OD/ 2540/2022

11.08.2022

The Project Director National Highways Authority of India Project Implementation Unit Balasore

Sub: Rehabilitation and Up gradation to Six-caning of Chandikhole — Bhadrak Section, of NH-5 (New NH-IS) from Km 62.000 to Km 136.500 in the State of Odisha to be executed as Hybrid Annuity Project under NHDP Phase V- Provisional Certificate for COD in accordance with Article 14 of Concession Agreement- Observations of CGM (Tech) & RO- Odisha- Reg

Ref: Your letter no.971 dated 05.08.2022

Sir,

Please refer to your letter under reference vide which you have submitted a proposal for issuance of Provisional Certificate for COD for the subject in accordance with Article 14 of Concession Agreement to the Concessionare M/s DBL Chandikhole- Bhadrak Highways Limited.

2. According, the site has been visited by the undersigned on 18.08.2022 and the following observations are made, which was also instructed during inspection including other points:

- (i) The Road marking balance at some stretches which needs to be completed including Kerbs.
- (ii) Down take pipe needs to be provided at various structures.
- (iii) At some stretches in service road, water logging is observed, the weep holes in the road side drains needs to be repaired.
- (iv) The Service Road / Diversion Road at Km.123+123 & Km.129+100 needs to be improved with more safety barricades, delineators, retro- reflective tapes and other safety equipment for better safety of Highway users.
- (v) At some super elevation stretches, the median drain needs to be cleaned to avoid water logging issues.
- (vi) Various type of safety, informatorily sign boards needs to be fixed.
- (vii) Junction at some locations needs to be developed properly. Sign boards, speed brakers are needs to be provided in cross roads.
- (viii) Road studs are missing at some stretches of Project Highway. Same needs to be fixed for safety of traffic.
- (ix) Unwanted vegetation needs to be removed in the median and shoulder side.

LLL.

निगमित कार्यालय / Corporate Office : जि-5 एवं -6, सेकटर -10, द्वारका, नई दिल्ली-110075 / G-5 & 6, Sector-10, Dwarka, New Delhi-110 075

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- (x) The end treatment in MBCB at some locations is needs to be completed. Recto reflective tap also needs to be fixed in the MBCB post.
- (xi) Electric pole including charging for Highway lighting is yet to be completed at some stretches needs early completion.
- (xii) ATMS to be made functional at the earliest.

3. In view of the above, it is requested to submit the clarifications to the above observations for further processing of the proposal.

Yours faithfully,

11. (Dr. Ram Prasad Panda) CGM (Tech) & RO, Odisha



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INEXURE

📞 (120) 4120472 | 4326474 🞇 chaitanya.projects@gmail.com Highways, Bridges & Expressways,

04PTC124286

Urban Infrastructures & Railways. www.chaitanyaprojects.com

💡 101, 1st Floor, Tower No. 3, Okaya Center, Block-B, Sector-62, Noida 201301

#### CPC/RS-7/2020/HO/041/11431 Ref:

#### Date: 17.02.2023

The Project Director, **Project Implementation Unit-Balasore** Plot No. 1086, Chandmari, Padi Road, Sahadikhunta, Balasore-756001, Odisha.

Sub: Safety Consultancy Services for Rehabilitation and up-gradation to 6-laning of Chandikhole-Bhadrak section of NH-5 (New NH-16) from km.62.000 to Km 136.500 in the state of Odisha under NHDP-V on HAM Mode- Reg: COD Recommendation Letter-Reg.

Ref.:

Τo,

- Your office letter No: NHAI/11014/3/2023/PIU/BLS/165 dated: 13.02.2023
- (II) This office letter No: CPC/RS-7/2020/HO/040/11322 dated: 16.02.2023
- (III) Concessionaire letter No: DBL/NHAI/CB/2023/site/1850 dated: 17.02.2023

#### Sir,

We, The Chaitanya Projects Consultancy Pvt. Ltd., was appointed as a safety consultant Services for Rehabilitation and up gradation by Six lanning of Chandikhole-Bhadhrakh section of NH-5(New NH-16) from Km. 62.000 to Km 136.500 in the State of Odisha under NHDP-IV on Hybrid Annuity Mode.

As per your Letter referred at SI No. (I), we carried out site inspection on 15.02.2023 & 16.02.2023 as per IRC: SP:88-2019 and issued the Draft COD report with detailed observations with mitigation measures for compliance by concessionaire vide this office letter referred at SI No. (II).

We received the compliance report from the concessionaire, M/S DBL Chandikhole-Bhadrakh Highways Ltd. vide letter referred at Sl No. (III) subsequently compliance report is attached as Annexure A. The deficiencies that were identified during site audit along with required improvement were recommended in the Audit Report for implementation. It has been noticed that observations recommended have been satisfactorily implemented on the project highway to enhance the safety of the road users.

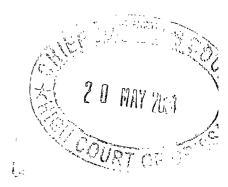
Accordingly, the final safety Audit report is prepared confirming to article 18 of the concession agreements and being submitted herewith in 5 set of Hard copies.

It is submitted that most of the safety improvement measures recommended have already been complied by the Concessionaire. As a Road Safety Consultant, it is certified that the above project road is safe and reliable for the road users and recommended for the Commercial operation.

Thanking and assuring you of our best services at all times.

# . PQM

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Yours faithfully For **M/s Chaitanya Projects Consultancy Pvt. Ltd.** 

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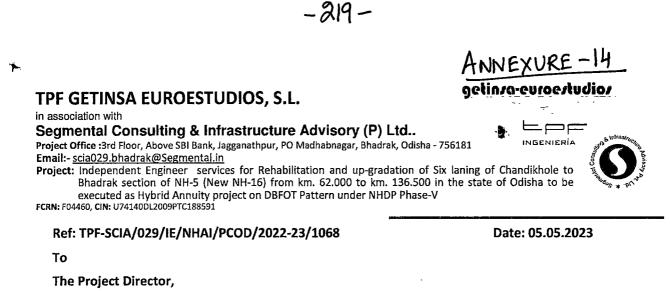
# Copy to:

- Project Manager, M/s Dilip Buildcon Pvt. Ltd., Odisha for Pkg-I.
- 2. Project Manager, M/s Dilip Buildcon Pvt. Ltd., Odisha for Pkg-II.
- 3. Team Leader, M/S. TPF Getinsa Eurostudios S.L. in association with Segmental Consulting & Infrastructure Advisory Pvt. Ltd, Odisha.

for information and necessary action.

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National Highways Authority of India,

Project Implementation Unit,

Plot no. 1086, Chandramani Padia Road,

Shadev Khunta, Balasore- 756001, Odisha

<u>Subject</u>: Independent Engineer services for Rehabilitation & up-gradation of Six laning of Chandikhole – Bhadrak section of NH-05 (New NH-16) from km. 62.000 to km. 136.500 in the state of Odisha to be executed on Hybrid Annuity Mode under NHDP-Phase-V Bharatmala Pariyojana on Hybrid Annuity Mode – <u>Intent to Issuance of "Completion Certificate" in accordance with Article 14</u> of Concession Agreement. -Reg:

#### **Reference:**

- 1. Concession Agreement dated 09.04.2018
- 2. Our letter no. TPF-SCIA/029/IE/Concessionaire/PCOD/2022-23/906 dated 19.08.2022
- 3. RO Odisha letter no. NHAI/11015/24/RO/OD/4156/2022 dated 15.12.2022
- 4. PIU letter no. NHAI/11014/8/DBL/2022/PIU/BLS/1584 dated 20.12.2022
- 5. Concessionaire's letter No. DBL/NHAI/CB/2019-20/Site/1855 dated 17.02.2023
- 6. Your letter no. NHAI/11014/15/IE/2023/PIU/BLS/190 dated 17.02.2023
- 7. Our letter no. TPF-SCIA/029/IE/Concessionaire/PCOD/2022-23/1048 dated 30.03.2023
- 8. RO Odisha letter no. NHAI/11015/24/RO/OD/1227/2023 dated 03.04.2023

9. Concessionaire's letter No. DBL/NHAI/CB/2019-20/Site/1991 dated 12.04.2023

Dear Sir,

In inviting reference to the above captioned subject, please refer to the under **reference (5) &** (8) cited above, wherein the Concessionaire has requested for issuance of Completion Certificate under Clause 14.2 of Concession Agreement as all the work included in Punch List-A are completed and certain work included in Punch list-B are proposed for descoping due to unavailability of hinderance free land. The proposal has been examined by this office in accordance with the provision of the Concession Agreement and NHAI Policy Circular No. NHAI/CGM (CMC)/2015/75902 dated 21.12.2015 and our comments are mentioned as hereunder:

 NHAI has entered into an Agreement with M/s. DBL Chandikhole Bhadrak Highways Ltd. for Rehabilitation and Up-gradation to Six-Laning of Chandikhole-Bhadrak Section of NH-5 (New NH-16) from Km. 62.000 to Km. 136.500 in the State of Odisha to be executed as Hybrid Annuity Project under NHDP Phase V. The Project has been awarded for a length of 74.5 Km. with a project cost amounting to Rs. 1522.00 crore.

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in association with

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Segmental Consulting & Infrastructure Advisory (P) Ltd..

Project Office :3rd Floor, Above SBI Bank, Jagganathpur, PO Madhabnagar, Bhadrak, Odisha - 756181 Email:- scia029.bhadrak@Segmental.in

Project: Independent Engineer services for Rehabilitation and up-gradation of Six laning of Chandikhole to Bhadrak section of NH-5 (New NH-16) from km. 62.000 to km. 136.500 in the state of Odisha to be executed as Hybrid Annuity project on DBFOT Pattern under NHDP Phase-V

FCRN: F04460, CIN: U74140DL2009PTC188591

2. Further, TPF Getinsa Euroestudios S L In Association with Segmental Consulting & Infrastructure Advisory (P) Ltd has been appointed as Independent Engineer and IE services was commenced at site on 01.07.2019. Authority has also appointed M/s Chaitanya Projects Consultancy Pvt. Ltd, as Safety Consultant of the Project Highway in terms of Schedule L of the Concession Agreement.

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3. The brief history of the Project is mentioned below:

SI. No	ltem	Description	
	Project	Rehabilitation and Up-gradation to Six-Laning of Chandikhole-	
1		Bhadrak Section of NH-5 (New NH-16) from Km.62.000 to	
] -		Km.136.500 in the state of Odisha to be executed as Hybrid	
		Annuity Project under NHDP Phase V	
2	Mode of Implementation	НАМ	
3	Independent Engineer	TPF Getinsa Eurostudios, S.L. in association with Segmental	
L.		Consulting & Infrastructure Advisory (P) Ltd.	
4	Concessionaire	M/s. DBL Chandikhole Bhadrak Highways Ltd. (DBL CBHL).	
5	Date of Agreement	9th April' 2018.	
6	Appointed Date	16th December' 2018	
7	Original Contract Price	Rs. 1522 Cr.	
8	Original Length of Project	74.5Km.	
9	Scheduled Completion	12.06.2021	
10	Revised Schedule	24.07.2022	
	Completion Date		
11	Provisional Commercial	24.07.2022	
1 11	Operation Date		
12	Physical progress	100.00%	
13	Financial progress	100.00%	

4. Earlier, on successfully conducting all the Tests, based on recommendation of Safety Consultant, pursuant to Article 14 of the Concession Agreement, as per concurrence of the Competent Authority in accordance with NHAI circular No. NHAI/CGM (CMC)/2015/75902 dated 21.12.2015, the Provisional Certificate of Completion was issued to the Concessionaire M/s DBL CHANDIKHOLE BHADRAK HIGHWAYS LIMITED for a length of 70.558 Km. out of total length of 74.50 Km. with effect from 24.07.2022. In this connection, our letter no. 906 dated 19.08.2022 (Copy enclosed) may be referred to.

 Further, during issuance of PCOD, as per clause 14.3.1 of Concession Agreement, certain items have been proposed/considered in Punch list. Punch List A- for RCC drain at 05 nos of locations, construction of rest Area at Km.83+550, Landscaping at Km. 83+550 & Toll Plaza at Km.102+500,

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Segmental Consulting & Infrastructure Advisory (P) Ltd.. Project Office :3rd Floor, Above SBI Bank, Jagganathpur, PO Madhabnagar, Bhadrak, Odisha - 756181 Email:- <u>scia029.bhadrak@Segmental.in</u> Project: Independent Engineer services for Rehabilitation and up-gradation of Six laning of Chandikhole to

Bhadrak section of NH-5 (New NH-16) from km. 62.000 to km. 136.500 in the state of Odisha to be executed as Hybrid Annuity project on DBFOT Pattern under NHDP Phase-V FCRN: F04460, CIN: U741400L2009PTC188591

Median & Avenue Plantation, 1591 nos. of Electric Pole erection, ROW Fencing, Road Boundary Stone and Turfing from Km. 83+350 to Km. 83+650.

**Punch list-B** for MCW (Linear Length 7180m), Service Road (Linear length 11835m), RCC Drain (Linear length 17158m), Footpath & Separator Kerb (Linear length- 3817m). Bus Shelter (5 Nos.), Minor Junction (6 Nos.), New Minor Bridge- Service Road (2 Nos.), Box Culvert- SR (2 Nos.), Widening of Box Culvert- SR (1 No), Existing office/ Admin Building.

- 6. As per Clause 14.4 of CA, the Punch List items are to be completed within 90 days from the issuance of PCOD. Further, considering the site condition, as per request of Concessionaire, due to the reason not attributable to Concessionaire or beyond the control of Concessionaire a period of additional 4 months i.e. up to 19.02.2023 has been recommended for approval of Competent Authority for Completion of the balance work included in Punchlist. After scrutiny and as intimated by Competent Authority, Project Director vide letter no. **1584 dated 20.12.2022** communicated that the Extension of Time for completion of balance work included in Punch List item is 19.02.2023.
- 7. Accordingly, Concessionaire has completed the 100% work on MCW and most of the item included in Punch List-A and B except those where hindrances free land is not available within the stipulated period i.e. 19.02.2023. Concessionaire has also proposed to Descope few works which are included in Punch list but couldn't be executed due to unavailability of Hindrances free land. The Descoping proposal includes Service road for a length of 5.350 Km. on full width and 2.715 Km. in partial width, RCC drain for a length of 12.861 Km and 02 nos of Minor Bridge, 06 nos of culvert and 02 nos Bus Shelter. After scrutiny, pursuant to Clause 16.6 of the Concession Agreement, the cost estimate for reduce in scope for the item considered in Punch List-B such as service road, drain, minor bridge, culvert and some miscellaneous items amounting to Rs. 38,85,64,480/ has been recommended by this office. As per recommendation of IE & PD, same was subsequently recommended by CGM Tech & RO Odisha for approval of Competent Authority vide letter no. 1227 dated 03.04.2023. In addition to the above, the detail estimate amounting to Rs. 46,80,92,560/ against the Descoping proposal of Major Bridge at Km. 82+885 is under scrutiny at NHAI HQ.
- 8. Further, all the Non-Conformance Report have been closed. Thus, the Concessionaire has satisfactory complied all and rectified all deficiencies reflected in NCRs. The status of all the balance work included in Punch List item is attached herewith for your ready reference.
- 9. Pursuant to Article 12.2(g), the Concessionaire has submitted the as Built Drawings within 90 days from the date of PCOD declared.
- 10. It is pertinent to mention here all the works as per Concession Agreement have been completed in all respect in accordance with Article-12, and Schedule-B, C including COS work, conforming to

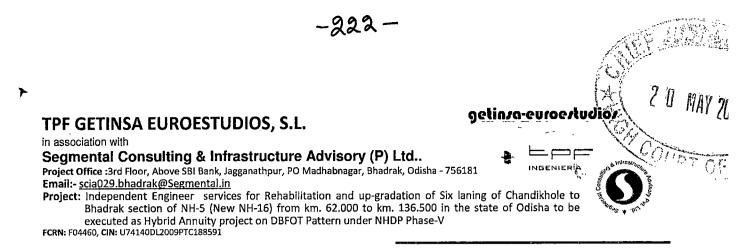


in association with

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the standard and specifications in Schedule-D, manual of MOR&TH and relevant IRC specifications.

11. Further, the safety audit has been carried out by the Safety Consultant M/s Chaitanya Projects Consultancy Pvt. Ltd. as per Schedule-I of the CA on 15.02.2023 & 16.02.2023 at Completion stage. Safety Consultant has submitted their report / observations. After reviewing the Compliance, Safety Consultant vide letter no. CPC/RS-7/2020/HO/041/11431 dated 17.02.2023 has recommended the following:

"most of the safety improvement measures recommended have already been complied by Concessionaire. As a Road Safety Consultant, it is certified that the above project road is safe and reliable for the road users and is hereby being recommended for the completion certificate."

12. In this connection, the relevant clauses of the Concession Agreement is reproduced below: <u>Pursuant to 14.2 of Concession Agreement:</u>

"Upon completion of construction works and the Independent Engineer determining the Tests to be successful, it shall forthwith issue to the Concessionaire and the Authority a certificate substantially in the form set forth in Schedule-J, (the Completion Certificate)".

#### Pursuant to clause 14.4.2 of Concession Agreement:

"Upon Completion of all Punch List items, the Independent Engineer shall issue the Completion Certificate".

In view of the above, Pursuant to Clause 14.2 of the Concession Agreement and as certified by the Safety Consultant, the Independent Engineer intends to issue Completion Certificate and it is therefore requested that concurrence of the Authority may please be given for issuing of Completion Certificate to the Concessionaire and the Approval of Competent Authority for negative COS proposal (Descoping Proposal) may be obtained.

Thanks & regards Yours sincerely,

2023 je los

Authorized Signatory, Chandikhole-Bhadrak. TPF GetinsaEuroestudios S L In Association With Segmental Consulting & Infrastructure Advisory (P) Ltd. Enclosure: As stated above. Copy submitted to: 1. CGM Tech & RO, Odisha, NHAI- For kind information please.

2. Authorized Signatory, DBL, Chandikhole-Bhadrak Highways Ltd.- For kind information.

Adv Adv

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# - २२३ -भारतीय राष्ट्रीय राजमार्ग प्राधिकरण (सड़क पारिबहन और राजमार्ग मंत्रालय, भारत सरकार) National Highways Authority of India

(Ministry of Road Transport and Highways, Government of India) परियोजना कार्यान्वयन इकाई / Project Implementation Unit एन.एच.ए.आई. कॉम्प्लेक्स, नेउलपुर, चंडीखोल, जाजपुर - ७५५०२४ (ओड़िशा) NHAI Complex. Neulpur, Chandikhole, Jajpur-755024 (Odisha) दूरभाष / Tel : 06725 - 291479 ई-मेल /e-mail : nhaichandikhole@gmail.com, piuchandikhole@nhai.org



# NHAI/11014/15/IE/2023/PIU/CDL/614

() ( June 2023

То

The Authorized Signatory, M/s. TPF Getinsa Eurostudios S.L. with Segmental Consulting & Infrastructure Advisory Pvt. Ltd., 3rd Floor, Above SBI Bank, Jagganathpur, PO: Madhabnagar, Dist. - Bhadrak, Odisha-756181

 Sub.: Independent Engineer Services for Rehabilitation and Upgradation to Six-laning of Chandikhole-Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to Km 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V - <u>Issuance of "Completion Certificate" in accordance with Article 14 of Concession Agreement - reg.</u>

Sir,

With reference to your letter No.1068 dated 05.05.2023 submitting therein the status of the project with a request to communicate necessary direction of Competent Authority for issuance of Completion Certificate to the Concessionaire.

In this regard, it is to inform that Competent Authority conveyed the approval for issuance of Completion Certificate to the Concessionaire M/s DBL Chandikhole Bhadrak Highways Limited in accordance with the Contract Provision and NHAI Circular No. NHAI/CGM (CMC)/2015/75902 dated 21.12.2015 subject to following conditions:

It must be ensured that work specified in the scope of the agreement has been executed strictly as per provisions contained in the Concessionaire Agreement & extant NHAI guidelines in this regard.

- The provision of illumination of Project Highway may be reviewed and it may be ensured that same is strictly as per Technical Specifications.
- Clause 14 of the Concession Agreement may strictly adhered to before issuance of Completion Certificate.
- It must be ensured that all the required tests have been successfully conducted and found satisfactory.

Further, it is pertinent to mention here that during the site visit of RO and PD, it was observed that Illumination of Project Highway was not as per the required level in accordance with provision of Concession Agreement and MoRTH Technical Specifications. The deficiencies need to be rectified by the Concessionaire before issuance of Completion Certificate.

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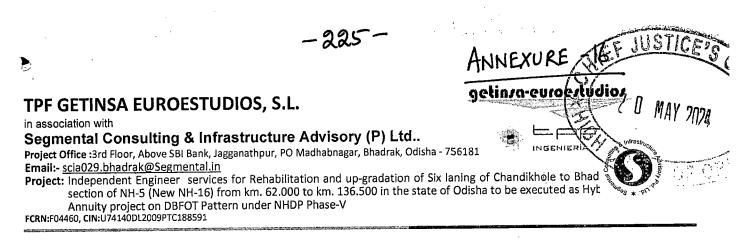
निगमित कोर्यालय / Corporate Office : जि-5 एवं-6, सेक्टर-10, द्वारका, नई दिल्ली-110075/ G-5 & G-6, Sector-10, Dwarka, New Delhi - 110075 दूरभाष / Phone : 011-25074100/25074200, वेबसाइट / Website : nhai.gov.in In this context, it is requested to take appropriate action at your end for issuance of Completion Certificate to the Concessionaire in accordance with contract conditions  $\pounds$  NHAI Circular No. NHAI/CGM (CMC)/2015/75902 dated 21.12.2015 and it is ensured that all the above conditions strictly adhered during issuance of Completion Certificate.

Yours sincerely,

(J. P./Verma) Project Director



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#### Ref: TPF-SCIA/IE/SCIA029/NHAI/2023-24/1087

Date:09.06.2023

То

The Project Director, National Highway Authority of India, Project Implementation Unit Plot No.: - 1086, Chandmari Padia Road Sahadevkhunta, Balasore – 756001 (Odisha) Ph. No. 06782-26336

<u>Subject</u>: Independent Engineer services forRehabilitation & up-gradation of Six laning of Chandikhole – Bhadrak section of NH-05 (New NH-16) from km. 62.000 to km. 136.500 in the state of Odisha to be executed on Hybrid Annuity Mode under NHDP-Phase-V –<u>Issuance of Completion Certificate in</u> accordance with Article 14 of Concession Agreement - Reg:

#### **Reference:**

- 1. Your letter no. NHAI/11014/15/IE/2023/PIU/CDL/614 dated 06.06.2023.
- 2. Our Letter no. TPF-SCIA/IE/SCIA029/Concessionaire/2023-24/1085 dated 08-06-2023.
- 3. Concessionaire letter no. DBL/NHAI/CB/2023/Site/2035 dated 09-06-2023.

Dear Sir,

With reference to the above captioned subject, please refer to letter under **reference (3)** cited above **(Copy enclosed)**, wherein Concessionaire has submitted the compliance in regards to the observations communicated during the joint site inspection by Project Director, representative of Independent Engineer & Concessionaire of Project Highway stretch.

Further, Concessionaire has submitted that the project highway was affected in the last Cyclone which was followed by heavy rain fall on dated 21.05.2023. Due to impact of the cyclone some of the highway lighting got damaged. However, Concessionaire has taken-up the rectification work, maximum of work is completed and balance work will be completed shortly.

The above is submitted for your kind perusal and further necessary action at your end.



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#### in association with

# Segmental Consulting & Infrastructure Advisory (P) Ltd..

Project Office :3rd Floor, Above SBI Bank, Jagganathpur, PO Madhabnagar, Bhadrak, Odisha - 756181 Email:- scia029.bhadrak@Segmental.in

Project: Independent Engineer services for Rehabilitation and up-gradation of Six laning of Chandikhole to Bhad section of NH-5 (New NH-16) from km. 62.000 to km. 136.500 in the state of Odisha to be executed as Hyt Annuity project on DBFOT Pattern under NHDP Phase-V FCRN:F04460, CIN:U74140DL2009PTC188591

Thanks & regards Yours sincerely,

N. Adhikari 09.06.2023

Authorized Signatory, Chandikhole-Bhadrak. **TPF GetinsaEuroestudios S L** In AssociationWith Segmental Consulting&InfrastructureAdvisory (P) Ltd. **Enclosure: As stated above** Copy submitted to:

1. Authorized Signatory, DBL Chandikhole-Bhadrak - For kind information please.





# DBL CHANDIKHOLE BHADRAK HIGHWAYS LIMITED Ref: DBL/NHAI/CB/2023/Site/2035 Date: - 09208-2023

#### To .

#### The Independent Engineer

TPF Getinsa Eurostudios SL In association with Segmental Consulting & Infrastructure Advisory (P) ltd. Goodwill Residency G-05, Jharpada Jail Road Bhubaneswar- Odisha 751006.

**Subject:** - "Rehabilitation and Up-gradation of six-laning of Chandikhole – Bhadrak section of NH-05 (New NH-16) from km 62.000 to km 136.500 in the state of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V" – **Article 14 – Issuance of Completion Certificate – Response to IE's comments – Reg.** 

í.

Ref.: 1. IE's letter no. TPF-SCIA/IE/SCIA029/Concessionaire/2023-24/1085, dated 08.06.2023

#### Dear Sir,

The IE has informed (Ref.1) that during the joint site visit on 07.06.2023 in presence of Project Director NHAI, IE's representative and Concessionaire's representative to review the illumination of the Project Highway, it was observed that at some locations, the desired illumination level of 40 lux was not achieved.

It is pertinent to note that during the said joint site visit, the illumination was found to be in conformance to the Specification at majority of the locations. However, at some locations the required Lux was not achieved. In this context, the Concessionaire would like to submit that on 21.05.2023 the captioned Project was affected significantly due to the cyclone "MOCHA" which has been considered under **Extreme Severe Cyclonic Storm category** which was followed by heavy rainfall. Due to impact of the cyclone some of the highway lighting got damaged. As on date, the Concessionaire has rectified the same except at a few locations which will be completed shortly. It is at the remaining locations, the required illumination of 40 lux could not be achieved.

Further, it is also pertinent to note that the illumination level of the highway lighting was already verified by IE at the time of issuance of the COD. The reduction in lighting now at some locations due to the recent cyclone is a part of the maintenance work which the Concessionaire is already carrying out.

In view of the above, the Concessionaire requests the IE to issue the Completion Certificate as per the provision of Clause 14.4.2 of the Concession Agreement.

Yours faithfully,

For and on behalf of DBL Chandikhole -Bhadrak Highways Limited

Mano) Kumar Tiwari (Authorized Signatory)

CC To: **1. The DGM (Tech). Cum Project Director,** National Highway Authority of India, Project Implementation Unit Balasore for kind information and necessary action please.

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**Regd. Office :** Plot No. 5, Inside Govind Narayan Singh Gate, Chuna Bhatti, Kolar Road, Bhopal - 462 016 (M.P.), Ph.: 0755-4029999, Fax : 0755-4029998 E-mail . db@dilipbuildcon.co.in, Website : www.dilipbuildcon.com



# - 228 -भारतीय राष्ट्रीय 'या जायापती प्राधिकरण ANNEXURE-17 (सड़क पारिबहन और राजमार्ग मंत्रालय, भारत सरकार)

(सङ्फ पारिषेहन आर राजमांग मत्रालय, भारत सरकार) **ational Highways Authority of India** (Ministry of Road Transport and Highways, Government of India) परियोजना कार्यान्वयन इकाई / Project Implementation Unit एन.एच.ए.आई. कॉम्प्लेक्स, नेउलपुर, चंड़ीखोल, जाजपुर - ७५५०२४ (ओड़िशा) NHAI Complex, Neulpur, Chandikhole, Jajpur-755024 (Odisha) दूरभाष / Tel : 06725 - 291479 ई-मेल /e-mail : nhaichandikhole@gmail.com, piuchandikhole@nhai.org

# NHAI/11014/15/IE/2023/PIU/CDL/ 631

June 2023

То

The Authorized Signatory, M/s. TPF Getinsa Eurostudios S.L. with Segmental Consulting & Infrastructure Advisory Pvt. Ltd., 3rd Floor, Above SBI Bank, Jagganathpur, PO: Madhabnagar, Dist. - Bhadrak, Odisha-756181

- Sub.: Independent Engineer Services for Rehabilitation and Upgradation to Six-laning of Chandikhole-Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to Km 136.500 in the State of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V - <u>Issuance of "Completion Certificate" in accordance with</u> <u>Article 14 of Concession Agreement - reg.</u>
- Ref.: 1. IE letter No.1087 dated 09.06.2023
  - 2. Concessionaire letter No.2035 dated 09.06.2023
  - 3. IE letter No.1085 dated 08.06.2023
  - 4. This office letter No.614 dated 06.06.2023

Sir,

With reference to your letter No.1087 dated 09.06.2023 intimating therein the Concessionaire has submitted the compliance report in respect to the observations raised during the joint site visit of undersigned along with representative of Independent Engineer and Concessionaire towards illumination of project highway in accordance with the provisions of Concession Agreement and MoRTH Technical Specifications.

2. Concessionaire submitted that the project highway was affected in the last Cyclone followed by heavy rain fall on dated 21.05.2023. Due to impact of the cyclone some of the highway lighting got damaged. Concessionaire taken-up the rectification work, at few location works is completed and balance works will be completed shortly.

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3. Considering the submission of the Concessionaire this office is in opinion that for any kind of defects or deficiencies, if any set forth in the O&M inspection shall be rectified as prescribed in Annex-I of Schedule-K falling this Authority shall be entitled to recover damages from the concessionaire under and in accordance with provision of Clause 17.8 of GCC.

In this context, Independent Engineer is requested to take appropriate action at your end for issuance of Completion Certificate to the Concessionaire in accordance with contract conditions & NHAI Circular No. NHAI/CGM (CMC)-2015/75902 dated 21.12.2015 and it is ensured that all the above conditions strictly adhered during the issuance of the Completion Certificate.

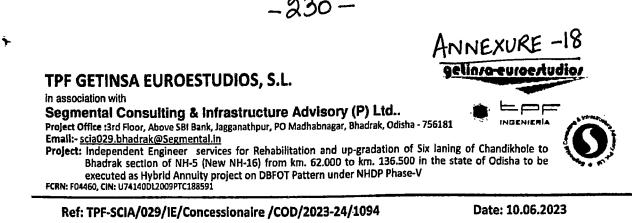
Yours sincerely

(J. P (erma) Project Director

Copy To:

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The Regional Officer, Odisha, Bhubaneswar - for kind information glease.



То

The Authorized Signatory, DBL Chandikhole Bhadrak Highways Pvt Ltd. Village- Nalang, Near Sai Temple Bhadrak -756112, Odisha

<u>Subject</u>: Independent Engineer services for Rehabilitation & up-gradation of Six laning of Chandikhole – Bhadrak section of NH-05 (New NH-16) from km. 62.000 to km. 136.500 in the state of Odisha to be executed on Hybrid Annuity Mode under NHDP-Phase-V Bharatmala Pariyojana on Hybrid Annuity Mode – <u>Issuance of "Completion Certificate" in accordance with Article 14 of Concession Agreement.</u>-Reg:

#### **Reference:**

1. Concession Agreement dated 09.04.2018.

2. PIU letter no. NHAI/11014/15/IE/2023/PIU/CDL/631 dated 10.06.2023.

3. PIU Letter no. NHAI/11014/15/IE/2023/PIU/CDL/614 dated 06.06.2023.

4. Our letter no. TPF-SCIA/029/IE/NHAI/PCOD/2022-23/1068 dated 05.05.2023

5. Concessionaire's letter No. DBL/NHAI/CB/2019-20/Site/1991 dated 12.04.2023

6. Our letter no. TPF-SCIA/029/IE/Concessionaire/PCOD/2022-23/906 dated 19.08.2022.

Dear Sir,

In inviting reference to the above captioned subject, please refer to the letter under **reference** (5) cited above, wherein Concessionaire has requested for issuance of Completion Certificate under Clause 14.2 of Concession Agreement as all the work included in Punch List-A & B are completed and certain work included in Punch list-B are proposed for descoping due to unavailability of hinderance free land. The proposal has been examined by this office in accordance with the provision of the Concession Agreement and NHAI Policy Circular No. NHAI/CGM (CMC)/2015/75902 dated 21.12.2015 and our comments are mentioned as hereunder:

- NHAI has entered into an Agreement with M/s. DBL Chandikhole Bhadrak Highways Ltd. for Rehabilitation and Up-gradation to Six-Laning of Chandikhole-Bhadrak Section of NH-5 (New NH-16) from Km. 62.000 to Km. 136.500 in the State of Odisha to be executed as Hybrid Annuity Project under NHDP Phase V. The Project has been awarded for a length of 74.5 Km. with a project cost amounting to Rs. 1522.00 crore.
- 2. Further, TPF Getinsa Euroestudios S L In Association with Segmental Consulting & Infrastructure Advisory (P) Ltd has been appointed as Independent Engineer and IE services was commenced at

N . Arthikaru 10.03.2023

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in association with

Segmental Consulting & Infrastructure Advisory (P) Ltd.. Project Office :3rd Floor, Above SBI Bank, Jagganathpur, PO Madhabnagar, Bhadrak, Odisha - 756181 Email:- scia029.bhadrak@Segmental.in

Project: Independent Engineer services for Rehabilitation and up-gradation of Six laning of Chandikhole to Bhadrak section of NH-5 (New NH-16) from km. 62.000 to km. 136.500 in the state of Odisha to be executed as Hybrid Annuity project on DBFOT Pattern under NHDP Phase-V FCRN: F04460, CIN: U74140DI2009PTC188591

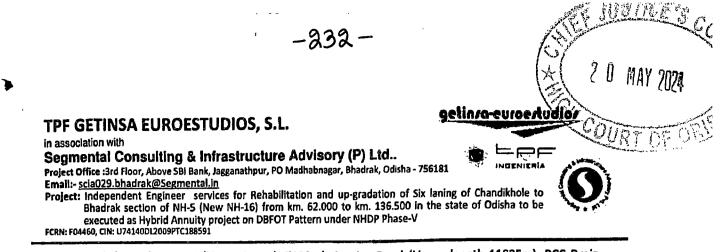
site on 01.07.2019. Authority has also appointed M/s Chaitanya Projects Consultancy Pvt. Ltd, as Safety Consultant of the Project Highway in terms of Schedule L of the Concession Agreement.

SI. No	Item	Description	
1	Project	Rehabilitation and Up-gradation to Six-Laning of Chandikhole- Bhadrak Section of NH-5 (New NH-16) from Km.62.000 to Km.136.500 in the state of Odisha to be executed as Hybrid Annuity Project under NHDP Phase V	
2	Mode of Implementation	НАМ	
3	Independent Engineer	TPF Getinsa Eurostudios, S.L. in association with Segmental Consulting & Infrastructure Advisory (P) Ltd.	
4	Concessionaire	M/s. DBL Chandikhole Bhadrak Highways Ltd. (DBL CBHL).	
5	Date of Agreement	9th April' 2018.	
6	Appointed Date	16th December' 2018	
7	Original Contract Price	Rs. 1522 Cr.	
8	Original Length of Project	74.5Km.	
9	Scheduled Completion	12.06.2021	
10	Revised Schedule	24.07.2022	
11	Provisional Commercial Operation Date	24.07.2022	
12	Physical progress	100.00%	
13	Financial progress	100.00%	

3. The brief history of the Project is mentioned below:

- 4. Earlier, on successfully conducting all the Tests, based on recommendation of Safety Consultant, pursuant to Article 14 of the Concession Agreement, as per concurrence of the Competent Authority in accordance with NHAI circular No. NHAI/CGM (CMC)/2015/75902 dated 21.12.2015, the Provisional Certificate of Completion was issued to the Concessionaire M/s DBL CHANDIKHOLE BHADRAK HIGHWAYS LIMITED for a length of 70.558 Km. out of total length of 74.50 Km. with effect from 24.07.2022. In this connection, our letter no. 906 dated 19.08.2022 (Copy enclosed) may be referred to.
- Further, during issuance of PCOD, as per clause 14.3.1 of Concession Agreement, certain items have been proposed/considered in Punch list. Punch List A- for RCC drain at 05 nos of locations, construction of rest Area at Km.83+550, Landscaping at Km. 83+550 & Toll Plaza at Km.102+500, Median & Avenue Plantation, 1591 nos. of Electric Pole erection, ROW Fencing, Road Boundary Stone and Turfing from Km. 83+350 to Km. 83+650.

N.A.Likani 10.00.2023



Punch list-B for MCW (Linear Length 7180m), Service Road (Linear length 11835m), RCC Drain (Linear length 17158m), Footpath & Separator Kerb (Linear length- 3817m). Bus Shelter (5 Nos.), Minor Junction (6 Nos.), New Minor Bridge- Service Road (2 Nos.), Box Culvert- SR (2 Nos.), Widening of Box Culvert- SR (1 No), Existing office/ Admin Building.

- 6. As per Clause 14.4 of CA, the Punch List items are to be completed within 90 days from the issuance of PCOD. Further, considering the site condition, as per request of Concessionaire, due to the reason not attributable to Concessionaire or beyond the control of Concessionaire a period of additional 4 months i.e. up to 19.02.2023 has been recommended for approval of Competent Authority for Completion of the balance work included in Punchlist. After scrutiny and as intimated by Competent Authority, Project Director vide letter no. 1584 dated 20.12.2022 has communicated that the Extension of Time for completion of balance work included in Punch List item is 19.02.2023.
- 7. Accordingly, Concessionaire has completed the 100% work on MCW and most of the item included in Punch List-A and B except those where hindrances free land is not available within the stipulated period i.e. 19.02.2023. Concessionaire has also proposed to Descope few works which are included in Punch list but couldn't be executed due to unavailability of Hindrances free land. The Descoping proposal includes Service Road for a length of 5.350 Km. on full width and 2.715 Km. in partial width, RCC drain for a length of 12.861 Km and 02 nos of Minor Bridge, 06 nos of culvert, 02 nos Bus Shelter and some miscellaneous items. After scrutiny, pursuant to Clause 16.6 of the Concession Agreement, the cost estimate for reduce in scope for the item considered in Punch List-B such as service road, drain, minor bridge, culvert and some miscellaneous items amounting to Rs. 38,85,64,480/ has been recommended by this office. As per recommendation of IE & PD, same was subsequently recommended by CGM Tech & RO Odisha for approval of Competent Authority vide letter no. 1227 dated 03.04.2023. In addition to the above, the detail estimate amounting to Rs. 46,80,92,560/ against the Descoping proposal of Major Bridge at Km. 82+885 is under scrutiny at NHAI HQ.
- 8. Further, all the Non-Conformance Report have been closed. Thus, the Concessionaire has satisfactory complied all and rectified all deficiencies reflected in NCRs. The status of all the balance work included in Punch List item is attached herewith for your ready reference.
- 9. Pursuant to Article 12.2(g), the Concessionaire has submitted the as Built Drawings.
- 10. It is pertinent to mention here all the works as per Concession Agreement have been completed in all respect in accordance with Article-12, and Schedule-B, C including COS work, conforming to the standard and specifications in Schedule-D, manual of MOR&TH and relevant IRC specifications.

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in association with		
Segmental Consulting & Infrastructure Advisory (P) Ltd		
Project Office : 3rd Floor, Above SBI Bank, Jagganathpur, PO Madhabnagar, Bhadrak, Odisha - 756	181 SA INGENIERIA	10
Email:- <u>scia029.bhadrak@Segmental.in</u>		
Project: Independent Engineer services for Rehabilitation and up-gradation of Six la	uning of Chandikhole to	

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Bhadrak section of NH-5 (New NH-16) from km. 62.000 to km. 136.500 in the state of Odisha to be executed as Hybrid Annuity project on DBFOT Pattern under NHDP Phase-V FCRN: F04460, CIN: U74140DL2009PTC188591

- 11. The safety audit has been carried out by the Safety Consultant M/s Chaitanya Projects Consultancy Pvt. Ltd. as per Schedule-I of the CA on 15.02.2023 & 16.02.2023 at Completion stage. Safety Consultant has submitted their report / observations. After reviewing the Compliance, Safety Consultant vide letter no. CPC/RS-7/2020/HO/041/11431 dated 17.02.2023 has recommended that "most of the safety improvement measures recommended have already been complied by Concessionaire. As a Road Safety Consultant, it is certified that the above project road is safe and reliable for the road users and is hereby being recommended for the completion certificate."
- Further, as per recommendation of IE & PD, RO, NHAI- Odisha has inspected the site and Concurrence of RO- Odisha for the proposal of Issuance of Completion Certificate for a length of 74.500 Km., in accordance with the NHAI Policy Circular No. NHAI/CGM (CMC)/2015/75902 dated 21.12.2015 has been communicated vide letter no. 631 dated 10.06.2023.
- 13. In this connection, the relevant clauses of the Concession Agreement are reproduced below: <u>Pursuant to 14.2 of Concession Agreement:</u> "Upon completion of construction works and the Independent Engineer determining the Tests to be successful, it shall forthwith issue to the Concessionaire and the Authority a certificate substantially in the form set forth in Schedule-J, (the Completion Certificate)".

<u>Pursuant to clause 14.4.2 of Concession Agreement</u>: "Upon Completion of all Punch List items, the Independent Engineer shall issue the Completion Certificate".

In view of above, Pursuant to the provisions of Article 14.2 of the Concession Agreement and as per concurrence of the Competent Authority in accordance with the NHAI Policy Circular No. NHAI/CGM (CMC)/2015/75902 dated 21.12.2015, the Completion Certificate, in the form set forth in Schedule-J is hereby issued to M/s DBL CHANDIKHOLE BHADRAK HIGHWAYS LIMITED with effect from 19.02.2023 and enclosed herewith by Independent Engineer.

Thanks & regards Yours sincerely,

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A.Achikoni 100.2023

Authorized Signatory, Chandikhole-Bhadrak. TPF GetinsaEuroestudios S L In Association With Segmental Consulting & Infrastructure Advisory (P) Ltd. Enclosure: As stated above. <u>Copy submitted to:</u>

1. CGM Tech & RO, Odisha, NHAI- For kind information please.

2. Project Director- NHAI, PIU, Balasore- For kind information please.

#### SCHEDULE-J

#### (See clause 14.2 & 14.3)

#### **COMPLETION CERTIFICATE**

- 1. I/We, TPF Getinsa Eurostudios S.L with Segmental Consulting & Infrastructure Advisory Pvt. Ltd, acting as Independent Engineer, under and in accordance with the Concession Agreement Dated 9th April, 2018 (the "Agreement"), for development, operation, rehabilitation & upgradation to Six-Laning of Chandikhole – Bhadrak Section of NH-5 (New NH-16) from Km. 62.000 to Km. 136.500 in state of Odisha to be executed as Hybrid Annuity Project under NHDP Phase V (the "Project") on design, build, operate and transfer (the "DBOT Annuity or Hybrid Annuity") basis, through DBL CHANDIKHOLE BHADRAK HIGHWAYS PRIVATE LIMITED, hereby certify that the Tests specified in Article 14 and Schedule-I of the Agreement have been successfully undertaken to determine compliance of the Project with the provisions of the Agreement, and I/We am/are satisfied that the Project can be safely and reliably placed in commercial service of the Users thereof.
- It is certified that, in terms of the aforesaid Agreement, all works forming part of the Project have been completed, and the project is hereby declared fit for entry into commercial operation on this the day of 19th February 2023.

#### SIGHNED, SEALED AND DELIVERED

FOR AND ON BEHALF OF

Name: Mr. Ngamananda Adhikari Designation: Engineer In-charge TPF GetinsaEuroestudios S L In Association With Segmental Consulting & Infrastructure Advisory (P) Ltd.

ATT. DON



## ANNEXURE-19

#### INCIDENT REPORT ON 18.07.2023 AT 7.00 AM

# Collapse of Girder of P1-A1 of 72.5 mtr. Major Bridge (span 29X14.5X29) on RHS at Km. 79+614 on Chandikhole-Bhadrak section of NH-16

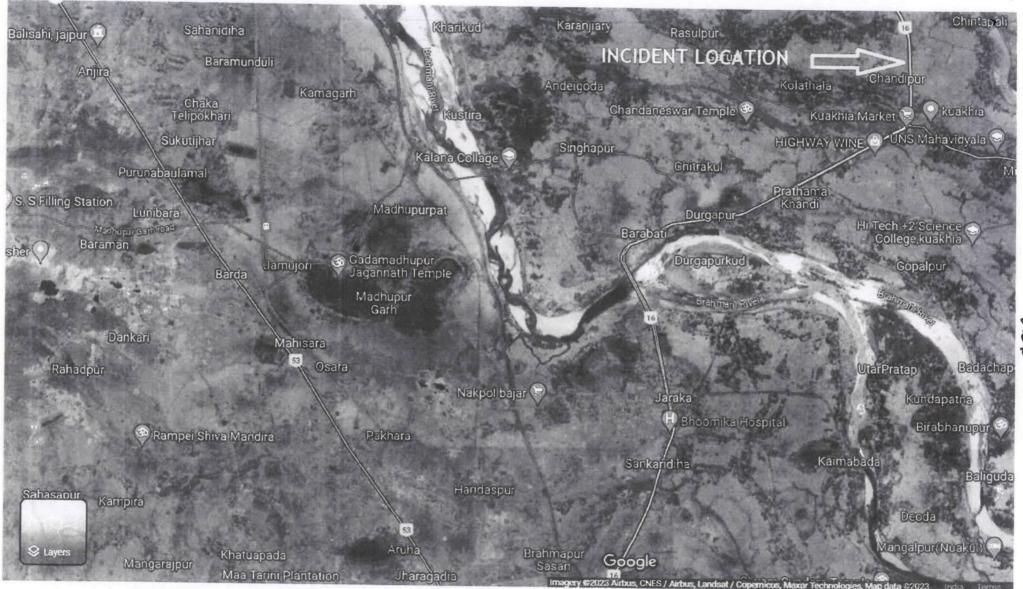
- <u>General Description-(i)</u> The project highway is at O&M stage by M/s.DBL Chandikhole Bhadrak Highways Limited who has completed the 6 lane work recently.
   (ii) Location at km.79+614 of NH-16 on Kolkata - Chennai section of Golden Quadrilateral. Approx. distance from Bhubaneswar towards Kolkata is 80 KM.
- 2. Bridge description of bridge 2 lane + 2 lane on LHS and 3 lane on RHS
- 3. <u>Configuration of bridge</u> :29X14.5X29 Span arrangement. The pier rests on well foundation.
- 4. <u>Material used</u> :M30 concrete for RCC and Fe415 steel was used in the bridge
- 5. Damage Point At P1 location pier cap.
- 6. <u>Extent of Damage</u> Pier cap of P1 has completely failed in shear towards A1. The P1 end of span has fallen down. Other components are seems to be intact. approx. cost of restoration is Rs.7.5 crore.
- 7. <u>Brief details of construction</u> The bridge was constructed during the year 2007-08 on Item Rate contract mode. The Contractor was M/s.Gammon India Ltd. The Supervision Consultant was M/s. M/s. LBII NICE (JV).
- 8. <u>Probable cause of damage</u> The A1 P1 girder was resting eccentrically on the pier cap. The pier cap has damaged completely due to shear failure. General arrangement drawing (Annexure-I) and Failure location drawing (Annexure-II) are attached.
- 9. Loss to life and public property : There is no loss of life or public property.

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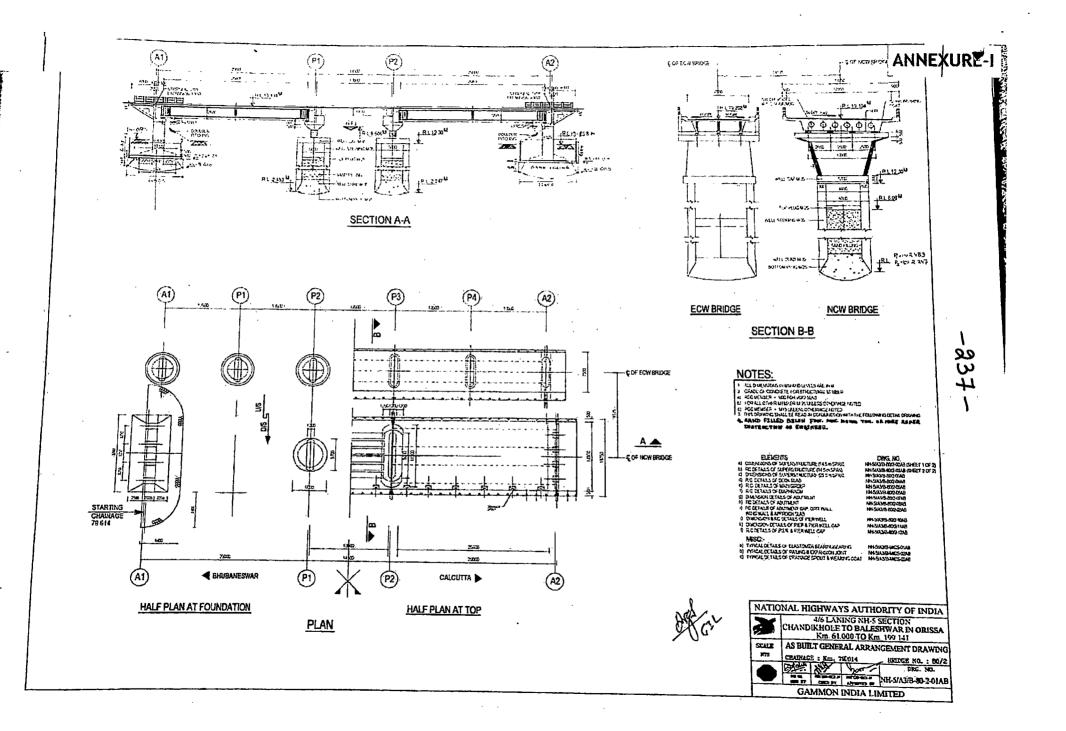
- 10. <u>Assessment of cause of damage and rectification measures</u>: As per visual inspection, it is shear failure of pier cap (P1) due to eccentric placement of girder and heavy loading, it is likely that pier P1 and Span A1 P1 will be required to be reconstructed. However, the Committee of 3 Expert viz. shri A. K. Shrivastava, Dr. S K Sharma and Shri Alok Pandey has been convened to assess the cause of damage and to suggest remedial measures, who are likely to visit the site on 22nd and 23rd July 2023.
- 11. <u>Traffic diversion</u>-Traffic diversion has been arranged from LHS on 2 +2 lane bridge. The traffic is passing through 2 + 2 lane bridges smoothly
- 12. <u>Administrative Support</u>: District Administration, Jajpur, Police Authority, Jajpur and nearby Contractor/ Consultants are extending full support in managing the situation.

(J P Verma) Project Director PIU-Chandikhole

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# ANNEXURE - 20

Sub: Inspection Report of the Expert Committee on the collapse of span A1-P1 of the bridge at Km.79.614 of the project "Rehabilitation and Up-gradation to Six-Laning of Chandikhole Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to Km 136.500 in the State of Odisha to be executed as Hybrid Annuity Project under NHDP Phase V".

With reference to subject above an expert committee (three members) was constituted by NHAI vide letter No.NHAI/11015/24/RO/ODI/2054/2023 Dated 18/07/2023 with mandate to inspect and analyse the reasons for collapse of the bridge at Km. 79.614. Based on site visit and interaction with the stakeholders as well as review of available documents, the Committee has finalized the report. The site was also visited by Sh. Amit Ghosh Add. Secretary (MoRTH) and review meeting with the stakeholders was also held subsequently under his chair in Bhubaneswar (Odisha).

The report is enclosed for information and necessary action.

Encl: As above

Sd/-

(On behalf of Expert Committee)

#### То

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- 1. Member (T) V.K.R membertech@nhai.org
- 2. CGM (T) P.C Arya pc.arya@nhai.org
- 3. GM (T) Odisha Div. ashvinirai@nhai.org
- 4. RO (Odisha) <u>singhv@nhai.org</u>

### Copy to

Add. Secretary (MoRTH) – With reference to your visit to bridge site – as-highways@nic.in



(On behalf of Expert Committee)

Sd/-

(Sh. A.K. Shrivastava, Dr. S. K. Sharma, Sh. Alok Pandey)

## **INSPECTION REPORT**

on

THE COLLAPSE OF BRIDGE AT KM 79+614 ON NH-16 OF THE PROJECT "Rehabilitation and Upgradation to Six-Laning of Chandikhole Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to Km 136.500 in the State of Odisha to be executed as Hybrid Annuity Project under NHDP Phase V"





then the

20 MAY 2020

Submitted on

04-08-2023

by

**Expert Committee** 

Sh. A.K. Shrivastava, ADG (Retd), MoRTH

Sh. S.K Sharma, Pr. (Retd), CRRI Member

Sh. Alok Pandey Tech. Officer-Bridges M/s Elegant Engg Ltd

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### DISCLAIMER

All the information furnished in this report are based on the walkover visual inspection of the distressed pier cap P1 of an existing bridge on "Rehabilitation and Upgradation to Six-Laning of Chandikhole Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to Km 136.500 in the State of Odisha to be executed as Hybrid Annuity Project under NHDP Phase V", interactive meetings held during site visit as well as in the office, study of documents, drawings provided by NHAI. The responsibility of Expert Committee is limited to the technical matters contained in this report.

Any use of the findings of this report without the permission of NHAI by any other agency or person other than NHAI shall not be permitted.

## **1. MAIN FEATURES OF THE PROJECT**

1	Project Name	Rehabilitation and Up-gradation to Six-Laning of			
		Chandikhole Bhadrak Section of NH-5 (New NH-16)			
		from Km 62.000 to Km 136.500 in the State of Od			
		to be executed as Hybrid Annuity Project under NHE			
		Phase V			
2	Owner	National Highways Authority of India.			
3	PIU	Chandikhole (Odisha)			
4	Concessionaire	M/s DBL Chandikhole Bhadrak Highways Ltd.			
5	Independent Engineer	M/s TPF Gentisa Eurostudios S.L with Segmental			
L.		Consulting & Infrastructure Advisory Pvt. Ltd.			
6	Length of Project	From Km. 62.000 to Km.136.500 (74.500 Km)			
7	Mode of Implementation	НАМ			
8	Date of Agreement	09.04.2018			
9	Appointment Date	16.12.2018			
10	Project Cost (Contract	Rs. 1522 Cr.			
	Price)				
11	Scheduled Completion	12.06.2021			
	date as per CA				
12	PCOD issued on	24.07.2022			
13	COD issued on	19.02.2023			
14	Present Status	Under operation and maintenance			

## 2. BRIEF ABOUT THE BRIDGE

- Bridge is located on NH-16 (New) connecting Bhubaneshwar on one side and Kolkata on the other, near Rasulpur in Jajpur District of Odisha. Total length of bridge is about 72.50m.
- The said bridge was constructed at Ch:79.614 under project of 4/6 lanning of Chandikhole to Baleshwar Section (Km.61.000 to Km.199.141) in Orissa. The Bridge was opened to traffic in 2007-2008.

• This bridge is located in downstream of the old existing bridge at an interval of 14.125m c/c. The old existing bridge was reported to be constructed around 50 years back.

1	Foundation	Well Foundation
2	Substructure	RCC Wall Type Pier
3	Super Structure	2 end spans of RCC Girder slab and one central span of Voided/solid slab
4	Contractor	M/s Gamon India Ltd.
5	Supervision Consultant	NA
6	DPR Consultant	M/s Sheladia Associates
7	Span Arrangement	29.0m +14.5m +29.0m=72.50m
8	Physical Progress	Completed
9	Opening to Traffic	2007-2008
10	Chainage of Bridge	79.614 km

- It has three spans, out of which two spans namely; A1-P1 and P2-A2 are of length 29m each and one span P1-P2 is of length 14.5m. Spans of 29m length are of girder slab and the shorter span of 14.5m is solid slab. The spans are designated from the Bhubaneswar side in the increasing chainage.
- This major bridge was retained during the up-gradation of this stretch from 4-lane to 6-lane.
- Rehabilitation and Up-gradation to 6-laning of Chandikhole Bhadrak Section from km 62.000 to km 136.500 of NH-16 was awarded to Concessionaire M/s DBL Chandikhole Bhadrak Highways Limited. Agreement was signed on 9th April, 2018. Work commenced on 16th December, 2018. Completion Certificate was issued on 19-02-2023 and is under O&M period of the concessionaire.
- Super structure of longer spans comprises of 4-longitudnal RCC girders @ 3.25m c/c and three X-girders i.e., one at each support and one in the mid span. Solid/Voided slab supported on 5 pedestals. Elastomeric bearings have been used.

Superstructure has total deck width 13.75m and clear carriageway width of 12.35m with wearing coat of 65mm. The x-section is shown in Plate-2.

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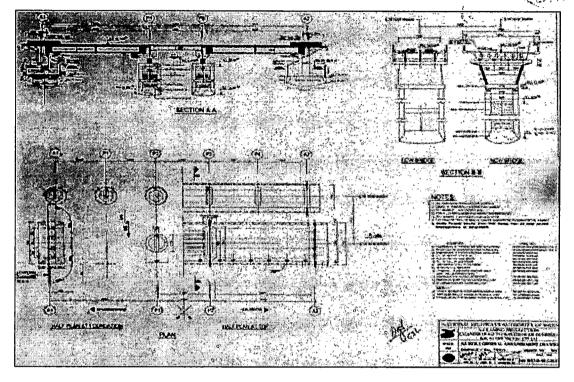


Fig-1: GAD of Distressed Bridge (source GFC drawing)

- Piers P1 & P2 are supported on well foundation of 6.0.m diameter. Abutments are on open/raft foundation.
- The height of the pedestals is different for slab span, which are of more height as compared to other spans bearing pedestal.

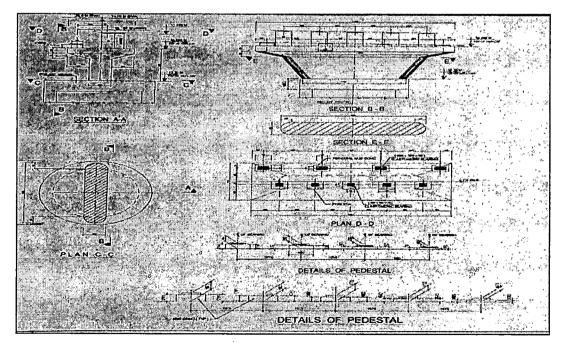


Fig-2: Details and Layout plan of different pedestals height

• Concrete grade in Pier & Pier cap is M25, Bearing pedestals are in M25, elastomeric bearing size 600x320x80mm under the girders and 400x320 x 80mm under the slab span, as read from the as built drawings.

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• The bearing pedestals were intact and did not get damaged. The elastomeric bearing tell-tale marks are visible on the pedestals and soffit of girder.

## 3. COLLAPSE OF SPAN A1-P1

As reported on 18-07-2023, span A1-P1 was dislodged from Pier P1 due to breaking of cantilever portion of the pier cap (P1) in the morning hours at about 7am. No injury or casualty was reported. The traffic was diverted through adjacent existing bridge and the affected stretch was barricaded to restrict movement of vehicles.

## 4. CONSTITUTION OF THE EXPERT COMMITTEE:

Vide NHAI Letter No. NHAI /11015/24/RO/OD/2054/2023 dated 18-07-2023 (copy at ANNEX-I) NHAI constituted a three-member Expert Committee as follows:

- 1. Sh. A.K. Shrivastava, ADG (Retd), MoRTH
- 2. Sh. S. K. Sharma, Principal Tech Officer Bridges (Retd), CRRI: Delhi
- 3. Sh. Alok Pandey, M/s Elegant Engg Ltd

The mandate of The Expert Committee was to visit the bridge site, to carry out necessary inspection and analyse to find the root cause of collapse of span.

## 5. EXPERT COMMITTEE BRIDGE SITE VISIT

In follow up of constitution of Expert Committee by NHAI, the Committee visited the bridge site on 22nd July, 2023 along with all the stakeholders (representatives of, the Contractor, Concessionaire and NHAI) and inspection was carried out. The Additional Secretary (MoRTH) Sh. Amit Kumar Ghosh also visited the site on 22.07.2022 and hold a meeting with all stakeholders at Bhubaneswar.

### 5.1 Committee Observation on Bridge Site Inspection:

5.1.1 Design and Good for Construction Drawings of the bridge were not available. Only "As Built Drawings" were made available which were with poor readability. 5.1.2 The span A1-P1 had dislodged from the pier P2 due to breaking of the cantilever portion of the pier cap and had fallen on the ground. The D/s end of the span (girders) have penetrated in the ground due to rotation of the span in clockwise direction.

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Plate-1 & 2: Dislodged span (left) and failure of pier cap (right)

5.1.3 Appearance of wide cracks (up to 3-4mm) in the pier cap on grid "P2". This may result into the similar failure of pier cap on grid "P2" also in future.

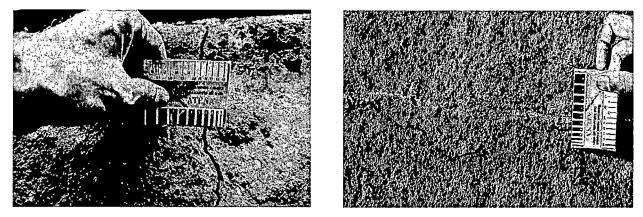


Plate-3 & 4: Appearance of cracks in pier cap on grid "P2"

5.1.4 Damages of deck slab and girders of the dislodged span.



Plate-5: Damages of girders of dislodged span

5.1.5 Increased bar spacing at some places as compared to the "As Built Drawings".

Plate-6: Measurement of spacing of transvers R/F bars of failed pier cap

5.1.6 Increased (about 100mm)/reduced cover to reinforcing bars of the pier cap at some places.

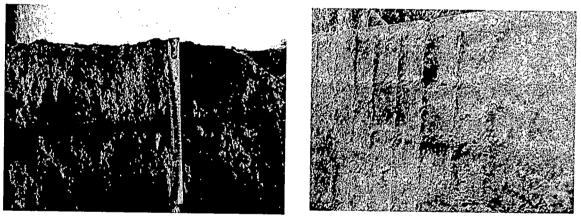


Plate-7 & 8: Increased (left) and reduced cover (right) to bars of pier cap 5.1.7 Lack of bond between concrete and bars of the failed pier cap.

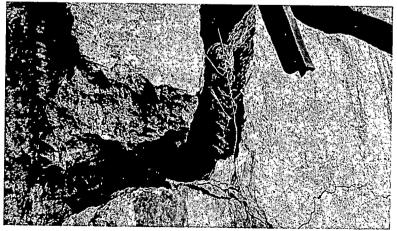


Plate-9: Lack of bond between concrete and bars of the pier cap

5.1.8 Formation of cracks at bearing locations in the voided slab superstructure between grids "P1-P2".

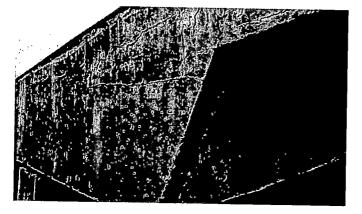
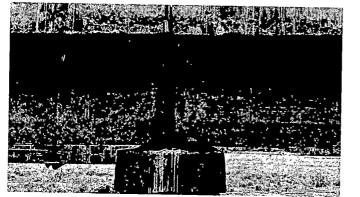




Plate-10 & 11: Formation of cracks in the solid deck slab

5.1.9 Poor bearing conditions and insufficient expansion gap at the location of expansion joints in the adjacent existing old bridge.



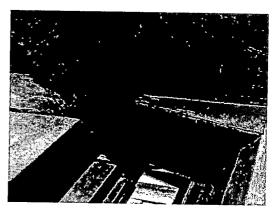


Photo-12 & 13: Poor bearing conditions and insufficient expansion gap

5.1.10 Typical details of Pier and Pier Cap of P1 and P2. Shear Crack in pier cap P1 leading to collapse of span A1-P1.

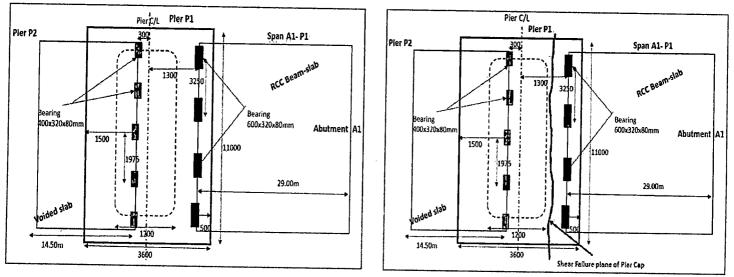


Fig-3 & 4: Typical details of Pier and Pier Cap of P1 and P2. Shear Failure plane of Pier cap P1 (Source: As Built Drawing & Site Measurement)

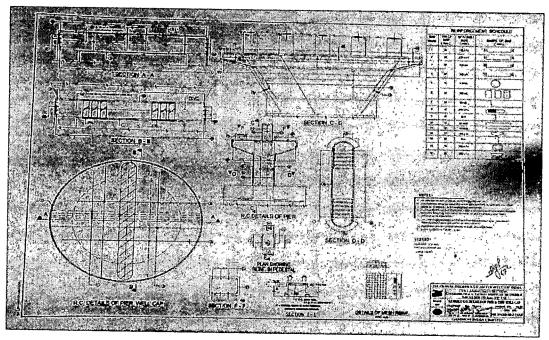
## **6.** POSSIBLE CAUSES OF FAILURE OF PIER CAP P1

(i) Shear failure of pier cap at pier edge interface due to corrosion and tensile failure of transvers steel reinforcement (along the width of the pier). Possible deficiency in provision of reinforcement in the pier cap. In this connection the committee observed "there is a mismatch in the spacing of reinforcement placed along the width of the pier cap top as measured at site vis a vis the spacing of the reinforcement indicated in "As Built Drawings" vide bar mark 15.

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Further, the spacing of reinforcement placed along the length of the pier cap top could not be ascertained/measured at site which is shown as bar mark 10 in As Built Drawing".



## Fig-5: As Built Drawing Showing R/F details of pier cap (bar mark 15,10 etc.)

- (ii) Lack of Regular Inspection & Bridge Inventory Data Recording.
- (iii) Lack of periodic repair and rehabilitation of the existing structures.
- (iv) Corrosion of reinforcement due to ingress of water/moisture in the cracks developed in the pier cap which remained unnoticed for longer period, otherwise remedial measures could have been taken at appropriate time.

## 7. RECOMMENDATION/SUGGESTION

7.1 Possibility of differences in the pier cap reinforcement between Good for Construction (GFC) Drawings and actual provision of the same at site, could

not be assessed by the committee due to non-availability of Good for Construction Drawings:

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- **7.2** Accordingly, analysis & design for the pier cap may be reviewed by the design consultant to check the adequacy of the reinforcement for pier cap P1/P2.
- **7.3** In case the existing spans P1-P2 and P2-A2 are to be retained, suitable scheme for strengthening / reconstruction of pier cap/other components shall be prepared by the expert (Repair and Rehabilitation) agency taking care of findings of review of the design/drawings, condition survey of the bridge and results of the non-destructive tests.
- **7.4** Reconstruction of damaged span A1-P1, composite girder may be an appropriate option with respect to concrete girder.

Alternatively, all the three concrete spans as well as damaged pier and pier caps may be replaced by composite girder system, which may be helpful with respect to reduction in dead load as the existing foundation shall be retained.

7.5 Based on the inspection of the collapsed bridge, the Committee is of the strong opinion that there was a lack in regular inspection and bridge inventory data recording at site. The Representative of Independent Engineer/Contractor present at site were not able to explain the reason for the above lapses. Furthermore, they were not convergent about the requirement of regular bridge inspection/inventory data recording etc., which shows laxity on their part. If this could have been done on regular basis such mishap could be avoided. Similar action is required for remaining bridges for their sustainability/durability.

Accordingly, "Condition survey of all the existing (similar) bridges in the section from Km.62.000 to Km.136.000 of NH-05 to be carried out ON URGENT BASIS through concerned agency as the project is reported to be completed under HAM in Feb.2023. For this purpose, Mobile Bridge Inspection Unit (MBIU) to be mobilized at site. The relevant clauses and sections of IRC Publication such as "Manual for Highway Bridge Maintenance Inspection - IRC:SP:18" & "Guidelines for Inspection and Maintenance of Bridges – IRC:SP:35" and "Guidelines on Repair, Strengthening and Rehabilitation of Concrete Bridges - IRC:SP:40 - 2019" may be followed in this regard".

7.6 Carbonation, Sulphate Content, Chlorite Content Tests and NDT testing for the pier/abutments/pier cap/superstructure to be conducted in respect of existing bridges. In addition, concrete core test may be conducted wherever required based on suspect areas as identified by NDT test. The testing should be done by engaging reputed Independent Testing Agencies / Reputed Engineering Institute.

Sh. A.K. Shrivastava, ADG (Retd), MoRTH

Sh. S.K Sharma, Pr. Tech. Officer-Bridges (Retd), CRRI Member

Sh. Alok Pandey

M/s Elegant Engg Ltd



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#### - 253-भारतीय राष्ट्रीय राजमार्ग प्राधिकरण (सड़क पारिबहन और राजमार्ग मंत्रालय, भारत सरकार) National Highways Authority of India (Ministry of Road Transport and Highways, Government of India) परियोजना कार्यान्वयन इकाई / Project Implementation Unit एन.एच.ए.आई. कॉम्प्लेक्स, नेउलपुर, चंड़ीखोल, जाजपुर - ७५५०२४ (ओडि़शा) NHAI Complex, Neulpur, Chandikhole, Jajpur-755024 (Odisha) 'दूरभाष / Tel : 06725 - 291479 ई-मेल /e-mail : nhaichandikhole@gmail.com, piuchandikhole@nhai.org

## NHAI/11014/8/2023/PIU/CDL/896

August, 2023

To,

The Team Leader, M/s.TPFGetinsaEurostudios S.L. with Segmental Consulting & Infrastructure Advisory Pvt. Ltd., Bhadrak.

Sub.: Rehabilitation and Up-gradation of Six-laning of Chandikhole - Bhadrak section of NH-05 (New NH-16) from km 62.000 to km 136.500 in the state of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V- Collapse of span A1-P1 of bridge at km.79.614 - Reg.

Sir,

This is in reference to the Inspection Report of Expert Committee on the collapse of bridge at km 79+614 on NH-16.

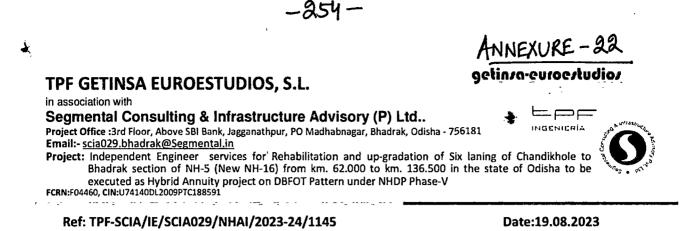
In the report, it has been pointed out that due to (i) lack of regular inspection and bridge inventory data recording, (ii) lack of periodic repair and rehabilitation of the structures, (iii) Corrosion of reinforcement due to ingress of water/moisture in the cracks developed in the pier cap which remained unnoticed for longer period, otherwise remedial measures could have been taken at appropriate time.

Further, the Expert Committee opined that the Independent Engineer and the Concessionaire of subject project were not convergent about the requirement of regular bridge inspection/ inventory data recording etc., which shows laxity on their part. If this could have been done on regular basis, such mishap could be avoided.

In view of above, it is requested to submit your clarification within four days that why necessary action shall not be initiated against you for the collapse of bridge due to negligence and laxity on your part

Yours sincerely,

(J.∕₽.Xerma) Project Director



То

The Project Director, National Highway Authority of India, Project Implementation Unit NHAI Complex, Neulpur, Chandikhole, Jajpur-755024, Odisha

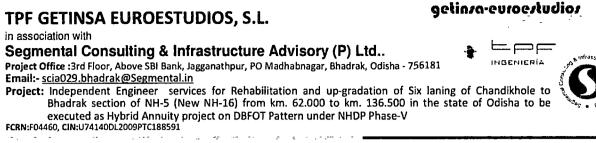
<u>Subject</u>: Independent Engineer services for Rehabilitation & up-gradation of Six laning of Chandikhole – Bhadrak section of NH-05 (New NH-16) from km. 62.000 to km. 136.500 in the state of Odisha to be executed on Hybrid Annuity Mode under NHDP-Phase-V – <u>Collapse of span A1-P1 of bridge at Km. 079+614 on RHS- Submission of clarifications. - Reg:</u>

#### Reference: Your letter no. NHAI/11014/8/2023/PIU/CDL/896 dated 14.08.2023.

Dear Sir,

With reference to the above captioned subject, please refer to your letter under reference, wherein it is requested to submit the clarifications in regards to the Collapse of span A1-P1 of bridge at Km. 79+614 on RHS of NH-16. In this connection, we would like to apprise the following:

- i. In accordance with the Schedule-B of the Concession Agreement, a new Major Bridge was to be constructed at Km. 79+679 on LHS and the existing Bridge on RHS is to be only repair/ rehabilitated which includes General cleaning of expansion joints & Drainage spouts.
- ii. Further, pursuant to Point No. 16 of Schedule -B, both visual inspection and non- destructive test by the Third party M/s. Balaji scientific laboratory for the assessment of the health conditions existing structure had been carried out by Concessionaire in order to finalize its repair and rehabilitation. Copy of the NDT report is attached herewith for your ready reference. As per the visual inspection and NDT test report, no Distress was observed in the Existing Bridge.
- iii. Further, as per the preliminary survey carried out jointly by the Concessionaire and the IE's representative on 09.10. 2020, considering the NDT test report obtained from Third party, the Repair & Rehabilitation methodology was submitted by Concessionaire and subsequently same was executed at site.
- iv. It is also to mention that except the regular routine Check up, the joint visual inspection of all the Bridges were being conducted prior to every monsoon.



- Further, prior to issuance of PCOD, all the relevant tests are conducted and also the Project was inspected by RO- Odisha on dated 10.08.2022 and only after successfully completion of all Tests, as per concurrence of Competent Authority in accordance with the NHAI Policy Circular No. NHAI/CGM (CMC)/2015/75902 dated 21.12.2015, PCOD was issued on 19.07.2023.
- vi. Further, Pursuant to the provisions of Article 14.2 of the Concession Agreement and as per concurrence of the Competent Authority in accordance with the NHAI Policy Circular No. NHAI/CGM (CMC)/2015/75902 dated 21.12.2015, the Completion Certificate was issued on 19.02.2023. In this connection, it is pertinent to mention here that prior to issuance of COD, the relevant tests such as joint visual inspection & NDT tests are conducted. In this connection, it is to highlighted that as per the Test report no Distress were observed in the above mentioned Bridge. Copy of the Test report is attached herewith for your easy reference.
- vii. Moreover, in this context, it is worthy to mention that as discussed during Joint Visit by Authority as well as Expert Committee, as per the preliminary report submitted, looking to the failure pattern of Pier cap, it was amply cleared that the collapse of the Existing Major Bridge which was constructed in the year 2007-08 by M/s Gamon Infra Pvt. Ltd may be occurred due to the inadequate design and reinforcement detailing for the loading coming on the pier cap.

From the above, it is clearly revealed that there is no negligence at all from our end towards construction of Project Highway as well as maintenance. We would like to highlight that IE shall always discharge its duties in a fair, impartial and efficient manner, consistent with the highest standards professional integrity and Good industry practice

The above is submitted for your kind perusal and further necessary action at your end.

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Thanks & regards Yours sincerely,

Authorized Signatory, Chandikhole-Bhadrak. TPF GetinsaEuroestudios S L In AssociationWith Segmental Consulting&InfrastructureAdvisory (P) Ltd. Enclosure: As stated above.



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## -256-भारतीय राष्ट्रीय राजमार्ग प्राधिकरण ANNEXURE - 23 (सडक पारिबहन और राजमार्ग मंत्रालय, भारत सरकार)

(सड़क पारिबहन आर राजमाग मंत्रालय, भारत सरकार) National Highways Authority of India (Ministry of Road Transport and Highways, Government of India)

परियोजना कार्यान्वयन इकाई / Project Implementation Unit एन.एच.ए.आई. कॉम्प्लेक्स, नेउलपुर, चंड़ीखोल, जाजपुर - ७५५०२४ (ओड़िशा) NHAI Complex, Neulpur, Chandikhole, Jajpur-755024 (Odisha) दूरभाष / Tel : 06725 - 291479 ई-मेल /e-mail : nhaichandikhole@gmail.com, piuchandikhole@nhai.org

### NHAI/11014/8/2023/PIU/CDL/ 1929

Nov., 2023

To,

The Team Leader, M/s.TPFGetinsaEurostudios S.L. with Segmental Consulting & Infrastructure Advisory Pvt. Ltd., Bhadrak.

Sub.: Rehabilitation and Up-gradation of Six-laning of Chandikhole - Bhadrak section of NH-05 (New NH-16) from km 62.000 to km 136.500 in the state of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V- Collapse of span A1-P1 of bridge at km.79.614 - Reg.

Sir,

This is in reference to the direction of Competent Authority on Expert Committee's report for the incident of collapse of a span A1-P1 of bridge at km.79.614 in Chandikhole - Bhadrak section of NH-05 (New NH-16) in the state of Odisha.

As per direction of Competent Authority, this show cause notice is being issued upon you on the following observation of Expert Committee

"Deficiency in supervision of work during construction and O&M period. The representative of Independent Engineer/Contractor present at site were not able to explain the reason for the above lapses. Furthermore, they were not convergent about the requirement of regular bridge inspection/inventory data recording etc., which shows laxity on your part."

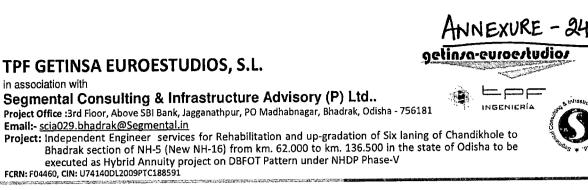
It is therefore, requested to submit your clarification that why necessary action will not be initiated against you for the incident. Your clarification has to be submitted within two days from the date of issuance of this letter.

Yours sincerely,

(J. P. Verma) Project Director

## ATTESTED TO BE TRUE COPY

निगमित कार्यालय / Corporate Office : जि-5 एवं-6, सेक्टर-10, द्वारका, नई दिल्ली-110075/ G-5 & G-6, Sector-10, Dwarka, New Delhi - 110075 दूरभाष / Phone : 011-25074100/25074200, वेबसाइट / Website : nhai.gov.in



#### Ref: TPF-SCIA/IE/SCIA029/NHAI/2023-24/1216

Date: 18.11.2023

То

The Project Director, National Highway Authority of India, Project Implementation Unit, NHAI Complex, Neulpur, Chandikhole, Jajpur, Odisha – 755024.

<u>Subject:</u> Construction of Underpass at Km. 80+450 along with approaches from Km. 80+280 to Km. 80+750 on Chandikhole – bhadrak Section of NH-5 (New NH-16) in the state of Odisha on Engineering Procurement and Construction (EPC) Mode: - <u>Collapse of Span A1-P1 of bridge at Km. 79+614 on RHS- Submission of clarifications – Reg.</u>

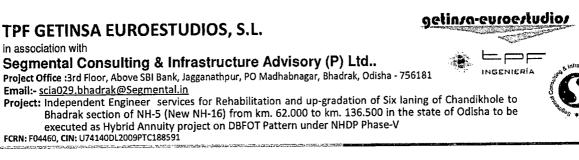
### Reference: NHAI letter no. NHAI/11014/8/2023/PIU/CDL/1229 dated 13.11.2023.

Dear Sir,

With reference to the above captioned subject, please refer to your letter under reference, wherein it is requested to submit the clarifications in regards to the Collapse of span A1-P1 of bridge at Km. 79+614 on RHS of NH-16. In this connection, we would like to apprise the following:

#### In regards to Supervision of work during construction

- Pursuant to the Schedule-B of Concession Agreement, a new Major Bridge was to be constructed at Km. 79+679 on LHS and the existing Bridge on RHS is to be only repair/ rehabilitated which includes General cleaning of expansion joints & Drainage spouts.
- ii. As per the preliminary survey carried out jointly by the Concessionaire and the IE's representative on 09.10. 2020, considering the NDT test report obtained from Third party, the Repair & Rehabilitation methodology was submitted by Concessionaire and subsequently same was executed at site.
- iii. Further, in compliance to Point No. 16 of Schedule -B, both visual inspection and nondestructive test by the Third-party M/s. Balaji scientific laboratory for the assessment of the health conditions existing structure had been carried out by Concessionaire in order to finalize its repair and rehabilitation. As per the visual inspection and NDT test report, no Distress was observed in the Existing Bridge. Copy of the NDT report is attached for your ready reference.
- iv. Further, prior to issuance of PCOD, all the relevant tests are conducted and also the Project was inspected by RO- Odisha on dated 10.08.2022 and only after successfully completion of all Tests, as per concurrence of Competent Authority in accordance with the NHAI Policy Circular No. NHAI/CGM (CMC)/2015/75902 dated 21.12.2015, PCOD was issued on 19.07.2023. As per the NDT Test Report conducted during PCOD, the Existing Bridge was in good condition and no Distress was found.



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#### In regards to Supervision of work during O&M Period

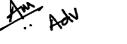
- v. It is also to mention that except the regular routine Check up, the joint visual inspection of all the Bridges were being conducted prior to every monsoon.
- vi. Pursuant to the provisions of Article 14.2 of the Concession Agreement and as per concurrence of the Competent Authority in accordance with the NHAI Policy Circular No. NHAI/CGM (CMC)/2015/75902 dated 21.12.2015, the Completion Certificate was issued on 19.02.2023. In this connection, it is pertinent to mention here that prior to issuance of COD, all the relevant tests such as joint visual inspection & NDT tests are conducted. In this connection, it is to highlighted that as per the Test report no Distress were observed in the above mentioned Bridge. Copy of the Test report is attached herewith for your easy reference.
- vii. Moreover, in this context, it is worthy to mention that as discussed during Joint Visit by Authority as well as Expert Committee, as per the preliminary report submitted, looking to the failure pattern of Pier cap, it was amply cleared that the collapse of the Existing Major Bridge which was constructed in the year 2007-08 by M/s Gamon Infra Pvt. Ltd may be occurred due to the inadequate design and reinforcement detailing for the loading coming on the pier cap.

From the above, it is clearly revealed that there is no negligence at all from our end towards construction of Project Highway as well as maintenance. We would like to highlight that IE shall always discharge its duties in a fair, impartial and efficient manner, consistent with the highest standards professional integrity and Good industry practice.

Looking forward to your understanding and assuring you of our best services always.

Thanks & Regards, Yours sincerely

Authorized Signatory, Chandikhole- Bhadrak. TPF Getinsa Euroestudios S L In Association With Segmental Consulting & Infrastructure Advisory (P) Ltd. Enclosure: As stated above.



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To

The Authorised Signatory, M/s.TPFGetinsaEurostudios S.L. with Segmental Consulting & Infrastructure Advisory Pvt. Ltd., 3rd Floor, Above SBI Bank, Jagganathpur, PO: Madhabnagar, Dist - Bhadrak, Odisha - 756181

Sub.: Rehabilitation and Up-gradation of Six-laning of Chandikhole - Bhadrak section of NH-05 (New NH-16) from km 62.000 to km 136.500 in the state of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V Collapse of span A1-P1 of bridge at km.79.614 - Reg.

Sir,

As per direction of Competent Authority on Expert Committee's report for the incident of collapse of a span A1-P1 of bridge at km.79.614 in Chandikhole - Bhadrak section of NH-05 (New NH-16) in the state of Odisha, a show cause notice issued upon you on the following observation of Expert Committee

"Deficiency in supervision of work during construction and O&M period. The representative of Independent Engineer/Contractor present at site were not able to explain the reason for the above lapses. Furthermore, they were not convergent about the requirement of regular bridge inspection/inventory data recording etc., which shows laxity on your part."

Your submission on the show cause vide letter no.1216 dated 18.11.2023 forwarded to NHAI HQ for consideration which does not stand on merit. Competent Authority has decided to impose penalty of Rs.20/- lakhs and debarment for 1 year as per NHAI Policy Circular No.18.63/2021 dated 08.01.2021 considering the observation of Expert Committee that laxity found in regular bridge inspection on regular basis.

Accordingly, as per direction of NHAI HQ., Rs.20 lakh shall be deducted from your next invoices.

Yours sincerely,

Verma) Project Director

Copy to: 1. Regional Officer, NHAI-Odisha at Bhubaneswar for favour of information. 2. GM(Tech.)-Odisha, NHAI HQ for favour of information.

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भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

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(सड़क परिवहन और राजमार्ग मंत्रालय)

### National Highways Authority of India

(Ministry of Road Transport and Highways) जी-5 एवं 6, सेक्टर-10, द्वारका, नई दिल्ली - 110 075 G-5 & 6, Sector-10, Dwarka, New Delbi-110075

G-5 & 6. Sector-10. Dwarka, New Delhi-110075 NHAI/Policy Guidelines/Miscellaneous Guidelines/2021 Policy Circular No.18.63/2021 dated 08th January, 2021 (Decision taken on e-file Comp. No.-52082)

#### Sub: Standard Operating Procedure to decide penal action in case of failure of structures/ highway in NHAI projects.

Number of instances have been noticed where bridges/ structures/ approaches to structures, etc. have failed pre-maturely on account of serious lapses/omissions on the part of Concessionaires/ Contractors/ Consultants. Therefore, following Standard Operating procedure is hereby issued to decide upon the extent of penalty against such companies/ firms and key personnel of the firms.

1.1 Constitution of Expert Committee and compliance of post-accident mechanism as spelt out in NHAI's Policy Guidelines no. 18.51 dated 28.08.2020 and no. 18.54 dated 29.09.2020 without any delay.

1.2 During the currency of investigation, the concerned key personnel of the Contractor/ Concessionaire (eg, Project Manager, Bridge Engineer, etc.) and Consultancy Firm (eg, Team Leader, Resident Engineer, Bridge Engineer, Material Engineer etc.) may be kept under suspension from working on the project/ any other project of NHAI so as to ensure that the investigation is not influenced. Further, if the suspended personnel are found not guilty after conclusion of the investigation, they shall be treated as on duty during the period of suspension and the salary of key personnel of consultancy firms will be paid as per the consultancy agreement.

1.3 The following penal actions shall be taken in case of any reports on failure of structures/ poor quality of services after ensuring proper investigation.

Sr. Type of Failure Action to be taken against t				concerned based on investigation		
No.		Contractor/ Concessionaire Consultant			tant	
		Firm	Key Personnel	Firm	Key Personnel	
i)	structures/ highway due to design/ construction/	concessionaire on own cost + penalty of Rs. 30	The key personnel may be kept on watch list for any future recurrence besides issuing written warning.	Token penalty of Rs. 5 lakhs on consultancy firm engaged during construction/ maintenance besides issuing written warning.	The key personnel may be kept on watch list for any future recurrence besides issuing written warning.	
	structures/ highway due to design/ construction/ maintenance defect wherein no casualties are reported.	concessionaire on own cost and/or Debarment	personnel upto 2 years in NHAI works.	engaged during		
	structures/ highway due to construction/ maintenance defect leading to loss of human lives besides loss of reputation etc.	Rectification by contractor/ concessionaire on own cost and/or Debarment upto 2 years + Financial Penalty of Rs. 1 Cr. to Rs. 10 Cr. depending upon the severity of failure/ neglect.	3 years	Monetary penalty of Rs. 40 lakhs on consultancy firm engaged during construction/ maintenance and/or Debarment up to 2 years	Debarment upto 3 years	

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- Note:
  i. The term Concessionaire implies all promoters of the SPV of the PPP project having 26% or more stake, whereas the term Contractor implies all Joint Venture Partners (jointly & severally responsible) in case of a EPC contract or the approved EPC Contractor working under SPV of a Concession.
- ii. The term Consultant refers to Authority Engineer, Independent Engineer, DPR/ Design Consultant, Proof Consultant & Safety Consultant.
- iii. In case of delayed failure i.e., failure due to construction but reported during maintenance period after the defaulting Contractor/Concessionaire has been demobilised, action shall be taken against the concerned Contractor/Concessionaire/Consultant only.
- iv. In case of lack of clarity in cost of structure the latest normative cost norms issued by MoRTH shall be adopted.

1.4 For each repeated lapse by the firm, the penalty for the subsequent offence shall be enhanced by an additional 50% as compared to penalty imposed in the previous instance applicable against the category of penalty under consideration.

1.5 In case the outcome of investigation is unclear or on the basis of conjectures, no action on debarment shall be taken and only suitable monetary penalty shall be imposed on all contracting/consulting firms engaged in construction/maintenance.

2. The firms/ individuals on which penal/ deterrent action was taken may represent to the 'Reviewing Authority' in NHAI against the action/ penalty imposed.

3. The Competent Authority for approval of penal action against the Concessionaire 'Contractors / Consultants will be the Chairman, NHAI and the Reviewing Authority will be the Executive Committee.

1. Suitable action on NHAI officials will be taken depending on the extent of dereliction of Juties by the concerned officials keeping in view the Conduct Rules.

5. This SOP is applicable prospectively. However, in cases where decisions were taken, the agency/individual may represent to the "Review Committee".

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(Sheo Shankar Jha) CGM (Coord.)

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### All officers of NHAI HQ/ROs/PIUs/CMUs/Site Offices

Copy to:

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### **TPF GETINSA EUROESTUDIOS, S.L.**

in association with

#### Segmental Consulting & Infrastructure Advisory (P) Ltd

Project Office: 3rd Floor, Above SBI Bank, Jagganathpur, PO Madhabnagar, Bhadrak, Odisha - 756181. E-Mail: scia029.bhadrak@segmental.in

Project: Rehabilitation and Up-gradation of Six laning of Chandikhole- Bhadrak section of NH-05 (New NH-16) from km 62.000 to km 136.500 in the state of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V. FCRN: F04460, CIN: U74140DL2009PTC188591

Ref: TPF GAS/23-24/HO/ 2611

### WITHOUT PREJUDICE

Date. 29 Jan 2024

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INGENIÈRÍA

To The Project Director National Highways Authority of India, Project Implementation Unit, NHAI Complex, Neulpur, Chandikhole, Jajpur-755024 Odisha.

Subject: Rehabilitation and Up-gradation of Six laning of Chandikhole- Bhadrak section of NH-05 (New NH-16) from km 62.000 to km 136.500 in the state of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V: Collapse of span A1-P1 of bridge at km. 79.614: Representation and Request to reconsider, revoke and withdraw your debarment order.

Ref: Your debarment order vide your letter ref. no. NHAI/11014/8/2024/PIU/CDL/82 dated 11.01.2024.

Sir,

- 1. This is with respect to your Debarment Order as referenced above, whereby our firms have been debarred for a period of one year from the date of issue of this order and a penalty of Rs.20/- lakhs has been imposed as per NHAI Policy Circular No.18.63/2021 dated 08.01.2021.
- 2. It is pertinent to mention that the debarment notice has been issued under Policy Circular No. 18.63/2021 dated 08.01.2021 (Enclosed as annexure-A)which has since been superseded by Policy Circular No.16.12/2022 dated 18.01.2022(Enclosed as annexure-B)Hence, only on this count, it is requested to revoke, reconsider and withdraw the debarment order as it has been issued under a policy which is no longer valid nor in existence and therefore the action and debarment order is bad in law.
- 3. It is also pertinent to mention that the New Policy Circular No. 16.12/2022 dated 18.01.2022 which has superseded the Policy Circular No. 18.63/2021 dated 08.01.2021 explicitly states as per clause 7, that " Before deciding an AE/IE/CSC/PMC as Non-performer or debarring/penalizing it, the concerned technical division shall issue a notice to the AE/IE/CSC/PMC by giving 15 days' time to furnish its written reply and allow personal hearing if so desired by the AE/IE/CSC/PMC before Member concerned.......". By invoking a policy which is no longer valid nor in existence, and which did not provide the aggrieved party the above remedy, we have deliberately and with malafide intent, been denied the opportunity to represent our case in front of a higher authority and thus the issuance of the debarment order is against the principles of fairness and natural justice and in violation of the procedural due process which has adversely affected our rights and caused us grave in justice, misery and financial loss.

## ATTESTED TO BE TRUE COPY



Project Office: Plot No.168, Mr. Mihir Ranjan Das, Mouza-Sunguda, PO-Dhanmandal, Chandikhole, Dist-Jajpur, Odishb-254026.

### **TPF GETINSA EUROESTUDIOS, S.L.**

in association with

#### Segmental Consulting & Infrastructure Advisory (P) Ltd

Project Office: 3rd Floor, Above SBI Bank, Jagganathpur, PO Madhabnagar, Bhadrak, Odisha - 756181. E-Mail: scia029.bhadrak@segmental.in

Project: Rehabilitation and Up-gradation of Six laning of Chandikhole- Bhadrak section of NH-05 (New NH-16) from km 62.000 to km 136.500 in the state of Odisha to be executed on Hybrid Annuity Mode under NHDP Phase-V. FCRN: F04460, CIN: U741400L2009PTC188591

4. It is further pertinent to point out that even without going into the merits of the allegations, charges, investigations, findings, conclusions etc leading to the debarment order, at this stage, which however, we are contesting, rebutting and challenging separately before a higher authority by putting forth all the facts so as to place them in proper perspective by submitting our consolidated and comprehensive representations containing our detailed written submissions, the instant debarment order is liable to be revoked and withdrawn on it being blatantly illegal, whimsical and arbitrary in nature.

In light of the above, it is humbly submitted that the debarment order may kindly be reviewed on the basis of the aforementioned facts, and may kindly be revoked and withdrawn.

We hope our request would be considered sympathetically and on merits.

Thanking you,

Yours faithfully,

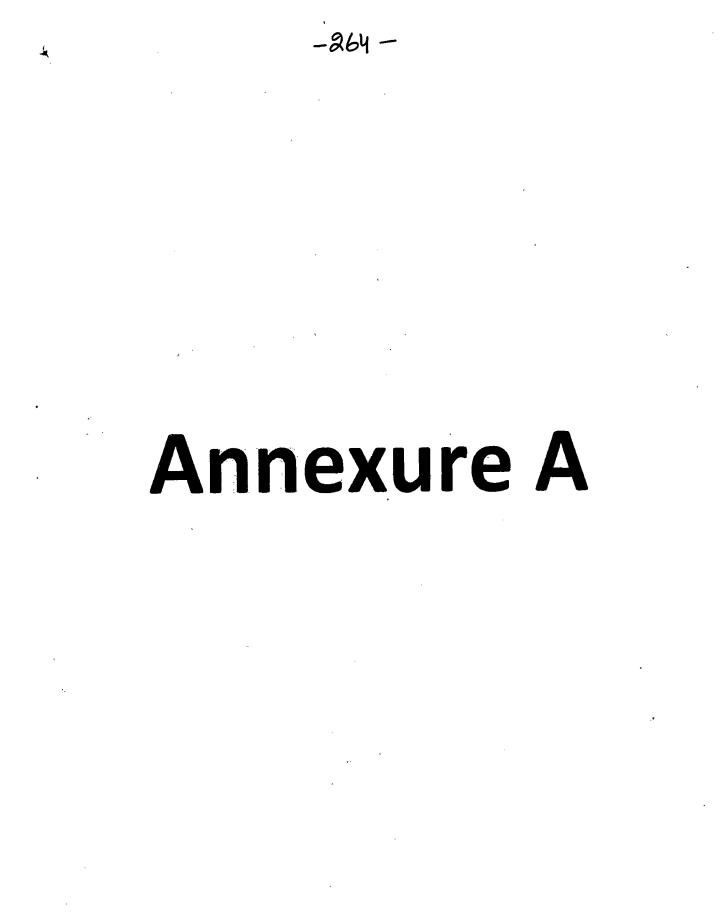
Jatin Kumar _9ellaro-ena **Authorised Signatory** TPF Getinsa Euroestydios S.I. INGENIERIA in association with Segmental Consulting & Infrastructure Advisory Pvt. Ltd.

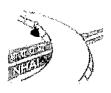
Encl: Annex A. Annex B

Project Office: Plot No.168, Mr. Mihlr Ranjan Das, Mouza-Sunguda, PO-Dhanmandal, Chandikhole, Dist-Jajpur, Odisha - 754024.

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भारतीय राष्ट्रीय राजमार्ग प्राधिकरण (सहन, भौरवहन और राजमार्ग भंजालन)

- 265 -

National Highways Authority of India

(Ministry of Road Transport and Highways) जी-5 पूर्व 6, सेक्टर-10, हारका, मई दिल्ली - 110 075

# G-5 & 6. Sector-10. Dwarka, New Delhi-110075 NHAI/Policy Guidelines/Miscellaneous Guidelines/2021

Policy Circular No. 18.63/2021 dated 08th January, 2021 (Decision taken on e-file Comp. No.-52082)

#### Sub: Standard Operating Procedure to decide penal action in case of failure of structures/ highway in NHAI projects.

Number of instances have been noticed where bridges/ structures/ approaches to structures, etc. have failed pre-maturely on account of serious lapses/omissions on the part of Concessionaires/ Contractors/ Consultants. Therefore, following Standard Operating procedure is hereby issued to decide upon the extent of penalty against such companies/ firms and key personnel of the firms.

Constitution of Expert Committee and compliance of post-accident mechanism as spelt 1.1 out in NHAI's Policy Guidelines no. 18.51 dated 28.08.2020 and no. 18.54 dated 29.09.2020 without any delay.

During the currency of investigation, the concerned key personnel of the Contractor/ 1.2 Concessionaire (eg, Project Manager, Bridge Engineer, etc.) and Consultancy Firm (eg, Team Leader, Resident Engineer, Bridge Engineer, Material Engineer etc.) may be kept under suspension from working on the project/ any other project of NHAI so as to ensure that the investigation is not influenced. Further, if the suspended personnel are found not guilty after conclusion of the investigation, they shall be treated as on duty during the period of suspension and the salary of key personnel of consultancy firms will be paid as per the consultancy agreement.

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Sr.	Type of Failure	Action to be taken against the concerned based on investigatio				
No.		Contractor/ Conc	Contractor/ Concessionaire		Consultant	
		Firm	Key Personnel	Firm	Key Personnel	
	structures/ highway due to design/ construction/ maintenance defect wherein no casualties are	concessionaire on own cost + penalty of Rs. 30		Token penalty of Rs. 5 lakhs on consultancy firm engaged during construction/ maintenance besides issuing written warning.	The key personnel may be kept on watch list for any future recurrence besides issuing written warning.	
	structures/ highway due to design/ construction/ maintenance defect wherëin no casualties are reported.	concessionaire on own cost and/or Debarment	personnel upto 2 years in NHAI works.	Monetary penalty of Rs. 20 lakhs on consultancy firm engaged during construction/ maintenance and/or Debarment upto 1 year		
	Major failure of structures/ highway due to construction/ maintenance defect leading to loss of human lives besides loss of reputation etc.		3 years	Monetary penalty of Rs. 40 lakhs on consultancy firm engaged during construction/ maintenance and/or Debarment up to 2 years	Debarment upto 3 years	

i. The term Concessionaire implies all promoters of the SPV of the PPP project having 26% or more stake, whereas the term Contractor implies all Joint Venture Partners (jointly & severally responsible) in case of a EPC contract or the approved EPC Contractor working under SPV of a Concession.

-266-

- ii. The term Consultant refers to Authority Engineer, Independent Engineer, DPR/ Design Consultant, Proof Consultant & Safety Consultant.
- iii. In case of delayed failure i.e., failure due to construction but reported during maintenance period after the defaulting Contractor/Concessionaire has been demobilised, action shall be taken against the concerned Contractor/Concessionaire/Consultant only.
- iv. In case of lack of clarity in cost of structure the latest normative cost norms issued by MoRTH shall be adopted.

1.4 For each repeated lapse by the firm, the penalty for the subsequent offence shall be enhanced by an additional 50% as compared to penalty imposed in the previous instance applicable against the category of penalty under consideration.

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(Sheo Shankar Jha) CGM (Coord.)

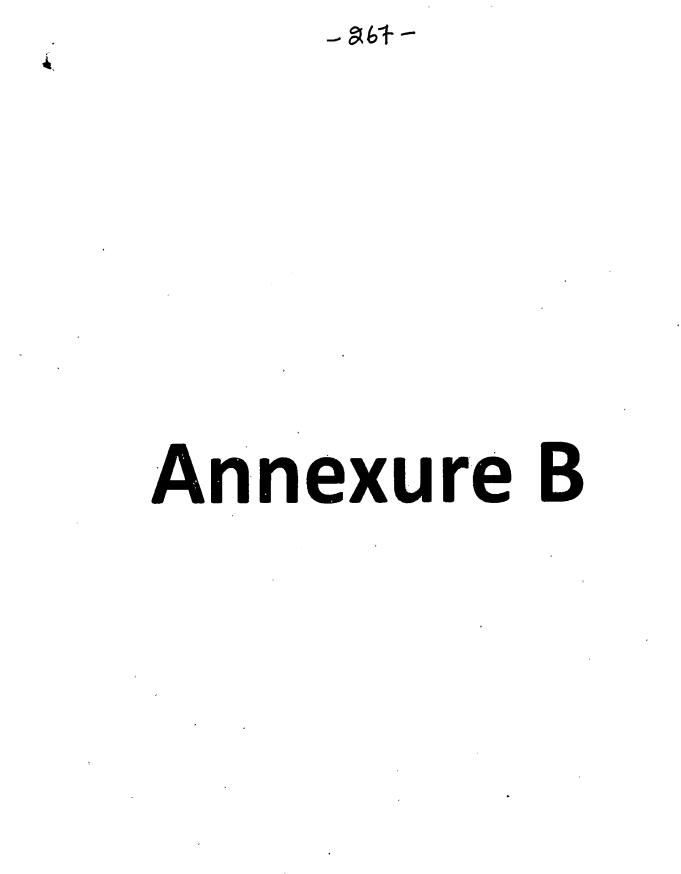
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### All officers of NHAI HQ/ROs/PIUs/CMUs/Site Offices

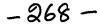
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भारतीय राष्ट्रीय राजमार्ग प्राधिकरण (सडक परिवहन और राजमार्ग मंत्रालय)

दूरभाष / Phone : 91-11-25074100/25074200 फेक्स / Fax : 91-11-25093507 /¹ 25093514

### National Highways Authority of India

(Ministry of Road Transport and Highways) जी-5 एवं 6, सेक्टर-10, द्वारका, नई दिल्ली-110075 G-5 & 6, Sector-10, Dwarka, New Delhi-110075

### NHAI/Policy Guidelines/Non-Performer & Debarment/2022 Policy Circular No. 16.12/2022 dated 18th January, 2022 {Decision taken on E-Office File No: NHAI/SRD&Q/207/2021 (Comp No. 96182)}

Sub: Standard Operating Procedure to debar/penalize/declare as Non-Performer the Authority's Engineer/Independent Engineer/Construction Supervision Consultant/Project Management Consultant in National Highways and centrally sponsored road projects.

It has been noticed that in many cases there are lapses on the part of the Authority's Engineer (AE)/Independent Engineer (IE)/Construction Supervision Consultant (CSC)/Project Management Consultant (PMC) in fulfilling their obligations under the contract as per provisions of contract agreement that lead to delay/acceptance of sub-standard works leading to premature distress/failure during construction.

2. In order to ensure construction of roads as per standard and specifications laid down in contract/concession agreement and to avoid project delays, it has been decided to debar/penalize/declare as Non-Performer the Authority's Engineer (AE)/Independent Engineer (IE)/Construction Supervision Consultant (CSC)/Project Management Consultant (PMC) for their lapses/deficiencies in services in National Highways and centrally sponsored road projects as detailed herewith on the same lines as issued vide MoRTH circular File No. RW/NH-33044/76/2021-S&R (P&B) dated 07.10.2021 and letter of even No. dated 04.01.2022.

3. This policy Circular supersedes the NHAI Policy Circular No. 18.63/2021 dated  $08^{\rm th}$  January,2021

4. **Provisions for Penal Action**:

4.1 Following penal actions shall be taken against the Authority's Engineer (AE)/ Independent Engineer (IE)/Construction Supervision Consultant (CSC)/Project Management Consultant (PMC) in case of lapses on their part/deficiencies in services provided: -

SI. Type of Deficienc	y Action to be taken against Cons (IE/AE/CSC/PMC) engaged during con maintenance.	
	Key Personnel Firm	า
<ul> <li>1(a) Failure to detect design deficiency in <u>Components</u></li> <li>(b) Failure to issue follow up to contractor/concession delays in closure of NCRS in furnishing detail of tim claims/COS/revised programmes / methodologies, etc.</li> </ul>	Non-key instances, key to be kept on personnel may be ii. Thereafter, a ponotices kept on "watch list". penalty of 1 naire for Thereafter, the consultancy S, delays concerned key aggregate	watch list. a monetary 1% of the fee (the of such a contract exceed the

18

SI. No.	Type of Deficiency	(IE/AE/CSC/PMC) eng	en against Consultant aged during construction & ntenance.
		Key Personnel	Firm
(c)	Delays or submission of improper MPRS, improper review of methodologies, temporary works, QA plan/manual, O&M plan/ Manual etc.	debarred up to 6 months.	declaring the consultant as Non-Performer upto 6 months or till rectification of deficiencies # and taking adequate measures not to repeat such instances in future, whichever is earlier.
2(a)	Failure to detect design/quality deficiency in Key Component** not having substantial cost (below 1% of civil work (cost) and /or time implication (below 5% or project completion period)	The concerned key personnel & Team Leader to be removed from the project and debarred up to 1	Declaring the Consultant as Non-Performer upto 1 year or till rectification of
(b)	Failure to detect deficiency in quantity executed vis-à-vis design not having substantial financial implication (below 1% of civil work cost).	year.	future, whichever is earlier.
(C)	Failure to conduct/witness tests as prescribed in the consultancy contract agreement.		
(d)	Delay in processing EOT/COS proposals, inaccurate assessment of COS proposals, not issuing NCRs, delays/improper review of designs/drawings/work programme or failure to submit Completion/ Provisional Completion Certification as prescribed in contract.		
3(a)	quantity executed vis-à-vis design having substantial financial implication (1% of civil work cost or more)	personnel & Team Leader to be removed from the project and	deficiencies and taking adequate measures not to repeat such instances in future, the consultant to be
(b)	deficiency in Key Component having substantial cost (1% of civil work cost or more) and/or time implication (5% of project completion period or more)	years.	debarred up to 2 years.
(c) ⁻			
		102	

51. No.	Type of Deficiency	Action to be taken against Consultant (IE/AE/CSC/PMC) engaged during construction & maintenance.								
		Key Personnel	Firm							
	underpasses/overpasses/ ROB/RUB etc.	19. <i>F 1</i> 9. F	a and a second							
(đ)	Failure to propose action (like cure period notice, levy of damages, etc.) on contractor/concessionaire as per contract agreement for their default/ poor progress having material adverse effect on the project implementation in terms of cost (1% of civil work cost or more) and/ time (5% of project completion period or more).									
(e)	Improper/wrong interpretation of provision in contract agreement; or wrong certification of payment/COS value/cost & time claims; or poor performance of services leading to cost (1% of civil work cost) and/or time (5% of project completion period) claims against NHAI awarded by DRB/CCIE/Arbitration/ Court.		1964 (Prof. , , , , , , , , , , , , , , , , , , ,							

- i) Foundation, sub-structure and super-structure of flyovers, road over bridges, road under bridges, vehicular underpasses, vehicular over passes, major bridges, minor bridges, etc.
- ii) Tunnels

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- iii) Expansion joints and bearings
- iv) RE walls/retaining walls
- v) The crust layers of flexible pavement
- vi) The crust layers of rigid pavement
- vii) Embankment and slope protection
- viii) Issues affecting road safety
- Any other work endangering/impacting stability/reliability/durability/performance of pavement/structures.

*The items not covered in above list shall be in the category of Non-key components. # Excluding the delay solely attributable to the contractor beyond stipulated time.

4.2 The following penal actions shall be taken in case of any reports on failure of structures after ensuring proper investigation.

Sr.	Type of Failure	Consultant									
No.		Firm	Key Personnel								
(i)	Minor failure of structures/ highway due to design/ construction/ maintenance defect wherein no casualties are reported.	Token penalty of Rs. 5 lakhs on consultancy firm engaged during construction/maintenance besides issuing written warning.	The key personnel may be kept on watch list for any future recurrence besides issuing written warning.								
(ii)	Major failure of structures/ highway due to design/ construction/ maintenance defect wherein no casualties are reported.	Monetary penalty of Rs. 20 lakhs on consultancy firm engaged during construction/ maintenance and/or Debarment upto 1 year	Debarment of concerned key personnel uplo 2 years in NHAI works.								
(111)	Major failure of structures/ highway due to construction/ maintenance defect leading to loss of human lives besides loss of reputation etc.	Monetary penalty of Rs. 40 lakhs on consultancy firm engaged during construction/ maintenance and/or Debarment up to 2 years	Debarment upto 3 years								

Note:

- (i) The term Consultant refers to Authority Engineer, Independent Engineer, DPR/ Design Consultant, Proof Consultant & Safety Consultant.
- (ii) In case of delayed failure i.e., failure due to construction but reported during maintenance period after the defaulting Consultant has been demobilised, action shall be taken against the concerned Consultant only.
- (iii) For each repeated lapse by the firm, the penalty for the subsequent offence shall be enhanced by an additional 50% as compared to penalty imposed in the previous instance applicable against the category of penalty under consideration.
- (iv) In case the outcome of investigation is unclear or on the basis of conjectures, no action on debarment shall be taken and only suitable monetary penalty shall be imposed on all consulting firms engaged in construction/ maintenance.

5. Frequency of reporting shall be monthly by PD for each project based on which RO shall report to Member on actions to be taken on Consultants.

- 6. Amendments shall be made in provisions of Model Request for proposal (RFP)
- (i) For appointment of Authority's Engineer (AE) as per Annexure-1 & Appendix-N referred therein.

- (ii) For appointment of Independent Engineer (IE) as per Annexure-2&Appendix, N referred therein.
- (iii) For appointment of Project Management Consultant (PMC) as per Annexure-3 & Appendix-K referred therein.
- (iv) In respect to RFP for Construction Supervision Consultant (CSC) the appropriate clause may be incorporated.

7. Before deciding an AE/IE/CSC/PMC as Non-Performer or debarring/penalizing it, the concerned Technical division shall issue a notice to the AE/IE/CSC/PMC by giving 15 days' time to furnish its written reply and allow personal hearing if so desired by the AE/IE/CSC/PMC before Member concerned. Such a notice shall not be issued without the approval of an officer not below the rank of the Chief General Manager (CGM). In case of projects where public safety is endangered by the behavior/conduct/action of the consultant the authority may temporarily suspend the consultant from participating in ongoing/future bidding upto 1 month period during which the regular process of debarment shall be concluded.

8. The Competent Authority for approval of penal action as above will be the Chairperson, NHAI.

9. The firm/individuals on which penal/deterrent action is taken may represent to the "Reviewing Authority" against the action/penalty imposed. The "Reviewing Authority" shall be the Executive Committee (EC).

### 10. Provisions related to Debarment:

4

10.1 Upon declaration of non-performer, the AE/IE/CSC/PMC will not be able to participate in any bid for National Highways projects with MoRTH or its executing agencies till such time the debarment persists or the AE/IE/CSC/PMC is removed from the list of non-performers. In bidding for a particular project, bids from only such firms should be considered for placement of contract, which are neither debarred on the date of opening of tender nor debarred on the date of issue of Letter of Acceptance (LoA). Contracts concluded before the issue of the debarment/declaration as non-performer order shall, not be affected by the debarment order (s) issued subsequently.

**10.2** In case, any debarred/declared non-performer firms submits the bid, the same will be ignored. In case such firm is lowest (L-1), next lowest firm shall be considered as L-1. Bid security submitted by such debarred/declared non-performer firms shall be returned to them.

**10.3** Debarment/declaration as non-performer of a particular firm shall automatically extend to all its allied firms. In case a joint venture/consortium is debarred, all partners/ members shall stand debarred for the entire period.

11. Upon declaration of non-performer/debarment of any agency (Consultant)/key personnel, concerned division shall notify the details on Data lake portal for maintaining the record/data related to debarment/non-performer. IT Division will act as Nodal Division and upload/update the list of Non Performing/Debarred agencies/Key Personnel on NHAI website. It is clarified that concerned division is responsible for uploading the data on Data-lake portal for maintaining the record. Details regarding non-performer/debarment shall be notified to SRD&Q Division through e-office file and shall be provided in the following format with Non-Performer/debarment order document:

SI	Name of Consulting of irm declared as Non-	performer/debarre	Non- performer/debarmen t order dacument
	Performer/debarre		
	d		
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2		ուտ է ճորելու անցելու տես է է է է է է է է է է է է է է է է է է է	 Man - Sang ang at g ang a na - na at g anna na pinanan Mar antari na a

12. Initially all Technical Divisions shall upload the details of Non-performing/debarred agencies (Consultant)/ key personnel, if any, on Data-Lake portal within 4 working days of issue of this circular.

13. This issues with the approval of the Competent Authority.

Encl.: As stated above

18 01 22

(Sanjay Kumar Patel) General Manager (Coord.)

To:

All Officers of NHAI HQ/ ROs/ PIUs/ CMUs/ Site Offices

Copy to:

- 1. Hindi Officer for translation in Hindi.
- 2. Library for hosting the circular on library site.
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भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सङ्क परिवहन और राजमार्ग मंत्रालय)

दूरभाष / Phone : 91-11-25074100/25074200 फैक्स / Fax : 91-11-25093507 / 25093514

ANNEXURE -27

National Highways Authority of India

(Ministry of Road Transport and Highways) जी-5 एवं 6, सेक्टर-10, द्वारका, नई दिल्ली-110075 G-5 & 6, Sector-10, Dwarka, New Delhi-110075

### NHAI/Policy Guidelines/Non-Performer & Debarment/2022 Policy Circular No. 16.12/2022 dated 18th January, 2022 [Decision taken on E-Office File No: NHAI/SRD&Q/207/2021 (Comp No. 96182)]

Sub: Standard Operating Procedure to debar/penalize/declare as Non-Performer the Authority's Engineer/Independent Engineer/Construction Supervision Consultant/Project Management Consultant in National Highways and centrally sponsored road projects.

It has been noticed that in many cases there are lapses on the part of the Authority's Engineer (AE)/Independent Engineer (IE)/Construction Supervision Consultant (CSC)/Project Management Consultant (PMC) in fulfilling their obligations under the contract as per provisions of contract agreement that lead to delay/acceptance of sub-standard works leading to premature distress/failure during construction.

2. In order to ensure construction of roads as per standard and specifications laid down in contract/concession agreement and to avoid project delays, it has been decided to debar/penalize/declare as Non-Performer the Authority's Engineer (AE)/Independent Engineer (IE)/Construction Supervision Consultant (CSC)/Project Management Consultant (PMC) for their tapses/deficiencies in services in National Highways and centrally sponsored road projects as detailed herewith on the same lines as issued vide MoRTH circular File No. RW/NH-33044/76/2021-S&R (P&B) dated 07.10.2021 and letter of even No. dated 04.01.2022.

3. This policy Circular supersedes the NHAI Policy Circular No. 18.63/2021 dated  $08^{\rm th}$  January,2021

### 4. **Provisions for Penal Action:**

4.1 Following penal actions shall be taken against the Authority's Engineer (AE)/ Independent Engineer (IE)/Construction Supervision Consultant (CSC)/Project Management Consultant (PMC) in case of lapses on their part/deficiencies in services provided: -

SI. No.	Type of Deficiency	(IE/AE/CSC/PMC) eng ma	ken against Consultant gaged during construction & intenance.
	Failure to detect design/quality deficiency in Non-key Components* Failure to issue follow-Up notices to contractor/concessionaire for delays in closure of NCRS, delays in furnishing detail of time & cost claims/COS/revised work programmes / work methodologies, etc.	instances, key personnel may be kept on "watch list". Thereafter, the concerned key personnel & Team Leader to be	<li>ii. Thereafter, a monetary penalty of 1% of the consultancy fee (the aggregate of such penalties in a contract would not exceed the</li>

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SI. No.	Type of Deficiency	(IE/AE/CSC/PMC) eng	ken against Consultant aged during construction & ntenance.
		Key Personnel	Firm
(c)	Delays or submission of improper MPRS, improper review of methodologies, temporary works, QA plan/manual, O&M plan/ Manual etc.	debarred up to 6 months.	declaring the consultant as Non-Performer upto 6 months or till rectification of deficiencies # and taking adequate measures not to repeat such instances in future, whichever is earlier.
2(a)	Failure to detect design/quality deficiency in Key Component** not having substantial cost (below 1% of civil work (cost) and /or time implication (below 5% or project completion period)	personnel & Team Leader to be	Declaring the Consultant as Non-Performer upto 1 year or till rectification of deficiencies # and taking
(b)	Failure to detect deficiency in quantity executed vis-à-vis design not having substantial financial implication (below 1% of civil work cost).	year.	future, whichever is earlier.
(c)	Failure to conduct/witness tests as prescribed in the consultancy contract agreement.		
(d)	Delay in processing EOT/COS proposals, inaccurate assessment of COS proposals, not issuing NCRs, delays/improper review of designs/drawings/work programme or failure to submit Completion/ Provisional Completion Certification as prescribed in contract.		
3(ā)	Failure to detect deficiency in quantity executed vis-à-vis design having substantial financial implication (1% of civil work cost or more)	personnel & Team Leader to be removed from the project and	deficiencies and taking adequate measures not to repeat such instances in future, the consultant to be
(b)	Failure to detect design/quality deficiency in Key Component having substantial cost (1% of civil work cost or more) and/or time implication (5% of project completion period or more)	years.	debarred up to 2 years.
(c)			
		62	

51. No.	Type of Deficiency	Action to be taken against Consultant (IE/AE/CSC/PMC) engaged during construction & maintenance.								
		Key Personnel	Firm							
	underpasses/overpasses/ ROB/RUB etc.	2 <b>-</b> -								
(d)	Failure to propose action (like cure period notice, levy of damages, etc.) on contractor/concessionaire as per contract agreement for their default/ poor progress having material adverse effect on the project implementation in terms of cost (1% of civil work cost or more) and/ time (5% of project completion period or more).									
(e)	Improper/wrong interpretation of provision in contract agreement; or wrong certification of payment/COS value/cost & time claims; or poor performance of services leading to cost (1% of civil work cost) and/or time (5% of project completion period) claims against NHAI awarded by DRB/CCIE/Arbitration/ Court.		• • • •							

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Note ** Key Components are specified as under:

- i) Foundation, sub-structure and super-structure of flyovers, road over bridges, road under bridges, vehicular underpasses, vehicular over passes, major bridges, minor bridges, etc.
- ii) Tunnels

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- iii) Expansion joints and bearings
- iv) RE walls/retaining walls
- v) The crust layers of flexible pavement
- vi) The crust layers of rigid pavement
- vii) Embankment and slope protection
- viii) Issues affecting road safety
- ix) Any other work endangering/impacting stability/reliability/durability/performance of pavement/structures.

*The items not covered in above list shall be in the category of Non-key components, # Excluding the delay solely attributable to the contractor beyond stipulated time.

4.2 The following penal actions shall be taken in case of any reports on failure of structures after ensuring proper investigation.

Sr.	Type of Failure	Consu	ltant				
No.		Firm	Key Personnel				
(i)	Minor failure of structures/ highway due to design/ construction/ maintenance defect wherein no casualties are reported.	Token penalty of Rs. 5 takhs on consultancy firm engaged during construction/maintenance besides issuing written warning.	The key personnel may be kept on watch list for any future recurrence besides issuing written warning.				
(11)	Major failure of structures/ highway due to design/ construction/ maintenance defect wherein no casualties are reported.	Monetary penalty of Rs. 20 lakhs on consultancy firm engaged during construction/ maintenance and/or Debarment upto 1 year	Debarment of concerned key personnel upto 2 years in NHAI works.				
(iii)	Major failure of structures/ highway due to construction/ maintenance defect leading to loss of human lives besides loss of reputation etc.	Monetary penalty of Rs. 40 lakhs on consultancy firm engaged during construction/ maintenance and/or Debarment up to 2 years	Debarment upto 3 years				

Note:

K.

- (i) The term Consultant refers to Authority Engineer, Independent Engineer, DPR/ Design Consultant, Proof Consultant & Safety Consultant.
- (ii) In case of delayed failure i.e., failure due to construction but reported during maintenance period after the defaulting Consultant has been demobilised, action shall be taken against the concerned Consultant only.
- (iii) For each repeated lapse by the firm, the penalty for the subsequent offence shall be enhanced by an additional 50% as compared to penalty imposed in the previous instance applicable against the category of penalty under consideration.
- (iv) In case the outcome of investigation is unclear or on the basis of conjectures, no action on debarment shall be taken and only suitable monetary penalty shall be imposed on all consulting firms engaged in construction/ maintenance.

5. Frequency of reporting shall be monthly by PD for each project based on which RO shall report to Member on actions to be taken on Consultants.

- 6. Amendments shall be made in provisions of Model Request for proposal (RFP)
- (i) For appointment of Authority's Engineer (AE) as per Annexure-1 & Appendix-N referred therein.

(ii) For appointment of Independent Engineer (IE) as per Annexure-2&Appendix-N referred therein.

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- (iii) For appointment of Project Management Consultant (PMC) as per Annexure-3 & Appendix-K referred therein.
- (iv) In respect to RFP for Construction Supervision Consultant (CSC) the appropriate clause may be incorporated.

7. Before deciding an AE/IE/CSC/PMC as Non-Performer or debarring/penalizing it, the concerned Technical division shall issue a notice to the AE/IE/CSC/PMC by giving 15 days' time to furnish its written reply and allow personal hearing if so desired by the AE/IE/CSC/PMC before Member concerned. Such a notice shall not be issued without the approval of an officer not below the rank of the Chief General Manager (CGM). In case of projects where public safety is endangered by the behavior/conduct/action of the consultant the authority may temporarily suspend the consultant from participating in ongoing/future bidding upto 1 month period during which the regular process of debarment shall be concluded.

8. The Competent Authority for approval of penal action as above will be the Chairperson, NHAL.

**9.** The firm/individuals on which penal/deterrent action is taken may represent to the "Reviewing Authority" against the action/penalty imposed. The "Reviewing Authority" shall be the Executive Committee (EC).

### 10. Provisions related to Debarment:

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10.1 Upon declaration of non-performer, the AE/IE/CSC/PMC will not be able to participate in any bid for National Highways projects with MoRTH or its executing agencies till such time the debarment persists or the AE/IE/CSC/PMC is removed from the list of non-performers. In bidding for a particular project, bids from only such firms should be considered for placement of contract, which are neither debarred on the date of opening of tender nor debarred on the date of issue of Letter of Acceptance (LoA). Contracts concluded before the issue of the debarment/declaration as non-performer order shall, not be affected by the debarment order (s) issued subsequently.

**10.2** In case, any debarred/declared non-performer firms submits the bid, the same will be ignored. In case such firm is lowest (L-1), next lowest firm shall be considered as L-1. Bid security submitted by such debarred/declared non-performer firms shall be returned to them.

**10.3** Debarment/declaration as non-performer of a particular firm shall automatically extend to all its allied firms. In case a joint venture/consortium is debarred, all partners/ members shall stand debarred for the entire period.

11. Upon declaration of non-performer/debarment of any agency (Consultant)/key personnel, concerned division shall notify the details on Data lake portal for maintaining the record/data related to debarment/non-performer. IT Division will act as Nodal Division and upload/update the list of Non Performing/Debarred agencies/Key Personnel on NHAI website. It is clarified that concerned division is responsible for uploading the data on Data-lake portal for maintaining the record. Details regarding non-performer/debarment shall be notified to SRD&Q Division through e-office file and shall be provided in the following format with Non-Performer/debarment order document:

SL. No	Name of Consulting firm declared as Non- Performer/debarre	Non- performer/debarre d from the date	Non- performer/debarre d upto the date	Non- performer/debarmen t order document	The second at the second design of the second desig
1	d	· · · · · · · · · · · · · · · · · · ·		• • • • • • • • • • • • • • • • • • •	

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12. Initially all Technical Divisions shall upload the details of Non-performing/debarred agencies (Consultant)/ key personnel, if any, on Data-Lake portal within 4 working days of issue of this circular.

13. This issues with the approval of the Competent Authority.

Encl.: As stated above

(Sanjay Kumar Patel) General Manager (Coord.)

To:

All Officers of NHAI HQ/ ROs/ PIUs/ CMUs/ Site Offices

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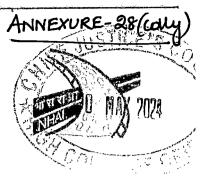
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### भारतीय राष्ट्रीय राजमार्ग प्राधिकरण (सड़क पारिबहन और राजमार्ग मंत्रालय, भारत सरकार) National Highways Authority of India (Ministry of Road Transport and Highways, Government of India) परियोजना कार्यान्वयन इकाई / Project Implementation Unit एन.एच.ए.आई. कॉम्प्लेक्स, नेउलपुर, चंडीखोल, जाजपुर - ७५५०२४ (ओड़िशा) NHAI Complex, Neulpur, Chandikhole, Jajpur-755024 (Odisha) दूरभाष / Tel: 06725 - 291479 ई-मेल /e-mail : nhaichandikhole@gmail.com, piuchandikhole@nhai.org NHAI/11014/8/2024/PIU/CDL/7-8



January 2024

Τo,

The Authorized Signatory, M/s DBL Chandikhole Bhadrak Highway Limited, Plot No.5, Inside Govind Narayan Singh Gate, Chuna Bhatti, Kolar Road, Bhopal, Madhaya Pradesh 462016. db@dilipbuildcon.co.in; dblchandikholebhadrak@dilipbuildcon.co.in; maintenance.chandikholbhadrak@dilipbuildcon.co.in

Sub.: Rehabilitation and Upgradation to Six-Laning of Chandikhole – Bhadrak Section of NH-5 (New NH-16) from Km 62.000 to Km 136.500 in the State of Odisha to be executed as Hybrid Annuity Project under NHDP Phase V – <u>Collapse of span</u> <u>A1-P1 of bridge at km.79.614 - Reg.</u>

Sir,

This is in reference to your reply vide letter no.125 dated 21.11.2023 on the subject matter which was forwarded to NHAI HQ for consideration.

As your submission does not stand on merit, Competent Authority has decided vide E-office No. Comp. No.:217193 that the cost of entire remedial measures / reconstruction including cost of DPR preparation for the affected bridge shall be recovered from the existing Concessionaire, M/s DBL Chandikhole Bhadrak Highways Limited, developer of the Project which is in O&M stage at present as per the following provision of Concession Agreement;

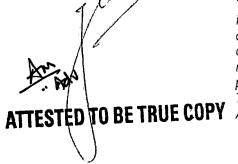
(i) As per clause 17.1.1 of the Concession agreement

"During the operation period, the Concessionaire shall operate and maintain the Project in accordance with this Agreement either by itself, or through the O&M Contractor and if required, modify, repair or otherwise make improvements to the project to comply with the provisions of the Agreement, Applicable Laws and Applicable Permits and confirm to Specifications and Standards and Good Industry Practice." The relevant Clause of Concessionaire Agreement is attached below.

(ii) As per Schedule-K of Concessionaire Agreement

" The Concessionaire shall, at all times, operate and maintain the Project in accordance with the provisions of the Agreement, Applicable Laws and Applicable Permits. In particular, the Concessionaire shall, at all times during the operation period, conform to the maintenance requirements set forth in this Schedule-K (the "Maintenance Requirements")

The Concessionaire shall repair or rectify any defect or deficiency set forth in Paragraph 2 of this Schedule-K within the time limit specified therein and failure in this behalf shall constitute a breach of Agreement. Upon occurrence of any breach hereunder, the Authority shall be entitled to recover Damages as set forth in Clause 117.8 of the Agreement, without prejudice to the rights of the Authority under the Agreement, including Termination thereof." The relevant Schedule K of Concessionaire Agreement is attached below.



(iii) As per Clause 14 (b) of Schedule-B of Concessionaire Agreement

"The rehabilitation and repair of the existing bridge at Km. 79,700 (RHS) was in the scope of the Concessionaire. Further in the foot note of the table under 14 (b) of Schedule B, it is mentioned that "If existing structure during investigation is found structurally unsafe to cater design loads as per current applicable code, the same shall need to be reconstructed/rehabilitated to made it safe to carry design loads. This does not constitute any change of scope."

This is for your information and necessary action.

Yours sincerely,

Verma) (J. Project Director

Copy to:1. Regional Officer, NHAI-Odisha at Bhubaneswar for favour of information 2. GM(Tech.)-Odisha, NHAI HQ for favour of information



-282-भारतीय राष्ट्रीय राजमार्ग प्राधिकरण (सड़क पारिबहन और राजमार्ग मंत्रालय, भारत सरकार) National Highways Authority of India (Ministry of Road Transport and Highways, Government of India) परियोजना कार्यान्वयन इकाई / Project Implementation Unit एन.एच.ए.आई. कॉम्प्लेक्स, नेउलपुर, चंडीखोल, जाजपुर - ७५५०२४ (ओड़िशा) NHAI Complex, Neulpur, Chandikhole, Jajpur-755024 (Odisha) दूरभाष / Tel : 06725 - 291479 ई-मेल /e-mail : nhaichandikhole@gmail.com, piuchandikhole@nhai.org



NHAI/11014/8/2024/PIU/CDL/77

January, 2024

Τo,

The Authorised Signatory,
 M/s.Gammon India Limited,
 GAMMON HOUSE,
 Veer Savarkar Marg,
 P.O. Box No.9129,
 Prabhadevi,
 Mumbai-400025.
 Email: gammon@gammonindia.com

Sub.: Widening to 4/6 lanes and strengthening of existing 2 lane carriageway (Bridges, Flyovers and ROB) of NH-5 from KM 61.000 to KM 199.141 (Chandikhole-Baleshwar) in the State of Orissa - contract package - OR V-Collapse of span A1-P1 of bridge at km.79.614 - Reg.

Sir,

This is in reference to your reply vide letter no.81 dated 17.11.2023 on the subject matter which was forwarded to NHAI HQ for consideration.

As your submission does not stand on merit, Competent Authority has decided to impose penalty for a sum of Rs.5 crore as per NHAI policy circular NO.18.63/2021 dated 08.01.2021 considering the lapses in execution of bridge work which is a major failure in this case as observed by the Expert Committee.

It is therefore, requested to deposit the penal amount in the following NHAI Account within a week from issuance of this letter;

Canara Bank A/c No.- 80102200065615 IFSC- CNRB0018051 Branch - Chandikhole

Yours sincerely, (J. P Verma) Project Director

Copy to:1. Regional Officer, NHAI-Odisha at Bhubaneswar for favour of information 2. GM(Tech.)-Odisha, NHAI HQ for favour of information

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भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय)

National Highways Authority of India

(Ministry of Road Transport and Highways) जी-5 एवं 6, सेक्टर-10, द्वारका, नई दिल्ली-110075 G-5 & 6, Sector-10, Dwarka, New Dalhi-110075

### NHAI/NHDP-V/Tech/OR/2017/Chb/107874

То

All Bidders,

Name of work: Rehabilitation & Upgradation of four lane to Six Laning of Chandikhole - Bhadrak (km.62.000 to km.136.500) Section of NH-5 in the State of Orissa to be executed on Hybrid (Annuity) Mode - Reply of pre-bid queries - Reg.

### Amendment No. 2

This is with reference to request for proposal invited on 06.09.2017 for the subject project.

- In this regard, please find enclosed herewith reply of pre-bid queries. 2.
  - (i) Reply to pre-bid queries - Annexure - I
  - (ii) TCS - Annexure -II
  - (iii) GAD - Annexure-III
  - (iv) Circular dt. 16.03.2017 for BG Format - Annexure - IV.
  - State Government Agreement scanned Copy Annexure V. (V)
  - (vi)
  - Geo-Tech Report Annexure-VI Corrigendum I (Schedule B)- Annexure-VII. (vii)
  - Addendum I (Schedule D) Annexure VIII. (viii) (ix)
  - Revised Financial Sheet on the Estimated project Cost of Rs. 1210.55 Cr instead of previous Estimated Cost of Rs. 1211.92 Cr.

Other conditions will remain same.

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(Vishnu Murti) General Manager (T) OR



# ANNEXURE - 29

द्राभाष / Phone : 91-11-25074100/25074200 फेक्स/ Fax : 91-11-25093507 / 25093514

Dt. 01.11.2017

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Annexure - I

- 284

SI. No:	Clause	Original Clause in the Tender Document	Clarification / Suggestion by Bidder	NHAI Reply
Gene	ral			
1	Land Acquisition		Kindly give detail LA status as on date	As per clause 23 foot note of Schedule-B
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Schedule B TCS Drawings		TCS drawings referred are not available in the Schedule. Please provide.	TCS are attached as Annexure – II.
	Schedule B Plan and Profile		Not provided. Please provide the same.	Bidders are required to assess at their own keeping in view design standards / manual HFL with approval of IE as per schedule B, C D & Strip plan.
4	Schedule B GAD Drawings		Detail drawing required.	GAD's are attached as Annexure - III which are reference only Bidders has to design as per provisions of Schedules/Standard manual.
5.	Article-10, 10.3,2	10.3.2 Without prejudice to the provisions of Clause 10.3.1, the Parties hereto agree that on or prior to the Appointed Date, the Authority shall have granted vacant access and Right of Way such that the Appendix shall not include land which shall in any manner prevent the Concessionaire from undertaking construction of the Project to the extent of at least 80% (eighty per cent) of the length thereof	 priysical possession of tand in terms of area required for construction of at least 80% of the length of the project lead to cost and time overruns. Some projects awarded with 3D notified land, and 3G in process, would delay project timelines thereby resulting in cost overrun. ✓ Right of Way to the provided for the complete area required to undertake construction, and not linear length alone, on 	NHAI shall fulfill its contractual obligation as per Agreement: As per RFP
	Article-16, 16.6.1, II	16.6 Reduction in Scope of the Project 16.6.1 II: The civil cost of the reduced Scope shall be multiplied by the 1.07 to arrive at the estimated cost of reduced Scope.	Reduction in scope as per the revised provision includes multiplication by 1:07. Due to this, the milestone payments change accordingly which might result in cost overrun during construction period, and lower amount of annuity during	As per RFP

Pane 1 of 5

State Early kinding does not have dired correlation with Bark Pale as a hold for meeting long term obligations. State 23.6 4 Interest stal be due and payable on the increase of 0.25%. Stross the MCIR rates of values of values of values inskes are in the range of 9.25%. Stross the MCIR rates of values of values inskes are in the range of 9.25%. Stross the MCIR rates of values of values inskes are in the range of 9.25%. Stross the MCIR rates of values inskes are in the range of 9.25%. Stross the MCIR rates of values of values inskes are in the range of 9.25%. Stross the MCIR rates of values inskes are would be higher on account of credit risk trends of values of values inskes are would be higher on account of credit risk trends of Values of Valu	SI. No	Clause	Original Clause In the Tender Document	Permission of Adams in the Piddel	NHAI Reply
B 23.8 23.8 Mobilization Advance Format of Bank for calculation of average rate) The format of BG towards mobilization Advance is not provided. B 23.8 23.8 Mobilization Advance Format of Bank Cuarantee towards Mobilization Advance is not provided. The format of BG towards mobilization advance is available on NHAI website circular inc. B 23.8 23.8 Mobilization Advance Format of Bank Cuarantee towards Mobilization Advance is available on NHAI website circular inc. B 23.8 23.8 Mobilization Advance With the draft format of Bank Guarantee for Mobilization Advance The Mobilization Advance The Mobilization Advance Multichte bilization Advance 3 23.8 23.8 With the Mobilization Advance the advected by the Authority in 4 (four) equal installment form each of the payments to be made by the Authority in the provisions of Clause 23.4 and the interest thereon shall be recovered as the system of Construction Support by Authority there is a risk of payment to be reduced with every payment made by Authority for a for a first advection of BG by the Authority in the date of recovery of the 4th (fourth) and final installment upon expiry of 120 (one hundred and twenty) days commercing from the date of recovery of the 4th (fourth) equal installered to Construction Support as it gets reduced by one-fourth of Mobilization Advance taken by Concessionaire (Payment 1 to Payment 4). As per RFP.	15 (10) 32 (10	23.8	interest rate equal to the applicable Bank R plus 3% (three per cent). Such interest shall due and payable biangually along with ac	Current Bank Rate is 6.25%, implying that the interest on annuit would be 9.25%. Since the MCLR rates of various banks are in the range of 9.25%. Since the MCLR rates of various banks are in in the range of 9.25%. 9.75%, the effective interest of loans would be higher on account of credit risk premium. This would lead to negative carry on cash flows of the project which might cause liquidity constraints. ✓ Spread to be increased to 5% in case the linkage is maintained with Bank Rate as declared by RBI OR Average 1-year MCLR of a set of 5 banks (irrespective of banks participating in financial close) which a second of off upped	S d As per RFP
Orand/Whole provisions of clause 23.4 and the interest thereon shall be recovered as the 5 th (fifth) and final instalment upon exprive of 120 (one hundred and twenty) days commencing from the date of recovery of the 4 th (fourth) instalment. BG amount to be reduced with every payment made by Authority As per RFP. Orand/Whole Orand/Whole Orand/Whole Multiple and twenty) days commencing from the date of recovery of the 4 th (fourth) instalment. Advance taken by Concessionaire (Payment 1 to Payment 1 to Payment 4). As per RFP. Instalment. Instalment. Attrix State Support Agreement The Concessionaire acknowledges that it has a set of the text is the set. Attrix state Support Agreement The Concessionaire acknowledges that it has a set of the concessionaire (Payment 1). Instalment (Payment 1)			23.8 Mobilization Advance The Mobilization Advance shall be deducte by the Authority in 4 (four) equal instalment from each of the payments to be made by the Authority to the Concessionaire in accordance	banks for calculation of average rate) Format of Bank Guarantee towards Mobilization Advance is not provided. Please provide the draft format of Bank Guarantee for Mobilization Advance. d With the Mobilization Advance recoverable decreasing with every payment of Construction Support by Authority, there is a risk of payment to be made by lenders to the time of the PC and	The format of BG towards mobilization advance is available on NHAI website circular no. NHAI/2017/HAM/CGM (F) dt. 16.03.2017 as
			41.17 State Support Agreement	e Case of invocation of BG by the Authority. BG amount to be reduced with every payment made by Authority related to Construction Support as it gets reduced by one-fourth of Mobilization Advance taken by Concessionaire (Payment 1 to Payment 4).	As per RFP

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	SI: No.	Clause	Original Clause in the Tender Document	Clarification / Suggestion by Bidder	NHAI Reply
	11	Article 42 Definition	"Total Project Cost" means 60% (sixty percent) 9 of the Bid Project Cost specified in Clause 23.1: 9 In case 50% (fifty percent) is substituted in Clause 23.3.1. 100%-such substituted figure may be specified here.	The footnote 9 is not clear to understand of the bidders, the same may kindly be elaborated in detail.	The footnote may be ignored for the purposes of this agreement.
		Schedule-B, 13(b), Note No. 11	 13. Major Bridges (b) Details of Major Bridges to be Repaired and Rehabilitated 1.1 If existing structure during detailed investigation is found structurally unsafe to cater design loads as per current applicable code; the same shall need to be reconstructed / rehabilitated to make it safe to carry design loads. This does not constitute any change of 	Request the Authority to kindly provide the details of the Major Bridges to be Repaired / Rehabilitated i.e. to confirm whether all the bridges are designed for 385 tonnes Special Vehicle as per MORTH Circular No. RW:NH:35075/9/2006. S&R (B), if not, whether all the existing bridges needs to be dismanted and to be newly constructed as per the above mentioned codal provisions.	Existing Structure shall be investigated as per respective codal design and footnote 11 shall be presumed superseded with the clause 16 of Schedule – B.
¥	13	Schedule-B, 21	Scope. 21. Corrosion Protection for Reinforcement Considering aggressive environment corrosion protection to reinforcement shall be provided by Fusion Bonded Epoxy Coating as per MORT&H Circular No. RW/NH-34041/44/91- S&R dated 14th/21st March 2000 and conforming to IRC:SP:80-2008 "Guidelines for Corrosion Prevention, Monitoring and Remedial Measures for Concrete Bridge Structures" and conforming to IS:13620:1993 and ASTM A775/775M.	As per NHAI Circular No. 1.1041/218/2007-Admin dated 03.03.2010 regarding use of Fusion Bonded Epoxy Coating, it has been mentioned that the Fusion Bonded Epoxy Coating Plant shall be available within a distance of 300 Km from the Bridge Site. As per our knowledge the plant as per the above provision is not available within a distance of 300 Km from Project Highway. In view of the above, it is requested to Authority to waive the above requirement of 300 Km distance.	As per RFP.
	14	Schedule-B, 22	22. Proposed Right of Way Detail of proposed ROW is listed below. Note: (i) NHAI intend to have present ROW as indicated in para 23. (ii) The agency shall be provided adequate land as per the applicable Cross Section (iii) Endeavour shall be made to adopt the cross section as per the Schedule, manual and site keeping in view, the minimum land requirement.	Bidders may kindly be allowed to design and adopt the Cross Sections as per the available Proposed Right of Way (PROW) and applicable codal provisions.	As per RFP:
wandiki	15	Schedule-B	Minor Junctions	Please clarify the scope of minor junctions,	As per RFP with the approval of Engineer & Safety Auditor.
\sim	Ne l	Schedule-B	Major Junctions	Please clarify the scope of major junctions.	As per RFP with the approval of Engineer & Safety Auditor.
1		Schedule-B	Rain water harvesting	Please clarify the scope of work for rain water harvesting structures.	As per RFP

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Page 3 of 5

No.	lause Original Clause in the Tender Docume	CC SBearen Dy Diddel	NHAI Reply
	General Land Acquisition	General Status of Land Acquisition: What is the status of land acquisition for the project? Kindly provide the following: A. Total Land required in Heclare/Sq.m/ Km for the project. B. Total Land already acquired. C. Total Land to be acquired.	NHAI shall fulfil its contractual obligations as
		D. Total Agricultural / Private / Govt. / Forest land to be acquired. Also please provide detailed schedule for handing over land to the Contractor.	per Agreement: (As per clause – 23, foot note of Schedule-B)
19	General Wildlife Clearance General	National Board for Wildlife clearance: 1) Please clarify whether the project is in or nearby Wildlife / National Park / Sanchuary / Eco sensitive Zone Land? 2) If yes, Has Authority applied for National Board for Wildlife clearance and if so please clarify the status of the same? Request the Authority to kindly provide details of Forest land to	As per RFP.
20	Forest Clearance General	Request the Authority to kindly provide details of Forest land to be diverted; if any and status of Forest Clearance, required if any. Request the Authority to kindly provide details of Environmental	As per REP.
21	Environment Clearance General	Stephanice, if any and status of Environmental Clearance, required if any. Is the Project Alignment / ROW needs Cutting / Felling of Trace 1	As per RFP.
29nd khoje	Tree Cutting / Tree Felling General	of trees in Project Alignment / ROW.	As per RFP. Bidders required ascertain on their own for their
26	Encroachment details	along the Project Highway Delay in execution of the Project Alignment // ROW due to	planning However, NHAI shall fulfill its contractual obligation as per Agreement.
Sevenud els	Pending Litigation General	pending litigations, if any, shall be treated as Political Force Majeure event and Concessionaire may kindly be compensated accordingly.	As per RFP
25 75	General Arrangement Drawings (GAD) General	CAD) for all Structures of the Project Highway.	SAD's are attached which are reference only, Bidders has to design as per provisions of elevant Schedules of RFP.
27	Plan and Profile General	regimay.	he profile shall be designed as per ISD. Compliance of design standard / Manual / HFL vilh approval of IE.
<u></u>	Typical Cross Sections (TCS)	Please provide Typical Cross Sections (TCS) of the Project Highway.	Referal s. no. 2.

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		lause	Original Clause in the Tender Document	Clarification / Suggestion by Bidder	NHAI Reply
28			General Structure Design	We presume that Concessionaire shall be allowed to submit their own designs for all the proposed project structures based on individual assessments, by any suitable method within codal provisions. Kindly clarify.	As per RFP
29			General Utility Shifting	Is the Project Alignment / ROW needs Utility shifting? (i.e. Gas/Water Pipe Lines, Sewer Lines, Electricity High Tension Line etc.) If yes, please provide scope of the same.	As per RFP
30			General Bore Hole Report	Kindly provide Bore Hole Report for structures proposed of the Project Highway.	Geo-Tech Réport is enclosed as Annexure-V for reference only. Concessionaire has to assess bidding, however, NHAI shall fulfill its obligation.
31			General DPR / Geotechnical Reports	Detailed Project Report (DPR) / Feasibility Report / Geotechnical Reports shall be provided to the Bidders for detail pre-bid study of the Project Highway.	Geo-Tech Report is enclosed as Annexure-V for reference only. Concessionaire has to assess its bid and no claim on this account is admissible.
32			General Hydrology Reports	Please provide the indicative Hydrology Report & High Flood Level (HFL) Data.	As per REP
33	<u>/ </u>		General Dates for Providing Right of Way	It is presumed that 100% required Proposed Right of Way (PROW) will be handed over on or prior to Appointed Date to the Concessionaire.	As per REP
				As Authonity is well aware that the Government of India ("GOI") has introduced Gods and Services Tax (GST) in place of VAT. Central Sales Tax and Service Tax, Excise Duty etc. w.e.f. 01.07.2017. At present, the Road Infrastructure is proposed to be taxed @ 12% Goods and Service Tax ("GST") as per revised notification dated 22 nd August 2017.	
34			General GST Impact in computation of Project Cost	GST on the following:	Bidders are expected to quote keeping in view of applicable provision of GST Act & Rules, As per RFP.
				Interest Payment on Annuity Amount Payment of Operation and Maintenance Cost IF GST is applicable on the above mentioned components, the Estimated Project Cost of NHAI mentioned in the RPF Documents may kindly be revised to that extent	
andikhole 35			Due Date Extension	A basic details / information is yet to be provided by Authority to bidders, the bidders request Authority to kindly extend the bid	As per Corrigendum issued, if any.

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-289-भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
(संड़क पारिबहन और राजमार्ग मंत्रालय, भारत सरकार)National Highways Authority of India
(Ministry of Road Transport and Highways, Government of India)
परियोजना कार्यान्वयन इकाई / Project Implementation Unit
एन.एच.ए.आई. कॉम्प्लेक्स, नेउलपुर, चंडीखोल, जाजपुर - ७५५०२४ (ओड़िशा)
NHAI Complex, Neulpur, Chandikhole, Jajpur-755024 (Odisha)
दूरभाष / Tel : 06725 - 291479
ई-मेल /e-mail : nhaichandikhole@gmail.com, piuchandikhole@nhai.orgANNEXURE - 30NHAI/11014/8/2024/PIU/CDL/7-9January, 2024

То

The Authorised Signatory, M/s.Sheladia Associates, "Amsri Classic", Flat No.1,1A,2&2A Door No.9-1-127/4 & 127/4/1, 4th Floor, S.D. Road, Secunderabad-500003, Telengana. Email:Hyderabad@sheladia.com

Sub.: Widening to 4/6 lanes and strengthening of existing 2 lane carriageway (Bridges, Flyovers and ROB) of NH-5 from KM 61.000 to KM 199.141 (Chandikhole-Baleshwar) in the State of Orissa - contract package - OR V-Collapse of span A1-P1 of bridge at km.79.614 - Reg.

Sir,

This is in reference to your reply vide letter no.03 dated 16.11.2023 on the subject matter which was forwarded to NHAI HQ for consideration.

As your submission does not stand on merit, Competent Authority has decided to debar M/s.Shelaida Associates for one year as the Expert Committee found deficiency in design of the collapsed bridge.

This is for your information.

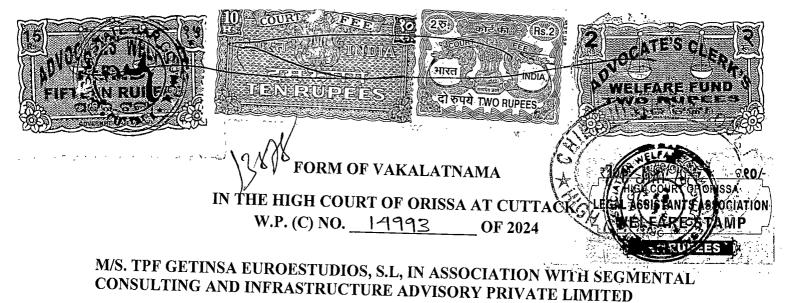
Yours sincerely,

(J. P. Verma) Project Director

Copy to:1. Regional Officer, NHAI-Odisha at Bhubaneswar for favour of information 2. GM(Tech.)-Odisha, NHAI HQ for favour of information



ATTESTED TO BE TRUE COPY



... PETITIONER

-Versus-

NATIONAL HIGHWAYS AUTHORITY OF INDIA AND ANR.

... OPPOSITE PARTIES

Know all men by these presents, that by this Vakalatnama I, Sagar Mohanty, S/o Shri Rabindra Mohanty, aged about 32 years, at present residing at K-3, 325B, Ghatikia, Near Sum Ultimate Hospital, Bhubaneswar - 751003, Petitioner/Respondent/ Opp. Party in the aforesaid Petition/Suit/Appeal/Revision, appoint and retain do hereby appoint and retain Ms. ADISHREE MISHRA, MR. NIKHILESH BARIK, MR. DUSMANT KUMAR NAIK.

Advocate(s) to appear for me/us in the above case and to conduct and prosecute (or defend) the same and all proceedings that may be taken in respect of any application connected with the same, or any decree or order passed therein including all applications for return documents or receipt of any moneys that may be payable to me/us in the said case. I/we of any moneys that may be payable to me/us in the said case. I/we of any moneys that may be payable to me/us in the said case and also in applications for review, and in appeals under Orissa High Court order and in applications for leave to appeal to Supreme Court. I/we authorise my/our Advocate(s) to admit any compromise lawfully in the said case.

Dated this 07/05/2024

Received from the executants (s). Satisfied and accepted as I hold no brief for the other side.

Adishree Mishra Advocate Accepted as above Enrl. No. D-4047/2015 Ph - + 91 9438088743 Adishree@eminencelegal.co

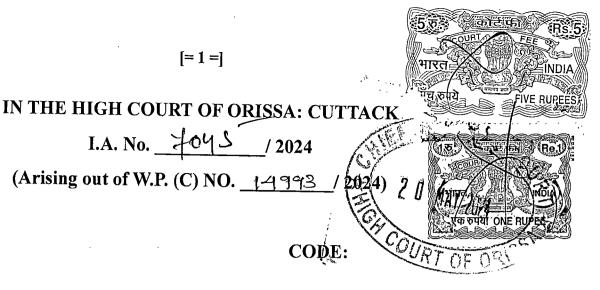
Nikhilesh BarikDusmanAdvocateAAccepted as aboveAcceptedEnrl. No. D-1617/2014Enrl. NPh - + 91 9650465656Ph - ---nikhilesh@emirencelegal.com

Ska/dile

Dusmant Kumar Naik Advocate Accepted as above Enrl. No. O-777/2012 Ph -9348261622



Signature of Executant(s)



In the matter of: An application for stay of letter dated 11.01.2024 issued by the Opposite Party No. 1 to the Petitioner, under Chapter VI Rule-27 of the Orissa High Court Rules, 1948.

In the matter of: M/s. TPF Getinsa Euroestudios, S.L, in association with Segmental Consulting Infrastructure and Advisory Private Limited

...Petitioner

Versus

1. National Highways Authority of India, Ministry of Road Transport and Highways, Government of India; and

2. Union of India, Ministry of Road Transport and Highways, Director General, Paryavaran Bhawan, 1, Sansad Marg, New Delhi -110001.

... Opposite Parties B. MISHRA NOTARY, CUTTACK ODISHA

The Hon'ble Chief Justice of the Hon'ble High Court of Orissa and His Lordship's Companion Justices of the said Hon'ble Court.

[= 2 =]

The humble petition on behalf of the Petitioner named above;

MOST RESPECTFULLY SHEWETH:

- That the Petitioner in the present writ application is praying for setting aside or quashing the letter dated 11.01.2024 bearing No. NHAI/11014/8/2024/PIU/CDL/82 issued by the Opposite Party No. 1 to the Petitioner whereby the Petitioner has been debarred for a period of 1 (one) year and has been imposed with a penalty of INR 20,00,000/- (Rupees Twenty Lakhs).
- 2. That the facts stated, averments made and the grounds taken in the writ application may kindly be considered as a part of this I.A.
- 3. That the Opposite Party No. 1, without following the due process under law of issuing a proper and unambiguous show cause notice, debarred the Petitioner for a period of 1 (one) year which has caused civil death to the Petitioner and is against the principles of natural justice. Further, the debarment imposed by the Opposite Party No. 1 is B. MISHA

NOTARY, CUTTACK ODISHA

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based on an invalid policy circular and an inconclusive inspection report issued by the expert committee constituted by the Opposite Party No. 1, which renders such debarment as illegal and arbitrary.

- 4. That further, the Petitioner has suffered from severe business losses as several bids submitted by the Petitioner for various projects with different organisations across India have been rejected due to the debarment imposed by the Opposite Party No. 1 vide its letter dated 11.01.2024.
- 5. That unless the letter dated 11.01.2024 issued by the Opposite Party No. 1 to the Petitioner debarring the Petitioner for a period of 1 (one) year is stayed, the Petitioner shall suffer irreparable loss and shall be highly prejudiced.
- 6. That the Petitioner has a strong prima facie case and the balance of convenience lies in its favour.
- 7. That in view of the aforesaid facts and circumstances it would be expedient in the interest of justice to direct that the operation of the letter dated 11.01.2024 issued by the Opposite Party No.
 1 to the Petitioner be stayed till disposal of the present writ application.

NOTARY, CUTTACK ODISHA



PRAYER

Under the facts and circumstances of the case, this Hon'ble Court may graciously be pleased to allow this application and pass necessary orders staying the operation of the letter dated 11.01.2024 bearing No. NHAI/11014/8/2024/PIU/CDL/82 issued by the Opposite Party No. 1 to the Petitioner till disposal of the present writ application and further be pleased to pass any other order/orders as may be deemed fit and proper.

And for this act of kindness, the petitioner shall as in duty bound ever pray.

CUTTACK

By the Petitioner through

Date: 20.05. 2024

Advocate

B. MISHRA NOTARY, CUTTACK ODISHA IN THE HIGH COURT OF ORISSA: CUTTACE

I.A. No. <u>104</u>5 of 2024

(Arising out of W.P. (C) No. <u>14993</u>of 2024)

In the matter of: M/s. TPF Getinsa Euroestudios, S.L, in association with Segmental Consulting and Infrastructure Advisory Private Limited, through its Authorised Representative, Mr. Sagar Mohanty

...Petitioner

2 0 MAY 2024

Versus

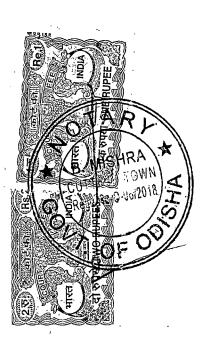
- 1. National Highways Authority of India, Ministry of Road Transport and Highways, Government of India; and
- 2. Union of India, Ministry of Road Transport and Highways, Director General, Paryavaran Bhawan, 1, Sansad Marg, New Delhi – 110001.

... Opposite Parties

<u>AFFIDAVIT</u>

- I, Sagar Mohanty, aged about 32 years, at present residing at K-3, 325B, Ghatikia, Near Sum Ultimate Hospital, Bhubaneswar - 751003;
- 2. Father's Name: Shri Rabindra Mohanty

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- Number of proceedings pending in the High Court or would be instituted (caveat): Nil
- 4. Statement of Facts: As per averments in the Writ Petition.
- 5. The facts stated are true to the best of knowledge and belief of the deponent.

DECLARATION

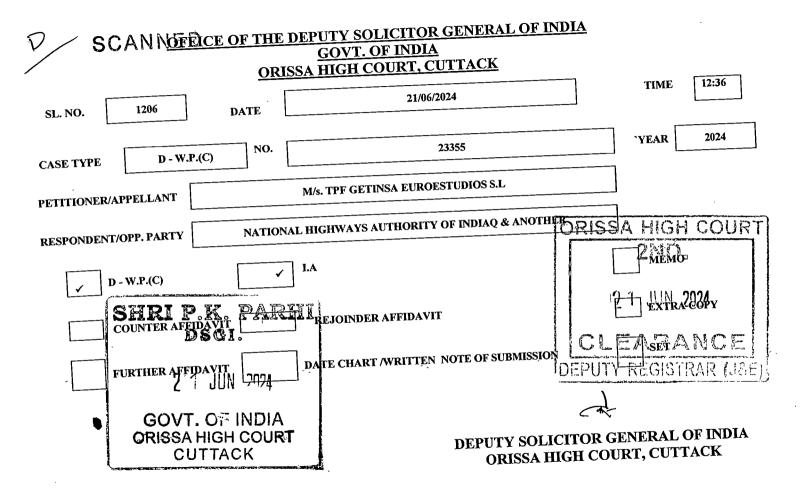
I, Sagar Mohanty, son of Shri Rabindra Mohanty, aged about 32 years, at present residing at K-3, 325B, Ghatikia, Near Sum Ultimate Hospital, Bhubaneswar - 751003, being the deponent/ petitioner above named do hereby solemnly affirm that the facts stated in Paragraphs to are true to the best of my knowledge and Paragraphs to are true to the best of my information, which I obtained from my advocate, personal sources and official records.

I believe the information to be true for the following reasons: basing upon official records or information.

Solemnly declare at the above said this 174h day of 2024. Identified by Advocate **DEPONEN** B. MISHRA NOTARY, CUTTACK ODISHA

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CUTTACK TOWN Rega.ilo-G-08/2018			



SCANNED

COMPUTERISED FILING COUNTER ORISSA HIGH COURT,CUTTACK <u>ACKNOWLEDGEMENT SLIP</u>

Branch No : WRIT BRANCH (DIVISION BENCH-2)

Receipt No : 81001/2024

Seat No. 115

Date Of Receiving : 04/07/2024

Time : 03:14:55 PM

Filing No : D- WP(C) 23355/2024

Case No : WP(C) 14993/2024

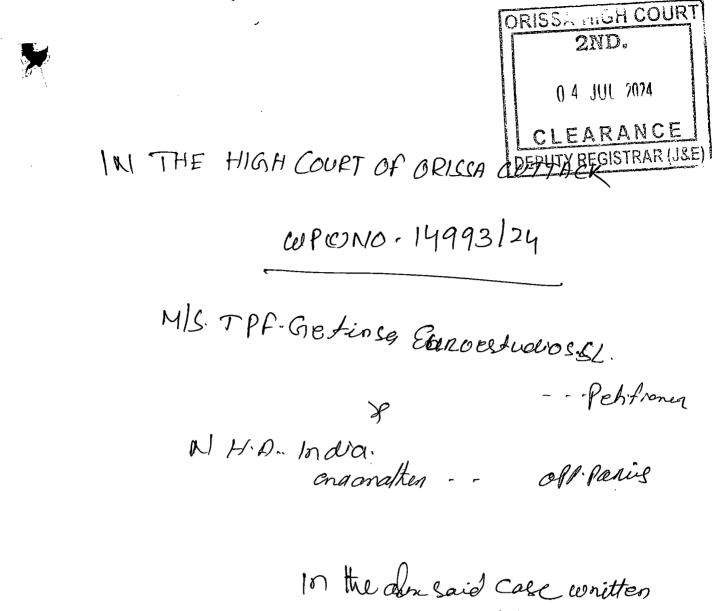
Received From : Petitioner

Filed By: ADVOCATE FOR THE PETITIONER Document(s) Filed :

3- REQUISITE FOR OPS --- Postal Fee -Rs.140

04-07-2024, 15:14

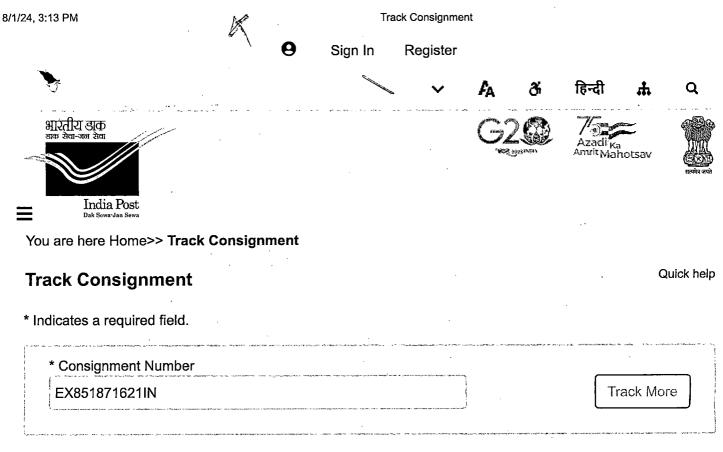
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Cattack 120-4/3/24

Advocation the petition

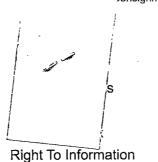


Booked At	Booked On	Destination Pincode	Tariff	Article Type	Delivery Location	Delivery Confirmed On
Chandinchowk H.O	11/07/2024 11:24:10	755024	140.00	Speed Post Parcel Domestic	Haridaspur S.O	19/07/2024 13:13:52

Event Details For : EX851871621IN

Current Status : Item Delivered(Addressee)

Date	Time	Office	Event
19/07/2024	13:13:52	Neulpur B.O	Item Delivered(Addressee)
15/07/2024	12:23:38	Haridaspur S.O	Item Bagged
15/07/2024	12:23:38	Haridaspur S.O	Dispatched to BO
15/07/2024	12:23:38	Haridaspur S.O	Item Dispatched
15/07/2024	12:02:27	Haridaspur S.O	Item Received
13/07/2024	16:36:52	Jajpur Road PH	Item Dispatched
13/07/2024	16:10:38	Jajpur Road PH	Item Bagged
13/07/2024	11:46:39	Jajpur Road PH	Item Received
12/07/2024	12;51:30	Cuttack PH	Item Dispatched
12/07/2024	08:53:50	Cuttack PH	Item Bagged
12/07/2024	07:33:43	Cuttack PH	Item Received
12/07/2024	01:25:59	Cuttack RMS L1U	Item Dispatched
11/07/2024	16:40:38	Chandinchowk H.O	Item Dispatched
11/07/2024	16:19:20	Chandinchowk H.O	Item Bagged
11/07/2024	11:24:10	Chandinchowk H.O	Item Booked



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COMPUTERISED FILING COUNTER ORISSA HIGH COURT,CUTTACK <u>ACKNOWLEDGEMENT SLIP</u>

Seat No : 115 Branch No : WRIT BRANCH (DIVISION BENCH-2) Receipt No : 78681/2024 Date Of Receiving : 01/07/2024 Filing No : D- WP(C) 23355/2024 Case No : WP(C) 14993/2024 Received From : Respondent (1) Filed By: M/S UMESH CHANDRA MOHANTY Document(s) Filed : 2- Vakalatnama O + E - D + H

Time : 12:34:52 PM

2- Vakalatnama --- Court Fee -Rs.12 (19098/2024)

01-07-2024, 12:36

VAKALATNAMA IN THE HIGH COURT OF ORISS W.P. (C) No. 14993 of 2024

M/S.TPF GETINSA EUROESTUDIOS S.L.

VERSUS

NATIONAL HIGHWAYS AUTHORITY OF INDIA & ORS

.....OPP. PARTIES

11 2024

EARANC

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FIVE RUP

Know all men these present, that by this Vakalatnama.

I Jai Prakash Verma, S/o.Shri Ram Rup Verma, Aged 45 Years, OCCUPATION PROJECT DIRECTOR, NHAI, PIU-CHANDIKHOLE Appellant / Respondent / Petitioner / Opposite Party in the aforesaid case do here by appoint and retain Shri Umesh Chandra Mohanty. EN-O-643/1991, 9338855711, SANJEEV KUMAR SWAIN EN-O-824/21, 6370408698, G.f.Jeng, EN-O-329/84, 8917404746 Advocate (s) to appear for me /us in the above case, and to conduct and prosecute (or defend) the same and all proceeding that may be taken in respect of any application connected with the same or any decree or order passed their including all applications for return of documents or receipt of any money that may be payable to me / us in the said case and also in applications for review appeais under Orissa High Court order and in application for leave to appeal to Supreme Court. I / We authorize my/our Advocate(s) to admit any compromise lawfully entered in the said case.

Due to non-availability of cartridge paper this matter has been filed in this paper.

Dated 01 07/2024

Received from the Executant(s), Satisfied that He / they is /are the Party / Parties and accepted. I hold not brief for the other side.

This Brakent

SIGNATURE OF THE EXECUTANT PROJECT DIRECTOR, NATIONAL HIGHWAYS AUTHORITY OF INDIA PIU-CHANDIKHOLE (OPP. ND -1, NHAI)

Advocate Accepted as above SI.P. Jena. Advocate

UMEEH CHANDRA MOHANTY

(AsvogrAdvosate-843/1991 Mob-0338855711









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IN THE HIGH COURT OF ORISSA CUTTAC

I.A. NO. <u>92/3</u> OF 2024

(Arising out of W.P. (C) NO. 14993 / 2024)

CODE:

In the matter of: M/s. TPF Getinsa Euroestudios, S.L, in association with Segmental Consulting and Infrastructure Advisory Private Limited,

...Petitioner

Versus

- 1. National Highways Authority of India, Ministry of Road Transport and Highways, Government of India; and
- 2. Union of India, Ministry of Road Transport and Highways.

... Opposite Parties

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CUTTACK

DATE: 16.07.2024

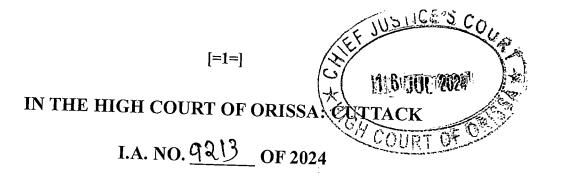
By the Petitioner through

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ADVOCATE

Ms. Adishree Mishra D/4047/2015 Mob – 9438088743

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(Arising out of W.P. (C) NO. 14993 / 2024)

In the matter of:

An application for modification of Order dated 02.07.2024 passed by this Hon'ble Court in W.P. (C) No. 14993 of 2024.

In the matter of: M/s. TPF Getinsa Euroestudios, S.L, in association with Segmental Consulting and Infrastructure Advisory Private Limited,

having its project office at 3rd Floor, Above SBI Bank, Jagannathpur, P.O. Madhabnagar, Bhadrak, Odisha - 756181 through Mr. Sagar Mohanty, authorised representative.

...Petitioner

Versus

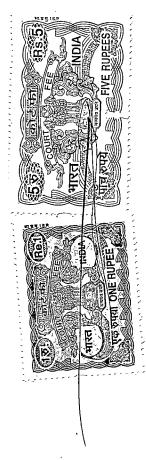
1. National Highways Authority of India, Ministry of Road Transport and Highways, Government of India

having Project Implementation Unit at NHAI Complex, Neulpur, Chandikhole, Jajpur, Odisha – 755024.

Also at:

1 8.7. May

Surendra Prasali Dhal Advocate NOTARY, CUTTACX



1 6 11 2024 National Highways Authority of Project Implementation

India. Unit, Plot Ňo. 1086. Chandmaripadia, Sahadevkhunta, Balasore, Odisha - 756001.

Union of India, through the 2. Ministry of Road Transport and Highways, Director General, Paryavaran Bhawan, 1, Sansad Marg, New Delhi – 110001.

... Opposite Parties

To,

The Hon'ble Chief Justice of the Hon'ble High Court of Orissa and His Lordship's Companion Justices of the said Hon'ble Court.

> The humble petition on behalf of the Petitioner named above;

MOST RESPECTFULLY SHEWETH:

1. That the Petitioner has filed a writ petition before this Hon'ble Court praying for quashing of the impugned letter dated 11.01.2024 (annexed at ANNEXURE 25 of the Writ Petition) bearing No. NHAI/ 11014/ 8/ 2024/

> Surendra Prasda Advocats NOTARY, CUTTACK

PIU/ CDL/ 82 issued by the Opposite Party No. 1 to the Petitioner whereby the Petitioner has been debarred for a period of 1 (one) year and has also been imposed with a penalty of INR 20,00,000/- (Rupees Twenty Lakhs).

2. That this Hon'ble Court after hearing the submissions made by the counsel for the Petitioner was pleased to pass an Order dated 02.07.2024 to issue notice to the Opposite Parties in the main case as well as the I.A. No. 7045 of 2024 filed for staying the impugned letter dated 11.01.2024 (which is annexed at ANNEXURE 25 of the Writ Petition) bearing No. NHAI/11014/8/2024/PIU/CDL/82 issued by the Opposite Party No. 1 to the Petitioner pursuant to which the Petitioner has been debarred for 1 (one) year and has been penalised with INR 20,00,000/- (Rupees Twenty Lakhs).

This Hon'ble Court further directed one extra copy of the writ petition to be served on the learned counsel appearing on behalf of the Central Government within 3 (three) working days enabling him to take instructions or file counter affidavit and also directed steps to be taken for service of notice on the Opposite Party No. 1 by speed post within 3 (three) working

Surendra Proto

Advocat. NOTARY, CUTTACK

days. The office shall send notice to the Opposite Party fixing an early returnable date.

Copy of the Order dated 02.07.2024 passed by this Hon'ble Court in W.P. (C) No. 14993 of 2024 is annexed herewith and marked as ANNEXURE 1.

3. That however, it is noted in paragraph 3 of the said Order dated 02.07.2024 uploaded on the website of the Orissa High Court that the Petitioner has filed the writ petition challenging the Order dated 11.01.2024 passed by the Opposite Party No. 1 under "<u>ANNEXURE 30</u>", whereas the said letter dated 11.01.2024 issued by the Opposite Part No. 1 to the Petitioner has been annexed as "<u>ANNEXURE 25</u>" of the Writ Petition. Therefore, in Paragraph 3 of the Order dated 02.07.2024 passed by this Hon'ble Court, it should be recorded as "<u>ANNEXURE 25</u>" instead of "<u>ANNEXURE 30</u>".

That further, it is noted in the first part of paragraph 4 of the said Order dated 02.07.2024 that "the counsel for the Petitioner vehemently contended that while issuing the Order dated 11.01.2024, the basis on which the order of debarment was passed, i.e., NHAI Policy Circular No. 18.63/2021 dated 08.01.2021 was

Advocate

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not made available", whereas the aforesaid NHAI Policy Circular No. 18.63/2021 dated 08.01.2021 was non-existential on the date on which the Opposite Party No.1 debarred the Petitioner and imposed a penalty of INR 20,00,000/- (Rupees Twenty Lakhs).

The submission made by the counsel for the Petitioner that the NHAI Policy Circular No. 18.63/2021 dated 08.01.2021 was superseded vide Policy Circular No. 16.12/2022 dated 18.01.2022 has been duly recorded by this Hon'ble Court in the same paragraph (i.e., Paragraph No. 4) of the Order dated 02.07.2024 in the subsequent lines (i.e., second sentence of Paragraph 4 of the Order), however, somehow, in the aforementioned sentence it has been noted that the said NHAI Policy Circular No. 18.63/2021 dated 08.01.2021 was not made available, which is not a correct fact. Accordingly, the first sentence of Paragraph 4 of the Order should reflect that the "NHAI **Policy** Circular No. 18.63/2021 dated 08.01.2021 was non-existential" instead of the "NHAI Policy Circular No. 18.63/2021 dated 08.01.2021 was not made available".

5. That furthermore, it is noted in the second part of Paragraph 4 of the Order that "the penalty



imposed on a non-existent direvia sustained in the eye of law", whereas, it sho have been noted that the debarment as well as the penalty imposed on a non-existent circular cannot be sustained in the eye of law, because the Petitioner in the present case has challenged the debarment as well as the penalty imposed by the Opposite Party No. 1 vide its letter dated 11.01.2024 issued to the Petitioner, which submission has also been duly recorded by this Hon'ble Court in Paragraph 3 of its Order dated 02.07.2024. Further, the Opposite Party No.1 has not only imposed a penalty based on a nonexistent circular but has also ordered for debarment of the Petitioner for 1 (one) year under the same non-existent circular. Therefore, since both penalty and debarment have been ordered by the Opposite Party No. 1 against the Petitioner, the noting regarding only penalty does not indicate the complete set of facts.

However, somehow, the word 'debarment' has not been mentioned in the following paragraph (i.e. Paragraph 4) and it has been noted to only reflect the word 'penalty' and not 'debarment'. Therefore, in light of the above, the Order dated 02.07.2024 should mention the word 'debarment' alongwith the word 'penalty' in Paragraph 4. Accordingly, the second part of

> Surendra Prasad Dha Advocate 16.7 NOTARY, CUTTACE

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the said Paragraph 4 (i.e., third sentence onwards till the end of the paragraph) should reflect the following:

".....Therefore, the debarment as well as the penalty imposed on a non-existent circular cannot be sustained in the eye of law". Apart from the same though notice of showcause was issued, it is a mere formality and, as such, no observation was made whether on the basis of such show cause notice, the debarment and the penalty can be imposed on the Petitioner. Therefore, on the basis of an incomplete show cause notice since the debarment and the penalty have been imposed, the order impugned cannot be sustained in the eye of law".

6. That this application is bonafide and has been filed before this Hon'ble Court in the interest of justice and unless the Order dated 02.07.2024 is modified by this Hon'ble Court to the extent as prayed for, the Petitioner shall be highly prejudiced.

Surendra Prasuu Dha

Advocate NOTARY, CUTTACK



PRAYER

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In view of the above facts and circumstances, it is therefore, most humbly prayed that this Hon'ble Court be graciously pleased to:

- (a) modify the Order dated 02.07.2024 passed by this Hon'ble Court in W.P. (C) No. 14993 of 2024 to the extent prayed for herein to reflect the following:
 - (i) 'ANNEXURE 30' to be reflected as
 'ANNEXURE 25' in Paragraph 3 of the Order dated 02.07.2024;
 - (ii) 'NHAI Policy Circular No. 18.63/2021 dated 08.01.2021 was not made available' to be reflected as 'NHAI Policy Circular No. 18.63/2021 dated 08.01.2021 was non-existential' in the first sentence of Paragraph 4 of the Order dated 02.07.2024; and
 - (iii) The word 'debarment' to be included/ mentioned in Paragraph 4 (i.e., third sentence onwards till the end of the paragraph) of the Order dated 02.07.2024 wherever the word 'penalty' has been

Surenara Prusa

Advocate NOTARY, CUTTACK



referred to/ mentioned in the said Paragraph.

(b) pass any other order/orders as may be deemed fit and proper and in the interest of justice.

And for this act of kindness, the Petitioner shall as in duty bound ever pray.

Date: 16 .07. 2024

By the Petitioner through

Place: Cuttack

Advocate

Ms. Adishree Mishra D/4047/2015 Mob – 9438088743

Surendra Prasad Dhai Advocate NOTARY, CUTTACK

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IN THE HIGH COURT OF ORISSA: CUT TAC

I.A. No. 923 of 2024

(Arising out of W.P. (C) No. 14993 of 2024)

In the matter of: M/s. TPF Getinsa Euroestudios, S.L, in association with Segmental Consulting and Infrastructure Advisory Private Limited,

...Petitioner

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Versus

- 1. National Highways Authority of India, Ministry of Road Transport and Highways, Government of India; and
- 2. Union of India, Ministry of Road Transport and Highways.

... Opposite Parties

AFFIDAVIT

- I, Sagar Mohanty, aged about 32 years, at present residing at K-3, Ghatikia, Near Sum Ultimate Hospital, Bhubaneswar - 751003;
- 2. Father's Name: Shri Rabindra Mohanty

Surendra Prasad Dhíu Advocaic NOTARY, CUTTACM

- Number of proceedings pending in the High Court or 3. would be instituted (caveat): Nil
- Statement of Facts: As per averments in the Writ 4. Petition.
- The facts stated are true to the best of knowledge and 5. belief of the deponent.

DECLARATION

I, Sagar Mohanty, aged about 32 years, at present residing at K-3, Ghatikia, Near Sum Ultimate Hospital. Bhubaneswar - 751003, being the deponent/ petitioner above named do hereby solemnly affirm that the facts stated in Paragraphs 1 to 6 are true to the best of my knowledge and Paragraphs 1 to $\mathbf{6}$ are true to the best of my information, which I obtained from my advocate, personal 'sources and official records.

I believe the information to be true for the following reasons: basing upon official records or information.

Solemnly declare at the above said this ______ day of , 2024. The above named Deponent < Baing Identified Identified by Advocate DEPONENT Advocate

BY CUTTACK



Solemnly affirmed before me by Sagar Mohanty who is identified before me by Adishree Mishra whom I personally know.

16th This day of Ju 2024. ~

Advocate

Notary Public, Cuttack

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Surendra Frasad Dhail Advocate NOTARY, CUTTACK



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IN THE HIGH COURT OF ORISSA, AT CUTTACK

<u>W.P (C) No. 14993 of 2024</u> <u>And</u> <u>I.A. No. 7045 of 2024</u>

.

Vs.

.

M/s TPF Getinsa Euroestudios S.L. Bhadrak

Petitioner

Ms. Adishree Mishra, Adv.

National Highways Authority of India, Jajpur and another

Opposite Parties

Mr. S.S. Kashyap, CGC

CORAM:

DR. JUSTICE B.R. SARANGI MR. JUSTICE G. SATAPATHY

<u>ORDER</u>

02.07.2024

Order No. 01. This matter is taken up through hybrid mode.

2. Heard Ms. Adishree Mishra, learned counsel appearing for the petitioner and Mr. S.S. Kashyap, learned Central Government Counsel appearing for the Union of India.

3. The petitioner has filed this writ petition challenging the order dated 11.01.2024 passed by the opposite party no.1 under Annexure-30, by which the petitioner has been debarred for a period of one year as per NHAI Policy Circular No.18.63/2021 dated 08.01.2021 and also imposed a penalty of Rs.20.00 lakhs.

4. Ms. Adishree Mishra, learned counsel appearing for the petitioner vehemently contended that while issuing the order dated 11.01.2024, the basis on which the order of debarment was passed, i.e., NHAI Policy Circular No.18.63/2021 dated 08.01.2021, was not made available. Rather, the said policy was superseded vide Policy Circular No.16.12/2022 dated 18th January, 2022. Therefore, the penalty imposed on a non-existent circular cannot be sustained in the eye of law. Apart from the same, though notice

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of show cause was issued, it is a mere formality and, as such, no observation was made whether on the basis of such show cause notice the penalty can be imposed on the petitioner. Therefore, on the basis of an incomplete show cause notice since the penalty has been imposed, the order impugned cannot be sustained in the eye of law.

5. Issue notice to the opposite parties in the main case as well as in the interlocutory application.

6. Since Mr. S.S. Kashyap, learned Central Government Counsel has already entered appearance on behalf of opposite party no.2-Union of India, one extra copy of the writ petition be served on him within three working days enabling him to obtain instructions or file counter affidavit.

6. Steps for service of notice on the opposite party no.1 by speed post be taken within three working days. Office shall send notice to the said opposite party fixing an early returnable date.

(DR. B.R. SARANGI) JUDGE

Ashok

(G. SATAPATHY) JUDGE



BEFORE THE HON'BLE HIGH COURT OF ORISSA, CUTTACK

MEMO FOR URGENT LISTING

W.P.(C) No. 14993 of 2024

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- 1. Number of the Case:
- 2. Names of the Parties: M/s. TPF GETINSA EUROSTUDIOS, SL IN ASSOCIATION WITH SEGMENTAL CONSULTING & INFRASTRUCTURE ADVISORY (P) LTD. ...PETITIONER

Vs.

NATIONAL HIGHWAYS AUTHORITY OF INDIA (NHAI) & ANR.

... OPPOSITE PARTIES

- 3. Party Seeking Position: PETITIONER
- 4. Name of the Advocate of the Party Seeking Position: MS. ADISHREE MISHRA
- 5. Reason for Urgency:

THE PETITIONER HAS FILED THE PRESENT WRIT PETITION BEFORE THIS HON'BLE COURT CHALLENGING THE ORDER OF DEBARMENT/ BLACKLISTING DATED 11.01.2024 ISSUED BY THE OPPOSITE PARTY NO. 1 PURSUANT TO WHICH THE PETITIONER HAS BEEN DEBARRED BY THE OPPOSITE PARTY NO. 1 FOR A PERIOD OF 1 YEAR FROM PARTICIPATING IN FUTURE PROJECTS OF NHAI OR ITS EXISTING AGENCIES, EITHER DIRECTLY OR INDIRECTLY AND HAS BEEN IMPOSED WITH A PENALTY OF INR 20,00,000/-. SUCH DEBARMENT/ BLACKLISTING HAS BEEN DONE ON THE BASIS OF AN INVALID POLICY CIRCULAR OF THE OPPOSITE PARTY NO. 1 AND WITHOUT FOLLOWING THE PRINCIPLES OF NATURAL JUSTICE AND WITHOUT ADHERING TO THE TERMS OF THE AGREEMENT. THE PETITIONER HAS BEEN SUFFERING FROM SEVERE BUSINESS LOSS AND IS IN FINANCIAL DISTRESS DUE TO SUCH DEBARMENT/ BLACKLISTING. HENCE, THE MATTER MAY KINDLY BE TAKEN UP URGENTLY FOR HEARING AS IT HAS CAUSED SERIOUS GRIEVANCES AND PREJUDICE TO THE PETITIONER, INCLUDING CIVIL DEATH.

6. Date on which posting is sought:

J.S.

7. Any caveat is filed: NO

Place: Cuttack

Date:

5/12/24

MS. ADISHREE MISHRA ENRL NO. - D/4047/2015 MOB - 9438088743