



TECHFAB INDIA INDUSTRIES
At the Heart of Geosynthetic Activity



**OPTIMIZATION OF FLEXIBLE
PAVEMENTS USING BIAXIAL
GEOGRIDS -
INDIAN SCENARIO**

MANISH BAROT
Head Technical Sales & Business Development



**TechFab India is committed to finding a solution for every single
*Geosynthetic need of its customer***





History



Started manufacturing TechFab Woven Geotextile

4320 Tonnes

2003 Beginning



First to manufacture Geogrids in India
TechGrid Geogrids [TGU]
Polyester Uniaxial Geogrid

9 Million sqm

2004

First to manufacture Nonwoven Geotextile in India
TechGeo

6.5 Millions sqm

2005



First to manufacture Nonwoven GeoComposites in India
TGC

5400 Tonnes



2006

16.20 Million LM



TechDrain PVD

2007

TechFab Metal Gabion, Mattress, Netting

5400 Tonnes



2007

TechFab Techtube Geotextile bags / Tubes



2008

TechFab GeoComposites [Drainage Composites]

2 Million sqm

2016



TechGrid PP Geogrids [TGB]

3.5 Million sqm

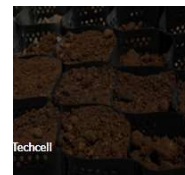
2017



Techcell Geocell

3.5 Million sqm

2018



TechGeo Mattress
TechSlope Mesh

TechRhombus
TechAnchor

2021

2023

NEW FACTORY SET UP IN BHOPAL WITH LARGER CAPACITIES

Techstrap
15 Million LM



2019

2024
NEW CHALLENGES



TECHFAB INDIA

2

At the Heart of Geosynthetic Activity



**450+ Employee
Employee**



**6 Factories
+ Coming up with ONE more
with Larger capacities**



**Revenues around
INR 450 Crore**

TechFAB India was founded in 2003, with the objective of providing world class Geosynthetic products and services.

TechFab India was founded in 2003, with the objective of providing world class geosynthetic products and services to enable owners, consultants and contractors to design and implement reliable, economic and easy to construct solutions for a wide range of geotechnical, transportation, hydraulic and environmental related problems.



Certificates of Quality/Accreditation



BUREAU VERITAS
Certification

TECHFAB (INDIA) INDUSTRIES LTD.

ISO 9001:2015

Scope of certification
DEVELOPMENT, MANUFACTURE AND DISPATCH OF:-

1. BRICKELL
2. GEOSTRIP (POLYESTER STRAP FOR GEOTECHNICAL APPLICATION)
3. PRE-FABRICATED VERTICAL DRAINS, PRE-FABRICATED STRIP DRAINS, PRE-FABRICATED SUB SOIL DRAINS
4. GEORIGS

FOR CONSTRUCTION, FILTRATION, SEPARATION, DRAINAGE, REINFORCEMENT AND EROSION CONTROL FOR CIVIL ENGINEERING APPLICATION SECTORS

Original cycle start date: 27 July 2018
Expiry date of previous cycle: NA
Certification audit date: 29 June 2018
Certification cycle start date: 27 July 2018

Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: 26 July 2021

Certificate No. **IND18.7444UQ** Version: 1 Renewal date: 27 July 2018

Signed on behalf of BVCA SA2 UK Branch
Ramesh KOREKAVI
Director, CERTIFICATION South Asia Region

NABL National Accreditation Board for Testing and Calibration Laboratories
(A Constituent Board of Quality Council of India)

CERTIFICATE OF ACCREDITATION

TECHFAB (INDIA) INDUSTRIES LTD

has been assessed and accredited in accordance with the standard
ISO/IEC 17025:2005
"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at
S. No. : 99/2/6, Madhuban Dam Road, Madhuban Industrial Estate,
Village: Rakheli, Silvassa, Dadra and Nagar Haveli

in the field of
TESTING

Certificate Number: TC-6967 (S. No. of 1891)
Issue Date: 28/03/2018 Valid Until: 27/03/2020

This certificate remains valid for the scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant regulatory provisions of NABL.
(It is on the scope of accreditation of the laboratory, and is not a certificate of ISO 17025:2005 compliance.)

Signed for and on behalf of NABL

S. Venkateshwar
Program Director

Andhika
Chief Technical Officer

BUREAU OF INDIAN STANDARDS
Ministry of Consumer Affairs, Food & Public Distribution
Government of India

भारतीय मानक ब्यूरो
सर्वोपयोगी सामानों, खाद्य एवं सार्वजनिक वितरण के लिए मानक
सर्वोपयोगी

Our Ref: SUBO/CM/L-7100028287 Date: 15-11-2022
Subject: Grant of BIS Certification Marks Licence No-7100028287 as per IS 17371:2020.

MS TECHFAB (INDIA) INDUSTRIES LIMITED
SURVEY NO-147/2 & 3,1 & 4, OPPOSITE DABHEL TALAB,
VILLAGE-DABHEL, DAMAN, DADRA & NAGAR HAVELI AND
DAMAN & DIU - 396210

Dear Madam(s)/Sir,

With reference to your application, we are pleased to inform you that the Certification Marks Licence has been granted to you to use the Standard Mark in respect of the followings:
Product:-Geosynthetics-Geogrids For Flexible Pavements
IS 17371:2020

Grade/Class/Type/Variety
Name of the Product - Geosynthetics -Geogrids for Flexible Pavements, Polymer Material- Polypropylene(Rigid), Geogrid Style Numbers- 20/20, 30/30 and 40/40, Type of Geogrid- Extruded

1. The licence is granted on the explicit condition that you will mark entire/substantial production which conforms to the Indian Standards.
2. The number assigned to this licence is CML-7100028287 which has been made operative from 2022-11-11 and is valid upto 2023-11-10. The licence number should invariably be referred to in your future correspondence.
3. Minimum marking fee stipulated in Annexure -1 of scheme 1 of BIS (Conformity Assessment) Regulation 2018 is payable by you regardless of whether you actually mark your product or not with the Standard Mark. Our Receipt No. AA71PC202000776 dated 2022-09-07 for the licence fee and the minimum marking fee for the first operative period is already issued/enclosed/being sent separately.
4. This advance minimum marking fee will be carried over to the next year on every renewal. The actual marking fee calculated on the unit rate on the production marked or the minimum marking fee, whichever is higher shall be payable by you at the time of renewal.

Headquarter : भारत, NPL, 9, भारत का मानक, नई दिल्ली - 110002, Manak Bhavan 9, Bahadur Shah Zafar Marg, New Delhi - 110002.



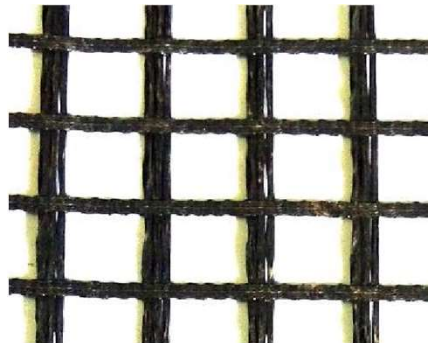
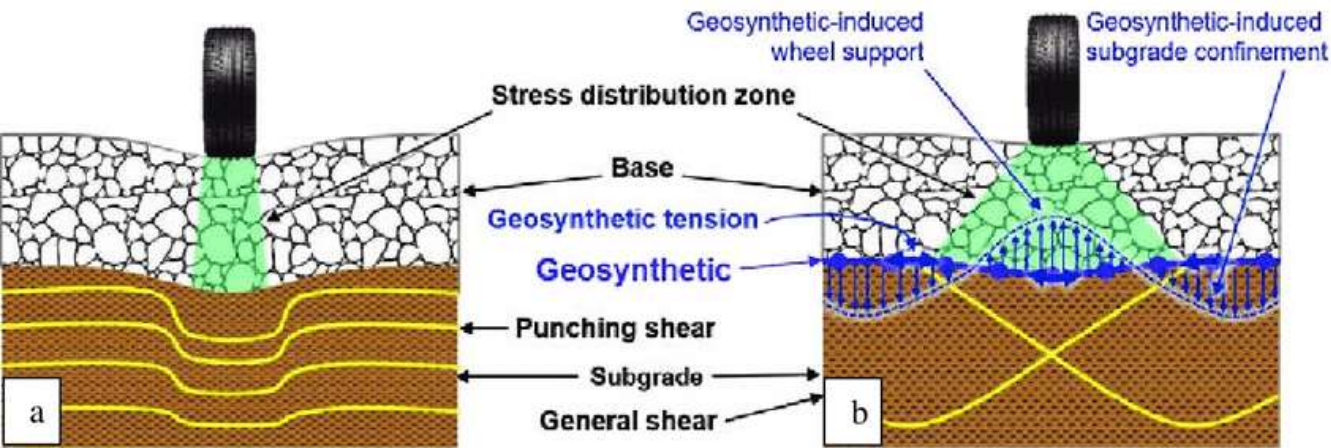
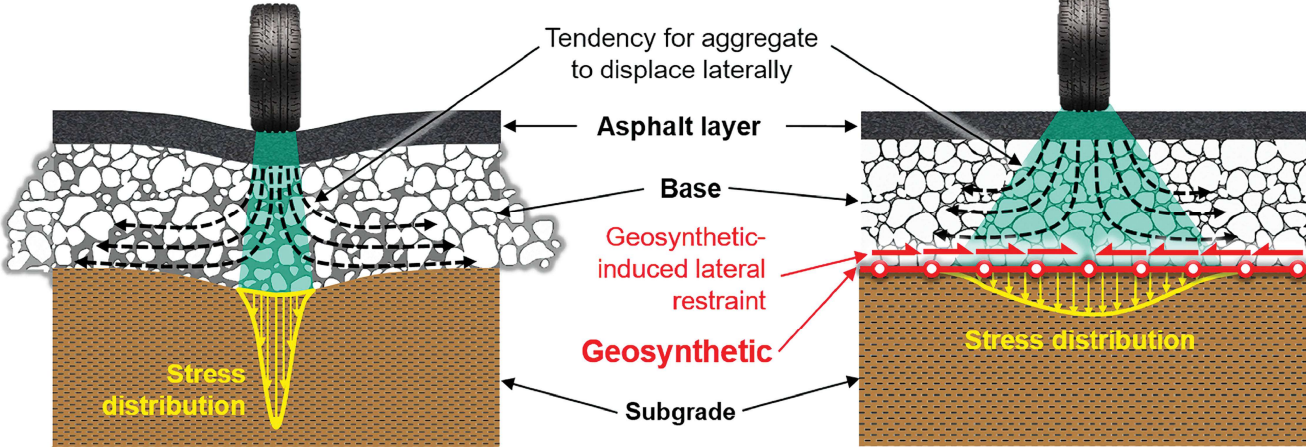
Need for Geogrids in Pavement Construction



- MoRTH emphasizing use of geosynthetics in road construction vide number of circulars.
- EPC and HAM projects of NHAI / MoRTH allow value engineering.
- MoRTH / IRC made available all the standards for designs, material specifications and installation aspects
- **Objectives of using Geosynthetics in road construction**
 - a) Optimization of project cost significantly.
 - b) Minimizing use of natural resources like aggregates / cementitious materials / bituminous materials in road construction thereby leading to significant reduction in carbon emissions.
 - c) Speeding up of construction activities.
- India's local manufacturing facilities capable to meet the demands of GOI's infrastructure objectives.
- And hence, the Ministry of Textiles has mandated through QCO Orders for using **BIS certified** geosynthetics only in road projects

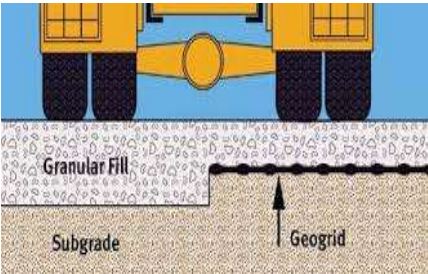


Biaxial Geogrid in Flexible Pavements

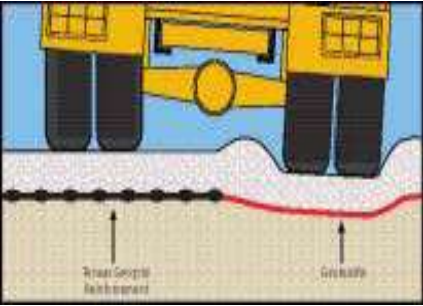


Biaxial Geogrid in Flexible Pavements

Pavement Crust Optimization



Improved durability



Environmental benefit

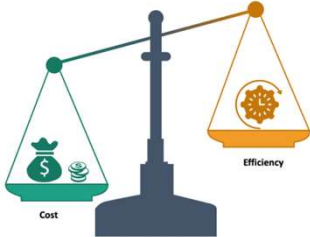


Performance Benefits

Faster construction



Cost-effectiveness



Biaxial Geogrid in Flexible Pavements



Codal Guidelines & Standards

IRC:SP:59-2019

IRC:37-2018

भारतीय मानक
Indian Standard

IS 17371 : 2020

**GUIDELINES FOR USE OF
GEOSYNTHETICS IN ROAD PAVEMENTS
AND ASSOCIATED WORKS**

**GUIDELINES FOR
THE DESIGN OF FLEXIBLE PAVEMENTS**


MINISTRY OF ROAD TRANSPORT & HIGHWAYS

भूकृत्रिम — लचीले फुटपाथों के लिए
जियोग्रिड — विशिष्टि

**Geosynthetics — Geogrids for
Flexible Pavements — Specification**

(First Revision)

(Fourth Revision)

SPECIFICATIONS FOR ROAD AND BRIDGE WORKS

ICS 59.080.70

(Fifth Revision)

© BIS 2020



**INDIAN ROADS CONGRESS
2019**

**INDIAN ROADS CONGRESS
2018**

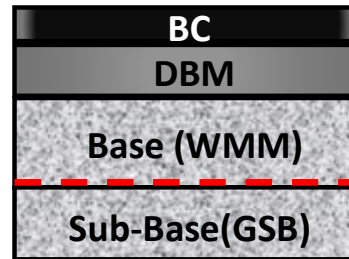
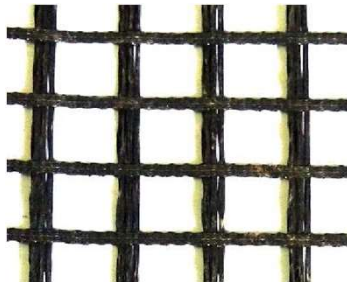
Published by
**Indian Roads Congress
NEW DELHI 2013**

भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
मानक भवन, 9 बहादुरशाह ज़फर मार्ग, नई दिल्ली - 110002
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI-110002
www.bis.gov.in www.standardsbis.in

January 2020

Price Group 7

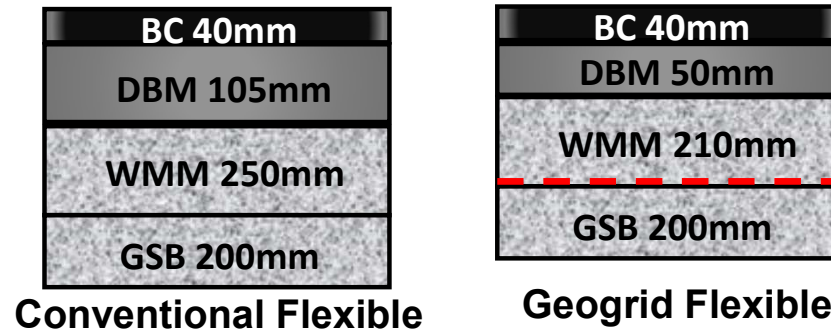
Biaxial Geogrid in Flexible Pavements



RESILIENT MODULUS

Resilient Modulus of Subgrade soil	MR_e	=	66.60	Mpa
Resilient Modulus of GSB	MR_{GSB}	=	$0.2 \times H^{(0.45)} \times Mre$	
			144.54	Mpa
Effective MR of GSB and Subgrade	$MR_{Support}$	=	94.46	
Resilient Modulus of WMM	MR_{WMM}	=	$0.2 \times H^{(0.45)} \times Mr_{support}$	
			205	Mpa
Modulus improvement factor for Geogrid	MIF	=	1.45	
Improved Resilient Modulus of WMM with Geogrid	MR'_{WMM}	=	297.25	Mpa
Resilient Modulus of Bituminous Layer	$MR_{Bitumen}$	=	3000	Mpa

Biaxial Geogrid in Flexible Pavements



Pavement Cost Comparison – 4 Lane 1km Stretch - Single Layer Geogrid - 10% CBR & 50 MSA					
Pavement Layer	Unit Rate	Conventional		Techfab's Crust Proposal	
		Thickness (mm)	Cost	Thickness (mm)	Cost
BC	Rs. 8500 / Cum	40	51,00,000	40	51,00,000
DBM	Rs. 8500 / Cum	105	1,33,87,000	50	63,75,000
WMM	Rs. 2000 / Cum	250	75,00,000	210	63,00,000
GSB	Rs. 1800 / Cum	200	54,00,000	200	54,00,000
Geogrid	Rs. 100 / Sqm	NA	-	1 Layer	15,00,000
Total Cost			3,13,87,000		2,46,75,000
Cost Savings per sqm area			-		67,12,000
Cost Savings %			-		21%



Test Reports – CYCLIC LOADING



अंतिम रिपोर्ट Final Report

LCR/MIF वैल्यू का मूल्यांकन (PP 3030 एक्सट्रूडेड जियोग्रिड एवं PET6060 निटेड जियोग्रिड)
Evaluation of LCR/MIF Value (PP 3030 Extruded geogrid and PET 6060 Knitted geogrid)

Part-A PP 3030 Extruded geogrid

प्रायोजककर्ता
SPONSORED BY

मेसर्स: टेकफैब इंडिया इंडस्ट्रीज लिमिटेड
M/s TechFab India Industries Ltd.
मुंबई, महाराष्ट्र- 400021(भारत)
Mumbai, Maharashtra-400021(India)

प्रस्तुतकर्ता
SUBMITTED BY

भूतकनीकी अभियांत्रिकी प्रभाग
Geotechnical Engineering Division

Er. Vijay Kumar Kankaria
02/10/2023

अक्टूबर October 2023



सी एस आई आर - केंद्रीय सड़क अनुसंधान संस्थान, नई दिल्ली-110025
CSIR - CENTRAL ROAD RESEARCH INSTITUTE
NEW DELHI-110025

TEST REPORT

Doc No.-QR/08
Rev. No.-02
LRL/2023/146B
ULR-TC807723000001405F
Issue Date of Report:

01.11.2023

Evaluation of LCR/MIF Value of
Bi-axial Geogrid TGB-80/80

Submitted By:

Landmark Material Testing And Research
Laboratory Pvt. Ltd.

G-1/200, Riico Industrial Area, Mansarover, Jaipur-
302020.
Tel: -0141-2401478,4022067

Submitted to:

Techfab (India)Industries Ltd.

712, Embassy Center, Nariman Point, Mumbai, India.



TC-8077

TEST REPORT

Doc No.-QR/08
Rev. No.-02
LRL/2023/146A
ULR-TC807723000001378F
Issue Date of Report:

30.10.2023

Evaluation of LCR/MIF Value of
Bi-axial Geogrid PP- 30/30

Submitted By:

Landmark Material Testing And Research
Laboratory Pvt. Ltd.

G-1/200, Riico Industrial Area, Mansarover, Jaipur-
302020.
Tel: -0141-2401478,4022067

Submitted to:

Techfab (India)Industries Ltd.

712, Embassy Center, Nariman Point, Mumbai, India.



TC-8077



Test Reports – STATIC LOADING

2022

EVALUATION OF LAYER COEFFICIENT RATIOS FOR TECHGRID PP AND PET BIAXIAL GEOGRIDS

DR. SIREESH S

INDIAN INSTITUTE OF TECHNOLOGY HYDERABAD | KANDI, SANGAREDDY, TELANGANA



Report on

Evaluation of Layer Coefficient Ratio (LCR) and Modulus Improvement Factor (MIF) for TechGrid Biaxial Geogrid in Granular Layers of Flexible Pavements

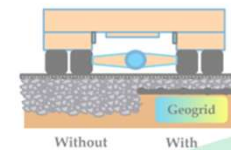
Submitted by

Dr. Baadiga Ramu
Assistant professor

Department of Civil and Environmental Engineering



B. Ramu
Dr. Baadiga Ramu
Assistant Professor,
Dept. of Civil & Environ. Engg.,
IIT Patna, India - 801106.



March 2023





Environmental Benefits



Carbon footprint

The emission of greenhouse gases for a 1-kilometer pavement constructed without geosynthetics is 730 metric tons of CO₂ equivalents while the pavement constructed with geosynthetics emits 550 metric tons of CO₂ equivalents, this signifies a 24.6% percentage reduction in carbon emissions.

Natural Aggregate

Unreinforced Pavement

Reinforced Pavement

678 Trucks

576 Trucks

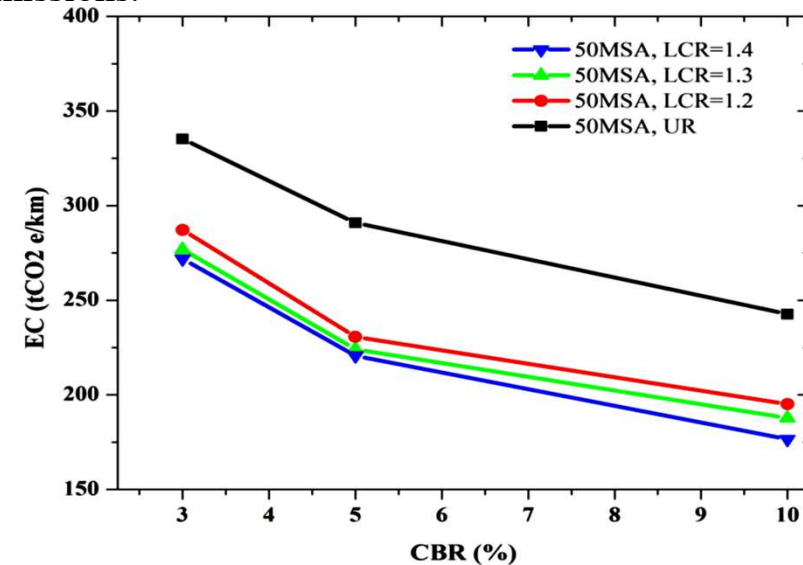


FIGURE: Variation of EC values with subgrade CBR for unreinforced and geogrid reinforced pavement structures that cater to a traffic of 50 MSA.



Some of Techfab's Project Approvals



06th April 2023

LASA/MCL/Shamli-Ambala/731

To,
The Authorized Signatory,
Montecarlo Limited
Shamli- Ambala Project Pkg-3
Village & Post-Bihta, Dist. -Ambala,
Haryana-133101, India.

Subject: Consultancy services for Authori
Expressway from Sindhrej Village
48+520) section of Ahmedabad-C
Bharatmala Pariyojana (Package-I
with Reinforced Granular Layer (R

Reference:
1. Contractor's E-mailed dated 06.1
2. Contractor's Letter No. SEL/Al

Subject: Consultancy Service for
control highway of Bareilly-Ludh
Barsi Saharanpur district to Sado
in the state of Haryana on EPC Mod
PP 3030 Geogrid (After Meeti

On continuous communication held on the
(Document No NHAI/GAWAR/NU/210025/T/1
II/LASA/SITE/FY2022-23/804 dated 20.03.202
and grant conditional approval to follow
submission of test reports, certificates, meth
to AE prior to execution towards fulfillment of

Ref: MCL (P)HW/1230 /CON/202

Dear Sir,

1) The Revised Pavement Composition fo
TechGrid Biaxial Geogrid TGB 80 for reir
minimum design period of 20 years is tal

Sr No	Description of Layer	Layer Thickness
1	BC with Modified Binder (PMB 70-10)	40 mm
2	DBM with VG40	50 mm

The approval of the pavement de:
correspondence, which outlines th

Thanking you
Yours sincerely,

For LEA Associates South Asia P

(Lakshmi Narayan)
Team Leader
(LASA Ambala Site Office)
Encl:-6 pages

Copy to : 1.Project Director-for in
2. Mr. A K Sharma, CGM Cum Proj
3. RE-I/SPS -to perceive.

CANADA | INDIA | ASIA |



Letter No:- TES/KLEX/PNC/ Pkg-2/39

To,

Shri. Ashish Jain
Authorized Signatory,
Awadh Expressway Private Limite
Cabin No-2 ground Floor, PNC Toy
PNC Tower,3/22-D.Civil Line,
Bypass Road, Agra-282002

Sub: Consultancy Services for Indepl
Lane upgradable to Eight Lane of
Shaheed Path at km. 10.980 to km.
km. 28.500 to 73.744 km on NH-27
Bharatmala Pariyojana in the State
Pavement Design report (Pkg-2)

Ref: 1. AEPL/KLE-Pack-2/HAM/22-
2. TES/KLEX/PNC/Pkg-2/101
3. AEPL/KLE-Pack-2/HAM/22-
4. Your meeting on 25.01.2023,
5. TES/KLEX/PNC/Pkg-1/317

Dear Sir,

With Reference to the letter under ref
been reviewed by our TES H.O. as unde

The comment on traffic & pavement d

Existing Subgrade CBR and effective
10% effective CBR on the basis of 24 m
15.73 %, 90th percentile CBR is 8.86%
from 10.3% to 13.6%, 90th percentile
results, it may be concluded that an effe
CBR of 10% has to be ensured durir
efficient of curvature are also very imj
and has to be ensured.

RE

Head Office: B-24, GokulVatika, Jawahar Circle, Jaipur
E-mail: thoms@themconinsrting.com. b24@thm



इरकॉन इन्टर
14, प्रथम तल, विवेकानन्द एपकोड,
जयसमीरपुर, हरियाणा-249401 (पारलक्षणा)
ईमेल: ircon.1039@ircon.org

No. IRCON/1039/HRBP(CRSP)/1/2022/
M/s. SP Singla Constructions Pvt. Ltd.,
1006-1007, 10th Floor, Pearl Best Height-1,
A-5, Netaji Subhash Palace,
New Delhi-110034
Email id: spsckl@gmail.com, spsharidwar

Dear Sir,
Sub: Upgradation and Four Lining of l
188+100 of NH-58) to KM 15+100 (E
EPC Mode - Regarding review of fl

Ref: - 1) LOA No. IRCON/CD/BD/Hari
2) Our letter No. IRCON/1039/1
3) Your letter No. SPS/HP/IRCO
4) Your office email dated 24.03
& structures drawing for app
5) Our letter No. IRCON/1039/1
6) Your letter No. SPS/HP/IRCO
7) IE letter No. 015/LNM/IND/I
8) Our letter No. IRCON/1039/1
9) Your letter No. SPS/HP/IRCO
10) Our letter No. IRCON/1039/1
11) Your letter No. SPS/HP/IRCO
12) IE letter No. 230/LNM,
(Received through e-mail dt

Kindly refer to your office letter dated 2
observation on pavement design report (R
made by you has been reviewed by IE in ac
and the following has been found:

- The design traffic loading adopts
including Paved Shoulder, Slip Ro
entire length of project highway a
shall be provided by you as specific
- IE have examined and reviewed Pa
pavement of Main Carriageway anc
that Contractor shall be provided i
life of Geogrid for design period
certificates and also Contractor si
shoulders, slip roads & loop ramps



L.N. MALVIYA INFRATECH

Registered Office : Plot No.
Corporate Office : T-1
Plot No. 1, M.P. N
Tel.
E-MAIL : LNM

Mob.: 9826452711, 7773000871, 9977004686, 9617777

No. - LNMIPPLNHAIAE/TNKA Border-Hoskote/2022-23

To,
Authorized Signatory,
S&P - SIEPL JV,
Plot No. 814, Udyog Vihar, Phase-V, Gurugram (Haryana);
E-mail- ka102.bdr@starkworld.com

Sub: Construction of 4 Lane Realignment of Old NH207 (h
(Chaiage 20+900) under Bharatmala Pariyojana as part
Procurement and Construction (EPC) Mode. Reg: R
Report.

Ref: -
(i) Concessionaire Letter No. S&P-SIEPL/TN/1
(ii) Concessionaire Letter No. S&P-SIEPL/TN/1

Sir,

- Kindly refer concessionaire's letters dated 2f
Pavement Design Report (R0) and LCR & Mll
- Pavement Design has been reviewed and ger

a. Flexible Pavement Design for Main carriag
Minimum Traffic as 100 MSA & effective C

Sr.No.	Crust Composition
1	Bituminous Concrete (BC) with VG
2	Dense Graded Bituminous Macadae 40 (DBM)
3	Wet Mix Macadam (WMM)
4	TGB60 Geogrid (LCR 1.40)
5	Granular Sub Base (GSB)
6	TGB60 Geogrid (LCR 1.40)
7	Sub-Grade Soil of Effective CBR-1

b. Flexible Pavement Design Report for Conn
MSA & effective CBR-10%:-

Sr.No.	Crust Com
1	Bituminous Concrete (BC) with VG
2	Wet Mix Macadam (WMM)
3	TGB60 Geogrid
4	Granular Sub Base (GSB)
5	Sub-Grade Soil of Effective CBR-1



Corporate Office : Bhopal

पंजीकृत कार्यालय: बी-
Registered Office : C
Tel. : 91-11-26666666 Fax : 091-11-

FP Project Management
Formerly Frischmann Prabhu (India) Private Limited



Indian Engineering
Consultants India Pvt. Ltd.

A/A-24 Chandranan, Mathura,
Uttar Pradesh - 281003
Email: fpemathurabvpass@gmail.com

FPPM/Mathura/HHPL/NH-530B/2023/Pkg-1C/613

Date:20.03.2023

To,
The Authorized Signatory
Hathras Highways Private Limited
Kh. No. 148 Village-Hema Nagla,
Hathras-Inglash Road
Th. & Dist. Hathras Uttar Pradesh-204101.
Email: spmmap1c@pncinfratech.com planningmap1c@pncinfratech.com

Kind Attn. Mr. Harshvardhan Jain
Sub: - Consultancy Services for Independent Engineer for Supervision of Construction of Four
Laning of NH 530B from Gaju Village (Design km 32.982) to Devinagar Bypass (End)
(Existing Km. 208.000 of SH 33/Design Km. 66.000) (Design length 33.018 km) in the
State of Uttar Pradesh on HAM mode. (Package-1C) - Review of Source for
Procurement of Biaxial Geogrid - Reg.

Ref.: Your letter No.: HHPL-MAP-1C/HAM/TL/FP/Mathura/22-23/250, Dt:14.03.2023

Dear Sir,

This has reference to your above cited letter vide which you have proposed following tabulated
source for Procurement of Biaxial Geogrid for IE's review: -

Sl. No.	Name of Material	Source Proposed
1.	Biaxial Geogrid	M/s TechFab India Industries Limited

Independent Engineer have reviewed the submission and our consent is hereby accorded for
Procurement of Biaxial Geogrid Manufactured by "M/s TechFab India Industries Limited" in the
light of NHAI Office Memorandum No. NHAI/TIC/PQ/2012-13/205 Dt:25.01.2023.

You are requested to fulfil the conditions mentioned in the Office Memorandum of Authority
mentioned in above para dated 25.01.2023.

You are also requested to submit the Third-Party manufacture test report from NABL approved
laboratory of the material brought at site and sampled jointly before incorporating in permanent
work.

Thanking you,

Yours Sincerely,
For FP India Project Management...

(Ravi Bhushan Dwivedi)
Team Leader Cum Sr. Highway Engineer

Copy to: - i) The Project Director, NHAI PIU, Agra - for kind information please.
ii) Mr. D.M Chame, MD, FPPM, HO, Mumbai- for kind information please.

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PAVEMENT STABILIZATION USING BIAXIAL GEOGRID AT RUPNAGAR, PUNJAB



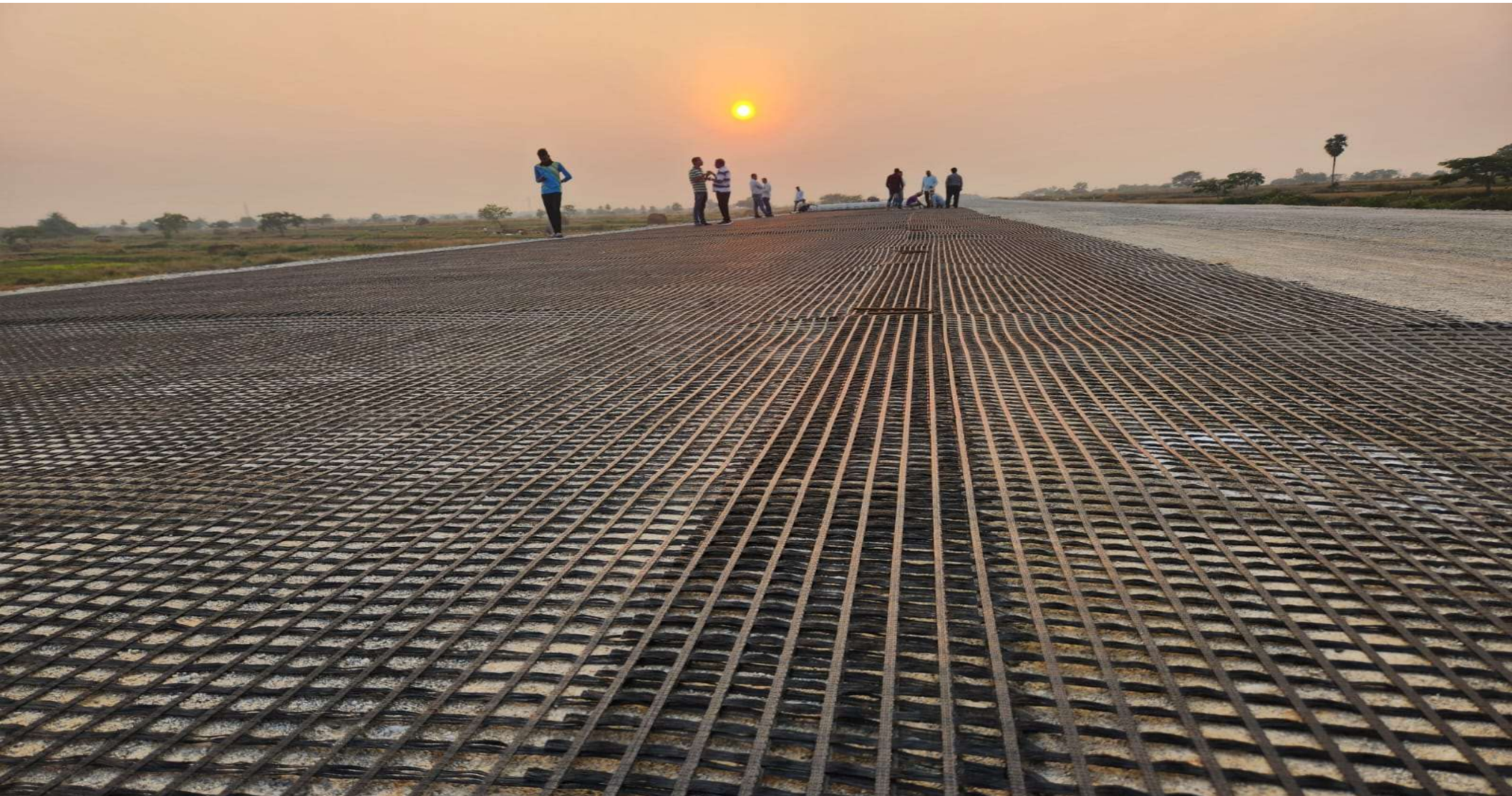
PAVEMENT STABILIZATION USING BIAXIAL GEOGRID AT MUNDHRA GREEN PVC, GUJARAT



PAVEMENT STABILIZATION USING BIAXIAL GEOGRID AT DHOLERA EXPRESSWAY, GUJARAT



PAVEMENT STABILIZATION USING BIAXIAL GEOGRID AT LUCKNOW KANPUR EXPRESSWAY, UP



BIAXIAL GEOGRID IN PAVEMENT – BERHAMPUR BYPASS, ORISSA



PAVEMENT STABILIZATION USING BIAXIAL GEOGRID AT BARMER BYPASS, RAJASTHAN



PAVEMENT STABILIZATION USING BIAXIAL GEOGRID AT AMARAVATHI, AP



Conclusion



- Biaxial Geogrids in road pavement construction are **technically superior and economical** solution compared to the conventional systems.
- These geogrid materials comply to the **initiatives of MoRTH & NHAI** towards minimizing use of natural resources, reducing carbon emissions and optimization of overall project costs.
- The design methodologies and material specifications are included in the **BIS, IRC, MoRTH** standards and **SOR's**
- Techfab's Biaxial Geogrid materials have been certified by **BIS, CRRI, IIT's , BTRA, CE, NABL/GAI-LAP.**
- Techfab India complying to **Atmanirbhar Bharat / Make in India** Initiative of Gol with:
 - Highest Manufacturing Capacities of **BIS Certified Geogrid Materials** in order to supply huge quantities in short period of time as per project requirements.
 - ISO 9001:2015 quality certification for its manufacturing and NABL/ GAI-LAP certifications for its in-house laboratories.
 - Engineering & Techno-Commercial Assistance to all stakeholders right from the inception of project to its completion to maximize their project returns.

Geosynthetic Engineering for a better tomorrow



*Thank
You!*

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