



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय, भारत सरकार)

National Highways Authority of India

(Ministry of Road Transport & Highways, Govt. of India)

परियोजना कार्यान्वयन इकाई, गाज़ियाबाद

Project Implementation Unit, Ghaziabad

सी डब्ल्यू जी फ्लाईओवर के नीचे, कि. मी. 2+000 एन एच-9, (पुराना एन एच-24), अक्षरधाम मंदिर के निकट, दिल्ली-110092

Under CWG Flyover, at Km. 2+000 of NH-9 (Old NH-24), Near Akshardham Temple, Delhi-110092

ई-मेल
E-mail
वेबसाइट
Website

: gha@nhai.org
nh24ghaziabad@gmail.com
: www.nhai.gov.in



भारतमाला

प्रगति के पथ पर अग्रसर

NHAI/PIU-GZB/DME-IV/12029/NOC/PowerGrid/E-1143

Date: 07.07.2021

INVITATION OF PUBLIC COMMENTS

Sub: Design and Construction of Delhi-Meerut Expressway (Package-IV) from Dasna to Meerut Km. 27.740 of NH-24 to Km. 51.975 of NH-58 (Design Chainage 28+000 to 59+777) in the State of Uttar Pradesh on EPC basis (Length 31.777 kms)-**Issuing of NOC for Over Head crossing of Delhi- Meerut Expressway at chainage 53.637 (DME Pkg-IV) near village Churiyala, Tehsil- Modinagar, District- Ghaziabad by the under construction 400 KV D/C Muradnagar-Simbhawali Transmission Line**

Chief Executive Officer, M/s Powergrid Meerut Simbhawali Transmission Limited (PMSTL), has submitted the proposal for over head crossing of Delhi- Meerut Expressway at chainage 53.637 (DME Pkg-IV) near village Churiyala, Tehsil- Modinagar, District- Ghaziabad by the under construction 400 KV D/C Muradnagar-Simbhawali Transmission Line.

2. As per MoRT&H Circular No. RW/NH-33044/29/2015/S&R (R) dated 22.11.2016, the Highways Administration will make available the proposal seeking permission for Utility laying for public comments for 30 days on ground of public interest.

3. In view of above and in supersession of this office letter no. 1056 dated 22.06.2021, the comments of public are invited on captioned proposal and the same should reach to below mentioned address till 09.08.2021 beyond which no comments will be considered.

National Highways Authority of India

PIU-Ghaziabad,

Under CWG Flyover, at Km. 2+000 of NH-9 (Old NH-24)

Near Akshardham Temple, Delhi-110092

Email- gha@nhai.org, nh24ghaziabad@gmail.com

4. This issues with the approval of Highway Administration cum Regional Officer, NHAI, RO-Delhi.

Yours faithfully,

Encl: As Above

(Arvind Kumar)
DGM (T)

Copy to:

- Web Admin, NHAI HQ** for uploading on NHAI's Website
- The Senior Technical Director**, Email: mansoor@nic.in NIC, Transport Bhawan, New Delhi-110001 for uploading on Ministry's Website.
- RO-Delhi/GM (T)**, NHAI HQ, for information.
- CEO**, M/s PowerGrid Meerut Simbhawali Transmission Limited- for information.



पावरग्रिड
POWERGRID

पावरग्रिड मेरठ सिम्भावली ट्रांसमिशन लिमिटेड

(पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड की पूर्ण स्वामित्व वाली सहायक कंपनी, भारत सरकार का उपक्रम)
POWERGRID MEERUT SIMBHAVALI TRANSMISSION LIMITED
(A wholly owned subsidiary of Power Grid Corporation of India Limited, A Government of India Enterprise)

कार्यालय : प्लॉट नं० 1, पॉकेट-एन, गंगानगर, मेरठ-250001 (उ० प्र०) / Office : Plot No. 1, Pocket-M, Ganga Nagar, Meerut-250001 (UP). Ph. : 0121-7962557
CIN : U40106DL2019G01351476

Ref:- PG/NR-1/PMSTL/NHAI/Xing/2020/772

Date: - 11.02.2021

Project Director
National Highways Authority of India,
Project Implementation Unit, Ghaziabad
Under CWG Flyover, at Km. 2+000 of NH-9 (Old NH-24),
Near Akshardham Temple, Delhi-110016

Subject:- Issuing of NOC for Over Head crossing of Delhi-Meerut Expressway at chainage 53.637 KM (DME Pkg-IV) near village Churiyala, Tehsil- Modinagar, District- Ghaziabad by our under construction 400 KV D/C Muradnagar-Simbhaval Transmission Line (Application Tracking ID - ATS1127)

Previous letter ref:-NHAI/PIU-GZB/DME-IV/12029/NOC/2021/E-45 dtd. 11.01.2021

Dear Sir,

With reference to your previous letter reference NHAI/PIU-GZB/DME-IV/12029/NOC/2021/E-45 dtd. 11.01.2021 regarding submission of Performance Bank Guarantee (ROW x Crossing length x 100) and One time processing fee at "Bharat Kosh" portal of INR 5.00 Lakh. We are hereby submitting the following documents for further processing from your end:-

- (i) Performance Bank Guarantee of INR 4,14,000.00 (Indian Rupees Four Lakh Forty Thousand Only) having Guarantee No. 1731321BG0000166 dtd. 08.02.2021
- (ii) The receipt of INR 5.00 Lakh at "Bharat Kosh" portal having transaction reference No.0202210005287 dtd. 02.02.2021.
- (iii) Copy of Online Application having Application ID ATS1127
- (iv) Power of Attorney
- (v) Undertakings
- (vi) Agreement
- (vii) Checklist
- (viii) Tower Spotting data.
- (ix) Technical Data
- (x) Profile Drawings

The proposed 400 KV D/C Muradnagar-Simbhaval Transmission Line is crossing the existing road i.e. Delhi Meerut Expressway at a chainage of 53.637 KM (DME Pkg-IV) at village Churiyala.

It is requested that the NOC may kindly be issued at the earliest.

Thanking You.

Yours sincerely,

A Ahmad
CEO
POWERGRID MSTL

उत्तरी क्षेत्र-1, मुख्यालय : एस.सी.ओ.बे. संख्या 5 से 10, सेक्टर-16 ए, फरीदाबाद-121002 (हरियाणा) दूरभाष-0129-2666500
Northern Region-I H.Q., SCO Bay No. 5 to 10, Sector-16A, Faridabad-121002. Ph. : 0129-2666500

पंजीकृत कार्यालय: बी-9, कुतुब इंस्टीट्यूशनल एरिया, कटवारीया सराय, नई दिल्ली-110016, दूरभाष: 011-26560112, 2560121, 26564812, 26564892, CIN: L40101DL1989GO1038121
Registered Office: B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016, Tel.: 011-26560112, 2560121, 26564812, 26564892, CIN: L40101DL1989GO1038121
Website: www.powergridindia.com



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग विभाग, भारत सरकार)

National Highways Authority of India

(Ministry of Road Transport & Highways Govt. of India)

परियोजना कार्यान्वयन इकाई, गाज़ियाबाद

Project Implementation Unit, Ghaziabad

सी अल्यूजी फ्लाईओवर के नीचे डि. नो. 24-000 एन एच-2 (पुलना एन एच-24), अब्दुल्ला मंदिर के निकट, दिल्ली-110016

Under CWC Flyover at Km. 24.000 of NH-2 (Old NH-24), Near Abdullah Temple, Delhi-110016

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भारतमाला

प्रगति के पथ पर अग्रसर

NHAI/PIU-GZB/DME-IV/12029/NOC/2021/E-45

Dated: 11.01.2021

To,

Sh. A Ahmad, CEO
Power Grid Corporation of India Ltd.
Plot No. 1, Pocket-N, Ganga Nagar,
Distt. Meerut, U.P.

Sm. K. Singh
11/01/2021

Sub: Submission of BG Calculation for Overhead Crossing of 400 KV D/C Muradnagar-Simbhawali Transmission Lines on Delhi - Meerut Expressway Crossing at Chainage 53.637 Km (DME Pkg-IV) & 2.20 KM (DME Pkg-V).

Ref:

- Your office letter PG/NR-I/PMSTL/NHI/Xing/2020/580 dt 31.12.2020 & 581 dt 31.12.20.
- This office letter NHAI/PIU-GZB/DME-IV/12029/NOC/2020/E-1745 dated 20.10.2020.

Sir,

This has reference to your office letters no. 580 & 581 vide which you have submitted the BG calculation sheet of DME crossing at Chainage 53.637 Km (DME Pkg-IV) & 2.20 KM (DME Pkg-V) for 400 KV D/C Muradnagar-Simbhawali Transmission Line details of which are as under:

PBG amount = Crossing length x ROW(TL) x Rs.100 (per sq.m),
= 90x46x100
= Rs.4,14,000/- (per crossing)
= Rs. 4,14,000/- x 2

2. It is to inform that this office has examined the calculation sheet of Performance Bank Guarantee for an amount of Rs. 4,14,000/- (90x46x100) (per crossing) based on per route meter with a validity of one year submitted with the proposal, that has been found in order according to MORT&H guidelines dated 22nd November 2016.

3. It is also mentioned that NHAI/Policy Guidelines/Highway Administration/2020 No. 7.5.3/2020, dated 03 November, 2020 that ROs shall grant the permissions to PGCIL Cases also. A onetime processing fee of Rs. 5.0 lakh (per crossing) shall be charged on PGCIL. As per above NHAI Guidelines, please submit the above on "BHARAT KOSH" portal.

4. Accounts details of NHAI are as below:

Account Name: National Highways Authority of India
Account No : 87801130000038 (Current Account)
IFSC Code : SYNB0008780
Bank Name : Syndicate Bank, R-1/77, Raj Nagar, Ghaziabad
GST No : 09MRTN00260B1D1

5. In view of the above, it is requested to submit the proposal as per MoRT&H policy circular dated 22.11.2016 with said BG for issuance of NOC for Overhead Crossing of 400 KV D/C Muradnagar-Simbhawali Transmission Lines on Delhi - Meerut Expressway Crossing at Chainage 53.637 Km (DME Pkg-IV) & 2.20 KM (DME Pkg-V).

Yours faithfully,
Mudit Garg

(Mudit Garg)

Project Director

Copy to :- RO Delhi for kind information.



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
(सड़क परिवहन एवं राजमार्ग मंत्रालय, भारत सरकार)

National Highways Authority of India
(Ministry of Road Transport & Highways, Govt. of India)

परियोजना कार्यान्वयन इकाई, गाजियाबाद
Project Implementation Unit, Ghaziabad

मकान नं.: 518, नीति जण्ड-1, इंदिरापुरम, गाजियाबाद-201014 (उ०प्र०)

House No : 518, Niti Khanda-1, Indrapuram, Ghaziabad-201014 (U.P.)

टेलीफोन

फैक्स

ई-मेल

वेबसाइट

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भारतमाला
भरती से नव नर बनता

22/11/2020

NHAI/PIU-GZB/DME-IV/12029/NOC/2020/ **E-1745**

Date: 20.10.2020

To,

The CEO, Powergrid MSTL,
Powergrid Meerut Simbhawali Transmission Limited,
Plot No.-1, Pocket-N, Ganga Nagar,
Meerut-250001 (U.P.)

Sub: Proposal for Grand of NOC for Construction of 400Kv D/C Muradnagar- Simbhawali Transmission Line.

Ref:

- (i) Your letter no PG/NR-1/PMSL/NHAI/Xing/2020/2454 dated 06.10.2020
- (ii) Your letter no PG/NR-1/PMSL/NHAI/Xing/2020/245 dated 06.10.2020

Sir,

Please refer to your cited letters, vide which a proposal for Grand of NOC for Construction of 400Kv D/C Muradnagar- Simbhawali Transmission Line. has been submitted to this office.

2. The proposal has been examined and following observations have been made:

- (i) Submit the fresh proposal as per MORTH Circular No. RW/NH-33044/29/2015/S&R(R) dated 22.11.2016.

3. In this regard, it is requested to incorporate the above mentioned observations and submit the proposal conforming to the MORTH guidelines. The proposal is hereby returned in original for further necessary action at your end.

Encl: As above (in original).

Yours faithfully,

[Signature]
20.10.2020
For Project Director
PIU-Ghaziabad

[Handwritten note:]
Submitted as per proposal as approved by NHAI


**PERFORMANCE BG CALCULATION OF UTILIZED DELHI - MEERUT EXPRESS WAY ROAD AREA (DME Pkg-IV) DUE TO
OVERHEAD POWER LINE CROSSING IN BETWEEN 53KM & 54KM FOR THE CONSTRUCTION OF 400kV D/C TWIN
MURADNAGAR – SIMBHAVALI TL**

As per MORTH Guideline No. RW/NH-33044/29/2015/S&R(R) dated 22.11.2016, PBG Amount = Crossing Length X ROW (TL) X Rs. 100 /-
90x46x100
414000/-

RUPESS FOUR LAKH FOURTEEN THOUSAND ONLY



ए० के० राय /A. K. Rai
प्रबन्धक /Manager
पावर ग्रिड मेरठ सिम्भावली ट्रांसमिशन लिमिटेड, मेरठ
Power Grid Meerut-Simbhawali Transmission Limited, Meerut



अहमद /A. Ahmad
प्रभारी अधिकारी/Chief Executive
मेरठ सिम्भावली ट्रांसमिशन लिमिटेड
Power Grid Meerut-Simbhawali Transmission Limited

**PERFORMANCE BG CALCULATION OF UTILIZED DELHI - MEERUT EXPRESS WAY ROAD AREA (DME Pkg-V) DUE TO
OVERHEAD POWER LINE CROSSING IN BETWEEN 2KM & 3KM FOR THE CONSTRUCTION OF 400KV D/C TWIN**

MURADNAGAR – SIMBHAVALI TL

As per MORTH Guideline No. RW/NH-33044/29/2015/S&R(R) dated 22.11.2016, PBG Amount = Crossing Length X ROW (TL) X Rs. 100 /-

90x46x100

414000/-

RUPESS FOUR LAKH FOURTEEN THOUSAND ONLY



ए० के० राय /A. K. Rai

प्रबन्धक /Manager

पावर ग्रिड मेरठ सिम्भावली ट्रांसमिशन लिमिटेड, मेरठ
Power Grid Meerut-Simbhawali Transmission Limited, Meerut



ए. अहमद /A. Ahmad

मुख्य कार्यकारी अधिकारी/Chief Executive Officer
पावर ग्रिड मेरठ सिम्भावली ट्रांसमिशन लिमिटेड
Power Grid Meerut-Simbhawali Transmission Limited

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400 KV D/C MURADNAGAR - SIMBHAVALI TRANSMISSION LINE

POWER GRID MEERUT SIMBHAVALI TRANSMISSION LIMITED

QUESTIONNAIRE FOR ROAD CROSSING FOR CONSTRUCTION OF

400 KV D/C MURADNAGAR SIMBHAVALI TRANSMISSION LINE

SL NO	QUESTIONNAIRE	(AP32-AP33)
1	Name of the Road	Delhi-Meerut Expressway (DME-Package IV)
2	Name of the Line (Proposed Line)	400 KV D/C MURADNAGAR - SIMBHAVALI TRANSMISSION LINE
3	Crossing Span	234.54 Mtr
4	Crossing Angle	81 °
5	Type of Supporting Structure (Tower Type)	DD+6 & DD+9
6	Distance of the Tower from the nearest road edge	78.77 Mtr.
7	Crossing the between Kilometre Stone	53-54
a)	From: DELHI	53
b)	To: MEERUT	54
10	Electrical Clearance above Top Surface of the Road	
a)	Actual :	18.93 Mtr.
b)	Required:	8.84 Mtr.


ए. अहमद /A. Ahmad

मुख्य कार्यकारी अधिकारी/Chief Executive Officer
पावर ग्रिड मेरुट सिम्भावली ट्रांसमिशन लिमिटेड
Power Grid Meerut-Simbhawali Transmission Limited

TrackingID : ATS1127

Application Date : 04/02/2021

Clearance Category

Utility

Clearance Application Type

High Tension / Electric Lines

State

Uttar Pradesh

NH No

Delhi Meerut Expressway (DME Package IV)

Stretch

KM 53-54

Chainage

53.637

Side

Left

Location

Churiyala Village , Ghazlebad

Name Of Highway Authority

NHAI

Latitude From

Degree

28

Minutes

51

Seconds

22.32

Latitude To*

Degree

28

Minutes

51

Seconds

21.96

Longitude From

Degree

77

Minutes

39

Seconds

11.95

Longitude To

Degree

77

Minutes

39

Seconds

20,59

Details of Owner of the Land *

CHURIYALA VILLAGE, DISTRICT - GHAZIABAD

Forward Detail:

Ro Office*

Head Office(Delhi)

PIU Office *

Stipulated Norms

1	Width of available ROW.(a) Left side from center line toward increasing chainage/km direction or b)Right side from center line toward increasing chainage/km direction	Yes v	46 MTR
2	Proposal to lay underground electrical cable.(a) Left side from center line towards increasing chainage/km direction or (b) Right side from center line towards increasing chainage/km direction	Yes v	RIGHT SIDE 32/0 IS 97.77 MTR & LEFT SIDE 33/0 IS 136.77 MTR
3	Proposal to acquire land.(a) Left side from center line or (b) Right side from center line	Yes v	N/A
4	Whether proposal is in the same side where land is not to be acquired.If not then where to lay the cable	Yes v	N/A
5	Details of already laid services, if any, along the proposed route	Yes v	NO
6	Number of lane (2/4/6/8 lanes) existing	Yes v	04 LANE
7	Proposed Number of lanes (2 lane with paved shoulder/4/6/8 lanes)	Yes v	NO
8	Service road existing or not .If yes then which side (a)left side from center line or (b)Right side from center line	Yes v	NO
9	Proposed Service road .(a)left side from center line or (b)Right side from center line	Yes v	NO
10	Whether proposal to lay Water Supply Pipe line is after the service road or between the service road and main carriageway	Yes v	N/A
11	The permission for lay Water Supply Pipe Line shall be considered for approval / rejection based on the Ministry Circulars mentioned as above.	Yes v	N/A
12	If crossing of the road involved.If yes, it shall be either encased in pipes or through structure or conduits specially built for that purpose at the expenses of the agency owning the line .(a)Existing drainage structure shall not be allowed to carry the line	Yes v	N/A
13	Cost of required extension of the substructure as well as that of the supporting superstructure shall be borne by the agency-in-charge of the utilities	Yes v	N/A
14	Document/Drawing enclosed with proposal	Yes v	YES
15	Cross section showing the size of trench for open trenching method (Is it normal of 1.2m deepX 0.3m wide)(i) Should not be greater than 60 Cm wider than the outer diameter of the pipe	Yes v	N/A
16	Cross section showing the size of pit and location of cable for HDD method	Yes v	N/A
17	Strip plan/Route Plan showing Water Supply pipe line, Chainage, width of ROW, distance of proposed, cable intersections, cross drainage works etc.	Yes v	N/A
18	Open trenching method.(May be allowed in utility corridor only where pavement is neither cement concrete nor dense bituminous concrete type. If yes, Methodology of refilling of trench.(a)The trench width should be at least 30 cm, but not more than 60 cm wider than the outer diameter of the pipe.(c)The backfill shall be completed in two stages (i) side -fill to the level of the top of the pipe and (ii) overfill to the bottom of the road crust.(f) The excavation shall be protected by flagmen, signs and barricades, and red lights during night hours.	Yes v	N/A
19	Horizontal Directional Drilling (HDD) method	Yes v	N/A
20	Laying of Water Supply Pipe Line through CD works and method of laying.(a) On approaches, the water main/cables shall be carried along a line as close to the edge of the right-of way as possible up-to a distance of 30m from the bridge and subject to all other stipulations contained in this Ministry's guidelines issued with letter No. NH-HI/P/66/76 dated 19.11.1976	Yes v	N/A
21	Draft License Agreement signed by two witnesses	Yes v	YES
22	Performance Bank Guarantee In favour of NHAI has to be obtained @Rs 50/- per running meter (parallel to NH) and Rs1,00,000/- per crossing of NH, for a period of one year initially (extendable if required till satisfactory completion of work) as a security for ensuring/making good the excavated trench for laying the cables/ducts by proper filling and compaction, clearing debris/loose earth produced due to execution of trenching at least 50m away from the edge of the right of way. No payment shall be payable by the NHAI to the licensee for clearing debris/loose earth.	Yes v	BG ENCLOSED
23	Performance BG as per above is to be obtained.	Yes v	YES
24	Confirmation of BG has been obtained as per NHAI guidelines	Yes v	YES
25	Affidavit/ Undertaking from the Applicant for	Yes v	YES
26	Not to damage to other utility, If damaged then to pay the losses either to NHAI or to the concerned agency	Yes v	YES

27	Renewal of Bank Guarantee	Yes ▾	N/A
28	Confirming all standard condition of NHAI's guideline	Yes ▾	YES
29	Shifting of Water Supply pipe line as and when required by NHAI at their own cost	Yes ▾	N/A
30	Shifting due to 6 laning/ widening of NH	Yes ▾	N/A
31	Indemnity against all damages and claims clause (xiv)	Yes ▾	N/A
32	Traffic movement during laying of Water Supply pipe line to be managed by the applicant.	Yes ▾	N/A
33	If any claim is raised by the Concessionaire then the same has to be paid by the applicant	Yes ▾	YES
34	Prior approval of the NHAI shall be obtained before undertaking any work of installation, shifting or repairs, or alterations to the showing Water Supply pipe line located in the National Highway right-of-ways.	Yes ▾	N/A
35	Expenditure, If any, incurred by NHAI for repairing any damage caused to the National Highway by the laying, maintenance or shifting of the Water Supply pipe line will be borne by the agency owning the line.	Yes ▾	N/A
36	If the NHAI considers it necessary in future to move the utility line for any work of improvement or repairs to the road, it will be carried out as desired by the NHAI at the cost. Of the agency owning the utility line within a reasonable time (not exceeding 60 days) of the intimation given.	Yes ▾	YES
37	Certificate from the applicant in the following format.(i) Laying of Water Supply pipe line will not have any deleterious effects on any of the bridge components and roadway safety for traffic.	Yes ▾	N/A
38	Who will sign the agreement on behalf of Water Supply pipe line agency	Yes ▾	CEO-PMSTL
39	Certificate for confirming of all standard condition issued vide Ministry Circular No. Ministry Circular No. NH-41(58)/68 dated 31.1.1969, Ministry Circular No. NH-III/P/66/76 dated 18/19.11.1976, Ministry Circular No. RW/NH-III/P/66/76 dated 11.5.1982, Ministry Circular No. RW/NH-11037/1/86-DOI (II) dated 28.7.1993, Ministry Circular No. RW/NH-11037/1/86/DOI dated 19.1.1995, Ministry Circular No. RW/NH-34066/2/95/S&R dated 25.10.1999 and Ministry Circular No. RW/NH-34066/7/2003 S&R (B) dated 17.9.2003	Yes ▾	YES
42	Who will supervise the work of laying of Water Supply pipe line	Yes ▾	N/A
43	Who will ensure that the defects in road portion after laying of Water Supply pipe line are corrected and if not corrected then what action will be taken	Yes ▾	N/A
44	Who will pay the claims for damages done/disruption in working of Concessionaire if asked by the Concessionaire.	Yes ▾	N/A
45	A certificate from PD that he will enter the proposed permission in the register of records of the permissions in the prescribed proforma (copy enclosed)	Yes ▾	N/A
46	If any previous approval is accorded for laying of underground water Supply Pipe line then Photocopy of register of records of permissions accorded as maintained by PD then copy be enclosed	Yes ▾	N/A
40	Certificate from PD in the following format.(i) "It is certified that any other location of the Water Supply pipe line would be extremely difficult and unreasonable costly and the installation of Water Supply pipe line within ROW will not adversely affect the design, stability & traffic safety of the highway nor the likely future improvement such as widening of the carriageway, easing of curve etc".	Yes ▾	N/A
41	If NH section proposed to be taken up by NHAI on BOT basis – a clause is to be inserted in the agreement. "The permitted Highway on which Licensee has been granted the right to lay cable/duct has also been granted as a right of way to the concessionaire under the concession agreement for up-gradation of [-----section from Km ----- to Km ----- of NH No. ----- on Build, Operate and Transfer Basis] and therefore, the licensee shall honour the same."	Yes ▾	N/A

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Back



सत्यमेव जयते

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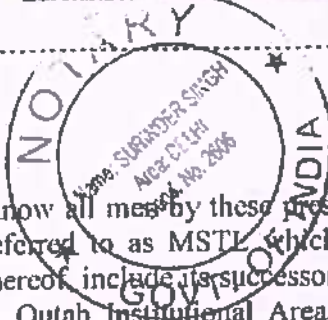
Government of National Capital Territory of Delhi

e-Stamp

Certificate No.	: IN-DL56656879002891R
Certificate Issued Date	: 17-Sep-2019 11:57 AM
Account Reference	: IMPACC (IV)/dl915103/ DELHI/ DL-DLH
Unique Doc. Reference	: SUBIN DLDL91510319640484807403R
Purchased by	: MEERUT SIMBHAVALI TRANSMISSION LIMITED
Description of Document	: Article 48(c) Power of attorney - GPA
Property Description	: Not Applicable
Consideration Price (Rs.)	: 0 (Zero)
First Party	: MEERUT SIMBHAVALI TRANSMISSION LIMITED
Second Party	: Not Applicable
Stamp Duty Paid By	: MEERUT SIMBHAVALI TRANSMISSION LIMITED
Stamp Duty Amount(Rs.)	: 100 (One Hundred only)



Please write or type below this line.....



General Power of Attorney

Know all men by these presents, we Meerut-Simbhaval Transmission Limited (hereinafter referred to as MSTL which expression shall unless repugnant to the context or meaning thereof include its successors, administrators, and assigns) having its Registered Office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi - 110 016 do hereby constitute, appoint and authorize Shri Afzal Ahmad, Project Incharge of MSTL residing at Flat No. 403, Tower C4, Power Welfare Organization, Plot number GH-1, Sector 43, Gurugram, as our true and lawful attorney, to do in our name and our behalf, all of the acts or things hereinafter mentioned, that is to say :-

Statutory Alert:-

1. The authenticity of this Stamp Certificate should be verified at "www.shorlostamp.com". Any discrepancy in the details on this Certificate and as available on the website renders it invalid.
2. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority.

(Signature)

1. To constitute, and defend legal cases, sign and verify plaints, written statements, petitions and objections, memorandum of appeal, claims, affidavits, applications, re-applications and pleadings of all kinds and to file them in Central Electricity Regulatory Commission (CERC), State Electricity Regulatory Commissions (SERCs), Appellate Tribunal for Electricity (ATE), Civil, Criminal or Revenue courts, Arbitration, Labour Court, Industrial Tribunal, High Court and Supreme Court, whether having original or appellate jurisdiction and before Government or Local Authorities or Registration Authorities, Tax Authorities, Tribunals, etc.
2. To appear, before various Courts / Tribunals / CERC / SERCs / Appellate Tribunal for Electricity.
3. To appoint any Advocate, Vakil, Pleader, Solicitor or any other legal practitioner as Attorney to appear and conduct case proceedings on behalf of the company and to sign Vakalatnama.
4. To compromise, compound or withdraw cases from any Court / Tribunal / CERC / SERCs / Appellate Tribunal for Electricity.
5. To file petitions/applications or affidavits before the Supreme Court / High Court / CERC / SERCs / Appellate Tribunal for Electricity and to obtain the copies of documents, papers, records etc.
6. To file and receive back documents, to deposit and withdraw money from Courts, Tribunal, Registrar's Office and other Government or Local Authorities and to issue valid receipts thereof.
7. To apply for and obtain refund of stamp duty or court fee, etc.
8. To issue notices and accept service of any summons, notices or orders issued by any Court / Tribunal / CERC / SERCs / Appellate Tribunal for Electricity on behalf of the Company.
9. To execute deeds, agreements, bonds and other documents and returns in connection with the affairs of the company and file them or cause to be filed for Registration, whenever necessary.
10. To issue Project Authority Certificate(s) in respect of contracts for Load Despatch & Communication Systems, Transmission Systems etc. and to lodge claims with the Railways, Transporters, Shipping Agents and Clearing Agents and to settle/compromise such claims.
11. To lodge claims with the Insurance companies, to settle/compromise such claims and on satisfactory settlement thereof, to issue letters of subrogation/power of attorney in favour of Insurance companies.
12. To execute, sign and file applications, undertakings, agreements etc. to or with the Central / State Government(s) / Body(ies) to obtain 'right of way' or any of other Right(s) / Privilege(s) etc.
13. To execute, sign and file applications, undertakings, agreements, bills, documents etc. to or with the Central / State Government(s) / Body(ies) and other authorities / entities including Central Transmission Utility (CTU)/State Transmission Utility (STUs), Power System Operation Corporation Limited (POSOCO) / Central Electricity

35

Authority (CEA) Regional Load Despatch Centres / State Load Despatch Centres / CERC / SERC with respect to Commissioning of the Project, realization of Transmission charges, to obtain 'right of way' or any of other Right(s) / Privilege(s) etc.

14. To execute Consultancy, Funding and other Agreements.
15. To act as administrator for e-filing process with CERC/ SERCs and other Statutory authorities.
16. Generally to do all lawful acts, necessary for the above mentioned purposes.

The Company hereby agrees to ratify and confirm all and whatsoever the said Attorney shall lawfully do execute or perform or cause to be done, executed or performed in exercise of the power or authority conferred under and by virtue of this Power of Attorney.

.....
Signed by the within named
Meerut-Simbhawali Transmission Limited
through the hand of *Shri. ATUL TRIVEDI, Chairman (Part-time)*
Duly authorized by the Board to issue such Power of Attorney

Dated this *23rd* day of *Dec* 2019

Accepted

.....
Signature of Attorney

Name: Shri Afzal Ahmad

Designation: Project Incharge, Meerut-Simbhawali Transmission Limited



Address: Flat No.-403, Tower C4, Power Welfare Organization, Plot number GH-1,
Sector 43, Gurugram

Attested

.....
(Signature of the Executant)
Name: *Shri ATUL TRIVEDI*
Designation: *Chairman (Part-time)*
Address: B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi - 110 016

ATTESTED

NOTARY PUBLIC
DELHI

23 DEC 2019

Signature and Stamp of Notary of the place of execution

WITNESS

.....
(RAM NARESH SINGH)
DIRECTOR

.....
(PRAMOD KUMAR)
DIRECTOR

.....
(DIVYA PANDON)
CO. Secy (POWERGRID)



bharatkosh.gov.in

Government of India Receipt Portal

RECEIPT

Transaction Ref.No. 0202210005287

Dated: Feb 2 2021 2:35PM

Received from M/S. POWER GRID CORPPRATION OF INDIA LTD with

Transaction Ref.No. 0202210005287

Dated Feb 2 2021 2:35PM the sum of INR 500000 (Five Lakhs Only) through
Internet based Online payment in the account of

Processing fee for permission to access to NH, , DELHI MEERUT EXPRESS
CROSSING AT CHAINAGE 53.637KM MURADNAR.

Disclaimer:- This is a system generated electronic receipt, hence no physical signature
is required for the purpose of authentication

Printed On: 06-02-2021 11:39:30

Courtesy :- Controller General of Accounts



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Government of National Capital Territory of Delhi

e-Stamp

सत्यमेव जयते
 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.)

IN-DL206750851173999
 22-Dec-2020 02:08 PM
 IMPAGG (INDIA) 788003/DLHI/ DL-DEH
 SUBIN/DL/73600345161469337187S
 STATE BANK OF INDIA
 Article Bank Guarantee
 Not Applicable
 0
 (Zero)
 STATE BANK OF INDIA
 Not Applicable
 STATE BANK OF INDIA
 100
 (One Hundred only)
 सत्यमेव जयते



THIS STAMP-PAPER IS AN INTEGRAL PART OF ISSUANCE BANK GUARANTEE NO 1731321BG0000166 ISSUED ON 03.02.2020
 FOR RS 4,14,000/- IN FAVOUR OF THE PROJECT DIRECTOR, NATIONAL HIGHWAY AUTHORITY OF INDIA PIU GHAZIABAD ON
 BEHALF OF POWER GRID CORPORATION.
 NOW FURTHER,
 EXPIRY DATE: 31.07.2022
 CLAIM DATE: 31.07.2023

For STATE BANK OF INDIA, By ANUPAM KUMAR Corporate Accounts Officer	For STATE BANK OF INDIA, Chief Executive Officer TEJ RAM MAHAWAR FMS/11-7803
ANUPAM KUMAR 17313	TEJ RAM MAHAWAR FMS/11-7803

Statutory Alert:

- The authenticity of this Stamp certificate should be verified at www.shcilestamp.com or using e-Stamp Mobile App of Stock Holding.
- Any discrepancy in the details on this Certificate and as available on the website / Mobile App renders it invalid.
- In case of any discrepancy please inform the Competent Authority.



STATE BANK OF INDIA
C.A.G. II NEW DELHI
4TH AND 5TH FLOOR
REDFORT
CAPITAL PARSVANATH
TOWERS, NEW DELHI

Tel No. :
Fax No. :
SWIFT No. : SBININBB824
PIN Code :

08-02-2021

To,
PROJECT DIRECTOR NATIONAL HIGHWAYS AUTHORITY OF INDIA PIU GHAZIABAD
GHAZIABAD

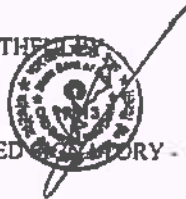
DEAR SIR(S),

Guarantee Number	:	1731321BG0000166
Date of Issue	:	08-02-2021
Guarantee Amount	:	INR 414,000.00
Date of Expiry	:	31-07-2022
Date of Claim	:	31-07-2023
Applicant Name	:	POWER GRID CORPORATION

We confirm having Issued / Extended the captioned Bank Guarantee in your favour on behalf of our above named Constituent and the same signed by the officers of the Bank.

YOURS FAITHFULLY

AUTHORISED SIGNATORY - 1



*AUTHORISED SIGNATORY - 2

(*2nd signatory required, if BG is for Rs. 50000/- and above)

Arghawar

The beneficiaries are advised in their own interest to verify the genuineness of the Guarantee with the BG issuing Branch and also verify that Bank Guarantee for Rs.50000/- (Rupees Fifty Thousand Only) & above is signed by two authorized officials of the Bank.

PLEASE CONTACT BRANCH FOR eTradeSBI FACILITY-INTERNET ACCESS TO TRADE FINANCE

Feb 8, 2021 3:04 PM

STATE BANK OF INDIA
CORPORATE ACCOUNTS GROUP BRANCH
5TH FLOOR, RED FORT CAPITAL PARSVNATH TOWERS,
BHAI VEER SINGH MARG, GOLE NEW DELHI-110001

Bank Guarantee No.: 1731321BG0000166

Date:- 08.02.2021

PERFORMANCE BANK GUARANTEE

To,
Project Director
National Highways Authority of India,
Project Implementation Unit, Ghaziabad
Under CWG Flyover, at Km. 2+000 of NH-9 (Old NH-24),
Near Akshardham Temple, Delhi-110016

In consideration of "Project Director, National Highways Authority of India, PIU-Ghaziabad" (Herein after referred as the "client", which expression shall unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having permitted to construction of 400 KV D/C Muradnagar II - Simbhavali Transmission Line by POWERGRID Meerut Simbhavali Transmission Limited.

Above said overhead transmission line crossing Delhi-Meerut Expressway near Village -Churiyala, Tehsil - Modinagar, Dist- Ghaziabad at Chainage 53.637 KM (DME Pkg-IV) in the state of Uttar Pradesh utilizing NH land area of 4,140 sq mtr. For accord clearance from Project Director, National Highways Authority of India, PIU-Ghaziabad, we have to submit the Bank guarantee for Rs. 100/- per sq mtr. of NH land (as per guidelines of Ministry of Road Transport and Highways letter no F.NO.RW/NH-33044/29/2015/S&R(R)) dt 22-11-2016 Para no.6) therefore the total amount of bank guarantee is Rs. 4,14,000/- (Rupees Four Lakh Fourteen Thousand Only) mentioned in NHAI's letter No NHAI/PIU-GZB/DME-IV/12029/NOC/2021/E-45 dtd. 11.01.2021.

The POWERGRID Meerut Simbhavali Transmission Limited agreed to furnish a bank guarantee to the client as "Performance Bank Guarantee". We, State Bank of India Corporate Accounts Group Branch, 5th Floor Redfort Capital, Parsvnath Towers, Bhai Veer Singh Marg, Gole Market, New Delhi -110001, do hereby guarantee and undertake to pay the client immediately on demand, without any deductions, set of or counterclaim whatsoever and for any money payable by the contractor to the extent of Rs. 4,14,000/- (Rupees Four Lakh Fourteen Thousand Only) as foresaid at any time up to 31.07.2022 without any demur, reservation, contest, recourse civil, argument or protest and/ or without any reference to or enquiry from the POWERGRID Meerut Simbhavali Transmission Limited and without your need to prove or showing grounds or reasons for your demand for the sum specified there in any such demand made by the client on the bank shall be conclusive and binding not withstanding any difference between the client and the POWERGRID Meerut Simbhavali Transmission Limited or any dispute pending before any court, tribunal arbitrator or any other authority, we agree that the guarantee here in contained shall be irrevocable and shall continue to be enforceable till the client discharge this guarantee or up till 31.07.2023 whichever is earlier.

For STATE BANK OF INDIA, Dy. Manager (C.S.) Corporate Accounts Group Branch, New Delhi. ANUPAM KUMAR 50-236	For STATE BANK OF INDIA, Chief Manager (C.S.) Corporate Accounts Group Branch, New Delhi. TEJ RAM MAHAJAN M-7883
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STATE BANK OF INDIA
CORPORATE ACCOUNTS GROUP BRANCH
5TH FLOOR, RED FORT CAPITAL PARSVNATH TOWERS,
BHAI VEER SINGH MARG, GOLF NEW DELHI-110001

Bank Guarantee No.:- 1731321BG0000166



Date:- 08.02.2021



The Client shall have the fullest liberty without affecting in any liability of the bank under this guarantee, from time to time to vary or to extend the time for performance of the contract by the contractor. The client shall have fullest liberty without affecting this guarantee to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the contractor and to exercise the same at any time in any manner and either to enforce or to forbear to enforce any covenants, contain or implied, in the contract between the client and the **POWERGRID Meerut Simbhavali Transmission Limited** any other course or remedy or security available to the client. The bank shall not be relieved of its obligations under these presents by any exercise by the client of its liberty with reference to the matter aforesaid or any of them or by reason of another act or forbearance or other acts of omission or commission on the part of the client or any other indulgence shown by the client or by any other matter or thing whatsoever which under law would but for this provision have the effect of relieving the bank.

The bank also agrees that the client at its option shall be entitled to enforce this guarantee against the bank or a principle debtor, in the first instance without proceeding against the contractor and notwithstanding any security or other guarantee that the client may have in relation to the contractor's liabilities. Any demand shall be deemed to be served, if delivered by hand, when left at the property address for service and if given or made by pre paid registered post on receipt.

Any waivers, extensions of time or other forbearance given or variations required under the contract or any invalidity unenforceability or illegality of the whole or any part of the contract or right or any party there to or amendment or other modifications of the contract or any other fact, circumstance provision of statute of law which might entitle the bank to be released in whole or in part from its undertaking, whether in the knowledge of the bank or not or whether notified to the bank or not in any way release the bank from its obligations under this bank guarantee.

This guarantee shall also be operable at State Bank of India Corporate Accounts Group Branch, 5th Floor Redfort Capital, Parsvnath Towers, Bhai Veer Singh Marg, Golf Market, New Delhi -110001 from whom, confirmation regarding the issue of this guarantee or extension /renewal thereof shall be made available on demand may be granted at the request of our constituent with the prior permission of sanctioning authority there shall be cap on time of extension. In the contingency of this guarantee being invoked and payment of amount so demanded under the invocation"

For STATE BANK OF INDIA,  Dy. Manager (C.S.) Corporate Accounts Group Branch, New Delhi. ANUPAM CHANDRA 5K-936	For STATE BANK OF INDIA,  Chief Manager (C.S.) Corporate Accounts Group Branch, New Delhi. TEJ RANJAN MAMRAKAR M-7883
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STATE BANK OF INDIA
CORPORATE ACCOUNTS GROUP BRANCH
5TH FLOOR, RED FORT CAPITAL PARSVNATH TOWERS,
BHAI VEER SINGH MARG, GOLE NEW DELHI-110001

Bank Guarantee No.:- 1731321BG0000166

Date:- 08.02.2021

"The Guarantor / bank hereby confirms that it is on the SFMS (Structural Finance Messaging System) platform & shall invariably send an advice of this bank guarantee to the designated bank of National Highways Authority of India, PIU-Meerut after obtaining details thereof from National Highway Authority of India, PIU-Meerut.

Bank details of NHAI are as below:

Beneficiary Name : National Highways Authority of India, PIU-Ghaziabad

Bank Account No. : 87801130000038 (Current Account)

IFSC Code : SYNB0008780

Bank & Branch : Syndicate Bank, R-1/77, Raj Nagar, Ghaziabad

Notwithstanding anything contained to the contrary contained herein:

Our liability under this bank guarantee shall not Rs. 4,14,000/- (Rupees Four Lakh Fourteen Thousand Only).

1. This bank guarantee shall be valid till 31.07.2022
2. We are liable to pay the guarantee amount or any part thereof under this guarantee only and only if you serve upon us a written claim or demand is on or before 31.07.2023

For STATE BANK OF INDIA, Dy. Manager (C.S.) Corporate Accounts Group Branch, New Delhi. ANUPAM KUMAR, SK-936	For STATE BANK OF INDIA, Chief Manager (C.S.) Corporate Accounts Group Branch, New Delhi. TEJESH KANAWAR M-7883
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CHECK LIST

Project Director for processing the Proposal of lane over head electrical line crossing national highways vested with NHAI

Circular / Codes:-

Ministry Circular No NH-III/p/20/77 dated 08-04-1982

Indian Electricity Act 1910

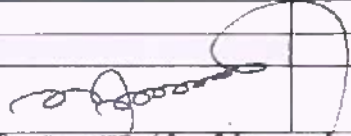
Indian Electricity Rules 1956

IRC: 32-1969

IS:5613-1976 Part I to IV

For getting approval for layering of overhead electrical line along the Delhi – Meerut Expressway (DME Package IV), vested with NHAI


S.NO	Item	Information/ status	Remarks
1	General Information	400 KV D/C (TWIN) MSTL	
1.1	Name and address of the applicant	POWERGRID Meerut Simbhavali Transmission LTD.	
1.2	National Highway No	Delhi – Meerut Expressway (DME Package IV)	
1.3	State	Uttar Pradesh	
1.4	Location	Churiyala Village, Ghaziabad	
1.5	Type of electric including carrying voltage details and purpose	400 KV D/C (TWIN) MSTL	
1.6	Chain -age in Kilometers	53.637 KM	
1.7	Length in Metre	234.54 Mtrs	
1.8	Width of available ROW	46 Mtr.	
	(a). Left side from Center Line towards increasing chainage / KM Direction	23 Mtr.	
	(b) Right side from Center Line towards increasing chainage / KM Direction	23 Mtr.	
1.9	<u>Proposal to lay Overhead</u>		
(a)	Left side from Center Line towards increasing chainage / KM Direction	(a) 136.77 Mtr.	
(b)	Right side from Center Line towards increasing chainage / KM Direction	(b) 97.77 Mtr.	
(c)	Erection of Electrical line along the Delhi – Meerut Expressway (DME Package IV)	(c) NA	
1.10	<u>Proposal to acquire land</u>	NA	
	(a) Left side from Center Line		
	(b) Right side from Center Line		
1.11	Whether the proposal is a- in the same side where land is not to be acquired b- Crossing the National Highway If not then where to lay the overhead electrical line	Overhead Crossing the expressway. From Muradnagar - Simbhavali	
1.12	Details of Already laid services (overhead telecommunication line, overhead electric line etc), if any, along the proposed route / proposed crossing	NA	
1.13	NO of lanes (2/4/6/8 lanes) existing	06 04 lane	
1.14	Proposed number of lanes (2 lanes with paved shoulder 4/6/8 lanes)	N/A	
1.15	Service Road existing or not	N/A	
	If yes then which side		
	a) Left side from center line		
	b) Right side from center line		
1.16	<u>Proposed Service Road</u>	N/A	
	a) Left side from center line		
	b) Right side from center line		
1.17	Whether proposal to lay overhead electric line is after the service road or between the service road and main carriage way, or crossing for approval / rejection based on the	N/A	


A. Ahmad
 मुख्य कार्यकारी अधिकारी/Chief Executive Office
 पावर ग्रिड मेरठ सिम्भावली ट्रांसमिशन लिमिटेड
 Power Grid Meerut-Simbhavali Transmission Limited

1.19	<p>I- If crossings of the roads involved</p> <p>(a) Crossing angle for NH and provide length along the Highway</p> <p>(b) Structure (Tower, pole and for HT Line only tension towers) for crossings shall not be too near the existing structures on the National Highway, The minimum distance being 15 meter.</p> <p>(i)- Type of Existing / proposed structure for National Highways</p> <p>(ii)- What is the distance of tower, pole and tension tower lying from the existing / proposed structure for National Highways.</p>	<p>Yes</p> <p>(a) 81°0'00", 234.54 Meters</p> <p>(b) Nil</p>	
	<p>(c)- The over head lines and their supporting poles / towers should ordinarily be placed at the extreme edge of the road land boundary. In any case, these shall be atleast 10 meter away from the edge of the existing shoulders of extreme traffic lane. Where the existing road way is narrower than the minimum according to standard or where the widening is proposed for any reason the lateral clearance shall be reckoned with respect to ultimate road way.</p> <p>What is the horizontal clearance from the extreme edge of the road land boundary?</p>	<p>N/A.</p> <p>N/A</p>	
	<p>(d)The overhead lines and their supporting poles/ towers should originally be placed at the minimum distance of 5.0 m from the nearest line of avenue trees.</p> <p>What is the horizontal clearance from the nearest line of avenue trees?</p>	N/A	
	<p>(e)- in mountainous / hilly terrain the over head lines should be erected preferably on the valley side as far away as practicable .In hilly region, label of ground at a suitable distance below the outer conductor on either side from the central line is also to be noted and marked in profile so as to ensure required ground clearance underneath conductor and side clearances in swung conditions. Is the proposal in hilly area?</p>	Plain terrain	
	<p>The horizontal clearances in respect of poles erected for the purpose of street lighting in Urban situations shall be as under:-</p>		
	<p>i-For roads with Raised kerbs Minimum 300mm from the 300mm from the edge of nearest kerb Preferably 600mm</p>	N/A	
	<p>ii- For roads with raised kerbs At least 1.5m from the edge of the carriage way , subject to minimum of 5.0 from the central line of the carriage way .</p>	N/A	
	<p>(g) the Pylons of HT lines along crossing the road shall be located outside the NH land</p>	N/A	
	<p>(h) for crossing the line of same voltage or lower voltage , suspension/ tension tower with suitable extensions shall be used .</p>	N/A	
	<p>(i) The vertical clearance of the overhead lines crossing the road shall be reckoned from the top of the crown of the road taking into account the anticipated final top level due to future raising of road level, strengthening of pavement etc. The actual ground clearance of High Tension line for voltage above 650 volts varies depending upon the voltage transmitted and these are stipulated in Indian standard. Codes is 56130-1976 part 1 to IV and Indian Electricity Rules 1956 as under.</p>	<p>Ground Clearance shall be taken jointly with PMSTL and NHA after completion . Ground Clearance shall be 18.93 mtr. under maximum sag condition at 85°C.</p>	

ए. अहमद /A. Ahmad
उप कार्यकारी अधिकारी/Chief Executive Officer
गौरी नगर मेरठ निम्नावली ट्रांसमिशन लिमिटेड
Gauri Nagar Meerut-Simbhawali Transmission Limited

<u>2</u>	Affidavit / Under taking to be obtained from (to be furnished by the applicant).	Yes	
<u>2.1</u>	Not to damage to other utility , if damaged then to pay the losses either to NHAI or to the concerned agency	Yes	
<u>2.2</u>	Under Taking for Renewal of Bank Guarantee if required.	N/A	
<u>2.3</u>	Confirming all standard conditions as laid down in ministry circular no- NH-III/P/20/77 dated 08-04-1982 Indian Electricity Act 1910 Indian Electricity Rules 1956 IRC :32-1969, IS : 5613-1976 part I to IV of (NHAI)	. Yes	
<u>2.4</u>	Shifting of overhead Electrical line at their own cost as an when required by (NHAI)	Done by PMSTL electrical Department own cost	
<u>2.5</u>	Shifting of overhead Electrical line at their own cost as an when required due to 4/ 6 lanning/ widening of NH	Done by PMSTL electrical Department own cost	
<u>2.6</u>	Indemnity against all damage and claims whatsoever kind that may be to NHAI or to any third party in the row during installation, operation and maintenance	Done by PMSTL electrical Department own cost	
<u>2.7</u>	Traffic movement during laying of OFC/Cable to be managed by the applicant	Done by PMSTL electrical Department own cost	
<u>2.8</u>	If any claim is raised by the concessionaire then the same has to be paid by the applicant.	Done by PMSTL electrical Department own cost	
<u>2.9</u>	Prior approval of the NHAI shall be obtained before undertaking any work of installation, shifting or repairs , or alterations to the overhead electrical line located in the National Highway right of way	Yes	
<u>2.10</u>	Expenditure, if any , incurred by electric department for repairing any damage caused to the National Highway by the laying , maintenance or shifting of the overhead electrical line located in the National Highway right of the way	Yes.	
<u>2.11</u>	If the NHAI considers it necessary in future to move the utility line for any work of improvement or repairs to the road , it will be carried out as desired by the NHAI at the cost of the electric department owing the utility line within a reasonable time (not exceeding 60 days) of the intimation given	Yes	
<u>2.12</u>	Certificate from the applicant in the following format :- (i) Laying of overhead electrical will not have any deleterious effects on any of the bridge components and roadway safety for traffic. (ii) For 4/6 laning "we do undertake that I will relocate service road/ approach road, utilities at my own cost, notwithstanding the permission granted within such time as will be stipulated by NHAI" for future 6 laning or any other development .	Yes	
<u>2.13</u>	The transmission line installation shall be carried out by trained and experienced personnel and supervised by technically qualified persons competent to undertake such work.	Yes	
<u>2.14</u>	The applicant ensures the safety of the Highway traffic against the	Yes	


 प्रमुख अधिकारी/Chief Executive Officer
 सिन्धवाली ट्रांसमिशन लिमिटेड
 Sindhawali Transmission Limited

	Hazards of the high voltage lines during installation , operation and maintenance		
2.15	Undertaking the compliance with Indian electricity rules and other authorities, regulations- all over head lines shall comply with the requirement of the Indian electricity act and rules made their under and the regulations or specification as laid down by NHAI .	Yes	
	Other documents and drawing to be furnished by the applicant	Yes	
3.1	Methodology for laying of overhead electric line.	Yes	
3.2	Draft license agreement	Yes	
3.3	Performance bank guarantee in favor of NHAI has to be obtain at the Rs 100/- per running meter (Parallel to NH) and Rs 1,00,000/- per crossing of NH, for a period of one year initially (extendable if required till satisfactory completions of work) as a security for insuring/ making good the area, Clearing debris / loose earth etc produced in the right of way. No payment shall be payable by the NHAI to the license for clearing debris/ loose earth.	N/A BG of an amount of Rs. 4,14,000/- is enclosed.	
3.4	Strip plan/ route plan showing overhead electrical line, chainage with of ROW, distance of proposed, structure (tower, pole and for HT Line only tension towers) from the edge of ROW, important milestone, intersections, cross drainage works any other structure existing of proposed etc.	Yes	
4	Certificate from the Project Director		
4.1	Certificate for confirming that the proposal has been examined with respect to the structures and developmental work considered at this location and compliance of the standard conditions issued vide ministry circular no- NH-III/P/20/77 dated 08-04-1982 Indian Electricity Act 1910 Indian Electricity Rules 1956 IRC :32-1969, IS : 5613-1976 part I to IV of (NHAI) and NHAI's guideline.	Yes	
4.2	Certificate from PD In the following format:- (i)- "It is certified that any other location of the electric line would be extremely difficult and unreasonable costly and the installation of electric line within ROW will not adversely affect the design , stability & traffic safety of the highway nor the likely future improvement such as widening of the carriage way easing of kerb , etc." (ii) for 6- laning (a) Where feasibility is available " I do certify that there will no hindrance to propose 6 laning based on the feasibility report considering proposed structures at the said location " (b) In case feasibility report is not available "I do certify that sufficient ROW is available at site for accommodating of six - laning"	N/A	
5	If NH section proposed to be taken up by NHAI on BOT basis-a-clause is to be inserted in the agreement "The permitted highway on which licensee has been granted the right to lay over head electrical line has also been granted as a right of way to the concessionaire under the concession agreement for up-gradation of. (Jainpur Dausa section from KM 200 to Km 201 NH no 11, on build operate and transfer basis) and therefore the licensee shall honour the same."	N/A	
6	Who will supervise the work of laying of overhead electrical line	PMSTL	

ए. अहमद /A. Ahmad

अधीक्षक/Chief Executive Officer

जयपुर ट्रांसमिशन लिमिटेड

Jaypur Transmission Limited

<u>7</u>	Who will the sign the agreement on behalf of overhead electrical line agency	CEO,PMSTL	
<u>8</u>	Who will ensure that the defect in road portion after laying of over head electrical are corrected and if not corrected that what action will be taken.	PMSTL	
<u>9</u>	Who will pay the claims for damages done / disruption in working of concessionaire, if asked by the concessionaire.	PMSTL	
<u>10</u>	A certificate from PD that he will enter the proposed permission in register of record of the permission in the prescribed performa (copy enclosed)	NHAI	
<u>11</u>	If any previous approval for laying of overhead electrical line then photocopy of register of records of permission accorded as maintained by PD may be enclosed.	NO	



ए. अहमद /A. Ahmad

मुख्य कार्यकारी अधिकारी/Chief Executive Officer
 ग्रेड मेरुट सिम्भावली ट्रांसमिशन लिमिटेड
 GMD Merut-Simbhawali Transmission Limited



उत्तर प्रदेश UTTAR PRADESH

27AE 832924

UNDERTAKING

Permission for erection/ installation of 400 KV D/C Muradnagar - Simbhavali transmission line for overhead crossing on Delhi - Meerut Expressway (DME Package IV) between mile stone 53-54 near village Churiyala, District -Ghaziabad ,Uttar Pradesh.

I, Afzaal Ahmad, CEO, on behalf of POWERGRID Meerut Simbhavali Transmission Ltd, do hereby give undertakings that

- POWERGRID Meerut Simbhavali Transmission Ltd , Meerut will pay necessary fee for the use of NHAI land whenever fee is asked by highway authority in further.
- POWERGRID Meerut Simbhavali Transmission Ltd , Meerut will relocate/ shift the electric line/ pole at their own cost notwithstanding the permission granted within such time as will be stipulated by NHAI for further widening or other development.
- POWERGRID Meerut Simbhavali Transmission Ltd , Meerut hereby undertakes that no other structure will be erected nor other service rendered within the ROW of Expressway without prior permission of NHAI.
- POWERGRID Meerut Simbhavali Transmission Ltd , Meerut will own responsibility for any mishap during execution of work at site.
- POWERGRID Meerut Simbhavali Transmission Ltd , Meerut will ensure that all safety measures will be taken during execution of work at site.

ए. अहमद /A. Ahmad

मुख्य कार्यकारी अधिकारी/Chief Executive Officer
पावर ग्रिड मेरठ सिम्भावली ट्रांसमिशन लिमिटेड
Power Grid Meerut-Simbhavali Transmission Limited



उत्तर प्रदेश UTTAR PRADESH

27AE 832923

UNDERTAKING

Permission for erection/ installation of 400 KV D/C Muradnagar - Simbhavali transmission line for overhead crossing on Delhi - Meerut Expressway (DME Package IV) between mile stone 53-54 near village Churiyala, District - Ghaziabad, Uttar Pradesh.

I, Afzaal Ahmad, CEO, on behalf of POWERGRID Meerut Simbhavali Transmission Ltd, do hereby give undertakings that

- a) POWERGRID Meerut Simbhavali Transmission Ltd, Meerut is hereby undertake the necessary alteration including complete removal/shifting of electric Pole/ line at their own cost, if so required by the NHAI/ Ministry, for the development of Expressway or in the interest of safety in the above section.
- b) POWERGRID Meerut Simbhavali Transmission Ltd, Meerut will be responsible for all kinds liabilities arise during or after execution of work.
- c) POWERGRID Meerut Simbhavali Transmission Ltd, Meerut shall shift/modify on its own cost within a prescribed time period fixed by NHAI in case of widening/ construction of the project at the location or any other requirement.
- d) The work should be executed under the supervision of NHAI/Consultant of NHAI, if desired by NHAI.
- e) POWERGRID Meerut Simbhavali Transmission Ltd, Meerut shall have to provide the safety measures like barricading danger lighting and other necessary caution board while executing the work.

ए. अहमद /A. Ahmad
मुख्य कार्यकारी अधिकारी/Chief Executive Officer
पवर ग्रिड मेरुट सिम्भावली ट्रांसमिशन लिमिटेड
Power Grid Meerut-Simbhavali Transmission Limited



UNDERTAKING

उत्तर प्रदेश UTTAR PRADESH

27AE 832922

Permission for erection/ installation of 400 KV D/C Muradnagar - Simbhavali transmission line for overhead crossing on Delhi - Meerut Expressway (DME Package IV) between mile stone 53-54 near village Churiyala, District - Ghaziabad ,Uttar Pradesh.

I, Afzaal Ahmad, CEO, on behalf of POWERGRID Meerut Simbhavali Transmission Ltd, do hereby give undertakings that

- POWERGRID Meerut Simbhavali Transmission Ltd , Meerut hereby undertakes that we will not damage any other utility services already laid along the proposed route.
- POWERGRID Meerut Simbhavali Transmission Ltd , Meerut hereby undertakes that the erection of transmission tower/ line will be carried out as per approved design & drawings duly satisfying (a) minimum disruption of traffic and (b) no damage to the highway.
- POWERGRID Meerut Simbhavali Transmission Ltd , Meerut shall be responsible in case of damages due to leakage of electric lines, if any.
- Shoulders would not be damaged as well in case of non-availability of space, only trenchless technology shall be used.
- POWERGRID Meerut Simbhavali Transmission Ltd , Meerut shall take care of existing services that have been laid previously.
- POWERGRID Meerut Simbhavali Transmission Ltd , Meerut hereby undertakes that if any deviation is found at any stage in compliance to the agreed terms & conditions, the NOC granted shall be treated as null and void.

अहमद /A. Ahmad
मुख्य निदेशक/Chief Executive Officer
मेरठ सिम्भावली ट्रांसमिशन लिमिटेड
Power Grid Meerut-Simbhavali Transmission Limited



उत्तर प्रदेश UTTAR PRADESH

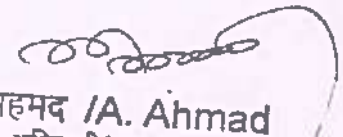
UNDERTAKING

27AE 832921

Permission for erection/ installation of 400 KV D/C Muradnagar – Simbhavali transmission line for overhead crossing on Delhi – Meerut Expressway (DME Package IV) between mile stone 53-54 near village Churiyala, District -Ghaziabad ,Uttar Pradesh.

I, Afzaal Ahmad, CEO, on behalf of POWERGRID Meerut Simbhavali Transmission Ltd, do hereby give undertakings that

- Confirming all standard conditions as laid down in ministry circular no- NH-III/P/20/77 dated 08.04.1982 Indian Electricity Act 1910 Indian Electricity Rules 1956 IRC: 32-1969, The Electricity Act 2003 & The Electricity Rule 2005, IS:5613-1976 part I to IV of (NHAI).
- The compliance with Indian Electricity rules and other authorities, regulation- all overhead transmission lines shall comply with the requirement of the Indian Electricity Act and rules made their under and the regulation as laid down by NHAI.
- Certificate that no other structure will be erected nor any other service rendered within the PROW of Delhi-Meerut expressway (DME Package IV).


ए. अहमद /A. Ahmad
मुख्य अधिकारी/Chief Executive Officer
पावर ग्रिड मीरुत-सिम्भावली ट्रांसमिशन लिमिटेड
Power Grid Meerut-Simbhawali Transmission Limited



उत्तर प्रदेश UTTAR PRADESH

FM 725662

AGREEMENT REGARDING GRANTING OF RIGHT OF WAY PERMISSIONS
FOR LAYING 400 KV D/C MURADNAGAR - SIMBHAVALI TRANSMISSION LINE ON
DELHI - MEERUT EXPRESSWAY (DME PACKAGE IV)

Agreement to lay 400 KV D/C Muradnagar - Simbhavali Transmission Line on Expressway from 53 To 54 Km of Delhi-Meerut Expressway (DME Package IV) land.

This Agreement made this.....day of.....(month) of.....(year) between NATIONAL HIGHWAY AUTHORITY OF INDIA acting in his executive capacity through..... (hereinafter referred to as the "Authority" which expression shall unless excluded by or repugnant to the context, include his successors in office and assigns) on the one part, and M/s POWERGRID Meerut Simbhavali Transmission Limited,(A 100% WHOLLY OWNED SUBSIDIARY OF POWERGRID CORPORATION OF INDIA LIMITED) a company registered under the Companies Act, 1956 and having its Registered Office at B-9, KUTAB INSTITUTIONAL AREA, KATWARJA SARIA NEW DELHI-110016 (hereinafter called the "Licensee") which expression shall unless excluded by repugnant to the context, include his successors/administrator assignees on the second part.

Whereas the Authority is responsible, inter-alia, for development and maintenance of lands in Km 53 to 54 of Delhi - Meerut Expressway (DME Package IV) ROW.

Whereas the Licensee proposes to lay 400 KV D/C Muradnagar - Simbhavali Transmission Line referred to as utility services in subsequent paras.

Whereas the Licensee has applied to the Authority for permission to lay utility services from Km.....to Km.....of road/route up to.....and from km..... to km.....of road/route upto.....and whereas the Authority has agreed to grant such permission for way leave on the Expressway ROW as per terms and conditions hereinafter mentioned. Now this agreement witnesseth that in consideration of the conditions hereinafter contained and on the part of the Licensee to be observed and performed, the authority hereby grants to the Licensee permission to lay utility services as per the approved drawing attached hereto subject to the following conditions, namely.

ए. अहमद /A. Ahmad

मुख्य कार्यकारी अधिकारी/Chief Executive Officer
पावर ग्रिड मेरुट सिम्भावली ट्रांसमिशन लिमिटेड
Power Grid Meerut-Simbhavali Transmission Limited

1. ROW permissions are only enabling in nature. The purpose of extending the way leave facility on the National Highway RoW is not for enhancing the scope of activity of a utility service provider, either by content or by intent. Further, enforceability of the permission so granted shall be restricted only to the extent of provisions/scope of activities defined in the license agreement & for the purpose for which it is granted. And where-as the Authority has agreed to grant such permission for way leave on the NH ROW as per terms and conditions hereinafter mentioned.

Now this agreement witness that in consideration of the conditions hereinafter contained and on the part of the Licensee to be observed and performed, the Authority

2. No Licensee shall claim exclusive right on the RoW and any subsequent user will be permitted to use the ROW, either above or below, or by the side of the utilities laid by the first user, subject to technical requirements being fulfilled. Decision of the Authority in relation to fulfillment of technical requirements shall be final and binding on all concerned parties. In case any disruption/damage is caused to any existing use by the subsequent user, the Authority shall not be held accountable or liable in any manner.
3. The Licensee shall be responsible for undertaking all activities including, but not limited to site identification, survey, design, engineering, arranging finance, project management, obtaining regulator approvals & necessary clearances, supply of equipment, material, construction, erection, testing and commissioning, maintenance and operation and all other activities essential or required for efficient functioning of their own utility/ industrial infrastructure facilities.
4. The Licensee shall pay license fees @ Rs...../sq m/month to the Authority. The License fee shall become payable from the date of handing over of ROW land to the Licensee, for laying of utilities/cables/conduits/pipelines for infrastructure/ service provider. As regards Tariff and Terms and conditions for providing common utility ducts along National Highways, there shall be a separate agreement regime.
5. Fee shall have to be paid in advance for the period for which permission is granted for entering into a license agreement. In case of renewal, rate prevailing at the time of renewal shall be charged. Delay in deposit of fee shall attract interest @ 15% per annum compounded annually.
6. Present policy of the MoRT &H is to provide a 2.00 m wide utility corridor on either side of the extreme edge of ROW. In cases where utility ducts with sufficient space are already available along NH, the utility services shall be laid in such ducts subject to technical requirements being fulfilled.
7. The utility services shall be laid at the edge of the ROW. In case of restricted width of ROW, which may be adequate only to accommodate the carriageway, central verge, shoulders, slopes of embankment, drains, other road side furniture etc; the utility services shall be laid beyond the toe line of the embankments and clear of the drain.
8. The Licensee shall make his own arrangement for crossing of cross drainage structure, rivers, etc. below the bed. In case, this is not feasible, the utility services may be carried outside the railings/parapets and the bridge superstructure. The fixing and supporting arrangement with all details shall be required to be approved in advance from the concerned Highway Administration. Additional cost on account of fixing and supporting arrangement as assessed by the Authority shall be payable by the Licensee.

3. The Licensee shall be responsible for undertaking all activities including, but not limited to sit identification, survey, design, engineering, arranging finance, project management, obtaining regulator approvals & necessary clearances, supply of equipment, material, construction, erection, testing and commissioning, maintenance and operation and all other activities essential or required for efficient functioning of their own utility/ industrial infrastructure facilities.

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8. The Licensee shall make his own arrangement for crossing of cross drainage structure, rivers, etc. below the bed. In case, this is not feasible, the utility services may be carried outside the railings/parapets and the bridge superstructure. The fixing and supporting arrangement with all details shall be required to be approved in advance from the concerned Highway Administration. Additional cost on account of fixing and supporting arrangement as assessed by the ~~Authority~~ Authority shall be borne by the Licensee.

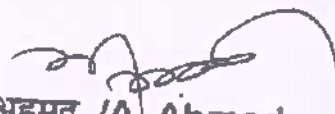
अधीक्षक/Chief Executive Officer
जि. एन. सिम्भावली ट्रांसमिशन लिमिटेड
J. N. Simbhalvi Transmission Limited

9. In exceptional cases, where RoW is restricted the utility services can be allowed beneath the carriageway or service road, if available, subject to the condition that the utility services be laid in concrete ducts, which will be designed to carry traffic on top. The width of the duct shall not be less than one lane. In such cases, it also needs to ensure that maintenance of the utility services shall not interfere with the safe and smooth flow of traffic. The cost of operation and maintenance will have to be borne by the Licensee.
10. It is to be ensured that at no time there is interference with the drainage of the road land and maintenance of the National Highways. Towards this, the top of the utility services shall be at least 0.6 metre below the ground level. However, any structure above ground shall be aesthetically provided for / landscape with required safety measures as directed by the concerned Authority;
11. The utility services shall be permitted to cross the National Highway either through structure or conduits specially built for that purpose. The casing / conduit pipe should, as minimum, extend from drain to drain in cuts and toe of slope to toe of slope in the fills and shall be designed in accordance with the provisions of IRC and executed following the Specifications of the Ministry.
12. Existing drainage structures shall not be allowed to carry the lines across.
13. The top of the casing/conduit pipe containing the utility services to cross the road shall be at least 1.2m below the top of the sub grade or the existing ground level whichever is lower, subject to being at least 0.3m below the drain inverts. A typical sketch showing the clearances is given in Attachment-1.
14. The utility services shall cross the National Highway preferable on a line normal to it or as nearly so as practicable.
15. The casing/conduit pipe for crossing the road may be installed under the road embankment either by boring or digging a trench. Installation by boring method shall be preferred.
16. In case of trenching, the sides of the trench should be done as nearly vertical as possible. The trench width should be at least 30 cm. but not more than 60 Cms wider than the outer diameter of the pipe. Filling of the trench shall conform to the specifications contained here-in-below or as supplied by the Highway Authority.
 - a. Bedding shall be to a depth not less than 30 cm. It shall consist of granular material, free of lumps, clods and cobbles, and graded to yield a firm surface without sudden change in the bearing value. Unsuitable soil and rock edges should be excavated and replaced by selected material.
 - b. The backfill shall be completed in two stages (i) Side-fill to the level of the top of the pipe (ii) Overfill to the bottom of the road crust.


ए. अहमद /A. Ahmad

मुख्य कार्यकारी अधिकारी/Chief Executive Officer
एन. एन. मेरुट सिम्भावली ट्रांसमिशन लिमिटेड
N.N. Meerut Simbawali Transmission Limited

- c. The -side fill shall consist of granular material laid in 15 cm. Layers each consolidated by mechanical tamping and controlled addition of moisture to 95% of the Proctor's Density. Overfill shall be compacted to the same density as the material that had been removed. Consolidation by saturation or ponding will not be permitted.
- d. The road crust shall be built to the same strength as the existing crust on either side of the trench or to thickness and specifications stipulated by the Highway Authority.
17. The Licensee shall ensure making good the excavated trench for laying utility services by proper filling and compaction, so as to restore the land in to the same condition as it was before digging the trench, clearing debris/loose earth produced due to execution of trenching at least 50m away from the edge of the right of way;
18. All required restoration work subsequent to laying of the cable shall be required to be undertaken by the Licensee at its cost either by itself or through its authorized representative in consultation with the Authority as per predetermined time schedule and quality standards.
19. Prior to commencement of any work on the ground, a performance Bank Guarantee @ Rs. per route meter /Rs.....per sq m with a validity of one year initially (extendable if required till satisfactory completion of work) shall have to be furnished by the Licensee to the Authority/its designated agency as a security against improper restoration of ground in terms of filling/unsatisfactory compaction damages caused to other underground installations/utility services & interference, interruption, disruption or failure caused thereof to any services etc. In case of the Licensee failing to discharge the obligation of making good of the excavated trench/other restoration work, the Authority shall have a right to make good the damages caused by excavation, at the cost of the Licensee and recover the amount by forfeiture of the Bank Guarantee.
20. In case, the Performance Bank Guarantee is invoked as mentioned above, the Licensee shall be required to replenish and reinstate the required Performance Bank Guarantee within one month of such invoking. In case the work contemplated herein is not completed to the satisfaction of the Authority, which has granted the permission, within a period of 11 months from the date of issue of the Bank Guarantee, the Licensee shall either furnish a fresh guarantee or extend the guarantee for a further period of one year. Notwithstanding this, the Licensee shall be liable to pay full compensation to the aggrieved Authority/ its designated agency for any damage sustained by them by reason of the exercise -of the RoW facility;
21. The Licensee shall shift the utility services within 90 days (or as specified by the respective Authority) from the date of issue of the notice by the concerned Authority to shift/relocate the utility services, in case it is so required for the purpose of improvement/widening of the road/route/highway or construction of flyover/bridge and restore the road/land to its original condition at his own cost and risk.

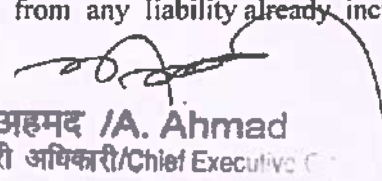

ए. अहमद /A. Ahmad
प्रमुख कार्यकारी अधिकारी/Chief Executive Officer
महाराष्ट्र गिम्बावली ट्रांसमिशन लिमिटेड
Maharashtra Gimbawali Transmission Limited

22. The Licensee shall be responsible to ascertain from the respective agency in co ordination with Authority, regarding the location of other utilities /underground installations/ facilities etc. The Licensee shall ensure the safety and security of already existing underground installations/utilities/facilities etc. before commencement of the excavation/using the existing cable ducts. The Licensee shall procure insurance from a reputed insurance company against damages to already existing underground installations/utilities/facilities etc.
23. The Licensee shall be solely responsible/ liable for full compensation/indemnification of concerned agency /aggrieved Authority for any direct, indirect or consequential damage caused to them/claims & replacements sought for, at the cost and risk of the Licensee. The concerned agency in co ordination with Authority shall also have a right make good such damages! recover the claims by forfeiture of Bank Guarantee.
24. If the Licensee fails to comply with any condition to take satisfaction of the Authority, the same shall be executed by the Authority at the cost and risk of the Licensee.
25. Grant of License is subject to the Licensee satisfying (a) minimum disruption of traffic and (b) no damage to the highways. As far as possible, the Licensee should avoid cutting of the road for crossing highway, and other roads and try to carry out the work by trenchless technology. In case any damage is caused to the road pavement in this process, the Licensee will be required to restore the road to the original condition at its cost. If due to unavoidable reasons the road needs to be cut for crossing or laying utility services, the Licensee has to execute the restoration work in a time bound manner at its cost either by itself or through its authorized representative in consultation with the Authority as per predetermined time schedule and quality standards. In case of the Licensee failing to discharge the obligation of making good of the excavated trench/other restoration work, the Authority shall have a right to make good the damages caused by excavation, at the cost of the Licensee and recover the amount by forfeiture of the Bank Guarantee.
26. The Licensee shall inform/give a notice to the concerned agency designated by the authority at least 15 days in advance with route details prior to digging trenches, for fresh or maintenance/repair works. A separate performance Bank Guarantee for maintenance/repair works shall have to be furnished by the Licensee.
27. Each day, the extent of digging the trenches should be strictly regulated so that utility services are laid and trenches filled up before the close of the work that day. Filling should be completed to the satisfaction of the concerned agency designated by the Authority.
28. The licensee shall indemnify the concerned agency in co-ordination with Authority, against all damages and claims, if any due to the digging of trenches for laying cables/ducts

ए. अहमद /A. Ahmad


मुख्य कार्यकारी अधिकारी/Chief Executive
मिडल ग्रेड मेरठ सिम्भावली ट्रांसमिशन लिमिटेड
Mid-Grade Meerut-Simbhawali Transmission Limited

29. The permission for laying utility services is granted maximum for 5 years at a time, which can thereafter be considered for renewal. On payment of additional fee at the time of renewal, the permission shall automatically be renewed, unless defaults exist. In case of renewal, rate prevailing at the time of renewal shall be charged. Delay in deposition of fee shall attract interest @ 15% per annum compounded annually.
30. The Permission shall be valid only for the period it is issued and fee deposited. However, the Authority also has a right to terminate the permission or to extend the period of Agreement.
31. That the Licensee shall not undertake any work of shifting, repairs or alterations to the utility services without prior written permission of the concerned agency in coordination with the Authority.
32. The permission granted shall not in any way be deemed to convey to the Licensee any ownership right or any interest in route/road/highway land /property, other than what is herein expressly granted. No use of NH ROW will be permitted for any purpose other than that specified in the Agreement.
33. During the subsistence of this Agreement, the utility services located in highway land / property shall be deemed to have been constructed and continued only by the consent and permission of the Authority so that the right of the Licensee to the use thereof shall not become absolute and indefeasible by lapse of time.
34. The Licensee shall bear the Stamp Duty charged on this Agreement.
35. Three copies of "as laid drawings" of utilities (hard and soft copies) with geo-tagged photographs and geo-tagged video recordings of laying of cables in the trench (with respect to the NH) and after complete restoration shall be submitted to the Authority for verification and record within a month of completion of works.
36. The Licensee shall allow free -access to the Site at all times to the authorized representatives of Authority to inspect the Project Facilities and to investigate any matter within their Authority, and upon reasonable notice, shall provide reasonable assistance necessary to carry out their respective duties and functions.
37. The utility services shall not be made operational by the Licensee unless a completion certificate to the effect that the utility services has been laid in accordance with the approved specifications and drawings and the trenches have been filled up to the satisfaction of the concerned agency in co-ordination with the Authority has been obtained. Notwithstanding anything contained herein, this Agreement may be cancelled at any time by Authority for breach of any condition of the same and the Licensee shall neither be entitled to any compensation for any loss caused to it by such cancellation nor shall it be absolved from any liability already incurred.


ए. अहमद /A. Ahmad
मुख्य कार्यकारी अधिकारी/Chief Executive Officer
पॉवर ग्रिड मेरुट सिम्भावली ट्रांसमिशन लिमिटेड
Power Grid Meerut-Simbhawali Transmission Limited

38. The Licensee shall ensure adherence to relevant Indian standards and follow best industry practice methods and standards for the purpose of ensuring the safe, efficient and economic design, construction commissioning, operation, repair and maintenance of any part of the utility lines/industrial infrastructure facilities and which practices, methods and standards shall be adjusted as necessary, to take account of:
- a. operation, repair and maintenance guidelines given by the manufacturers,
 - b. the requirements of Law,
 - c. the physical conditions at the Site, and
 - d. The safety of operating personnel and human beings.
39. The Licensee shall have to provide safety measures like barricading, danger lighting and other necessary caution boards while executing the work.
40. While laying utility services, at least one lane of road shall be kept open to traffic at all times. In case of single lane roads, a diversion shall be constructed. If any traffic diversion works are found necessary during the working period such diversion shall be provided at the cost of Licensee.
41. After the termination/expiry of the agreement, the Licensee shall remove the utility services within 90 days and the site shall be brought back to the original condition failing which the Licensee will lose the right to remove the utility services. However before taking up the work of removal of utility services the Licensee shall furnish a Bank Guarantee to the Authority for a period of one year for an amount assessed by the Authority as a security for making good the excavated trench by proper filling and compaction, clearing debris, loose earth produced due to excavation of trenching at least 50m away from the edge of the ROW.
42. Any disputes in interpretation of the terms and conditions of this Agreement or their implementation shall be referred to the redress mechanism prevailing in the Ministry and the decision of the redress mechanism shall be final and binding on all.
43. For PPP Projects, in case of any financial loss incurred by the respective project concessionaires due to such laying/shifting of utility services by the Licensee, compensation for the same shall be required to be borne by the Licensee in mutual agreement with the respective project concessionaires. MORT&H/ NHAI/ implementing authorities for the project shall not be liable to the concessionaire in any way in this regard.

This agreement has been made in duplicate, each on a Stamp Paper, Each party to this Agreement has retained one stamped copy each.


ए. अहमद /A. Ahmad
मुख्य अधिकारी/Chief Executive
मिड सिम्भावली ट्रांसमिशन लिमिटेड
Mid-Simbhawali Transmission Limited

IN WITNESS WHEREOF THE PARTIES HERETO HAVE CAUSED THIS AGREEMENT TO BE EXECUTED THROUGH THEIR RESPECTIVE AUTHORISED REPRESENTATIVES THE DAY AND THE YEAR FIRST ABOVE WRITTEN.

SIGNED SEALED AND DELIVERED FOR AND ON BEHALF; OF AUTHORITY.

BY SHRI.....

(Signature, name & address with stamp)

SIGNED ON BEHALF OF

M/S..... (LICENSEE).

BY SHRI.....

(Signature, name & address with stamp)

ए. अहमद /A. Ahmad
प्रधान कार्यकारी अधिकारी/Chief Executive
मेरुट सिम्भावली ट्रान्समिशन लिमिटेड
Meerut-Simbhawali Transmission Limited

HOLDER OF GENERAL POWER OF ATTORNEY DATED EXECUTED IN ACCORDANCE WITH THE RESOLUTION NO.....

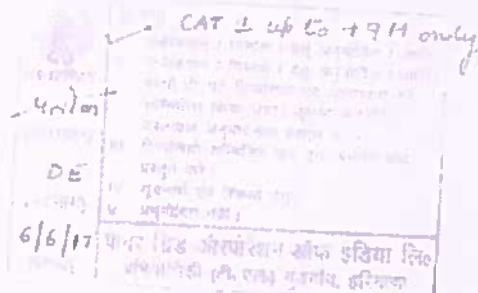
DATED.....

MEETING HELD ON..... PASSED BY HTE BOARD OF DIRECTORS IN THE

IN THE PRESENCE OF (WITNESSES):

- 1.
- 2.

Transmission Line Package TL01 for Transmission Lines associated with interstate transmission projects of Uttar Pradesh-"Construction of 765/400/220 kV GIS Substation Meerut and 400/220/132 kV GIS substation, Simbhavali" (Meerut & Simbhavali Project) through tariff based competitive bidding (TBCB) route prior to RfP bid submission by POWERGRID to BPC, against Ref.No. MSTL/400kV & 765kV/TL01/NOA-I/06(I) & NOA-II/06(II) dated 31/12/2019



* CAT 3 for +18/25 Level subject to

02.06.17	0	FIRST SUBMISSION FOR APPROVAL	PB	RJR	CSR
DATE	REV. NO.	DESCRIPTION	Prepared	Checked	Approved

CLIENT: **MEDINIPUR - JEERAT TRANSMISSION LIMITED**
A 100% WHOLLY OWNED SUBSIDIARY OF POWERGRID CORPORATION OF INDIA LIMITED (POWERGRID)

CONSULTANT:  **POWER GRID CORPORATION OF INDIA LIMITED**
पावरग्रिड

CONTRACTOR:  **L&T CONSTRUCTION**
POWER TRANSMISSION AND DISTRIBUTION IC

PROJECT: **TRANSMISSION LINE PACKAGES TL-01 AND TL-02 ASSOCIATED WITH 765KV STRENGTHENING IN EASTERN REGION (ERSS-XVIII) UNDER TBCB ROUTE**
Specification No:- TBCB/765kV/ERSS-XVIII/TL02/G11

JOB No. **O17082-T-TL**

TOTAL NO. OF PAGES	7	TITLE:
Desinged	PB	02.06.17
Checked	RJR	02.06.17
Approved	CSR	02.06.17

**TOWER SPOTTING DATA
FOR 400KV D/C TOWERS
(TWIN MOOSE, WZ-5)**

DOC. No.	017082-T-TL-8D-DDC-5220	CODE IS	REV. 0
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RELEASED FOR ☐ PRELIMINARY ☐ TENDER ☐ INFORMATION ☒ APPROVAL ☐ CONSTRUCTION



L&T CONSTRUCTION
POWER TRANSMISSION AND DISTRIBUTION IC

PROJECT:	TRANSMISSION LINE PACKAGES TL-01 AND TL-02 ASSOCIATED WITH 765KV STRENGTHENING IN EASTERN REGION (ERSS-XVIII) UNDER TBCB ROUTE Specification No:- TBCB/765kv/ERSS-XVIII/TL02/G11	O17082-T-TL-8D-DC-5220	DATE 06.02.17
TITLE:	INDEX	DESIGNED PB	CHECKED RJR
			SHEET

Sl No	Description	Page No	Remarks
1	TOWER SPOTTING DATA UPTO +9M BODY EXTENSIONS	1- 5	
2	TOWER SPOTTING DATA FOR +18/+25M BODY EXTENSIONS	6-7	
3	BODY EXTENSION SCHEME	7	



L&T CONSTRUCTION

POWER TRANSMISSION AND DISTRIBUTION IC

PROJECT :		TRANSMISSION LINE PACKAGES TL-01 AND TL-02 ASSOCIATED WITH 765KV STRENGTHENING IN EASTERN REGION (ERSS-XVIII) UNDER TBCB ROUTE Specification No:- TBCB/765KV/ERSS-XVIII/TL02/G11			DOC NO: O17082-T-TL-8D-DC-5220		02.06.17	
TITLE :		TOWER SPOTTING DATA FOR 400kV D/C TOWERS (TWIN MOOSE, WZ-5)			Prepared PB	Checked RJR	SHEET 1 OF 7	
		TOWER SPOTTING DATA FOR -7.5m,-6m,-4.5m,-3m,-1.5m, NT,+1.5m,+3m,+4.5m,+6m,+7.5m,+9m BE						
		NORMAL SPAN = 400 MTRS ALL SPANS ARE IN MTRS ALL LOADS ARE IN KGS						
SI No	DESCRIPTION	TOWER TYPES					DD-DEAD END 0° & 15° ENTRY (LINE SIDE & SUBSTATION SIDE)	
		DA-SUSPENSION (0° - 2°)	DB-TENSION (0° - 15°)	DC-TENSION (15° - 30°)	DD-TENSION (30° - 60°)			
1	DEVIATION NOT TO EXCEED	2°	15°	30°	60°	15°		
2	WEIGHT SPAN LIMITATIONS :							
	a) MAXIMUM WEIGHT SPAN (M) :							
	GROUND WIRE/OPGW	NC, EFFECT OF BOTH SPANS	600	600	600	600	300	
		BWC, EFFECT OF ONE SPAN	360	360	360	360	60	
	CONDUCTOR	NC, EFFECT OF BOTH SPANS	600	600	600	600	300	
		BWC, EFFECT OF ONE SPAN	360	360	360	360	60	
	b) MINIMUM WEIGHT SPAN (M) :							
	GROUND WIRE/OPGW	NC, EFFECT OF BOTH SPANS	200	0	0	0	0	
		BWC, EFFECT OF ONE SPAN	100	-200	-200	-300	-300	
	CONDUCTOR	NC, EFFECT OF BOTH SPANS	200	0	0	0	0	
		BWC, EFFECT OF ONE SPAN	100	-200	-200	-300	-300	



L&T CONSTRUCTION

POWER TRANSMISSION AND DISTRIBUTION IC

PROJECT :	TRANSMISSION LINE PACKAGES TL-01 AND TL-02 ASSOCIATED WITH 765KV STRENGTHENING IN EASTERN REGION (ERSS-XVIII) UNDER TBCB ROUTE Specification No: - TBCB/765kv/ERSS-XVIII/TL02/G11	DOC NO: O17082-T-TL-8D-DC-5220	02.06.17
TITLE :	TOWER SPOTTING DATA FOR 400KV D/C TOWERS (TWIN MOOSE, WZ-5)	Prepared PB	Checked RJR SHEET 2 OF 7

SI No	DESCRIPTION	TOWER TYPES									
		DA- SUSPENSION (0° -2°)		DD-TENSION (0° - 15°)		DC-TENSION (15° - 30°)		DD-TENSION (30° - 60°)		DD-DEAD END 0°& 15° ENTRY (ONE SIDE)#	
3	PERMISSIBLE SUM OF ADJACENT SPANS FOR VARIOUS DEVIATION ANGLES (SUBJECT TO AVAILABILITY OF MINIMUM SPECIFIED GROUND CLEARANCES AND WEIGHT SPAN LIMITATION AT SL NO 2) PERMISSIBLE ONE SPAN FOR VARIOUS DEVIATION ANGLES FOR TOWERS SHOULD NOT EXCEED 60% OF THE VALUE SHOWN FOR SUM OF ADJACENT SPANS.	2	800	15	800	30	800	60	800	15	400
		1	825	14	848	29	847	59	842	14	447
		0	849	13	896	28	894	58	884	13	494
				12	944	27	941	57	927	12	541
				11	993	26	988	56	969	11	588
				10	1041	25	1035	55	1012	10 & BELOW	636
				9	1089	24	1082	54	1055		
				8	1137	23	1129	53	1098		
				7	1185	22	1177	52	1141		
				6	1233	21	1224	51	1185		
			5& BELOW	1282	20 & BELOW	1272	50	1229			
									49 & BELOW	1273	
NOTES: # INDICATES FOR DEAD END CONDITION ,THE INDICATED VALUES ARE WIND SPAN FROM ONE SIDE ONLY											

SI No	DESCRIPTION	DA- SUSPENSION (0° - 2°)	DB-TENSION (0° - 15°)	DC-TENSION (15° - 30°)	DD-TENSION (30° - 60°)	DD-DEAD END 0° & 15° ENTRY (ONE SIDE)
4	BROKEN WIRE CONDITION	1 PHASE [#] or 1GW	2 PHASE [#] or 1 GW AND 1 PHASE [#]	2 PHASE [#] or 1 GW AND 1 PHASE [#]	1 GW AND 2 PHASE [#] or 3 PHASE [#]	DEAD END
5	DESIGN WIRE TENSIONS (KGS.)					
	GROUND WIRE : GSW	32°C & FULL WIND/32°C & 75% WIND	3814.745 / 3178.993			
		32°C & NIL WIND	1394.5			
	OPGW	32°C & FULL WIND/32°C & 75% WIND	3675.806 / 3051.742			
		32°C & NIL WIND	1271.6			
	CONDUCTOR :	32°C & FULL WIND/32°C & 75% WIND	BOTTOM CONDUCTOR- 8109.778 / 6744.895 MIDDLE CONDUCTOR- 8376.036 / 6949.935 TOP CONDUCTOR- 8631.021 / 7146.987			
		32°C & NIL WIND	BOTTOM CONDUCTOR- 3615.448 MIDDLE CONDUCTOR- 3615.448 TOP CONDUCTOR- 3615.448			

- Four Conductor bundle



L&T CONSTRUCTION

POWER TRANSMISSION AND DISTRIBUTION IC

PROJECT :		TRANSMISSION LINE PACKAGES TL-01 AND TL-02 ASSOCIATED WITH 765KV STRENGTHENING IN EASTERN REGION (ERSS-XVIII) UNDER TBCB ROUTE Specification No:- TBCB/765kv/ERSS-XVIII/TL02/G11				DOC NO: Q17082-T-TL-8D-DC-5220		02.06.17		
TITLE :		TOWER SPOTTING DATA FOR 400kv D/C TOWERS (TWIN MOOSE, WZ-5)				Prepared		Checked		3 OF 7 SHEET
						PB		RJR		
Sl No	DESCRIPTION		TOWER TYPES							
			DA- SUSPENSION (0° -2°)		DB-TENSION (0° - 15°)	DC-TENSION (0° - 30°)	DD-TENSION (30° - 60°)	DD-DEAD END 0°& 15° ENTRY (ONE SIDE)		
6	DESIGN WIND SPAN	NORMAL CONDITION (INTACT WIRE)	400	400	400	400	200			
		BROKEN WIRE	240	240	240	240	40			

GENERAL NOTES :

1. VERTICAL LOADS OF INDIVIDUAL SPANS ARE ACTING IN DOWNWARD DIRECTION
2. MAXIMUM SUM OF ADJACENT SPANS FOR VARIOUS ANGLES OF DEVIATION ARE PERMITTED SUBJECT TO THE CONDITION THAT MINIMUM SPECIFIED LIVE METAL CLEARANCE AND MINIMUM GROUND CLEARANCE ARE AVAILABLE INCLUDING 150MM SAG ERROR.
3. THE ANGLE OF CROSSING SHALL BE AS NEAR TO 90° AS POSSIBLE.
4. CLEARANCE FROM BUILDINGS, TREES & TELEPHONE LINES SHALL BE AS PER STIPULATION OF LOCAL AUTHORITY.
5. ANY TOWER EXCEEDING THE ABOVE CORRESPONDING SPANS NEED TO BE STRENGTHENED.

6. MINIMUM CLEARANCE FOR POWER LINE CROSSING

KV	66KV	132KV	220KV	400KV	765KV
CLEARANCE(m)	5.49	5.49	5.49	5.49	7.94

Power Line crossing	Crossing Towers
a) 66kV and less	Suspension tower with adequate extension.
b) 220kV and less	Angle tower (DB/DC) with adequate extension.
c) 400kV and and above	Large angle tower (DD/DE) with adequate extension.



L&T CONSTRUCTION

POWER TRANSMISSION AND DISTRIBUTION IC

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TITLE :	TOWER SPOTTING DATA FOR 400kV D/C TOWERS (TWIN MOOSE, WZ-5)	Prepared PB	Checked RJR
		SHEET 4 OF 7	

7. Electrical clearance for Rail way crossings

- Minimum clearance between lowest point of 400kV Line conductor & Above rail level shall be 19.20m. However, approval of railway crossing from railway authority has to be obtained in each case.
- The crossing span shall be restricted to 300m and shall normally at right angle to the railway track.
- Crossing should be done with DD type tower.

8. MINIMUM CLEARANCE FOR RIVER CROSSING

Line Voltage (kv)	400KV
Minimum clearance above river or lake or water stretches Non navigable river (from HFL) in m	6.4 m
Minimum clearance above navigable river (from HFL) in m	21.9 m

9. TELECOMMUNICATION LINE CROSSING

- The angle of crossing shall be as near to 90 deg as possible. However deviation of the extent of 60deg may be permitted under exceptional difficult situation. For a crossing angle below 60deg matter shall be referred to authorities.
- Minimum clearance between 400kV conductor and telecommunication lines shall be 4.48m with max. conductor sag.

10. The number of consecutive spans between the section points shall not exceed 15 spans or 5KM in plain terrain and 10 spans or 3KM in hilly terrain. A section point shall comprise of tension point with DB, DC & DD Type tower as applicable.

11. For all national highways crossing, tension tower is to be used and crossing span shall not exceed 250m.

12. DB & DC type tower with 0 deg deviation shall be used as section tower

13. Tower type DC shall be used for transposition tower with modification of cross arm.

14. Way leave clearance 23m either side from the CL of the tower.

15. Minimum ground clearance required 8840mm . In addition to above , extra ground clearance shall be provided as per Annexure-1

16. Maximum deviation of line for Dead End tower shall be 15 deg both side i.e line side & sub station side (slack span side)



L&T CONSTRUCTION

POWER TRANSMISSION AND DISTRIBUTION IC

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TITLE :	TOWER SPOTTING DATA FOR 400kV D/C TOWERS (TWIN MOOSE, WZ-5)	Prepared PB	Checked RJR
		SHEET 5 OF 7	

Annexure-1
Table for Extra ground Clearance to be provided for Diff Equivalent Span

S.NO	Equivalent Span	Tension As per stringing chart 85 °c (kg) T1	Tension As per Sag Template 85 °c (kg) T2	EXTRA GROUND CLEARANCE FOR INDIVIDUAL SPAN	Formula for calculating Extra ground clearance for individual Span
1	400	3022.9	3022.9	0.00	$(2.004/8) \times (\text{Span}^3) \times [1/T1 - 1/T2]$
2	390	3002	3023	0.09	
3	380	2980	3023	0.17	
4	370	2957	3023	0.25	
5	360	2933	3023	0.33	
6	350	2908	3023	0.40	
7	340	2882	3023	0.47	
8	330	2854	3023	0.53	
9	320	2825	3023	0.59	
10	310	2795	3023	0.65	
11	300	2763	3023	0.70	
12	290	2729	3023	0.75	
13	280	2694	3023	0.79	
14	270	2657	3023	0.83	
15	260	2617	3023	0.87	
16	250	2576	3023	0.90	
17	240	2532	3023	0.93	
18	230	2486	3023	0.95	
19	220	2438	3023	0.96	
20	210	2387	3023	0.97	
21	200	2333	3023	0.98	

NOTE:-Extra clearance not applicable if tower spotting done by PLS CADD using automatic sagging method.



L&T CONSTRUCTION POWER TRANSMISSION AND DISTRIBUTION IC

PROJECT:	TRANSMISSION LINE PACKAGES TL-01 AND TL-02 ASSOCIATED WITH 765KV STRENGTHENING IN EASTERN REGION (ERSS-XVIII) UNDER TBCB ROUTE Specification No:- TBCB/7 65kV/ERSS-XVIII/TL 02/G11		DOC NO: O17082-TL-02-DC-5220		02.06.17
TITLE:	TOWER SPOTTING DATA FOR +18/+25M BODY EXTENSIONS		Prepared PB	Checked RJR	SHEET 6 OF 7

TOWER SPOTTING REQUIREMENTS		NORMAL SPAN -300 MTRS ALL SPANS ARE IN MTRS ALL LOADS ARE IN KGS			
Sl No	DESCRIPTION	TOWER TYPES			
		DA - SUSPENSION (0° - 2°) +18m/+25m extension		DD- TENSION (30° - 60°) +18m/+25m extension	
1	DEVIATION NOT TO EXCEED	2°		55°	
2	WEIGHT SPAN LIMITATIONS :				
	a) MAXIMUM WEIGHT SPAN (M) :				
	GROUND WIRE/OPGW	NC, EFFECT OF BOTH SPANS	600	600	
		BWC, EFFECT OF ONE SPAN	360	360	
	CONDUCTOR	NC, EFFECT OF BOTH SPANS	600	600	
		BWC, EFFECT OF ONE SPAN	360	360	
	b) MINIMUM WEIGHT SPAN (M) :				
	GROUND WIRE/OPGW	NC, EFFECT OF BOTH SPANS	200	0	
		BWC, EFFECT OF ONE SPAN	100	-300	
	CONDUCTOR	NC, EFFECT OF BOTH SPANS	200	0	
		BWC, EFFECT OF ONE SPAN	100	-300	
3	<p>PERMISSIBLE SUM OF ADJACENT SPANS FOR VARIOUS DEVIATION ANGLES (SUBJECT TO AVAILABILITY OF MINIMUM SPECIFIED GROUND CLEARANCES AND WEIGHT SPAN LIMITATION AT SL NO 2)</p> <p>PERMISSIBLE ONE SPAN FOR VARIOUS DEVIATION ANGLES FOR TOWERS SHOULD NOT EXCEED 60% OF THE VALUE SHOWN FOR SUM OF ADJACENT SPANS.</p>	0°-2°	600	55°	600
				54°	640
				53°	680
				52°	720
				51°	760
				50°	800
				49°	841
				48°	881
				47°	922
				46°	963
				45°	1004
				44°&BELOW	1046

NOTE-ANY DEVIATION IN ABOVE PARAMETER, LOCATION WISE TOWER DESIGN NEED TO VETTED BY ENGINEERING



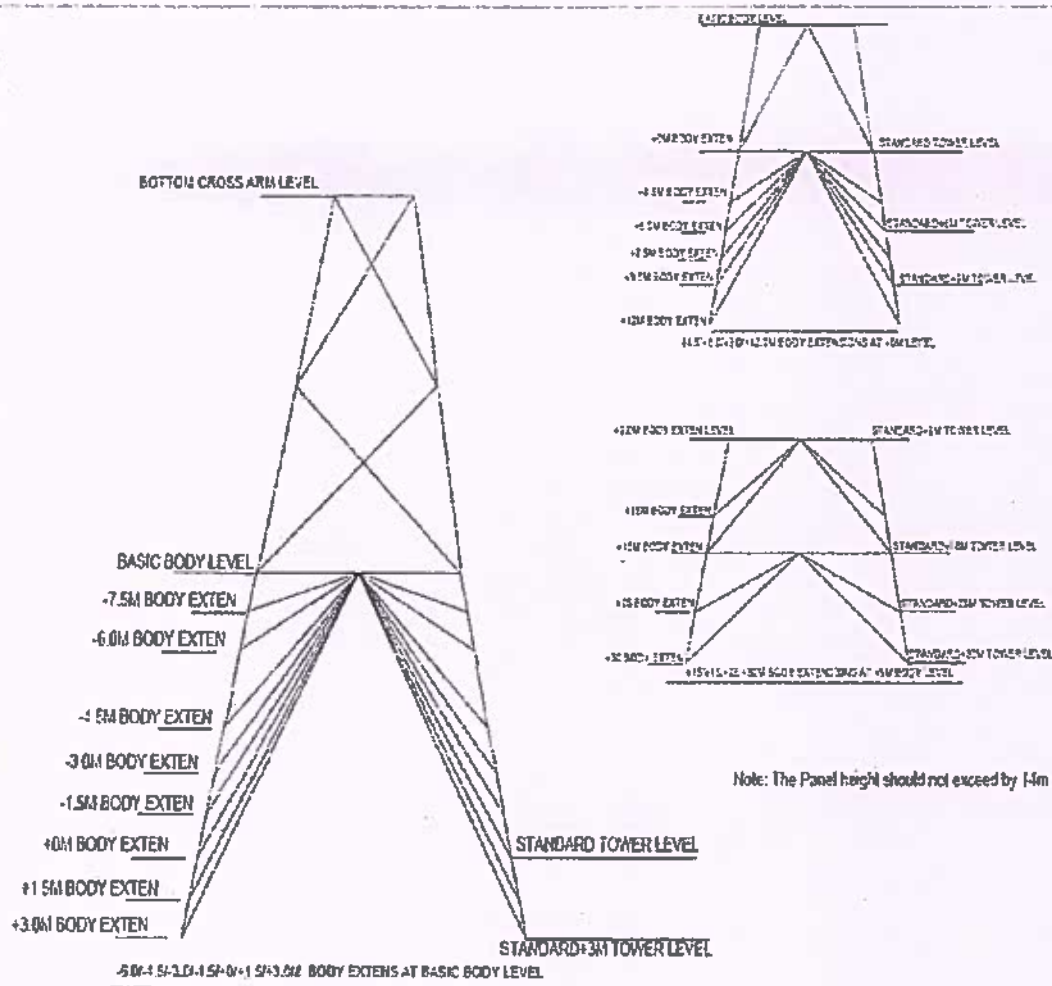
L&T CONSTRUCTION **POWER TRANSMISSION AND DISTRIBUTION IC**

PROJECT :	TRANSMISSION LINE PACKAGES TL-01 AND TL-02 ASSOCIATED WITH 765KV STRENGTHENING IN EASTERN REGION (ERSS-XVIII) UNDER TBCB ROUTE Specification No:- TBCB/765kV/ERSS-XVIII/TL02/G11	DOC NO: Q17082-T-TL-ED-DC-5220		02.06.17
TITLE :	TOWER SPOTTING DATA FOR +10/+25M BODY EXTENSIONS	Prepared	Checked	SHEET 7 OF 7
		PB	RJR	
4	BROKEN WIRE CONDITION	Any one ground wire broken or all sub conductors of bundle in one phase broken on the same side & same span		
5	DESIGN WIND SPAN	NORMAL CONDITION (INTACT WIRE)	300	
		BROKEN WIRE	180	

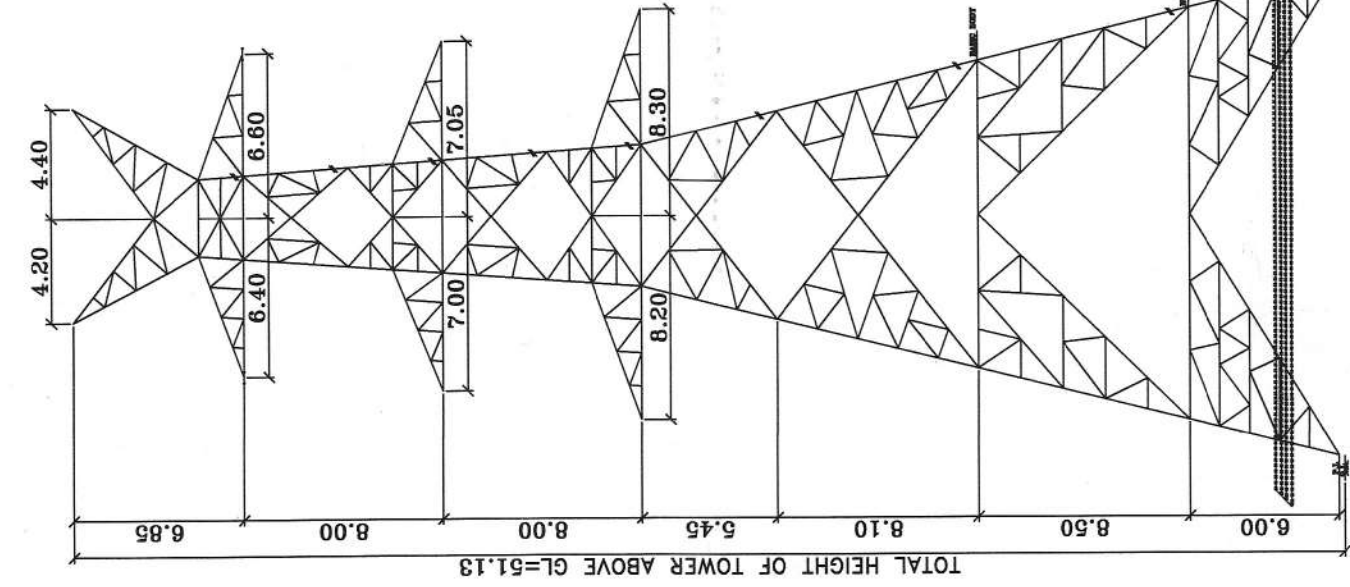
BODY EXTENSION SCHEME FOR 400KV D/C TOWERS:

a) Connected with Basic Body : -7.5m/-6m/-4.5m/-3m/-1.5/+0/+1.5/+3m BE

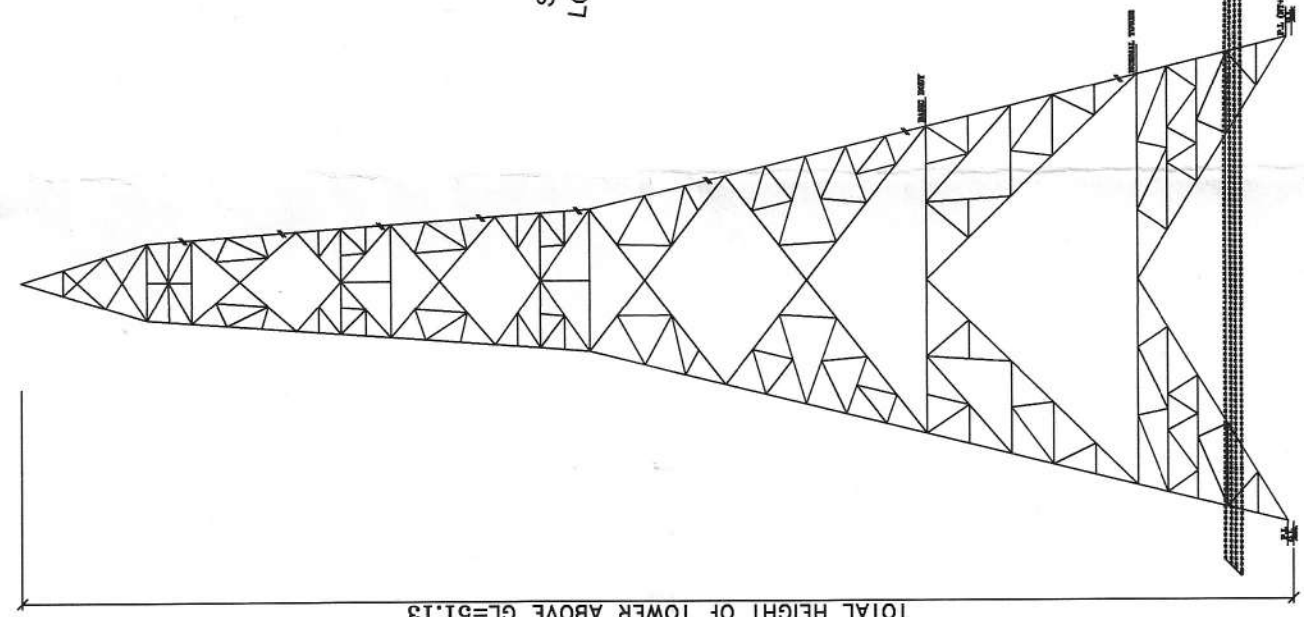
b) Connected with Normal Tower : +4.5/+6/+7.5/+9/+12/+15/+18/+25/+30m BE



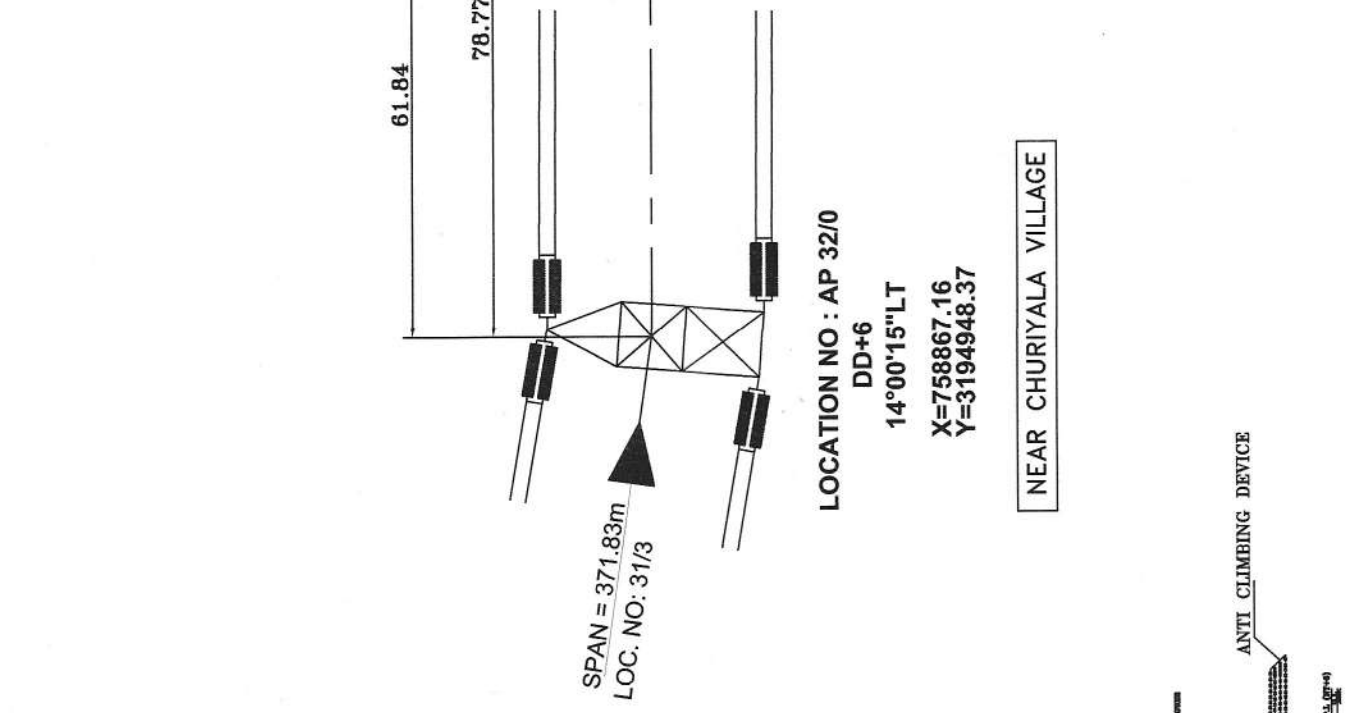
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PERPENDICULAR TO NATIONAL HIGHWAY



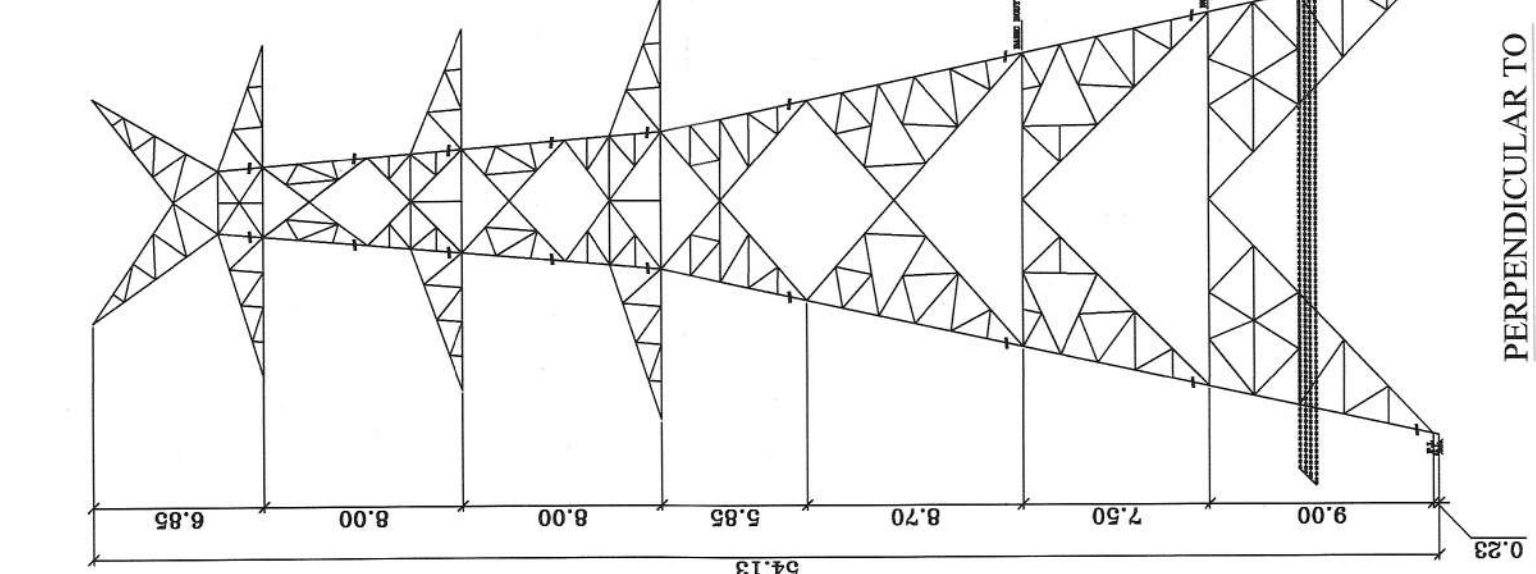
PARALLEL TO NATIONAL HIGHWAY



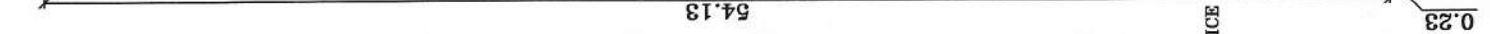
NEAR CHURIYALA VILLAGE



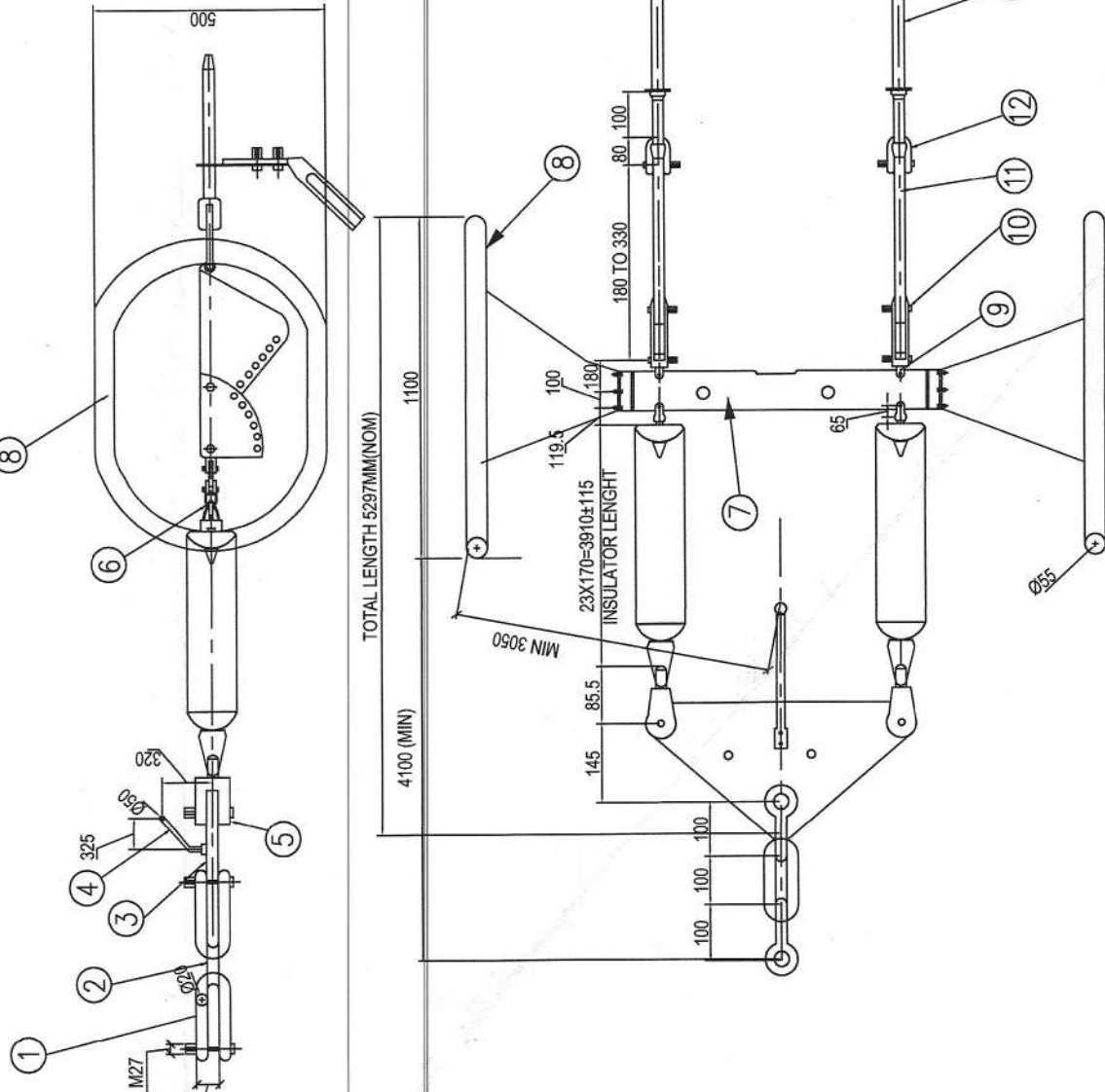
NEAR CHURIYALA VILLAGE



PERPENDICULAR TO NATIONAL HIGHWAY



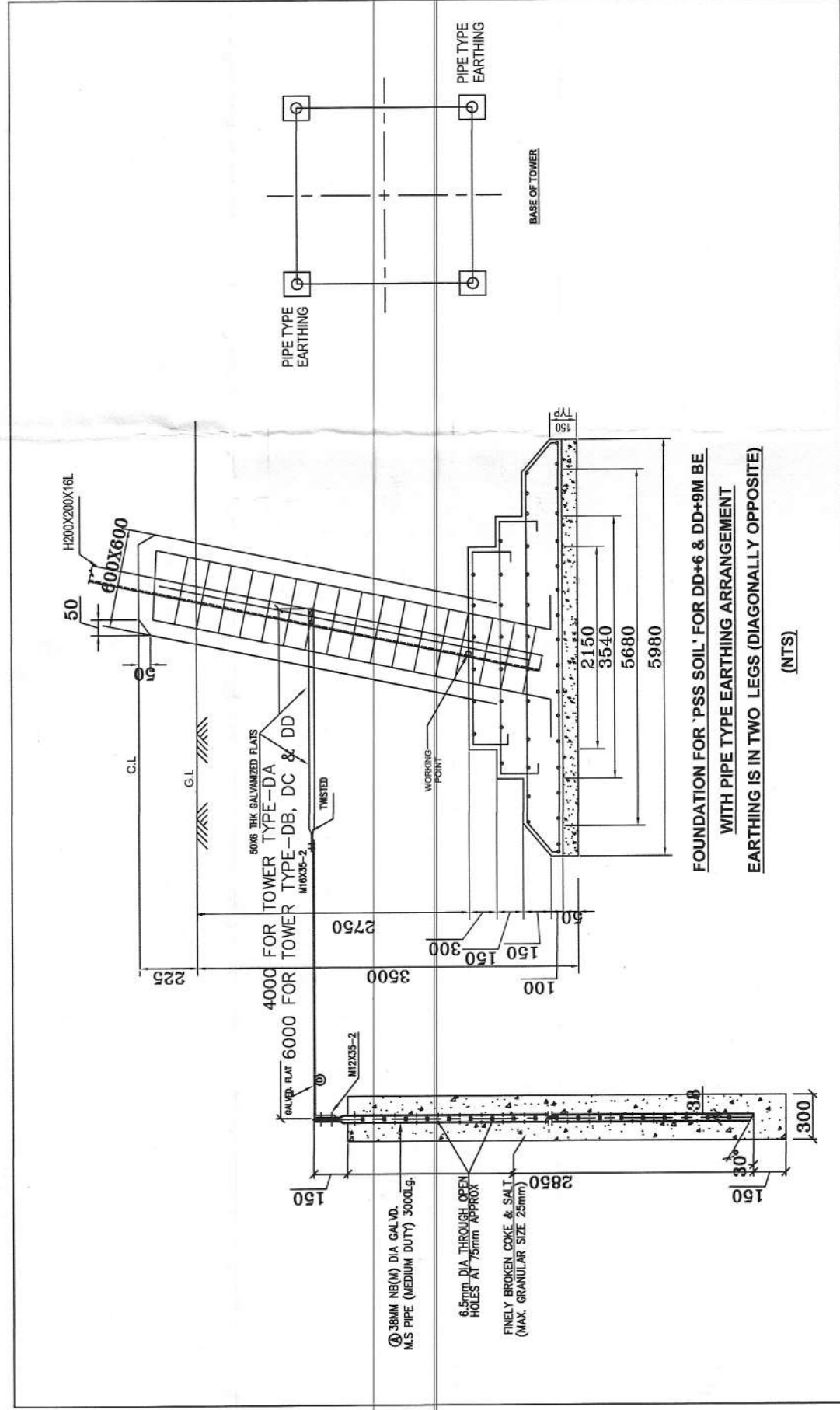
PARALLEL TO NATIONAL HIGHWAY



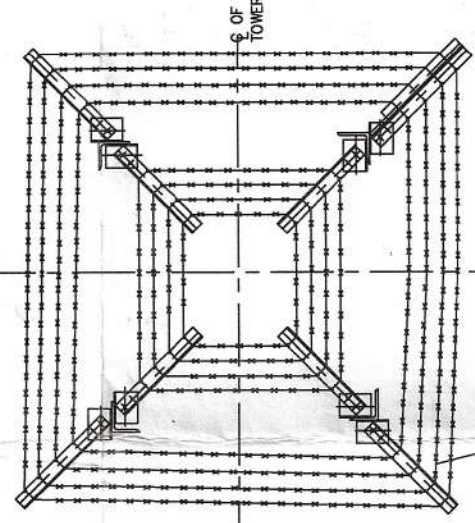
DETAIL OF DOUBLE TENSION INSULATOR

INSULATOR FITTING

No.	DESCRIPTION	MATERIAL	QTY.
13	COMPRESSION DEADEND CLAMP	ALU-ALLOY 6060/6063, IS:733 & F.S CL-II, IS:2004	2
12	ANCHOR SHACKLE	HQSG / FORGED STEEL	2
11	CLEVIS EYE STRAIGHT	MILD STEEL Fe-410, IS:2062	2
10	SAG ADJUSTABLE PLATE	MILD STEEL Fe-410, IS:2062	2
9	CLEVIS EYE TWISTED	FORGED STEEL CL-IV, IS:2004	2
8	CORONA CONTROL RING	ALUMINIUM ALLOY 6060/6063, IS:733	2
7	RECTANGULAR YOKE PLATE	MILD STEEL Fe-410, IS:2062	1
6	SOCKET CLEVIS	FORGED STEEL CL-IV, IS:2004	2
5	BALL CLEVIS	FORGED STEEL CL-IV, IS:2004	2
4	ARCING HORN	MILD STEEL Fe-410, IS:2062	1
3	YOKE PLATE	MILD STEEL Fe-410, IS:2062	1
2	CHAIN LINK	FORGED STEEL CL-IV, IS:2004	1
1	ANCHOR SHACKLE	FORGED STEEL CL-IV, IS:2004	2



FOUNDATION FOR TOWER TYPE-DA WITH PIPE TYPE EARTHING ARRANGEMENT EARTHING IS IN TWO LEGS (DIAGONALLY OPPOSITE) (NTS)



DETAIL OF DANGER PLATE (ALL DIMENSIONS ARE IN mm) (NTS)

TECHNICAL DETAILS OF INSULATOR HARDWARE FITTINGS :

1. ALL DIMENSION ARE IN mm.
2. GENERAL TOLERANCES : ±3%.
3. MIN. UTS OF STRING WITHOUT TENSION CLAMP-320KN
4. ALL FERROUS PARTS ARE HOT DIP GALVANIZED AS PER IS:2629/POWERGRID SPECIFICATION
5. SPRING WASHER ELECTRO GALVANIZED
6. MIN CORONA EXTINCTION VOLTAGE (ORY)- BELOW 320KV (RMS)
7. RIV AT 1MHz & 30KV RMS (ORY)- BELOW 000 MICROVOLTS
8. HARDWARE TOLERANCES ON LENGTH ±2%.
9. BALL & SOCKET DESIGNATION-20MM AS PER IS:2486(I)IEC60120
10. SLIP STRENGTH OF DEAD END ASSEMBLY : 153.2KN
11. INSULATOR DISC TOLERANCE ±5MM PER DISC
12. TOTAL WEIGHT OF HARDWARE : 90.1KG (APPROX)

NOTES:
1. ALL DIMENSIONS ARE IN METERS UNLESS SPECIFIED.
2. COLD CURVE INDICATES THE SAG AT 0° NIL WIND & HOT CURVE INDICATES THE SAG AT 65° NIL WIND.
3. MINIMUM REQUIRED CLEARANCE IS 8.84M.
4. DRAWING SCALE BIGGER FOR READABLE.

CLIENT : POWERGRID MEERUT - SIMBHAVALI TRANSMISSION LIMITED
(a 100% wholly owned subsidiary of Power Grid Corporation of India Limited (POWERGRID))

CONTRACTOR : L&T Construction & Distribution IC
Power Transmission & Distribution IC

PROJECT : TRANSMISSION LINE PACKAGES TL-31 ASSOCIATED WITH INTERSTATE TRANSMISSION PROJECTS OF UTTARPRADESH-CONSTRUCTION OF 765/400/220 KV GIS SUBSTATION, MEERUT WITH ASSOCIATED LINES AND 400/220/132 KV GIS SUBSTATION, SIMBHAVALI WITH ASSOCIATED TRANSMISSION LINES

JOB No. : 019018-T-1	SCALE
NAME : DELHI - MEERUT EXPRESSWAY ROAD (PME - VERT. 1 : 200)	
DATE : 06.07.20	
DRWN : D/N	
CHKD : R/R	
APPD : R/R	
DRG No. : 0119018-T-1	
SIZE : A1	
SHEET NO. : 01 OF 01	

RELEASED FOR : PRELIMINARY TENDER INFORMATION APPROVAL CONSTRUCTION

CHECKED BY : A.K. Rakesh
SUBMITTED BY : A.K. Rakesh
POWERGRID MEERUT - SIMBHAVALI TRANSMISSION LIMITED

FOR PWD FOR PGMSITL FOR L&T
CHE. BY REC. BY APP. BY SUR. BY SUB. BY

APPROVAL OF AUTHORITIES