



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
(सड़क परिवहन और राजमार्ग मंत्रालय, भारत सरकार)
National Highways Authority of India
(Ministry of Road Transport & Highways, Government of India)
क्षेत्रीय कार्यालय, मदुरै / Regional Office, Madurai

दूसरा व तीसरी तल, विजय कृष्ण प्लाज़ा, संख्या-1, लेक एरिया, मेलूर मेन रोड, माट्टुतावनी, मदुरै-625 107
2nd & 3rd Floor, Vijay Krishna Plaza, No.1, Lake Area, Melur Main Road, Mattuthavani, Madurai-625 107
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NHAI/15018/3.1/07/2023/RO-Madurai/E:222143/1973

19th October, 2023

सेवामें | To

परियोजना निदेशक | Project Director,
भारतीय राष्ट्रीय राजमार्ग प्राधिकरण | National Highways Authority of India,
पकाई- मदुरै | PIU - Madurai.

विषय: भाराराप्रा - क्षे.का. मदुरै- पकाई- मदुरै - Construction of Four laning of Thirumangalam - Vadugapatti section from Km. 0/000 to Km. 36/000 of NH-744(Package-I) in the State of TamilNadu on EPC Mode under Bharatmala Pariyojana-Proposal submitted to Permission for Erection of 765KV Over Head Electrical Line crossing at Km.8+810 in T.Puthupatti Village of Thirumangalam - Vadugapatti section of NH-744 in the State of TamilNadu - In-Principle Approval - Conveyed - Reg.

प्रसंग: 1.PD-Madurai-Lr.No-NHAI/PIU/MDU/NH-744/Utility/NOC/2023/2618 dt.19.09.2023.

2.RO Madurai Observation E-file:222143 Note#3 dated.17.10.2023.

3.PIU Madurai E-file:222143 Note#4 dated.18.10.2023.

महोदय,

Please refer to your letter reference cited there by requesting permission for Erection of 765KV Overhead Transmission line across at Km.8/810 in Thirumangalam - Vadugapatti section of NH-744 Proposed by Executive Engineer, TANTRANSCO, Virudunagar.

2) The proposal duly recommended by you, is examined in this office in the light of Guidelines issued by Ministry vide letter No. RW/NH-33044/29/2015/S&R(R) dated 22.11.2016 and is generally found to be in conformity with the Ministry's Guidelines dated 22.11.2016. Abstract of the proposal is here under:

Stretch in Km	Length Meters	in Available ROW (in Meter)	Distance of erection from C/L (in Meter)	
			LHS	RHS
Across NH-744: Km.8/810	45	45	108	160

3) As mentioned in the checklist, available ROW is 45 m. As observed from the drawing, the Tower are to be erected across NH at Km.241/600 in Thirumangalam - Vadugapatti section of NH-744.

महोदय जी

- v. The requisite license fee shall be paid through Bharatkosh portal only. The proof of receipt obtained from Bharatkosh portal along with license deed in the prescribed format shall be furnished immediately.
- vi. The proposed Erection of 765KV Overhead Transmission line across at Km.8+810 on NH-744 shall be done in such a manner that it causes least interference to the traffic movement and also traffic safety.
- vii. Executive Engineer, TANTRANSCO, Virudunagar will be responsible across at Km.8+810 on NH-744.
- viii. A Clause should be included in the Agreement to the effect Executive Engineer, TANTRANSCO, Virudunagar will pay the rent/fee as and when demanded by NHAI in future.
- ix. Advance cautionary signboards shall be placed every 50 m before the proposed crossing on either side at the cost of applicant and shall be maintained to the satisfaction of NHAI in future.
- x. The work shall be taken up by, Executive Engineer, TANTRANSCO, Virudunagar after signing of License Deed and submission of all undertakings on stamp paper as per Checklist.
- xi. Free flow of traffic on NH-744 should be maintained while carrying out the work.
- xii. In case of improper restoration after laying/the works proposed, Bank Guarantee shall be forfeited.
- xiii. The work shall be carried out strictly as per the drawing submitted by Executive Engineer, TANTRANSCO, Virudunagar.
- xiv. All the existing utilities are to be checked and verified by Executive Engineer, TANTRANSCO, Virudunagar before commencement of the work and ensure that no damage is caused to the existing utilities.
- xv. No digging of the carriageway will be allowed and working pits, if any, shall be made outside the ROW.



- xvi. PD, PIU, Madurai shall ensure that, avenue plantation, rain water harvesting system and boundary stones are not disturbed. Damages any, shall be got rectified through Executive Engineer, TANTRANSCO, Virudunagar.
- xvii. Executive Engineer, TANTRANSCO, Virudunagar shall follow the latest guidelines issued by MoRT&H while executing the work.
- xviii. NHAI has every right to cancel the permission given, without assigning any reason.
- xix. Executive Engineer, TANTRANSCO, Virudunagar shall shift the 765KV AC Overhead Transmission line across at Km.8/810 at any alternate location, whenever NHAI make a request for shifting of the same within 90 days from the receipt of intimation, for which a fresh undertaking may also be obtained in stamp paper.
- xx. PD, PIU, Madurai to ensure all guidelines issued by Ministry Circular before entering in to the agreement.
- xxi. 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.
- xxii. License 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 renewal and deposition of fee shall attract interest @ 15% per annum compounded annually.
- xxiii. 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.
- xxiv. Before signing of agreement, recommendation of IE/Supervision Consultant& consent of Concessionaire may also be obtained, if not taken so far.
- xxv. The interference with any other service line that exists in the alignment of the proposed erection of EB tower shall be fully assessed prior to taking up work




National Highways Authority of India

and the matter shall be taken up with the concerned service providers for redressal.

- xxvi. CEA/IRC guidelines shall be strictly followed i.r.t. minimum clearance between the lowest conductor and FRL. In future, if FRL is raised then the raising will be done by the applicant at its own cost.
- xxvii. For access overhead crossing, if size of foundation / base of tower is more than utility corridor then PD shall ensure that towers are erected outside NHAI's ROW.
- xxviii. Angle of crossing of proposed towers is to be right angle to the Project Highway.
- xxix. PD should take necessary action under section 25 of the 'Control of NH (Land & Traffic) Act, 2002' as per the powers delegated vide NHAI HQ Policy Circular (SOP) issued 14.19/2020 dated 06.01.2020.
- xxx. Notwithstanding to the above, the provisional permission shall stand cancelled under the following circumstances
 - a. If any document/information furnished by the applicant proves to be false or if the applicant is found to have will fully suppressed any information.
 - b. Any breach of the condition imposed by the Highway Administration or the officer authorized by the Administration on his behalf.
 - c. If at later stage, any dispute/legal matter arises in the matter.
 - d. If any part of the Highway between the toe to toe is damaged either by cutting or dumping earth.

यह पत्र क्षेत्रीय अधिकारी के अनुमोदन से जारी किया गया है

भवदीय


19/10/23

महेन्द्र मीना | Mahendra Meena
उप प्रबंधक (तक) | Dy. Mgr (Tech)

प्रतिलिपि:- Executive Engineer, TANTRANSCO, Virudunagar.

List of Correspondences							
Receipt No. / Issue No.	Subject	Type	Marked As	Attached On	Issued On	Pages	Remarks
E 779746/2023/PIU - MADURAI	NHAI –PIU Madurai – Construction of Four laning of Thirumangalam – Vadugapatti section from Km. 0/000 to Km. 36/000 of NH-744(Package-I) in the State of TamilNadu on EPC Mode under Bharatmala Pariyojana–Proposal submitted to Permission for Erection of 765KV Over Head Electrical Line crossing at Km.8+810 in T.Puthupatti Village of Thirumangalam – Vadugapatti section of NH-744 in the State of TamilNadu – In-Principle Approval Requested– Reg	Receipt		20/09/2023 12:30 PM		1-41	ref



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
(सड़क परिवहन और राजमार्ग मंत्रालय)
National Highways Authority of India
(Ministry of Road Transport & Highways)

उप महाप्रबंधक (तकनीकी) सह परियोजना निदेशक के कार्यालय
परियोजना कार्यान्वयन इकाई

Office of the Deputy General Manager (Tech) cum Project Director
Project Implementation Unit

प्लॉट नंबर : 3, सूर्या टवर्स, दूसरी मंज़िल, पूर्व पहले स्ट्रीट, के.के. नगर, मदुरै - 625020, तमिलनाडु.
Plot No: 3, Surya Towers, 2nd Floor, 1st East Street, K.K.Nagar, Madurai - 625 020, Tamilnadu.



दुरभाष / Phone : +91 452 2587750
वेबसाइट / Website : <http://www.nhai.org>
E-mail : nhai_madurai_piu@yahoo.co.in
mad@nhai.org

Ref: NHAI/PIU/MDU/NH -744/Utility/NOC/2023/ 2618

Date: 19.09.2023

To

The Regional Officer,
National Highways Authority of India,
Madurai

Sir,

Sub: NHAI -PIU Madurai - Construction of Four laning of Thirumangalam - Vadugapatti section from Km. 0/000 to Km. 36/000 of NH-744(Package-I) in the State of TamilNadu on EPC Mode under Bharatmala Pariyojana-Proposal submitted to Permission for Erection of 765KV Over Head Electrical Line crossing at Km.8+810 in T.Puthupatti Village of Thirumangalam - Vadugapatti section of NH-744 in the State of TamilNadu - In-Principle Approval Requested- Reg

Ref: 1.AE,M/s.TASPL-M/s.SAICPL-M/s.JRCSPL(JV),Lr.No.TASPL/NHAI/PIU-MDU/AE/PKG-I/TN/2023-24/ Dt:09.09.2023
2.This Office Lr.No.NHAI/PIU/MDU/NH 744/Utility/NOC/2023/2443 Dt:06.09.2023.
3.The Executive Engineer, Civil/TP/765KV, TANTRANSCO, Virudunagar
Lr.NO.EE/C/TP/765KV/F.VNR 765KV line/D.255/23 dt:01.09.2023

Vide ref.3rdCited, the proposal has been received from the Executive Engineer, Civil/TP/765KV, TANTRANSCO, Virudunagar regarding Permission for Erection of 765KV Over Head Electrical Line crossing at Km.8+810 in T.Puthupatti Village of Thirumangalam - Vadugapatti section of NH-744(Package-I) in the State of TamilNadu. Vide reference 2ndcited, the same has been forwarded to Authority Engineer for verification of the above proposal.

2. Vide ref.1stcited, the Authority Engineer, M/s.TASPL-M/s.SAICPL-M/s.JRCSPL(JV)has recommended the proposal as follows:

- The minimum height requirement as per specifications is around (7.0m +18.8m) 25.8m. But, the utility agency submitted the proposal with minimum 38.65m(LHS) & 31.65m (RHS) in height from the ground level. Hence, the proposal is found in order.
- Also, the proposal is examined as per Ministry's Circular No. RW/NH-33044/29/2015/S&R(R) dated 22.11.2016 and found to be in order.

dh

3. In this regard, the above proposal is hereby recommended with the following conditions,

- No use of NHAI ROW will be permitted for any propose other than that specified in the license deed.
- The work shall be carried out as per the proposal submitted by the applicant.
- The Vertical Clearance of over head line shall be erected 31.65 m from the highest point of FRL (Finished Road Level) and horizontal clearance shall be is 108m for Left side Tower offset from center line & 160mm for Right side Tower offset from center line as mentioned in the proposed drawing.
- It shall be ensured by the applicant that the on-going road/ structure works shall not get affected during the erection at the above said location.
- The excavated tower pit should be properly back filled as per NHAI standards and restore the land in the same in the condition as it exists earlier.
- While carrying out the works, all the safety standards and precautions like barricading, safety lighting and other necessary caution boards should be taken without affecting the live traffic and other existing & construction works.
- In case of any further widening of highways and construction of flyovers/ bridge works that may be taken up at future date due to revised plan, then the applicant shall be responsible for shifting or alteration in the position/ protect the 765 KV OH line (if required) affecting the NHAI ROW.
- The Licensee shall be responsible for shifting of the electrical line as and when required by NHAI at their own risk & cost.
- The applicant shall inform NHAI/Authority Engineer before starting and as well as at the time of work.
- 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 fixing of towers.
- While carrying out the erection of over head electrical line, if any defects found in road portion, Licensee failing to discharge the obligation of making of good of the excavated trench/other restoration work, Authority shall have a right to make good the damage caused by excavation, at the cost of the Licensee and recover the amount by forfeiture of the Bank Guarantee as per applicant agreement point no: 23, 25 & 26.
- Work should be carried out at the utility corridor only without affecting the existing utility, if any damages occur, the concerned user department has to restore with their own risk & cost.

- Erection of Overhead Electrical Lines should be structurally stable and the work shall be executed as per the drawing.
- While executing the work, there should not be any obstructions to the main carriage way traffic.
- In case of improper restoration after erection, the bank guarantee will be forfeited.
- During the execution of work, utmost care should be taken and not to cause any damages to the road properties such as existing utilities (EB Lines, Water Line, OFC etc.,) drains, service roads, shoulders, avenue plantation, sign boards etc.,
- Other terms and conditions as decided by NHAI for this type of works shall be strictly followed.
- Necessary sign boards have to be provided in the working zone areas.

4. The other conditions stipulated in the new circular of Ministry also have been included in the undertaking.

Restoration Charges: Erection of Electrical 765KV Over Head Electrical line across at Km.8+810 of Thirumangalam - Vadugapatti section from of NH-744(Package-I) in the State of Tamil Nadu

Cost of Restoration Charges @ Rs. 1 Lakh per crossing (1 Nos.)	1,00,000
Total cost of restoration charges – Rs. 1,00,000/-	

License Fee:

LICENSE FEES FOR PUBLIC UTILITY (Electrical Line) (Rs/Sqm/Month)								
[(Utilized NH Land Area X Prevailing Circle Rate Of Land Per Unit Area) / (10*12)]								
S. No	Village Name	Chainage in Km.		Side	Length (L) in Meters	Width of the Utility line (W) in Meters	Utilized NH land Area (W x L) (Sq.m)	Prevailing Circle rate of land per unit area (Sq.m)(Rs.)
		From	To					License Fee per month (private utility) (Rs.)
Area Occupied across the road								
1	T.Puthupatti Village	8+810	-		60	31.6	1896	1080
								17064
License fees for utilities shall be 1.5% of total amount for utility								255.96
Total License fee /Annum say Rs.10,000/-								
License For Public Utility for 1 Year								₹10,000.00
License For Public Utility for 2 Year								₹10,600.00
License For Public Utility for 3 Year								₹11,236.00
License For Public Utility for 4 Year								₹11,910.16
License For Public Utility for 5 Year								₹12,624.77
Total License For Public Utility for 5 Year								₹56,370.93



TOTAL LICENSE FEE FOR 5 YEARS (60 MONTHS) = **Rs.56371/-** Rupees Fifty Six Thousand Three Hundred and Thirty One only)

Hence, the proposal of the Executive Engineer, Civil/TP/765KV, TANTRANSCO, Virudunagar regarding Permission for Erection of 765KV Over Head Electrical Line crossing at Km.8+810 in T.Puthupatti Village of Thirumangalam - Vadugapatti section of NH-744(Package-I) in the State of TamilNadu as detailed above may be considered and In-Principle approval may kindly be accorded.

Encl: 1.Proposal - 2 sets
2. Copy of the References.

Yours faithfully,



(V.Nagaraj)

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

Copy to:

1. The Executive Engineer, Civil/TP/765KV, TANTRANSCO, Virudunagar



**Technocrats Advisory Services Private Limited in JV SA Infrastructure Consultants Pvt. Ltd.,
-JR Consultancy Services Pvt. Ltd.,**

TASPL/NHAI/PIU-MDU/AE/PKG-I/TN/2023-24/66

Dated: 09.09.2023

To
The Project Director,
National Highways Authority of India,
PIU- Madurai,
K.K. Nagar, 1st Street,
Madurai,
Tamil Nadu.

NHAI PIU MADURAI	
IN: No :	4894
DATE :	11/9/23
PD	✓
DM(T)	✓
LO	
SE	✓

Sub: "Construction of Four laning of (i) Thirumangalam- Vadugapatti section from Km. 0/000 to Km 36/000 of NH-744 (Package-I) in the state of Tamil Nadu on EPC Mode under Bharatmala Pariyojana"- **Proposal submitted permission for erection of 765KV tower line crossing at Km. 8+900 in T.Puthupatti Village of Thirumangalam – Vadugapatti Section NH-744 in the State of Tamil Nadu - Reg.**

Ref:

1. Contract Agreement between NHAI and EPC Contractor Dated: 19.01.2023.
2. The Executive Engineer, Civil/TP/765KV, TANTRANSCO, Virudunagar Ir. No. EE/C/TP/765KV/VNR/F.VNR 765KV line/D.255/23 Dt. 01.09.2023
3. PD – PIU/MDU Lr. No.: NHAI/PIU/MDU/NH744/Utility/NOC/2023/2443 Dt. 06.09.2023

Dear Sir,

Vide reference (3) cited above, The Executive Engineer, Civil/TP/765KV, TANTRANSCO, Virudunagar submitted the proposal regarding the permission for erection of 765KV EHT Tower line crossing at Km. 8+900 in T.Puthupatti Village of Thirumangalam – Vadugapatti section of NH-744.

In this regard, the Authority Engineer visited the site, the observations are as follows:

1. The new proposed tower line conductor crossing at Km. 8+810 of Project Highway.
2. The Ground level of Project Highway is RL is 129.383m and FRL is 136.284m in the LHS & 129.167m & 136.284m respectively in RHS. The difference in level is 6.901m & 7.117m respectively.
3. As per Power Grid Corporation of India Ltd., Guidelines for Ground, Vertical & Horizontal clearances; Schedule-X Clause 5.1.2.6 minimum clearance in air above ground and across road surface of Highways or roads for lowest conductor of an AC overhead lines, including service lines of Nominal System Voltage.
 - Nominal System Voltage (in KV): 765 KV
 - Clearance between conductor & Road surface across highway (in mts): 18.8m
4. The minimum Height requirement as per Specifications is around (7.0m + 18.8m) 25.8m. But, the Utility agency submitted the proposal with minimum 38.65m (LHS) & 31.65m (RHS) in height from the ground level. Hence, the proposal is found in order.



**Technocrats Advisory Services Private Limited in JV SA Infrastructure Consultants Pvt. Ltd.,
-JR Consultancy Services Pvt. Ltd.,**


Hence, the Authority Engineer is hereby submitting the detailed report as mentioned above and recommending the proposal for permission of crossing the TRANTRANSCO lines of project Highway at Km. 8+810 to the Authority to collect the restoration cost and access permission as per MoRTH guidelines of RW/NH-33044/29/2015/S&R(PT) dt. 22.11.2016.

This is for your kind information and necessary records.

Thanking you and assuring our best services.

Yours truly,

For M/s. TASPL - M/s. SAICPL – M/s. JRCSP (JV)


(Nagarajan Bagavathiappan)
Team Leader, NH-744, TV Project

Encl:

1. Copies of proposal (received through mail).

Copy forwarded to followings for information:

1. The Authorized Signatory, M/s. S&P-ALR(JV), Thirumangalam
2. The Authorized Signatory, M/s. Technocrats Advisory Services Pvt. Ltd., New Delhi



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
(सड़क परिवहन और राजमार्ग मंत्रालय)
National Highways Authority of India
(Ministry of Road Transport & Highways)

उप महाप्रबंधक (तकनीकी) सह परियोजना निदेशक के कार्यालय
परियोजना कार्यान्वयन इकाई

Office of the Deputy General Manager (Tech) cum Project Director
Project Implementation Unit

प्लॉट नंबर : 3, सूर्या टवर्स, दूसरी मंज़िल, पूर्व पहले स्ट्रीट, के.के. नगर, मदुरै - 625 020, तमिलनाडु.
Plot No: 3, Surya Towers, 2nd Floor, 1st East Street, K.K.Nagar, Madurai - 625 020, Tamilnadu.



दूरभाष / Phone : +91 452 2587750
वेबसाइट / Website : <http://www.nhai.org>
E-mail : nhai_madurai_piu@yahoo.co.in
mad@nhai.org

Ref: NHAI/PIU/MDU/NH-744/Utility/NOC/2023 / 2443

Date: 06.09.2023

To

The Team Leader,
M/s.TASPL-M/s.SAICPL-M/s.JRCSPL(JV),
T.Kallupatti,
Madurai.

Sir,

Sub: NHAI, PIU, Madurai -Four laning of Thirumangalam - Vadugapatti section from Km.0.000 to Km.36.000 (Package I) of NH-744 in the State of TamilNadu on EPC mode under Bharatmala Pariyojana - Proposal submitted Permission for erection of 765KV EHT tower line crossing at Km.8+900 in T.Puthupatti Village of Thirumangalam - Vadugapatti section NH-744 in the state of TamilNadu- Remarks requested - Reg.

Ref: 1.The Executive Engineer, Civil/TP/765KV, TANTRANSCO, Virudhunagar
Lr.No.EE/C/TP/765KV/VNR/F.VNR 765KV line/D.255/23 Dt:01.09.2023(Received
On:04.09.2023)

Please find enclosed herewith the proposal received from the Executive Engineer, Civil/TP/765KV, TANTRANSCO, Virudhunagar regarding Permission for erection of 765KV EHT tower line crossing at Km.8+900 in T.Puthupatti Village of Thirumangalam - Vadugapatti section NH-744 in the state of TamilNadu.

In this regard, it is requested to verify the proposal at site and submit the detailed report for taking further necessary action.

Yours faithfully,

Encl: As above

(V.Nagaraj)

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

Copy to:

1. The Executive Engineer, Civil/TP/765KV, TANTRANSCO, Virudhunagar

NHAI PIU MADURAI	
IN: No : 4723	
DATE : 4/9/23	
PD	2
DM(T)	✓
LO	
SE	mb

TAMILNADU TRANSMISSION CORPORATION

From
Er.B.SHUNMUGAVEL PANDIAN,B.E.,M.I.E.,
Executive Engineer,
Civil/TP/765KV,
Virudhunagar.
Mobile: 9489155450

To
✓ The Project Director,
National Highways
Authority of India,
Madurai.

Lr. No. EE /C/TP/765KV/VNR/ F. VNR 765 KV line / D.255 / 23 dt. 01.09.2023

Sir,

Sub: TANTRANSCO - Erection of 765 KV DC line from Virudhunagar 765KV SS to Coimbatore 765KV SS (Reach-1) under Turnkey Contract – NHAI – Proposed Four laning of Thirumangalam to Rajapalyam section of NH -744 (Existing road stretch of Madurai -Kollam Section of NH -208) in the state of Tamilnadu – Over head crossing by 765KV Line crossing at Km 8+900in Puthupatty to Appakarai road near Rathanandham Sitthar Dhiyanam Bus stop – Inserting of tower for increasing the vertical Clearance over NHAI Bye pass – approval requested – reg.

Ref: 1. (Per).FB TANGEDCO PROCEEDINGS No.18 (Tech.Branch) dt 03.03.2018
2. G.O.(MS) No.35 Energy (A1) Department dt.24.05.2019

I herewith submit the proposal for 765KV DC EHT line from Virudhunagar 765KV SS to proposed Coimbatore 765 KV SS crossing over the Four laning of Thirumangalam to Rajapalyam section of NH -744 (Existing road stretch of Madurai -Kollam Section of NH -208) at Km 8+900in Puthupatty to Appakarai road near Rathanandham Sitthar Dhiyanam Bus stop in the state of Tamilnadu by inserting of one no. tower for increasing the vertical clearance, for favour of early approval please.

Encl:
Booklet – 5 copies
Along with drawings -5nos

Yours faithfully,
B. Shunmugavel Pandian
Executive Engineer,
Civil/765KV/TP,
Virudhunagar.

Copy submitted to the Superintending Engineer/GCC/Madurai (encl: 1no)
Copy submitted to the Superintending Engineer/Civil/Transmission-I/Chennai
Copy to the Assistant Executive Engineer/TLC/765KV & 400 KV lines/ Thirumangalam

உரை மறுஅளவாக்கம் - + மீட்டமைக்க

திரை வாசகர்



பதிவுத்துறை
REGISTRATION DEPARTMENT

தமிழக அரசு
TAMIL NADU



பதிவுத்துறை மென்பொருள்
தொடர்பான தொடர்பான
புகார்கள் மற்றும் சந்தேகங்களுக்கு
சந்தேகங்களுக்கு தொடர்பு
தொடர்பு கொள்ள:
1800 102 5174
கொள்ள: (அரசு விடுமுறை
9498452110 / நாட்கள் தவிர்த்து
9498452120 / திங்கள் முதல்
9498452130 வெள்ளி வரை
(அரசு விடுமுறை காலை 8 மணி
நாட்கள் தவிர்த்து முதல் மாலை 8
திங்கள் முதல் மணி வரை,
வெள்ளி வரை சனிக்கிழமை
காலை 10 மணி முதல்
10 மணி முதல் காலை 10 மணி
மாலை 5.45 மணி முதல் மாலை 5
வரை தொடர்பு மணி வரை தொடர்பு
கொள்ளலாம்) கொள்ளலாம்)



இந்த இணையதளம் மூலம் வழங்கப்படும் தகவல்கள் மேம்படுத்தப்பட்டுள்ளது. ஆன்லைனில் வழங்கப்படும்
சேவைகளை பெற அலுவலகத்திற்கு நேரில் வருகை தர அவசியமில்லை.

முகப்புப் பக்கம் பதிவுத்துறை பதிவு செய்தல் மின்னணு சேவைகள் சுற்றறிக்கைகள்

வழிகாட்டி மதிப்பு வரைதளம் உதவி மேலும்

வழிகாட்டி மதிப்பு தேடல்

தேடுதல் வரையறை:

மண்டலம்:	மதுரை	சார்பதிவாளர்	திருமங்கலம்
வழிகாட்டி கிராமம்:	தி.புதுப்பட்டி	அலுவலகம்:	
வருவாய்	மதுரை	வருவாய் கிராமம்:	டி.புதுப்பட்டி
மாவட்டம்:		வருவாய் வட்டம்:	திருமங்கலம்
தெரு/புல எண்:	44		

இனங்கள் உள்ளது, அனைத்தும் பார்வைக்கு.

1

வரிசை எண்	புல எண்/ உட்பிரிவு எண்	வழிகாட்டி மதிப்பு (₹) (பிரிவு மதிப்பு)	வழிகாட்டி மதிப்பு (₹) (மேடிக் மதிப்பு)	நிலத்தின் வகைப்பாடு	Effective Start Date	O.D.Download
1	44/1	500000/ ஏக்கர்	1235500/ ஹெக்டேர்	பஞ்சை மானாவாரி நிலங்கள் வகை - III	17-Aug- 2023	-
2	44/2	0	0	அரசு நிலங்கள் - இதர புறம்போக்கு	01-Apr- 2023	-
3	44/3A	0	0	அரசு நிலங்கள் - இதர புறம்போக்கு	01-Apr- 2023	-
4	44/3B	500000/ ஏக்கர்	1235500/ ஹெக்டேர்	பஞ்சை மானாவாரி	17-Aug- 2023	10

வரிசை எண்	புல எண்/ உட்பிரிவு எண்	வழிகாட்டி மதிப்பு (₹) (பிரிட்டிங் மதிப்பு)	வழிகாட்டி மதிப்பு (₹) (மெட்ரிக் மதிப்பு)	நிலத்தின் வகைப்பாடு	Effective Start Date	G.O.Download
5	44/3B1	500000/ ஏக்கர்	1235500/ ஹெக்டேர்	நிலங்கள் வகை - III பஞ்சை மானாவாரி நிலங்கள் வகை - III	13-Sep- 2023	-
6	44/3B2	500000/ ஏக்கர்	1235500/ ஹெக்டேர்	பஞ்சை மானாவாரி நிலங்கள் வகை - III	13-Sep- 2023	-
7	44/3B3	500000/ ஏக்கர்	1235500/ ஹெக்டேர்	பஞ்சை மானாவாரி நிலங்கள் வகை - III	13-Sep- 2023	-
8	44/4A	0	0	அரசு நிலங்கள் - இதர புறம்போக்கு	01-Apr- 2023	-
9	44/4B1	100/ சதுரடி	1080/ சதுர மீட்டர்	குடியிருப்புப்பகுதி தரம் - I வகை - I	17-Aug- 2023	-
10	44/4B2	100/ சதுரடி	1080/ சதுர மீட்டர்	குடியிருப்புப்பகுதி தரம் - I வகை - I	17-Aug- 2023	-

முன் பக்கம்

இணைய வழி சேவைகள்

வில்லங்கச் சான்று

தேடுக

முத்திரைத்தாள் விற்பனையாளர்

வில்லங்கச் சான்றினைத் தேடுதல்/பார்வையிடுதல்

சங்கம்

சீட்டு நிதியங்கள்

திருமணம்

பிறப்பு மற்றும் இறப்பு

தீர்வை மற்றும் கட்டணம்

தீர்வை மற்றும் கட்டணம்

பார்வைகளின் விவரம்

குடிமக்கள் சாசனம்

எப்படி என்பதனைத் தெரிவிக்கவும்

பயனர் கையேடு

பதிவிறக்கங்கள்

பயன்பாட்டு படிவங்கள்

சுற்றறிக்கைகள்

லதா எழுத்தமைப்பு

தட்டச்சுப் பொறி இடைமுகப்புக் கருவி

தட்டச்சுப் பொறி இடைமுகப்பு கையேடு

ரூபாய் குறியீடு

Cyber Security Awareness

Safe and Ethical AI

TAMILNADU TRANSMISSION CORPORATION LTD.

**PROPOSAL FOR OVERHEAD CROSSING
OF NH-744
(THIRUMANGALAM - RAJAPALAYAM)
ROAD IN BETWEEN
KM - 8/800-8/900
AT CHAINAGE 8.810 KM**

BY

**765KV D/C VIRUDHUNAGAR - COIMBATORE
TRANSMISSION LINE**

TAMILNADU POWER TRANSMISSION CORPORATION LIMITED

Thirumangalam - Rajapalayam NH-744 at Crossing Chainage 8.810 Km for Construction of 765KV DC Virudhunagar – Coimbatore Transmission Line between Location No. AP34A (DCS+09, 1M RC) & Location No. AP35 (DBS+03).

Name of the Line: 765KV D/C VIRUDHUNAGAR - COIMBATORE TRANSMISSION LINE

1.	Situation of the EHV Transmission line crossing on National Highway.	On Thirumangalam-Rajapalayam NH-744 at Chainage 8.810 KM between T. Pudhupatti – 0.6 Km appx. And T. Kunnathur – 4.0 Km appx. near Village – T. Pudhupatti.
2.	Angle of crossing of the transmission line with the National Highway at crossing point	60° 00' 00''
3.	The length of the span at the crossing and also those on either side of the crossing	A) Crossing span 268 Mt. B) Preceding span 110 Mt. C) Succeeding span 376 Mt.
4.	In the event of the transmission line deviating at any of the supports of the crossing necessitating one of the structures to be corner structures, state angle of such deviation the deviation of the span on either side of crossing shall be illustrated in the sketch mentioned in the clause 2 above.	Location No. AP34A, DCS+09, 1M RC (0° 00' 00" RT) AP35, DBS+03 (5° 54' 45" LT)
5.	The number, size and the material of the conductors and wires crossing the NH each wire under phase, neutral each, guard, bearer and ground cross wire should be separately described and their disposition indicated by means of sketch.	A) Hexa Zebra ACSR Conductor dia 28.62 mm, No. of Phase –06 Nos. Unit Weight 1.621 Kg/m, Ultimate Strength 13,257 kg B) (54/3.18 mm AL+7 /3.18 mm Steel) Overall Diameter of Earth wire –10.98 mm. Unit weight 0.583 kg/m
6.	Indicate whether the proposed guard is to be restricted to the crossing span or it is to be continued over the adjacent span.	Not Applicable
7.	The deviation of the span on either side on the crossing shall be illustrated in the sketch mentioned in the clause 2 above.	Enclosed in sketch.
8.	System of supply (i.e. Voltage) frequency, No. of phases, whether neutral is earthed or not.	765 KV, 50 Hz, 06 Phase Double Circuit with 1No. Earth Wire & 1 No. OPGW of 24 fibers.
9.	Height of structure above ground and below ground separately and details of foundation.	A) Location No. AP34A (DCS+09,1M RC) height above GL 77.079 M, depth below GL 3.00 M. B) Location No. AP35 (DBS+03) height above GL 70.084 M, depth below GL 3.00 M
10.	Height above ground level of (1) Lowest conductor on insulator and (2) guard wire on bracket above ground level.	Location No. AP34A DCS+09 =38.65 M Location No. AP35 DBS+03 =31.65 M

11.	Height of road FL above ground level measured at the foot of the structure.	Location No. AP34A DCS+09,1MRC =9.13 M Location No. AP35 DBS+03 = 6.48 M.
12.	Clearance under maximum sag condition between road FL and the lowest live conductors & between road level and lowest guard wire (State if "box" type guarding is provided in case of adoptions of unearthed neutral system).	At Road = 21.60 M
13.	Ultimate Tensile stress of the steel wire used for guard for earth wire in tones per Sq. Cm.	Not applicable
14.	Approximate distance of each of the structures to the nearest ROAD.	Location No. AP34A DCS+09,1MRC= 80 M. Location No. AP35 DBS+03 = 133 M
15.	Are the proposed structure is in NH boundary.	Outside NH boundary.
16.	Are approved anti climbing devices and warning notices provided on the structures erected.	Danger Plates & Anti Climbing Devices are provided on both the Towers.
17.	Dimensions and types of brackets used for the cross arms as well as for the guard wires.	Not applicable for transmission Line.
18.	In each structure of the crossing span independently earthed by means of an earth plate.	Yes, each structure is earthed.
19.	In each structure supported by means of stage in three directions give the size of guy wires, (the neglected in calculating the strength of structure).	No. guys or stays are provided structures are self supporting.
20.	If no guard is provided, in the transmission line protected by device to ensure instantaneous isolation is conduction?	Yes, the transmission line is protected instantaneously by high speed protection relays with carrier equipment.
21.	Type of insulators used.	Disc Insulator of electromechanical strength = 210 KN.
22.	State the method of maintenance to be employed to ensure the following protections.	
a)	From overhanging or decaying trees which might fall on the line.	a) Tree clearance to a width of 33.5 M is done in either side of line centre.
b)	To reduce the hazard to life and property.	b) Warning boards are provided.
c)	Supporting structure including guys, from the danger of being struck by moving road vehicle.	c) Structures are at safe distance from road.
23.	Drawing showing details of crossing disturbance of road, ground or attachment that may be necessary (To be supplied in quadruplicate.)	25. Enclosed.

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ASSISTANT ENGINEER
Transmission Line Construction
765KV & 400KV Lines/TANTRANSCO
Thirumangalam

W. D. S. 30/8/23
ASSISTANT EXECUTIVE ENGINEER
Transmission Line Construction
765KV & 400KV Lines/TANTRANSCO
Thirumangalam

W. D. S. 30/8/23
EXECUTIVE ENGINEER
Civil/TP/765KV
TANTRANSCO
VIRUDHUNAGAR

S. D. S. 30/8/23
DGM (T) & PD

CHECK-LIST

**FOR Thirumangalam-Rajapalayam NH-744 Crossing at Crossing Chainage 8.810 Km
for Construction of 765KV DC VIRUDHUNAGAR - COIMBATORE
TRANSMISSION LINE**

S.NO.	DESCRIPTION	DETAILS
1.	Name of the Applicant	Executive Engineer
2.	Address of the Applicant	Executive Engineer, No.16, Ramamoorthy Road, TNEB Complex, Virudhunagar-626006.
3.	National Highway Number	NH-744
4.	Name of Crossing	Thirumangalam - Rajapalayam, NH-744 Road
5.	SYSTEM OF SUPPLY (i.e VOLTAGE) FREQUENCY NO.OF PHASES,WHETHER NEUTRAL IS EARTHED OR NOT	765 KV D/C 6 phase 50 cycles A.C., 1 EW AND 1 OPGW.
6.	Position of towers	BETWEEN LOCATIONS AP34A DCS+09, 1M RC & AP35 DBS+03
7.	NORMAL SPAN AT LAPWING CONDUCTOR	400 M.
8.	MAX.SAG AT NORMAL SPAN	13.262 M.
9.	CROSSING SPAN	268 M.
10.	Preceding span	110 M.
11.	Succeeding span	376 M.
12.	Height of structure above ground and below ground separately and details of foundation	A) Location No. AP34A (DCS+09, 1M RC) height above GL 77.079 M, depth below GL 3.00 M. B) Location No. AP35 (DBS+03) height above GL 70.084 M, depth below GL 3.00 M
13.	Max.SAG OF Hexa Zebra CONDUCTOR SIZE 54/3.18mm AL +7 /3.18mm at Crossing	5.96 M
14.	CLEARANCE OVER ROAD	21.6 M
15.	Height above ground level of (1) Lowest conductor on insulator above ground level	38.65 M & 31.65 M Respectively.

16.	Height of road FL above ground level measured at the foot of the structure.	Loc No. AP34A DCS+9,1M RC = 9.13 M Loc No. AP35 DBS+03 = 6.48 M
17.	Angle of road crossing	60° 00' 00"
18.	Distance from NH From center of tower	Loc. No. AP34A DCS+09,1M RC= 80 M Loc. No. AP35 DBS+03 = 133 M
19.	Perpendicular distance from center of tower to Centre of road	Loc. No. AP34A DCS+09,1M RC = 108 M Loc. No. AP35 DBS+03 = 160 M
20.	Protection of assembly to the line	NA
21.	No. of stay required	NO
22.	Minimum Factor of Safety	Normal Condition-02 Broken Wire Condition-1.50
23.	Size of power conductor mm.	Hexa Zebra Conductor over all diameter - 28.62 mm
24.	Size of Earth Wire/OPGW	Earth Wire Dia 10.98mm & OPGW Dia 12.50 mm
25.	FOUNDATION TYPE	AP34A = SFR, AP35 = DFR
26.	PLAN PAPER DIAGRAM	ENCLOSED
27.	EARTHING	AP34A=COUNTER POISE TYPE EARTHING AP35= COUNTER POISE TYPE EARTHING

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TANTRANSCO
VIRUDHUNAGAR

S. S. S.
DGM (T) & PD
National Highways Authority of India
Madurai

Virudhunagar, Tamil Nadu state (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 National Highway Authority of India is responsible for the Operation and Maintenance of Four laning of Thirumangalam - Rajapalayam Road in between 8/800 – 8/900 at Chainage 8+810 km of NH-744 in the State of Tamil Nadu

Whereas the Licensee is a Government department and having services in the State of Tamil Nadu.


Whereas the Licensee proposes to erection of Over Head Electrical line referred to as utility services in subsequent paras.

Whereas the Licensee has applied to the NHAI for the permission to Erection of 765 KV DC Overhead Electrical line crossing at Km 8+810 of Thirumangalam - Rajapalayam Road section of NH-744 in the state of Tamil Nadu.

And Whereas the NHAI have agreed to grant such permission on the terms and conditions herein after mentioned.

Now, this agreement witnesses that subject to the conditions hereinafter contained and the part of the License to be observed and performed. NHAI hereby grant to the license permission to erection of Overhead 765KV Transmission line in accordance with the predetermined route and the approved drawing and methodology attached here to as annexure subject to the following condition namely:

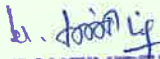
1. ROW permissions are only enabling in nature. The purpose of extending the way leave facility on the National Highway ROW is not for enhancing the scope of activity of a utility service provider, either by content or by intent. Further enforceability of the permission so granted shall be restricted only to


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- the extent of provision/scope of activities defined the in the license agreement & for the purpose for which it is granted.
2. NO License 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 requirement being fulfilled, Decision of the Authority in relation to fulfilment of technical requirement shall be final and binding on all concerned parties. In case any disruption / damage is caused to any existing user by the subsequent use 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 regulatory 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 or their own utility/industrial infrastructure facilities.
 4. The Licensee shall pay licensee fees @ Rs. _____ /Sq m/ month to the Authority. The License fee become payable from the date of handing over of ROW land in the Licensee for laying of overhead electrical line/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 or the period for which permission is granted for entering into a license agreement. In case of removal, rate prevailing at the time of removal shall be charged. Delay in deposition of fee shall attract interest @ 15% per annum compounded annually.

h. d. d. d. d. d.
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6. Present policy of the MORT&H is to provide a 2.00m wide utility corridor on either side of the extreme edge of ROW. In case where utility ducts with sufficient space are already available along NH, the utility services shall be laid in such ducts subject to technical requirement 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 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 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 railing / parapets and the bridge superstructures. The fixing and supporting arrangement with all details be required to be approved in advance from the concerned Highway Administration. Additional cost in account of fixing and supporting arrangement as assessed by Authority shall be payable by the Licensee.
9. In exceptional cases, where ROW is restricted the utility services can be allowed beneath carriageway of service road, If available, subject to the condition that 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 the 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 being ensured that at no time there is interference with the drainage of the road land and maintenance of the National Highways. Forwards this, the top of the utility services shall be aesthetically provided for / landscaped with required safety measures as directed by concerned Authority.


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11. The utility service 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 toe of slope to toe of slope in the and shall be designed in accordance with the provision of IRC and executed following the specification of the Ministry.
12. Existing drainage structure shall not be allowed to carry the lines across.
13. That the licensee shall at all-time permit any duly authorized officer (or) servant of the NHAI to inspect the said erection/crossing of Overhead Electrical line.
14. The casing services shall cross the National Highway preferable on a line normal to it or nearly so as practicable.
15. The casing/conduit pipe for crossing the road may be installed under the embankment either by boring or digging a trench. Installation by boring method shall be preferred.
16. That in case of any burst or leak of Erection/crossing of Electrical line, the licensee shall bear the entire cost of the restoration or damage caused to the road.
 - a. That the licensee shall be liable for any loss or damage caused to the NHAI by drainage obstruction or any other like caused due to the said erection of electrical pole.
 - b. The backfill shall be completed in two stages (i) side fill to the level of the top of pipe (ii) Overfill to the bottom of the road crust.
 - c. The road cross shall be built to the same strength as exiting crust on either on either side of the trench or to thickness and specification stipulated by the Highway Authority.



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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 produce due to execution of trenching at least at 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 road a performance Bank Guarantee@ _____/Route Meter/Per Sq m with validity of one year initially (extendable if require 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 road in terms of filling/unsatisfactory compaction damages caused to other underground in terms of filling/ unsatisfactory compaction damages caused to other underground insulation/utility services & interference, interruption, disruption or failure caused there of any service etc. In case of the Licensee failing in 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 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 the performance Bank Guarantee within one month of such invoking. In case the work contemplated herein is not completed in the satisfaction of the Authority, which has granted the permission within a period of 11 months from the date of issues of the Bank



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Guarantee, the Licensee shall either furnish a fresh guarantee or extend the guarantee for a further period of one year. Not with standing 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 Overhead Electrical line within 90 days (or as specified by the respective NHAI) from the date of issues of the notice by the concerned Authority to shift/relocate the Overhead Electrical line, 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.
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 Overhead lines/ 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 Overhead lines/ 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 or replacement sought for, at the cost and risk of the Licensee. The concerned agency in Co-Ordination with Authority shall also have a right to make good such damages/recover the claim by forfeiture of Bank Guarantee.


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24. If the Licensee fails to comply with the condition to the satisfaction of the Authority, the same shall be executed by the Authority at the cost and risk of the Licensee.
25. Grant of Licensee is subject to the Licensee satisfying (a) minimum disruption of traffic and (b) no damage to the highway. As far as possible, the Licensee should avoid cutting of the road for crossing high way, and other roads any 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 to restore the road to the original condition at its cost. If due to unavoidable reason 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 is authorized representative in consultative with the Authority as per predetermined time schedule and quality standards. In case of the Licensee failing to discharge the obligation of making of good of the excavated trench/other restoration work, the Authority shall have a right to make good the damage 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 work. A separate performance Bank Guarantee for maintenances / 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 cables 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.



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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 cable/ducts.
29. The permission for laying utility services is granted maximum for 5 years at a time which a 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 to right to terminate the permission or to extent period of agreement.
31. That the Licensee shall not undertake any work of shifting, repairs or alteration to the utility services without prior written permission of the concerned agency in co-ordination with the Authority.
32. The permission granted shall not 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 ROW will be permitted for any purpose other than that specified in the agreement.
33. During the subsistence of this agreement, the Overhead Electrical line/Duets located in highway land/property shall be deemed to have 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 recording of laying of



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overhead lines (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 representative of Authority to inspect the Project Facilities and 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 in the effect that the utility services has been laid in accordance with the approved specification and drawing 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 the 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.
38. The licensee shall ensure adherence to relevant India standards and follow best industry practices, method 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, method 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

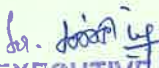

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- d. The safety of operating personnel and human beings.
39. The Licensee shall have to provide safety measure like barricading, danger lighting and other necessary caution boards while executing the work.
40. While laying utility services, at least one lane of road shall be kept open to traffic at all time. In case of single lane road, a diversion shall be constructed, If any traffic diversion work 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 Overhead electrical line/ cable /ducts within 90 days and the site shall be brought back to the original condition failing which 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 disputed in interpretation of the terms and conditions of this Agreement or their implementation shall be referred to the redress mechanism preventing in the Ministry and the decision of the redress mechanism shall be final and binding on all.
43. For PPP Project in case of any financial loss incurred by the respective project concessionaires due to such erection of overhead electrical line/ laying and shifting or utility services by the Licensee, compensation of for the same shall be required to be borne by the Licensee in mutual agreement with the respective project concessionaries, MORT&H/NHAI/Implementing Authorities for the project not liable to the concessionaire in any way in this regard.


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This Agreement has been made induplicate, each on a stamp paper; each party to this Agreement has retained one stamped copy each.

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


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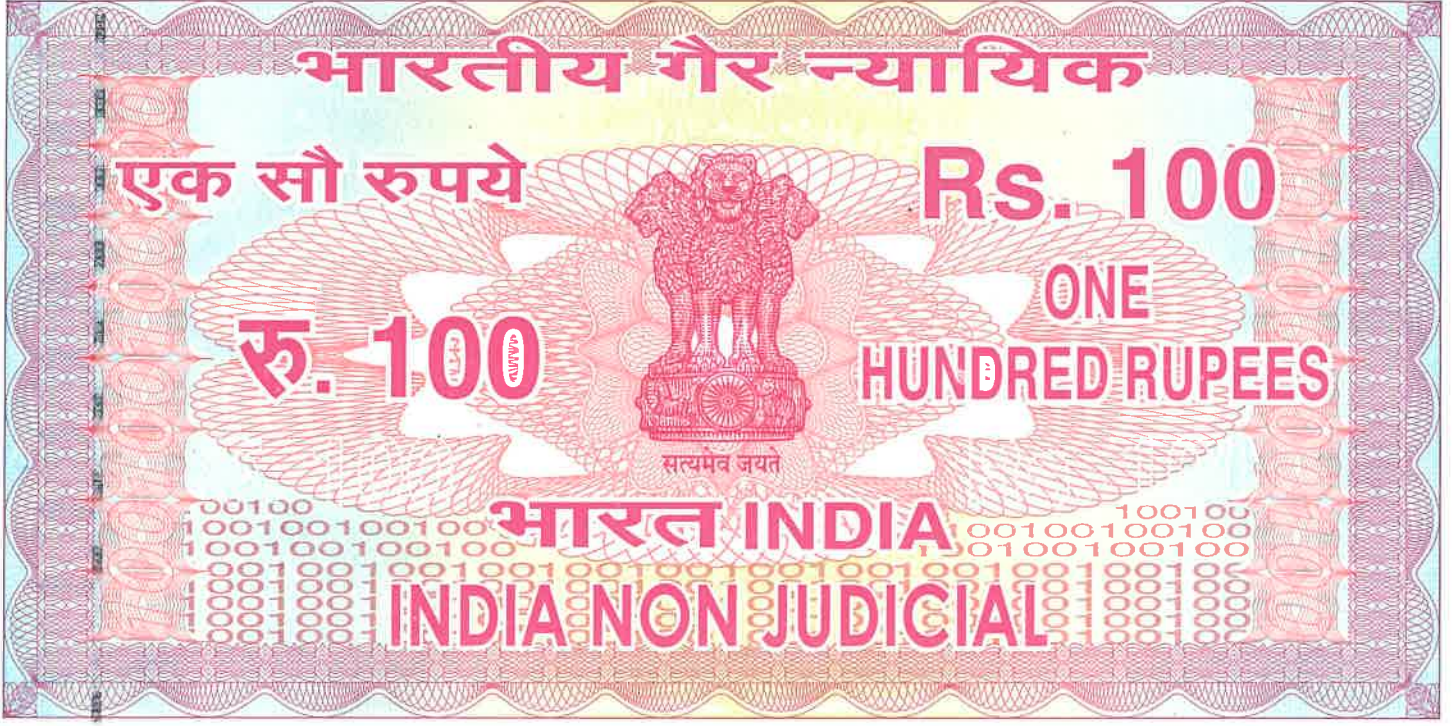
SIGNED ON BEHALF OF
TANTRANSCO

SIGNED SEALED AND
DELIVERED FOR AND
ON BEHALFOF AUTHORITY
BY NHAI, PROJECT DIRECTOR
MADURAI

HOLDER OF GENERAL POWER OF
ATTORNEY DATE
EXECUTED IN ACCORDNCE WITH
THE RESOLUTION NO. NIL DATED
PASSED BY THE BOARD OF
DIRECTORS IN THE MEETING HELD
ON IN THE PRESENCE OF (WITNESSES):

1.

2.



தமிழ்நாடு தமில்நாடு TAMILNADU

DE 802259

20.8.2023
சண் குக கலாபரணத்தின்
விருதுநகர்

P.R. Sankar
பி.ஆர்.செழுவா,
முத்திரைத்தாள் விற்பனையாளர்
உரிமம் எண். 5393/பி1/83-2
திருத்தங்கல் (தமிழ்நாடு).

UNDERTAKING

We Executive Engineer, TANTRANSCO, Virudhunagar from Tamil Nadu Transmission and Corporation Limited for construction of 765KV DC Overhead electrical transmission line over National Highway No.744 (Thirumangalam-Rajapalayam Section) crossing in between KM 8/800 – 8/900 at Chainage 8+810 KM in state of TAMILNADU.

We hereby undertake the standing conditions of NHAI Guidelines.

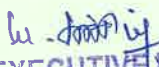
- 1. Not to damage to other utility, if damaged then to pay the Losses either to NHAI or to the concerned agency:** Regarding the location of other Overhead Electrical lines / Pipelines, underground installation / utilities etc The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar shall be responsible to ascertain from the respective agency in co-ordination with NHAI. The Executive Engineer, Transmission, TANTRANSCO, shall be responsible for safety of all construction works such as erection of towers, stringing of line along and across NH Road.
- 2. Renewal of Bank Guarantee:** The Executive Engineer, Transmission, TANTRANSCO, furnish a bank guarantee @ Rs.100 per running meter

W. Meena
EXECUTIVE ENGINEER
Civil/TP/765KV
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to the NHAI. For a period of one year initially (extendable if required till satisfactory completion of work) as a security for ensuring/making good the erection of electrical overhead line should be minimum 6.5m vertical clearance as per IRC. No payment shall be payable by the NHAI to The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar for clearing debris / loose earth. In case the work contemplated herewith is not completed to the satisfaction of the NHAI, which has granted the permission, within a period of 11 months from the date of issue of the bank guarantee. The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar shall either furnish a fresh guarantee or extend the guarantee for a period of one year. In case of The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar failing to discharge the obligation of making good the excavated trench, NHAI shall have an amount by invoking the bank guarantee furnished by The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar.

3. Confirming all standard conditions of NHAI:


- i. The period of validity of way leave permission shall be co-terminus with the validity of license given by the Ministry of Communication /DOT.
- ii. Existing CD works shall not be allowed for laying overhead line and shall be crossed by The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar method only.
- iii. The NHAI has a right to terminate the permission or to extend the period of agreement. In case The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar wants shifting, repair or alteration to overhead lines, it will have to furnish a separate bank guarantee.
- iv. The Licensee shall not without prior permission in writing from the NHAI Govt. of India or its authorized agency undertake any work of shifting, repair or alteration to the said erection of overhead line.
- v. The permission granted shall not in any way be deemed to convey to The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar any ownership right or any interest in route / road/highway/land/property, other than what is herein expressly granted.
- vi. During the subsistence of this agreement, the laying overhead lines /ducts located in highway land/property shall be deemed to have been constructed and continued only by the consent and permission of NHAI so that the right the Executive Engineer,


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- Transmission, TANTRANSCO, Virudhunagar to the use thereof shall not become absolute and indefeasible by laps of time.
- vii. The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar shall bear the stamp duly charged for the agreement.
 - viii. The overhead lines shall not be brought in to use by The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar unless a completion a Certificate to the effect that the laying pipelines has been laid in accordance with the approved specification and drawings and the trenches have been filled up to the satisfaction of the concerned agency in co-ordination with the owner has been obtained.
 - ix. Notwithstanding anything NHAI contained herein this agreement may be cancelled at any time by the breach of any condition of the same and The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar shall neither be entitled to any compensation for any loss caused to it by such cancellation not shall it be absolved from any liability already incurred.
 - x. The Licensee shall have to provide barricading, danger lighting and other necessary caution board while executing the work and during maintenance. If NHAI is required to do some emergent work, the Executive Engineer, Transmission, TANTRANSCO, Virudhunagar will provide an observer within 24 hours. NHAI will not responsible for any damage of any kind by what so ever means natural or otherwise.
4. The enforceability of the ROW permission granted herd in shall be restricted to the extent of provisions scope of service contained/defined in the licensee agreement of the license with Executive Engineer, Transmission, TANTRANSCO, Virudhunagar and for the purpose for which it is granted. Either by content or by intent the purpose extending this ROW facility is not enhancing the scope Executive Engineer, Transmission, TANTRANSCO, Virudhunagar
5. Shifting of OHL as and when required by NHAI: The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar shall shift the pipelines within 90 days (or as specified by the respective agency/owner) from the date of issues of the notice by the NHAI, Govt. of India to shift/relocate the Overhead electrical line .In case, it is so required for the purpose of improvement/widening of the road/route/highway or construction of flyover /bridges and restore the road /land to its original condition at own cost and risk.



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6. Shifting due to 4 lining/widening of NH: After the termination/expiry of the agreement, Executive Engineer, Transmission, TANTRANSCO, Virudhunagar shall remove the overhead electrical lines within 90 days and the site shall be brought back to the original condition failing which the Executive Engineer, Transmission, TANTRANSCO, Virudhunagar will lose the right to remove the overhead electrical lines. However before taking up the work of removal of overhead lines The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar shall furnish a bank Guarantee to the owner for a period of one year for an amount assessed by the owner for making good the erection of electrical overhead lines should be 6.5 m vertical clearance.
7. Traffic movement during laying of OHL to be managed by the applicant: If any traffic diversion work is found necessary during the working period such diversion shall be provided at the cost of The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar.
8. If any claim is raised by the concessionaire then the same has to be paid by the applicant: The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar shall be solely responsible /liable for full compensation/indemnification of concerned agency/aggrieved owner for any direct, indirect of consequential damage caused to them/claims or replacement sought for, at the cost and risk of Executive Engineer, Transmission, TANTRANSCO, Virudhunagar. The concerned agency in co-ordination with NHAI shall also have a right to make good such damages/recover the claims by way of invoking of bank guarantee furnished The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar fails to comply with the condition 5 above to the satisfaction of the NHAI, the same shall be got executed by the NHAI at the risk and cost of Executive Engineer, Transmission, TANTRANSCO, Virudhunagar.
9. We The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar hereby do undertake to furnish a performance bank guarantee @ 100/- per meter for a period of one year initially (extendable if required till satisfactory completion of work) as a security against improper restoration of ground in terms of filling /unsatisfactory compaction/damages caused to other underground installation utility services & interference interruption, disruption of failure caused thereof to any services etc. In case, The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar failing to discharge the obligation of making good the damages caused due to excavated trench, the NHAI


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shall have a right to make good the damages caused due to excavation at cost of The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar and recover the amount by invoking the bank Guarantee. In case the work contemplated is not completed to the satisfaction of NHAI, which has granted the permission within a period of 11 Month from the date of issue of the bank Guarantee. The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar shall either furnish a fresh guarantee or extend the guarantee for a further period of one year.

10. Not to damage to other utility, if damaged, then pay the losses either to NHAI or to the concerned agency
11. We shall inform the officers of NHAI at least 15 days in advance before starting the work.
12. We shall not, without the prior permission in writing of the concern officers of the NHAI undertake the any shifting and other alteration works of this erection of power lines.
13. NHAI shall not be responsible for damage caused to the power supply lines or by any activity of our side on the permitted highway. The parties are agreed that we are laying the power supply lines on the permitted highway at its own cost.
14. The excavated tower pit shall be properly back filled, so as to restore the land in the same in the condition as it was before the excavation of the pits and shall clear the debris/ loose earth produced from the execution of the tower erection lines.
15. In case the work contemplated is not completed to the satisfaction of NHAI, which has granted the permission within a period of 11 months from the date of issue of the bank guarantee. The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar shall either furnish a fresh guarantee or extend the guarantee for further period of one year.
16. We will relocate the overhead electrical lines / utilities at our own cost notwithstanding the permission granted within such times as will be stipulated by NHAI for future six lining or any other development.
17. We Executive Engineer, Transmission, Virudhunagar from Tamil Nadu Transmission and Corporation Limited hereby undertake that the existing avenue plantation is not affect due to the present proposed erection of overhead line 765KV D/C Virudhunagar – Coimbatore Transmission line over National Highway No.744 of Thirumangalam - Rajapalayam section between Kilometre Stone NO.8/800 – 8/900 in state of TAMILNADU.


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18. We Executive Engineer, Transmission, TANTRANSCO, Virudhunagar hereby undertake to erection of electrical supply line will not have any deleterious effects on any of the bridge components and road way safety for traffic.
19. We agree indemnity against all damages and claims clause XXIV.
20. We are confirming the standard condition of NHAI's Guidelines.
21. We shall be responsible for shifting of the electrical line as and when required by NHAI at their own cost.
22. WE undertake that vertical clearance is 21.60 Meter from FRL (Finishing Road Level).
23. We Executive Engineer, Transmission, TANTRANSCO, Virudhunagar hereby under that the pay the fee/rent as mentioned in the Ministry's Guidelines Lr.No.RW/NH-33044/27 2005-S &R (R) dated 21-09-2010 as and when asked by NHAI.
24. We Executive Engineer, Transmission, TANTRANSCO, Virudhunagar hereby undertake that crossings of all cross roads at grade separators, at grade junction and wherever required and in the build – up areas as per instruction of NHAI officials.
25. Lr.No.RW/NH-33044/272005-S&R (R) dated 21-09-2010 as and when asked by NHAI. Reference circular issued by Ministry of Road Transport & Highways, GOI, Circular No.RW/NH-33044/27/2005-S & R (R) dated 21stSeptember 2010. Where in, the last paragraph that 'The Highway Administration Rules 2004 will be modified according This circular will come in to effect from the date of notification of the modified "Highway Administrative Rule". So we hereby give our consent to abide by the content of this circular from the date of its notification by MORT&H, GOI and agree to pay the ground rent any other charges applicable for the section as applied by us.

For The Executive Engineer, Transmission, TANTRANSCO,
Virudhunagar

W. Mani
EXECUTIVE ENGINEER
Civil/TP/765KV
TANTRANSCO
VIRUDHUNGAR



தமிழ்நாடு தமிழ்நாடு TAMILNADU

CV 142108

31-8-2023

சென்னை மாநகராட்சி
மாநகராட்சி

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3. வினா
மத்திய தான் விழுவனையா
R.O.C.No:4401/18/2009-2
55சோழவந்தான் பெரியினா

INDEMNITY BOND

Name of the work: Erection of 765KV DC Overhead Electrical Transmission line over National Highway No.744 of Thirumangalam - Rajapalayam Section between Kilometre Stone no. 8/800 – 8/900 at NH crossing Chainage 8.810 KM in state of TAMILNADU

Indemnity against all damages and claims as per Sl.No. 5.6 of Checklist:

We the Executive Engineer, Transmission, TANTRANSCO, Virudhunagar or in do here by indemnity project Director, NHAI, PIU, Madurai binding ourselves to pay all the losses and claims in respect of laying of Erection of new 765KV Overhead Electrical Transmission line over National Highway No.744 of Thirumangalam - Rajapalayam Section between Kilometre Stone no. 8/800 – 8/900 at NH crossing Chainage 8.810 KM in state of Tamil Nadu or maintenance thereof and against all claims, proceeding, damages, costs, charges and expenses or maintenance thereof and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect

EXECUTIVE ENGINEER

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by MAHENDRA MEEN

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thereof in relation there to, Failing such payment of claims in the above work we abide in accepting for recovery of such claims affected from any our assets. The Executive Engineer, Transmission, TANTRANSCO, Virudhunagar

Enclosure to Ministry of Road Transport & Highway Letter No.RW/NH-33044/27/2005/S & R (R) (PT.) dated 06-08-2013.

Annexure-1


**GUIDELINES FOR GRANTING RIGHT OF WAY PERMISSIONS TO
TELECOM SERVICE LICENSEES / INFRASTRUCTURE PROVIDES
FOR LAYING OF TELECOM CABLES /DUCTS/OVERHEAD LINES
ON NHAI LAND**

Government has realized the need for creating a robust telecommunication infrastructure with adequate bandwidth at affordable rates in order to promote development and proliferation of information Technology, Electronic Governance, E –Commerce convergence of information, communication and entertainment sectors so as improve the state of economy, enhance the quality of life of the citizen and to ensure development of urban and rural areas with equity throughout the country.

The Department of telecom (DoT), Ministry of communications, Government of India has issued the National Telecom Policy 2012 in the recent past which enunciates the need to review and simplify sectoral policy for granting right of Way (R o W) for laying cable networks among others.

Keeping the above objectives in view, the following broad guidelines are being recommended by the Ministry of Road Transport & Highway (MoRTH), under which Row permissions may be granted o licensed telecom operators and registered infrastructure provider for lying Telecom Cables including Optical Fibre Cables (OFC)/Ducts under, over, along, across, in upon a property vested in or under the control or management of a local authority or of any other person including public authority, public corporation, autonomous body, State Govt. or central Govt, in their respective licensed service area during the currency of their license.

1. Any authorized Licensee of DoT/Registered Infrastructure Provider is eligible to seek/avail Row facility/permission. However, enforceability of the permission so granted shall be restricted to the extent of provisions/scope of service contained/defined in the Licensee & for the purpose for which it is granted.


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2. Either by content or by intent, the purpose of extending Row facility is not to enhance the scope of license of a Licensee and such Row permissions are only enabling/facilitating in nature.
3. The cable shall always be laid at the edge of the Row. In case of restricted width of Row, which may be adequate only to accommodate the carriageways, central verge, shoulders, slopes of embankment and drains, the cables shall be laid beyond the toe line of the embankments and clear of the drain. In cases where cable ducts with sufficient space are already available along NHAI, the cables shall be laid in such ducts subject to technical requirements being fulfilled. Present policy of the MoRTH is to provide a 2.00m wide utility corridor on either side of the extreme edge of Row where required Row of at least 45m is available, which includes provision for OFC. Ducts.
4. The facility of Row for laying underground telecom cables, shall be available to all Licensee (irrespective of existing or future) and registered /licensed infrastructure providers, without discrimination and without payment of any compensatory charges/levy/lease rentals/license fee/free bandwidth/revenue share/ cashless equity etc. subject to the condition that this Row shall be available to licensees to the extent of provisions contained in their license agreement and the reinstatement charges shall be borne by such licensees.
5. A Performance Bank Guarantee @ Rs.100 per route metre with a validity of one year initially (extendable if required till satisfactory completion of work) shall have to be furnished by each licensee to the Authority/its designated agency as a security against improper restoration of ground in terms of filing/unsatisfactory compaction damages caused to other underground installations/utility services & interference, interruption. disruption or failure caused thereof to any services etc. The above charges of Rs.100/m is liable to be reviewed every 5 years. For clarification, it is hereby mentioned that 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 standard. 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 licensee and recover the amount by forfeiture of the Bank Guarantee. In case, the performance Bank Guarantee is invoked as mention above the license shall be required to replenish and reinstate the required Performance Bank Guarantee within one month of such invoking.

M. Manoj
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In case the work contemplated herein is not satisfaction of the Authority, which has granted the permission, within a period of 11 months from the date of issues 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 then by reason of the exercise of the Row facility.

6. In order to expedite Row clearances to the licensee in a time-bound manner through an appropriate and effective approval mechanism, a committee under the chairmanship of Chief Secretary to the respective State Govts. May act as single window to co-ordinate all activities in this regard. Each State Govt, may select a Nodal Person/Secretary of a Dept. to function as Secretary to this Single Window Clearance Committee. However, in case of NHAI land, licensees would be required to take permission from the highway administration for laying of cables. As regards NHAI routes executed by the State PWD, the concerned state Chief Engineer (NH) may act as nodal point / single window to coordinate the activities whereas in request of the NHAI routes held by NHAI & BRDB, the designated officers of NHAI & BRBD may be assigned this task.


For work involving laying of cables along National Highway Authority of India in different States or National Highway Authority of India Project of length exceeding 500Km.in case state. Project Director (Standards, Research & Technology) (R) MoRTH shall be the approving authority under whom a single Window Facilitation Committee will be created.

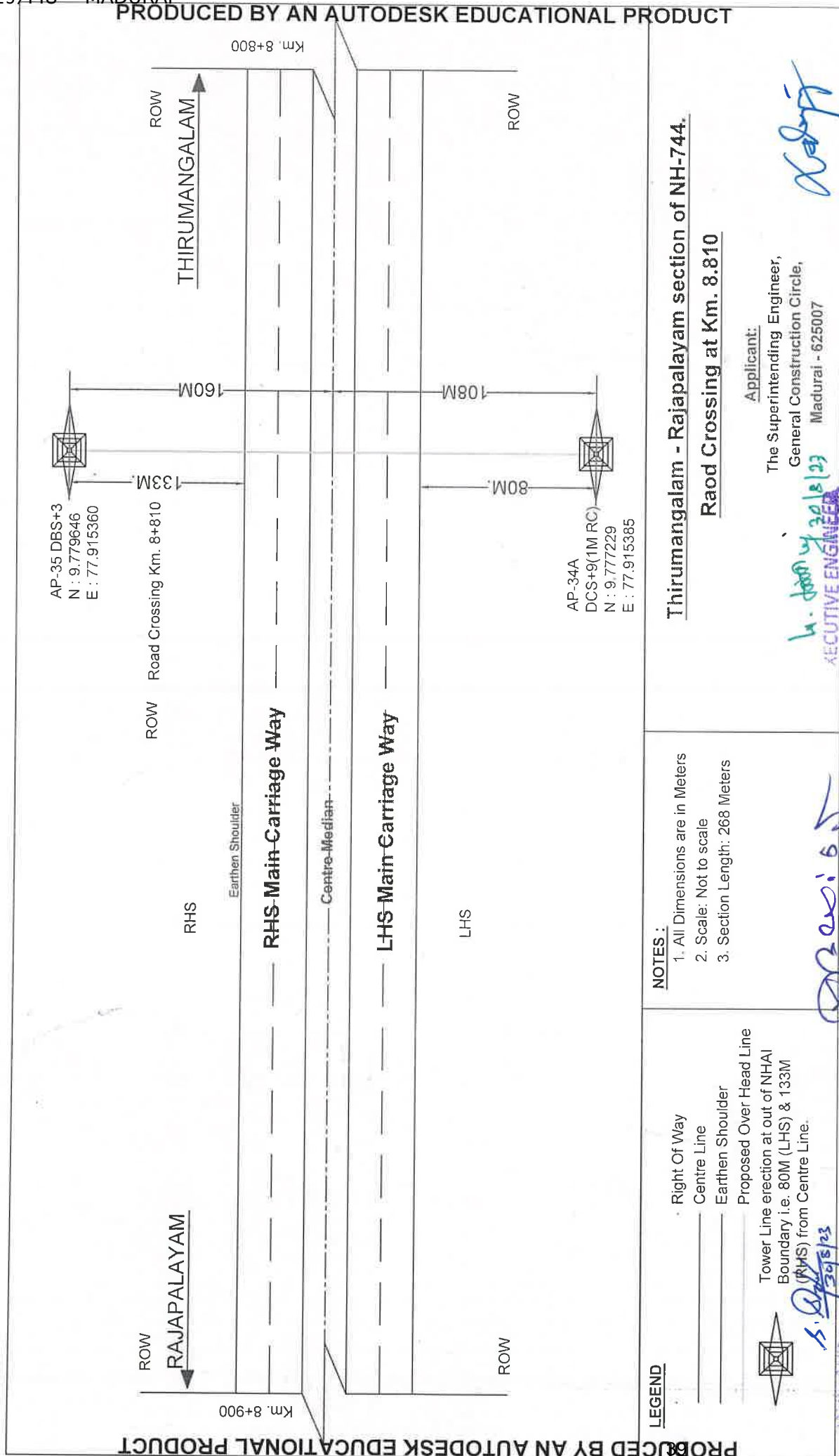
Highway Administrator Nodal Officer shall maintain a record of all RoW permissions granted in the Format give in Anneure-III including permission given at Ministry level.

7. Row permissions may be granted by the said nodal office to a Licensed within a period of four weeks from the date of submission of completed application subject to the licensee's application being complete with route detail (including authority/ ownership of concerned section of route) and compliance to eligibility requirement, furnishing of requisite Ban Guarantee and execution of an Agreement having operational details. The above stated Single Window Clearance committee may be responsible to co-ordinate in case of any dispute for ownership of property and to expedite grant of RoW clearance thereof so as to adhere to the stipulated time-frame.
8. In case any shifting or alteration in the position of the laid Telecom Cables is required due to widening of highways and constructing of


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- flyovers of bridges, the Licensee shall do the same at his own cost at a later date within specified period indicated by the respective agency.
9. In order to avoid repeated digging on the same routes, in cases where cables ducts with sufficient space are already available along NHAI, laying of cables shall be encouraged in such ducts subject to technical requirements being fulfilled. In cases where such ducts are not available, the first incumbent shall be allowed to lay voluntarily extra ducts/conduits with extra capacity so as to take care of future needs. The capacity/excess capacity can be commercialized by the incumbent with suitable mutual agreements with the excess capacity by the first incumbent shall not be a pre-condition for giving Row clearances. The Central/State roadways authorities may consider laying ducts/conduits at the time of construction of roads to facilitate laying Telecom Cables for which suitable charges could be imposed.
10. Licensee shall ensure safety and security of all underground installations / utilities / facilities and shall be solely responsible for compensation / indemnification of concerned authority for damage caused / claims or replacements sought for at the cost and risk of Licensee.
11. Licensee shall be liable to give a notice of 15 days with route details prior to trenching for fresh or maintenance / repair works. A separate performance Bank Guarantee for maintenance / repair works shall be furnished by Licensee.
12. The period of validity of Row permission shall be co-terminus with the validity of licensee.


EXECUTIVE ENGINEER
CIVIL/TP/765KV
TANTRANSCO
VIRUDHUNGAR



DGM (T) & PD
National Highways Authority of India
Madurai

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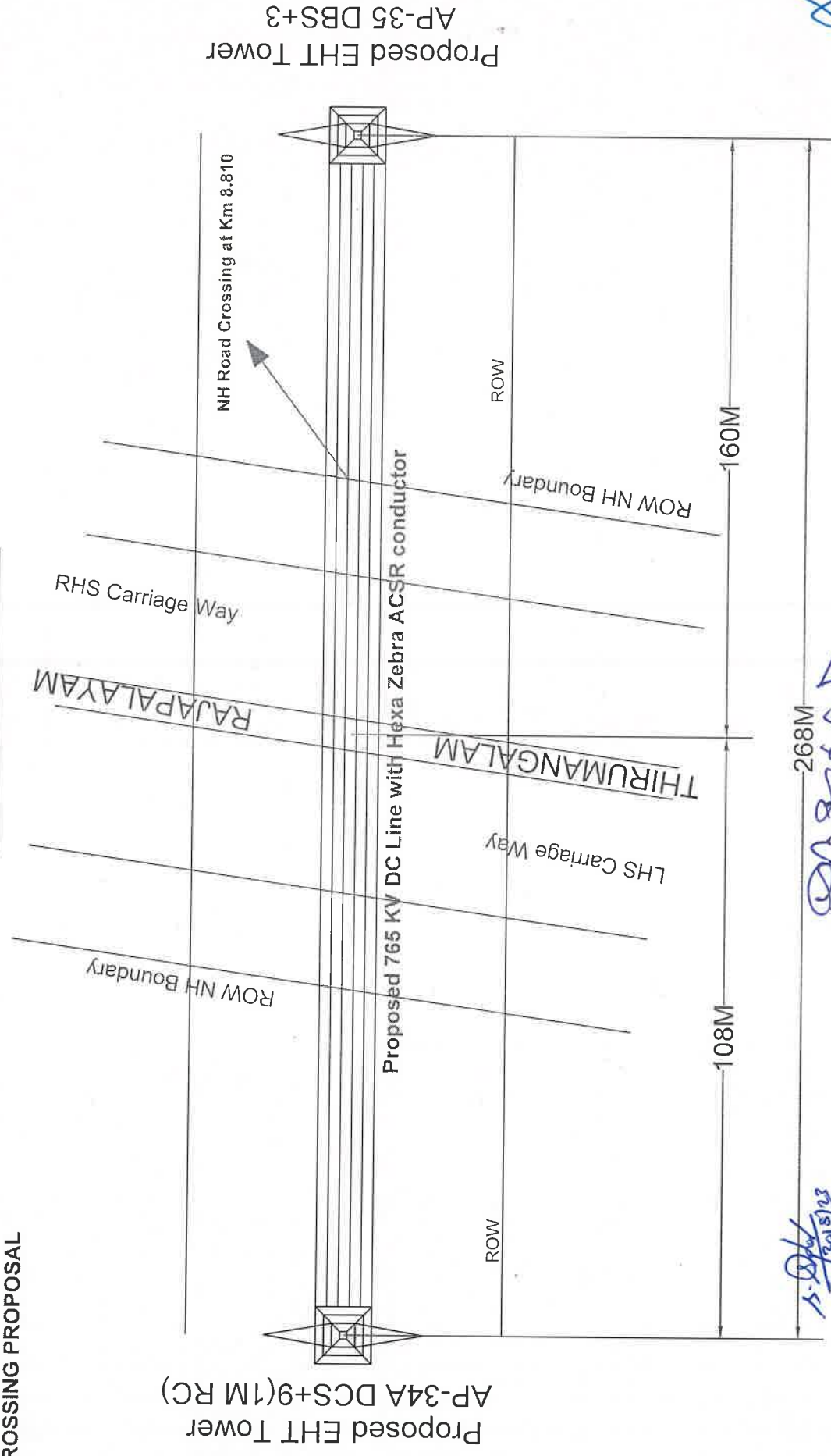
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765 KV DC LINE CROSSING IN BETWEEN KILOMETER 8+810 IN THIRUMANGALAM TO RAJAPALAYAM

SECTION OF NH-744

CROSSING PROPOSAL



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Transmission Line Construction
765KV & 400KV Lines/TANTRANSCO
Thirumangalam

ASSISTANT EXECUTIVE ENGINEER
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765KV & 400KV Lines/TANTRANSCO
Thirumangalam

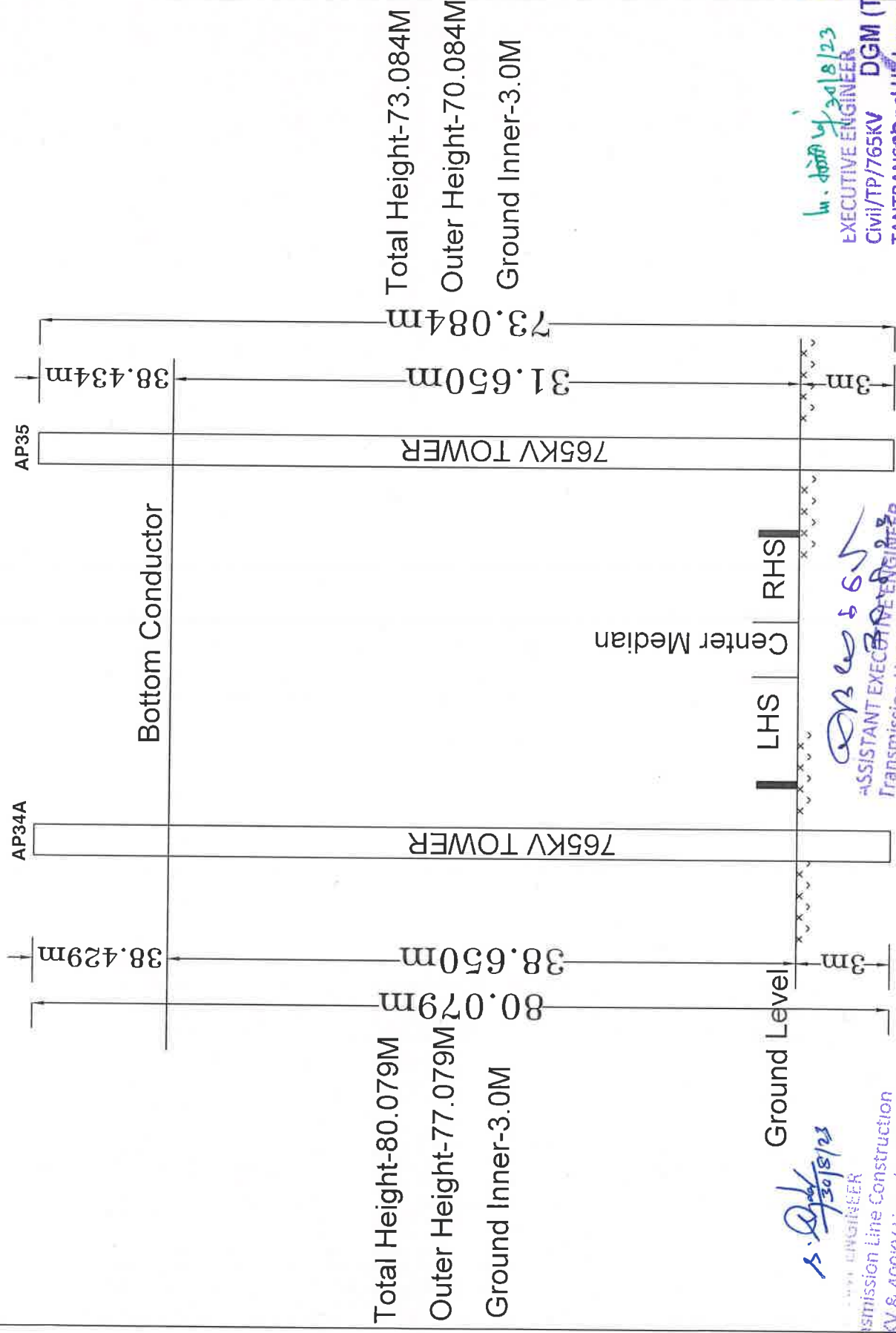
Madurai
Highways Authority
TANTRANSCO
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765KV DC TOWER SHOWING CLEARANCE DETAILS AT CHAINAGE KMS:8+810



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TANTRANSCO
VIRUDHUNAGAR
Madurai

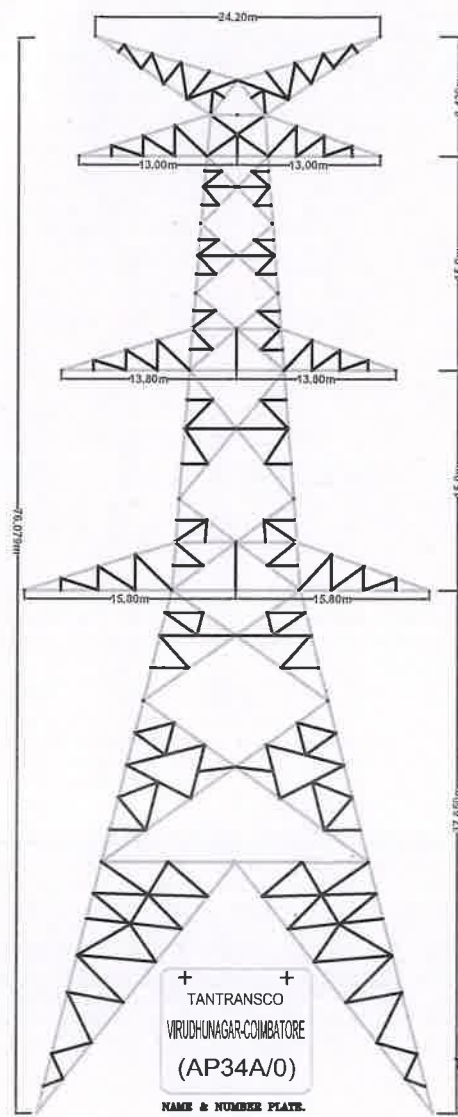
ASSISTANT EXECUTIVE ENGINEER
Transmission Line Construction
765KV & 400KV Lines/TANTRANSCO
Hirumangalam

TRANSMISSION LINE CONSTRUCTION
765KV & 400KV LINES/TANTRANSCO
HIRUMANGALAM

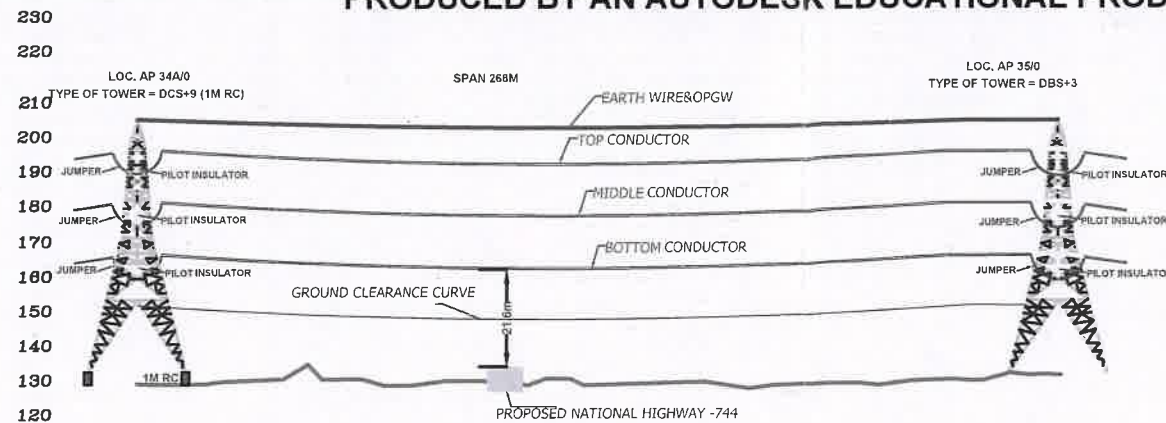
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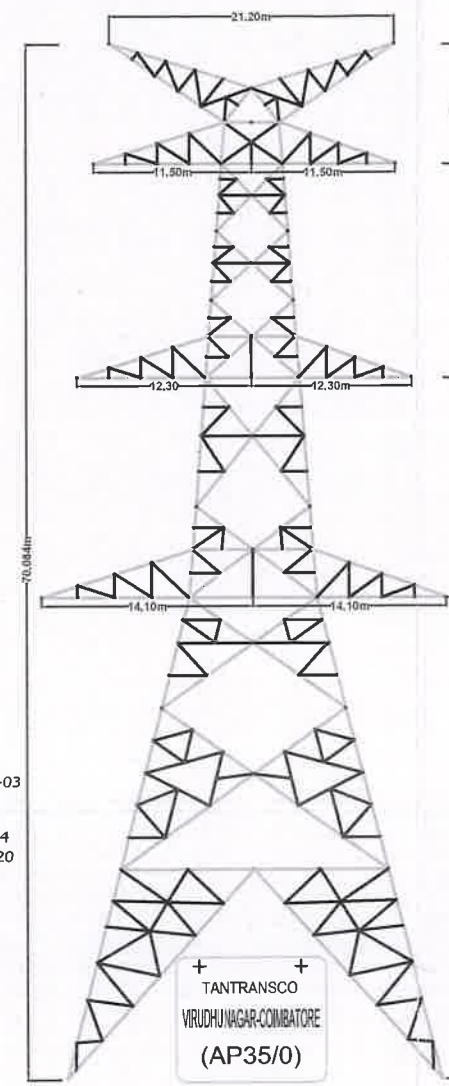
TRANSVERSE FACE OF TOWER TYPE DCS+09(1M RC)
LOCATION NO: AP34A/0
Not To Scale



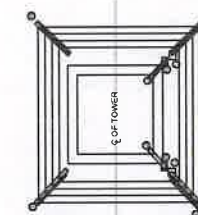
VERTICAL CLEARANCE
CLEARANCE REQUIRED=18.80M
CLEARANCE AVAILABLE=21.60M

GROUND LEVEL (m)	127.81	127.96	128.10	128.34	130.12	131.16	130.10	128.17	128.30	128.42	128.50	128.59	129.02	130.36	129.95	129.63	129.68	129.74	129.95	130.15	130.20	130.24	130.28	130.33	130.45	130.57	130.59	130.61
CHAINAGE (m)	0.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0	90.0	100.0	110.0	120.0	130.0	140.0	150.0	160.0	170.0	180.0	190.0	200.0	210.0	220.0	230.0	240.0	250.0	260.0	268.0

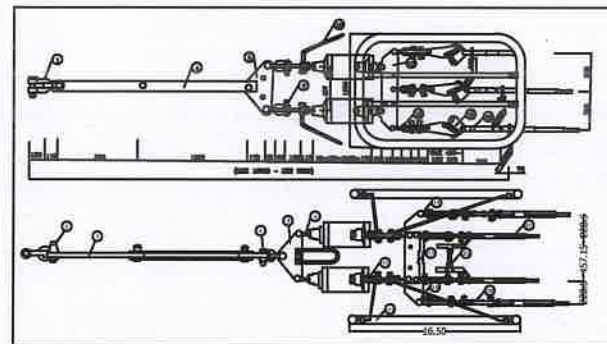
LOC. AP 35/0
TYPE OF TOWER = DBS+03
TURNING ANGLE:
5°54'45"LT
Easting = 819854.264
Northing = 1082432.620
UTM Zone = 43



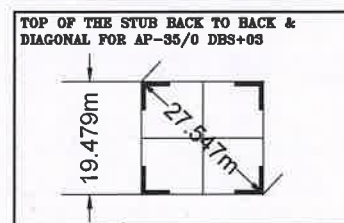
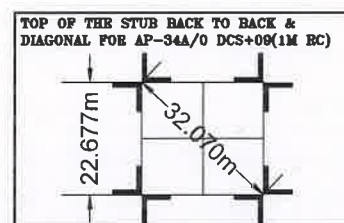
TRANSVERSE FACE OF TOWER TYPE DBS+03M
LOCATION NO: AP35/0
Not To Scale



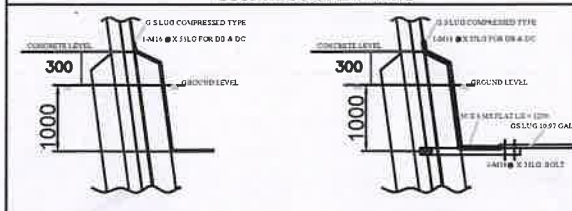
ANTICLIMBING DEVICE
SCALE:- NOT TO SCALE



765 kV QUAD:- TENSION INSULATOR STRING FOR
HEXAGONAL ACSR ZEBRA CONDUCTOR (NOT TO SCALE)

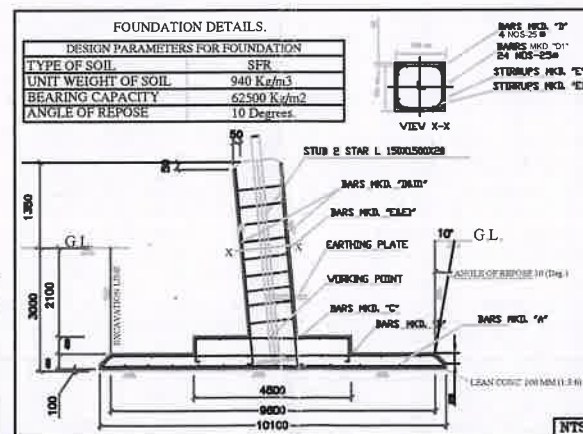


COUNTERPOISE EARTHING



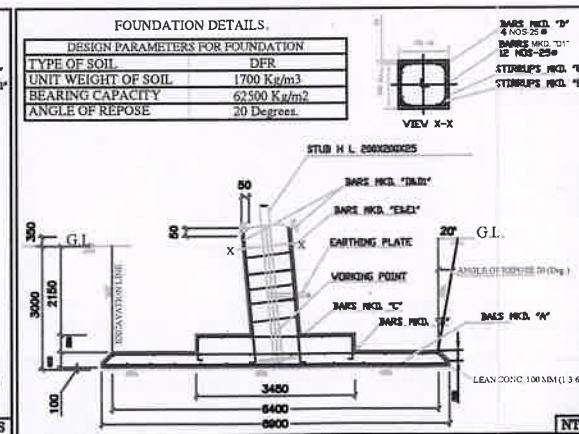
LUG FITTING TYPICAL FOR 3 LEGS LUG FITTING ON FOURTH LEG

42



DETAIL OF SFR FDN FOR AP34A DCS+09(1M RC) DETAIL AT "A"
SCALE:- NOT TO SCALE
(ALL DIMENSIONS ARE IN MM)

QUANTITIES/TOWER	
CONCRETE (M20)	201.83m ³
LEAN CONCRETE (M10)	40.80m ³
EXCAVATION	1121.00m ³
REINFORCEMENT	21567 kgs.



DETAIL OF DFR FDN FOR AP35 DBS+03 DETAIL AT "A"
SCALE:- NOT TO SCALE
(ALL DIMENSIONS ARE IN MM)

QUANTITIES/TOWER	
CONCRETE (M20)	97.57m ³
LEAN CONCRETE (M10)	19.04m ³
EXCAVATION	502.00m ³
REINFORCEMENT	9690 kgs.

NATIONAL HIGHWAY-744 CROSSING PROPOSAL

CROSSING DETAILS

Description	Details
1. HEIGHT OF LOWEST CONDUCTOR FROM TOP OF NATIONAL HIGHWAY AT 85°C NO WIND	21.60m
2. NAME OF NATIONAL HIGHWAY	NH-744 THIRUMANGALAM - RAJAPALAYAM
3. CROSSING ANGLE BETWEEN NATIONAL HIGHWAY AND PROPOSED 765KV TRANSMISSION LINE	60°
4. SPAN OF CROSSING SECTION	268m
5. STRUCTURE USED TO CROSS THE EXISTING POWER LINE	DCS+09, 1M RC (AP34A, Angle: 0°0'0") DBS+03 (AP35, Angle: 5°54'45"LT)
8. ADJACENT SPANS OF CROSSING LOCATION	110.0m (Preceding span) 176.0m (Succeeding span)
9. DISTANCE FROM LOC AP34A TO ROAD EDGE	80.0m
10. DISTANCE FROM LOC AP35 TO ROAD EDGE	133.0m

NOTES:-

1. TRANSMISSION LINE WILL BE CONTROLLED BY SENSITIVE RELAYS
2. HIGH SPEED DISTANCE PROTECTION ARE PROVIDED AT BOTH END OF THE LINE
3. HIGH TENSILE STEEL AS PER BS 4300 WITH YIELD STRESS $F_y=3600\text{KG/SQ.CM}$, HAS BEEN USED
4. MILD STEEL AS PER IS 2061 WITH YIELD STRESS $F_y=250\text{KG/SQ.CM}$, HAS BEEN USED
5. USE POINTED X-ARM ON LINE DEVIATION SIDE AND BOX X-ARM ON NON-DEVIATION SIDE
6. DOUBLE TENSION INSULATOR STRING AT CROSSING TOWER.

Sheet Name: AP34A - AP35	Section Length: 268m	Paper Size:	Date:
Scale: Horizontal Scale: 1:2000 (1 cm = 20m) Vertical Scale: 1:200 (1 cm = 2m)			

Data for 765kV D/C(Hex.Zebra) Transmission Line (Wind Zone-2)

1) Conductor	Zebra
2) Cable Diameter	28.62mm.
3) Area	484.5 Sq. mm.
4) Unit Weight	1.621 Kg/M.
5) Normal Span (Ruling Span)	400 Mtr.
6) Maximum Sag (@ 85°C Temperature, Still Air)	13.262 Mtr.
7) Ground Clearance (Including Sag error of 0.15m)	15.15 Mtr.
8) Sag Tension (For Hot Curve)	2439.9 Kg.
9) Sag Tension (For Cold Curve)	3343.7 Kg.

CLIENT: TAMILNADU TRANSMISSION CORPORATION LIMITED CHENNAI - 2

CONTRACTOR: KALPATARU KALPATARU POWER TRANSMISSION LIMITED
191, Park III, GIDC Estate, Sector-28, Gandhinagar, India
www.kalpatarupower.com

PROJECT TITLE: PROPOSAL FOR OVERHEAD CROSSING OF NH-744 BY 765KV DC (HEXA ZEBRA ACSR) LINE FROM VIRUDHUNAGAR TO COIMBATORE (REACH-I) WIND ZONE-2 CROSSING AT KM STONE 8/800 - 8/900 IN BETWEEN THIRUMANGALAM TO RAJAPALAYAM NEAR VILLAGE: T PUDUPATTI, DIST: MADURAI

TAMILNADU TRANSMISSION CORPORATION LIMITED

ASSISTANT ENGINEER
Transmission Line Construction
765KV & 400KV Lines/TANTRANSCO
Thirumangalam

ASSISTANT EXECUTIVE ENGINEER
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NHAI

DGM (T) & PD

National Highways Authority of India
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