



# भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

( सड़क परिवहन एवं राजमार्ग मंत्रालय, भारत सरकार )

## National Highways Authority of India

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

क्षेत्रीय कार्यालय, 30प्र0( पूर्व ) वाराणसी

Regional Office - U.P. (East), Varanasi

एस- 2/656, ए-3 बी, वरुणा विहार कालोनी, द्वितीय एवं तृतीय तल, वन प्लेस टावर  
(जे0पी0 मेहता सीनियर सेकेन्डरी स्कूल के पीछे), सिकरौल, वाराणसी-221002 (30प्र0)

S-2/656, A-3B, Varuna Vihar Colony, 2nd & 3rd floor, one place Tower  
(Behind J.P. Mehta Sr. Secondary School), Sikraul Varanasi-221002 (U.P.)

No. 14011/42/RO/UP(E)/2020/1788

### Invitation of public comments



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Date: 11.05.2020

**Sub.: Proposal for granting permission for laying overhead 220KV (Muzaffrapur) PGCIL-Sohawal UPPTCL Line from Ayodhya towards Lucknow at km 103.360 of NH-28 near Faizabad between milestone Nilkanth Hotel Pilkhawa village District-Ayodhya.**

The Executive Engineer, Electricity Transmission Division, U.P. Power Transmission Corp. Ltd., Ayodhya has submitted the proposal for granting permission for overhead crossing of 220KV line in the subject cited stretch.

2. From the submitted proposal, it is seen that the aforesaid work has already been executed by UPPTCL in accordance with norms due to important electrification work and all the clearances and necessary safety factors have been taken in account (i.e. crossing span, clearance overhead etc) for crossing the overhead line on NH. In this connection, Executive Engineer, ETD, UPPTCL, Ayodhya has stated that the work was executed because of ensuing election of UP legislative Assembly and there is a lot of power cut due to overloading which is creating huge public outrage.

The height of both proposed structures (Transmission Towers) on which the overhead line is hanging is 49.355M. The structures (Towers) on either side are erected at distance of 87.48M & 99.52M respectively from the centre line of National Highway. Further, the minimum clearance of 24.89M between the lowest conductor of the proposed line and NH carriageway shall be maintained. However, the proposed transmission line shall be crossing the National Highway at 83.4 degree.

3. As per the guidelines, issued by the Ministry vide OM No.RW/NH-33044/29/2015/S&R(R) dated 22.11.2016, the application shall be put out in the public domain for 30 days for seeking claims and objections (on grounds of public inconvenience, safety and general public interest).

4. In view of the above, comments of the public on the above application is invited to the below mentioned address, which should reach by this office within 30 days from the date of publication beyond which no comments shall be entertained.

The Chief General Manager cum Regional Officer,

National Highways Authority of India

Regional Office, UP-East, Varanasi

S-2/656, A-3B, VarunaVihar Colony, 2nd & 3rd Floor, One Place Tower,  
Behind J.P. Mehta Sr. Secondary School, Sikraul, Varanasi-221002

This issue with the approval of CGM (Tech.)/RO.

Encl: As above

  
(C.M. Dwivedi)  
General Manager (Tech.)

Copy to:

- (i) Web Admin, NHAI-HQ- with request for uploading on the NHAI website
- (ii) The Technical Director, NIC, Transport Bhawan, New Delhi - with request for uploading on the Ministry's website.
- (iii) Project Director, NHAI, PIU-Lucknow- for information please.
- (iv) The Executive Engineer, ETD, UPPTCL, Ayodhya- for information please

मुख्यालय : प्लॉट सं0 जी-5 एवं 6, सेक्टर- 10, द्वारका, नई दिल्ली - 110 075, दूरभाष : 91-11-25074100/200

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220 KV D/C MUZAFFARPURA (PGCIL)S/S TO SOHAWAL TRANSMISSION LINE  
PROPOSAL FOR NATIONAL HIGHWAY

S. No	Description	As per Circular NHA1	As per Site	Remarks
1	National Highway No	nh 28	NH-28	
2	Crossing Name		Faizabad-Lucknow	
3	Crossing chainage		between milestone nilkanth hotel pilakhawa village	
4	System of Supply (LV Voltage) Frequency,no. of phases, whether		3 phase, 220 kv D/C line , 50Hz	
5	Position of tower		between AP/31 & AP/32 From AP /31 :- 87.48m From AP /32 :- 99.52m	
6	Normal span at ZEBRA conductor		380	
7	Maximum sag at normal span		11.745	
8	Crossing span	250	186 mtr.	
9	Preceding span with loc.		330	
10	Succeeding span with loc.		280	
11	Height of structure above ground and below ground separately and detail of foundation		49.355 mtr. 3 mtr. Depth Both	
12	Clearance over road	14.8	25.7 mtr	
13	Hight of lower conductor over ground level at loc.		34 Mtr.	
14	Angle of road crossing	60 degree	83.4	
15	Perpendicular distance from centre of tower to centre of road		AP/31 & AP/32 AP /31 :- 87.48m AP /32 :- 99.52m	
16	Protection of assembly line	danger board	anti climbing device and danger board	
17	Foundation type		FS Both	
18	NO. OF Stay stay required		NIL	
19	Min factor of safty		2	
20	Size of power conductor		54/3.18mm,steel7/3.18	
21	Size of OPGW		opgw 24	
22	Two legs of tower earthed		yes	
23	Plain paper diagram		attached	
24	Earthing		yes,pipe type	

EE, ETD, AYODHYA

220 KV D/C MUZAFFARPURA (PGCIL)S/S TO SOHAWAL TRANSMISSION LINE  
PROPOSAL FOR NATIONAL HIGHWAY

1.Name and Details of the Existing National Highway	NH- 28 Lucknow to Faizabad Highway between milestones nilkanth hotel pilakhawa
2,Situation of crossing	between AP/31 & AP/32 From AP /31 :- 87.48m From AP /32 :- 99.52m
3.Span at the crossing and also those on either side of crossing.	186 mtr
4,Angle of Crossing	83.4 deg.
5. Structure Used to cross the axisiting National highway and its deviation angle.	AP /31 C+10/53° 21' 09" RT AP /32 C+10/ 25° 03'37" LT
6. Conductor used to cross the Power Line and its Details.	Conductor Detail:- (i) Name ACSR ZEBRA (ii) Diameter :- 28.62 mm (iii) Cross-Sectional area:- 484.9sq mm (iv) Weight of conductor:- 1.623 kg/m (V) Ultimate Tensile strength:- 13200 kg. (vi) Modulus of Elasticity :- 65.8448kg/sq mm/100 (vii) Co-efficient of linear expansion- 1.924 E-05/deg-C
7. Clearance under maximum sag Conditions between lowest Conductor of the proposed lin and existing road.	24.89 mtr.

  
EE, ETD, AYODHYA

CLEARANCE CALCULATION CHART FOR NATIONAL HIGHWAY-28  
CROSSING BETWEEN LOCATION NO. AP/31 & AP/ 32 FOR 220 KV D/C  
MUZAFFARPURA (PGCIL)S/S TO SOHAWAL TRANSMISSION LINE

RL of Location No.- AP/31	= 98.40 m
RL of Location No.- AP/ 32	= 98.25 m
RL of top level of NH	= 99.92m
Bottom cross-arm RL Loc. No. AP/31	= 127.40m
Bottom cross-arm RL Loc. No. AP/32	= 127.25m
Tension (T) at 75°	= 2494 kg
Conductor weight (W) for ACSR Zebra	= 1.623kg/ms
Crossing span (L)	= 186m
Height difference of bottom cross-arm between Loc. No. AP/31 & AP/32	= .15 mtr.
Null Point (N)	= (TH/WL)+(L/2) = 94.23 mtr
Max sag at null point (S)	= (W*L <sup>2</sup> )/2T=(1.623*94.23 <sup>2</sup> )/2*2494 = 1.78mtr.
Sag at crossing point of NH	= 0.1 mtr.

Hence the clearance from bottom conductor of 220KV line to top level of NH is =127.25-1.68-99.92=25.6mtr.



220KV D/C

TOP  
ELEVATION

lucknow



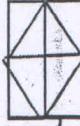
S I D E S O U L D E R 2 . 0 m

BT SURFACE  
18.0 M

83° 34' 35"

S I D E S O U L D E R 2 . 0 m

AP 32  
C+10  
25° 03'37" RT



Distance of tower  
from center of  
Road 99.52

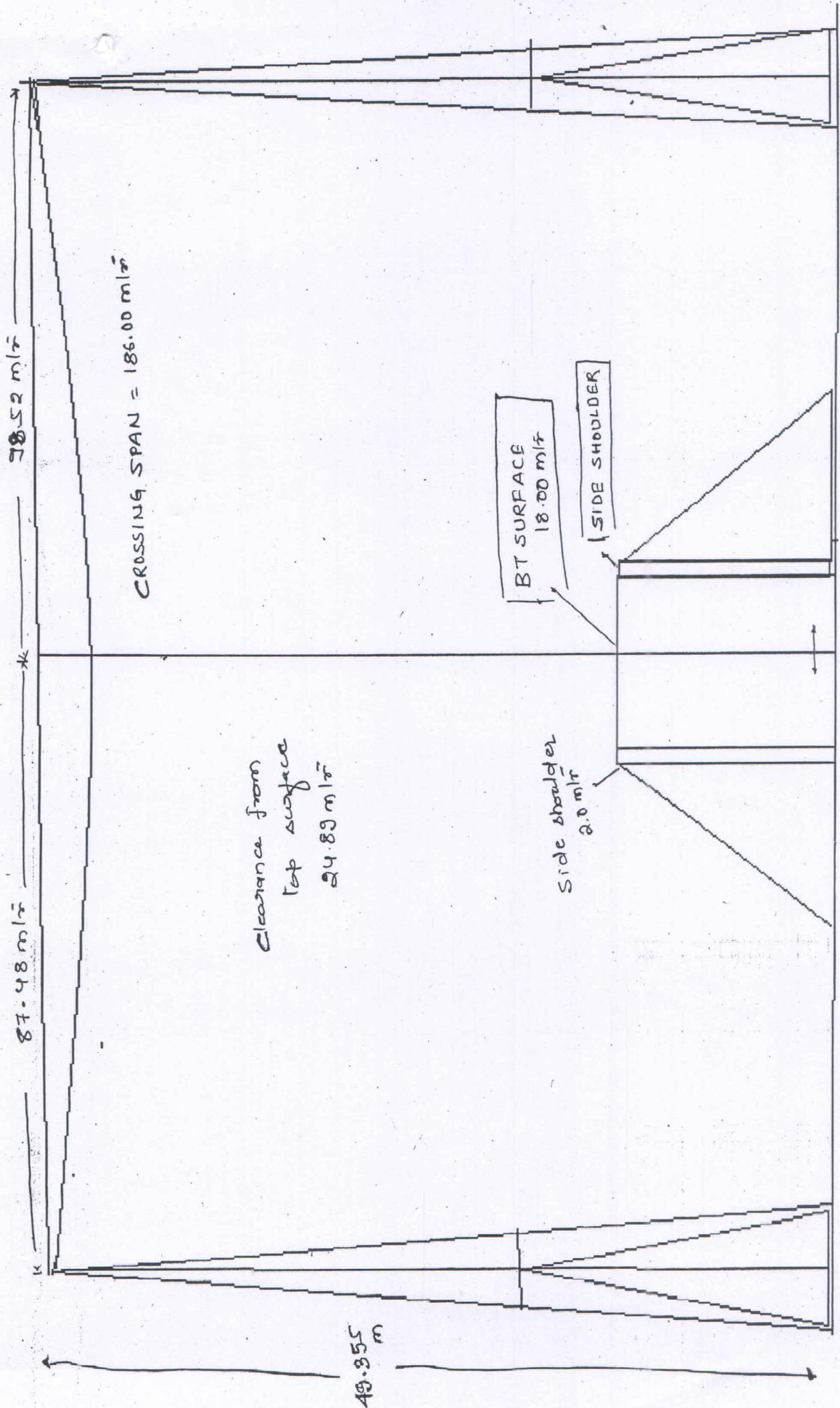


faizabad

AP 31/0  
C+10  
53° 21'09" RT



Distance of tower  
from center of  
Road 87.48

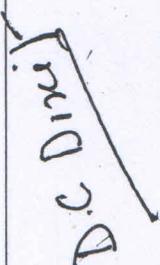
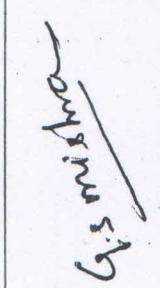


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**220 KV DC MUZAFFARAPUR - SUHAWAL TRANSMISSION LINE**

**TOWER SCHEDULE**

SL. NO.	AP. NO.	Loc. No.	Tower Type	Ext.	Angle of Deviation	Span Length (m)	Section Length (m)	Cumul. Chanag (m)	Ground Level (m)	Wind Span (m)	Weight Span HOT (m)			Weight Span Cold (m)			Crossing Details		GPS CO ORDINATE	
											Left	Right	Total	Left	Right	Total	X	Y		
1	Tower No.-47	Tower No.-47	DC+10	10		186		0	98.4			92	94		95			590541	2961476	
2	Tower No.-48	Tower No.-48	DC+10	10			298	186	98.25			91					NH-28 ( Lucknow- Faizabad)	590561	2961291	

 <b>D.C. Dixit</b>	 <b>G.S. Mishra</b>
<b>CHECKED BY</b>	<b>APPROVED BY</b>
Sub-Divisional Officer ETSD-I Darshan Nagar , Faizabad	Superintending Engineer,ETC, Sultanpur