

# भारताय राष्ट्रीय राजमार्ग प्राधिकरण

(सडक परिवहन और राजमार्ग मंत्रालय,भारत सरकार)

### NATIONAL HIGHWAYS AUTHORITY OF INDIA

(Ministry of Road Transport & Highways, Government of india)

# क्षेत्रीय कार्यालय - हैदराबाद

प्रथम तल, नया भवन, भारतीय प्रशासनिक स्टाफ कॉलेज, रोड नं-3, बंजारा हिल्स, हैदराबाद-500 034 तेलंगाना.



**REGIONAL OFFICE - HYDERABAD** First Floor, New Building, Administrative Staff College of India (ASCI), Road No. 3, Banjara Hills, Hyderabad - 500 034, Telangana. टेली / Tele : 040 - 29562147 / 48 ई-मेल / Email : rohyderabad@nhai.org, nhairohyd@gmall.com

Notice Inviting Public Comments

NHAI/RO-HYD/25011/1/33/2022/Utility/3023

Dt.08.02.2022

NHAI - RO Hyderabad - PIU Hyderabad-Proposal for laying of Optical Fiber Cable for a total length of 9.60 Km from Km.74+300 to Km.76+670 (LHS), from Km.76+670 to Km.76+870 (RHS), from Km.76+870 to Km.79+870 (LHS), from Km.80+870 to Km.81+500 (LHS), from Km.84+300 to Km.86+270 (LHS), & from Km. 86+270 to Km.87+400 (RHS) along NH-44 and Highway crossings at Km. 76+670, km.76+870, Km.81+500, Km.84+300, & Km.86+270 by HDD methodology Hyderabad to Bangalore section of NH-44 in the State of Telangana-Reg..

1. PD, PIU Hyd Lr.no. NHAI/PIU-HYD/NH-44/AP-3&4/T-Fiber/2021/60, dated 08.01.2022 Ref:

The Project Director, PIU, NHAI, Hyderabad vide letter cited above has recommended the Proposal M/s Telangana Fiber Grid Corporation Limited for laying of Optical Fiber Cable in between Km.74+300 to Km.86+270 for a total length of 9.60 Km along the National Highway of NH-44 & across the National Highway NH-44 by HDD methodology in Hyderabad to Bangalore section in the State of Telangana.

As per para 4 of the Ministry's guidelines no. RW/NH-33044/29/2015/S&R(R) dated 22.11.2016, 2. public comments is hereby invited on the above proposal seeking claims and objections (on grounds of public inconvenience, safety and general public interest) within 30 days on public portal i.e. website of Ministry of Road Transport and Highways (www.morth.nic.in) in Form-A (copy enclosed) for "Accommodation of Public and Industrial Utility Services along and across National Highways".

### Comment Inviting Authority

The Regional Officer, National Highways Authority of India, Regional Office: Hyderabad, First Floor, New Building, Administrative Staff College of India(ASCI), College Park Campus, Road No.3, Banjara Hills, Hyderabad - 500 034, Telangana State, Phone: 040-29562147, 040-29562148,

Email: rohyderabad@nhai.org, nhairohyd@gmail.com

Yours faithfully,

Encls: Above Proposal

(V. Nagamani) Dy. General Manager Tech) For Regional Officer-cum-Highway Administrator, Hyderabad

To:

1. Senior Technical Director, NIC, Transport Bhawan, New Delhi- 110001 for uploading on Ministry's website.

2. Shri S.Manivasagam, Dy. GM (IT), NHAI HQs, New Delhi for uploading on NHAI website.

Copy to:-1. The Project Director, NHAI, PIU Hyderabad: for information

2. M/s Telangana Fiber Grid Corporation Limited: for information

कारपोरेट कार्यालय : जी-5 एवं 6, सेक्टर-10, द्वारका, नई दिल्ली - 110 075. वेबसाइट : http://www.nhai.org Corporate Office: G-5 & 6, Sector -10, Dwarka, New Delhi - 110 075 Website: http://www.nhai.gov.in

#### FORM-A

Form for seeking claims and objections (on grounds of public inconvenience, safety and general public interest) on the application for Accommodation of Public and Industrial Utility Services along and across National Highways

Sub: NHAI - RO Hyderabad - PIU Hyderabad- Proposal for laying of Optical Fiber Cable for a total length of 9.60 Km from Km.74+300 to Km.76+670 (LHS), from Km.76+670 to Km.76+870 (RHS), from Km.76+870 to Km.79+870 (LHS), from Km.80+870 to Km.81+500 (LHS), from Km.84+300 to Km.86+270 (LHS), & from Km. 86+270 to Km.87+400 (RHS) along NH-44 and Highway crossings at Km. 76+670, km.76+870, Km.81+500, Km.84+300, & Km.86+270 by HDD methodology Hyderabad to Bangalore section of NH-44 in the State of Telangana-Reg.

The claims and objections (on grounds of public inconvenience, safety and general public interest) by the general public needs to be given within 30 days of uploading the online application for comments

SI. No	Item	Details		
1	Name of the person who is desiring to give claims and objections (on grounds of public inconvenience, safety and general public interest)			
2	Address of the person			
3	Details of the application for Accommodation of Public and Industrial Utility Services along and across National Highways against which claims and objections are being given (name of applicant and other details like site address etc.)			
3	a) Application No.  b) Name of applicant (who applied to Accommodation of Public and Industrial Utility Services along and across National Highways)  c) Details of Application			
4	The claims and objections (on grounds of public inconvenience, safety and general public interest)			

#### Check List

Name of the Work: Laying underground OFC Telangana Fiber Grid Corporation Limited Project Telangana Fiber (A BBNL Project) for Government of Telangana

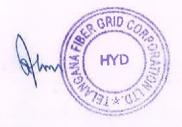
S.No.	Item	Information/status	Remarks
l	General Information	Permission for laying of OFC across NH-44, Jadcherla Mandal from chainage 74/3 to 76/67 on LHS, 76/67 to 76/87 on RHS, 76/87 to 79/87 on LHS, 80/87 to 81/5 on LHS, 84/3 to 86/27 on LHS, 86/27 to 87/4 on RHS length for ROW applied is 9.540km (i.e.9540mtrs) including Road crossings (HDD) at 76/67,76/87, 81/5, 84/3& 86/27 under the Jurisdiction of NHAI in the state of Telangana	
1.1	Name and Address of the Applicant/Agency	M/S Telangana Fiber Grid Coportaion Limited	
1.2	National Highway Number	NH-44	
1.3	State	Telangana	
1.4	Location	NH 44 Bangalore to Hyderabad Rd( Kurnool Rd)	5 road crossings
1.5	(Chainage in Km)	Along NH 44, 74/3 to 87/4 Road crossing (76/67,76/87, 81/5, 84/3& 86/27)	
1.6	Length in Meters	A) along Road :7.970km(LHS) B)1.270km(RHS) C) Crossings 76/67,76/87, 81/5, 84/3& 86/27= each crossing meters (5X 60=300m) =9.540km	
1.7	Width of available ROW		
(a)	Left side from center line towords increasing chainage / km Direction	30 M	
(b)	Right side from center line towards chainage/km direction	30 M	
	Proposal to lay OFC  Left side from center line towards increasing chainage / km Direction	As per Drawing	
	Right side from center line towards chainage/km direction	As per Drawing	
1.9	Proposal to acquire land	NO	
	left side from center line	NA	
(b)	Right side from center line	NA	
1.10	Whether proposal is in the same side where land is not to be acuired if not then where to lay the cable	Yes	



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1.11	Details of alredy laid services, if any, along the proposed route	YES (indicated in Drawing)
1.12	Number of lanes(2/4 6/8 lanes) existing	2 /4Lane
1.13	Proposed Number of lanes (2 lane with paved shoulders/4 6/8 lanes)	
1.14	Service road existing or not if yes then which side	YES (indicated in Drawing)
(a)	left side from center line	
(b)	Right side from center line	
1.15	Proposed Service Road	NA
(a)	Left side from center line	
(b)	Right side from center line	
1.16	Whether proposal to laying of OFC Cable is after the service road or between the service road carriageway	After the service Road
1.17	The permission for laying of OFC cable shall be considered for approval / rejection Ministry Circulars Mentioned as above	Approval
(a)	Carrying of Sewage/gas pipelines on highway bridges shall not be permitted as Furmes / gases pipes accelerate the process of corrosion or ma explosions, thus, being much more injurious of water	NA
(b)	Carring of OFC on bridges shall discouraged. However, if the OFC seem to have no other viable alternative and the highway authority well in time before the bridge is finalized, they may be permitted to pipeline on independent superstructure, extended portions of piers and abutments in manner that in the final arrangement enough around the superstructure of the bridge for inspection and repairs, etc.	NA



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(c)	Cost of required extension of the as that of the suporting superstructure shall the agency-in-charge of the utilities.	NA	
(d)	Services are not being allowed parapet/any part of the bridges, Safety of the bridge to be kept in view while permitting various bridge. Approvals are to be accorded in this the consurrence of the Ministry's Project Engineers only	May be approved	
1.18	If crossings of the road involved If Yes, it shall be either encased in pipes or strucure or conduits specially built for that expenses of the agency owning the line	Yes (encased with PLB 40mm Duct)	
(a)	Existing drainage structures shall not be allowed to carry the lines	No existing drainage system	+
(b)	Is it on a line normal to NH	yes	
(c)	Crossings shall not be too near the existing structures on the National Highway, the distance being 15 meter. What is the distance from the existing structures	Yes. (250m)	
(d)	The casing pipe (or conduit pipe in the case electric cable) carrying the utility line shall cast iron, or reinforced cement concrete adequate strength and be large enough to ready withdrawal of the carrier pipe/cable	Yes	
(e)	Ends of the casing/conduit pipe shall be sealed from the outside, so that it does not act as path.	Yes	
(f)	(f) The Casing/conduit pipe should be extended from drain to drain in cuts and toe of slope in the fills	Yes	
(g)	The top of the casing/conduit pipe should be atleast 1.2 meter below the surface of the Drain & atleast 0.3 m below the drain bottom	Yes	



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(h)	Crossing shall be Horizontal Boring method (HDD) specially where the existing road pavement cement concrete or dense bituminous	HDD- proposed existing road pavement is of DBM	
(i)	The casing/conduit pipe shall be installed throughout its length and in manner as to prevent the formation of a water way along it.	Yes	
2	Document/Drawings enclosed with the proposal	Yes	
2,1	Cross section showing the size of trench for open trenching method (Is it normal size of 1.2m deep x 0.3m wide)	HDD Method , Not Opentrench Method	
(i)	Should not be greater than 60 Cm wider than diameter of the pipe	Yes	
(ii)	Located as close to the extreme edge of the Right of way but not less than 15 meter from centrelines of the nearest carriageway	Yes	
(iii)	Shall not be permitted to run along the Highways when the road formation is situated cutting. Nor shall these be laid over the bridges.	Yes	
(iv)	These should be laid that their top is at 0.6 meter below the ground level so as not drainage of the road land.	NA	
2.2	Cross section showing the size of pit and location of cable for HDD method	YES (Enclosed)	
2.3	Strip plan/Route Plan showing OFC laying Chainage, Width of RoW, distance from the edge of ROW, important mile stone intersections, cross drainage work etc.	Strip plan (Enclosed)	
2.4	Methodology for laying of showing OFC	Yes	



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2,4.1	Open trenching method.( May be allowed in utility corridor only where pavement is neither nor dense bituminous concrete type. If yes of refilling of trench	HDD	
(a)	The trench width should be at least 30 cm, more than 60cm wider than the outer pipe.	NA - HDD Method (not Open Trench)	
(b)	For filling of the trench, Bedding shall be not less than 30cm. It shall consist of free of lumps, clods and cobbles and graded firm surface without sudden change in the Unsuitable soil and rock edged should be replaced by selected material	NA	
(c)	The backfill shall be completed in two stages fill to the level of the top of the pipe and (ii) bottom of the road crust.	NA	
(d)	The sidefill shall consit of granular material & sand layers each consolidated by mechanical and controlled addition of moisture to 95 % of Proctor"s Density. Overfill shall be compacted same density as the material that had been consolidation by saturation or ponding will not permited.	NA +	
(e)	(e) The road crust shall be built to the same the existing crust on either side of the trench be taken to avoid the formation of a dip at the	NA	
(f)	(f) The excavation shall be protected by barricades, and red lights reflector during night.	NA	
( g)	(g) If required, a diversion shall be constructed at the expense of agency owning the utility line.	NA	
2.4.2	Horizontal Directional Drilling (HDD) Method.	HDD Method for crossing	
2.4.3	Laying of OFC through CD works and method of laying.	NA	
(a)	(a) On approaches, OFC Cables carried along a line as close to the edge of way as possible, upto a distance of 30m from and subject to all other stipulations contained Ministry's guidelines issued with letter No.NH dated 19.11.1976.	NA	





3	Draft License Agreement signed by two witnesses.	Enclosed	
4	Performance Bank Guarantee in fabour of NHAI has to be obtaiend @ Rs250/- per running meter NH) and Rs24,00,000/- BG value of NH,of one year initially (extendable if required satifactory completion of work) as a ensuring/making good the excavated trench the cables/ducts by proper filling and clearing debris/loose earth produced due to of trenching at least 50m away from the right of way. No payment shall be payable NHAI to the licensee for clearing	Yes (undertaking is give that once the proposal is approved the BG will be furnished)	
4.1	Performance BG as per above is to be obtained.	Obtained	
4.2	Confirmation of BG has been obtained as per NHAI guidelines.	Yes	
5	Affidavit / Undertaking from the Applicant for	NA	
5.1	Not to Damage to other utility, if damaged then to pay the losses either to NHAI or to the concerned.	Yes Undertaking given	
5.2	Renewal of Bank Guarantee	if Required Will be renewed	
5.3	Confirming all standard condition of NHAI 's guideline	Ycs	
5.4	Shifting of OFC as and when required NHAI Whether own cost	No	
5.5	Shifting due to 6 lanning / widening of NH	Yes Undertaking given	
5.6	Indemnity against all damages and claims clause (xxiv)	Yes Undertaking given	



5.7	Traffic movement during laying of OFC to be Managed by the applicant	Yes Undertaking given	
5.8	If any claim is raised by the concessionaire then the same has to be paid by the applicant.	Yes Undertaking given	
5.9	Prior approval of the NHAI shall be obtained before Undertaking any work of installation, shifting alterations to the showing OFC cable in the National highway right-of-ways	Yes Undertaking given	
5.10	Expenditure, if any, incurred by NHAI for repairing anydamage caused to the National Highway by maintenance or shifting of the OFC be borne by the agency owning the line	Yes Undertaking given	
5.11	If the NHAI considers it necessary in future to move the utility line for any work of improvement or road, it will be carried out as desired by the cost of the agency owning the utility line within reasonable time (not exceeding 60 days) of the intimation given	Yes Undertaking given	
5.12	Certificate from the applicant in the following		
(i)	(i) Laying of OFC will not deleterious effects on any of the bridge and roadway safety for traffic.	Yes Undertaking given	
(ii)	(ii) for 6- lanning "We do undertake that I will service road/approach road/utilities at my notwithstanding the permission granted with in as will be stipulated by NHAI" for future six any other development	Yes Undertaking given	
6	Who will sign the agreement on behalf of OFC cable agency.	M/S Telangana Fiber Grid Corporation Limited	
7	Certificate from the Project Director		



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7.1	Certificate for confirming of all standared condition issued vide Ministry Circular No.(58)/68 dated 31.1.1969, Ministry Circular No.P/66/76 DATED 18./19.11.1976, Ministry RW/NH-III/P/66/76dated 11.5.1982, Minister RW/NH-11037/1/86-DOI(ii) DATED 28.7.1993, Circular No.rw/nh-11037/1/86/DOI dated Ministry Circular No.RW/NH-34066/2/95/25.10.19999 and Ministry Circular No.R	YES
7.2	Certificate from PD in the following format	
(i)	(i) "It is certified that the OFC within ROW will not affect the design, stability of the highway nor the likely future (Yes/No) Such as widening of the carriageway, curve etc."	YES
(ii)	for 6 - lanning	
(a)	(a) Where feasibility is available "I do Certify that no hindrance to proposed six laning based feasibility report considering proposed said location"	yes
(b)	(b) In case feasibility report is not available " I that sufficient ROW is available at site for accommodating proposed six - laning".	yes
8	If NH section proposed to be taken up by NHAI on BOT basis - clause is to be inserted in the agreement "The permitted Highway on which licensee has been granted the right to lay cable/duct has also been right of way to the concessionaire under the agreement	NA



9	Who will supervise the work of laying of OFC cable	(i) NHAI Supervision Consultant (ii) T.Fiber -DGM	
10	Who will ensure that defects in road portion after laying of OFC Cable are corrected and if not corrected then what action will be taken.	Senior Director-T.fiber - if the defects are not corrected NHAI will encash the amount from BG	
11	Who will pay the claims for damages done/disruption in working of Concessionaire if asked by the concessionaire.	M/S Telangana Fiber Grid Corporation Limited, Telangana	- = =
12	A certificate from PD that he will enter the proposed permission in the register of records of the prescribed proforma (copy enclosed)	Yes	
13	If any previous approval is accorded for laying of underground OFC cable then register of records of permissions accorded maintained by PD then copy be enclosed	Yes	

HYD SALL ROLL RANGE

# Methodology of Laying of OFC-Open Trenching & Trenchless (HDD) along NH 44

### **Trenching Method:**

Laying of Optical Fiber Cable along the mentioned route will be done by conventional method/manual and Machine Trenching method. The dimension of the trench will be 165 cms in depth and 45 cms in width. The Cable laying work will be carried out in phased manner in such a way that after the HDPE / Protection ducts are laid for Optical Fiber Cable, the trench will be reinstated to its original surface.

### **Trench Filling Method:**

As a measure of abundant precaution against future settlement and other allied problems, only selected granular material will be used in filling reinstatement of trenches. The entire depth of cutting will be filled either with coarse sand or the excavated material, compacted in layers not exceeding 75 mm when compacted by ordinary power roller /plate compacter. Special Compaction equipment like plate compacter, frog hammer will be utilised besides ordinary power roller.

## Trenchless Crossing: HDD Method

Horizontal Directional Drilling (HDD) is a technique for installing product pipes, including utility lines, below ground using a surface-mounted drill rig that launches and places a drill string at a shallow angle to the surface and has tracking and steering capabilities. In recent years HDD has been the preferred methodology due to several government policies conducive to infrastructure growth.

All crossing on the Route will be done by Horizontal Directional Drilling method without disturbing the road surface.



A Typical HDD Methodology is shown below:

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