

भारतीय राष्ट्रीय राजमार्ग प्राधिकरण (सडक परिवहन और राजमार्ग मंत्रालय, भारत सरकार)

National Highways Authority of India

(Ministry of Road, Transport and Highways, Government of India) परियोजना कार्यान्वयन, इकाई. सोलापूर (महाराष्ट्र) Project Implementation Unit. Solapur (Maharashtra)



कार्यालय : प्लॉट नं. ई–२, जय जलाराम नगर, शिवदारे कॉलेजच्या मागे, जुळे सोलापूर, सोलापूर-४१३००४ (महाराष्ट्र) Office : Plot No. E- 2, Jai Jalaram Nagar, Behind Shivdare College, Jule Solapur, Solapur - 413 004. Tel/Fax - 0217 2303379 ई–मेल /Email : solapur@nhai.org; piusolapur@gmail.com * वेब /Web : https://nhai.gov.in

No.: NHAI/PIU/SLP/NH-13/OFC Cable/2024-25/ 2296

Date:25.09.2024

INVITATION OF PUBLIC COMMENTS

Sub.: Four laning of Solapur to Vijayapura section of NH-13 (NEW NH-52) from Ch. 0/000 to Km. 110/542 in the state of Maharashtra & Karnataka on BOT Mode- Proposal for laying of OFC cable and 40mm 2HDPE of M/s P2P Network Pct. Ltd along between Km 96+533 to Km.101+569 (Section LT01 to Vijayapura Bypass Road) with one crossing at Start 96+533 of NH-52 in the State of Karnataka - Reg.

Sir

- 1. M/s. P2P Network Private Ltd, Delhi, has submitted the proposal for laying of OFC cable and 40mm 2HDPE of M/s P2P Network Pct. Ltd along between Km 96+533 to Km.101+569 (Section LT01 to Vijayapura Bypass Road) with one crossing at Start 96+533 of NH-52 in the State of Karnataka in the section of NH-13 (New NH-52).
- 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).
- 3. In view of the above, comments of the public on the above application are invited to 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 Project Director National Highways Authority of India Project Implementation Unit, Solapur Plot No. E-2, Jalaram Nagar, Solapur, Maharashtra, Pin - 413004

Thanking you,

(राकेश जवादे) महाप्रबंधक (त) तथा परियोजना निदेशक, भा.रा.रा.प्रा., इकाई. सोलापुर.

Copy to:-

i. CGM (Tech) RO Mumbai for information please.

ii. Master file.

Ref No. ROW/ BALGAON - VIJAYPURA / NHAI / 3001 / 01

Date: 19/07/2024

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To, The Project Director, National Highway Authority of India, PIU Solapur, Maharashtra 413004.

Sub: - Requesting Permission for Trenching and Laying OFC Cable along with 2 ducts. Reference: Your Letter No - NHAI/PIU/SLP/SB/OFC/15022/2024-25/1594 Dated: 18.07.2024

Dear Sir,

With reference to the above-mentioned letter, we are submitting revised proposal as per the observations noted by authority.

Sr. No	ROAD NAME	ROAD DETAILS	CHAINAGE (K.M.)
1	NH - 52	SOLAPUR TO VIJAYAPURA ROAD, (SECTION LT 01 TO VIJAYAPURA BYPASS ROAD)	96/533 TO 100/133 with one crossing at start 97/100

We request you for further Permission Process as early as possible.

Truly yours,

For P2P Networks Pvt Ltd

Authorized Signatory.

Encl.: 1) CROSS SECTION AND SLD.

Entity Name – P2P NETWORKS PRIVATE LIMITED

💡 Unit No.125 & 126, First Floor, Vardhman Premium Mall, Deepali, Pitampura, Delhi Northwest - DL 110034

info@constl.com

()+91 96677 33532

https://spaceworld.in/ CIN: U64204DL2023PTC410275



INDEX

List of documents attached for obtaining approval for laying OFC Cable along National Highways: NH-52

Sr. No	Description	Pages
1.	Copy of online submission to MoRT&H	
2.	Checklist	
3.	Annexure-A	
4.	Annexure-B	
5.	Annexure-C	
6.	Format for Maintaining ROW Records	
7.	Methodology	
8.	License Deed on Rs 100 non judicial stamp.	
9.	Undertaking on Rs 100 non judicial stamp.	
10.	Certificates	
11.	Lease/Rent Fee Calculation	
12.	Circle Rate	
13.	Village map for justification of circle rate.	
14.	Route Map	
15.	Cross section Drawing	



6.0

CHECK LIST

Guidelines for Project Directors for processing the proposal for crossings of Underground HDPE DUCT in the land across National Highways vested with NH.

Relevant circulars of Ministry of Road Transport & Highways

- 1. Circular no. RW/NH-333044/27/2005/S&R/R Dated 07.08.2013
- **2.** Circular no. RW/NH-33044/29/2015/S&R(R) Dated 22.11.2016

<u>Check list of getting approval for laying of 40 mm HDPE Pipe and optical fibre cables on NH</u> <u>RoW</u>

Sr. No	Items	Information / Status	Remarks
1	General Information	Providing Telecom connectivity by laying 40 mm 2 HDPE pipe and OFC cable	
1.1	Name and Address of the Applicant	P2P Networks Private Limited, First floor, Unit no.125 & 126, Vardhman premium mall, Deepali, Pitampura, New Delhi, North West Delhi, PIN -110034	
1.2	National Highway Number	NH 52 (Old NH-13)	
1.3	State	KARNATAKA	
1.4	Location	Along between Km 96+533 to 97+100 (RHS) and 97+100 to 100+133 (LHS) (LT01 to Vijayapura Road) of NH-52. Crossing at 97+100 (RHS to LHS)	
1.5	(Chainage in km)	Along between Km. 97+100 to 100+133 km	
1.6	Length in Meters	3600	
1.7	Width of available ROW	60	
	(a)Left side from centre line towards increasing chainage / km direction	30 Mtrs	
	(b)Right side from centre line towards increasing chainage / km direction	30 Mtrs	-
1.8	Proposal to lay the cable U/G 40 mm HDPE Pipe 18 and OFC cable		
	(a)Left side from centre line towards increasing chainage / km direction	30 Mtrs	
	(b)Right side from centre line towards increasing chainage/km direction		-





1.9	Proposal to Acquire Land	NA
	(a)Left side from centre line	NA
	(b)Right side from centre line	NA
1.10	Whether Proposal is in the same side where land is not to be acquired	NA
	If not then where to lay the cable	NA
1.11	Details of already laid services, if any, along the proposed route.	NA
1.12	Number of lanes (2 / 4 / 6/ 8 lanes) existing	4 Lane
1.13	Proposed Number of lanes (2 lane with paved shoulders / 4 / 6 / 8 lanes)	4 Lane with paved shoulder
1.14	Service road existing or not	Yes
	If yes then which side	LHS
	(a) Left side from centre line	Yes
	(b)Right side from centre line	Yes
1.15	Proposed Service Road	No
	(a) Left side from centre line	No
	(b)Right side from centre line	No
1.16	Whether proposal to lay cable is after the service road or between the service road and main carriageway	Across cable will be laid across the NH within RoW of, NH 52 & Along Cable will be laid in utility main carriageway Corridor/Duct at extreme edge of available RoW
1.17	The Permission for Underground OFC shall be considered for approval/rejection	Permission for laying shall be consider for approval
	 (i) Whether the ROW is more than 45 m then the duct cable shall be laid at the edge of right of way within the utility corridor of 2 m width, duly keeping in view the future widening. 	NO
	 (ii) where land is yet to be acquired for 4 Lanning and the position of new carriageway has been decided then the cable shall be laid at the edge or right of way within the utility corridor of 2 m width, on that side of existing carriageway where extra land is not proposed to be acquired for 4-laning. 	No





	(iii) Where the widening plan for 4- laning is not yet decided and available ROW is around 30 m or less, a judicious		
	decision would need to be taken for permitting the laying of cable/duct. This could be within 1.5m to 2m of utility corridor at the edge of existing ROW, duly keeping in view the possible widening	NA	
	(iv) Where ROW is restricted and adequate only to accommodate the carriageway, central verge, shoulders and drains (e.g., highways in cutting though hilly / rolling terrain) the cable shall be laid clear of the drain.	NA	
	(v) Where land strip for utility corridor cannot be conveniently earmarked (available RoW restricted to the toe of the embankment) for areal of cable, the permission may be refused.	NA	
1.18	No. of applicants on the same stretch	1	
1.19	Whether the case of multiple licenses	NO	
1.20	If so, furnish a joint implementation programmer to lay their respective ducts within stipulated time frame.	NA	
1.21	If crossings of the road involved? If yes, it shall only be through trench-less technology	Yes By HDD Method	
2	Document/Drawings enclosed with the proposal	Yes Enclosed	
2.1	Cross section showing the size of trench for open trenching method (Is it normal size of 1.65m deep x 0.5m wide) Should not be greater than 1.2m in width in multiple ducts.	YES, Standard Size	
2.2	Cross section showing the size of pit and location of cable for HDD method	YES	
2.3	Strip plan/Route plan showing the OFC, Chainage, width of ROW, distance of proposed, cable from the edge of ROW, important mile stone, intersections, cross drainage works etc.	YES, Enclosed	
2.4	Methodology for laying of OFC	Open Trench and HDD Method is proposed	
2.4.1	Open trenching method. If yes, Methodology of refilling of trench	YES, as per laid down norms	



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2.4.2	Horizontal Directional Drilling (HDD) Method	YES
2.4.3	laying OFC Through CD Works And Method Of areal (Whether to be hung outside parapet)	Outside the Structure
3	Draft license Agreement signed by two witnesses	Enclosed
4	Performance Bank Guarantee	Enclosed
4.2	Confirmation of BG has been obtained as per NH guidelines	Yes
5	Affidavit/Undertaking from the Applicant for	
5.1	Not to Damage to other utility, if damaged, then to pay the losses either to NH or to the concerned agency.	YES, Enclosed
5.2	Renewal of Bank Guarantee	Will be done if necessary
5.3	Confirming all standard condition of NHAI' guideline	YES, Enclosed
5.4	Shifting of OFC as and when required by NH	YES, Enclosed
5.5	Shifting due to 4 Lanning /widening of NH	YES, Enclosed
5.6	Indemnity against all damages and claims clause (xxiv)	YES, Enclosed
5.7	Traffic movement during laying of OFC to be managed by the applicant	YES, Undertaking enclosed
5.8	If any claim is raised by the Concessionaries, then the same has to be paid by the applicant	YES, Undertaking enclosed
5.9	Certificate for 6-lanning from the applicant in following format "We do undertake that I will relocate service road/approach road/utilities at my own cost notwithstanding the permission granted within such time as will be stipulated by NH" for future six – Lanning or any other development."	YES, Undertaking enclosed
5.10	Expenditure if any incurred by NHAI for repairing any damage cause to the national highway be the maintenance or shifting of the underground of cable will be born by the agency going the line	





5.11	If NHAI consider it is necessary in future to move the utility line for any work or improvement or repair to the road it will be carried out as desired by NH at the cost of agencies going the utility line within a reasonable time not exceeding 60 days of the intimation given	
5.12	Certificate from the applicant in the following format	
i)	Laying of underground of cable will not have any deleterious effect on any of the bridge components and roadways safety for traffic	
ii)	For six lanning we do undertake that I will relocate service road / approach road / approach road utility at my own cost notwithstanding the permission granted within such time as will be stipulated by NHAI for future 6 lining or any other development	
6	Power of Attorney in favour of authorized signatory	YES, Enclosed
7	Certificate from the PROJECT DIRECTOR	YES
7.1	Certificate for confirming of all standard condition issued vide Ministry Circular No. RW/NH-33044/17/2000-S&R dated 29.09/2000 and NHAI's guidelines issued vide No. NHAI/OEC/2k/Vol II dated 7.11.2000 and Ministry's Circular No. RW/NH-33044/27/2000-S&R dated 21.3.2006	YES
7.2	Certificate from EE in the following format.	YES
i)	It is certified that any other location of the electric cable would be extremely difficult and unreasonably costly and the installation of cable within Row will not adversely affect the design, stability and traffic safety of the highway not the likely future improvement such as widening of the Carriage Way, easing of curve, etc	





11 W du C C C A th o D I I I I I I I I I I I I I	Who will pay the claims for damages lone/disruption in working of Concessionaire if asked by the Concessionaire? A Certificate from EE that he will enter the proposed permission in the register of records of the permissions in the prescribed proforma (copy enclosed) ssued vide Ministry Circular No. RW/NH/33044/17/2000/S&R dated (3/07/2033). f any previous approval is accorded for aying of cable, then Photocopy of egister of records of permissions ccorded as maintained by EE (as per	P2P Networks Private Limited. P2P Networks Private Limited, First floor, Unit no.125 & 126, Vardhman premium mall, Deepali, Pitampura, New Delhi, North West Delhi, PIN -110034 YES	Applicant
11 Co ac 11 Co CC CC 12 pr is R	Who will pay the claims for damages lone/disruption in working of Concessionaire if asked by the Concessionaire? A Certificate from EE that he will enter the proposed permission in the register of records of the permissions in the prescribed proforma (copy enclosed) ssued vide Ministry Circular No. RW/NH/33044/17/2000/S&R dated	P2P Networks Private Limited, First floor, Unit no.125 & 126, Vardhman premium mall, Deepali, Pitampura, New Delhi, North West Delhi, PIN -110034	Applicant
11 CC ac W dc C C	Who will pay the claims for damages lone/disruption in working of Concessionaire if asked by the Concessionaire?	P2P Networks Private Limited, First floor, Unit no.125 & 126, Vardhman premium mall, Deepali, Pitampura, New Delhi, North West	Applicant
· C0	etion will be taken.	P2P Networks Private Limited.	
n	Who will ensure that the defects in road portion after laying of OFC are orrected and if not corrected then what ction will be taken.	P2P Networks Private Limited will ensure that the defects in road portion after laying of OFC are corrected and if not corrected then authority can take any action on	
- U I	Who will supervise the work of laying of OFC	P2P Networks Private Limited, First floor, Unit no.125 & 126, Vardhman premium mall, Deepali, Pitampura, New Delhi, North West Delhi, PIN -110034	Applicant
8 h b c s s i i i i i i i i i i i i i i i i i	'I do certify that there will be no hindrance to proposed six-Lanning based on the feasibility report considering proposed structures at the said location. " In case feasibility report is not realiable" I do certify that sufficient ROW is available at side for accommodating proposed six-Lanning". If NH section proposed to be taken up by NHAI on BOT basis - clause in para To be inserted in the agreement. "the permitted Highway on which Licensee has been granted the right to lay cable / duct has lso been granted as a right of way to he concessionaire under the concession greement for upgradation of [section from Kmto kmof NMH Noon Build, Dperate and Transfer Basis] and herefore, the licensee shall honour the ame."		





	Ministry Circular No. RW/NH/33044/17/2000/S&R dated 23/07/2003) as referred in para 13 above is enclosed or not.		
14	Copy of IP Licence	Yes Enclosed	
15	Power of Atorney in favour of Authorized Signatory	Yes Enclosed	



M/S - P2P Networks Private Limited,

works Prin row Ū, Authorized Signatory



Enclosure to Ministry of Road Transport & Highways letter No. 33044/29/2015/S&R(R) dated 22.11.2016.

AGREEMENT REGARDING GRANTING OF RIGHT OF WAY PERMISSIONS

FOR LAYING UTILITY SERVICES ON NATIONAL HIGHWAYS

Agreement to lay OFC cable Along/Across Along between Km 96+533 to 97+100 (RHS) and 97+100 to 100+133 (LHS) (Section - LT01 to Vijayapura Road) of NH-52. Total Length = 3.600 Km Crossing at 97+100 (RHS to LHS), of NH-52 of land, in the state of Karnataka.

This AGREEMENT made to this _______ day of _____(month)of 2024 between _______ acting in his executive capacity through Highway Administration, MORT&H The Regional Officer , MORT&H Mumbai (hereinafter called the Government which or repugnant to the context, include his successors in office and assign) on the one part and M/s P2P Networks Private Limited. hereafter referred as P2P having its corporate Office located at Office P2P Networks Private Limited, First floor, Unit no.125 & 126, Vardhman premium mall, Deepali, Pitampura, New Delhi, North West Delhi, PIN - 110034 India. (Hereinafter called the licensee which expression shall, unless excluded by or repugnant to the context, includes his heirs its successors/ their successors and assigns) on the other part.

Whereas the licensee proposes to lay Telecom cable/OFC cable/ Electrical cable/ pipeline / ducts etc. referred to as utility services in subsequent paras.

WHEREAS the licensee has/licensees have applied to the Government /NHAI for permission to lay OFC cable Along/Across Km 96+533 to 97+100 (RHS) and 97+100 to 100+133 (LHS) (Section -LT01 to Vijayapura Road) of NH-52. Total Length = 3.600 Km Crossing at 97+100 (RHS to LHS), of NH-52 of land, in the state of Karnataka.

And whereas the Authority has agreed to grant such permission for way leave on the NH RoW as per terms and conditions hereinafter mentioned.

Now this agreement witnessed that in consideration of the conditions hereinafter contained and on the part of the Licensee to be observed and performed, the Authority hereby grants to the Licensee permission to lay utility services as per the approved drawing attached hereto subject to the following conditions, namely.

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



only to the extent of provisions/scope of activities defined in the license agreement & for the purpose for which it is granted.

- 2. No Licensee shall claim exclusive right on the RoW and any subsequent user will be permitted to use the RoW, either above or below, or by the side of the utilities laid by the first user, subject to technical requirements being fulfilled. Decision of the Authority in relation to fulfilment of technical requirements shall be final and binding on all concerned parties. In case any disruption/damage is caused to any existing user by the subsequent user, the Authority shall not be held accountable or liable in any manner.
- 3. The Licensee shall be responsible for undertaking all activities including, but not limited to site identification, survey, design, engineering, arranging finance, project management, obtaining 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 of their own utility/industrial infrastructure facilities.
- 4. The Licensee shall pay license fees @ Rs./sq m/month to the Authority. The License fee shall become payable from the date of handing over of RoW land to the Licensee, for laying of utilities/cables/conduits/pipelines for infrastructure/ service provider. As regards Tariff and Terms and conditions for providing common utility ducts along National Highways, there shall be a separate agreement regime.
- 5. Fee shall have to be paid in advance for the period for which permission is granted for entering into a license agreement. In case of renewal, rate prevailing at the time of renewal shall be charged. Delay in deposition of fee shall attract interest @15% per annum compounded annually.
- 6. Present policy of the MoRT&H is to provide a 2.00 m wide utility corridor on either side of the extreme edge of RoW. In cases where utility ducts with sufficient space are already available along NH, the utility services shall be laid in such ducts subject to technical requirements being fulfilled.
- 7. The utility services shall be laid at the edge of the RoW. In case of restricted width of RoW, which may be adequate only to accommodate the carriageway, central verge, shoulders, slopes of embankment, drains, other road side furniture etc; the utility services shall be laid beyond the toe line of the embankments and clear of the drain.



- 8. The Licensee shall make his own arrangement for crossing of cross drainage structure, rivers, etc. below the bed in case, this is not feasible, the utility services may be carried outside the railings/parapets and the bridge superstructure. The fixing and supporting arrangement with all details shall be required to be approved in advance from the concerned Highway Administration. Additional cost on account of fixing and supporting arrangement as assessed by the Authority shall be payable by the Licensee.
- 9. In exceptional cases, where RoW is restricted the utility services can be allowed beneath the carriageway of service road, if available, subject to the condition that the utility services be laid in concrete ducts, which will be designed to carry traffic on top. The width of the duct shall not be less than one lane. In such cases, it also needs to ensure that maintenance of the utility services shall not interfere with the safe and smooth flow of traffic. The cost of operation and maintenance will have to be borne by the Licensee.
- 10. It is to be ensured that at no time there is interference with the drainage of the road land and maintenance of the National Highways. Towards this, the top of the utility services shall be at least 0.6 meter below the ground level. However any structure above ground shall be aesthetically provided for / landscaped with required safety measures as directed by the concerned Authority;
- 11. The utility services shall be permitted to cross the National Highway either through structure or conduits specially built for that purpose. The casing/ conduit pipe should, as minimum, extend from drain in cuts and toe of slope to toe of slope in the fills and shall be designed in accordance with provision of IRC and executed following the Specifications of the Ministry.
- 12. Existing drainage structures shall not be allowed to carry the lines across.
- 13. The top of the casing/conduit pipe containing the utility services to cross the road shall be at least 1.2m below the top of the sub grade or the existing ground level whichever is lower, subject to being at lease 0.3m below the drain inverts. A typical sketch showing the clearances is given in Attachment-I.
- 14. The utility services shall cross the National Highway preferable on a line normal to it or as nearly so as practicable.
- 15. The casing/conduit pipe for crossing the road may be installed under the road embankment either by boring or digging a trench. Installation by boring method shall be preferred.



- 16. In case of trenching, the sides of the trench should be done as nearly vertical as possible. The trench width should be at least 30 cm. but not more than 60 cms wider than the outer diameter of the pipe. Filling of the trench shall conform to the specifications contained here-in-below or as supplied by the Highway Authority.
- a. Bedding shall be to a depth not less than 30 cm. It shall consist of granular material, free of lumps, clods and cobbles, and graded to yield a firm surface without sudden change in the bearing value. Unsuitable soil and rock edges should be excavated and replaced by selected material.
- b. The backfill shall be completed in two stages
 - (i) Side-fill to the level of the top of the pipe
 - (ii) Overfill to the bottom of the road crust.
- c. The side fill shall consist of granular material laid in 15cm. Layers each consolidated by mechanical tamping and controlled addition of moisture to 95% of the Proctor's Density. Overfill shall be compacted to the same density as the material that had been removed. Consolidation by saturation or ponding will not be permitted.
- d. The road crust shall be built to the same strength as the existing crust on either side of the trench or to thickness and specifications stipulated by the Highway Authority.
- 17. The Licensee shall ensure making good the excavated trench for laying utility services by proper filling and compaction, so as to restore the land in to the same condition as it was before digging the trench, clearing debris/loose earth produced due to execution of trenching at least 50 m away from the edge of the right of way;
- 18. All required restoration work subsequent to laying of the cable shall be required to be undertaken by the Licensee at its cost either by itself or through its authorized representative in consultation with the Authority as per predetermined time schedule and quality standards.
- 19. Prior to commencement of any work on the ground, a performance Bank Guarantee @Rs 100/- per route meter / Rs. Per sqm with a validity of one year initially (extendable if required till satisfactory completion of work) shall have to be furnished by the Licensee to the Authority/its designated agency as a security against improper restoration of ground in terms of filling/unsatisfactory compaction damages caused to other underground installations/utility services & interference, interruption, disruption or failure caused thereof to any services etc. In case of the Licensee failing to discharge the obligation of making good of the excavated trench/other



restoration work, the Authority shall have a right to make good the damages caused by excavation, at the cost of the Licensee and recover the amount by forfeiture of the Bank Guarantee.

- 20. In case, the Performance Bank Guarantee is invoked as mentioned above, the Licensee shall be required to replenish and reinstate the required Performance Bank Guarantee within one month of such invoking. In case the work contemplated herein is not completed to the satisfaction of the Authority, which has granted the permission, within a period of 11 months from the date of issue of the Bank Guarantee, the Licensee shall either furnish a fresh guarantee or extend the guarantee for a further period of one year. Notwithstanding this, the Licensee shall be liable to pay full compensation to the aggrieved Authority/ its designated agency for any damage sustained by them by reason of the exercise of the RoW facility;
- 21. The Licensee shall shift the utility services within 90 days (or as specified by the respective Authority) from the date of issue of the notice by the concerned Authority to shift/relocate the utility services, in case it is so required for the purpose of improvement/widening of the road/route/highway or construction of flyover/bridge and restore the road/land to its original condition at his own cost and risk.
- 22. The Licensee shall be responsible to ascertain from the respective agency in co-ordination with Authority, regarding the location of other utilities / underground installations/ facilities etc. The Licensee shall ensure the safety and security of already existing underground installations/utilities/facilities etc. before commencement of the excavation/using the existing cable ducts. The Licensee shall procure insurance from a reputed insurance company against damages to already existing underground installations/utilities/facilit
- 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 replacements sought for, at the cost and risk of the Licensee. The concerned agency in co-ordination with Authority shall also have a right make good such damages/ recover the claims by forfeiture of Bank Guarantee.
- 24. If the Licensee fails to comply with any condition to the satisfaction of the Authority, the same shall be executed by the Authority at the cost and risk of the Licensee.



- 25. Grant of License is subject to the Licensee satisfying (a) minimum disruption of traffic and (b) no damage to the highways. As far as possible, the Licensee should avoid cutting of the road for crossing highway, and other roads and try to carry out the work by trenchless technology. In case any damage is caused to the road pavement in this process, the Licensee will be required to restore the road to the original condition at its cost. If due to unavoidable reasons the road needs to be cut for crossing or laying utility services, the Licensee has to execute the restoration work in a time bound manner at its cost either by itself or through its authorized representative in consultation with the Authority as per predetermined time schedule and quality standards. In case of the Licensee failing to discharge the obligation of making good of the excavated trench/other restoration work, the Authority shall have a right to make good the damages caused by excavation, at the cost of the Licensee and recover the amount by forfeiture of the Bank Guarantee.
- 26. The Licensee shall inform/give a notice to the concerned agency designated by the Authority at least 15 day in advance with route details prior to digging trenches, for fresh or maintenance/repair works. A separate performance Bank Guarantee for maintenance/repair works shall have to be furnished by the Licensee.
- 27. Each day, the extent of digging the trenches should be strictly regulated so that utility services is laid and trenches filled up before the close of the work that day. Filling should be completed to the satisfaction of the concerned agency designated by the Authority.
- 28. The licensee shall indemnify the concerned agency in co-ordination with Authority, against all damages and claims, if any due to the digging of trenches for laying cables/ducts.
- 29. The permission for laying utility services is granted maximum for 5 years at a time, which can thereafter be considered for renewal. On payment of additional fee at the time of renewal, the permission shall automatically be renewed, unless defaults exist. In case of renewal, rate prevailing at the time of renewal shall be charged. Delay in deposition of fee shall attract interest @15% per annum compounded annually.
- 30. The permission shall be valid only for the period it is issued and fee deposited. However, the Authority also has a right to terminate the permission or to extend the period of Agreement.



- 31. That the Licensee shall not undertake any work of shifting, repairs or alterations to the utility services without prior written permission of the concerned agency in co-ordination with the Authority.
- 32. The permission granted shall not in any way be deemed to convey to the Licensee any ownership right or any interest in route/road/highway land/ property, other than what is herein expressly granted. No use of NH RoW will be permitted for any purpose other than that specified in the Agreement.
- 33. During the subsistence of this Agreement, the utility services located in highway land / property shall be deemed to have been constructed and continued only by the consent and permission of the Authority so that the right of the Licensee to the use thereof shall not become absolute and indefeasible by lapse of time.
- 34. The Licensee shall bear the Stamp Duty charged on this Agreement.
- 35. Three copies of 'as laid drawings' of utilities (hard and soft copies) with geo-tagged photographs and geo-tagged video recordings of laying of cables in the trench (with respect to the NH) and after complete restoration shall be submitted to the Authority for verification and record within a month of completion of works.
- 36. The Licensee shall allow free access to the Site at all times to the authorized representatives of Authority to inspect the Project Facilities and to investigate any matter within their Authority, and upon reasonable notice, shall provide reasonable assistance necessary to carry out their respective duties and functions.
- 37. The utility services shall not be made operational by the Licensee unless a completion certificate to the effect that the utility services has been laid in accordance with the approved specifications and drawings and the trenches have been filled up to the satisfaction of the concerned agency in co-ordination with the Authority has been obtained. Notwithstanding anything contained herein, this Agreement may be cancelled at any time by Authority for breach of any condition of the same and the Licensee shall neither be entitled to any compensation for any loss caused to it by such cancellation not shall it be absolved from any liability already incurred.



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



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

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

SIGNED SEALED AND DELIVERED FOR

SIGNED ON BEHALF OF

AND ON BEHALF OF AUTHORITY P2P NETWORKS PRIVATE LIMITED, DELHI. (LICENSEE)

ΒY

HOLDER OF GENERAL POWER OF ATTORNEY

DATED: / / 2024

EXECUTED IN ACCORDANCE WITH THE RESOLUTION

NO. ----- DATED: / / 2024

PASSED BY THE BOARD OF DIRECTORS IN THE MEETING HELD ON ------

IN THE PRESENCE OF (WITNESSES):

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(Signature, Name & address with stamp)

2.

(Signature, Name & address with stamp)



CERTIFICATE BY THE APPLICANT

Checklist Clause 5.9 Certificate for 8 lanning from the applicant:

"We P2P Networks Private Limited do hereby undertake that we will Relocate service road/approach road/utilites at our own cost Notwithstanding the permission granted within such time as will be Stipulated by NH" for future Eight laning or any other development.

- Annexure-A clause 5 (i) This is to certify that no Govt. land shall be occupied by M/s P2P Networks Private Limited except for the purpose of laying/crossing of cable.
- Annexure A clause-5(ii) "This is to certify that the work shall be in Accordance with the Goyt. rules and regulations in force from time to time and binding to M/s P2P Networks Private Limited".
- Annexure A clause-5(iii) "This is to certify that all required cost and fees as per rules and regulations of Govt. will be deposited timely."

"It is certified that any other location of the cable would be extremely difficult and unreasonable costly and the installation of cable within ROW will not adversely affect the design, stability & traffic safety of the highway nor the likely future improvement such as widening of the carriageway, easing of curve etc."

For, M/s P2P Networks Private Limited





We, M/s. P2P Networks Pvt. Ltd., Delhi hereby do undertake in reference to our RoW Application along NH 52, LT 01 TO VIJAYAPURA NATIONAL HIGHWAY – 52, From Km 96+533 to 97+100 (RHS) and 97+100 to 100+133 (LHS) (Section - LT01 to Vijayapura Road) of NH-52. Total Length = 3.600 Km Crossing at 97+100 (RHS to LHS) of NH-52 of land, in the state of Karnataka.

We hereby undertake to not to damage to other utility, if damaged then to pay the losses either to NHAI or to the concerned agency.





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JUN 2024

उप कोबोगार आधिका

टेनाक

নাই থাজনুল

京西、3年/2009

म. वि. मालेगांव

We, M/s. P2P Networks Pvt. Ltd., Delhi hereby do undertake in reference to our RoW Application along NH 52, LT 01 TO VIJAYAPURA NATIONAL HIGHWAY – 52, From Km 96+533 to 97+100 (RHS) and 97+100 to 100+133 (LHS) (Section - LT01 to Vijayapura Road) of NH-52. Total Length = 3.600 Km Crossing at 97+100 (RHS to LHS) of NH-52 of land, in the state of Karnataka.

We hereby undertake that we are ready to deposit performance Bank Guarantee as and when intimated by Highway Administration against laying of OFC cable along with 40 mm 2 HDPE Pipes between \hat{Km} . 96+533 to 100+133 Total Length = 3.600 Km of NH-52.

We also undertake that if the construction activity will not be completed within the validity of Bank Guarantee to the satisfaction of Highway Administration, Bank Guarantee will be renewed till completion of construction activity to the satisfaction of Highway Administration.



मद्रांक रू. १०० मु.वि. नॉवकही अ.क

(ज्या कामासोटी ज्यानी मुंदांक खरेदी केला त्यानी त्याच कारणासाठी मुद्रांक खरेदी केल्हापासून सहा महिन्याचे आत वापरणे वंधनकारक आहे)

मदांक घेणारानी सही / अंगडा

ERA: WISTON SHI



हरते: अन्तर अति भारत ३६/२००१ मु. वि. मालगांव (ज्या कामासाठी ज्यानी मुद्रांक खरेदी केला त्यानी त्याच कारणासाठी मुद्रांक खरेदी केल्यापारान सज्ञ महिन्याचे आल वाघरने तंत्रमकारक आहे)

UNDERTAKING

We, M/s. P2P Networks Pvt. Ltd., Delhi hereby do undertake in reference to our RoW Application along NH 52, LT 01 TO VIJAYAPURA NATIONAL HIGHWAY – 52, From Km 96+533 to 97+100 (RHS) and 97+100 to 100+133 (LHS) (Section - LT01 to Vijayapura Road) of NH-52. Total Length = 3.600 Km Crossing at 97+100 (RHS to LHS) of NH-52 of land, in the state of Karnataka.

We hereby confirm that we shall fulfil all standard conditions of Ministry of Road Transport and Highway guidelines as well as NH's Circulars for the proposed laying of OFC cable along with 40 mm 2 HDPE Pipes between Km. 96+533 to 100+133 Total Length = 3.600 Km of NH-52.





दिनाकः

ादाभाई राजपुल

न.उक्त.३६/२००१

ष. वि. मालेगांव

JUN 2024

उप कोर्मालाव आहित्व

We, M/s. P2P Networks Pvt. Ltd., Delhi hereby do undertake in reference to our RoW Application along NH 52, LT 01 TO VIJAYAPURA NATIONAL HIGHWAY – 52, From Km 96+533 to 97+100 (RHS) and 97+100 to 100+133 (LHS) (Section - LT01 to Vijayapura Road) of NH-52. Total Length = 3.600 Km Crossing at 97+100 (RHS to LHS) of NH-52 of land, in the state of Karnataka.

We hereby undertake that if the Highway Administration considers it necessary in future to move or shift the utility line for the work of improvement or repairs to the road, it will be carried out as desired by the NHAI at the cost of M/s P2P Networks Private Limited within a reasonable time (not exceeding 60 days) of the intimation given.



मद्रांक 🕫. १०० मि.चि. नोंदवही अ.क.

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(ज्या कामाराष्ट्री ज्यानी मुद्रांक खरेदी केला त्यानी त्याच कारणासाठी मुद्रांक खरेदी केल्बापासुन सहा महिन्याचे आत यापरणे बंधनकारक आहे)

मदांक पेणाराभी सही / अंगता

RA: A4/125 -54/12



We, M/s. P2P Networks Pvt. Ltd., Delhi hereby do undertake in reference to our RoW Application along NH 52, LT 01 TO VIJAYAPURA NATIONAL HIGHWAY – 52, From Km 96+533 to 97+100 (RHS) and 97+100 to 100+133 (LHS) (Section - LT01 to Vijayapura Road) of NH-52. Total Length = 3.600 Km Crossing at 97+100 (RHS to LHS) of NH-52 of land, in the state of Karnataka.

We hereby undertake that in future if required due to any expansion (Widening/8 lanning) between Km. 96+533 to 100+133 Total Length = 3.600 Km of NH-52. If needs to remove the 40 mm HDPE pipe and OFC cable from NH ROW, the same shall be removed / shift by M/s P2P Networks Private Limited at its own cost.





We, M/s. P2P Networks Pvt. Ltd., Delhi hereby do undertake in reference to our RoW Application along NH 52, LT 01 TO VIJAYAPURA NATIONAL HIGHWAY – 52, From Km 96+533 to 97+100 (RHS) and 97+100 to 100+133 (LHS) (Section - LT01 to Vijayapura Road) of NH-52. Total Length = 3.600 Km Crossing at 97+100 (RHS to LHS) of NH-52 of land, in the state of Karnataka.

We hereby undertake that we shall take proper Insurance coverage (indemnity) for prospects damages and claims during laying cable along between Km. 96+533 to 100+133 Total Length = 3.600 Km of NH-52.





We, M/s. P2P Networks Pvt. Ltd., Delhi hereby do undertake in reference to our RoW Application along NH 52, LT 01 TO VIJAYAPURA NATIONAL HIGHWAY – 52, From Km 96+533 to 97+100 (RHS) and 97+100 to 100+133 (LHS) (Section - LT01 to Vijayapura Road) of NH-52. Total Length = 3.600 Km Crossing at 97+100 (RHS to LHS) of NH-52 of land, in the state of Karnataka.

We hereby undertake to manage traffic during crossing and no traffic movement will be affected during laying of 40 mm 2 HDPE pipe and OFC cable.





We, M/s. P2P Networks Pvt. Ltd., Delhi hereby do undertake in reference to our RoW Application along NH 52, LT 01 TO VIJAYAPURA NATIONAL HIGHWAY – 52, From Km 96+533 to 97+100 (RHS) and 97+100 to 100+133 (LHS) (Section - LT01 to Vijayapura Road) of NH-52. Total Length = 3.600 Km Crossing at 97+100 (RHS to LHS) of NH-52 of land, in the state of Karnataka.

^DWe hereby undertake that if any claim raised by Concessionaire, then the same will be paid by M/s P2P Networks Private Limited.





Annexure B

We, M/s. P2P Networks Pvt. Ltd., Delhi hereby do undertake in reference to our RoW Application along NH 52, LT 01 TO VIJAYAPURA NATIONAL HIGHWAY – 52, From Km 96+533 to 97+100 (RHS) and 97+100 to 100+133 (LHS) (Section - LT01 to Vijayapura Road) of NH-52. Total Length = 3.600 Km Crossing at 97+100 (RHS to LHS) of NH-52 of land, in the state of Karnataka.

We hereby undertake that we shall take care of all existing utilities during laying of HDPE pipe and cable. If any damage or loses will noticed to existing utilities, during laying of 40 mm 2 HDPE pipe and OFC cable, M/s P2P Networks Private Limited will pay all expenses to restore the same to its original condition to concern agency.



No. 10-31/2023-CS-III Government of India Ministry of Communications Department of Telecommunications	Sanchar Bhawan, 20. Ashoka Road, New Delh-110001	Registration Certificate No.:1395/2023 Dated:28.04.2023	Registration Certificate For Infrastructure Provider Category-1 (IP-I)	This is to certify that M/s P2P NETWORKS PRIVATE LIMITED with registered	North West Delhi, India (110034) is registered as Infrastructure Provider Category I (IP-I) to	establish and maintain the assets such as Dark Fibres, Right of Way. Duct Space and Tower for the	purpose to grant on lease/rent/sale hasis to the licensees of Telecom Services licensed under Section 4 of Indian Telegraph Act. 1885 on mutually agreed terms and conditions. IP-1 registration	holders shall also share the above mentioned infrastructure with the entities as may be specified	by the Central Government in the interest of national security and public interest and as per terms	and conditions which may be specified by the Central Government.	2.0 In no case the company shall work and operate or provide telegraph service including end to end bandwidth as defined in Indian Telegraph Act, 1885 either to any service provider or any other	customer.	3.0 The company shall submit a copy of an Agreement entered into with the telecom service	providers within 15 days of signing of such Agreement.	4.0 The company shall provide the said infrastructure in a non-discriminatory manner.			under this Registration, the same shall be referred to the sole Arbitrat	to make the total and the tota	
tt of India mmunications ccommunications Road, New Delhi – 110001 vices Wing)	Dated:02.05.2023			Email: radinev:uspaceworLan Phone: 09560233055	cture Provider Category-I (IP-I).	IP-I Revistration Certificate No.1395/2023	KS PRIVATE LIMITED for further actions on	Vou and manual to one in routh with the concerned Licensed Service Area (LSA) with Df	urther coordination. The copy of agreements, as	on certificate, may please be submitted to the such agreements.	3. Further, LSAs have also been instructed by DoT HQ to monitor / collect reports from IP- 1 registration holders failing in their juristifiction on periodical basis. Thus, you are requested to facilitate inspection / report submission whenever requested by the concerned LSA unit of DOT.	4. For instructions/ guidelines pertaining to [P-] registration please visit Infrastructure Provider section on DOT website under Home → Telecom & Spectrum Licensing → Carrier	Services > Initiastructure Provider on regular pasts. Lue same can also be accessed another our fink https://doi.geov.in/inifiastructure-provider.	Contraction and the second	(Vikash Daila) ADG (CS-III) Ph: 011-22006246ရာ (Vireash င္မာရာန	American Transmission and American Canada Regenza Canada Canada Dentri of Lancovan, Canada di Sa	Head of LSA, DELHI LSA, DoT, 5/5" FLOOR, MTNL TE BUILDING, NEHRUPLACE, NEW DELIRK 19 Color Doub			
Government of India Ministry of Communications Department of Teleccommunications Sanchar Bhawan. 20-Ashoka Road, New Delhi – 110001 (Carrier Services Wing)	No. 10-31/2023-CS-111	Tο	M/s P2P NETWORKS PRIVATE LIMITED [CIN:L64204DL2023PTC410275] Uni No. 125 & 126, First Floor, Vardhaman,	Prennum mau, Josephu Pitampura, Delhi, North West Delhi, India (110034)	Subject: Registration Cortificate for Infrastructure Provider Category-I (IP-I).	Diance find and herewith the [P-1] Revisitation	dated (2.05.2023 issued to M/s P2P NETWORKS PRIVATE LIMITED for your end.	Variation mentany to past in training the	2. Tou are requested to get in touch with the concentration are contributed on their address as mentioned below for further coordination. The copy	mentioned in clause 3.0 of your IP-1 registration certificate, may please be concerned LSA unit within 15 days of signing of such agreements.	 Further, LSAs have also been instructed i registration holders falling in their jurisdiction facilitate inspection / report submission whenew 	4. For instructions/ guidelines pertaining to IP-1 registration please Provider section on DOT website under Home → Telecom & Spectrum L	Services - Initrastructure Provider on regular I link https://dol.gov.in/infrastructure-provider.	Enciosure: As above.		Copy te:-	Head of LSA, DELHI LSA, DoT, 5/6 TH FLODR, MTW		Diks Price	Limin Jon JU

K Contraction of the local division of the loc

by the Director General Telecommunications or by whatever designation Director General Telecom may be called, hereinafter called the "ARBITRAL TRIBUNAL".

5.1 This Registration Certificate and any dispute thereof shall be governed by the substantive provisions of Indian law. 5.2 The venue of Arbitration shall be New Delhi or as may be fixed by the ARBITRAL TRIBUNAL anywhere in India.

5.3 The arbitration proceedings shall be conducted in accordance with the provisions of the Indian Arbitration and Conciliation Act, 1996 and rules framed there under or any modifications or re-enactment thereof made from time to time.

6.0 The Registered company can provide the infrastructure as stated above to any licensee of Telegraph services Licensed under section 4 of the Indian Telegraph Act 1885. The company shall, in no case, grant in any manner the infrastructure to any erstwhile Licensee whose licence is either terminated or suspended or not in operation at given point of time. In the event of any infrastructure allowed before hand, then the Registered company shall be obliged to withdraw the grant of infrastructure and to disconnect or sever connectivity immediately without loss of time and further, upon receipt of any reference from the Licensor in this regard, disconnection shall be made effective within an hour of receipt of such reference. On the question of disconnectivity the decision of the Director General Telecon shall be final.

7.0 The Registered company shall provide necessary facilities depending upon the specific situation at the relevant time to the Government to counteract espionage, subversive act, sabotage or any other unlawful activity.

7.1 The Registered company shall make available on demand to the agencies authorized by the Government of India, full access to the network for technical scrutiny and for inspection which can be visual inspection or any operational inspection.



7.2 All foreign personnel likely to be deployed by the Registered company for installation, operation and maintenance of the Registered company network shall be security cleared by the Government of India prior to their deployment. The security clearance will be obtained from the Ministry of Home Affairs. Government of India, who will follow standard norms in the matter.

7.3 The Registered company shall ensure protection of privacy of communication and ensure that unauthorized interception of messages does not take place. 7.4 The Government shall have the right to take over the equipment and notworks of the Registered company or revoke/terminate/suspend the Registration of the company either in part or in whole as per directions if any, issued in the public interest by the Government in case of emergency or war or low intensity conflict or any other eventuality. Provided any specific orders or direction from the Government issued under such conditions shall be applicable to the Registered company and shall be strictly complied with. Further, the Government reserves the right to keep any area out of the operation zone of the service if implications of security so require.

7.5 Government reserves the right to modify these conditions or incorporate new conditions considered necessary in the interest of national security and public interest.

7.6 The Registered company will ensure that the Telecommunication installation carried out by it should not become a safety hazard and is or in contravention of any statue, rule or regulation and public policy.

7.7 In case it is decided to grant licence under section 4 of Indian Telegraph Act, 1885 to Infrastructure Provider Category-1 (IP-1) instead of registration, at a later date, the said registration shall stand cancelled after the prescribed period as decided by the competent authority and the Infrastructure Provider (IP-I) shall have to apply for grant of specified licence/authorisation at that point of time as per terms and conditions applicable for such license/authorization.

8.0 Any breach of the above terms will lead to cancellation of the registration without any further notice.

(VIKASH DALLA)

ASSISTANT DIRECTOR GENERAL (CS-III)

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(Ramora Scent) (Marcarta Scentaria) (Marcarta Marcartaria Assaura Marcartaria Assaura Marcarta Caractari Raman Marcartaria Depti, el marcartaria

Mfs PZP NETWORKS PRIVATE LIMITED [CIN:U64204DL.2023PTC410275] Unit No. 125 & 126, First Floor, Vardhaman, Premium Mall, Deepali Pitampura, Delhi, North West Delhi, India (†10034)

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LETTER OF AUTHORIZATION

Date: 01-05-2024

"To Whom so It May Concern"

Dear Sir/Madam

Subject: Letter of Authorizations to M/s Shree Combine Private Ltd.

I/we here by authorize Shri Jayesh Vasudev Musale with designation RoW-Cordinator holding Aadhaar No. 974584896827 to submit the applications, following up for demand notes, submission of DD's/BG's and collecting of NOC on behalf of entity named M/s P2P Networks Private Limited having registered office at Unit No.125 & 126, First Floor, Vardhman Premium Mall, Deepali, Pitampura, Delhi Northwest - DL 110034 and CIN: U64204DL2023PTC410275.

The above mentioned representative is also authorized to make declarations to submit documents, where ever required, on behalf of entity. These declarations and submissions are made towards the requirement of ROW permissions in Maharashtra and Karnataka.

The specimen signatures of Shri Rajiv Kumar Malhotra the authorised representative is attested below:

For P2P Networks Private Limited Signature of Authorised Representative.

Authorised Signatory

Yours faithfully,

Authorized signatory. Name: Rajiv Kumar Malhotra Designation: NLD Project Head Date: 01-05-2024



P2P NETWORKS PRIVATE LIMITED

Unit No.125 & 126, First Floor, Vardhman Premium Mall, Deepali, Pitampura, Delhi Northwest - DL 110034
 info@constl.com
 +91 96677 33532
 https://spaceworld.in/ CIN: U64204DL2023PTC410275

Annexure No-5



Methodology of Laving of OFC - Open Trenching & Trenchless (HDD) along NH 56

Trenching Method:

Laying of Optical Fiber Cable along the mentioned route will be done by conventional method/manuat 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:



