

**Government of India**

**Ministry of Road Transport & Highways**

**Regional Office, Vijayawada**

Door No.41-29-45A, 3<sup>rd</sup> & 4<sup>th</sup> floors, MORTH/NHA Buildings, Ranigarithota,  
Near Kanakadurga Varadhi, Krishnalanka, Vijayawada-520013. Tele: 0866-2571985

Dated: 09.05.2022

**Invitation of Public Comments**

**Sub: Proposal for Permission for laying Gas pipeline of 8" dia. Steel pipeline by M/s AG&P Gas Pvt. Ltd. along the NH-71 road from km 187/360 to km 190/600 (RHS) from near Swarnamukhi river to Pandluru road junction and crossings at km 187.360, km 189.300 & km 190.600 of NH-71 for a total length of 3286mtrs in Nellore District in the State of Andhra Pradesh.- reg.**

Please find enclosed herewith the proposal in accordance with Ministry's latest guidelines dated 22.11.2016 forwarded by Chief Engineer(R&B), NH & CRF, AP vide letter dated 27.01.2022 and comments received by PD, NHAI, PIU - Tirupati vide letter dated 13.04.2022 for laying Gas pipeline of 8" dia. Steel pipeline by M/s AG&P Gas Pvt. Ltd. along the NH-71 road from km 187/360 to km 190/600 (RHS) from near Swarnamukhi river to Pandluru road junction and crossings at km 187.360, km 189.300 & km 190.600 of NH-71 for a total length of 3286mtrs in Nellore District in the State of Andhra Pradesh by the open trench method.

2. As per the guidelines, issued by the Ministry vide Circular No.RW/NH-33044/29/2015/S&R(R) dated 22.11.16, the proposal for Highway crossing permission along National Highways 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 mentioned proposal is invited on the address mentioned below:

The Regional Officer,  
Ministry of Road Transport and Highways,  
Door No.41-29-45A, 3<sup>rd</sup> & 4<sup>th</sup> floors, MORTH/NHA Buildings,  
Ranigarithota, Near Kanakadurga Varadhi,  
Krishnalanka, Vijayawada - 520013  
Email id: [romorthvijayawada@gmail.com](mailto:romorthvijayawada@gmail.com).

Yours Faithfully,

Encl: As above

  
(Venkataiah M)

Assistant Engineer,

For Regional Officer, MoRTH, Vijayawada

**Copy to:**

- 1) Senior Technical Director, NIC for uploading on the Ministry's website.
- 2) The Chief Engineer(R&B), NH & CRF, AP.
- 3) M/s AG&P City Gas Private Limited, 3<sup>rd</sup> floor, S3 towers, Door # 26-5-400, Venkata Reddy Nagar, Vedayapalem, GT Road, Nellore, Andhra Pradesh - 524004.



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण  
(सड़क परिवहन और राजमार्ग मंत्रालय, भारत सरकार)  
**National Highways Authority of India**

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

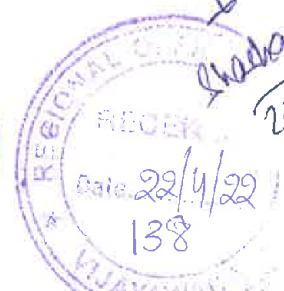
परियोजना कार्यान्वयन इकाई, डो.नं : 1/5/564/C, बालाजी कालनी, लक्ष्मी नारायण कल्याण मंडपम, तिरुपति- 517 502  
Project Implementation Unit, D.No. 1-5-564/C, Balaji Colony, Opp. Lakshmi Narayana Kalyana Mandapam, Tirupati - 517 502, A.P.  
Ph No : 0877-2245060, email : nhaitirupati@gmail.com, piutirupati@nhai.org



NHAI/PIU-TPT/070RN/22/2021-22/50

Dt. 13.04.2022

To,  
The Regional Officer,  
Ministry of Road Transport & Highways,  
D. No. 41-29-45A, 3<sup>rd</sup> & 4<sup>th</sup> Floors,  
MoRT&H / NHAI Buildings,  
Ranigarithota, Near Kanakadurga Varadhi,  
Kirshnalanka, Vijayawada - 520013.  
Tel: 0866 - 2571985



Sub: **NHAI - PIU-Tirupati - Renigunta - Naidupeta Section of NH-71 - Request for permission for laying of gas pipeline of 8" dia. Steel pipeline by M/s. AG&P Gas Pvt. Ltd., along NH-71 from Km 187/360 to Km 190/600 (RHS) from Swarnamukhi River to Pandluru road junction and crossings at Km 187/360, 189/300 & Km 190/600 of NH-71 in Nellore District for a total length of 3268 mtrs. in Nellore District in the State of Andhra Pradesh on NH-71 - Information submitted - Reg.**

Ref: (i) RO, MoRT&H, VJA Lr. No. RO/VJA/Misc.24/B/Gas pipeline/NH-71/Sl. No. 101/1316, dated 22.02.2022  
(ii) T/o. Lr. No. NHAI/PIU-TPT/070CR/22/2021/1762, dt. 25.03.2022  
(iii) IE, M/s. Satra Lr. No. 01041112/IE/02/0070, dt. 09.04.2022 (copy enclosed)

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Sir,

This has reference to the subject cited, wherein RO, MoRT&H, Vijayawada vide letter under reference (i) cited has forwarded the proposal for permission for laying of gas pipeline of 8" dia. Steel pipeline by M/s. AG&P Gas Pvt. Ltd., along NH-71 from Km 187/360 to Km 190/600 (RHS) from Swarnamukhi River to Pandluru road junction and crossings at Km 187/360, 189/300 & Km 190/600 of NH-71 in Nellore District for a total length of 3268 mtrs. in Nellore District in the State of Andhra Pradesh on NH-71 and requested for views/comments and the same has been forwarded to the Independent Engineer, M/s. Satra Feedback Infra of NH-71 for submission of detailed report vide this office letter under reference (ii) cited.

2. In this regard, it is to submit that the Independent Engineer, M/s. Satra Feedback Infra vide letter under reference (iii) cited had informed that the Pipeline of 8" dia Steel pipeline by M/s. AG&P Gas Pvt. Ltd., from Km 187/360 to Km 190/600 (RHS) and crossings @ Km 187.360, 189/300 & 190+600 are not covered in the stretch of NH-71 taken over by NHAI from Km 124/600 to Km 182/200 (copy enclosed) from the R&B NH Division.

This is submitted for your information and kind perusal.

Encl: As above

Yours faithfully

(G Hari Krishna)  
Project Director  
PIU, Tirupati

Copy submitted to: RO, NHAI, Vijayawada - for kind information

Independent Engineer for supervision of Six-Laning of NH-71 from Renigunta (Start at junction of NH-71, NH-18A, NH-205 MDR of Renigunta) (Design Km 0.000/Existing Km 124.600 of NH-71) to Naidupeta (End on NH-16) (Design Km 57.046/Existing Km 183+400 of NH 71) (Design Length = 57.046 Km) on Hybrid Annuity Mode in the State of Andhra Pradesh under Bharatmala Pariyojna"

Our ref: 01041112/IE/02/0070

09 April 2022

The Project Director,  
National Highways Authority of India, PIU  
D.No. 1-5-564/C, Balaji Colony,  
opp. to Lakshminarayana Kalyana Mandapam  
Tirupati, Chittoor Dist.  
Andhra Pradesh-517507

SATRA		FEEDBACK INFRA	
NHA/PIU/TPT		SATRA Services and Solutions Pvt Ltd in Joint Venture with Feedback Infra Pvt Ltd	
No.	091		
Date:	12 APR 2022		
PD			
MGR	✓		
LAO	1	2	
PA	/		
SE	1	2	
	3	4	
ACCNT.			

gac  
B/M

**Sub:** Independent Engineer for supervision of Six-Laning of NH-71 from Renigunta (Start at junction of NH-71, NH-18A, NH-205 MDR of Renigunta) (Design Km 0.000/Existing Km 124.600 of NH-71) to Naidupeta (End on NH-16) (Design Km 57.046/Existing Km 183+400 of NH 71) (Design Length = 57.046 Km) on Hybrid Annuity Mode in the State of Andhra Pradesh under Bharatmala Pariyojna-**Request for permission for laying of Gas pipeline from km. 187+360 to 190+600 of NH-71-submit report- reg**

Ref:- 1. IE Agreement dated 15 July 2021  
2. Authority Lr. No. NHA/PIU-TPT/11505/NH-71/Satra Outward/505/2021/1762 dated. 25.03.2022

Sir,

With reference to the letter cited (#2) above, a joint inspection was conducted on 08.04.2022 along with representative of AG&P Gas Pvt Ltd and our observations are as below.

The said chainage km. 187+360 to km. 190+600 (RHS) and crossings @ km. 187+360, 189+300 & 190+600 is not covered in NHA/PIU taken over stretch of NH-71 from km. 124+600 to km. 182+200 (a copy enclosed) from the R&B NH Division.

In view of the above AG&P Gas Pvt Ltd may be informed to obtain the permission from the R&B NH Division.

This is submitted for your information and necessary action please.

Yours sincerely,  
For SATRA Services and Solutions Pvt. Ltd.  
In JV with Feedback Infra Pvt Ltd.

(Venkateshwarlu Chimata)  
Team Leader



Encl : Copy letter

Copy to:

1. The Project Manager, MEIL, Srikalahasthi for information
2. The Regional Officer, NHA/PIU, RO- Vijayawada-AP, for favor of information

GOVERNMENT OF ANDHRA PRADESH  
ROADS & BUILDINGS DEPARTMENT



From

Sri.V.Ramachandra M-Tech  
Chief Engineer (R&B)  
National Highways & CRF  
Room No.410  
State HoD Offices Building,  
MG Road, VIJAYAWADA -  
520010.

To

Regional Office,  
Ministry of Road Transport & Highways,  
Door No.41-29-45A, 3rd & 4th Floors,  
MoRTH/NHAI Building, Ranigarithota,  
Near Kanakadurga Varadhi, Krishna Lanka,  
VIJAYAWADA - 520 013, Andhra Pradesh.  
Ph No.0866-2571985

Lr. No.1/ OFC/ CE(NH) (NH)/DCE(NH) /EE(NH&CRF)/DEE5/AEE2/2020-21  
27/01/2022

**Sub:** (R&B)NH Circle, Anantapuramu - Road Cutting permission - Permission to laying of 8" dia steel pipe line along NH 71 from Km 190.600 to Km 187.360 in Nellore District for a length of 3286m(including 3 crossings on NH 71 , 3240+18+14+14 =3286m along the old MC Road of NH 71 crossings KM 190.600 , 189.300,187.360 Km - Request for according permissions for laying of pipe lines by AGP City Gas Private Limited License fee paid-- Requested -Reg

**Ref:** SE/NH/Anantapuramu Letter No: NH 71/Road Cutting /AGP City Gas Pipeline /SE NH ATP ATO/2021 -22 dt 12-01-2022

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The SE(R&B), NH, anantapuramu in the reference 1<sup>st</sup> cited has submitted the proposal for Permission to laying under ground 8" dia steel pipe line along NH 71 by M/s AGP City Gas Private Limited ,

The proposal is verified and following details are furnished by the Applicant M/s AGP City Gas Private Limited ,

1. The instant proposal is for obtaining the permission from the competent Authority (RO/MoRTH/VJA) for laying under ground 8" dia steel pipe line along NH 71 as mentioned in the subject by M/s AGP City Gas Private Limited .
2. Original copy of Necessary **Undertakings** as per the Ministry's Ir No. RW/NH-33044/29/S&R® dated 22.11.2016 is enclosed.
3. Certificate to the extent that the proposal is meeting all the requirements as per the Ministry guidelines communicated vide Ir No. RW/NH-33044/29/S&R(R) dated 22.11.2016 is enclosed by EE/NH Division, Kadapa
4. Inspection report from EE/NH/Kadapa is enclosed with the proposal.
5. The proposal for permission of laying of utility services shall include original copy of licence deed signed by two witnesses and strictly (word to word) as per Ministry Guidelines issued vide circular

*Suprn*  
*CE (88)*  
*Shashank*  
*7/9*  
*SDA*



- number:RW/NH-330044/29/2015/S&R® dt 22-11-2016 is enclosed .
6. The supporting documents for assessing rates of land for calculation of License fees for the proposal is enclosed.
  7. Estimate for License fee as per Ministry's Ir No. RW/NH-33044/29/S&R® dated 22.11.2016 amounting to **Rs.97832/-** which is in order and has been paid through Bharatkosh (Transcation No: 1711210021389 dt 17-11-2021) in favor of RPAO((W& A) Hyderabad
  8. Estimate for the amount payable towards performance security by the applicant before signing of the agreement with the Authority for an amount of Rs. 3,28,600 /- which is in order.
  9. Copy of Power of Attorney (POA) given by the Company Secretary of AGP City Gas Private Limited in the name of Sri Chirag kishirebhai Bhanvadia , Senior Manager Projects for signing the documents/proposals for laying of OFC is enclosed.
  - 10.Filled -in Check-list for getting approval for laying of Gas pipelines on NH land as per Ministry's Ir No. RW/NH-33044/29/S&R® dated 22.11.2016
  - 11.The proposed Gas pipe line to be laid and maintained a minimum distance of 6.5 m from center line (ROW is 7.0 m from center line on each side)
  - 12.The Applicant has submitted the permission for laying of Gas pipelines letter from Petroleum and Natural Gas Regulatory Board Letter No: PNGRB/Auth/1-CGD(24)/10.02/2019 dt 01-09-2019

Hence, the above proposal is forwarded for according approval for laying of gas pipelines of 8" dia steel pipe as per the conditions laid down in Ministry's guide lines dt:22.11.2016.

**Encl:** Book let-1 No

Yours sincerely

Ramachandra V  
Chief Engineer (R&B)  
NH&CRF, A.P., Vijayawada

✓ Copy to the Superintending Engineer N.H.circle, Anantapuramu  
Copy to the Executive Engineer, N.H.Division, Kadapa

Signature Not Verified

Digitally signed by  
RAMACHANDRA V  
Date: 2022.01.27 13:19:18 IST



**GOVERNMENT OF ANDHRA PRADESH  
ROADS AND BUILDINGS DEPARTMENT NATIONAL HIGHWAYS**

**From**

Sri P.Murali Mohan, ME.,  
Superintending Engineer(i/c),  
(R&B) N.H. Circle,  
Anantapuramu.

DEES

21/01/22

**To**

The Chief Engineer, (R&B) NH & CRF,  
Room No. 412, 4<sup>th</sup> Floor,  
State HOD Offices Building,  
M.G. Road, Vijayawada. -520010.



**Lr.No.NH. 71/ Road Cutting/ AGP City Gas Pipeline /SE NH ATP/ ATO/2021-22, Dt: 12 - 01-2022.**

**Sir,**

**Sub:-** (R&B) NH Circle, Anantapuramu – (R&B) NH – Division, Kadapa –Permission for laying “8” Steel pipe line Km190/600 to 187/360 in Nellore District for a length of 3.286 Km(including 3 Crossings on NH-71 3240+18+14+14=3286 M) along the old M.C. road of NH-71 Crossing Km 190/600, 189/300 and 187/360 Km - Request for According of permission for laying of pipe line by AGP City Gas Pvt Ltd., Nellore District- by M/s AGP City Gas Private Limited- License fee paid-Permission – Requested – Regarding.

**Ref:-**

1. Ministry Circular No.RW/NH-33044/29/2015/S&R ® (Pt.) dated 22-11-2016. of MORT&H, New Delhi.
2. Lr.No:AGP City Gas/Nellore/Letter/145, Dt:18.11.2021.of M/s AGP City Gas Private Limited., Addressed to Executive Engineer (R&B) NH Division, Kadapa.
3. Lr.No.Road Cutting/TO/EE/NHKDP/2021-22, dated:05.01.2022, of the Executive Engineer (R&B) NH Division, Kadapa.

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Through the reference 3<sup>rd</sup> cited, the Executive Engineer (R&B) NH Division, Kadapa has submitted by M/s AGP City Gas Private Limited. has paid license fee amount of Rs.97,835/-(Rupees Ninety seven thousand Eight hundred and thirty five only) through online portal of bharatkosh.gov.in vide Transaction reference Number: 1711210021389, Dt:17.11.2021, and performance guarantee for an amount of Rs.3,28,600/-(Rupees Three Lakhs Twenty eight thousand six hundred only) drawn in favour of Executive Engineer(R&B) NH Division, Kadapa videB.G.No:1817321BG0000482, Dt:28.10.2021 extended up to 27.10.2022(i.e., for the period of one year) issued by State Bank of India, Commercial Branch, New Delhi(18173) for according road cutting Permission for laying “8” Steel pipe line Km190/600 to 187/360 in Nellore District for a length of 3.286 Km(including 3 Crossings on NH-71 3240+18+14+14=3286 M) along the old M.C. road of NH-71 Crossing Km 190/600, 189/300 and 187/360.

The Executive Engineer, (R&B) NH Division, Kadapa has submitted that the Proposals were examined with reference to the MORT&H Circular Memo No.RW/NH/33033/29/2015/S 7 R ® Dt.22.11.2016, for laying Optic Fiber Cable by HDD(Horizontal directional Drilling). The Certificate, Inspection Report, Specification Report, Calculation of License Fees & Bank Guarantee Amount, Check list, Draft Agreement Regarding Granting, ROW permission, undertaking, Typical Cross section for HDD, Methodology of pipeline Laying, Power of attorney, Plan of drawings, etc., mentioned are herewith submitted along with proposal.

(Continued ...2)

//2//

I request the Chief Engineer (R&B) NH & CRF, Vijayawada to kindly address the competent authority for according permission for road cutting and communicate orders at an early date.

**Encl :-** Proposals in 3nos Booklets & Copy of Reference 3<sup>rd</sup> cited.

Yours faithfully,



Superintending Engineer,  
(R&B) N.H.Circle, Anantapuramu.

12-1-22

Copy to the Executive Engineer, (R&B) NH. Division, Kadapa for information.


## CERTIFICATE

1. Under Signed has examined the proposed of the applicant for laying of permission to Laying Gas pipeline (8" Dia steel pipe) along National Highway Road NH-71 from Km.187/360 to 190/600 (RHS) from near Swarnamukhi River to Pandluru road junction in Nellore District of Andhra Pradesh and confirm that the all standard conditions issued vide ministry Circular No RW/NH-33044/29-2015/S&(R), Dt.22.11.2016 has been followed.
2. it is certified that any other locations of utilities line would be extremely difficult and unreasonable costly and installation of utility line within ROW will not adversely affect the design stability & traffic safety of the highway nor the likely future improvement such as widening of the carriageway, casing of curve etc.
3. I will ensure supervision of the work of lying of utility and ensure that the defects in the road portion after lying of utility are corrected.
4. I will notify / forfeit the BG for claims for damages done / disruption in working, if any.
5. I will ensure the proposed permission in the entered in the register of records.
6. The record of previous approval, if any has been considered and the copy of same is enclosed with the proposal.

// Counter signed //

  
12/1/2022

Superintending Engineer  
(R & B ) NH Circle, Anantapuramu.

  
Executive Engineer  
(R&B) NH Division, Kadapa.



### INSPECTION REPORT

I have inspected site on date: 18.09.2021 for the proposal for "Laying Gas Pipeline along the NH-71" for a length of 3240 Mts RHS of road by open trench along NH-71 from Km 187/360 to 190/800 and crossing at chainage 190/600km (Width 18m), 189/030km (Width 14m) and 187/360km (Width 14m) along the Old MC road in the jurisdiction of NH (R&B) Division Kadapa. The following points were observed and mentioned below.

1. The total length of the Gas pipeline (including 3 crossings  $3240+18+14+14=1286$ Mts) from Km 187/360 to Km 190/600 RHS of road by open trench.
2. The M/s AGP City Gas Private Limited has Proposed to lay Gas Pipeline by open trench (at a depth of 1.50 Mts below the ground level ) to a length 3240 on RHS of road by open trench and a length of 46 Mts (3 crossings) by HDD Method.
3. The row of the road varies from 25 Mts to 30 Mts in this stretch of the road.
4. The restoration of trench should be done by the Agency as specified by the Ministry Vide F.No.RW/NH-33044/29/2015/S&R (R) Dated 22-11-2016.
5. The Agency has submitted Undertaking for submission of Performance of Bank Guarantee, Indemnity bond, certificate for location of pipeline in case 4/6 Lanning of the road and under taking to comply with the MORTH Guidelines.
6. The strip plan and methodology of laying pipeline and other documents submitted by the agency is attached here with.

  
18/09/2021  
Deputy Executive Engineer  
(R&B) NH, Sub Division, Tirupati.

  
Executive Engineer (R&B)  
N.H. DIVISION, KADAPA.

**CHECK LIST**  
**(KOLKATA-CHENNAI Section of NH-16)**

Guidelines for processing the proposal for laying Utility / Gas Line in the land along National Highway vested with NHA/PWD/BRO



Sr. No	Item	Information / Status of Crossing	Remarks
1	General Information	Construction of Gas Pipeline in Nellore District	
1.1	Name and Address of the Applicant / Agency	M/s. AGP City Gas Private Limited, 3 <sup>rd</sup> Floor, S3 Towers, Door # 28-05-400, Venkata Reddy Nagar, Vedyapalem, GT Road, Nellore -524004	
1.2	National Highway Number	NH-71	
1.3	State	Andhra Pradesh	
1.4	Location	Pandluru Junction Road to Swarnamukhi River	
1.5	Chain age in KM	From 190/600 to 187/360Kms. (RHS)	Centreline chainage of NH
1.6	Length in Meters	3240+18+14+14=3286m (including 3 crossings)	
1.7	Width of Available ROW		
	(a) Left side from centre line towards decreasing chain age / km direction	7.0mtrs (190/600 Km to 187.360 Km)	
	(b) Right side from centre line toward increasing chainage/ km direction	7.0mtrs(190/600 Km to 187.360 Km)	
1.8	Proposal to lay underground Gas pipeline		
	(a) Left side from centreline towards increasing chainage/ Km direction	No	
	b) Right side from centre line toward increasing chainage/ km direction	Yes	
1.9	Proposal to acquire land	Not Applicable	Land acquisition is not required as sufficient utility corridor is available.
	(a) Left side from centreline	Not Applicable	
	(b) Right side from centreline	Not Applicable	
1.10	Whether proposal is in the same side where land is not to be acquired	Not Applicable	
	If not then where to lay the cable	Not Applicable	
1.11	Details of already laid services, if any along the proposed route.	OFC, electrical lines etc.	
1.12	Number of existing lanes (2/4/6/8 lanes)	2 lane	
1.13	Proposed Number of lanes (2 land with paved shoulders 4/6/6/8 lanes)		
1.14	Service road existing or not		

*(Signature)*  
 Deputy Executive Engineer,  
 (R&B) NH, Sub Division, Tirupati.

*(Signature)*  
 Executive Engineer (R&B)  
 N.H. DIVISION, KADAPA.




	If yes then which side	No	
	(a) Left side from Center line	No	
	(b) Right side from center line	Not Applicable	
1.15	Proposed Service Road		
	(a) Left side from center line	Not Applicable	
	(b) Right side from center line	Not Applicable	
1.16	Whether proposal to lay Gas Pipeline is after the service road or between the service road and main carriageway	Not Applicable	
1.17	Whether carrying of sewage / gas pipeline has been proposed on highway bridges. Then mention the methodology proposed for the same	Not Applicable	
1.18	Whether carrying of sewage / gas pipeline has been proposed on the parapet / any part of bridges. If yes, then mention the methodology proposed for the same	Not Applicable	
1.19	<b>If crossing of the road involved</b> If yes, it shall be either encased in pipes or through structure on conduits specially built for that purpose at the expenses of the agency owning the line.	No	
	(a) Whether existing drainage structures are allowed to carry the utility pipelines.	Yes	
	(b) Is in on a line normal to NH	Yes	
	(c) What is the distance of crossing the utility pipelines from the existing structures Crossing shall not be too near the existing structures on the National Highway, the minimum distance being 15 meter.	Not Applicable	
	(d) The casing pipe (or conduit pipe in the case of electric cable) carrying the utility line shall be of steel, cast iron, or reinforced cement concrete and have adequate strength and be large enough to permit ready withdrawal of the carrier pipe/cable. Mention type of casing.	Not Applicable	
	(e) Ends of the casing / conduit pipe shall be sealed from the outside, so that it does not act as a drainage path.	Not Applicable	
	(f) The casing / conduit pipe should, as minimum extend from drain to drain in cuts and toe of slope toe of slope in fills	Not Applicable	
	(g) The top of the casing / conduit pipe should be at least 1.2 meter	Not Applicable	



  
 Deputy Executive Engineer (R&B) NH, Sub Division, Tirupati.      Executive Engineer (R&B) N.H. DIVISION, KADAPA.





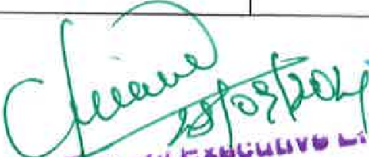
	below the surface of the road subject to being at least 0.3m below the drain inverts. Mention the proposed details		
	(h) Mention the methodology proposed for crossing of road for proposed sewerage / Gas Pipeline. Crossing shall be by boring method (HDD) (Trenchless technology) especially where the existing road pavement is of cement concrete or dense bituminous concrete type.	HDD	Approach roads
	(i) The casing / conduit pipe shall be installed with an even bearing throughout its length and in such a manner as to prevent the formation of a waterway along it.	Not Applicable	
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 1.2m deep x 0.3m wide) (i) Should not be greater than 60cm wider than the outer diameter of the pipe (ii) Located as close to the extreme edge of the right-of-way as possible but not less than 15 meter from the centre-lines of the nearest carriageway. (iii) Shall not be permitted to run along the National Highways when the road formation is situated in double cutting. Nor shall these be laid over the existing culverts and bridges. (iv) These should be said that their top is at least 0.6 meter below the ground level so as not to obstruct drainage of the road land.	Yes, Enclosed	
2.2.	Cross Section showing the size of pit and location of Gas Pipeline for HDD method	Yes, Enclosed	Cross section
2.3	Strip plan / Route plan showing Gas Pipeline, Chainage, width of ROW. Distance of proposed, cable from edge of RoW, important mile stone, intersections, cross drainage works etc.	Yes, Enclosed	
2.4	Methodology for laying of sewage / Natural Gas Pipe line	Yes, Enclosed	
2.4.1	Open trenching method. (May be allowed in utility corridor only where pavement is neither cement concrete	Yes, Methodology Enclosed	


  
 Deputy Executive Engineer, Executive Engineer (R&B)
   
 Sub Division, Tirupathi N.H. DIVISION, KADAPA.





	not dense bituminous concrete type. If yes, Methodology of refilling of		
	(a) The trench width should be at least 30cm, but not more than 60cm wider than the outer diameter of the Pipe.	Agreed	
	(b) For filling the trench, Bedding shall be to a depth of not less than 30cm. 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 edged should excavated and replaced by selected material.	Agreed	
	(c) The backfill shall be completed in two stages (i) side fill to the level of the top of the pipe and (ii) Overfill to the bottom of the road crust.	Agreed	
	d) The side fill shall consist of granular material laid in 15cm layers each consolidated by mechanical tampering 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	Agreed	
	(e) The road crust shall be built to the same strength as the existing crust on either side of the trench. Care shall be taken to avoid the formation of a dip at the trench.	Not Applicable	
	(f) The excavation shall be protected by flagman. Signs and barricades, and red lights during night hours.	Agreed	
	(g) If required, a diversion shall be constructed at the expenses of agency owning the utility line.	Agreed	
2.4.2	Horizontal Directional Drilling (HDD) Method	Not Applicable	
2.4.3	Methodology for laying pipeline through CD works and method of laying. In case of where the carrying of gas pipeline on the bridge becomes inescapable.	Not Applicable	

  
 Deputy Executive Engineer  
 (R&B) NH, Sub Division, Tirupati.

457122  
 Executive Engineer (R&B)  
 N.H. DIVISION, KADAPA.



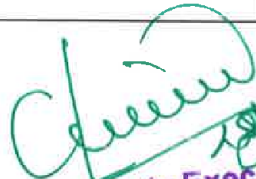
3	Draft License Agreement signed by two witnesses	Yes, Enclosed	
3.1	The license fee estimate as per Ministry's guidelines issues vide circular No. RW/NH-33044/29/2015/S&R(R) DATED 22.11.2016	Yes, M/s AGP City Gas Private Limited, will Agree for the same as per the requirement of NH	
4	Whether performance Bank Guarantee as per Ministry's Circular no. RW/NH-33044/29/2015/S&R(R) dated 22.11.2016 is obtained.	Undertaking for submission of BG has been obtained from M/s AGP City Gas Private Limited	
4.1	Confirmation of BG has been obtained or not as per MoRTH. NHAI guidelines	Confirmation of BG shall be obtained after BG submission by M/s AGP City Gas Private Limited	
5	Affidavit / Undertaking from the applicant for the following is to be furnished:		
5.1	Undertaking for Not to Damage any other utility, if damaged then to pay the losses either to NHAI or to the concerned agency	Yes, Enclosed	
5.2	Undertaking for Renewal of Bank Guarantee as and when asked by MORTH / NHAI.	Yes, Enclosed	
5.3	Undertaking for Confirmation all standard condition of Ministry Circulars & NHAI's guideline	Yes, Enclosed	
5.4	Undertaking for indemnity against all damages and claims	Yes, Enclosed	
5.5	Undertaking for management of traffic movement during laying of utility line without hampering the traffic	Yes, Enclosed	
5.6	Undertaking that prior approval of the NHAI shall be obtained before undertaking any work of installation, shifting or repairs or alterations to the utility located in the National Highway right-of-ways.	Yes, Enclosed	
5.7	Undertaking that expenditure, if any, incurred by NHAI for repairing any damage caused to the National highway by the laying, Maintenance of shifting of the utility line will be borne by the applicant agency owing	Yes, Enclosed	

  
 Deputy Executive Engineer  
 (R&B) NH, Sub Division, Tirupati.

45/1/22  
 Executive Engineer (R&B)  
 N.H. DIVISION, KADAPA.



5.8	Undertaking that text of the text of the license deed is as per verbatim of MoRTH format (issued vide Ministry's Circular no. RW/NH-33044/29/2015/S&R(R) dated 22/11/2016	Yes, Enclosed	
5.9	Undertaking that the applicant has obtained various safety clearances' from the respective authorities such as Directorate of Electricity, Chief controller of Explosives, Petroleum and Explosive Safety Organization, Oil Industry Safety Directorate, State / Central Pollution Control Board and any other statutory clearances applicable, before applying to Highway Administration	Yes, Enclosed	
5.10	If the MoRTH/NHAI considers it necessary in future to move the utility line for any work of improvement or repairs to the road, it will be carried out as desired by the NHAI at the cost of the agency owning the utility line within a reasonable time (not exceeding 60 days) of the intimation given.	Yes, Enclosed	
5.11	Certificate from the applicant in the following format (i) Laying of Gas Pipeline will not have any deleterious effect on any of the bridge components and roadway safety for traffic (ii) "We do undertake that I / we will relocate service road / approach road/ utilities at my own cost notwithstanding the permission granted within such time as will be stipulated by NHAI for future six-lining or another development	Yes, Enclosed	
6	Who sign the agreement on behalf of Gas Pipeline agency	AGM, M/s. AGP City Gas Pvt Ltd, Nellore	
6.1	Authorised person to sign the agreement on behalf of Gas pipeline agency	Copy Enclosed	
7	Certificate from Project Director		
7.1	Certificate that the proposal is confirming to all standards conditions issued vide Ministry's Circular No: RW/NH-33044/29/2015/S&R(R) Dated 22.11.2016	Yes, Enclosed	

  
 28/09/2016  
 Deputy Executive Engineer,  
 (R&B) NH, Sub Division, Tirupati.

Executive Engineer (R&B)  
 N.H. DIVISION, KADAPA.



7.2	<p>Certificate from PD in the following format (Yes / No)</p> <p>(i) " It is certified that any other location of the Pipe line would be extremely difficult and unreasonable costly and the installation of Gas Pipe line within RoW will not adversely affect the design, stability &amp; traffic safety of the highway nor the likely future improvement such as widening of the carriage way, easing of curve etc."</p> <p>(ii) for 6-lanning</p> <p>(a) Where feasibility is available "I do certify that there will be no hindrance to proposed six-laning based on the feasibility report considering proposed structures at the said location".</p> <p>(b) In case feasibility report is not available "I do certify that sufficient ROW is available at site for accommodating proposed six-lining".</p>	Yes, Enclosed	
8	<p>If NH section proposed to be taken up by NHAI on BOT basis – a clause is to be inserted in the agreement. "The permitted Highway on which Licensee has been granted the right to lay Pipeline has also been granted as a right of way to the concessionaire under the concession agreement for up gradation of Andhra Pradesh <b>Section from Km..... to KM ..... Of NH No. - man build, Operate and Transfer Basis]</b> and therefore, the licenses shall honour the same."</p>	Included in the agreement.	
9	Who will supervise the work of laying gas supply pipeline		
	(a) On Behalf of Applicant	M/s. AGP City Gas Pvt Ltd, Nellore	
	(b) on Behalf of MoRTH / NHAI	Executive Engineer, NH Division, Kadapa.	
10	Who will ensure that the defects in road portion after laying of gas supply pipe line are corrected and if not corrected then what action will be taken		
	(a) On Behalf of Applicant	M/s. AGP City Gas Pvt Ltd, Nellore	
	(b) on Behalf of MoRTH / NHAI	Executive Engineer NH Division, Kadapa	
11	Who will pay the claims for damages done / disruption in working of	M/s AGP City Gas Private	

*Chandu*  
*28/07/2022*  
 Deputy Executive Engineer  
 (R&B) NH, Sub Division, Tirupatu.

*5/11/22*  
 Executive Engineer (R&B)  
 N.H. DIVISION, KADAPA.





	Concessionaire if asked by the Concessionaire	Limited.	
12	A Certificate from PD that he will enter the proposed permission in the register of records of the permission in the prescribed proforma (copy enclosed)	Yes, Enclosed	
13	If any previous approval is accorded for laying of underground Gas Supply Pipeline	No previous approvals accord at the proposed location.	

Chirag K Bhanvadia  
AGM-Projects



Name & Designation, Signature of authorized  
Representative of applicant


Name & Designation, Signature of  
Concerned field authority of NHDivision/  
PWD / BRO



**Deputy Executive Engineer**  
(R&B) NH, Sub Division, Tirupati.



**Executive Engineer (R&B)**  
N.H. DIVISION, KADAPA.



**Superintending Engineer**  
(R & B ) NH Circle, Anantapuram.

Sheet no : 1

To Vijayawada

NH-16

To Chennai

Proposed Steel Pipeline

To Pandur Junction

Ch:190+600

Crossing-1

LHS

RHS

NH-71

To Naidupeta

Proposed Steel Pipeline

Superintending Engineer  
(R & B) NH Circle, Anantapuramu.

Executive Engineer (R&B)  
N.H. DIVISION, KADAPA.

Ch:189+600

Crossing-2 at Ch:189+030

Ch:189+000



LEGEND

BERM  
ROW BOUNDARY  
ROAD CENTER LINE  
ST ROAD  
CULVERT/BRIDGE

APPLICANT SIGN & ADDRESS

NOTES

1. ALL DIMENSIONS ARE IN METER
2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED  
DO NOT SCALE THE DRAWING

DRAWN	J.V.	RVN.	DATE
CHECKED	A.B.		
SCALE	N.T.S.		

TITLE

PROPOSED NATURAL GAS PIPE LINE ROUTE ALONG  
NH-71 from 190+600 to 188+000

AGP CITY GAS PRIVATE LIMITED



3rd Floor, 53 Towers, Door # 26-5-100  
Venkata Reddy Nagar, Vedyapalem  
GT Road, Nellore. 524 004.

Deputy Executive Engineer  
(R&B) NH, Sub Division, Tirupathi.

[LHS] : LEFT HAND SIDE

[RHS] : RIGHT HAND SIDE

Ch:189+000

To Pandur Junction

LHS

RHS

To Naidupeta

NH-71

Proposed Steel Pipeline

Superintending Engineer  
(R & B ) NH Circle, Anantapuram.

Executive Engineer (R&B)  
N.H. DIVISION, KADAPA.

Ch:188+000

Deputy Executive Engineer  
(R&B) NH, Sub Division, Tirupat..



LEGEND

- BERM
- ROW BOUNDARY
- ROAD CENTER LINE
- BT ROAD
- CULVERT/BRIDGE

APPLICANT SIGN & ADDRESS

NOTES

1. ALL DIMENSION ARE IN METER
2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED  
DO NOT SCALE THE DRAWING

DRAWN	J.V.	RVN	DATE
CHECKED	A.B.		
SCALE	N.T.S		

TITLE

PROPOSED NATURAL GAS PIPE LINE ROUTE ALONG  
NH-71 from 188,000 to 187,000



AGP CITY GAS PRIVATE LIMITED

3rd Floor, 53 Towers, Door # 26-5-400  
Venkateswara Nagar, Hyderabad,  
501 004, India.

LHS : LEFT HAND SIDE

RHS : RIGHT HAND SIDE

Sheet no : 3

Ch:188+000

To Pandur Junction

LHS

RHS

To Naidupeta

NH-71

Proposed Steel Pipeline

Superintending Engineer  
(R & B) NH Circle, Anantapuramu.

Executive Engineer (R&B)  
N.H. DIVISION, KADAPA.

Crossing-3 at end Chainage  
:187+360

Ch:187+000



LEGEND

BERM  
ROW BOUNDARY  
ROAD CENTER LINE  
BT ROAD  
CULVERT/BRIDGE

APPLICANT SIGN & ADDRESS

NOTES

- ALL DIMENSION ARE IN METER
- ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED  
DO NOT SCALE THE DRAWING

DRAWN	J.V.	RVN.	DATE
CHECKED	A B		
SCALE	N.T.S		

TITLE

PROPOSED NATURAL GAS PIPE LINE ROUTE ALONG  
NH-71 from 189 500 to 189 000

AGP CITY GAS PRIVATE LIMITED



3rd Floor, S3 Towers, Door # 26-5-400  
Vankata Reddy Nagar, Vedyapalem  
GT Road, Nellore, 524 004

Deputy Executive Engineer  
(R&B) NH, Sub Division, Tirupati.

03/01/2022

LHS : LEFT HAND SIDE RHS : RIGHT HAND SIDE



15

**Map Showing Details of Proposed Pipeline Along NH-71  
from Ch:190/600 to 187/360**

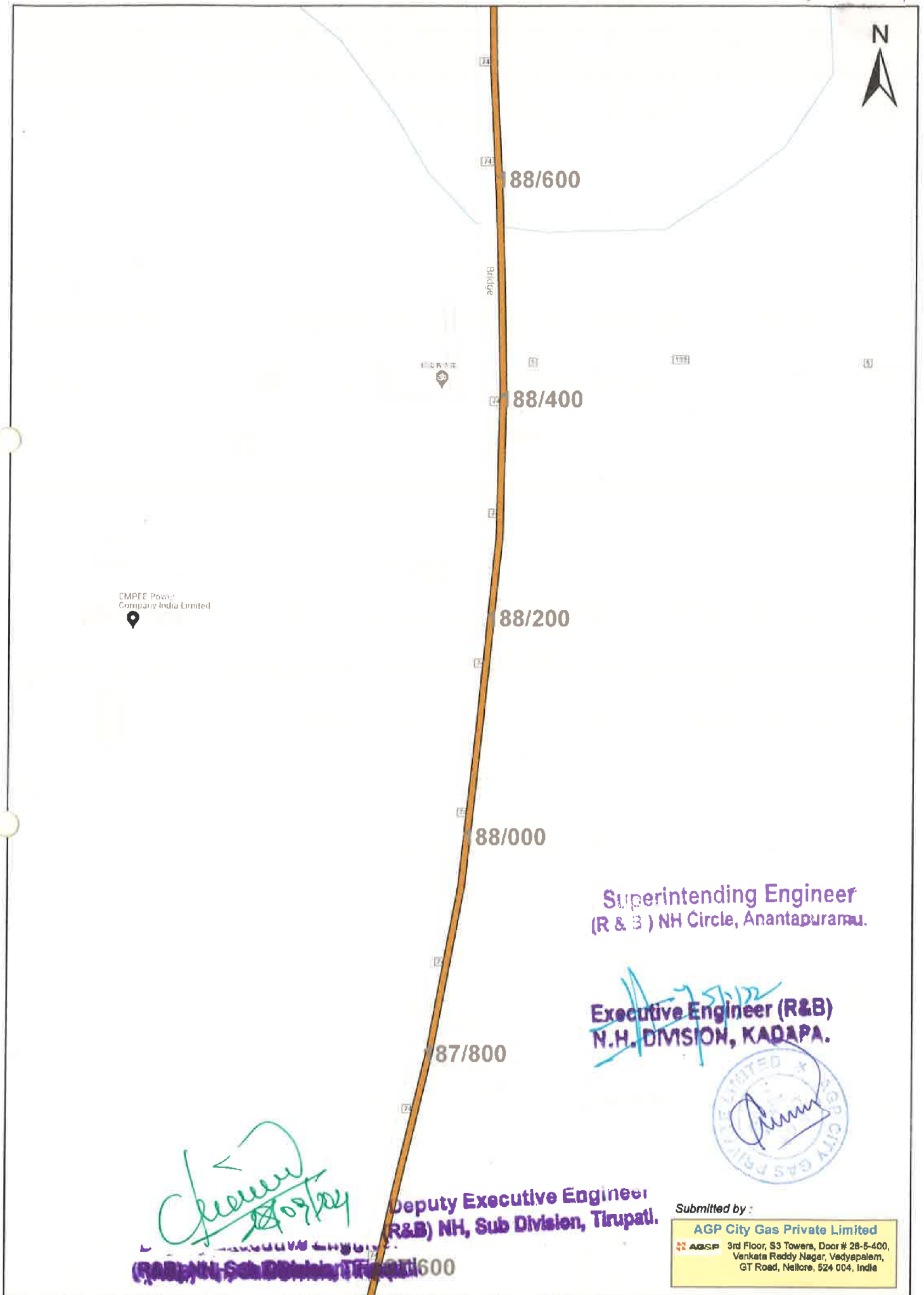
Strip :



Map Showing Details of Proposed Pipeline Along NH-71  
from Ch:190/600 to 187/360

16

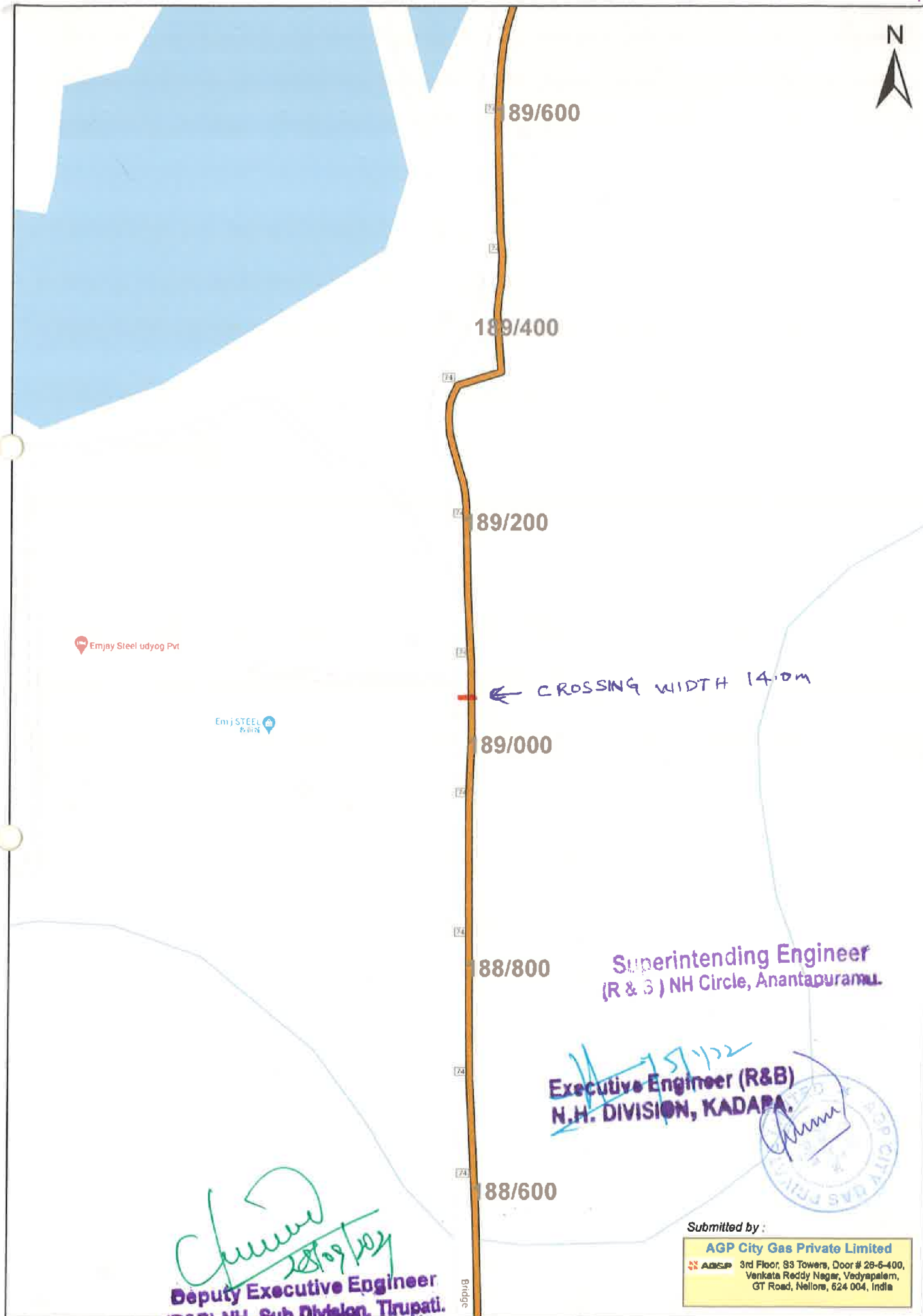
Strip



**Map Showing Details of Proposed Pipeline Along NH-71  
from Ch:190/600 to 187/360**

17

Strip :



189/600

189/400

189/200

189/000

188/800

188/600

← CROSSING WIDTH 14.0m

**Superintending Engineer**  
(R & B) NH Circle, Anantapuramu.

**Executive Engineer (R&B)**  
N.H. DIVISION, KADAPA.

**Deputy Executive Engineer**  
(R&B) NH, Sub Division, Tirupati.

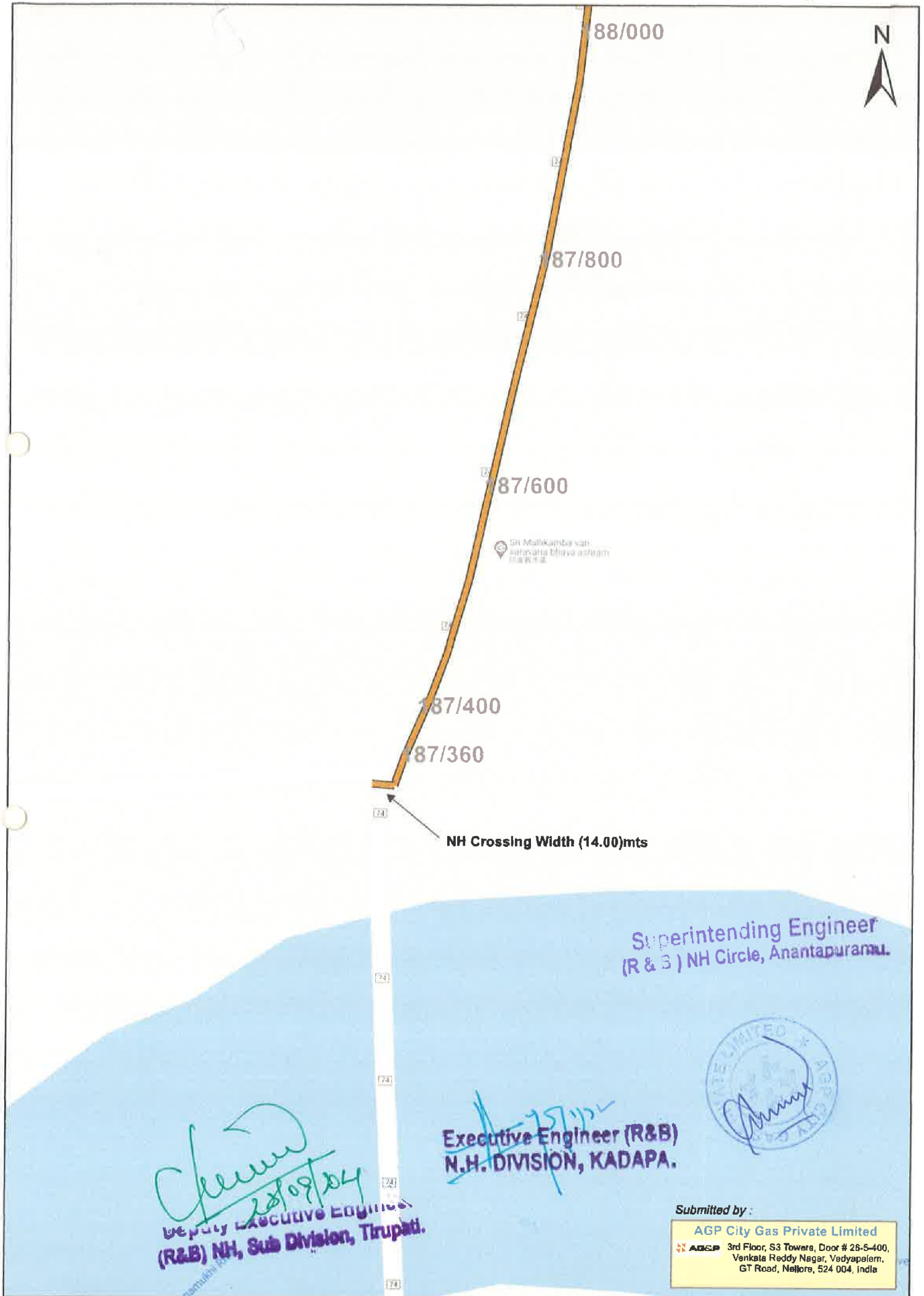
Submitted by :

**AGP City Gas Private Limited**

**AGP** 3rd Floor, S3 Towers, Door # 28-6-400,  
Venkata Reddy Nager, Vadyapelem,  
GT Road, Nellore, 624 004, India

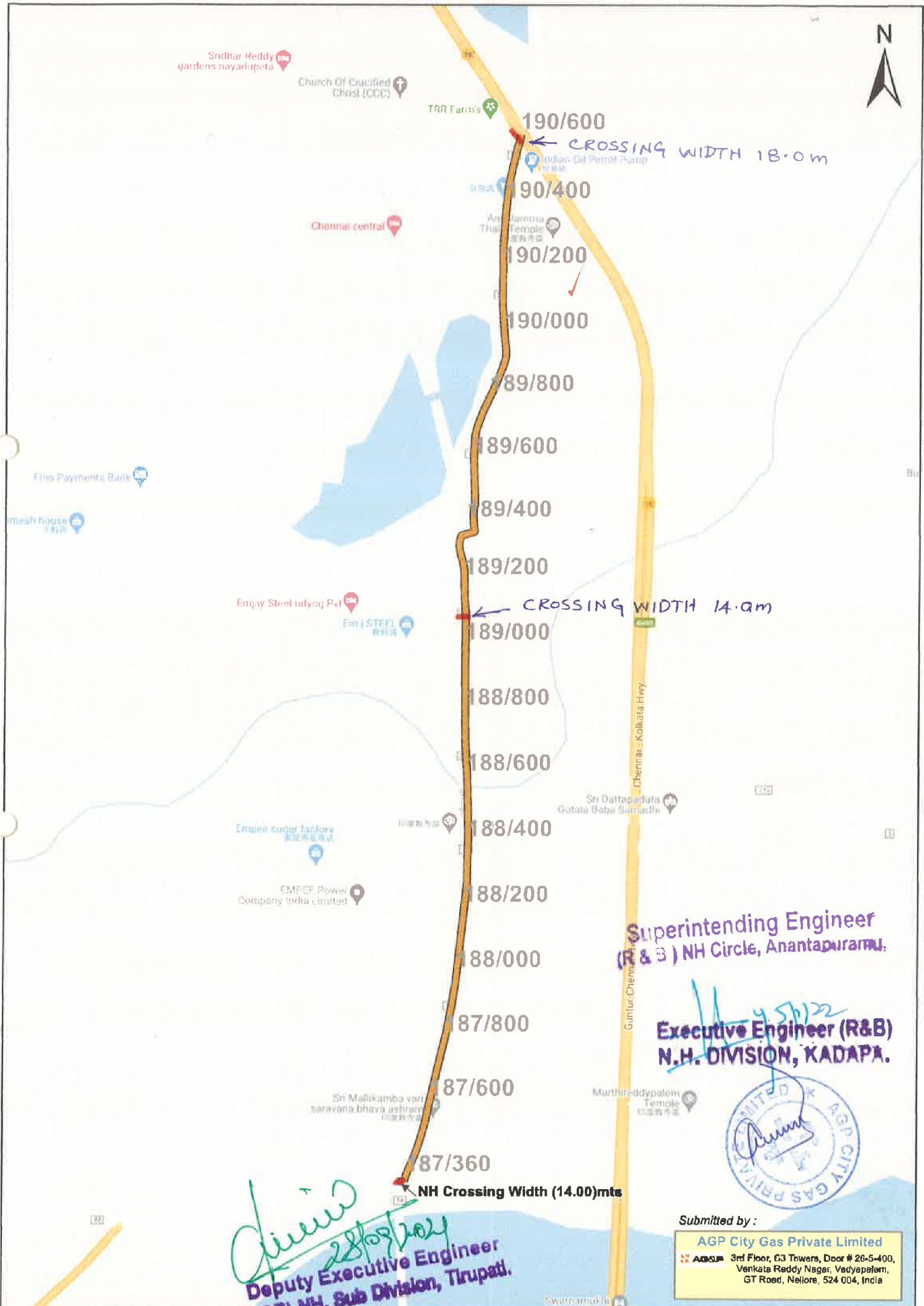
**Map Showing Details of Proposed Pipeline Along NH-71  
from Ch:190/600 to 187/360**

18



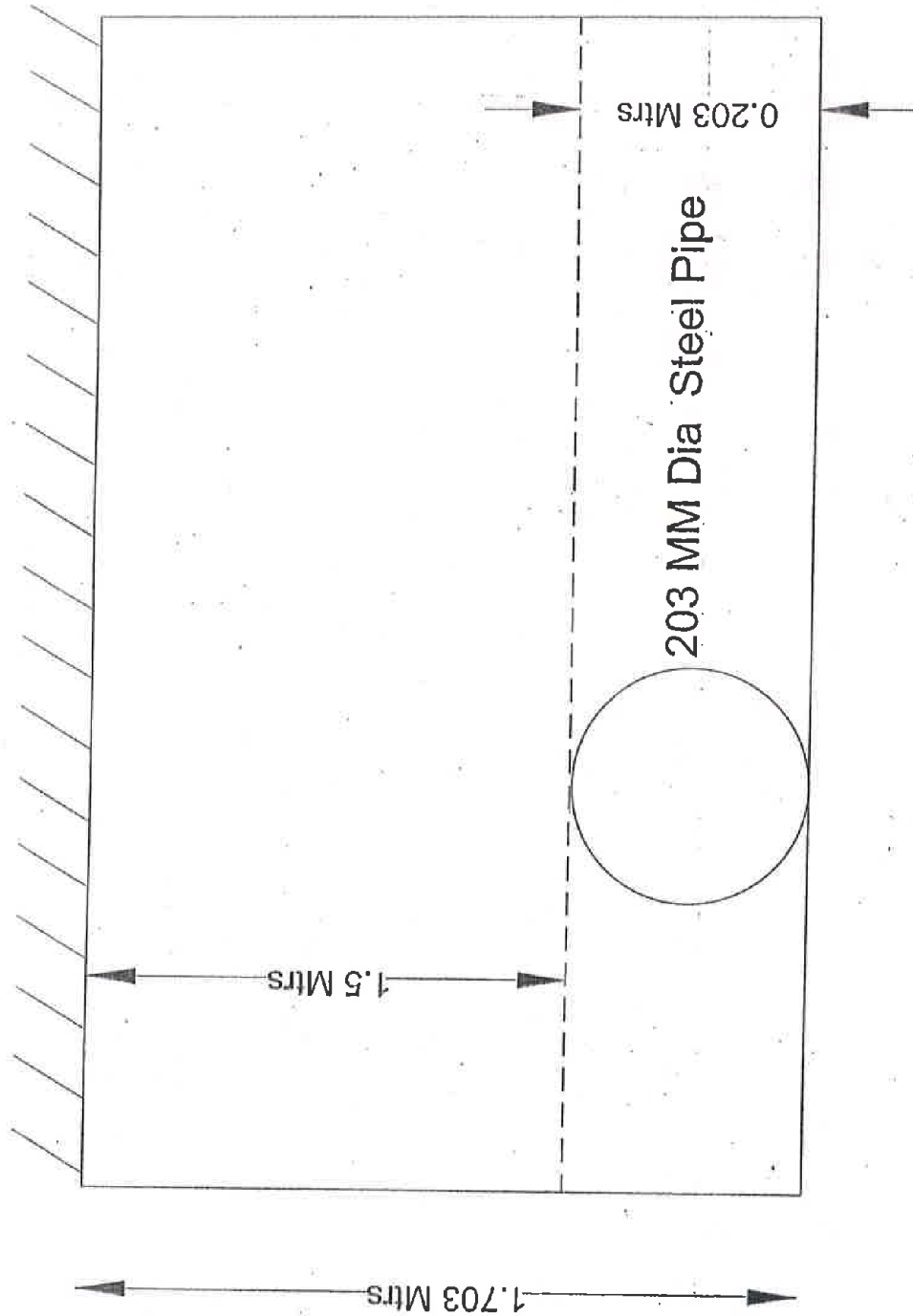
# Map Showing Details of Proposed Pipeline Along NH-71 from Ch:190/600 to 187/360

3





# SECTION VIEW FOR LAYING Ø8" STEEL PIPELINE



Superintending Engineer  
(R & B) NH Circle, Anantapuramu.

Executive Engineer (R&B)  
N.H. DIVISION, KADAPA.

*[Signature]*  
20/10/2021

OWNER : M/S. AGP CITY GAS PVT LTD.

PROJECT : CITY GAS DISTRIBUTION IN NAIDUPETA

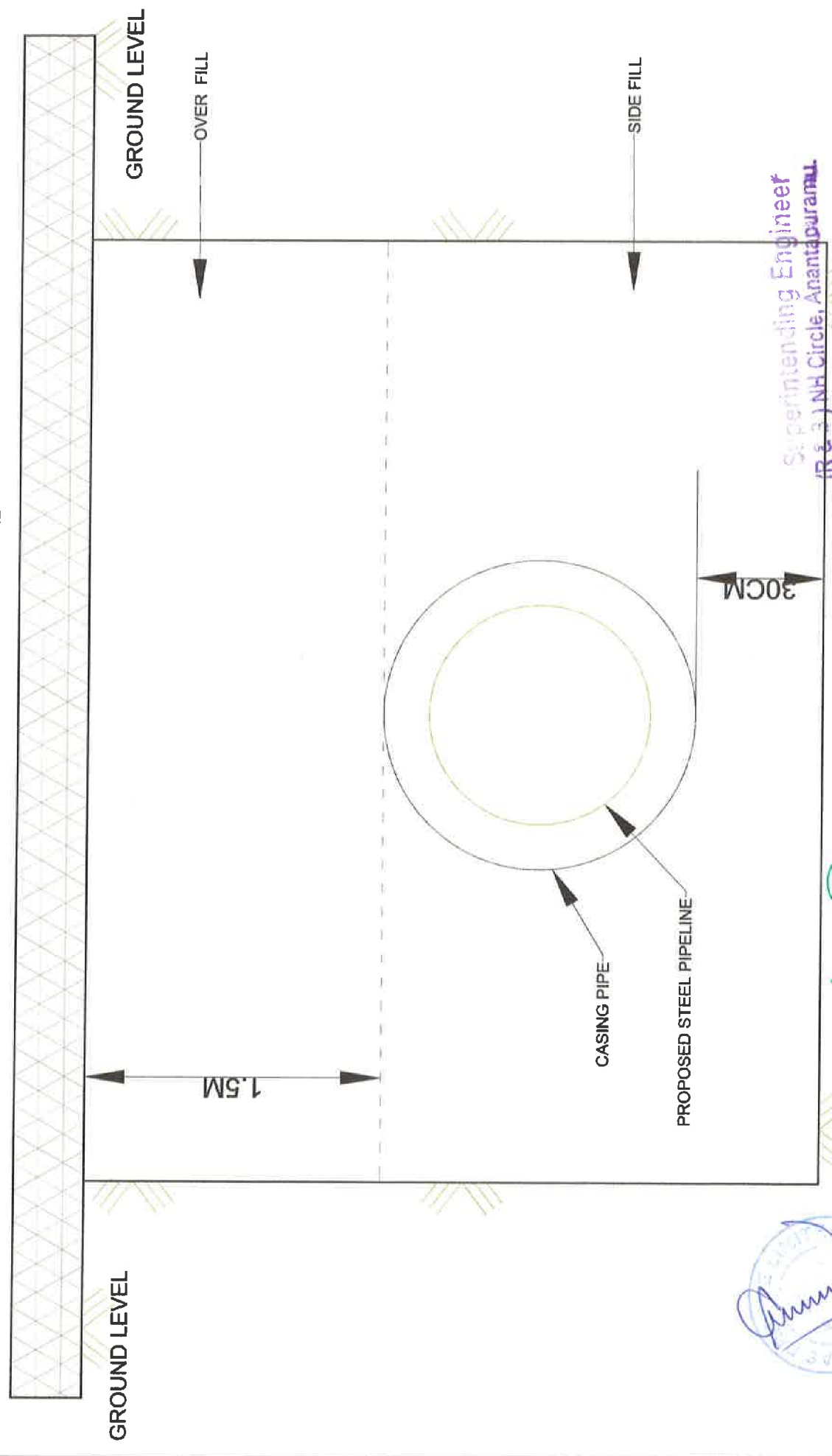
SHEET NO : 1

REV : 00

Deputy Executive Engineer  
(R&B) NH, Sub Division, Tirupati.

# INSTALLATION OF PIPE ACROSS THE ROAD

## TOP OF THE ROAD



N.T.S

*[Signature]*  
Executive Engineer  
(R&B) NH, Sub Division, Tirupati.

*[Signature]*  
Executive Engineer (R&B)  
N.H. DIVISION, KADAPA.

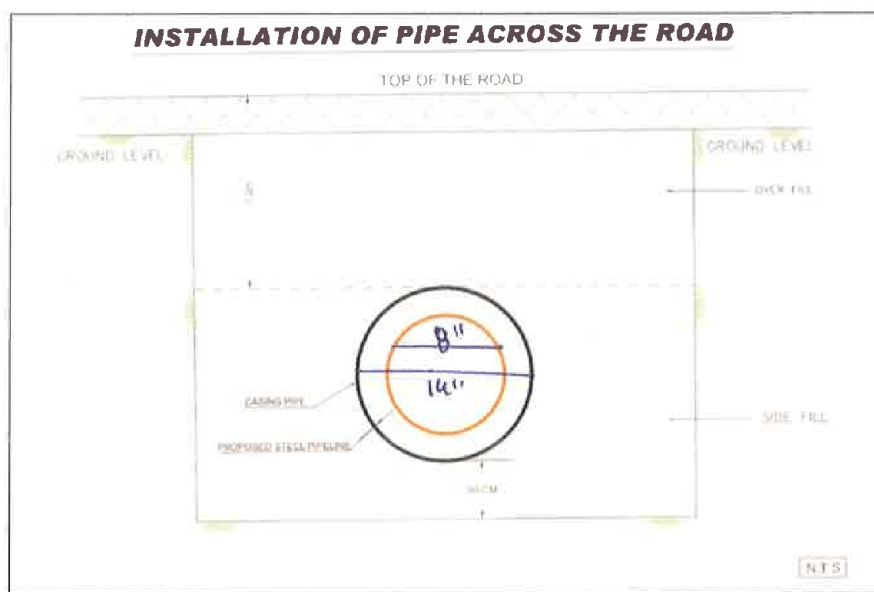
*[Signature]*  
Superintending Engineer  
(R & B) NH Circle, Anantapuramu.

AGP City Gas Private Limited  
First Floor, Building No. Core 2,  
Pacifica Tech Park, No.23,  
Rajiv Gandhi Salai (OMR), Navalur,  
Chennai - 600130, Tamil Nadu - INDIA

### CROSSING METHODOLOGY – NHAI/NH/R&B ROADS

This methodology is submitted for laying & crossing of NHAI/NH/R&B Roads.

Typical crossing drawing and pipeline specific details are as below;



The laying of pipeline across the National Highway / State Highway shall be carried out by Trench Less Technique i.e. either by Boring or Ramming of carrier pipe or by Micro-Tunneling or by Horizontal Directional Drilling without disturbing the normal traffic on the Highway. All the safety measures shall be taken during execution of pipeline laying work across the National Highway/State highway.

The actual procedure shall be decided best on the Geo Technical report conforming the soil strata and ascertaining the correct profile of the watercourse or other obstacles to be crossed.

#### **Boring**

Boring is the most popular and simplest procedure for crossing of highways and major roads with heavy traffic. Similar to a directional drill for river crossings, the road bore is accomplished with a horizontal drill rig, or boring machine. The boring machine drills a hole under the road to allow insertion of the pipe. In most of the cases, a casing is first installed in the hole, and the carrier pipeline is inserted inside the casing. The benefit of the road boring is that it allows installation of the pipeline without disrupting traffic.

Carrier pipe shall be laid inside the casing pipe. Generally, diameter of casing will be 150mm higher than the carrier pipe. The casing pipe shall be made of approved steel with epoxy coating (Internal and External) or approved reinforced concrete pipe. The thickness of casing pipe shall be decided so as to take all the external load during construction and



after completion of work. 1:100 slopes will be provided towards drain during installation of the casing pipe. The casing pipe will be extended a minimum of 600 mm beyond the toe of the slope or base grade or 90 mm beyond the bottom of the drainage ditch whichever is greater.

#### Inserting the Casing

The inserting of casing pipe will start only after the working pits have been constructed and finished completely and the assembly between the wall and the driving unit has been carried out. During the driving process a cutting head will be pushed gradually into the virgin soil. As the insertion progresses, the soil excavated by the cutting head will be removed using a soil transportation device. The excavation face will under no circumstances go beyond the cutting head.

Where necessary, the work will be carried out by exercising a counter - pressure at excavation face to prevent any water from bursting through. The front face will be at all times be sealed tight against water and soil. The cutting head will be manageable by itself and provide with the necessary guiding jacks which will be able to be driven independently. In case of driving with pressurized air as front support, the air pressure will be constantly maintained where there is a danger of water seepage and /or collapse.

The casing will have a sufficient number of injection openings to enable lubrication of the casing, during driving, between the soil and the outside wall with thixotropic or equivalent fluids in order to reduce soil friction. After the insertion operations, the injection openings will be sealed to air -and-water-tightness.

Following measurements shall be taken during the driving operation.

- Measurement of the number of meters casing inserted, including the cutting head in each work shift of 8 hours.
- Measurement of the peak pressure of the main jacks and that of any intermediate driving stations required to start moving the casing at the commencement of the work of each work shift;
- Measurement of the center of the cutting head in X, Y and Z co-ordinates after driving each pipe with an accuracy of 5 mm and comparison with a fixed center line system independent of the driving wall and casing train;
- The automatic recording of the front face support pressure (drilling fluid, air, soil, water)

The maximum permitted deviation throughout the entire duration of the driving process in 10 cm both vertically and horizontally measured in relation to the connection line of the centers of the bore holes in the entry and exit working pit walls.

#### Inserting Carrier pipe through the casing

When the pipe is insert into the casing, the presence of the Owner and/or its representative is required. The insertion will be carried out with a sufficient number of suitable machines.





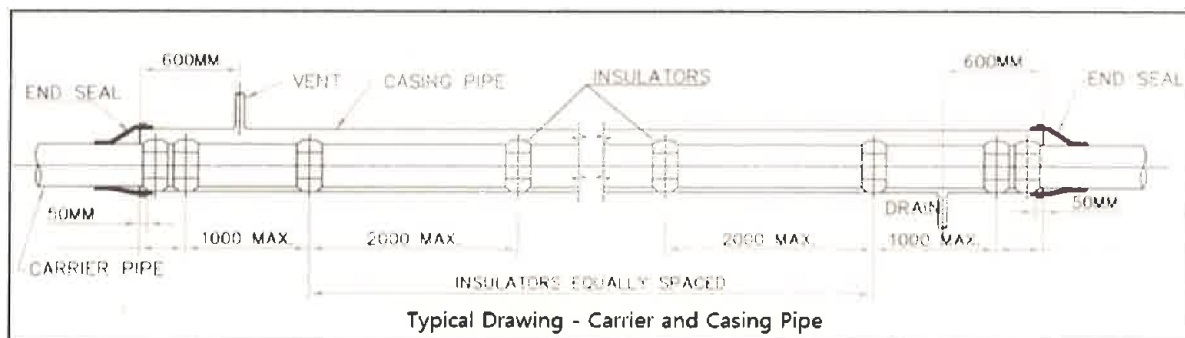
The pipeline will be kept completely in line with the casing. Damage to the coating will be excluded altogether. The progress of the pipeline in the casing will be gradual and under control. The front end of the pipe will be equipped with a slider-shoe and drawn by a cable through the casing.

The casing pipe will be filled by sand / bentonite slurry filling (by pumps). Both extremities of casing will be sealed in an appropriate manner.

#### Installing Space Collars/Insulators

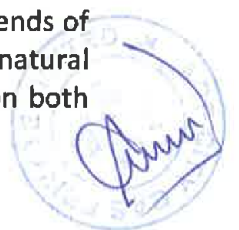
The spacer collars will be placed at 2.00m from each other. At the extremities of the casing, two spacer collars will be placed whereby the outer spacer collars will be located at least 30cm inside the casing.

The support points of the successive spacer collars may not be located in one line but will be regularly staggered. The spacer collars will be made completely of HDPE material with a minimum height of 25cm. Electrical insulation between the casing and carrier pipe shall be checked with megger time to time.



#### Site Restoration and Installation of Vent, Drain and Warning Sign Board

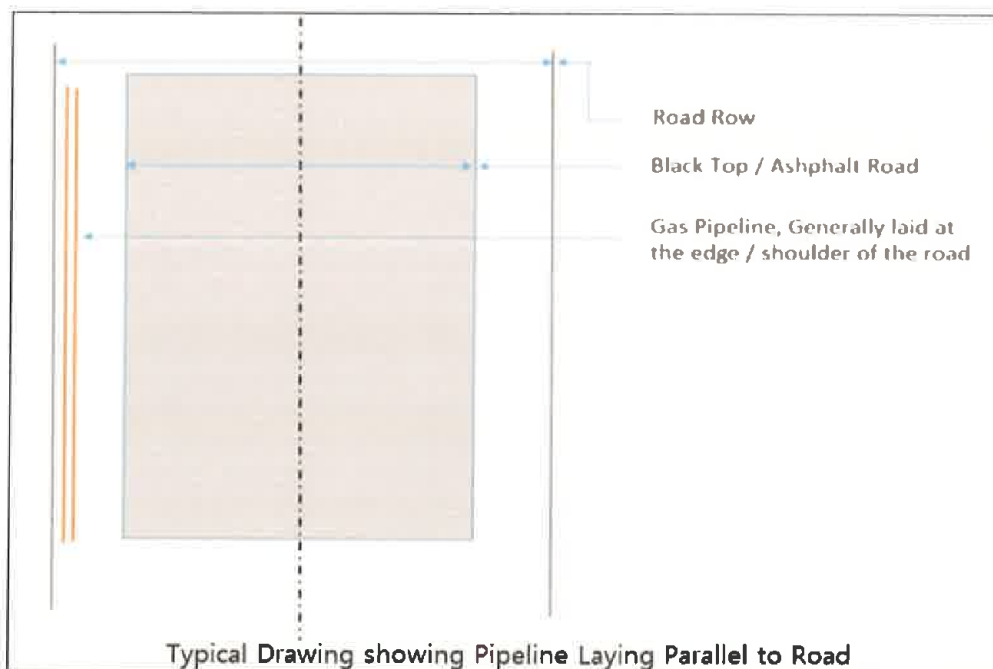
After installation of casing and carrier pipe the road shall be restored to the satisfaction of concern authorities. The installation of vent and drain shall be installed at both the ends of crossing. Warning sign boards indicating the warning about flowing of high pressure natural gas and telephone numbers of the concern maintenance office shall be installed on both side of the high way as per drawing.



## Open-Cut laying (parallel to Road) within RoW of NHAI/NH/R&B Roads

### 1. Pre-Excavation Planning

- Route survey is initiated for proposed area of laying
- Route finalized keeping safety, construction and operation ease
- Normally, pipeline is laid at the edge of road on berm / soil
- Joint site visit; followed by Permissions from concern authorities prior to start of work
- Before starting of work route marking is done
- Presence of other utilities like water line, cables etc are identified with the help of Trial Pits and/or Cable Locator



### 2. Excavation

- Risk Assessment and mitigation is done for route including U/G utilities
- Work area is isolated properly with barricades and display boards
- Excavation soil is kept away from trench edge
- Native soil is kept separate for backfilling purpose
- Activity shall be planned in a manner to cause minimum inconvenience to general public

### 3. Pipeline Laying and Backfilling

- Upon reaching to desired depth of excavation, pipeline laying will be planned
- Visual inspection of trench is done to ensure that there is not sharp objects inside the trench; and desired depth of trench is done



- Soft Soil bedding is provided for 100/150mm for normal and rocky strata respectively
- Pipeline is lowered at the center of trench
- Soft Soil padding is provided for 100mm above the pipe
- Native soil is backfilled after removing stones, sharp edge objects
- Warning tape is laid at 0.5 m depth to safeguard the pipe
- Watering and stage-wise soil compaction is done to avoid depression of trench
- Crowning of trench is done for about 200-300mm for settling backfilled material
- After backfilling to of trench near to original condition, NOC from authority shall be obtained by AG&P Contractor

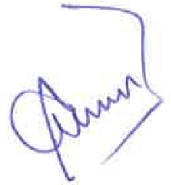
#### **HSE Plan for National Highway/State Highway Roads**

1. Identify the underground utility during joint visit with concerned authority. Risk identified during site visit report will be mitigated with proper risk assessment.
2. The location and status of underground services shall be marked on ground and discussed in Toolbox Talks.
3. Site Specific Risk assessment according to site risks and dynamic risk assessment to be done prior to execution of work.
4. Excavation area site to be visually inspected for other utilities, source of ignition etc.
5. All efforts to be made to minimize the night work.
6. Assess the requirement for personnel to enter and egress from the excavation.
7. Contractor supervisor must discuss the job with AG&P engineer including the risk involved, any abnormal situation, possible failure of machines/ system, human error etc.
8. Assess the impact that excavation may have on any adjacent structures.
9. Manual excavation laborer involved should be experienced with proper HSE induction.
10. PPE is must for all the persons involved and to be ensured by the supervision.
11. Proper barricading to be ensured at the worksite.
12. Trenching to be supervised with experienced supervisor.
13. As the trench depth increases, step cutting to be done for proper exit in case of emergency.
14. Buddy system to be followed for keeping risk of confined space at minimal levels. Proper communication method and regular communication to be done with the excavation workers involved will be done.
15. The trench depth shall be increased uniformly in accordance with minimum permissible radius of bend at approaches to crossing and shall have proper slope for the trench side in order to avoid slide / collapse.
16. Excavation and other material to be stored away from edge of the trench.
17. Workers should not be permitted to work in excavations where water has accumulated or is accumulating unless adequate precautions have been taken.
18. All lifting tool and devices used should be well maintained and approved by competent authority.
19. The site must be checked daily for tidiness and safety before work begin.



20. Movement of pipe section to be done with proper risk assessment of the site conditions.
21. Only trained rigging personnel to be deployed for this activity.
22. Personnel around the machine should be cautious for overhead falling objects.
23. Guiding ropes to be used for directing pipe section for unloading.
24. Lowering of pipe to be done in closed supervision of the AG&P team / representatives
25. Pipe to be placed in the center of underground utility for which crossing need to be done.
26. Underground utility to be properly safeguarded during carrying out these activities.
27. Proper backfilling to be ensured after completion of the activity.
28. First aid kit to be ensured at site.
29. Special attention to be paid by the site engineer to the following: -
  - The stability of the ground
  - Adequacy of supports;
  - Undue loading to trench edges;
  - Clear working space;
  - Adequate means of entry and exit;
  - Provision of suitable protection to prevent persons falling into the trench.

\*\*\*\*\*

A handwritten signature in blue ink, appearing to be "P. Kumar", enclosed within a hand-drawn rectangular box.