



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

दूसरा व तीसरी तल, विजय कृष्ण प्लाज़ा, संख्या-1, लेक एरिया, मेलूर मेन रोड, माट्टुतावनी, मदुरै-625 107  
2<sup>nd</sup> & 3<sup>rd</sup> Floor, Vijay Krishna Plaza, No.1, Lake Area, Melur Main Road, Mattuthavani, Madurai-625 107  
दूरभाष / Tele : +91-452-258 8999 वेब / Website : www.nhai.gov.in ई-मेल / E-mail : romadurai@nhai.org



NHAI/15018/4.7/09/2023/RO Madurai/E:220038/1747

23<sup>rd</sup> September, 2023

**INVITATION OF PUBLIC COMMENTS**

**विषय: भाराराप्रा - क्षे.का. मदुरै- पकाई, तूतीकोरिन - Four laning of Tuticorin-Tirunelveli Section from Km 0/000 to Km 47/250 of NH 7A (new NH138) in the state of Tamilnadu - Proposal for laying of steel pipe of 12" Dia, 125mm MDPE pipe & 89mm HDPE pipe for Optical fiber cables networks along the road from Km.06+000 to Km.47.000 and crossing at Km.25/010 as a part of city Gas Distribution Project in Thoothukudi District - Proposal submitted by M/s. Indian Oil Corporation Limited-Invitation of Public Comments - Reg.**

**प्रसंग:** PD, Tuticorin Lr.No-11015/32/NH-138/OFC/IOCL/2023/956 dated 30.08.2023.

The proposal received from PD, Tuticorin vide Lr. No- 11015/32/NH-138/OFC/IOCL/2023/956 dated 30.08.2023 there by requesting permission for laying of gas pipe line along the road from Km.06+000 to Km.47.000 and crossing at Km.25/010 in the state of Tamil Nadu as proposed by Senior Manager (CGD), SRPL Thoothudi.

Accordingly, as per Policy Guidelines issued by Ministry vide letter No. RW/NH-33044/29/2015/S&R(R) dated 22.11.2016, the application is being uploaded on public domain for 30 days for seeking claims and objections (on grounds of public inconvenience, safety and general public interest).

In view of the above, comments of the public on the above proposal is invited to the below mentioned address:

Regional Officer,  
National Highways Authority of India,  
No.2nd & 3rd Floor, Vijay Krishna Plaza,  
No.1, Lake Area, Melur Main Road, Mattuthavani,  
Madurai - 625 007.

भवदीय  
महेन्द्र मीना  
23.09.23  
महेन्द्र मीना | Mahendra Meena  
उप प्रबंधक (तक) | Dy. Mgr (Tech)

**संलग्न:** As above

**प्रतिलिपि:**

1. The NIC, New Delhi - for uploading in the Ministry's website.
2. The PD, Tuticorin- for information.

## List of Correspondences

Receipt No. / Issue No.	Subject	Type	Marked As	Attached On	Issued On	Pages	Remarks
E 767062/2023/PIU - TUTICORIN	Proposal for laying of steel pipe of 12” Dia, 125mm MDPE pipe & 89mm HDPE pipe for Optical fiber cables networks along the road from Km.06+000 to.Km.47.000 as a part of city Gas Distribution Project in Thoothukudi District - Proposal submitted by M/s. Indian Oil Corporation Limited - Approval Requested -Reg.	Receipt		02/09/2023 11:40 AM		1-89	for reference



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

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

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

नं : 2/273, पहला तल, पी.एस.पी.नगर, दूसरा स्ट्रीट, कोरम्पल्लम, तूत्तुकुडि - 628 101.

No: 2/273, 1st Floor, P.S.P. Nagar, 2nd Street, Korampallam, Tuticorin - 628 101.



दूरभाष / Tele : +91461-2340968

वेब / Website : www.nhai.gov.in

ई-मेल / E-mail : plututynhai@gmail.com  
tuticorin@nhai.org

11015/32/NH-138/OFC/IOCL/2023/956

30.08.2023

To,

The Regional Officer,  
National Highways Authority of India,  
2<sup>nd</sup> & 3<sup>rd</sup> Floor, Vijay Krishna Plaza,  
No.1, Lake Area, Melur Main Road,  
Mattuthavani, Madurai - 625 107.

**Sub:** NHAI-PIU-TUTICORIN – Four laning of Tuticorin-Tirunelveli Section from Km 0/000 to Km 47/250 of NH 7A (new NH138) in the state of Tamilnadu – **Proposal for laying of steel pipe of 12" Dia, 125mm MDPE pipe & 89mm HDPE pipe for Optical fiber cables networks along the road from Km.06+000 to Km.47.000 as a part of city Gas Distribution Project in Thoothukudi District - Proposal submitted by M/s. Indian Oil Corporation Limited - Approval Requested -Reg.**

**Ref:** M/s.Indian Oil Corporation Limited Lr SRPL/TUTI/CGD/NHAI/220 Dated:25.07.2023  
**Sir,**

The Senior Manager (CGD), M/s.Indian Oil Corporation Limited, Madurai submitted proposal vide reference cited above seeking permission for laying of City Gas Distribution (CGD) Pipe line along the road from Km.06+000 to Km.47.000 (RHS) and across at km. 25/010 for a total length of 41050m in Tuticorin – Tirunelveli Section of NH-138 has been submitted to this office.

2. The proposed site has been inspected by the undersigned and examined as per Ministry's Circular No. RW/NH 33044/27/2005/S&R @ pt. dt. 06.08.2013 and RW-NH/33024/29/2015/S&R@ dated 22.11.2016 other circulars and the following point are submitted:-

- The proposed 125mm dia MDPE pipeline and 89mm HDPE pipeline shall be laid at the edge of ROW from Km.06+000 to Km.47.000 of Tuticorin – Tirunelveli Section.
- Free flow of traffic on NH38 should be maintained while carrying out the work.
- In case of improper restoration after laying, BG shall be forfeited.
- All the existing utilities are to be checked and verified by applicant before commencement of the work and ensure that no damage is caused to the existing utilities during of all other department (TNEB, TWAD Board, Corporation etc.,).
- No digging of the carriageway will be allowed and working pits, if any, shall be made outside the Carriageway.
- While carrying out the works, all the safety precautions should be taken without affecting the ongoing traffic.
- The applicant shall inform NHAI before starting of erection work.

**Corporate Office:**

G-5 & 6, Sector-10, Dwarka, New Delhi - 110 075.

Tel : 011-2507 4100 / 2507 4200

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**Regional Office:**

2nd & 3rd Floor, Vijay Krishna Plaza, No.1, Lake Area,

Melur Main Road, Mattuthavani, Madurai - 625 107.

PH: +91 432-2568999 E-mail: romadurai@nhai.org

*[Signature]*

04:05 PM

- viii. If any future expansion of the project to 6-lane, then the applicant shall be responsible for shifting the Pipe lines at their own cost within the time limit setting NHAI.
- ix. The bank guarantee and license deed shall be obtained from the applicant at the time of execution of agreement.
- x. If any NHAI property is damaged during execution of work (i.e. Sign Boards, plantation, ROW pillars), the same has to be restored to original condition at the applicant cost.
- xi. The avenue plantations, rain water harvesting system and boundary stones are not disturbed. Damages if any caused, shall be got rectified by the applicant.
- xii. NHAI has every right to cancel the permission given, without assigning any reason.
- xiii. The applicant shall shift the OFC at an alternate location whenever NHAI make a request for the shifting of the same within 90 days from the receipt for which a fresh undertaking may also be obtained in stamp paper.
- xiv. Wherever the live trees involved in the laying work of Pipeline and to be cut down only after obtaining permission from the Competent Authority and valuation report from the forest department the trees to be cut in the presence of NHAI Officials / consultant.
- xv. The ROW available throughout the length as per records is 45m and therefore the pipeline / utilities are to be laid strictly at a distance of 21.50m from the centre of the road. In case of limited ROW due to encroachment at some location the same shall be removed by the applicant at their own cost to lay the pipeline in open trenching at a distance of 21.50m from centre of road.
- xvi. The laying gas pipeline along and across the road in the Tuticorin – Tirunelveli Section of NH 138 as per the method detailed under:

**Total Length along the road km.06.000 to 47.000 (RHS) = 41000m (by Trench method)**  
**Total Length across the road at km 25/010 = 45m (by HDD method)**

3. The applicant has proposed laying of gas pipeline along the road from km. 06+000 to km. 47+000 (RHS) and across at km.25/010 for a total length of 41045m with dia of pipe indicated therein:

SN	From (Km)	To (Km)	Length in meter	side	Dia of the pipe	Laying of Methodology
1	06+000	47+000	41000	RHS	125mm	Open trench
2	25+010	25+010	45	BHS	114.3mm	HDD

4. NHAI shall not levy any charges from IOCL and its agencies for laying new gas/ petroleum pipelines along and across National Highways in National Highways ROW in terms of para. (III) (2) (b) of Memorandum of Understanding entered between Indian Oil Corporation and National Highways Authority of India on 07.06.2022. Hence a license fee has not been levied.

5. For laying of pipeline the amount of performance BG has been calculated in line with the MORT&H policy guidelines dt.22.11.2016 as detailed below:



Total area of land to be utilized (Route meter) = 41050Rm.

<= 300mm dia – Rs.100/-

Rate of performance BG Amount  
(41050\*100)

= Rs.100/-

= Rs.41,05,000/-

Crossing per km. Rs.1,00,000/-

Crossing at km.21+010

=Rs. 1,00,000/-

Total

= Rs. 42,05,000/-

6. Performance BG towards restoration charges for **Rs.42,05,000/-** as per Ministry Circular shall be furnished by the applicant and the confirmation of BG shall also be obtained from the respective branch as per NHAI guidelines before entering into the agreement.

In View of the above, the proposal submitted Senior Manager (CGD), M/s.Indian Oil Corporation Limited, Madurai vide reference above seeking permission for laying of City Gas Distribution (CGD) Pipe line along the road from Km.06+000 to.Km.47.000 (RHS) and across at km. 25/010 for a total length of 41050m in Tuticorin – Tirunelveli Section of NH-138 may be considered for according in – Principle approval.

**With regards,**

**Enclosure:** 3 No's of Proposals and reference.



(Y.A.RAUT)

**PROJECT DIRECTOR,**



इंडियन ऑयल कॉर्पोरेशन लिमिटेड

दक्षिणी क्षेत्र पाइपलाइन्स

सिटी गैस वितरण परियोजना

प्रथम तल (दक्षिण), जे जे सेंटर,

4/7/5, एट्टयपुरम रोड, तूतुकुडि - 628 002, टीएन

फोन : 0461-2355919

Indian Oil Corporation Limited

Southern Region Pipelines

City Gas Distribution Project

1st Floor (South) J.J. Centre,

4/7/5, Ettayapuram Road, Tuticorin - 628 002. TN.

Phone : 0461-2355919 , Website : www.iocl.com



IndianOil

11015/32/NH-138/OFC/IOCL/2023

पाइपलाइन्स प्रभाग

Pipelines Division

SRPL/TUTI/CGD/NHAI/220

To

The Project Director

Project Implementation Unit

National Highways Authority of India

Thoothukudi



21.07.2023

Approved for the  
NHAI, PIU, TUTI  
21/07/23

Subject: Application seeking permission for laying of steel pipe of 12"Dia, 125mm MDPE pipe & 89mm HDPE pipe for Optical Fiber Cables networks along NH-138 as a part of City Gas Distribution project in Thoothukudi District

Respected Sir,

Indian Oil Corporation Limited (IOCL), a Government of India (GoI) undertaking corporation has been authorized by Petroleum and Natural Gas Regulatory Board (PNGRB) vide PNGRB/Auth/CGD (64)/2021/11.50 dated 23.03.2022 for laying, building, operating and expanding City Gas Distribution network and Compressed Natural Gas (CNG) outlets in authorized Geographical area of Thoothukudi comprising Thoothukudi, Tirunelveli, Tenkasi and Kanyakumari districts.

As a part of this project, IOCL is in process of establishing Gas pipeline network along the Highways and roads within the city and between cities in the Geographical area to establish domestic connections for households, industries and CNG stations for transport sector.

The proposed pipeline is planned in NH-138 from District Collector Office Bridge (Ch.6/000 km) to KTC Nagar, Tirunelveli (Ch.47/000 km) towards Tirunelveli City for a length of around 41km. The proposed gas pipeline shall be laid through open cut methodology and Trenchless technique across crossings as per the standards/procedures recommended by Petroleum and Natural Gas Regulatory Board (PNGRB) without causing any traffic disruption & inconvenience to public at large.

5 copies of the following documents (3 sets of original and 2 sets of photocopies) are enclosed & uploaded along with this application for your perusal.

1. Drawing showing the proposed Steel Pipe route along NH-138. (Annexure-A)
2. Checklist (Annexure-B)
3. Agreement (Annexure-C)
4. Undertaking 1 (Annexure-D)
5. Undertaking 2 (Annexure-E)
6. Certificate (Annexure-F)
7. Indemnity bond (Annexure-G)

Considering the ever expanding IOCL pipeline network and National Highways of NHAI, interfacing of these two structures at many locations is unavoidable.



पंजीकृत कार्यालय : इंडियन ऑयल भवन, जी-9, अली यावर जंग मार्ग, बान्द्रा (पूर्व), मुम्बई - 400 051. महाराष्ट्र (भारत)

Regd. Office : Indian Oil Bhavan, G-9, Ali Yavar Jung Marg, Bandra (East) Mumbai - 400 051. Maharashtra (India)

In this regard, a Memorandum of Understanding (MoU) dated 08.06.2022 has been signed between National Highways Authority of India (NHAI) and Indian Oil Corporation Limited (IOCL) incorporating framework for crossing permissions, optimization of the expenditure on the crossings and bringing about uniformity in issuing permissions to either of parties(NHAI and IOCL) at crossing locations. Copy of MoU is attached as **Annexure-H**.

As the project is in public interest and beneficial to environment and citizens of Thoothukudi district at large, IOCL request you to provide kind support and grant us permission in line with the MoU dated 08.06.2022 for laying Natural Gas pipeline as above at the earliest.

Thanking you,



*[Handwritten signature]*  
21/07/2023  
Ranjith Kumar N  
Senior Manager(CGD),  
SRPL Thoothukudi

# **INDIAN OIL CORPORATION LTD**

***Application seeking permission  
for laying of steel pipe of  
12"Dia, 125mm MDPE pipe &  
89mm HDPE pipe for Optical  
Fiber Cables networks along  
NH-138 as a part of City Gas  
Distribution project in  
Thoothukudi & Tirunelveli  
Districts***



**CHECK – LIST**

Guidelines for Project Directors for processing the proposal of laying 12.75" Carbon Steel Natural gas pipeline along with 125mm MDPE and 89mm HDPE pipes for OFC by IOCL Pipelines division in the land along National Highway NH-138 vested with NHAI.

- Relevant circulars**

1) MoRTH Circular No: RW/NH-33044/29/2015/S&R(R) Dated: 22-11-2016

**Check list for getting approval for laying of 12.75" Carbon steel Natural Gas Pipelines along with 125mm MDPE and 89mm HDPE pipes for OFC on NHAI land**

Sl. No.	Item	Information/ Status	Remarks
<b>1</b>	<b>General Information</b>		
1.1	Name and Address of the Applicant	Sh. Ranjith Kumar N Senior Manager (CGD) Indian Oil Corporation Limited, Southern Region Pipelines, City Gas Distribution(CGD) Project Office 1st Floor, JJ Center, No. 4/7/5, Ettayapuram Road, Sankaraperi Village, Thoothukudi – 628002.	Authoriz ation attached
1.2	National Highway Number	NH-138	
1.3	State	Tamilnadu	
1.4	Location	Thoothukudi District Collector Office Bridge to Tirunelveli KTC Nagar	
1.5	(Chainage in km)	Increasing Chainage from KM 6/000 to KM 47/000	
1.6	Length in Meters	41000	
1.7	Width of available ROW		
	(a) Left side from center line towards increasing Chainage/ km direction	22.5 M	
	(b) Right side from center line towards increasing chainage/ km direction	22.5 M	
1.8	Proposal to lay underground Gas Pipeline along with OFC		
	(a) Left side from center line towards increasing chainage/ km direction	NA	
	(b) Right side from center line towards increasing chainage/ km direction	Increasing Chainage from KM 6/000 to KM 47/000	
1.9	Proposal to acquire land		
	(a) Left side from center line	NA	
	(b) Right side from center line	NA	

Senior Manager  
IOCL CGD Thoothukudi

**रंजीत कुमार एन / RANJITH KUMAR N**  
कनिष्ठ प्रबंधक (सीजीडी) / Senior Manager (CGD)  
**इंडियन ऑयल कॉर्पोरेशन लिमिटेड**  
**Indian Oil Corporation Limited**  
Southern Region Pipelines  
City Gas Distribution Project,  
1st Floor (South) J.J. Centre,  
4/7/5, Ettayapuram Road, Tuticorin - 628002. TN.


**Y.A. RAUT**  
Project Director  
NHAI, PIU - Tuticorin  
Project Director  
NHAI, Thoothukudi



Sl. No.	Item	Information/ Status	Remarks
1.10	Whether proposal is in the same side where land is not to be acquired	Yes	
	If not then where to lay the Pipeline	NA	
1.11	Details of already laid services, if any, along the proposed route	Water Pipeline OFC Cable	
1.12	Number of lanes (2/4 / 6/8 lanes) existing	4 Lanes	
1.13	Proposed Number of lanes (2 lane with paved shoulders/4 / 6/8 lanes)	NA	
1.14	Service road existing or not	YES	
	If yes then which side		
	(a) Left side from center line	Yes (Shown in Strip Plan)	
	(b) Right side from center line	Yes (Shown in Strip Plan)	
1.15	Proposed Service road	NA	
	(a) Left side from center line	NA	
	(b) Right side from center line	NA	
1.16	Whether proposal to lay pipe is after the service road or between the service road and main carriageway	It is proposed to lay the pipeline after the service road and in the space available between the Road edge and the edge of ROW.	RHS
1.17	Whether carrying of sewage/gas pipeline has be proposed on highway bridge If "Yes", then mention the methodology proposed for the same.	NA	
1.18	Whether carrying of sewage/gas pipeline has been proposed on the parapet/any part of the bridge. If "Yes", then the methodology proposed for the same.	NA	
1.19	If crossing of the road involved If "Yes", then it shall be encased in pipes or through the structure or conduit specially built for that purpose at the expenses of agency owning the line.	Yes, 114.3mm OD pipe along with 89mm M.S conduit crossing NH-138 at Ch 25/010 km through horizontal directional drilling (HDD) Technique.	
	a)whether existing structure allowed to carry sewage/gas pipeline	NA	
	b) It is in the line normal to NHAI	YES	
	c) What is the distance of crossing the sewage/gas pipeline from the existing structure Crossing should not be too near to existing structure on National Highway, the minimum distance should be 15 meters	100 meters	
	d) The casing pipe (or conduit pipe in the case of electric cable) carrying the utility line shall steel, cast iron or reinforce cement concrete and having adequate strength and be large enough to permit ready withdrawal of carrier pipe/cable. Mention type of casing	MS conduit shall be used for OFC Cable.	


**रंजित कुमार एन / RANJITH KUMAR N**  
 Senior Manager (CGD) / Senior Manager (CGD)  
 इंडियन ऑयल कॉर्पोरेशन लिमिटेड  
**Indian Oil Corporation Limited**  
 Southern Region Pipelines  
 Gas Distribution Project,  
 1st Floor (South) J.J. Centre,  
 Anna Nagar Road, Tuticorin - 628 002. TN.

Senior Manager  
 IOCL CGD Thoothukudi

  
**Y.A. RAUT**  
 Project Director  
 NHAI, PIU - Tuticorin  
 Project Director  
 NHAI, Thoothukudi

Sl. No.	Item	Information/ Status	Remarks
	e) End of the casing/conduit shall be sealed from the outside, so that it does not act as drainage path	Noted for compliance	
	f) The casing/conduit should, as minimum extended minimum drain to drain curs and toes of slope in the fills	Noted for compliance	
	g) The top of the casing/conduit should be at least 1.2 meters below the surface of the road subject to being at least 0.3meter below the drain invert. Mention the proposed details	Not applicable	
	h) Mention the methodology for crossing of road for the proposed sewage/gas pipeline. Crossing shall be by boring machine (HDD)[TRENCHLESS TECHNOLOGY], specially, where the existing road pavement is of cement concrete or dense bitumen concrete type.	Through HDD Technique	
	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 waterway along it	Not applicable, as crossing will be executed through HDD Technique	
2	Document / Drawings enclosed with the proposal	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) a) Should not be greater than 60cm wider than the outer diameter of pipe b) Located as close to the extreme edge of the ROW as possible but not less than 15 meter from the centre lines of the nearest carriage way c) Shall not be permitted to run along the national highway when the road formation is situated in double cutting, nor shall be laid over existing culverts and bridge d) It should be laid so that their top is at least 0.6 meter below the ground level so as the obstruct of the road land.	Underground pipe trench cross section showing steel, MDPE and HDPE pipes is attached. a) Noted & Complied b) It is proposed to lay the underground gas pipeline in the 2 mtr corridor from the edge of NHAI ROW. c) Noted & Complied. d) Minimum 1.2 mtr Pipe cover is proposed	
2.2	Cross section showing the size of pit and location of cable for HDD method	Enclosed	
2.3	Strip plan/ Route Plan showing the natural gas pipeline, Chainage, width of ROW, distance of proposed, cable from the edge of ROW, important mile stone, intersections, cross drainage works etc.	Enclosed	
2.4	Methodology for laying of pipe		

  
**रंजित कुमार एन / RANJITH KUMAR N**  
 ज्योतिष प्रबन्धक (सीजीडी) / Senior Manager (CGD)  
 इंडियन ऑयल कॉर्पोरेशन लिमिटेड  
**Indian Oil Corporation Limited**  
 Southern Region Pipelines  
 Gas Distribution Project,  
 1st Floor (South) J.J. Centre,  
 4/7B, Ettayapuram Road, Tuticorin - 628 002. TN.

Senior Manager

IOCL CGD Thoothukudi

  
**Y.A. RAUT**  
 Project Director  
 NHAI, PIU - Tuticorin  
 Project Director  
 NHAI, Thoothukudi



Sl. No.	Item	Information/ Status	Remarks
2.4.1	Open trenching method. (May be allowed in utility corridor only where pavement is neither cement concrete nor dense bituminous concrete type.) If Yes, what is the methodology of refilling of trench.	Excavate the area 1.6m (Depth) x 1.0m(Width), place the pipe inside and refill the trench with the excavated soil in layers not exceeding 150mm and compaction will be done	
	a) The trench width should be at least 30cm, but not more than 60cm wider than outer diameter of the pipe.	Yes, noted for compliance	
	b) For the filling of the trench, bedding shall be to a depth of not less than 60cm. 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 be excavated and replace by selected material	Yes, noted for compliance	
	c) The backfill shall be completed in two stages 1.sidefill to the level of the top of the pipe and overall to the bottom of the road crust.	Yes, noted for compliance	
	d) The side fill shall consist of granular material laid in 15cm layer each consolidated by mechanical tampering and controlled addition to moisture to 95% of the proctor's density. Overfill shall be compacted to the same density as material has been removed. Consolidation by saturation or pounding will not be permitted.	Yes, noted for compliance	
	e) The road crust shall be built to the same strength as existing crunch of either side of the trench. Care shall be taken to avoid formation of dip at trench.	Yes, noted for compliance	
	f) The excavation shall be protected by flagman, signs and barricades, and red light during night hours.	Noted for compliance	
	g) If required, diversion shall be constructed at the expenses of agency owing utility line.	Noted for compliance	
2.4.2	Horizontal Directional Drilling (HDD) Method	Total 45 m (approx) for crossing NH138 (Old NH7A) at Ch 25/010 KM . Cross Section drawing attached.	
2.4.3	Laying Natural gas pipeline through CD works and method of laying. In case where the carrying of natural gas pipeline on bridge becomes inescapable.	NA	
3	Draft License Agreement signed by two witnesses	Enclosed	
4	Performance Bank guarantee in favor of NHAI has to be obtained at Rs.100/- per running meter (parallel to NH) and Rs. 1, 00,000/-per crossing of NH, for period of one year initially (extendable if require till satisfactory completion of work) as a security for ensuring/making good excavated trench for laying	Security amount to be deposited in the form of Performance BG is calculated as per MoRT&H policy guidelines dt/.22.11.2016 and attached herewith.	

  
**रंजित कुमार एन / RANJITH KUMAR N**  
 सचिव प्रबंधक (सीजीडी) / Senior Manager (CGD)  
 इंडियन ऑयल कॉर्पोरेशन लिमिटेड  
**Indian Oil Corporation Limited**  
 Southern Region Pipelines  
 City Gas Distribution Project,  
 1st Floor (South) J.J.Centre,  
 17B, Panvel Road, Tuticorin - 629 002, TN.

Senior Manager  
IOCL CGD Thoothukudi

  
**Y.A. RAUT**  
 Project Director  
**NHAI, PIU - Tuticorin**  
 Project Director  
 NHAI, Thoothukudi

Sl. No.	Item	Information/ Status	Remarks
	gas pipeline/duct filling and compaction, clearing debris/loose earth produced due to execution of trenching at least 50m away from the edge of ROW. No payment shall be payable by NHAI to the licensee for clearing debris/loose earth. Performance BG as per above is to be obtained.		
4.1	Confirmation of BG has been obtained as per NH guidelines	Noted for compliance	
5	Affidavit / Undertaking from the Applicant for the following is to be furnished		
5.1	Not to Damage to other utility, if damaged then to pay the losses either to NH or to the concerned agency	Undertaking enclosed	
5.2	Renewal of Bank Guarantee	Undertaking enclosed	
5.3	Confirming all standard condition of NH's guideline and ministry circular	Undertaking enclosed	
5.4	Shifting of Natural gas pipeline as and when required by NHAI	Undertaking enclosed	
5.5	Shifting of Natural gas pipeline due to 6 lanning / widening of NHAI	Undertaking enclosed	
5.6	Indemnity against all damages and claims clause (xxiv)	Undertaking enclosed	
5.7	Traffic movement during laying of Natural gas pipeline to be managed by the applicant.	Undertaking enclosed	
5.8	If any claim is raised by the Concessionaire then the same has to be paid by the applicant	Undertaking enclosed	
5.9	Prior approval of NHAI shall be obtained before taking any work of installation, shifting or repair or alternative to Natural gas pipeline/any other utility located in national Highway ROW	Undertaking enclosed	
5.10	Expenditure, If any, incurred by NHAI for repairing any damage cause to NH by the laying, maintenance or shifting of Natural gas pipeline borne by applicant agency owning the line.	Undertaking enclosed	
5.11	If NHAI consider 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 agency owning utility line.	Undertaking enclosed	
5.12	Certificate from applicant in following format 1. Laying of Natural gas pipeline will not having any deleterious effect on any of the bridge component and roadway safety of traffic. 2. "We do undertake that I/we will relocate service road/approach road/utility at my own cost notwithstanding the permission granted within such time as will be stipulated by "NHAI" for future six laning or any other development work	Enclosed	

  
**रंजित कुमार एन / RANJITH KUMAR N**  
 सचिव प्रबंधक (सीजीडी) / Senior Manager (CGD)  
 इंडियन ऑयल कॉर्पोरेशन लिमिटेड  
 Indian Oil Corporation Limited  
 Southern Region Pipelines  
 City Gas Distribution Project,  
 1st Floor (South) J.J. Centre,  
 4/7/5, Ettayapuram Road, Tuticorin - 620022, TN

Senior Manager  
 IOCL CGD Thoothukudi

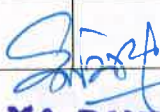
  
**Y.A. RAUT**  
 Project Director  
 NHAI, PIU - Tuticorin  
 Project Director  
 NHAI, Thoothukudi



Sl. No.	Item	Information/ Status	Remarks
6	Who will sign the agreement on behalf of Natural gas pipeline agency	Senior Manager (CGD) Thoothukudi	
	Power of Attorney to sign the agreement is available or not.	Yes, enclosed	
7.1	Certificate of conforming all standard condition issued vide Ministry of Road Transport and Highway, Circular no. NHAI-III/P/66/76 DATED 18/19.11.1976, RW/NH-III/P/66/76 DATED 11.05.1982, RW/NH-11037/1/86 DOI (ii) DATED 28.07.1993, RW/NH/34066/2/95/S&R DATED 25.10.1999 and Circular no. RW/NH-34066/7/2003/S&R(B) DATED 17.09.2003	Enclosed	
7.2	Certificate from PD in following format a) "It is certified that any other location of the Natural gas pipeline would be extremely difficult and unreasonably costly and installation of Natural gas pipeline within ROW will not adversely affect the design, stability & traffic safety of the highway nor the likely future improvement such as widening the carriage way, easing the curve etc.  b) For 6-laning  i. Where feasibility is available "I do certify that there will be no hindrance to proposed 6-laning based of feasibility report considering proposed structures at the said location".  ii. In case of feasibility not available " I do certify that sufficient ROW is available at site for accommodating proposed 6-laning"	Yes	
8	If NH section proposed to be taken up by NHAI on BOT basis - a clause in para 17 to be inserted in the agreement. <i>"The permitted Highway on which Licensee has been granted the ROW to the concessionaire under the concession agreement for up-gradation of (.....Section from Km...to Km.....of NH No....On Build, Operate and Transfer Basis) and therefore, the licensee shall honor the same."</i>	Noted for compliance	
9	Who will supervise work of laying Natural gas pipeline?  a) On behalf of applicant  b) On behalf of NHAI	Senior Manager (CGD) Thoothukudi  PD, NHAI, Madurai	
10	Who will ensure that the defects in road portion after laying of Natural gas pipeline are corrected and		

  
**रंजित कुमार एन / RANJITH KUMAR N**  
 सहायक प्रबंधक (सीनियर) / Senior Manager (CGD)  
 इंडियन ऑयल कॉर्पोरेशन लिमिटेड  
**Indian Oil Corporation Limited**  
 Southern Region Pipelines  
 Gas Distribution Project,  
 1st Floor (South) J.J. Centre,  
 4/75, Ettayapuram Road, Tuticorin - 628 002. TN.

Senior Manager  
IOCL CGD Thoothukudi

  
**Y.A. RAUT**  
 Project Director  
 NHAI, PIU - Tuticorin  
 Project Director  
 NHAI, Thoothukudi



Sl. No.	Item	Information/ Status	Remarks
	if not corrected then what action will be taken. a) On behalf of applicant b) On behalf of NHAI	Yes Senior Manager (CGD) Thoothukudi PD, NHAI, Madurai	
11	Who will pay the claims for damages done/disruption in working of Concessionaire if asked by the Concessionaire? On behalf of applicant	Senior Manager (CGD) Thoothukudi	
12	A certificate from PD that he will enter the proposed permission in the register of records of the permissions in the prescribed proforma (copy enclosed)	Enclosed	
13	If any previous approval is accorded for laying of Natural gas pipeline then Photocopy of register of records of permissions accorded as maintained by PD (copy enclosed).	Enclosed	

  
**रंजीत कुमार एन / RANJITH KUMAR N**  
 ब्रिज प्रबन्धक (सीरियर) / Senior Manager (CGD)  
 इंडियन ऑयल कॉर्पोरेशन लिमिटेड  
**Indian Oil Corporation Limited**  
 Southern Region Pipelines  
 Gas Distribution Project,  
 1st Floor (South) J.J. Centre,  
 4/7/5, Pottayampuram Road, Tuticorin - 628 002, TN.

Senior Manager  
IOCL CGD Thoothukudi

  
**Y.A. RAUT**  
 Project Director  
 NHAI, PIU - Tuticorin

Project Director  
NHAI, Thoothukudi



## इंडियन ऑयल कॉर्पोरेशन लिमिटेड

दक्षिणी क्षेत्र पाइपलाइन्स

हाउस ऑफ फोर फ्रेम्स

6/13, व्हीट क्रॉफ्ट रोड, नुंगम्बाक्कम, चैन्नै - 600 034

दूरभाष : 044-2824 3129 / 3144

Indian Oil Corporation Limited

Southern Region Pipelines

House of Four Frames

6/13, Wheat Croft Road,

Nungambakkam, Chennai - 600 034.

Tel : 044-2824 3129 / 3144



IndianOil

पाइपलाइन्स प्रभाग  
Pipelines Division

SRPL/CONST/GEN

11.07.2023

TO WHOMSOEVER IT MAY CONCERN

## Sub: Authorized Signatory

This is to certify that Mr. N Ranjith Kumar, **Senior Manager (CGD)**, GA In-charge, Tuticorin, Southern Region Pipelines, is authorized on behalf of Indian Oil Corporation Ltd., Southern Region Pipelines for signing of agreements, lease deeds, applications etc related to land, crossing permissions, renting of space and statutory clearances for City Gas Distribution at Tuticorin.

Specimen Signature:

N Ranjith Kumar

Senior Manager (CGD)

(Shailesh Tiwari)

Executive Director

Southern Region Pipelines, Chennai





தமிழ்நாடு தமிழ்நாடு TAMILNADU

Indian Oil Corporation

DB 153959

J. நமோஸ் உயிரகாரம் (S.V)  
LIC No: 39/1997, தூத்துக்குடி

**AGREEMENT REGARDING GRANTING RIGHT OF WAY PERMISSIONS FOR LAYING 2023  
OF UTILITY SERVICES ON NATIONAL HIGHWAYS AUTHORITY OF INDIA**

Agreement to lay Underground Steel, MDPE and HDPE pipe along with OFC National Highway--NH -138 from Chainage KM 6/000 to KM 47/000 (RHS) for Indian Oil Corporation Limited, Southern Region Pipelines Thoothukudi City Gas Distribution project, by Open Cut method and HDD Technique wherever applicable.

AN AGREEMENT made this..... day of.....month of.....  
Between the NATIONAL HIGHWAYS AUTHORITY OF INDIA (hereinafter called the "Authority" which expression shall, unless excluded by or repugnant to the context, include his successors in office and assigns of the one part and INDIAN OIL CORPORATION LIMITED, SOUTHERN REGION PIPELINES, THOOTHUKUDI (hereinafter called the 'Licensee' which expression shall, unless excluded by or repugnant to the context, include his successors/ administrator assignees on the second Part.

WHEREAS, the Authority is responsible, inter-alia, for development and maintenance of lands in increasing Chainage KM 6/000 to KM 47/000 (RHS).

WHEREAS, the licensee proposes to lay 12.75"Steel & 125mm MDPE and 89mm HDPE Pipelines along with OFC cable referred to as utility services in subsequent paras. Whereas the licensee has applied to the Authority for permission to lay utility services along NH-138 highway Chainage KM 6/000 to 47/000 (RHS) for City gas distribution (CGD) project.

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

*(Signature)*  
Indian Oil Corporation Limited  
Southern Region Pipelines  
City Gas Distribution Project,  
1st Floor (South) J.J. Centre,  
Tuticorin, Tamil Nadu, India



Now this Agreement witness 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 (underground Natural gas steel pipeline for City gas distribution network) 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 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 and 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 side of the utilities laid by the first user subject to technical requirements being fulfilled. Decision of the Authority in relation to fulfillment 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 \_\_\_\_\_/sqm/Month to the Authority. The license fee shall become payable from the date of handing over of RoW land 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 separate agreement regime.
5. Fee shall have to be paid in advance for the period for which permission is granted for entering in to 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 2.00m 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 carriage way, 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 structures, rivers, etc below the Road. In case this is not feasible, the utility services may be carried outside the

*P.M.F.*  
**Indian Oil Corporation Limited**  
 Southern Region Pipelines  
 City Gas Distribution Project  
 1st Floor (South) J.J. Centre,  
 47/5, Ettayapuram Road, Tuticorin - 628 002, TN

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 case where RoW is restricted the utility services can be allowed beneath the carriage way of the service road if available, subject to the condition that the utility services be laid in concrete ducts, which shall be designed to carry traffic on top. The width of the duct shall not be less than one lane. In such cases, it is also needs to ensure the maintenance of the utility services shall not interfere with the safe and smooth flow of traffic. The cost of operation and maintenance will have to be borne by the Licensee.
10. It is to be ensured that at no time there is interference with 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 National Highways wither through structure or conduits specially built for that purpose. The casing/ conduit pipe should, as minimum extend from drain to drain in cuts and toe of slope to toe of slope in the fills and shall be designed in accordance with the provision of IRC and executed following the specifications of 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 subgrade or the existing ground level whichever is lower subject to being at least 0.3m below the drain inverts. A typical sketch showing the clearances is given in the attachment-I.
14. The utility services shall cross the National Highway preferable on a line normal to it or as nearly 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 30cm but not more than 60cms wider than the outer diameter of pipe. Filling of the trench shall conform to the specifications contained herein 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 (1) side fill to the level of the top of the pipe (2) overfill to the bottom of the road crust.

N. A. F. L.  
 रोजित कुमार शर्मा / RANJITH KUMAR S  
 इंडियन ऑयल कॉर्पोरेशन लिमिटेड  
 Indian Oil Corporation Limited  
 Southern Region Pipelines  
 City Gas Distribution Project,  
 CHENNAI (South) J.J. Centre  
 47/15, Ettayapuram Road, Tuticorin - 620 002



- 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 Proctor density. Overall shall be compacted to the same density as a material that has 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 the 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 50m away from the edge of the right of way
  18. All required restoration work subsequent to laying of the cable shall be required to be undertaken by the licensee at its cost either by itself or through its authorized representative in consultation with the authority as per predetermined time schedule and quality standards.
  19. Prior to commencement of any work on the ground a performance bank guarantee @Rs. -----per route metre/ Rs.----- Per Sq.m 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 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 service within 90days (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 conditions at his own cost and risk.
  22. The Licensee shall be responsible to ascertain from the respective agency in coordination 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/ facilities etc.

N.H.F.  
 रजित कुमार एन / RANJITH KUMAR N  
 सিনিअर मैनेजर (सीजीडी) / Senior Manager (CGD)  
 इंडियन ऑयल कॉर्पोरेशन लिमिटेड  
 Indian Oil Corporation Limited  
 Southern Region Pipelines  
 City Gas Distribution Project,  
 1st Floor (South) J.I. Centre,  
 47/5, Ettayapuram Road, Tuticorin - 628 002, TN.

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 coordination 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 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 15day 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 concern agency in coordination 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 default exits. 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 coordination with the

RANJITH KUMAR EN / RANJITH KUMAR N  
 Senior Manager (COO)  
 Indian Oil Corporation Limited  
 Southern Region Pipelines  
 City Gas Distribution Project,  
 1st Floor (South) J.I. Centre,  
 Tuticorin, Tamil Nadu 620005



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 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 the utilities (hard and soft copies) with geo-tagged photographs and geo-tagged video recordings of laying of cables in the trench (with respect to 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 the 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 coordination with the Authority has been obtained. Notwithstanding anything contained herein, this agreement may be cancelled at any time by the Authority for the breach of any condition of the same and the Licensee shall neither be entitled to any compensation for any loss caused to it by such cancellation nor shall it be absolved from any liability already incurred.
38. The Licensee shall ensure adherence to relevant Indian Standards and follow the 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
- Operation, repair and maintenance guidelines given by the manufacturers,
  - The requirements of Law
  - The physical conditions at the site and
  - 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 the Licensee.

**MAHENDRA MEENA** / **MAHENDRA KUMAR N**  
 ज्येष्ठ प्रमुख (सीईई) / Senior Manager (CGD)  
**इंडियन ऑयल कॉर्पोरेशन लिमिटेड**  
**Indian Oil Corporation Limited**  
 Southern Region Pipelines  
 City Gas Distribution Project,  
 MAHENDRA MEENA, Jd. Center  
 47/5, Ettayapuram Road, Tuticorin - 628 002, TN.



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 the 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 loss incurred by the respective project concessionaries 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 concessionaries. 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 on a stamp paper, Each party to this agreement has retained one stamped copy each.

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

SIGNED SEALED AND DELIVERED FOR ON BEHALF OF AUTHORITY.

BY SHRI \_\_\_\_\_

SIGNED ON BEHALF OF M/s INDIA OIL CORPORATION LIMITED (LICENSEE)

BY SHRI \_\_\_\_\_

**रंजीत कुमार एन / RANJITH KUMAR N**  
 सचिव प्रबंधक (सीजीडी) / Senior Manager (CGD)  
**इंडियन ऑयल कॉर्पोरेशन लिमिटेड**  
**Indian Oil Corporation Limited**  
 Southern Region Pipelines  
 City Gas Distribution Project,  
 1st Floor (South) J.J. Centre,  
 45/45, Bayanuram Road, Tuticorin - 628 002. TN.

HOLDER OF GENERAL POWER OF ATTORNEY DATED \_\_\_\_\_

EXECUTED IN ACCORDANCE WITH RESOLUTION NO. \_\_\_\_\_ DATED

PASSED BY THE BOARD OF DIRECTORS IN THE MEETING HELD ON \_\_\_\_\_

IN THE PRESENCE OF (WITNESS):

1.

2.



தமிழ்நாடு தமில்நாடு TAMILNADU

Indian Oil Corporation

DB 153952

J. நமசிவாய் குமாரம் (S.V)  
LIC No: 39/1997, தூத்துக்குடி

நாள்: 24 JUL 2023

**UNDERTAKING FOR LAYING OF UNDERGROUND STEEL AND MDPE PIPELINES ALONG NATIONAL HIGHWAY – NH -138 INCREASING CHAINAGE KM 6/000 to KM 47/000 (RHS) FOR INDIAN OIL CORPORATION LIMITED, CITY GAS DISTRIBUTION PROJECT, SOUTHERN REGION PIPELINES, THOOTHUKUDI**

1. Indian Oil Corporation Limited, Pipelines Division, City Gas Distribution, Thoothukudi shall be responsible for safety of all other underground facilities, such as electric lines, pipe of water supply and gas sewage lines etc., during trenching.
2. The Indian Oil Corporation Limited, Pipelines Division, City Gas Distribution, Thoothukudi shall inform the concerned officer of NHAI appointed at least 15 days in advance before starting of work.
3. The Indian Oil Corporation Limited, Pipelines Division, City Gas Distribution, Thoothukudi shall not, without the prior permission in writing to the concerned officer of NHAI undertake any work of shifting, repairs or alternations to the laid Indian Oil Corporation Limited, Pipelines Division, City Gas Distribution, Madurai.
4. NHAI shall not be responsible for any damage caused to the underground CGD pipeline or by any activity of NHAI on the permitted highway. The parties are agreed that the Indian Oil Corporation Limited, Pipelines Division, City Gas Distribution,

MAHENDRA MEENA D.V. MGR (RO, MADURAI)  
Indian Oil Corporation Limited  
Southern Region Pipelines  
City Gas Distribution Project



Thoothukudi is laying underground CGD Natural Gas pipeline across the permitted highway at its own cost.

5. The Indian Oil Corporation Limited, Pipelines Division, City Gas Distribution, Thoothukudi shall make good excavated trench for laying underground CGD Natural Gas pipeline by proper filling and compaction, so as to restore the land in the same condition as it was before digging trench and shall clear the debris /loose earth produced from the execution of trenching to the satisfaction of NHAI.
6. In any accident occurs during the execution or completion of work by the agency, the complete responsibility will be fully on the head or agency.
7. The Indian Oil Corporation Limited, Pipelines Division, City Gas Distribution, Thoothukudi agrees to abide by the directions of the concerned officer of NHAI appointed in accordance with the National Highways act 1956 and rules in force.
8. We do undertake that we will relocate service/ approach road/ utilities at our own cost notwithstanding the permission granter within such times as will be stipulated by NHAI.
9. Indian Oil Corporation Limited, Pipelines Division, City Gas Distribution, Thoothukudi agrees not to damage to other utility. If damages then to pay losses either to NHAI or to the concerned agency.
10. We do indemnity against all damages.
11. We do if any claim is raised by the concessionaire then the same has to be paid by the applicant.
12. We do expenditure, if any incurred by NHAI for repairing any damage caused to the NHAI by the laying, maintenance or shifting of the underground CGD Natural Gas pipeline will be borne by the agency owning the line.
13. Indian Oil Corporation Limited, Pipelines Division, City Gas Distribution, Thoothukudi agrees if the NHAI considers it is 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.
14. Laying of underground CGD Natural Gas pipeline will not have deleterious effects of any of the bridge components and roadway safety for traffic.
15. For 6-laning "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 NHAI for future six laning or any other development".

**रजित कुमार शर्मा / RANJITH KUMAR SHARMA**  
 (Senior Manager, CGD)  
**Indian Oil Corporation Limited**  
 Southern Region Pipelines  
 City Gas Distribution Project,  
 11 EEN, (Dy. MGR, RO, MA)  
 4/75, Ettayapuram Road, Tuticorin - 628 002. TN.



16. All the restoration work will be carried out by Indian Oil Corporation Limited, Southern Region Pipelines, City Gas Distribution, Thoothukudi up to the satisfaction of NHAI.
17. The Licensee shall make his own arrangement for crossing of cross drainage structures, 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.



(Ranjith Kumar N)  
Senior Manager (CGD), Thoothukudi

रंजीत कुमार एन / RANJITH KUMAR N  
बतिष्ठ प्रबन्धक (सी-जी-डी) / Senior Manager (CGD)  
इंडियन ऑयल कॉर्पोरेशन लिमिटेड  
Indian Oil Corporation Limited  
Southern Region Pipelines  
City Gas Distribution Project,  
1st Floor (South) J.J. Centre,  
4/7/5, Ettayapuram Road, Tuticorin - 628 002. TN.



தமிழ்நாடு தமில்நாடு TAMILNADU

Indian Oil Corporation

*[Signature]*

DB 153956

J. ரமேஷ் குமார் (S.M)  
UO No: 39/1997, தூத்துக்குடி

நாள்: 24 JUL 2023

UNDERTAKING FOR LAYING OF UNDERGROUND STEEL AND MDPE  
PIPELINES ALONG NATIONAL HIGHWAY - NH -138 INCREASING CHAINAGE  
KM 6/000 to KM 47/000 (RHS) FOR INDIAN OIL CORPORATION LIMITED, CITY  
GAS DISTRIBUTION PROJECT, SOUTHERN REGION PIPELINES,  
THOOTHUKUDI

We here by undertake that we will pay necessary fees/rent as and when required by the NHAI as per their Circular No 33044 / 29 / 2015 /S&R(R) dated 22.11.2016 without any delay.

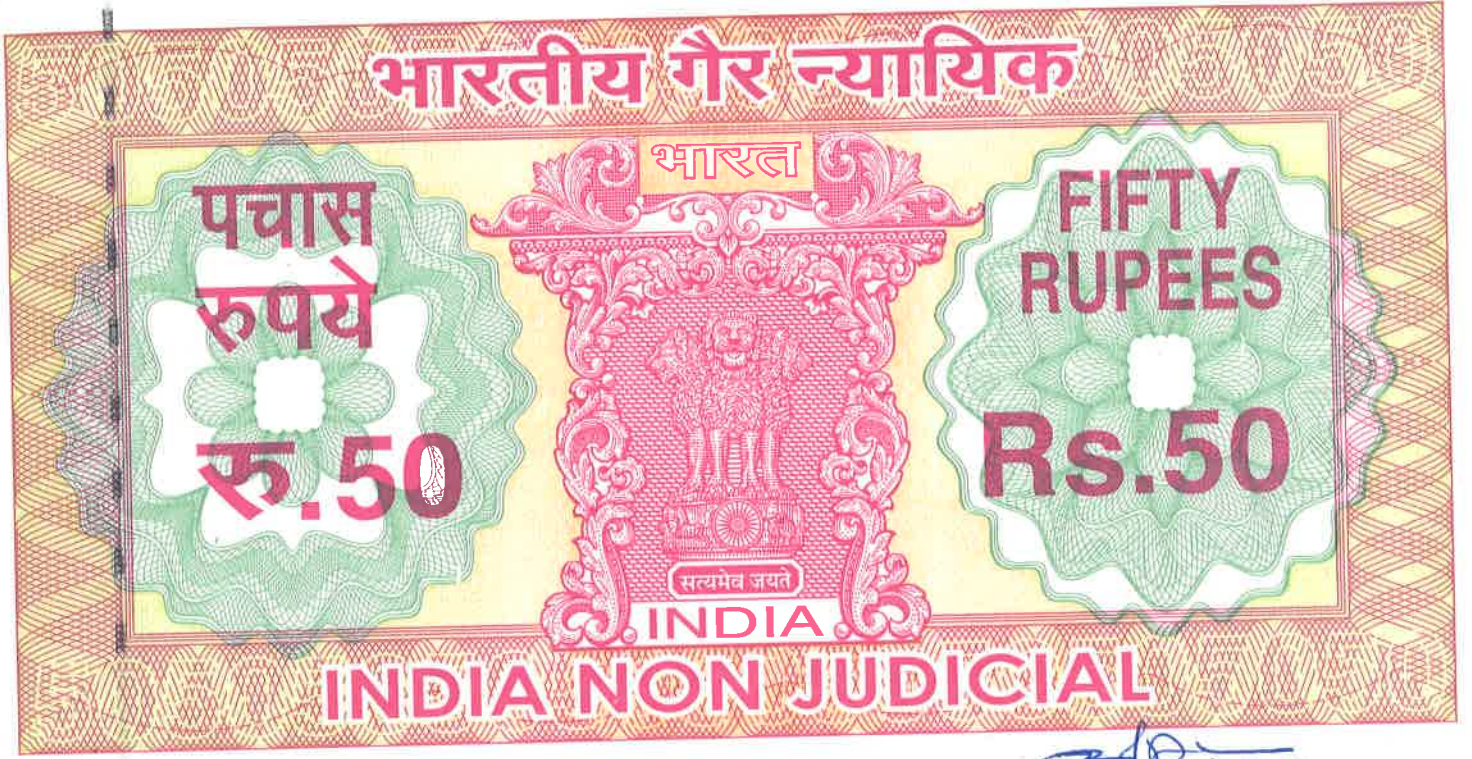
*[Signature]*

(Ranjith Kumar N)

• Senior Manager (CGD), Thoothukudi

ரன்ஜித் குமார் என் / RANJITH KUMAR N  
சீனியர் மேனேஜர் (CGD) / Senior Manager (CGD)  
இந்திய எண்ணெய் கார்பொரேஷன் லிமிடெட்  
Indian Oil Corporation Limited  
Southern Region Pipelines  
City Gas Distribution Project,  
1st Floor (South) J.I. Centre,  
47th Street, Sivasubramanian Road, Tuticorin - 620 002, TN.





தமிழ்நாடு தமில்நாடு TAMILNADU  
Indian Oil Corporation

BL 698671

J. ரமேஷ் ஆபிரகாம் (S.V)  
UO No: 39/1997, தூத்துக்குடி

நாள்: 24 JUL 2023

### CERTIFICATE

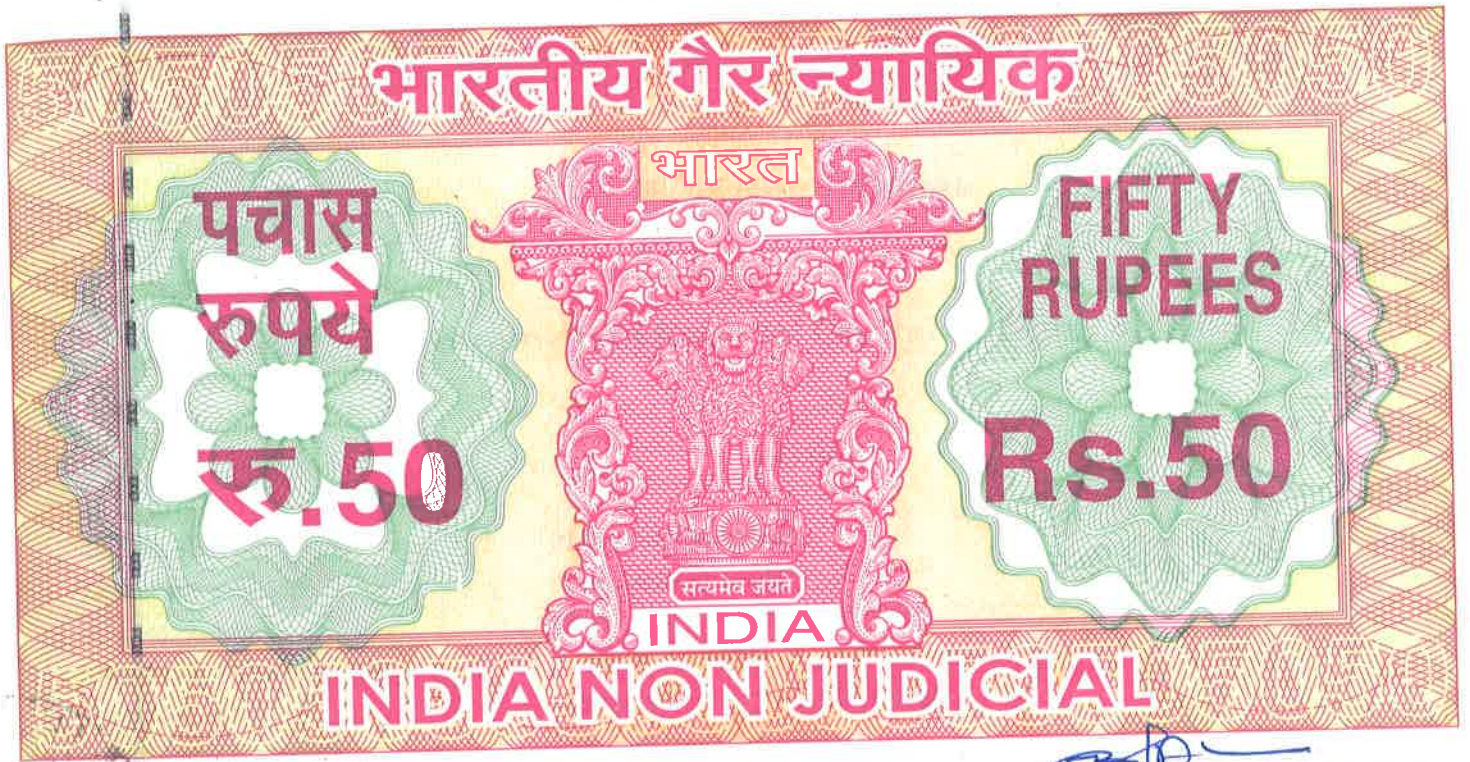
1. This proposal when implemented will not affect the design, stability and traffic safety of Highway.
2. This proposal if implemented now will not affect any likely further improvement to Geometric.
3. The proposal is in accordance with the Specification laid down by the Ministry of Surface Transport, vide Lr. No. RW/ NH-33041/17/2000 – SNR /dated 29.09.2000 without making any inconvenience for the traffic through the road.
4. Certificate to effect that they have inspected the site and there will not be any hindrance for the NH Road for further Developments.

*P. N. R.*

(Ranjith Kumar N)  
Senior Manager (CGD), Thoothukudi

ரன்ஜித் குமார் என் / RANJITH KUMAR N  
சீனியர் மேனேஜர் (சி.டி.டி) / Senior Manager (CGD)  
இந்திய எண்ணெய் கார்பொரேஷன் லிமிடெட்  
Indian Oil Corporation Limited  
Southern Region Pipelines  
City Gas Distribution Project,  
1st Floor (South) J.J. Centre,  
47th, Bayswater Road, Tuticorin - 620 002, TN.





தமிழ்நாடு தமில்நாடு TAMILNADU

Indian Oil Corporation

BL 698666

J. ரமேஷ் குமாரம் (S.M)  
LIC No: 39/1997, தூத்துக்குடி

நாள்: 24 JUL 2023

## INDEMNITY BOND

**Name of the Work:** Permission for laying of 12.75" Steel, 125mm MDPE, 89mm HDPE pipes along with OFC pipeline by IOCL along NH-138 from Ch.6/000KM to Ch.47/000KM

## Indemnity against all damages and Claims

We Indian Oil corporation, Pipelines division, Thoothukudi or in do hereby Indemnity Project director, NHAI, PIU, binding ourselves to the all the losses and claims in respect of laying 12.75" Steel, 125mm MDPE, 89mm HDPE pipes along with OFC pipeline by IOCL along NH-138

Or maintenance, thereof and against all claims, proceedings damages, Costs, Charges and expenses whatsoever in respect thereof, in relation there to, failing such payments of claims in the above work, we abide in accepting for recovery of such claims affected from any of our assets.

Senior Manager (CGD),  
IOCL, SRPL, Thoothukudi.

रंजीत कुमार एन / RANJITH KUMAR N  
वरिष्ठ प्रबंधक (सीजीडी) / Senior Manager (CGD)  
इंडियन ऑयल कॉर्पोरेशन लिमिटेड  
Indian Oil Corporation Limited  
Southern Region Pipelines  
City Gas Distribution Project,  
1st Floor (South) J.J. Centre,  
4/7/5, Ettayapuram Road, Tuticorin - 620 002, TN.



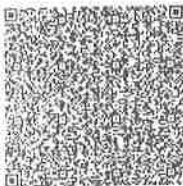
सत्यमेव जयते

## INDIA NON JUDICIAL

### Government of National Capital Territory of Delhi

#### e-Stamp

Certificate No.	: IN-DL43131039471235U
Certificate Issued Date	: 07-Jun-2022 11:13 AM
Account Reference	: IMPACC (SH)/ dlshimp17/ SUPREME COURT/ DL-DLH
Unique Doc. Reference	: SUBIN-DLDLSHIMP1770917717202787U
Purchased by	: INDIAN OIL CORPORATION LIMITED
Description of Document	: Article 5 General Agreement
Property Description	: Not Applicable
Consideration Price (Rs.)	: 0 (Zero)
First Party	: INDIAN OIL CORPORATION LIMITED
Second Party	: Not Applicable
Stamp Duty Paid By	: INDIAN OIL CORPORATION LIMITED
Stamp Duty Amount(Rs.)	: 100 (One Hundred only)



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### MEMORANDUM OF UNDERSTANDING

#### BETWEEN

INDIAN OIL CORPORATION LIMITED

#### AND

NATIONAL HIGHWAY AUTHORITY OF INDIA (NHAI)

Page 1 of 10

This Memorandum of Understanding (hereinafter referred to as "MoU") made at **NHAI, G-3, Sector-10, Dwarka, New Delhi** on this **8<sup>th</sup> of June 2022** ("Effective Date"),

by and between:

**INDIAN OIL CORPORATION LIMITED**, a company duly incorporated under the Companies Act, 1956 and having its registered office at G-9, Ali Yavar Jung Marg, Bandra (East), Mumbai – 400 051 (hereinafter referred to as "IOCL" which expression shall, unless repugnant to the context or meaning thereof, be deemed to include its successors and permitted assigns) of the First Part.

And

**NATIONAL HIGHWAY AUTHORITY OF INDIA** (hereinafter called NHAI) an autonomous Authority constituted by Act of Parliament, having its registered office at Sector 10, Dwarka, New Delhi - 110075, India, which expression shall, unless the context required otherwise, include its legal successors and permitted assigns (hereinafter referred to as "NHAI") of the Second Part.

**IOCL and NHAI** are individually referred to as "Party" and collectively as "Parties".

**RECITALS:**

**WHEREAS;** IOCL, a Maharatna Central Public Sector Undertaking under the administrative control of Ministry of Petroleum and Natural Gas (MoPNG), Government of India and is India's flagship national oil company with business interests straddling the entire hydrocarbon value chain – from refining, pipeline transportation and marketing of petroleum products to natural gas and petrochemicals.

**WHEREAS;** NHAI, is an autonomous agency of the Government of India under the Ministry of Road Transport and Highways (MoRTH) for development, maintenance, and management of National Highways across the country.

**WHEREAS;** In ever expanding networks of cross-country pipelines of IOCL and National Highways of NHAI, interfacing of these two structures and many locations is unavoidable.



**WHEREAS:** Parties are desirous of simplification of the process of obtaining crossing permissions, optimization of the expenditure on the crossings and bringing about uniformity of such proceedings across the country.

**WHEREAS;** in furtherance of the same, NOW THEREFORE, it is understood between the parties as under:

- I. **SCOPE AND APPLICABILITY:** The terms and conditions mentioned in this MoU will be applicable for complete network of NHAI's National Highways in National Highways Right of Way and IOCL's gas/ petroleum pipeline(s) across the country.
- II. **DESCRIPTION OF PURPOSE:** This MOU is an understanding between the parties to express the mutual interest of the parties, within the framework of this MoU for amicable mutual interface for laying of gas/ petroleum pipeline(s) along and across National Highways Corridors and vice versa.
- III. **OBLIGATIONS, DUTIES AND UNDERTAKINGS OF NHAI**

1. In respect of already laid gas/ petroleum pipeline(s):

- a. Wherever, the alignment of a National Highway ("NH") crosses an already laid gas/ petroleum pipeline(s) (i.e., pipeline(s) existing prior to declaration of said National Highway vide relevant Notification), NHAI shall either construct portal structure(s) over the existing pipeline (as per **Annexure-A**) or cause shifting of such operating pipeline(s) at NHAI's cost under supervision of IOCL.
- b. NHAI will inform IOCL regarding upcoming alignment of National Highways over IOCL's existing gas/ petroleum pipeline(s) as soon as NHAI becomes aware of such operating pipeline(s) to expedite the interface related formalities. However, NHAI may explore possibilities of expediting the information to IOCL regarding crossing of National Highways to IOCL's existing gas/ petroleum pipeline(s) during the land acquisition stage to expedite the crossing related formalities.

- c. NHAI will try to maximize the crossing angle i.e., near to 90 Deg to IOCL's gas/ petroleum pipeline(s).
- d. For crossing length exceeding 30m, NHAI to provide rectangular vent of minimum size, 3ft x 3ft in the RCC portal structure.
- e. NHAI will extend all possible support to IOCL during any exigency in IOCL's gas/ petroleum pipeline(s).
- f. Wherever, the alignment of an existing National Highway ("NH") crosses an already laid gas/ petroleum pipeline(s) (i.e., pipeline(s) laid after declaration of said National Highway vide relevant Notification), NHAI will allow IOCL to either shift or take suitable measures to protect its pipeline(s) at IOCL's cost within mutually agreed period of time upon receipt of notice from NHAI, if such pipeline obstructs the upgradation of the National Highway(s).

**2. In respect of laying of new gas/ petroleum pipeline(s):**

- a. NHAI will issue NOC to IOCL for laying gas/ petroleum pipeline(s) along and across National Highways in National Highways land (Right of Way) in 60 days period from the date of formal application by IOCL. Beyond this period of 60 days, it is understood by both the parties that the NOC stands issued.
- b. NHAI shall not levy any charges from IOCL and its agencies for laying new gas/ petroleum pipeline(s) along or across National Highways in National Highways Right of Way.
- c. NHAI will obtain Performance Security from IOCL before issuance of permission for laying gas/ petroleum pipeline(s) along and across National Highways in National Highways land (Right of Way).
- d. NHAI will extend all possible support during any exigency in IOCL's gas/ petroleum pipeline(s) at crossing location of NHAI to IOCL.

**IV. OBLIGATIONS, DUTIES AND UNDERTAKINGS OF IOCL**

**1. In respect of already laid gas/ petroleum pipeline(s):**

- a. Wherever, the alignment of a National Highway ("NH") crosses an already laid gas/

Page 4 of 10

petroleum pipeline(s) (i.e., pipeline(s) existing prior to declaration of said National Highway vide relevant Notification), IOCL will allow NHAI to either construct portal structures over the existing pipeline (as per **Annexure-A**) or cause shifting of such operating pipeline(s) at NHAI's cost under supervision of IOCL.

- b. Wherever, the alignment of an existing National Highway ("NH") crosses an already laid gas/ petroleum pipeline(s) (i.e., pipeline(s) laid after declaration of said National Highway vide relevant Notification), IOCL to either shift or take suitable measures to protect its pipeline(s) at IOCL's cost within mutually agreed time period upon receipt of notice by NHAI, if such pipeline obstructs the upgradation of the National Highway(s).
- c. IOCL will not levy any charges on NHAI for constructing National Highways over their already laid gas/ petroleum pipeline(s).
- d. IOCL will obtain Insurance Cover from NHAI before allowing construction of National Highways over their already laid gas/ petroleum pipeline(s).
- e. IOCL will issue NOC to NHAI whenever under construction National Highway crosses over an already laid gas/ petroleum pipeline(s) (i.e. pipeline(s) existing prior to declaration of said National Highway vide Notification) in 60 days period from the date of formal application by NHAI. Beyond this period of 60 days, it is understood by both the parties that the NOC stands issued.
- f. IOCL will extend all possible support during any exigency in NHAI's National Highways in National Highways Right of Way at crossing location of IOCL to NHAI.

**2. In respect of laying of new gas/ petroleum pipeline(s):**

- a. IOCL, while laying gas / petroleum pipeline(s) across already constructed National Highways, will adopt Trenchless method throughout National Highways land (Right of Way) with the depth of topmost point of pipeline being at-least 1.5m below ground level/ bottom of any National Highway structure/ facility.
- b. IOCL shall bear all cost for laying of new pipeline along or across existing NH land (Right of Way).



- c. IOCL will try to maximize the crossing angle i.e., near to 90 Deg to NHAI's National Highways in National Highways Right of Way.
- d. IOCL will inform NHAI regarding crossing of IOCL's pipeline to National Highways during the land acquisition stage to expedite the crossing related formalities.
- e. IOCL will extend all possible support during any exigency in NHAI's National Highways in National Highways Right of Way at crossing location of IOCL to NHAI.

#### V. DEFINITIVE AGREEMENT:

1. The Parties may enter into separate agreement(s) in terms of this MoU on specific work association of the parties for crossing permissions and shall identify inter alia the methodology of crossing, division of their individual scope of work, division of responsibilities and respective liabilities, expenses etc.
2. Such definitive agreements would be binding on the parties and would be entered into generally as per the understanding contained in this MoU, upon approval by competent authorities of the parties.
3. In case of any contradiction/ discrepancy in any of the clauses of MoU and the definitive agreement(s), the definitive agreement shall prevail. However, clauses of the definitive crossing agreement (s) to be made in line with this MoU conditions for both the parties.

#### VI. NON-EXCLUSIVITY:

The understanding between the Parties under this MoU shall be initially on non-exclusive basis. However, the understanding shall be on exclusive basis contingent upon parties entering into definitive agreement as stipulated above.

#### VII. BINDING UNDERSTANDING:

1. The Parties undertake to act in good faith with respect to each other's rights and obligations under the objectives of this MoU,

2. The Parties recognize the impracticality of providing for every contingency, which may arise during or after the expiry of the MoU and hereby agree to operate fairly and without detriment to the interests of either of them,
3. Subject to any definitive agreements entered into, this MoU is binding in nature, and is a definite expression and record of the purpose and intention of the Parties concerned.

#### **VIII. TRANSFER AND ASSIGNMENT**

1. None of the Parties shall assign or transfer this MoU or any of its respective rights or obligations hereunder, to any other third party without the prior written consent of the other.
2. This consent requirement shall not apply in the event that a Party shall change its corporate name.

#### **IX. DISPUTE RESOLUTION AND GOVERNING LAW:**

1. This MoU will be construed and governed by the laws of India.
2. Any dispute arising out of this MoU shall be amicably resolved in first instance, through discussions in good faith with a view to expeditiously resolve such differences or disputes in a spirit of mutual understanding and cooperation.
3. In the event of any dispute or difference relating to the interpretation and application of the provisions of this agreement, such dispute or difference shall be taken up by either party for resolution through AMRCD as mentioned in DPE OM No. 4(1)/2013-DPE (GM)/FTS-1835 dated 22.05.2018 issued by Ministry of Heavy Industries and Public Enterprises.

#### **X. DURATION AND TERMINATION OF THIS MOU:**

1. This MoU shall enter into force on the Effective Date.
2. This MoU shall remain in force for a period of three (3) years from the Effective Date (i.e. the date on which this MoU is signed).
3. The Parties may elect to extend the period of this MoU for an additional period of time or multiple periods of time as may be mutually agreed upon by the Parties in writing.
4. Each party has a right to terminate the MoU at any time during the validity of this MoU,

Page 7 of 10

in writing, with at least one (1) month notice of such intention to the other party. However, the termination of this MoU shall not affect the actions that may have been formalized during its operation.

#### **XI. CONFIDENTIALITY**

1. The Parties hereto agree that they will not at any time during the Term of this MoU, without the prior written consent of the other Party, disclose the existence of, or the terms and conditions set forth in this MoU unless otherwise required by law or regulation.
2. Only those individuals and representatives of the Parties, and their respective legal and financial advisors, with a need to know and for the sole basis of advising the respective Parties concerning the transactions contemplated hereby, shall be permitted to receive knowledge of the information contained herein.

#### **XII. AMENDMENT**

1. This MoU may be amended in writing by mutual agreement between the Parties.
2. Any such amendment shall enter into force from the date agreed to by the Parties.

#### **XIII. NOTICES**

1. Notices in connection with this MOU must:
  - a) Be in writing, in the English language.
  - b) All notices or other information required or deemed necessary to be given to:

**i. For NHAI:**

Name: Chairperson, NHAI

Address: NHAI 2<sup>nd</sup> Office Building, G-3, Sector-10, Dwarka, New Delhi-110075

Email Id: [chairman@nhai.org](mailto:chairman@nhai.org), [chairperson@nhai.org](mailto:chairperson@nhai.org)



## ii. For IOCL

Name: Executive Director (Operations), PLHO

Address: Indian Oil Bhavan, A-1, Udyog Marg, Sector 1, Noida (UP)-  
201301Email Id: [edoplh@indianoil.in](mailto:edoplh@indianoil.in)

- c) Notices shall be delivered by courier or hand or sent by email to the respective addresses and email which are specified above or if the addressee specifies another address or email, in writing, then to that address or email.

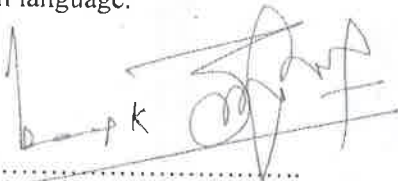
## XIV. COUNTER PARTS

This MoU shall be executed in two counterparts. Both Parties shall each have one counterpart of this MoU. Both counterparts shall constitute one and the same MoU.

In witness whereof, the undersigned being duly authorized thereto, by their respective parties, have signed this MoU.

Signed at **NHAI, G-3, Sector 10, Dwarka, New Delhi** on **8<sup>th</sup> June 2022** in two originals text in English language.

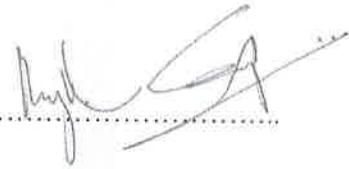
Signature.....



Signed by: **Udeep K Singhal**  
General Manager (Tech.) &  
Regional Officer, Delhi

For and on behalf of;  
**National Highway Authority of India**

Signature.....



Signed by: **Rajesh Gupta**  
Executive Director (Const.)  
PLHO, Noida

For and on behalf of;  
**Indian Oil Corporation Limited**

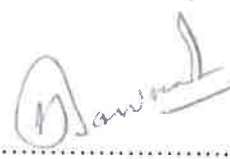
Witnesses;

Signature.....



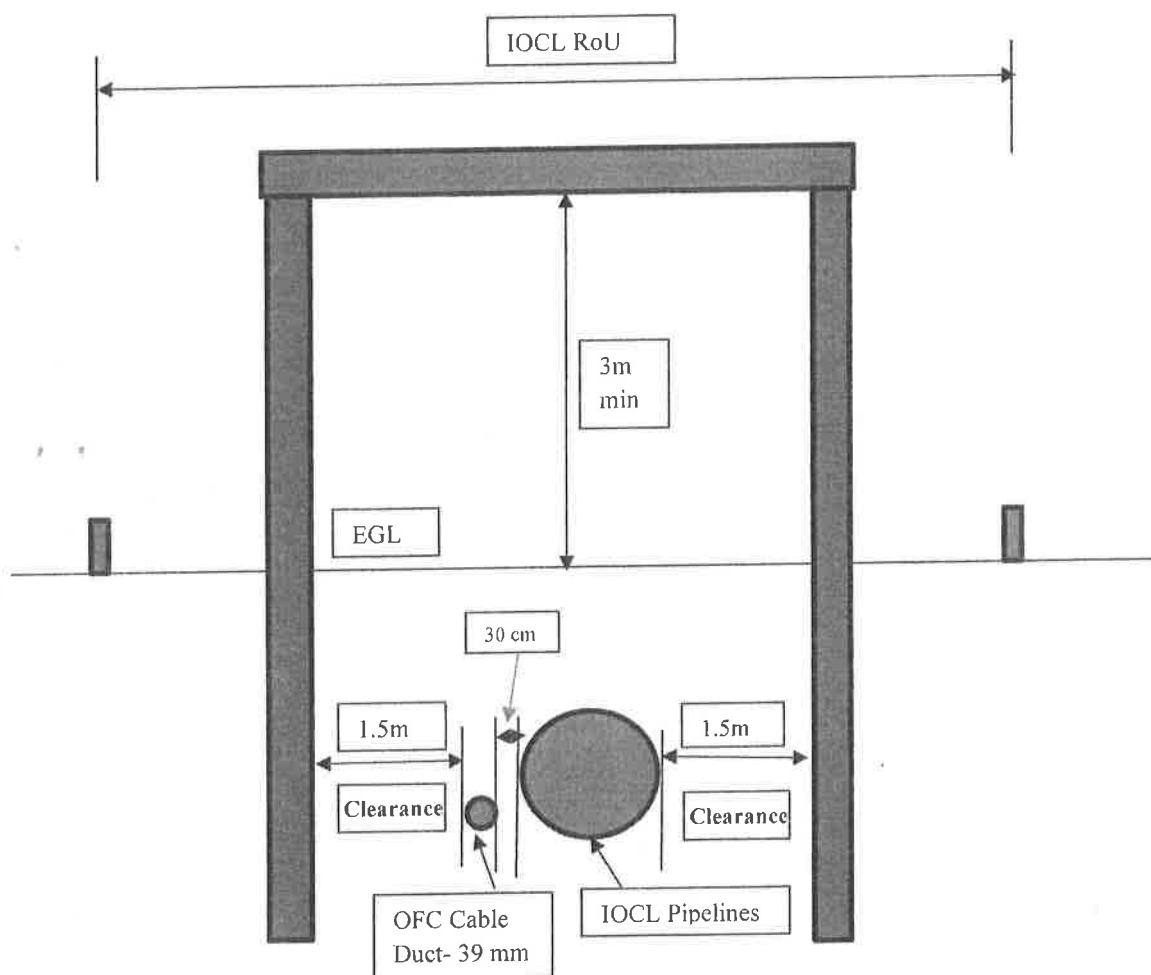
Signed by **Mary Kumar**  
Member (P)  
NHAI

Signature.....



Signed by **S. S. Sawant**  
ED (Operations)  
PLHO, Noida

## Annexure A



### **PROPOSED RCC PORTAL STRUCTURE ACROSS IOCL'S ROU**

Note:

- i. EGL- Existing Ground Level
- ii. Clearance of minimum 1.5 meter to be kept from outside edges of Pipeline and OFC as shown above
- iii. In case of multiple pipelines in the same ROU, single portal or more than one portal as per site condition can be built with minimum distance of 1.5-meter from outside edges of Pipeline and OFC as shown above

Security Amount as Performance BG calculated in line with the MoRT&H policy guidelines dt/ 22.11.2016 for 41.0 km stretch along/across NH138 from Chinage 6/000 to 47/000 as detailed below:

S No	Description	Chainage		UoM	Total Length	Rate per Sq.m in ₹	Amount in ₹
		From	To				
1	Along the Road	NH138 - 6/000 (NH-138 & THOOTHUKUDI DISTRICT COLLECTOR OFFICE NEAR BRIDGE)	NH138-47/000 (THIRUNELVELI NEAR KTC NAGAR)	Meter	41000	100	41,00,000.00
2	Across the Road	At 25/010 (NH-138 ) CROSSING		Meter	45	100	4,500.00
Amount towards total running meter (in ₹)							41,04,500.00
Charges for Crossing NH-138 @ 25/010 (in ₹)							1,00,000.00
Total Amount on account of Restoration (in ₹)							42,04,500.00
Centage Charges @ 23.5 % (in ₹)							9,88,057.50
Total Amount on account of Restoration including Centage Charges (in ₹)							51,92,557.50

P. N. R.

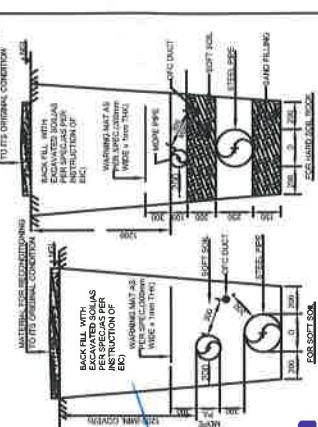
रंजीत कुमार एन / RANJITH KUMAR N  
ज्योतिष प्रबंधक (सी-सीटी) / Senior Manager (C&D)  
इंडियन ऑयल कॉर्पोरेशन लिमिटेड  
Indian Oil Corporation Limited  
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1st Floor (South) J.I. Centre,  
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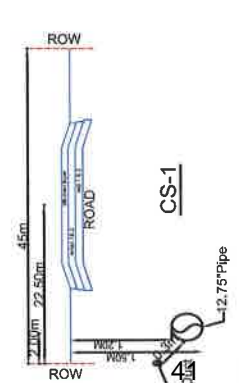
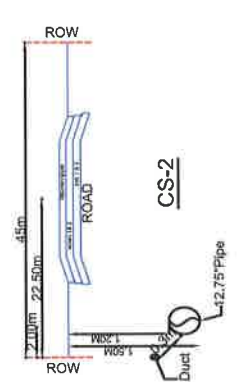
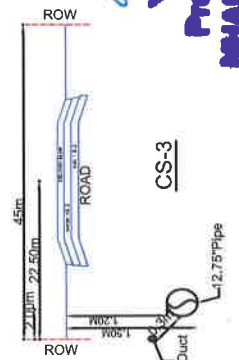
Licence fee calculation			
S.No	Description	Licence Fee	Reference
1	Application seeking permission for laying of steel pipe of 12"Dia, 125mm MDPE pipe & 89mm HDPE pipe for Optical Fiber Cables networks along NH-138 as a part of City Gas Distribution project in Thoothukudi District	Not applicable	Clause III.2.b of the MoU signed Between IOCL and NHAI dated 08.06.2022 (MoU Enclosed)



रंजीत कुमार एन / **RANJITH KUMAR N**  
ज्येष्ठ प्रबंधक (सीजीडी) / Senior Manager (CGD)  
इंडियन ऑयल कॉर्पोरेशन लिमिटेड  
**Indian Oil Corporation Limited**  
Southern Region Pipelines  
City Gas Distribution Project,  
1st Floor (South) J.J. Centre,  
4/7/5, Ettavapuram Road, Tuticorin - 628 002. T



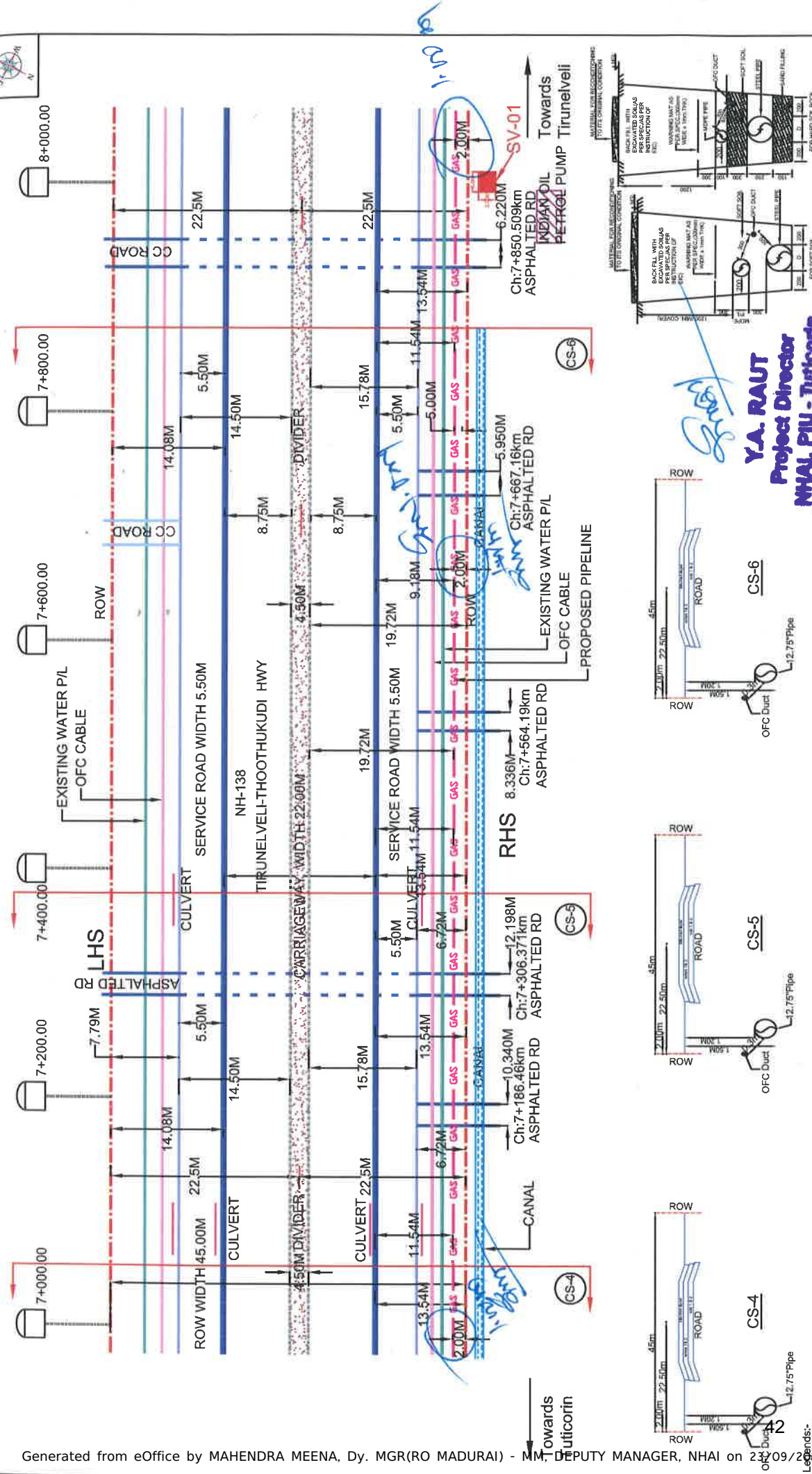
**Y.A. RAUT**  
Project Director  
NHAI, PUU - Tuticorin



Particulars	Symbols	Particulars	Symbols
Proposed pipeline		Moorum Road	
Electric cable		Service Road	
NH Row		Drain	
Asphalted road		Builtup area / Building	
Divider			
Water Pipeline			
Canal			
Culvert			

<b>NOTES:</b> 1.ALL DIMENSIONS ARE IN METER. 2.ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED. DO NOT SCALE THE DRAWING. 3.DRAWING NOT TO SCALE.	<b>NOTES:</b> 1.ASPHALTED RD-CH:6+428.52km The road is connected into right side service road. 2.ASPHALTED RD-CH:6+18.87km The road is connected into right side service road. 3.MOORUM RD-CH:6+924.94km The road is connected into right side service road.	CLIENT		INDIAN OIL CORPORATION LTD.
		CONSULTANT		TRACTEBEL ENGINEERING PVT. LTD.
		PROJECT		IOCL - CITY GAS DISTRIBUTION PROJECT -THOOTHUKUDI GA GA
		SURVEYED & PREPARED BY		SWAYAM ENGINEERING ASSOCIATES PVT. LTD. 77 SATTA NAGAR BRUNNENHAWA PH-311006-567-2410000/102-567-2410000
TITLE		PROPOSED GAS PIPELINE Along National Highway -138 from Ch:6+000.00km to 7+000.00km		
BASE/IOCL/TEP/UTICORIN TO TRINELVELU STRIP PLAN		DRAWING NO.		SHEET NO.
				01 OF 41





CLIENT		INDIAN OIL CORPORATION LTD.	
CONSULTANT		TRACTEBEL ENGINEERING PVT. LTD.	
PROJECT		IOCL - CITY GAS DISTRIBUTION PROJECT -THOOTHUKUDI GA	
SURVEYED & PREPARED BY		SWAYIN ENGINEERING ASSOCIATES P.K. Ltd. 77, SATYA NAGAR BHIMANESWAR? PH-1910062/2023/220038	
TITLE		PROPOSED GAS PIPELINE Along National Highway -138 from Ch-7+000.00km to 8+000.00km	
DRAWING NO.		BASE/IOCL/TEP/TUTICORIN TO TIRUNELVELI/ STRIP PLAN-02	
SHEET NO.		02 OF 41	

**NOTES:**

1. ASPHALTED RD-CH-7+186.46km  
The road is connected into right side service road.

2. ASPHALTED RD-CH-7+564.19km  
The road is connected into right side service road.

3. ASPHALTED RD-CH-7+667.16km  
The road is connected into right side service road.

**NOTES:**

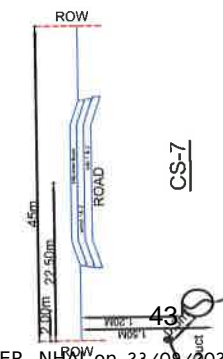
1. ALL DIMENSIONS ARE IN METER.

2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED. DO NOT SCALE THE DRAWING.

3. DRAWING NOT TO SCALE.

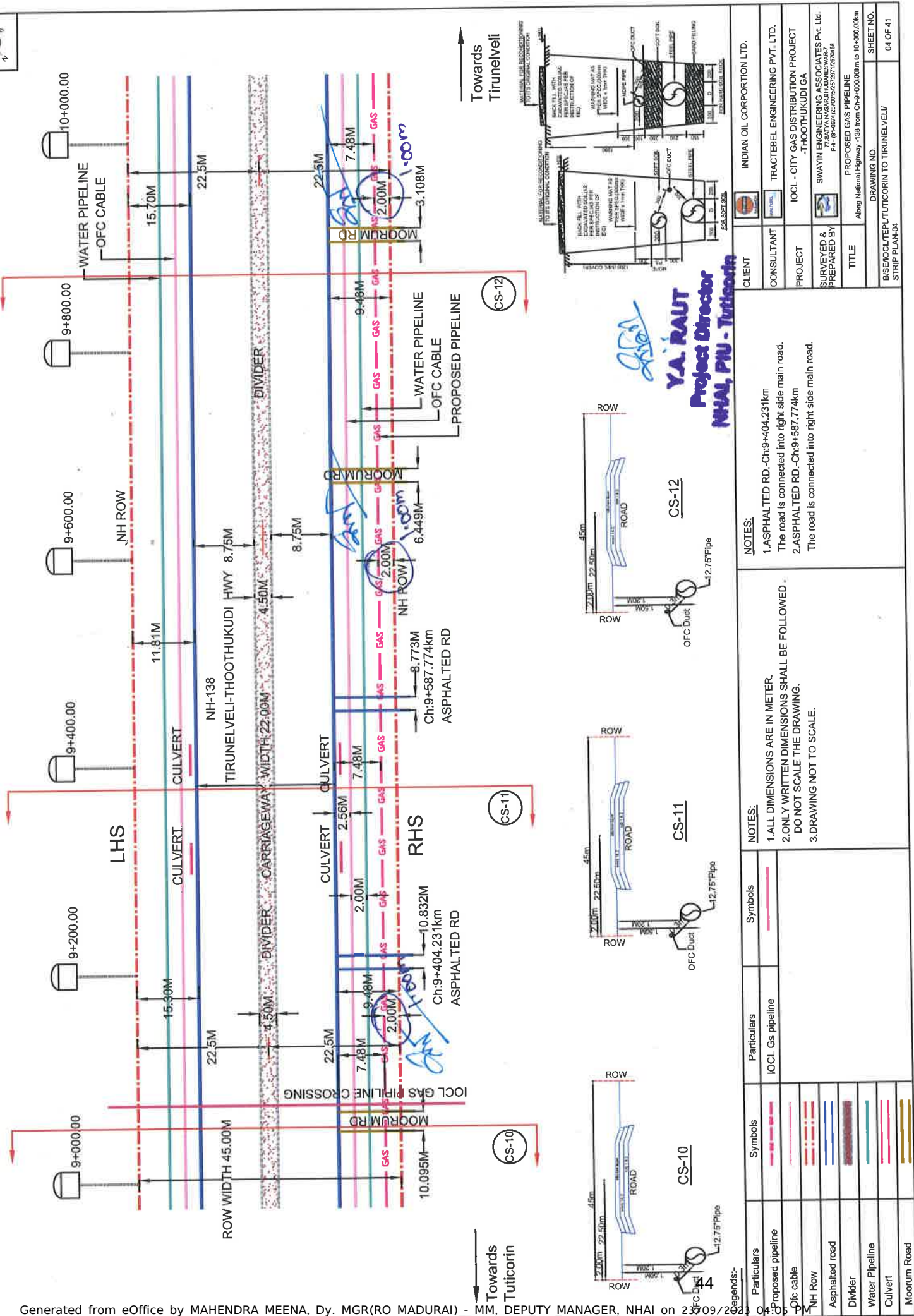
Particulars	Symbols	Particulars	Symbols
Proposed pipeline		Canal	
OFC cable		Service Road	
NIT Row		Cc Road	
Asphalted road		Builtup area / Building	
Divider			
Water Pipeline			
Culvert			
Builtup area Building			



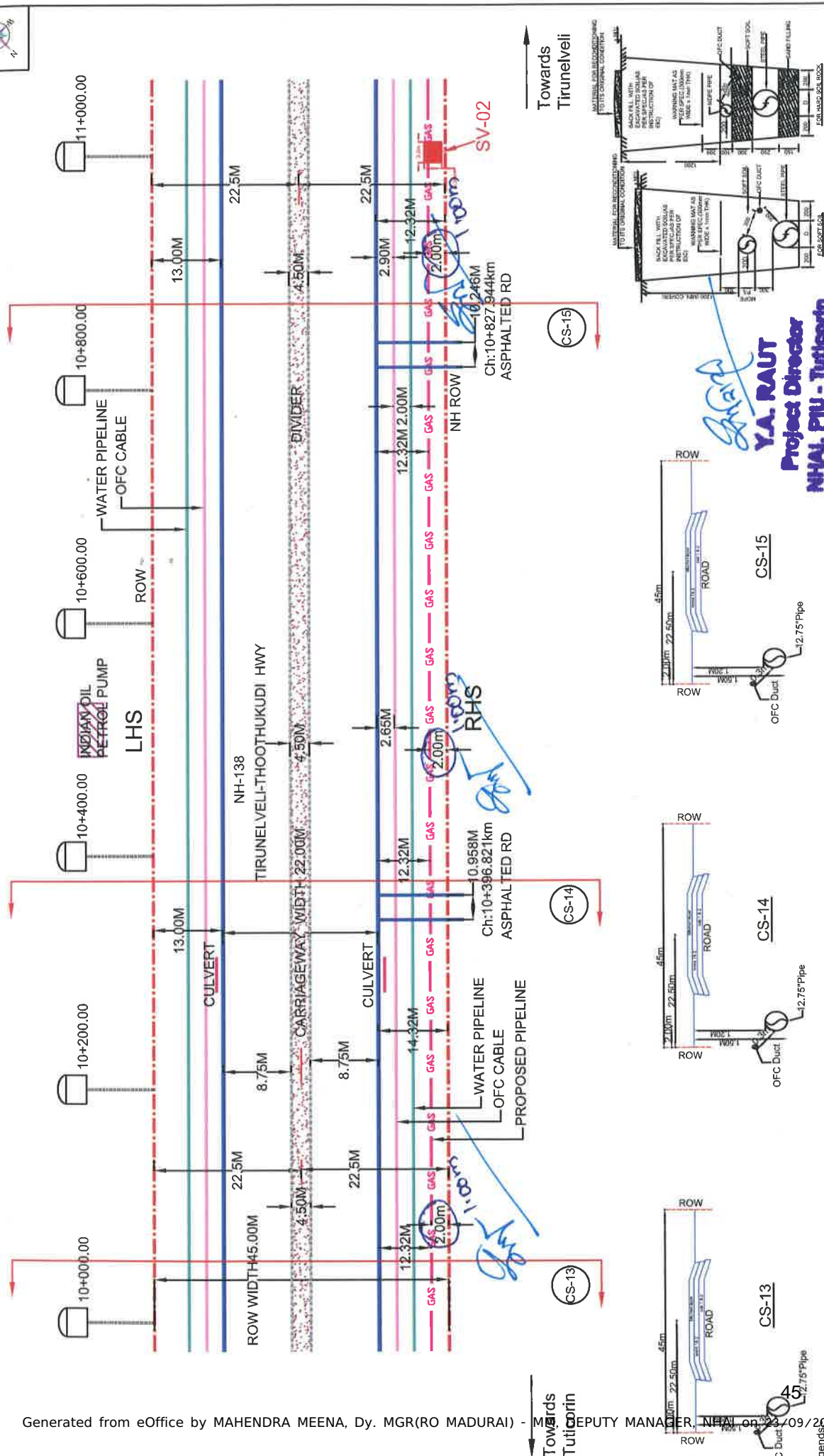


  
**Y.A. RAUT**  
Project Director  
NHAI, PIU - Tuticorin

**Legends:-**







CLIENT		INDIAN OIL CORPORATION LTD.
CONSULTANT		TRACTEBEL ENGINEERING PVT. LTD.
PROJECT		IOCL - CITY GAS DISTRIBUTION PROJECT -THOOTHUKUDI GA
SURVEYED & PREPARED BY		SWAYIN ENGINEERING ASSOCIATES PVT. LTD. 77, SATYA MAGAR, PUNEM, MAHARASHTRA PH: +91 98224 10000, 98224 10001
TITLE		PROPOSED GAS PIPELINE Along National Highway - 138 from Ch-10+000.00km to 11+000.00km
DRAWING NO.		BISE/IOCL/TE/PIU/TUTICORIN TO TIRUNELVELI/STRIP PLAN/05
SHEET NO.		05 OF 41

NOTES:

1. ALL DIMENSIONS ARE IN METER.

2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED. DO NOT SCALE THE DRAWING.

3. DRAWING NOT TO SCALE.

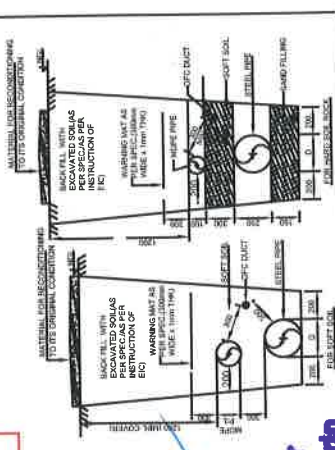
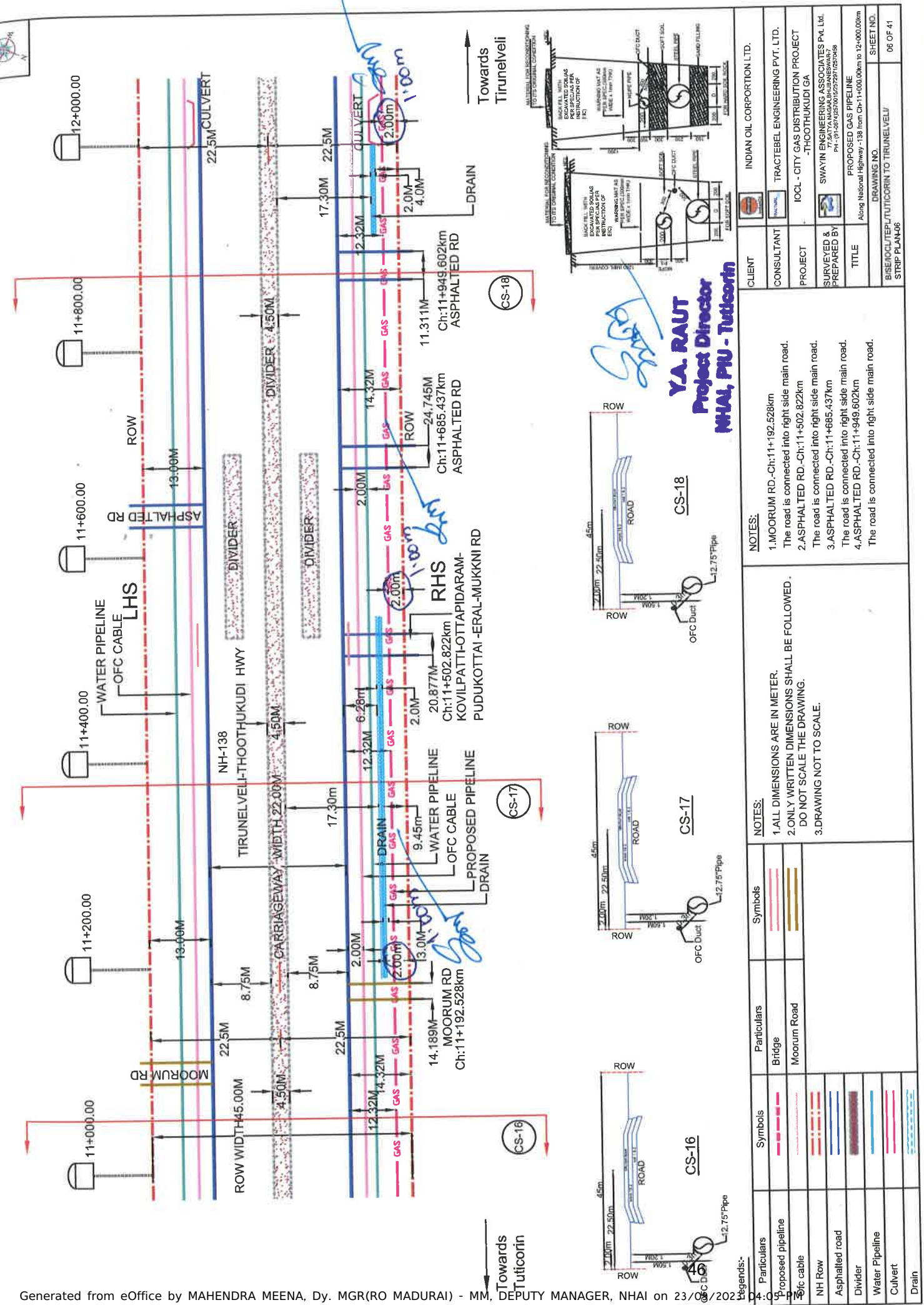
NOTES:

1. ASPHALTED RD.-Ch:10+396.821km  
The road is connected into right side main road.

2. ASPHALTED RD.-Ch:10+827.944km  
The road is connected into right side main road.

Particulars	Symbols
Proposed pipeline	---
O/c cable	---
NH Row	---
Asphalted road	---
Divider	---
Water Pipeline	---
Culvert	---
Builtup area / Building	---





**Y.A. RAUT**  
Project Director  
NHAI, PIU - Tuticorin

Particulars	Symbols	Particulars	Symbols
Proposed pipeline		Bridge	
OFC cable		Moorum Road	
NH Row			
Asphalted road			
Divider			
Water Pipeline			
Culvert			
Drain			

NOTES:

1. ALL DIMENSIONS ARE IN METER.

2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED. DO NOT SCALE THE DRAWING.

3. DRAWING NOT TO SCALE.

NOTES:

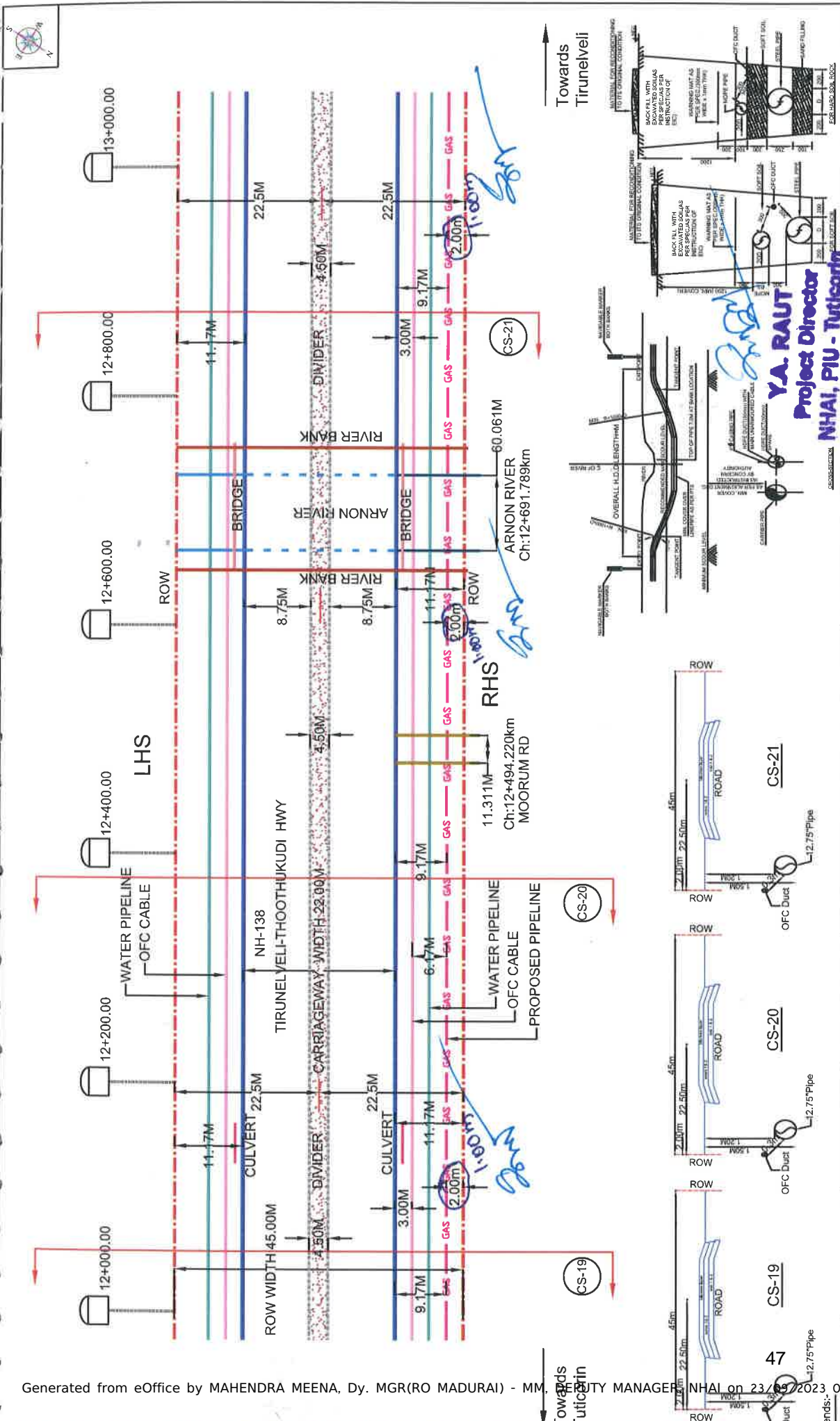
1. MOORUM RD.-Ch:11+192.528km  
The road is connected into right side main road.

2. ASPHALTED RD.-Ch:11+502.822km  
The road is connected into right side main road.

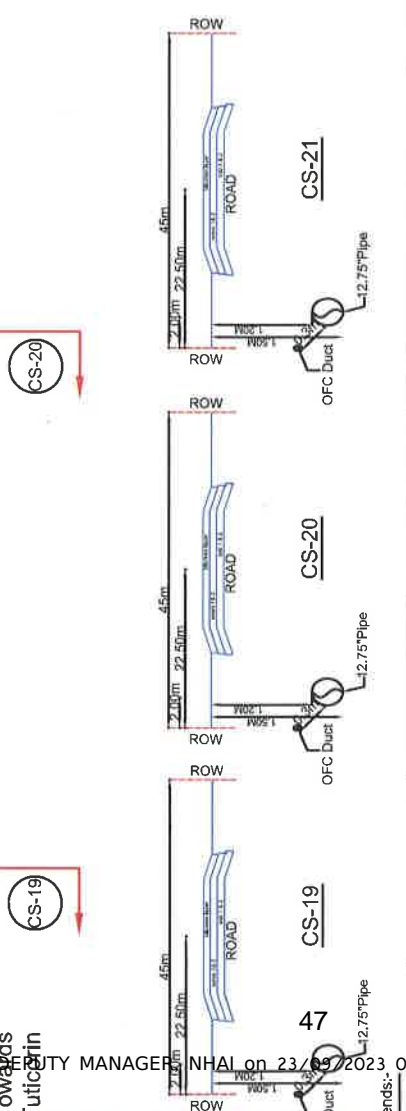
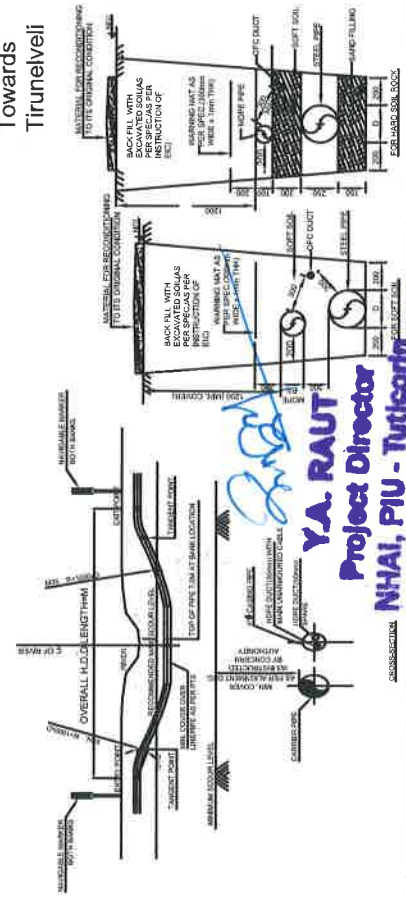
3. ASPHALTED RD.-Ch:11+685.437km  
The road is connected into right side main road.

4. ASPHALTED RD.-Ch:11+949.602km  
The road is connected into right side main road.

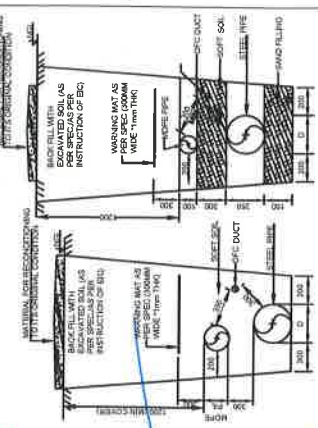
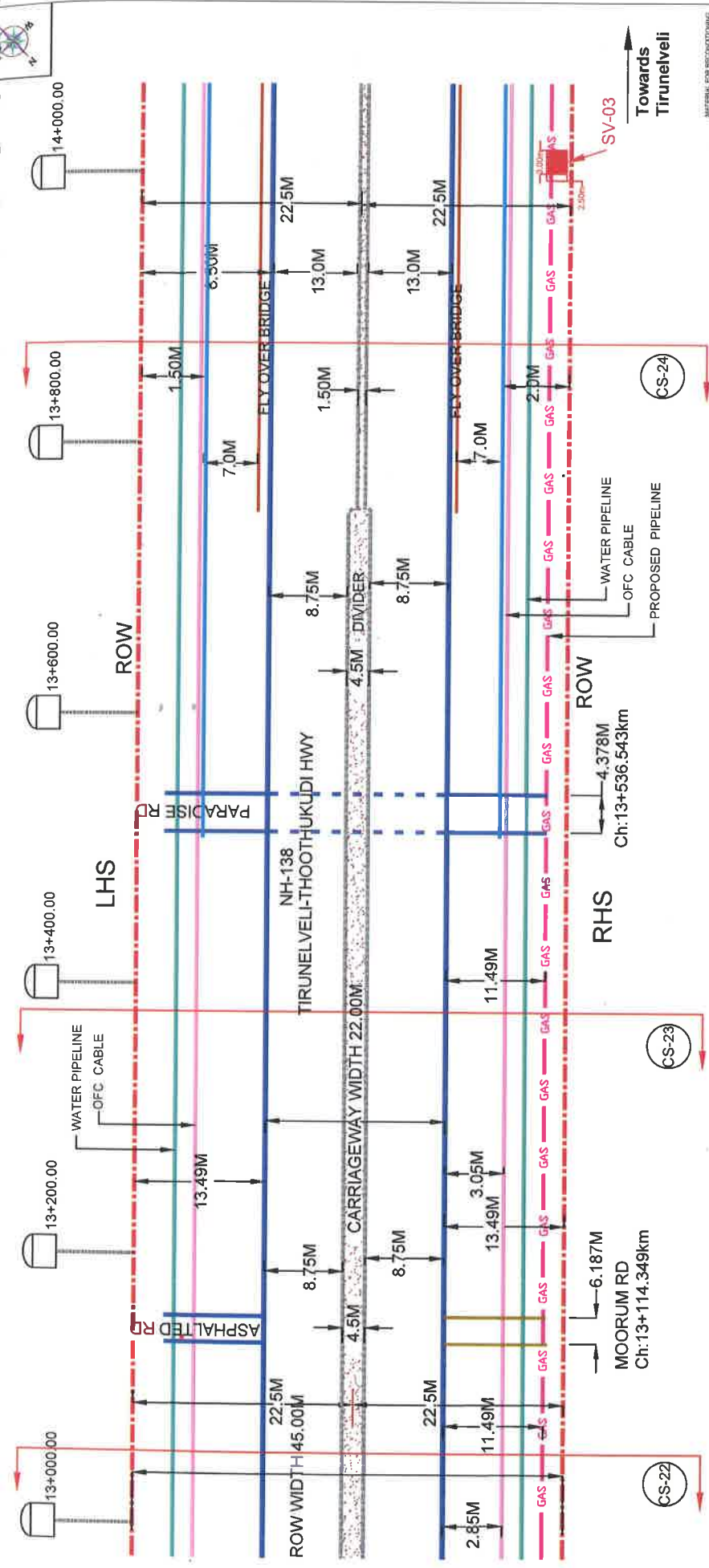
CLIENT	INDIAN OIL CORPORATION LTD.
CONSULTANT	TRACTEBEL ENGINEERING PVT. LTD.
PROJECT	IOCL - CITY GAS DISTRIBUTION PROJECT - THOOTHUKUDI GA
SURVEYED & PREPARED BY	SWAYN ENGINEERING ASSOCIATES PVT. Ltd. PH - 91-9514257601/52572971/2370456
TITLE	PROPOSED GAS PIPELINE Along National Highway - 138 from Ch:11+000.00km to 12+000.00km
DRAWING NO.	BASE/IOCL/PIU/TUTICORIN TO TIRUNELVELI/STRIP PLAN/06
SHEET NO.	06 OF 41



NOTES:		NOTES:		NOTES:	
1. MOORUM RD - Ch: 12+494.220km The road is connected into right side main road.		1. ALL DIMENSIONS ARE IN METER. 2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED. 3. DRAWING NOT TO SCALE.		INDIAN OIL CORPORATION LTD.	
				CONSULTANT	
				PROJECT	
				SURVEYED & PREPARED BY	
				TITLE	
				BASE/JOINT/PIU/TUTICORIN TO TIRUNELVELI	
				STRIP PLAN-07	



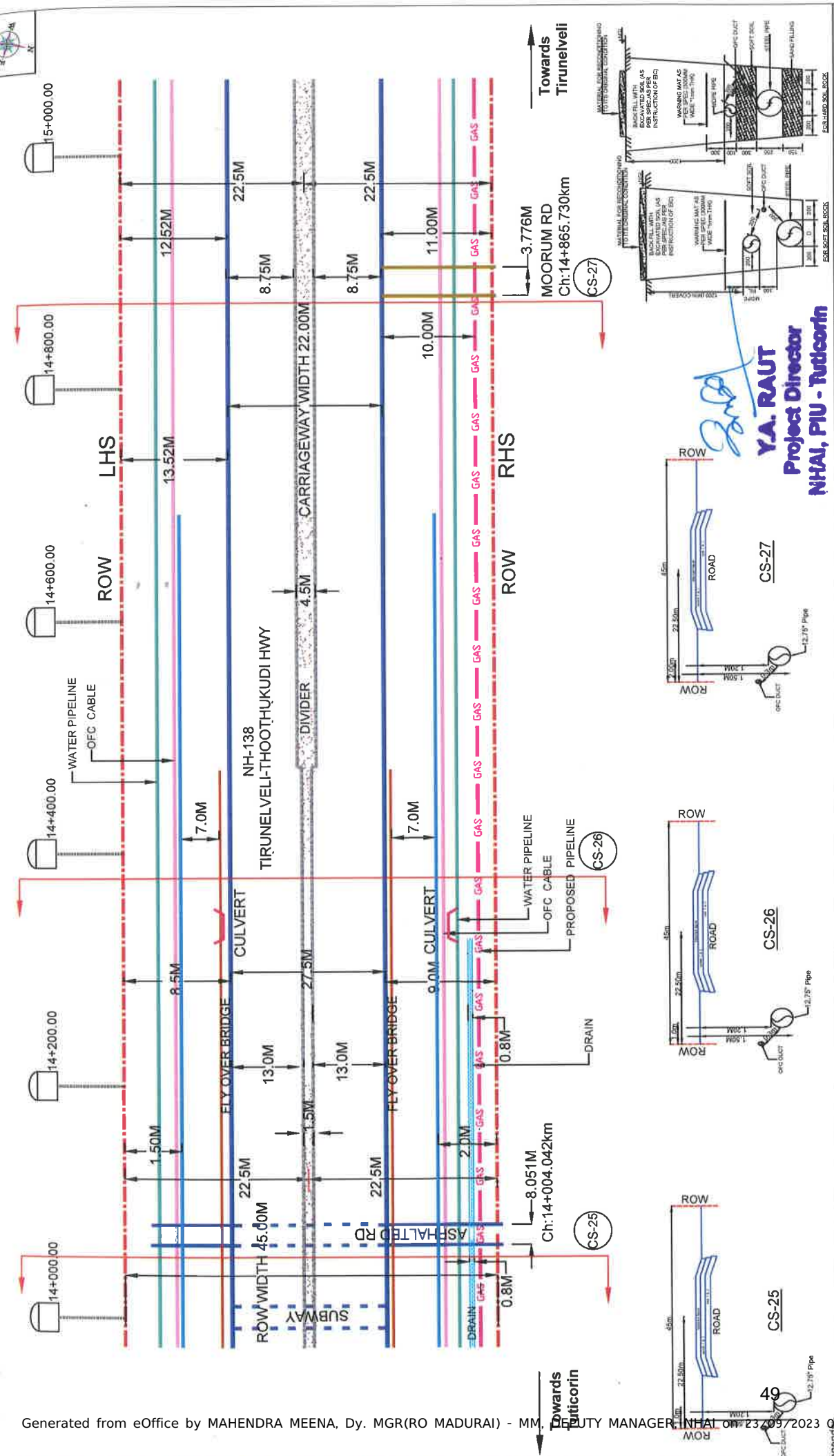




**Y.A. RAUT**  
Project Director  
NHAI, PIU - Tuticorin

NOTES:			CLIENT		
1. ALL DIMENSIONS ARE IN METER.			INDIAN OIL CORPORATION LTD.		
2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.			CONSULTANT: TRACTEBEL ENGINEERING PVT LTD.		
3. DRAWING NOT TO SCALE.			PROJECT: IOCL-CITY GAS DISTRIBUTION PROJECT - THOOTHUKUDI GA		
			SURVEYED & PREPARED BY: SWATHIN ENGINEERING ASSOCIATES PVT LTD.		
			TITLE: PROPOSED GAS PIPELINE		
			DRAWING NO. B/SE/IOCL/THOOTHUKUDI/TUTICORIN TO TIRUNELVELI/ STRIP PLAN 08		
			SHEET NO. 08 OF 41		

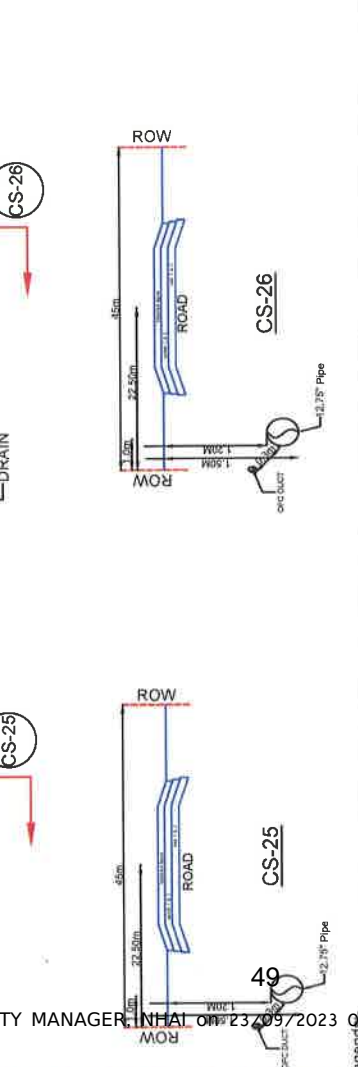
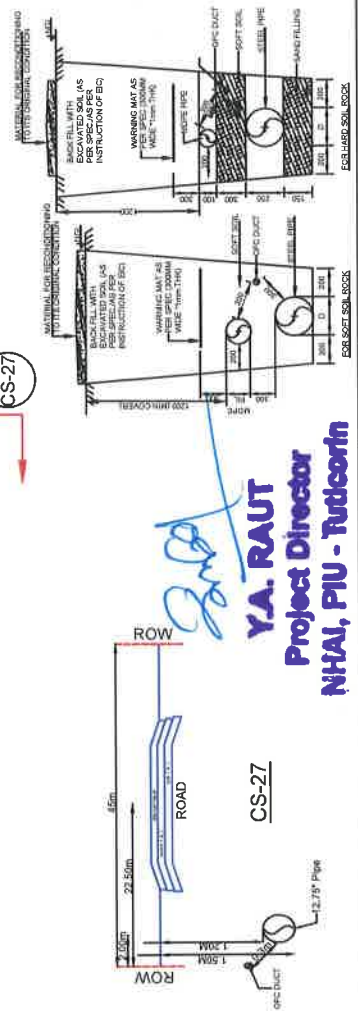


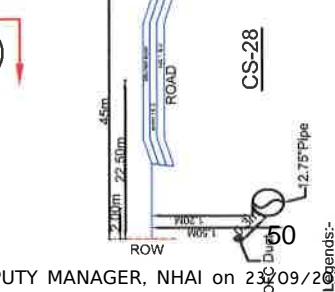
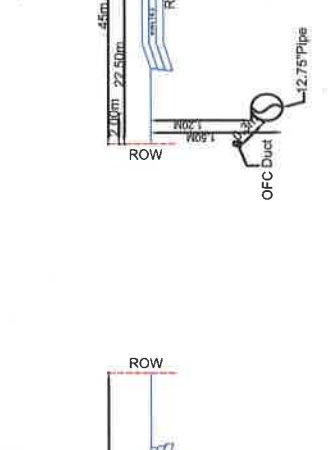
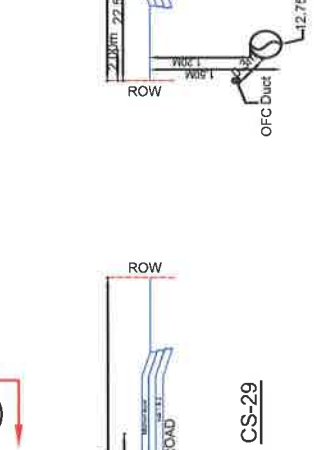
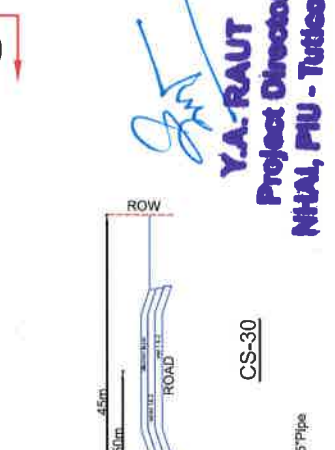
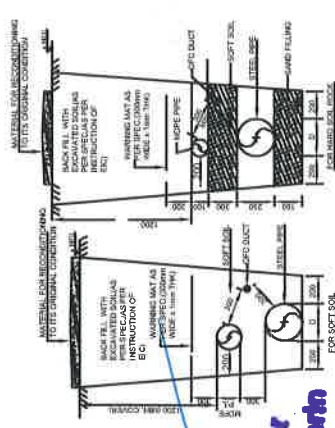
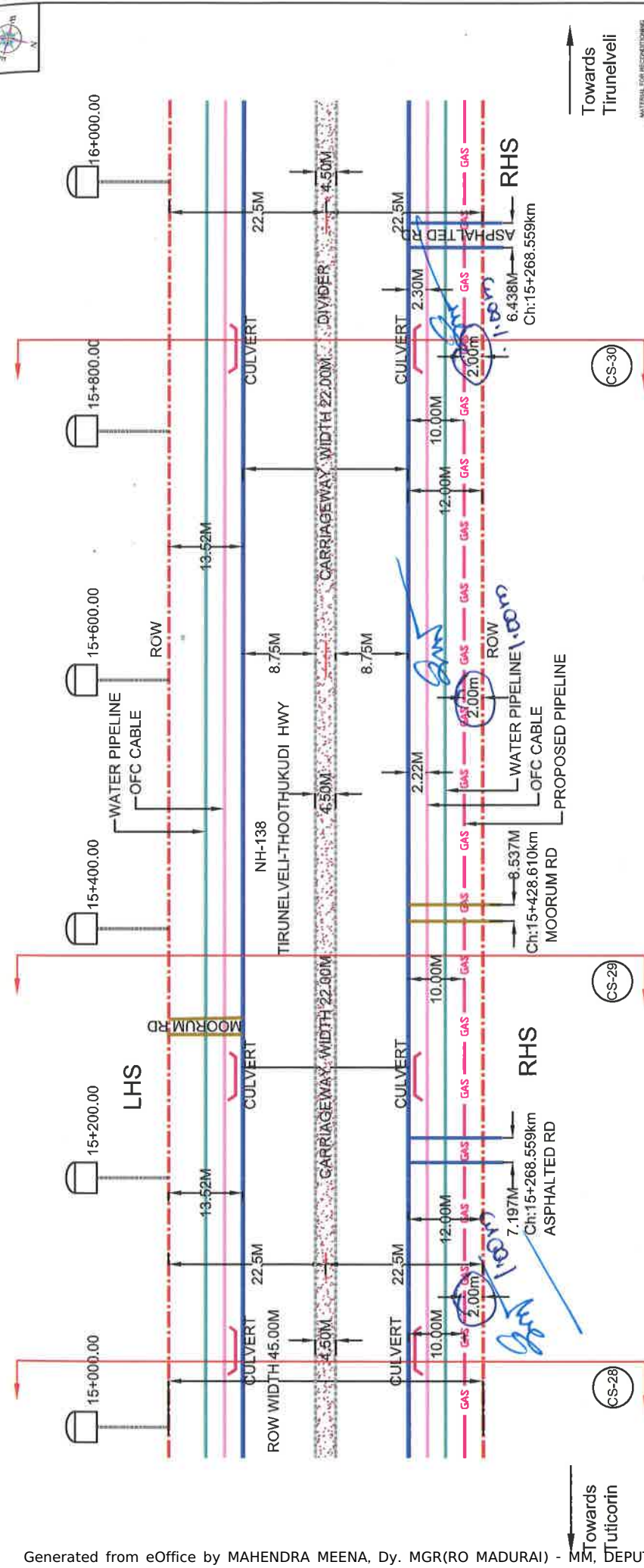


CLIENT		INDIAN OIL CORPORATION LTD.	
CONSULTANT		TRACTEBEL ENGINEERING PVT LTD.	
PROJECT		IOCL-CITY GAS DISTRIBUTION PROJECT -THOOTHUKUDI GA	
SURVEYED & PREPARED BY		SWAYIN ENGINEERING ASSOCIATES PVT LTD. 77 SATYA NAGAR BHUBANESWAR-7 PH-681507, TEL-06742572105, FAX-06742572106	
TITLE		PROPOSED GAS PIPELINE Along National Highway-138 from ch-14+000.00m to 15+000.00m	
DRAWING NO.		SHEET NO.	
8/SE/IOCL/PIU/TUTICORIN TO TIRUNELVELI/ STRIP PLAN-49		09 OF 41	

NOTES:  
1. ALL DIMENSIONS ARE IN METER.  
2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.  
3. DRAWING NOT TO SCALE

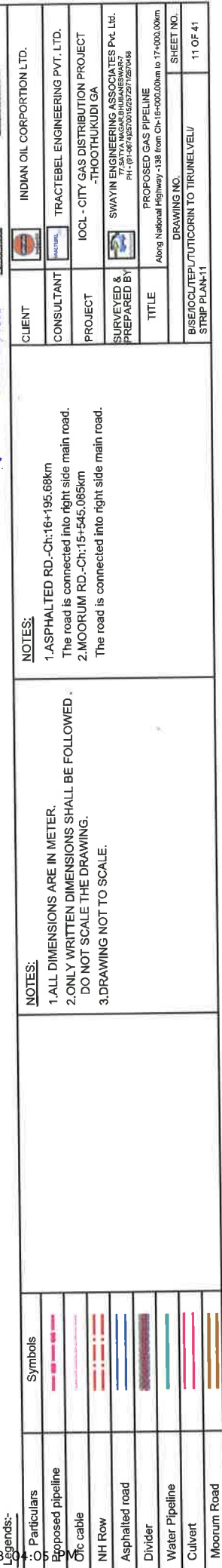
Particulars	Symbols	Particulars	Symbols
Proposed pipeline		Bridge	
OFC Cable		Moorum Road	
NH Row		Flyover Bridge	
Asphalted Road			
Divider			
Water pipeline			
Culvert			
Service Road			



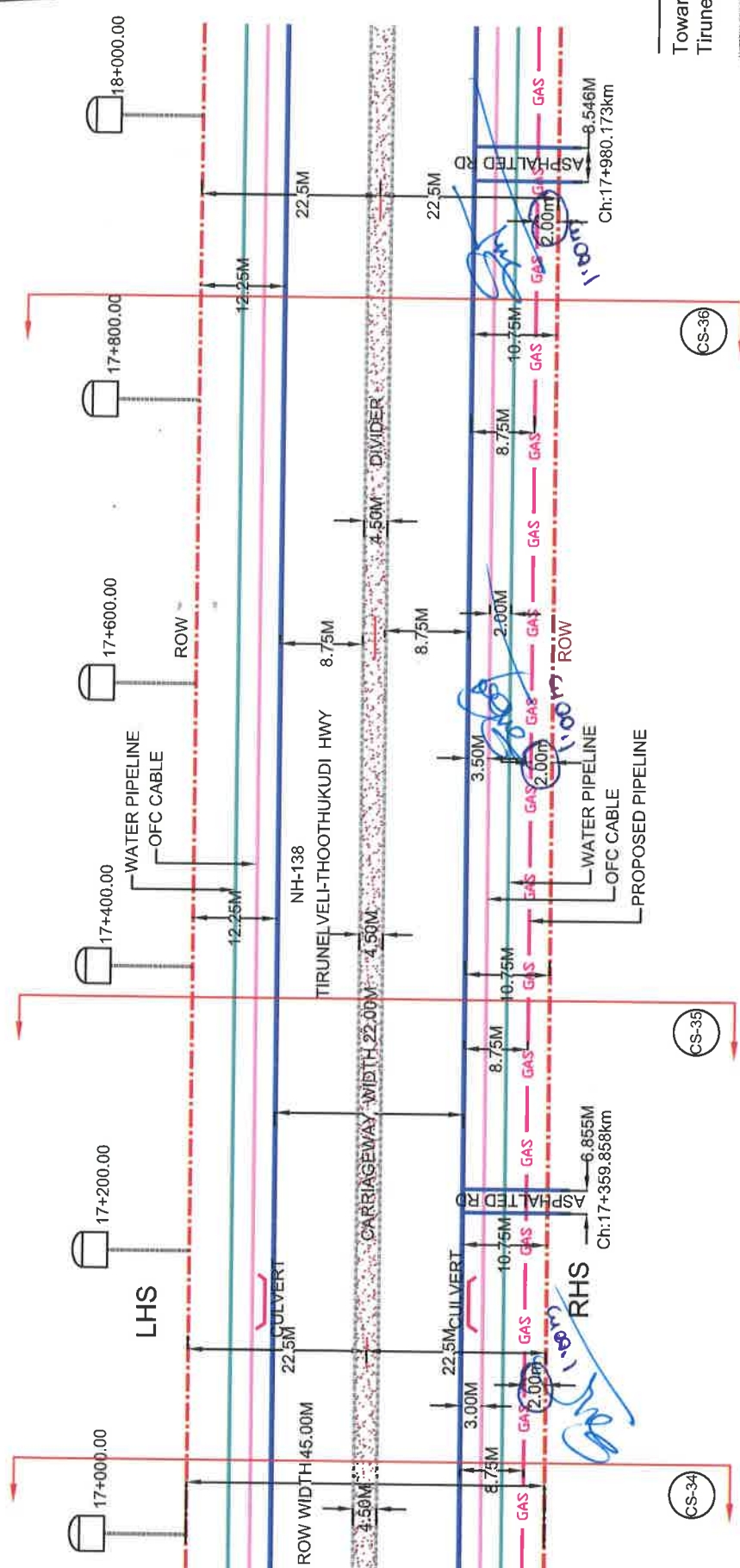


						<b>NOTES:</b> 1. ALL DIMENSIONS ARE IN METER. 2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED . DO NOT SCALE THE DRAWING. 3. DRAWING NOT TO SCALE.				<b>NOTES:</b> 1. ASPHALTED RD.-Ch:15+268.559km The road is connected into right side main road. 2. MOORUM RD.-Ch:15+428.610km The road is connected into right side main road. 3. ASPHALTED RD.-Ch:15+268.559km The road is connected into right side main road.		<b>CLIENT</b>  <b>INDIAN OIL CORPORATION LTD.</b>	
										<b>CONSULTANT</b>  <b>TRACTEBEL ENGINEERING PVT. LTD.</b>			
										<b>PROJECT</b> <b>IOCL - CITY GAS DISTRIBUTION PROJECT</b> -THOOTHUKUDI GA			
										<b>SURVEYED &amp; PREPARED BY</b>  <b>SWAYIN ENGINEERING ASSOCIATES Pvt. Ltd.</b> Plot No. 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 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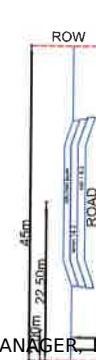
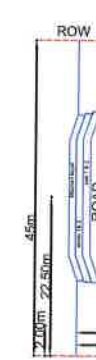
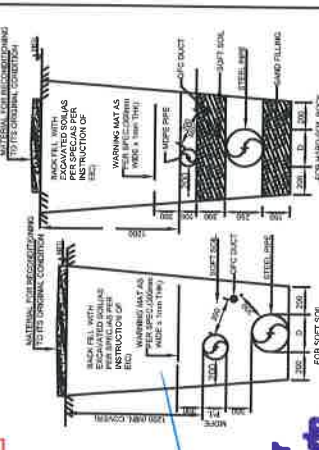






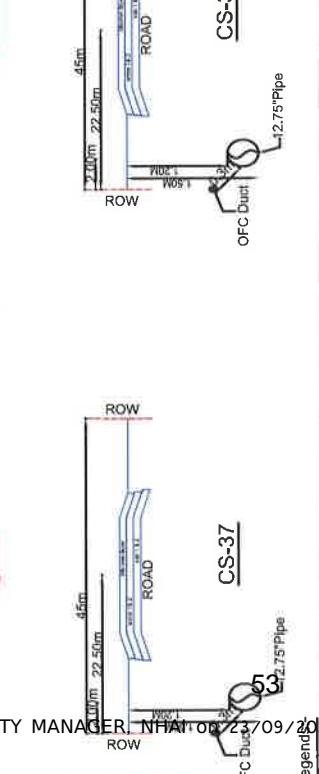
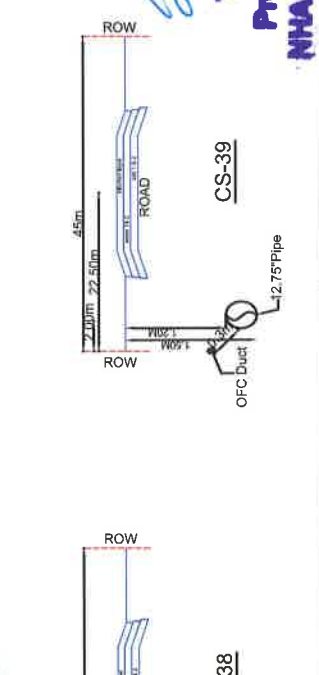
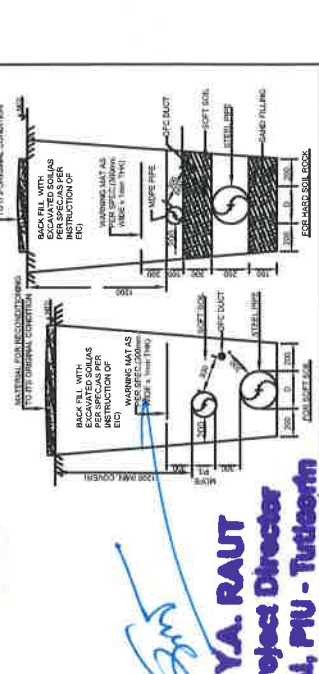
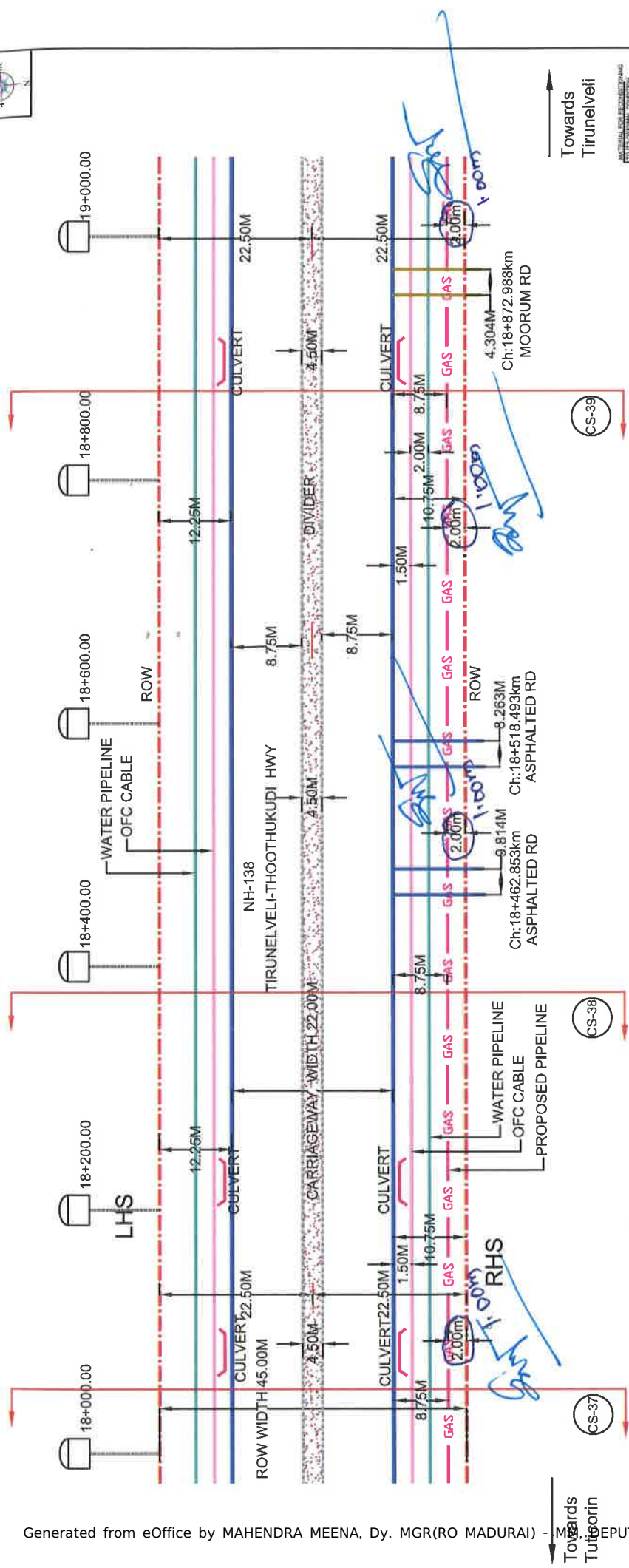
Towards  
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Tuticorin



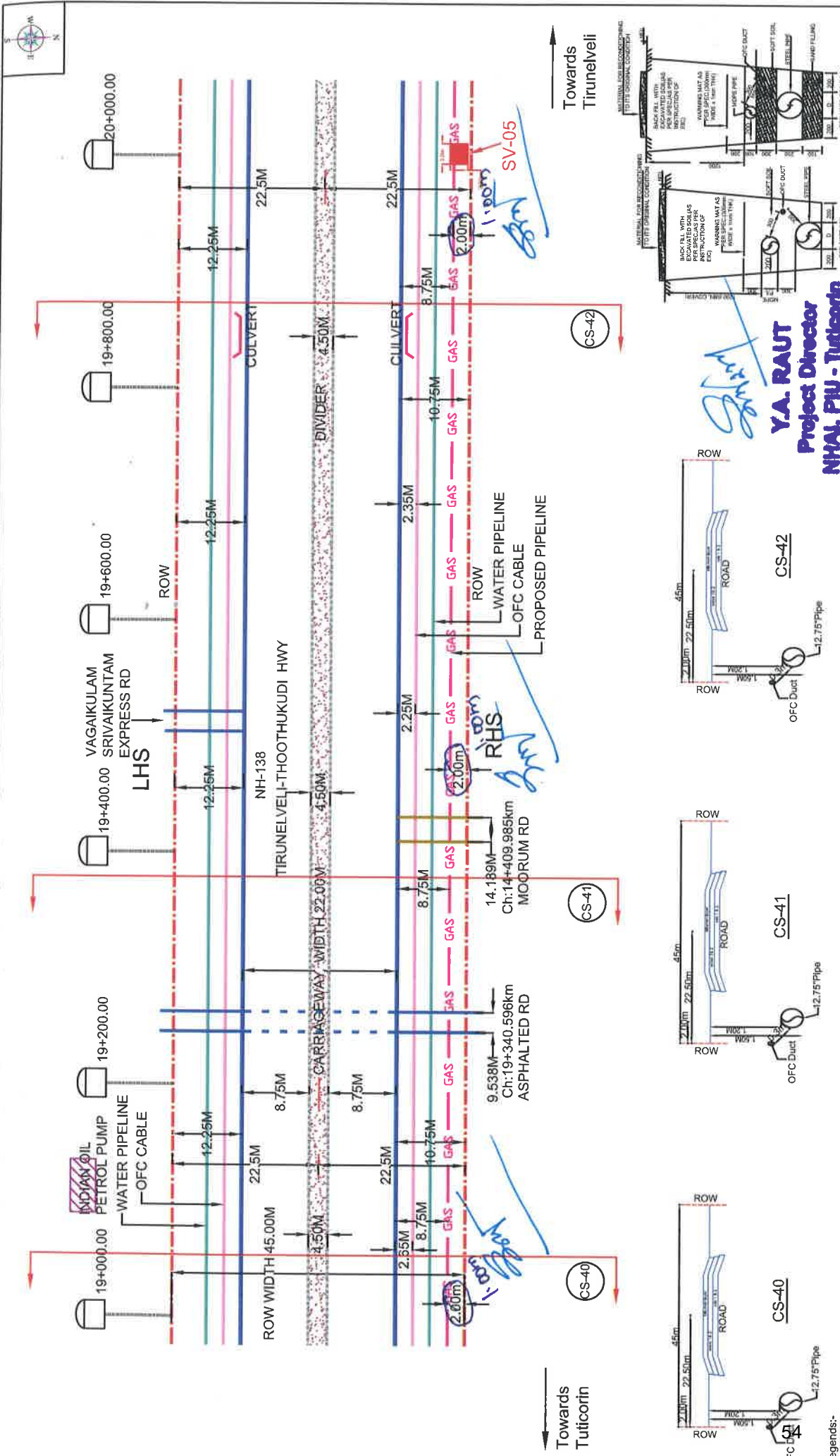
**Y.A. RAUT**  
Project Director  
NHAI, PIU - Tuticorin

Particulars	Symbols	Notes:	Notes:	Client
Proposed Pipeline		1. ALL DIMENSIONS ARE IN METER.	1. ASPHALTED RD - Ch: 17+359.858km	INDIAN OIL CORPORATION LTD.
Water Pipeline		2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.	The road is connected into right side main road.	CONSULTANT
Water Pipeline		3. DRAWING NOT TO SCALE.	2. ASPHALTED RD - Ch: 17+980.173km	TRACTEEL ENGINEERING PVT. LTD.
Culvert			The road is connected into right side main road.	PROJECT
				IOCL - CITY GAS DISTRIBUTION PROJECT
				-THOOTHUKUDI GA
				SURVEYED & PREPARED BY
				SWAYIN ENGINEERING ASSOCIATES PVT. LTD.
				77, SATYA NAGAR BHIMABARWARI
				PH-18, KAPPAJUR, KAPPAJUR-201 1020000
				TITLE
				PROPOSED GAS PIPELINE
				Along National Highway -138 from Ch-17+000.00km to 18+000.00km
				DRAWING NO.
				BASE/IOCL/TUTICORIN TO TIRUNELVELI/
				STRIP PLAN-12
				SHEET NO.
				12 OF 41

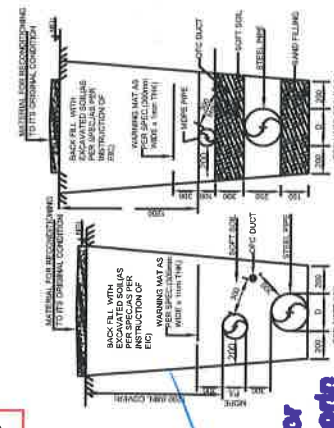


NOTES:		CLIENT	INDIAN OIL CORPORATION LTD.
NOTES:		CONSULTANT	TRACTEBEL ENGINEERING PVT. LTD.
NOTES:		PROJECT	IOCL - CITY GAS DISTRIBUTION PROJECT -THOOTHUKUDI GA
NOTES:		SURVEYED & PREPARED BY	SWAYIN ENGINEERING ASSOCIATES PVT. LTD. T. J. SATHYANARAYANAN PH - 9842500000, 9842500000
NOTES:		TITLE	PROPOSED GAS PIPELINE Along National Highway -138 from Ch:18+000.00km to 19+000.00km
NOTES:		DRAWING NO.	BUSE/IOCL/TEP/TUTICORIN TO TIRUNELVELI/ STRIP PLAN-13
NOTES:		SHEET NO.	13 OF 41



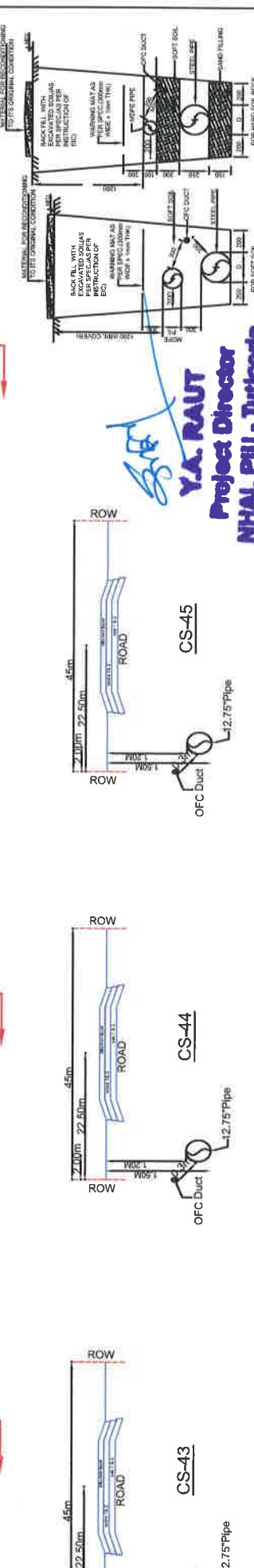
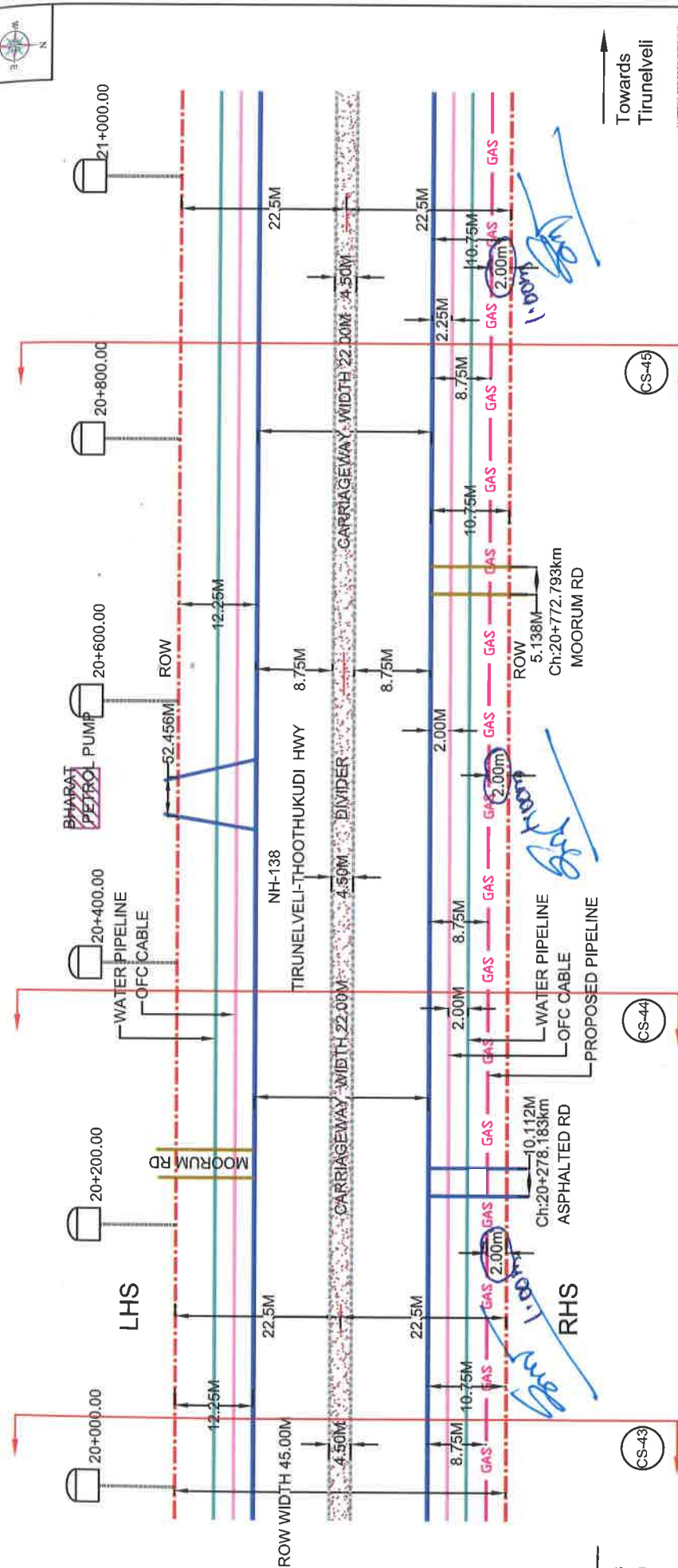





NOTES:		CLIENT		INDIAN OIL CORPORATION LTD.	
1. ALL DIMENSIONS ARE IN METER.		CONSULTANT		TRACTEBEL ENGINEERING PVT. LTD.	
2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.		PROJECT		IOCL - CITY GAS DISTRIBUTION PROJECT - THOOTHUKUDI GA	
3. DRAWING NOT TO SCALE.		SURVEYED & PREPARED BY		SWAYIN ENGINEERING ASSOCIATES P. L. LD. 77, SATYA NAGAR BHAMBANESWAR, PH - 09-267425/09-267297/09-267428	
		TITLE		PROPOSED GAS PIPELINE	
		DRAWING NO.		Along National Highway - 138 from Ch-19+000.00km to 20+000.00km	
		SHEET NO.		14 OF 41	
		B/S/IOCL/TUTICORIN TO TIRUNELVELI/STRIP PLAN-14			

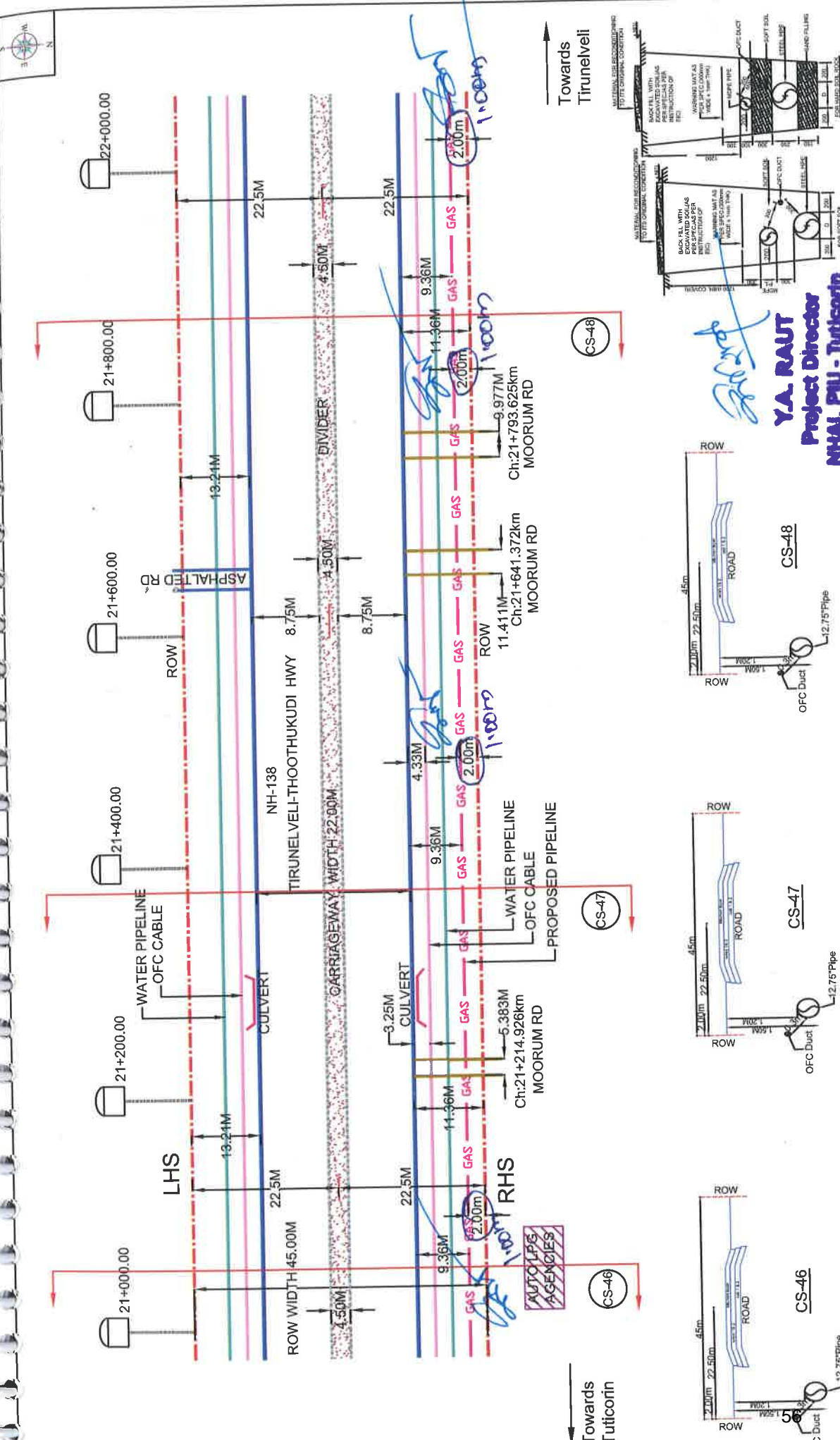


Particulars	Symbols	Particulars	Symbols
Proposed pipeline	— — — — —	Builtup area / Building	■
Gas cable	— — — — —		
NH Row	— — — — —		
Asphalted road	— — — — —		
Divider	— — — — —		
Water Pipeline	— — — — —		
Culvert	— — — — —		
Moorum Road	— — — — —		

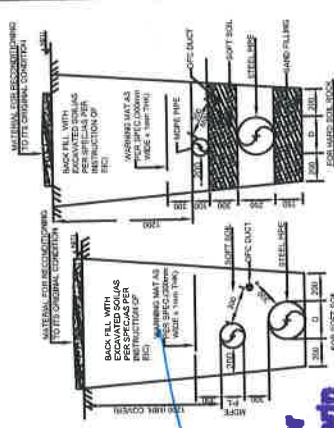




						<p><b>NOTES:</b></p> <p>1. ASPHALTED RD.-Ch:20+278.183km The road is connected into right side main road.</p> <p>2. MOORUM RD.-Ch:20+772.793km The road is connected into right side main road.</p>		<p><b>NOTES:</b></p> <p>1. ALL DIMENSIONS ARE IN METER.</p> <p>2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED. DO NOT SCALE THE DRAWING.</p> <p>3. DRAWING NOT TO SCALE.</p>				<p><b>CLIENT</b></p> <p> INDIAN OIL CORPORATION LTD.</p> <p><b>CONSULTANT</b></p> <p> TRACTEBEL ENGINEERING PVT. LTD.</p> <p><b>PROJECT</b></p> <p>IOCL - CITY GAS DISTRIBUTION PROJECT -THOOTHUKUDI GA</p> <p><b>SURVEYED &amp; PREPARED BY</b></p> <p> SWAYIN ENGINEERING ASSOCIATES PVT. LTD. 77, SATYA NAGAR, BHUBANESWAR-751015 PH: 06742570501/5229112570498</p> <p><b>TITLE</b></p> <p>PROPOSED GAS PIPELINE Along National Highway - 138 from Ch-20+000.00km to 21+000.00km</p>		<p><b>DRAWING NO.</b></p> <p>BISE/IOCL/TEP/TUTICORIN TO TIRUNELVELI/ STRIP PLAN-15</p> <p><b>SHEET NO.</b></p> <p>15 OF 41</p>	
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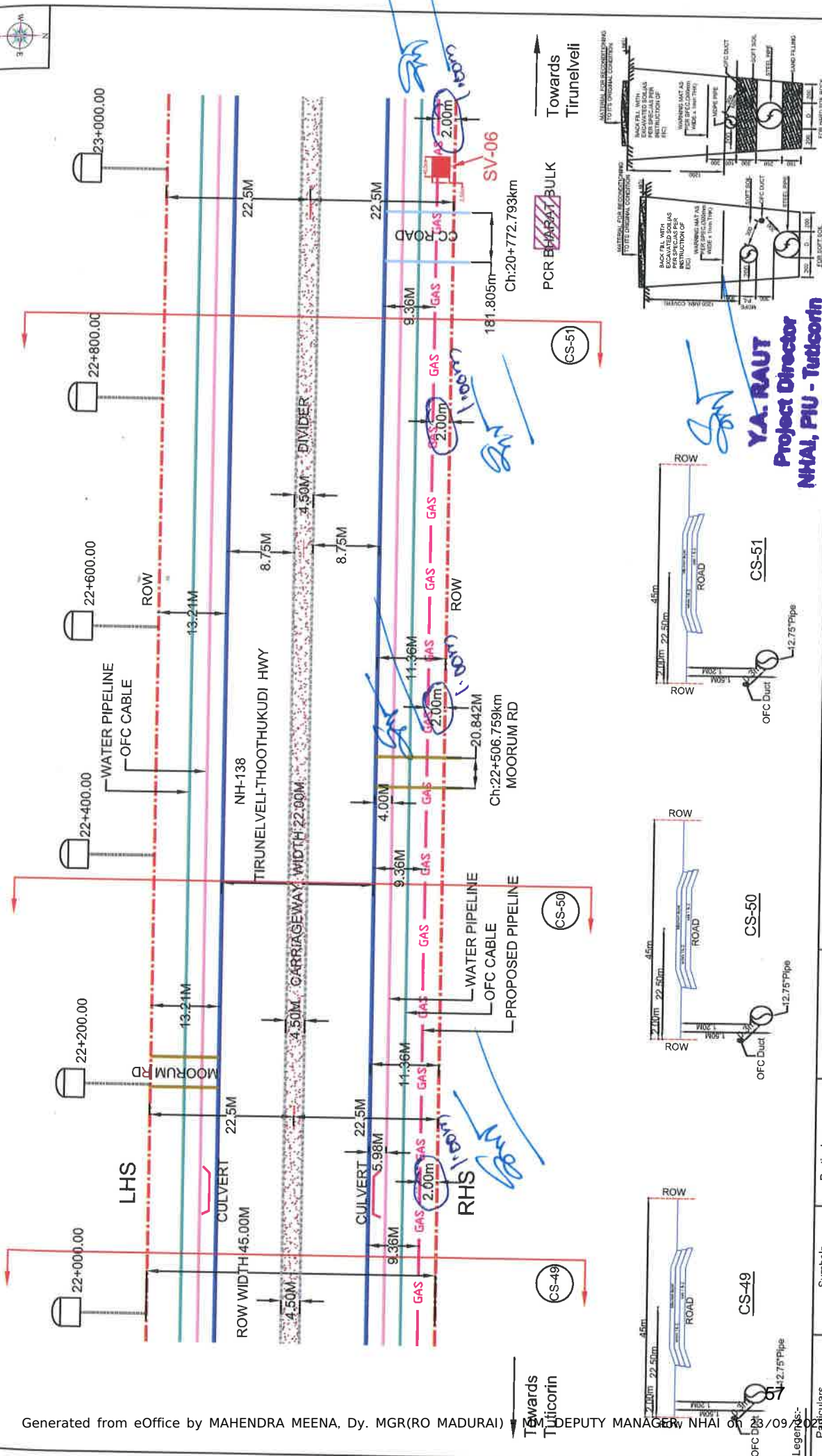


NOTES:		CLIENT		INDIAN OIL CORPORATION LTD.	
1. ALL DIMENSIONS ARE IN METER.		CONSULTANT		TRACTEBEL ENGINEERING PVT. LTD.	
2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.		PROJECT		IOCL - CITY GAS DISTRIBUTION PROJECT	
3. DRAWING NOT TO SCALE.		SURVEYED & PREPARED BY		SWAYIN ENGINEERING ASSOCIATES P.L. Ltd.	
		TITLE		PROPOSED GAS PIPELINE	
		DRAWING NO.		Along National Highway - 138 from Ch-21+000.00m to 22+000.00m	
		SHEET NO.		16 OF 41	
		BASE/SCALE/PIU/TUTICORIN TO TIRUNELVELI		STRIP PLAN-16	



**Y.A. RAUT**  
Project Director  
NHAI, PIU - Tuticorin





CLIENT		INDIAN OIL CORPORATION LTD.	
CONSULTANT		TRACTEBEL ENGINEERING PVT. LTD.	
PROJECT		IOCL - CITY GAS DISTRIBUTION PROJECT - THOOTHUKUDI GA	
SURVEYED & PREPARED BY		SWAYIN ENGINEERING ASSOCIATES P4, Ltd. P-17, VANDANA, KALAMANDIRAM, NH-138, NH-138, NH-138, NH-138	
TITLE		PROPOSED GAS PIPELINE Along National Highway - 138 from Ch-22+000.00km to 23+000.00km	
DRAWING NO.		BASE/IOCL/PIU/TUTICORIN TO TIRUNELVELI/	
SHEET NO.		17 OF 41	

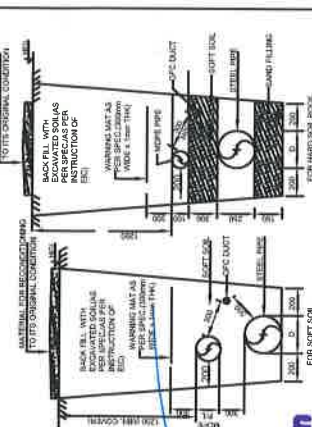
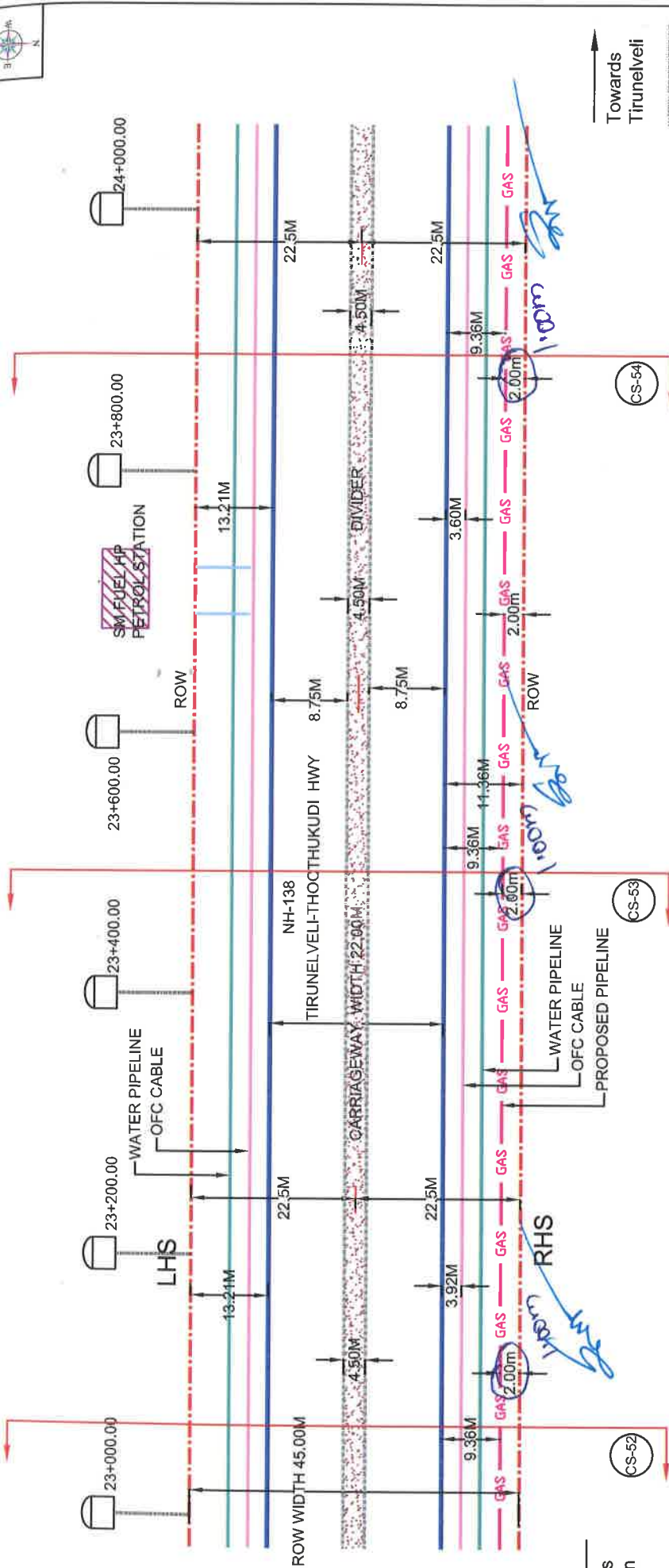
NOTES:

1. ASPHALTED RD.-Ch:20+772.793km  
The road is connected into right side main road.

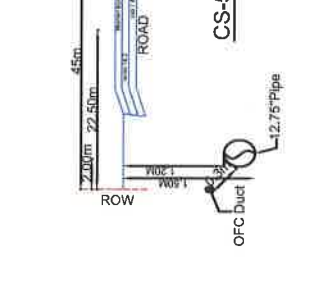
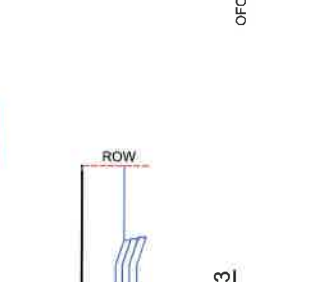
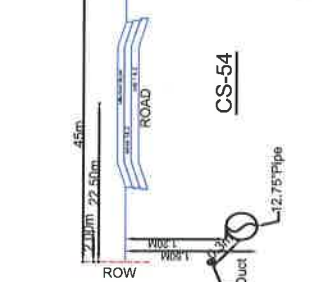
1. ALL DIMENSIONS ARE IN METER.  
2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.  
3. DRAWING NOT TO SCALE.

Particulars	Symbols	Particulars	Symbols
Proposed pipeline		Moorum Road	
OFC cable		Builtup area / Building	
NH Row			
Asphalted road			
Divider			
Water Pipeline			
Culvert			
Cc road			

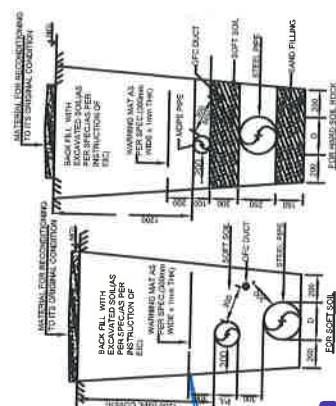
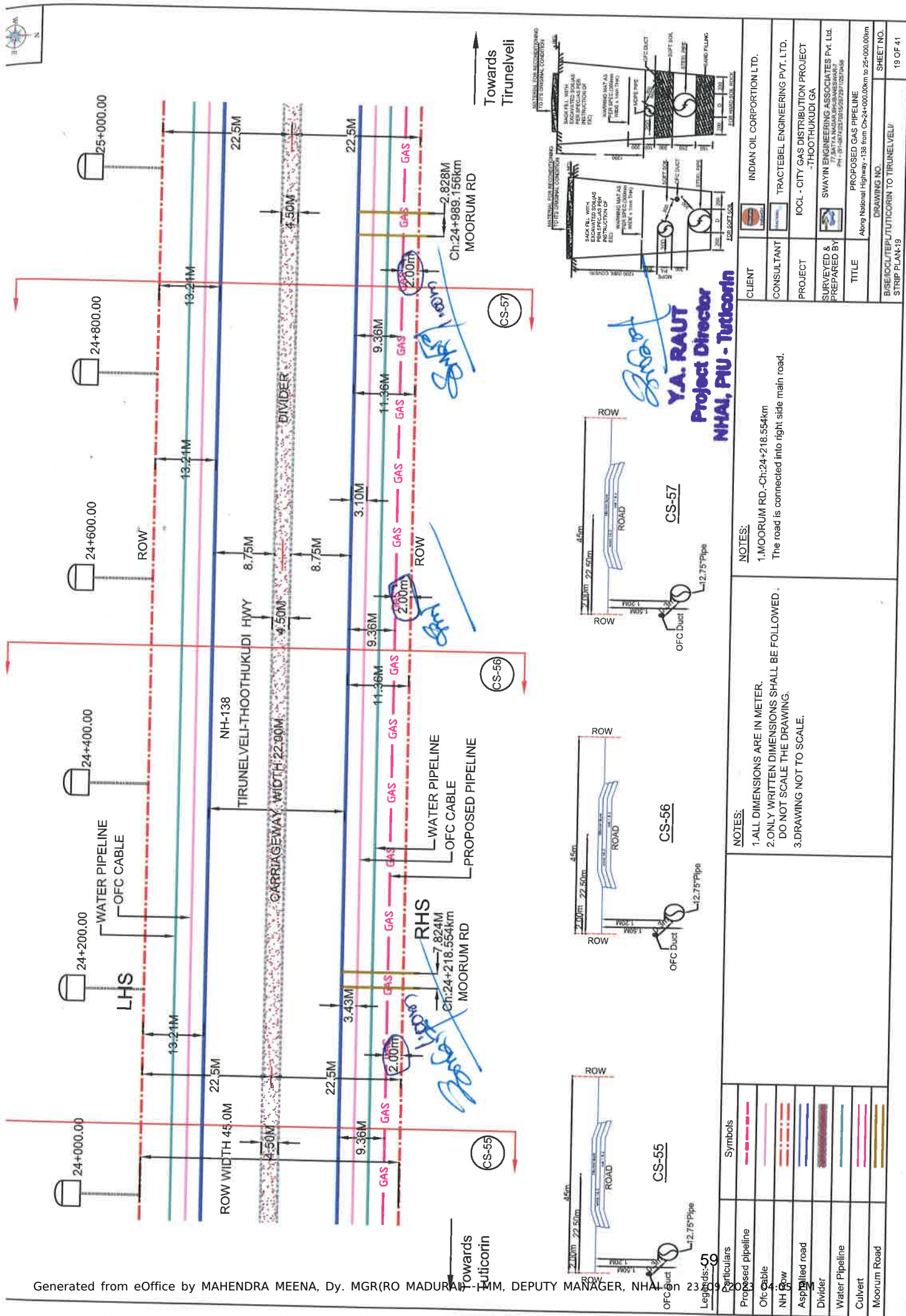




**Y.A. RAUT**  
Project Director  
NHAI, PIU - Tuticorin



NOTES:		CLIENT	
1. ALL DIMENSIONS ARE IN METERS.		INDIAN OIL CORPORATION LTD.	
2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.		CONSULTANT	
3. DRAWING NOT TO SCALE.		TRACTEBEL ENGINEERING PVT. LTD.	
		PROJECT	
		IOCL - CITY GAS DISTRIBUTION PROJECT - THOOTHUKUDI GA	
		SURVEYED & PREPARED BY	
		SWAYN ENGINEERING ASSOCIATES P. L. D.	
		TITLE	
		PROPOSED GAS PIPELINE	
		DRAWING NO.	
		Along National Highway - 138 from Ch-23+000.00m to 24+000.00m	
		SHEET NO.	
		B/SE/IOCL/TEP/TUTICORIN TO TIRUNELVELI/ STRIP PLAN-18	
		18 OF 41	



**Y.A. RAUT**  
Project Director  
NHAI, PIU - Tuticorin

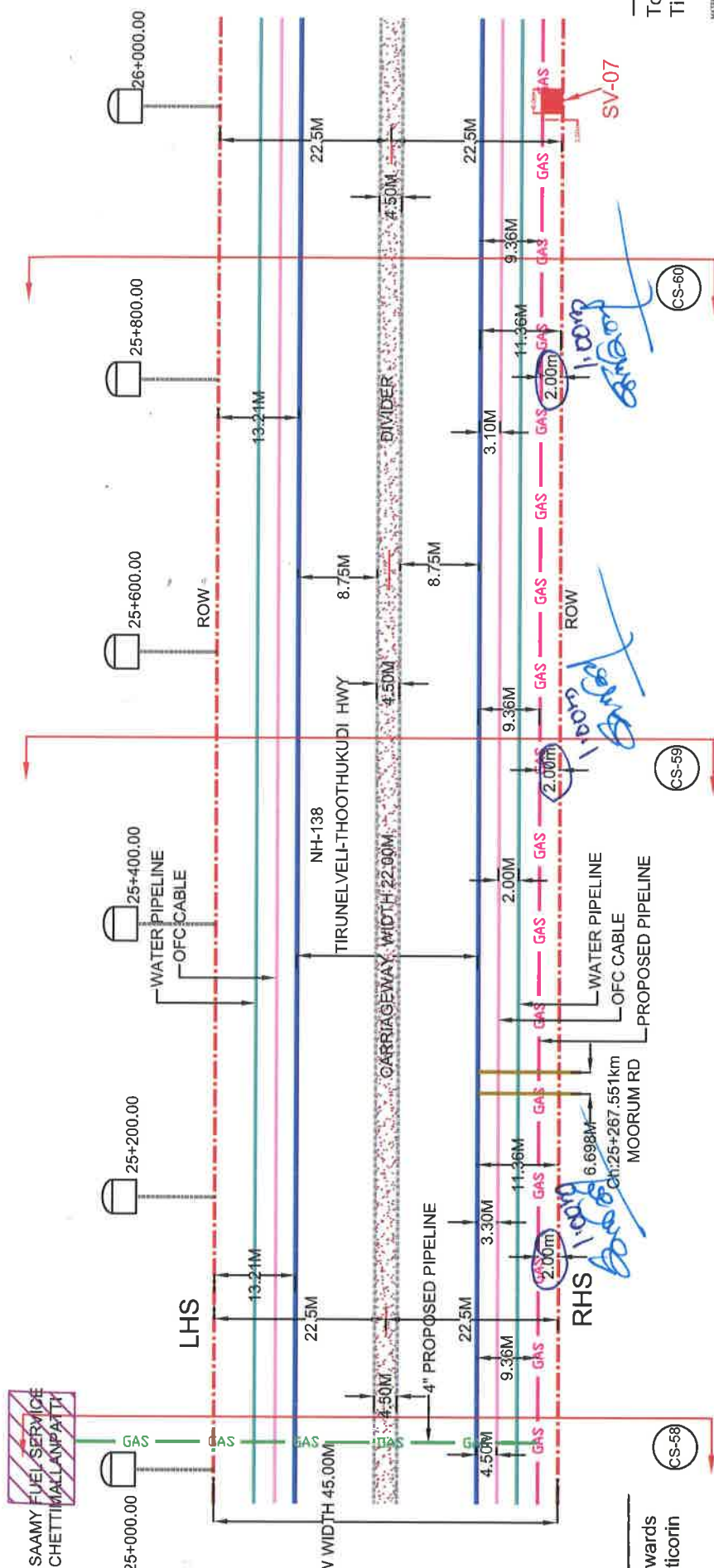
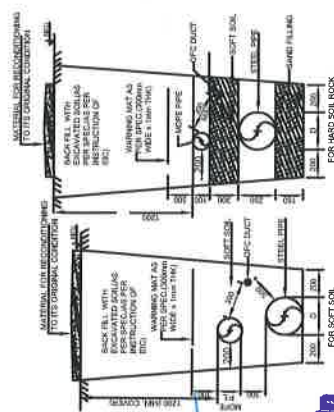
CLIENT	INDIAN OIL CORPORATION LTD.
CONSULTANT	TRACTEBEL ENGINEERING PVT. LTD.
PROJECT	IOCL - CITY GAS DISTRIBUTION PROJECT - THOOTHUKUDI GA
SURVEYED & PREPARED BY	SWAYIN ENGINEERING ASSOCIATES PVT. Ltd. JAYANAGAR, MADURAI PIN - 625 002 (S) 04523/133/PAH
TITLE	PROPOSED GAS PIPELINE Along National Highway - 138 from Ch:24+000.00km to 25+000.00km
DRAWING NO.	BASE/IOCL/TE/PIU/TUTICORIN TO TIRUNELVELI/ STRIP PLAN-19
SHEET NO.	19 OF 41

**NOTES:**  
1. MOORUM RD. Ch:24+218.554km  
The road is connected into right side main road.

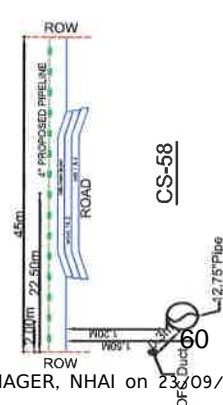
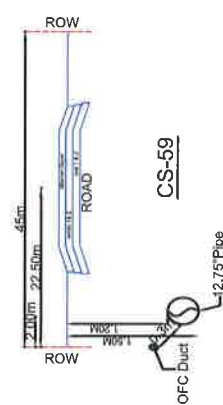
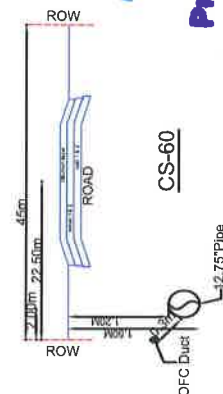
**NOTES:**  
1. ALL DIMENSIONS ARE IN METER.  
2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.  
3. DRAWING NOT TO SCALE.

Particulars	Symbols
Proposed pipeline	---
OFC cable	---
NH	---
Asphalted road	---
Divider	---
Water Pipeline	---
Culvert	---
Moorum Road	---



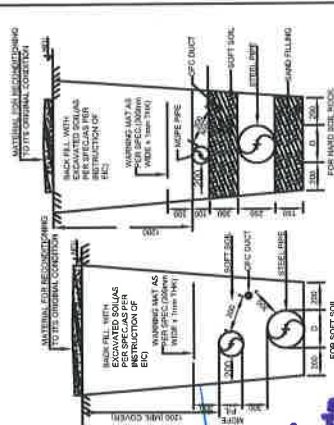
Towards  
Tirunelveli

**Y.A. RAUT**  
Project Director  
NHAI, PIU - Tuticorin



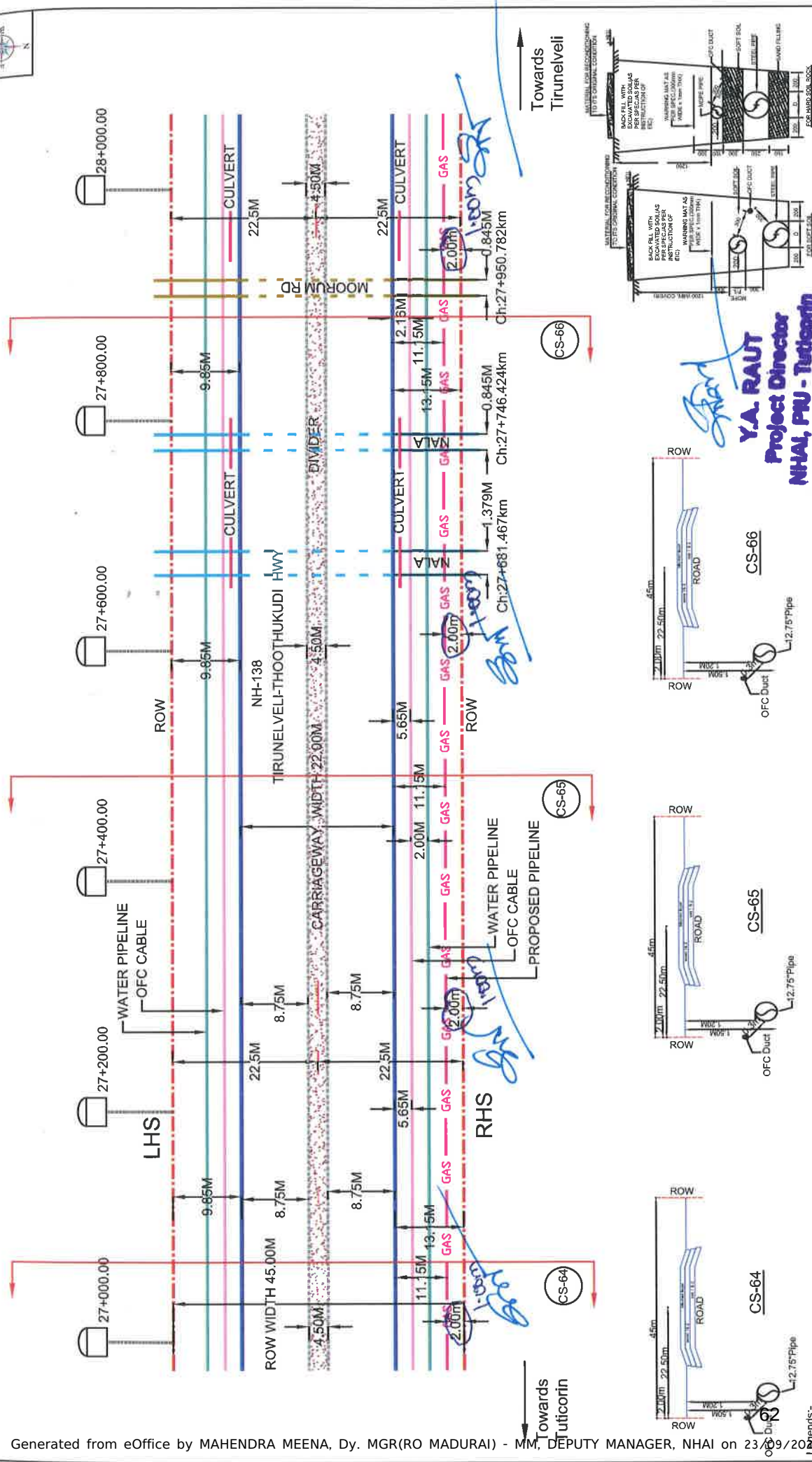
Particulars	Symbols	Particulars	Symbols
Proposed pipeline		4" Proposed Gas pipeline	
Cable			
N/Road			
Asphalted road			
Divider			
Water Pipeline			
Culvert			
Moorum Road			





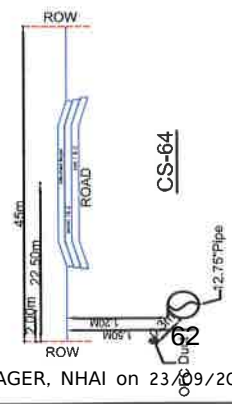
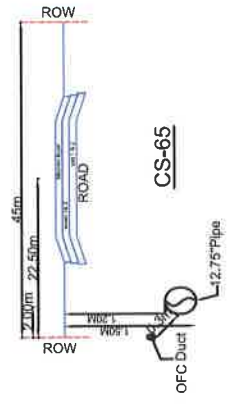
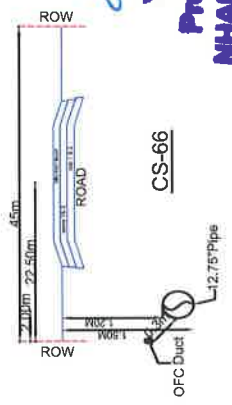
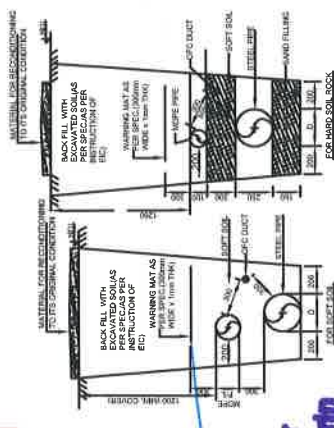
Signature: *[Signature]*  
Y.A. RAUT  
Project Director  
NHAI, P.U. - Tuticorin

Legends:-		Notes:-		Notes:-		Client		Indian Oil Corporation Ltd.	
Particulars	Symbols	Particulars	Symbols	Particulars	Symbols	Particulars	Symbols	Particulars	Symbols
Proposed pipeline		Moorum Road		<p><b>NOTES:-</b></p> <p>1. MOORUM RD.-Ch:26+125.41km The road is connected into right side main road.</p> <p>2. ASPHALTED RD.-Ch:26+596.71km The road is connected into right side main road.</p> <p>3. ASPHALTED RD.-Ch:26+860.823km The road is connected into right side main road.</p> <p>4. MOORUM RD.-Ch:26+923.659km The road is connected into right side main road.</p>					
Ofc cable									
NH Row									
Asphalted road									
Divider									
Water Pipeline									
Culvert									
Buildup area / Building									



<p><b>CLIENT</b> INDIAN OIL CORPORATION LTD.</p>		<p><b>CONSULTANT</b> TRACTEBEL ENGINEERING PVT. LTD.</p>	
<p><b>PROJECT</b> IOCL - CITY GAS DISTRIBUTION PROJECT -THOOTHUKUDI GA</p>		<p><b>SURVEYED &amp; PREPARED BY</b> SWAYIN ENGINEERING ASSOCIATES PVT. Ltd. 77, SATYA NAGAR, BHUBANESWAR-751005 PH - (91-674) 257001/257291/2570458</p>	
<p><b>TITLE</b> PROPOSED GAS PIPELINE Along National Highway -138 from Ch:27+000.00km to 28+000.00km</p>		<p><b>DRAWING NO.</b> BISE/IOCL/UTUTICORIN TO TIRUNELVELI/ STRIP PLAN-22</p>	
<p><b>SHEET NO.</b> 22 OF 41</p>		<p><b>DATE</b> 22/09/2023</p>	

**NOTES:**  
1. ALL DIMENSIONS ARE IN METER.  
2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.  
3. DRAWING NOT TO SCALE.



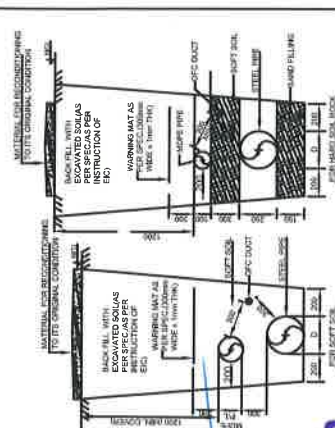
**Legends:-**

Particulars	Symbols
Proposed pipeline	—
OFC cable	—
NH Row	—
Asphalted road	—
Divider	—
Water Pipeline	—
Culvert	—

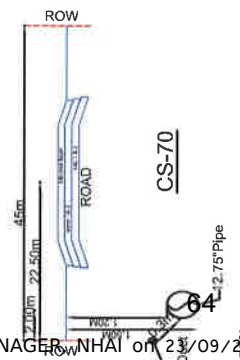
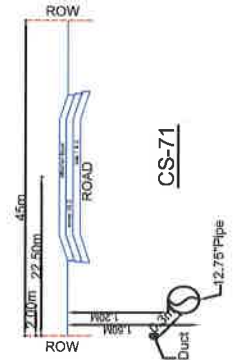
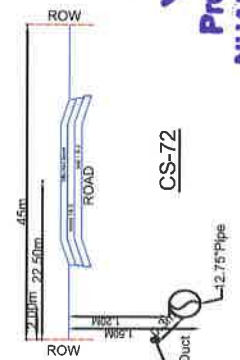


















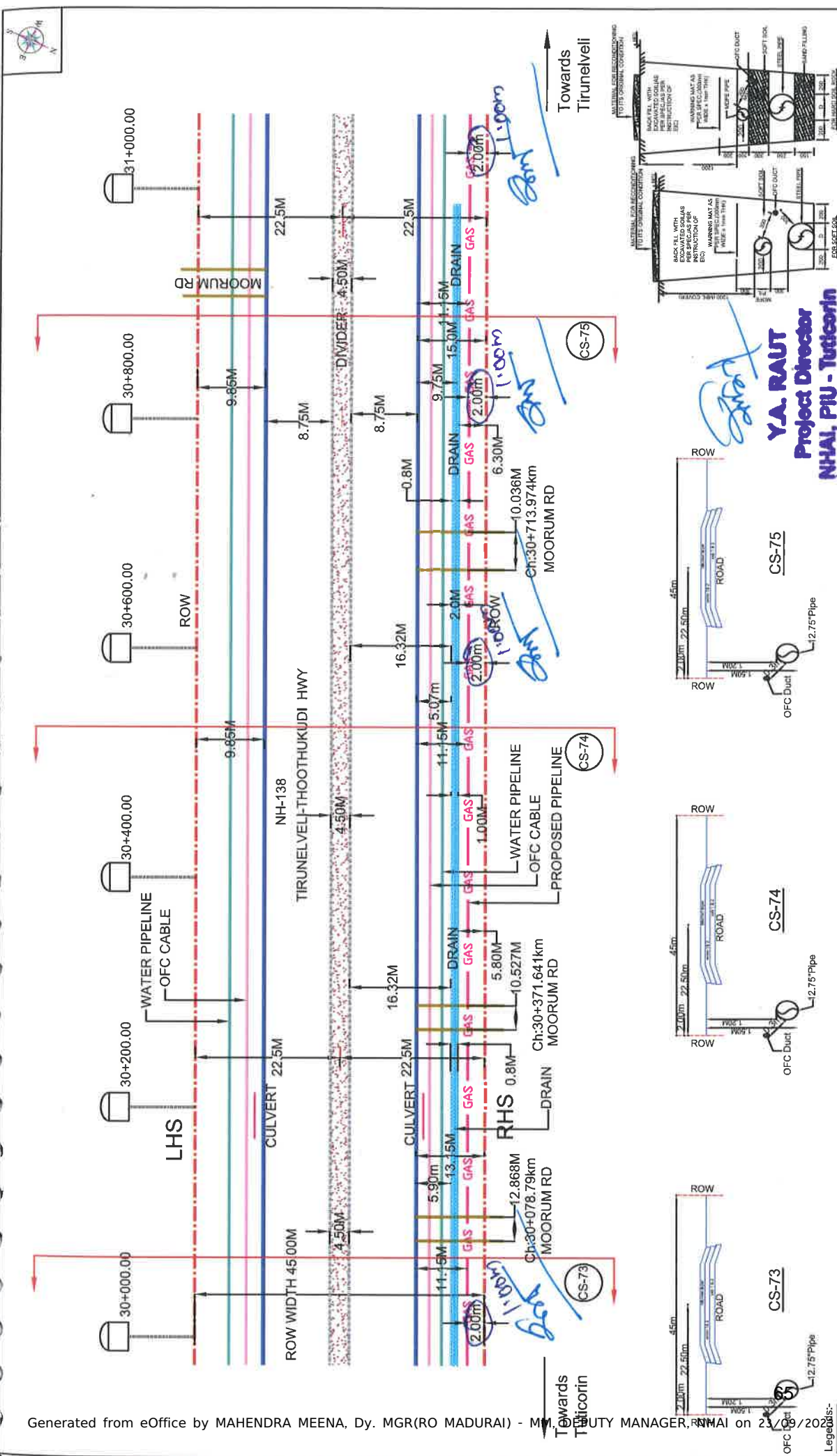


Y.A. RAUT  
Project Director  
NHAI, PIU - Tuticorin



Sl. No.	Particulars	Symbols	Particulars	Symbols
1	Proposed pipeline		Moorum Road	
2	Ofc cable			
3	NH Row			
4	Asphalised road			
5	Divider			
6	Water Pipeline			
7	Culvert			
8	Drain			

<b>NOTES:</b> 1.ALL DIMENSIONS ARE IN METER. 2.ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED. DO NOT SCALE THE DRAWING. 3.DRAWING NOT TO SCALE.		<b>NOTES:</b> 1.MOORUM RD-Ch:29+189.583km The road is connected into right side main road. 2.MOORUM RD-Ch:29+628.942km The road is connected into right side main road.		<div>CLIENT  INDIAN OIL CORPORATION LTD.</div> <div>CONSULTANT  TRACTEBEL ENGINEERING PVT. LTD.</div> <div>PROJECT IOCL - CITY GAS DISTRIBUTION PROJECT -THOOTHUKUDI GA</div> <div>SURVEYED &amp; PREPARED BY  SWAYAM ENGINEERING ASSOCIATES PVT. LTD. 77,SATYA NAGAR,BHUBANESWAR-7 PH-75 9697455062,9697257172,9697455068</div>	<div>TITLE PROPOSED GAS PIPELINE Along National Highway -138 from Ch-29+000.00km to 30+000.00km</div>	<div>DRAWING NO.</div> <div>SHEET NO.</div> <div>24 OF 41</div>
B/S=IOCL/TEPUT/CORIN TO TRINELVELU/ STRIP PLAN-2						



CLIENT		INDIAN OIL CORPORATION LTD.	
CONSULTANT		TRACTEBEL ENGINEERING PVT. LTD.	
PROJECT		IOCL - CITY GAS DISTRIBUTION PROJECT -THOOTHUKUDI GA	
SURVEYED & PREPARED BY		SWAYIN ENGINEERING ASSOCIATES Ptd. Ltd. 77 SATYA NAGAR BHUBANESWAR 7 PH - (91-674) 027001/027079/257948	
TITLE		PROPOSED GAS PIPELINE Along National Highway -138 from Ch:30+000.00km to 31+000.00km	
DRAWING NO.		B/S/IOCL/TEP/TUTICORIN TO TIRUNELVELI/ STRIP PLAN-25	
SHEET NO.		25 OF 41	

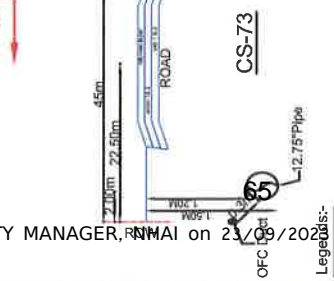
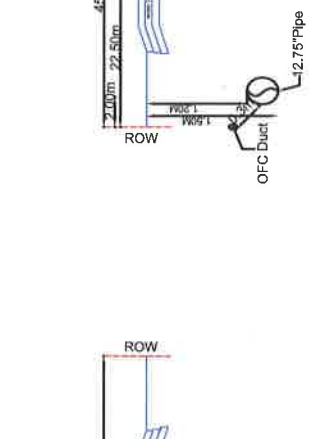
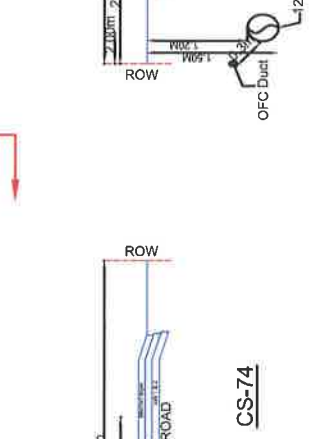
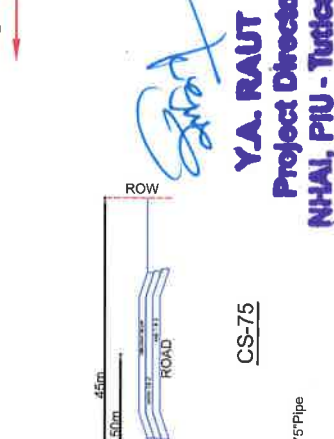
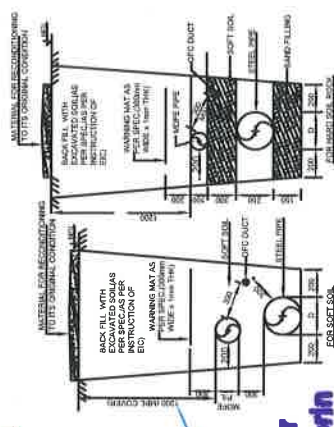
NOTES:

1. MOORUM RD-Ch:30+078.79km  
The road is connected into right side main road.
2. MOORUM RD.-Ch:30+371.641km  
The road is connected into right side main road.
3. MOORUM RD.-Ch:30+713.974km  
The road is connected into right side main road.

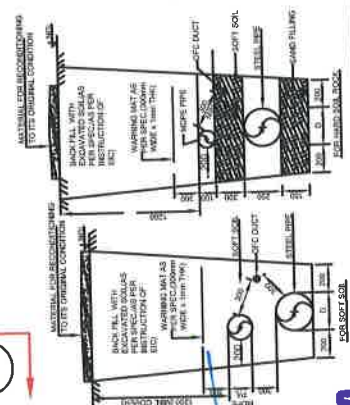
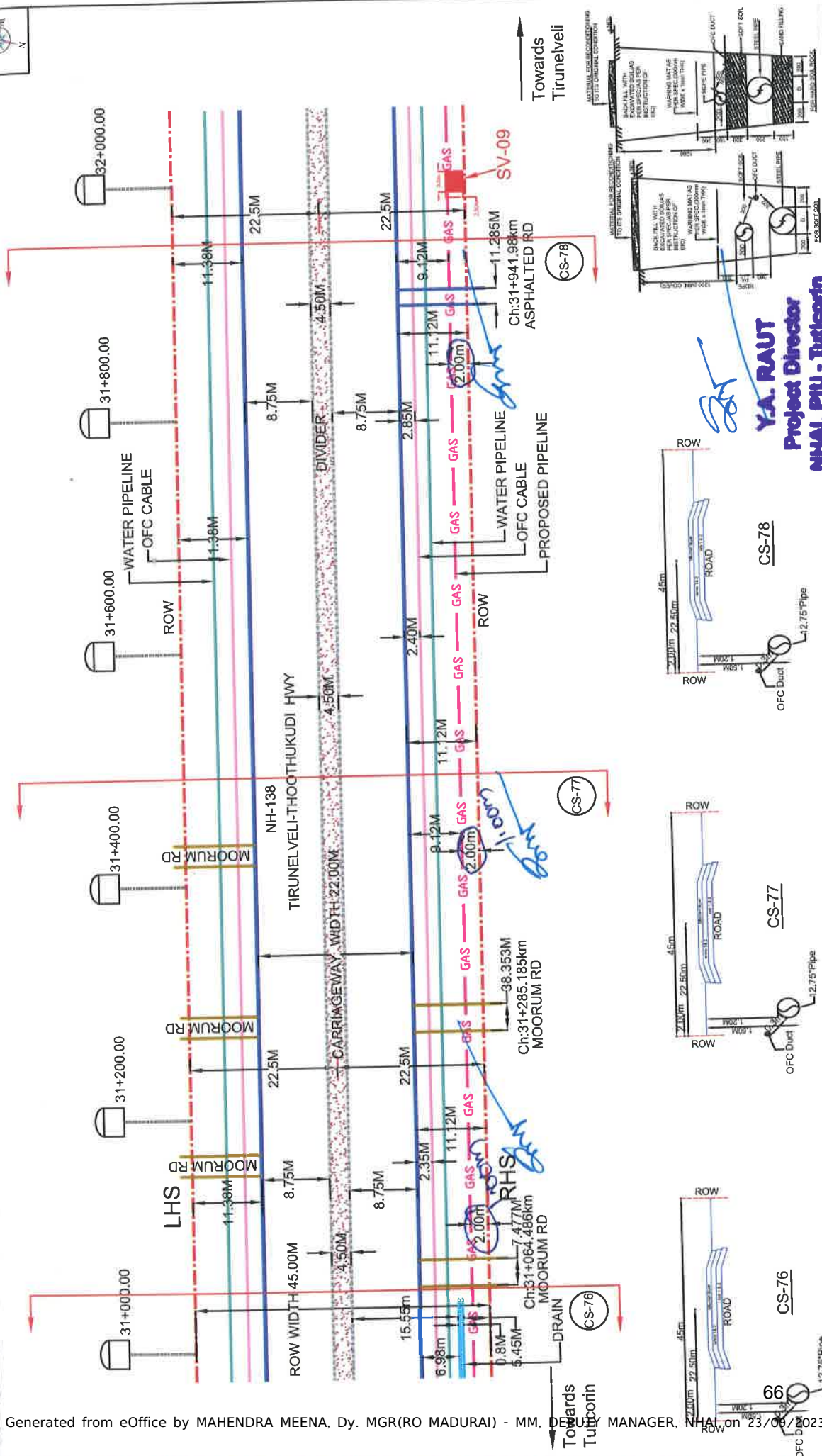
NOTES:

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

Particulars	Symbols	Particulars	Symbols
Proposed pipeline	—	Moorum Road	—
OFC Cable	—		
NH Row	—		
Asphalted road	—		
Divider	—		
Water Pipeline	—		
Culvert	—		
Drain	—		







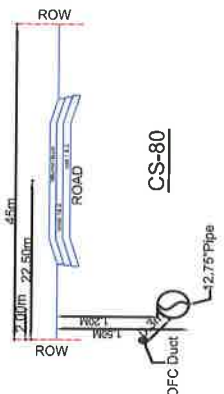
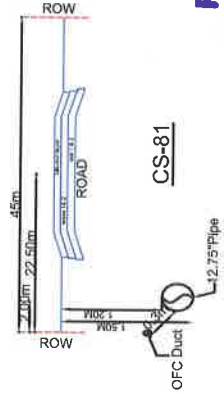
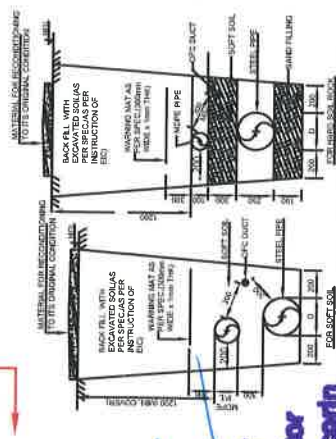
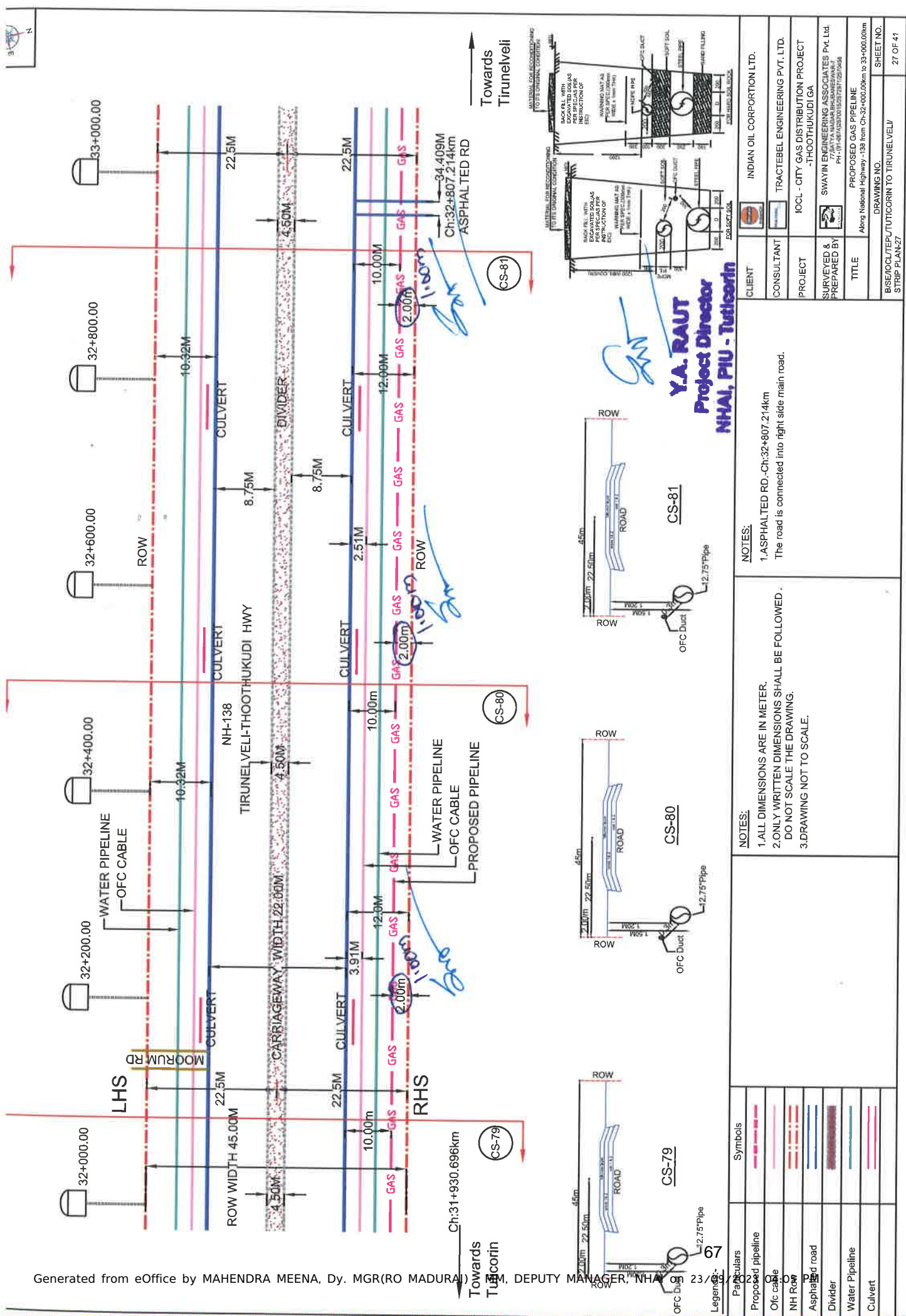
CLIENT	INDIAN OIL CORPORATION LTD.
CONSULTANT	TRACTEBEL ENGINEERING PVT. LTD.
PROJECT	IOCL - CITY GAS DISTRIBUTION PROJECT -THOOTHUKUDI GA
SURVEYED & PREPARED BY	SWAYIN ENGINEERING ASSOCIATES Ptd. Ltd. 77, JAYTA NAGAR, JAYANAGAR 2 PH - 087-1957010/05527010270406
TITLE	PROPOSED GAS PIPELINE
DRAWING NO.	Along National Highway - 138 from Ch:31+000.00km to 32+000.00km
SHEET NO.	26 OF 41

NOTES:	1. MOORUM RD-Ch:31+064.486km The road is connected into right side main road. 2. MOORUM RD.-Ch:31+285.185km The road is connected into right side main road. 3. ASPHALTED RD.-Ch:31+941.98km The road is connected into right side main road.
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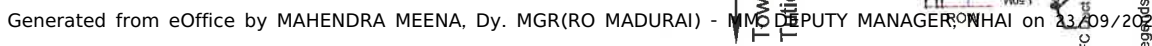
NOTES:	1. ALL DIMENSIONS ARE IN METER. 2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED. DO NOT SCALE THE DRAWING. 3. DRAWING NOT TO SCALE.
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Particulars	Symbols	Particulars	Symbols
Proposed pipeline	---	Drain	---
OFC cable	---	Moorum Road	---
NH Row	---		
Asphalted road	---		
Divider	---		
Water Pipeline	---		
Culvert	---		

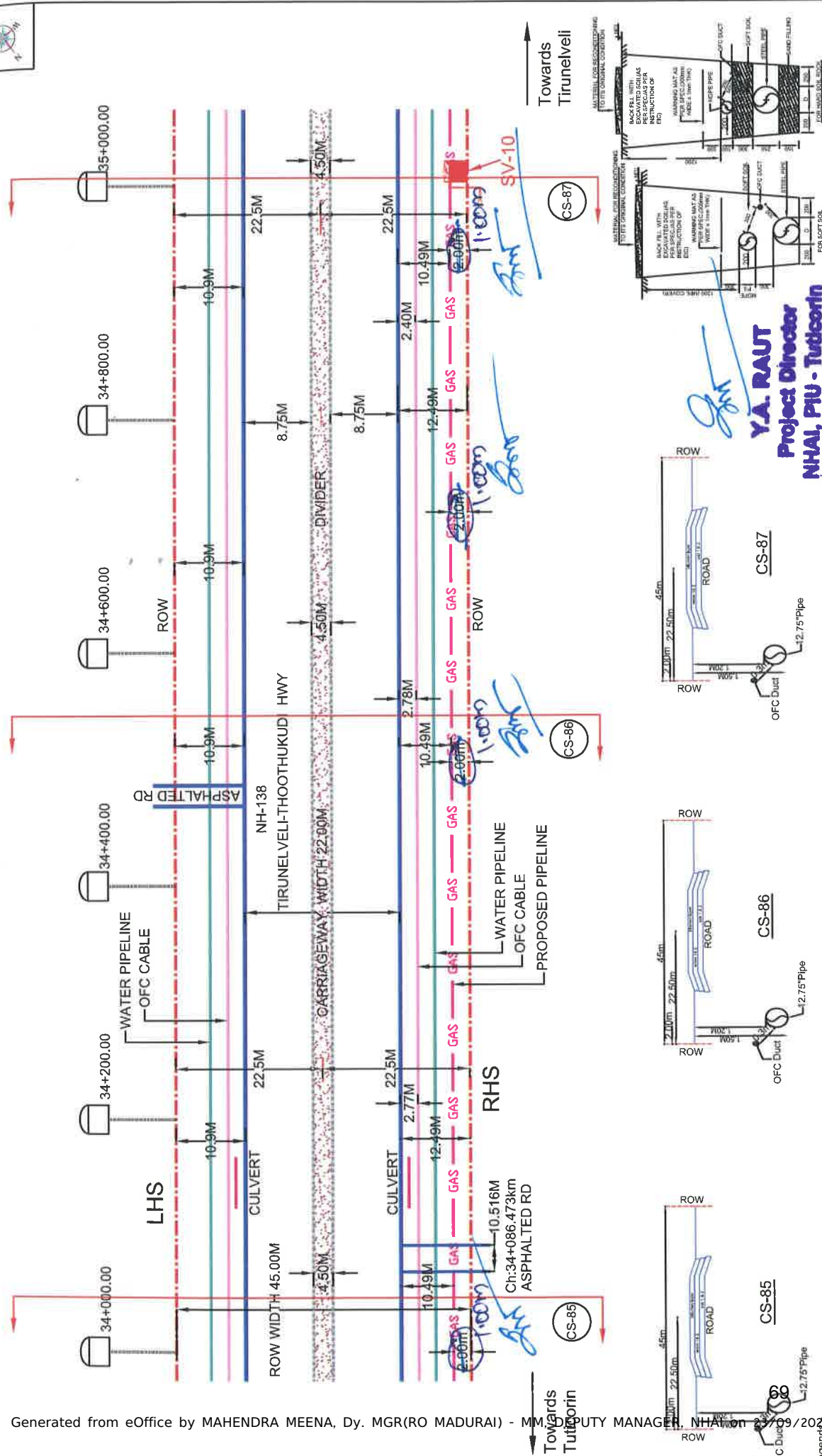




Particulars	Symbols	NOTES:	CLIENT
Proposed pipeline	---	1. ALL DIMENSIONS ARE IN METER.	INDIAN OIL CORPORATION LTD.
OFC cable	---	2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.	CONSULTANT
NH ROW	---	3. DRAWING NOT TO SCALE.	TRACTEBEL ENGINEERING PVT. LTD.
Asphalted road	---		PROJECT
Divider	---		IOCL - CITY GAS DISTRIBUTION PROJECT - THOOTHUKUDI GA
Water Pipeline	---		SURVEYED & PREPARED BY
Culvert	---		SWAYIN ENGINEERING ASSOCIATES P4. LTD. 77, ANITA NAGAR, BHARANAVANUR PH: +91 4320015287 725 9048
			TITLE
			PROPOSED GAS PIPELINE
			Along National Highway - 138 from Ch-32+000.00km to 33+000.00km
			DRAWING NO.
			BISE/IOCL/TEP/TUTICORIN TO TIRUNELVELI STRIP PLAN-27
			SHEET NO.
			27 OF 41

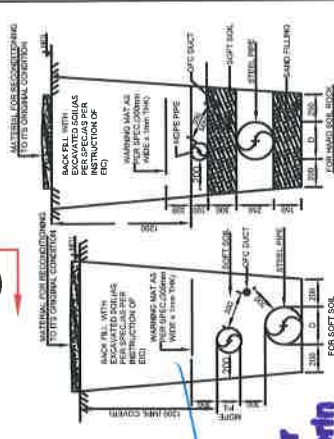






Towards  
Tirunelveli

Towards  
Tuticorin



**Y.A. RAUT**  
 Project Director  
 NHAI, PIU - Tuticorin

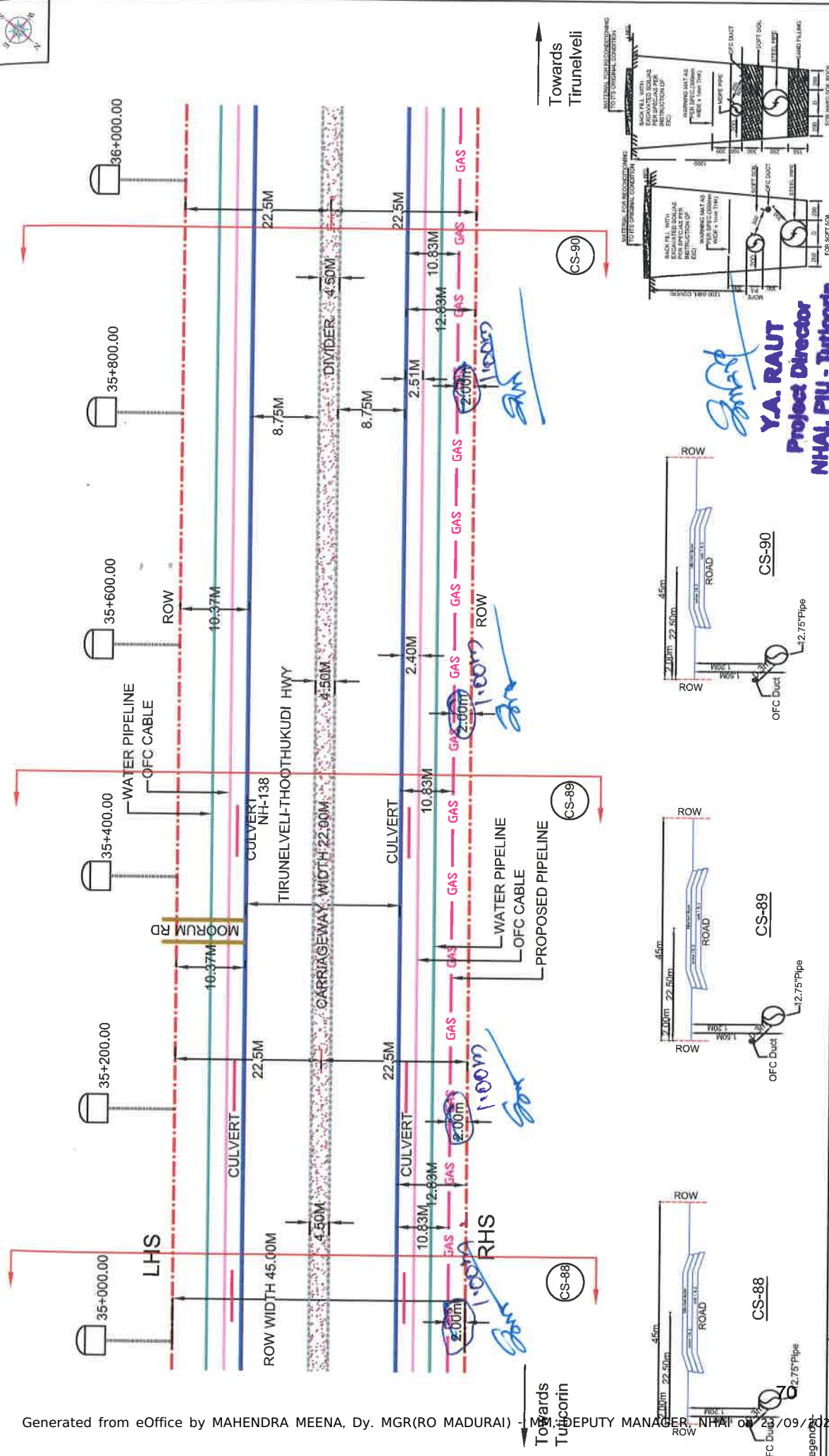
CLIENT	INDIAN OIL CORPORATION LTD.
CONSULTANT	TRACTEBEL ENGINEERING PVT. LTD.
PROJECT	IOCL - CITY GAS DISTRIBUTION PROJECT -THOOTHUKUDI GA
SURVEYED & PREPARED BY	SWAYIN ENGINEERING ASSOCIATES Pvt. Ltd. 77 SATYA NAGAR, KANUNGIKUNTA PH - 08442570015/02729712874/48
TITLE	PROPOSED GAS PIPELINE Along National Highway -138 from Ch-34+000.00km to 35+000.00km
DRAWING NO.	B/SE/IOCL/TEP/TUTICORIN TO TIRUNELVELI/ STRIP PLAN-29
SHEET NO.	29 OF 41

**NOTES:**  
 1.ASPHALTED RD.-Ch:34+086.473km  
 The road is connected into right side main road.

**NOTES:**  
 1.ALL DIMENSIONS ARE IN METER.  
 2.ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.  
 3.DRAWING NOT TO SCALE.

Particulars	Symbols
Proposed pipeline	---
O/c cable	---
NH Row	---
Asphalted road	---
Divider	---
Water Pipeline	---
Culvert	---



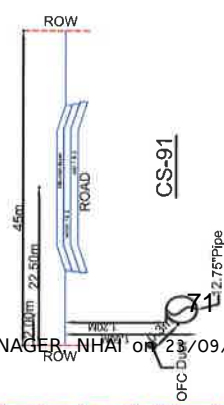
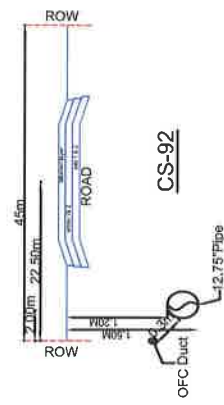
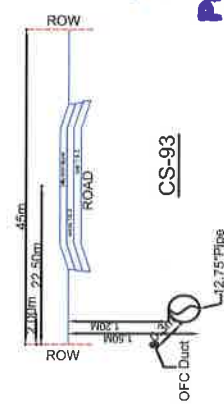


CLIENT	INDIAN OIL CORPORATION LTD.
CONSULTANT	TRACTEBEL ENGINEERING PVT. LTD.
PROJECT	IOCL - CITY GAS DISTRIBUTION PROJECT -THOOTHUKUDI GA
SURVEYED & PREPARED BY	SWAYAM ENGINEERING ASSOCIATES PVT. LTD. 77, 88/1A, NAGAR, ENNAKAL, MADURAI PH - (04574) 057005/057097/057058
TITLE	PROPOSED GAS PIPELINE Along National Highway -138 from Ch-35+000.00m to 36+000.00m
DRAWING NO.	B/SE/IOCL/TEP/TUTICORIN TO TIRUNELVELI/
SHEET NO.	30 OF 41

NOTES:

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

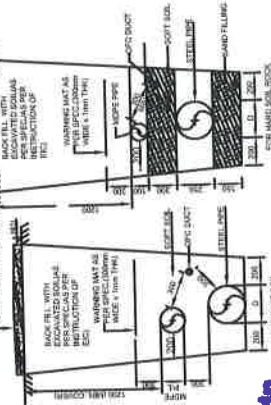
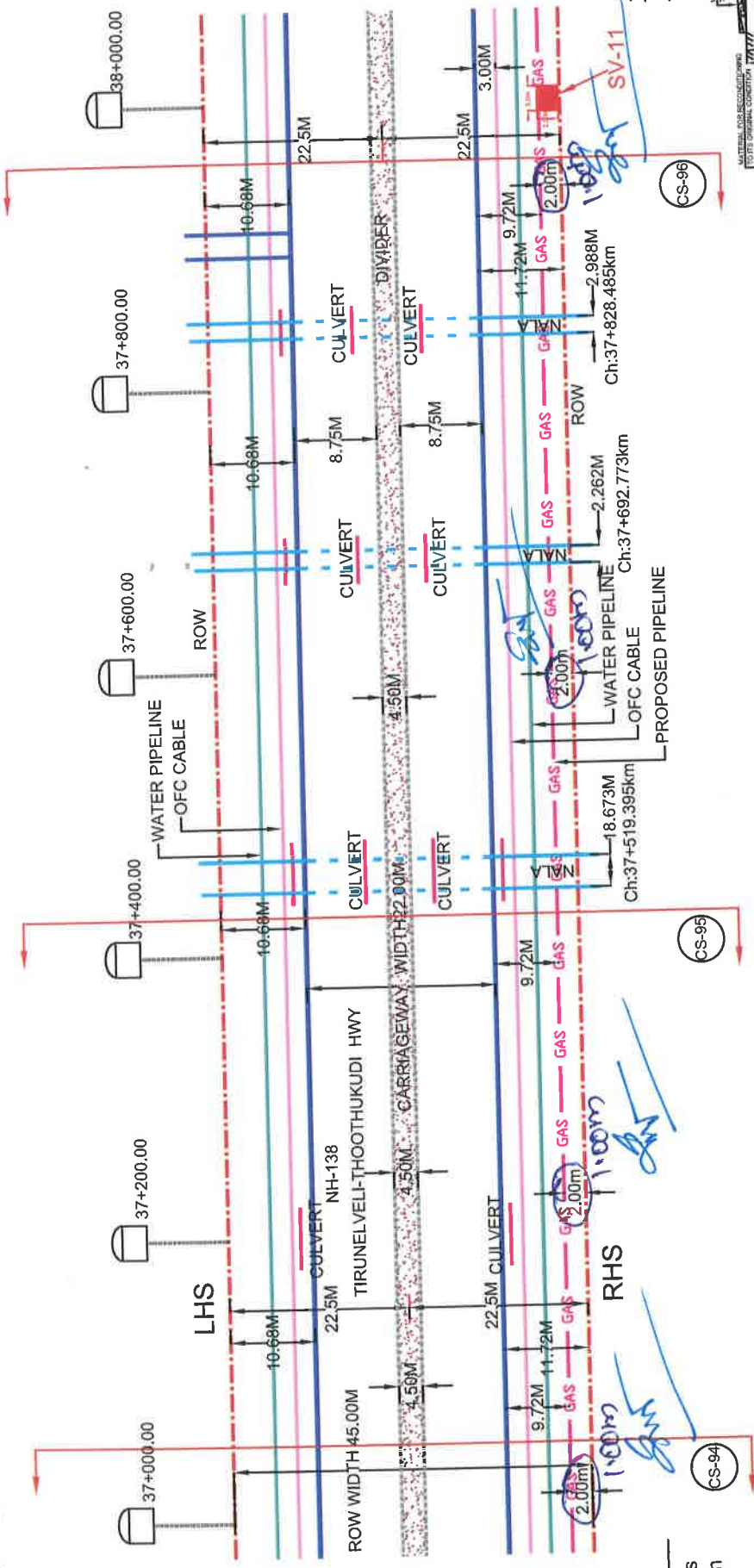
Particulars	Symbols
Proposed pipeline	---
OFC cable	---
NH Road	---
Asphalted road	---
Divider	---
Water Pipeline	---
Culvert	---



**Y.A. RAUT**  
Project Director

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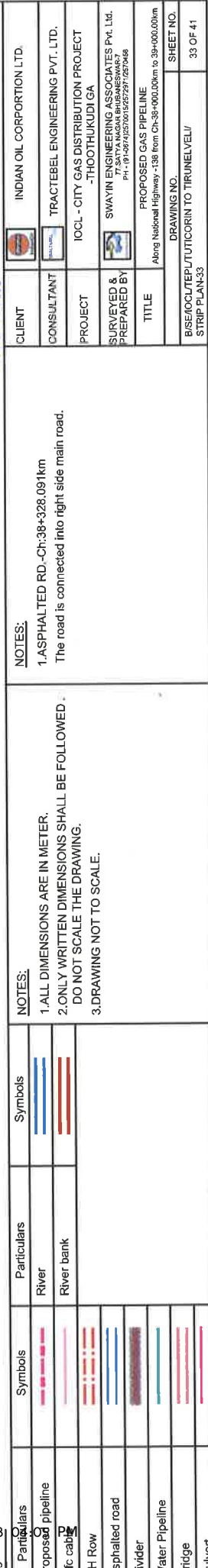
**Y.A. RAUT**  
Project Director  
NHAI, PIU - Tuticorin

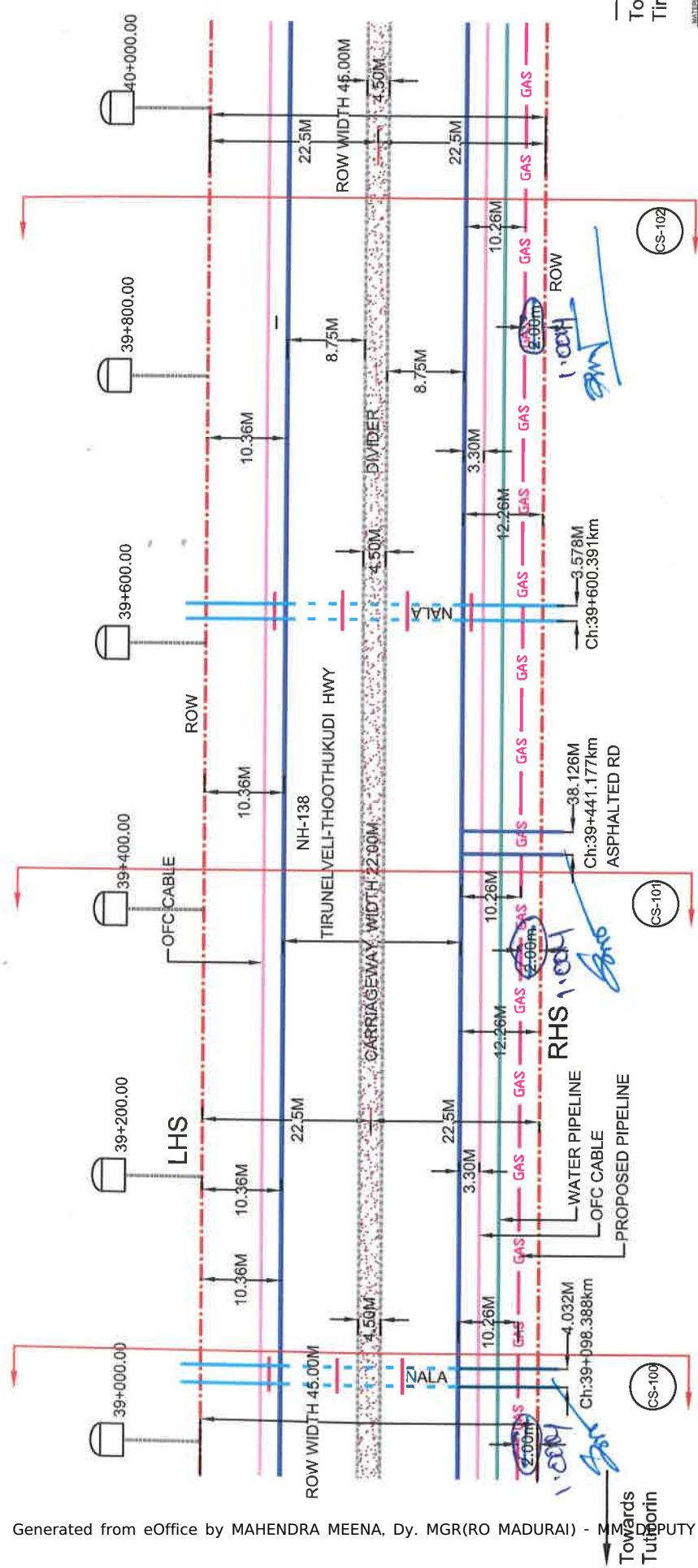
CLIENT	INDIAN OIL CORPORATION LTD.
CONSULTANT	TRACTEBEL ENGINEERING PVT. LTD.
PROJECT	IOCL - CITY GAS DISTRIBUTION PROJECT - THOOTHUKUDI GA
SURVEYED & PREPARED BY	SWAYIN ENGINEERING ASSOCIATES PVT. LTD. 77 SATYA NAGAR BHARANWARI PH - 91-9649850520/95205205
TITLE	PROPOSED GAS PIPELINE Along National Highway - 138 from Ch-37+000.00km to 38+000.00km
DRAWING NO.	BISEIOCL/TE/PIU/TUTICORIN TO TIRUNELVELI/ STRIP PLAN-32
SHEET NO.	32 OF 41

- NOTES:
1. ALL DIMENSIONS ARE IN METER.
  2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
  3. DO NOT SCALE THE DRAWING.
  3. DRAWING NOT TO SCALE.

Particulars	Symbols	Particulars	Symbols
Proposed pipeline	— — — — —	Nala	— — — — —
O/c cable	— — — — —		
NH Row	— — — — —		
Asphalted road	— — — — —		
Divider	— — — — —		
Water Pipeline	— — — — —		
Culvert	— — — — —		

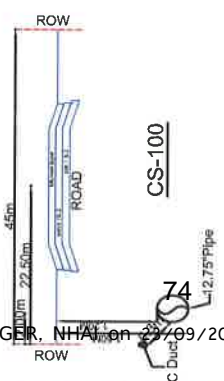
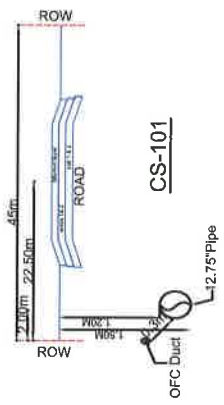
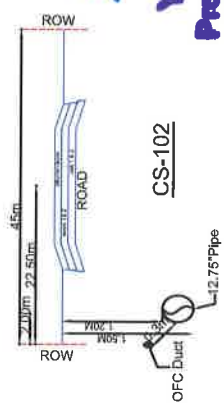
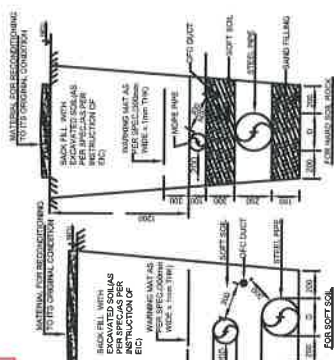






Towards  
Tirunelveli

Towards  
Tuticorin

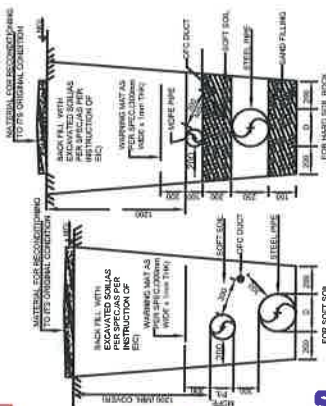
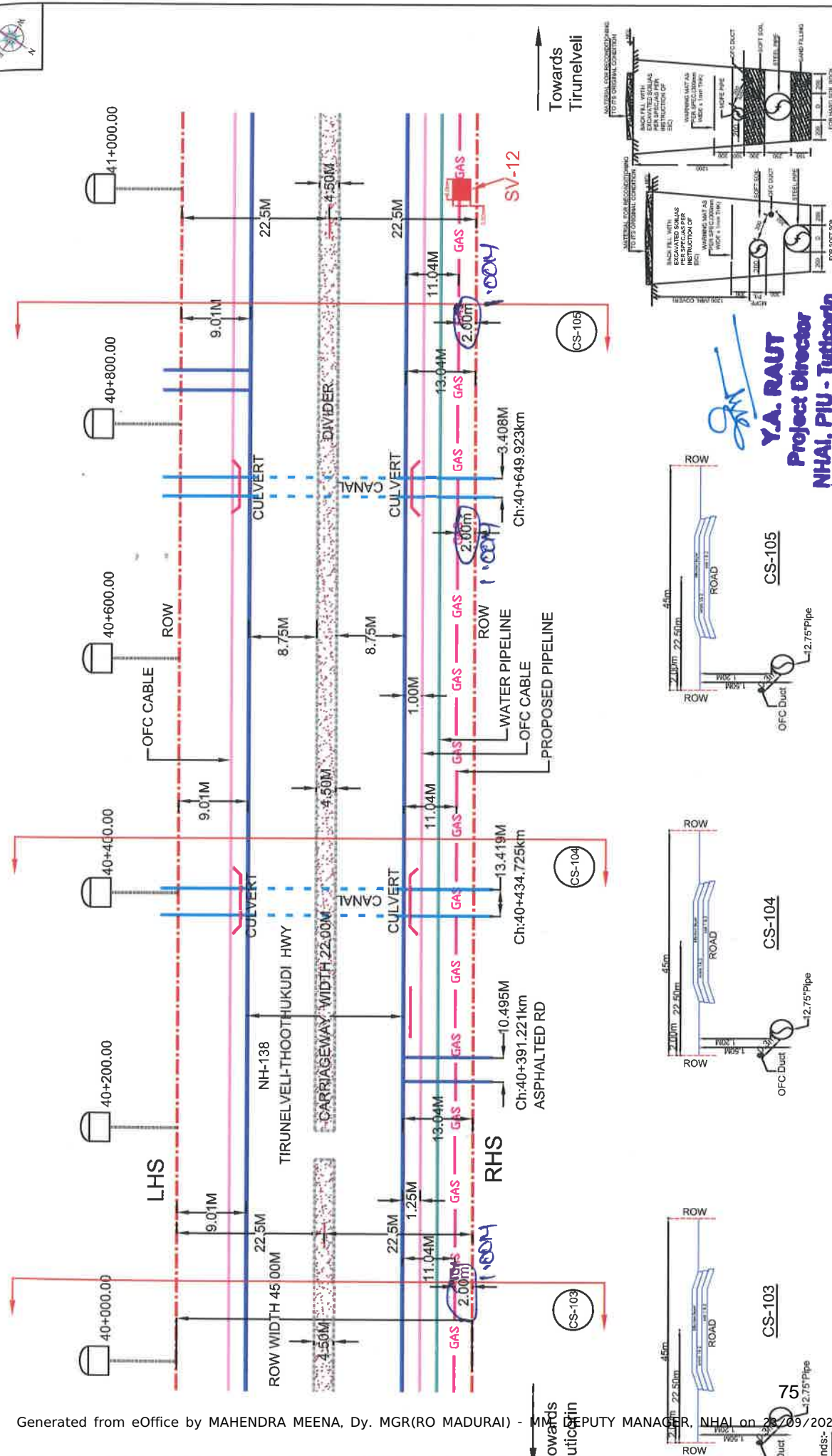


**Y.A. RAUT**  
Project Director  
NHAI, PIU - Tuticorin

Particulars	Symbols	Particulars	Symbols	Notes:	Notes:
Proposed pipeline	---	Nala	---	1. ALL DIMENSIONS ARE IN METER.	1. ASPHALTED RD.-Ch:39+441.177km
OFC cable	---			2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.	The road is connected into right side main road.
NH Row	---			3. DRAWING NOT TO SCALE.	
Asphalted road	---				
Divider	---				
Water Pipeline	---				
Culvert	---				

CLIENT	INDIAN OIL CORPORATION LTD.
CONSULTANT	TRACTEEL ENGINEERING PVT. LTD.
PROJECT	IOCL - CITY GAS DISTRIBUTION PROJECT -THOOTHUKUDI GA
SURVEYED & PREPARED BY	SWAYIN ENGINEERING ASSOCIATES P4 Ltd. P4 - 77 SATYA NAGAR, PHEASANTWADY PH - (0464) 9570112/9571257/9570458
TITLE	PROPOSED GAS PIPELINE Along National Highway - 138 from Ch:39+000.00km to 40+000.00km
DRAWING NO.	BISE/IOCL/TE/PIU/TUTICORIN TO TIRUNELVELI/ STRIP PLAN-54
SHEET NO.	34 OF 41

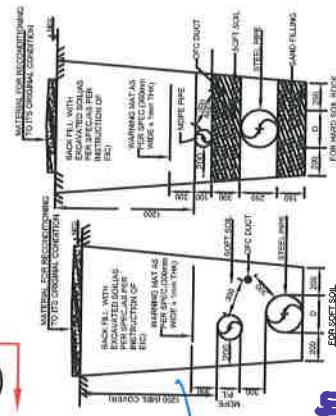
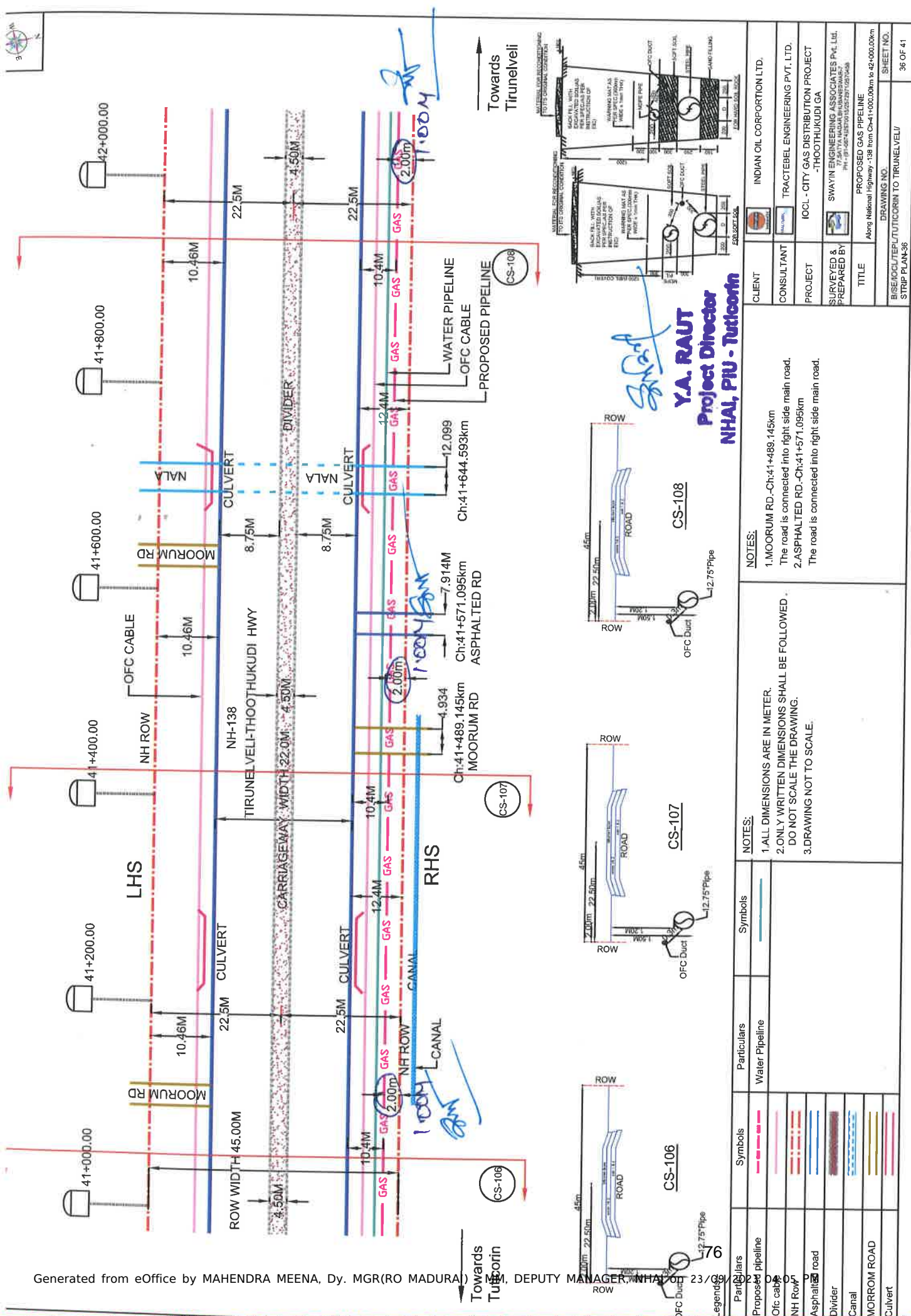




**Y.A. RAUT**  
Project Director  
NHAI, PIU - Tuticorin

Particulars	Symbols	Particulars	Symbols	NOTES:	NOTES:	CLIENT
Proposed Pipeline	---	Canal	---	1. ALL DIMENSIONS ARE IN METER.	1. ASPHALTED RD.-Ch:40+391.221km	INDIAN OIL CORPORATION LTD.
Proposed cable	---			2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.	The road is connected into right side main road.	CONSULTANT
Row	---			3. DRAWING NOT TO SCALE.		TRACTEBEL ENGINEERING PVT. LTD.
Asphalted road	---					PROJECT
Divider	---					IOCL - CITY GAS DISTRIBUTION PROJECT - THOOTHUKUDI GA
Water Pipeline	---					SURVEYED & PREPARED BY
Invert	---					SWAYIN ENGINEERING ASSOCIATES Pte Ltd.
						77, SATYA NAGAR, RAJIV GANDHI ROAD, CHENNAI - 600 086
						PH - 01-86792570152729716270458
						TITLE
						PROPOSED GAS PIPELINE
						Along National Highway - 138 from Ch+40+000.00km to 41+000.00km
						DRAWING NO.
						BISE/IOCL/TEPI/TUTICORIN TO TIRUNELVELI/ STRIP PLAN-35
						SHEET NO.
						35 OF 41





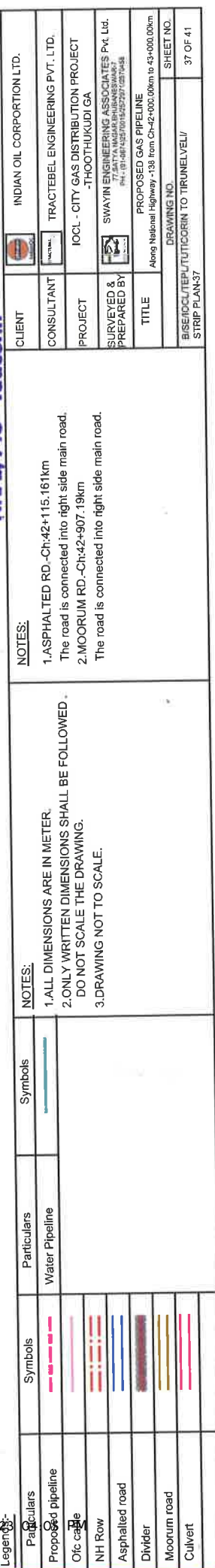
**Y.A. RAUT**  
Project Director  
NHAI, PIU - Tuticorin

CLIENT	INDIAN OIL CORPORATION LTD.
CONSULTANT	TRACTEBEL ENGINEERING PVT. LTD.
PROJECT	IOCL - CITY GAS DISTRIBUTION PROJECT - THOOTHUKUDI GA
SURVEYED & PREPARED BY	SWAYIN ENGINEERING ASSOCIATES PVT. LTD. 77, SATYA MADHAVA BHARANIPURAM-2 HYDRA-58, CHENNAI-600 029
TITLE	PROPOSED GAS PIPELINE Along National Highway - 138 from Ch-41+000.00km to 42+000.00km DRAWING NO.
SHEET NO.	36 OF 41

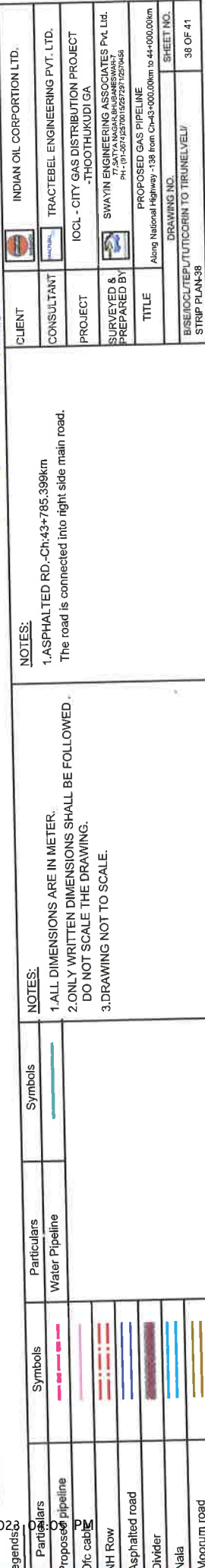
**NOTES:**  
1. MOORUM RD.-Ch:41+489.145km  
The road is connected into right side main road.  
2. ASPHALTED RD.-Ch:41+571.095km  
The road is connected into right side main road.

**NOTES:**  
1. ALL DIMENSIONS ARE IN METER.  
2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.  
3. DRAWING NOT TO SCALE.

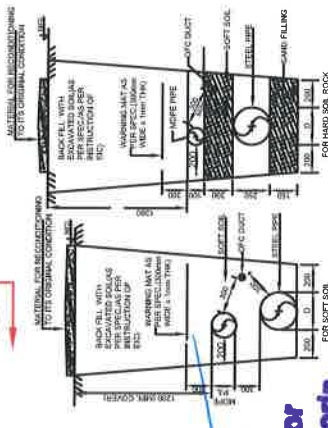
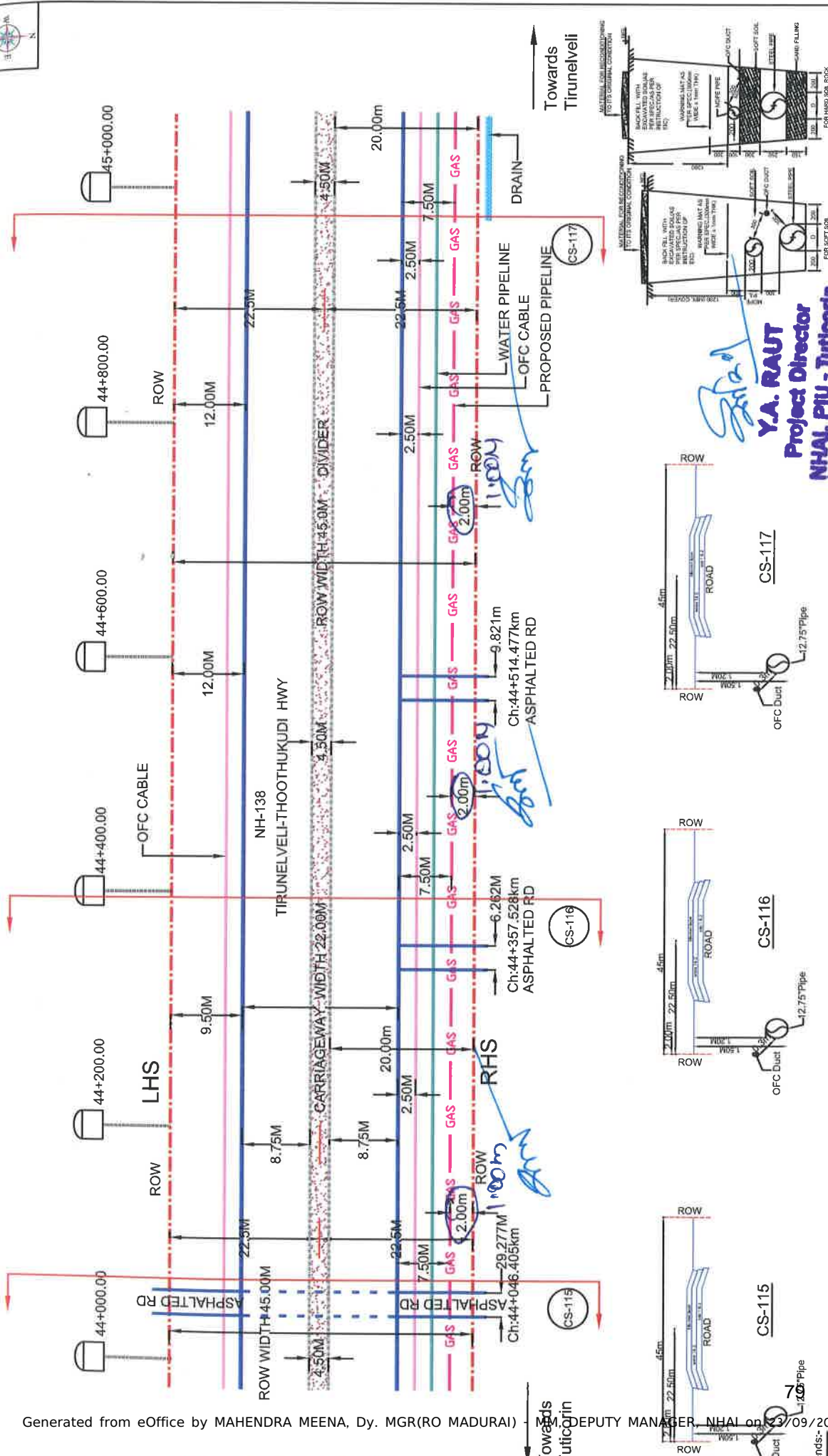
Particulars	Symbols	Particulars	Symbols
Proposed pipeline	---	Water Pipeline	---
OFC cable	---		
NH ROW	---		
Asphalted road	---		
Divider	---		
Canal	---		
MOORUM ROAD	---		
Culvert	---		





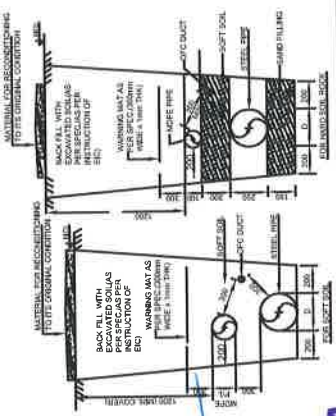
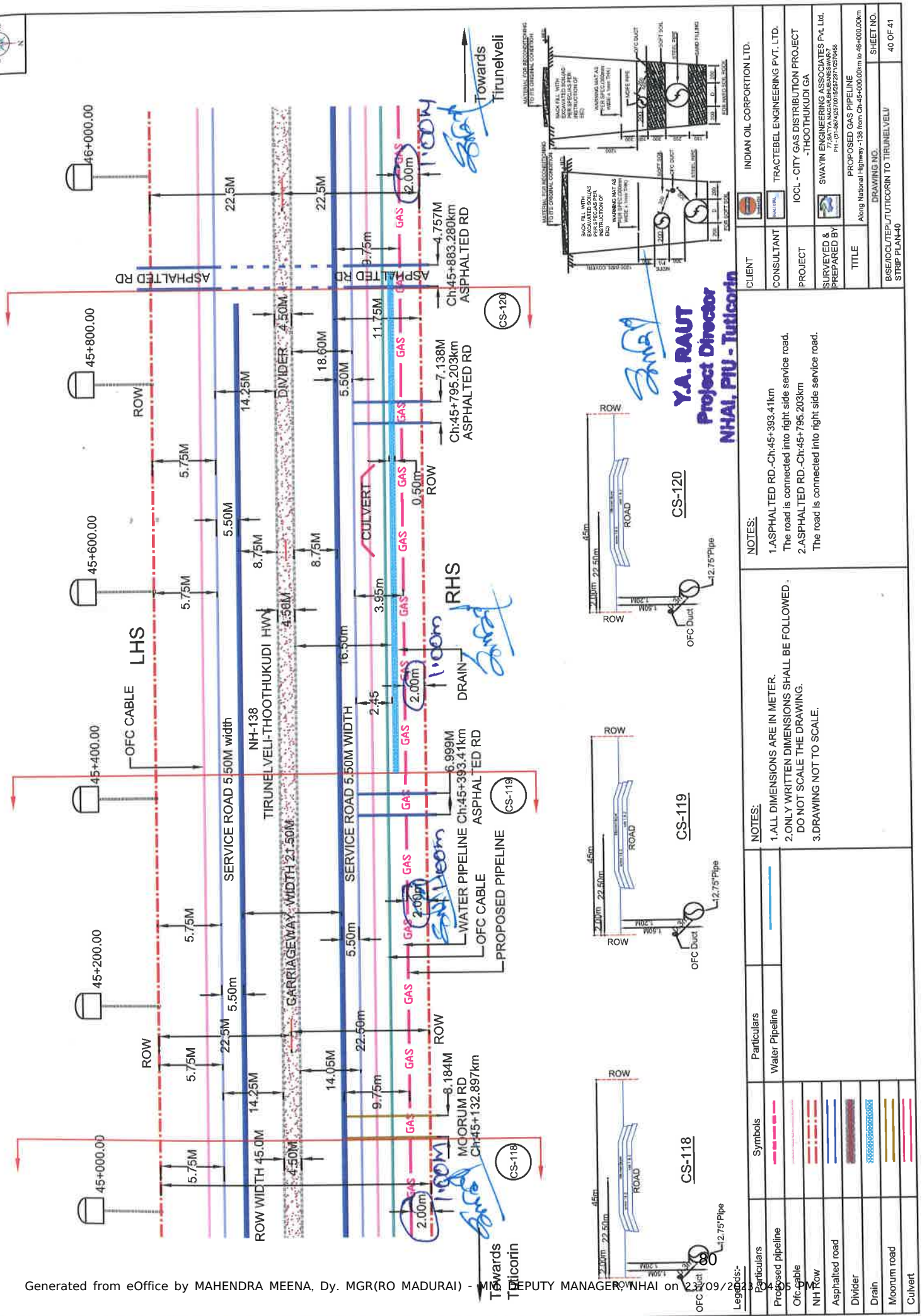






**Y.A. RAUT**  
Project Director  
NHAI, PIU - Tuticorin

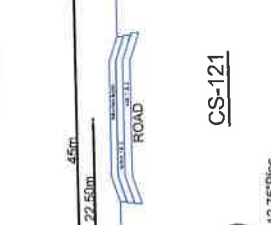
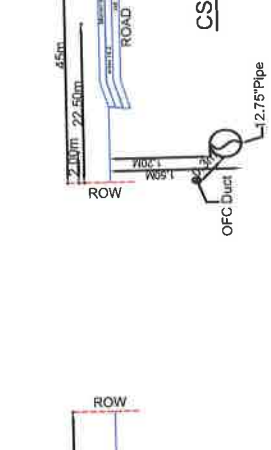
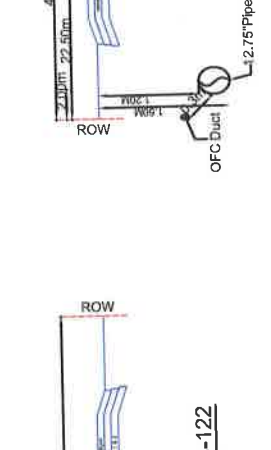
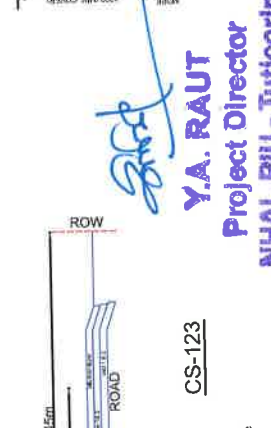
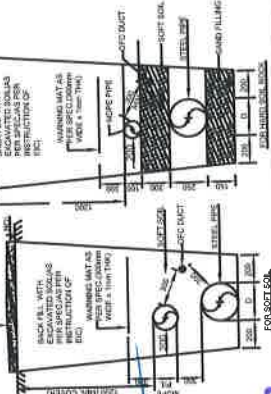
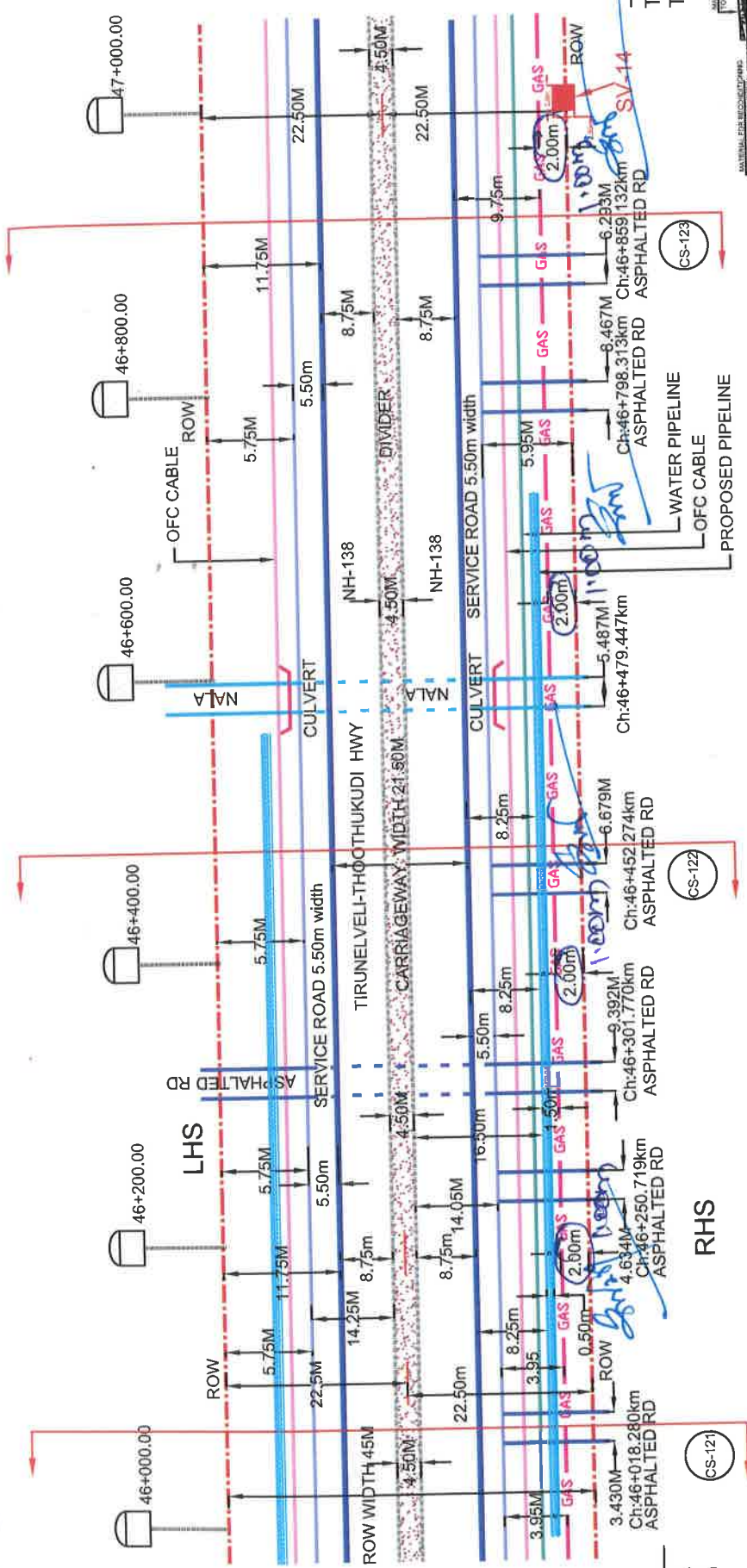
Particulars	Symbols	Notes:	Notes:	Notes:	Client	Indian Oil Corporation Ltd.
Proposed Gas Pipeline	---	1. ALL DIMENSIONS ARE IN METERS.	1. ASPHALTED RD.-Ch:44+357.528km	1. ASPHALTED RD.-Ch:44+357.528km	Consultant	TRACTEBEL ENGINEERING PVT. LTD.
Proposed OFC Cable	---	2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.	2. ASPHALTED RD.-Ch:44+514.477km	2. ASPHALTED RD.-Ch:44+514.477km	Project	IOCL - CITY GAS DISTRIBUTION PROJECT - THOOTHUKUDI GA
Proposed Water Pipeline	---	3. DRAWING NOT TO SCALE.			Surveyed & Prepared By	SWAYIN ENGINEERING ASSOCIATES P.L. LD. 77, SATYA NAGAR, RAJIV GANDHI ROAD, CHENNAI - 600 048 PH : (0) - 4674570/6252971/25297458
Proposed Road	---				Title	PROPOSED GAS PIPELINE Along National Highway - 138 from Ch:44+000.00km to 45+000.00km
Proposed Drain	---				Drawing No.	BISE/IOCL/TEPL/TUTICORIN TO TIRUNELVELI/ STRIP PLAN-39
Proposed Water Pipeline	---				Sheet No.	39 OF 41



**Y.A. RAUT**  
Project Director  
NHAI, PIU - Tuticorin

Particulars		Symbols	Particulars	Notes	Client
Proposed pipeline		— — — — —	Water Pipeline	1. ALL DIMENSIONS ARE IN METER. 2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED. 3. DRAWING NOT TO SCALE.	INDIAN OIL CORPORATION LTD.
OFC cable		— — — — —			CONSULTANT
NH Row		— — — — —			TRACTEBEL ENGINEERING PVT. LTD.
Asphalted road		— — — — —			PROJECT
Divider		— — — — —			IOCL - CITY GAS DISTRIBUTION PROJECT - THOOTHUKUDI GA
Drain		— — — — —			SURVEYED & PREPARED BY
Moorum road		— — — — —			SWAYIN ENGINEERING ASSOCIATES Pk. Ltd. 77, SATYA NAGAR, BHUBANESHWAR-2 PH - (91-674) 2570015/2571027/048
Culvert		— — — — —			TITLE
					PROPOSED GAS PIPELINE Along National Highway - 138 from Ch-45+000.00km to 46+000.00km
					DRAWING NO.
					BASE/IOCL/TE/PIU/TUTICORIN TO TIRUNELVELI STRIP PLAN-40
					SHEET NO.
					40 OF 41

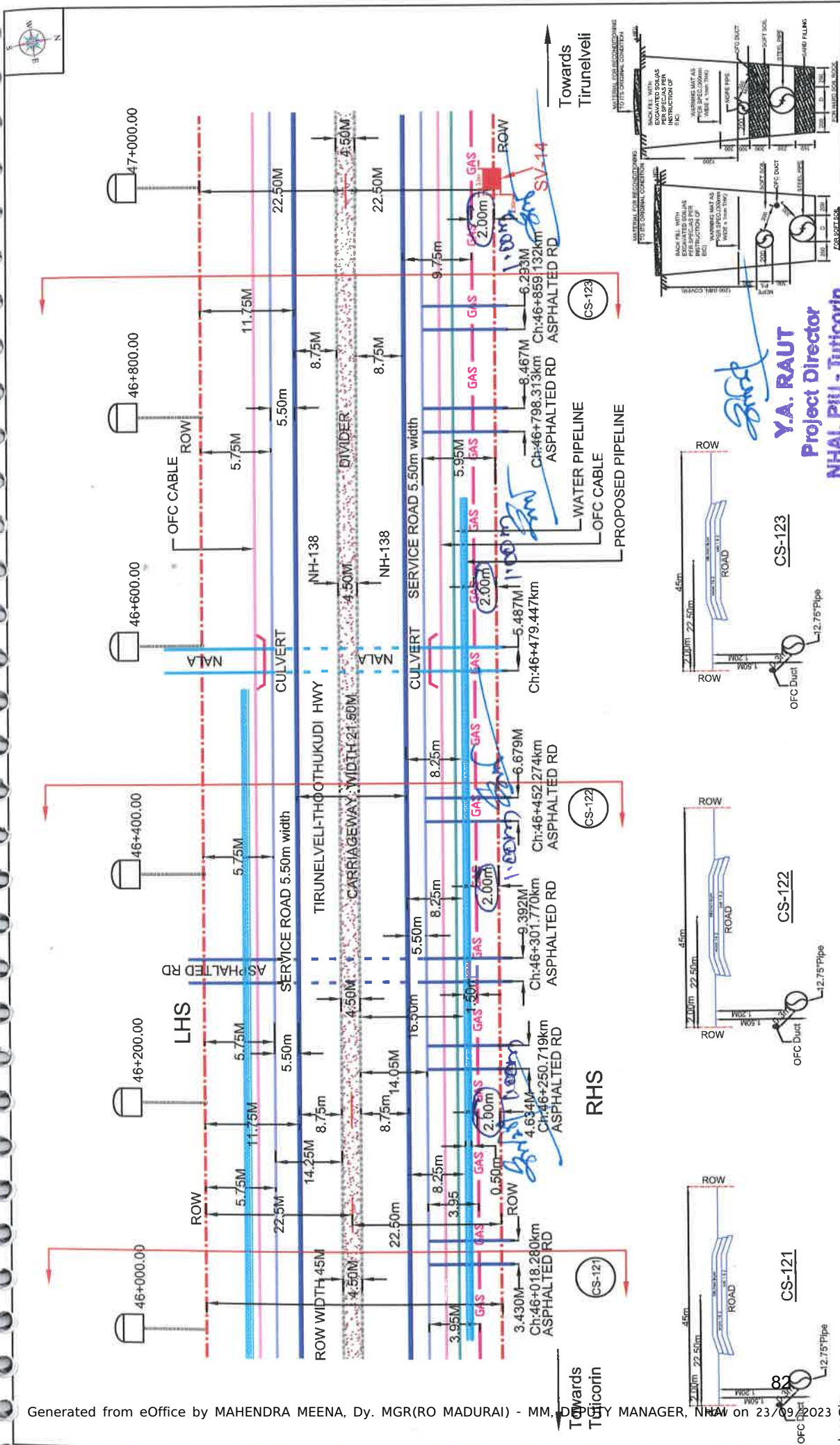




Legends:-		Particulars		Particulars	
Proposed pipeline	---	Water Pipeline	---		
OFC cable	---				
NH Row	---				
Asphalted road	---				
Divider	---				
Drain	---				
Moorum road	---				
Culvert	---				

NOTES:		NOTES:	
1. ASPHALTED RD.-Ch:46+018.280km The road is connected into right side service road.		1. ALL DIMENSIONS ARE IN METER.	
2. ASPHALTED RD.-Ch:46+250.719km The road is connected into right side service road.		2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED. DO NOT SCALE THE DRAWING.	
3. ASPHALTED RD.-Ch:46+452.274km The road is connected into right side service road.		3. DRAWING NOT TO SCALE.	
4. ASPHALTED RD.-Ch:46+798.313km The road is connected into right side service road.			
5. ASPHALTED RD.-Ch:46+859.132km The road is connected into right side service road.			

CLIENT		INDIAN OIL CORPORATION LTD.	
CONSULTANT		TRACTEBEL ENGINEERING PVT. LTD.	
PROJECT		IOCL - CITY GAS DISTRIBUTION PROJECT -THOOTHUKUDI GA	
SURVEYED & PREPARED BY		SWAYIN ENGINEERING ASSOCIATES PVT. LTD. P4-10-08/1201001522/2023/048	
TITLE		PROPOSED GAS PIPELINE	
DRAWING NO.		Along National Highway -138 from Ch-46+000.00km to 47+000.00km	
SHEET NO.		DRAWING NO.	
BASE/OUTLET/PIU/TUTICORIN TO TIRUNELVELI		SHEET NO.	
STRIP PLAN-41		41 OF 41	



Particulars	Symbols	Particulars	Notes:	Client	Indian Oil Corporation Ltd.
Proposed pipeline	—	Water Pipeline		Consultant	TRACTEBEL ENGINEERING PVT. LTD.
OFC cable	—			Project	IOCL - CITY GAS DISTRIBUTION PROJECT - THOOTHUKUDI GA
NH Row	—			Surveyed & Prepared By	SWAYIN ENGINEERING ASSOCIATES PVT. LTD. (P) 91-4081057015/97297125048
Asphalted road	—			Title	PROPOSED GAS PIPELINE
Divider	—				Along National Highway - 138 from Ch:46+000.00km to 47+000.00km
Drain	—				DRAWING NO.
Moorum road	—				41 OF 41
Culvert	—				RISE/LOC/UT/PIU/TUTICORIN TO TIRUNELVELI STRIP PLAN-41

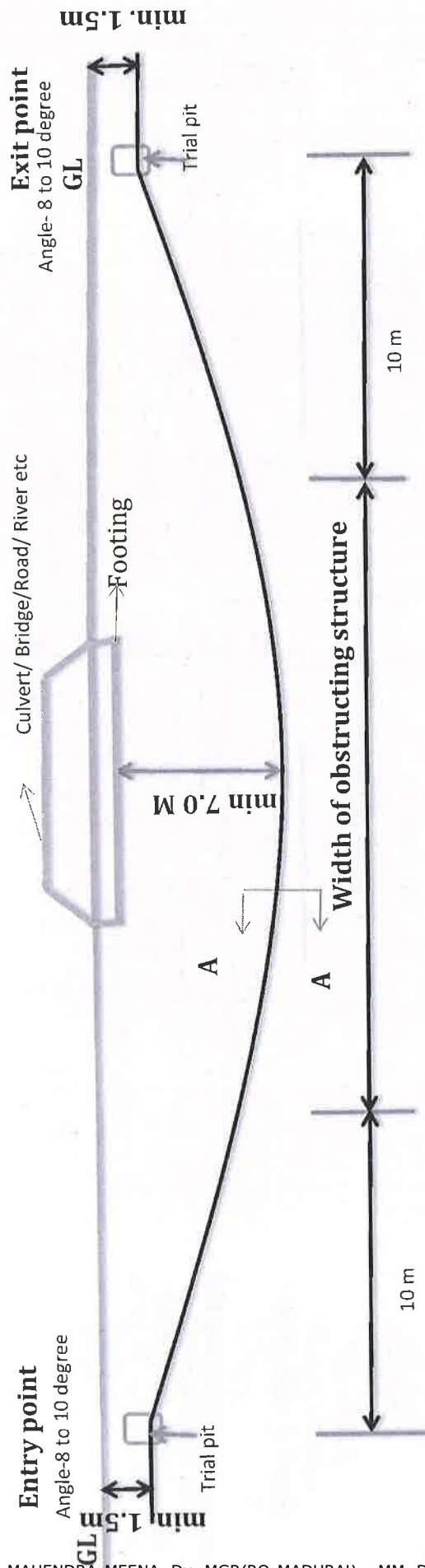
NOTES:  
1. ASPHALTED RD - Ch:46+018.280km  
The road is connected into right side service road.  
2. ASPHALTED RD - Ch:46+250.719km  
The road is connected into right side service road.  
3. ASPHALTED RD - Ch:46+452.274km  
The road is connected into right side service road.  
4. ASPHALTED RD - Ch:46+798.313km  
The road is connected into right side service road.  
5. ASPHALTED RD - Ch:46+859.132km  
The road is connected into right side service road.

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

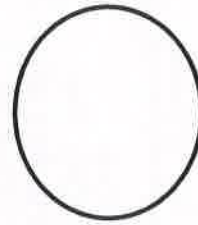
Generated from eOffice by MAHENDRA MEENA, Dy. MGR(RO MADURAI) - MM, on 23/09/2023



STANDARD DRAWING OF PIPELINE LAYING BY HDD METHOD



*Y.A. Raut*  
**Y.A. RAUT**  
Project Director  
NHAI, PIU - Tuticorin



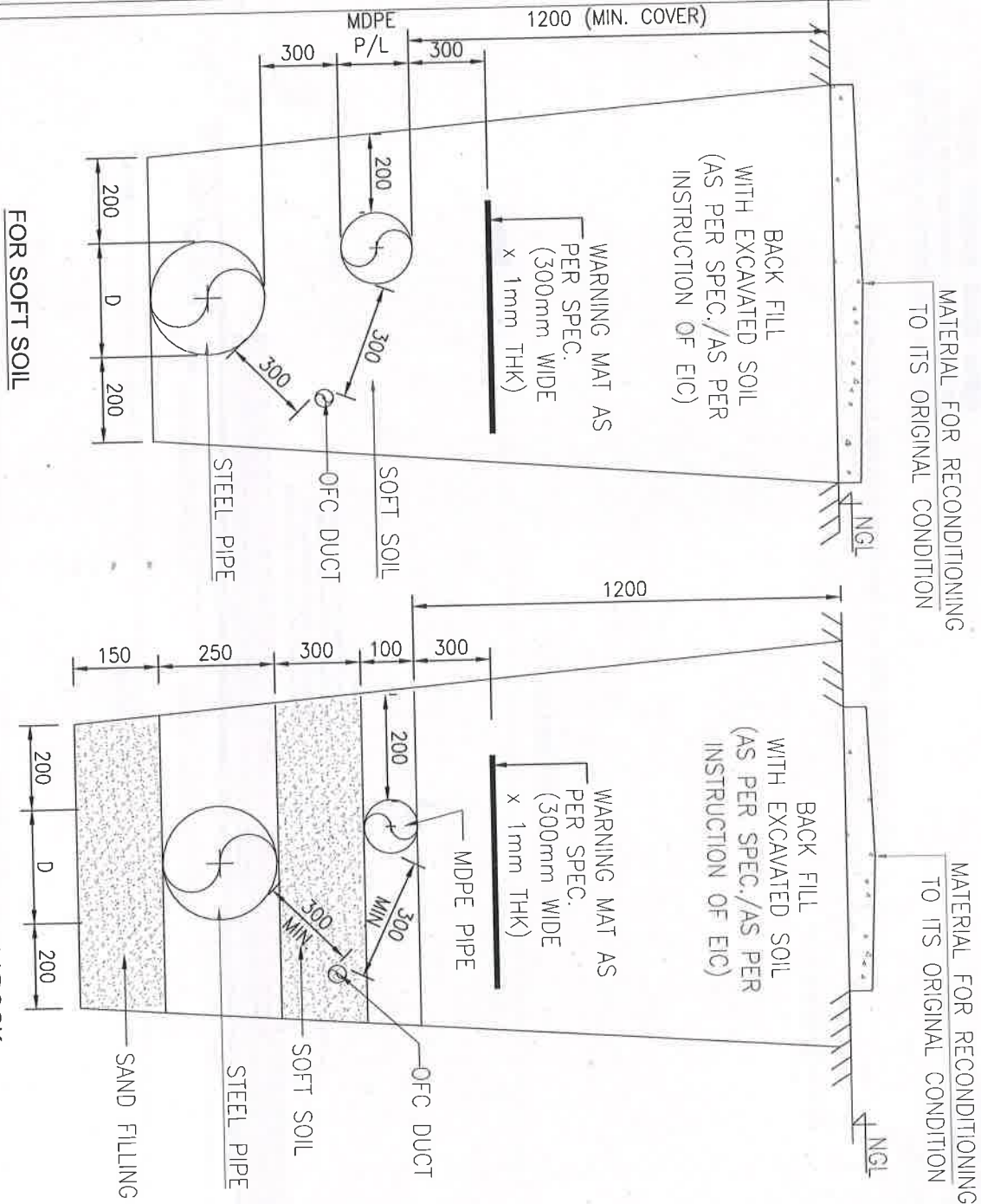
89mm OD HDPE  
OFC cable

12.75" dia Carbon steel (API 5L L-360M PSL-2 x52 COATED PIPE) 6.4 mm wall thickness

SECTION A-A

DRAWING NOT TO SCALE

**रंजित कुमार झा / RANJITH KUMAR N**  
नगर प्रबंधक (सीनियर) / Senior Manager (CSO)  
**इंडियन ऑयल कॉर्पोरेशन लिमिटेड**  
**Indian Oil Corporation Limited**  
Southern Region Pipelines  
City Gas Distribution Project,  
1st Floor (South) J.J. Centre,  
4/7/5, Elayapuram Road, Tuticorin - 628 002, TN.



- NOTES
1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED.
  2. FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE.

**Y.A. RAUT**  
Project Director  
NHAI, PIU - Tuticorin

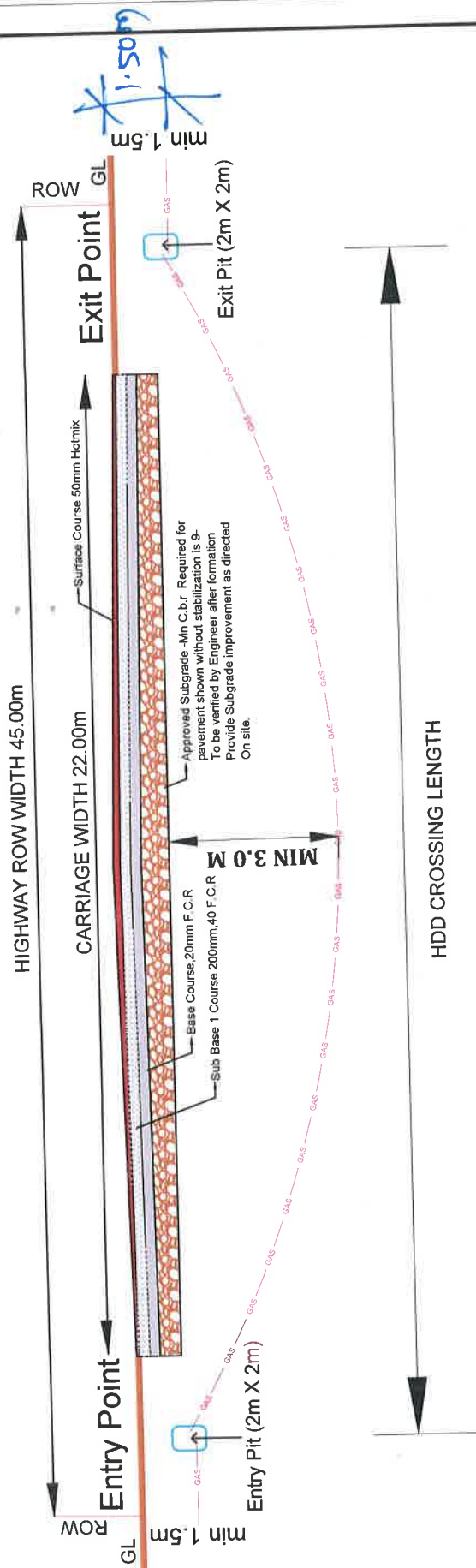
**रवि कुमार / RANJITH KUMAR**  
सिनिस्ट्रल मैनेजर / Senior Manager (S&D)  
भारतीय तेल कॉर्पोरेशन लिमिटेड  
Indian Oil Corporation Limited  
Southern Region Pipelines  
City Gas Distribution Project,  
1st Floor (South) J.J. Centre,  
47/15, Ettayapuram Road, Tuticorin - 620 002, TN

INDIAN OIL CORPORATION LIMITED  
CITY GAS DISTRIBUTION PROJECT  
WITH STEEL AND MDPE PIPELINE

Sl. No.	Particulars	Quantity	Unit	Remarks
1	STEEL PIPE			
2	MDPE PIPE			
3	WARNING MAT			
4	SAND FILLING			
5	BACK FILL			
6	OFC DUCT			
7	MDPE P/L			
8	STEEL PIPE			
9	WARNING MAT			
10	SAND FILLING			
11	BACK FILL			
12	OFC DUCT			
13	MDPE P/L			
14	STEEL PIPE			
15	WARNING MAT			
16	SAND FILLING			
17	BACK FILL			
18	OFC DUCT			
19	MDPE P/L			
20	STEEL PIPE			
21	WARNING MAT			
22	SAND FILLING			
23	BACK FILL			
24	OFC DUCT			
25	MDPE P/L			
26	STEEL PIPE			
27	WARNING MAT			
28	SAND FILLING			
29	BACK FILL			
30	OFC DUCT			
31	MDPE P/L			
32	STEEL PIPE			
33	WARNING MAT			
34	SAND FILLING			
35	BACK FILL			
36	OFC DUCT			
37	MDPE P/L			
38	STEEL PIPE			
39	WARNING MAT			
40	SAND FILLING			
41	BACK FILL			
42	OFC DUCT			
43	MDPE P/L			
44	STEEL PIPE			
45	WARNING MAT			
46	SAND FILLING			
47	BACK FILL			
48	OFC DUCT			
49	MDPE P/L			
50	STEEL PIPE			
51	WARNING MAT			
52	SAND FILLING			
53	BACK FILL			
54	OFC DUCT			
55	MDPE P/L			
56	STEEL PIPE			
57	WARNING MAT			
58	SAND FILLING			
59	BACK FILL			
60	OFC DUCT			
61	MDPE P/L			
62	STEEL PIPE			
63	WARNING MAT			
64	SAND FILLING			
65	BACK FILL			
66	OFC DUCT			
67	MDPE P/L			
68	STEEL PIPE			
69	WARNING MAT			
70	SAND FILLING			
71	BACK FILL			
72	OFC DUCT			
73	MDPE P/L			
74	STEEL PIPE			
75	WARNING MAT			
76	SAND FILLING			
77	BACK FILL			
78	OFC DUCT			
79	MDPE P/L			
80	STEEL PIPE			
81	WARNING MAT			
82	SAND FILLING			
83	BACK FILL			
84	OFC DUCT			
85	MDPE P/L			
86	STEEL PIPE			
87	WARNING MAT			
88	SAND FILLING			
89	BACK FILL			
90	OFC DUCT			
91	MDPE P/L			
92	STEEL PIPE			
93	WARNING MAT			
94	SAND FILLING			
95	BACK FILL			
96	OFC DUCT			
97	MDPE P/L			
98	STEEL PIPE			
99	WARNING MAT			
100	SAND FILLING			



## CROSS SECTION DRAWING OF ROAD CROSSING AT KM.25/010 BY HDD METHOD



85

12.75" dia Carbon steel Pipe (API 5L-X 52 grade) 6.4 mm wall thickness

89 mm OD HDPE

OFC Cable

**Y.A. RAUT**  
Project Director  
NHAI, PIU - Tuticorin

**रवि कुमार ए / RANJITH KUMAR N**  
रवि प्रमोद (सीईओ) / Senior Manager (CGD)  
इंडियन ऑयल कॉर्पोरेशन लिमिटेड  
Indian Oil Corporation Limited  
Southern Region Pipelines

**Proposed Steel Gas Pipeline**  
CROSS SECTION DRAWING OF ROAD CROSSING AT KM.25/010 BY HDD METHOD

**INDIAN OIL CORPORATION LIMITED**  
SECTOR-1, NOIDA-201301  
Phone No. 91-110-2448844, 2448888.

**NOTES:**

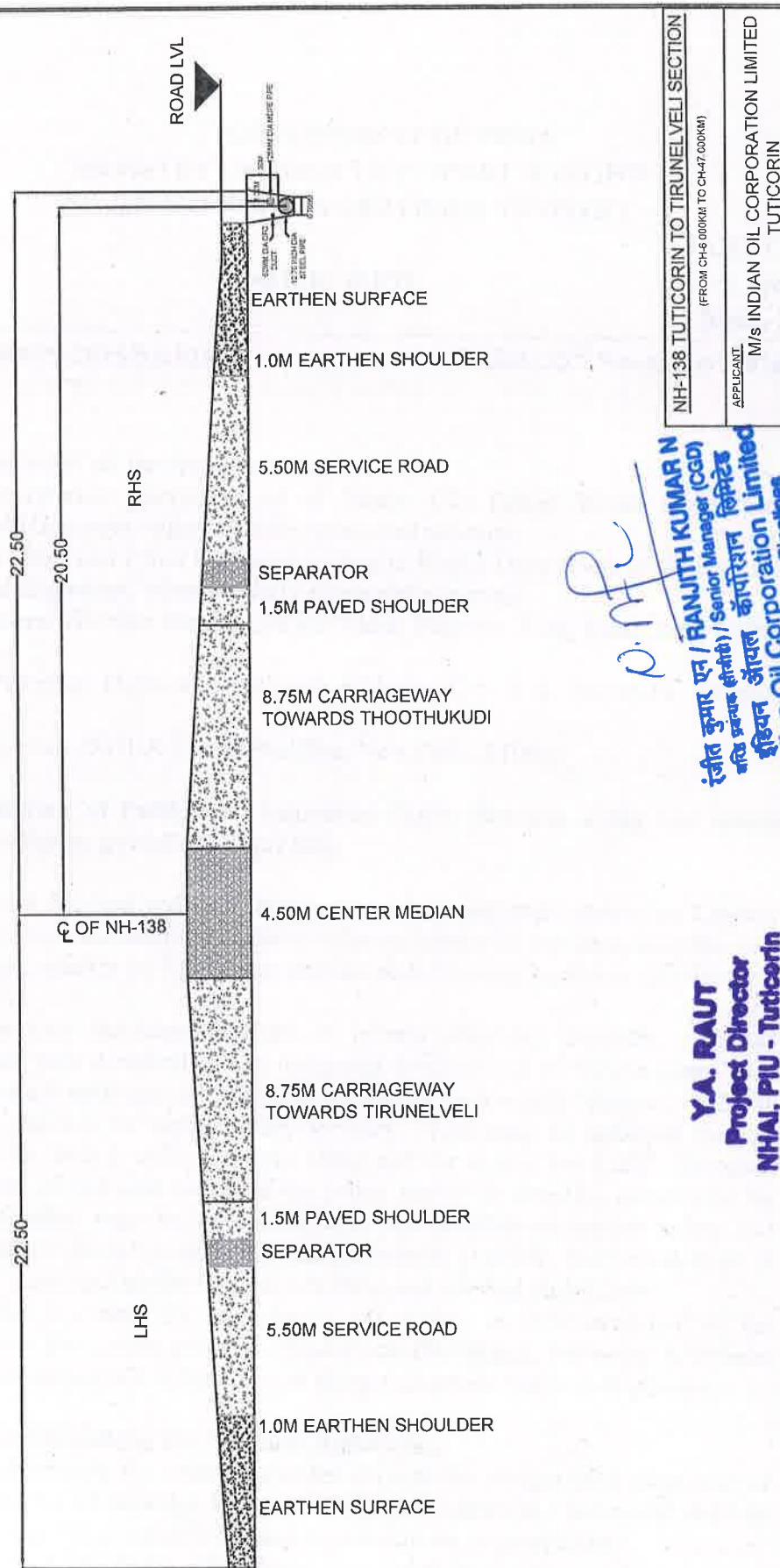
1. ALL DIMENSIONS ARE IN METER
2. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED. DO NOT SCALE THE DRAWING
3. DRAWING NOT TO SCALE

**AUTHORITE SIGNATORY**  
FOR INDIAN OIL CORPORATION LIMITED

Legends :

Proposed Steel Gas P/L  
NH ROW  
Ground Profile

## TYPICAL CROSS SECTION DETAILS OF NATIONAL HIGHWAY -138







**GOVERNMENT OF INDIA**  
**MINISTRY OF ROAD TRANSPORT & HIGHWAYS**  
**AN ISO 9001:2008 CERTIFIED MINISTRY**

**S&R(R) ZONE**

**IAHE Campus,**  
**A-5, Sector-62,**  
**Noida-201301.**

**F. No. RW/NH-33044/29/2015/S&R(R)**

**Dated: 22<sup>nd</sup> November, 2016**

**To,**

1. The Chief Secretaries of all the State Governments/ UTs
2. The Principal Secretaries/ Secretaries of all States/ UTs Public Works Department dealing with National Highways, other centrally sponsored schemes.
3. All Engineers-in-Chief and Chief Engineers of Public Works Department of States/ UTs dealing with National Highways, other centrally sponsored schemes.
4. The Director General (Border Roads), Seema Sadak Bhawan, Ring Road, New Delhi-110 010.
5. The Chairman, National Highways Authority of India, G-5 & 6, Sector-10, Dwarka, New Delhi-110 075.
6. The Managing Director, NHIDCL, PTI Building, New Delhi-110001

**Subject: Accommodation of Public and Industrial Utility Services along and across National Highways – Policy guidelines regarding.**

Sir,

The Government has realized that development of infrastructure across the Country on a sustainable and integrated manner continues to be an imperative for improving the state of economy, enhancing quality of life of the citizens and ensuring equitable development throughout the country.

Land being among the most precious of natural resources available, optimum utilization of land shall play a critical role in integrated development of infrastructure. One of the ways to effect such optimum utilization is leveraging land within National Highway (NH) Right of Way (ROW) for laying utility services. This may be achieved through granting permissions for laying utility services along and /or across the ROW. However, environment and safety of the road users are the prime factors in deciding permission for utility services. Permission may be denied, if it is not feasible to ensure safety and environment through requisite safeguards. The Administration of ROW, has been defined in the National Highway Land and traffic Control Act 2002 and relevant Rules 2004.

Keeping in view the need for consistency and clarity, in supersession of all the instructions contained in the earlier previous circulars on the subject, following guidelines shall apply for accommodation of Utility Services along and across National Highways.

**2. Laying of Utility Services along the National Highways:**

- 2.1 There shall be a provision for utility ducts for appropriate categories/combination of utilities in the construction of new/4-6 laning of National Highways. The ducts shall be located at appropriate location preferably as close to the extreme edge of ROW.
- 2.2 Utility services shall be laid in the utility ducts, if provided for the purpose.
- 2.3 In stretches where utility ducts have not been provided, the utility services shall be located, beyond the toe line of the embankment and drains, as close to the extreme edge of the RoW as possible. While granting permission, requirement of up-gradation also needs to be kept in view.

2

2.4 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 metre below the ground level.

2.5 No utility service shall be laid over existing culverts and bridges except through the utility ducts where such provision exists. In case of absence of such provisions, the Licensee shall make his own arrangement for crossing of cross drainage structure, rivers, etc. below the bed.

2.6 In exceptional cases, where ROW is restricted the utility services can be allowed beneath the carriageway of service road, 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 in such case shall not be less than one lane. In such cases, it also needs to be ensured 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 as per the agreement.

### 3. Laying of Utility Services across the National Highway:

3.1 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 to drain in cuts and toe of slope to toe of slope in the fills and shall be designed in accordance with the provision of IRC and executed following the Specifications of the Ministry.

3.2 Existing drainage structures shall not be allowed to carry the lines across.

3.3 The utility services shall cross the National Highway preferably on a line normal to it or as nearly so as practicable.

3.4 The casing/conduit pipe may be installed under the road embankment either by boring or digging a trench. Installation by boring method shall be preferred.

3.5 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 wider, (but not more than 60 cm wider), than the outer diameter of the utility pipe. Filling of the trench shall conform to the specifications contained here-in-below or as supplied by the Highway Authority.

3.5.1 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.

3.5.2 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.

3.5.3 The side fill shall consist of granular material laid in 15 cm. Layers each consolidated by mechanical tamping and controlled addition of moisture to 95% of the modified 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.

3.5.4 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.

3.6 When utilities are allowed overhead, the horizontal and vertical clearance in accordance with the IRC shall be maintained.

4. Procedure for processing application for granting permission for use of highway land: Any person who intends to obtain permission shall make an application online in the prescribed form to Highway Administration or an officer authorized by Highway Administration on his behalf. The application must mention details the various safety clearances from the respective authorities such as Directorate of Electricity, Chief Controller of Explosives, Petroleum and Explosives Safety Organization, Oil Industry Safety



: 3:

Directorate, State/Central Pollution Control Board and any other statutory clearances as applicable, which must be obtained by the Applicant before applying to the Highway Administration.

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). The permission for laying utility services is to be normally granted within 30 days from the day of closure of public objections and claims. If no communication is received from the Highway Administration within 30 days from the day of closure of public objections and claims, the permission shall be deemed to be granted. The initial permission would be valid for a maximum of 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.

**5. Charges for granting licence for use of highway land:** For the purpose of license fee/lease rentals, the utilities have been divided into two categories; i) Public utilities and b) Industrial utilities as per the details given in **Annexure I**.

License Fee/lease rentals described below is for Industrial utilities. The license fee for Public utilities shall be 33% of the fee prescribed for Industrial utilities.

5.1 The following methodology shall be followed for license fees/lease rental determination for utility service lines other than localized infrastructure facilities like towers, repeaters and junction boxes).

**License Fees (Rs/sq m/ month) = (Utilized NH land area X prevailing Circle Rate of land per unit area) / (10 x 12) where,**

Utilized NH land area = Outer diameter/width of the concerned utility line X length

5.2 The following methodology shall be followed for license fees/lease rental determination for utility services such as towers/repeaters/ junction boxes etc.

**License Fees (Rs/sq m/ month) = (Utilized NH land area X prevailing Circle Rate of land per unit area) / (10 x 12) where,**

Utilized NH land area = Projection of utility on the ground including area of support system/tower

However, for public utilities, area below the support system/tower shall only be charged.

5.3 Fee shall have to be paid in advance for the period for which permission is granted. 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.

5.4 A system to redress grievances and to consider relaxation from the guidelines, in exceptional cases, shall be notified separately and shall be effective from the date of notification.

6. All required restoration, maintenance work subsequent to laying of utility services 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. To process for the granting of permission and prior to signing of Lease agreement, a Performance Bank Guarantee for an amount based on per route metre with a validity of one year initially, in the prescribed format (extendable if required till satisfactory completion of work) shall have to be furnished by the utility service provider/ Licensee, as a security against improper restoration of ground in terms of

:4:

filling/unsatisfactory compaction damages caused to other underground installations/utility services & interference, interruption, disruption or failure caused thereof to any services etc.;

Utility services such as pipes etc (rate in per m)

provided in the ducts already provided

<= 300 mm dia/width

Rs 50

> 300 mm dia/width but <=1000 mm

Rs 100

> 1000 mm

Rs 250

Utility services such as towers etc (rate in Rs per sq m)

Rs 500

Rs-100

In case the Licensee fails 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. 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.

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.

7. The Authority shall enter into a License Agreement with the respective utility service provider in the format enclosed (**Appendix**) including any other conditions imposed by Highway Administration, to ensure safe and uninterrupted flow of traffic. Post signing of the agreement, the utility service provider shall be designated as 'Licensee' for the purpose of this project and will be authorized to install and operate utility services within the NH RoW. However, utility services shall be made operational by the Licensee only after a completion certificate to the effect is issued by the Highway Administration.

Encls: As above.

*Manoj Kumar*

(Manoj Kumar)  
Executive Engineer(NFSG) (S,R&T) (Roads)  
For Director General (Road Development) & SS

Copy to:

1. All Technical Officers in the Ministry of Road Transport & Highways
2. All ROs and ELOs of the Ministry
3. The Secretary General, Indian Roads Congress
4. The Director, IAHE
5. Technical circular file of S&R (R) Section
6. NIC-for uploading on Ministry's website under "What's new"

Copy for kind information to:

7. PS to Hon'ble Minister (RTH&S)
8. PS to Hon'ble MOS (RTH&S)
9. Sr. PPS to Secretary (RT&H)
10. PPS to DG (RD) & SS
11. PPS to SS&FA
12. PS to ADG-I/ ADG-II
13. PS to JS (T)/ JS (H)/ JS (LA&C)/ JS (EIC)

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