

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

**ORIGINAL APPLICATION NO 238 OF 2024**

**IN THE MATTER OF:-**

**NEWS ITEM TITLED "UP GIVES PERMISSION TO  
FELL 112000 TREES FOR ROAD ALONG UPPER  
GANGA CANAL", APPEARING IN 'HINDUSTAN  
TIMES' DATED 01.02.2024**

**AFFIDAVIT OF SPECIAL SECRETARY, PUBLIC WORK  
DEPARTMENT STATE OF UTTAR PRADESH, IN  
COMPLIANCE OF ORDER DATED 20.05.2024 PASSED BY  
THIS HON'BLE TRIBUNAL**

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**FILED BY:**

**Dr. Vijendra Singh Mahndiyan (AOR)**  
**STANDING COUNSEL FOR STATE OF U.P.**

**C-40, Lajpat Nagar, Part-III,**

**New Delhi - 110024**

**MOB :- 9310112323**

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
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**ORIGINAL APPLICATION NO 238 OF 2024**

IN THE MATTER OF:-

**NEWS ITEM TITLED "UP GIVES PERMISSION TO FELL 112000 TREES FOR ROAD ALONG UPPER GANGA CANAL", APPEARING IN 'HINDUSTAN TIMES' DATED 01.02.2024**

**AFFIDAVIT OF SPECIAL SECRETARY, PUBLIC WORK  
DEPARTMENT STATE OF UTTAR PRADESH, IN  
COMPLIANCE OF ORDER DATED 20.05.2024 PASSED BY  
THIS HON'BLE TRIBUNAL**

I, Prabhu Nath....., aged about 56 years, S/o Sh. Late Chandika Prasad, presently posted as Special Secretary, Public Work Department State of Uttar Pradesh the deponent do hereby solemnly state and affirm as under:

1. That the Deponent has read and understood the contents of the present affidavit. The averments made in the affidavit which are not specifically admitted hereunder must be considered to have been denied by the Deponent.

2. That it is most respectfully submitted that this Hon'ble Tribunal vide its order dated 20.05.2024 was pleased to issue the following directions: -

Prabhu

".....It is necessary to look into the nature of the road which is being constructed i.e. if it is a National Highway, State Highway or any other type of road.

In order to disclose if the road is National or State Highway, a short adjournment has been prayed by Counsel for State of UP by submitting that Special Secretary, PWD, UP will disclose its detail. Hence, we require the Special Secretary, PWD, State of UP to file an affidavit within three days disclosing if the road which is being constructed is a National Highway, State Highway or any other type of road and also to produce the material on the basis of which roads are classified as National Highway, State Highway etc. We are granting only three days time for this purpose as a large number of trees are in the process of being cut, therefore, Special Secretary, PWD, State of UP will ensure that affidavit is filed within the time limit....."

True copy of order dated 20.05.2024 passed by this Hon'ble Tribunal is annexed herewith and marked as **Annexure R-1**.

3. That the present affidavit is being filed in pursuance to and in compliance of the aforesaid directions passed by this Hon'ble Tribunal.

4. That the deponent herein is posted as the Special Secretary, Public Work Department State of Uttar Pradesh since 31.07.2020 and is swearing this affidavit in his official capacity as the Special Secretary. Atuly



5. That it is most respectfully submitted that the State Government of Uttar Pradesh vide Government Order No. 372/2020/182(A)/23-11-2020-1/2(203)/2019 dated 23.12.2020 granted approval for the construction of the Chaudhary Charan Singh Kawar Marg (Right Bank of Upper Ganga Canal) in District Muzaffarnagar, Meerut and Ghaziabad.

6. That the land on which the proposed construction is to be done, is under the ownership of the Irrigation Department, State of Uttar Pradesh for which the Irrigation Department has granted No Objection Certificate on 21.12.2017 to Public Work Department vide its letter No-2616/CE Ganga/Kawar Marg. True Copy of No Objection Certificate given by the Irrigation Department is annexed herewith and marked as **Annexure R-2**.

7. That it is most respectfully submitted that the requirement for construction of the Upper Ganga Canal Road (Right Bank) is on account of heavy traffic flow on National Highway 58 which passes through Ghaziabad, Meerut and Muzaffarnagar. During the period of Kawar Yatra which falls in the holy month of Shravan, wherein every year approximately One Crore pilgrims takes part in the procession of carrying holy water from river Ganga due to which the existing route of the National Highway 58 as well



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as the Left Side Road of Upper Ganga Canal becomes completely choked, leading to heavy traffic snarls and thereby causing great inconvenience to the general public at large. Further the road on the left side of the Upper Ganga Canal is only seven metre wide. Due to non-availability of any other alternate route, both way traffic on the same road at times also lead to accidents.

8. That it is further submitted that the construction of the Upper Ganga Canal Road will also benefit the travelling of local villagers who are residing in the nearby villages which are adjacent to the proposed road.

9. That it is most respectfully submitted that the construction of road is proposed 7 metre wide bituminous road which will be categorized after construction as per the geometric design standards to Other District Road. The classification of Rural (Non-Urban) Roads, which has been laid down in Geometric Design Standards for Rural (Non-Urban) Highways which is published by the Indian Road Congress which is the apex body of Highway Engineers in the Country. The Non-Urban Roads in India are classified into five categories.

1. National Highways
2. State Highways
3. Major District Roads
4. Other District Roads



*[Handwritten signature]*

That the desirable road land width (also termed as the Right of Way) for different classes of road is also laid down under point 6.1.1 of the Indian Road Congress, wherein the required range of land width for Other District Road has been laid down as between 15-25 metres and for State Highways is between 30-60 meters. A copy of operative part of the Indian Road Congress 73-1980 is being annexed herewith as **Annexure R-3**.

10. The Construction of Road will be done for length of 111.49 Km which connects three districts Muzaffarnagar, Meerut & Ghaziabad. It will be categorised after construction as "Other District Road". The land width (Right Of Way) is taken 20 metre which comes under prescribed range of 15-25 metre as per IRC Norms for ODR. The District wise details of trees and plants which will be affected is given below.

Sr. No.	District	Total KM	Transferred Land (Hect.)	Affected no. of mature trees in project	Affected no. of Plants in the project	Total no. of affected Mature Trees and plants in the project
1	2	3	4	5	6	7
1	Muzaffarnagar	56.84	113.68	16062	811	16873
2	Meerut	42.30	84.60	13692	52993	66685
3	Ghaziabad	12.35	24.70	4022	25142	29164
	<b>TOTAL</b>	<b>111.49</b>	<b>222.98</b>	<b>33776</b>	<b>78946</b>	<b>112722</b>



*[Handwritten signature]*

11. That it is further submitted that the actual felling of trees will be less than 33,776 as the felling of trees will be done only in width of 15 meters where height of embankment is less. The calculation of affected trees (33,776) was initially done on the basis of 20-meter width.

12. That it is further submitted that to compensate the diversion of 222.98 Hectare Protected Forest Land, the equivalent non-Forest land or double the degraded forest land i.e. 445.96 Hectare was not available in affected three Districts i:e Ghaziabad, Meerut and Muzaffarnagar, on account of which compensatory afforestation is being done in other three districts, which is in consonance of guidelines of the notification issued by the Ministry of Environment and Climate Change vide letter no.F.No.5-2/2017-FC dated 28.03.2019 and FCA 1980 handbook Chapter no.2 heading compensatory afforestation guidelines point 2.3 para 4 and 5.

13. That it is also submitted that the Public Work Department will carry out compensatory afforestation on both sides of proposed road in all the three affected Districts which will be approximately 48,500 plants.

14. That it is further submitted that the requisite permission/consent for the aforesaid project has been duly



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granted by the Regional Empowered Committee (REC), MOEF&CC vide letter no. 8B/UP/06/2021/FC/930 on dated 28.02.2023.

15. That the Public Work Department has deposited Rupees Fifty-Eight Crores Twenty-Three Lakhs Six Thousand Six Hundred Sixty-Seven (Rs 58,23,06,667/-) in CAMPA Fund of the Central Government, pursuant to which the permission for tree cutting and working permission was given by the concerned Social Forestry Division.

16. That the deponent further undertakes before this Hon'ble Tribunal that the orders passed by this Hon'ble Tribunal will be complied in letter and spirit and will further undertake all such preventive measures to preserve the Environment in the course of construction of the aforesaid project.

*[Signature]*  
**DEPONENT**

*[Signature]*  
(सदीप त्रिपाठी)  
शपथ आयुक्त एवं अनुमाग अधिकारी  
न्याय अनुभाग-3(नियुक्तियों)  
उत्तर प्रदेश शासन।

**VERIFICATION:-**

I, the abovenamed deponent to hereby verify that the contents of this affidavit are true and correct to my knowledge, no para of it is false and nothing material has been concealed there from.

Verified by me on this the 23..... day of May, 2024,

at Lucknow.....

कृपण सं० 0107245  
हारा शपथ की गई... श्री प्रभु नाथ, विशेष सचिव, लो.नि.वि. उ.प्र. शा.  
जिनका परिचय श्री विनोद कुमार, समीक्षा अधिकारी, लो.नि.वि.  
दिनांक 23.05.2024 समय 07:35  
वाद संख्या 238/2024  
वकील Dr. S. S. Mathur, H.C.T.  
दफ्तर डॉ. एस. एस. मथुरा, नई दिल्ली  
को फोन वसली गई

*[Signature]*  
**DEPONENT**



*[Handwritten]*  
23/05/24  
(विनोद कुमार)  
समीक्षा अधिकारी,  
लो.नि.वि. - 14, उ.प्र. शासन  
IDENTIFY THE DEPONENT  
WHO HAS APPEARED BEFORE ME

Item No.16

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 238/2024

News item titled "UP gives permission to fell 112000 trees for road along Upper Ganga Canal" appearing in Hindustan Times dated 01.02.2024

Date of hearing: 20.05.2024

**CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON  
HON'BLE MR. JUSTICE ARUN KUMAR TYAGI, JUDICIAL MEMBER  
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER**

Respondent: Mr. Bhanwar Pal Singh Jadon & Mr. Harsh Vardhan Singh Rajawat,  
Adv. for R - 1 & 3 to 5  
Mr. Rajan Kumar Chourasia, Adv. for MoEF & CC (Through VC)  
Mr. Ankit Verma, Adv. for the State of UP (R - 6)  
Ms. Anjali Rajput, Adv. for R - 7 to 9

**ORDER**

1. This original application has been registered *suo moto* on the basis of the news item disclosing the decision of Uttar Pradesh Government to fell more than 1 lakh trees and shrubs in the protected forest area of three forest divisions - Ghaziabad, Meerut and Muzaffarnagar for construction of two lane of 111 kms. Kanwar Marg from Muradnagar to Purkaji near Uttarakhand border.
2. Tribunal had impleaded the concerned authorities of State of UP and State of Uttarakhand by order dated 13.03.2024 and had issued notice to them and directing them to file the report.
3. Common response on behalf of respondent nos. 1, 3, 4 and 5 has been filed disclosing the position as under:-

*"3. It is submitted that in order to provide desired information in point no. 7 of the order dated 13.03.2024 it is informed that*

- i. Out of the total number of 112722 plants / trees to be affected in the proposed project, the maximum number of plants with diameter of less than 30 cm are affected which are 25142 under Social Forestry Division, Ghaziabad, 52993 under Social Forestry Division, Meerut and 811 under Social Forestry Division, Muzaffarnagar i.e. The enumeration list of affected plants and mature trees / trees, species-wise (Part-2 of the Parivesh Portal of the proposal) is enclosed. (Annexure-I) District-wise details of Protected Forest Land, trees and plants affected by the project are as under:

Sr. No.	Distt.	Total KM	Transferred Land (Hect.)	Beneficiary Village	Affected no. of mature trees in project	Affected no. of Plants in the project	Total no. of affected Mature Trees and plants in the project
1	2	3	4	5	6	7	8
1	Muzaffarnagar	56.84	113.68	24	16062	811	16873
2	Meerut	42.30	84.60	24	13692	52993	66685
3	Ghaziabad	12.35	24.70	06	4022	25142	29164
	TOTAL	111.49	222.98	54	33776	78946	112722

- ii. As per agenda no. 2.3/up dated 20.02.2023 online proposal no. FP/UP/ROAD/121197/2021 was finally considered by Regional empowered Committee (REC), MOEF&CC (ANNEXURE 2). In principal approval has been issued subject to 29 conditions by Ministry of Environment Forest and Climate Change vide letter no.8B / UP/ 06/ 2021/ FC/930 on dated 28.02.2023.(ANNEXURE 3).
- iii. It is submitted that to compensate the diversion of 222.98 Hectare Protected Forest Land, the equivalent Non forest land or Double degraded land i.e. 445.96 Hectare was not available in affected 3 districts Ghaziabad, Meerut and Muzaffarnagar. Certificates issued by the each District Magistrates regarding the Non-availability of Non-forest land are attached hereby as (ANNEXURE - 4,5,6).

Therefore Non forest land & Double degraded land was proposed in lalitpur, Mirzapur & Sonbhadra district as per guidelines of MOEF&CC vide letter no. F.No. 5-2/2017-FC dated 28.03.2019 & FCA 1980 handbook chapter no. 2 heading compensatory afforestation guidelines point 2.3 para iv & v. (ANNEXURE 7) Effective part of guideline is following :

"IV. In case, non-forest land for CA is not available in the same district. it should be identified anywhere else in the concerned/ State/Union Territory near to the site of diversion as far as possible, so as to minimize adverse impact on the micro ecology of the area.

V. In exceptional cases where non-forest land for CA is not available in the same State/UT in which the diversion of forest land is proposed. land for CA can be identified in any other State/UTs. preferably in neighbouring State/UTs. The corresponding amount for carrying out CA shall be deposited in the CAMPA account of the State/UT in which CA is proposed."

- iv. Important facts regarding proper felling of Trees/Plants in this proposed project.
- Non forest land for compensatory afforestation was selected in District Lalitpur as equivalent Non Forest land i.e. 222.98 Hectare that was not available in affected 3 districts i.e. Ghaziabad, Meerut & Muzaffarnagar. Copy of Mutation of Non-Forest Land in District - Lalitpur (ANNEXURE 8).
  - Double degraded forest land was also selected in district Mirzapur, Sonbhadra and Lalitpur for compensatory afforestation (including 41.22 Hect. of non-forest land in Dist.- Lalitpur) to increase forest cover in selected less dense areas.
  - As per conditions mentioned in the In-Principal approval, compensatory afforestation will also be done in & around District meerut on available Non-forest/Forest land and along with Roadside plantation.
  - Rs.24,63,39,762 is deposited in CAMPA fund as per Net present value calculation of the diverted Protected forest. The said amount will be utilised for the improvement of Forest areas & wildlife habitat in coming years covering the 3 districts Ghaziabad, Meerut and Muzaffarnagar.
- v. Detail of Proposed compensatory afforestation District wise is following :

- a) Proposed CA in other districts due to non-availability of non-forest land in project affected districts :-

Name of District/ Forest Division	Type of Land	Area in Hect.	No. of Plants to be planted	Deposited amount

Planation of trees on the degraded forest land under different forest blocks in Distt. Sonbhadra with its 10 years of maintenance	Degraded forest land	98.00 Hect.	58800	2,69,82,200.00
Planation of tree on the degraded forest land under different forest blocks in Distt. Mirzapur with its 10 years of maintenance	Degraded forest land	190.50 Hect.	209550	3,28,67,458.00
Planation of trees on the degraded forest land under different forest blocks in Distt. Lalitpur with its 10 years of maintenance	Degraded forest land	86.84 Hect.	60788	2,33,75,180.00
Planation of trees on the non-forest land in Distt. Lalitpur with its 10 years of maintenance	Non-forest land received by Distt. Magistrate	41.22 Hect.	28854	1,27,09,246.00
<b>Total</b>		416.56	357992	9,59,34,084.00

*b. Details of Proposed additional Compensatory Afforestation in form of Artificial Natural Regeneration (ANR) in district lalitpur :*

Name of Distt. / Forest Division	Type of land	Area in Hect.	Number of plants to be planted	Amount deposited
Plantation on non-forest land in Distt. Lalitpur along with 10 years of maintenance	Non-Forest Land	181.04	126728	15,50,39,500.00
<b>Total</b>		181.04	126728	15,50,39,500.00

*c. Proposed compensatory afforestation planation nearby projects site of Meerut, Muzaffarnagar & Ghaziabad.*

Name of Distt. / Forest Division	Type of land	Area in Hect.	Number of plants to be planted	Amount deposited
Road side trees / Block trees / Tree Guard under Distt. Meerut with 10 years maintenance	Road side trees / Block trees / Tree Guard	15.00 Hect.	16500	1,86,05,220.00

Brick Guard planation on bothsides and vacant places of the prescribed project under Distt. Meerut with 10 years of maintenance	on both sides of the prestribed project and vacant places.		2470 Brick Guard	1,02,50,500.00
Tree Guard Plantation in Median of the prescribed project under Distt. Meerut with 10 years maintenance	On Median of the project		2058 Tree Guard	61,74000.00
Total		15.00	21028	3,50,29,720.00

i.e. as per the details given above, against the 112722 trees/plants proposed to be affected due to the project, 484720 plants will be planted in the districts/forest divisions other than the project and 21028 plants will plant in the Meerut district/forest division around the project, i.e. a total of 505748 plants will be planted and their 10 years annual maintenance work will be completed by the Forest Department with the total amount of Rs. 28,60,03,304/- (Twenty-Eight Crore Sixty Lakh Three Thousand Three Hundred Four Only) received from the user agency (Public Works Department).

vi. Rationale behind construction of Chaudhary Charan Singh Kanwad Marg as provided by the Public works Department (PWD).

a) Every year in the month of Shravan, about 1 crore Shiv devotees coming from the states Uttar Pradesh, Delhi, Haryana, Rajasthan, Madhya Pradesh etc. who return from Haridwar to their respective states by taking the water of river Ganga through Khadi Kanwad, Dak Kanwad, Jhanki Kanwad, Dandavat Kanwad Yatra. They return to their respective states for them this has been a main route. Due to these beliefs, the said route has been named Chaudhari Charan Singh, Kanwad Marg. With the increasing population, In the month of Shravan this route has become included in the category of very crowded routes for the common people and devotees. As well as a total of 54 villages falling under the districts Muzaffarnagar, Meerut and Ghaziabad on the said route, in which it has also been a main route for the movement of residents population. In such a situation, there is a lot of disruption in the traffic on the Kanwad route directly and indirectly in the months of Shravan. The new construction of the right bank of the said Kanwad Marg has been proposed by the Uttar Pradesh government in in view of all the above problems and in the interest of public.

b) Farmers of 54 villages and other adjacent villages situated on the bank of Upper Ganga Canal will be able to easily

transport their crops to the market etc. directly through the said route.

- c) On the banks of the proposed route, monitoring of forest resources and civil defence assistance in unavoidable situations will be provided to the said villages speedily, health and emergency assistance can be provided at the earliest, police assistance 112 and ambulance assistance 108 and other government assistance will be provided at the earliest.
- d) Tourists and devotees going from Delhi to Haridwar will take the proposed route. In which tourism and employment opportunities will be promoted in the villages situated along the route.
- e) About 54 villages of the three districts adjacent to the Upper Ganga Canal will be benefited from the new project in question, the new construction of the road will facilitate the movement of the population of the said villages directly from the headquarters of the three districts, employment opportunities will increase for the people. The details of villages that will benefit from the project are as under:

#### LIST OF VILLAGES

Sr. No.	Villages Name
1.	Dhamat
2.	Jamalpur
3.	Gurupur
4.	Kamhera
5.	Nagla Mehrdad
6.	Basera
7.	Nirgajni
8.	Belda
9.	Mohdmadpur Majra
10.	Behda Thuru
11.	Bhopa
12.	Nagla Buzurg
13.	Joli
14.	Dukheri
15.	Kantka
16.	Mandord
17.	Nagla Kabir
18.	Chittora
19.	Khera Moukpur
20.	Nauna
21.	Sarai Rasoolpur
22.	Bhainsi
23.	Satheri
24.	Mohamadpur Maffi
25.	Salava
26.	Kapsaad
27.	Daulatpur
28.	Aterna
29.	Nagla Aardar
30.	Kulanjan
31.	Sardhana
32.	Madhiyai
33.	Naoo
34.	Ratangiri
35.	Bhalsona
36.	Jatpura
37.	Dungar

38.	Puth Khas
39.	Bhola
40.	Sisaula Khurd
41.	Tikri
42.	Janni Khurd
43.	Janni Khas
44.	Sival Khas
45.	Nagla Kumbha
46.	Pastra
47.	Pachgaon
48.	Johra
49.	Niwadi
50.	Peinga
51.	Ujheda
52.	Saunda
53.	Didauli
54.	Abupur

*The Project has been approved and given in principal approval after several meetings of REC MOEF & CC . The Project being of linear category, after depositing all the dues under CAMPA fund as per the condition of In Principal approval, All three districts/division has given temporary work permission to PWD Dept."*

4. Separate report on behalf of Executive Engineer, PWD, Meerut, UP has also been filed disclosing the details of the project and number of trees coming in that project as under:-

क० स०	जनपद	कुल कि०मी०	हस्तान्तरित भूमि (हे०)	मार्ग के किनारे पडने वाले याम	परियोजना में बाधक वृक्ष	परियोजना में बाधक पौध	परियोजना में बाधक वृक्ष व पौधों का योग
1	2	3	4	5	6	7	8
1	मुजफ्फरनगर	56.84	113.68	24	16062	811	16873
2	मेरठ	42.30	84.60	24	13692	52993	66685
3	गाजियाबाद	12.35	24.70	06	4022	25142	29164
	योग	111.49	222.98	54	33776	78946	112722



5. Learned Counsel appearing for State of Uttarakhand has submitted that in the State of Uttarakhand no work has been started and no trees have been cut. She has prayed four weeks time to file the reply.

6. Learned Counsel appearing for the Public Works Department (PWD), State of UP has submitted that till now approximately 9500 trees have been cut and in the construction of the road, total 33,000 trees are expected to cut for which permission has been obtained.

7. Before examining the aforesaid report, it is necessary to look into the nature of the road which is being constructed i.e. if it is a National Highway, State Highway or any other type of road.

8. In order to disclose if the road is National or State Highway, a short adjournment has been prayed by Counsel for State of UP by submitting that Special Secretary, PWD, UP will disclose its detail. Hence, we require the Special Secretary, PWD, State of UP to file an affidavit within three days disclosing if the road which is being constructed is a National Highway, State Highway or any other type of road and also to produce the material on the basis of which roads are classified as National Highway, State Highway etc. We are granting only three days time for this purpose as a large number of trees are in the process of being cut, therefore, Special Secretary, PWD, State of UP will ensure that affidavit is filed within the time limit.

9. Counsel for State of Uttarakhand has submitted that Irrigation Department of State be also impleaded. Hence, we implead the following as respondents in the matter:-

10. Principal Secretary, Irrigation Department, State of Uttarakhand;

11. Principal Secretary, Irrigation Department, State of Uttar Pradesh.

12. Counsels for State of Uttar Pradesh and State of Uttarakhand have accepted notice for the newly added respondents. Hence, no separate notice is necessary.

13. List on 24.05.2024.

Prakash Shrivastava, CP

Arun Kumar Tyagi, JM

Dr. A. Senthil Vel, EM

May 20, 2024  
Original Application No. 238/2024  
JG.

कार्यालय मुख्य अभियन्ता (गंगा)  
सिंचाई एवं जल संसाधन विभाग, उत्तर प्रदेश,  
मेरठ

दिनांक: -२/ .12.2017

पत्रांक-१२६१६ / मु.अ.गं / कांवेड सडक

विषय : उ०प० की सीमा में अपर गंगा नहर के दांये तट पर दो लेन लेपित मार्ग के निर्माण हेतु अनापत्ति प्रमाण-पत्र जारी करने के सम्बन्ध में।

मुख्य अभियन्ता, पश्चिम क्षेत्र, लोक निर्माण विभाग, मेरठ।

कृपया उपरोक्त विषयक अपने पत्रांक-5820 नि / 18-प०क्ष० / 17 दिनांक 04.08.2017 का अवलोकन करने का कष्ट करें, जिसके द्वारा गा० मुख्यमन्त्री जी की अध्यक्षता में दिनांक 29.06.2017 को कांवेड यात्रा के सम्बन्ध में सम्पन्न बैठक में अपर गंगा नहर की दांयी पटरी को दो लेन लेपित मार्ग के निर्माण हेतु विर्ये गये निर्देशों के अनुपालन में अनापत्ति प्रमाण-पत्र निर्गत करने का अनुरोध किया गया है।

इस सम्बन्ध में इस संगठन के अधीनस्थ अधीक्षण अभियन्ता प्रथम मण्डल सिंचाई कार्य, मेरठ के पत्रांक-9510/प्रथम, दिनांक 20.12.2017 द्वारा उनके कार्यक्षेत्र में आने वाले अधिशासी अभियन्ता, मेरठ खण्ड गंगा नहर, मेरठ एवं अधिशासी अभियन्ता, मुजफ्फरनगर खण्ड गंगा नहर, मु०नगर द्वारा उपलब्ध करायी गयी अपनी संस्तुति के आधार पर निम्न शर्तों के साथ अनापत्ति प्रमाण-पत्र निर्गत किया जाता है:-

1. भूमि का पूर्ण स्वामित्व सिंचाई विभाग का होगा।
  2. भविष्य में यदि नहर का चौड़ीकरण अथवा नहर की किसी संरचना हेतु भूमि की आवश्यकता होती है तो लोक निर्माण विभाग को सडक शिफ्ट का कार्य अपने संसाधनों से कराना होगा।
  3. उक्त मार्ग पर आवागमन हेतु सिंचाई विभाग स्वतन्त्र होगा।
  4. लेपित मार्ग का निर्माण नहर के दांये बैंक के डोल का स्लोप 1:5 1 एवं डोल की टा से 02 मीटर न्यूनतम क्लीयर दूरी छोड़ते हुए किया जाये।
  5. कार्य में प्रयुक्त होने वाली मिट्टी विभागीय भूमि से नहीं उद्ययी जायेगी।
  6. प्रस्तावित कार्य की ड्राईंग कार्य कराने से पूर्व सिंचाई विभाग से अनुमोदित करानी होगी।
  7. सडक निर्माण के दौरान नहर संरचना को किसी प्रकार की कोई क्षति नहीं पहुंचनी चाहिये यदि नहरी संरचना को कोई क्षति पहुंचती है तो क्षतिपूर्ति लोक निर्माण विभाग से वसूली जायेगी।
  8. कार्य के दौरान किसी भी प्रकार की असावधानी के कारण नहर की क्षतिग्रस्त होने की स्थिति में होने वाली जान-माल की क्षतिपूर्ति का पूर्ण दायित्व लोक निर्माण विभाग का होगा।
  9. सडक के अनुरक्षण का दायित्व कार्यदायी संस्था का होगा अन्यथा की स्थिति में परियोजना की लागत का 30 प्रतिशत प्रति वर्ष अनुरक्षण हेतु सिंचाई विभाग को उपलब्ध कराना होगा।
  10. नहर पर किसी भी प्रकार का अतिक्रमण मान्य नहीं होगा।
11. उपरोक्त प्रतिबंधों की अनुपालना न करने की दशा में उक्त अनुमति स्वत ही निरस्त मानी जायेगी।

मुख्य अभियन्ता (गंगा)  
सिंचाई एवं जल संसाधन विभाग,  
उ०प०, मेरठ

पत्रांक- / मु.अ.गं / तदिनांक

प्रतिलिपि निम्नलिखित को सूचनाार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित है -

1. मुख्य अभियन्ता (पश्चिम), सिंचाई एवं जल संसाधन विभाग, उत्तर प्रदेश, मेरठ।
2. अधीक्षण अभियन्ता, प्रथम मण्डल सिंचाई कार्य, मेरठ को उनके पत्रांक-9510/प्रथम, दिनांक 20.12.2017 के संदर्भ में।

मुख्य अभियन्ता (गंगा)  
सिंचाई एवं जल संसाधन विभाग,  
उ०प०, मेरठ

text was done jointly by R.P.Sikka, Member-Secretary, Specifications and Standards Committee and K. Arunachalam.

## 2. SCOPE

2.1. The publication is based primarily on existing standards and recommendations of the Indian Roads Congress, with suitable modifications and additions in the light of current engineering practice. The standards prescribed are essentially advisory in nature but may be relaxed somewhat in very difficult situations if considered judicious. Effort in general should, however, be to aim at standards higher than the minimum indicated.

2.2. The text deals with geometric design standards for rural highways\*\*, i.e. non-urban roads located predominantly in open country outside the built-up area. The alignment may however pass through isolated stretches of built-up nature as long as character of the road as a whole does not change. The standard is not applicable to urban roads or city streets. It is also not applicable to expressways. Geometric design elements of road intersections are not considered in the standard either.

2.3. The geometric features of a highway except cross-sectional elements do not lend to stage construction. Geometric deficiencies are costly and sometimes impossible to rectify later on due to the subsequent roadside development. Therefore, it is essential that geometric requirements should be kept in view right in the beginning.

## 3. CLASSIFICATION OF NON-URBAN ROADS

3.1. Non-urban roads in India are classified into five categories:

- (i) National Highways
- (ii) State Highways
- (iii) Major District Roads
- (iv) Other District Roads
- (v) Village Roads

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\*\*These should not be confused with Rural Roads which refer commonly to Other District Roads and Village Roads. While geometric design elements of Rural Roads are duly covered in this publication alongwith roads of higher category, more comprehensive guidance about different facets of design and construction of the Rural Roads can be had from the IRC Special Publication No. 20, "Manual on Route Location, Design, Construction and Maintenance of Rural Roads (Other District Roads and Village Roads)".

3.2. National Highways are main highways running through the length and breadth of the country connecting major ports, foreign highways, State capitals, large industrial and tourist centres etc.

3.3. State Highways are arterial routes of a State linking district headquarters and important cities within the State and connecting them with National Highways or highways of the neighbouring States.

3.4. Major District Roads are important roads within a district serving areas of production and markets, and connecting these with each other or with the main highways.

3.5. Other District Roads are roads serving rural areas of production and providing them with outlet to market centres, taluka/tehsil headquarters, block development headquarters, or other main roads.

3.6. Village Roads are roads connecting villages or groups of villages with each other and to the nearest road of a higher category.

#### 4. TERRAIN CLASSIFICATION

4.1. The geometric design of a highway is influenced significantly by terrain conditions. Economy dictates choice of different standards for different types of terrain. Terrain is classified by the general slope of the country across the highway alignment, for which the criteria given in Table 1 should be followed. While classifying a terrain, short isolated stretches of varying terrain should not be taken into consideration.

TABLE 1. TERRAIN CLASSIFICATION

S. No.	Terrain classification	Per cent cross slope of the country
1.	Plain	0—10
2.	Rolling	10—25
3.	Mountainous	25—60
4.	Steep	Greater than 60

#### 5. DESIGN SPEED

5.1. Choice of design speed depends on the function of the road as also terrain conditions. It is the basic parameter which determines all other geometric design features. Design speeds for various classes of roads should be as given in Table 2.

TABLE 2. DESIGN SPEEDS

S. No.	Road classification	Design speed, km/h							
		Plain terrain		Rolling terrain		Mountainous terrain		Steep terrain	
		Ruling design speed	Minimum design speed	Ruling design speed	Minimum design speed	Ruling design speed	Minimum design speed	Ruling design speed	Minimum design speed
1.	National and State Highways	100	80	80	65	65	50	40	30
2.	Major District Roads	80	65	65	50	40	30	25	20
3.	Other District Roads	65	50	50	40	30	25	20	20
4.	Village Roads	50	40	40	35	25	20	25	20

5.2. Normally "ruling design speed" should be the guiding criterion for correlating the various geometric design features. "Minimum design speed" may, however, be adopted in sections where site conditions, including costs, do not permit a design based on the "ruling design speed".

5.3. The design speed should preferably be uniform along a given highway. But variations in terrain may make changes in speed unavoidable. Where this is so, it is desirable that the design speed should not be changed abruptly, but in a gradual manner by introducing successive sections of increasing/decreasing design speed so that the road users get conditioned to the change by degrees.

## 6. CROSS-SECTIONAL ELEMENTS

### 6.1. Road Land, Building Lines and Control Lines

6.1.1. Road land width (also termed the right-of-way) is the land acquired for road purposes. Desirable land width for different classes of roads is indicated in Table 3.

TABLE 3. RECOMMENDED LAND WIDTH FOR DIFFERENT CLASSES OF ROAD

(metres)

S. No.	Road classification	Plain and rolling terrain				Mountainous and steep terrain	
		Open areas		Built-up areas		Open areas	Built-up areas
		Normal	Range	Normal	Range	Normal	Normal
1.	National and State Highways	45	30-60	30	30-60	24	20
2.	Major District Roads	25	25-30	20	15-25	18	15
3.	Other District Roads	15	15-25	15	15-20	15	12
4.	Village Roads	12	12-18	10	10-15	9	9

6.1.2. In high banks or deep cuts, the land width should be suitably increased. Similarly, a higher value should be adopted in unstable or landslide-prone areas. The need for a wider right-of-way at important road intersections should also be kept in view.