

## BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

AT PRINCIPAL BENCH, NEW DELHI

(In O.A. No. 293 of 2023)

**Yogesh Maini & anr. Vs The State of Punjab through the Principal Secretary of  
Local Government Department & ors.**

**Affidavit of Yogesh Maini (aged 41 years) s/o Late Sh. Kapil Bhushan Maini  
r/o #678/1, Prem Nagar, Shiv Mandir Road, Civil Lines, Ludhiana.**

**RESPECTFULLY SHOWETH:**

I, the above mentioned deponent do hereby solemnly affirm and declare as under:-

1. That the deponent, who is one of the Applicants (in person) in O.A. No. 293 of 2023 filed with this Hon'ble National Green Tribunal.
2. That the contents of paras no. 1 to 4 of the accompanying Rejoinder are true and correct to my knowledge.



Adhar card no.

3551-8847-0635

I Know deponent He/She signed in my presence.

Place: Ludhiana  
Dated: 04.09.2024

Certified that the affidavit has been read over & explained to the deponent executant..... who seemed correct to understand the same at the time of making thereof.

*Yogesh Maini*  
**DEPONENT**

**Verification:**

Verified that the contents of para 1 and 2 of this affidavit are true and correct. No part of it is false, and nothing material has been kept concealed therefrom.

Place: Ludhiana  
Dated: 04.09.2024

*Yogesh Maini*  
**DEPONENT**

**ATTESTED AS IDENTIFIED**

*Pankaj*  
**Pankaj Advocate**  
Oath Commissioner (Ldh.)

4 SEP 2024

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

(In O.A. No. 293 of 2023)

Yogesh Maini & anr.

..... Petitioners

Vs.

State of Punjab & ors.

..... Respondents

Rejoinder by Applicant No. 1 on continuous Environment damage being done by Respondent No. 2 & 3 by deliberately defying the orders of this Hon'ble Tribunal, Environment Norms & provisions of IRC SP 50: 2013, orders of this Hon'ble Tribunal and provisions of Section 26 of NGT Act 2010

Hon'ble sir,

Respectfully sheweth,

The Applicants humbly submit as under:

1. That the Respondent No. 3 is still continuing to fix Solid interlocking tiles (Non-permeable tiles) without leaving space of One metre in radius around the trees as directed by this Hon'ble Tribunal in O.A. No. 62 of 2021 (case title Er. Kapil Dev vs. State of Punjab & ors.). Such an act is against the provisions of Section 26 of NGT Act and the Head of Department is liable to be prosecuted and punished accordingly. Three Photographs clicked on 04-09-

2024 (with GPS location) depicting interlocking tiles fixed & also being fixed within prohibited area (One Meter radius) at Shaheed Bhagat Singh Nagar by Respondent No. 3 are produced herewith as **Annexure-P4**. The tiles fixed by Respondent No. 3 along roadsides in Shaheed Bhagat Singh Nagar Ludhiana are above the road level resulting into waterlogging on metalled road, further resulting into damage to the road due to which the roads are either left in bad situation or repaired/re-carpeted prior to their actual residual life, resulting into over-exploitation of natural resources and damage to the Environment. One **sample photograph** depicting perforated **interlocking tiles fixed by one private person** in Ludhiana are produced herewith as **Annexure P-5**. Similar tiles are also being used by Chandigarh/Jaipur local body at many places. As already submitted in Para No. 2 of Original Application, as per IRC SP 50: 2013 code of Urban Drainage, the level of sides of Road should be lower than Metallic Roads so as to avoid waterlogging on Roads during rainy days, however Respondent No. 3 has been deliberately damaging the environment again and again. The relevant clauses of IRC SP 50: 2013 with cross section of road is produced herewith as **Annexure P-6**.

2. That the Respondent No. 2 as well as Respondent No. 3 have not removed interlocking tiles fixed within the prohibited area around trees at all 16 locations and the tiles are impermeable i.e. water cannot penetrate into them. Further, as already submitted, the tiles in residential inner roads are fixed above the road level by both Respondent No. 2 & 3. **It is pertinent to humbly submit here that as directed by this Hon'ble Tribunal, the tiles should be 50% permeable, however the tiles fixed by both respondents are**

**impermeable and are being fixed on entire stretches along the roadsides (including main roads) leaving no space for shrubs and trees, resulting into Air Pollution.** It is further pertinent to humbly submit here that in a similar matter pertaining to solid interlocking tiles fixed along roadsides in Ghaziabad (UP), this Hon'ble Tribunal has issued notice to State of U.P.. The copy of orders dated 29-07-2024 are produced herewith as **Annexure P-7**.

3. That in O.A. No. 346 of 2019, this Hon'ble Tribunal vide orders dated 08-08-2019 had directed the Municipal Corporation of Mohali to comply with the recommendation as under, thus;

- (i) To prevent the damage of the root system of trees the area of 1 meter should be left de-concretized around the base of the trees where ever possible while construction of the pavements or roads to facilitate percolation of water to the roots. The area should be leveled with earth/soil and grass may be planted where ever it is possible. It is also suggested to discourage concretization/tiling of central verge of the roads/pathways.*
- (ii) On narrower roads and paths, as far as possible, unpaved or katcha effective area of at least 1square meter be left around the trees.*
- (iii) The trees which are already concretized should be de-concretized manually without damaging the roots of the trees.*
- (iv) Due precaution should be taken in future so that no concrete or construction or repairing work is done at least within one meter radius of the trunk of trees. This even should be the part of contracting*

*agreements by the Municipal Corporation / Concerned local Government.*

- (v) If public demands for the tiling of parking in front of their houses, then the same can be allowed to do by themselves with the conditions of leaving the minimum space around the tree ( square meter).*
- (vi) After removal of malba /concrete material etc., around the trees as the space will be filled with good soil should be carried out simultaneously.*
- (vii) Maintaining the Enumeration register of the existing trees by the Municipal Corporation and the same should be updated yearly to have the checks of trees protection.*
- (viii) The trees which died due to the concretization should be replaced by the Municipal Corporation with the suitable tree species.*
- (ix) For the effective implementation of the above aspects a Tree Officer can be designated by the Municipal Corporation."*

4. That since the MC Mohali failed abide by the directions of this Hon'ble Tribunal (supra), the Hon'ble Five Judges Bench of this Hon'ble Tribunal in M.A. No. 229 of 2019 in O.A. No. 346 of 2019 vide orders dated 26-11-2019 has directed the concerned Municipal Corporation and District Administration as under, thus;

Upon consideration of the facts and circumstances set out in the application and upon hearing the learned Counsel for the Applicant, we do not find it necessary to modify the order as

prayed for considering that order dated 08.08.2019 in O.A. No. 346/2019 was passed based upon the recommendation of the Committee constituted by the Tribunal. We may, however, clarify that order dated 23.04.2013 in O.A. No. 82/2013 referred to by the Applicant in respect of the NCT, Delhi, shall also be applicable to SAS Nagar, Mohali, Punjab supplemental to the order dated 08.08.2019 passed in O.A. No. 346/2019. The concerned authorities shall take note of this and ensure that the directions are enforced.

### **PRAYER**

Keeping in view of the above, the Applicants humbly pray this Hon'ble Tribunal to accept our prayer and issue directions to the Respondents for stopping the further impugned solid impermeable interlocking tiles and replace the existing tiles with perforated tiles to allow rain water to penetrate into the ground to help recharge groundwater table and further issue directions as prayed in our Original Application. The Applicants further pray this Hon'ble Tribunal to kindly take action as per Section 26 of NGT Act, 2010 for repeatedly defying orders of this Hon'ble Tribunal by Respondent No. 3.

Date: 04-09-2024

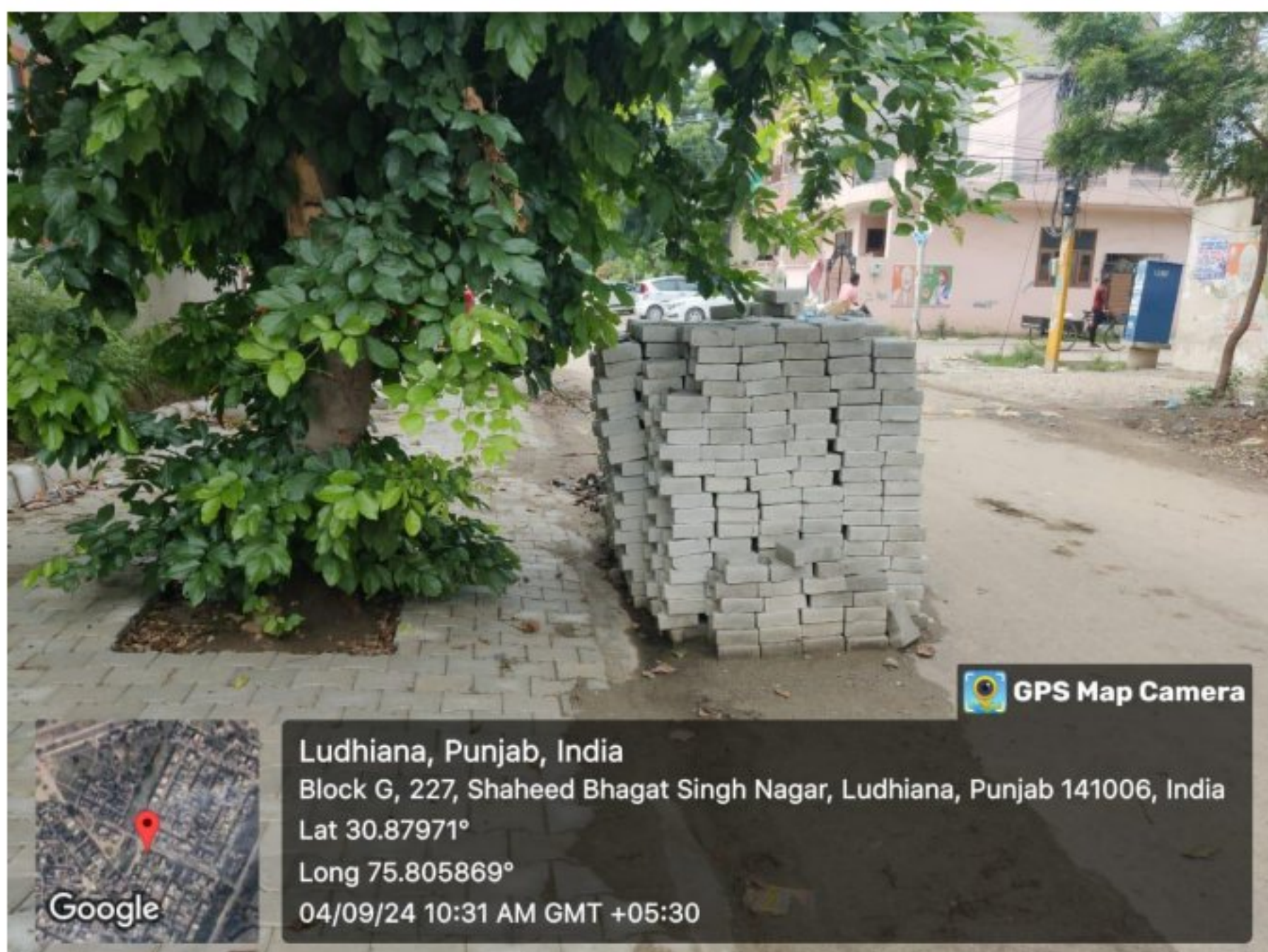
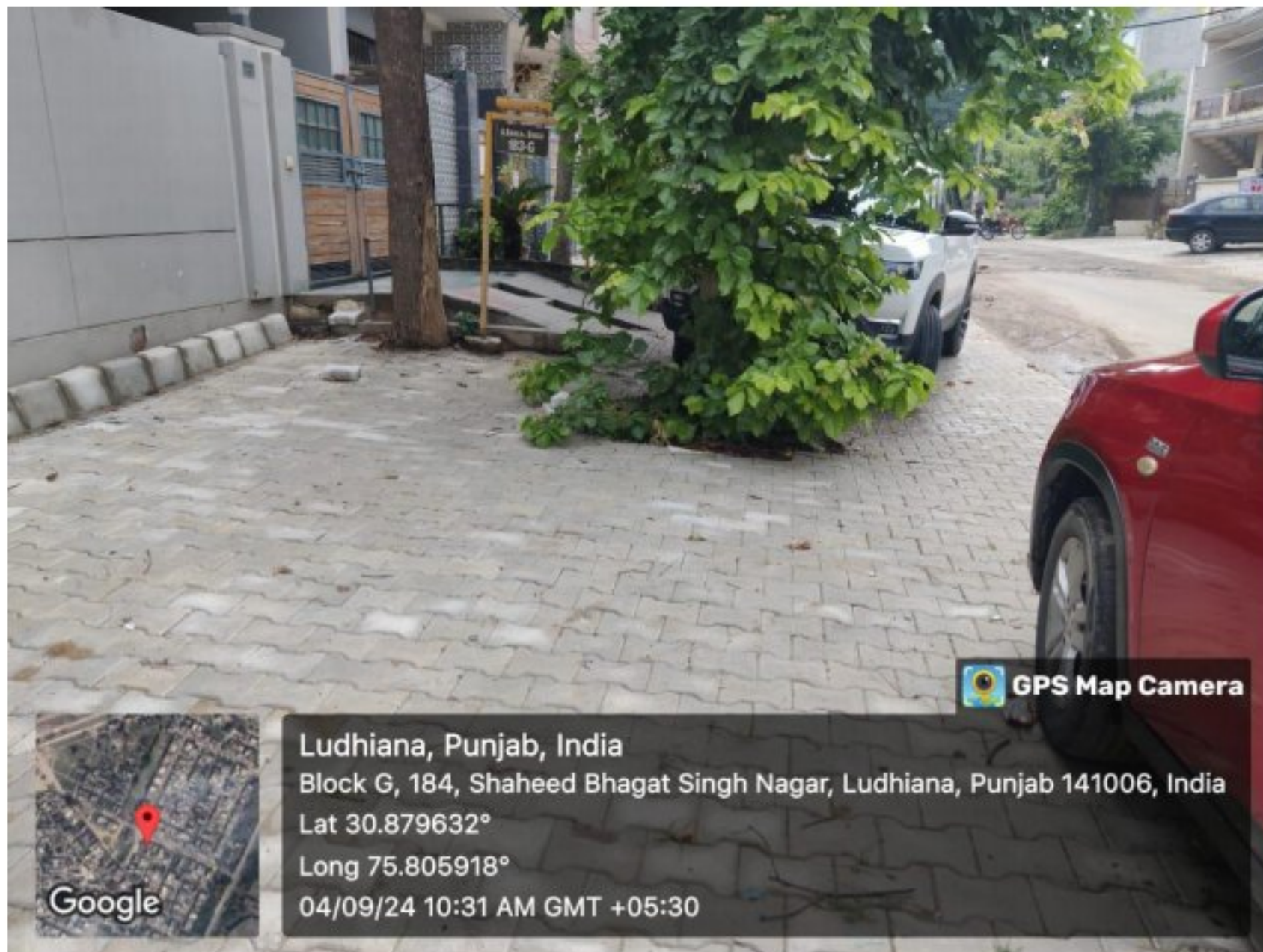
Place: Ludhiana

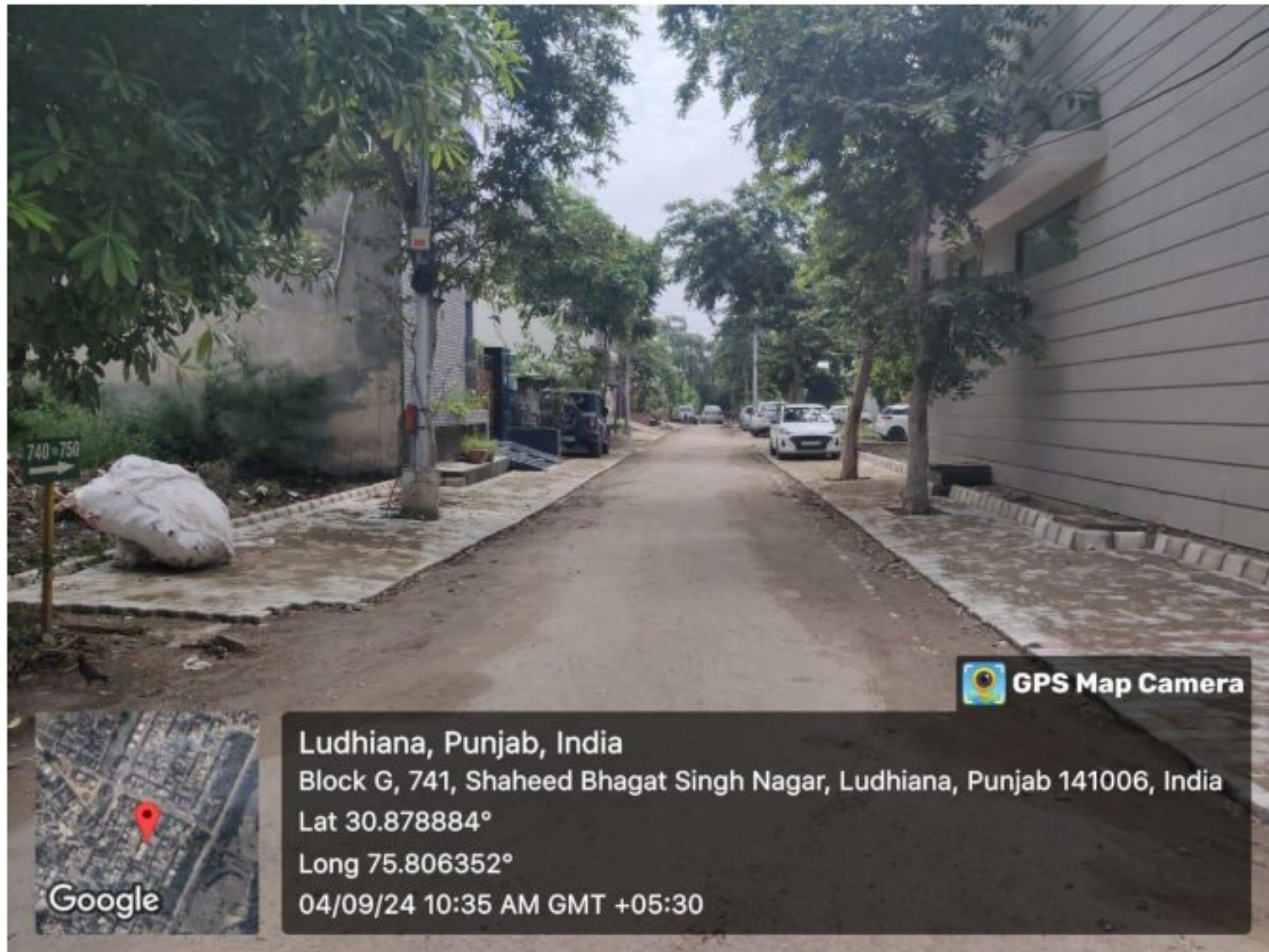


Yogesh Maini  
(Petitioner No.1 )  
(Petitioner in Person)

## ANNEXURE P-4

Three Photographs clicked on 04-09-2024 (with GPS location) depicting interlocking tiles fixed & also being fixed within prohibited area (One Meter radius) at Shaheed Bhagat Singh Nagar by Respondent No. 3





**ANNEXURE P-5**

**SAMPLE OF INTERLOCKING TILES WHICH SHOULD BE USED BY RESPONDENTS – ALONG WITH LEAVING SPACE FOR SHRUBS AND TREES**



Keeping in view a large scale development in urban front in the country and keeping in pace with higher improvement in economic growth relatively to earlier decades coupled with large scale importance given to this sector by the Government, it is felt that the earlier publication IRC:SP:50-1999 needs revision. Drainage and urban roads require to deal with complex situations and parameters in the present changed context. It is, therefore, felt necessary to bring out detailed guidelines dealing with drainage of urban roads.

## **2 SCOPE**

The guidelines covered under this revised publication deal with drainage of urban roads running through plain and rolling areas. The details covered in the revision are the influence of road features, drainage of surface, subsurface and drainage at special locations like rotaries, vehicular underpasses, parking lots, etc. Design aspects of storm water drains, detention and retention facilities for disposal of storm water are covered. Details of pumping have been dealt separately. Due to rapid urbanization, infiltration of rain water into the sub soil has decreased drastically and recharging of ground water has diminished. Special emphasis on ground water recharging and rain water harvesting is laid and a new chapter is now included. Urban water quality requirements while final disposal of storm water is also covered. Enforcement for maintenance of drains is added as a separate chapter due to its prime importance. A new chapter on geographical information system has been added for better planning of storm water drains. The drainage of rural section of roads, hill roads, airfield pavements and cross drainage have not been covered under these guidelines since separate guidelines in IRC:SP:42-1994 on these subjects have been published.

## **3 ROAD SURFACE DRAINAGE**

**3.1** Traffic safety and service condition of road pavement can be maintained only if effective road drainage exists. Water on the pavement can reduce skid resistance, can interrupt traffic, limit visibility due to splash and spray, increase potential for hydroplaning, and cause difficulty in driving of vehicle. Due to slow precipitation of water and pooling on the carriageway resulting in restricted width and carrying capacity, inturn leading to congestion and slow movement of traffic after showers.

The total road drainage composes of surface drainage, flow in the drains and capacity of inlets. The design of these elements depends on storm frequency and allowable spread of storm water on pavement surface. This chapter elaborates on guidance to these elements.

### **3.2 Surface Drainage**

The rain water travels as unsteady non uniform sheet flow from middle of pavement to the edge of pavement. Factors influencing the depth of water on pavement are the flow of path length, surface texture, surface slope and rainfall intensity. Design guidelines on existing parameters for the following drainage elements are essential.

- 3.2.1 *Longitudinal gradient of pavement*
- 3.2.2 *Transverse gradient of pavement*
- 3.2.3 *Hydroplaning*
- 3.2.4 *Shoulder drainage & footpath drainage*
- 3.2.5 *Road side and median drainage*
- 3.2.6 *Bridge decks*
- 3.2.7 *Median barriers*
- 3.2.1 *Longitudinal gradient of pavement*

The minimum longitudinal gradient is governed by drainage considerations of pavement. This minimum longitudinal gradient is more important for a kerbed pavement than for an unkerbed pavement. On unkerbed pavements near level longitudinal gradients may not be objectionable, when the pavement has sufficient camber to drain rain water laterally. For effective and efficient internal drainage of pavement layers, especially for granular materials, at least a minimum gradient is essential. Also, in cut sections and medians, a slight gradient is desirable to facilitate the removal of water. Desirable longitudinal gradients shall not be less than 0.50 percent for pavements for satisfactory drainage.

A minimum longitudinal gradient of 0.30 percent is necessary to facilitate flow of water in side drains. With outlets example like bridges, culverts, ponds, nallas are provided at required interval to restrict the depth of drains.

### 3.2.2 *Transverse gradient of pavement/camber*

The transverse gradients are compromise between the need for reasonably steep gradients for drainage and relatively flat gradients for driver comfort and safety. For quick dispersal of precipitation on the road surface, it would be necessary that water has to travel least distance through reasonably steep cross slope. However from the consideration of comfort to traffic, steep cross slope is objectionable. As such, a judicious balance is required to be kept between the two requirements. Cross slopes of 2 percent have little effect on driver comfort in steering or on friction for vehicle stability. The use of cross slope exceeding 2 percent on pavements with a central crown line is not desirable. In areas of intense rainfall, a steeper cross slope of 2.5 percent may be adopted for effective drainage. However in surfaces like graveled or WBM cross slope ranging between 2.5 to 3.0 percent can be considered.

For urban roads having divided carriage way, the camber is unidirectional away from the median. A few typical cross sections are shown in **Fig. 3.1 & 3.2 (a) (b) (c) & (d)**.

In case of super elevated sections, either gap in the central verge with suitable adjustments in the levels of the two carriageways or in extreme cases, central drainage arrangement is resorted to. Schematic arrangement is shown in **Fig. 3.1**.

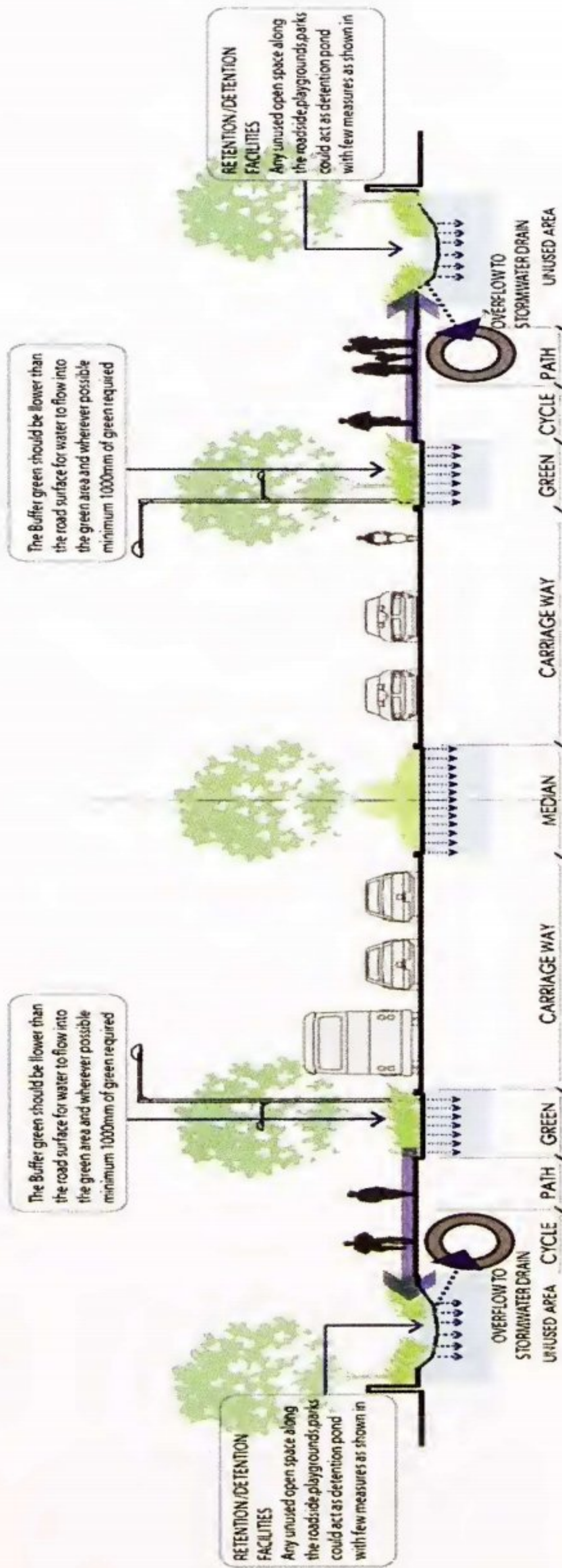


Fig. 3.1

Item No. 01

Court No. 1

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

Original Application No. 832/2024  
(IA No. 317/2024)

Akash Vashishtha

Applicant

Versus

State of Uttar Pradesh &amp; Ors.

Respondent(s)

Date of hearing: 29.07.2024

**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  
HON'BLE DR. AFROZ AHMAD, EXPERT MEMBER**

Applicant: Mr. Sanjay Upadhyay, Senior Advocate with Ms. Katyayni &  
Mr. Shubham Upadhyay, Advs. for Applicant

**ORDER**

1. In this Original Application, Applicant has made an allegation of large scale, excessive and indiscriminate concretization of roadsides/roadberms and constructions in parks in Ghaziabad. The plea of the applicant is that such concretization is being done in violation of the order of the Tribunal in OA No. 165/2013 in the case of *Akash Vashishtha Vs. Union of India & Ors.* and the Government Order dated 23.03.2018 issued by the State of Uttar Pradesh.

2. Learned Senior Counsel for the applicant during the course of argument has referred to the O.M. dated 21.07.2000 issued by the Ministry of Urban Development and Poverty Alleviation (Delhi Division) which contain the guidelines for greening of urban areas and landscaping and provides as under:-

“

1. **To avoid use of excessive tiling of pavements: porous materials to be used**  
*Unnecessary and excessive tiling of the roadside pavement should be avoided. The area around trees lined along the road should not be covered with tiling as it hampers the basic necessary functions and needs of the trees i.e root aeration and availability of water get drastically reduced. Whenever tiling is done, porous tiles alone should be used. Roots of the trees should be protected, top soil should be preserved while taking up civic works. Indiscriminate tiling of road dividers and footpaths should be avoided.”*

3. He has also referred to the circular dated April, 2001 (Annexure A-6) issued by the Chief Secretary, Government of UP which contains the following instruction:-

**“ 2.4 Other actions**

- i. *For plantation on roadsides, parks and open areas, such species should be selected that require minimum water and can remain green even after consuming less water in the summer season.*
- ii. *The roadsides should be kept soiled and muddy, if possible, in which provisions should be made for “brick-on-edge” / “loose-stone pavement” so that recharge of ground water becomes possible.”*

4. He has placed reliance upon the communication dated 03.09.2013 (Annexure A – 10) issued by Ministry of Urban Development, Government of India to the Chief Secretaries concerning the action plan for flood proofing of cities/towns and laid emphasis on paragraph (b) of the said communication which reads as under:-

- “ (b) increased run off due to inappropriate concretization/ paving in urban area and increased intensity of precipitation due to climate change.*

*Due to rapid concretization/paving in urban area, volume of peak run off is increasing leading to' water logging/ flooding in urban areas. The ever increasing concretization/paving in urban areas, reduces ground water recharge on one hand and increases peak run off on other hand, thus, resulting in overflowing of existing drains already clogged with solid waste. As such, there is urgent need to review existing By-laws in urban areas to make it mandatory to manufacture and use of porous paving tiles/bricks, to the extent feasible, to facilitate ground water recharge. Rain water harvesting is closely linked with urban flooding and its provision in houses would be beneficial in not only reducing water requirement but also bring down the level of flooding:*

*In addition to above, it is well established now that because of anthropogenic activities, global warming is on rise, resulting in change in rainfall pattern and intensity of precipitation. This 'necessitates enhancing of capacities of existing storm drains and constructing new drains incorporating above factors.”*

5. He has further placed reliance upon the communication issued by the Joint Secretary, Government of Uttar Pradesh page 113 which contains the decision taken by government in pursuant to order of NGT in the matter of *Akash Vashishtha Vs. Union of India & Ors.* as under:-

**“ 2. MASONRY (PUCCA) CONSTRUCTION IN PARKS**

- (a) *For footpaths, only Stabilized Soil/coarse Sand/Granular Sub Base (G.S.B.) should be used in the given preference.*
- (b) *The total area used for boundary wall, footpath-fountain, works being done by infrastructure like public utility etc should not exceed more than 5 percent of total area of the concerned park.*

3. CORNERS OF ROAD IROADSIDE]

- (a) *Except the carriage way, on both sides of roads, perforated blocks/fly ash brick/straight over burnt bricks can be used only in maximum width of 0.50 meter.*
- (b) *Roads for which footpaths have been provisioned, on those roads perforated blocks/fly ash/straight over brunt bricks should only be used on footpaths.*
- (c) *Roads for which footpaths have been provisioned, on footpaths, on granular sub base/, W.M.M. (Wet Mix Macadam) interlocking tiles/brick-on-edge (Kharanja) may be used. Maximum width of footpath can be 1.50 meter only. Remaining portion of roads would be left vacant for the purpose of drain, sewage and other infrastructure facilities. ”*

6. He has also placed reliance upon the order of the Tribunal dated 30.07.2018 passed in Execution Application No. 34/2017 in Original Application No. 165/2013 *Akash Vashishtha Vs. Union of India & Ors.* (Annexure A - 3) and has submitted that the MoEF & CC had concurred with the policy guidelines of 23rd March, 2018 in respect of non-concretization of the open spaces.

7. During the course of argument, he has referred to the photographs which have been filed as (Annexure A – 1) page 84 onwards and has also placed reliance upon paragraph 3 of the OA and has submitted that these orders/guidelines have been violated in District Ghaziabad and the concretization of pavements and concretization inside the parks have been done in violation thereof.

8. The OA raises substantial issue relating to the compliance of environmental norms.

9. Issue notice on the OA and I.A. No. 317/2024 to the respondents. Applicant is directed to serve the respondents and file affidavit of service atleast one week before the next date of hearing.

10. List on 21.10.2024

Prakash Shrivastava, CP

Arun Kumar Tyagi, JM

Dr. A. Senthil Vel, EM

Dr. Afroz Ahmad, EM

July 29, 2024  
Original Application No. 832/2024  
(IA No. 317/2024)  
AS.