

## Tender Note

Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi, would like to invite bids from experienced survey agencies for carrying out various traffic and travel surveys **GIS Based Master plan under AMRUT 2.0 for Nagla Planning Area.**

The required land use, household and traffic and travel surveys to be conducted by the agency are divided into various work packages as per detailed attached herewith. All the surveys are expected to be finished within overall time frame of three weeks from date of initiation as per schedule provided by Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi.

As a part of this effort, Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi will evaluate the received bids from various survey agencies and appoint the selected survey agencies. The process of evaluation of bids (under two bid system - technical and financial) shall take into account the financial quote as part of the bid only of the technically qualified agencies for various work packages. Based on the evaluation the selected agency shall receive the work order from Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi. Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi **decision would be final in this regard to award the work in single package or multiple packages to L1 bidder in respective packages.**

All necessary payments to the appointed survey agency as per the work order shall be processed and paid by Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi based on satisfactory on conduct and submission of survey report.

The necessary scope of work of various survey work packages along with the survey location details is attached herewith.

In case you are interested for this assignment you may note the following

- i. Submit your quotation through speed post latest by **5:00 pm on 12<sup>th</sup> March 2026** to COE-UPD office at SPA – New Delhi.
- ii. Professional experience exhibiting your technical capabilities to undertake the assignment.
- iii. Technical proposal and financial proposal should be in separate closed envelope for each work package.
- iv. The selected agency shall be informed about its selection latest by **19<sup>th</sup> March 2026** by email.

In case of any queries you are free to contact me [ruchita.gupta@spa.ac.in](mailto:ruchita.gupta@spa.ac.in)



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# Project: GIS Based Master plan Under AMRUT 2.0 for Nagla Planning Area

## Terms of Reference:

### Objective of the study:

The objective of the task is to conduct the land use, household and traffic and travel surveys in and around the Nagla Planning Area on both weekday & weekend. Origin & Destination coding of the collected samples shall be done as per the zone strategy provide by Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi.

### 1. Scope of work

Carrying out traffic & travel surveys as described below in the Figure: Surveys location map and Table: Traffic & Travel Surveys summary by adhering to the survey objectives, survey time period, terms & conditions, payment schedule and checklist which are mentioned in detail in the sections 2, 3, 4, 5 and 6. Submit the quotation and technical experience as per the details mentioned in the section no. 5 & 6.

### Study area and location map

The study area is Planning Zone Nagla in the state of Utrkhand. The project under consideration is a GIS Based Master plan Under AMRUT 2.0 area where the study involves land use, household and traffic & travel surveys of all available modes of transport which includes Rail, Bus and Road. The below mentioned table and picture summarizes the highway corridors for the traffic study. The below Map depicts the study Area of Nagla for GIS Based Master plan Under AMRUT 2.

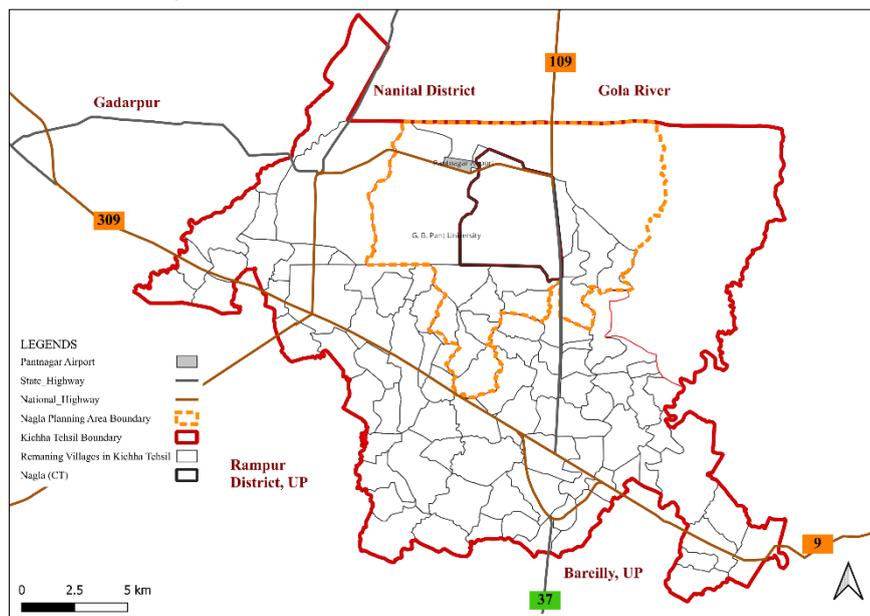


Figure 1 Map for Nagla Planning Area

The entire surveys are planned for completion in the duration of three weeks (21) days including data coding and processing from the start of the project.

SURVEY OF NAGLA			
S.No.	Description	No. of Locations	Time of Survey
1	Traffic Volume Counts at Outer Cordons	7	24 Hrs
2	Traffic Survey for Mid-Block Locations	12	16 Hrs
3	Origin-Destination Survey at Outer Cordons	7	24 Hrs
4	Turning Moment Count	3	16 Hrs
		2	24 Hrs
5	Household Survey	500	As per Condition
6	Speed & Delay	95	As per Condition
7	Road Network Inventory	95	As per Condition
8	Land Use Survey	95	As per Condition
9	Parking Survey	6	16 Hrs
10	Pedestrian Survey	5	16 Hrs
11	Terminal Survey	1	As per Condition
12	Operator Survey	2	As per Condition

## 2. Survey Objective

### a) Manual Classified Counts

Classified vehicle and person travel volume counts shall be conducted at identified locations for a continuous period of 16 hours (07.00 to 23 hours) along mid-block locations. The following data will be collected:

- Category wise at 15 minutes interval flow by direction
- Variation in flow before, during and after the peak.
- Occupancy of vehicles on Sample Basis For every hour

Sufficient amount of manpower should be deployed to capture all categories of vehicles with relievers.

### b) Video Count Classified Counts

Classified vehicle and person travel volume counts shall be conducted at identified locations in video counting method for a continuous period of 16 hours (07.00 to 23 hours) along mid-block locations. The following data will be collected:

- Category wise at 15 minutes interval flow by direction
- Variation in flow before, during and after the peak.
- Occupancy of vehicles on Sample Basis For every hour

Sufficient amount of manpower should be deployed to capture all categories of vehicles with relievers.

### c) Turning Movement Classified Counts (Video Counting)

Classified vehicle and person travel volume counts shall be conducted at identified locations for a continuous period of 16 hours (07.00 to 23 hours). The following data will be collected:

- Category wise at 15 minutes interval turning movement
- 15 minutes interval turning movement of Pedestrians
- Variation in flow before, during and after the peak.

Sufficient amount of manpower should be deployed to capture all categories of vehicles with relievers.

#### **d) Traffic Volume Count at Outer Cordon Point (Video Counting)**

Classified vehicle and person travel volume counts shall be conducted at identified locations for a for 24 hours (6.00am day 1 to 6.00 am day 2) to including the morning and evening peak hours. The following data will be collected:

- Category wise hourly flow
- Variation in flow before, during and after the peak.

Sufficient amount of manpower should be deployed to capture all categories of vehicles with relievers.

#### **e) Parking Survey**

Important work and business centers, shopping complexes are major generators of parking demand. Parking demand should be established by a manual count of each vehicle type where there is significant on-street parking occurs. As per the sire requirement, registration plate survey or accumulation survey to be done deploying sufficient manpower.

#### **f) Origin-Destination Survey**

Origin-destination surveys shall be conducted through roadside interviews on outer cordon for 24 continuous hours on a normal working day. Travel counts at survey locations to be done simultaneously to facilitate adjustment for sampling. The information shall be obtained by trained enumerators and experienced supervisors and include: type of vehicle, type of commodity carried, origin and destination, trip purpose, place of residence and employment of road user and frequency of travel. Based on the survey, travel desire pattern will be established. Minimum sample to be achieved is 25 % of the total traffic in each category of vehicle.

#### **g) Household Survey**

This survey is to collect data on travel characteristics of household residents and general characteristics of the household influencing trip making. The study area will be divided into zones. A sample size required as per standard transport planning procedures or minimum of 2 % of household is about 7143 household as per the current household size should be covered. Based on the survey, travel demand characteristics will be established.

#### **h) Pedestrian Survey**

Pedestrian surveys will be carried out to assess flows/demand at identified important market areas, intersections and road corridors. The survey shall be conducted on a normal working day and is to detail the number of pedestrians moving along and across the road at mid-block and at intersections. The surveys will be carried at important streets).

#### **i) Land Use Survey**

Base Plan Preparation

Prior to preparing the base plan, approval on DTM data should be obtained from Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi Preparation of base plan shall also form a part of this contract. A three-dimensional base plan has to be prepared by connecting the collected points with 3D poly lines starting from decreasing chainages to the increasing chainages. Base Plan has to be based on the collected raw data from the field. The DTM data shall be the raw files directly downloaded from the Total Station. Data in the three-dimensional point format or converted to the three-dimensional point format shall not be given. This data should be sufficient enough to support base plan prepared.

On completion of Detail Survey and further plotting the same on mapping software a check plot would be taken by the surveyors themselves and all details should be verified on ground before the finalization of prepared drawings along with the representative of Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi.

### 3. Time period of completion

- Surveys to be commenced from the date specified after the approval from the approving authority and should be completed within **21 days** from the date of start of work this shall include the data coding and processing.
- Data Coding, Punching (converting it to soft copy) shall be carried out simultaneously at site and in no case deliverables of the soft copies shall be beyond **5 days** after the completion of the respective survey.

Any suggestion/correction should be incorporated and submitted in 3 days' time from the date of issuing the work order.

### 4. Terms and condition

- 1) A team of trained and experienced Supervisors shall be present at all times at all the survey locations.
- 2) As mentioned in the survey plan, the mentioned number of enumerators shall be placed at all the survey locations for all the days of the surveys.
- 3) All the survey forms in hard copies for conducting all traffic surveys and stationery items (pens, pads etc.) shall be procured by the traffic survey agency
- 4) All the necessary infrastructure required for smooth conduct of surveys such as safety jackets, lighting (for night times or low light conditions), temporary seating arrangements, tents, traffic cones, batons, etc. Should be provided by the survey agency and it is the responsibility of the survey agency to maintain the same for the whole duration of the surveys.
- 5) All the traffic survey enumerators and supervisors should be well trained and experienced before the start of each survey. The mandatory age of all the enumerators shall be minimum as prescribed and applicable by the local laws.
- 6) Manpower deployment should be as per commitment Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi reserves the right to conduct checks at random, and in case of any discrepancy, you would have to repeat that particular survey on the same day of the week and the cost of the repeated survey will be borne by the survey agency.
- 7) Data Coding and punching in MS Excel has to be done for all the traffic surveys in the English language only and submitted vide e-mail within the stipulated time agreed prior to the commencement of survey.
- 8) In case Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi is not satisfied with the quality of the data, you may be asked to repeat that particular survey on the same day of the week and the cost of the repeated survey will be borne by the survey agency.
- 9) If the work is not completed within the stipulated time frame, unless the reasons are beyond control, a penalty of 0.5% of total fee will be levied on per day basis.
- 10) The cost of local conveyance (to and fro from survey locations), food and any other daily allowance of all the Supervisors and enumerators shall be borne by the survey agency.
- 11) Survey schedule and contact numbers of the deployed team should be communicated to the Client (Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi) at least 16 hours prior to commencement of the survey.
- 12) Survey agency team should follow the checklist given below at all the time of the traffic survey.
- 13) Agency should give a undertaking letter to Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi for ensure the safety and security of the enumerators and supervisors
- 14) Agency should follow the Minimum Wage Policy of Delhi

Apart from the above-mentioned terms and conditions, checklist provided as part of the work order should also be strictly followed

## 5. Penalty

If the work is not completed within the stipulated time frame, unless the reasons are beyond control, a penalty of 0.5% of total fee will be levied on per day basis where the Final penalty is limited to 10% of the Quote value.

### 5.1 Payment

The payment to the survey agency shall be made in Indian (INR) currency. Payment will be made upon raising the invoice as per following schedule:

1. 10% mobilization fee.
2. 90% amount shall be released after submission of all data in soft and hard copies and incorporating all corrections/ suggestions, if any

### 5.2 Additional scope of work

Any additional surveys (including duration and type of surveys) beyond the surveys mentioned in the scope of work will be paid on item rate which shall be paid as per the quotes provided in the above table.

<b>Name of the firm</b>	<b>Requirement</b>	
Total Experience of the firm	Minimum 5 years	(in Years)
Total Supervisors	Minimum 10	
Maximum Manpower handled	Minimum 20/DAY	(in a day)
List of Similar Projects in urban areas - Package wise	Minimum 10 Projects	(Attach separately)
List of companies served	Minimum 10	(Attach separately)
Completion certificates	Minimum 10	(Attach separately)
Detail Presentation on Technical expertise		(Attach separately)
Work Plan	Day wise	(Attach separately)
Last Three Years GST Returns		(Attach separately)
Last Three Years Income Tax Returns		(Attach separately)

### 5.3 Technical Experience format

Agency should provide an undertaking letter to Centre of Excellence (CoE), School of Planning and Architecture (SPA) New Delhi stating that company is not black listed by any government and private organization.

### 5.4 Evaluation Criteria

Only technically qualified agencies shall be considered for evaluation and agency with least cost (L1) in each of the different packages shall be awarded the respective work packages.

## 6. Check List

For survey supervisors and enumerators

Checklist During Traffic Survey	
1	All survey supervisors and enumerators present at site should be wearing reflective jackets as safety precautions
2	Enumerators should be clearly briefed and tested about category of vehicle and its identification, that they are counting and interviewing (OD survey)
3	Mock survey of minimum of 30 min. at start of the day is ensured at all locations
4	Survey locations are set up on either side of the road to cater to each direction of traffic.
5	Enumerators for change of shift on day one is at site at least an hour before their slot and briefed and tested for category of vehicles
6	Survey is being carried out with relievers (already considered in the manpower requirement) at all locations - to cover during breaks/shifts
7	Enumerators are taking break for food/rest only if relievers (already considered in the manpower requirement) are taking their place
8	Surveys are continuously and thoroughly supervised;
9	Proper precautions shall be taken care of like the anticipation of rain which should not hamper the survey progress
10	Frequent checks are done to ensure that enumerators are completely aware of the category of vehicle that are counting
11	The responses for OD survey should be recorded in English language preferably and the coded and punched data shall be sent in English language only.