



# भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय)

## National Highways Authority of India

(Ministry of Road Transport and Highways)

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No. 11013/LiDAR/2015-16

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### Office Memorandum

**Sub : Use of LiDAR and better to that technology along with other methods to bring more accuracy and speed in preparation of Feasibility Study Report (FSR) / Detailed Project Report (DPR)**

The NHA has to award large number of projects in coming years for which large number of FSRs/DPRs have to be prepared in a short period. Therefore, new technologies like LiDAR or more advanced and better to that need to be adopted immediately. The matter was considered in the 286<sup>th</sup> meeting of the Executive Committee (EC) of NHA held on 19.07.2016.

2. The major benefits of use of new technologies e.g. LiDAR or more advanced and better technologies, are as under:

(i) Time Saving :

- a. Subsequent to the setup of control network, the survey time using e.g. mobile LiDAR is very short in comparison to conventional surveys. Hence the delay due to manpower, weather, logistics etc. is minimal.
- b. As the data collected by such technologies e.g. the mobile LiDAR and associated photogrammetry is comprehensive, revisit to site for measurements is not needed.

(ii) Overall time saving in site data collection.

(iii) The system provides designers with a "complete" picture of the project with accurate point measurements and the ability to locate features that may be inaccessible or missed with other methods such as clearance height of HT cable, etc.

(iv) Increased safety: The system also provides increased safety for project personnel and the general public because data can be collected remotely, day or night, removing the need for temporary traffic diversion required by traditional surveying activities.

(v) Re-usability of data makes the planning of subsequent changes much faster.

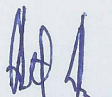
Such technologies often have site specific limitations e.g. visibility in different climatic conditions, water bodies etc. Such situations can be supplemented by conventional technologies.

3. On the basis of above, EC approved the use of LiDAR or more advanced and better to that technology, for adoption with the following parameters:-

- (i) The DPR/FSR completion period will get reduced in RFP due to saving in survey time with the use of LiDAR or better to that technology.
- (ii) At certain specific site, locations/stretches, LiDAR or better technologies will not suffice the purpose. For such stretches, DPR consultants would be permitted to supplement by use of better conventional methods/any appropriate technology satisfying the accuracy / performance requirement of DPR/FSR.

3. Time to time feedback in use of LiDAR or more advanced and better to that technology must be given for remedial technological measures to NHA HQ; at technical division with a copy to IT division and Technical Induction Cell (TIC)

This issues with the approval of Competent Authority.

  
(Atul Kumar)  
Chief General Manager

To:

All NHA : [Liberian for record / Web Admn]

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