



**नेपालपर्वतारोहणसंघ**  
**Nepal Mountaineering Association**  
Nagpokhari, Naxal, Kathmandu  
Nepal

**Terms of Reference (TOR)**

**For**

**Preparation of Master Plan, Detail Engineering Survey, Soil Investigation( Soil Test), Detailed Project Report (DPR) of International Mountaineer Memorial Park (Climb wall, Tea Garden, Picnic Spot Sheds, Cottages, Separate Trout Fish Pond, Swimming Pool, Two statue, Separate Toilets, Administrative Building, Compound Wire Rope, Entrance Gate), Rock climbing Training School Building, Club House/ Dormitory Building, Multipurpose Hall, Restaurant, Museum, Play Ground, Covered Hall, Conference Hall, View Desks, Camping Site, Helipad, Thematic gardens & DPR of Drinking Water System, Waste management Plan, Lighting System and Supervision of the Project in Kakani**

**2023**

## **1. Background**

Nepal Mountaineering Association was established on 1<sup>st</sup> November 1973 (2030 Kartik 16<sup>th</sup>) Thursday. It is a non-political organization working as a national alpine association of Nepal to promote mountain tourism, climbing sports, protection mountain environments and preserve and promote cultural heritage of mountain people. It is the only national alpine club authorized to issue climbing permits for 27 mountain peaks of Nepal.

Nepal Mountaineering Association, Naxal, Kathmandu is assigned to build the Preparation of Master Plan, Detail Engineering Survey, Soil Investigation, Detailed Project Report (DPR) of International Mountaineer Memorial Park (Climb wall, Tea Garden, Separate Picnic Spot Sheds, Cottages, Separate Trout Fish Pond, Swimming Pool, Two statue, Separate Toilets, Administrative Building, Compound Wire Rope), Rock climbing Training School Building, Club House/ Dormitory Building, Multipurpose Hall, Restaurant, Museum, Play Ground, Covered Hall, Conference Hall, View Desks, Camping Site, Helipad, Thematic gardens DPR of Drinking Water System, Waste management Plan, Lighting System and Supervision of the Project in Kakani in FY 2079/80. NMA, Naxal Office requires procurement of consulting services for the Survey, Design and Preparation of detailed Architectural, Engineering drawings and Supervision of the aforementioned Area.

## **2. Objective**

The objective of the assignment is to prepare the Master Plan with Drawing, Design, Cost Estimate, Rate Analysis, etc. for the Preparation of Master Plan, Detail Engineering Survey, Soil Investigation, Detailed Project Report (DPR) of International Mountaineer Memorial Park (Climb wall, Tea Garden, Separate Picnic Spot Sheds, Cottages, Separate Trout Fish Pond, Swimming Pool, Two statue, Separate Toilets, Administrative Building, Compound Wire Rope), Rock climbing Training School Building, Club House/ Dormitory Building, Multipurpose Hall, Restaurant, Museum, Play Ground, Covered Hall, Conference Hall, View Desks, Camping Site, Helipad, Thematic gardens DPR of Drinking Water System, Waste management Plan, Lighting System and Supervision of the Project in Kakani. However following objective fulfill the proposed study:

- Conduct topographical survey of site area selected for Master plan of the International Mountaineer memorial park, Administrative Building, Multipurpose Hall, Covered Hall, Museum, Conference Hall
- Conduct Soil Investigation ( Soil Test) for Infrastructures
- Prepare detailed landscape master plan of the project site along with the infrastructural management including vehicle parking's, tea garden, separate

picnic spot area, separate trout fish pond, Separate toilets, two statues, Swimming Pool, Entrance gate as per NMA, Administrative building, cottages, wrapping with wire rope all around the park, Rock climbing Training School Building, Club House/ Dormatory Building, Multipurpose Hall, Restaurant, Museum, Play Ground, Covered Hall, Conference Hall, View Desks, Camping Site, Helipad, Thematic gardens.

- Prepare DPR of infrastructure such as drinking water system, waste management plan, beautification as well as lightening system of the park area.
- Prepare detailed architectural/structural/electrical/sanitary design and working drawings of the selected project.
- Prepare rate analysis, quantity estimation, cost estimation, bill of quantities, specifications etc.
- Supervision of the all work while construction

### **3. Outputs:**

The expected output are as follows:

#### **a) Engineering Survey and Survey Drawings:**

The consultant in consultation with the NMA, Owner of the Site & should carry out engineering survey of the site. The consultant shall prepare topographic map of the site. The contour interval shall be between 1m and 0.5m as per site condition and the instruction of NMA, Kathmandu. The topographic map shall be consistent with cadastral map accompanied with all details in the site.

#### **b) Master Plan**

- The consultant in consultation with the NMA, Kathmandu related organizations and local people & should prepare master plan of the main Area and other additional Structures like Climb wall, Tea Garden, Separate Picnic Spot Sheds, Cottages, Separate Trout Fish Pond, Two statue, Swimming Pool, Toilets, Administrative Building, Compound Wire, Rope Entrance gateetc. (as per requirement), Rock climbing Training School Building, Club House/ Dormatory Building, Multipurpose Hall, Restaurant, Museum, Play Ground, Covered Hall, Conference Hall, View Desks, Camping Site, Helipad, Thematic gardens. and landscaping of the site n suitable scale.

#### **c) Architectural Design and Working Drawings:**

- The consultant in consultation with the NMA, Kathmandu, related organizations and local people & should prepare architectural design and drawings of the Area, and conceptual plans of the other additional Structures like Climb wall, Tea Garden, Separate Picnic Spot Sheds, Cottages, Trout Fish Pond, Two statue, Swimming Pool, Toilets, Administrative Building, Compound

Wire, Rope Entrance gate etc. (as per requirement), Rock climbing Training School Building, Club House/ Dormatory Building, Multipurpose Hall, Restaurent, Museum, Play Ground, Covered Hall, Conference Hall, View Desks, Camping Site, Helipad, Thematic gardens.

and landscaping of the site. The Consultant should prepare details of working drawings of proposed structures, acceptable to NMA, Kathmandu , in suitable and presentable scales (architectural drawing in 1:100 or 1:50 and other details in the range of 1:5 to 1:20 or as per division office institution). The architectural details should also be in compliance with NBC 106:2003 regarding the provisions for physically disabled people. The consultant shall also prepare three dimensional views of the design using software.

d) Structural Design and Detail Working Drawing:

The consultant should develop detailed structural analysis (if needed) and prepare working drawings showing all necessary details required for construction. Such details should be in full compliance with the requirements of NBC 105, SP34 and IS1893:2002. The consultant should submit Hard & soft copy of structural analysis & other related documents.

e) Preparation of Technical Specification

The Consultant should prepare technical specification of civil works which are specific to the project and which are not included in the standard specification of the NMA, Kathmandu.

f) Quantity Estimate, Cost Estimate and BoQ

The consultant is required to prepare a detailed quantity, and cost estimate of civil, electrical and bill of quantities. The cost estimate should be based on Government norms (SM/DUDBC Norms), rate analysis and approved rate for construction materials of the district. The consultant should seek approval from the NMA, Kathmandu for the items/ materials which are not included in norms for rate analysis.

g) Supervision of the project

The Consultant should supervise the whole project while construction.

#### **4. Scope of Work:**

The major scope of work comprised developing of park along with the design and estimate.

Carry out Desk Study/Review of Existing site as well as practices.

- Detailed Topographic survey of the study area with existing structures i.e. natural and manmade structures and infrastructures.
- Soil Investigation ( Soil Test) of the infrastructures.

- Preparation of master plan and prioritization of infrastructure development with reference to the Information gathered from primary and secondary data

All design works should strictly be in compliance with Nepal National Buildings Code (NBC), 2060.

## **5. Methodology of work**

To achieve the objectives stipulated, the consultant need to adopt the following steps of the methodology.

### **a) Desk Study**

A Desk Study need to be carried out, collecting all data, maps and other information relevant to park design for planning of further field survey and investigation works as well as detailed design and checked the actual area of the plot.

### **b) Field survey and Study**

It is the important part of the study. During the field study existing situation of the project area have to be visualized to perceive the ground reality. In order to guarantee the accuracy of survey work, the proper survey procedure has to be carried out.

### **c) Opinion survey, Discussion and Meeting**

To get the clear idea about the perception of the NMA, municipality and the stakeholder's local people etc. should be carried out. The interaction with the mentioned personnel will help to know the main requirements, amenities that has to be provided in the design. During the course of the study, opinion surveys and interviews with concerned stakeholders should be carried out to find out the problems, needs and suggestions for effective concept of spatial requirement and functional flow.

### **d) Analysis and Synthesis**

The data information collected during desk study and field survey/investigation has to be compiled and based on the analysis of primary and secondary data, field data and information, it was interpreted in the master plan.

### **e) Detail Master Plan Preparation**

The Concept plan of the proposed assignment will be finalized with NMA, municipality and local stakeholders. After that, the detail design has to be prepared based upon the field survey and as per the requirement. The drawings prepared has to be in appropriate scale.

## **6. Personnel Requirement**

The consultant should provide and manage a work team comprising of the following professionals to accomplish the proposed assignment. The required number of

manpower and man-month should be in accordance with work schedule and manning schedule:

<b>S.N.</b>	<b>Position</b>	<b>No. of Persons</b>	<b>Required Qualification</b>
1.	Team Leader (Urban planner)	1	Master's degree in Tourism/ Urban Planning/Architecture or equivalent with minimum 5 years of general and 3 year of Specific experience in relevant field
2.	Structural Engineer	1	Master's degree in Structural Engineering/Earthquake Engineering or equivalent with minimum 5 years of general and 3 year of Specific experience in relevant field
3.	Civil Engineer	1	Bachelor's degree in Civil Engineering with minimum 3 years of general and 1 year of Specific experience in relevant field
4.	Architect	1	Bachelor's degree in Architecture with minimum 3 years of general and 1 year of Specific experience in relevant field
5.	Sub-Engineer	1	Diploma Degree in Civil Engineering with minimum 2 years general experience/ 1-year specific experience in the relevant field.
6.	Geologist	1	Master's Degree in Geotechnical Engineering with minimum 5 year experience in the relevant field.
7.	Sanitary Engineer	1	Bachelor degree in civil engineering with minimum 3 years of general & 2 year of Specific experience In relevant field.
8.	Electrical Engineer	1	Bachelor Degree In Electrical Engineering or equivalent with minimum 3 year experience.

## 7. Work schedule

The work shall be completed within 3 months from the date of agreement. The consultant is thus instructed to prepare their work schedule accordingly.

## 8. Reporting Requirements:

The Consultant shall prepare and submit the reports as specified below. Auto Cad Software should be used to prepare all drawings. All reporting shall be in English and in the metric system except as otherwise mentioned. Draft and final reports should be submitted to NMA, Kathmandu as specified below. Reports and drawings should be submitted in A4 and minimum A3 sized of papers respectively. 2 Sets of final drawing need to submit in A3 size. The final report must also be submitted in digital format.

### a) Draft Report

Draft report shall contain all the working drawings (architectural, structural, electrical and utilization system) and relevant details including design calculation, 3-D views. The consultant should submit 1 set hard copies + 1 e-copy of the report within 1 months after date of agreement. This report is to be presented in the NMA, Kathmandu in presence of professional and concerned officials comprising experts for discussion, comments and suggestions. Date and time of presentation shall be mutually finalized by NMA, Kathmandu and the Consultant.

### b) Final Report

The final report should incorporate comments and suggestions on the draft final report. The consultant should also submit a digital copy in CD/Pen Drive with final report including aforementioned drawings. The final report should be submitted in 2 sets hard copies + 1 e-copy (one set original and two sets in B/W) within 2 months from work order date/date of agreement. 2 sets hard copies + 1 e-copy of final drawing need to submit in A3 size.

The consultant should also produce other relevant reports to the NMA, Kathmandu as and when necessary.

## 9. Payment Schedule:

Payments should be made by NMA, Kathmandu upon the submission of Consultant's invoices according to the following schedule:

Mode of Payment	Percentage
First installment after the submission of Draft Final Report and Presentation	60
Second installment of the payment after the submission and acceptance of final report completion of all duties and	20

responsibilities assigned to the consultants as provisioned in this TOR.	
Final installment of the payment after the supervision of the project	20