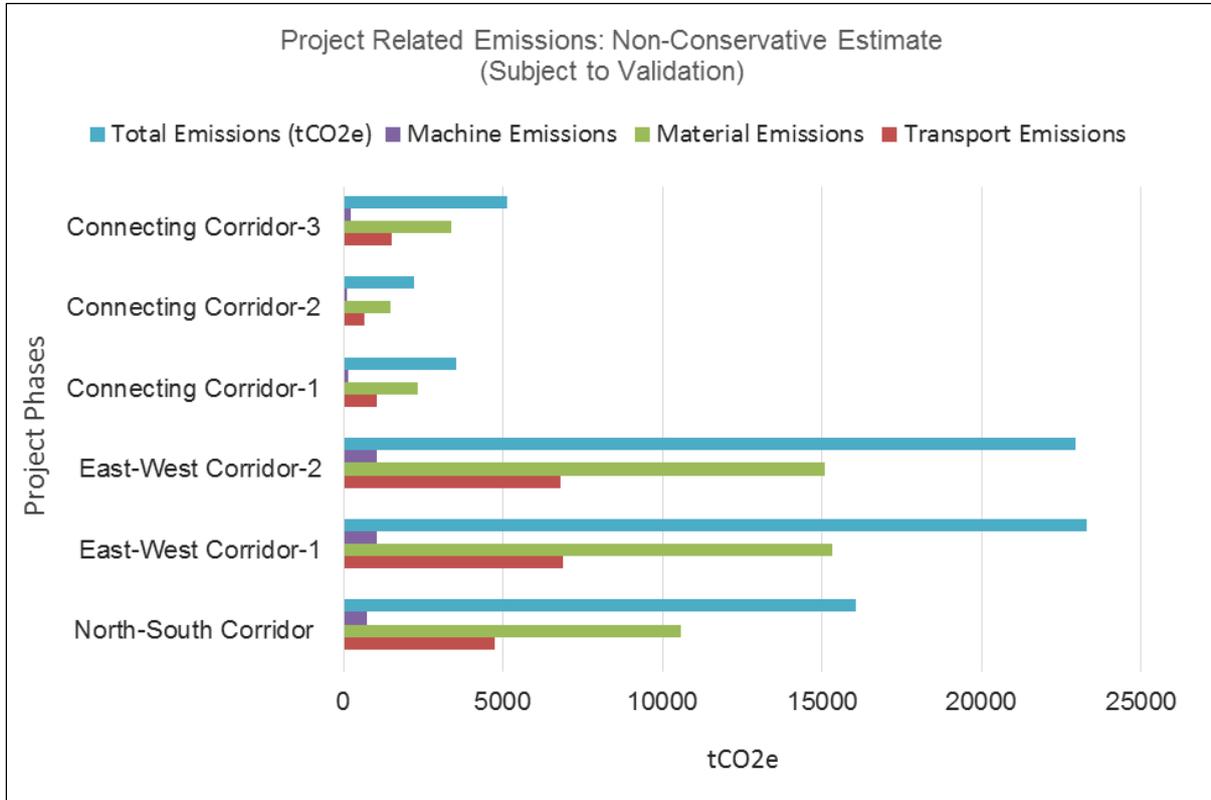


multiplied by respective average value of the carbon footprint to estimate the total carbon footprint.

Figure 6-7: Project Related Carbon Emissions



Note: Emissions (tCO<sub>2e</sub>) = Activity data × EF

Below are the emission estimates for the construction of proposed elevated corridor structure.

Table 6-5: Project Related Carbon Emission Estimates

Details of Corridor	Total Length (in Km)	Transport Emissions	Material Emissions	Machine Emissions	Emissions (tCO <sub>2e</sub> )
North-South Corridor	20.215	4750.53	10564.76	731.58	16046.87
East-West Corridor-1	29.35	6897.25	15338.90	1062.18	23298.32
East-West Corridor-2	28.9	6791.50	15103.72	1045.89	22941.11
Connecting Corridor-1	4.475	1051.63	2338.72	161.95	3552.30
Connecting Corridor-2	2.8	658.00	1463.34	101.33	2222.67
Connecting Corridor-3	6.455	1516.93	3373.51	233.61	5124.04

### 6.8 Carbon Emission Studies

Not many studies have been made in India unlike European countries on the emission factor development methodology. Prof. Tom V. Mathew, IIT, Bombay through his lecture notes on “Fuel Consumption and Emission Studies” (March, 2017) has attempted to study variation of emission factors for different Indian vehicle models, traffic scenario, travel related factors, quality of fuel being used, road network related factors, etc.

“Average Speed Emission Model” from the above reference is used to arrive Emission Factors (EF) for specific vehicle type for variable speeds. This model is useful in macro level analysis where detailed information is not available or required. Average Speed Emission models are widely applied in national and regional inventories. The model is suitable for the traffic net-work as a whole, on a large scale. The emission factors used in the model reflect different levels of congestion. The emission factor is measured over a range of driving cycle which includes driving, stops, starts, acceleration and deceleration and is given in g/veh-km.

CO<sub>2</sub> emission is highest for low speeds, decreases for intermediate speeds and then again increases with the speed. The variation in exhaust emission factors with speed for different vehicle types is given in the Model. This basic schematic diagram of an emission model is considered for estimating CO<sub>2</sub> emissions.

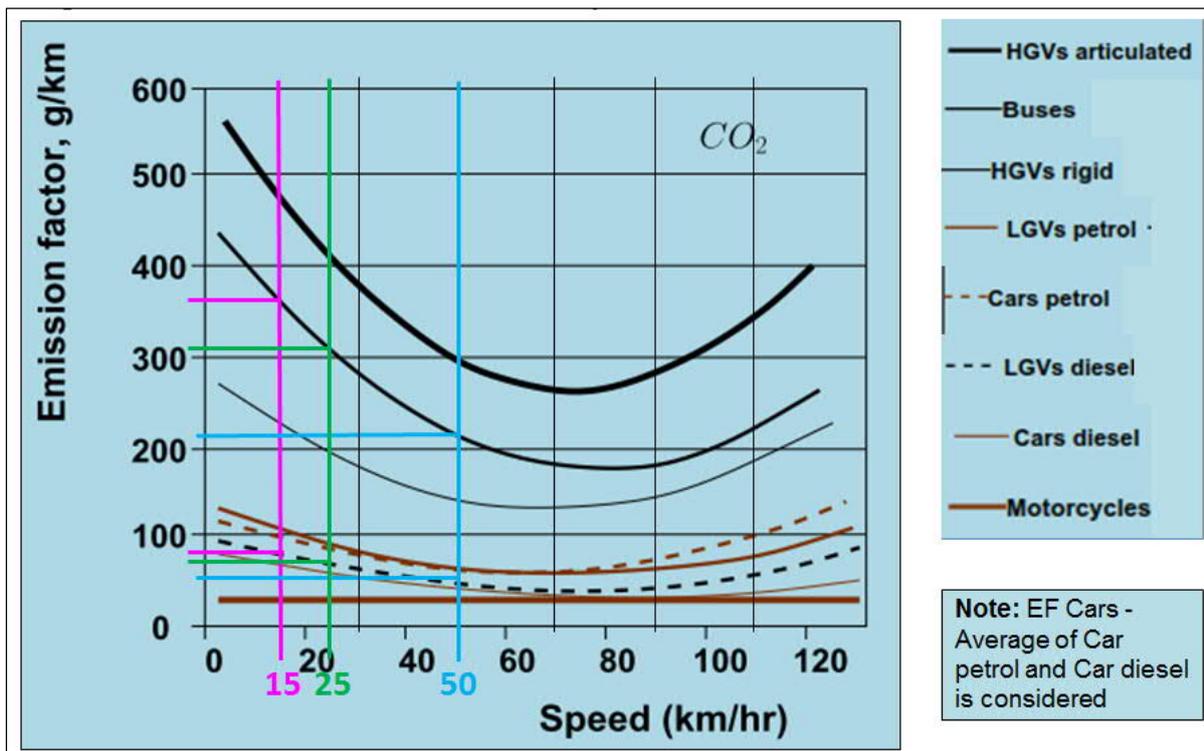


Figure 6-8: Average Speed Emission Model

Table 6-6: CO<sub>2</sub> Emissions for various speeds changing with implementation of project

Without Implementing EC Project (2018 to 2037) at an average vehicle speed of 15 kmph			After Implementation of EC Project (2018 to 37) at an average vehicle speed of 25 kmph (For atgrade traffic)			After Implementation of EC Project (2018 to 2037) at an average vehicle speed of 50 kmph (For elevated traffic)		
Emission from Two Wheelers (EF 0.033 Kg/km) in Lakh Tonnes	Emission from Cars (EF average of petrol & Diesel 0.080 Kg/km) in Lakh Tonnes	Emission from Bus (EF 0.360 Kg/km) in Lakh Tonnes	Emission from Two Wheelers (EF 0.033 Kg/km) in Lakh Tonnes	Emission from Cars (average EF for petrol & Diesel cars 0.07 Kg/km) in Lakh Tonnes	Emission from Bus (EF 0.310 Kg/km) in Lakh Tonnes	Emission from Two Wheelers (EF 0.033 Kg/km) in Lakh Tonnes	Emission from Cars (average EF for petrol & Diesel cars 0.050 Kg/km) in Lakh Tonnes	Emission from Bus (EF 0.210 Kg/km) in Lakh Tonnes
17.29	31.58	13.90	11.16	20.05	8.57	6.31	8.72	3.22

#### 6.9 Energy Embodiment of materials and steps to reduce:

Construction Materials	Embodied energy (MJ/Kg)
Granite	3.58
Sand	1.64
Gravel	0.10
Cement	7.00
Mortar M-40/a	1.00
Mortar M-80/a	1.34
Reinforced concrete 2% steel quantity	1.64
Porous concrete 400 Kg/m <sup>3</sup>	3.71
Plaster panels	3.12
Plaster	3.30
Gypsum board	3.15
Fired clay, brick and tiles	4.50
Hollow brick masonry	2.96
Perforated brick masonry	2.85
Commercial steel (20% recycled)	35.00
Stainless steel	54.00
Primary aluminium	215.00
Commercial aluminium (30% recycled)	160.00
Plastic paint	20.00
Primary PVC	80.00
Plastic (ABS)	74.00
Epoxy resin	137.00

Reduction of energy embodiment of materials shall be done by reduce the haulage distance of construction materials from the nearest possible sources; recycling of debris generated from excavations to fill the ramp embankments; waste minimization; effective utilization of construction materials, etc.

## 7. PROJECT BENEFITS

Bengaluru city is experiencing the unprecedented increase in traffic day by day but the roads are falling severely short to accommodate the increasing traffic. The main objective of implementation of project corridor is to decongest the Bengaluru roads which are presently choked with traffic causing delays in reaching destination and resulting in environmental problems in the form of deterioration of air quality and increased noise levels. Some of the advantages of implementing the elevated corridor are mentioned below.

- Proposed six elevated corridors (three major corridors and three connecting corridors) shall establish connectivity to major arterial roads like Bellari road, Hosur road, Hoskote road, Tumkur road, Mysore road, Sarjapura road.
- Implementation of the proposed elevated corridor project will help segregating the fast moving long distance traffic without interrupting the slow moving neighbourhood traffic and contributes to increase in speed of at grade traffic movement.
- Elevated corridor project makes the public transport provided by BMTC on at grade road faster, thus helping public to reach their destination faster.
- Jammed roads lead to slow moving traffic to release obnoxious gaseous vehicular emissions and elevated roads make way for traffic movement without hindrance thus emitting less air pollutants.
- The proposed elevated corridors will decongest most of the major junctions along the route making some of them signal free junctions.
- Bengaluru public has been demanding for adequate number of pedestrian crossings along the major traffic hit roads. Elevated corridors will facilitate the pedestrians to use at grade roads more safely.

With the current phenomenal growth rate of vehicle population and in absence of adequate public transport system, which is ultimately leading to traffic chaos, Bengaluru city surely needs a comprehensive, integrated and sustainable transportation infrastructure which would give a boost to productivity, improved quality of life.

## 8. ENVIRONMENTAL MANAGEMENT PLAN

It has been observed that the elevated road development may have adverse impacts on the environment. Control measures need to be undertaken during the design of the project to prevent or reduce the impact of the project on the local environment. An EMP is developed based on the baseline environmental condition and possible environmental impacts of the project.

The EMP is designed for implementation and monitoring of environmental mitigation measures during construction and operation stages. This chapter enumerates the set of measures to be taken during implementation and operation to eliminate or avoid, offset adverse environmental impacts or to reduce them to acceptable levels, together with the action which need to be taken to implement them.

A detailed Environmental Management Plan for the proposed project is presented based on the impact studies in Table 8.1.

Table 8-1: Environmental Management Plan

Environmental Issue	Impact Description	Remedial Measures	Planning, Execution & Monitoring
<b>PRE-CONSTRUCTION PHASE</b>			
Cutting of Trees	Trees adjacent to the project alignment which are directly falling under the proposed RoW shall have to be cut and trees which are in buffer zone needs to be trimmed.	All attempts shall be made to reduce the impact on trees during design phase. Tree cutting shall be minimized as far as possible. All required clearances shall be obtained before cutting any tree in the project area and Compensatory plantation of at least ten times the number trees felled shall be taken up in line with statutory requirements.	PIU/Contractor/Third Party
Demolition of structures and physical properties	Many of the structures and physical properties such as residential, commercial, community buildings and religious structures are affected by the elevated corridor project.	Demolition of structures shall start only after the finalization of the alignment and after the proper compensation is paid to the Project Affected People (PAP) Important religious and community structures shall be relocated and rehabilitated suitably.	Consultant/PIU/Contractor
Utility shifting	Shifting of affected utilities like electric poles, electric cables, telephone cable, water supply lines, optical fibres, bore wells, water taps, etc. will impact public welfare services till they are rehabilitated.	The affected utilities are shifted suitably without hampering the continuity of necessary services. Community consensus and required clearances shall be obtained from the concerned authorities before the commencement of shifting of utilities. Contractors shall prepare traffic management plan for shifting of utilities particularly at heavy traffic stretches of the project road.	PIU/Contractor/Third Party agencies
Consents, permits, clearances, NOCs, etc.	All required statutory clearances shall be obtained and ensured their validity all through the project period to abide by all the conditions of the consents and permissions issued in the interest	PIU/Contractor shall obtain/ensure all necessary consents, permits, clearances, NOCs, etc. prior to start of actual construction of the elevated road Validity of these Consents, permits, clearances, NOCs, etc. shall be regularly checked for their validity.	PIU/Contractor

Environmental Issue	Impact Description	Remedial Measures	Planning, Execution & Monitoring
	of environmental protection.	The General Conditions and Specific Conditions specified while granting the environmental clearances and other permissions shall be strictly adhered.	
<b>CONSTRUCTION PHASE</b>			
<b>1 Topography</b>			
Change in topography by project activities	The project will have a little impact on topography except at ramp locations. Elevated road construction often generates significant quantity of wastes (debris) from excavation for pile foundation. The excavated debris if cleared by dumping the material at inappropriate places in an unplanned manner.	The debris generated by foundation excavation shall be utilized to fill the ramps which are part of elevated corridor projects. Debris management plan shall be prepared and adhered to handle the debris generated by the project activities during construction. Where erosion is likely to be a problem, clearing and grubbing operations shall be scheduled and performed such that grading operations and permanent erosion control measures shall follow immediately. Under no circumstances, large surface area of erodible earth material shall be exposed at any one time by clearing and grubbing.	Contractor/ PIU
Change in topography by extraction of construction materials.	The major changes in topography are expected at quarry, sand mines and borrow locations. Unplanned disposal of debris generated out of demolished structures leads to change in the topography.	All the quarries areas opened for the project shall be managed as per the statutory requirements and procedures mentioned in the EMP. The cut slopes shall be suitably protected by breast walls, provision of flat stable slopes, construction of catch water and intercepting drains, treatment of slopes and unstable areas above and underneath the road, etc. Where rock blasting is involved, controlled blasting techniques shall be adopted to avoid over-shattering of hill faces. The borrow pit areas could be developed into ponds for fisheries.	Contractor/ PIU
<b>2 Soil</b>			
Soil Erosion	Cleaning & grubbing and cutting of trees and plants will cause and accelerate soil erosion	Clearing and grubbing for the project corridor shall be limited to the required area only. At borrow pits, the depth of the pit should be regulated so that the	Contractor/ PIU

Environmental Issue	Impact Description	Remedial Measures	Planning, Execution & Monitoring
	Excavations of borrow pits will increase soil erosion	sides of the excavation will have a slope not steeper than 1 vertical to 4 horizontal from the edge of the final section of bank Cutting of trees shall be done in phases without much impact on the soil. Soil erosion mitigation measures will be ensured at construction establishments, casting yards and labour camps. Surface drains shall have gentle slopes.	
Loss of topsoil	Loss of productive topsoil during the leasing of land to contractors for storing, stock yards, casting yards, construction camps and workers camp Borrowing pits during project construction	The top soil shall be stripped and stored for productive use. The stored topsoil shall be spread back to maintain the physico-chemical properties of the soil Stock yards, casting yards, construction camps and workers camp shall not be located on productive agricultural lands. If new borrow areas are selected, there should be no loss of productive soil.	Contractor/ PIU
Borrowing of earth	There is a little quantity of earth is required for construction or ramps and for making embankment.	No earth should be borrowed from unauthorized borrow pits and within the city limits The excavation and transportation of earth shall be done only during day time The borrow areas should not be dug continuously and the size and shape of borrow pits is to be approved by the engineer in charge Borrow pits should be redeveloped by dumping of spoils or by creating a pond for fisheries or by leveling the raised earth mounds	Contractor/ PIU
Contamination of soil from fuel and lubricants	Oil and lubricants from construction equipment and vehicles will impact on the soil characteristics	Construction vehicles and equipment machines are maintained and refilled in such a fashion that old diesel spillage does not contaminate the soil Fuel storage and refilling sites should be provided with oil interceptors and kept away from cross drainage and water bodies All oil and lubricant spoils shall be handled, stored and disposed of	Contractor/ PIU

Environmental Issue	Impact Description	Remedial Measures	Planning, Execution & Monitoring
		as per the Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and subsequent amendments.	
Contamination of soil from construction and demolition waste	The unplanned disposal of construction and demolition waste will impact the soil structure and quality	Construction and demolition waste should be dumped in preapproved locations or abandoned quarries. Follow the criteria specified in the Construction and Demolition Waste Management Rules, 2016 for storage, collection, processing or recycling, transportation of construction and demolition waste. Borrow pits opened for the project shall be filled by such waste and reclaimed with the consent of owner.	Contractor/ PIU
Contamination of soil by drilling mud from pile foundation	Contamination of soil from drilling mud from pile foundation construction	Small quantity of drilling mud generated during drilling for pile foundations shall be reused for construction of ramps of elevated structures. Excess of this drilling mud if any, shall be disposed of in abandoned quarries.	
<b>2 Water resources and quality</b>			
Water bodies	Water quality may deteriorate due to surface runoff from the construction site, dumping of construction debris, etc. Community water sources like bore wells may be affected	Major construction works shall be avoided during monsoon season Construction establishments like labour camps, stone crushers, batching plants and hot mix plants shall not be located near water bodies. Dumping of excavated and construction debris near the water bodies shall be strictly avoided	Contractor/ PIU
Community water resources	Water resources like water pipe lines and community taps shall be impacted during construction and community water supply may be hampered. affected	Any source of water supply for the community affected shall be replaced immediately. All desired measures shall be taken to prevent temporary or permanent flooding	Contractor/ PIU
Drainage and run-off water	The flow of runoff water will be affected largely, and this be add to the	At cross drainages, the earth, stone or any other construction material, should be properly disposed of so as not to block the flow	Contractor/ PIU

Environmental Issue	Impact Description	Remedial Measures	Planning, Execution & Monitoring
	problem of flooding if the runoff flow is not managed especially at certain locations where the drainage problem already exists	of water All necessary precautions shall be taken to construct temporary or permanent devices to prevent water pollution (due to increased siltation and turbidity) Drainage of the water from road surface shall be linked to the existing drainage system.	
Contamination of water from construction waste	Construction waste if enters into water bodies, may increase the suspended matter and clay in the water bodies The community dependent on such water, using it for purposes other than drinking, may be affected	Construction work close to water bodies shall be avoided, especially during the monsoon period and waste materials must be collected, stored and taken to approved disposal sites All waste arising from the project is to be disposed of away from water bodies., as per Solid Waste Management Rules 2016 of CPCB	Contractor/ PIU
Contamination of water from fuel and lubricants	The fuel and lubricants used in construction vehicles and equipment may enter into the water bodies affecting the quality of water in the water bodies adding more trouble to already polluted city lakes.	Servicing of vehicles and equipment with lubricants and shall be done in the specified location. The accidental spills shall not be allowed enter the water bodies and should be modified and re-channeled so that contaminants do not enter the water body To avoid contamination from fuel and lubricants, the vehicles and equipment shall be properly maintained and repaired.	Contractor/ PIU
Sanitation and waste disposal in construction camps	Absence of proper sanitation may lead to outbreak and spread of communicable diseases, which are mostly water-borne	Preferably local labourers shall be engaged for construction works and avoid establishment of construction camps. If necessary, construction labour camps shall be located away from habitation and major water bodies. Mobile toilets shall be used at construction and labour camps. The sewerage handling system shall be properly designed and built at labour camps, to avoid water pollution.	Contractor/ PIU
Use of water for	Construction of elevated corridor requires huge water. Utilization of	Contractor shall make arrangement for the supply and storage of water for all the construction activities in such a way that the water	Contractor/ PIU

Environmental Issue	Impact Description	Remedial Measures	Planning, Execution & Monitoring
construction	water for construction from sources already in use by local community, may lead to scarcity of water for the dependent community	availability and supply to nearby communities remains unaffected. If, new tube-wells for water to be used in construction. They are to be bored, after obtaining required sanctions and approval by Bengaluru Water Supply and Sewerage Board (BWSSB) The wastage of water during the construction should be minimized	
<b>3 Air quality</b>			
Emission from construction vehicles and machinery	Air pollutants cause several allergies respiratory and cardiovascular system diseases in human beings. Air pollutants and solid particulate matter (SPM) reduce growth rate and productivity of the green plants and trees Crowded commercial places and construction sites will have higher degree of emission	Vehicles, equipment and machinery used for construction shall be regularly maintained to ensure that the emission levels of pollutants are under control and pollution levels do not exceed the norms prescribed by CPCB Air pollutants along the proposed project corridor shall be monitored for their levels against prescribed standards and compared with baseline values. The air monitoring shall be done at regular intervals as proposed in the monitoring plan /Terms of Reference/as decided by the engineer concerned. Ambient air quality monitoring at construction camps, batching plants, crushers, hot mix plants, shall be done regularly monitored to ensure all the pollutants are within the prescribed norms.	Contractor/ PIU
Dust and its control	The impact of dust at construction sites is rather adverse, but localised in nature The solid particulate matter containing lead, nickel, arsenic and those present in diesel exhaust are of major concern. These particles when breathed in, lodge in our lung tissues and cause lung damage and respiratory problems.	During construction, water shall be sprinkled along the proposed corridor alignment two to three times in a day to mitigate the generation of dust Dust mitigation measures such as cover by hood, water sprinkling arrangement, cyclone precipitator or filter bags or wet scrubber unit fitted for stone crusher unit and hot mix plant to reduce the dust emissions shall be ensured Stone crushers and hot-mix plants are sited at least 500 m from the nearest habitation and major water bodies. Materials transportation vehicles should be properly covered with	Contractor/ PIU

Environmental Issue	Impact Description	Remedial Measures	Planning, Execution & Monitoring
		tarpaulins. Green belt development around the construction establishments. Worker working close to such units shall be provided with nose masks	
4 Noise Levels			
Noise from project activities like foundation excavation, casting, drilling, etc. and construction vehicles, hot mix plants, crushers, casting yards, and construction equipment	Project activities use of heavy machinery and equipment will significantly add to the baseline ambient noise and this increase in noise levels is localized and intermittent in nature Increase in noise will cause fatigue, hearing problems, deafness, exhaustion, physiological changes and sleep disorders.	Noise generating project activities shall be provided with enclosures to reduce the transmission of noise to the noise receptors. The plant and equipment used in construction shall strictly conform to consent to operate (CFO) issued by KSPCB and CPCB prescribed noise standards Vehicles and equipment used shall be fitted with silencers Noise standards shall be strictly enforced Construction works in project sites adjacent to human settlements shall be stopped during night hours between 10:00 pm and 6:00 am. Noise generating construction establishments shall be located away from human settlements and all possible mitigation measures shall be implemented to reduce and mitigate noise from source, transmission and at noise receptors. Workers working in the vicinity shall be provided with ear plugs/ear mufflers	Contractor/ PIU
5 Flora			
Loss / damage to vegetation	Loss of trees leads to deterioration of air quality due to increase in concentration of air pollutants, Tree removal accelerates soil erosion. For city like Bengaluru which is called as Garden city loss of trees will change	Trees shall be cut only after obtaining all the required clearances Cutting of trees shall be avoided as far as possible by pruning the branches wherever possible. All possibilities of tree transplantation shall be adopted for transplanting the small sized trees which are getting affected by the project.	Contractor/ PIU



Environmental Issue	Impact Description	Remedial Measures	Planning, Execution & Monitoring
	<p>the microclimate of Bengaluru due to loss of shade and decrease in humidity and affects rainfall. Tree cutting will lead to loss of habitat for avifauna</p>	<p>Every tree cut shall be compensated with 10 numbers of tree plantations. Tree clearing in buffer zone (space for construction between line of Col and 2 m off the COI line) shall be strictly avoided and managed with pruning of branches as required. Local species shall be preferred while planning for compensatory plantation. Median along the pier line of elevated corridor shall be utilized for planting of shrubs and small trees</p>	
6 Safety and Accidental Risk			
<p>Accident risk from construction activities</p>	<p>The project construction activities may create various unsafe situations. Most of the safety issues are of occupational in nature in addition to community safety in the vicinity of construction zone. Accidental risks due to ill-maintained machines and vehicles, due to poor light conditions in the work place, or due to carelessness and poor management of the work involved</p>	<p>All safety requirements shall be met as per the Building and other Construction Workers (Regulation and the Employment and Conditions of Service) Act, 1996; the Factories Act, 1948 as amended in 1987; the Child labour (Prohibition and Regulation) Act 1986, etc. Contractor shall prepare Safety Management Plan and get it approved by Engineer concerned before implementation. Contractor shall conduct regular tool box meetings involving construction labourers and also ensure proper training on construction safety. Safety of workers undertaking various operations during construction should be ensured by providing them with safety gears such as safety harness, helmets, masks, safety goggles, etc. Safety at all the construction establishment shall be ensured Traffic Management Plans shall be prepared and implemented during construction to ensure safety of road users. Temporary barricades shall be erected around the construction site to avoid any incidence of entry of public (local community) to construction zone and ensure their safety.</p>	<p>Contractor/ PIU</p>

Environmental Issue	Impact Description	Remedial Measures	Planning, Execution & Monitoring
		<p>Sufficient illumination and safety sign boards shall be arranged in the construction zone. Traffic rules and regulations are to be strictly followed by vehicles used in construction.</p> <p>The electrical equipment should be checked regularly to avoid risks to workers</p> <p>At every work place, a readily available first aid unit, including an adequate supply of dressing materials, a mode of transport (ambulance), nursing staff and an attending doctor, to be provided</p> <p>Safety audit must be conducted regularly</p>	
Health issues	<p>The prevalence of unhygienic conditions in the work place of construction workers</p> <p>The non-availability of good drinking water</p> <p>Outbreak of communicable diseases from the labourers camp if they are established near settlements</p>	<p>At every workplace, clean and sufficient water supply shall be maintained to avoid waterborne diseases and to maintain the health of workers.</p> <p>Adequate drainage, sanitation and waste disposal facilities shall be provided in workplaces</p> <p>Sufficient medical care to be provided to construction workers as necessary</p>	Contractor/ PIU
7 Cultural Properties			
Damage or loss of cultural properties and notified archaeological monuments	<p>Impact on notified archaeological monuments along the corridor due to construction activities</p> <p>Demolition of religious and community structures, cemeteries etc. along the proposed elevated corridor</p>	<p>All necessary permits and clearances shall be obtained for the corridors passing near (protected and regulated areas) notified archaeological structures.</p> <p>All necessary and adequate care should be taken to minimize the impact on cultural and heritage structures</p> <p>If valuable or invaluable articles such as fabrics, coins, artifacts, structures or other geographic or archaeological rarities are discovered, the excavation should be stopped and the archaeological department contacted</p> <p>In such cases, archaeologists will supervise the excavation to avoid</p>	Contractor/ PIU

Environmental Issue	Impact Description	Remedial Measures	Planning, Execution & Monitoring
		any damage to the relics	
Roadside landscape development	There will be positive impact on bio-aesthetics and beauty Landscaping and beautification of ponds, and access roads will improve aesthetics	Wherever possible, avenue plantation with foliage and shady trees mixed with flowering trees, shrubs and plants as per detailed designs The enhancement of water bodies, parks / sites to be developed	Contractor/ PIU
Roadside amenities	People will be largely benefit by the comfort and use provided by these amenities	Restoration and improvement of at-grade bus shelters, bus bays shall be taken up for the commuters. Road furniture including footpaths, railings, traffic signs, speed zone signs etc. shall be erected as per design	Contractor/ PIU
<b>OPERATION PHASE</b>			
Contamination from spills due to traffic and accidents	The chances of accidents are likely to be reduced on elevated road improved width and quality of the road. The contamination of soil and water due to spills will be minor	Cleaning of the spills at accident sites by a workforce provided by state government.	Contractor/ PIU
Air pollution	The degree of air pollution is likely to be on a lower scale with improvement in road surface and with better maintenance	Vehicular emissions of PM <sub>10</sub> , PM <sub>2.5</sub> , CO, SO <sub>2</sub> , NO <sub>x</sub> to be monitored regularly.	Contractor/ PIU
Water pollution	Due to the improved longitudinal and cross drains, water logging during rains will not take place Improved drainage along the roadside will also improve the water flow	The drainage system should be periodically checked and maintained	Contractor/ PIU
Accidents involving hazardous	The chances of such emergencies /accidents will be minimum, yet not unavoidable	The rules as defined in Environmental (Protection) Act, 1986 should be complied with In case of spillages, a report to the relevant department must be	Contractor/ PIU



Environmental Issue	Impact Description	Remedial Measures	Planning, Execution & Monitoring
materials		made and instructions followed	
Safety measures	The chance of accidents to be reduced	Traffic control measures, including speed limits, to be enforced strictly by erecting warning signals and signboards	Contractor/PIU

## 8.1 Other Mitigation Plans

### 8.1.1 Resettlement Plan

The project proponent shall prepare a Resettlement Action Plan to address the impacts arising out of the project. The Resettlement & Rehabilitation Policy for the project will be in the lines of BMRCL policy, which follows the KIADB Act with compensation at par with RFCTLARRA 2013.

### 8.1.2 Construction Water Management Plan

It is the responsibility of the contractor to make arrangements for supply and storage of water required for the whole construction period. The plan should have list of sources from where water shall be used for the project. Contractor shall source the required water preferentially by conjunctive use of surface water and groundwater but with prior permission from the Local City Municipal (BWSSB) and Groundwater Authority. All precaution shall be taken to minimize the wastage of water during construction phase.

### 8.1.3 Emergency Response Plan

Site specific Emergency Response Plans shall be prepared to face and address any emergency situation with respect to vehicular accidents, spillage of oil or other hazardous materials and water impounding and floods during monsoon. It requires establishing and developing an emergency resources, communication system and emergency response procedure to face the emergencies with preparedness and minimize the impacts of emergency situations and also minimize the response time required to safeguard people, property and environmental resources. Contractor shall also submit Accident Safety and Hazardous Chemical Spill Management Plan and get the approval from the concerned. The plan should essentially have details of detours in case of emergency.

### 8.1.4 Oil spill contingency plans (SCP) and clean up procedures

Impacts from spills could occur on elevated corridor, access roads, at-grade roads and construction camps. Spills into water body can disperse and affect a larger area, water quality and ecology.

Construction vehicle and equipment servicing is expected to be done at construction camps during construction phase. While servicing, some of the following potential contaminant materials are used, which includes.

- Fuels – petrol and diesel
- Lubricating oils and grease
- Hydraulic and motor oil

Spills may result from any of the following reasons.

- Leaks of fuel storage drums or tanks
- Valve or line failure in systems, vehicles or heavy equipment
- Vehicular accidents
- Spill during fuel transfer

- Vandalism
- Mishandling due to lack proper training

This Spill Contingency Plan (SCP) has to be developed for use by the Contractor or Concessionaire for the Project and regulatory approvals. The successful Concessionaire shall provide a list and quantity of potential hazardous materials on-site with a map indicating their locations in their SCP. Contractor is responsible for preparing and implementing the SCP during the entire construction phase.

The purpose of SCP is to provide a guide to all site personnel in the event of an accidental release of fuel or other waste during the project implementation. The SCP provides the protocols for personnel to follow in response to a spill. All persons involved with the project should read and be familiar with the SCP as it is important that all personnel are familiar with their responsibilities and steps to be taken in the event of a spill.

The Material Safety Data Sheets (MSDS) for each hazardous material shall be submitted along with the SCP.

SCP should have the flowchart to identify the response organization and the chain of communication responding to a spill. The flowchart should also help to identify the responsible personnel, their duties, on or off-site work locations and contact information, including 24x7 telephone numbers of those responsible for taking action.

Contractor shall also be responsible for preparation of Spill Contingency Action Plans (SCAPs): This shall outline the procedures that must be taken in response to a spill. It should indicate the size of a spill that could occur for each material stored on-site, the potential source of the spill and the potential impacts related to the spill. Description of the worst possible scenario should also be included.

In the SCAP, the Contractor shall provide the details of procedures for initial action; spill reporting procedures; procedures for containing and cleaning up the spill; procedures for transferring, storing and managing spill-related wastes and procedures for restoring the affected areas, providing representatives with status updates and clean-up completion should be described. SCAP should address reporting procedures, report templates, investigation procedures, etc.

## 8.2 Grievance Redressal Mechanism

A combined social and environmental grievance redress mechanism shall be implemented under the project. Grievances and suggestions from stakeholders and affected people on the issues related to problems being faced during the construction of project, R& R issues and implementation of EMP. Grievance re-dress mechanism shall be posted at the respective Ward offices by Contractor on behalf of project proponent prior to commencement of construction works. The issues shall be addressed through acknowledgement, evaluation, action and response approach. Grievances from public or stakeholders related to project and EMP implementation shall be directed to the concerned Executive Engineer of project proponent. The Executive Engineer shall refer the grievance to Construction Supervision Consultants (CSC) or Authority Engineer (AE) who then assess whether the grievances/suggestions are genuine and acceptable and resolved within stipulated time

from the date of receipt. This mechanism is non-judicial in nature. The action taken and the outcome shall form a part of quarterly report.

### 8.3 Environmental Monitoring programme

Monitoring is an essential component for sustainability of any development project. Development projects introduce complex inter-relationships in the project influence area between people, natural resources and developing forces thus, creating a new environment. It is difficult to predict with a certainty the exact post-project environmental scenario. Hence, monitoring of critical parameters is essential in the post project phase.

The monitoring programme consists of performance indicators, reporting formats and necessary budgetary provision. The budgetary statements are provided in Table 8-6 for the purpose of evaluation of the EMP.

The monitoring plan should be in accordance with the baseline environmental monitoring locations.

The monitoring plan has the following objective.

- Ensure effective implementation of EMP
- Comply with all applicable environmental, safety, labour and local legislation
- Ensure that public opinions and obligations are taken in to account and respected to the required satisfaction level
- Modify the mitigation measures or implementing additional measures, if required

For each of the environmental condition indicators, the monitoring plan specifies the parameters to be monitored, location of the monitoring sites, frequency and duration of monitoring. The monitoring plan also specifies the applicable standards, implementation and supervising responsibilities. The monitoring plan and details of monitoring locations for environmental condition indicators of the project during the construction and operation stage are presented in Table 8-2. The monitoring will be carried out by PIU through the approved agency and will be supervised by the Environmental Experts of the Construction Supervision Consultants and PIU.

Table 8-2: Environmental monitoring for Air, Water, Noise and Soil

Attribute	Parameter	Special guidance	Standards	Frequency	Duration	Location	No of samples	Implementation
Air	SO <sub>2</sub> , NO <sub>2</sub> , PM <sub>10</sub> , PM <sub>2.5</sub> , O <sub>3</sub> , Pb, CO and Benzene.	High volume sampler to be located 50m from the plant in the down wind direction. Use method specified by CPCB for 24 hr sampling	Air (Prevention and Control of Pollution) Act. 1981 & Notification No. S.O 935(E) dated 14 <sup>th</sup> Oct 1998.	Once in every four months during construction and operation phase.	Two years	Representative construction sites & major construction establishments including base line monitored stations	354 or as directed	KRDCL
Water	Water quality parameters to be monitored or as directed by Environmental Specialist, CSC.	Grab sample collected from source and analyze as per standard methods for examination	IS for Inland surface waters (IS:2296,1982) and for drinking water (IS: 10500-1991)	Once in every four months during construction and operation phase.	Two years	Drinking water samples from the labour camps and from hand pumps, Surface water from the water courses along the project corridor.	204 or as directed	KRDCL
Noise	Noise quality as per National Ambient Noise Standards on db (A) scale	Equivalent noise levels using and integrated noise level meter kept at a distance of 15m from edge of pavement Leq in db (A) of day time and night	The Noise Pollution (Regulation and Control) Rules, 2000	Once in every four months during construction and operation stage.	Two years	Near the construction camps, working zones, sensitive receptors at major human settlements along the project corridor.	354 or as directed	KRDCL



Attribute	Parameter	Special guidance	Standards	Frequency	Duration	Location	No of samples	Implementation
		time						
*Soil	Monitoring of pH, Nitrogen, Phosphorus,, Potassium, Sodium, Chloride, Organic Carbon and Lead	Sample of soil collected and analyzed using absorption spectrometer		One sample each during the pre and post monsoon for construction and operation stage.	Two years	Construction camp /plant sites, Labour camps, Batching plants and parks abutting traffic detours and traffic diversions and major intersections.	160 or as directed	KRDCL

\*  
 \*Accidental spillage of hazardous and non-hazardous substances need to be dealt with as special cases largely depends on the circumstances including state of the substance (liquid or solid)  
 \*Monitoring shall be carried out at all locations used for collection of primary data in the study.

#### 8.4 Performance indicators

Environmental components identified of a particular significance in affecting the environment at critical locations have been suggested as performance indicators (PIs).

Table 8-3: Performance Indicators and monitoring plan

S. No	Monitoring plan/ Performance indicators	Description of Item	Indicator	Stage	Responsibility
1	Monitoring plan	No. of trees planted (Total) No. of trees transplanted No. of trees under Compensatory Afforestation No. of Trees planted along Road sides No. of Trees planted at other locations (such as camps, borrow areas, debris disposal sites and plant areas) No. of trees planted at enhancement sites	Road side and other plantation areas	Post construction stage	Forest Department and KRDCCL
3	Performance indicators	No. of Borrow Areas identified and verified No. of sites for which restoration plans have been prepared No. of Sites restored and rehabilitated No. of sites handed over	Borrow Area	Pre - Construction and Post-Construction	Contractor
4	Performance indicators	No. of Quarry Areas identified and verified No. of sites for which restoration plans have been prepared No. of sites restored and rehabilitated No. of sites handed over	Quarry	Pre – Construction and Post Construction	Contractor
5	Performance indicators	Quantity of debris and spoils to be disposed off No. of locations finalized for Debris disposal Quantity of debris and spoils disposed off No. of locations for which rehabilitation works have been completed	Disposal sites	Construction and Post Construction	Contractor
6	Performance indicators	No. of locations identified for the construction camp and construction plant sites No. of locations approved Lay-outs approved No. of sites for which site restoration and rehabilitation has been completed	Construction camps and plant sites	Pre-construction and Post Construction	Contractor

S. No	Monitoring plan/ Performance indicators	Description of Item	Indicator	Stage	Responsibility
7	Performance indicators	No. of Trees to be cut No. of Trees cut % Progress on the tree removal	Tree cutting	Pre-construction	KRDCL
8	Performance indicators	No. of locations identified for temporary storage of the excavated materials to be used in embankment and sub grade	Storage of excavated materials	Pre-construction and construction	Contractor
9	Monitoring plan	Statutory environmental monitoring as per the conditions stipulated in the consents/ permission issued by PCB	Environmental status at construction Sites	Construction	Contractor
10	Monitoring plan	Environmental parameter monitoring in accordance with the frequency and duration of monitoring as well as the locations as per the Monitoring Plan given in above table	Air, Noise, Soil and Water quality	Construction and Operation	KRDCL through external agency
11	Monitoring plan	Before the onset of monsoon all the debris/excavated materials shall be cleaned from the work sites and disposed of at the pre-identified approved locations	Silting of water bodies	Construction	Contractor supervised by the Environmental specialist of CSC/AE
12	Performance indicators	Implementation of enhancement measures for Parks Cultural properties Religious properties	Enhancements	Construction	Contractor
13	Performance indicators	No. of Training sessions organized for - Department staff - Contractors - Combined No. of people trained - Department staff - Contractors	Training imparted	Construction and Operation Phase	KRDCL
14	Performance indicators	Slope protection measures Length (by type) No. of Locations	Work sites	Construction	Contractor
15	Performance indicators	Drainage Length No. of Locations	Work sites	Construction	Contractor
16	Performance indicators	Safety provisions Signage (by type and No.) Guard Rails Guide Rails	Work sites	Construction	Contractor
17	Performance indicators	No. of chute drains provided	Work sites	Construction	Contractor

S. No	Monitoring plan/ Performance indicators	Description of Item	Indicator	Stage	Responsibility
18	Performance indicators	Soil erosion prevention measures Silt fencing (No. of locations and quantity) Stone pitching (No. of locations and quantity) Any other (Grass seeding etc.,)	Work sites	Construction	Contractor
19	Performance indicators	Utility ducts Length provided No. of Locations	Utility ducts	Construction	Contractor
20	Performance indicators	Water sources No. of sources protected No. of sources relocated	Work sites	Construction	Contractor
21	Performance indicators	No. of HIV awareness sessions conducted	Labours	Construction Stage	KRDCL
22	Performance indicators	No. Safety awareness sessions conducted	Labours	Construction Stage	KRDCL
23	Monitoring plan	No. of awareness sessions for educating the public about road safety and other environmental aspects (such as waste dumping, preservation of enhanced sites, pollution and health impacts etc.)	Public in the vicinity of project road.	Construction Stage	KRDCL

### 8.5 Reporting system

Environmental monitoring involves regular checking of the environmental management issues detailed in the EMP and to ascertain whether the mitigation measures are achieving their objectives, according to the EMP, with the progress of the works. It provides the necessary feedback for project management to keep the programme on schedule will still achieving the expected outcomes.

The Contractor, CSC and PIU operate the reporting system for environmental conditions and environmental management indicators. Reporting formats for contractors and CSC have to be prepared, which will form the basis of the implementation by the Contractor and monitoring by the CSC and PIU. The list of reporting formats prepared for the project is presented in Table 8.5 and formats are presented in Appendix – 5.

The reporting system will start with the construction contractor who executes the works. The contractor will report to the CSC who in turn shall report to the KRDCL. The Contractor shall submit monthly and quarterly environmental compliance reports along with formal monthly and quarterly reporting to the CSC.

The CSC shall submit separate quarterly environmental monitoring reports to PIU in addition to submission of the summary of the activities of the month in the formal monthly report including any deviations and corrective actions.

KRDCL shall be responsible for the preparation of the targets for identified non-compliances for the EMP compliance.

A full record of construction activities shall be kept as a part of normal contract monitoring system. Reporting and Monitoring Systems for various stages of construction and related activities have to be proposed to ensure timely and effective implementation of the EMP. The operation stage monitoring reports may be annual or biannual, provided the Project Environmental Completion Report shows that the implementation is satisfactory.

The reporting system shall be as follows:

- Reporting by the Contractor to CSC/AE
- Reporting by CSC /AE to KRDCL
- Reporting by KRDCL for the information of all interested parties.

Table 8-4: Reporting System

Item	Contractor	Construction Supervision consultant (CSC)		PIU to oversee compliance monitoring
		Supervision	Reporting to PIU	
<b>Construction Stage</b>				
Monitoring of construction site and construction camp	Before start of work	Regular	Quarterly	Regular
Pollution monitoring	As required	As required	Quarterly	Quarterly
Debris disposal area	Weekly	As required	Quarterly	Quarterly
Monitoring Enhancements	Implementation	Regular	Quarterly	Quarterly
Top soil preservations	Weekly	Weekly	Monthly	Quarterly
Borrow area/quarry area / Debris disposal area	Regular	Weekly	Monthly	Quarterly
Tree cutting	Weekly	Weekly	Monthly	Quarterly
Tree plantation	Monthly	Monthly	Monthly	Quarterly
<b>Operation stage</b>				
Pollution Monitoring	Quarterly	Quarterly	Quarterly	As per monitoring plan

Table 8-5: Summary Details of Reporting Formats

Format No.	Item	Stage	Contractor	Forest Department	Construction Supervision Consultant (CSC)	
			Implementation and Reporting to Engineer	Implementation and Reporting to PIU	Supervision	Reporting to PIU
EMS1	Approval of construction camp/ plant site and its management	Pre-construction	One time	-	One time	One time

Format No.	Item	Stage	Contractor	Forest Department	Construction Supervision Consultant (CSC)	
			Implementation and Reporting to Engineer	Implementation and Reporting to PIU	Supervision	Reporting to PIU
	plan					
EMS2	Approval of Borrow Management Plan (General and Specific)	Pre-construction	General- One time Specific redevelopment plan – One for each borrow area	-	Regular	Quarterly
	Identification of temporary storage yards and Management plan	Pre-construction	One time	-	One time	One time
	Solid waste Management Plan (General and Specific)	Pre-construction	General- One time Specific redevelopment plan – One for each camp or plant site	-	Regular	Quarterly
EMS3	Construction camp and plant site management	Construction	Monthly	-	Regular	Quarterly
EMS 4	Top Soil management	Construction	Monthly	-	Regular	Quarterly
EMS 5	Construction plants and pollution control Monitoring	Construction	Monthly	-	Regular	Quarterly
EMS 6	Vehicles and Pollution Control	Construction	Monthly	-	Regular	Quarterly
EMS 7	Details of the DG sets and pollution control	Construction	Monthly	-	Regular	Quarterly
EMS 8	Details of oil Storage	Construction	Monthly	-	Regular	Quarterly
EMS 9	Working at water courses and pollution control	Construction	Monthly	-	Regular	Quarterly
EMS10	Details of Water	Construction	Monthly	-	Regular	Quarterly

Format No.	Item	Stage	Contractor	Forest Department	Construction Supervision Consultant (CSC)	
			Implementation and Reporting to Engineer	Implementation and Reporting to PIU	Supervision	Reporting to PIU
	Extraction					
EMS11	Details of personal protective Equipment	Construction	Monthly	-	Regular	Quarterly
EMS12	Status of consent for water extraction	Construction	Half yearly	-	Half yearly	Half yearly
EMS13	Deviations and corrective Actions	Construction		-	Monthly	Quarterly
EMS14	Tree plantation	Construction and Operation		Quarterly		Quarterly
EMS15	Plantation of shrubs and grass	Construction and Operation	As applicable	Quarterly	As applicable	As applicable
EMS16	Implementation of Enhancement measures for cultural properties, parking areas and incidental spaces	Construction	Monthly	-	Regular	Quarterly
	Status Regarding Rehabilitation of Borrow Areas	Operation		-		Half yearly
	Noise barrier construction	Operation	As applicable	-	Quarterly	Quarterly
	Survival rate of plants	Operation		Quarterly		Quarterly
EMS17	Debris generated due to road widening	During construction	Throughout the construction period during widening	-	Regular	Quarterly

The Environmental Specialist of CSC/AE shall ensure to cover monitoring of all environmental parameters for effective reporting of environmental issues. Some of the environmental monitoring parameter should be included in the request for inspection (RFI) such as debris disposal area approval request. CSC should discuss the reporting formats with the Contractor and PIU to make the required changes in the frequency of reporting as per the site requirements for effective implementation and monitoring, This will not only

ensure that the environmental provisions are addressed but also link the satisfactory compliance to environmental procedures prior to approval of the Interim Payment Certificate (IPC) by the Engineer. In the regular monthly meeting the environmental aspects should also be discussed and the staff responsible for the implementation of the environmental management from the contractor, PIU and CSC should also be present

#### 8.6 Institutional Arrangements for implementation

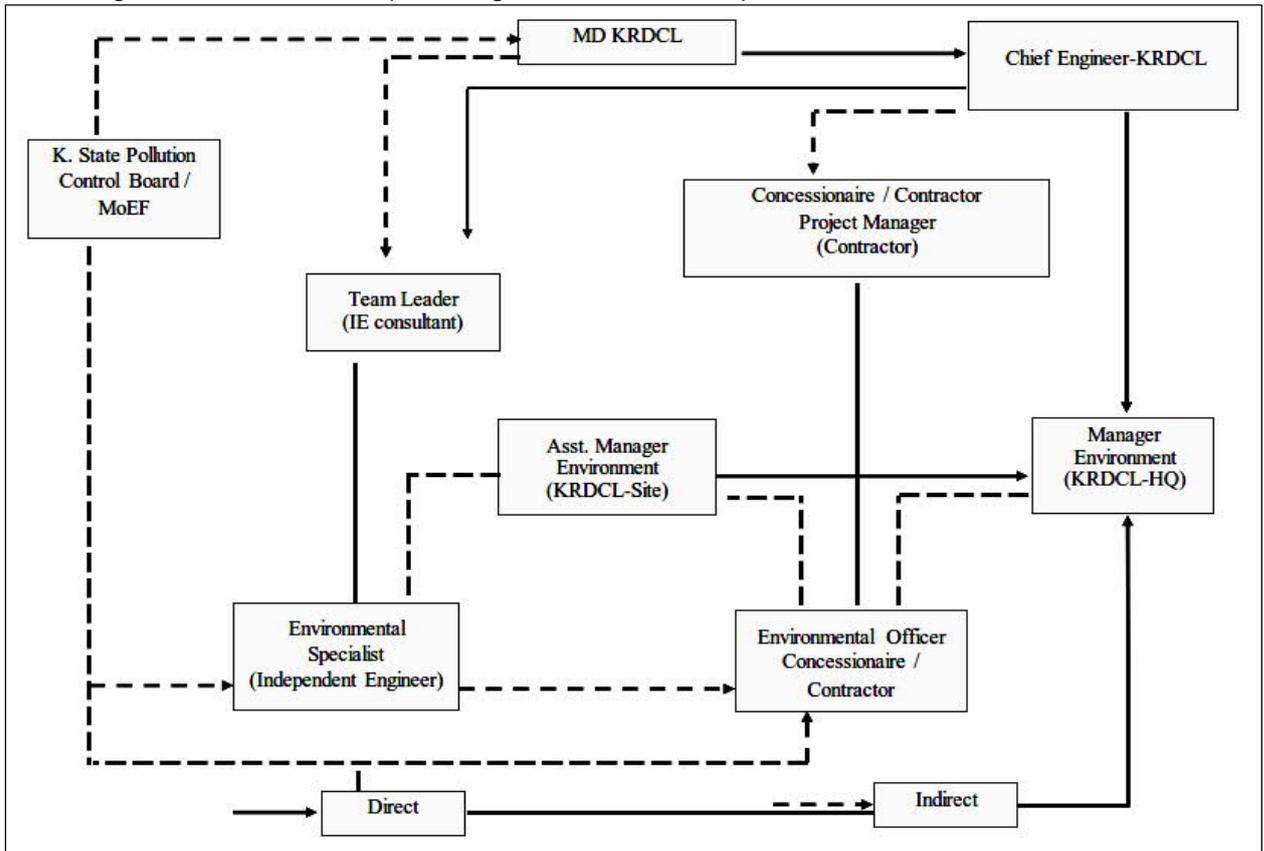
Project Implementation Unit (PIU) is responsible for implementing the project to ensure and achieve certain level of quality in the project, and make sure that the statutory requirements are not violated. The Managing Director heads KRDCL will be responsible for the successful implementation of the Project. The Chief Engineer is the head of Project Implementation Unit (PIU) of KRDCL set up for the implementation of the project. CE is assisted by Executive Engineers to look after all the technical issues of the project implementation and Manager (Environment) to look after Environmental issues of the project. It is proposed to constitute sub unit, Environmental Management Plan Implementation Unit (EMPIU), which functions under PIU.

The Manager (Environment) and Social expert of KRDCL will look after the environmental and social issues during the project preparation, implementation and operation with the assistance of the Environmental Specialist of Project Design and Environmental Officer (EO) of the CSC in the respective phases of implementation.

During the operation phase monitoring will be carried out by PIU or the concessionaire depending on the contract modalities with the help of environmental monitoring agencies approved by the State or Central Pollution Control Board.

Relationship among Environmental Specialist of Construction Supervision Consultancy (CSC), Karnataka Road Development Corporation Limited (KRDCL) and Contractor/Concessionaire with respect to supervision and monitoring of EMP is depicted in the following Figure 8-1.

Figure 8-1: Relationship among Environmental Specialist of CSC and KRDC



#### Environmental Cell, KRDC

KRDC has organizational and institutional capacity at the headquarters created to meet the requirements for implementation of the environmental mitigation measures in the EMP. Manager (Environment) reports to Chief Engineer who is responsible for management of environmental issues of the project. KRDC will establish Environmental cell headed by Manager (Environment) with 2 to 3 Assistant Environmental Officers who shall be responsible to look after all the Environment issues related to the project during the project preparation, implementation and operation period and Environmental cell will be supported by the technical and field staff for the project implementation with the assistance of the Environmental Specialist of the CSC / IE.

It is envisaged that the Environmental Cell will be responsible for

- Monitor implementation of the EMP measures in consonance with the timeline for the project as per the approved budget;
- Maintain interaction with the various other statutory bodies like State Pollution Control Board and MoEF Regional Office;
- Interact with the Environmental Expert of the CSC / IE on the status of the environmental mitigation and enhancement measures;
- Regularly inspect the project site to monitor the mitigation measures being implemented by the Concessionaire/Contractor;

- Document and disseminate good practices, minimise and resolve bottlenecks during the implementation of EMP.

#### Role of Construction Supervision Consultant (CSC) / Independent Engineer (IE)

The CSC / IE will be procured to assist KRDCL for implementation of project, before the project is awarded. The Environmental Specialist of the CSC/ IE shall be the key personnel to ensure the successful implementation of EMP provisions. The Environmental Specialist will ensure that the Concessionaire complies with the various EMP requirements. In addition, he will update KRDCL on the progress of environmental protection and enhancement works as envisaged in the EMP. It is envisaged that the responsibilities of the Environmental Specialist of will include:

- Supervise and monitor the implementation of EMP by the Concessionaire / Contractor
- Review and approve site-specific environmental mitigation / enhancement designs submitted by the Concessionaire based on the EMP prepared.
- Review and recommend the Concessionaire / Contractor on implementation plans for approval and suggest any changes that may be necessary to ensure compliance with the environmental provisions of the Contract.
- Monitor tree plantation programs and the periodic environmental monitoring of air, noise, water, soil, etc. during pre-construction, construction and operation phase to ensure compliance with the statutory requirements and the EMP.
- Hold regular meetings with Contractor / Concessionaire and keep it updated to Manager (Environment), KRDCL regarding the progress of environmental works.
- Prepare and submit monthly and quarterly environmental progress reports to KRDCL.
- Develop and organize environmental training programs to upgrade the skills to the staff of Environmental Cell, Contractors and the Concessionaire.
- Document and develop good practices during project implementation for wider dissemination.

#### Role of Concessionaire

For effective implementation and management of the EMP, the Concessionaire shall arrange to establish a Safety, Health and Environment (SHE) Cell headed by an Environment Officer to deal with the SHE issues of the project. This officer shall interact with the EPC Contractor, KRDCL, CSC/IE and other line departments to ensure that the mitigation and enhancement measures mentioned in EMP are adhered. The Environmental officer of the Concessionaire shall be the interface between the Environmental Specialist of and the Environmental Officer of the contractor. His prime responsibility shall be to apprise the Environmental Specialist about the ground conditions. He shall also procure the requisite clearances and the NOCs for the project and shall also strictly supervise that the Contractor adheres to the EMP. The environmental officer can also look after the additional charges of safety and health.

### Role of Contractor

Execution of works will be the responsibility of the EPC Contractor. The Concessionaire may himself be the executioner of the project or might decide to outsource or hire contractor. In case the Concessionaire decides to execute the work by himself then the responsibilities of the EO shall also be performed by the EO of the Concessionaire. If, Concessionaire decides to outsource the work then the contractors shall employ an Environmental Officer. In both the cases the Concessionaire will implement the environmental measures (either through the contractors or themselves).

#### 8.7 Institutional Capacity Building

The Manager (Environment) at PIU, Environmental Specialist of the CSC/IE and the Concessionaire, are responsible for the implementation of the EMP, need to be trained on environmental issues of proposed elevated corridor project and ensure the successful implementation of the proposed project in a sustainable manner.

#### 8.8 Training Components:

The training should encompass the following:

- Understanding of the relevant environmental regulations and their application to the project.
- Significant impacts of the project on the environment.
- Mitigation measures as proposed in the EMP and their implementation.
- Duties and responsibilities of the Contractors, Supervision Consultants and PIU staff involved in the project.
- Public/Stakeholder's consultation and its role during the implementation of the project.
- Supervision and implementation of the EMP and handling environmental issues during construction.
- Monitoring performance indicators during different stages of project implementation and operation.
- Weekly, monthly and quarterly reporting requirements, preparations and submission.

#### 8.9 Training Programme:

A training programme shall be worked out incorporating the project needs as well as the capacity building requirements. The training would cover the basic principles of environmental assessment, statutory requirements with respect to environment conservation, nature of impacts by the proposed project, mitigation plans and programmes implementation techniques, monitoring and management methods and tools, etc. The programme should consist of a number of training modules specific to target groups suggested below.

##### Module I: Environmental Overview

- General environmental issues
- Environmental issues associated with highways development.

- Principles and policies for (natural) environmental mitigation in development projects.
- Role of Environmental Management in project development

Module II: Environmental Regulations and Acts

- Air (Prevention and Control of Pollution) Act, 1981
- Water (Prevention and Control of Pollution) Act, 1974
- Hazardous Materials (Transportation and Handling) Rules
- Forest (Conservation) Act, 1980
- EIA Notification, 2006 and amendments
- Other environmental acts, rules and regulations relevant in highways development.
- Role of environmental planning, conservation and enforcement authorities

Module III: Pollution

- Pollution and Wastes
- Highways and pollution
- Generation of wastes in highway construction
- Possibilities of abating pollution and waste-generation

Module IV: Environmental management Plan

- Basic features of an EMP
- Planning and designing the environmental mitigation measures
- Incorporation of environmental components in design, construction and operations stages.
- Environmental monitoring, evaluation and review techniques

Module V: Environmental Issues

- Natural resource management and bio-diversity
- Green tunnels and roadside vegetation
- Natural vegetation- selection of species
- Wildlife protection
- Protection of water bodies and water resources
- Protection and transplantation of trees
- Wastewater disposal
- Soil conservation

Module VI: Environmental Issues in the Project

- Legal and institutional aspects

- Introduction to the designs and implementation schedule
- Probable natural environmental impacts

Module VII: Environmental Management Plan

- Construction stage environmental concerns and mitigation.
- Environmental design and implementation plans

Module VIII: Environmentally Sound Construction Management

- Laws and other statutes associated with the project
- New and alternative technology and materials
- New equipment, machines and their environmental/pollution performance
- Effluent control systems for construction processes and equipment
- Waste minimization and management in construction
- Efficient construction activity monitoring; compliance monitoring
- Environmental clauses in contract documents and their implications
- Good practices for project construction

Module IX: Planning for Environmentally Sustainable Operations

- Controlling pollution in during operation phase
- Cross-agency responsibilities and co-ordination
- Monitoring requirements; monitoring techniques
- Environmental evaluation techniques
- Performance indicators
- Reporting requirements and mechanisms for the Project

Module X: Long Term Environmental Issues

- Environmental surveys including ambient air, noise, biological and water quality surveys
- Data storage, analysis and retrieval
- Contract documents and incorporation of environmental clauses
- Community consultation
- Risk assessment and management
- Contingency planning and management

8.10 Environmental Budgetary Provisions

The budgetary provision for the implementation of the Environmental Management Plan of the project corridor is presented in Table 8-6.

Table 8-6: Cost for implementation of Environmental Management Action Plan to be executed under civil works contract

Sl. No.	Description	Unit	Estimated Quantity	Rate (Rs.)	Amount (Rs.)
				In Figures	
1	A. Carting away the unserviceable materials from work site to the nearest disposal site (up to a lead of 5km) and disposing the same in disposal pits or borrow areas including depositing unserviceable materials in layers and manual compaction.	Cum	53,633	88.00	4,719,704.00
	B. The 30 cm top layer of disposal pit shall be provided with good earth, suitable for development of vegetation/plantation. All work shall be carried out as per specifications and approval of the Engineer in Charge	Sqm.	35,755	30.00	1,072,660.00
2	Turfing at ground level at disposal pits for un-serviceable material as per specifications and approval of the Engineer in Charge.	Sqm.	35,755	24.00	858,128.00
3	Regular water sprinkling (at least 4 times) per day at all construction sites for suppression of visible dust levels. Note: This item is to be operated after the completion of earthwork to suppress the visible dust levels. Cost of watering during compaction of earthwork is deemed to be already covered under civil works.	Km	87.86	12,000.00	1,054,320.00
4	Construction of recharge pits along the median (pier line) at each pier location and within the selected water bodies along the project road to facilitate percolation of runoff water in to the ground as per approved design and drawing as developed by Central Ground Water Board.	Nos.	2200	80,000.00	17,60,00,000.00
5	Construction of noise barrier(s) at specified locations along Project corridor. Glass fibre reinforced plastic sheet of 6 mm thickness for a total height of 2.67 m (inclusive of crash barrier height) erected with the help of revetment to steel angle (ISA 80x80x10 mm) with a spacing of 1 m from angle to angle embedded up to a depth of 0.8 m into crash barrier.	M	5,527	5,000.00	27,634,250.00
6	Sign boards for restriction on use of horns and speed limit near noise sensitive receptors (LHS & RHS)	Nos.	258	7,000.00	15,00,000.00



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

7	Periodic air quality monitoring during construction stage along the proposed corridor construction camp sites, batching plants, bitumen hot mix plants, crusher plants (if specifically established for Project), at major Air sensitive receptors along project road. The parameters to be monitored are SO <sub>2</sub> , NO <sub>2</sub> , PM <sub>10</sub> , PM <sub>2.5</sub> , and CO, Lead. Each monitoring schedule shall be over duration of 24 hours (in 8 hour shifts), once in four months for 2 Years). (The tests are to be conducted in accordance CPCB norms)	Nos.	354	7,500.00	26,55,000.00
8	Water quality monitoring during construction phase at locations. The sampling shall be carried out once in four months for 2 years and cover all parameters as per IS10500 including heavy metals.	Nos.	204	5,000.00	10,20,000.00
9	Noise quality monitoring at specified silent receptors along Project Road, at construction camp sites, bitumen hot mix plants, crusher plants(if specifically established for Project), and at major settlement areas along project road. – Each monitoring schedule shall be over duration of 12hours (6Am to 6PM), once in four months for 2 Years. The monitoring shall be carried out in accordance with CPCB norms.	Nos.	354	2000.00	7,08,000.00
10	Soil quality monitoring at construction camp sites, work shop areas, oil/lubricant handling areas, bitumen hot mix plants, at all parking lay byes, vehicle servicing stations along Project Road. Parameters shall include pH, Nitrogen, Phosphorus,, Potassium, Sodium, Chloride, Organic Carbon and Lead and carried out twice in a year (Pre monsoon and Post monsoon for 2 years.	Nos.	160	3,500.00	5,60,000.00
11	Providing Oil Interceptors at the fuel/oil storage camps or construction camps.	Nos.	2200	5,000.00	60,000.00
12	Providing Personal Protective Equipment to labours during construction Phase of the project.	Cost/ person/ annum	6,400	1,500.00	96,00,000.00
13	Provision for two health check-ups for the carcinogens from bituminous fumes, which may inhaled during road paving works. The first health check-up prior to induction of the personnel into the construction works and the last health check-up prior to the discharge of the personnel from the construction works	Cost/ person	1,280	2,000.00	25,60,000.00

## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

14	Raising compensatory plantation along the project corridor and or nearest available government lands. Planting of trees in 0.6 m dia holes, 1 m depth dug in the ground, mixing the soil with decayed farmyard manure, planting the saplings, backfilling the trench, watering, fixing the tree guard and maintaining the plants for 5 yrs.	Tree Nos.	37,160	2,714.00	10,08,52,240.00
15	Tree transplantation at suitable site within a distance of 5 km from the existing tree including uprooting, cutting roots, pruning branches and planting in a trench of 50 * 50 m wide trench having a depth of 1 to 2 m. including excavation at transplantation location and backfilling and levelling of uprooted site.	Tree Nos.	3,716	1,00,000.00	37,16,00,000.00
16	Leasing of land required for transplanting/planting trees @ 1200 / hectare to compensate the trees cut along the proposed corridors.	Hectares	35.12	3,70,500.00	1,30,11,960.00
17	Environmental Enhancement measures: 1. Improvement/restoration of water bodies adjacent to the corridor with desilting, soil erosion control measures and catchment area development, etc. 2. Improvement of Parks adjacent to the corridor; 3. Median Plantation and plantation at left over lands at government offices, hospitals, schools and military lands.	Cost/k m	87.86	50,00,000.00	43,93,00,000.00
18	Providing short term environmental training for staff of PIU, Contractors personnel by supervision consultant. The responsibility of developing and conducting training program shall be with supervision consultant but the cost will be borne by contractor. Training shall cover for pre-construction, construction and post-construction of project implementation.	Nos.	30	2,00,000.00	6,000,000.00
19	The scheme for vertical garden on the pillars in order to reduce the heat effect & vehicular emissions.	Sqm	64,819	600.00	3,88,91,400.00
	Total Carried to Summary				1,199,657,662

Note: Tree transplantation considered @ 10 % of the total number of trees being cut. Each tree being cut is compensated by planting 10 new trees.

## 9. CONCLUSION

The Environmental Impact Study exercise provides a full description of the project corridor environment, and significant positive and negative impacts on natural environment owing to the proposed project. An attempt has also been made to counteract the potential impacts identified in terms of mitigation measures for the proposed corridor project.

The proposed elevated corridor project will cause following significant impacts during pre-construction and construction phases and their mitigative measures.

- It is estimated that approximately 98 acres of land to be acquired along the alignment of the proposed six corridors. Most of the land acquired is for ramps, junction improvements, grade separators which are integral parts of the proposed project.
- Approximately 4,34,500 cum of debris would be generated from the excavations for piles and pile cap out of which 75% of the debris suiting to the requirements of soil fillings shall be utilized for ramp construction and 25 % of unserviceable materials shall have to be disposed in borrow pits or abandoned quarries in an environmentally sustainable manner.
- There are altogether 10 water bodies in the vicinity of project however, project alignment passes close to only three lakes that is Ulsoor lake, Varthur Lake and Agara Lake. Stringent mitigation measures will be taken up to avoid and reduce the impact of construction activities.
- Waste water generated at construction camps and labour camps will be treated to the standards prescribed by CPCB to water pollution in the vicinity of the project associated construction camps and labour camps.
- City traffic will get disrupted during the construction phase of the project due to traffic diversions which will be handled by effective traffic management and diversion plans.
- Generation of dust by the project activities like site preparatory earthworks; demolition of existing structures; foundation excavation works; erection and use of heavy equipment & machinery; loading, transporting and unloading soil and construction materials and material handling; traffic diversion; etc. is the main air quality issue associated with construction of the proposed elevated corridor. In addition to dust, it is also expected that project activities could release air pollutants like SO<sub>2</sub>, NO<sub>x</sub>, CO, Lead, Benzene and Volatile Organic Compounds (VOC). Proper dust and emission mitigation measures are proposed in the EMP to handle the dust during various phases of project implementation to prevent adverse impact on air sensitive receptors.
- The air pollutants emission is likely to come down to a greater extent by the operating vehicles on elevated corridor with extensive savings on consumption of fuel because of the signal free uninterrupted traffic movements.

- Project corridor alignment has more than 60 air and noise sensitive receptors such as schools, colleges, hostels, hospitals, libraries including 30 km stretch of communities (built-up sections). Dust mitigation by regular sprinkling of water and noise mitigation measures such as provision of barricades during construction and noise barriers will be made at all the identified air and noise sensitive receptors to reduce the impact during construction and operation stages.
- 3716 trees may get impacted by the project which seems to be the most significant to Bangalore city. The sincere efforts shall be made to save trees and avoid tree cutting at all the stages of the project implementation by just pruning the branches wherever possible. Attempt shall also be made to translocate at least 20 % of the trees being impacted to nearby identified locations. In addition at-grade median plantation will be taken up all along the proposed alignment and vertical gardens will be proposed on the piers of elevated corridor. In addition to above for every tree impacted it shall be compensated at the rate of ten trees as per the direction of Forest Department.
- There are two notified archaeological structures along the North - South corridor. Tipu Sultan's Summer Palace being a protected monument as per the Ancient Monuments and Archaeological Sites and Remains (Amendment & Validation) Act, 2010(prohibited area), is within a distance of 100 metres from the proposed East West Corridor - 2. Another notified structure Old Dungeon Fort & Gates is at a distance of 330 m from the proposed North - South corridor, beyond regulated area (200 meters further beyond prohibited area as per the latest circular). Required permission / NOC will be obtained from Archaeological Survey of India before construction of elevated corridor.
- The project would impact on the livelihood, public services, health and safety of community and labourers temporarily during construction of the project. Inconveniences caused by utility shifting, excavations, unplanned stacking of excavated earth and traffic diversions in the vicinity of project corridors will be handled suitably as per the Statutory provisions.

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

## 10. DISCLOSURE OF CONSULTANTS ENGAGED

AECOM has been accredited as EIA consultant for various sectors including Townships and Area Development projects which falls under Category 8(b) of Notification dated 14<sup>th</sup> September, 2006. The accreditation has been granted by National Accreditation Board for Education and Training (NABET) of Quality Council of India (QCI) under the Accreditation Scheme for EIA Consultant Organisations as per MoEF requirements.

The following approved consultants and experts were engaged for preparation of the EIA report for the proposed study.

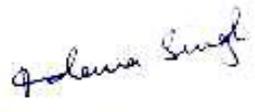
Sl. No.	EIA Coordinators /Functional Areas	Required Functional Areas	Signature
1	EIA Coordinator – Townships and Area Development projects	Balakrishna Y V	
2	Associate EIA Coordinator – Townships and Area Development projects	Avijit Sarkar	
3	Air Quality & Air Pollution	Shivnath Chalka	
4	Noise & Vibration	Atul Kumar	
5	Water Pollution Monitoring, Prevention & Control (WP)	Balakrishna Y V	
6	Ecology and biodiversity	Deepti Bapat	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru

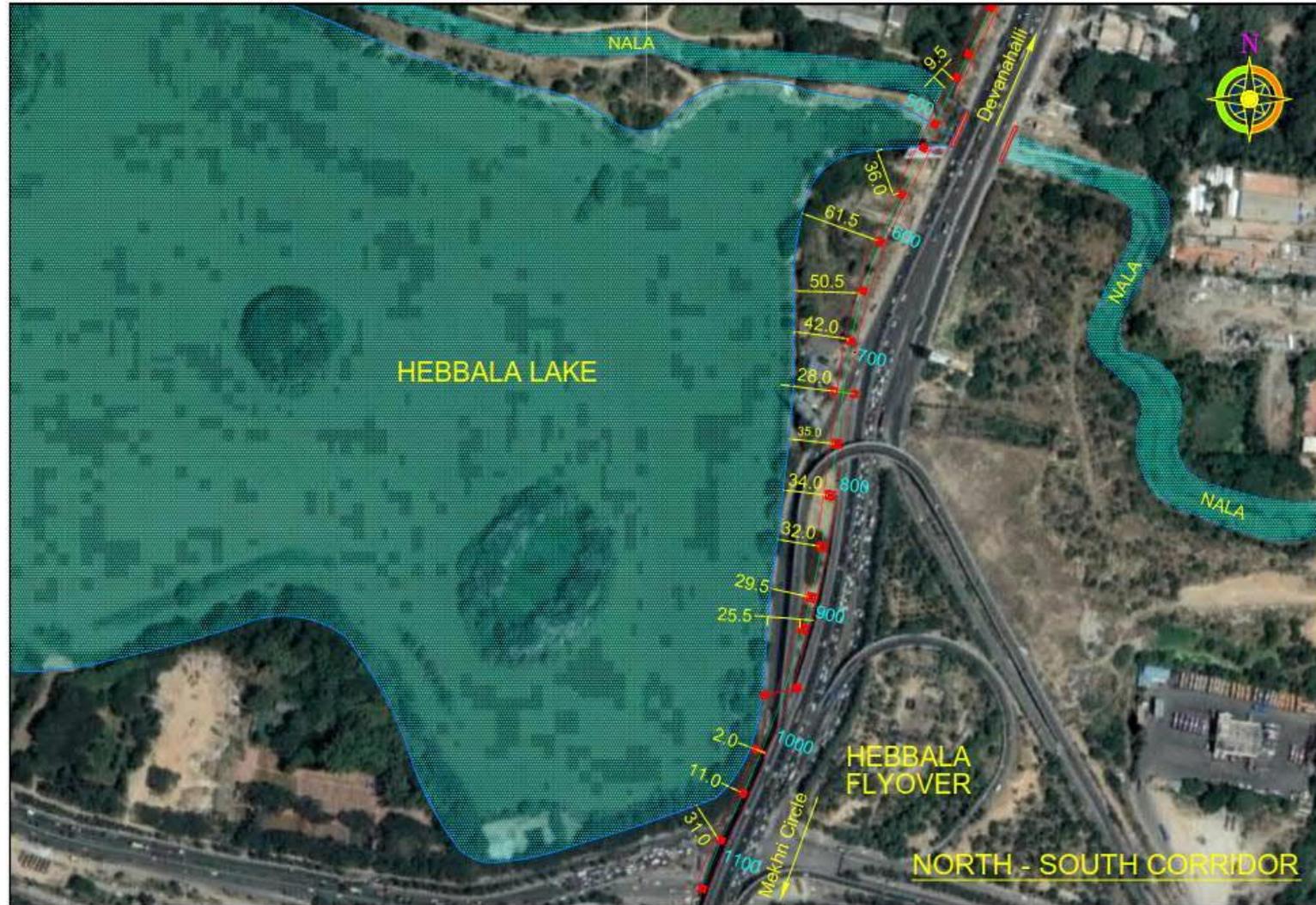


Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

7	Land Use (LU)	Aditi	
Team Members:			
8		Vandana Singh	
9		Prajakta Pathare	

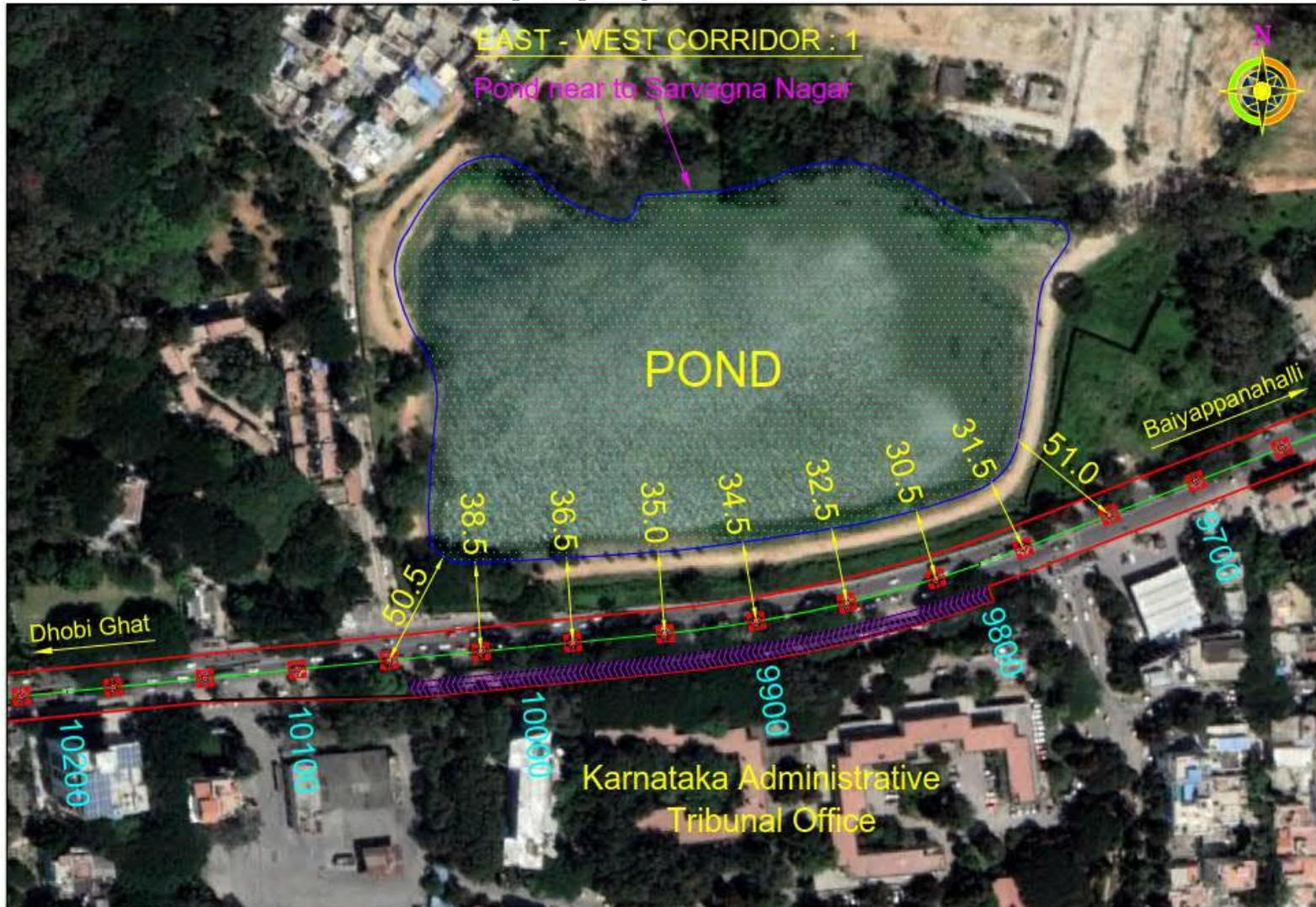
ANNEXURE - 1 : WATER BODIES  
Hebbal Lake adjacent to the North-South Corridor



Ulsoor Lake adjacent to the East West 1 Corridor



Pond near Sarvagnanagar adjacent to the East West 1 Corridor



KR Puram Lake adjacent to the East West 1 Corridor



Agara Lake adjacent to Connecting Corridor - 1



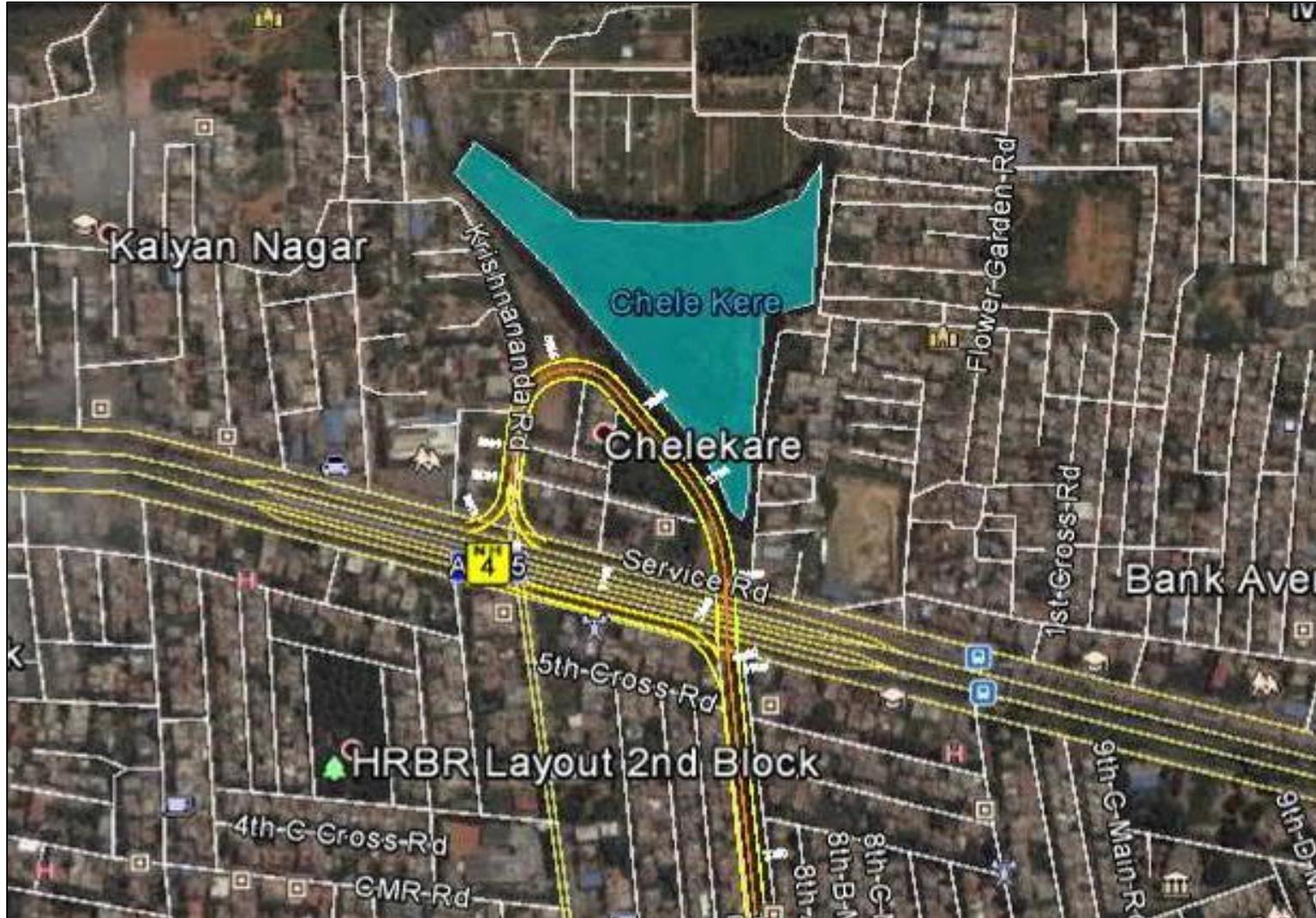
Varthur Lake adjacent to East-West Corridor - 2



Wrishabhavathi Stream across East-West Corridor - 2

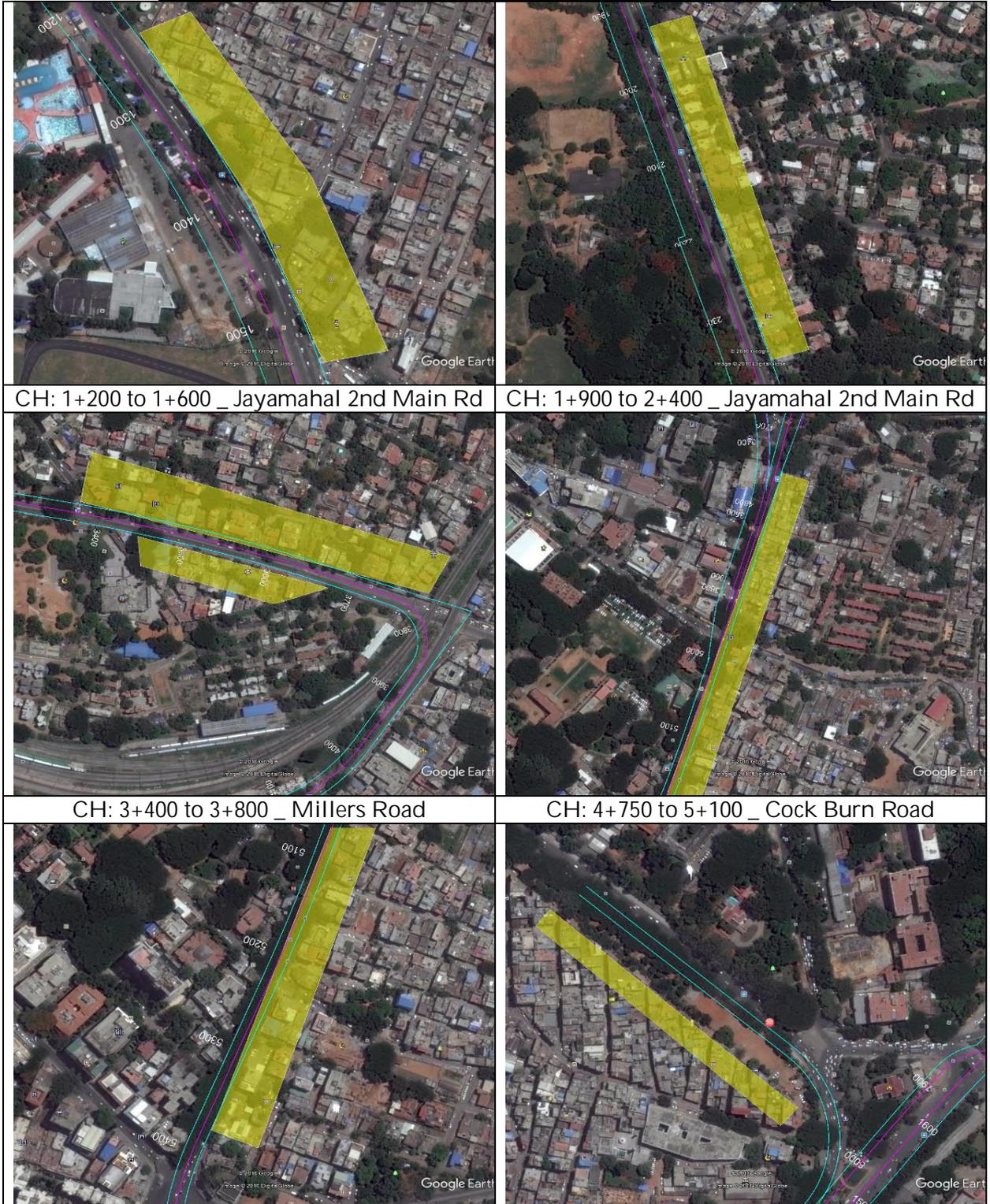


Chalkere Lake across Connecting Corridor - 3  
Water Bodies adjacent to the Connecting Corridor 3



ANNEXURE - 2: AIR SENSITIVE RECEPTORS

Air Sensitive Receptors along the proposed North-South corridor



Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

<p>CH: 5+100 to 5+400 _ Cock Burn Road</p>	<p>Ramp at CH: 8+100_District Office Road</p>
<p>CH: 19+800 to 19+550 _ LBF Road</p>	<p>CH: 10+700 to 11+200 _ Shamanna Main Road</p>
<p>CH: 12+100 to 12+400 _ Hosur Road</p>	<p>CH: 12+600 _ Hosur Road</p>

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

Air Sensitive Receptors along the proposed East West Corridor 1



CH: 1+100 to 1+400 \_ NH-4 Road



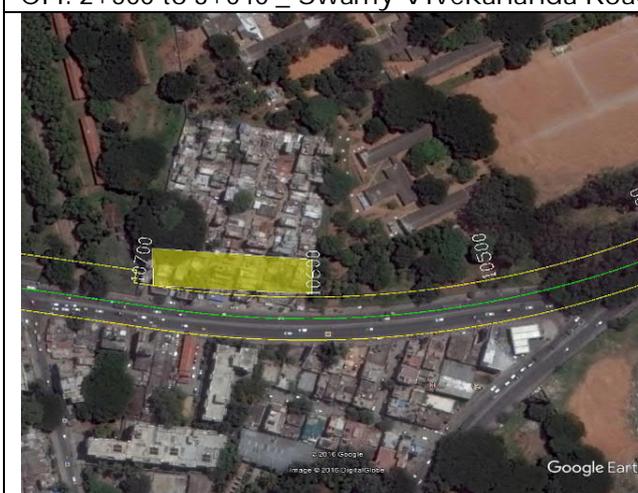
CH: 2+100 to 2+500 \_ NH-4 Road



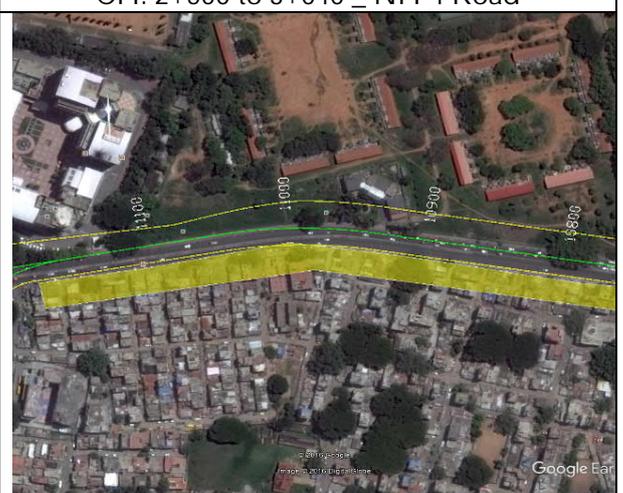
CH: 2+500 to 3+040 \_ Swamy Vivekananda Road



CH: 2+500 to 3+040 \_ NH-4 Road



CH: 10+600 to 10+700 \_ D Bhaskaran Road



CH: 2+500 to 3+040 \_ NH-4 Road

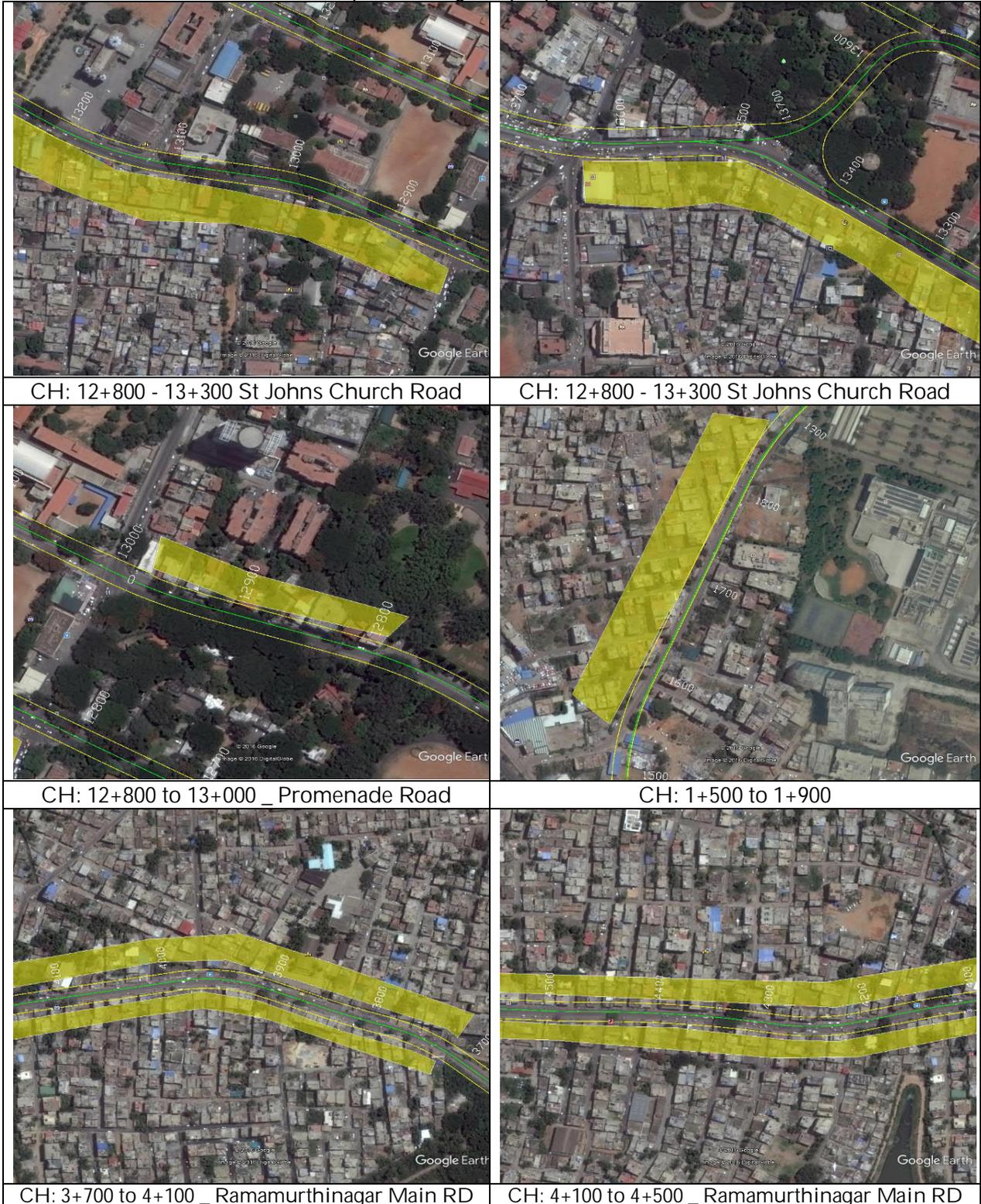
Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

Air Sensitive Receptors along the proposed East West Corridor 1



Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

Air Sensitive Receptors along the proposed East West Corridor 1



CH: 4+500 to 4+900 \_ Ramamurthinagar Main RD

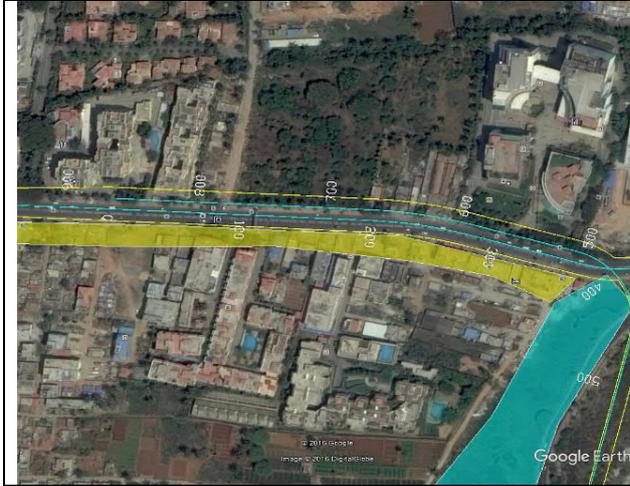


CH: 4+900 to 5+300 \_ Ramamurthinagar Main RD



CH: 5+300 to 5+600 \_ Ramamurthinagar Main RD

Air Sensitive Receptors along the proposed East West Corridor 2



CH: 0+500 to 0+900 \_ HAL Airport Road



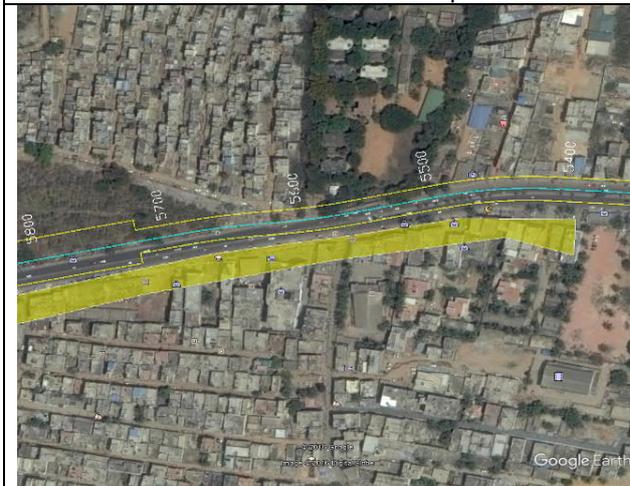
CH: 0+900 to 1+100 \_ HAL Airport Road



CH: 4+600 to 4+800 \_ HAL Airport Road



CH: 4+900 to 5+200 \_ HAL Airport Road



CH: 5+400 to 5+800 \_ HAL Airport Road

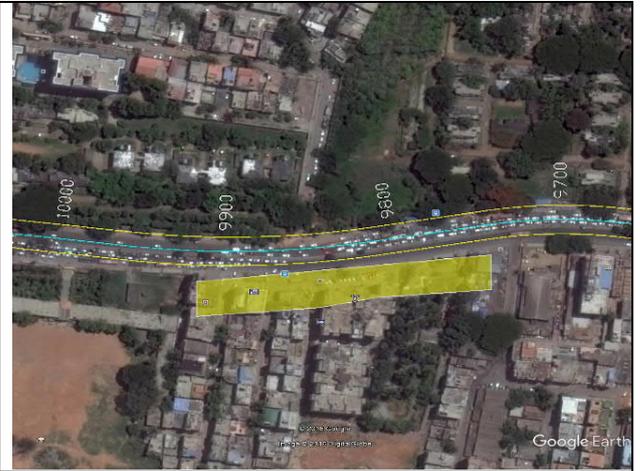


CH: 5+800 to 6+300 \_ HAL Airport Road

Air Sensitive Receptors along the proposed East West Corridor 2



CH: 9+450 to 9+650 \_ HAL Airport Road



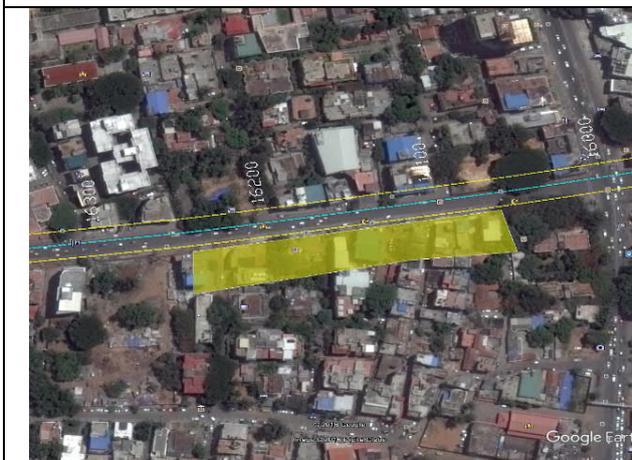
CH: 9+750 to 9+910 \_ HAL Airport Road



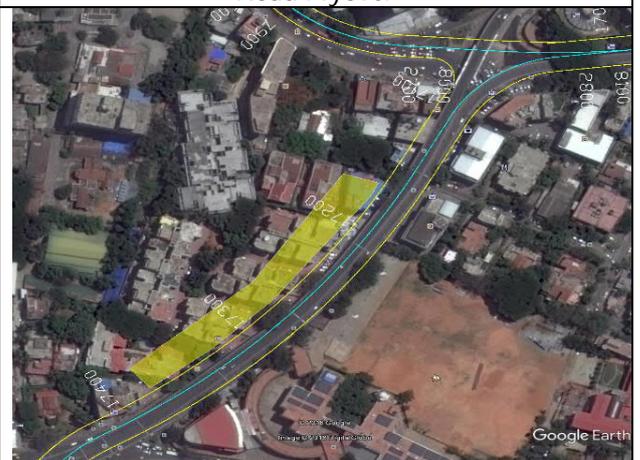
CH: 16+070 to 16+250 \_ Richmond Road



CH: 17+160 to 17+390 \_ Mission Rd to Residency Road Flyover



CH: 16+070 to 16+250 \_ Richmond Road



CH: 17+160 to 17+390 Mission Rd to Residency Road Flyover

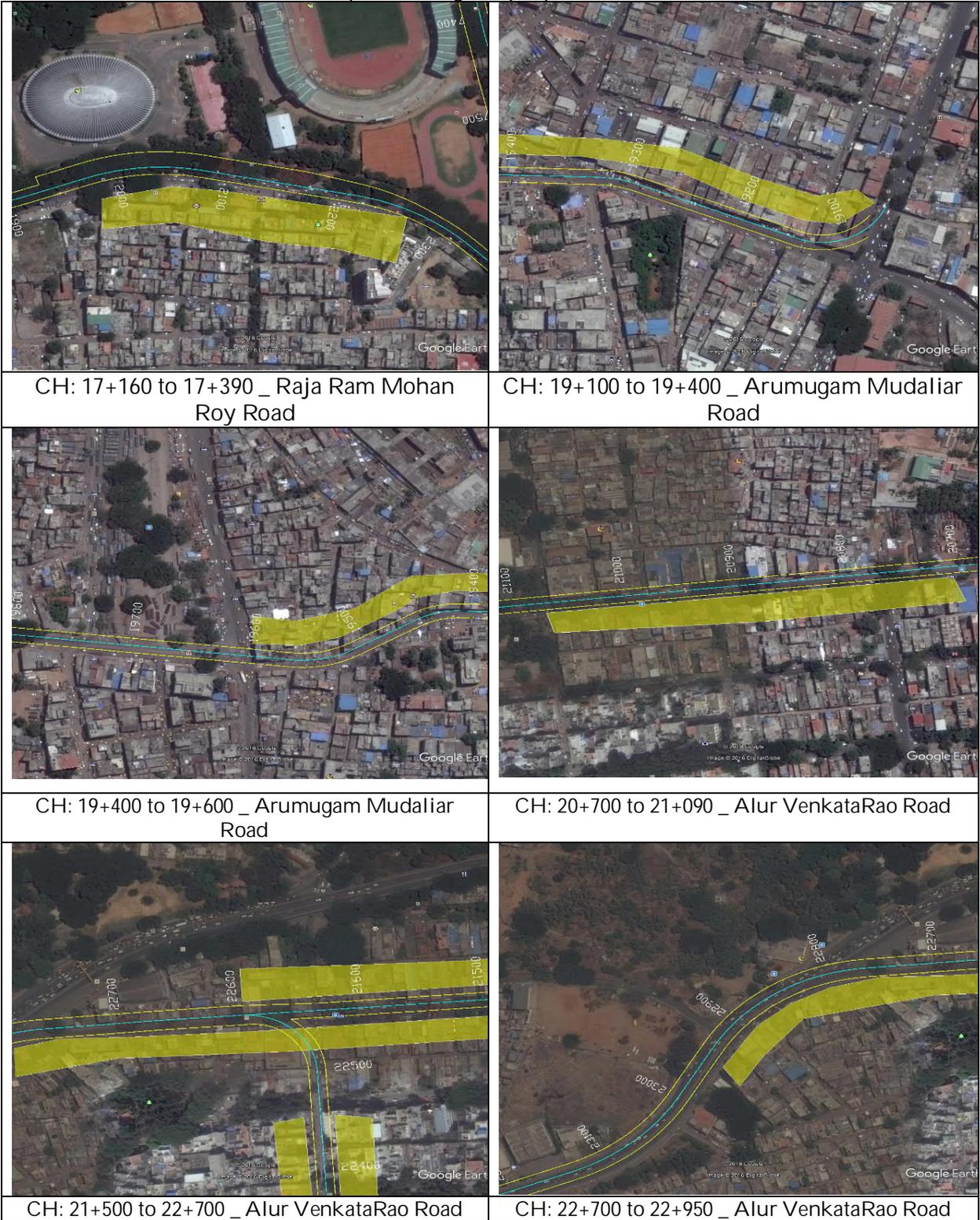
Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

Air Sensitive Receptors along the proposed East West Corridor 2

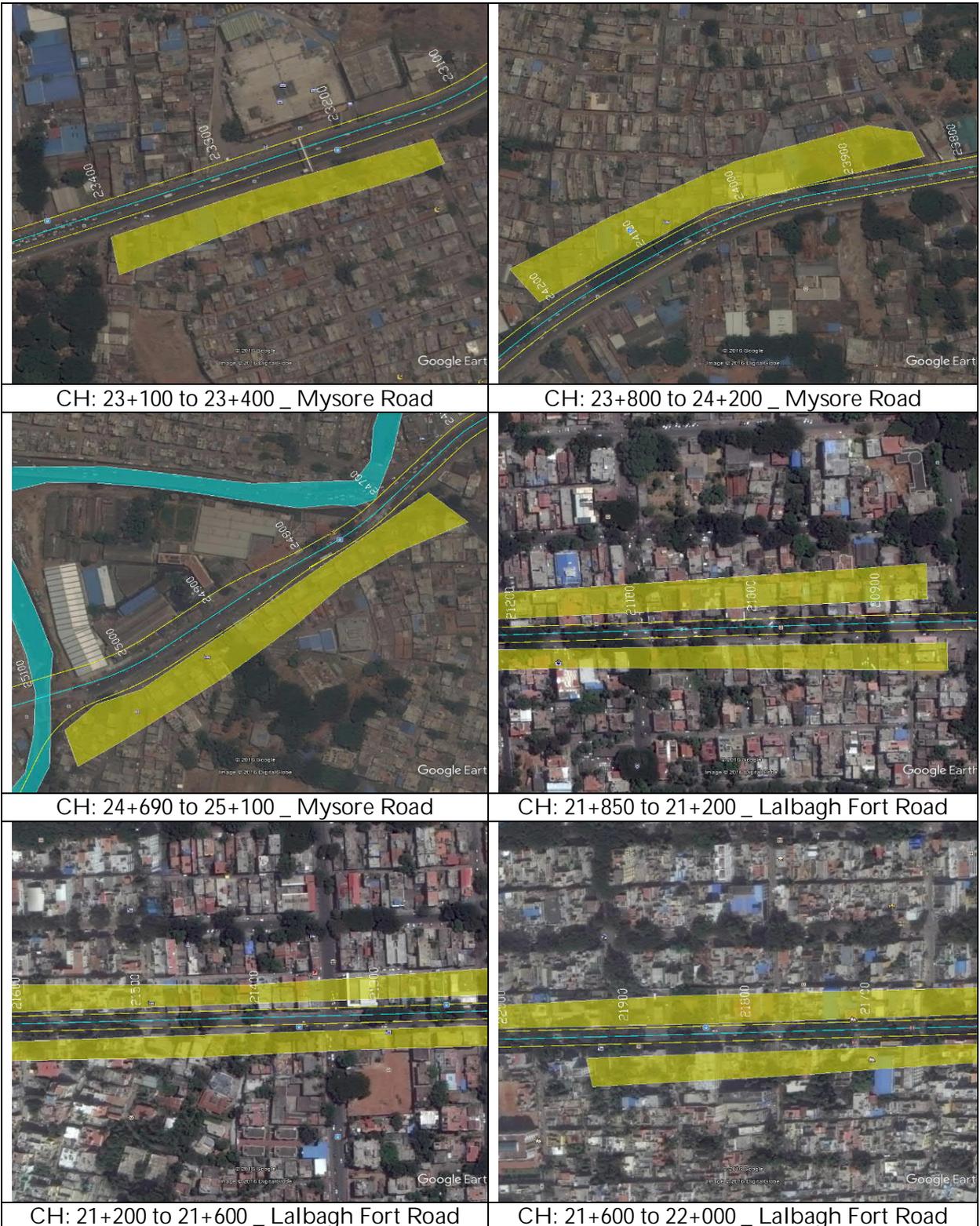


Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report



Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

Air Sensitive Receptors along the proposed Connecting Corridor 1



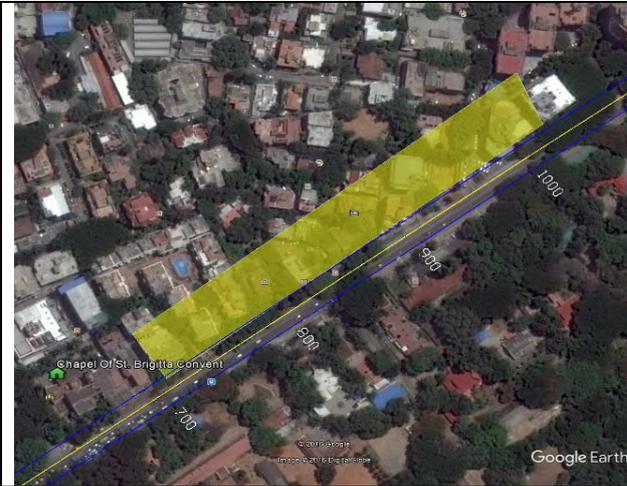
Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

Air Sensitive Receptors along the proposed Connecting Corridor 2

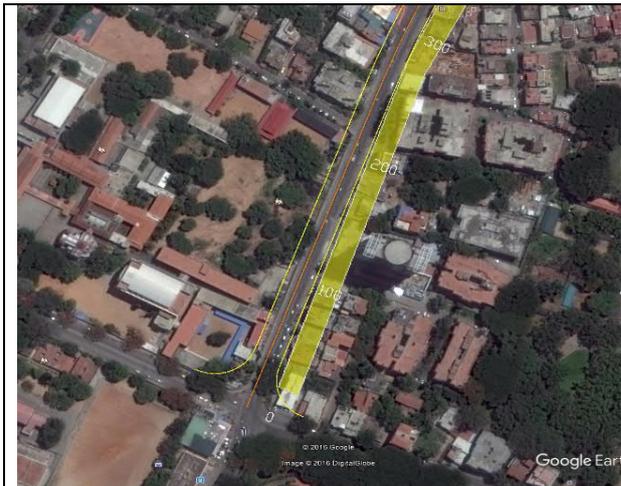


CH: 0+700 to 1+000 \_ General KS Thimayya Road



CH: 2+000 to 2+200 \_ Kensington Road

Air Sensitive Receptors along the proposed Connecting Corridor 3



CH: 0+000 to 0+300 \_ Wheeler Road



CH: 0+300 to 0+500 \_ Wheeler Road

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report



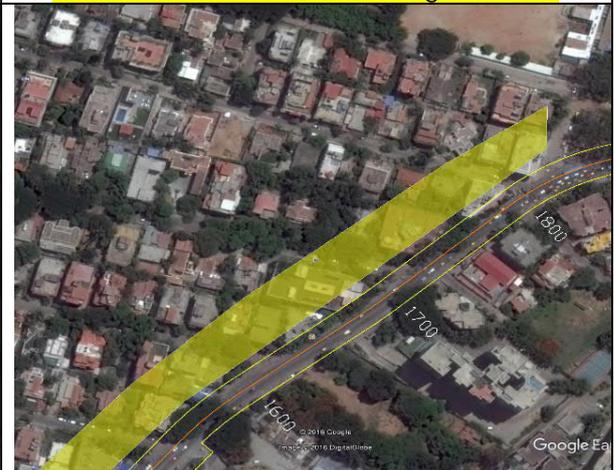
CH: 0+580 to 0+900 \_ Kensington Road



CH: 0+900 to 1+120 \_ Kensington Road



CH: 1+300 to 1+600 \_ Dodda Banswadi Main Road



CH: 1+600 to 1+810 \_ Dodda Banswadi Main Road



CH: 1+990 to 2+240 \_ Dodda Banswadi Main Road



CH: 2+300 to 2+600 \_ Dodda Banswadi Main Road

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report



Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report



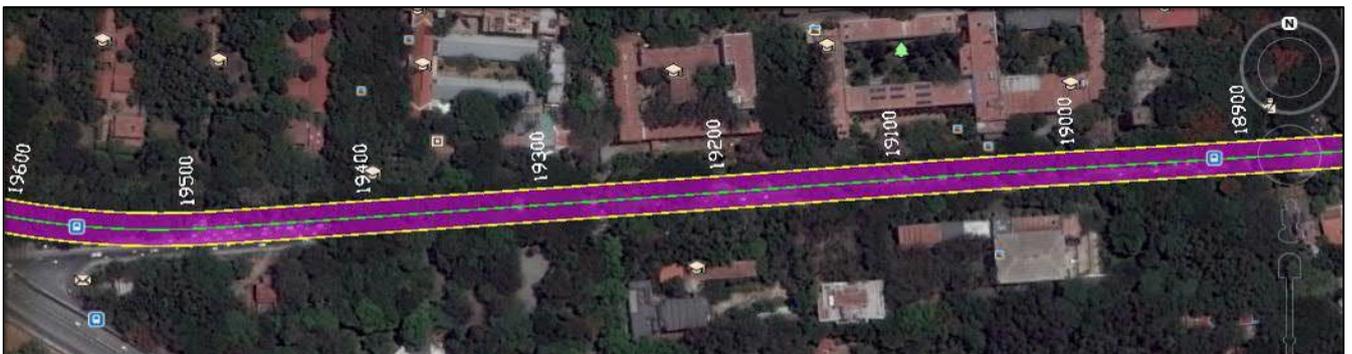
CH: 5+400 to 5+500\_8th Main East Road

ANNEXURE - 3: SENSITIVE WOODED STRUCTURES



Sensitive wooded stretches along the NS & EW2 project corridors

Sensitive wooded stretches from 18+250 to 20+500 – Mekhri Circle to Yeshwanthpur flyover



along the East West - 1 Corridor

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report



Sensitive wooded stretch from 1+600 to 2+700 – Cantonment Railway Station to Mekhri Circle along the North - South Corridor

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

Sensitive wooded stretch from 13+300 to 13+700 at Coles Park along the East-West 1 Corridor



Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

ANNEXURE - 4: NATIONAL STANDARDS FOR AMBIENT AIR, AMBIENT NOISE, WATER, AND SOIL ALONG WITH SAMPLING LOCATIONS TO BE MONITORED

1 Ambient Air Quality Standards (National)

Pollutants	Time-Weighted Average	Concentration in ambient air	
		Industrial, Residential, Rural & other Areas	Ecologically Sensitive Area (Notified by Central Government)
Sulphur Dioxide (SO <sub>2</sub> ) µg/m <sup>3</sup>	Annual Avg.	50	20
	24 Hours**	80	80
Nitrogen Dioxide (NO <sub>2</sub> ) µg/m <sup>3</sup>	Annual*	40	30
	24 Hours**	80	80
Particulate Matter (Size less than 10 µm) or PM <sub>10</sub> µg/m <sup>3</sup>	Annual	60	60
	24 Hours**	100	100
Particulate Matter (Size less than 2.5 µm) or PM <sub>2.5</sub> µg/m <sup>3</sup>	Annual	40	40
	24 Hours**	60	60
Ozone (O <sub>3</sub> ) µg/m <sup>3</sup>	8 Hours**	100	100
	1 Hours**	180	180
Lead (Pb) µg/m <sup>3</sup>	Annual	0.5	0.5
	24 Hours**	1.0	1.0
Carbon Monoxide (CO) mg/m <sup>3</sup>	8 Hours**	2.0	2.0
	1 Hour	4.0	4.0

\* Annual Arithmetic Mean of minimum 104 measurements in a year taken twice a week 24 hourly at uniform interval

\*\* 24 hourly/8 hourly values should be met 98% of the time in a year. However, 2% of the time, it may exceed but not on two consecutive days.

Water quality Standards (IS 10500: 1991)

Sl. No.	SUBSTANCE/ CHARACTERISTIC	DESIRABLE LIMIT	PERMISSIBLE LIMIT	REMARKS
1	COLOUR, HAZEN UNITS, MAX	5	25	Extended to 25 if toxic substance are not suspected in absence of alternate sources
2	ODOUR	Unobjectionable		a) Test cold and when heated b) Test at several dilution
3	TASTE	Agreeable		Test to be conducted only after safety has been established
4	TURBIDITY NTU, Max	5	10	
5	pH value	6.5 to 8.5	No relaxation	
6	TOTAL HARDNESS (as Ca CO <sub>3</sub> mg/lit)	600	600	
7	IRON (as Fe mg/lit,	0.3	1.0	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	SUBSTANCE/ CHARACTERISTIC	DESIRABLE LIMIT	PERMISSIBLE LIMIT	REMARKS
	Max			
8	CHLORIDES (as Cl mg/lit Max	250	1000	
9	RESIDUAL FREE CHLORINE, mg/lit Max	0.2		To be applicable only when water is chlorinated. Treated at consumer end. When protection against viral infection is required, it should be Min 0.5 mg/lit
10	DISSOLVED SOLIDS mg/l, Max	500	2000	
11	CALCIUM (as Ca) mg/l, Max	75	200	
12	COPPER (as Cu) mg/l, Max	0.05	1.5	
13	MANGANESE (Mn) mg/l Max	0.1	0.3	
14	SULPHATE (As SO <sub>4</sub> ), Max	200	400	May be extended up to 400 provided (as Mg) does not exceed 30
15	NITRATE (as No <sub>3</sub> ) mg/l, Max	45	100	
16	FLUORIDE (as F) mg/l, Max	1.0	1.5	
17	PHENOLIC COMPOUNDS (as C <sub>6</sub> H <sub>6</sub> OH) mg/l Max	0.001	0.002	
18	ARSENIC (as As mg/l	0.05	No relaxation	To be tested when pollution is suspected
19	LEAD (as Pb) mg/l	0.05	No relaxation	
20	ANIONIC DETERGENTS (as MBAS) mg/l	0.2	1.0	
21	CHROMIUM (as Cr) mg/l	0.05	1.0	To be tested when pollution is suspected
22	MINERAL OIL mg/l	0.01	0.03	
23	ALKALINITY mg/l	200	600	
24	TOTAL COLIFORM	95% of the sample should not contain coliform in 100 ml. 10 coliform /100 ml		

## National Ambient Noise Standards

Area Code	Category of Area	Limits in dB (A) Leq
-----------	------------------	----------------------

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



**Detailed Feasibility Report**

**VOL-IV Environmental Impact Assessment Report**

		Day Time	Night Time
A	Industrial area	75	70
B	Commercial area	65	55
C	Residential area	55	45
D	Silence area	50	40

Day time shall mean from 6.00 AM to 10.00 PM and Night shall mean from 10.00PM to 6.00 AM silence zone defined as area up to 100m around premises of hospitals, educational institutions and courts. Use of vehicles horns, loud speakers and bursting of crackers are banned in these zones.

The location for air, water, noise and soil quality monitoring stations have been selected depending on the impact of pollutants on sensitive noise sensitive receptors like human habitations adjacent to the corridor alignment, representativeness of the sample; baseline data monitored location, ecologically sensitive locations, etc., Number and frequency of samples to be monitored along the proposed project road are given in the following tables. Cost for monitoring has been estimated and included in the EMP BoQ.

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

ANNEXURE - 5: DETAILS OF TREES TO BE FELLED

NS CORRIDOR

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
1	R0/1	Peepal Tree	Ficus religiosa	120	LHS	Phase 1: Package 1 - Hebbal to Cantonment
2	R0/2	Peepal Tree	Ficus religiosa	60	LHS	
3	R0/3	Jamun Tree	Syzygium cumini	140	RHS	
4	R0/4	Jamun Tree	Syzygium cumini	150	RHS	
5	R0/5	Jamun Tree	Syzygium cumini	180	RHS	
6	R1/1	Rain Tree	Samanea saman	90	RHS	
7	R1/2	West Indian Mahogany	Swietenia mahagoni	190	RHS	
8	R1/3	Copper Pod	Peltophorum pterocarpum	140	RHS	
9	R2/1	Rain Tree	Samanea saman	170	RHS	
10	R2/2	Copper Pod	Peltophorum pterocarpum	150	RHS	
11	R2/3	West Indian Mahogany	Swietenia mahagoni	250	RHS	
12	R2/4	West Indian Mahogany	Swietenia mahagoni	200	RHS	
13	R2/5	Copper Pod	Peltophorum pterocarpum	130	RHS	
14	R2/6	West Indian Mahogany	Swietenia mahagoni	170	RHS	
15	R2/7	Copper Pod	Peltophorum pterocarpum	90	RHS	
16	R2/8	Copper Pod	Peltophorum pterocarpum	140	RHS	
17	R2/9	Copper Pod	Peltophorum pterocarpum	130	RHS	
18	R2/10	West Indian Mahogany	Swietenia mahagoni	180	RHS	
19	R2/11	West Indian Mahogany	Swietenia mahagoni	270	RHS	
20	R2/12	Rain Tree	Samanea saman	340	RHS	
21	R2/13	Rain Tree	Samanea saman	310	RHS	
22	R2/14	Jack Fruit	Artocarpus heterophyllus	170	RHS	
23	R2/15	West Indian Mahogany	Swietenia mahagoni	160	RHS	
24	R2/16	Copper Pod	Peltophorum pterocarpum	140	RHS	
25	R2/17	West Indian Mahogany	Swietenia mahagoni	200	RHS	

10-230

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
26	R2/18	West Indian Mahogany	Swietenia mahagoni	180	RHS	
27	R2/19	Copper Pod	Peltophorum pterocarpum	260	RHS	
28	R2/20	West Indian Mahogany	Swietenia mahagoni	100	RHS	
29	R2/21	Copper Pod	Peltophorum pterocarpum	170	RHS	
30	R2/22	West Indian Mahogany	Swietenia mahagoni	390	RHS	
31	R2/23	West Indian Mahogany	Swietenia mahagoni	300	RHS	
32	R2/24	West Indian Mahogany	Swietenia mahagoni	200	RHS	
33	R2/25	West Indian Mahogany	Swietenia mahagoni	160	RHS	
34	R2/26	West Indian Mahogany	Swietenia mahagoni	280	RHS	
35	R2/27	West Indian Mahogany	Swietenia mahagoni	140	RHS	
36	R2/28	West Indian Mahogany	Swietenia mahagoni	200	RHS	
37	R2/29	West Indian Mahogany	Swietenia mahagoni	180	RHS	
38	R2/30	West Indian Mahogany	Swietenia mahagoni	120	RHS	
39	R2/31	West Indian Mahogany	Swietenia mahagoni	80	RHS	
40	R2/32	West Indian Mahogany	Swietenia mahagoni	290	RHS	
41	R2/33	West Indian Mahogany	Swietenia mahagoni	80	RHS	
42	R2/34	West Indian Mahogany	Swietenia mahagoni	360	RHS	
43	R2/35	Copper Pod	Peltophorum pterocarpum	150	RHS	
44	R2/36	West Indian Mahogany	Swietenia mahagoni	180	RHS	
45	R2/37	West Indian Mahogany	Swietenia mahagoni	360	RHS	
46	R2/38	West Indian Mahogany	Swietenia mahagoni	210	RHS	
47	R2/39	West Indian Mahogany	Swietenia mahagoni	210	RHS	
48	R2/40	Gulmohar Tree	Delonix regia	300	RHS	
49	R2/41	Copper Pod	Peltophorum pterocarpum	160	RHS	
50	R2/42	Copper Pod	Peltophorum pterocarpum	180	RHS	
51	R2/43	Copper Pod	Peltophorum pterocarpum	140	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
52	R2/44	Copper Pod	Peltophorum pterocarpum	140	RHS	
53	R2/45	Copper Pod	Peltophorum pterocarpum	190	RHS	
54	R2/46	Ashoka Tree	Saraca indica	70	RHS	
55	R2/47	Ashoka Tree	Saraca indica	80	RHS	
56	R2/48	Ashoka Tree	Saraca indica	80	RHS	
57	R2/49	Ashoka Tree	Saraca indica	80	RHS	
58	R2/50	Honge	Pongamia pinnata	85	RHS	
59	R2/51	Ashoka Tree	Saraca indica	80	RHS	
60	R2/52	Golden Shower Tree	Cassia fistula	60	RHS	
61	R2/53	Attimara	Ficus racemosa	120	RHS	
62	R2/54	Golden Shower Tree	Cassia fistula	60	RHS	
63	R2/55	Golden Shower Tree	Cassia fistula	60	RHS	
64	R3/1	Golden Shower Tree	Cassia fistula	80	RHS	
65	R3/2	Copper Pod	Peltophorum pterocarpum	230	RHS	
66	R3/3	Gulmohar Tree	Delonix regia	270	RHS	
67	R3/4	Copper Pod	Peltophorum pterocarpum	80	RHS	
68	R3/5	Copper Pod	Peltophorum pterocarpum	200	RHS	
69	R3/6	West Indian Mahogany	Swietenia mahagoni	150	RHS	
70	R3/7	Attimara	Ficus racemosa	130	RHS	
71	R3/8	Mountain Ebony	Bauhinia variegata	90	RHS	
72	R3/9	Golden Shower Tree	Cassia fistula	160	RHS	
73	R3/10	West Indian Mahogany	Swietenia mahagoni	160	RHS	
74	R3/11	Copper Pod	Peltophorum pterocarpum	190	RHS	
75	R3/12	West Indian Mahogany	Swietenia mahagoni	100	RHS	
76	R3/13	Copper Pod	Peltophorum pterocarpum	280	RHS	
77	R3/14	West Indian Mahogany	Swietenia mahagoni	240	RHS	
78	R3/15	Rain Tree	Samanea saman	340	RHS	
79	R3/16	Copper Pod	Peltophorum pterocarpum	140	RHS	
80	R3/17	Copper Pod	Peltophorum pterocarpum	210	RHS	
81	R3/18	Copper Pod	Peltophorum pterocarpum	120	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
82	R3/19	African tuliptree	Spathodea campanulata	300	RHS	
83	R3/20	West Indian Mahogany	Swietenia mahagoni	140	RHS	
84	R3/21	Copper Pod	Peltophorum pterocarpum	150	RHS	
85	R3/22	Portia tree	Thespesia populnea	80	RHS	
86	R3/23	Gulmohar Tree	Delonix regia	150	RHS	
87	R3/24	Copper Pod	Peltophorum pterocarpum	150	RHS	
88	R3/25	Golden Shower Tree	Cassia fistula	280	RHS	
89	R3/26	Copper Pod	Peltophorum pterocarpum	160	RHS	
90	R3/27	Golden Shower Tree	Cassia fistula	260	RHS	
91	R3/28	Caribbean trumpet tree	Tabebuia aurea	150	RHS	
92	R3/29	Rain Tree	Samanea saman	350	RHS	
93	R3/30	Gulmohar Tree	Delonix regia	70	RHS	
94	R4/1	Peepal Tree	Ficus religiosa	370	RHS	
95	R4/2	Rain Tree	Samanea saman	340	RHS	
96	R4/3	Golden Shower Tree	Cassia fistula	260	RHS	
97	R4/4	Copper Pod	Peltophorum pterocarpum	200	RHS	
98	R4/5	Copper Pod	Peltophorum pterocarpum	160	RHS	
99	R4/6	Rain Tree	Samanea saman	320	RHS	
100	R4/7	Gulmohar Tree	Delonix regia	80	RHS	
101	R4/8	Gulmohar Tree	Delonix regia	80	RHS	
102	R4/9	Tamarind	Tamarindus indica	180	RHS	
103	R4/10	Silver Oak	Grevillea robusta	120	RHS	
104	R4/11	Rubber fig	Ficus elastica	110	RHS	
105	R4/12	West Indian Mahogany	Swietenia mahagoni	120	RHS	
106	R4/13	Silver Oak	Grevillea robusta	100	RHS	
107	R4/14	Tamarind	Tamarindus indica	140	RHS	
108	L3/1	Golden Shower Tree	Cassia fistula	80	LHS	
109	L3/2	West Indian Mahogany	Swietenia mahagoni	130	LHS	
110	L3/3	Copper Pod	Peltophorum pterocarpum	150	LHS	
111	L3/4	Peepal Tree	Ficus religiosa	380	LHS	
112	L3/29	Champak	Magnolia	70	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
			chompaca			
113	L3/5	Copper Pod	Peltophorum pterocarpum	120	LHS	
114	L3/6	Golden Shower Tree	Cassia fistula	180	LHS	
115	L3/7	Golden Shower Tree	Cassia fistula	120	LHS	
116	L3/8	Golden Shower Tree	Cassia fistula	130	LHS	
117	L3/9	Golden Shower Tree	Cassia fistula	150	LHS	
118	L3/30	Golden Shower Tree	Cassia fistula	70	LHS	
119	L3/10	Golden Shower Tree	Cassia fistula	160	LHS	
120	L3/11	Golden Shower Tree	Cassia fistula	100	LHS	
121	L3/12	Golden Shower Tree	Cassia fistula	130	LHS	
122	L3/13	Golden Shower Tree	Cassia fistula	160	LHS	
123	L3/14	Golden Shower Tree	Cassia fistula	160	LHS	
124	L3/15	Golden Shower Tree	Cassia fistula	70	LHS	
125	L3/16	Golden Shower Tree	Cassia fistula	160	LHS	
126	L3/17	Copper Pod	Peltophorum pterocarpum	130	LHS	
127	L3/31	Teak	Tectona grandis	70	LHS	
128	L3/32	Silver Oak	Grevillea robusta	120	LHS	
129	L3/18	Golden Shower Tree	Cassia fistula	100	LHS	
130	L3/19	Golden Shower Tree	Cassia fistula	110	LHS	
131	L3/20	Golden Shower Tree	Cassia fistula	90	LHS	
132	L3/21	Golden Shower Tree	Cassia fistula	130	LHS	
133	L3/33	Teak	Tectona grandis	80	LHS	
134	L3/22	Copper Pod	Peltophorum pterocarpum	140	LHS	
135	L3/23	Golden Shower Tree	Cassia fistula	130	LHS	
136	L3/24	Golden Shower Tree	Cassia fistula	100	LHS	
137	L3/34	Golden Shower Tree	Cassia fistula	70	LHS	
138	L3/25	Teak	Tectona grandis	200	LHS	
139	L3/26	Teak	Tectona grandis	90	LHS	
140	L3/27	Teak	Tectona grandis	140	LHS	
141	L3/28	Honge	Pongamia pinnata	120	LHS	
142	L3/35	Teak	Tectona grandis	60	LHS	
143	L3/37	Copper Pod	Peltophorum pterocarpum	60	LHS	
144	L3/38	Rain Tree	Samanea saman	130	LHS	
145	L3/36	Teak	Tectona grandis	50	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
146	L3/39	Golden Shower Tree	Cassia fistula	120	LHS	
147	L3/40	Copper Pod	Peltophorum pterocarpum	70	LHS	
148	L3/41	Copper Pod	Peltophorum pterocarpum	100	LHS	
149	L3/42	Copper Pod	Peltophorum pterocarpum	140	LHS	
150	L3/43	Rubber fig	Ficus elastica	70	LHS	
151	L3/44	Rubber fig	Ficus elastica	110	LHS	
152	L3/45	East Indian walnut	Albizia lebbeck	190	LHS	
153	L3/46	West Indian Mahogany	Swietenia mahagoni	120	LHS	
154	L3/47	Copper Pod	Peltophorum pterocarpum	140	LHS	
155	L3/48	Golden Shower Tree	Cassia fistula	140	LHS	
156	L3/49	West Indian Mahogany	Swietenia mahagoni	60	LHS	
157	L3/50	Copper Pod	Peltophorum pterocarpum	130	LHS	
158	L3/51	Golden Shower Tree	Cassia fistula	180	LHS	
159	L3/52	Rubber fig	Ficus elastica	110	LHS	
160	L3/53	Copper Pod	Peltophorum pterocarpum	130	LHS	
161	L3/54	Jamun Tree	Syzygium cumini	120	LHS	
162	L3/55	Jamun Tree	Syzygium cumini	180	LHS	
163	L3/56	Jamun Tree	Syzygium cumini	140	LHS	
164	L3/57	Copper Pod	Peltophorum pterocarpum	160	LHS	
165	L3/58	Rain Tree	Samanea saman	120	LHS	
166	L3/59	Rubber fig	Ficus elastica	70	LHS	
167	L3/60	Rubber fig	Ficus elastica	110	LHS	
168	L3/61	Rain Tree	Samanea saman	120	LHS	
169	L3/62	Rain Tree	Samanea saman	100	LHS	
170	L3/63	West Indian Mahogany	Swietenia mahagoni	60	LHS	
171	L3/64	Rubber fig	Ficus elastica	170	LHS	
172	L3/65	West Indian Mahogany	Swietenia mahagoni	130	LHS	
173	L3/66	Golden Shower Tree	Cassia fistula	70	LHS	
174	L3/67	Golden Shower Tree	Cassia fistula	120	LHS	
175	L3/68	Copper Pod	Peltophorum pterocarpum	150	LHS	
176	L3/69	Rubber fig	Ficus elastica	70	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
177	L3/70	Rain Tree	Samanea saman	200	LHS	
178	L3/71	Golden Shower Tree	Cassia fistula	190	LHS	
179	L3/72	Golden Shower Tree	Cassia fistula	60	LHS	
180	L3/73	West Indian Mahogany	Swietenia mahagoni	80	LHS	
181	L3/74	Golden Shower Tree	Cassia fistula	80	LHS	
182	L3/75	Golden Shower Tree	Cassia fistula	160	LHS	
183	L3/76	Golden Shower Tree	Cassia fistula	70	LHS	
184	L3/77	Golden Shower Tree	Cassia fistula	170	LHS	
185	L3/78	Subabul	Leucaena leucocephala	150	LHS	
186	L3/79	Rubber fig	Ficus elastica	120	LHS	
187	L3/80	Copper Pod	Peltophorum pterocarpum	170	LHS	
188	L3/81	Copper Pod	Peltophorum pterocarpum	170	LHS	
189	L3/82	Golden Shower Tree	Cassia fistula	170	LHS	
190	L3/83	Copper Pod	Peltophorum pterocarpum	80	LHS	
191	L3/84	Rain Tree	Samanea saman	220	LHS	
192	L3/85	Copper Pod	Peltophorum pterocarpum	110	LHS	
193	L3/86	Rain Tree	Samanea saman	210	LHS	
194	L3/87	Copper Pod	Peltophorum pterocarpum	110	LHS	
195	L3/88	Golden Shower Tree	Cassia fistula	180	LHS	
196	L3/89	Rain Tree	Samanea saman	200	LHS	
197	L3/90	Rain Tree	Samanea saman	140	LHS	
198	L3/91	Tamarind	Tamarindus indica	120	LHS	
199	L3/92	Rain Tree	Samanea saman	100	LHS	
200	L3/93	Tamarind	Tamarindus indica	100	LHS	
201	L3/94	Rain Tree	Samanea saman	130	LHS	
202	L3/95	Copper Pod	Peltophorum pterocarpum	120	LHS	
203	L3/96	Copper Pod	Peltophorum pterocarpum	150	LHS	
204	L3/97	Copper Pod	Peltophorum pterocarpum	110	LHS	
205	L3/98	Golden Shower Tree	Cassia fistula	60	LHS	
206	L3/99	Golden Shower Tree	Cassia fistula	200	LHS	
207	L3/100	Golden Shower Tree	Cassia fistula	90	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
208	L3/101	Jamun Tree	Syzygium cumini	170	LHS	
209	L3/102	Jamun Tree	Syzygium cumini	70	LHS	
210	L3/103	Copper Pod	Peltophorum pterocarpum	160	LHS	
211	L3/104	Rain Tree	Samanea saman	80	LHS	
212	L3/105	Copper Pod	Peltophorum pterocarpum	130	LHS	
213	L3/106	Jamun Tree	Syzygium cumini	110	LHS	
214	L3/107	Jamun Tree	Syzygium cumini	150	LHS	
215	L3/108	Copper Pod	Peltophorum pterocarpum	160	LHS	
216	L3/109	Golden Shower Tree	Cassia fistula	170	LHS	
217	L3/110	Rubber fig	Ficus elastica	100	LHS	
218	L3/111	Rubber fig	Ficus elastica	150	LHS	
219	L3/112	Golden Shower Tree	Cassia fistula	190	LHS	
220	L3/113	Rain Tree	Samanea saman	260	LHS	
221	L3/114	Rubber fig	Ficus elastica	140	LHS	
222	L3/115	Tamarind	Tamarindus indica	140	LHS	
223	L3/116	Gulmohar Tree	Delonix regia	70	LHS	
224	L3/117	Rubber fig	Ficus elastica	170	LHS	
225	L3/118	Copper Pod	Peltophorum pterocarpum	130	LHS	
226	L3/119	Jamun Tree	Syzygium cumini	390	LHS	
227	L3/120	Subabul	Leucaena leucocephala	100	LHS	
228	L3/121	Peepal Tree	Ficus religiosa	350	LHS	
229	L3/122	Rubber fig	Ficus elastica	110	LHS	
230	L3/123	Copper Pod	Peltophorum pterocarpum	110	LHS	
231	L3/124	Copper Pod	Peltophorum pterocarpum	180	LHS	
232	L3/125	Copper Pod	Peltophorum pterocarpum	80	LHS	
233	L3/126	Golden Shower Tree	Cassia fistula	100	LHS	
234	L3/127	West Indian Mahogany	Swietenia mahagoni	80	LHS	
235	L3/128	Golden Shower Tree	Cassia fistula	180	LHS	
236	L3/129	Copper Pod	Peltophorum pterocarpum	150	LHS	
237	L3/130	Attimara	Ficus racemosa	130	LHS	
238	L3/131	Jamun Tree	Syzygium cumini	170	LHS	
239	L3/132	Jamun Tree	Syzygium cumini	130	LHS	

10-237

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
240	L3/133	Golden Shower Tree	Cassia fistula	180	LHS	
241	L3/134	Golden Shower Tree	Cassia fistula	120	LHS	
242	L4/1	Golden Shower Tree	Cassia fistula	210	LHS	
243	L4/2	Copper Pod	Peltophorum pterocarpum	170	LHS	
244	L4/3	Gulmohar Tree	Delonix regia	150	LHS	
245	L4/4	Copper Pod	Peltophorum pterocarpum	150	LHS	
246	L4/5	Rubber fig	Ficus elastica	70	LHS	
247	L4/6	West Indian Mahogany	Swietenia mahagoni	150	LHS	
248	L4/7	Jamun Tree	Syzygium cumini	150	LHS	
249	L4/8	Honge	Pongamia pinnata	140	LHS	
250	L4/9	Copper Pod	Peltophorum pterocarpum	150	LHS	
251	L4/10	Tamarind	Tamarindus indica	140	LHS	
252	L4/11	Honge	Pongamia pinnata	220	LHS	
253	L4/12	Copper Pod	Peltophorum pterocarpum	300	LHS	
254	L4/13	Copper Pod	Peltophorum pterocarpum	150	LHS	
255	L4/14	Honge	Pongamia pinnata	80	LHS	
256	L4/15	Golden Shower Tree	Cassia fistula	200	LHS	
257	L4/16	Golden Shower Tree	Cassia fistula	130	LHS	
258	L4/17	Attimara	Ficus racemosa	160	LHS	
259	L4/18	Copper Pod	Peltophorum pterocarpum	190	LHS	
260	L4/19	Rubber fig	Ficus elastica	200	LHS	
261	R0/1	West Indian Mahogany	Swietenia mahagoni	240	RHS	Hebbal to Cantonment (JayamahaI Road)
262	R0/2	Silver Oak	Grevillea robusta	220	RHS	
263	R0/3	Caribbean trumpet tree	Tabebuia aurea	320	RHS	
264	R0/4	Honge	Pongamia pinnata	100	RHS	
265	R0/5	West Indian Mahogany	Swietenia mahagoni	110	RHS	
266	R0/6	West Indian Mahogany	Swietenia mahagoni	130	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
267	R0/7	Honge	Pongamia pinnata	100	RHS	
268	R0/8	Rain Tree	Samanea saman	160	RHS	
269	R0/9	West Indian Mahogany	Swietenia mahagoni	180	RHS	
270	R0/10	Rain Tree	Samanea saman	140	RHS	
271	R0/11	West Indian Mahogany	Swietenia mahagoni	100	RHS	
272	R0/12	West Indian Mahogany	Swietenia mahagoni	110	RHS	
273	R0/13	West Indian Mahogany	Swietenia mahagoni	130	RHS	
274	R0/14	Mango	Mangifera indica	260	RHS	
275	R0/15	Honge	Pongamia pinnata	180	RHS	
276	R0/16	Jamun Tree	Syzygium cumini	300	RHS	
277	R0/17	West Indian Mahogany	Swietenia mahagoni	210	RHS	
278	R0/18	West Indian Mahogany	Swietenia mahagoni	140	RHS	
279	R0/19	West Indian Mahogany	Swietenia mahagoni	140	RHS	
280	R0/20	Jamun Tree	Syzygium cumini	300	RHS	
281	R0/21	West Indian Mahogany	Swietenia mahagoni	280	RHS	
282	R0/22	West Indian Mahogany	Swietenia mahagoni	90	RHS	
283	R0/23	West Indian Mahogany	Swietenia mahagoni	280	RHS	
284	R0/24	West Indian Mahogany	Swietenia mahagoni	70	RHS	
285	R0/25	West Indian Mahogany	Swietenia mahagoni	100	RHS	
286	R0/26	West Indian Mahogany	Swietenia mahagoni	110	RHS	
287	R0/27	Honge	Pongamia pinnata	120	RHS	
288	R0/28	West Indian Mahogany	Swietenia mahagoni	20	RHS	
289	R0/29	Mountain Ebony	Bauhinia variegata	120	RHS	
290	R0/30	Jamun Tree	Syzygium cumini	280	RHS	
291	R0/31	Mango	Mangifera indica	290	RHS	
292	R0/32	Copper Pod	Peltophorum pterocarpum	180	RHS	
293	R0/33	West Indian Mahogany	Swietenia mahagoni	70	RHS	
294	R0/34	Honge	Pongamia pinnata	120	RHS	

10-239

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
295	R0/35	Jamun Tree	Syzygium cumini	310	RHS	
296	R0/36	West Indian Mahogany	Swietenia mahagoni	110	RHS	
297	R0/37	Copper Pod	Peltophorum pterocarpum	110	RHS	
298	R0/38	West Indian Mahogany	Swietenia mahagoni	140	RHS	
299	R0/39	Honge	Pongamia pinnata	140	RHS	
300	R0/40	Honge	Pongamia pinnata	140	RHS	
301	R0/41	Honge	Pongamia pinnata	160	RHS	
302	R0/42	Rubber fig	Ficus elastica	100	RHS	
303	R0/43	Rubber fig	Ficus elastica	140	RHS	
304	R0/44	Rubber fig	Ficus elastica	140	RHS	
305	R0/45	Copper Pod	Peltophorum pterocarpum	180	RHS	
306	R0/46	Copper Pod	Peltophorum pterocarpum	180	RHS	
307	R0/47	Rubber fig	Ficus elastica	200	RHS	
308	R0/48	West Indian Mahogany	Swietenia mahagoni	160	RHS	
309	R0/49	West Indian Mahogany	Swietenia mahagoni	120	RHS	
310	R0/50	Mango	Mangifera indica	280	RHS	
311	R0/51	Mango	Mangifera indica	360	RHS	
312	R0/52	Rain Tree	Samanea saman	140	RHS	
313	R0/53	Honge	Pongamia pinnata	70	RHS	
314	R0/54	Mango	Mangifera indica	260	RHS	
315	R0/55	West Indian Mahogany	Swietenia mahagoni	70	RHS	
316	R0/56	West Indian Mahogany	Swietenia mahagoni	110	RHS	
317	R0/57	Gulmohar Tree	Delonix regia	210	RHS	
318	R0/58	Rubber fig	Ficus elastica	140	RHS	
319	R0/59	Honge	Pongamia pinnata	120	RHS	
320	R0/60	Mango	Mangifera indica	360	RHS	
321	R0/61	Rubber fig	Ficus elastica	110	RHS	
322	R0/62	Rubber fig	Ficus elastica	70	RHS	
323	R0/63	Rubber fig	Ficus elastica	180	RHS	
324	R0/64	Rubber fig	Ficus elastica	120	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
325	R0/65	Caribbean trumpet tree	Tabebuia aurea	130	RHS	
326	R0/66	Caribbean trumpet tree	Tabebuia aurea	110	RHS	
327	R0/67	Caribbean trumpet tree	Tabebuia aurea	70	RHS	
328	R0/68	West Indian Mahogany	Swietenia mahagoni	70	RHS	
329	R0/69	West Indian Mahogany	Swietenia mahagoni	70	RHS	
330	R0/70	Rubber fig	Ficus elastica	110	RHS	
331	R0/71	Copper Pod	Peltophorum pterocarpum	180	RHS	
332	R0/72	Subabul	Leucaena leucocephala	170	RHS	
333	R0/73	Honge	Pongamia pinnata	90	RHS	
334	R0/74	West Indian Mahogany	Swietenia mahagoni	150	RHS	
335	R0/75	Honge	Pongamia pinnata	110	RHS	
336	R0/76	Subabul	Leucaena leucocephala	200	RHS	
337	R0/77	Honge	Pongamia pinnata	210	RHS	
338	R0/78	West Indian Mahogany	Swietenia mahagoni	200	RHS	
339	R0/79	Mango	Mangifera indica	400	RHS	
340	R0/80	Mullu Byala		210	RHS	
341	R0/81	West Indian Mahogany	Swietenia mahagoni	200	RHS	
342	R0/82	Mango	Mangifera indica	180	RHS	
343	R0/83	West Indian Mahogany	Swietenia mahagoni	240	RHS	
344	R0/84	Rubber fig	Ficus elastica	160	RHS	
345	R0/85	West Indian Mahogany	Swietenia mahagoni	170	RHS	
346	R0/86	Copper Pod	Peltophorum pterocarpum	210	RHS	
347	R0/87	Mango	Mangifera indica	260	RHS	
348	R0/88	Mango	Mangifera indica	400	RHS	
349	R0/89	Ippe	Madhuca indica	210	RHS	
350	R0/90	West Indian Mahogany	Swietenia mahagoni	190	RHS	
351	R0/91	West Indian Mahogany	Swietenia mahagoni	180	RHS	
352	R0/92	Jamun Tree	Syzygium cumini	270	RHS	
353	R0/93	Jamun Tree	Syzygium cumini	180	RHS	
354	R0/94	Tamarind	Tamarindus	200	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
			indica			
355	R0/95	Silver Oak	Grevillea robusta	100	RHS	
356	R0/96	Silver Oak	Grevillea robusta	110	RHS	
357	R0/97	Silver Oak	Grevillea robusta	90	RHS	
358	R0/98	Honge	Pongamia pinnata	70	RHS	
359	R0/99	Silver Oak	Grevillea robusta	50	RHS	
360	R0/100	Silver Oak	Grevillea robusta	80	RHS	
361	R0/101	Silver Oak	Grevillea robusta	90	RHS	
362	R0/102	Silver Oak	Grevillea robusta	100	RHS	
363	R0/103	Silver Oak	Grevillea robusta	90	RHS	
364	R0/104	Silver Oak	Grevillea robusta	70	RHS	
365	R0/105	Mango	Mangifera indica	210	RHS	
366	R0/106	Mango	Mangifera indica	70	RHS	
367	R0/107	Mango	Mangifera indica	70	RHS	
368	R0/108	Mango	Mangifera indica	90	RHS	
369	R0/109	Mango	Mangifera indica	60	RHS	
370	R0/110	Silver Oak	Grevillea robusta	100	RHS	
371	R0/111	Silver Oak	Grevillea robusta	90	RHS	
372	R0/112	Silver Oak	Grevillea robusta	80	RHS	
373	R0/113	Mango	Mangifera indica	200	RHS	
374	R0/114	Silver Oak	Grevillea robusta	100	RHS	
375	R0/115	Silver Oak	Grevillea robusta	100	RHS	
376	R0/116	Rain Tree	Samanea saman	180	RHS	
377	R0/117	Rain Tree	Samanea saman	220	RHS	
378	R0/118	Rubber fig	Ficus elastica	200	RHS	
379	R0/119	Tamarind	Tamarindus indica	260	RHS	
380	R0/120	Silver Oak	Grevillea robusta	200	RHS	
381	R0/121	Rubber fig	Ficus elastica	220	RHS	
382	R0/122	Silver Oak	Grevillea robusta	100	RHS	
383	R0/123	Mango	Mangifera indica	190	RHS	
384	R0/124	Rubber fig	Ficus elastica	180	RHS	
385	R0/125	West Indian Mahogany	Swietenia mahagoni	160	RHS	
386	R0/126	West Indian Mahogany	Swietenia mahagoni	150	RHS	
387	R0/127	Teak	Tectona grandis	100	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
388	R0/128	Rain Tree	Samanea saman	160	RHS	
389	R0/129	Teak	Tectona grandis	100	RHS	
390	R0/130	Mango	Mangifera indica	210	RHS	
391	R0/131	Gulmohar Tree	Delonix regia	200	RHS	
392	R0/132	Copper Pod	Peltophorum pterocarpum	270	RHS	
393	R0/133	Mango	Mangifera indica	210	RHS	
394	R0/134	Gulmohar Tree	Delonix regia	190	RHS	
395	R0/135	Honge	Pongamia pinnata	210	RHS	
396	R0/136	Copper Pod	Peltophorum pterocarpum	200	RHS	
397	R0/137	Mango	Mangifera indica	340	RHS	
398	R0/138	Mango	Mangifera indica	380	RHS	
399	R0/139	Copper Pod	Peltophorum pterocarpum	280	RHS	
400	R0/140	Gulmohar Tree	Delonix regia	200	RHS	
401	R0/141	West Indian Mahogany	Swietenia mahagoni	170	RHS	
402	R0/142	Rain Tree	Samanea saman	180	RHS	
403	R0/143	Rain Tree	Samanea saman	220	RHS	
404	R1/1	Copper Pod	Peltophorum pterocarpum	110	RHS	
405	R1/2	Copper Pod	Peltophorum pterocarpum	180	RHS	
406	R1/3	Gulmohar Tree	Delonix regia	380	RHS	
407	R1/4	Gulmohar Tree	Delonix regia	310	RHS	
408	R1/5	Copper Pod	Peltophorum pterocarpum	240	RHS	
409	R1/6	Peepal Tree	Ficus religiosa	200	RHS	
410	R1/7	Copper Pod	Peltophorum pterocarpum	160	RHS	
411	R1/8	Copper Pod	Peltophorum pterocarpum	170	RHS	
412	R1/9	Gasagase	Muntingia	100	RHS	
413	R1/10	Copper Pod	Peltophorum pterocarpum	160	RHS	
414	R1/11	Gasagase	Muntingia calabura	90	RHS	
415	R1/12	Copper Pod	Peltophorum pterocarpum	160	RHS	
416	R1/13	Rain Tree	Samanea saman	160	RHS	
417	R1/14	Copper Pod	Peltophorum pterocarpum	160	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
418	R1/15	Copper Pod	Peltophorum pterocarpum	130	RHS	
419	R1/16	Copper Pod	Peltophorum pterocarpum	160	RHS	
420	R1/17	Copper Pod	Peltophorum pterocarpum	140	RHS	
421	R2/1	Copper Pod	Peltophorum pterocarpum	180	RHS	
422	R2/2	Ashoka Tree	Saraca indica		RHS	
423	R2/3	Ashoka Tree	Saraca indica		RHS	
424	R2/4	Ashoka Tree	Saraca indica		RHS	
425	R2/5	Ashoka Tree	Saraca indica		RHS	
426	R2/6	Ashoka Tree	Saraca indica		RHS	
427	R2/7	Ashoka Tree	Saraca indica		RHS	
428	R2/8	Ashoka Tree	Saraca indica		RHS	
429	R2/9	Ashoka Tree	Saraca indica		RHS	
430	R2/10	Ashoka Tree	Saraca indica		RHS	
431	R2/11	Ashoka Tree	Saraca indica		RHS	
432	R2/12	Ashoka Tree	Saraca indica		RHS	
433	R2/13	Ashoka Tree	Saraca indica		RHS	
434	R2/14	Ashoka Tree	Saraca indica		RHS	
435	R2/15	Ashoka Tree	Saraca indica		RHS	
436	R2/16	Ashoka Tree	Saraca indica		RHS	
437	R2/17	Ashoka Tree	Saraca indica		RHS	
438	R2/18	Ashoka Tree	Saraca indica		RHS	
439	R2/19	Ashoka Tree	Saraca indica		RHS	
440	R2/20	Ashoka Tree	Saraca indica		RHS	
441	R2/21	Ashoka Tree	Saraca indica		RHS	
442	R2/22	Ashoka Tree	Saraca indica		RHS	
443	R2/23	Ashoka Tree	Saraca indica		RHS	
444	R2/24	Ashoka Tree	Saraca indica		RHS	
445	R2/25	Ashoka Tree	Saraca indica		RHS	
446	R2/26	Ashoka Tree	Saraca indica		RHS	
447	R2/27	Ashoka Tree	Saraca indica		RHS	
448	R2/28	Ashoka Tree	Saraca indica		RHS	
449	R2/29	Ashoka Tree	Saraca indica		RHS	
450	R2/30	Ashoka Tree	Saraca indica		RHS	
451	R2/31	Ashoka Tree	Saraca indica		RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
452	R2/32	Ashoka Tree	Saraca indica		RHS	
453	R2/33	Ashoka Tree	Saraca indica		RHS	
454	R2/34	Ashoka Tree	Saraca indica		RHS	
455	R2/35	Ashoka Tree	Saraca indica		RHS	
456	R2/36	Ashoka Tree	Saraca indica		RHS	
457	R2/37	Ashoka Tree	Saraca indica		RHS	
458	R2/38	Ashoka Tree	Saraca indica		RHS	
459	R2/39	Ashoka Tree	Saraca indica		RHS	
460	R2/40	Ashoka Tree	Saraca indica		RHS	
461	L2/1	Mango	Mangifera indica	450	LHS	Behind TV TOWER trees within Private property
462	L2/2	Attimara	Ficus racemosa		LHS	"
463	L2/3	Silver Oak	Grevillea robusta		LHS	"
464	L2/4	Silver Oak	Grevillea robusta		LHS	"
465	L2/5	African tuliptree	Spathodea companulata		LHS	"
466	L2/6	African tuliptree	Spathodea companulata		LHS	"
467	L2/7	African tuliptree	Spathodea companulata		LHS	"
468	L2/8	Mango	Mangifera indica		LHS	"
469	L2/9	Tamarind	Tamarindus indica		LHS	"
470	L2/10	Tamarind	Tamarindus indica		LHS	"
471	L2/11	Mullu Byala			LHS	"
472	L2/12	Rain Tree	Samanea saman		LHS	"
473	L2/13	Rain Tree	Samanea saman		LHS	"
474	L3/1	Christmas Tree			LHS	"
475	L4/1	Mango	Mangifera indica		LHS	"
476	L4/2	Mango	Mangifera indica		LHS	"
477	L4/3	Mango	Mangifera indica		LHS	"
478	L4/4	Silver Oak	Grevillea robusta		LHS	"
479	L4/5	Silver Oak	Grevillea robusta		LHS	"
480	L4/6	Silver Oak	Grevillea robusta		LHS	"
481	L4/7	Silver Oak	Grevillea robusta		LHS	"
482	L4/8	Silver Oak	Grevillea robusta		LHS	"

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
483	L4/9	Silver Oak	Grevillea robusta		LHS	"
484	L4/10	Silver Oak	Grevillea robusta		LHS	"
485	L4/11	Rain Tree	Samanea saman		LHS	"
486	L4/12	Rain Tree	Samanea saman		LHS	"
487	L4/13	Rain Tree	Samanea saman		LHS	"
488	L4/14	Jamun Tree	Syzygium cumini		LHS	"
489	L4/15	Surgi			LHS	"
490	L4/16	Coconut	Cocus nucifera		LHS	"
491	L4/17	Mango	Mangifera indica		LHS	"
492	L4/18	Surgi			LHS	"
493	L4/19	West Indian Mahogany	Swietenia mahagoni		LHS	"
494	L4/20	Jamun Tree	Syzygium cumini		LHS	"
495	L4/21	Surgi			LHS	"
496	L4/22	West Indian Mahogany	Swietenia mahagoni		LHS	"
497	L4/23	Surgi			LHS	"
498	L4/24	Surgi			LHS	"
499	L5/1	Copper Pod	Peltophorum pterocarpum		LHS	"
500	L5/2	Copper Pod	Peltophorum pterocarpum		LHS	"
501	L5/3	Copper Pod	Peltophorum pterocarpum		LHS	"
502	L5/4	Copper Pod	Peltophorum pterocarpum		LHS	"
503	R2/42	African tuliptree	Spathodea companulata	480	RHS	
504	R2/43	African tuliptree	Spathodea companulata	270	RHS	
505	R2/44	African tuliptree	Spathodea companulata	480	RHS	
506	R2/45	African tuliptree	Spathodea companulata	250	RHS	
507	R2/46	West Indian Mahogany	Swietenia mahagoni	130	RHS	
508	R2/47	West Indian Mahogany	Swietenia mahagoni	220	RHS	
509	R2/48	West Indian Mahogany	Swietenia mahagoni	190	RHS	
510	R2/49	West Indian Mahogany	Swietenia mahagoni	160	RHS	
511	R3/1	Copper Pod	Peltophorum pterocarpum	210	RHS	
512	R3/2	West Indian Mahogany	Swietenia mahagoni	220	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
513	R3/3	Rain Tree	Samanea saman	240	RHS	
514	R3/4	Rain Tree	Samanea saman	130	RHS	
515	R3/5	Rubber fig	Ficus elastica	140	RHS	
516	R3/6	Rubber fig	Ficus elastica	120	RHS	
517	R3/7	Rubber fig	Ficus elastica	200	RHS	
518	R3/8	Coconut	Cocus nucifera	120	RHS	
519	R4/1	Rain Tree	Samanea saman	510	RHS	
520	R4/2	Rain Tree	Samanea saman	510	RHS	
521	R4/3	Rain Tree	Samanea saman	480	RHS	
522	R4/4	Rain Tree	Samanea saman	480	RHS	
523	R4/5	Rain Tree	Samanea saman	400	RHS	
524	R4/6	Rain Tree	Samanea saman	270	RHS	
525	R4/7	Rain Tree	Samanea saman	340	RHS	
526	R4/8	Rain Tree	Samanea saman	340	RHS	
527	R4/9	Rain Tree	Samanea saman	400	RHS	
528	R4/10	Rain Tree	Samanea saman	480	RHS	
529	R4/11	Rain Tree	Samanea saman	270	RHS	
530	R4/12	Rain Tree	Samanea saman	480	RHS	
531	R4/13	Rain Tree	Samanea saman	450	RHS	
532	R4/14	Rain Tree	Samanea saman	430	RHS	
533	R4/15	Rain Tree	Samanea saman	420	RHS	
534	R4/16	Rain Tree	Samanea saman	530	RHS	
535	R4/17	African tuliptree	Spathodea companulata	140	RHS	
536	R4/18	Copper Pod	Peltophorum pterocarpum	240	RHS	
537	R4/19	Ashoka Tree	Saraca indica	100	RHS	
538	R4/20	Copper Pod	Peltophorum pterocarpum	70	RHS	
539	R4/21	Rain Tree	Samanea saman	240	RHS	
540	R4/22	Rain Tree	Samanea saman	320	RHS	
541	R4/23	Copper Pod	Peltophorum pterocarpum	110	RHS	
542	R4/24	Copper Pod	Peltophorum pterocarpum	220	RHS	
543	R4/25	Copper Pod	Peltophorum pterocarpum	150	RHS	
544	R5/1	Rain Tree	Samanea saman	320	RHS	
545	R5/2	Rain Tree	Samanea saman	280	RHS	
546	R5/3	Rain Tree	Samanea saman	250	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
547	R5/4	Rain Tree	Samanea saman	220	RHS	
548	R5/5	Rain Tree	Samanea saman	380	RHS	
549	R5/6	Rain Tree	Samanea saman	310	RHS	
550	R5/7	Rain Tree	Samanea saman	290	RHS	
551	R5/8	Rain Tree	Samanea saman	270	RHS	
552	R5/9	Rain Tree	Samanea saman	300	RHS	
553	R5/10	Rain Tree	Samanea saman	340	RHS	
554	R5/11	Rain Tree	Samanea saman	260	RHS	
555	R5/12	Rain Tree	Samanea saman	350	RHS	
556	R5/13	Rain Tree	Samanea saman	180	RHS	
557	R5/14	Rain Tree	Samanea saman	280	RHS	
558	R5/15	Alemara	Tabebuia aurea	100	RHS	
559	R5/16	Tamarind	Tamarindus indica	400	RHS	
560	R5/17	Peepal Tree	Ficus religiosa	160	RHS	
561	R5/18	Peepal Tree	Ficus religiosa	170	RHS	
562	R5/19	Alemara	Tabebuia aurea	90	RHS	
563	R5/20	Jamun Tree	Syzygium cumini	460	RHS	
564	R5/21	Alemara	Tabebuia aurea	140	RHS	
565	R6/1	Alemara	Tabebuia aurea	100	RHS	
566	R6/2	Copper Pod	Peltophorum pterocarpum	160	RHS	
567	R6/3	Tamarind	Tamarindus indica	360	RHS	
568	R6/4	Peepal Tree	Ficus religiosa	200	RHS	
569	R6/5	Tamarind	Tamarindus indica	280	RHS	
570	R6/6	Kagase		140	RHS	
571	R6/7	Copper Pod	Peltophorum pterocarpum	130	RHS	
572	R6/8	Kagase		80	RHS	
573	R6/9	Tamarind	Tamarindus indica	300	RHS	
574	R6/10	Banyan Tree	Ficus benghalensis	170	RHS	
575	R6/11	Rain Tree	Samanea saman	230	RHS	
576	R6/12	Jamun Tree	Syzygium cumini	100	RHS	
577	R6/13	Alemara	Tabebuia aurea	70	RHS	
578	R6/14	Alemara	Tabebuia aurea	80	RHS	
579	R6/15	Rain Tree	Samanea saman	230	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
580	R6/16	Tamarind	Tamarindus indica	250	RHS	
581	R6/17	Tamarind	Tamarindus indica	310	RHS	
582	R6/18	Tamarind	Tamarindus indica	250	RHS	
583	R6/19	Alemara	Tabebuia aurea	90	RHS	
584	R6/20	Alemara	Tabebuia aurea	80	RHS	
585	R6/21	Alemara	Tabebuia aurea	90	RHS	
586	R6/22	Alemara	Tabebuia aurea	180	RHS	
587	R6/23	Alemara	Tabebuia aurea	90	RHS	
588	R6/24	Alemara	Tabebuia aurea	140	RHS	
589	R7/1	African tuliptree	Spathodea companulata	280	RHS	Package 1 - Phase 4: Vittal Mallya Jn to Minerva Circle
590	R7/2	African tuliptree	Spathodea companulata	110	RHS	
591	R8/1	Ashoka Tree	Saraca indica	90	RHS	
592	R8/2	Ashoka Tree	Saraca indica	90	RHS	
593	R8/3	Ashoka Tree	Saraca indica	90	RHS	
594	R8/4	Ashoka Tree	Saraca indica	90	RHS	
595	R8/5	Ashoka Tree	Saraca indica	90	RHS	
596	R8/6	Ashoka Tree	Saraca indica	90	RHS	
597	R8/7	Ashoka Tree	Saraca indica	90	RHS	
598	R8/8	Ashoka Tree	Saraca indica	90	RHS	
599	R8/9	Ashoka Tree	Saraca indica	90	RHS	
600	R8/10	Ashoka Tree	Saraca indica	90	RHS	
601	R8/11	Ashoka Tree	Saraca indica	90	RHS	
602	R8/12	Ashoka Tree	Saraca indica	90	RHS	
603	R8/13	Ashoka Tree	Saraca indica	90	RHS	
604	R8/14	Ashoka Tree	Saraca indica	90	RHS	
605	R8/15	Ashoka Tree	Saraca indica	90	RHS	
606	R9/1	Rain Tree	Samanea saman	220	RHS	
607	R9/2	Rain Tree	Samanea saman	250	RHS	
608	L9/1	Copper Pod	Peltophorum pterocarpum	210	LHS	
609	L9/2	Copper Pod	Peltophorum pterocarpum	150	LHS	
610	L9/3	Copper Pod	Peltophorum	170	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
			pterocarpum			
611	L9/4	Copper Pod	Peltophorum pterocarpum	130	LHS	
612	L9/5	Copper Pod	Peltophorum pterocarpum	230	LHS	
613	M9/1	Ashoka Tree	Saraca indica	160	Median	
614	M9/2	Ashoka Tree	Saraca indica	160	Median	
615	M9/3	Ashoka Tree	Saraca indica	160	Median	
616	M9/4	Ashoka Tree	Saraca indica	160	Median	
617	M9/5	Ashoka Tree	Saraca indica	160	Median	
618	M9/6	Ashoka Tree	Saraca indica	160	Median	
619	M9/7	Ashoka Tree	Saraca indica	160	Median	
620	M9/8	Ashoka Tree	Saraca indica	130	Median	
621	M9/9	Ashoka Tree	Saraca indica	120	Median	
622	M9/10	Ashoka Tree	Saraca indica	130	Median	
623	M9/11	Ashoka Tree	Saraca indica	120	Median	
624	L9/6	Copper Pod	Peltophorum pterocarpum	260	LHS	
625	L9/7	Copper Pod	Peltophorum pterocarpum	160	LHS	
626	L9/8	Copper Pod	Peltophorum pterocarpum	230	LHS	
627	L9/9	Copper Pod	Peltophorum pterocarpum	190	LHS	
628	M9/12	Ashoka Tree	Saraca indica	100	Median	
629	M9/13	Ashoka Tree	Saraca indica	110	Median	
630	M9/14	Ashoka Tree	Saraca indica	110	Median	
631	M9/15	Ashoka Tree	Saraca indica	110	Median	
632	M9/16	Ashoka Tree	Saraca indica	100	Median	
633	M9/17	Ashoka Tree	Saraca indica	120	Median	
634	M9/18	Ashoka Tree	Saraca indica	130	Median	
635	M9/19	Ashoka Tree	Saraca indica	140	Median	
636	M9/20	Ashoka Tree	Saraca indica	140	Median	
637	M9/21	Ashoka Tree	Saraca indica	190	Median	
638	M9/22	Ashoka Tree	Saraca indica	190	Median	
639	M18/1	Ashoka Tree	Saraca indica	140	Median	
640	M18/2	Copper Pod	Peltophorum pterocarpum	80	Median	
641	M18/3	Ashoka Tree	Saraca indica	50	Median	
642	M18/4	Ashoka Tree	Saraca indica	60	Median	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
643	M18/5	Ashoka Tree	Saraca indica	80	Median	
644	M18/6	Ashoka Tree	Saraca indica	80	Median	
645	M18/7	Ashoka Tree	Saraca indica	90	Median	
646	M18/8	Rubber fig	Ficus elastica	50	Median	
647	M18/9	Ashoka Tree	Saraca indica	90	Median	
648	M18/10	Ashoka Tree	Saraca indica	90	Median	
649	M18/11	Ashoka Tree	Saraca indica	90	Median	
650	M18/12	Ashoka Tree	Saraca indica	90	Median	
651	M18/13	Copper Pod	Peltophorum pterocarpum	70	Median	
652	M18/14	Ashoka Tree	Saraca indica	90	Median	
653	M18/15	Copper Pod	Peltophorum pterocarpum	110	Median	
654	M18/16	Ashoka Tree	Saraca indica	90	Median	
655	M18/17	Ashoka Tree	Saraca indica	90	Median	
656	M18/18	Copper Pod	Peltophorum pterocarpum	190	Median	
657	M18/19	Ashoka Tree	Saraca indica	80	Median	
658	M18/20	Rubber fig	Ficus elastica	140	Median	
659	M18/21	Ashoka Tree	Saraca indica	100	Median	
660	M18/22	Ashoka Tree	Saraca indica	110	Median	
661	M18/23	Ashoka Tree	Saraca indica	140	Median	
662	M18/24	Ashoka Tree	Saraca indica	140	Median	
663	M18/25	Ashoka Tree	Saraca indica	90	Median	
664	M18/26	Ashoka Tree	Saraca indica	130	Median	
665	M18/27	Ashoka Tree	Saraca indica	130	Median	
666	M18/28	Ashoka Tree	Saraca indica	110	Median	
667	M18/29	Ashoka Tree	Saraca indica	150	Median	
668	M18/30	Ashoka Tree	Saraca indica	160	Median	
669	M18/31	Ashoka Tree	Saraca indica	160	Median	
670	M18/32	Ashoka Tree	Saraca indica	140	Median	
671	M18/33	Ashoka Tree	Saraca indica	130	Median	
672	M18/34	Ashoka Tree	Saraca indica	170	Median	
673	M18/35	Ashoka Tree	Saraca indica	130	Median	
674	M18/36	Ashoka Tree	Saraca indica	150	Median	
675	M18/37	Rubber fig	Ficus elastica	50	Median	
676	M18/38	Ashoka Tree	Saraca indica	170	Median	
677	M18/39	Ashoka Tree	Saraca indica	140	Median	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
678	M18/40	Rubber fig	Ficus elastica	80	Median	
679	M18/41	Rubber fig	Ficus elastica	60	Median	
680	M18/42	Ashoka Tree	Saraca indica	150	Median	
681	M18/43	Ashoka Tree	Saraca indica	150	Median	
682	M18/44	Rubber fig	Ficus elastica	80	Median	
683	M18/45	Ashoka Tree	Saraca indica	130	Median	
684	M18/46	Rubber fig	Ficus elastica	50	Median	
685	M18/47	Ashoka Tree	Saraca indica	50	Median	
686	M18/48	Ashoka Tree	Saraca indica	120	Median	
687	M18/49	Rubber fig	Ficus elastica	90	Median	
688	L18/1	Coconut	Cocus nucifera	130	LHS	within Lalbagh Compound
689	L18/2	Coconut	Cocus nucifera	130	LHS	"
690	L18/3	West Indian Mahogany	Swietenia mahagoni	240	LHS	"
691	L18/4	Silver Oak	Grevillea robusta	80	LHS	"
692	L18/5	Silver Oak	Grevillea robusta	110	LHS	"
693	L18/6	Silver Oak	Grevillea robusta	90	LHS	"
694	L18/7	Honge	Pongamia pinnata	90	LHS	"
695	L18/8	West Indian Mahogany	Swietenia mahagoni	240	LHS	"
696	L18/9	Silver Oak	Grevillea robusta	80	LHS	"
697	L18/10	Silver Oak	Grevillea robusta	60	LHS	"
698	L18/11	Silver Oak	Grevillea robusta	100	LHS	"
699	L18/12	Silver Oak	Grevillea robusta	140	LHS	"
700	L18/13	Silver Oak	Grevillea robusta	120	LHS	"
701	L18/14	Silver Oak	Grevillea robusta	60	LHS	"
702	L18/15	Silver Oak	Grevillea robusta	80	LHS	"
703	L18/16	Silver Oak	Grevillea robusta	100	LHS	"
704	L18/17	Subabul	Leucaena leucocephala	340	LHS	"
705	L18/18	Rubber fig	Ficus elastica	100	LHS	"
706	L18/19	Rubber fig	Ficus elastica	120	LHS	"
707	L18/20	Rubber fig	Ficus elastica	120	LHS	"
708	L18/21	Rubber fig	Ficus elastica	140	LHS	"
709	L18/22	Rubber fig	Ficus elastica	120	LHS	"
710	L18/23	Rubber fig	Ficus elastica	130	LHS	"

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
711	L18/24	Rubber fig	Ficus elastica	140	LHS	"
712	L18/25	Rubber fig	Ficus elastica	140	LHS	"
713	L18/26	Rubber fig	Ficus elastica	160	LHS	"
714	L18/27	Rubber fig	Ficus elastica	150	LHS	"
715	L18/28	Rubber fig	Ficus elastica	150	LHS	"
716	L18/29	Rubber fig	Ficus elastica	160	LHS	"
717	L19/1	Peepal Tree	Ficus religiosa	260	LHS	
718	L19/2	Rain Tree	Samanea saman	300	LHS	
719	R0/1	Rain Tree	Samanea saman	130	RHS	Minerva Circle
720	R0/2	Rain Tree	Samanea saman	220	RHS	
721	R0/3	Rain Tree	Samanea saman	90	RHS	
722	R0/4	Rain Tree	Samanea saman	130	RHS	
723	L0/5	Rain Tree	Samanea saman	220	LHS	
724	L0/6	Rain Tree	Samanea saman	290	LHS	
725	L0/7	Copper Pod	Peltophorum pterocarpum	280	LHS	
726	L0/8	Rain Tree	Samanea saman	160	LHS	
727	L0/9	Rain Tree	Samanea saman	390	LHS	
728	L0/10	West Indian Mahogany	Swietenia mahagoni	290	LHS	
729	R0/1	Rain Tree	Samanea saman	90	RHS	
730	R0/2	Rain Tree	Samanea saman	100	RHS	
731	R0/3	West Indian Mahogany	Swietenia mahagoni	80	RHS	
732	R0/4	Honge	Pongamia pinnata	140	RHS	
733	R0/5	Rain Tree	Samanea saman	140	RHS	
734	R0/6	Rain Tree	Samanea saman	90	RHS	
735	L0/11	Rain Tree	Samanea saman	100	LHS	
736	L0/12	Peepal Tree	Ficus religiosa	400	LHS	
737	L1/1	West Indian Mahogany	Swietenia mahagoni	100	LHS	
738	R1/1	West Indian Mahogany	Swietenia mahagoni	80	RHS	Rajarammohan Roy Road
739	L1/1	Rain Tree	Samanea saman	320	LHS	
740	L1/2	Rain Tree	Samanea saman	260	LHS	
741	L1/3	West Indian Mahogany	Swietenia mahagoni	150	LHS	
742	L1/4	Rain Tree	Samanea saman	320	LHS	
743	L1/5	Gulmohar Tree	Delonix regia	280	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
744	L2/1	Peepal Tree	Ficus religiosa	110	LHS	
745	R11/1	Honge	Pongamia pinnata	190	RHS	Audugodi
746	R11/2	Rain Tree	Samanea saman	120	RHS	
747	R11/3	Rain Tree	Samanea saman	230	RHS	
748	R11/4	Rain Tree	Samanea saman	250	RHS	
749	R11/5	Rain Tree	Samanea saman	320	RHS	
750	R11/6	Rain Tree	Samanea saman	80	RHS	
751	R11/7	Rain Tree	Samanea saman	120	RHS	
752	R11/8	Rain Tree	Samanea saman	220	RHS	
753	L11/1	Gulmohar Tree	Delonix regia	150	LHS	
754	L12/1	West Indian Mahogany	Swietenia mahagoni	260	LHS	
755	L12/2	Rain Tree	Samanea saman	360	LHS	
756	L12/3	Rain Tree	Samanea saman	350	LHS	
757	L12/4	Rain Tree	Samanea saman	260	LHS	
758	L12/5	Rain Tree	Samanea saman	300	LHS	
759	R12/1	Tamarind	Tamarindus indica	320	RHS	
760	R13/1	Rain Tree	Samanea saman	120	RHS	Within Indian Institute of Psychology
761	R13/2	Gulmohar Tree	Delonix regia	190	RHS	"
762	R13/3	Copper Pod	Peltophorum pterocarpum	140	RHS	"
763	R13/4	Caribbean trumpet tree	Tabebuia aurea	120	RHS	"
764	R13/5	Rain Tree	Samanea saman	170	RHS	"
765	R13/6	Silver Oak	Grevillea robusta	120	RHS	"
766	R13/7	Silver Oak	Grevillea robusta	120	RHS	Within St. Antony Frirary Church
767	R13/8	Silver Oak	Grevillea robusta	120	RHS	"
768	R13/9	Silver Oak	Grevillea robusta	110	RHS	"
769	R13/10	Silver Oak	Grevillea robusta	120	RHS	"
770	R13/11	Honge	Pongamia pinnata	90	RHS	"
771	R13/12	Silver Oak	Grevillea robusta	100	RHS	"
772	R13/13	Surgi		110	RHS	"
773	R13/14	Silver Oak	Grevillea robusta	100	RHS	"

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
774	R13/15	Surgi		100	RHS	"
775	R13/16	Mullu Seege		140	RHS	"
776	R13/17	Ashoka Tree	Saraca indica	50	RHS	"
777	R13/18	Silver Oak	Grevillea robusta	110	RHS	"
778	R13/19	Silver Oak	Grevillea robusta	110	RHS	"
779	R13/20	African tuliptree	Spathodea companulata	120	RHS	"
780	R13/21	Surgi		150	RHS	"
781	R13/22	Surgi		130	RHS	"
782	R13/23	Sandalwood	Santalum album	80	RHS	"
783	R13/24	Surgi		100	RHS	"
784	R13/25	Surgi		170	RHS	"
785	R13/26	Surgi		140	RHS	"
786	R13/27	Tamarind	Tamarindus indica	120	RHS	"
787	R13/28	Surgi		220	RHS	"
788	R13/29	Surgi		290	RHS	"
789	R13/30	Surgi		220	RHS	"
790	L13/1	Kagase		100	LHS	with in St. John's Medical College Ground
791	L13/2	Kagase		140	LHS	"
792	L13/3	African tuliptree	Spathodea companulata	200	LHS	"
793	L13/4	Kagase		140	LHS	"
794	L13/5	Gulmohar Tree	Delonix regia	130	LHS	"
795	L13/6	African tuliptree	Spathodea companulata	240	LHS	"
796	L13/7	Subabul	Leucaena leucocephala	110	LHS	"
797	L13/8	Gulmohar Tree	Delonix regia	110	LHS	"
798	L13/9	American mahogany	Swietenia mahagoni	100	LHS	"
799	L13/10	Jamun Tree	Syzygium cumini	180	LHS	"
800	L13/11	African tuliptree	Spathodea companulata	190	LHS	"
801	L13/12	African tuliptree	Spathodea companulata	280	LHS	"
802	L13/13	Honge	Pongamia pinnata	50	LHS	"
803	L13/14	Gulmohar Tree	Delonix regia	130	LHS	"

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
804	L13/15	Gulmohar Tree	Delonix regia	100	LHS	"
805	L13/16	Copper Pod	Peltophorum pterocarpum	280	LHS	"
806	L13/17	Copper Pod	Peltophorum pterocarpum	180	LHS	"
807	L13/18	Rain Tree	Samanea saman	220	LHS	"
808	L13/19	Honge	Pongamia pinnata	80	LHS	"
809	L13/20	Copper Pod	Peltophorum pterocarpum	220	LHS	"
810	L13/21	African tuliptree	Spathodea companulata	210	LHS	"
811	L13/22	Kagase		110	LHS	"
812	L13/23	Copper Pod	Peltophorum pterocarpum	140	LHS	"
813	L13/24	Bamboo Culm			LHS	"
814	L13/25	Honge	Pongamia pinnata	140	LHS	"
815	L13/26	Bamboo Culm			LHS	"
816	L13/27	Bamboo Culm			LHS	"
817	L13/28	Nilgiri		160	LHS	"
818	L13/29	Bamboo Culm			LHS	"
819	L13/30	Bamboo Culm			LHS	"
820	L13/31	Mullu Byala		180	LHS	"
821	L13/32	African tuliptree	Spathodea companulata	300	LHS	"
822	L13/33	Mullu Byala		200	LHS	"
823	L0/1	Kapok Silk Cotton	Ceiba pentandra	260	LHS	CC1 : with in Agara Lake Park
824	L0/2	Rain Tree	Samanea saman	80	LHS	"
825	L0/3	Mullu Byala		130	LHS	"
826	L0/4	Kaadjathi Mara		130	LHS	"
827	L0/5	Kapok Silk Cotton	Ceiba pentandra	250	LHS	"
828	L0/6	Kapok Silk Cotton	Ceiba pentandra	120	LHS	"
829	L0/7	Kapok Silk Cotton	Ceiba pentandra	120	LHS	"
830	L0/8	Kapok Silk Cotton	Ceiba pentandra	220	LHS	"
831	L0/9	Kapok Silk Cotton	Ceiba pentandra	150	LHS	"
832	L0/10	Kapok Silk Cotton	Ceiba pentandra	250	LHS	"
833	L0/11	Kapok Silk Cotton	Ceiba pentandra	200	LHS	"
834	L0/12	Kapok Silk Cotton	Ceiba pentandra	100	LHS	"

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
835	L0/13	Kapok Silk Cotton	Ceiba pentandra	110	LHS	"
836	L0/14	Kapok Silk Cotton	Ceiba pentandra	200	LHS	"
837	L0/15	Kapok Silk Cotton	Ceiba pentandra	200	LHS	"
838	L0/16	Kapok Silk Cotton	Ceiba pentandra	220	LHS	"
839	L0/17	Kapok Silk Cotton	Ceiba pentandra	150	LHS	"
840	L0/18	Kapok Silk Cotton	Ceiba pentandra	80	LHS	"
841	L0/19	Kapok Silk Cotton	Ceiba pentandra	180	LHS	"
842	L0/20	Kapok Silk Cotton	Ceiba pentandra	200	LHS	"
843	L0/21	Kapok Silk Cotton	Ceiba pentandra	90	LHS	"
844	L0/22	Kapok Silk Cotton	Ceiba pentandra	240	LHS	"
845	L0/23	Kapok Silk Cotton	Ceiba pentandra	200	LHS	"
846	L0/24	Kapok Silk Cotton	Ceiba pentandra	230	LHS	"
847	L0/25	Kaadjathi Mara		150	LHS	"
848	L0/26	Kaadjathi Mara		150	LHS	"
849	L0/27	Banyan Tree	Ficus benghalensis	260	LHS	"
850	L0/28	Banyan Tree	Ficus benghalensis	220	LHS	"
851	L0/29	Banyan Tree	Ficus benghalensis	220	LHS	"
852	R0/1	Banyan Tree	Ficus benghalensis	500	LHS	
853	L0/30	Banyan Tree	Ficus benghalensis	180	LHS	Within Agara Lake Park
854	L0/31	Honge	Pongamia pinnata	60	LHS	"
855	L0/32	Honge	Pongamia pinnata	190	LHS	"
856	L0/33	Honge	Pongamia pinnata	190	LHS	"
857	L0/34	Honge	Pongamia pinnata	230	LHS	"
858	L0/35	Honge	Pongamia pinnata	210	LHS	"
859	L0/36	Honge	Pongamia pinnata	190	LHS	"
860	L0/37	Honge	Pongamia pinnata	160	LHS	"
861	L0/38	Honge	Pongamia pinnata	110	LHS	"
862	L0/39	Honge	Pongamia pinnata	170	LHS	"
863	L0/40	Copper Pod	Peltophorum pterocarpum	190	LHS	"

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
864	L0/41	Honge	Pongamia pinnata	180	LHS	"
865	L0/42	Honge	Pongamia pinnata	210	LHS	"
866	L0/43	Copper Pod	Peltophorum pterocarpum	160	LHS	"
867	L0/44	Copper Pod	Peltophorum pterocarpum	180	LHS	"
868	L1/1	Copper Pod	Peltophorum pterocarpum	190	LHS	
869	L1/2	Copper Pod	Peltophorum pterocarpum	280	LHS	
870	L1/3	Copper Pod	Peltophorum pterocarpum	130	LHS	
871	L1/4	Copper Pod	Peltophorum pterocarpum	150	LHS	
872	L1/5	Kaadjathi Mara		170	LHS	
873	L1/6	African tuliptree	Spathodea companulata	200	LHS	
874	R1/1	African tuliptree	Spathodea companulata	150	LHS	
875	L1/7	Indian Almond	Terminalia catappa	160	LHS	
876	R2/1	Copper Pod	Peltophorum pterocarpum	220	RHS	
877	R2/2	Copper Pod	Peltophorum pterocarpum	220	RHS	
878	R2/3	Honge	Pongamia pinnata	130	RHS	
879	R2/4	American mahogany	Swietenia mahagoni	110	RHS	
880	R2/5	American mahogany	Swietenia mahagoni	210	RHS	
881	R2/6	American mahogany	Swietenia mahagoni	180	RHS	
882	R2/7	American mahogany	Swietenia mahagoni	150	RHS	
883	R2/8	Honge	Pongamia pinnata	280	RHS	
884	L2/1	Champak	Magnolia champaca	100	LHS	
885	L2/2	Champak	Magnolia champaca	100	LHS	
886	L2/3	African tuliptree	Spathodea companulata	380	LHS	
887	L2/4	African tuliptree	Spathodea companulata	360	LHS	
888	L2/5	Rain Tree	Samanea saman	380	LHS	
889	L2/6	Mutthugada mara		110	LHS	
890	L2/7	Hulbe		200	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
891	L2/8	Hulbe		280	LHS	
892	L2/9	Mountain Ebony	Bauhinia variegata	160	LHS	
893	L2/10	Mountain Ebony	Bauhinia variegata	160	LHS	
894	L2/11	Banyan Tree	Ficus benghalensis	130	LHS	
895	L2/12	Banyan Tree	Ficus benghalensis	160	LHS	
896	L2/13	American mahogany	Swietenia mahagoni	80	LHS	
897	L3/1	Portia tree	Thespesia populnea	100	LHS	
898	L3/2	Portia tree	Thespesia populnea	80	LHS	
899	L3/3	Mullu Byala		90	LHS	
900	L3/4	Portia tree	Thespesia populnea	100	LHS	
901	L3/5	Mountain Ebony	Bauhinia variegata	110	LHS	
902	L3/6	Mountain Ebony	Bauhinia variegata	100	LHS	
903	L3/7	Portia tree	Thespesia populnea	70	LHS	
904	L3/8	Mountain Ebony	Bauhinia variegata	110	LHS	
905	L3/9	Portia tree	Thespesia populnea	100	LHS	
906	L3/10	Portia tree	Thespesia populnea	50	LHS	
907	L3/11	Portia tree	Thespesia populnea	50	LHS	
908	L3/12	American mahogany	Swietenia mahagoni	80	LHS	
909	L3/13	Banyan Tree	Ficus benghalensis	140	LHS	
910	L3/14	Banyan Tree	Ficus benghalensis	120	LHS	
911	L3/15	Banyan Tree	Ficus benghalensis	140	LHS	
912	L3/16	Banyan Tree	Ficus benghalensis	140	LHS	
913	L3/17	Banyan Tree	Ficus benghalensis	120	LHS	
914	R0/1	Mango	Mangifera indica	140	RHS	Cantonment Railway Road
915	R0/2	Mango	Mangifera indica	130	RHS	
916	R0/3	American mahogany	Swietenia mahagoni	110	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of Tree (in Cm)	LHS /RHS	Remarks
917	R0/4	American mahogany	Swietenia mahagoni	110	RHS	
918	R0/5	Mango	Mangifera indica	250	RHS	
919	L0/1	Mango	Mangifera indica	80	LHS	
920	L0/2	Rubber fig	Ficus elastica	100	LHS	
921	L0/3	Rubber fig	Ficus elastica	80	LHS	
922	L0/4	Rubber fig	Ficus elastica	70	LHS	
923	L0/5	Rubber fig	Ficus elastica	80	LHS	
924	L0/6	Rubber fig	Ficus elastica	90	LHS	
925	L0/7	Rubber fig	Ficus elastica	80	LHS	
926	L0/8	Rubber fig	Ficus elastica	80	LHS	
927	L0/9	Rubber fig	Ficus elastica	90	LHS	
928	L0/10	Belada mara	Aegle marmelos	140	LHS	
929	L0/11	Subabul	Leucaena leucocephala	110	LHS	
930	L0/12	Tamarind	Tamarindus indica	120	LHS	
931	L0/13	Belada mara	Aegle marmelos	130	LHS	
932	L0/14	Coconut	Cocus nucifera	90	LHS	
933	L0/15	Silver Oak	Grevillea robusta	150	LHS	
934	L0/16	Coconut	Cocus nucifera	80	LHS	
935	L0/17	Coconut	Cocus nucifera	90	LHS	
936	L0/18	Subabul	Leucaena leucocephala	110	LHS	
937	L0/19	Mango	Mangifera indica	120	LHS	
938	L0/20	Silver Oak	Grevillea robusta	150	LHS	
939	L0/21	Silver Oak	Grevillea robusta	160	LHS	
940	L0/22	Jamun Tree	Syzygium cumini	220	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

East West CORRIDOR 1

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
1	M7/1	Nilgiri	Eucalyptus	60	Median	EW1 : Package 1 : Phase 2 - Gopalan Mall to Ulsoor Lake
2	M7/2	Rain Tree	Samanea saman	90	Median	
3	M8/1	Jamun	Syzygium cumini	90	Median	
4	L8/1	Copper Pod	Peltophorum pterocarpum	120	LHS	
5	L8/2	Copper Pod	Peltophorum pterocarpum	200	LHS	
6	L8/3	Moutain ebony	Bauhinia variegata	90	LHS	
7	L8/4	Copper Pod	Peltophorum pterocarpum	160	LHS	
8	L8/5	Copper Pod	Peltophorum pterocarpum	170	LHS	
9	L8/6	Copper Pod	Peltophorum pterocarpum	190	LHS	
10	L8/7	Copper Pod	Peltophorum pterocarpum	150	LHS	
11	L8/8	Copper Pod	Peltophorum pterocarpum	210	LHS	
12	L8/9	Copper Pod	Peltophorum pterocarpum	170	LHS	
13	L8/10	Copper Pod	Peltophorum pterocarpum	200	LHS	
14	L9/1	Portia tree	Thespesia populnea	90	LHS	
15	L9/2	Copper Pod	Peltophorum pterocarpum	260	LHS	
16	L9/3	Copper Pod	Peltophorum pterocarpum	300	LHS	
17	L9/4	Copper Pod	Peltophorum pterocarpum	210	LHS	
18	L9/5	Copper Pod	Peltophorum pterocarpum	230	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
19	L9/6	American mahogany	Swietenia mahagoni	140	LHS	
20	L9/7	Rain Tree	Samanea saman	220	LHS	
21	L9/8	Moutain ebony	Bauhinia variegata	90	LHS	
22	L9/9	American mahogany	Swietenia mahagoni	90	LHS	
23	L9/10	American mahogany	Swietenia mahagoni	90	LHS	
24	L9/11	American mahogany	Swietenia mahagoni	90	LHS	
25	L9/12	Caribbean trumpet tree	Tabebuia aurea	60	LHS	
26	L9/13	American mahogany	Swietenia mahagoni	120	LHS	
27	L9/14	American mahogany	Swietenia mahagoni	120	LHS	
28	R9/1	Banyan Tree	Ficus benghalensis	390	RHS	
29	R9/2	American mahogany	Swietenia mahagoni	120	RHS	
30	R9/3	Badminton Ball Tree	Parkia biglandulosa	180	RHS	
31	R9/4	Copper Pod	Peltophorum pterocarpum	160	RHS	
32	R9/5	Copper Pod	Peltophorum pterocarpum	470	RHS	
33	R9/6	Copper Pod	Peltophorum pterocarpum	380	RHS	
34	R9/7	Copper Pod	Peltophorum pterocarpum	80	RHS	
35	R9/8	American mahogany	Swietenia mahagoni	220	RHS	
36	R9/9	Bannimara	Prosopis cineraria	280	RHS	
37	R9/10	Moutain ebony	Bauhinia variegata	110	RHS	
38	R9/11	American mahogany	Swietenia mahagoni	140	RHS	
39	R9/12	Moutain ebony	Bauhinia variegata	130	RHS	
40	R9/13	American mahogany	Swietenia mahagoni	150	RHS	
41	R9/14	American mahogany	Swietenia mahagoni	110	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
42	R9/15	Copper Pod	Peltophorum pterocarpum	210	RHS	
43	R9/16	American mahogany	Swietenia mahagoni	140	RHS	
44	R9/17	American mahogany	Swietenia mahagoni	120	RHS	
45	R9/18	American mahogany	Swietenia mahagoni	180	RHS	
46	L9/15	Rain Tree	Samanea saman	220	LHS	
47	L9/16	Rain Tree	Samanea saman	260	LHS	
48	L9/17	Badminton Ball Tree	Parkia biglandulosa	170	LHS	
49	L9/18	Portia tree	Thespesia populnea	100	LHS	
50	L9/19	Rain Tree	Samanea saman	290	LHS	
51	L9/20	Portia tree	Thespesia populnea	50	LHS	
52	L9/21	Rain Tree	Samanea saman	300	LHS	
53	L9/22	Rain Tree	Samanea saman	240	LHS	
54	L9/23	Rain Tree	Samanea saman	240	LHS	
55	L9/24	Rain Tree	Samanea saman	250	LHS	
56	L9/25	Rain Tree	Samanea saman	180	LHS	
57	L9/26	Rain Tree	Samanea saman	250	LHS	
58	L10/1	Beete	Rosewood	150	LHS	
59	L10/2	American mahogany	Swietenia mahagoni	200	LHS	
60	L10/3	Moutain ebony	Bauhinia variegata	100	LHS	
61	L10/4	Copper Pod	Peltophorum pterocarpum	240	LHS	
62	L10/5	Copper Pod	Peltophorum pterocarpum	210	LHS	
63	L10/6	American mahogany	Swietenia mahagoni	180	LHS	
64	L10/7	Copper Pod	Peltophorum pterocarpum	160	LHS	
65	L10/8	Moutain ebony	Bauhinia variegata	70	LHS	
66	L10/9	American mahogany	Swietenia mahagoni	90	LHS	
67	L10/10	Moutain ebony	Bauhinia variegata	110	LHS	
68	L10/11	Badminton Ball Tree	Parkia biglandulosa	140	LHS	
69	L10/12	Tamarind	Tamarindus indica	300	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
70	L10/13	Rain Tree	Samanea saman	320	LHS	Within Graveyard
71	L10/14	Rain Tree	Samanea saman	220	LHS	
72	L10/15	Rain Tree	Samanea saman	320	LHS	
73	L10/16	Rain Tree	Samanea saman	210	LHS	
74	L10/17	Rain Tree	Samanea saman	400	LHS	
75	L10/18	Badminton Ball Tree	Parkia biglandulosa	170	LHS	
76	R10/1	Rain Tree	Samanea saman	240	RHS	Within Defence land
77	R10/2	Rain Tree	Samanea saman	260	RHS	
78	M10/1	Rain Tree	Samanea saman	70	Median	
79	L10/19	Moutain ebony	Bauhinia variegata	130	LHS	
80	M11/1	Royal Palm	Roystonea regia	170	Median	Phase 2: PKG 2 Ulsoor Lake to Millers Road
81	M11/2	Royal Palm	Roystonea regia	130	Median	
82	M11/3	Royal Palm	Roystonea regia	270	Median	
83	M11/4	Royal Palm	Roystonea regia	270	Median	
84	M11/5	Royal Palm	Roystonea regia	270	Median	
85	M11/6	Royal Palm	Roystonea regia	270	Median	
86	M11/7	Royal Palm	Roystonea regia	270	Median	
87	M11/8	Royal Palm	Roystonea regia	270	Median	
88	M11/9	Royal Palm	Roystonea regia	270	Median	
89	M11/10	Royal Palm	Roystonea regia	270	Median	
90	M11/11	Royal Palm	Roystonea regia	270	Median	
91	R11/1	Moutain ebony	Bauhinia variegata	120	RHS	
92	R11/2	Champak	Magnolia champaca	100	RHS	
93	R11/3	African tuliptree	Spathodea campanulata	120	RHS	
94	R11/4	Peepal Tree	Ficus Religiosa	220	RHS	
95	R11/5	Ashoka Tree	Saraca indica	120	RHS	
96	R11/6	Ashoka Tree	Saraca indica	100	RHS	
97	R11/7	Ashoka Tree	Saraca indica	100	RHS	
98	R11/8	Ashoka Tree	Saraca indica	80	RHS	
99	R11/9	Ashoka Tree	Saraca indica	80	RHS	
100	R11/10	Ashoka Tree	Saraca indica	60	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
101	R11/11	Ashoka Tree	Saraca indica	80	RHS	
102	L11/1	Peepal Tree	Ficus Religiosa	250	LHS	Within Ulsoor Lake Park
103	L11/2	Rain Tree	Samanea saman	400	LHS	"
104	L11/3	Jamun Tree	Syzygium cumini	230	LHS	"
105	L11/4	Jamun Tree	Syzygium cumini	290	LHS	"
106	L11/5	Jamun Tree	Syzygium cumini	250	LHS	"
107	L11/6	Gulmohar Tree	Delonix Regia	190	LHS	
108	L11/7	Ashoka Tree	Saraca indica	120	LHS	
109	R11/12	Silver Oak	Grevillea robusta Cunn	200	RHS	
110	R11/13	Tamarind	Tamarindus indica	160	RHS	
111	R11/14	Honge	Pongamia Pinnata	60	RHS	
112	R11/15	Peepal Tree	Ficus Religiosa	120	RHS	
113	R11/16	Attimara	Ficus Racemosa	140	RHS	
114	R11/17	Silver Oak	Grevillea robusta Cunn	160	RHS	
115	R11/18	Royal Palm	Roystonea regia	120	RHS	
116	R11/19	Silver Oak	Grevillea robusta Cunn	180	RHS	within Indian Red Cross Society
117	R11/20	Silver Oak	Grevillea robusta Cunn	180	RHS	"
118	R11/21	Mango	Mangifera Indica	70	RHS	"
119	R11/22	Silver Oak	Grevillea robusta Cunn	180	RHS	"
120	R11/23	Honge	Pongamia Pinnata	140	RHS	"
121	R11/24	Silver Oak	Grevillea robusta Cunn	160	RHS	"
122	R11/25	Silver Oak	Grevillea robusta Cunn	160	RHS	"
123	R11/26	Silver Oak	Grevillea robusta Cunn	180	RHS	"
124	R11/27	Silver Oak	Grevillea robusta Cunn	190	RHS	"
125	R11/28	Mango	Mangifera Indica	120	RHS	"
126	L11/8	Ashoka Tree	Saraca indica	160	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
127	R11/29	Silver Oak	Grevillea robusta Cunn	160	RHS	within Indian Red Cross Society
128	R11/30	Silver Oak	Grevillea robusta Cunn	180	RHS	"
129	R11/31	Silver Oak	Grevillea robusta Cunn	220	RHS	"
130	R11/32	Silver Oak	Grevillea robusta Cunn	200	RHS	"
131	L11/9	Mullu Byala		280	LHS	
132	R11/33	Honge	Pongamia Pinnata	130	RHS	
133	R11/34	Silver Oak	Grevillea robusta Cunn	190	RHS	
134	R11/35	Silver Oak	Grevillea robusta Cunn	200	RHS	
135	R11/36	Silver Oak	Grevillea robusta Cunn	160	RHS	
136	R11/37	Silver Oak	Grevillea robusta Cunn	170	RHS	
137	R11/38	Silver Oak	Grevillea robusta Cunn	190	RHS	
138	R11/39	Silver Oak	Grevillea robusta Cunn	200	RHS	
139	L11/10	Moutain ebony	Bauhinia variegata	180	LHS	
140	R11/40	Tamarind	Tamarindus indica	240	RHS	within Indian Red Cross Society
141	R11/41	Silver Oak	Grevillea robusta Cunn	200	RHS	"
142	L11/11	American mahogany	Swietenia mahagoni	130	LHS	Bosch Apartments
143	R11/42	Mango	Mangifera Indica	100	RHS	"
144	L11/12	Honge	Pongamia Pinnata	240	LHS	With in Ulsoor Lake Park
145	L11/13	Honge	Pongamia Pinnata	500	LHS	"
146	L11/14	Honge	Pongamia Pinnata	600	LHS	"
147	L11/15	Honge	Pongamia Pinnata	600	LHS	"
148	L11/16	Honge	Pongamia Pinnata	400	LHS	"

10-266

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
149	L11/17	Honge	Pongamia Pinnata	500	LHS	"
150	L11/18	Jamun Tree	Syzygium cumini	300	LHS	"
151	L11/19	Royal Palm	Roystonea regia	160	LHS	"
152	L11/20	Royal Palm	Roystonea regia	160	LHS	"
153	L11/21	Royal Palm	Roystonea regia	160	LHS	"
154	L11/22	Royal Palm	Roystonea regia	160	LHS	"
155	L11/23	Royal Palm	Roystonea regia	160	LHS	"
156	L11/24	Royal Palm	Roystonea regia	160	LHS	"
157	L11/25	Royal Palm	Roystonea regia	160	LHS	"
158	L11/26	Royal Palm	Roystonea regia	160	LHS	"
159	L11/27	Royal Palm	Roystonea regia	160	LHS	"
160	L11/28	Royal Palm	Roystonea regia	160	LHS	"
161	L11/29	Royal Palm	Roystonea regia	160	LHS	"
162	L11/30	Royal Palm	Roystonea regia	160	LHS	"
163	L11/31	Royal Palm	Roystonea regia	160	LHS	"
164	L11/32	Ashoka Tree	Saraca indica	80	LHS	"
165	L11/33	Ashoka Tree	Saraca indica	80	LHS	"
166	L11/34	Ashoka Tree	Saraca indica	80	LHS	"
167	L11/35	Ashoka Tree	Saraca indica	80	LHS	"
168	L11/36	Ashoka Tree	Saraca indica	80	LHS	"
169	L11/37	Ashoka Tree	Saraca indica	80	LHS	"
170	L11/38	Ashoka Tree	Saraca indica	80	LHS	"
171	L11/39	Ashoka Tree	Saraca indica	80	LHS	"
172	L11/40	Ashoka Tree	Saraca indica	80	LHS	"
173	L11/41	Ashoka Tree	Saraca indica	80	LHS	"
174	L11/42	Ashoka Tree	Saraca indica	80	LHS	"
175	L11/43	Ashoka Tree	Saraca indica	80	LHS	"
176	L11/44	Ashoka Tree	Saraca indica	80	LHS	"
177	L11/45	Ashoka Tree	Saraca indica	80	LHS	"
178	L11/46	Ashoka Tree	Saraca indica	80	LHS	"
179	L11/47	Ashoka Tree	Saraca indica	80	LHS	"
180	L11/48	Ashoka Tree	Saraca indica	80	LHS	"
181	L11/49	Ashoka Tree	Saraca indica	80	LHS	"
182	L11/50	Ashoka Tree	Saraca indica	80	LHS	"
183	L11/51	Ashoka Tree	Saraca indica	80	LHS	"
184	L11/52	Ashoka Tree	Saraca indica	80	LHS	"
185	L11/53	Ashoka Tree	Saraca indica	80	LHS	"
186	L11/54	Ashoka Tree	Saraca indica	80	LHS	"

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
187	L11/55	Ashoka Tree	Saraca indica	80	LHS	"
188	L11/56	Ashoka Tree	Saraca indica	80	LHS	"
189	L11/57	Ashoka Tree	Saraca indica	80	LHS	"
190	L11/58	Ashoka Tree	Saraca indica	80	LHS	"
191	L11/59	Ashoka Tree	Saraca indica	80	LHS	"
192	L11/60	Ashoka Tree	Saraca indica	80	LHS	"
193	L11/61	Ashoka Tree	Saraca indica	80	LHS	"
194	L11/62	Ashoka Tree	Saraca indica	80	LHS	"
195	L11/63	Ashoka Tree	Saraca indica	80	LHS	"
196	L11/64	Ashoka Tree	Saraca indica	80	LHS	"
197	L11/65	Ashoka Tree	Saraca indica	80	LHS	"
198	L11/66	Ashoka Tree	Saraca indica	80	LHS	"
199	L11/67	Ashoka Tree	Saraca indica	70	LHS	"
200	L11/68	Cassia		100	LHS	"
201	L11/69	Cassia		100	LHS	"
202	L11/70	Cassia		80	LHS	"
203	L11/71	Cassia		80	LHS	"
204	L11/72	Cassia		80	LHS	"
205	L11/73	Cassia		80	LHS	"
206	L11/74	Copper Pod	Peltophorum pterocarpum	120	LHS	"
207	L11/75	Cassia		100	LHS	"
208	L11/76	Cassia		140	LHS	"
209	L11/77	Subabul	Leucaena leucocephala	100	LHS	"
210	L11/78	Cassia		180	LHS	"
211	L11/79	Cassia		180	LHS	"
212	L11/80	Cassia		110	LHS	"
213	L11/81	African tuliptree	Spathodea campanulata	80	LHS	"
214	L12/1	American mahogany	Swietenia mahagoni	90	LHS	
215	L12/2	Rain Tree	Samanea saman	220	LHS	
216	L12/3	American mahogany	Swietenia mahagoni	180	LHS	
217	L12/4	Moutain ebony	Bauhinia variegata	160	LHS	
218	L12/5	Coconut	Cocos Nucifera	110	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
219	L12/6	American mahogany	Swietenia mahagoni	170	LHS	
220	L12/7	Coconut	Cocus Nucifera	110	LHS	
221	L12/8	Coconut	Cocus Nucifera	100	LHS	
222	L12/9	Gulmohar Tree	Delonix Regia	280	LHS	
223	L12/10	American mahogany	Swietenia mahagoni	170	LHS	
224	L12/11	American mahogany	Swietenia mahagoni	140	LHS	
225	L12/12	American mahogany	Swietenia mahagoni	100	LHS	
226	L12/13	Coconut	Cocus Nucifera	100	LHS	
227	L12/14	Cassia		230	LHS	
228	L12/15	American mahogany	Swietenia mahagoni	170	LHS	
229	L12/16	American mahogany	Swietenia mahagoni	140	LHS	
230	L12/17	Coconut	Cocus Nucifera	100	LHS	
231	L12/18	American mahogany	Swietenia mahagoni	130	LHS	
232	R12/1	Rain Tree	Samanea saman	500	RHS	
233	R12/2	Rain Tree	Samanea saman	470	RHS	
234	R12/3	Rain Tree	Samanea saman	410	RHS	
235	R12/4	Rain Tree	Samanea saman	590	RHS	
236	R12/5	Rain Tree	Samanea saman	580	RHS	
237	R12/6	Rain Tree	Samanea saman	590	RHS	
238	R12/7	Rain Tree	Samanea saman	360	RHS	
239	R12/8	Rain Tree	Samanea saman	530	RHS	
240	R12/9	Gulmohar Tree	Delonix Regia	200	RHS	
241	L12/19	Rain Tree	Samanea saman	80	LHS	
242	L12/20	Rain Tree	Samanea saman	100	LHS	
243	L12/21	Rain Tree	Samanea saman	90	LHS	
244	L12/22	Beete	Rosewood	140	LHS	
245	L12/23	Ashoka Tree	Saraca indica	100	LHS	
246	L12/24	Beete	Rosewood	190	LHS	
247	L12/25	Rain Tree	Samanea saman	280	LHS	
248	L12/26	Copper Pod	Peltophorum pterocarpum	190	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
249	L12/27	Jamun Tree	Syzygium cumini	160	LHS	
250	L12/28	Portia tree	Thespesia populnea	120	LHS	
251	L12/29	Portia tree	Thespesia populnea	80	LHS	
252	L12/30	Badminton Ball Tree	Parkia biglandulosa	200	LHS	
253	L12/31	Gulmohar Tree	Delonix Regia	280	LHS	
254	L12/32	Copper Pod	Peltophorum pterocarpum	220	LHS	Promenade Road
255	L12/33	Copper Pod	Peltophorum pterocarpum	200	LHS	
256	L12/34	Copper Pod	Peltophorum pterocarpum	240	LHS	
257	L12/35	Copper Pod	Peltophorum pterocarpum	200	LHS	
258	L12/36	Gulmohar Tree	Delonix Regia	190	LHS	
259	R12/10	Moutain ebony	Bauhinia variegata	120	RHS	
260	R12/11	Moutain ebony	Bauhinia variegata	100	RHS	
265	R13/1	Gulmohar Tree	Delonix Regia	200	RHS	
266	L13/1	Gulmohar Tree	Delonix Regia	190	LHS	
267	R13/2	Copper Pod	Peltophorum pterocarpum	210	RHS	
268	R13/3	Gulmohar Tree	Delonix Regia	210	RHS	
269	R13/4	Copper Pod	Peltophorum pterocarpum	200	RHS	
270	R13/5	Gulmohar Tree	Delonix Regia	210	RHS	
271	R13/6	Gulmohar Tree	Delonix Regia	200	RHS	
272	R13/7	Copper Pod	Peltophorum pterocarpum	190	RHS	
273	R13/8	Portia tree	Thespesia populnea	100	RHS	
274	R13/9	Copper Pod	Peltophorum pterocarpum	160	RHS	
275	R13/10	American mahogany	Swietenia mahagoni	90	RHS	
276	R13/11	Gulmohar Tree	Delonix Regia	200	RHS	
277	R13/12	American mahogany	Swietenia mahagoni	160	RHS	
278	R13/13	Gulmohar Tree	Delonix Regia	200	RHS	
279	R13/14	American mahogany	Swietenia mahagoni	170	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
280	R13/15	Badminton Ball Tree	Parkia biglandulosa	220	RHS	
281	R13/16	Copper Pod	Peltophorum pterocarpum	190	RHS	
282	L13/2	Copper Pod	Peltophorum pterocarpum	100	LHS	
283	R13/7	Hercules		200	RHS	
284	R13/8	Copper Pod	Peltophorum pterocarpum	130	RHS	with in Coles Park
285	L12/32	Ashoka Tree	Saraca indica	140	LHS	St. John's Road
286	L12/33	Portia tree	Thespesia populnea	180	LHS	
287	L12/34	Honge	Pongamia Pinnata	160	LHS	within Field Marshal Manekshaw Enclave
288	L12/35	Silver Oak	Grevillea robusta Cunn	180	LHS	"
289	L12/36	Jamun Tree	Syzygium cumini	160	LHS	"
290	L12/37	Rain Tree	Samanea saman	200	LHS	"
291	L12/38	Rain Tree	Samanea saman	220	LHS	
292	L13/1	Portia tree	Thespesia populnea	100	LHS	
293	L13/2	Moutain ebony	Bauhinia variegata	120	LHS	
294	L13/3	American mahogany	Swietenia mahagoni	120	LHS	
295	L13/4	American mahogany	Swietenia mahagoni	90	LHS	
296	L13/5	Copper Pod	Peltophorum pterocarpum	140	LHS	
297	R13/1	Gulmohar Tree	Delonix Regia	150	RHS	
298	R13/2	Mullu Byala		180	RHS	
299	R13/3	African tuliptree	Spathodea campanulata	240	RHS	
300	R13/4	Copper Pod	Peltophorum pterocarpum	140	RHS	
301	R13/5	Copper Pod	Peltophorum pterocarpum	130	RHS	
302	R13/6	Copper Pod	Peltophorum pterocarpum	100	RHS	
303	R18/1	Rain Tree	Samanea saman	300	RHS	Mekhri

10-271

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
						Circle
304	R18/2	Rain Tree	Samanea saman	340	RHS	
305	R18/3	Rain Tree	Samanea saman	260	RHS	
306	R18/4	Rain Tree	Samanea saman	280	RHS	
307	R18/5	Rain Tree	Samanea saman	280	RHS	
308	R18/6	Rain Tree	Samanea saman	210	RHS	
309	R18/7	Rain Tree	Samanea saman	260	RHS	
310	R18/8	Rain Tree	Samanea saman	300	RHS	
311	R18/9	Rain Tree	Samanea saman	250	RHS	
312	R18/10	Rain Tree	Samanea saman	150	RHS	
313	R18/11	Peepal Tree	Ficus Religiosa	170	RHS	
314	R18/12	Rain Tree	Samanea saman	160	RHS	
315	R18/13	Rain Tree	Samanea saman	300	RHS	
316	R18/14	Rain Tree	Samanea saman	240	RHS	
317	R18/15	Rain Tree	Samanea saman	240	RHS	
318	R18/16	Rain Tree	Samanea saman	150	RHS	
319	L18/1	African tuliptree	Spathodea campanulata	120	LHS	
320	L18/2	African tuliptree	Spathodea campanulata	180	LHS	
321	L18/3	African tuliptree	Spathodea campanulata	90	LHS	
322	L18/4	African tuliptree	Spathodea campanulata	170	LHS	
323	L18/5	Caribbean trumpet tree	Tabebuia aurea	120	LHS	
324	L18/6	Copper Pod	Peltophorum pterocarpum	120	LHS	
325	L18/7	Caribbean trumpet tree	Tabebuia aurea	210	LHS	
326	L18/8	Teak	Tectona grandis	220	LHS	
327	L18/9	American mahogany	Swietenia mahagoni	60	LHS	
328	L18/10	Teak	Tectona grandis	100	LHS	
329	L18/11	Teak	Tectona grandis	130	LHS	
330	L18/12	Rain Tree	Samanea saman	270	LHS	
331	L19/1	Gulmohar Tree	Delonix Regia	260	LHS	
332	L19/2	Rain Tree	Samanea saman	280	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
333	L19/3	Rain Tree	Samanea saman	260	LHS	
334	L19/4	Gulmohar Tree	Delonix Regia	120	LHS	
335	L19/5	American mahogany	Swietenia mahagoni	200	LHS	
336	R19/1	Ashoka Tree	Saraca indica	100	RHS	within BEML Compound Wall
337	R19/2	Ashoka Tree	Saraca indica	120	RHS	"
338	R19/3	Badami		120	RHS	
339	L19/6	Cassia		300	LHS	
340	R19/4	Ashoka Tree	Saraca indica	120	RHS	
341	R19/5	Badami		110	RHS	
342	R19/6	Ashoka Tree	Saraca indica	100	RHS	
343	L19/7	Mullu Byala		120	LHS	
344	L19/8	Rubber fig	Ficus elastica	180	LHS	
345	L19/9	Rubber fig	Ficus elastica		LHS	within Forest Campus
346	L19/10	Rubber fig	Ficus elastica		LHS	"
347	L19/11	Rubber fig	Ficus elastica		LHS	"
348	L19/12	Rubber fig	Ficus elastica		LHS	"
349	L19/13	American mahogany	Swietenia mahagoni	110	LHS	"
350	L19/14	Champak	Magnolia champaca	90	LHS	"
351	L19/15	Rubber fig	Ficus elastica		LHS	"
352	L19/16	Copper Pod	Peltophorum pterocarpum		LHS	"
353	L19/17	Honge	Pongamia Pinnata		LHS	"
354	L19/18	Honge	Pongamia Pinnata		LHS	"
355	L19/19	Rubber fig	Ficus elastica		LHS	"
356	L19/20	Copper Pod	Peltophorum pterocarpum		LHS	"
357	L19/21	Teak	Tectona grandis		LHS	"
358	L19/22	Champak	Magnolia champaca	90	LHS	"
359	L19/23	Teak	Tectona grandis		LHS	"
360	L19/24	Jackfruit	Artocarpus heterophyllus		LHS	"

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
361	L19/25	Copper Pod	Peltophorum pterocarpum		LHS	
362	L19/26	Champak	Magnolia champaca	100	LHS	
363	L19/27	Copper Pod	Peltophorum pterocarpum		LHS	
364	L19/28	Sandalwood	Santalum		LHS	
365	L19/29	Copper Pod	Peltophorum pterocarpum		LHS	
366	L19/30	Copper Pod	Peltophorum pterocarpum		LHS	
367	L19/31	African tuliptree	Spathodea campanulata		LHS	
368	L19/32	Mango	Mangifera Indica	250	LHS	
369	L19/33	Copper Pod	Peltophorum pterocarpum		LHS	
370	L19/34	Peepal Tree	Ficus Religiosa		LHS	
371	L19/35	Copper Pod	Peltophorum pterocarpum		LHS	
372	L19/36	Honge	Pongamia Pinnata		LHS	
373	L19/37	Copper Pod	Peltophorum pterocarpum		LHS	
374	L19/38	Ichala	Phoenix sylvestris		LHS	
375	L19/39	Honge	Pongamia Pinnata		LHS	
376	L19/40	Honge	Pongamia Pinnata	180	LHS	
377	L19/41	Honge	Pongamia Pinnata	160	LHS	
378	L19/42	Nilgiri	Eucalyptus	240	LHS	
379	L19/43	American mahogany	Swietenia mahagoni		LHS	
380	L19/44	Nilgiri	Eucalyptus		LHS	
381	L19/45	Honge	Pongamia Pinnata		LHS	
382	L19/46	Copper Pod	Peltophorum pterocarpum		LHS	
383	L19/47	Honge	Pongamia Pinnata		LHS	
384	L19/48	Hercules			LHS	
385	L19/49	Tamarind	Tamarindus indica		LHS	
386	L19/50	Rubber fig	Ficus elastica		LHS	
387	L19/51	Rubber fig	Ficus elastica		LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
388	L19/52	Honge	Pongamia Pinnata		LHS	
389	L19/53	Honge	Pongamia Pinnata		LHS	
390	L19/54	Rubber fig	Ficus elastica		LHS	
391	L19/55	Rain Tree	Samanea saman		LHS	
392	L19/56	Honge	Pongamia Pinnata		LHS	
393	L19/57	Copper Pod	Peltophorum pterocarpum		LHS	
394	L19/58	Copper Pod	Peltophorum pterocarpum		LHS	
395	L19/59	Copper Pod	Peltophorum pterocarpum		LHS	
396	L19/60	Copper Pod	Peltophorum pterocarpum		LHS	
397	L19/61	Copper Pod	Peltophorum pterocarpum	350	LHS	
398	L19/62	Jamun Tree	Syzygium cumini	240	LHS	
399	L19/63	Mango	Mangifera Indica	130	LHS	
400	L19/64	Mango	Mangifera Indica	120	LHS	
401	L20/1	Gulmohar Tree	Delonix Regia	200	LHS	within Indian Institute of Science Campus
402	L20/2	Gulmohar Tree	Delonix Regia	140	LHS	"
403	L20/3	Champak	Magnolia champaca	90	LHS	"
404	L20/4	American mahogany	Swietenia mahagoni	130	LHS	"
405	L20/5	Mango	Mangifera Indica	240	LHS	"
406	L20/6	Mango	Mangifera Indica	310	LHS	"
407	L20/7	Gulmohar Tree	Delonix Regia	300	LHS	"
408	L20/8	Gulmohar Tree	Delonix Regia	200	LHS	"
409	L20/9	Gulmohar Tree	Delonix Regia	200	LHS	"
410	L20/10	Gulmohar Tree	Delonix Regia	220	LHS	"
411	L20/11	Gulmohar Tree	Delonix Regia	310	LHS	"
412	L20/12	Gulmohar Tree	Delonix Regia	190	LHS	"
413	L20/13	Gulmohar Tree	Delonix Regia	200	LHS	"
414	L20/14	Gulmohar Tree	Delonix Regia	320	LHS	"
415	L20/15	Gulmohar Tree	Delonix Regia	280	LHS	"

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
416	L20/16	Gulmohar Tree	Delonix Regia	260	LHS	"
417	L20/17	Gulmohar Tree	Delonix Regia	210	LHS	"
418	L20/18	Gulmohar Tree	Delonix Regia	300	LHS	"
419	L20/19	Gulmohar Tree	Delonix Regia	200	LHS	"
420	L20/20	Gulmohar Tree	Delonix Regia	290	LHS	"
421	L20/21	Gulmohar Tree	Delonix Regia	110	LHS	"
422	L20/22	Gulmohar Tree	Delonix Regia	220	LHS	"
423	L20/23	Gulmohar Tree	Delonix Regia	210	LHS	"
424	L20/24	Gulmohar Tree	Delonix Regia	200	LHS	"
425	L20/25	Gulmohar Tree	Delonix Regia	150	LHS	"
426	L20/26	Gulmohar Tree	Delonix Regia	140	LHS	"
427	L20/27	Gulmohar Tree	Delonix Regia	200	LHS	"
428	L20/28	Gulmohar Tree	Delonix Regia	200	LHS	"
429	L20/29	Gulmohar Tree	Delonix Regia	180	LHS	"
430	L20/30	Gulmohar Tree	Delonix Regia	190	LHS	"
431	L20/31	Copper Pod	Peltophorum pterocarpum	170	LHS	"
432	R19/1	Coconut	Cocus Nucifera	110	RHS	
433	R19/2	Ashoka Tree	Saraca indica	90	RHS	
434	R19/3	Coconut	Cocus Nucifera	110	RHS	
435	R19/4	Tamarind	Tamarindus indica	200	RHS	
436	R19/5	Caribbean trumpet tree	Tabebuia aurea	70	RHS	
437	R19/6	Mango	Mangifera Indica	320	RHS	
438	R19/7	Mango	Mangifera Indica	310	RHS	
439	R19/8	Champak	Magnolia champaca	80	RHS	
440	R19/9	Caribbean trumpet tree	Tabebuia aurea	80	RHS	
441	R19/10	Banyan Tree	Ficus benghalensis	340	RHS	
442	R19/11	Tamarind	Tamarindus indica	190	RHS	
443	R19/12	American mahogany	Swietenia mahagoni	210	RHS	
444	R19/13	Copper Pod	Peltophorum pterocarpum	100	RHS	
445	R19/14	Tamarind	Tamarindus indica	140	RHS	
446	R19/15	Hercules		200	RHS	
447	R19/16	Jamun Tree	Syzygium cumini	200	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
448	R19/17	Rubber fig	Ficus elastica	150	RHS	
449	R19/18	Jamun Tree	Syzygium cumini	140	RHS	
450	R19/19	Mullu Byala		70	RHS	
451	R19/20	Hercules		310	RHS	
452	R19/21	Copper Pod	Peltophorum pterocarpum	140	RHS	
453	R19/22	Rain Tree	Samanea saman	320	RHS	
454	R19/23	Gulmohar Tree	Delonix Regia	120	RHS	
455	R19/24	Gulmohar Tree	Delonix Regia	350	RHS	
456	R19/25	Gulmohar Tree	Delonix Regia	140	RHS	
457	R19/26	Gulmohar Tree	Delonix Regia	110	RHS	
458	R19/27	Gulmohar Tree	Delonix Regia	60	RHS	
459	R19/28	Badami		240	RHS	
460	R19/29	Gulmohar Tree	Delonix Regia	130	RHS	
461	R19/30	Honge	Pongamia Pinnata	110	RHS	
462	R19/31	Caribbean trumpet tree	Tabebuia aurea	60	RHS	
463	R19/32	Gulmohar Tree	Delonix Regia	120	RHS	
464	R19/33	Gulmohar Tree	Delonix Regia	130	RHS	
465	R19/34	Gulmohar Tree	Delonix Regia	110	RHS	
466	R19/35	Gulmohar Tree	Delonix Regia	140	RHS	
467	R19/36	Honge	Pongamia Pinnata	90	RHS	
468	R19/37	Honge	Pongamia Pinnata	60	RHS	
469	R19/38	Gulmohar Tree	Delonix Regia	120	RHS	
470	R19/39	Gulmohar Tree	Delonix Regia	180	RHS	
471	R19/40	Gulmohar Tree	Delonix Regia	150	RHS	
472	R19/41	Gulmohar Tree	Delonix Regia	130	RHS	
473	R19/42	Gulmohar Tree	Delonix Regia	240	RHS	
474	R19/43	Gulmohar Tree	Delonix Regia	150	RHS	
475	R19/44	Honge	Pongamia Pinnata	110	RHS	
476	R19/45	Gulmohar Tree	Delonix Regia	120	RHS	
477	R19/46	Gulmohar Tree	Delonix Regia	140	RHS	
478	R20/1	Mango	Mangifera Indica	320	RHS	
479	R20/2	Mango	Mangifera Indica	290	RHS	
480	R20/3	Jamun Tree	Syzygium cumini	350	RHS	
481	R20/4	Mango	Mangifera Indica	300	RHS	
482	R20/5	Banyan Tree	Ficus benghalensis	400	RHS	
483	R20/6	Mango	Mangifera Indica	120	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

SI. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
484	R20/7	Mango	Mangifera Indica	280	RHS	
485	R20/8	Mango	Mangifera Indica	320	RHS	
486	R20/9	Mango	Mangifera Indica	300	RHS	
487	R20/10	Banyan Tree	Ficus benghalensis	350	RHS	
488	R0/1	Rain Tree	Samanea saman	180		CC-2 : Phase 2 Package 2 - D'Souza Circle to Ulsoor Lake
489	R0/2	Nilgiri	Eucalyptus	200	RHS	within compound wall
490	L0/1	Rain Tree	Samanea saman	400	RHS	"
491	L0/2	Rain Tree	Samanea saman	280	LHS	
492	L0/3	Rain Tree	Samanea saman	340	LHS	
493	L0/4	Rain Tree	Samanea saman	430	LHS	
494	L0/5	Copper Pod	Peltophorum pterocarpum	110	LHS	within Dobhighat
495	L0/6	Copper Pod	Peltophorum pterocarpum	110	LHS	"
496	L0/7	Rain Tree	Samanea saman	440	LHS	
497	L0/8	Rain Tree	Samanea saman	310	LHS	
498	L0/9	Rain Tree	Samanea saman	360	LHS	
499	L0/10	Rain Tree	Samanea saman	510	LHS	
500	R0/3	Copper Pod	Peltophorum pterocarpum	260	RHS	
501	R0/4	Copper Pod	Peltophorum pterocarpum	180	RHS	
502	R0/5	Copper Pod	Peltophorum pterocarpum	160	RHS	
503	R0/6	Copper Pod	Peltophorum pterocarpum	220	RHS	
504	L0/11	African tuliptree	Spathodea campanulata	180	LHS	
505	R0/7	Honge	Pongamia Pinnata	130	RHS	
506	R0/8	Copper Pod	Peltophorum pterocarpum	280	RHS	
507	L0/12	Tamarind	Tamarindus indica	320	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
508	R0/9	Moutain ebony	Bauhinia variegata	130	RHS	
509	R0/10	Copper Pod	Peltophorum pterocarpum	170	RHS	
510	R0/11	Copper Pod	Peltophorum pterocarpum	250	RHS	
511	R1/1	Rain Tree	Samanea saman	440	RHS	
512	R1/2	Rain Tree	Samanea saman	310	RHS	
513	R1/3	Mango	Mangifera Indica	50	RHS	within compound wall of Trinity church
514	R1/4	Nilgiri	Eucalyptus	160	RHS	"
515	R1/5	Rain Tree	Samanea saman	230	RHS	"
516	L1/1	Honge	Pongamia Pinnata	130	LHS	"
517	L1/2	Rain Tree	Samanea saman	140	LHS	"
518	L1/3	Rain Tree	Samanea saman	130	LHS	"
519	L1/4	Honge	Pongamia Pinnata	110	LHS	"
520	L1/5	Moutain ebony	Bauhinia variegata	140	LHS	"
521	L1/6	American mahogany	Swietenia mahagoni	110	LHS	
522	L1/7	Mango	Mangifera Indica	60	LHS	within defense land ulsoor lake
523	L1/8	Nilgiri	Eucalyptus	200	LHS	"
524	L1/9	Jamun Tree	Syzygium cumini	280	LHS	"
525	L1/10	Copper Pod	Peltophorum pterocarpum	170	LHS	"
526	L1/11	Rain Tree	Samanea saman	180	LHS	"
527	L1/12	Rubber fig	Ficus elastica	120	LHS	"
528	L1/13	Honge	Pongamia Pinnata	140	LHS	"
529	L1/14	Mango	Mangifera Indica	130	LHS	"
530	L1/15	Gulmohar Tree	Delonix Regia	160	LHS	"
531	L1/16	Mango	Mangifera Indica	120	LHS	"
532	L1/17	Jamun Tree	Syzygium cumini	210	LHS	"
533	L1/18	American mahogany	Swietenia mahagoni	180	LHS	"
534	L1/19	Banyan Tree	Ficus benghalensis	240	LHS	"
535	L1/20	Rain Tree	Samanea saman	220	LHS	"

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
536	L2/1	Rain Tree	Samanea saman	180	LHS	
537	L2/2	Copper Pod	Peltophorum pterocarpum	260	LHS	
538	L2/3	Copper Pod	Peltophorum pterocarpum	160	LHS	
539	M2/1	Royal Palm	Roystonea regia	120	Median	
540	M2/2	Royal Palm	Roystonea regia	120	Median	

## East West CORRIDOR - 2

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
1	R0/1	Rain Tree	Samanea saman	180		CC-2 : Phase 2 Package 2 - D'Souza Circle to Ulsoor Lake
2	R0/2	Nilgiri	Eucalyptus	200	RHS	within compound wall
3	L0/1	Rain Tree	Samanea saman	400	RHS	"
4	L0/2	Rain Tree	Samanea saman	280	LHS	
5	L0/3	Rain Tree	Samanea saman	340	LHS	
6	L0/4	Rain Tree	Samanea saman	430	LHS	
7	L0/5	Copper Pod	Peltophorum pterocarpum	110	LHS	within Dobhighat
8	L0/6	Copper Pod	Peltophorum pterocarpum	110	LHS	"
9	L0/7	Rain Tree	Samanea saman	440	LHS	
10	L0/8	Rain Tree	Samanea saman	310	LHS	
11	L0/9	Rain Tree	Samanea saman	360	LHS	
12	L0/10	Rain Tree	Samanea saman	510	LHS	
13	R0/3	Copper Pod	Peltophorum pterocarpum	260	RHS	
14	R0/4	Copper Pod	Peltophorum pterocarpum	180	RHS	
15	R0/5	Copper Pod	Peltophorum pterocarpum	160	RHS	
16	R0/6	Copper Pod	Peltophorum pterocarpum	220	RHS	
17	L0/11	African	Spathodea campanulata	180	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
		tuliptree				
18	R0/7	Honge	Pongamia pinnata	130	RHS	
19	R0/8	Copper Pod	Peltophorum pterocarpum	280	RHS	
20	L0/12	Tamarind	Tamarindus indica	320	LHS	
21	R0/9	Moutain ebony	Bauhinia variegata	130	RHS	
22	R0/10	Copper Pod	Peltophorum pterocarpum	170	RHS	
23	R0/11	Copper Pod	Peltophorum pterocarpum	250	RHS	
24	R1/1	Rain Tree	Samanea saman	440	RHS	
25	R1/2	Rain Tree	Samanea saman	310	RHS	
26	R1/3	Mango	Mangifera Indica	50	RHS	within compound wall of Trinity church
27	R1/4	Nilgiri	Eucalyptus	160	RHS	"
28	R1/5	Rain Tree	Samanea saman	230	RHS	"
29	L1/1	Honge	Pongamia pinnata	130	LHS	"
30	L1/2	Rain Tree	Samanea saman	140	LHS	"
31	L1/3	Rain Tree	Samanea saman	130	LHS	"
32	L1/4	Honge	Pongamia pinnata	110	LHS	"
33	L1/5	Moutain ebony	Bauhinia variegata	140	LHS	"
34	L1/6	American mahogany	Swietenia mahagoni	110	LHS	
35	L1/7	Mango	Mangifera Indica	60	LHS	within defense land ulsoor lake
36	L1/8	Nilgiri	Eucalyptus	200	LHS	"
37	L1/9	Jamun Tree	Syzygium cumini	280	LHS	"
38	L1/10	Copper Pod	Peltophorum pterocarpum	170	LHS	"
39	L1/11	Rain Tree	Samanea saman	180	LHS	"
40	L1/12	Rubber fig	Ficus elastica	120	LHS	"
41	L1/13	Honge	Pongamia pinnata	140	LHS	"
42	L1/14	Mango	Mangifera Indica	130	LHS	"
43	L1/15	Gulmohar Tree	Delonix regia	160	LHS	"
44	L1/16	Mango	Mangifera Indica	120	LHS	"
45	L1/17	Jamun Tree	Syzygium cumini	210	LHS	"
46	L1/18	American	Swietenia mahagoni	180	LHS	"

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
		mahogany				
47	L1/19	Banyan Tree	Ficus benghalensis	240	LHS	"
48	L1/20	Rain Tree	Samanea saman	220	LHS	
49	L2/1	Rain Tree	Samanea saman	180	LHS	
50	L2/2	Copper Pod	Peltophorum pterocarpum	260	LHS	
51	L2/3	Copper Pod	Peltophorum pterocarpum	160	LHS	
52	M2/1	Royal Palm	Roystonea regia	120	Median	
53	M2/2	Royal Palm	Roystonea regia	120	Median	
54	R0/1	Banyan Tree	Ficus benghalensis	310	RHS	Victoria Rd Junction to Hosmat Hospital Circle
55	R0/2	Copper Pod	Peltophorum pterocarpum	80	RHS	
56	R0/3	Copper Pod	Peltophorum pterocarpum	70	RHS	
57	R0/4	Copper Pod	Peltophorum pterocarpum	70	RHS	
58	R0/5	Copper Pod	Peltophorum pterocarpum	70	RHS	
59	R0/6	Honge	Pongamia pinnata	270	RHS	
63	L0/1	Rubber fig	Ficus elastica	240	LHS	
64	L0/2	Banyan Tree	Ficus benghalensis	170	LHS	
65	L0/3	Peepal Tree	Ficus religiosa	170	LHS	
66	L0/4	Banyan Tree	Ficus benghalensis	150	LHS	
67	L0/5	American mahogany	Swietenia mahagoni	130	LHS	
68	L0/6	American mahogany	Swietenia mahagoni	220	LHS	
69	L0/7	Moutain ebony	Bauhinia variegata	130	LHS	
70	L0/8	Subabul	Leucaena leucocephala	140	LHS	
71	L0/9	Coconut	Cocus nucifera	100	LHS	
72	L0/10	Mango	Mangifera Indica	200	LHS	
73	L0/11	Coconut	Cocus nucifera	130	LHS	
74	L0/12	Coconut	Cocus nucifera	130	LHS	
75	L0/13	Mango	Mangifera Indica	120	LHS	
76	R0/7	Peepal Tree	Ficus religiosa	600	RHS	
77	R0/8	Nilgiri	Eucalyptus	300	RHS	
78	R0/9	Tamarind	Tamarindus indica	160	RHS	
79	L0/1	Jamun Tree	Syzygium cumini	90	LHS	EW2 :

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
						Package 1: Phase 5 Varthur kodi to After Marathalli Junction
80	L0/2	Tamarind	Tamarindus indica	220	LHS	
81	L0/3	American mahogany	Swietenia mahagoni	70	LHS	
82	L0/4	American mahogany	Swietenia mahagoni	80	LHS	
83	L0/5	American mahogany	Swietenia mahagoni	80	LHS	
84	L0/6	Ashoka Tree	Saraca indica	100	LHS	
85	L0/7	Coconut	Cocus nucifera	100	LHS	
86	R0/1	Honge	Pongamia pinnata	60	RHS	
87	R0/2	Honge	Pongamia pinnata	80	RHS	
88	R0/3	Honge	Pongamia pinnata	70	RHS	
89	R0/4	Honge	Pongamia pinnata	80	RHS	
90	R0/5	African tuliptree	Spathodea campanulata	70	RHS	
91	R0/6	Jackfruit	Artocarpus heterophyllus	80	RHS	
92	R0/7	Coconut	Cocus nucifera	110	RHS	
93	R0/8	Peepal Tree	Ficus religiosa	110	RHS	
94	R0/9	Coconut	Cocus nucifera	110	RHS	
95	R0/10	Coconut	Cocus nucifera	110	RHS	
96	R0/11	American mahogany	Swietenia mahagoni	50	RHS	
97	R0/12	Coconut	Cocus nucifera	100	RHS	
98	R0/13	Golden Shower Tree	Cassia fistula	70	RHS	
99	R0/14	Coconut	Cocus nucifera	110	RHS	
100	R0/15	Coconut	Cocus nucifera	110	RHS	
101	R0/16	American mahogany	Swietenia mahagoni	50	RHS	
102	R0/17	Surgi		90	RHS	
103	L0/8	Indian Almond	Terminalia catappa	90	LHS	
104	L0/9	Champak	Magnolia champaca	50	LHS	
105	L0/10	Champak	Magnolia champaca	50	LHS	
106	R0/18	Neem	Azadirachta indica	100	RHS	
107	R0/19	Coconut	Cocus nucifera	120	RHS	
108	R0/20	Nilgiri	Eucalyptus	160	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
109	R0/21	Indian Almond	Terminalia catappa	60	RHS	
110	R0/22	Indian Almond	Terminalia catappa	60	RHS	
111	L0/11	Indian Almond	Terminalia catappa	60	LHS	
112	R0/23	Indian Almond	Terminalia catappa	70	RHS	
113	R0/24	American mahogany	Swietenia mahagoni	50	RHS	
114	R0/25	American mahogany	Swietenia mahagoni	60	RHS	
115	R0/26	Indian Almond	Terminalia catappa	70	RHS	
116	R1/1	Copper Pod	Peltophorum pterocarpum	70	RHS	
117	R1/2	Copper Pod	Peltophorum pterocarpum	70	RHS	
118	R1/3	Indian Almond	Terminalia catappa	60	RHS	
119	L1/1	Jamun Tree	Syzygium cumini	140	LHS	
120	R1/4	American mahogany	Swietenia mahagoni	60	RHS	
121	R1/5	Indian Almond	Terminalia catappa	60	RHS	
122	R1/6	Honge	Pongamia pinnata	60	RHS	
123	R1/7	Honge	Pongamia pinnata	80	RHS	
124	R1/8	Honge	Pongamia pinnata	80	RHS	
125	R1/9	Honge	Pongamia pinnata	70	RHS	
126	R1/10	Honge	Pongamia pinnata	60	RHS	
127	R1/11	American mahogany	Swietenia mahagoni	70	RHS	
128	R1/12	Honge	Pongamia pinnata	70	RHS	
129	R1/13	Honge	Pongamia pinnata	60	RHS	
130	R1/14	Honge	Pongamia pinnata	90	RHS	
131	R1/15	Honge	Pongamia pinnata	60	RHS	
132	R1/16	Honge	Pongamia pinnata	50	RHS	
133	R1/17	Golden Shower Tree	Cassia fistula	90	RHS	
134	R1/18	Honge	Pongamia pinnata	80	RHS	
135	R1/19	Honge	Pongamia pinnata	70	RHS	
136	R1/20	Honge	Pongamia pinnata	50	RHS	
137	R1/21	Honge	Pongamia pinnata	60	RHS	
138	R1/22	Honge	Pongamia pinnata	60	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
139	L1/2	Golden Shower Tree	Cassia fistula	140	LHS	
140	L1/3	Golden Shower Tree	Cassia fistula	150	LHS	
141	L1/4	Golden Shower Tree	Cassia fistula	160	LHS	
142	L1/5	Golden Shower Tree	Cassia fistula	120	LHS	
143	L1/6	Golden Shower Tree	Cassia fistula	120	LHS	
144	L1/7	Golden Shower Tree	Cassia fistula	130	LHS	
145	L1/8	Golden Shower Tree	Cassia fistula	110	LHS	
146	L1/9	Golden Shower Tree	Cassia fistula	150	LHS	
147	L1/10	Golden Shower Tree	Cassia fistula	140	LHS	
148	L1/11	Golden Shower Tree	Cassia fistula	110	LHS	
149	L1/12	Golden Shower Tree	Cassia fistula	120	LHS	
150	L1/13	Golden Shower Tree	Cassia fistula	110	LHS	
151	L1/14	Golden Shower Tree	Cassia fistula	110	LHS	
152	R1/23	Honge	Pongamia pinnata	80	RHS	
153	R1/24	Honge	Pongamia pinnata	90	RHS	
154	R1/25	American mahogany	Swietenia mahagoni	60	RHS	
155	R1/26	Golden Shower Tree	Cassia fistula	70	RHS	
156	R1/27	Badminton Ball Tree	Parkia biglandulosa	70	RHS	
157	R1/28	Champak	Magnolia champaca	50	RHS	
158	R1/29	Portia tree	Thespesia populnea	50	RHS	
159	L1/15	Golden Shower Tree	Cassia fistula	130	LHS	
160	L1/16	Golden Shower Tree	Cassia fistula	80	LHS	
161	L1/17	Golden Shower Tree	Cassia fistula	110	LHS	
162	L1/18	Golden Shower Tree	Cassia fistula	120	LHS	
163	L1/19	Golden	Cassia fistula	100	LHS	

10-285

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
		Shower Tree				
164	L1/20	Golden Shower Tree	Cassia fistula	130	LHS	
165	L1/21	Golden Shower Tree	Cassia fistula	100	LHS	
166	L1/22	Golden Shower Tree	Cassia fistula	110	LHS	
167	L1/23	Golden Shower Tree	Cassia fistula	110	LHS	
168	L1/24	Golden Shower Tree	Cassia fistula	100	LHS	
169	L1/25	Rain Tree	Samanea saman	240	LHS	
170	L1/26	Banyan Tree	Ficus benghalensis	550	LHS	
171	L1/27	Peepal Tree	Ficus religiosa	480	LHS	
172	L1/28	Banyan Tree	Ficus benghalensis	800	LHS	
173	L1/29	Beete	Rosewood	80	LHS	
174	L1/30	African tuliptree	Spathodea campanulata	190	LHS	
175	L1/31	Banyan Tree	Ficus benghalensis	300	LHS	
176	L1/32	Indian Almond	Terminalia catappa	60	LHS	
177	L1/33	American mahogany	Swietenia mahagoni	90	LHS	
178	L1/34	Peepal Tree	Ficus religiosa	260	LHS	
179	L1/35	Badminton Ball Tree	Parkia biglandulosa	80	LHS	
180	L1/36	African tuliptree	Spathodea campanulata	90	LHS	
181	L1/37	Champak	Magnolia champaca	110	LHS	
182	L1/38	Champak	Magnolia champaca	110	LHS	
183	L1/39	Champak	Magnolia champaca	110	LHS	
184	L1/40	Badminton Ball Tree	Parkia biglandulosa	120	LHS	
185	L2/1	Indian Almond	Terminalia catappa	70	LHS	
186	L2/2	Beete	Rosewood	200	LHS	
187	R2/1	Indian Almond	Terminalia catappa	110	RHS	
188	R2/2	Portia tree	Thespesia populnea	60	RHS	
189	L2/3	Indian Almond	Terminalia catappa	70	LHS	
190	L2/4	American mahogany	Swietenia mahagoni	60	LHS	
191	L2/5	American	Swietenia mahagoni	60	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
		mahogany				
192	L2/6	Portia tree	Thespesia populnea	70	LHS	
193	L2/7	Portia tree	Thespesia populnea	60	LHS	
194	L2/8	American mahogany	Swietenia mahagoni	50	LHS	
195	L2/9	Honge	Pongamia pinnata	90	LHS	
196	L2/10	Portia tree	Thespesia populnea	60	LHS	
197	L2/11	Portia tree	Thespesia populnea	60	LHS	
198	R2/3	Jamun Tree	Syzygium cumini	70	RHS	
199	L2/12	Portia tree	Thespesia populnea	80	LHS	
200	L2/13	American mahogany	Swietenia mahagoni	70	LHS	
201	L2/14	Coconut	Cocus nucifera	110	LHS	
202	L2/15	American mahogany	Swietenia mahagoni	50	LHS	
203	L2/16	Golden Shower Tree	Cassia fistula	70	LHS	
204	R2/4	Jamun Tree	Syzygium cumini	80	RHS	
205	R2/5	Portia tree	Thespesia populnea	80	RHS	
206	R2/6	Portia tree	Thespesia populnea	90	RHS	
207	R2/7	Portia tree	Thespesia populnea	80	RHS	
208	R2/8	Portia tree	Thespesia populnea	70	RHS	
209	R2/9	Portia tree	Thespesia populnea	90	RHS	
210	R2/10	Portia tree	Thespesia populnea	70	RHS	
211	R2/11	Portia tree	Thespesia populnea	80	RHS	
212	R2/12	Rain Tree	Samanea saman	130	RHS	
213	R2/13	Golden Shower Tree	Cassia fistula	100	RHS	
214	R2/14	Portia tree	Thespesia populnea	70	RHS	
215	R2/15	Portia tree	Thespesia populnea	80	RHS	
216	R2/16	Honge	Pongamia pinnata	80	RHS	
217	R2/17	Portia tree	Thespesia populnea	70	RHS	
218	L2/17	American mahogany	Swietenia mahagoni	120	LHS	
219	L2/18	Peepal Tree	Ficus religiosa	140	LHS	
220	L2/19	American mahogany	Swietenia mahagoni	70	LHS	
221	L2/20	Portia tree	Thespesia populnea	50	LHS	
222	L2/21	Portia tree	Thespesia populnea	70	LHS	
223	L2/22	Portia tree	Thespesia populnea	80	LHS	
224	L2/23	Copper Pod	Peltophorum pterocarpum	90	LHS	
225	L2/24	Jamun Tree	Syzygium cumini	50	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
226	R2/18	Portia tree	Thespesia populnea	70	RHS	
227	R2/19	Portia tree	Thespesia populnea	80	RHS	
228	R2/20	Portia tree	Thespesia populnea	80	RHS	
229	R2/21	Portia tree	Thespesia populnea	80	RHS	
230	R2/22	Portia tree	Thespesia populnea	70	RHS	
231	R2/23	Indian Almond	Terminalia catappa	110	RHS	
232	R2/24	Jamun Tree	Syzygium cumini	90	RHS	
233	L2/25	Portia tree	Thespesia populnea	90	LHS	
234	L2/26	Portia tree	Thespesia populnea	80	LHS	
235	L2/27	Portia tree	Thespesia populnea	80	LHS	
236	L2/28	Banyan Tree	Ficus benghalensis	370	LHS	
237	L2/29	Rain Tree	Samanea saman	260	LHS	
238	R2/25	Banyan Tree	Ficus benghalensis	320	RHS	
239	R2/26	Honge	Pongamia pinnata	70	RHS	
240	R2/27	Jamun Tree	Syzygium cumini	50	RHS	
241	R2/28	American mahogany	Swietenia mahagoni	50	RHS	
242	L2/30	Portia tree	Thespesia populnea	60	LHS	
243	L2/31	Indian Almond	Terminalia catappa	160	LHS	
244	L2/32	American mahogany	Swietenia mahagoni	70	LHS	
245	L2/33	Portia tree	Thespesia populnea	80	LHS	
246	L2/34	Portia tree	Thespesia populnea	90	LHS	
247	L2/35	Portia tree	Thespesia populnea	70	LHS	
248	R2/29	Moutain ebony	Bauhinia variegata	70	RHS	
249	R2/30	American mahogany	Swietenia mahagoni	60	RHS	
250	R2/31	American mahogany	Swietenia mahagoni	60	RHS	
251	R2/32	Honge	Pongamia pinnata	70	RHS	
252	R2/33	Banyan Tree	Ficus benghalensis	400	RHS	
253	L2/36	American mahogany	Swietenia mahagoni	80	LHS	
254	L2/37	Indian Almond	Terminalia catappa	120	LHS	
255	R2/34	American mahogany	Swietenia mahagoni	80	RHS	
256	R2/35	Portia tree	Thespesia populnea	60	RHS	
257	L2/38	Portia tree	Thespesia populnea	70	LHS	
258	L2/39	Portia tree	Thespesia populnea	80	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
259	R2/36	Rain Tree	Samanea saman	320	RHS	
260	R2/37	Rain Tree	Samanea saman	380	RHS	
261	L2/40	Portia tree	Thespesia populnea	80	LHS	
262	L3/1	Portia tree	Thespesia populnea	90	LHS	
263	L3/2	Portia tree	Thespesia populnea	90	LHS	
264	L3/3	Portia tree	Thespesia populnea	90	LHS	
265	L3/4	Neem	Azadirachta indica	80	LHS	
266	L3/5	American mahogany	Swietenia mahagoni	90	LHS	
267	L3/6	American mahogany	Swietenia mahagoni	90	LHS	
268	R3/1	African tuliptree	Spathodea campanulata	100	RHS	
269	R3/2	Honge	Pongamia pinnata	110	RHS	
270	R3/3	Jamun Tree	Syzygium cumini	60	RHS	
271	L3/7	Copper Pod	Peltophorum pterocarpum	100	LHS	
272	L3/8	Banyan Tree	Ficus benghalensis	70	LHS	
273	L3/9	Jamun Tree	Syzygium cumini	80	LHS	
274	L3/10	Attimara	Ficus racemosa	100	LHS	
275	L3/11	Jamun Tree	Syzygium cumini	60	LHS	
276	L3/12	Jamun Tree	Syzygium cumini	70	LHS	
277	L3/13	Banyan Tree	Ficus benghalensis	120	LHS	
278	L3/14	Portia tree	Thespesia populnea	70	LHS	
279	L3/15	American mahogany	Swietenia mahagoni	50	LHS	
280	L3/16	Honge	Pongamia pinnata	60	LHS	
281	L3/17	Banyan Tree	Ficus benghalensis	220	LHS	
282	L3/18	Honge	Pongamia pinnata	70	LHS	
283	M3/1	Portia tree	Thespesia populnea	90	Median	
284	M3/2	Portia tree	Thespesia populnea	180	Median	
285	M3/3	Mullu Byala		80	Median	
286	L3/19	Portia tree	Thespesia populnea	70	LHS	
287	L3/20	Portia tree	Thespesia populnea	70	LHS	
288	R6/1	Attimara	Ficus racemosa	160	RHS	
289	R6/2	Mattimara	Terminalia elliptica	120	RHS	
290	R6/3	Mattimara	Terminalia elliptica	130	RHS	
291	R6/4	Mattimara	Terminalia elliptica	140	RHS	
292	R6/5	Mattimara	Terminalia elliptica	110	RHS	
293	R6/6	Mattimara	Terminalia elliptica	160	RHS	
294	R6/7	Honge	Pongamia pinnata	120	RHS	
295	M6/1	Rain Tree	Samanea saman	90	Median	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
296	M6/2	Rain Tree	Samanea saman	60	Median	
297	M6/3	Rain Tree	Samanea saman	50	Median	
298	M6/4	Rain Tree	Samanea saman	70	Median	
299	M6/5	Rain Tree	Samanea saman	100	Median	
300	M6/6	Rain Tree	Samanea saman	90	Median	
301	L6/1	Mattimara	Terminalia elliptica	140	LHS	
302	L6/2	Mattimara	Terminalia elliptica	160	LHS	
303	L6/3	Mattimara	Terminalia elliptica	140	LHS	
304	L6/4	Mattimara	Terminalia elliptica	150	LHS	
305	L6/5	Mattimara	Terminalia elliptica	140	LHS	
306	L6/6	Mattimara	Terminalia elliptica	140	LHS	
307	L6/7	Peepal Tree	Ficus religiosa	240	LHS	
308	L6/8	Attimara	Ficus racemosa	160	LHS	
309	L6/9	Portia tree	Thespesia populnea	90	LHS	
310	L6/10	Portia tree	Thespesia populnea	100	LHS	
311	L6/11	Rain Tree	Samanea saman	260	LHS	
312	L6/12	Rain Tree	Samanea saman	110	LHS	
313	L6/13	Rain Tree	Samanea saman	190	LHS	
314	L6/14	Rain Tree	Samanea saman	180	LHS	
315	L6/15	Rain Tree	Samanea saman	120	LHS	
316	L6/16	Honge	Pongamia pinnata	140	LHS	
317	L6/17	Rain Tree	Samanea saman	120	LHS	
318	L6/18	East Indian walnut	Albizia lebbek	140	LHS	
319	L6/19	Rain Tree	Samanea saman	200	LHS	
320	L6/20	Rain Tree	Samanea saman	190	LHS	
321	L6/21	Rain Tree	Samanea saman	1800	LHS	
322	L6/22	Rain Tree	Samanea saman	200	LHS	
323	L6/23	Rain Tree	Samanea saman	140	LHS	
324	L6/24	Rain Tree	Samanea saman	70	LHS	
325	L6/25	Rain Tree	Samanea saman	200	LHS	
326	L6/26	Rain Tree	Samanea saman	220	LHS	
327	L6/27	Rain Tree	Samanea saman	130	LHS	
328	L6/28	Rain Tree	Samanea saman	200	LHS	
329	L6/29	Rain Tree	Samanea saman	160	LHS	
330	L6/30	Rain Tree	Samanea saman	110	LHS	
331	L6/31	Rain Tree	Samanea saman	150	LHS	
332	L6/32	Rain Tree	Samanea saman	160	LHS	
333	L6/33	Rain Tree	Samanea saman	160	LHS	
334	L6/34	Rain Tree	Samanea saman	190	LHS	
335	L6/35	Rain Tree	Samanea saman	120	LHS	
336	L6/36	Rain Tree	Samanea saman	160	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
337	L6/37	Rain Tree	Samanea saman	190	LHS	
338	L6/38	Rain Tree	Samanea saman	120	LHS	
339	L6/39	African tuliptree	Spathodea campanulata	100	LHS	
340	L6/40	Rain Tree	Samanea saman	220	LHS	
341	L6/41	African tuliptree	Spathodea campanulata	200	LHS	
342	L6/42	Rain Tree	Samanea saman	140	LHS	
343	L6/43	African tuliptree	Spathodea campanulata	110	LHS	
344	L6/44	Rain Tree	Samanea saman	200	LHS	
345	L6/45	African tuliptree	Spathodea campanulata	140	LHS	
346	L6/46	Rain Tree	Samanea saman	200	LHS	
347	L6/47	Rain Tree	Samanea saman	180	LHS	
348	L6/48	Rain Tree	Samanea saman	60	LHS	
349	L6/49	African tuliptree	Spathodea campanulata	240	LHS	
350	L6/50	Rain Tree	Samanea saman	100	LHS	
351	L6/51	Rain Tree	Samanea saman	160	LHS	
352	L6/52	African tuliptree	Spathodea campanulata	190	LHS	
353	L6/53	Rain Tree	Samanea saman	240	LHS	
354	L6/54	Honge	Pongamia pinnata	110	LHS	
355	L7/1	African tuliptree	Spathodea campanulata	180	LHS	
356	L7/2	Rain Tree	Samanea saman	160	LHS	
357	L7/3	African tuliptree	Spathodea campanulata	200	LHS	
358	L7/4	Rain Tree	Samanea saman	180	LHS	
359	L7/5	African tuliptree	Spathodea campanulata	130	LHS	
360	L7/6	Rain Tree	Samanea saman	200	LHS	
361	L7/7	African tuliptree	Spathodea campanulata	150	LHS	
362	L7/8	Rain Tree	Samanea saman	110	LHS	
363	L7/9	Rain Tree	Samanea saman	190	LHS	
364	L7/10	Rain Tree	Samanea saman	70	LHS	
365	L7/11	Rain Tree	Samanea saman	230	LHS	
366	L7/12	Rain Tree	Samanea saman	60	LHS	
367	L7/13	African tuliptree	Spathodea campanulata	180	LHS	
368	L7/14	Rain Tree	Samanea saman	160	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
369	L7/15	African tuliptree	Spathodea campanulata	160	LHS	
370	L7/16	Rain Tree	Samanea saman	210	LHS	
371	L7/17	Rain Tree	Samanea saman	190	LHS	
372	L7/18	African tuliptree	Spathodea campanulata	220	LHS	
373	L7/19	African tuliptree	Spathodea campanulata	140	LHS	
374	L7/20	Rain Tree	Samanea saman	170	LHS	
375	L7/21	African tuliptree	Spathodea campanulata	190	LHS	
376	L7/22	African tuliptree	Spathodea campanulata	200	LHS	
377	L7/23	African tuliptree	Spathodea campanulata	230	LHS	
378	L7/24	Honge	Pongamia pinnata	140	LHS	
379	L7/25	Rain Tree	Samanea saman	60	LHS	
380	L7/26	Rain Tree	Samanea saman	190	LHS	
381	L7/27	African tuliptree	Spathodea campanulata	100	LHS	
382	L7/28	Rain Tree	Samanea saman	140	LHS	
383	L7/29	Rain Tree	Samanea saman	80	LHS	
384	L7/30	Rain Tree	Samanea saman	140	LHS	
385	L7/31	Rain Tree	Samanea saman	110	LHS	
386	L7/32	African tuliptree	Spathodea campanulata	220	LHS	
387	L7/33	Rain Tree	Samanea saman	80	LHS	
388	L7/34	Rain Tree	Samanea saman	120	LHS	
389	L7/35	African tuliptree	Spathodea campanulata	220	LHS	
390	L7/36	Rain Tree	Samanea saman	140	LHS	
391	L7/37	Rain Tree	Samanea saman	100	LHS	
392	L7/38	African tuliptree	Spathodea campanulata	240	LHS	
393	L7/39	Rain Tree	Samanea saman	170	LHS	
394	L7/40	Caribbean trumpet tree	Tabebuia aurea	430	LHS	
395	L7/41	Caribbean trumpet tree	Tabebuia aurea	380	LHS	
396	L7/42	Caribbean trumpet tree	Tabebuia aurea	280	LHS	
397	L7/43	Rain Tree	Samanea saman	200	LHS	
398	L7/44	Tamarind	Tamarindus indica	140	LHS	
399	L7/45	Rain Tree	Samanea saman	190	LHS	

10-292

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
400	L7/46	Neem	Azadirachta indica	80	LHS	
401	L7/47	Rain Tree	Samanea saman	210	LHS	
402	L7/48	Neem	Azadirachta indica	70	LHS	
403	L7/49	Rain Tree	Samanea saman	190	LHS	
404	L7/50	Neem	Azadirachta indica	80	LHS	
405	L7/51	Rain Tree	Samanea saman	110	LHS	
406	L7/52	Rain Tree	Samanea saman	130	LHS	
407	L7/53	Rain Tree	Samanea saman	150	LHS	
408	L7/54	Rain Tree	Samanea saman	150	LHS	
409	L7/55	Rain Tree	Samanea saman	120	LHS	
410	L7/56	Honge	Pongamia pinnata	100	LHS	
411	L7/57	Rain Tree	Samanea saman	200	LHS	
412	L7/58	Rain Tree	Samanea saman	150	LHS	
413	L7/59	Rain Tree	Samanea saman	110	LHS	
414	L7/60	Rain Tree	Samanea saman	110	LHS	
415	L7/61	Rain Tree	Samanea saman	200	LHS	
416	L7/62	Rain Tree	Samanea saman	180	LHS	
417	L7/63	Honge	Pongamia pinnata	70	LHS	
418	L7/64	Rain Tree	Samanea saman	270	LHS	
419	L7/65	Rain Tree	Samanea saman	110	LHS	
420	L7/66	Rain Tree	Samanea saman	110	LHS	
421	L7/67	Rain Tree	Samanea saman	200	LHS	
422	L7/68	Honge	Pongamia pinnata	100	LHS	
423	L7/69	Rain Tree	Samanea saman	180	LHS	
424	L7/70	Rain Tree	Samanea saman	180	LHS	
425	L7/71	Rain Tree	Samanea saman	60	LHS	
426	L7/72	Rain Tree	Samanea saman	160	LHS	
427	L7/73	Honge	Pongamia pinnata	80	LHS	
428	L7/74	Rain Tree	Samanea saman	120	LHS	
429	L7/75	Rain Tree	Samanea saman	140	LHS	
430	L7/76	Honge	Pongamia pinnata	90	LHS	
431	L7/77	Rain Tree	Samanea saman	140	LHS	
432	L7/78	Jamun Tree	Syzygium cumini	230	LHS	
433	L7/79	Honge	Pongamia pinnata	90	LHS	
434	L7/80	Honge	Pongamia pinnata	150	LHS	
435	L7/81	Honge	Pongamia pinnata	150	LHS	
436	L7/82	Rain Tree	Samanea saman	280	LHS	
437	L7/83	Rain Tree	Samanea saman	200	LHS	
438	L7/84	Rain Tree	Samanea saman	180	LHS	
439	L7/85	Rain Tree	Samanea saman	190	LHS	
440	L7/86	Rain Tree	Samanea saman	170	LHS	
441	L7/87	Rain Tree	Samanea saman	110	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
442	L7/88	Rain Tree	Samanea saman	180	LHS	
443	L7/89	Rain Tree	Samanea saman	120	LHS	
444	L7/90	Rain Tree	Samanea saman	160	LHS	
445	L7/91	Rain Tree	Samanea saman	70	LHS	
446	L7/92	Rain Tree	Samanea saman	180	LHS	
447	L7/93	Rain Tree	Samanea saman	130	LHS	
448	L7/94	Rain Tree	Samanea saman	140	LHS	
449	L7/95	Rain Tree	Samanea saman	120	LHS	
450	L7/96	Rain Tree	Samanea saman	70	LHS	
451	L7/97	Rain Tree	Samanea saman	80	LHS	
452	L7/98	Rain Tree	Samanea saman	150	LHS	
453	L7/99	Rain Tree	Samanea saman	150	LHS	
454	L7/100	Rain Tree	Samanea saman	150	LHS	
455	L7/101	Rain Tree	Samanea saman	160	LHS	
456	L7/102	Rain Tree	Samanea saman	170	LHS	
457	L7/103	Rain Tree	Samanea saman	170	LHS	
458	L7/104	African tuliptree	Spathodea campanulata	240	LHS	
459	L7/105	African tuliptree	Spathodea campanulata	110	LHS	
460	L7/106	Honge	Pongamia pinnata	110	LHS	
461	L7/107	Honge	Pongamia pinnata	110	LHS	
462	L7/108	Jamun Tree	Syzygium cumini	130	LHS	
463	L7/109	Rain Tree	Samanea saman	200	LHS	
464	L7/110	Kapok Silk Cotton	Ceiba pentandra	200	LHS	
465	L7/111	Kapok Silk Cotton	Ceiba pentandra	160	LHS	
466	L7/112	Rain Tree	Samanea saman	220	LHS	
467	L7/113	Rain Tree	Samanea saman	180	LHS	
468	L7/114	Rain Tree	Samanea saman	180	LHS	
469	L7/115	Honge	Pongamia pinnata	120	LHS	
470	L7/116	Honge	Pongamia pinnata	130	LHS	
471	L7/117	Honge	Pongamia pinnata	60	LHS	
472	L7/118	Honge	Pongamia pinnata	80	LHS	
473	L7/119	Honge	Pongamia pinnata	80	LHS	
474	L7/120	Honge	Pongamia pinnata	110	LHS	
475	L7/121	Rain Tree	Samanea saman	240	LHS	
476	L7/122	Rain Tree	Samanea saman	170	LHS	
477	L7/123	Jamun Tree	Syzygium cumini	160	LHS	
478	L7/124	Rain Tree	Samanea saman	190	LHS	
479	L7/125	Rain Tree	Samanea saman	100	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
480	L7/126	Rain Tree	Samanea saman	180	LHS	
481	L7/127	Honge	Pongamia pinnata	130	LHS	
482	L7/128	Rain Tree	Samanea saman	150	LHS	
483	L7/129	Honge	Pongamia pinnata	110	LHS	
484	L7/130	Honge	Pongamia pinnata	110	LHS	
485	L7/131	Honge	Pongamia pinnata	130	LHS	
486	L7/132	Honge	Pongamia pinnata	130	LHS	
487	R6/8	Rain Tree	Samanea saman	200	RHS	
488	R6/9	Rain Tree	Samanea saman	150	RHS	
489	R6/10	Rain Tree	Samanea saman	190	RHS	
490	R6/11	Rain Tree	Samanea saman	130	RHS	
491	R6/12	Rain Tree	Samanea saman	180	RHS	
492	R6/13	Rain Tree	Samanea saman	180	RHS	
493	R6/14	Rain Tree	Samanea saman	210	RHS	
494	R6/15	Rain Tree	Samanea saman	140	RHS	
495	R6/16	Rain Tree	Samanea saman	180	RHS	
496	R6/17	Rain Tree	Samanea saman	180	RHS	
497	R6/18	Rain Tree	Samanea saman	190	RHS	
498	R6/19	Rain Tree	Samanea saman	150	RHS	
499	R6/20	Rain Tree	Samanea saman	160	RHS	
500	R6/21	Rain Tree	Samanea saman	180	RHS	
501	R6/22	Rain Tree	Samanea saman	130	RHS	
502	R6/23	Rain Tree	Samanea saman	150	RHS	
503	R6/24	Rain Tree	Samanea saman	120	RHS	
504	R6/25	Rain Tree	Samanea saman	170	RHS	
505	R6/26	Rain Tree	Samanea saman	120	RHS	
506	R6/27	Rain Tree	Samanea saman	170	RHS	
507	R6/28	Rain Tree	Samanea saman	140	RHS	
508	R6/29	Rain Tree	Samanea saman	160	RHS	
509	R6/30	Rain Tree	Samanea saman	170	RHS	
510	R6/31	Rain Tree	Samanea saman	140	RHS	
511	R6/32	Rain Tree	Samanea saman	160	RHS	
512	R6/33	Rain Tree	Samanea saman	150	RHS	
513	R6/34	Rain Tree	Samanea saman	170	RHS	
514	R6/35	Rain Tree	Samanea saman	150	RHS	
515	R6/36	Rain Tree	Samanea saman	190	RHS	
516	R6/37	Rain Tree	Samanea saman	160	RHS	
517	R6/38	Rain Tree	Samanea saman	140	RHS	
518	R6/39	Rain Tree	Samanea saman	140	RHS	
519	R6/40	Rain Tree	Samanea saman	140	RHS	
520	R6/41	Rain Tree	Samanea saman	140	RHS	
521	R6/42	Rain Tree	Samanea saman	140	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
522	R6/43	Rain Tree	Samanea saman	130	RHS	
523	R6/44	Rain Tree	Samanea saman	170	RHS	
524	R6/45	Rain Tree	Samanea saman	130	RHS	
525	R6/46	Rain Tree	Samanea saman	160	RHS	
526	R6/47	Rain Tree	Samanea saman	200	RHS	
527	R6/48	Rain Tree	Samanea saman	70	RHS	
528	R6/49	Rain Tree	Samanea saman	180	RHS	
529	R6/50	Rain Tree	Samanea saman	200	RHS	
530	R6/51	Rain Tree	Samanea saman	190	RHS	
531	R6/52	Rain Tree	Samanea saman	130	RHS	
532	R6/53	Rain Tree	Samanea saman	170	RHS	
533	R6/54	Rain Tree	Samanea saman	160	RHS	
534	R6/55	Rain Tree	Samanea saman	160	RHS	
535	R6/56	Rain Tree	Samanea saman	140	RHS	
536	R6/57	Rain Tree	Samanea saman	150	RHS	
537	R6/58	Rain Tree	Samanea saman	140	RHS	
538	R6/59	Rain Tree	Samanea saman	150	RHS	
539	R6/60	Rain Tree	Samanea saman	150	RHS	
540	R6/61	Rain Tree	Samanea saman	140	RHS	
541	R6/62	Rain Tree	Samanea saman	160	RHS	
542	R6/63	Rain Tree	Samanea saman	70	RHS	
543	M7/1	Beete	Rosewood	60	Median	
544	M7/2	Beete	Rosewood	70	Median	
545	M7/3	Beete	Rosewood	50	Median	
546	M7/4	Beete	Rosewood	60	Median	
547	M7/5	Beete	Rosewood	60	Median	
548	M7/8	Honge	Pongamia pinnata	60	Median	
549	M7/9	Beete	Rosewood	80	Median	
550	M7/10	Beete	Rosewood	100	Median	
551	M7/11	Peepal Tree	Ficus religiosa	130	Median	
552	M7/12	Beete	Rosewood	60	Median	
553	M7/13	Beete	Rosewood	80	Median	
554	M7/14	Beete	Rosewood	80	Median	
555	M7/15	Beete	Rosewood	60	Median	
556	M7/16	Beete	Rosewood	60	Median	
557	M7/17	Beete	Rosewood	50	Median	
558	M7/18	Beete	Rosewood	50	Median	
559	M7/19	Beete	Rosewood	60	Median	
560	M7/20	Nilgiri	Eucalyptus	120	Median	
561	M7/21	Rain Tree	Samanea saman	70	Median	
562	M7/22	Rain Tree	Samanea saman	100	Median	
563	M7/23	Rain Tree	Samanea saman	70	Median	

10-296

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
564	M7/24	Rain Tree	Samanea saman	70	Median	
565	M7/25	Honge	Pongamia pinnata	100	Median	
566	M7/26	Attimara	Ficus racemosa	90	Median	
567	M7/27	Rain Tree	Samanea saman	90	Median	
568	M7/28	Rain Tree	Samanea saman	100	Median	
569	M7/29	Rain Tree	Samanea saman	90	Median	
570	M7/30	Rain Tree	Samanea saman	80	Median	
571	M7/31	Rain Tree	Samanea saman	100	Median	
572	M7/32	Copper Pod	Peltophorum pterocarpum	180	Median	
573	M7/33	Attimara	Ficus racemosa	90	Median	
574	R7/4	Rain Tree	Samanea saman	200	RHS	
575	R7/5	Honge	Pongamia pinnata	100	RHS	
576	R7/6	Rain Tree	Samanea saman	180	RHS	
577	R7/7	Rain Tree	Samanea saman	220	RHS	
578	R7/8	Honge	Pongamia pinnata	120	RHS	
579	L7/133	Rain Tree	Samanea saman	80	LHS	
580	L7/134	Mullu Byala		170	LHS	
581	L7/135	Mullu Byala		80	LHS	
582	L7/136	Rain Tree	Samanea saman	110	LHS	
583	L7/137	Honge	Pongamia pinnata	140	LHS	
584	L7/138	Honge	Pongamia pinnata	70	LHS	
585	L7/139	Honge	Pongamia pinnata	70	LHS	
586	L7/140	Rain Tree	Samanea saman	220	LHS	
587	L8/1	Rain Tree	Samanea saman	280	LHS	
588	L8/2	Rain Tree	Samanea saman	100	LHS	
589	L8/3	Honge	Pongamia pinnata	120	LHS	
590	L8/4	Honge	Pongamia pinnata	70	LHS	
591	L8/5	Gulmohar Tree	Delonix regia	120	LHS	
592	L8/6	Gulmohar Tree	Delonix regia	140	LHS	
593	L8/7	Mango	Mangifera indica	90	LHS	
594	L8/8	Rain Tree	Samanea saman	160	LHS	
595	R8/1	Honge	Pongamia pinnata	70	RHS	
596	R8/2	Rain Tree	Samanea saman	110	RHS	
597	R8/3	Rain Tree	Samanea saman	140	RHS	
598	R8/4	Rain Tree	Samanea saman	150	RHS	
599	R8/5	Honge	Pongamia pinnata	100	RHS	
600	R8/6	Honge	Pongamia pinnata	90	RHS	
601	R8/7	Rain Tree	Samanea saman	140	RHS	
602	R8/8	Rain Tree	Samanea saman	110	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
603	R8/9	Rain Tree	Samanea saman	150	RHS	
604	R8/10	Rain Tree	Samanea saman	160	RHS	
605	L8/9	Rain Tree	Samanea saman	140	LHS	
606	L8/10	Rain Tree	Samanea saman	110	LHS	
607	L8/11	Rain Tree	Samanea saman	200	LHS	
608	R8/11	Jamun Tree	Syzygium cumini	140	RHS	
609	R8/12	Kapok Silk Cotton	Ceiba pentandra	200	RHS	
610	R8/13	Rain Tree	Samanea saman	60	RHS	
611	R8/14	Kapok Silk Cotton	Ceiba pentandra	190	RHS	
612	L8/12	Moutain ebony	Bauhinia variegata	120	LHS	
613	L8/13	Kapok Silk Cotton	Ceiba pentandra	130	LHS	
614	L8/14	Rain Tree	Samanea saman	250	LHS	
615	L8/15	Banyan Tree	Ficus benghalensis	600	LHS	
616	L8/16	Peepal Tree	Ficus religiosa	110	LHS	
617	L8/17	Rain Tree	Samanea saman	330	LHS	
618	L8/18	Rain Tree	Samanea saman	200	LHS	
619	L8/19	Rain Tree	Samanea saman	240	LHS	
620	L8/20	Rain Tree	Samanea saman	150	LHS	
621	L8/21	Rain Tree	Samanea saman	270	LHS	
622	L8/22	Rain Tree	Samanea saman	170	LHS	
623	L8/23	Rain Tree	Samanea saman	270	LHS	
624	L8/24	Rain Tree	Samanea saman	230	LHS	
625	L8/25	Rain Tree	Samanea saman	180	LHS	
626	L8/26	Rain Tree	Samanea saman	220	LHS	
627	L8/27	Rain Tree	Samanea saman	220	LHS	
628	L8/28	Rain Tree	Samanea saman	230	LHS	
629	L8/29	Rain Tree	Samanea saman	200	LHS	
630	L8/30	Rain Tree	Samanea saman	230	LHS	
631	L8/31	Rain Tree	Samanea saman	210	LHS	
632	L8/32	Rain Tree	Samanea saman	330	LHS	
633	L8/33	Copper Pod	Peltophorum pterocarpum	210	LHS	
634	L8/34	Gulmohar Tree	Delonix regia	150	LHS	
635	R8/15	Rain Tree	Samanea saman	340	RHS	
636	R8/16	Rain Tree	Samanea saman	410	RHS	
637	R8/17	Rain Tree	Samanea saman	300	RHS	
638	R8/18	Rain Tree	Samanea saman	270	RHS	
639	R8/19	Rain Tree	Samanea saman	180	RHS	

10-298

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
640	R8/20	Rain Tree	Samanea saman	250	RHS	
641	R8/21	Rain Tree	Samanea saman	120	RHS	
642	R8/22	Rain Tree	Samanea saman	150	RHS	
643	R8/23	Rain Tree	Samanea saman	210	RHS	
644	R8/24	Rain Tree	Samanea saman	220	RHS	
645	R8/25	African tuliptree	Spathodea campanulata	110	RHS	
646	R8/26	Rain Tree	Samanea saman	220	RHS	
647	R8/27	Rain Tree	Samanea saman	250	RHS	
648	R8/28	Rain Tree	Samanea saman	270	RHS	
649	R8/29	Rain Tree	Samanea saman	200	RHS	
650	R8/30	Rain Tree	Samanea saman	280	RHS	
651	R8/31	Rain Tree	Samanea saman	270	RHS	
652	R8/32	Rain Tree	Samanea saman	270	RHS	
653	R8/33	Rain Tree	Samanea saman	310	RHS	
654	R8/34	Rain Tree	Samanea saman	300	RHS	
655	R8/35	Rain Tree	Samanea saman	160	RHS	
656	R8/36	Rain Tree	Samanea saman	260	RHS	
657	R8/37	Rain Tree	Samanea saman	210	RHS	
658	R8/38	Jamun Tree	Syzygium cumini	150	RHS	
659	R8/39	Rain Tree	Samanea saman	280	RHS	
660	R8/40	Rain Tree	Samanea saman	190	RHS	
661	R8/41	Rain Tree	Samanea saman	210	RHS	
662	R8/42	Rain Tree	Samanea saman	320	RHS	
663	R8/43	Rain Tree	Samanea saman	120	RHS	
664	M9/1	Ashoka Tree	Saraca indica	100	Median	
665	M9/2	Ashoka Tree	Saraca indica	70	Median	
666	M9/3	Jamun Tree	Syzygium cumini	60	Median	
667	M9/4	Jamun Tree	Syzygium cumini	60	Median	
668	M9/5	Jamun Tree	Syzygium cumini	50	Median	
669	M9/6	Ashoka Tree	Saraca indica	60	Median	
670	M9/7	Ashoka Tree	Saraca indica	60	Median	
671	M9/8	Ashoka Tree	Saraca indica	70	Median	
672	M9/9	Ashoka Tree	Saraca indica	60	Median	
673	M9/10	Ashoka Tree	Saraca indica	60	Median	
674	M9/11	Ashoka Tree	Saraca indica	60	Median	
675	M9/12	Ashoka Tree	Saraca indica	70	Median	
676	M9/13	Ashoka Tree	Saraca indica	70	Median	
677	M9/14	Ashoka Tree	Saraca indica	60	Median	
678	M9/15	Ashoka Tree	Saraca indica	70	Median	
679	M9/16	Ashoka Tree	Saraca indica	70	Median	
680	M9/17	Ashoka Tree	Saraca indica	60	Median	

10-299

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
681	M9/18	Ashoka Tree	Saraca indica	70	Median	
682	M9/19	Jamun Tree	Syzygium cumini	50	Median	
683	M9/20	Jamun Tree	Syzygium cumini	70	Median	
684	M9/21	Rain Tree	Samanea saman	110	Median	
685	M9/22	Ashoka Tree	Saraca indica	80	Median	
686	M9/23	Jamun Tree	Syzygium cumini	90	Median	
687	M9/24	Jamun Tree	Syzygium cumini	100	Median	
688	M10/1	Ashoka Tree	Saraca indica	80	Median	
689	M10/2	Jamun Tree	Syzygium cumini	60	Median	
690	M10/3	Ashoka Tree	Saraca indica	80	Median	
691	M10/4	Ashoka Tree	Saraca indica	70	Median	
692	M10/5	Ashoka Tree	Saraca indica	60	Median	
693	M10/6	Ashoka Tree	Saraca indica	70	Median	
694	M10/7	Ashoka Tree	Saraca indica	80	Median	
695	M10/8	Ashoka Tree	Saraca indica	70	Median	
696	M10/9	Ashoka Tree	Saraca indica	80	Median	
697	M10/10	Ashoka Tree	Saraca indica	80	Median	
698	M10/11	Ashoka Tree	Saraca indica	70	Median	
699	M10/12	Ashoka Tree	Saraca indica	80	Median	
700	M10/13	Ashoka Tree	Saraca indica	70	Median	
701	M10/14	Ashoka Tree	Saraca indica	80	Median	
702	M10/15	Ashoka Tree	Saraca indica	80	Median	
703	M10/16	Ashoka Tree	Saraca indica	80	Median	
704	M10/17	Ashoka Tree	Saraca indica	90	Median	
705	R10/1	Badminton Ball Tree	Parkia biglandulosa	260	RHS	
706	R10/2	Badminton Ball Tree	Parkia biglandulosa	220	RHS	
707	M10/18	Ashoka Tree	Saraca indica	80	Median	
708	M10/19	Ashoka Tree	Saraca indica	80	Median	
709	M10/20	Ashoka Tree	Saraca indica	70	Median	
710	M10/21	Ashoka Tree	Saraca indica	70	Median	
711	M10/22	Ashoka Tree	Saraca indica	80	Median	
712	M10/23	Ashoka Tree	Saraca indica	70	Median	
713	M10/24	Ashoka Tree	Saraca indica	70	Median	
714	R10/3	American mahogany	Swietenia mahagoni	60	RHS	
715	M10/25	Ashoka Tree	Saraca indica	60	Median	
716	M10/26	Ashoka Tree	Saraca indica	70	Median	
717	M10/27	Ashoka Tree	Saraca indica	80	Median	
718	M10/28	Ashoka Tree	Saraca indica	70	Median	
719	M10/29	Ashoka Tree	Saraca indica	70	Median	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
720	M10/30	Ashoka Tree	Saraca indica	80	Median	
721	M11/1	Ashoka Tree	Saraca indica	80	Median	
722	M11/2	Ashoka Tree	Saraca indica	100	Median	
723	M11/3	Ashoka Tree	Saraca indica	90	Median	
724	M11/4	Ashoka Tree	Saraca indica	100	Median	
725	M11/5	Ashoka Tree	Saraca indica	110	Median	
726	M11/6	Ashoka Tree	Saraca indica	90	Median	
727	M11/7	Ashoka Tree	Saraca indica	80	Median	
728	M11/8	Ashoka Tree	Saraca indica	80	Median	
729	M11/9	Ashoka Tree	Saraca indica	80	Median	
730	M11/10	Ashoka Tree	Saraca indica	90	Median	
731	M11/11	Ashoka Tree	Saraca indica	80	Median	
732	M11/12	Ashoka Tree	Saraca indica	80	Median	
733	M11/13	Ashoka Tree	Saraca indica	80	Median	
734	M11/14	Ashoka Tree	Saraca indica	90	Median	
735	R11/1	Copper Pod	Peltophorum pterocarpum	110	RHS	
736	R11/2	Attimara	Ficus racemosa	110	RHS	
737	R11/3	Portia tree	Thespesia populnea	90	RHS	
738	M11/15	Ashoka Tree	Saraca indica	80	Median	
739	M11/16	Ashoka Tree	Saraca indica	80	Median	
740	M11/17	Ashoka Tree	Saraca indica	80	Median	
741	L11/1	Gulmohar Tree	Delonix regia	150	LHS	
742	M11/18	Ashoka Tree	Saraca indica	90	Median	
743	M11/19	Ashoka Tree	Saraca indica	80	Median	
744	R11/4	Portia tree	Thespesia populnea	100	RHS	
745	R11/5	Portia tree	Thespesia populnea	90	RHS	
746	R11/6	Kapok Silk Cotton	Ceiba pentandra	200	RHS	
747	R11/7	Jamun Tree	Syzygium cumini	90	RHS	
748	M11/20	Ashoka Tree	Saraca indica	80	Median	
749	M11/21	Ashoka Tree	Saraca indica	90	Median	
750	R11/8	Rain Tree	Samanea saman	400	RHS	
751	R11/9	Rain Tree	Samanea saman	330	RHS	
752	R11/10	American mahogany	Swietenia mahagoni	60	RHS	
753	M11/22	Rain Tree	Samanea saman	110	Median	
754	R11/11	Peepal Tree	Ficus religiosa	230	RHS	
755	R11/12	Gulmohar Tree	Delonix regia	190	RHS	
756	R11/13	Copper Pod	Peltophorum pterocarpum	160	RHS	

10-301

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
757	M11/23	Rain Tree	Samanea saman	60	Median	
758	M11/24	Rain Tree	Samanea saman	70	Median	
759	M11/25	Rain Tree	Samanea saman	120	Median	
760	M11/26	Peepal Tree	Ficus religiosa	110	Median	
761	R11/14	Honge	Pongamia pinnata	140	RHS	
762	R11/15	Jamun Tree	Syzygium cumini	110	RHS	
763	M11/27	Ashoka Tree	Saraca indica	60	Median	
764	M11/28	Ashoka Tree	Saraca indica	70	Median	
765	M11/29	Ashoka Tree	Saraca indica	60	Median	
766	M11/30	Ashoka Tree	Saraca indica	60	Median	
767	M11/31	Ashoka Tree	Saraca indica	70	Median	
768	M11/32	Honge	Pongamia pinnata	70	Median	
769	M11/33	Honge	Pongamia pinnata	70	Median	
770	M11/34	Nilgiri	Eucalyptus	110	Median	
771	M11/35	Honge	Pongamia pinnata	60	Median	
772	M11/36	Ashoka Tree	Saraca indica	90	Median	
773	M11/37	Ashoka Tree	Saraca indica	80	Median	
774	M11/38	Ashoka Tree	Saraca indica	70	Median	
775	M12/1	Ashoka Tree	Saraca indica	100	Median	
776	M12/2	Ashoka Tree	Saraca indica	50	Median	
777	M12/3	Ashoka Tree	Saraca indica	100	Median	
778	M12/4	Ashoka Tree	Saraca indica	80	Median	
779	M12/5	Ashoka Tree	Saraca indica	80	Median	
780	L12/1	Caribbean trumpet tree	Tabebuia aurea	90	LHS	
781	L12/2	Gulmohar Tree	Delonix regia	200	LHS	
782	L12/3	Copper Pod	Peltophorum pterocarpum	90	LHS	
783	L12/4	Copper Pod	Peltophorum pterocarpum	80	LHS	
784	L12/5	Gulmohar Tree	Delonix regia	90	LHS	
785	L12/6	Kapok Silk Cotton	Ceiba pentandra	220	LHS	
786	L12/7	Kapok Silk Cotton	Ceiba pentandra	160	LHS	
787	L12/8	Kapok Silk Cotton	Ceiba pentandra	80	LHS	
788	L12/9	Gulmohar Tree	Delonix regia	180	LHS	
789	L12/10	Rain Tree	Samanea saman	280	LHS	
790	L12/11	Rain Tree	Samanea saman	340	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
791	L12/12	Rain Tree	Samanea saman	310	LHS	
792	L12/13	Gulmohar Tree	Delonix regia	110	LHS	
793	L12/14	Gulmohar Tree	Delonix regia	170	LHS	
794	L12/15	Rain Tree	Samanea saman	320	LHS	
795	L12/16	Rain Tree	Samanea saman	320	LHS	
796	L12/17	Portia tree	Thespesia populnea	60	LHS	
797	L12/18	Kapok Silk Cotton	Ceiba pentandra	110	LHS	
798	L12/19	Kapok Silk Cotton	Ceiba pentandra	170	LHS	
799	L12/20	Kapok Silk Cotton	Ceiba pentandra	60	LHS	
800	L12/21	Kapok Silk Cotton	Ceiba pentandra	180	LHS	
801	M12/6	Honge	Pongamia pinnata	60	Median	
802	R12/1	Portia tree	Thespesia populnea	70	RHS	
803	R12/2	Portia tree	Thespesia populnea	120	LHS	
804	R12/3	Copper Pod	Peltophorum pterocarpum	200	LHS	
805	L12/22	Peepal Tree	Ficus religiosa	560	LHS	
806	L12/23	Peepal Tree	Ficus religiosa	210	LHS	
807	L12/24	Copper Pod	Peltophorum pterocarpum	150	LHS	
808	L12/25	Copper Pod	Peltophorum pterocarpum	150	LHS	
809	L12/26	Banyan Tree	Ficus benghalensis	420	LHS	
810	L12/27	Portia tree	Thespesia populnea	60	LHS	
811	L12/28	Portia tree	Thespesia populnea	50	LHS	
812	L12/29	Rain Tree	Samanea saman	170	LHS	
813	L12/30	Portia tree	Thespesia populnea	60	LHS	
814	L12/31	Portia tree	Thespesia populnea	70	LHS	
815	L12/32	Portia tree	Thespesia populnea	70	LHS	
816	L12/33	Portia tree	Thespesia populnea	70	LHS	
817	R12/4	Copper Pod	Peltophorum pterocarpum	240	RHS	
818	R12/5	Copper Pod	Peltophorum pterocarpum	190	RHS	
819	R12/6	Rain Tree	Samanea saman	220	RHS	
820	R12/7	Rain Tree	Samanea saman	270	RHS	
821	L13/1	Gulmohar Tree	Delonix regia	160	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
822	L13/2	Gulmohar Tree	Delonix regia	140	LHS	
823	L13/3	Gulmohar Tree	Delonix regia	160	LHS	
824	L13/4	Peepal Tree	Ficus religiosa	190	LHS	
825	L13/5	Peepal Tree	Ficus religiosa	190	LHS	
826	L13/6	Copper Pod	Peltophorum pterocarpum	150	LHS	
827	L13/7	Copper Pod	Peltophorum pterocarpum	150	LHS	
828	L13/8	Rain Tree	Samanea saman	210	LHS	
829	L13/9	Rain Tree	Samanea saman	220	LHS	
830	L13/10	Gulmohar Tree	Delonix regia	120	LHS	
831	L13/11	Gulmohar Tree	Delonix regia	140	LHS	
832	L13/12	Rain Tree	Samanea saman	340	LHS	
833	R13/1	African tuliptree	Spathodea campanulata	250	RHS	
834	R13/2	African tuliptree	Spathodea campanulata	130	RHS	
835	R13/3	African tuliptree	Spathodea campanulata	170	RHS	
836	L13/14	Honge	Pongamia pinnata	50	LHS	
837	L13/15	American mahogany	Swietenia mahagoni	60	LHS	
838	R13/4	Portia tree	Thespesia populnea	50	RHS	
839	R13/5	Portia tree	Thespesia populnea	60	RHS	
840	R13/6	Portia tree	Thespesia populnea	70	RHS	
841	R13/7	Portia tree	Thespesia populnea	60	RHS	
842	R13/8	Portia tree	Thespesia populnea	90	RHS	
843	R13/9	Portia tree	Thespesia populnea	90	RHS	
844	R13/10	Portia tree	Thespesia populnea	100	RHS	
845	L13/16	Rain Tree	Samanea saman	110	LHS	
846	L13/17	Rain Tree	Samanea saman	100	LHS	
847	L13/18	Moutain ebony	Bauhinia variegata	110	LHS	
848	L13/19	Moutain ebony	Bauhinia variegata	120	LHS	
849	R13/11	Ashoka Tree	Saraca indica	60	RHS	
850	R13/12	Ashoka Tree	Saraca indica	80	RHS	
851	R13/13	Ashoka Tree	Saraca indica	70	RHS	
852	R13/14	Ashoka Tree	Saraca indica	60	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
853	R13/15	Ashoka Tree	Saraca indica	90	RHS	
854	R13/16	Ashoka Tree	Saraca indica	60	RHS	
855	R13/17	Ashoka Tree	Saraca indica	70	RHS	
856	R13/18	Ashoka Tree	Saraca indica	80	RHS	
857	R13/19	Ashoka Tree	Saraca indica	60	RHS	
858	R13/20	Ashoka Tree	Saraca indica	60	RHS	
859	R13/21	Ashoka Tree	Saraca indica	60	RHS	
860	R13/22	Ashoka Tree	Saraca indica	60	RHS	
861	R13/23	Ashoka Tree	Saraca indica	80	RHS	
862	R13/24	Ashoka Tree	Saraca indica	80	RHS	
863	R13/25	Ashoka Tree	Saraca indica	80	RHS	
864	R13/26	Ashoka Tree	Saraca indica	70	RHS	
865	R13/27	Ashoka Tree	Saraca indica	70	RHS	
866	R13/28	Ashoka Tree	Saraca indica	60	RHS	
867	R13/29	Ashoka Tree	Saraca indica	70	RHS	
868	R13/30	Ashoka Tree	Saraca indica	70	RHS	
869	R13/31	Ashoka Tree	Saraca indica	60	RHS	
870	R13/32	Ashoka Tree	Saraca indica	80	RHS	
871	R13/33	Ashoka Tree	Saraca indica	80	RHS	
872	R13/34	Ashoka Tree	Saraca indica	80	RHS	
873	R13/35	Ashoka Tree	Saraca indica	80	RHS	
874	R13/36	Ashoka Tree	Saraca indica	80	RHS	
875	R13/37	Ashoka Tree	Saraca indica	80	RHS	
876	R13/38	Ashoka Tree	Saraca indica	80	RHS	
877	R13/39	Ashoka Tree	Saraca indica	80	RHS	
878	R13/40	Ashoka Tree	Saraca indica	80	RHS	
879	R13/41	Ashoka Tree	Saraca indica	80	RHS	
880	R13/42	Ashoka Tree	Saraca indica	80	RHS	
881	R13/43	Ashoka Tree	Saraca indica	80	RHS	
882	R13/44	Ashoka Tree	Saraca indica	80	RHS	
883	R13/45	Ashoka Tree	Saraca indica	80	RHS	
884	R13/46	Ashoka Tree	Saraca indica	80	RHS	
885	R13/47	Ashoka Tree	Saraca indica	80	RHS	
886	R13/48	Ashoka Tree	Saraca indica	80	RHS	
887	R13/49	Ashoka Tree	Saraca indica	80	RHS	
888	R13/50	Ashoka Tree	Saraca indica	80	RHS	
889	R13/51	Ashoka Tree	Saraca indica	80	RHS	
890	R13/52	Ashoka Tree	Saraca indica	7	RHS	
891	R13/53	Ashoka Tree	Saraca indica	80	RHS	
892	R13/54	Ashoka Tree	Saraca indica	90	RHS	
893	R13/55	Ashoka Tree	Saraca indica	80	RHS	
894	R13/56	Ashoka Tree	Saraca indica	80	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
895	R13/57	Ashoka Tree	Saraca indica	80	RHS	
896	L13/20	American mahogany	Swietenia mahagoni	100	LHS	
897	L13/21	American mahogany	Swietenia mahagoni	100	LHS	
898	L13/22	American mahogany	Swietenia mahagoni	50	LHS	
899	R13/58	Copper Pod	Peltophorum pterocarpum	50	RHS	
900	R13/59	Copper Pod	Peltophorum pterocarpum	60	RHS	
901	R13/60	Rain Tree	Samanea saman	150	RHS	
902	R13/61	Peepal Tree	Ficus religiosa	200	RHS	
903	R13/62	Peepal Tree	Ficus religiosa	180	RHS	
904	R13/63	Ashoka Tree	Saraca indica	70	RHS	
905	R13/64	Ashoka Tree	Saraca indica	80	RHS	
906	R13/65	Ashoka Tree	Saraca indica	60	RHS	
907	R13/66	Ashoka Tree	Saraca indica	80	RHS	
908	R13/67	Ashoka Tree	Saraca indica	70	RHS	
909	R14/1	Ashoka Tree	Saraca indica	60	RHS	
910	R14/2	Ashoka Tree	Saraca indica	80	RHS	
911	R14/3	Ashoka Tree	Saraca indica	70	RHS	
912	R14/4	Ashoka Tree	Saraca indica	60	RHS	
913	R14/5	American mahogany	Swietenia mahagoni	80	RHS	
914	R14/6	Gulmohar Tree	Delonix regia	140	RHS	
915	R14/7	Ashoka Tree	Saraca indica	60	RHS	
916	R14/8	Ashoka Tree	Saraca indica	70	RHS	
917	R14/9	Ashoka Tree	Saraca indica	60	RHS	
918	R14/10	Ashoka Tree	Saraca indica	80	RHS	
919	R14/11	Ashoka Tree	Saraca indica	60	RHS	
920	R14/12	Ashoka Tree	Saraca indica	70	RHS	
921	R14/13	Ashoka Tree	Saraca indica	70	RHS	
922	R14/14	Ashoka Tree	Saraca indica	60	RHS	
923	R14/15	Ashoka Tree	Saraca indica	80	RHS	
924	R14/16	Ashoka Tree	Saraca indica	70	RHS	
925	R14/17	Ashoka Tree	Saraca indica	70	RHS	
926	R14/18	Ashoka Tree	Saraca indica	60	RHS	
927	R14/19	Ashoka Tree	Saraca indica	80	RHS	
928	R14/20	Ashoka Tree	Saraca indica	90	RHS	
929	R14/21	Ashoka Tree	Saraca indica	80	RHS	
930	R14/22	Ashoka Tree	Saraca indica	70	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
931	R14/23	Ashoka Tree	Saraca indica	60	RHS	
932	R14/24	Ashoka Tree	Saraca indica	70	RHS	
933	R14/25	Ashoka Tree	Saraca indica	60	RHS	
934	R14/26	Ashoka Tree	Saraca indica	60	RHS	
935	L14/1	Rain Tree	Samanea saman	420	LHS	
936	L14/2	Moutain ebony	Bauhinia variegata	110	LHS	
937	L14/3	Rain Tree	Samanea saman	420	LHS	
938	L14/4	Jamun Tree	Syzygium cumini	60	LHS	
939	L14/5	African tuliptree	Spathodea campanulata	320	LHS	
940	L14/6	American mahogany	Swietenia mahagoni	130	LHS	
941	L14/7	American mahogany	Swietenia mahagoni	140	LHS	
942	L14/8	African tuliptree	Spathodea campanulata	110	LHS	
943	L14/9	American mahogany	Swietenia mahagoni	160	LHS	
944	L14/10	American mahogany	Swietenia mahagoni	50	LHS	
945	L14/11	American mahogany	Swietenia mahagoni	50	LHS	
946	R14/27	Mango	Mangifera indica	150	RHS	
947	R14/28	Copper Pod	Peltophorum pterocarpum	60	RHS	
948	L14/12	Copper Pod	Peltophorum pterocarpum	60	LHS	
949	L14/13	Jackfruit	Artocarpus heterophyllus	120	LHS	
950	L14/14	Mango	Mangifera indica	70	LHS	
951	L14/15	Rain Tree	Samanea saman	320	LHS	
952	L14/16	Peepal Tree	Ficus religiosa	340	LHS	
953	L14/17	Honge	Pongamia pinnata	130	LHS	
954	L14/18	Honge	Pongamia pinnata	100	LHS	
955	L14/19	Honge	Pongamia pinnata	110	LHS	
956	L14/20	Honge	Pongamia pinnata	50	LHS	
957	L14/21	Honge	Pongamia pinnata	130	LHS	
958	L14/22	Honge	Pongamia pinnata	100	LHS	
959	R14/29	Attimara	Ficus Racemosa	110	RHS	
960	R14/30	Banyan Tree	Ficus benghalensis	120	RHS	
961	R14/31	Banyan Tree	Ficus benghalensis	220	RHS	
962	R14/32	Peepal Tree	Ficus religiosa	320	RHS	
963	L14/23	Honge	Pongamia pinnata	110	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
964	L14/24	Honge	Pongamia pinnata	130	LHS	
965	R14/33	Banyan Tree	Ficus benghalensis	500	RHS	
966	R14/34	Caribbean trumpet tree	Tabebuia aurea	80	RHS	
967	R14/35	Ashoka Tree	Saraca indica	110	RHS	
968	R14/36	Ashoka Tree	Saraca indica	120	RHS	
969	R14/37	Caribbean trumpet tree	Tabebuia aurea	120	RHS	
970	R14/38	Ashoka Tree	Saraca indica	110	RHS	
971	R14/39	Ashoka Tree	Saraca indica	120	RHS	
972	R14/40	Ashoka Tree	Saraca indica	130	RHS	
973	R14/41	Subabul	Leucaena leucocephala	50	RHS	
974	R14/42	Subabul	Leucaena leucocephala	60	RHS	
975	R14/43	Mango	Mangifera indica	60	RHS	
976	R14/44	Ashoka Tree	Saraca indica	50	RHS	
977	R14/45	Attimara	Ficus racemosa	140	RHS	
978	R14/46	Ashoka Tree	Saraca indica	60	RHS	
979	R14/47	Ashoka Tree	Saraca indica	50	RHS	
980	R14/48	Ashoka Tree	Saraca indica	60	RHS	
981	R14/49	Ashoka Tree	Saraca indica	70	RHS	
982	R14/50	Coconut	Cocus nucifera	80	RHS	
983	R14/51	Ashoka Tree	Saraca indica	60	RHS	
984	R14/52	Ashoka Tree	Saraca indica	60	RHS	
985	R14/53	Copper Pod	Peltophorum pterocarpum	250	RHS	
986	R14/54	Coconut	Cocus nucifera	110	RHS	
987	R14/55	Banyan Tree	Ficus benghalensis	120	RHS	
988	R14/56	Subabul	Leucaena leucocephala	100	RHS	
989	R14/57	Mullu Byala		210	RHS	
990	R14/58	Jamun Tree	Syzygium cumini	120	RHS	
991	R14/59	Ashoka Tree	Saraca indica	100	RHS	
992	R14/60	Ashoka Tree	Saraca indica	60	RHS	
993	R14/61	Ashoka Tree	Saraca indica	80	RHS	
994	R14/62	Ashoka Tree	Saraca indica	80	RHS	
995	R14/63	Ashoka Tree	Saraca indica	70	RHS	
996	R14/64	Ashoka Tree	Saraca indica	70	RHS	
997	R14/65	Ashoka Tree	Saraca indica	60	RHS	
998	R14/66	Ashoka Tree	Saraca indica	80	RHS	
999	R14/67	Ashoka Tree	Saraca indica	70	RHS	
1000	R14/68	Ashoka Tree	Saraca indica	70	RHS	
1001	R14/69	Ashoka Tree	Saraca indica	60	RHS	
1002	R14/70	Ashoka Tree	Saraca indica	80	RHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
1003	R14/71	Ashoka Tree	Saraca indica	80	RHS	
1004	R14/72	Ashoka Tree	Saraca indica	70	RHS	
1005	R14/73	Ashoka Tree	Saraca indica	60	RHS	
1006	R14/74	Ashoka Tree	Saraca indica	60	RHS	
1007	R14/75	Ashoka Tree	Saraca indica	80	RHS	
1008	R14/76	Ashoka Tree	Saraca indica	90	RHS	
1009	R14/77	Ashoka Tree	Saraca indica	70	RHS	
1010	R14/78	Ashoka Tree	Saraca indica	70	RHS	
1011	R14/79	Ashoka Tree	Saraca indica	60	RHS	
1012	R14/80	Ashoka Tree	Saraca indica	80	RHS	
1013	L15/1	American mahogany	Swietenia mahagoni	60	RHS	
1014	L15/2	American mahogany	Swietenia mahagoni	60	LHS	
1015	L15/3	American mahogany	Swietenia mahagoni	60	LHS	
1016	L15/4	American mahogany	Swietenia mahagoni	60	LHS	
1017	L15/5	American mahogany	Swietenia mahagoni	50	LHS	
1018	L15/6	Portia tree	Thespesia populnea	80	LHS	
1019	L15/7	Ashoka Tree	Saraca indica	220	LHS	
1020	L15/8	Rain Tree	Samanea saman	350	LHS	
1021	L15/9	Kapok Silk Cotton	Ceiba pentandra	140	LHS	
1022	L15/10	Rain Tree	Samanea saman	120	LHS	
1023	L16/1	Golden Shower Tree	Cassia fistula	120	LHS	
1024	L16/2	American mahogany	Swietenia mahagoni	320	LHS	
1025	L16/3	Portia tree	Thespesia populnea	190	LHS	
1026	R16/1	American mahogany	Swietenia mahagoni	320	RHS	
1027	R20/1	Peepal Tree	Ficus religiosa	300	RHS	Mysore Road
1028	L20/1	American mahogany	Swietenia mahagoni	120	LHS	
1029	L20/2	Mango	Mangifera indica	130	LHS	
1030	R20/2	Peepal Tree	Ficus religiosa	120	RHS	
1031	R20/3	Peepal Tree	Ficus religiosa	140	RHS	
1032	L20/3	Copper Pod	Peltophorum pterocarpum	200	LHS	
1033	L20/4	Ashoka Tree	Saraca indica	100	LHS	
1034	L20/5	Ashoka Tree	Saraca indica	100	LHS	

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



## Detailed Feasibility Report

## VOL-IV Environmental Impact Assessment Report

Sl. No.	Tree No.	Common Name of Tree	Scientific Name of Tree	Girth of tree (in Cm)	LHS /RHS	Remarks
1035	L20/6	Ashoka Tree	Saraca indica	90	LHS	
1036	L20/7	Ashoka Tree	Saraca indica	80	LHS	
1037	L20/8	Ashoka Tree	Saraca indica	100	LHS	
1038	L20/9	Ashoka Tree	Saraca indica	100	LHS	
1039	L20/10	Ashoka Tree	Saraca indica	100	LHS	
1040	L20/11	Ashoka Tree	Saraca indica	80	LHS	
1041	L20/12	Rain Tree	Samanea saman	100	LHS	
1042	L20/13	Moutain ebony	Bauhinia variegata	110	LHS	
1043	R20/4	Ashoka Tree	Saraca indica	90	RHS	
1044	R20/5	Ashoka Tree	Saraca indica	80	RHS	
1045	R20/6	Ashoka Tree	Saraca indica	70	RHS	
1046	R20/7	Ashoka Tree	Saraca indica	60	RHS	
1047	R20/8	Ashoka Tree	Saraca indica	60	RHS	
1048	R20/9	Ashoka Tree	Saraca indica	70	RHS	
1049	R20/10	Ashoka Tree	Saraca indica	60	RHS	
1050	R20/11	Ashoka Tree	Saraca indica	70	RHS	
1051	R20/12	Ashoka Tree	Saraca indica	80	RHS	
1052	R20/13	Ashoka Tree	Saraca indica	70	RHS	
1053	R20/14	Ashoka Tree	Saraca indica	80	RHS	
1054	R20/15	Ashoka Tree	Saraca indica	80	RHS	
1055	R20/16	Ashoka Tree	Saraca indica	80	RHS	
1056	R20/17	Ashoka Tree	Saraca indica	70	RHS	
1057	R20/18	Ashoka Tree	Saraca indica	60	RHS	
1058	R20/19	Ashoka Tree	Saraca indica	70	RHS	
1059	R20/20	Ashoka Tree	Saraca indica	50	RHS	
1060	R20/21	Ashoka Tree	Saraca indica	60	RHS	
1061	R20/22	Ashoka Tree	Saraca indica	60	RHS	

## APPENDIX 1: DISPOSAL SITE MANAGEMENT

### SELECTION OF DISPOSAL SITES:

The locations of Disposal sites have to be selected such that:

No residential areas are located downwind side.

Disposal sites are located at least 1000 m away from sensitive locations like Settlements, Water bodies, notified forest areas, sanctuaries or any other sensitive locations.

Disposal sites do not contaminate any water sources, rivers, etc. for this site should be located away from water body and disposal site should be lined properly to prevent infiltration of water.

Permission from the concerned Village/local community is to be obtained for the Disposal site selected.

Environment Engineer of CSC and Executive Engineer of Project Implementation Unit must approve the location and plan.

### PRECAUTIONS TO BE FOLLOWED DURING DISPOSAL OF DEBRIS / WASTE MATERIAL

The Contractor shall take the following precautions while disposing the waste material

During the site clearance and disposal of debris, the Contractor will take full care to ensure that public or private properties are not affected, there is no dwellings below the dumpsite and that the traffic is not interrupted.

Contractor shall dispose of debris only at the identified places or at other places only with prior permission of Engineer-in-Charge of works.

In the event of any spoil or debris from the sites being deposited on any adjacent land, the Contractor shall immediately remove all such spoil debris and restore the affected area to its original state and to the satisfaction of the Engineer-in-Charge of works.

Contractor shall utilize effective water sprays during the delivery and handling of materials when dust is likely to be created and to dampen stored materials during dry and windy weather.

Materials having the potential to produce dust shall not be loaded to a level higher than the side and tail boards and shall be covered with a tarpaulin in good condition.

Any diversion required for traffic, during disposal of debris shall be provided with traffic control signals and barriers after discussing with local people and with the permission of Engineer-in-Charge of works.

While disposing debris / waste material, Contractor shall take into account the wind direction and location of settlements to ensure that there is no problem to locals by the dust.

### GUIDELINES FOR REHABILITATION OF DISPOSAL SITES

The dumpsites filled only up to the ground level could be rehabilitated as per guidelines below and to be decided by the Engineer and the supervision consultant

The dumpsites have to be suitably rehabilitated by planting local species of shrubs and other plants such that the landscape is coherent and is in harmony with its various components.

In case where a dumpsite is near to the local village community settlements, it could be converted into a play field by spreading the dump material evenly on the ground. Such playground could be made coherent with the landscape by planting trees all along the periphery of the playground.

Some of the dumpsites could be used either for plantation or for agriculture.

Care should always be taken to maintain the hydrological flow in the area.

### Possible impacts due to the excavated debris materials:

The expected scenario, if not disposed of properly, is described in the following sections.

#### Obstruction to natural watercourses

The materials if not disposed of properly would be taken by the running water to the lowest portion of the valleys/streams creating huge obstruction to free flow of natural stream water thus causing flooding.

#### Siltation in surface water reservoir

Most of the materials would be ultimately taken down stream through rivers and ultimately depositing in to reservoirs leading to heavy siltation. This in turn would reduce the reservoir capacity substantially within a very short span.

#### Soil Erosion

Massive soil erosion is the most direct impact of the debris excavation. The precipitation and the consequent run off would erode the loose materials by way of suspension and solution. Once reached up to the mainstream courses even the big boulders would be transported down due to the steep gradients available along the stream courses.

#### Spoiling of Agricultural land

If due to poor planning and limited resources the Contractor disposes the haphazardly, the debris could encroach upon the private agricultural fields and thereby causing destruction of the crops.

### Identification of Disposal Areas:

Contractor should make use of all disposal areas identified during the project preparation stage.

Following are some of the borrow pits nearby Bangalore city, which can be used as disposal sites for unserviceable materials derived from the project.

### Disposal methods and its limitations:

There are several constraints in the disposal of materials in the identified locations. They are

- Disposal areas are uneven and irregular in shape
- Most of the disposal areas requires construction of retaining walls
- Disposal areas requires compaction
- Disposal areas requires plantation
- No overloading of debris in trucks and should be in small trucks or dumpers

- Need to be transported safely with covered trucks using tarpaulin
- Consultation with all concerned villages / local community & written permission form all concerned
- Transportation through difficult haul roads may require maintenance
- Ultimately the disposed area should be compacted using road rollers.
- The capacity of the disposal locations, name of the location etc. shall be written in an information board at each identified disposal locations.

### Proposed design:

Contractor needs to plan the disposal in the following way

- Identify the disposal area
- Photograph the present land use and condition of the area
- Consult with all stakeholders
- Get written agreement from all concerned
- Prepare a suitable design for the safe disposal
- Construct all required structures (e.g. retaining wall)
- Planting of fast growing popular trees on the outer portion of the retaining wall in the form of a linear wall parallel to the retaining wall
- Compact of the materials after disposal
- Prepare a Contractors debris disposal plan with design drawings for each identified area
- With regards to plan, there would be only one disposal plan with small changes for each location. Contractors need to get approvals for specific design for each identified disposal area.

## APPENDIX 2: BORROW AREAS MANAGEMENT

Borrow areas will be identified and finalized by Contractor/Concessionaire and approved by CSC and PIU.

Contractor shall consider following criteria before finalizing the locations.

The borrow area should not be located in agriculture field unless unavoidable i.e. barren land is not available. In such cases, the loss of productive and agricultural land should be minimum.

If the borrow land belongs to private owners, an agreement shall be reached between contractor and landowners before the approval of identified borrow sites

The borrow pits should not be located along the roads.

Borrow pits shall not be located near the water bodies.

The loss of vegetation is almost nil or minimum.

Sufficient quantity of suitable earth / soil is available.

Contractor shall obtain representative samples from each of the identified borrow areas and have these tested at the laboratory. Contractor shall submit the following information to the concerned Engineer for approval at least 7 working days before commencement of compaction. After identification of borrow areas as per guidelines. Contractor shall fill the reporting format and submit the same for approval of the Engineer.

Values of maximum dry density (MDD) and optimum moisture content (OMC) tested in accordance with IS: 2720 (Part 7) or (Part 8), as the case may be, appropriate for each of the fill materials he intends to use. A graph of density plotted against content from which, each of the values above of maximum dry density and optimum moisture content are determined.

The Dry density-moisture content – CBR relationships for light, intermediate and heavy compaction efforts (light corresponding to IS: 2720 (Part-7), heavy corresponding to IS: 2420 (Part-8) and intermediate in between the two) for each of the fill material he intends to use in ramps.

Arrangement for locating the source of supply of material for ramps as well as compliance to environment requirements in respect of excavation and borrow areas as stipulated from time to time by the Ministry of Environment and Forests, Government of India, and local bodies, as applicable shall be the sole responsibility of the Contractor.

After receipt of approval Contractor will begin operations keeping in mind following;

No excavated acceptable material other than surplus to requirements of the Contract shall be removed from the site. Contractor shall be permitted to remove acceptable material from the site to suit his operational requirements.

Where the excavation reveals a combination of acceptable and un-acceptable materials, contractor shall, unless otherwise agreed by the Engineer, carryout the excavation in such a manner that the acceptable materials are excavated separately for use in the permanent works

without contamination by the un-acceptable materials. The acceptable material shall be stockpiled separately.

Contractor shall ensure that he does not adversely affect the stability of excavation or fills by stockpiling materials, use of plants or siting of temporary buildings or structures.

It shall be ensured that the fill material is compacted to the required density

#### Borrow Areas located in Agricultural Lands

Preservation of topsoil shall be carried out in stockpile.

Topsoil up to a depth of 15 cm shall be stripped off from the borrow pit and stored in stockpiles in a designated area for height not exceeding 2m and side slopes not steeper than 1:2 (Vertical: Horizontal).

Borrowing of earth shall be carried out up to a depth of 1.5m from the existing ground level.

Borrowing of earth shall not be done continuously throughout the stretch.

The slope of the edges shall be maintained not steeper than 1:4 (Vertical: Horizontal).

#### Borrow Areas located in Agriculture Land in un-avoidable Circumstances:

Preservation of topsoil shall be carried out in stockpile.

A 15 cm topsoil shall be stripped off and stored in stockpiles in a designated area for height not exceeding 2m and side slopes not steeper than 1:2 (Vertical: Horizontal).

The depth of borrow pits shall not be more than 30 cm after stripping the 15 cm topsoil aside.

#### Borrow Areas located on Elevated Lands

Preservation of topsoil shall be carried out in stockpile

A 15 cm topsoil shall be stripped off from borrow pit and this will be stored in stockpiles in a designated area for height not exceeding 2m and side slopes not steeper than 1:2 (Vertical: Horizontal).

At location where private owners desire their fields to be leveled, the borrowing shall be done to a depth of not more than 1.5m or up to the level of surrounding fields.

#### Borrow Areas near Settlements

The preservation of topsoil will be carried out in stockpile

A 15 cm topsoil will be stripped off from the borrow pit and this will be stored in stockpiles in a designated area for height not exceeding 2m and side slopes not steeper than 1:2 (Vertical: Horizontal).

Borrow pit location will be located at least 0.75 km from villages and settlements. If unavoidable, the pit will not be dug for more than 30 cm and drains will be cut to facilitate drainage.

Borrow pits located in such location will be re-developed immediately after borrowing is completed. If spoils are dumped, that will be covered with a layers of stockpiled topsoil in accordance with compliance requirements with respect MOEF/CPCB guidelines.

#### Borrow Pits along the Road

Borrow pits along the road shall be discouraged. All the prescribed guidelines shall be followed while locating borrow pits near to national highways and state highways.

Preservation of topsoil will be carried out in stockpile

A 15 cm topsoil will be stripped off from the borrow pit and this will be stored in stockpiles in a designated area for height not exceeding 2m and side slopes not steeper than 1:2 (Vertical: Horizontal).

Ridges of not less than 8m widths should be left at intervals not exceeding 300m.

Small drains shall be cut through the ridges to facilitate drainage.

Depth of the pits shall be so regulated that their bottom does not cut an imaginary line having a slope of 1 vertical to 4 horizontal projected from the edge of the final section of bank. Maximum depth in any case shall be limited to 1.5m.

#### Re-development of Borrow Areas

The objective of the rehabilitation programme is to make the borrow pit sites as a safe and secure area. Securing borrow pits to a stable condition is fundamental requirement of the rehabilitation process. This could be achieved by filling the borrow pit to the normal ground level.

Borrow Re-development Plan shall be prepared by the Contractor before the start of construction works as per the agreement between the contractor and the land owner and to the satisfaction of owner.

Borrow Areas shall be rehabilitated as follows:

Borrow pits shall be backfilled with rejected construction wastes (unserviceable materials) compacted and shall be given turfing or vegetative cover on the surface. If this is not possible, then excavation slope should be smoothed and depression is filled in such a way that it looks more or less like the original ground surface.

Contractor shall keep record of photographs of various stages i.e. before borrowing materials form the location (Pre-construction Phase), for the period borrowing activities (Construction Phase) and after rehabilitation (post development), to ascertain the pre and post borrowing status of the area.

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

APPENDIX 3 : Formats for Environmental monitoring

EMS 1: Construction camp/ plant site management plan

Sl. No.	Description	Compliance
1	Name of the location	
2	Nearest road chainage	
3	Name of the owner	
4	Area involved	
5	Arrangements with the owner (agreement with land owner, including the restoration aspects, should be attached as an Annexure)	
6	Existing land use	
7	Photographs depicting the present condition of the construction camp and access road	
8	Land use of the area surrounding the borrow area including a map	
9	Site layout plan of the construction camp	
10	Establishment and maintenance of demarcated and labeled different areas within the camp	
11	Number of trees to be removed, if any, along with compensation measures	
12	Proposed top soil management	
13	Activities planned in the construction camp	
14	Machinery & equipment to be used on site	
15	Labour camp facilities onsite	
16	Health facilities	
17	Site drainage provisions	
18	Copy of the consents to establish and operate should be attached as an Annexure	
19	Conditions laid down in the clearance/ licenses and plans	
20	Staff strength and details such as contractor staff v/s sub contractors, women labour, migrant v/s local labour and skilled & unskilled labour	
21	Access road condition and proposed maintenance	
22	Safety provision such as fire protection equipment and personal protective measure.	
23	Closure/ completion plan	

Submitted

Checked

Approved

Signature .....

Signature .....

Signature .....

Name .....

Name .....

Name .....

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



**Detailed Feasibility Report**

**VOL-IV Environmental Impact Assessment Report**

Designation ..... Designation ..... Designation .....

Contractor Environmental Engineer (CSC) Executive Engineer (PWD)

EMS 1A: Closure plan construction camp and/plant site

Sl. no.	Description	Compliance
1	Name/ Identity of location	
2	Distance from the project road and site	
3	Name of the owner	
4	Details of the land i) Survey number ii) Boundaries iii) Other Revenue details	
5	Details of settlements, sensitive areas, water bodies, wells and bore wells with in 500m i) Population in numbers ii) Name of the village iii) Distance from the construction camp iv) Details of water bodies/ sensitive areas/wells/bore wells	
6	Physical details i) Number of labour stationed ii) Number of dwellings constructed iii) Number of toilets provided iv) Were dwellings demolished and cleared v) Was the waste water treatment facilities demolished and cleaned vi) Was the solid waste generated cleared and disposed of properly; if yes specify the location and quantity. vii) Whether any soil was contaminated with oils and waste oils was cleared and disposed safely, if yes specify the location and quantity. viii) Was scrap generated while the construction removed, if yes specify the details such as where, when, to whom and quantity	
7	Land use before establishment proposed user after completion of works	

Submitted Checked Approved

Signature ..... Signature ..... Signature .....

Name ..... Name ..... Name .....

Designation ..... Designation ..... Designation .....

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



**Detailed Feasibility Report**

**VOL-IV Environmental Impact Assessment Report**

Contractor                      Environmental Engineer (CSC)              Executive Engineer (PWD)

EMS 2: Borrow Area Management plan

Sl. No.	Description	Compliance
1	Name / Identity of location	
2	Nearest project road chainage	
3	Name of the owner	
4	Area involved /capacity/ quantity	
5	Type of material proposed to be taken	
6	Arrangement with the owner including restoration aspect	
7	Existing land use	
8	Land use of the area surrounding the proposed area	
9	A map of the area	
10	Number of trees to be removed, if any along with the compensation measure	
11	Top soil management if required	
12	Access road condition and proposed maintenance	
13	Photograph depicting the present condition of the proposed area and access	
14	Closure/Completion plan	EMS 2A

Submitted	Checked	Approved
Signature .....	Signature .....	Signature .....
Name .....	Name .....	Name .....
Designation .....	Designation .....	Designation .....
Contractor	Environmental Engineer (CSC)	Executive Engineer (PWD)

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

EMS 2A: Closure plan for borrow area

Sl. No.	Description	Compliance
1	Name / Identity of location	
2	Nearest project chainage, distance from the project road and side	
3	Name of the owner	
4	Details of the land i) Survey number ii) Boundaries iii) Other Revenue details	
5	Details of settlements, sensitive areas, water bodies within 500m i) Population in numbers ii) Name of the village iii) Distance from the borrow area iv) Details of water bodies/ sensitive areas/wells/bore wells	
6	Physical details Length and width in meters Depth excavated in meters, Quantity excavated in Cum. Type of materials excavated	
7	Land use before opening, proposed use, before opening details of surroundings	
8	Drawing showing the dimension of the borrow areas, access roads and features of surrounding	Appendix -1
9	Number of trees removed (girth>300mm) if any along with the compensation measure	
10	Details of top soil Quantity excavated in Cum Where was it used	
11	Initial access road condition and final access road condition	
12	Photographs depicting the original condition, during the operation, top soil management, and after closure	Appendix -2
13	Copy of the agreement with the Owner, Details of the agreed redevelopment if any	Appendix -3
14	Land use after rehabilitation, Details should be submitted if the final land use changed from the original land use	
15	Satisfaction certificate from the owner	Appendix -4
16	Details of the practical problems faced and solutions adopted, if any during the operation phase	

Submitted

Checked

Approved

Signature .....

Signature .....

Signature .....

Name .....

Name .....

Name .....

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

Designation ..... Designation ..... Designation .....

Contractor Environmental Engineer (CSC) Executive Engineer (PWD)

EMS 3: Construction camp / Plant and Environmental Management

Sl. No.	Issue	Status	
		Camp -1	Camp - 2
1	Drainage system 1.Closed Drainage		
2	Disposal of waste water i. Kitchen waste water ii. Waste water from water closets iii. Wastewater from bathrooms iv. Wastewater from the vehicular washings.		
3	Collection and Disposal of solid waste i. Waste from the office ii. waste from the Kitchen iii. waste from sweeping		
4	Drinking water facility Source with quantity No of bore wells with capacity Location of the well and bore well Any treatment facility, No of overhead tanks, Test results of the Drinking water Any license obtained		
5	First Aid Facility		
6	Roads in camp Site Type of Road Dust suppression practicing or not, if roads are not tarred, condition of the road.		
7	Fuel storage i. Impervious Base ii. spills and wastewater will be collected in a sump iii. Number of drums where wastes are collected. iv. Number of drums disposed		
8	Garbage & night soil i. Provision of garbage ii. Separation of polythene materials		

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



**Detailed Feasibility Report**

**VOL-IV Environmental Impact Assessment Report**

	iii. Records of solid waste removal from septic tanks		
--	---	--	--

Submitted                      Checked                                      Approved

Signature .....              Signature .....                                      Signature .....

Name .....                      Name .....                                      Name .....

Designation .....              Designation .....                                      Designation .....

Contractor                      Environmental Engineer (CSC)              Executive Engineer (PWD)

**EMS 4: Soil Management**

Sl. No.	Chainage in km	Quantity in Cum	Whether preserved in accordance with specifications	Remarks

Submitted                      Checked                                      Approved

Signature .....              Signature .....                                      Signature .....

Name .....                      Name .....                                      Name .....

Designation .....              Designation .....                                      Designation .....

Contractor                      Environmental Engineer (CSC)              Executive Engineer (PWD)

**EMS 5: Construction plants and pollution control**

Sl. No.	Construction plant	Locations	Capacity	Description of pollution control system / Equipment	Remarks
1					
2					
3					
4					
5					

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



**Detailed Feasibility Report**

**VOL-IV Environmental Impact Assessment Report**

Submitted	Checked	Approved
Signature .....	Signature .....	Signature .....
Name .....	Name .....	Name .....
Designation .....	Designation .....	Designation .....
Contractor	Environmental Engineer (CSC)	Executive Engineer (PWD)

**EMS 6: Machinery / Vehicles and pollution Control**

Sl. No.	Machinery/ Vehicles with capacity	Diesel consumed per month	Engine oil consumed per month	PUC certificate, Number and Validity	Machinery new/old	Remarks
1						
2						
3						
4						
5						
6						

Submitted	Checked	Approved
Signature .....	Signature .....	Signature .....
Name .....	Name .....	Name .....
Designation .....	Designation .....	Designation .....
Contractor	Environmental Engineer (CSC)	Executive Engineer (PWD)

**EMS 7: Details of the DG sets with the pollution control equipment**

Sl. no.	Capacity in KVA	Vertical stack if provided height (in m)	Noise control system	Remarks
<b>Camp -I</b>				
<b>Camp - II</b>				
<b>Crusher -I</b>				

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



**Detailed Feasibility Report**

**VOL-IV Environmental Impact Assessment Report**

Plant Site - I				
Construction works				

Submitted	Checked	Approved
Signature .....	Signature .....	Signature .....
Name .....	Name .....	Name .....
Designation .....	Designation .....	Designation .....
Contractor	Environmental Engineer (CSC)	Executive Engineer (PWD)

**EMS 8: Details of oil storage**

Sl. No.	Type of Product	Location	Number of Barrels	Capacity of barrels in Liters	Increase / Decease in Storage	Stored on impervious base (Yes/No)	Remarks
1							
2							
3							
4							
5							

Submitted	Checked	Approved
Signature .....	Signature .....	Signature .....
Name .....	Name .....	Name .....
Designation .....	Designation .....	Designation .....
Contractor	Environmental Engineer (CSC)	Executive Engineer (PWD)

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

EMS 9: Working at water course and pollution control measures

Sl.No.	Location	Type	Stream/canal Diversion	Silt Fencing	Remarks

Submitted                      Checked                                      Approved

Signature .....              Signature .....                                      Signature .....

Name .....                      Name .....                                      Name .....

Designation .....              Designation .....                                      Designation .....

Contractor                      Environmental Engineer (CSC)              Executive Engineer (PWD)

EMS 10: Details of the ground water Extraction

Sl. no	Location	Capacity of Motor Installed in HP	Quantity of water drawn in Kilo Liters			Ground Water Dept. permission	Type of source
			During the month	Up to end of last month	Total		
1							
2							
3							
4							
5							
6							

Submitted                      Checked                                      Approved

Signature .....              Signature .....                                      Signature .....

Name .....                      Name .....                                      Name .....

Designation .....              Designation .....                                      Designation .....

Contractor                      Environmental Engineer (CSC)              Executive Engineer (PWD)

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



Detailed Feasibility Report

VOL-IV Environmental Impact Assessment Report

EMS 11: Personal protective Equipments

Sl. No.	Details of Equipment	Total Numbers procured	Distributed in No.	Available in store in No.	Remarks
1	Helmets				
2	Safety shoe				
3	Ear plugs				
4	Nose masks				
5	Hand Gloves				
6	Goggles				
7	Safety Belts				
8	Reflective jackets				
9	Gum boots				

Submitted                      Checked                      Approved

Signature .....              Signature .....              Signature .....

Name .....                      Name .....                      Name .....

Designation .....              Designation .....              Designation .....

Contractor                      Environmental Engineer (CSC)              Executive Engineer (PWD)

EMS 12: Status of consents and permissions

Plant	Consent	Number / Status	Validity Date	Remarks
Hot Mix Plants				
Crusher				
Batching plant				
WMM Plant				
Crusher at Dalla				
Diesel pump - I				
Labour license				

Submitted                      Checked                      Approved

Signature .....              Signature .....              Signature .....

Name .....                      Name .....                      Name .....

Designation .....              Designation .....              Designation .....

Contractor                      Environmental Engineer (CSC)              Executive Engineer (PWD)

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



**Detailed Feasibility Report**

**VOL-IV Environmental Impact Assessment Report**

**EMS 13: Deviations with corrective actions**

Sl.No.	Deviation	Corrective Actions	Schedule

Submitted	Checked	Approved
Signature .....	Signature .....	Signature .....
Name .....	Name .....	Name .....
Designation .....	Designation .....	Designation .....
Contractor	Environmental Engineer (CSC)	Executive Engineer (PWD)

**EMS 14: Details of tree and shrubs plantation**

Sl. No.	Location/ Chainage in km	Planted Trees/ Shrubs (in No.)		Survival rate in %	Remarks
		Trees	Shrubs		

Submitted	Checked	Approved
Signature .....	Signature .....	Signature .....
Name .....	Name .....	Name .....
Designation .....	Designation .....	Designation .....
Contractor	Environmental Engineer (CSC)	Executive Engineer (PWD)

**EMS 15: Plantation of Grass**

Sl. No.	Location / Chainage	Area of grass planted	Survival at 6 months interval	Remarks

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



**Detailed Feasibility Report**

**VOL-IV Environmental Impact Assessment Report**

Submitted	Checked	Approved
Signature .....	Signature .....	Signature .....
Name .....	Name .....	Name .....
Designation .....	Designation .....	Designation .....
Contractor	Environmental Engineer (CSC)	Executive Engineer (PWD)

**EMS 16: Implementation of Enhancement Measures**

Sl. no.	Type of Enhancement	Side of the Road (RHS/LHS)	Progress of completion		
			Target date	Actual completion date	Reasons of delay if any

Submitted	Checked	Approved
Signature .....	Signature .....	Signature .....
Name .....	Name .....	Name .....
Designation .....	Designation .....	Designation .....
Contractor	Environmental Engineer (CSC)	Executive Engineer (PWD)

**EMS 17: Identification of disposal site locations (To be filled by the contractor)**

Name of Contractor:

Link No:

(Give chainages and nearest settlements from both ends)

Sl. No.	Criteria on which information for each site is to be collected	Site 1	Site 2	Site 3	Site 4
1	Existing Land use				
2	Area covered (Sq. m)				
3	Total Material that can be dumped within the site (Cum)				
4	Depth to which dumping is feasible (m)				

Consultancy Services for Preparation of Detailed Feasibility Report for the Construction of Proposed Elevated Corridors within Bengaluru Metropolitan Region, Bengaluru



**Detailed Feasibility Report**

**VOL-IV Environmental Impact Assessment Report**

Sl. No.	Criteria on which information for each site is to be collected	Site 1	Site 2	Site 3	Site 4
5	Distance of nearest water course (m)				
6	Nearest settlement (m)				
7	Date/s of community consultation/s				
8	Whether the community is agreeable to siting of dumping site (Y/N)				
9	Date of Permission from Village / Local community				
10	Proposed future use of the site				
11	Selected Site (tick any one column only)				

Enclosures (Tick as appropriate)

1. Map of each location
2. Photographs
  - a. Each disposal location
  - b. Each community consultation
3. Photo copy of Agreement

Submitted

Checked

Approved

Signature .....

Signature .....

Signature .....

Name .....

Name .....

Name .....

Designation .....

Designation .....

Designation .....

Contractor

Environmental Engineer (CSC)

Executive Engineer (PWD)