

ದೂರವಾಣಿ /ಫ್ಯಾಕ್ಸ್ – 080-23343464 Email ID –<u>dcfurban82@yahoo.co.in</u>

ಕರ್ನಾಟಕಅರಣ್ಯ ಇಲಾಖೆ

ಉಪ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಯವರಕಛೇರಿ

ಬೆಂಗಳೂರು ನಗರ ವಿಭಾಗ, ಅರಣ್ಯ ಭವನ ಸಂಕೀರ್ಣ, 18ನೇ ಅಡ್ಡರಸ್ತೆ, ಮಲ್ಲೇಶ್ವರಂ, ಬೆಂಗಳೂರು – 560 003

### Office of the Deputy Conservator of Forests

Bangalore Urban Division, AranyaBhavanCompus. 18th cross, Malleshwaram, Bangaloe-560003

No: A7/Land /BMRCL/CR-39/2018-19

Date:08/09/2021.

### **Official Memorandum**

- Sub: Permission for felling of trees in Diversion of 0.71 ha of forest Land in Sy No. 38(old No.12)of Uttarahalli Manavarta Kaval(U.M.Kaval)village, Uttarahalli Hobli, Bangalore South Taluk -reg.
- Ref:1. Letter No:F.No.4 KRB-1185/2019-Ban/828 dated:20-08-2019 of Govt of India, Ministry of Environment, Forest and Climate Change, Regional Office,(Southern Zone), Bangalore.
  - 2. Letter No:F.No.4 KRB-1185/2019-Ban/136 dated:04-06-2020 of Govt of India, Ministry of Environment, Forest and Climate Change, Regional Office,(Southern Zone), Bangalore
  - 3. Letter No: BMRCL/LA/stage-2/Reach-1E&4B/2019-20 dated 23-10-2019 and of general Manager(Land acquisition and Estate), Bangalore Metro Rail Corporation, Bangalore
  - 4. Hon'ble High Court Order dated: 18.11.2020 in WP 17841/2018(PIL)
  - 5. Letter No: BMRCL/Phase-2/R4B/20-21/93 Dated 26.11.2020 of Addl. Chief Engineer, R4(B), BMRCL, Bangalore.
  - This Office Public Notice vide letter A7/Land /BMRCL/CR-39/2018-19 Dated: 30-11-2020.
  - 7. Members Secretary and ACF BBMP, Bengaluru Letter No.ACF/PR.45/2021-22 Dtd.03-09-2021 along with report and proceeding of Tree Expert Committee.

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### Preamble:-

The Govt. of India vide ref(1) and (2) have accorded the stage (1) and stage(2) approval under section (2)of the Forest (Conservation)Act 1980 for

diversion of 0.71 ha of forest land in Sy No. 38(old No.12) of Uttarahalli Manavarte Kaval(U.M. Kaval) village, Uttarahalli Hobli, Bangalore South Taluk(Kaggalipura Range), Bangaluru Urban Disrict and Division for construction of approach to depot in favour of Genaral Manager(LA & E), Bangalore Metro Rail Corporation Limited(BMRCL), Bangaluru in ref(3).as cited above.

The BMRCL had submitted the fresh application dated 26.11.2020 read at ref (5) above seeking permission for removal of 130 trees infringing the Metro Rail Construction of depot work at Uttarahalli Manavarte Kaval(U.M. Kaval) village, Uttarahalli Hobli, Bangalore South Taluk, as per the directions issued by the Hon'ble High Court of Karnataka vide Order dated:18.11.2020 in WP No. 17841/2018 read at ref (4) above.

The processing and consideration of the application was taken up as per provisions of the Karnataka Preservation of Trees Act, 1976 (hereinafter mentioned as "the Act") and the Memorandum of Procedure (hereinafter mentioned as "the MOP") formulated by the Tree Expert Committee (hereinafter mentioned as "the TEC"). As stipulated under Section 8(3)(vii) of the Act, a public notice in Template No. 1 of the MOP was issued duly inviting the objections from the public as the total number of trees proposed to be felled are more than 50 vide ref (6). The public notice appeared in Kannada Prabha, The New Indian Express ,Vijayavani and Hindu News papers on 05-12-2020. The details of the 130 trees sought to be removed published on the website of BBMP, as per the MOP.

In response to the public notice, there is only one suggestion has received from public which is supportive to the metro project. The proceedings of that consideration along with a tabular statement showing the suggestion from the public, and remarks and findings of the undersigned for specific suggestion and comment were prepared on 12.12.2020, besides recording summary of the findings in Template No. 3 of the MOP.

As per BMRCL's application, there are 130 trees in the project area out of which 120 trees are sought to be removed. Detailed enumeration of each of those 130 trees in terms of location, physical parameters, health and defects, etc. was organized from the forest officers in Part-I of Template No. 2 of the MOP. Thereafter, the same was verified by the undersigned and a preliminary assessment in terms of possibility of onsite retention or translocation or felling along with justification was carried out through inspection of those 130 trees on 28.12.2020 and recorded in Part-II of Template No. 2.

The proceedings regarding consideration of the objections, tabular statement of the findings along with summary, detailed enumeration and preliminary assessment along with justification for each of the 130 trees, and information in Template No 2 and 3 were submitted vide letter dated 24.03.2021 for consideration by the TEC.

The TEC has submitted a detailed report dated 03.09.2021 giving their recommendations for onsite retention of 07 trees, translocation of 36 trees and felling of 87 trees with justification for each of them along with an abstract of the report in Template No. 4. It is noted from the report that the TEC carried out their activities in 4 stages, namely, (i) review of the application, objections received from the public and findings by the undersigned, (ii) review of preliminary assessment by the undersigned, (iii) their field inspection, and (iv) post inspection review and report preparation.

The TEC has concluded that out of total 130 trees proposed for removal by BMRCL, the project activities can be carried out without removal of following 07 trees.

Tre	ees recommended by TEC for Onsite Retention
Tree	1, 2, 12,23, 25, 36 and 39
Numbers	Total = 07 nos

The TEC concluded that the balance 123 trees need to be removed as they are falling within the following physical features of Metro Project.

Physical Features	Tree Numbers
Pile and pier construction work of depot entry line	3,4,5,6,7,8,9,10,11,21,22,24,26,27,28,29,30, 31,38,40,41,42 & 43
	Total – 23 Nos.
Launching of I-Girder works	13,14,15,16,17,18,19,20,32,33,34,35, and 37
of Depot entry line	Total – 13 Nos.
Retaining wall construction	44,45,51,52,55,57,59,61,68,69,83,84,85,86,
works of depot	92,99,100,105,106,107,108,117,118,120,121,12
	2,123,124,125,126,127,128,129 and 130
	Total – 34 Nos.

Earth filling and Track Laying Works of Depot	46,47,48,49,50,53,54,56,58,60,62,63,64,65, 66,67,70,71,72,73,74,75,76,77,78,79,80,81,
, , , , , , , , , , , , , , , , , , , ,	82,87,88,89,90,91,93,94,95,96,97,98,101,102, 103, 104,109,110,111,112,113,114,115,116 and
	119
	Total-53 Nos

The TEC has further concluded that 36 trees out of these 123 trees are healthy and suitable for translocation. The TEC has accordingly recommended translocation of those 36 trees to save them. Based on the inspection and soil test reports of the proposed receptor sites, the TEC has confirmed suitability of those sites for the translocation.

The TEC has also concluded that 87 trees out of 123 trees are not suitable for the translocation as they have major defects or extraction of the root ball of adequate size is not practical. The TEC has accordingly recommended felling of those 87 trees.

The report of the TEC has been examined. The TEC has provided detailed specific justification for removal of each of the 130 trees, besides giving justification for Retention/translocation/ felling of the trees in Part-III of Template 2 as well as in Appendix to its report.

The undersigned concurs with the recommendations and justification of the TEC. The final assessment of the undersigned has been recorded in Part-IV of Template No. 2. The translocation of 36 trees and felling of 87 trees are essential for implementation of the metro project, which seeks to build a sustainable public transport system. The adverse impact of the felling of trees will have to be mitigated by directing BMRCL to take up compensatory plantation in adequate number.

Hence, the following order.

### <u>Order</u>

- Permission is refused for removal of Seven(07) trees listed in Appendix

   appended to this Official Memorandum. They should be retained at site only.
- 2. Based on the consideration detailed above, permission is hereby granted for removal of Thirty Six(36) trees by way of translocation as listed with justification in Template No. 5 appended to this Official Memorandum as **Appendix-2**.

- 3. Permission is hereby also granted for removal of Eighty Seven(87) trees by way of felling as listed with justification in Template No. 6 appended to this Official Memorandum as **Appendix-3**.
- 4. This order will come into effect fifteen (15) days from the date of uploading of the order on the websites of BBMP and Karnataka Forest Department and serving by email on the petitioners in WP 17841/2018.
- 5. The order is subject to following directions to BMRCL.

### A. Translocation of trees:

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- i. The translocation should be carried out only at following location.
  - 1) Devika Rani Estate(Right side of Uttarahalli Road).

The translocation should be organized by competent agencies, at the cost of BMRCL as mentioned in Template 5.

The translocation should follow the methodology suggested by UAS, GKVK.

### **B. Compensatory Plantation:**

- i. The BMRCL to arrange compensatory Afforestation of 1230 tall and healthy saplings, i.e., @ 10 saplings for each tree removed within Six(6) months from the date of the removal.
- ii. BMRCL to submit a plan for the compensatory plantation within Two(2) months from the date of this order.

### C. Care & Maintenance of translocated trees and compensatory plantation, and their Reporting:

- i. BMRCL should ensure proper and effective care and maintenance of the translocated trees and compensatory plantation for a period of Three(3) years.
- ii. BMRCL should also submit reports regarding condition of the translocated trees and the compensatory plantation every quarter for a period of Three(3) years to the undersigned and follow the appropriate recommendation of the Tree officer.

### D. Storage & disposal of felled trees:

i. Among 87 trees to be felled, one(01)Sandal wood tree should be extracted by Karnataka Forest Department and transported and deposited at the Forest Department Storage in Jarakabande Sandal Godown, Bengaluru Range, Bengaluru.

ii. The extracted wood from 87 trees to be felled should be deposited at Jarakabande Kaval Tenkey Depot with the Bangalore Range Forest Officer, through the Range Forest Officer, Kaggalipura for disposal.

### Sd/-Tree Officer & Deputy Conservator of Forests Bengaluru Urban Division.

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### Copy to:

- 1. Chairman, Tree Authority and Chief Conservator of Forests(Territorial), Bangalore for kind information.
- 2. Managing Director, BMRCL, 3rd Floor, BMTC Complex, Shanthinagara, Bengaluru 560027.
- 3. General Manager, Social and Environment Management Unit, BMRCL, 5<sup>th</sup> Floor, BMTC Complex, Shanthinagara, Bengaluru 560027.
- Sri Dattatraya T Devare, A-102 Natasha Golf View Apartments, Domlur Bengaluru– 560071, Petitioner in WP 17841/2018.
- 5. Bangalore Environment Trust, 10, Sirur Park B Street Seshadripuram Bengaluru 560020, Petitioner in WP 17841/2018.
- 6. Addl. Chief Engineer, Reach-4(B), 3rd Floor, BMTC Complex, Shanthinagara, Bengaluru 560027
- 7. Assistant Conservator of Forests, BBMP & Member Secretary, Tree Expert Committee appointed by Hon'ble High Court in WP 17841/2018.
- 8. Assistant Conservator of Forests, South Sub Division, Bangalore for kind information and necessary action.
- 9. Range Forest Officer, Kaggalipura Range, Kaggalipura for kind information and necessary action.
- 10. Range Forest Officer, Bangalore Range, Bangalore Range, for kind information and necessary action.
- 11. Office Copy.

Tree Officer & Deputy Conservator of Forests, Bengaluru Urban Division.

Application No:BMRCL/0023/P2/R4B/2020-21/93 Dated: 26.11.2020

## Location: Reach-4B, U M Kaval.

# List of Trees recommended for On site Retention

Appendix - 1

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No S	Tree Numb er	Tree Name	Girth in Mtr	Total Heig ht in	GPS Lo Latitude (N)	GPS Location titude Longitude (N) (E)	Crown Spread in (M)	TEC Recommendat ion	TEC Tree Officer Recommendati ion on	Justification
	—	Hunase	1.85	10.00	12deg 51min 20.6sec	77deg 31min 30.9sec	10.00	Retention	Retention	The tree is recommended for retention as the major construction activities in and around the tree is completed. However, for the remaining work to be executed near the tree, in order to facilitate the work little branches of the tree can be pruned appropriately(scientifically), <b>Recommendation : Retention</b>
7	2	Gulmohar	1.18	8.00	12deg 51min 22.0sec	77deg 31min 32.1sec	8.00	Retention	Retention	The tree is recommended for retention as the major construction activities in and around the tree is completed. However, for the remaining work to be executed near the tree, in order to facilitate the work little branches of the tree can be pruned appropriately(scientifically), <b>Recommendation : Retention</b>
б	12	Beete	0.47	6.50	12deg 51min 24.6sec	77deg 31min 33.8sec	4.00	Retention	Retention	The tree is recommended for retention as the tree is present abutting (within the project area) to the boundary and do not affect any of the proposed construction activities.
4	23	Jagalaganti	0.18	3.00	12deg 51min 27.4sec	77deg 31min 32.2sec	1.00	Retention	Retention	The tree is recommended for retention, as the tree is located (blue colour mark) outside the project area. <b>Recommendation : Retention</b>
ى ب	25	Subabul	0.27	6.50	12deg 51min 27.5sec	77deg 31min 32.2sec	3.00	Retention	Retention	The tree is recommended for retention, as the tree is located (blue colour mark) outside the project area. <b>Recommendation : Retention</b>

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Location: Reach-4B, U M Kaval.	The tree is present outside the project area as per project plan, therefore the tree is recommended for retention. <b>Recommendation : Retention</b>	The tree is present outside the project area as per project plan and therefore the tree is recommended for retention. <b>Recommendation : Retention</b>
	Retention	Retention
	Retention	Retention
1.2020	4.00	5.00
-	77deg 31min 31.6sec	77deg 31min 31.5sec
2020-21/93	12deg 51min 27.8sec	12deg 51min 27.9sec
2/R4B/	5.00	5.00
/0023/P	0.28 5.00	0.38
Application No:BMRCL/0023/P2/R4B/2020-21/93 Dated: 26.	Tapasi	Jagalaganti 0.38 5.00
lication	36	39
App	Q	2

### Summary:

Total Number of Enumerated Trees	130
Total number of Trees assessed as suitable for on site	r
Retention	-

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Tree Officer &Deputy Conservator of Forests, Bengaluru Urban Division,Bengaluru

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### **TEMPLATE No. 5**

### PARTICULARS ON TRANSPLANTATION / TRANSLOCATION OF TREE(S)\*

(to be prepared in compliance to Step 10 of the Memorandum of Procedure of TEC)

Name of the user agency	Bangalore Metro Rail Corporation Limited
Purpose of the project	Construction of Anjanapura Depot and Viaduct for Depot entry line in Reach 4B via Kanakapura Road.
Extent of the project area	0.71 Ha
Location of the project area	<ul> <li>U M Kaval forest area Survey no.38 in Kanakapura road.</li> <li>1.Starting Point: Lat -12 deg 51min 20.1Sec Long -77 deg 31 min 30.4 Sec</li> <li>2.Ending Point: Lat -12 deg 51min 30 Sec</li> </ul>
	Long -77 deg 31min 21.8 Sec
Number of tree(s) enumerated in the project area	130 Trees
Number of tree(s) recommended for transplantation / translocation	36 Trees
<b>Feasibility of the tree for</b> <b>transplantation / translocation</b> (as per Template No. 2 – Tree Assessment Form)	All the trees are feasibility for transplantation /translocation
Name of the agency identified to execute transplantation / translocation	Indus Herbs (Ravindra TC, CEO)
Transplantation / Translocation methodology	Tree Bur lapping Method
Location of receptor site	Devika Rani Estate (Kanakapura Road) Extent: 1000 sq.m Point (A) 12° 50' 26.11" N 77° 31' 02.29" E Point (B) 12° 50' 25.88" N 77° 31' 10.85" E Point (C) 12° 50' 19.83" N 77° 31' 05.91" E Point (D) 12° 50' 19.38" N 77° 31' 01.16" E
Compatibility of receptor site	Soil Investigation carried out and found to be suitable. Investigation Reports attached.
Number of trees to be transplanted / translocated to the selected receptor site	36 trees in Devika rani Estate

### **TEMPLATE No. 5**

Spacing between transplanted / translocated trees	8 - 10mts
Post care management	Proper manner and watering for survival of transplanted/translocated trees

\* Note:

- 1. List of the trees to be translocated containing details of kind / species, girth, height, GPS coordinates should be appended to this template. These details should be extracted from relevant parts of Template2.
- 2. The Project Authorities / User agency should strictly adopt the Transplantation / Translocation guidelines prescribed by UAS (B), GKVK, enclosed as Annexure 1 to the MOP.

**Tree Officer** 

Application No:BMRCL/0023/P2/R4B/2020-21/93 Dated: 26.11.2020

Location: Reach-4B, U M Kaval.

List of Trees Recommended for Translocation.

<u>Appendix - 2</u>

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	Justification	The tree is present in the location proposed for construction of pile cap (for DP 07 & 6) as per plan; therefore, the tree cannot be retained. In consideration to to the brief characteristics (Physical /morphological) of the tree, the tree is recommended for transplantation	The tree cannot be retained as the construction of pile Cap (for DP 07 & 6) as per plan is proposed very close to the location of the tree. The tree is matured and the base is closed to tree no.20 and 21 therefore transplantation is not possible.	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of earth) as per plan is proposed very close to the location of the tree. The field condition of the tree qualify the tree for transplantation.	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of earth) as per plan is proposed in the location of the tree. In consideration to the brief characteristics(physical/morphological) of the tree, the tree is recommended for transplantation.	<ul> <li>Tree is located within the project area.</li> <li>Tree has forked branches at an height of 2.0 meter from the ground.</li> <li>Tree has clear bole and , Hence recommended for transplantation</li> </ul>
Troo Officer	Recommendati on	Translocation	Translocation	Translocation	Translocation	Translocation
U U U	Recommendatio	Translocation	Translocation	Translocation	Translocation	Translocation
Crown	Spread in Sq.Mtr	2.00	8.00	4.00	5.00	5.00
	Height in Mtr	10.00	10.00	5.00	3.50	10.00
-	Girth in Mtr	1.47	0.85	0.80	0.90	0.51
Location	Longitude (E)	77deg 31min 32.2sec	77deg 31min 31.7sec	77deg 31min 31.4sec	77deg 31min 31.1sec	77deg 31min 30.3sec
Loci	Latitude (N)	12deg 51min 27.2sec	12deg 51min 27.3sec	12deg 51min 27.8sec	12deg 51min 27.9sec	12deg 51min 28.2sec
	Species	Echalu	Echalu	Mutthuga	Echalu	Thare
Tree	Numbe	<u>8</u>	31	38	50	66
	is on N	7	5	ю	4	Q

Location: Reach-4B, U M Kaval.	<ul> <li>Tree is located within the project area</li> <li>Tree has forked branches; one branch is dried.</li> </ul>	<ul> <li>Dried branches should be pruned while transplantation</li> </ul>	<ul> <li>The tree located in the project area.</li> <li>Young seedling with no significant visual symptoms.</li> <li>Hence, recommended for transplantation.</li> </ul>	<ul> <li>Tree is located within the project area.</li> <li>Tree is from any damage and hence, recommended for transplantation/translocation.</li> <li>This tree is near to tree No.80 and 78.hence care should be taken while root ball excavation.</li> </ul>	<ul> <li>Tree is located in the proposed alignment.</li> <li>Tree is having clear bole and no significant visual symptoms.</li> <li>There are no trees near by this tree , appropriate root ball can be excavated, Hence tree is Recommendation for transplanting.</li> </ul>	<ul> <li>Tree is located in the proposed alignment.</li> <li>Tree is having forked branches and one branch is already felled.</li> <li>There are no trees near by this tree appropriate root ball can be excavated. Hence tree is recommended for transplanting.</li> </ul>	<ul> <li>Tree is located in the proposed alignment.</li> <li>Tree is having clear, straight bole with no visual significant symptoms.</li> <li>There is enough space for excavating, appropriate root ball.</li> <li>Hence tree is recommended for transplantation.</li> </ul>	<ul> <li>Tree is located in the proposed alignment.</li> <li>Tree is having clear, straight bole with no visual significant symptoms.</li> <li>There is enough space for excavating, appropriate root ball. Hence tree is recommended for transplantation.</li> </ul>
		Translocation	Translocation	Translocation	Translocation	Translocation	Translocation	Translocation
		Translocation	Translocation	Translocation	Translocation	Translocation	Translocation	Translocation
	5.00	2.00	1.00	6.00	4.00	5.00	3.00	4.00
	6.00	2.00	3.00	6.00	4.50	4.50	5.00	4.50
11.2020	0.56	0.28	0.14	0.53	0.27	0.36	0.31	0.33
1/93 Dated: 26.	77deg 31min	29.7sec	77deg 31min 29.1sec	77deg 31min 28.9sec	77deg 31min 27.7sec	77deg 31min 27.6sec	77deg 31min 27.5sec	77deg 31min 27.4sec
2/R4B/2020-2	12deg 51min		12deg 51min 28.8sec	12deg 51min 29.0sec	12deg 51min 29.4sec	12deg 51min 29.3sec	12deg 51min 29.3sec	12deg 51min 29.6sec
Application No:BMRCL/0023/P2/R4B/2020-21/93 Dated: 26.11.2020			Tapasi	Achalu	Baare	Yalachi (Baare)	Kaggali	Kumkuma
cation No	67 a	o/ 67 b	69	71	83	84	85	SS
Appl	ں ب		~	ω	თ	10	<del>7</del>	12

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Location: Reach-4B, U M Kaval.	<ul> <li>Tree is within the proposed project area and it is near the existing compound wall.</li> <li>Tree is having clear straight bole with minor fissures on the base of the trunk. However, with all this tree is recommended for transplantation/translocation.</li> </ul>	Tree is having clear straight bole, no visual Signifiant symptoms and tree is located in the proposed depot, hence this tree recommended for transplantation.	<ul> <li>Tree has forked branches at an height of 2.0 meter from the ground. One branch is very lean and bent at an angle 45 degree</li> </ul>	<ul> <li>Committee suggested for transplantation after pruning leaned and bent branch.</li> </ul>	<ul> <li>Tree is within the proposed alignment.</li> <li>Tree has clear and straight bole, having no visual significant symptoms.</li> <li>This tree is very nearer to Tree No. 94 hence, precautionary measures to take while appropriate root ball for successful transplantation.</li> </ul>	<ul> <li>Tree is within the proposed project area.</li> <li>Tree is having forked branches, one small branch was pruned.</li> <li>Tree is recommended for transplanting/translocation by excavating appropriate root ball for excavation.</li> </ul>	<ul> <li>Tree is young and is located near tree No. 97.</li> <li>Hence, precautionary measures to be taken while excavating appropriate root ball for translocation.</li> </ul>	<ul> <li>Tree is within the proposed project area.</li> <li>Tree is nearer to tree No. 116, Young tree, recommended for transplanting with suitable host.</li> </ul>	<ul> <li>Tree is within the proposed depot.</li> <li>Tree is young, tree is nearer to Tree NO.</li> <li>127, Hence care should be taken to excavate appropriate root ball while transplantation/translocation.</li> </ul>
	Translocation	Translocation	Translocation		Translocation	Translocation	Translocation	Translocation	Translocation
	Translocation	Translocation	Translocation		Translocation	Translocation	Translocation	Translocation	Translocation
	5.00	15.00	6.00	4.00	2.00	5.00	2.00	6.00	25.00
	6.00	8.00	7.00	7.00	3.50	3.00	3.00	4.00	5.50
11.2020	0.41	1.6	0.73	0.64	0.33	0.31	0.15	0.27	0.38
21/93 Dated: 26.	77deg 31min 27.1sec	77deg 31min 26.8sec	77deg 31min	∠o./sec	77deg 31min 27.1sec	77deg 31min 26.4sec	77deg 31min 26.3sec	77deg 31min 26.1sec	77deg 31min 26.1sec
P2/R4B/2020-2	12deg 51min 30.0sec	12deg 51min 29.8sec	12deg 51min	Za.osec	12deg 51min 29.8sec	12deg 51min 30.0sec	12deg 51min 29.9sec	12deg 51min 29.7sec	12deg 51min 30.2sec
Application No:BMRCL/0023/P2/R4B/2020-21/93 Dated: 26.11.2020	Hebbevu	Thare	Bage	Bage	Shivane	Kamara	Bilwara	Sandal wood	Hebbevu
cation No	06	91	92 a 92	92 b	6	95	67	66 6	100
Appl	13	<u>4</u>	15 25		16	17	~	10	20

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Location: Reach-4B, U M Kaval.	<ul> <li>Tree is present in the center of the project area.</li> <li>Tree is having clear bole and visual significant symptoms, hence recommended for transplantation/translocation.</li> </ul>	<ul> <li>Tree is located within the project area.</li> <li>Tree is very nearer to Tree no. 127.</li> <li>Care should be taken while transplanting with suitable host.</li> </ul>	<ul> <li>Tree is present in the center of the project area.</li> <li>Tree is young and having straight bole and this tree is nearer to tree no. 125 at a distance of less than 1.5 meter. Hence ,possible measures to be taken excavating appropriate root ball for transplantation/translocation.</li> </ul>	<ul> <li>Tree is present in the center of the proposed depot.</li> <li>It is entry, no Visual significant symptoms.</li> <li>Tree is nearer to tree No.105,hence,appropriate care should be taken while excavation root ball.</li> </ul>	<ul> <li>Tree is present in the proposed project area.</li> <li>Young tree, having Minor defects like fissure on the stem, however, tree is able to rejuvenate after transplantation.hence, this tree is recommended for transplantation.</li> </ul>	<ul> <li>The tree is present in the center of the proposed Depot.</li> <li>It is young tree, no visual significant symptoms.</li> <li>Tree is nearer to tree NO.104, hence, appropriate care should be taken while excavation root ball.</li> </ul>	<ul> <li>Tree is located in the proposed depot and it is near to tree no. 124.</li> <li>Tree is having straight bole with minor defects.</li> <li>Possible care should be taken while excavating appropriate root ball, since tree is nearer to Tree No. 124.</li> </ul>
	Translocation	Translocation	Translocation	Translocation	Translocation	Translocation	Translocation
	Translocation	Translocation	Translocation	Translocation	Translocation	Translocation	Translocation
	8.00	4.00	8.00	3.00	3.00	4.00	15.00
	10.00	5.00	8.50	4.00	4.00	4.00	10.00
11.2020	69.0	0.17	0.59	0.28	0.29	0.41	1.24
Application No:BMRCL/0023/P2/R4B/2020-21/93 Dated: 26.11.2020	77deg 31min 25.9sec	77deg 31min 26.0sec	77deg 31min 25.5sec	77deg 31min 25.1sec	77deg 31min 25.0sec	77deg 31min 25.0sec	77deg 31min 24.7sec
P2/R4B/2020-2	12deg 51min 30.2sec	12deg 51min 29.6sec	12deg 51min 29.8sec	12deg 51min 30.1sec	12deg 51min 29.9sec	12deg 51min 30.2sec	12deg 51min 30.1sec
:BMRCL/0023	Bilwara	Sandal	Hebbevu	Nerale	Shivane	Nerale	Thare
ication No.	103	106	107	111	112	113	15
Appl	21	22	23	24	25	26	27

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Location: Reach-4B, U M Kaval.	<ul> <li>Tree is with minor defects and present in the centre of the project area (proposed for depot.)</li> <li>Tree is having clear bole, one major branch was already pruned.</li> <li>This tree located near tree No.124 hence, care should be taken while excavating appropriate root ball</li> </ul>	<ul> <li>Tree is located in the proposed project area and situated near tree No. 120 (less than 1 meter).</li> <li>Young trees care should be taken during root ball excavation.</li> </ul>	<ul> <li>Tree is with minor defects and present in the project area (proposed for depot.)</li> <li>Young and small tree having 3 branches from the base, one branch is bent towards the ground.</li> <li>This tree is recommended for transplantation by pruning one branch which is bent towards the ground.</li> </ul>	<ul> <li>Tree is with minor defects and present in the project area (proposed for depot.)</li> <li>Tree is young, no visual significant symptoms, clear straight bole and it is near tree No. 111.</li> <li>Hence, proper care should be taken during the transplantation/translocation process involving excavation of root ball, recommended for transplantation/translocation.</li> </ul>	<ul> <li>Tree present in the center of the project area (proposed for depot.)</li> <li>Young seedling, with clear bole and visual significant symptoms and it is near tree no 114 at a distance of less than 1 meter.</li> <li>Hence, proper care should be taken during the transplantation/translocation process involving excavation of root ball.</li> </ul>
	Translocation	Translocation	Translocation	Translocation	Translocation
	Translocation	Translocation	Translocation	Translocation	Translocation
	10.00	3.00	3.00	8.00	6.00
	10.00	4.50	3.00	10.00	8.00
11.2020	1.10	0.21	0.24	0.69	0.52
Application No:BMRCL/0023/P2/R4B/2020-21/93 Dated: 26.11.2020	77deg 31min 24.6sec	77deg 31min 23.3sec	77deg 31min 23.1sec	77deg 31min 23.0sec	77deg 31min 22.8sec
P2/R4B/2020-3	12deg 51min 30.0sec	12deg 51min 30.0sec	12deg 51min 30.3sec	12deg 51min 30.3sec	12deg 51min 30.2sec
5:BMRCL/0023/	Thare	Kumkuma	Shivane	Hebbevu	Hebbevu
lication No	16	121	122	123	126
App	28	29	30	31	32

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App	ication No	o:BMRCL/0023	3/P2/R4B/2020-	Application No:BMRCL/0023/P2/R4B/2020-21/93 Dated: 26.11.2020	11.2020					Location: Reach-4B, U M Kaval. • Tree present in the centre of the project area (proposed for depot.)
33	127	Thorematti	12deg 51min 30.3sec	12deg 51min 77deg 31min 30.3sec 22.8sec	0.27	4.50	4.00	Translocation	Translocation	<ul> <li>Found section 9, which creat both and visual significant symptoms and it is near tree no 113 at a distance of less than 1 meter.</li> <li>Hence, proper care should be taken during the transplantation/translocation process involving excavation of root ball.</li> </ul>
34	128	Kumkuma	12deg 51min 30.3sec	12deg 51min 77deg 31min 30.3sec 22.8sec	0.16	3.50	3.00	Translocation	Translocation	<ul> <li>Tree present in the center of the project area (proposed for depot.)</li> <li>Young seedling, and it is near to tree No.129.hence, care should be taken while excavating root ball for transplantation.</li> </ul>
35	129	Kumkuma	12deg 51min 30.4sec	12deg 51min 77deg 31min 30.4sec 22.8sec	0.21	3.50	3.00	Translocation	Translocation	<ul> <li>Tree present in the center of the project area.</li> <li>Young seedling, and it is near to tree No.128.hence, care should be taken while excavating root ball for transplantation.</li> </ul>
36	130	Nerale	12deg 51min 30.1sec	12deg 51min 77deg 31min 30.1sec 22.7sec	0.26	4.00	3.00	Translocation	Translocation	<ul> <li>Tree is present in the center of the project area (proposed for depot.)</li> <li>Young seedling hence, care should be taken while excavation root ball for transplantation.</li> </ul>

Summary:	
Total Number Enumerated Trees	130
Total number of Trees assessed as suitable for Translocation	36

Tree Officer &Deputy Conservator of Forests, Bangalore Urban Division,Bangalore. 11

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**TEMPLATE No. 6** 

### PARTICULARS ON TREES TO BE FELLED\*

(to be prepared in compliance to Step 9 of the Memorandum of Procedure of TEC)

Name of the user agency	Bangalore Metro Rail Corporation Limited
Purpose of the project	Construction of Anjanapura Depot and Viaduct for Depot entry line in Reach 4B via Kanakapura Road.
Extent of the project area	0.71 Ha
Location of the project area	<ul> <li>U M Kaval forest area Survey no.38 in Kanakapura road.</li> <li>1.Starting Point:</li> <li>Lat -12 deg 51min 20.1Sec</li> <li>Long -77 deg 31 min 30.4 Sec</li> <li>2.Ending Point:</li> <li>Lat -12 deg 51min 30 Sec</li> <li>Long -77 deg 31min 21.8 Sec</li> </ul>
Number of tree(s) enumerated in the project area	130 Trees
Number of tree(s) recommended for felling	87 Trees

\* Note:

List of the trees to be felled containing details of kind / species, girth, height, GPS coordinates should be appended to this template. These details should be extracted from relevant parts of Template2.

TreeOfficer

Date:



Appil	lication N	Application No:BMRCL/0023/P2/R4B/2020-21/93 Dated: 26.11.2020	P2/R4B/2020	-21/93 Dated	26.11.	2020				Location: Reach-4B, U M Kaval.
List	t of Tre	List of Trees Recommendation for Felling	andation f	<u>pr Felling</u>						Appendix - 3
ิเง		Sneriee	Loc	Location	Girth	Height	Crown Spread	TEC Recom	Tree Officer Recom	Instification
Ŷ	Number		Latitude (N)	Longitude (E)	in Mtr	in Mtr	in Sq.Mtr	mendat ion	mendati on	
-	n	Gulmohar	12deg 51min 23.4sec	77deg 31min 33.4sec	0.32	6.00	3.00	Felling	Felling	The tree cannot be retained as the construction of pile cap (for DP 01) as per plan is proposed close to the location of the tree. The tree is present in cluster closer to other trees; therefore, excavation of desirable root ball for transplantation is not possible. <b>Recommendation : Felling.</b>
N	4	Gulmohar	12deg 51min 23.4sec	77deg 31min 33.4sec	0.23	5.50	2.00	Felling	Felling	The tree cannot be retained as the construction of pile cap (for DP 01) as per plan is proposed close to the location of the tree. The tree is present in cluster closer to other trees; therefore, excavation of desirable root ball for transplantation is not possible. <b>Recommendation: Felling.</b>
б	ى ا	Gulmohar	12deg 51min 23.5sec	77deg 31min 33.4sec	0.22	6.50	5	Felling	Felling	The tree cannot be retained as the construction of pile cap (for DP 01) as per plan is proposed close to the location of the tree. The tree is present in cluster closer to other trees; therefore, excavation of desirable root ball for transplantation is not possible. <b>Recommendation : Felling.</b>
4	ω	Gulmohar	12deg 51min 23.5sec	77deg 31min 33.4sec	0.27	6.50	3.00	Felling	Felling	The tree cannot be retained as the construction of pile cap (for DP 01) as per plan is proposed close to the location of the tree. The tree is present in cluster closer to other trees; therefore, excavation of desirable root ball for transplantation is not possible. Recommendation : Felling.
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10	Q	œ	7	Number	Tree
Thare	Shivane	Gulmohar	Gulmohar		Species
12deg 51min 24.2sec	12deg 51min 23.8sec	12deg 51min 23.5sec	12deg 51min 23.5sec	Latitude (N)	Loc
77deg -31min 33.7sec	77deg 31min 33.5sec	77deg 31min 33.5sec	77deg 31min 33.5sec	Longitude (E)	Location
2.17	0.72	0.75	0.75	in Mtr	Girth
13.00	8.50	9.00	8.50	in Mtr	Height
20.00	5.00	6.00	8.00	in Sq.Mtr	Crown Spread
Felling	Felling	Felling	Felling	mendat ion	TEC
Felling	Felling	Felling	Felling	-	Tree Officer Recom
The tree cannot be retained as the construction of pile Cap (for DP 02) as per plan is proposed very close to the location of the tree. The tree is matured and the base is conjoined with tree no. 12, therefore transplantation is not possible. <b>Recommendation : Felling.</b>	The tree cannot be retained as the construction of pile cap (for DP 01) as per plan is proposed very close to the location of the tree. The tree is matured with severe canker and decay symptom therefore, transplantation is not possible. <b>Recommendation : Felling.</b>	The tree cannot be retained as the construction of pile cap (for DP 01) as per plan is proposed close to the location of the tree. The tree is present in cluster closer to other trees; therefore, excavation of desirable root ball for transplantation is not possible. <b>Recommendation : Felling.</b>	The tree cannot be retained as the construction of pile cap (for DP 01) as per plan is proposed close to the location of the tree. The tree is present in cluster closer to other trees; therefore, excavation of desirable root ball for transplantation is not possible. <b>Recommendation : Felling.</b>		Instification

	JUSUIICAUOI	The tree is Recommendation for extraction as the construction of pile Cap (for DP 02) as per plan is proposed very close to the location of the tree. The base of the tree is conjoined with tree no. 12, therefore transplantation of the tree is not possible. <b>Recommendation :Extraction/ Felling.</b>	The tree is Recommendation for felling as the tree is dried completely. <b>Recommendation : Felling.</b>	The tree cannot be retained as the construction of pile cap (for DP 07 & 06) as per plan is proposed near to the location of the tree. The tree is present in	desirable root ball for transplantation is not possible. Recommendation : Felling.	The tree cannot be retained as the construction of pile Cap (for DP 07 & 6) as per plan is proposed near to the location of the tree. The tree shows canker symptoms and is present in cluster closer to other trees excavation of desirable root ball for transplantation is not possible. <b>Recommendation : Felling.</b>
Tree Officer	mendati	Felling	Felling	Felling	Felling	Felling
TEC Recom	mendat ion	Felling	Felling	Felling	Felling	Felling
Crown Spread	in Sq.Mtr	2.00	6.00	5.00	4.00	5.00
Height	in Mtr	6.50	11.50	6.30	6.30	6.00
Girth	in Mtr	0.19	1.05	0.34	0.15	0.23
ocation	Longitude (E)	77deg 31min 33.6sec	77deg 31min 33.3sec	77deg 31min	32.4sec	77deg 31min 32.4sec
Loc	Latitude (N)	12deg 51min 24.2sec	12deg 51min 25.4sec	12deg 51min	27.2sec	12deg 51min 27.2sec
Concione		Sandal	Hebbevu	Subabul		Subabul
Tree	Number	~	13	14a	14b	15
<u>.</u>	Ŷ	თ	10	7		12

16	- <u>1</u> 5	-1-4-4	<del>ت</del>	No	S
<u>ග</u>	රා 	4	ω		
20	19 19	17	6	Number	Tree
Honge	Honge	Subabul	Subabul		Species
12deg 51min 27.3sec	12deg 51min 27.3sec	12deg 51min27.2 sec	12deg 51min 27.1sec	Latitude (N)	Loc
77deg 31min 32.2sec	77deg 31min 32.2sec	77deg 31min 32.3sec	77deg 31min 32.3sec	Longitude (E)	Location
0.58	0.62	0.34	0.56	in Mtr	Girth
9.50	8.50	8.00	8.00	in Mtr	Height
8.00	8.00	5.00	6.00	in Sq.Mtr	Crown Spread
Felling	Felling	Felling	Felling	mendat ion	TEC Recom
Felling	Felling	Felling	Felling	mendati on	Tree Officer
The tree cannot be retained as the construction of pile Cap (for DP 07 & 6) as per plan is proposed very close to the location of the tree. The tree is matured and the base is closed to tree no. 19 and 21 therefore transplantation is not possible. <b>Recommendation: Felling.</b>	The tree cannot be retained as the construction of pile Cap (for DP 07 & 6) as per plan is proposed very close to the location of the tree. The tree is matured and the base is close to tree no.20 and 21 therefore transplantation is not possible. Recommendation : Felling.	The tree cannot be retained as the construction of pile Cap (for DP 07 & 6) as per plan is proposed near to the location of the tree. The tree shows canker symptoms and in addition the tree is present in cluster closer to other trees: therefore, excavation of desirable root ball for transplantation is not possible. Recommendation : Felling.	The tree cannot be retained as the construction of pile Cap (for DP 07 & 6) as per plan is proposed near to the location of the tree. The tree is with decay symptoms and in addition the tree is present in cluster closer to other trees; therefore, excavation of desirable root ball for transplantation is not possible. Recommendation : Felling.		Instification

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	Justification	The tree cannot be retained as the construction of pile Cap (for DP 07 & 6) as per plan is proposed very close to the location of the tree. The tree is matured and the base is closed to tree no.20 and 21 therefore transplantation is not possible. <b>Recommendation : Felling.</b>	The tree cannot be retained as the construction of pile Cap (for DP 07 & 6) as per plan is proposed very close to the location of the tree. The tree is matured and the base is closed to tree no.24 therefore transplantation is not possible. <b>Recommendation : Felling.</b>	The tree cannot be retained as the construction of pile Cap (for DP 07 & 6) as per plan is proposed very close to the location of the tree. The tree is matured and the base is closed to tree no.22 and 21 therefore transplantation is not possible. <b>Recommendation : felling.</b>	The tree cannot be retained as the construction of pile Cap (for DP 07 ) as per plan is proposed very close to the location of the tree. The tree is matured and the base is conjoined with tree no.27 ,28,and 29, therefore transplantation is not possible. <b>Recommendation : Felling</b>
Tree Officer	кесот mendati on	Felling	Felling	Felling	Felling
TEC Recom	mendat ion	Felling	Felling	Felling	Felling
Crown Spread	in Sq.Mtr	1.00	6.00	1.50	5.00
Height	in Mtr	3.00	2.50	4.00	6.00
Girth	in Mtr	0.47	0.38	0.25	0.42
Location	Longitude (E)	77deg 31min 32.1sec	77 deg 31 min 32.2sec	77deg 31min 32.2sec	77deg 31min 32.1sec
Loci	Latitude (N)	12deg 51min 27.3sec	12deg 51min 27.4sec	12deg 51min 27.4sec	12deg 51min 27.4sec
	obecies	Honge	Honge	Jagalaganti	Honge
Tree	Number	21	22	24	26
<u>.</u>	No	17	-18	19	20

					N	7	(0)
	24	23	22		21	No	S
	30	29	28		27	Number	Tree
	Cherry	Jagalaganti	Jungle Tree		Honge		Species
	12deg 51min 26.9sec	12deg 51min 27.4sec	12deg 51min 27.4sec		12deg 51min 27.4sec	Latitude (N)	Loca
	77deg 31min 32.8sec	77deg 31min 32.1sec	77deg 31min 32.1sec	a)	77deg 31min 32.1sec	Longitude (E)	Location
	0.66	0.15	0.16		0.27	in Mtr	Girth
	3.00	3.00	3.00		5.00	in Mtr	Height
		2.00			2.00	in Sq.Mtr	<b>Crown</b> <b>Spread</b>
	Felling	Felling	Felling		Felling	ion	TEC
	Felling	Felling	Felling		Felling	mendati on	Tree Officer Recom
Recommendation :Felling	The tree should be retained as the tree is present outside the project area as per plan. However, it was observed the tree was enumerated and found dead and fallen.	The tree cannot be retained as the construction of pile Cap (for DP 07) as per plan is proposed very close to the location of the tree. The tree is matured and the base is conjoined with tree no.26,27 and 28, therefore transplantation is not possible. <b>Recommendation : Felling.</b>	The tree cannot be retained as the construction of pile Cap (for DP 07) as per plan is proposed very close to the location of the tree. The tree is matured and the base is conjoined with tree no.26,28 and 29, therefore transplantation is not possible. <b>Recommendation : felling.</b>	Recommendation : Felling.	The tree cannot be retained as the construction of pile Cap (for DP 07) as per plan is proposed very close to the location of the tree. The tree is matured and the base is conjoined with tree no.26,28 and 29, therefore transplantation is not possible.		Justification

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	JUSUICAUOI	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed very close to the location of the tree. The tree is matured and the roots are exposed, therefore transplantation is not possible. <b>Recommendation : Felling.</b>	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed very close to the location of the tree. The tree is matured therefore transplantation is not possible. <b>Recommendation : Felling.</b>	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed very close to the location of the tree. The base of the tree is very close to tree no. 35 ,therefore transplantation is not possible. <b>Recommendation : Felling.</b>	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed very close to the location of the tree. The base of the tree is very close to tree no.34, therefore transplantation is not possible. <b>Recommendation : Felling.</b>
Tree Officer Docom	mendati on	Felling	Felling	Felling	Felling
TEC Recom	mendat ion	Felling	Felling	Felling	Felling
Crown Spread	in Sq.Mtr	8.00	10.00	3.00	3.00
Height in Mtr		8.00	13.00	5.00	5.00
Girth	in Mtr	0.67	1.55	0.25	0.25
Location	Longitude (E)	77deg 31min 31.7sec	77deg 31min 31.6sec	77deg 31min 31.6sec	77deg 31min 31.6sec
Loci	Latitude (N)	12deg 51min 27.6sec	12deg 51min 27.7sec	12deg 51min 27.7sec	12deg 51min 27.7sec
Coorioe	obecies	Banni	Tapala	Shivane	Shivane
Tree	Number	32	33	34	35
<u>.</u>	° Z	25	26	27	28

32	3 1	30	29	No No	<u>s</u>
42	4	<b>4</b> 0	37	Number	Tree
Subabul	Gobbarada gida	Gobbarada gida	Subabul		
12deg 51min 27.8sec	12deg 51min 27.8sec	12deg 51min 27.9sec	12deg 51min 27.7sec	Latitude (N)	Loc
77deg 31min 31.3sec	77deg 31min 31.2sec	77deg 31min 31.2sec	77deg 31min 31.5sec	Longitude (E)	Location
0.23	0.26	0.19	0.18	in Mtr	Girth
6.50	6.00	5.00	3.00	in Mtr	Height
2.00	2.00	1.00	2.00	in Sq.Mtr	Crown
Felling	Felling	Felling	Felling	mendat ion	TEC Recom
Felling	Felling	Felling	Felling	mendati on	Tree Officer
The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The roots of the tree are exposed; therefore, the tree do not qualify for transplantation. <b>Recommendation :Felling.</b>	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The roots of the tree are exposed; therefore, the tree do not qualify for transplantation. <b>Recommendation :Felling.</b>	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed very close to the location of the tree. The base of the tree is close to tree no. 43, thereforethe tree do not qualify for transplantation <b>Recommendation : Felling.</b>	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of earth) as per plan is proposed very close to the location of the tree. The roots of tree are exposed. Therefore, the tree do not qualify for transplantation. <b>Recommendation : Felling</b>		Instification

*	Justification	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The base of the tree is close to tree no.40, therefore the tree do not qualify for transplantation. <b>Recommendation: Felling.</b>	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in he location of the tree. The base of the tree is close to tree no.45, therefore the tree do not qualify for transplantation. <b>Recommendation : Felling.</b>	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The base of the tree is close to tree no.44, therefore the tree do not qualify for transplantation. <b>Recommendation : felling.</b>	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The base of the tree is close to tree no.47 and 48, therefore the tree do not qualify for transplantation. <b>Recommendation: Felling.</b>
Tree	Recom mendati on	Felling	Felling	Felling	Felling
TEC	Recom mendat ion	Felling	Felling	Felling	Felling
Crown	Spread in Sq.Mtr	5.00	2.00	1.00	1.00
	Height in Mtr	4.00	5.00	6.00	6.00
	Girth in Mtr	0.17	0.31	0.25	0.24
Location	Longitude (E)	77deg 33min 10.7sec	77deg 31min 31.2sec	77deg 31min 31.2sec	77deg 31min 31.1sec
Loc	Latitude (N)	12deg 51min 27.0sec	12deg 51min 28.0sec	12deg 51min 28.0sec	12deg 51min 27.9sec
	Species	Gobbarada gida	Gobbarada gida	Gobbarada gida	Gobbarada gida
	Tree Number	43	44	45	46
¥	No No	33	34	35	30

40	39	38 8	37	No	<u>v</u>
5	49	48	47	Number	Tree
Gobbarada gida	Gobbarada gida	Gobbarada gida	Gobbarada gida	Creates	0 0 0 0
12deg 51min 28.0sec	12deg 51min 27.9sec	12deg 51min 27.9sec	12deg 51min 27.9sec	Latitude (N)	Loca
77deg 31min 30.9sec	77deg 31min 31.2sec	77deg 31min 31.1sec	77deg 31min 31.1sec	Longitude (E)	Location
0.87	0.26	0.32	0.29	in Mtr	Girth
6.00	6.00	2.50	5.00	in Mtr	Height
4.00	2.00	2.00	2.00	in Sq.Mtr	Crown
Felling	Felling	Felling	Felling	mendat ion	TEC Recom
Felling	Felling	Felling	Felling	mendati on	Tree Officer
The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of earth) as per plan is proposed in the location of the tree. The tree is multiforked with included barks (weak branch union), therefore the tree do not qualify for transplantation. <b>Recommendation : Felling.</b>		The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The base of the tree is close to tree no.46 and 47, therefore the tree do not qualify for transplantation. <b>Recommendation : felling.</b>	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed very close to the location of the tree. The base of the tree is close to tree no.46 and 48, therefore the tree do not qualify for transplantation. <b>Recommendation : Felling.</b>	Sustilication	

Justification		The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The base of the tree is close to tree no.53, therefore the tree do not qualify for transplantation.	Recommendation : felling.	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of earth) as per plan is proposed in the location of the tree. The base of the tree is close to tree no.52, therefore the tree do not qualify for transplantation. <b>Recommendation: Felling.</b>	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of earth) as per plan is proposed in the location of the tree. The tree is forked with included barks (weak branch union), therefore the	tree do not qualify for transplantation. Recommendation : Felling.	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of earth) as per plan is proposed in the location of the tree. The base of the tree is close to tree no.57, therefore the tree do not qualify for transplantation. <b>Recommendation : Felling.</b>
Tree Officer Recom	mendati on	Felling		Felling	Felling	Felling	Felling
TEC Recom	mendat ion	Felling		Felling	Felling	Felling	Felling
Crown Spread	sq.Mtr	2.00		2.00	6.00	1.00	1.00
Height	In Mtr	6.00		6.50	6.00	6.00	6.00
Girth	IN MIL	0.25		0.29	0.41	0.30	0.41
Location	Longitude (E)	77deg 31min 31.0sec		77deg 31min 31.0sec	77deg 31min	00.9960	77deg 31min 30.8sec
Loc	Latitude (N)	12deg 51min 28.1sec		12deg 51min 28.1sec	12deg 51min	20.1960	12deg 51min 28.2sec
Species		Gobbarada gida		Gobbarada gida	Subabul	Subabul	Jungle Tree
Tree	Number	52		53	54a	54b	55
- I I I I I I I I I I I I I I I I I I I		41		42	5		44

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qualify for transplantation. Recommendation : Felling.	Felling	Felling	1.00	4.50	0.20	30.7sec	28.3sec	gida	59b	
The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is	Felling	Felling	2.00	4.50	0.23	77deg	12deg	Gobbarada	o 59a	48
The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The base of the tree is close to tree no.56, therefore the tree do not qualify for transplantation. <b>Recommendation :Ffelling.</b>	Felling	Felling	2.00	4.50	0.24	77deg 31min 30.6sec	12deg 51min 28.3sec	Gobbarada gida	58	47
The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The tree is severely infested by secondary infestors and partially dried, therefore the tree do not qualify for transplantation. <b>Recommendation: felling.</b>	Felling	Felling		4.50	1.40	77deg 31min 30.8sec	12deg 51min 28.2sec	Tapala	57	46
The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The base of the tree is close to tree no.58, therefore the tree do not qualify for transplantation. <b>Recommendation :Felling.</b>	Felling	Felling	3.00	5.00	0.30	77deg 31min 30.7sec	12deg 51min 28.2sec	Hale Tree	56	45
	mendati on	mendat ion	in Sq.Mtr	in Mtr	in Mtr	Longitude (E)	Latitude (N)	opeored	Number	No Z
	Tree Officer	TEC Recom	Crown Spread	Height	Girth	Location	Loc	<b>S</b>	Tree	S

	JUSTIFICATION	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The base of the tree is close to tree no.60, therefore the tree do not qualify for transplantation. <b>Recommendation : Felling.</b>	<ul> <li>Tree is located in the proposed project area.</li> <li>Tree is situated near to the existing compound wall; appropriated root ball cannot be excavated. Hence this tree is Recommendation for felling.</li> </ul>	<ul> <li>Tree is located within the project area.</li> <li>Tree is silviculturally matured, girdled at the base of the trunk and also mechanically damaged.</li> <li>hence this tree disqualifies transplantation. Hence this tree is Recommendation for felling.</li> </ul>	<ul> <li>Tree is located within the project area.</li> <li>Tree has forked branches and mechanically damages.</li> <li>Hence, this tree is unfit for transplantation.Hence this tree is Recommendation for felling.</li> </ul>	<ul> <li>Tree is located within the project area.</li> <li>Tree has forked branches and mechanically damages.</li> <li>Hence, this tree is unfit for transplantation. Hence this tree is Recommendation for felling.</li> </ul>
Tree Officer	mendati on	Felling	Felling	Felling	Felling	Felling
TEC Recom	mendat ion	Felling	Felling	Felling	Felling	Felling
Crown Spread	in Sq.Mtr	2.00	5.00	10.00	6.00	4.00
Height	in Mtr	4.00	8.00	11.00	8.00	4.50
Girth	in Mtr	0.24	0.51	1.70	0.76	0.25
Location	Longitude (E)	77deg 31min 30.6sec	77deg 31min 30.6sec	77deg 31min 30.6sec	77deg 31min 30.4sec	77deg 31min 30.4sec
Loc	Latitude (N)	12deg 51min 28.3sec	12deg 51min 28.4sec	12deg 51min 28.0sec	12deg 51min 28.1sec	12deg 51min 28.1sec
Snariae	onecies	Gobbarada gida	Subabul	Thare	Thare	Thare
Tree	Number	09	61	62	63	64
<u>.</u>	Ŷ	4	50	51	52	53

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No No	54 54	с 4	55	56	57		58	
Number	65	C	08 8	70	72	73a	73 73b	73c
opecies	Thare	ធ	Gobbarada gida	Achalu	Tapala	_	Seemethanga di	
Latitude (N)	12deg 51min	28.1sec	12deg 51min 28.8sec	12deg 51min 28.8sec	12deg 51min 29.0sec		12deg 51min	20.00CC
Longitude (E)	77deg 31min	30.4sec	77deg 31min 29.1sec	77deg 31min 28.9sec	77deg 31min 28.8sec		//deg 31min	NO. USEC
in Mtr	0.79	0.77	0.29	0.59	0.45	0.48	0.41	0.40
in Mtr	9.00	7.00	6.00	4.50	5.00	6.00	6.00	4.00
in Sq.Mtr	6.00	0.00	4.00	5.00	1.00	4.00	4.00	4.00
mendat ion	Felling		Felling	Felling	Felling		Felling	
mendati on	Felling		Felling	Felling	Felling		Felling	
JUSUIICATION	<ul> <li>Tree is located within the project area.</li> <li>Tree has forked branches and mechanically damages.</li> </ul>	<ul> <li>Hence, this tree is unfit for transplantation. Hence this tree is Recommendation for felling.</li> </ul>	<ul> <li>The tree is located in the project area.</li> <li>The tree having multiple branches, and is located near the existing compound wall.</li> <li>Hence, this tree is unfit for transplantation.</li> </ul>	<ul> <li>Tree located in the project area.</li> <li>Half of the trunk is already damaged.</li> <li>Hence, this tree does not fit for transplantation. Hence this tree is Recommendation for felling.</li> </ul>	<ul> <li>Tree is located within the project area.</li> <li>Tree is leaned and bent; major branches are already dried.</li> <li>Hence this tree does not fit for transplantationHence this tree is Recommendation for felling</li> </ul>	• Tree No.81,82 are very nearer and are at a	Hence, appropriate root ball cannot be taken for successful transplantation.	<ul> <li>Hence, this tree is unfit for transplantation.</li> <li>Hence this tree is Recommendation for felling.</li> </ul>

	JUSTIFICATION	<ul> <li>Tree No.81,82 are very nearer and are at a circumference of not more 1 meter and these trees. Hence, appropriate root ball cannot be taken for successful transplantation.</li> <li>Hence, this tree is unfit for transplantation. Hence this tree is Recommendation for felling.</li> </ul>	<ul> <li>Tree No.83,82 are very nearer to this tree and at a distance of less than 0.5 meter. Hence, appropriate root ball cannot be excavated.</li> <li>Tree is having minimal ecological importance.</li> <li>Based on these factors, this tree is unfit for transplantation. Hence this tree is Recommendation for felling.</li> </ul>	<ul> <li>Tree No.84,85,86 are very nearer and are at a circumference of not more 1 meter and these trees are located near the adjacent compound wall. Hence, appropriate root ball cannot be taken for successful transplantation.</li> <li>Hence, this tree is unfit for transplantation. Hence this tree is Recommendation for felling.</li> </ul>	<ul> <li>Tree No.84,85,86 are very nearer and are at a circumference of not more 1 meter and these trees are located near the adjacent compound wall. Hence, appropriate root ball cannot be taken for successful transplantation.</li> <li>Hence, this tree is unfit for transplantation. Hence the transplantation for felling.</li> </ul>
Tree Officer	mendati on	Felling	Felling	Felling	Felling
TEC Recom	mendat ion	Felling	Felling	Felling	Felling
Crown Spread	in Sq.Mtr	00.00	00. 10	3.00	4.00
Height	in Mtr	7.00	7.00	4.50	5.00
Girth	in Mtr	0.58	0.56	0.31	0.35
Location	Longitude (E)	77deg 31min 28.5sec	77deg 31min 28.5sec	77deg 31min 28.2sec	77deg 31min 28.2sec
Loci	Latitude (N)	12deg 51min 29.3sec	12deg 51min 29.3sec	12deg 51min 29.5sec	12deg 51min 29.5sec
	obecies	Seemethanga di	Seemethanga di	Shivane	Shivane
Tree	Number	74	75	76	17
ល	°N N	29	60	61	62

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0 0	0 5	6 4	တိသ	No
<u>8</u>	80	79	78	Tree Number
Hebbevu	Seemethanga di	Seemethanga di	Shivane	Species
12deg 51min 29.6sec	12deg 51min 29.4sec	12deg 51min 29.4sec	12deg 51min 29.5sec	Loc Latitude (N)
77deg 31min 27.9sec	77deg 31min 28.1sec	77deg 31min 28.1sec	77deg 31min 28.2sec	Location de Longitude (E)
0.67	0.42	0.54	0.47	Girth in Mtr
8.00	7.00	7.00	3.00	Height in Mtr
7.00	5.00	<u>ග</u> 00	6.00	Crown Spread in Sq.Mtr
Felling	Felling	Felling	Felling	TEC Recom mendat ion
Felling	Felling	Felling	Felling	Tree Officer Recom mendati on
<ul> <li>Tree is situated in the proposed alignment of depot.</li> <li>Tree is mechanically damaged and attacked be termites.</li> <li>Hence, tree disqualifies for transplantation.</li> <li>Hence this tree is Recommendation for felling.</li> </ul>	<ul> <li>Trees are having multiple branches and tree No.87, very nearer to this tree and at a distance of less than 0.5 meter. Hence, appropriate root ball cannot be excavated.</li> <li>Tree is having minimal ecological importance.</li> <li>Based on these factors, this tree is unfit for transplantation.</li> <li>Hence this tree is Recommendation for felling.</li> </ul>	<ul> <li>Trees are having multiple branches and tree No.88, very nearer to this tree and at a distance of less than 0.5 meter. Hence, appropriate root ball cannot be excavated.</li> <li>Tree is having minimal ecological importance.</li> <li>Based on these factors, this tree is unfit for transplantation.Hence this tree is Recommendation for felling.</li> </ul>	<ul> <li>Tree No.84,85,86 are very nearer and are at a circumference of not more 1 meter and these trees are located near the adjacent compound wall</li> <li>Hence, appropriate root ball cannot be taken for successful transplantation.</li> <li>Hence, this tree is unfit for transplantation.</li> <li>Hence this tree is Recommendation for felling.</li> </ul>	Justification

		<ul> <li>Tree is located in the proposed alignment of depot.</li> <li>This tree is silviculturally matured, major branches of this tree are already fallen</li> </ul>	<ul> <li>More than 70 per cent of the tree is already dried.</li> <li>Hence, this tree is not fit for transplantation. Hence this tree is Recommendation for felling.</li> </ul>	<ul> <li>Tree is located in the proposed alignment.</li> <li>Tree is having minimal ecological importance and also mechanically damaged.</li> <li>Hence , not fit for transplantationHence this tree is Recommendation for felling.</li> </ul>	<ul> <li>Tree is located in the proposed alignment.</li> <li>Tree is having minimal ecological importance and also mechanically damaged.</li> <li>Hence, not fit for transplantation.</li> <li>Hence this tree is Recommendation for felling.</li> </ul>	<ul> <li>Tree is within the project area.</li> <li>Tree matured, half of the trunk was damaged and has termite attack, three branches were already felled and one more branch was fallen. Hence this tree is Recommendation for felling.</li> </ul>	<ul> <li>This is located in the proposed project depot.</li> <li>This is having more than 25culms, which spreads over more than 2 square meter, hence not possible to excavate appropriate root ball for successful transplantation.</li> <li>Hence Recommendation for felling</li> </ul>
Tree Officer Decom	mendati	Ľ	Leiling	Felling	Felling	Felling	Felling
TEC Recom	mendat ion		Lening	Felling	Felling	Felling	Felling
Crown Spread	in Sq.Mtr	10.00	10.00	1.50	2.00	5.00	
Height	in Mtr	5.00	5.00	4.20	4.20	3.60	50(culms)
Girth	in Mtr	0.67	0.66	0.30	0.38	1.20	
Location	Longitude (E)	77deg	27.8sec	77deg 31min 27.3sec	77deg 31min 27.2sec	77deg 31min 27.0sec	77deg 31min 26.8sec
Loc	Latitude (N)	12deg	29.6sec	12deg 51min 29.6sec	12deg 51min 29.7sec	12deg 51min 29.8sec	12deg 51min 29.8sec
Snoriae Stariae	2 2		Dalsela	Kaggali	Kaggali	Barsera	Bidru
Tree	Number	82a	oz 82b	87	õ	88	94
	No No	67		8 O	69	70	17

Hence this tree is Recommendation for felling			10.00	5.00	0.78				105 b		
	Felling	Felling	10.00	5.00	0.77	77deg 31min 25.9sec	12deg 51min 29.7sec	Barsera	105 105 a	77	
<ul> <li>Tree is present in the center of the project area</li> <li>There are more than 15 culms, not possible to excavate appropriate root ball.</li> <li>Hence Recommendation for felling.</li> </ul>	Felling	Felling	C	30(culms)		77deg 31min 25.9sec	12deg 51min 30.2sec	Bidru	104	76	
<ul> <li>Tree is in the proposed depot.</li> <li>There are more than 11 culms spreading more than 1.5-meter area.</li> <li>Excavation of appropriate root ball is not possible for translocation/transplantation.</li> <li>Hence this tree is Recommendation for felling.</li> </ul>	Felling	Felling		30(culms)		77deg 31min 26.1sec	12deg 51min 30.2sec	Bidru	102	75	
<ul> <li>Tree is within the proposed depot.</li> <li>Tree is silviculturally matured, and two major branches are dried.</li> <li>Steam knots on the main trunk.</li> <li>Based on this character's tree does not fit for translocation/transplantation. Hence this tree is Recommendation for felling.</li> </ul>	Felling	Felling	25.00	10.00	0.70	77deg 31min 26.1sec	12deg 51min 30.2sec	Tapala	101	74	
<ul> <li>Tree is within the project area. All the branches of this tree are already pruned and also mechanically damaged.</li> <li>Hence Recommendation for felling.</li> </ul>	Felling	Felling	1.00	3.00	0.26	77deg 31min 26.2sec	12deg 51min 29.9sec	Tupera	86	73	
Tree is within the project area ,tree is having multiple branches, one branch was fallen. Hence this tree is Recommendation for felling.	Felling	Felling	2.00	3.00	0.42	77deg 31min 26.3sec	12deg 51min 29.9sec	Kaggali	96	72	
<u>.</u>	mendati on	mendat ion	in Sq.Mtr	in Mtr	in Mtr	Longitude (E)	Latitude (N)	0	Number	No	
	Tree Officer Recom	TEC Recom	Crown Spread	Height	Girth	Location	Loc	Species	Tree	S	
	JUSTIFICATION	<ul> <li>Tree is present in the center of the project area.</li> <li>Tree is silviculturally matured, one of the branch is chopped, dried and decayed.</li> <li>The main trunk is canker faces and knots.</li> <li>The conditions has mentioned above do not qualify the tree for transplantation/translocation. Hence this tree is Recommendation for felling.</li> </ul>	<ul> <li>Tree is present in the center of the project area.</li> <li>Tree has multiple (8) branches, one branch was</li> </ul>	already felled. • Tree is mechanically damaged; two branches were already dried. • Based on the above characters. this tree does not	fit for transplantation/translocation. Hence this tree is Recommendation for felling.	<ul> <li>Tree is present in the center of the project.</li> </ul>	<ul> <li>Tree has multiple branches; Three branches are already dried</li> </ul>	Based on the above characters, this tree does not	fit for transplantation/translocation. Hence this tree is Recommendation for felling.	)	
-----------------	------------------	--	--	---	--	---	--	---	--	------	--
		<ul> <li>Tree is present in the cente</li> <li>Tree is silviculturally mature chopped, dried and decayed.</li> <li>The main trunk is canker fa</li> <li>The conditions has mention the tree for transplantation/trattree is Recommendation for f</li> </ul>	Tree is present     Tree has multiple	already felled.  Tree is mechar already dried.  Based on the a	fit for transplanta Hence this tree i	Tree is present	<ul> <li>Tree has multipalready dried</li> </ul>	Based on the a	fit for transplantation/translo Recommendation for felling		
Tree Officer	mendati on	Felling		Felling				Felling			
TEC Recom	mendat ion	Felling		Felling			Felling				
Crown	in Sq.Mtr	15.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
Height	in Mtr	00.6	5.00	5.00	5.00	3.00	3.00	3.00	3.00	3.00	
Girth	in Mtr	2.20	0.28	0.40	0.4	0.18	0.2	0.15	0.1	0.1	
Location	Longitude (E)	77deg 31min 25.4sec	77 deg 31 min 25.4 sec 31 min 25.4 sec				77deg 31min 25.6sec				
Loci	Latitude (N)	12deg 51min 29.8sec		12deg 51min 29.9sec		12deg	30.1sec				
Species		Tapala		Shivane				Kumkuma			
Tree	Number	108	109a	) 109b	109c	110a	110b	) 110c	110d	110e	
				109				110			
SI	2°	78		79		80					

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<u>N</u>	Tree	Species	Loc	Location	Girth	Height	Crown Spread	TEC	Tree Officer Recom	Justification
No	Number	opecies	Latitude (N)	Longitude (E)	in Mtr	in Mtr	in Sq.Mtr	mendat ion	mendati on	Justilication
8	1 1 4	Jungle Tree	12deg 51min 29.8sec	77deg 31min 25.2sec	0.55	5.00	3.00	Felling	Felling	<ul> <li>Tree is located in the proposed project area.</li> <li>Tree has forked branches from 2 feet from the ground level. One branch of the tree is already fallen and dried and also mechanically damaged.</li> <li>Hence, based on the above characters, this tree is not suitable for transplantation. Hence this tree is Recommendation for felling.</li> </ul>
82	117	Subabul	12deg 51min 30.1sec	77deg 31min 24.0sec	0.94	8.00	8.00	Felling	Felling	<ul> <li>Tree is present in the center of the project area (proposed for depot).</li> <li>This tree is near tree No.108, having multiple branches (3) from the base.</li> <li>Hence, Recommendation for felling.</li> </ul>
8 8	1 1 8	Bidru	12deg 51min 30.1sec	77deg 31min 23.9sec	2000 CI	200Culms (4 Clumps)		Felling	Felling	<ul> <li>Tree is present in the center of the project area (proposed for depot).</li> <li>The tree has 8 culmps, not possible to excavate root ball.</li> <li>The conditions mentioned above do not qualify the tree for transplantation/translocation.Hence this tree is Recommendation for felling.</li> </ul>
84	119	Tapsi	12deg 51min 30.2sec	77deg 31min 23.3sec	0.45	5.00	5.00	Felling	Felling	<ul> <li>Tree is present in the center of the project area (proposed for depot).</li> <li>Tree is mechanically damaged, partially uprooted due to mechanical injured and tree bent towards the ground.</li> <li>Hence this tree is Recommendation for felling.</li> </ul>

	۲ 	Tree		Loci	Location	Girth	Height	Crown Spread	TEC Recom	Tree Officer	
No	Nun	Number	ohecies	Latitude (N)	Longitude (E)	in Mtr	in Mtr	in Sq.Mtr	mendat ion	mendati on	JUSUIICAUOII
		120a				0.4	6.00	2.00			Tree is proposed project area     Tree is having multiple branches, mechanically
01		120b	, , , , , , , , , , , , , , , , , , ,	12deg	77deg	0.2	6.00	2.00			damaged. • Because of multiple branches, appropriate root ball
8	071	120c		30.0sec	23.3sec	0.15	6.00	2.00	D IIII D	DIIIIAL	cannot be excavated. • Hence, this tree is unfit for transplantation. Hence
		120d				0.15	6.00	2.00			this tree is Recommendation for felling.
86	124		Tapala	12deg 51min 30.3sec	77deg 31min 23.0sec	0.65	10.30	15.00	Felling	Felling	<ul> <li>Tree is with minor defects and present in the project area (proposed for depot.)</li> <li>Tree is silviculturally matured, two major branches for already fallen and one major branch was dried.</li> <li>There are canker faces and fissures at the base.</li> <li>The conditions as mentioned above disqualify the tree for transplantation /translocation. Hence this tree is Recommendation for felling.</li> </ul>
		125a				0.65	7.50	6.00			• This tree is near tree no.111 and at a distance of
87	125	125b	Seemethanga	12deg 51min	77deg 31min	0.3	7.50	3.00	Felling	Felling	<ul> <li>Tree has multiple (6) branches, one branch was</li> </ul>
		125c	5	30.2sec	22.9sec	0.2	7.50	8.00			ariea. • Hence ,Recommendation for felling.
Sum	Summary:							4 4 4	1	2	
Total	Total Number		Enumerated Trees	S			130				
Total	numk	oer of T	Total number of Trees assessed as suitable for Felling	as suitable	for Felling		87				
								1			& Tree Officer & Deputy Conservator of Forests, Bengaluru Urban Division, Bengaluru



### **Report of Tree Expert Committee**

regarding permission sought by BMRCL under section 8 (2) and 8 (3) (vii) of Karnataka Preservation of Trees Act, 1976

# Application No.: BMRCL/0023/Ph-2/R4B/2020-2021/93

dtd 26.11.2020

**Project Area:** Bengaluru Metro Rail Project for Construction of Anjanapura Depot and Viaduct for Depot Entry Line in Reach 4B via Kanakapura Road, Bengaluru

# Location: Anjanapura Depot, UM Kaval, Bengaluru

Dated: 03.09.2021

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## Report of Tree Expert Committee regarding permission sought by BMRCL under Section 8(2) and 8(3)(vii) of Karnataka Preservation of Trees Act, 1976.

Application No.: BMRCL/0023/PHASE 2/R4B/2020-2021/93 dtd 26.11.2020

#### Project Area: Anjanapura Depot, UM Kaval, Bengaluru

- As per the orders of the Hon'ble High Court of Karnataka, the Memorandum of Procedure (herein after mentioned as MOP December – 2020) was submitted on 09.12.2020 duly incorporating the directions of the Hon'ble High Court and the work of the Tree Expert Committee (hereinafter mentioned as TEC) was carried out as per the process elucidated in the MOP.
- 2. The Tree Officer & Deputy Conservator of Forests, Bengaluru Urban Division submitted his preliminary assessment regarding the application filed by Bangalore Metro Rail Corporation Ltd (BMRCL) pertaining to 130 numbers of trees standing in the project area at Anjanapura Depot, Bengaluru. The preliminary assessment was accompanied by following documents:
  - i. A copy of the application dated 26.11.2020 from BMRCL along with details and map of the area and details of trees including GPS coordinates
  - ii. The public notice dated 30.11.2020 issued by the Tree Officer & DCF, Bangalore Urban Division, a complete set of the objections/suggestions from the public and a copy of the proceedings dated 15.12.2020 of the Tree Officer regarding consideration of the objections/suggestions as per Section 8(3)(vii) of the Karnataka Preservation of Trees Act, 1976 (Henceforth referred as KPT Act)
  - iii. Tree Assessment Forms in Template 2 with Part I (dated 21.12.2020) containing tree details as furnished by Range Forest Officer and Part II (dated 28.12.2020) containing preliminary assessment by the Tree Officer for each of 130 trees proposed for removal by BMRCL.
  - iv. Abstract of the review of the BMRCL application and preliminary assessment of trees by the Tree Officer in Template 3 Part I.
  - v. A statement prepared by Tree Officer showing the tree details along with preliminary assessment and justification for on-site retention/translocation/felling of trees.

Copies of the public notice, proceedings of the Tree Officer regarding consideration of the objections and his findings, and preliminary assessment of trees are attached to the report as Annexure-1 to Annexure-3.

# Review of the BMRCL application, objections/suggestions in response to Public Notice, and findings of Tree Officer:

3. The BMRCL application, public notice, all objections/suggestions from the public, findings of the Tree Officer, and his proceedings dated 15.12.2020 were perused systematically by the

TEC in its meeting held on **02.07.2021**. The TEC noted that the process prescribed in the MOP from Step-1 to Step-3 have been followed scrupulously by the Tree Officer.

- 4. The TEC observed that one objection/suggestion has been received in response to the public notice and it viewed that the public appreciated that Namma Metro was awesome and also said that Metro Rail is one of the coolest things in the cities where there is more traffic. In addition, the Tree Officer also apprised that adequate number of saplings will be planted under compensatory afforestation and its proper maintenance will be taken care of. The TEC concurred with the replies furnished by the Tree Officer.
- 5. The TEC sought and reviewed the presentation made by Chief Engineer, Social and Environment Management Unit, BMRCL regarding the project details, necessity for removal of the trees given the project alignment, possibility of retaining the trees while carrying out the project construction, etc. The Chief Engineer emphasized that Metro Project being a mass rapid transit system, seeks to set up a convenient, efficient, safe and sustainable mode of public transport. Its benefits include a shift from private modes of transport to public transport, and thereby a significant reduction in use of private vehicles, other things remaining unchanged. Such modal shift is estimated to have a significant reduction in pollution in the project area. (Reference: "Note on Potential Reduction in Pollution" based on iDeCK's study on "Economic Analysis for 2A and 2B Corridors of Bangalore Metro").

#### **Review of Preliminary Assessment of Trees done by Tree Officer:**

- 6. The TEC examined the preliminary assessment of trees submitted by Tree Officer vide his letter dated 24.03.2021, including the statement exhibiting the tree details, preliminary assessment and justification for on-site retention / translocation / felling. The TEC noted that the documentation of the trees details in Template-2 Part-I and the preliminary assessment as per Template-2 Part-II has been done properly by the Forest Officers as envisaged in Step-4 & Step-5 of the MOP.
- 7. The TEC firmly deliberated that the first option should be to consider possibility of retention of trees at the site itself. The second option, in the event of the removal being necessary, should be to explore the suitability of trees for the translocation. The felling should be the last option for those trees which cannot be retained on-site and are also not suitable for translocation. The TEC decided to make that assessment through the field inspection of each tree.

The TEC decided to verify the preliminary assessment by Tree Officer and for that purpose scheduled the field inspection on **09.07.2021**.

8. The proceedings of the TEC regarding the above-mentioned review as per Step-6 of the MOP is attached to this report as Annexure-4.

#### Field Inspection by TEC:

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9. The field inspection for assessment of trees standing at the project area at Anjanapura Depot for the Metro project was carried out by the TEC on 09.07.2021.

The Tree Officer and the Representatives of BMRCL were present at the project area with all necessary documents.

Following activities were carried out by the TEC for assessment of each tree in the project area.

- i. Physical verification of the tree number and the associated information collected by the Forest Department Officers in Template 2 Part-I, including tree health / tree defects and general assessment as per provision to Section 8(3) of the Act, 1976.
- ii. Confirmation regarding those trees being inside the project construction area.
- iii. Review of preliminary assessment of trees made by the Tree Officer in the Template 2 Part-II.
- iv. Discussion with BMRCL Representatives to explore possibility of carrying out the construction without removal of trees, and identification of such trees which can be retained on-site.
- v. Assessment of the general conditions of the trees to decide the feasibility of translocation/transplantation in the event of retention-on-site not possible.
- vi. Recording of TEC's remarks and recommendations for on-site retention / translocation / felling of trees as stipulated in Template 2 Part-III.

The Committee in its above set of activities was guided by the detailed procedure and prioritization formulated in Step-7 of the MOP.

The proceedings of the TEC regarding the field inspection are attached to this report as Annexure-5.

#### **Post-inspection Review and Report Preparation:**

- 10. Having completed the field inspections on 09.07.2021, the TEC met to review its findings and assessment and further to formulate its recommendations and prepare the report.
- 11. **On-site Retention**: The TEC identified 07 Nos. trees though standing in the project area but not hindering the project activities and those can be retained-on-site.
- 12. As verified during the field inspection, the remaining 123 trees which have to be suggested for translocation and felling are falling within the following physical features of the Project.

Tree Numbers
3, 4, 5, 6, 7, 8, 9, 10, 11, 21, 22, 24, 26, 27, 28, 29,
30, 31, 38, 40, 41, 42, 43
= Total 23 Trees
13, 14, 15, 16, 17, 18, 19, 20, 32, 33, 34, 35, 37
= Total 13 trees
44, 45, 51, 52, 55, 57, 59, 61, 68, 69, 83, 84,
85, 86, 92, 99, 100, 105, 106, 107, 108, 117, 118,
120, 121, 122, 123, 124, 125, 126, 127, 128, 129,
130
= Total 34 Nos.

Earth Filling and Track Laying	46, 47, 48, 49, 50, 53, 54, 56, 58, 60, 62, 63,
Works of Depot	64, 65, 66, 67, 70, 71, 72, 73, 74, 75, 76, 77,
	78, 79, 80,81, 82, 87, 88, 89, 90, 91, 93, 94,
	95, 96, 97, 98, 101, 102, 103, 104, 109, 110,
	111, 112, 113, 114, 115,116, 119
	= Total 53 Nos.

13. **Translocation:** The next option considered by the TEC was about the trees which can be translocated.

Having concluded that the retention of the above mentioned 123 trees is not possible, the TEC chose the next option of translocation of trees and assessed the suitability of each of these trees. In doing so, the TEC considered the following conditions, in addition to verification and consideration of the tree health / tree defects, etc., recorded in the Template-2 Part-I.

- i. Proximity of tree to building structures, trunks proximity to the cement / concrete or tarred surface.
- ii. The trees having below stated characteristics did not qualify for translocation.

Trees having forked trunk, major wounds on the trunk, debarking, physical damage on the bark, scar due to fire, damage (girdling), rotting due to fungal infection (fruiting bodies of fungus, rotten core, hollowness) or pest infestation (presence of holes and frass as evidence of insect infestation), and dead / dried major branches, etc.

- iii. Other aspects of species viz., economically important species, species that could provide food (nectar, pollen, seeds and fruits) and nesting sources (materials and site) to various fauna.
- iv. The availability of effective zone to extract the root-ball of sufficient size. The trees in the above category (ii) and those without adequate effective zone to extract the root-ball of sufficient size were specifically not recommended for the translocation.

Taking into consideration the above mentioned assessment attributes, the TEC found that there are 36 number of trees at the said site which are suitable for translocation.

The remaining 87 Number of trees were not found to be suitable either for retention on-site or for translocation, and hence will have to be felled.

14. Assessment of Areas/Sites for Translocation: Having completed the above assessment of trees at the project area, the Committee visited the following area proposed by BMRCL and recommended by the Tree Officer for translocation of trees, to assess the land suitability.

'Devika Rani Estate Area, Kanakapura Road, Bengaluru

15. Further the Committee reviewed the soil test analysis report, of the above Devika Rani Estate Area as prepared by Department of Soil Science and Agricultural Chemistry, UAS, GKVK, Bangalore and recommended by the Tree Officer and DCF, with the following inference:

"The Three soil samples provided for analysis are alkaline in nature, low organic carbon content and contain low to medium quantities of major nutrients (N,P,K as per standards) and all other parameters vary from medium to high range as per standards. Therefore with proper amendment application soil is suitable for tree shifting".

16. Regarding details of the Translocation of Trees, the TEC directed the DCF, Bengaluru Urban Division and BMRCL to submit the precise locations of the proposed areas of translocation along with specific receptor site Coordinates where the trees have to be translocated at the above proposed translocation area.

In response, BMRCL has furnished the details to the Tree Officer and Deputy Conservator of Forests, vide their letter No. BMRCL/PHASE 2/R4B/2021-22/44 dtd 05.08.2021. In turn the Tree Officer submitted the required details along with receptor sites coordinates and with his recommendations to TEC which are enclosed as Annexure 6.

17. The entire translocation details were reviewed by TEC. In this context, BMRCL states that the boundary areas were demarcated and coordinates of specific locations were marked for proposed translocation sites related to the said 36 trees. This exercise of demarcation and coordinates mapping was carried out using Total Station Survey (Topcon Make). The Tree Officer and DCF, Bengaluru Urban Division has inspected the receptor location sites for the trees to be translocated as proposed by BMRCL and recommended accordingly to TEC.

On enquiry with the BMRCL and the Tree Officer about the distances of the proposed translocation sites with respect to the places where the trees are standing at present, the authorities remarked that for the trees standing at Anjanapura Depot, the proposed translocation sites at Devika Rani Estate Area, Kanakapura Road, Bengaluru, are near to their present place of standing. Apart from this, the proposed translocation area coming under Devika Rani Estate Area is falling in the Kaggalipura Forest Range of Bengaluru Urban jurisdiction where the provisions of KPT Act, 1976 are applicable.

- 18. The TEC deliberated and concurred with the recommendation of the Tree Officer, Bengaluru Urban Division regarding the said soil analysis report of UAS, Bangalore for tree translocation area and other details including specific receptor sites coordinates.
- 19. The TEC opined that translocation of trees can be done in the proposed sites after following the advice as rendered by UAS, Bangalore.

- 20. **Recommendations of TEC:** The TEC carried out a thorough and multipronged scrutiny of all the trees to make its recommendations regarding:
  - a) Trees which could be saved by retaining on-site as it is

b) Trees which should be translocated depending upon their general condition as assessed and ecological importance, in the event of (a) above not being possible

c) Trees recommended for removal in the event of (a) and (b) not being possible including the trees which are silviculturally matured or softwood trees and trees suffering from defects /damages.

Following is the summary of recommendations of the Committee based on the remarks as expressed in the Template-2 Part-III of each tree.

Particulars	Total
Total number of Trees examined/observed	130
Total number of Trees found suitable for on-site retention	07
Total number of Trees found suitable for translocation	36
Total number of Trees for felling	87

The translocation of trees should be carried out by competent agencies following the guidelines formulated by UAS, GKVK, Bangalore.

In finalizing its report, the TEC has been guided by the process highlighted in Step-8 of the MOP, namely:

- i. Meticulous scrutiny of recommendations by the Tree Officer in compliance to the MOP;
- ii. Field inspection to assess each and every tree and record the status of tree and recommendation for its on-site retention/translocation/felling and inspection of the translocation area as mentioned in para 14 above.

#### Directions to BMRCL and DCF, Bengaluru Urban Division

- a) The entire translocation process of trees has to be executed by BMRCL through the Agencies which are experienced in such field operations under close supervision of the Tree Officer.
- b) The TEC instructed the Environment Wing of BMRCL to get closely involved in all the field works related to trees and saplings, maintain records pertaining to Translocation of Trees as well as Compensatory Afforestation, both in respect of the works already executed and to be executed henceforth.

- c) The Tree Officer and BMRCL authorities are directed to properly document the translocation process which includes inter-alia location of the translocated trees, name and address of the Person/Agency to whom the translocation work was entrusted, agreement regarding the proper maintenance of the translocated trees for a period of three years by BMRCL.
- d) BMRCL should be advised to raise Compensatory Afforestation on suitable lands in respect of trees to be removed by translocation and felling. For each tree removed, 10 Nos. of tall healthy saplings should be planted and properly maintained for a period of 3 years. Periodic status reports must be submitted by BMRCL to the Tree Officer. It should be ensured that the greenery of Bengaluru is preserved and enhanced through effective maintenance of planted saplings, translocated trees and standing trees under all circumstances.

#### **Monitoring and Evaluation**

Quarterly progress reports have to be submitted by BMRCL to the Tree Officer who shall regularly monitor and evaluate the maintenance and protection works for conducive growth of saplings planted and trees translocated.

#### **Record keeping:**

- i. The Tree Officer is advised to maintain full records of the BMRCL application, its processing, field inspection, etc., for a minimum period of 3 years. The information collected in various templates suggested in the MOP, especially Template-2 Part-1 to IV, should be maintained carefully.
- ii. An abstract of the recommendation of the TEC in Template No.4 and a detailed statement containing the recommendations with justification for each of the 130 trees covered in the application are appended as Appendix to this report.

1100

Member - Secretary, TEC & Asst, Conservator of Forests, Bruhat Bengaluru, Mahanagara Palike, Bengaluru,



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ದೂರವಾಣಿ /ಫ್ಯಾಕ್ಸ್ - 080-23343464 Email ID - <u>dcfurban82@yahoo.co.i</u>

# Office of the Deputy Conservator of Forests

Bangalore Urban Division, Aranya Bhavan Compus. 18th cross, Malleshwaram, Bangaloe-560003

No:A7/ Land/BMRCL- Metro/CR-39 /2018-19

#### Public Notice

This is to bring to your notice of all citizens of Bengaluru Urban District that Metro Rail Corporation Limited had submitted the application to the undersigned for removal of trees in Anjanapura Depot, and Depot entry Line in Reach 4B via Kanakapura Road and UM Kaval Sy No.38(Old No.12) land. Details as given below.

Name of the project		nsruction of Anjanapura De Reach 4B via Kanakapura F	L
Agency	Bangalore Mtero Rail	Corporation Limited	
Purpose for removal of tress(s)	Infringing consruction	activities of Metro Rail Proj	ect
Description of the area with clear demarcation of boundaries or with GPS readings		pura Depot and Viaduct for apura Road for a length of 59 Longitude	
		ser 17 deg 31 min 304 sec	Starting Point
		<ul> <li>TT deg R1 min 21 S set</li> </ul>	
<ul> <li>Enumeration of trees.</li> <li>Total no. of tress standing in the project area</li> </ul>	130(Annex-I)	Description of Trees, Speci Map etc are uploaded in the	website of BBMP
<ul> <li>Total no. of trees proposed to be removed</li> </ul>	120(Annex-II)	for information of all.( <b>ww</b> y	w.bbmp.gov.in)
Mode of communication of	Adress: The Deputy Co	nservator of Forests, Bangalo	re
<b>comments</b> (Public can send their comments either by E-mail/ Post / Hand		a, Aranya Bhavan Annexe, 18 waram,Bangalore-560003. @ <b>yahoo.co.in</b>	th
Deadline for filing objections		f Publication of this notific relevant and specific to the	

In this background suggestions and objections invited from all citizens in terms of section 8(3)(vii)of The Karnataka Preservation of Tree Act 1976.

Deputy Conservator of Forests,

Bangalore Urban Division. Bangalore.

Date:30-11-2020.

к: Гаду



ದೂರವಾಣಿ /ಘ್ಯಾಕ್ಸ್ - 080-23343464 Email ID - <u>dcfurban82@yahoo.co.i</u>

# ಉಪ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಯವರ ಕಛೇರಿ

ಬೆಂಗಳೂರು ನಗರ ವಿಭಾಗ. ಅರಣ್ಯ ಭವನ ಸಂಕೀರ್ಣ. 18ನೇ ಅಡ್ಡ ರಸ್ತೆ, ಮಲ್ಲೇಶ್ವರಂ, ಬೆಂಗಳೂರು - 560 003

# Office of the Deputy Conservator of Forests

Bangalore Urban Division, Aranya Bhavan Compus, 18th cross, Malleshwaram, Bangaloe-560003

ಸಂಖ್ಯೆ ೭೪/ಮರ ಕತ್ರಾವಣೆ-ಮಟ್ರೋಸಿ,ಆರ್-3**9**/2019-20

ವಿಸಾಂಕ: 30 - 11 - 20 20

#### ಪತ್ರಿಕಾ ಪ್ರಕಟಣೆ

ಈ ಮೂಲಕ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಮತ್ತು ಸುತ್ತಮುತ್ತಲಿನ ಸಮಸ್ತ ನಾಗರಿಕರ ಗಮನಕ್ಕೆ ತರುವುದೇನೆಂದರೆ ಯು.ಎಂ.ಕಾವಲ್ ಅರಣ್ಯ ಪ್ರದೇಶದ ಸರ್ವೆ ನಂ.38(ಹಳೆಯ ನಂ..12) ರಲ್ಲಿ ಕನಕಮರ ರಸ್ತೆ, ಬೆಂಗಳೂರು ಇಲ್ಲಿ ಮೆಟ್ರೋ ರೈಲು ನಿಗಮ ನಿಯಮಿತ ಸಂಸ್ಥೆಯ ವತಿಯಿಂದ ನಡೆಯುತ್ತಿರುವ ಅಂಜನಾಮರ ಡಿಪೋ ಕಾಮಗಾರಿಗೆ ಅಡ್ಡಬರುತ್ತಿರುವ ಮರಗಳ ತೆರವಿಗಾಗಿ ಮನವಿ ಸಲ್ಲಿಸಿದ್ದು, ವಿವರಗಳು ಈ ಕೆಳಕಂಡಂತಿರುತ್ತದೆ.

ಯೋಜನೆಯ ಹೆಸರು	Removal of tree for Co Depot entry line in Rea	nsruction of Anjanapura Dep ch 4B via Kanakapura Road-	ot and Viaduct for reg.
ಎಚ್ಬೇಯ ಹೆಸರು	Bangalore Mtero Rail C	orporation Limited	
ಹರ ತೆರವುಗೊಳಿಸುವ ಉದ್ದೇಶ	ಮೆಟ್ಟೇ ರೈಲು ಕಾರ್ಮದರ್ಗೆ ಆ	ತ್ರವಿರುತ್ತದರಿಂದ ಮತ್ತು ಡಿಕೋ ಕ	ಮಗಾರಗೊತ್ತದ
ಯೋಜನೆಯು ಬರುತ್ತಿರುವ ಪ್ರದೇಶದ ಜೆ.ಪಿ.ಎಸ್. ೫ಡಿಂಗ್ಸ್		oura Depot and Viaduct for E ura Road for a length of 590. N	
	Lattitude	Longitude	
	1 12 deg 51 min 20.1 s		Starting Point
	2 12 deg 51 min 30 see	c 77 deg 31 min 21.8 sec	Ending point
ಯೋಜನಾ ಪ್ರದೇಶದಲ್ಲಿ ಪ್ರಸ್ತುತ ಇರುವ ಮರಗಳು	130(Annex-1)	ಮರಗಳ ವಿವರ, ಜಾತಿ, ಮರಗಳಿರುವ	ಜಾಗ ನಕಾತೆಗಳ ನಿರ್ವಾಗಳ
ಯೋಜನಾ ಪ್ರದೇಶಲ್ಲಿ ತೆರವುಗೊಳಿಸಬೇಕಾದ ಮರಗಳು	120(Annex-1)	ಬಿದಿಎಂಪಿ ವೆಜ್ ಸೈಟ್ ನಲ್ಲಿ ಮಾಹಿತಿಗಾ	
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ಆಕೇಪಣೆಗಳನು ಸಲ್ಲಿಸಬೇಕಾದ ಅವಧಿ	ಪ್ರ ಸಮಾಹ ಹೊಸರಾಗ ನಿನಾಂಗ	ದಿಂದ 10 ದಿನಗಳೊಳಗಾಗಿ	

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March of the party of the first complete and the 1100 FTIN SAME T N.P. ų **(1**) ÷ កម្ម-ដគ្គត្រក្ខដល់សម័ណតេកើយលោកថា យ៉ានាលាក់ ស្ត្រី សាល់លើ សុខារ គេលានជាសាកម្មស្តីលោកសេលា ស្រ្លុនទី ការដោយលេខភាព សម័ ភាព្វី ជាក្រុមថា កាល អំណាមឈាស់សំលាន សំណាក់ ដែលសេស ឆានូស្ថាសិស្តី តែមិសាសិត្តិ តែសុខ សំណាក់ សំនិស្តី សំពី របស់លោក THE AND AND A রাজনে বেস্কার্থনে গেণার্থনে গেণা বৃত্তু বর্ষদেও ব্যাদেরত রত্ত উৎসি গুঁলে গেলে গিরেয়ের বিশ্বের রহায়কে বেস্কার্থনের গেণানারণ বর্তু বর্ষদেও বির্দ্ধার্থনের বর্ত্তার ব্যাদের বর্ত্তানা মান্য গ্রাদের, গেণানার 0101 H BI 1010 ਵਿਗੁਆਂ ਵਿਸ਼ੇ। ਹਾਂ ਜਿਵਦੇ ਕਿ ਪਿੰਡਨਾਨ ਦਾ ਸਿਖਾ ਕੀ ਨਿਵਜਾਡਨਕਰ ਸਿਸ਼ਵਰੀ ਸਾਂ ਜੋ ਵਿਕਸਤੇ ਹੀ ਪਿੱਛ ਦਿਨ੍ਹਾਂ ਦੇ ਜਾਂ ਸਾਂ ਤੇ ਇਹ ਇਸ ਕਮੇਟਿਕ ਦੇ ਵੱਜੋਂ ਦਾ ਕੀਤੇ ਜਾਮ ਵਿਗਾਪਣੀ ਕਿ ਸੁਖਾ ਵਿਧੂ store and the sources the states and 金 しょうき ざられをきる おうままんが ざち たまのがない どひち たから たかん さんな たいたいの たいよい きたい いけ 1 12 deg 51 min 20 1 km 1 /2 deg 31 min 30 4 sec 2 min g A - 12 deg 51 min 30 sec 1 /2 deg 31 min 21 0 sec 1 min 31 min cial and metersceto, duread allo and the ประกูรศ สุรีสตร์รา (ระเทศระ ดีระยุศิลศระอ ธุระเธอ สามารถ เริ่มสามารถรู้) สมาณส ผู้ค.ร.ระสาท จ.ร. All and W nemates traver a deal and success a transmission state 10 10 100 เรื่อสระสาร สามาร์ ชอตรู สมสี พ.ศ.การ 1855 ผม สถุรสุของ ก็ปกมหาวิท 166 ผมร interest of Annanytics frequencies from the field of the field of the first of the second sec Metalasi De bepier Comenolos al Constal Rangalete Natavi Metalas Natas Amusta Proven Linear consta Metal-mataria de para de Kasa Ramita - Amústa Palos pelhos consta Metal-mataria de caração de Kasa mataria represa, jerá coma edo consta edura jeran de caração de Metala SECOND OF SPECIAL MARKEN LEAVENED ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ The state and the state of the state of the state \*AURIN 2 ಟಂಡರ್ ಪ್ರಸ್ತಾಪಣೆಗಾಗಿ ಅಹ್ಮಾನ (ಐಎಫ್ಟಿಟ) DIRECTOR STATE OND ATTATANA Email DE MERIANAZANARA CAIN ម)្រះនាំពល់) ស្តីលោកថា មនុស្ស (ទម ផ្លូវលោក ដែលលោក នាមមានលេខាន់ សមាតិតែការព នៅប្រនាំងនោះ ស្តីលោកថា មនុស្ស (ទេសលោកមន្ត្រីនាទាំងសាស ដូច្នានាំងសាសិក ជាមិន លោកសាសពិនាន 10日間である日には日本日の日間です。 とれる あいたい 日本日本 עבעל הסומותם נמון ליד אול של גלום לומקווים ena and avegmented see designer a solosi deci durgigidel siche all the management of the Alergence of the same openipers Antine And and and (מנשבט המתה המנישוני) that gange Motio Hall Corporation Lemmed interest second starting egen gaud 5 היו די דיה ההי ידיול ארמול ווינוי וו לקולוני אוו לא מניים ל יל היאל הער, גיווני עמון המחמל 20 1 10 1 A 1 CONST 1 [1:00.Access-1] V20(Anney, 1) 1011 47/ Land BMREL- MainTCR-38 (2016-18 ಸರ್ಧಾತನ ಬಡ್ ಅಪ್ರಾರ್ಟ್ ಜ. ನೆ 21 M DOUT 64 NO - 1195 26 20 2 יים אכולעאכבור ייל א olezeleren, sona lapo IngAssitions marks cherdan antana anten an ar haar जिन्द्रास्त द्वर्थनार्थ् । जब्द यदनस्त datum spinct THE PORT OF THE PARTY OF THE Structs MC おお おお alara, a Se La Cruci 6.133253 כוול הוכה הי הי הי הייל The second state and the second EC MOST REPORTED DIOUT ונם הכשל כאו לשינה シン ゆうろう シロレ せいしたち מנפרמה הנגיו כווני 2.945 and an 54 x 24 c. 5 「それき」」なりならのいという。 Bucket autors thank 04 50 "C. P.C Controposed - Lar おけっていたのとのかったの Salles Postes ACA BORONA DA GER 1 ೩೩೭೮ ಕನ್ನಡಿಗೆ ערבירם מואיז אייידע טלגיבטל הנפוס מיק 2021 12 66 70 23 2002 to theread adark END' M. LECTE. C たいとすがたち 1288 1 2 2 CTL 7 10 25 ಣ್ಯಹಿಸಿಸಿದರು ಸಿಕರಾರ Married M COLUMN CODES AN Carly of dotals for Surged beling the DEGE ATHER DOLD 201020 A ST TRAT & CON 5 - 3 - 27 - 200 いいののなりののなたり 214/22 232 432 1 Car 1000000-1000-00 Distantes Security State of the second -10-28 200 Day ್ಕೊಟ್ಟಾಟ್ ಮುಂದೆ 1400041 The states of the states

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#### Proceedings of Tree Officer & DCF, Bengaluru Urban

# Sub: Objections and suggestions from the public regarding removal of 130 trees to the construction of Anjanapura depot and Viaduct for depot entry line in reach 4B via Kanakapura road. in respect of application number BMRCL/0023/PHASE2/R4B/2020-21/93 dated 26.11.2020

Date:15.12.2020.

Ref. 1. Case / Application No.BMRCL/0023/P2/ R4B/2020-21/93 dated 26:11 2020. 2 This office File No A7/Land/BMRCL/CR-39/2018-19

To:

The Member-Secretary Tree Expert Committee Bengaluru City & Assistant Conservator of Forests, BBMP

Sir,

Bangaiore Metro Rail Corporation (BMRCL) had applied on 26.11.2020 under section 8(2) of the Karnataka Preservation of Trees Act (henceforth mentioned as the Act) seeking permission to remove 130 trees to the construction of Anjanapura depot and Viaduct for depot entry line in reach 4B via Kanakapura road the metro construction activities are in full swing like pile/pile cap foundations works

2. A public notice in the Template-1 was issued on 30.11.2020 as required under section 8(3(vii) of the Act, inviting objections from the public within 10 days from the date of publication of the notice. The notice appeared in Kannada Prabha The News Indian Express, Vijayavani &

<u>The Hindu</u> Newspapers on 05.12.2020. The details of the project area, total number of trees, total number of trees to be removed, GPS coordinates and physical details of those trees were also uploaded on the website <u>www.bbmp.gov.in</u> of BBMP to facilitate access to the relevant information by the public. These details were also made available in the office of the undersigned during the working office hours.

3. In response to the notice, we received one positive observation supporting to the Metro Rail project. Even though we have not received any objections/suggestions in all the cases of tree removal, the first attempt would be to translocation, as feasible and practical. Only thereafter, option of felling will be taken up. The extent of compensatory plantation would be in ratio 1:10.

4. The suitability of each tree for translocation should be assessment through inspection of each tree and the findings along with these proceedings should be placed before the Tree Expert Committee.

17

Deputy Conservator of Forests Bengaluru Urban Division.

#### Annexure

# Remarks of Tree Officer to the objections Received from the Public for U M Kawal (Reach - 4B)

SI No	Name & Date	<b>Objection from Public</b>	Remarks of Tree officer
1	Sowbhagya Lakshmi <sowbhagya784 @gmail.com&gt; 12.12.2020</sowbhagya784 	Namma metro is awesome. It is one of the coolest things in the cities where there is more traffic	The observation is noted.

1

11

Tree Officer & Deputy Conservator of Forests Bangalore Urban Division





Submission of preliminary assessment by Tree Officer to Tree Expert Committee in respect of application number BMRCL/0023/PHASE2/R4B/2020-21/93dated
26.11.2020 of BMRCL for removal of 130 trees to the construction of Anjanapura depot and Viaduct for depot entry line in reach 4B via Kanakapura road.

Date:24.03.2021.

Ref: 1-Case / Application No. BMRCL/0023/P2/ R4B/2020-21/93 dated 26.11.2020 2. This office File No.A7/Land/BMRCL/CR-39/2018-19

To.

The Member-Secretary Tree Expert Committee Bengaluru City & Assistant Conservator of Forests, BBMP

Sir,

3. Bangalore Metro Rail Corporation (BMRCL) had applied on 26.11.2020 under section 3(2) of the Karnataka Preservation of Trees Act (henceforth mentioned as the Act) seeking permission to remove 130 trees to the construction of Anjanapura depot and Viaduct for depot entry line in reach 4B via Kanakapura road, the metro construction activities are in full swing like pile/pile cap foundations works.

4. A public notice in the Template-1 was issued on 30 11,2020 as required under section 8(3(vii) of the Act, inviting objections from the public within 10 days from the date of publication of the notice. The notice appeared in Kannada Prabha The News Indian Express, Vijayavani &

<u>The Hindu</u> Newspapers on 05.12.2020. The details of the project area, total number of trees, total number of trees to be removed, GPS coordinates and physical details of those trees were also uploaded on the website <u>www.bbmp.gov.in</u> of BBMP to facilitate access to the relevant information by the public. These details were also made available in the office of the undersigned during the working office hours.

5. In response to the notice, we received one positive observation supporting to the Metro Rail project.

6. I have also arranged to get the relevant information compiled and assessment of each tree carried out by the officers of Forest Department in the Template- 2 Part I for all the trees proposed to be removed.

7. Thereafter, all 130 trees were inspected personally by me on 28.12.2020. The concerned engineers of BMRCL in charge of the metro work in this area and the officers of the Forest Department accompanied me for the inspection. During the inspection, I had specifically verified, with assistance of the BMRCL engineers, location of each tree with reference to the project boundaries and the necessity of removal of the tree. While making that assessment I have considered whether enough space as "tree protection zone" will be available, if a particular tree is to be retained at its present location.

8. During the inspection, I also carried out veracity of the information regarding assessment of each tree compiled by the officers of the Forest Department. Due attention was paid for proper assessment of the tree health / tree defects and general assessment as per proviso to section 8(3) of the Act.

9. For each tree I made a preliminary assessment regarding suitability, in order of priority, for its (i) on-site retention, (ii) translocation, and (iii) felling. The same was recorded in the Template 2 Part II for each tree.

10. After carrying out the above derailed inspection and the assessment, I have drawn up the proceedings of my consideration of the objections received from the public in response to the public notice. A set of the public notices, a complete set of the objections and a copy of the proceedings dated 15 12.2020 of my consideration are enclosed to this submission.

11. The "Tree Assessment Forms" with duly filled in Part I and Part II of the Template 2 for each tree proposed to be removed by the project authority, are enclosed to this submission. Total 130 number of Forms are enclosed.

12. A statement containing the tree details, preliminary assessment and justification for onsite retention/translocation / felling of 130 trees is enclosed as Annexure.

13. The BMRCL has provided the area/locations/sites of the translocation of the trees on 06.12.2020 along with the soil reports by UAS GKVK University.

(I) Devika Rani Estate (Right side of Uttarahalli Road)

(II) U M Kaval Forest Area

These sites are inspected by me on 28-12-2020 along with BMRCL representatives: with proper amendment application soil is suitable for tree shifting.

14. It is requested that the above information and the documents may kindly be placed before the Tree Expert Committee for consideration and appropriate opinion and recommendations at an early date.

Thanking you

Tree Officer & Deputy Conservator of Forests, Bengaluru Urban Division.

Tree Officer and Deputy Conservator of Forest Bangalore Urban Division, BANGALORE,

#### Annexure-I

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\$tatement detailing the tree details, preliminary assessment and justification for /
translocation / felling

Case / Application No:A7/Land/ BMRCL-Metro/CR-39/2018-19 dated:30-11-2020 Date:16 12 2020

<b>SI.</b> No	Tree No.	Speci es Name	GB H (m)	Heig ht (m)	Cro wn Spre ad (sq. m)	Preliminary Assessment (On-site Retention /Translocation/ Felling)	Justification
ł	01	Huna	1.90	8.00	10.0 0	Recommended for Felling	Recommended for Felling as the tree is located in the project area and the tree is Silviculturally matured
2	02	Gulm ohar	+ 20	8 00	8.00	Recommended for Felling	Recommended for Felling as the tree is located in the project area and root girdling is found.
3	03	Gulm ohar	0.32	7.00	3.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
4	04	Gulm ohar	0.23	6.00	2.00	Recommended for Felling.	Recommended for Felling as the tree is falling in the project area.
5	05	Gulm ohar	0.22	6.00	2.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
6	06	Gulm ohar	0.27	8.00	3.00	Recommended for Felling.	Recommended for Felling as the tree is felling in the project area.
7	07	Gulm ohar	0.75	9.00	8.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area and the tree is damaged due to lightening & other causes.

Project Area: UM Kaval (Anjanapura Depot) Metro Reach-4B

SI. No	Tree No.	Speci es Name	GB H (m)	Heig ht (m)	Cro wn Spre ad (sq. m)	Preliminary Assessment (On-site Retention /Translocation/ Felling)	Justification
g	08	Gulm ohar	0.80	9.00	÷	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
9	09	Shiva ne	0.72	6.00	5.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
10	10	Thaar e	2.17	13.0 0	20.0 0	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
1	urunus durind	Sanda 1	0.19	5.00	2.00	Recommended for translocation.	Recommended for translocation as the tree is located in the project area & the tree is immature
12	12	Beete	0.48	6.00	4.00	Recommended for translocation.	Recommended for translocation as the tree is located in the project area & the tree is immature and healthy.
13	13	Hebb evu	1.05	7.00	6.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area & root girdling is found.
	l4a	Subab ul	0.34	5.00	5.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
14	14b	Subab ul	0.18	4.00	4.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
15	15	Subab ul	0.23	5.00	5.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area
16	16	Subab ul	0.43	6.00	6.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
17	17	Subab ul	0.34	10.0 0	5.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.

<b>SI.</b> No	Tree No.	Speci es Name	GB H (m)	Heig ht (m)	Cro wn Spre ad (sq. m)	Preliminary Assessment (On-site Retention /Translocation/ Felling)	Justification
18	18	Eecha lu	0.72	7.00	7.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
19	19	Hong e	0.62	8.00	8.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is Silviculturally immature.
20	20	Hong e	0.58	10.0 0	8.00	Recommended for Translocation	Recommended for Translocation as the tree is located in the project area & the tree is Silviculturally immature.
21	21	Hong e	0_47	3.00	1.00	Recommended for Translocation	Recommended for Translocation as the tree is located in the project area & the tree is Silviculturally immature.
22	22	Hong e	0.38	6.00	6.00	Recommended for Translocation	Recommended for Translocation as the tree is located in the project area & the tree is Silviculturally immature.
23	23	Jagala ganti	0.18	3.00	1.00	On-site Retention	Recommended for Retention.
24	24	Jagala ganti	0.27	4.00	1.50	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is Silviculturally immature.
25	25	Subab ul	0.27	8.00	3.00	On-site Retention	Recommended for Retention.
26	26	Hong e	0.42	5.00	5.00	Recommended for Translocation	Recommended for Translocation as the tree is located in the project area.

S I. N 0	Tree No.	Speci es Name	GB H (m)	Heig ht (m)	Cro wn Spre ad (sq. m)	Preliminary Assessment (On-site Retention /Translocation/ Felling)	Justification
27	27	Jungl e tree	0.27	4_00	2 00	Recommended for Felling	Recommended for Felling as the tree is located in the project area.
28	28	Jungl e tree	0.12	-	-	Recommended for Felling	Recommended for Felling as the tree is located in the project area.
29	29	Jagala ganti	0.12	4.00	2.00	Recommended for Translocation.	Recommended for Transplantation as the tree is located in the project area & the tree is Silviculturally immature.
30	<u>3()</u>	Cherr	-			Recommended for Felling	Recommended for Felling & the tree is already been felled by KPTCL as the tree is located under hightension wires.
31	31	Eecha lu	0.79	8.00	8.00	Recommended for Translocation.	Recommended for Transplantation as the tree is located in the project area & the tree is Silviculturally immature.
32	32	Banni	0.68	9.00	8.00	Recommended for Felling	Recommended for Felling as the tree is located in the project area.
33	33	Tapal a	1.55	10.0 0	10.0 0	Recommended for Felling	Recommended for Felling as the tree is located in the project area.
34	34	Shiva ne	0-25	5.00	3.00	Recommended for Translocation,	Recommended for Translocation as the tree is located in the project area & the tree is young.
35	35	Shiva ne	0.25	5.00	3.00	Recommended for Felling	Recommended for Felling as the tree is located in the project area.
36	36	Tapas	0.29	6.00	4.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
SI. No	Tree No.	Speci es Name	GB H (m)	Heig ht (m)	Cro wn Spre ad (sq. m)	Preliminary Assessment (On-site Retention /Translocation/ Felling)	Justification
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37	37	Suhah ul	0.18	3.00	2.00	Recommended for Felling	Recommended for Felling as the tree is located in the project area.
38	38	Mutth uga	0.50	6.00	4.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
39	39	Jagala ganti	0.38	5.00	5.00	On site Retention	Recommended for Retention
40	40	Gobb ara inara	0.22	6.00	1.00	Recommended for Felling	Recommended for Felling as the tree is located in the project area.
41	4	Gobb ara mara	6.26	6.00	2.00	Recommended for Felling	Recommended for Felling as the tree is located in the project area.
42	42	Subab ul	0.22	8.00	2.00	Recommended for Felling	Recommended for Felling as the tree is located in the project area.
43	43	Gobb ara mara	0.17	5.00	2.00	Recommended for Felling	Recommended for Felling as the tree is located in the project area.
44	44	Gobb ara mara	0.31	6.00	2.00	Recommended for Felling	Recommended for Felling as the tree is located in the project area.
45	45	Gobb ara mara	0.21	6.00	1.00	Recommended for Felling	Recommended for Felling as the tree is located in the project area.
46	46	Gobb ara mara	0.23	6.00	1.00	Recommended for Felling	Recommended for Felling as the tree is located in the project area.
47	47	Gobb ara	0.26	6.00	2.00	Recommended for Felling	Recommended for Felling as the tree is located in the project area.

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51. Nº	Tree No.	Speci es Name	GB H (m)	Heig ht (m)	Cro wn Spre ad (sq. m)	Preliminary Assessment (On-site Retention /Translocation/ Felling)	Justification
		mara					
48	48	Gobb ara mara	0.31	5.00	2.00	Recommended for Felling	Recommended for Felling as the tree is located in the project area.
49	49	Gobb ara mara	0.31	6.00	2.00	Recommended for Felling	Recommended for Felling as the tree is located in the project area.
50	50	Eecha Iu	-	2,50	5,00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & tree is young.
51	51	Gobb ara mara	0.41	6.00	4.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
52	52	Gobb ara mara	0.24	7.00	2.00	Recommended for Felling	Recommended for Felling as the tree is located in the project area.
53	53	Gobb ara mara	0.29	6.00	2.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
54	54a	Subab ul	0.41	6.00	6.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
57	545	Subab ul	0.18	3.00	1.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
55	55	Jungl e tree	0.18	3.00	1.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
56	56	Haale mara	0.28	5.00	3.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.

51. No	Tree No.	Speci es Name	GB H (m)	Heig ht (m)	Cro wn Spre ad (sq. m)	Preliminary Assessment (On-site Retention /Translocation/ Felling)	Justification
57	57	Tapal a		3.00	÷	Recommended for Felling.	Recommended for Felling as the tree is located in the project area & the tree is dead.
58	58	Gobb ara mara	0.23	5.00	2.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
59	59A	Gobb ara mára	0.23	5.00	2.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
57	59B	Gobb ara mara	0.20	5.00	1.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
60	60	Gobb ara mara	0.23	4.00	2.00	Recommended for Felling-	Recommended for Felling as the tree is located in the project area.
61	61	Subab ul	0.51	6.00	5.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
62	62	Thaar e mara	1.60	7.00	10.0 0	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
63	63	Thaar e mara	0.76	7.00	6.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is asymmetrical in appearance.
64	64	Thaar e mara	0.28	4.00	4.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
65	65	Thaar e mara	0.79	8.00	6.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.

SI. No	Tree No.	Speci es Name	GB H (m)	Heig ht (m)	Cro wn Spre ad (sq. m)	Preliminary Assessment (On-site Retention /Translocation/ Felling)	Justification
	66	Thaar e mara	0.51	10 0 0	10.0 0	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
67	67A	Honn e	0.28	3.00	2.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & co-dominant trunks are present in the tree.
	67B	Honn e	0.28	3.00	2.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
68	68	Gobb ara mara	0.29	6.00	4.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
59	64	Tapas i	0.14	3.00	1 00	Recommended for Transfocation	Recommended for Translocation as the tree is located in the project area & the tree is young.
70	70	Eecha lu	0.63	5.00	5.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & girdling of trunk of the tree is found.
71	71	Eecha lu	0.53	6.00	6.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area &the tree is young.
72	72	Tapal u	0.45	4.00	1.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the top portion of the tree is broken & tree is young.
73	73A	Simet hanga di	0.75	6.00	4.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area & co-dominant truck is present.

51. No	Tree No.	Speci es Name	GB H (m)	Heig ht (m)	Cro wn Spre ad (sq. m)	Preliminary Assessment (On-site Retention /Translocation/ Felling)	Justification
	73B	Simet hanga di	0.43	6.00	4.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area & co-dominant truck is present.
	73C	Simet hanga di	0.40	5.00	4.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area & co-dominant truck is present.
74	74	Simet hanga di	0.58	7.00	5.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
75	75	Simet hanga di	0.57	7.00	5.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
76	76	Shiva ne	0.31	6.00	3.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
77	77	Shiva ne	0.35	6.00	4.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
78	78	Shiva ne	0.47	4.00	6.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
79	79	Simet hanga di	0.58	6.00	6.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
80	80	Simet hanga di	0.42	6.00	5.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
81	81	Hebb evu	0.67	8.00	7.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area the tree is young.

SI. No	Tree No.	Speci es Name	GB H (m)	Heig ht (m)	Cro wn Spre ad (sq. m)	Preliminary Assessment (On-site Retention /Translocation/ Felling)	Justification
82	82A	Barse ra	0.67	5 00	10.0 0	Recommended for Felling	Recommended for Felling as the tree is located in the project area
84	82B	Barse ra	0.61	5.00	10.0 0	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
83	83	Baare	0.27	6.00	4.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
84	84	Baare	0.30	6.00	5.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
85	85	Kagg ali	0.30	5.00	3.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
86	86	Kumk uma	0.33	5.00	4.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
87	87	Kagal i	0.30	5.00	1.50	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
88	88	Kagal i	0.38	5.00	2.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
89	89	Baser a	1.20	4.00	5.00	Recommended for Felling	Recommended for Felling as the tree is located in the project area.
90	90	Hebb evu	0.41	10.0 0	5.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
91	91	Thare	1.50	10.0 0	15.0 0	Recommended for Felling.	Recommended for Felling as the tree is located in the project area

51. No	Tree No.	Speci es Name	GB H (m)	Heig ht (m)	Cro wn Spre ad (sq. m)	Preliminary Assessment (On-site Retention /Translocation/ Felling)	Justification
92	92A	Baage	0.73	7.00	6,00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
	92 B	Bage	0.64	7.00	4.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
93	93	Junga le wood	00.3	00.4	2.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young
94	94	Bidru tree	50 Q 0		×	Recommended for Felling:	Recommended for Feiling as the tree is located in the project area.
95	95	Kama ra	0.31	3.00	\$ 00	Recommended for Translocation	Recommended for Translocation as the tree is located in the project area & the tree is young.
96	96	Kagg ali	0.42	4.00	2.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
97	97	Bilwa ra	0.15	4.00	2.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
98	98	Tapra	0.26	2.50	1.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
99	99	Sanda 1 wood	0.27	5.00	6.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
100	100	Hebb	0.38	6.00	6.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.

51. No	Tree No.	Speci es Name	GB H (m)	Heig ht (m)	Cro wn Spre ad (sq. m)	Preliminary Assessment (On-site Retention /Translocation/ Felling)	Justification
101	101	Tapal a	1.70	10.0 0	25.0 0	Recommended for Felling.	Recommended for Felling as the tree is located in the project area & bulging of trunks is found & the tree is half dead.
102	102	Bidir u	-	•	30 culm	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
103	103	Bilwa ra	0.69	10.0 0	8.00	Recommended for Translocation	Recommended for Translocation as the tree is located in the project area & the tree is young.
104	104	Bidîr û	1	10.0 0	50 culm S	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
0.5	105 A	Burse ra	0.75	5.00	10.0 0	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
105	105 B	Burse ra	0.75	5.00	10.0 0	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
106	106	Sanda 1	0.17	5.00	4.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
107	107	Hebb evu	0.61	10.0 0	8.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
108	108	Tapal a	2.20	10.0 0	15.0 0	Recommended for Felling.	Recommended for Felling as the tree is located in the project area & external decay cavities are found & the tree is half dead.
`10 9	109 A	Shiva ne	0.30	5.00	2.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young & co-dominant

51. No	Tree No.	Speci es Name	GB H (m)	Heig ht (m)	Cro wn Spre ad (sq. m)	Preliminary Assessment (On-site Retention /Translocation/ Felling)	Justification
							trunks are present.
	109 B		0.40	5.00	2.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area & co-dominant trunks are present.
	109 C		0.40	5 00	2.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area & co-dominant trunks are present.
	110 A	Kumk uma	0.18	4.00	2,00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area & co-dominant trunks are present.
	110 B		0.20	4.00	2.00	Recommended for Translocation	Recommended for Translocation as the tree is located in the project area & the tree is young.
110	110 C		0.15	4.00	2.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area & co-dominant trunks are present.
	110 D		0.10	4.00	2.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area & co-dominant trunks are present.
	110 E		0.10	4.00	2.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area & co-dominant trunks are present.
111	111	Neral e	0.28	4.00	3.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & the tree is young.
112	112	Kumk uma	0.29	3.00	3.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & external decay cavities are found.

Sl. No	Tree No.	Speci es Name	GB H (m)	Heig ht (m)	Cro wn Spre ad (sq. m)	Preliminary Assessment (On-site Retention /Translocation/ Felling)	Justification
1 13	113	Neral e	04)	4.00	4 00	Recommended for Translocation	Recommended for Translocation as the tree is located in the project area & The tree is young
114	114	Jungl e tree	0.43	5.00	3.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & The tree is young.
115	115	Thaar e	1.24	10.0 0	15.0 0	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
116	116	Thaar e	1.10	10.0 0	10.0 0	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & The tree is young
117	117	Subab ul	0.58	8.00	8.00	Recommended for Felling	Recommended for Felling as the tree is located in the project area.
118	118	Bidir u	-	6.00	4 Clu mps 200 Cul ms	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
119	119	Tapas i	0.45	6.00	5.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & The tree is young & the bark is damaged.
120	120 A	Tapas	0.41	6.00	2.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area & co-dominant trunks are present & the bark is damaged.
	120 B	4	0.45	5.00	2.00	Recommended for Translocation.	Recommended for Tanslocation as the tree is located in the project area & co-dominant trunks are present.

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SI. No	Tree No.	Species Name	GB H (m)	Heig ht (m)	Cro wn Spre ad (sq. m)	Preliminary Assessment (On-site Retention /Translocation/ Felling)	Justification
	1200		0.35	5.00	2.00	Recommended for Felling	Recommended for Felling as the tree is located in the project area & co-dominant trutiks are present.
	120 D		0.15	6.00			
121	121	Shivane( kunkum a)	0.21	4.5	3.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & The tree is young.
122	122	Kumku ma(shiva ne)	0.24	3.00	3.00	Recommended for Translocation.	<b>Recommended for Translocation</b> as the tree is located in the project area & The tree is young.
123	123	Hebbevu	0.64	11.00	8.00	Recommended for Translocation.	<b>Recommended for Translocation</b> as the tree is located in the project area & The tree is young.
124	124	Tapala	2.20	12.00	15.0 0	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & The tree is young & external decay cavities are found.
	125 A		0.64	10.00	6.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area & co-dominant trunks are present.
125	125B	Seemetha	0.41	7.00	3.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area & co-dominant trunks are present.
	125C	ngadi	0.50	8.00	8.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.
	125 D		0.50	8.00	8.00	Recommended for Felling.	Recommended for Felling as the tree is located in the project area.

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SI. No	Tree No.	Species Name	GB H (m)	Heig ht (m)	Cro wn Spre ad (sq. m)	Preliminary Assessment (On-site Retention /Translocation/ Felling)	Justification
126	126	Hebbevu	0.52	10.0	6.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & The tree is young.
127	127	Thore matthi	0.25	6.00	4.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & The tree is young.
128	128	Kumku ma	0.16	4.00	3.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in thc project area & The tree is young.
129	129	Jungle tree(kuk uma)	0.21	4.00	3.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & The tree is young.
130	130	Nerale	0.26	5.00	3.00	Recommended for Translocation.	Recommended for Translocation as the tree is located in the project area & The tree is young.

# Summary.

Total No of Trees Standing in Project Area	130				
Total No of Trees for Felling	69				
Total No of Trees for Translocation	58				
Retention	03				

Date:

Deputy Conservator of Forests, Bengaluru Urban Division, Bangalore.

### **ANNEXURE - 4**

# Proceedings of Tree Expert Committee Meeting dated 02.07.2021 in respect of review of BMRCL Application, finding on Objections and Preliminary Assessment of trees by Tree Officer

### Application No. BMRCL/0023/PHASE 2/R4B/2020-2021/93 dtd 26.11.2020

#### Project Area: Anjanapura Depot, UM Kaval, Bengaluru

- The Tree Officer and Deputy Conservator of Forests, Bengaluru Urban Division vide his letter dated 24.03.2021 has submitted his preliminary assessment of trees related to application filed by BMRCL pertaining to 130 number of trees standing at the proposed Construction of Anjanapura Depot and Viaduct for Depot Entry Line in Reach 4B via Kanakapura Road, Bengaluru, of the Metro Project. The submission is accompanied by following documents:
  - a. A copy of the application dated 26.11.2020 from BMRCL along with details and map of the area and details of trees including GPS coordinates
  - b. The public notice dated 30.11.2020 issued by the Tree Officer & DCF, Bangalore Urban Division, a complete set of the objections/suggestions from the public and a copy of the proceedings dated 15.12.2020 of the Tree Officer regarding consideration of the objections/suggestions as per Section 8(3)(vii) of the Karnataka Preservation of Trees Act, 1976 (Henceforth referred as KPT Act)
  - c. Tree Assessment Forms in Template 2 with Part I (dated 21.12.2020) containing tree details as furnished by Range Forest Officer and Part II (dated 28.12.2020) containing preliminary assessment by the Tree Officer for each of 130 trees proposed for removal by BMRCL.
  - d. Abstract of the review of the BMRCL application and preliminary assessment of trees by the Tree Officer in Template 3 Part I.
  - e. A statement prepared by Tree Officer showing the tree details along with preliminary assessment and justification for on-site retention/translocation/felling of trees.

The very purpose of issue of Public Notice provides a structured way of obtaining concerns / objections of the public and to consider them carefully.

- 2. The application was reviewed by the Tree Expert Committee (mentioned as TEC henceforth) in its meeting held on 02.07.2021. The TEC also considered the objections/suggestions received from the public, remarks and findings of the Tree Officer in respect of each objection, and proceedings dated 15.12.2020 of the Tree Officer regarding consideration of those objections.
- 3. The TEC observed that one objection/suggestion has been received in response to the public notice and it viewed that public appreciated that Namma Metro was awesome and also said that Metro Rail is one of the coolest things in the cities where there is more traffic. In addition, the Tree Officer also

apprised that adequate number of saplings will be planted under compensatory afforestation and its proper maintenance will be taken care of. The TEC concurred with the replies furnished by the Tree Officer.

4. The Chief Engineer, Social and Environment Management Unit (SEMU), BMRCL and concerned Engineers of the project area were present during the meeting. They were asked to make a presentation regarding the project details, necessity for removal of the trees given the project alignment, possibility of retaining the trees while carrying out the project construction.

He emphasized that Metro Project being a mass rapid transit system, seeks to setup a convenient, efficient, safe and sustainable mode of public transport. Its benefits include a shift from private modes of transport to public transport, and thereby a significant reduction in use of private vehicles, other things remaining unchanged. Such modal shift is estimated to have a significant reduction in pollution in the project area. (Reference: "Note on Potential Reduction in Pollution" based on iDeCK's study on "Economic Analysis for 2A and 2B Corridors of Bangalore Metro" Annexure-6)

5. The TEC considered the Abstract of the Review of the Application by the Tree Officer and his preliminary assessment in Template 3 Part I. The Committee noted from the detailed statement containing tree details and preliminary assessment/justification, the following recommendations made by the Tree Officer.

Total number of Trees assessed in the project area	130
Total number of Trees assessed for on-site retention	03
Total number of Trees assessed as suitable for translocation	58
Total number of Trees for felling	69

6. The TEC also perused the preliminary assessment of each tree in Part-I & II of Template 2. The TEC noted that the Tree Officer has personally inspected each tree before forming his preliminary assessment.

The TEC decided to visit the project area and scheduled the field inspection for 09.07.2021.

The Tree Officer and the Representatives of BMRCL were asked to be present at the project area at the time of field inspection along with all necessary documents.

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Member-Secretary, TEC & Assistant Conservator of Forests, Bruhat Bengaluru Mahanagara Palike Bengaluru

#### **ANNEXURE - 5**

## Proceedings of Tree Expert Committee in respect of Field Inspection with respect to BMRCL application for 130 trees existing at Anjanapura Depot area pertaining to Reach-4B

### Application No. BMRCL/0023/PHASE 2/R4B/2020-2021/93 dtd 26.11.2020

#### Project Area: Anjanapura Depot, UM Kaval, Bengaluru

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- 1. In obedience to the orders of Hon'ble High Court of Karnataka and in furtherance of the earlier meeting proceedings (dtd 02.07.2021), the field inspection for assessment of trees standing in the Metro Rail Project Area at Anjanapura Depot, pertaining to Reach-4B, for Construction of Anjanapura Depot and Viaduct for Depot Entry Line via Kanakapura Road, Bengaluru of Metro Rail Project, was carried out by the TEC on 09.07.2021. The Tree Officer and the Representatives of BMRCL were present at the site..
- 2. The following activities were carried out by the TEC for each tree assessed.
  - i. Physical verification of the tree number and the associated information collected by the Forest Department Officers in Template 2 Part I, including tree health / tree defects and general assessment.
  - ii. Confirmation regarding those trees being inside the project construction area.
  - iii. Discussion with BMRCL Representatives to explore possibility of carrying out the construction without removal of trees, and identification of those trees which can be retained on-site.
  - iv. Review of preliminary assessment made by the Tree Officer in the Template 2 Part II.
  - v. Assessment of the general conditions of the trees to decide the feasibility of tree translocation in the event of retention-on-site not possible.
- 3. The Committee in its above set of activities was guided by the detailed procedure and prioritization formulated in Step 7 of the Memorandum of Procedure (MOP).
- 4. The Committee carried out the thorough and multipronged scrutiny of all the trees to make its recommendations regarding:
  - a) Trees which could be saved by retaining on-site as it is;

b) Trees which should be translocated depending upon their general condition as assessed and ecological importance, in the event of (a) above not being possible;

c) Trees recommended for removal in the event of (a) and (b) not being possible including the trees which are silviculturally matured or softwood trees and trees suffering from defects / damages.

- 5. **On-site Retention**: The TEC identified 07 trees though standing in the project area but not hindering the project activities, and those trees can be retained-on-site.
- 6. As verified during the field inspection, the remaining 123 trees which have to be suggested for translocation and felling are falling within the following physical features of the Project.

Physical Features	Tree Numbers
Pile and Pier Construction works	3, 4, 5, 6, 7, 8, 9, 10, 11, 21, 22, 24, 26, 27, 28, 29,
of Deport Entry Line	30, 31, 38, 40, 41, 42, 43
	= Total 23 Trees
Launching of I-Girder works of	13, 14, 15, 16, 17, 18, 19, 20, 32, 33, 34, 35, 37
Deport Entry Line	= Total 13 trees
Retaining Wall Construction	44, 45, 51, 52, 55, 57, 59, 61, 68, 69, 83, 84,
Works of Depot	85, 86, 92, 99, 100, 105, 106, 107, 108, 117, 118,
	120, 121, 122, 123, 124, 125, 126, 127, 128, 129,
	130
	= Total 34 Nos.
Earth Filling and Track Laying	46, 47, 48, 49, 50, 53, 54, 56, 58, 60, 62, 63,
Works of Depot	64, 65, 66, 67, 70, 71, 72, 73, 74, 75, 76, 77,
	78, 79, 80,81, 82, 87, 88, 89, 90, 91, 93, 94,
	95, 96, 97, 98, 101, 102, 103, 104, 109, 110,
	111, 112, 113, 114, 115,116, 119
	= Total 53 Nos.

Since these 123 trees are standing right in the construction area and hindering the project activities, their removal becomes inevitable.

- 7. The next consideration for the Committee was to identify the trees out of above trees standing in the Construction Zone which are fit for translocation. While making recommendations for translocation of the trees, the Committee considered the following conditions, in addition to the tree health / tree defects etc., recorded in the Template 2 Part I.
  - i. Proximity of tree to building structures, trunks proximity to the cement / concrete or tarred surface.
  - ii. The trees having below mentioned characteristics did not qualify for translocation. Trees having forked trunk, major wounds on the trunk, debarking, physical damage on the bark, scar due to fire, damage (girdling), rotting due to fungal infection (fruiting bodies of fungus, rotten core, hollowness) or pest infestation (presence of holes and frass as evidence of insect infestation), and dead / dried major branches, etc.
  - iii. Other aspects of species viz., economically important species, species that could provide food (nectar, pollen, seeds and fruits) and nesting sources (materials and site) to various fauna.
- 8. For the trees having the potential for translocation, availability of effective zone to extract the root-ball of sufficient size was also assessed. The trees in the above category (ii) and those

without adequate effective zone to extract the root-ball of sufficient size were specifically not recommended for the translocation.

- 9. Ultimately the trees, which could neither be retained-on-site nor translocated, were recommended for felling as a last resort.
- 10. The assessment with justification for each tree was recorded as stipulated in Part-III of Template 2.
- 11. Following is the summary of recommendations of the Committee as recorded in the Template 2 Part III.

Total number of Trees standing in the Project area – 130

Particulars	Total
Total number of Trees examined/observed	130
Total number of Trees found suitable for on-site retention	07
Total number of Trees found suitable for translocation	36
Total number of Trees for felling	87

- 12. A statement containing recommendations and justification along with the tree details is appended to these proceedings.
- 13. Assessment of areas for Translocation: Having completed the above assessment of trees at the project area, the Committee visited the following area proposed by BMRCL and recommended by the Tree Officer for translocation of trees to assess the land suitability.

#### Devika Rani Estate Area, Kanakapura Road, Bengaluru

14. The Committee reviewed the soil test analysis report, of the above Devika Rani Estate Area as prepared by Department of Soil Science and Agricultural Chemistry, UAS, GKVK, Bangalore and recommended by the Tree Officer and DCF, with the following inference:

"The Three soil samples provided for analysis are neutral to alkaline in nature, low in salt content, and organic carbon contain and contain medium to high nitrogen (280-360 kg/ha) and low quantities of (P,K and all other parameters as per standards.) Therefore with proper nutrient application and use of amendments soil is suitable for tree shifting".

The TEC examined the recommendation of the Tree Officer, Bengaluru Urban Division on the basis of report of UAS, Bangalore with respect to land suitability for translocation of trees area.

- 14. Regarding details of the Translocation of Trees process, the TEC directed the DCF, Bengaluru Urban Division and BMRCL to submit the precise locations of the proposed areas of translocation and specific receptor site coordinates where the trees have to be translocated at the above proposed translocation area.
- 15. In pursuance to the instructions as mentioned in KPT Act 1976, BMRCL should take up Compensatory afforestation by planting of 1230 saplings @ 10 saplings for each tree to be translocated/felled.

Member Secretary, TEC &

Member / Secretary, TEC & Assistant Conservator of Forests, Bruhat Bengaluru Mahanagara Pallike, Bengaluru.

#### Recommendations and justifications for On site Retention/Translocation/Felling of trees by Tree Expert Committe

Appendix

SI No	Tree Number	Tree Name	Girth in Mtr	Height in Mtr	Latitude (N)	Longitude (E)	Crown Spread in Sq.Mtr	TEC Recommendation	Justification
1	1.	Hunase	1.85	10.00	12deg 51min 20.6sec	77deg 31min 30.9sec	10.00	Retention	The tree is Recommendation for retention as the major construction activities in and around the tree is completed. However, for the remaining work to be executed near the tree, in order to facilitate the work little branches of the tree can be pruned appropriately (scientifically), <b>Recommendation : Retention</b>
2	2	Gulmohar	1.18	8.00	12deg 51min 22.0sec	77deg 31min 32.1sec	8.00	Retention	The tree is Recommendation for retention as the major construction activities in and around the tree is completed. However, for the remaining work to be executed near the tree, in order to facilitate the work little branches of the tree can be pruned appropriately(scientifically), <b>Recommendation : Retention</b>
3	3	Gulmohar	0.32	6.00	12deg 51min 23.4sec	77deg 31min 33.4sec	3.00	Felling	The tree cannot be retained as the construction of pile cap (for DP 01) as per plan is proposed close to the location of the tree. The tree is present in cluster closer to other trees; therefore, excavation of desirable root ball for transplantation is not possible. <b>Recommendation : Felling.</b>
4	4	Gulmohar	0.23	5.50	12deg 51min 23.4sec	77deg 31min 33.4sec	2.00	Felling	The tree cannot be retained as the construction of pile cap (for DP 01) as per plan is proposed close to the location of the tree. The tree is present in cluster closer to other trees; therefore, excavation of desirable root ball for transplantation is not possible. <b>Recommendation: Felling.</b>
5	5	Gulmohar	0.22	6.50	12deg 51min 23.5sec	77deg 31min 33.4sec	2.00	Felling	The tree cannot be retained as the construction of pile cap (for DP 01) as per plan is proposed close to the location of the tree. The tree is present in cluster closer to other trees; therefore, excavation of desirable root ball for transplantation is not possible. <b>Recommendation : Felling.</b>

The tree is Recommendation for extraction as the construction of pile Cap (for DP 02) as per plan is proposed very close to the location of the tree. The base of the tree is conjoined with tree no. 12, therefore transplantation of the tree is not possible. Recommendation : Extraction/Felling.	gnillə٦	2.00	nim1£ gəb77 əszð.££	nim12 gəb21 əs2.42	05.9	61.0	lsbns2	[]	66
The tree cannot be retained as the construction of pile Cap (for DP 02) as per plan is proposed very close to the location of the tree. The tree is matured and the base is conjoined with tree no. 12, therefore transplantation is not possible. <b>Recommendation : Felling.</b>	ନ୍ଥnilləମି	50.00	nim1£ gəb77 əsz7.££	nim12 gəb21 əəs2.42	00.£1	71.2	Тһаге	01	01
The tree cannot be retained as the construction of pile cap (for DP 01) as per plan is proposed very close to the location of the tree. The tree is matured with severe canker and decay symptom therefore, transplantation is not possible. <b>Recommendation : Felling.</b>	gnillə٦	00 <sup>.</sup> S	nim1£ gəb77 əəzč.££	nim12 gəb21 əəz8.£2	05.8	27.0	ansvid2	6	6
The tree cannot be retained as the construction of pile cap (for DP 01) as per plan is proposed close to the location of the tree. The tree is present in cluster closer to other trees; therefore, excavation of desirable root ball for transplantation is not possible. <b>Recommendation : Felling.</b>	gnillə٦	00.9	nim1£ gəb77 əəzč.££	nim12 gəb21 əəs2.52	00.6	<i>sL</i> .0	Gulmohar	8	8
The tree cannot be retained as the construction of pile cap (for DP 01) as per plan is proposed close to the location of the tree, the tree is present in cluster closer to other trees; therefore, excavation of desirable root ball for transplantation is not possible. <b>Recommendation : Felling.</b>	ହnilləମ	00.8	nim1& gəb77 əəzč.6£	nim12 gəb21 23.52cc	05.8	<i>sL</i> .0	Gulmohar	L	۷
The tree cannot be retained as the construction of pile cap (for DP 01) as per plan is proposed close to other trees; therefore, Excavation of desirable root ball for transplantation is not possible. Recommendation : Felling.	ឧការទេ	3.00	nim16 gəb77 əs24.66	nim[2gəb2l əs2.52	05.9	٢٢.0	Gulmohar	9	9



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12		12	Beete	0.47	6.50	12deg 51min 24.6sec	77deg 31min 33.8sec	4.00	Retention	The tree is Recommendation for retention as the tree is present abutting (within the project area) to the boundary and do not affect any of the proposed construction activities. <b>Recommendation : Retention</b>
13		13	Hebbevu	1.05	11.50	12deg 51min 25.4sec	77deg 31min 33.3sec	6.00	Felling	The tree is Recommendation for felling as the tree is dried completely. Recommendation : Felling
		14a		0.34	6.30			5.00		The tree cannot be retained as the construction of pile cap (for DP 07 & 06) as per plan is proposed near to the location of the
14	14	14b	Subabul	0.15	6.30	12deg 51min 27.2sec	77deg 31min 32.4sec	4.00	Felling	tree. The tree is present in cluster closer to other trees; therefore, excavation of desirable root ball for transplantation is not possible. <b>Recommendation : Felling</b>
15		15	Subabul	0.23	6.00	12deg 51min 27.2sec	77deg 31min 32.4sec	5.00	Felling	The tree cannot be retained as the construction of pile Cap (for DP 07 & 6) as per plan is proposed near to the location of the tree. The tree shows canker symptoms and is present in cluster closer to other trees excavation of desirable root ball for transplantation is not possible. <b>Recommendation : Felling.</b>
16		16	Subabul	0.56	8.00	12deg 51min 27.1sec	77deg 31min 32.3sec	6.00	Felling	The tree cannot be retained as the construction of pile Cap (for DP 07 & 6) as per plan is proposed near to the location of the tree. The tree is with decay symptoms and in addition the tree is present in cluster closer to other trees; therefore, excavation of desirable root ball for transplantation is not possible. <b>Recommendation: Felling.</b>
17		17	Subabul	0.34	8.00	12deg 51min27.2sec	77deg 31min 32.3sec	5.00	Felling	The tree cannot be retained as the construction of pile Cap (for DP 07 & 6) as per plan is proposed near to the location of the tree. The tree shows canker symptoms and in addition the tree is present in cluster closer to other trees: therefore, excavation of desirable root ball for transplantation is not possible. <b>Recommendation : Felling.</b>

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The tree cannot be retained as the construction of pile Cap (for DP 07 & 6) as per plan is proposed very close to the location of the tree. The tree is matured and the base is closed to tree no.22 and 21 therefore transplantation is not possible.	guilləf	09 <sup>.</sup> 1	nim1£ gəb77 əəs2.2£	nim12 gəb21 əəz <del>1</del> .72	4'00	\$2.0	itnegalaganti	54	24
The tree is Recommendation for retention, as the tree is located (blue colour mark) outside the project area. Recommendation : Retention	literes lites energe	00.f	nim15 gəb77 əs2.25	nim12 gəb21 2924.72	00°£	81.0	itnegalagal	52	53
The tree cannot be retained as the construction of pile Cap (for DP 07 & 6) as per plan is proposed very close to the location of the tree. The tree is matured and the base is closed to tree no.24 therefore transplantation is not possible. Recommendation : Felling.	gnillə٦	00.9	nim1£ gəb77 əəs2.25	nim12 gəb21 əəz <del>1</del> .72	05.2	85.0	agnoH	52	52
The tree cannot be retained as the construction of pile Cap (for DP 07 & 6) as per plan is proposed very close to the location of the tree. The tree is matured and the base is closed to tree no.20 and 21 therefore transplantation is not possible. <b>Recommendation : Felling.</b>	gnillə٦	00 <sup>.</sup> l	nim1& gəb77 əəs1.26	nim12 gəb21 əəz£.72	00°£	74.0	əgnoH	51	51
The tree cannot be retained as the construction of pile Cap (for DP 07 & 6) as per plan is proposed very close to the location of the tree. The tree is matured and the base is closed to tree no.19 and 21 therefore transplantation is not possible. Recommendation: Felling.	gnillə٦	00.8	nim1£ gəb77 əəs2.2£	nim12 gəb21 əəɛ£.72	05.6	82.0	agnoH	50	50
The tree cannot be retained as the construction of pile Cap (for DP 07 & 6) as per plan is proposed very close to the location of the tree. The tree is matured and the base is close to tree no.20 and 21 therefore transplantation is not possible. Recommendation : Felling	gnillə٦	00.8	nim1£ gəb77 əəs2.2£	nim12 gəb21 əəz£.72	05.8	29.0	agnoH	61	61
The tree is present in the location proposed for construction of pile cap (for DP 07 & 6) as per plan; therefore, the tree cannot be retained. In consideration to to the tree, the tree is Recommendation for transplantation Recommendation for transplantation	Transplantation	00.7	nim1£ gəb77 əəz2.2£	nim12 gəb21 əəs2.72	00.01	∠ħ.I	nlehaj	81	81

25	25	Subabul	0.27	6.50	12deg 51min 27.5sec	77deg 31min 32.2sec	3.00	Retention	The tree is Recommendation for retention, as the tree is located (blue colour mark) outside the project area. Recommendation : Retention
26	26	Honge	0.42	6.00	12deg 51min 27.4sec	77deg 31min 32.1sec	5.00	Felling	The tree cannot be retained as the construction of pile Cap (for DP 07) as per plan is proposed very close to the location of the tree. The tree is matured and the base is conjoined with tree no.27, 28,and 29 therefore transplantation is not possible. <b>Recommendation : Felling</b>
27	27	Honge	0.27	5.00	12deg 51min 27.4sec	77deg 31min 32.1sec	2.00	Felling	The tree cannot be retained as the construction of pile Cap (for DP 07) as per plan is proposed very close to the location of the tree. The tree is matured and the base is conjoined with tree no.26,28 and 29, therefore transplantation is not possible. <b>Recommendation : Felling.</b>
28	28	Jungle tree	0.27	5.00	12deg 51min 27.4sec	77deg 31min 32.1sec		Felling	The tree cannot be retained as the construction of pile Cap (for DP 07) as per plan is proposed very close to the location of the tree. The tree is matured and the base is conjoined with tree no.26,28 and 29, therefore transplantation is not possible. <b>Recommende : Felling.</b>
29	29	Jagalaganti	0.25	3.00	12deg 51min 27.4sec	77deg 31min 32.1sec	2.00	Felling	The tree cannot be retained as the construction of pile Cap (for DP 07) as per plan is proposed very close to the location of the tree. The tree is matured and the base is conjoined with tree no.26,27 and 28, therefore transplantation is not possible. <b>Recommendation : Felling.</b>
30	30	Cherry	0.66	3.00	12deg 51min 26.9sec	77deg 31min 32.8sec		Felling	The tree is present outside the project area as per plan. However, it was observed the tree was enumerated and found dead and fallen. <b>Recommendation :Felling</b>
31	31	Echalu	0.85	10.00	12deg 51min 27.3sec	77deg 31min 31.7sec	8.00	Transplantation	The tree cannot be retained as the construction of pile Cap (for DP 07 & 6) as per plan is proposed very close to the location of the tree. The tree is matured and the base is closed to tree no.20 and 21 therefore transplantation is not possible. <b>Recommendation : Translocation</b>

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The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of earth) as per plan is proposed very close to the location of the tree. The roots of tree are exposed. Therefore, the tree do not qualify for transplantation.	gnillə <sup>न</sup>	2.00	nim1£ gəb77 əəsč.1£	nim12 gəb21 əəs7.72	00 <b>.</b> £	81.0	Indedu2	LE	28
The tree is present outside the project area as per project plan, therefore the tree is Recommendation for retention. Recommendation : Retention	Retention	4.00	nim1& gəb77 əszð.1&	nim12 gəb21 əs8.72	00.2	82.0	izaqaT	98	36
The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed very close to the location of the tree. The base of the tree is very close to tree no.34, therefore transplantation is not possible.	gnilləA	3.00	nim1£ gəb77 əəzð.1£	nim12 gəb21 əsz7.72	00.2	\$2.0	ənsvid2	SE	32
The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed very close to the location of the tree. The base of the tree is very close to tree no.35, therefore transplantation is not possible. <b>Recommendation : Felling.</b>	gnilləA	3.00	nim1£ gəb77 əəzð.1£	nim12 gəb21 əsz7.72	00.2	\$2.0	əngvid2	34	34
The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed very close to the location of the tree. The tree is matured therefore transplantation is not possible. <b>Recommendation : Felling.</b>	gnilləA	00.01	nim1£ gəb77 əszð.1£	nim12 gəb21 əə27.72	00.51	55.1	eleqeT	EE	33
The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed very close to the location of the tree. The tree is matured therefore transplantation is not possible. <b>Recommendation : Felling.</b>	gnilləA	00.8	niml£g9b77 o927.1£	nim12 gəb21 oəsð.72	00.8	<i>L</i> 9.0	inns8	25	32

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38	38	Mutthuga	0.80	5.00	12deg 51min 27.8sec	77deg 31min 31.4sec	4.00	Transplantation	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of earth) as per plan is proposed very close to the location of the tree. The field condition of the tree qualify the tree for transplantation. <b>Recommendation : Translocation.</b>
39	39	Jagalaganti	0.38	5.00	12deg 51min 27.9sec	77deg 31min 31.5sec	5.00	Retention	The tree is present outside the project area as per project plan and therefore the tree is Recommendation for retention. <b>Recommendation : Retention</b>
40	40	Gobbarada gida	0.19	5.00	12deg 51min 27.9sec	77deg 31min 31.2sec	1.00	Felling	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed very close to the location of the tree. The base of the tree is close to tree no. 43, therefore the tree do not qualify for transplantation <b>Recommendation : Felling.</b>
41	41	Gobbarada gida	0.26	6.00	12deg 51min 27.8sec	77deg 31min 31.2sec	2.00	Felling	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The roots of the tree are exposed; therefore, the tree do not qualify for transplantation. <b>Recommendation :Felling.</b>
42	42	Subabul	0.23	6.50	12deg 51min 27.8sec	77deg 31min 31.3sec	2.00	Felling	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The roots of the tree are exposed; therefore, the tree do not qualify for transplantation. <b>Recommendation :Felling.</b>
43	43	Gobbarada gida	0.17	4.00	12deg 51min 27.0sec	77deg 33min 10.7sec	2.00	Felling	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The base of the tree is close to tree no.40, therefore the tree do not qualify for transplantation. <b>Recommendation: Felling.</b>

The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The roots of the tree are exposed; therefore, the tree do not qualify for transplantation. Recommendation : Felling.	gnill97	2.00	nim1£ ष्ठु9b77 ၁922.1£	nim12 gəb21 əəz9.72	00.9	97.0	Gobbarada gida	67	64
The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The roots of the tree are exposed; therefore, the tree do not qualify for transplantation. <b>Recommendation : Felling.</b>	gnillə٦	2.00	nim16 gəb77 əəs1.16	nim12 gəb21 əəz9.72	05.2	25.0	Gobbarada gida	48	48
The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The base of the tree is close to tree no.46 and 47, therefore the tree do not qualify for transplantation. <b>Recommendation : Felling.</b>	gnilləA	2.00	nim16 gəb77 əəs1.16	nim12 gəb21 əəz9.72	00.2	67'0	Gobbarada gida	Lt	24
The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed very close to the location of the tree. The base of the tree is close to tree no.46 and 48, therefore the tree do not qualify for transplantation. <b>Recommendation : Felling.</b>	gnilləA	00.f	nim1£ gəb77 əsɛ1.1£	nim18 gəb21 əəz9.72	00.9	42.0	Gobbarada gida	97	97
The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The base of the tree is close to tree no.47 and 48, therefore the tree do not dualify for transplantation. <b>Recommendation: Felling.</b>	ฐตillə٦	00.f	nim18 gəb77 əs2.18	nim12 gəb21 əs0.82	00.9	SZ.0	Gobbarada gida	54	94
The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The base of the tree is close to tree no.44, therefore the tree do not qualify for transplantation.	gnilləA	2.00	nim1E gəb77 əsz.1E	nim12 gəb21 əs20.82	00°S	15.0	Gobbærada gida	<i>tt</i>	44

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50	5	50	Echalu	0.90	3.50	12deg 51min 27.9sec	77deg 31min 31.1sec	5.00	Translocation	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of earth) as per plan is proposed in the location of the tree In consideration to the brief characteristics(physical/morphological) of the tree, the tree is Recommendation for transplantation. <b>Recommendadtion : Translocation</b>
51	5	j]	Gobbarada gida	0.87	6.00	12deg 51min 28.0sec	77deg 31min 30.9sec	4.00	Felling	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of earth) as per plan is proposed in the location of the tree. The tree is multiforked with included barks (weak branch union), therefore the tree do not qualify for transplantation. <b>Recommendation : Felling.</b>
52	5	52	Gobbarada gida	0.25	6.00	12deg 51min 28.1sec	77deg 31min 31.0sec	2.00	Felling	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The base of the tree is close to tree no.53, therefore the tree do not qualify for transplantation. <b>Recommendation : Felling.</b>
53	5	53	Gobbarada gida	0.29	6.50	12deg 51min 28.1sec	77deg 31min 31.0sec	2.00	Felling	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of earth) as per plan is proposed in the location of the tree. The base of the tree is close to tree no.52, therefore the tree do not qualify for transplantation. <b>Recommendation: Felling.</b>
54	54	54a	Subabul	0.41	6.00	12deg 51min	77deg 31min	6.00	Felling	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of earth) as per plan is proposed in the location of the tree The tree is forked
		54b	Sububul	0.30	6.00	28.1sec	30.9sec	1.00	i ciniig	with included barks (weak branch union), therefore the tree do not qualify for transplantation. <b>Recommendation : felling.</b>
55	5	55	Jungle tree	0.17	4.50	12deg 51min 28.2sec	77deg 31min 30.8sec	1.00	Felling	The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of earth) as per plan is proposed in the location of the tree The base of the tree is close to tree no.57, therefore the tree do not qualify for transplantation. <b>Recommendation : Felling.</b>

V										
<ul> <li>Tree is located within the project area.</li> <li>Tree is silviculturally matured, girdled at the base of the trunk and also mechanically damaged.</li> <li>hence this tree disqualifies transplantation.</li> </ul>	guilləA	00.01	nim1£ gəb77 əszð.0£	nim12 gəb21 əs0.82	00.11	02.1	Тիаге	7	9	29
<ul> <li>Tree is located in the proposed project area.</li> <li>Tree is situated near to the existing compound wall;</li> <li>appropriated root ball cannot be excavated. Hence this tree is Recommendation for felling.</li> </ul>	gnillə٦	5.00	nim1£ gəb77 əszð.0£	nim12 gəb21 ၁əz <del>1</del> .82	00.8	15.0	ludedu2	1	9	٤9
The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The base of the tree is close to tree no.60, therefore the tree do not qualify for transplantation. <b>Recommendation : Felling.</b>	gnilləA	2.00	nim1£ gəb77 əəzð.0£	nim12 gəb21 292£.82	00.4	42.0	Gobbarada gida	0	9	09
tree is close to tree no.60, therefore the tree do not qualify for transplantation. <b>Recommendation : Felling</b> .	Sumo	00.ľ	oes7.06	oes£.82	05.4	02.0		965		
The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The base of the	gnilləA	2.00	nim1£gəb77	nim[2g9b2[	05.4	62.0	- Gobbarada gida	B62	65	69
The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The base of the tree is close to tree no.56, therefore the tree do not qualify for transplantation. <b>Recommendation : Felling.</b>	gnilləA	2.00	nim1£ gəb77 əszð.0£	nim18 gəb21 əəs£.82	05.4	42.0	Gobbarada gida	8	Ş	85
The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The tree is severely infested by secondary infestors and partially dried, therefore the tree do not qualify for transplantation. <b>Recommendation: Felling</b> .	gnilləA		nim1£ ളംb77 ാടെ8.0£	nim12 gəb21 əəs2.82	05.4	04.1	alaqaT	L	Ş	29
The tree cannot be retained as the construction activities for ballasted track (involves mass excavation/filling of the earth) as per plan is proposed in the location of the tree. The base of the tree is close to tree no.58, therefore the tree do not qualify for transplantation. <b>Recommendation :Felling.</b>	gnilləA	3.00	nim1£ gəb77 əəz7.0£	nim12 gəb21 əəs2.82	00.2	0£.0	Hale Tree	9	Ş	99

63	63	Thare	0.76	8.00	12deg 51min 28.1sec	77deg 31min 30.4sec	6.00	Felling	<ul> <li>Tree is located within the project area.</li> <li>Tree has forked branches and mechanically damages.</li> <li>Hence, this tree is unfit for transplantation</li> </ul>
64	64	Thare	0.25	4.50	12deg 51min 28.1sec	77deg 31min 30.4sec	4.00	Felling	<ul> <li>Tree is located within the project area.</li> <li>Tree has forked branches and mechanically damages.</li> <li>Hence, this tree is unfit for transplantation</li> </ul>
65	65	Thare	0.79	9.00	12deg 51min 28.1sec	77deg 31min 30.4sec	6.00	Felling	<ul> <li>Tree is located within the project area.</li> <li>Tree has forked branches and mechanically damages.</li> <li>Hence, this tree is unfit for transplantation</li> </ul>
66	66	Thare	1.51	12.00	12deg 51min 28.2sec	77deg 31min 30.3sec	10.00	Transplantation	<ul> <li>Tree is located within the project area.</li> <li>Tree has forked branches at an height of 2.0 meter from the ground.</li> <li>Tree has clear bole and ,Hence Recommendation for transplantation</li> </ul>
67	67 67a	Honne	0.56	6.00	12deg 51min 28.5sec	77deg 31min 29.7sec	5.00	Transplantation	<ul> <li>Tree is located within the project area</li> <li>Tree has forked branches; one branch is dried.</li> </ul>
	67b		0.28	2.00	28.580	29.780	2.00		Dried branches should be pruned while transplantation
68	68	Gobbarada gida	0.29	6.00	12deg 51min 28.8sec	77deg 31min 29.1sec	4.00	Felling	<ul> <li>The tree is located in the project area.</li> <li>The tree having multiple branches, and is located near the existing compound wall.</li> <li>Hence, this tree is unfit for transplantation.</li> </ul>
69	69	Tapasi	0.14	3.00	12deg 51min 28.8sec	77deg 31min 29.1sec	1.00	Transplantation	<ul> <li>The tree located in the project area.</li> <li>Young seedling with no significant visual symptoms.</li> <li>Hence, Recommendation for transplantation.</li> </ul>
70	70	Achalu	0.59	4.50	12deg 51min 28.8sec	77deg 31min 28.9sec	5.00	Felling	<ul> <li>Tree located in the project area.</li> <li>Half of the trunk is already damaged.</li> <li>Hence, this tree does not fit for transplantation.</li> </ul>
71	71	Achalu	0.53	6.00	12deg 51min 29.0sec	77deg 31min 28.9sec	6.00	Transplantation	<ul> <li>Tree is located within the project area.</li> <li>Tree is from any damage and hence, Recommendation for transplantation/translocation.</li> <li>This tree is near to tree No.80 and 78.Hence, care should be taken while root ball excavation.</li> </ul>

#### Location: Anjanapura Depot, U M Kaval

<ul> <li>Tree No.84,85,86 are very nearer and are at a circumference of not more 1 meter and these trees are located near the adjacent compound wall Hence, appropriate root ball cannot be taken for successful transplantation.</li> <li>Hence, this tree is unfit for transplantation.</li> </ul>	gnillə٦	00.9	nim1£ gəb77 əəs2.82	nim12 gəb21 əəz2.92	00'E	٢4.0	ənevid2	8	L	82
<ul> <li>Tree No.84,85,86 are very nearer and are at a circumference of not more 1 meter and these trees are located near the adjacent compound wall. Hence, appropriate root ball cannot be taken for successful transplantation.</li> <li>Hence, this tree is unfit for transplantation.</li> </ul>	ຊຼnillə٦	4.00	nim1£ gəb77 əəs2.82	nim12 gəb21 əəs2.92	00.2	55.0	ənevid2	L.	L	22
<ul> <li>Tree No.84,85,86 are very nearer and are at a circumference of not more 1 meter and these trees are located near the adjacent compound wall. Hence, appropriate root ball cannot be taken for successful transplantation.</li> <li>Hence, this tree is unfit for transplantation.</li> </ul>	gnilləT	3.00	nim1£ gəb77 əəz2.82	nim12 gəb21 əəs2.92	05.4	15.0	ənsvid2	9.	L	92
<ul> <li>Tree No.83,82 are very nearer to this tree and at a distance of less than 0.5 meter. Hence, appropriate root ball cannot be excavated.</li> <li>Tree is having minimal ecological importance.</li> <li>Based on these factors, this tree is until for transplantation.</li> </ul>	gnilləJ	6.00	nim1£ gəb77 əəsč.82	nim12 gəb21 əəz£.92	00.7	95.0	ibsgnattsmee2	S,	L	SZ
<ul> <li>Tree No.81,82 are very nearer and are at a circumference of not more 1 meter and these trees. Hence, appropriate root ball cannot be taken for successful transplantation.</li> <li>Hence, this tree is unfit for transplantation.</li> </ul>	gnillə٦	00.8	nim1£ gəb77 əəz2.82	nim12 gəb21 əə25.92	00.7	85.0	ibegnethangadi	4	L	74
<ul> <li>Hence, this tree is unfit for transplantation.</li> </ul>		4.00			00.4	04.0		256		
not more 1 meter and these trees. Hence, appropriate root ball cannot be taken for successful transplantation.	Felling	4.00	nim16 gəb77 əs2.82	nim12 gəb21 29.3sec	00.9	14.0	ibegnethangadi	٩٤८	٤L	٤٢
• Tree No.81,82 are very nearer and are at a circumference of		4.00			00.9	84.0		73a		
<ul> <li>Tree is located within the project area.</li> <li>Tree is leaned and bent; major branches are already dried.</li> <li>Hence this tree does not fit for transplantation</li> </ul>	છnillə٦	00.r	nim1દ થુકb77 ၁કɛ8.82	nim12 gəb21 Sə20.92	00.2	St.0	eleqeT	7,	L	22

79	7	9	Seemethangadi	0.54	7.00	12deg 51min 29.4sec	77deg 31min 28.1sec	6.00	Felling	<ul> <li>Trees are having multiple branches and tree No.88, very nearer to this tree and at a distance of less than 0.5 meter. Hence, appropriate root ball cannot be excavated.</li> <li>Tree is having minimal ecological importance.</li> <li>Based on these factors, this tree is unfit for transplantation.</li> </ul>
80	8	0	Seemethangadi	0.42	7.00	12deg 51min 29.4sec	77deg 31min 28.1sec	5.00	Felling	<ul> <li>Trees are having multiple branches and tree No.87, very nearer to this tree and at a distance of less than 0.5 meter. Hence, appropriate root ball cannot be excavated.</li> <li>Tree is having minimal ecological importance.</li> <li>Based on these factors, this tree is unfit for transplantation.</li> </ul>
81	8	1	Hebbevu	0.67	8.00	12deg 51min 29.6sec	77deg 31min 27.9sec	7,00	Felling	<ul> <li>Tree is situated in the proposed alignment of depot.</li> <li>Tree is mechanically damaged and attacked be termites.</li> <li>Hence, tree disqualifies for transplantation.</li> </ul>
82	82	82a	Bursera	0.67	5.00	12deg 51min	77deg 31min	10.00	Felling	<ul> <li>Tree is located in the proposed alignment of depot.</li> <li>This tree is silviculturally matured, major branches of this tree are already fallen</li> </ul>
02		82b	Zalotta	0.66	5.00	29.6sec	27.8sec	10.00	. ennis	<ul> <li>More than 70 per cent of the tree is already dried.</li> <li>Hence, this tree is not fit for transplantation.</li> </ul>
83	8	3	Baare	0.27	4.50	12deg 51min 29.4sec	77deg 31min 27.7sec	4.00	Transplantation	<ul> <li>Tree is located in the proposed alignment.</li> <li>Tree is having clear bole and no significant visual symptoms.</li> <li>There are no trees near by this tree ,appropriate root ball can be excavated, Hence tree is Recommendation for transplanting.</li> </ul>
84	8	4	Baare	0.36	4.50	12deg 51min 29.3sec	77deg 31min 27.6sec	5.00	Transplantation	<ul> <li>Tree is located in the proposed alignment.</li> <li>Tree is having forked branches and one branch is already felled.</li> <li>There are no trees near by this tree appropriate root ball can be excavated. Hence tree is Recommendation for transplanting.</li> </ul>

V									
Tree is having clear straight bole, no visual Significant symptoms and tree is located in the proposed depot, hence this tree Recommendation for transplantation.	noitetnelqenerT	12'00	nim18 gəb77 2628.62	nim12 gəb21 2928.92	00.8	09.1	Тһаге	16	16
Tree is within the proposed project area and it is near the existing compound wall. existing compound wall. Tree is having clear straight bole with minor fissures on the base of the trunk. However, with all this tree is Recommendation for transplantation/translocation.	noitetnatganat	5.00	nim1£ gəb77 əəs1.72	nim12 gəb21 əs20.05	00.9	14.0	иуэддэН	06	06
<ul> <li>Tree is within the project area.</li> <li>Tree matured, half of the trunk was damaged and has termite attack, three branches were already felled and one more branch was fallen.</li> </ul>	gnilləJ	6.00	nim1£ gəb77 əə20.72	nim12 gəb21 əs8.92	09 <sup>.</sup> £	07.1	Bursera	68	68
<ul> <li>Tree is located in the proposed alignment.</li> <li>Tree is having minimal ecological importance and also mechanically damaged.</li> <li>Hence, not fit for transplantation.</li> </ul>	gnilləƏ	2.00	nim1£ gəb77 əəz2.72	nim12 gəb21 <sub>Də2</sub> 7.92	4.20	85.0	ileggaN	88	88
<ul> <li>Tree is located in the proposed alignment.</li> <li>Tree is having minimal ecological importance and also mechanically damaged.</li> <li>Hence, not fit for transplantation</li> </ul>	gnilləƏ	09 <sup>.</sup> 1	nim1£g9b77 o92£.72	nim12 gəb21 2928.92	4.20	05.0	ileggali	<i>L</i> 8	28
<ul> <li>Tree is located in the proposed alignment.</li> <li>Tree is having clear, straight bole with no visual significant symptoms.</li> <li>There is enough space for excavating, appropriate root ball.</li> <li>Hence tree is Recommendation for transplantation.</li> </ul>	noitetnelqenerT	4.00	nim16 gəb77 əəz <del>1</del> .72	nim12 gəb21 2920.92	05't	6.33	բասչասչ	98	98
Tree is located in the proposed alignment. Tree is having clear, straight bole with no visual significant symptoms. There is enough space for excavating, appropriate root ball. Hence tree is Recommendation for transplantation.	noitetnelqenerT	3.00	nim1£ gəb77 əəz2.72	nim12 gəb21 əəɛ£.92	00 <i>.</i> 2	18.0	ilsથુશ્વ	58	58

		92a		0.73	7.00			6.00		<ul> <li>Tree has forked branches at an height of 2.0 meter from the ground. One branch is very lean and bent at an angle 45</li> </ul>
92	92	92b	Bage	0.64	7.00	12deg 51min 29.6sec	77deg 31min 26.7sec	4.00	Transplantation	degree Committee suggested for transplantation after pruning leaned and bent branch.
93	9	93	Shivane	0.33	3.50	12deg 51min 29.8sec	77deg 31min 27.1sec	2.00	Transplantation	<ul> <li>Tree is within the proposed alignment.</li> <li>Tree has clear and straight bole, having no visual significant symptoms.</li> <li>This tree is very nearer to Tree No. 94. Hence, precautionary measures to take while appropriate root ball for successful transplantation.</li> </ul>
94	9	)4	Kiru Bidiru	50 Cu	ılms	12deg 51min 29.8sec	77deg 31min 26.8sec	-	Felling	<ul> <li>This is located in the proposed project depot.</li> <li>This is having more than 25culms, which spreads over more than 2 square meter, hence not possible to excavate appropriate root ball for successful transplantation.</li> <li>Hence Recommendation for felling</li> </ul>
95	9	95	Kamara	0.31	3.00	12deg 51min 30.0sec	77deg 31min 26.4sec	5.00	Transplantation	<ul> <li>Tree is within the proposed project area.</li> <li>Tree is having forked branches, one small branch was pruned.</li> <li>Tree is Recommendation for transplanting/translocation by excavating appropriate root ball for excavation.</li> </ul>
96	9	96	Kaggalli	0.42	3.00	12deg 51min 29.9sec	77deg 31min 26.3sec	2.00	Felling	<ul> <li>Tree is within the project area ,tree is having multiple branches, one branch was fallen.</li> </ul>
97	9	97	Bilwara	0.15	3.00	12deg 51min 29.9sec	77deg 31min 26.3sec	2.00	Transplantation	<ul> <li>Tree is young and is located near tree No. 97.</li> <li>Hence, precautionary measures to be taken while excavating appropriate root ball for translocation.</li> </ul>
98	9	98	Tupra	0.26	3.00	12deg 51min 29.9sec	77deg 31min 26.2sec	1.00	Felling	<ul> <li>Tree is within the project area. All the branches of this tree are already pruned and also mechanically damaged.</li> <li>Hence Recommendation for felling.</li> </ul>

Location: Anjanapura Depot, U M Kaval

branches are fallen and dried. Hence, tree does not fit for transplantation/translocation.		00.01	<b>၁</b> 986.22	2927.62	00.2	82.0		9501		
<ul> <li>Tree is in the proposed depot.</li> <li>Tree has forked branches, more than 50 percent of the proposed depot.</li> </ul>	gnillə٦	00.01	nim1£ gəb77	nim12 gəb21	00.2	<i>LL</i> .0	Bursera	8201	<b>\$01</b>	102
<ul> <li>Tree is present in the center of the project area.</li> <li>There are more than 15 culms, not possible to excavate appropriate root ball.</li> <li>Hence Recommendation for felling.</li> </ul>	gnillə٦		nim1£ gəb77 əs2.52	nim12 gəb21 əəs2.0£	swj	30 C <sup>n</sup>	Kiru Bidiru	10	)[	401
<ul> <li>Tree is present in the center of the project area.</li> <li>Tree is having clear bole and visual significant symptoms, hence Recommendation for transplantation/translocation.</li> </ul>	Transplantation	00.8	nim1& gəb77 əs29.22	nim12 gəb21 əə22.0£	00.01	69'0	Bilwara	EO	)[	103
<ul> <li>Tree is in the proposed depot</li> <li>There are more than 11 culms spreading more than 1.5-meter area.</li> <li>Excavation of appropriate root ball is not possible for translocation/transplantation.</li> </ul>	gnilləA		nim1£ gəb77 əs21.82	nim12 gəb21 əs2.0£	sɯJ	30 C <sup>n</sup>	Kiru Bidiru	20	)[	105
<ul> <li>Tree is within the proposed depot.</li> <li>Tree is silviculturally matured, and two major branches are dried.</li> <li>Steam knots on the main trunk.</li> <li>Based on this character's tree does not fit for translocation/transplantation.</li> </ul>	gnillə٦	25.00	nim1£ gəb77 əs21.82	nim12 gəb21 əs2.05	00.01	02.1	slsqsT	10	)]	LOL
<ul> <li>Tree is within the proposed depot.</li> <li>Tree is young, tree is nearer to Tree NO. 127,Hence care should be taken to excavate appropriate root ball while transplantation/translocation.</li> </ul>	Transplantation	00.9	nim1£ gəb77 əs21.82	nim12 gəb21 əəz7.92	05.2	8£.0	п∧әqqәН	00	)]	001
<ul> <li>Tree is within the proposed project area.</li> <li>Tree is nearer to tree No. 116, Young tree, Recommendation</li> <li>Treation with suitable host,</li> </ul>	Transplantation	00.9	nim15 gəb77 əs21.32	nim12 gəb21 əsz7.92	00.4	٢٢.0	boow lebne2	60	6	66

106	10	06	Sandal	0.17	5.00	12deg 51min 29.6sec	77deg 31min 26.0sec	4.00	Transplantation	<ul> <li>Tree is located within the project area.</li> <li>Tree is very nearer to Tree no. 127.</li> <li>Care should be taken while transplanting with suitable host.</li> </ul>
107	1(	07	Hebbevu	0.59	8.50	12deg 51min 29.8sec	77deg 31min 25.5sec	8.00	Transplantation	<ul> <li>Tree is present in the center of the project area.</li> <li>Tree is young and having straight bole and this tree is nearer to tree no. 125 at a distance of less than 1.5 meter. Hence ,possible measures to be taken excavating appropriate root ball for transplantation/translocation.</li> </ul>
108	10	08	Tapala	2.20	9.00	12deg 51min 29.8sec	77deg 31min 25.4sec	15.00	Felling	<ul> <li>Tree is present in the center of the project area.</li> <li>Tree is silviculturally matured, one of the branch is chopped, dried and decayed.</li> <li>The main trunk is canker faces and knots.</li> <li>The conditions has mentioned above do not qualify the tree for transplantation/translocation.</li> </ul>
		109a		0.28	5.00			2.00		<ul> <li>Tree is present in the center of the project area.</li> <li>Tree has multiple (8) branches, one branch was already felled.</li> </ul>
109	109	109b	Shivane	0.40	5.00	12deg 51min 29.9sec	77deg 31min 25.4sec	2.00	Felling	<ul> <li>Tree is mechanically damaged; two branches were already dried.</li> <li>Based on the above characters, this tree does not fit for</li> </ul>
		109c		0.40	5.00			2.00		transplantation/translocation.

<ul> <li>Tree is located in the proposed depot and it is near to tree no.</li> <li>Tree is having straight bole with minor defects.</li> <li>Possible care should be taken while excavating appropriate</li> <li>Possible care straight to Tree No. 124</li> </ul>	noitetnelqenerT	00.B1	nim1£ gəb77 əə27.42	nim12 gəb21 əə21.05	00.01	1.24	Тһаге	SI	11	911
<ul> <li>Tree is located in the proposed project area.</li> <li>Tree has forked branches from 2 feet from the ground level.</li> <li>One branch of the tree is already fallen and dried and also mechanically damaged.</li> <li>Hence, based on the above characters, this tree is rot suitable for transplantation.</li> </ul>	gnillə٦	3.00	nim18 gəb77 əs2.22	nim12 gəb21 əs8.92	00.2	SS.0	յուցին էրշե	14	11	411
<ul> <li>The tree is present in the center of the proposed Depot.</li> <li>It is young tree, no visual significant symptoms.</li> <li>Tree is nearer to tree NO.104, hence, appropriate care should</li> <li>Tree is mearer to tree NO.104.</li> </ul>	Transplantation	4.00	nim1£ gəb77 əs20.22	nim12 gəb21 əs2.05	4.00	14.0	Nerale	٤I	11	511
<ul> <li>Tree is present in the proposed project area.</li> <li>Young tree, having Minor defects like fissure on the stem, however, tree is able to rejuvenate after transplantation. hence, this tree is Recommendation for transplantation.</li> </ul>	Transplantation	3.00	nim1£ gəb77 əəz0.22	nim12 gəb21 əəz9.92	00.4	67.0	ənsvid2	71	II	211
<ul> <li>Tree is present in the center of the proposed depot.</li> <li>It is young tree, no Visual significant symptoms.</li> <li>Tree is nearer to tree No.105,hence,appropriate care should be taken while excavation root ball.</li> </ul>	Transplantation	3.00	nim18 g9b77 5981.25	nim12 gəb21 əs21.05	4.00	82.0	Nerie	11		111
	4	2.00			00 <sup>.</sup> £	01.0		9011		
		2.00			00.5	01.0		POIL		
Based on the above characters, this tree does not fit for transplantation/translocation.	gnillə7	2.00	nim18 gəb77 əəsð.82	nim12deg3l 30.1sec	00.£	51.0	։ ຬաոչաոչ	2011	011	011
<ul> <li>Tree is present in the center of the project.</li> <li>Tree has multiple branches; Three branches are already dried</li> </ul>		2.00		-:13 pob(1	00.£	07.0		9011		
		2.00			00.£	81.0		в011		

116	1	16	Thare	1.10	10.00	12deg 51min 30.0sec	77deg 31min 24.6sec	10.00	Transplantation	<ul> <li>Tree is with minor defects and present in the centre of the project area (proposed for depot.)</li> <li>Tree is having clear bole, on major branch was already pruned.</li> <li>This tree located near tree No.124 hence, care should be taken while excavating appropriate root ball</li> </ul>
117	1	17	Subabul	0.94	8.00	12deg 51min 30.1sec	77deg 31min 24.0sec	8.00	Felling	<ul> <li>Tree is present in the center of the project area (proposed for depot).</li> <li>This tree is near tree No.108, having multiple branches (3) from the base.</li> <li>Hence, Recommendation for felling.</li> </ul>
118	1	18	Bidiru	200 Culms(	4 Clumps)	12deg 51min 30.1sec	77deg 31min 23.9sec		Felling	<ul> <li>Tree is present in the center of the project area (proposed for depot).</li> <li>The tree has 8 culmps, not possible to excavate root ball.</li> <li>The conditions mentioned above do not qualify the tree for transplantation/translocation.</li> </ul>
119	1	19	Tapsi	0.45	5.00	12deg 51min 30.2sec	77deg 31min 23.3sec	5.00	Felling	<ul> <li>Tree is present in the center of the project area (proposed for depot).</li> <li>Tree is mechanically damaged, partially uprooted due to mechanical injured and tree bent towards the ground.</li> </ul>
		120a		0.40	6.00			2.00		<b>—</b>
120	120	120b	Tapsi	0.20	6.00	12deg 51min	77deg 31min	2.00	Felling	<ul> <li>Tree is proposed project area</li> <li>Tree is having multiple branches, mechanically damaged.</li> <li>Because of multiple branches, appropriate root ball cannot be</li> </ul>
120	120	120c	rupsi	0.15	6.00	30.0sec	23.3sec	2.00	i ennig	excavated. <ul> <li>Hence, this tree is unfit for transplantation.</li> </ul>
		120d		0.15	6.00			2.00		X
121	12	21	Kumkuma	0.21	4.50	12deg 51min 30.0sec	77deg 31min 23.3sec	3.00	Transplantation	<ul> <li>Tree is located in the proposed project area and situated near tree No. 120 (less than 1 meter).</li> <li>Young trees care should be taken during root ball excavation.</li> </ul>

<ul> <li>Tree is with minor defects and present in the project area (proposed for depot.)</li> <li>Tree is silviculturally matured, two major branches fcr already fallen and one major branch was dried.</li> <li>There are canker faces and fissures at the base.</li> <li>The conditions as mentioned above disqualify the tree for</li> <li>The conditions are mentioned above disqualify the tree for</li> </ul>	ຊຼnilləJ	00.21	nim1£ gəb77 əə20.£2	nim12 gəb21 əəs£.0£	08.01	\$9.0	alaqaT	124	124
<ul> <li>Tree is with minor defects and present in the project area (proposed for depot.)</li> <li>Tree is young, no visual significant symptoms, clear straight bole and it is near tree No. 111.</li> <li>Hence, proper care should be taken during the transplantation/translocation process involving excavation of troot ball, Recommendation for transplantation/translocation.</li> </ul>	noitetnelqenerT	00.8	nim1£ gəb77 əəz0.£2	nim12 gəb21 əəz£.0£	00.01	69.0	иvэddэН	153	153
<ul> <li>Tree is with minor defects and present in the project area</li> <li>(proposed for depot.)</li> <li>Young and small tree having 3 branches from the base, one branch is bent towards the ground.</li> <li>This tree is Recommendation for transplantation by pruning one branch which is bent towards the ground.</li> </ul>	Transplantation	3.00	nim1£g9b77 ວອຂ1.£2	nim12 gəb21 əəs£.0£	00.£	72.0	ənsvid2	771	152

#### Application No:BMRCL/0023/P2/R4B/2020-21/93 Dated: 26.11.2020

		125a		0.65	7.50			6.00		<ul> <li>This tree is near tree no.111 and at a distance of less than 1</li> </ul>	
125	125	125b	Seemethangadi	0.30	7.50	12deg 51min	77deg 31min	3.00	Felling	meter from tree No.111.	
125	125	125c	Seemethangau	0.20	7.50	30.2sec	22.9sec	8.00	rennig	Tree has multiple (6) branches, one branch was dried. Hence ,Recommendation for felling.	
		125d		0.20	7.50			8.00			
126	1:	26	Hebbevu	0.52	8.00	12deg 51min 30.2sec	77deg 31min 22.8sec	6.00	Transplantation	<ul> <li>Tree present in the center of the project area (proposed for depot.)</li> <li>Young seedling, with clear bole and visual significant symptoms and it is near tree no 114 at a distance of less than 1 meter.</li> <li>Hence, proper care should be taken during the transplantation/translocation process involving excavation of root ball.</li> </ul>	
127	11	27	Thorematti	0.27	4.50	12deg 51min 30.3sec	77deg 31min 22.8sec	4.00	Transplantation	<ul> <li>Tree present in the centre of the project area (proposed for depot.)</li> <li>Young seedling, with clear bole and visual significant symptoms and it is near tree no 113 at a distance of less than 1 meter.</li> <li>Hence, proper care should be taken during the transplantation/translocation process involving excavation of root ball.</li> </ul>	
128	12	28	kumkuma	0.16	3.50	12deg 51min 30.3sec	77deg 31min 22.8sec	3.00	Transplantation	<ul> <li>Tree present in the center of the project area (proposed for depot.)</li> <li>Young seedling, and it is near to tree No.129.hence, care should be taken while excavating root ball for transplantation.</li> </ul>	
129	1:	29	kumkuma	0.21	3.50	12deg 51min 30.4sec	77deg 31min 22.8sec	3.00	Transplantation	<ul> <li>Tree present in the center of the project area.</li> <li>Young seedling, and it is near to tree No.128.hence, care should be taken while excavating root ball for transplantation.</li> </ul>	

### Application No:BMRCL/0023/P2/R4B/2020-21/93 Dated: 26.11.2020

Location: Anjanapura Depot, U M Kaval

<ul> <li>Tree is present in the center of the project area (proposed for depot.)</li> <li>Young seedling hence, care should be taken while excavation root ball for transplantation.</li> </ul>	Transplantation	3.00	nim15 gəb77 əəs7.22	nim12 gəb21 əs21.05	00.4	97.0	Nerale	081	130
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۷۵ کا	Total Number of Trees assessed for felling
98	Total Number of Trees assessed as suitable for translocation
L	Total Number of Trees assessed for on-site retention

Member Secretary, TEC & Assistant Conservator of Forests, BBMP, Bengaluru

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Member Secretary of TEC & Assistant Conservator of Forests BBMP, Bangalore.

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Present Propose	Locatio ed Loca	on - U N tion - D	1 KAVAL evika Rani	, Anja Estate	Present Location - U M KAVAL , Anjanapura depot. Proposed Location - Devika Rani Estate , Kanakapura road.	ot. ura road.		Annex	Annexure - 6
Map 1	showin	ıg Coord	Map 1 showing Coordinates (Attached)	tached	0				
Extent : 0.71 Ha	0.71 F	la							
Sino	Tree	Branch	Species	Girth	Present loc (UM F	Present location of trees (UM KAVAL)	Proposed Translocation area	Proposed r coordinat transl	Proposed receptor site coordinates for tree translocation (Devika rani estate)
	Number			(mts)	Lattitude (N)	Longitude (E)	with boundary coordinates	Lattitude (N)	Longitude(E)
1	18		Echalu	1 47	12* 51127/2*	77° 31' 32 2"		12° 50' 24 60"	77° 31' 03 15"
2	31		Echalu	0 85	12" 51" 27.3"	779 31 31 7*		12° 50' 25 22"	77° 31' 02 59"
ω	38		Mutthuga	080	12° 51' 27.8°	77*31*31.4*		12° 50' 25 49"	77° 31' 02 51
4	50		Echału	00 0	12" 51" 27 0"	"1 11 "1 E "77		12° 50' 25 22"	77° 31' 03 41
5	66		Thare	151	12" 51" 27.2"	77° 31' 30 3"		12° 50' 24 87"	77° 31' 03 72"
ת	3	67a	Honne	0.56	-> 81-112 041	יד טר יו ז סדד		100 F0/ 04 001	17° 11' 10' "6"
	9	67b	Honne	0 28	1+			200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200	
1	69		Fapası	014	12-51, 28.8-	77º 31: 29,1º		12° 50' 25 27"	77° 31' 04 29"
00	71		Achalu	0.53	12° 51' 29 0"	77° 31' 28 9"		12° 50' 24 96"	77° 31' 06 02"
9	83		Baare	0 27	15°21, 30 4.	77° 31' 27 7"		12° 50' 25 16"	77° 31' 08 64"
10	80 1-		Baare	036	12" 51' 29 3"	77° 31' 27 6"		12° 50' 25 05"	77° 31' 08 97"
ш	85		Kaugah	031	12+51-29.3*	77° 31' 27 5"		12° 50' 24 80"	112 31, 08 a0.
12	86		kumkuma	0.33	15, 21, 59.9,	"t 22 'l£ °77		12° 50' 25 35"	77° 31' 09 52"
13	90		Hebbevu	14 0	12° 51' 30 0 *	77° 34/27 1/		12° 50' 25 71"	77° 31' 08 26"
14	١٩		Thare	1 60	12°51'29.8"	772 31' 26 8*		12° 50' 24 91-	77° 31' 07 62"
15	9	VC6	Rage	0.73	12" 51' 29:6"	77° 31' 26 7"	Devika rani estate	12° 50' 24 26"	77° 31' 08 12"
	3	qΞp	Bage	0.64			Point (A) 12° 50' 26 11" N		
16	93		Shivane	0 33	[]2º:51':29:8"	779 34: 27 1	77° 31' 02 29" E Point (B)	12° 50' 24 00"	77° 31' 08 50"
17	56		Kamara	031	12° 51' 30.0°	77° 31' 26 4"	12° 50' 25 88" N 77° 31' 10 85" E	12º 50' 23 92"	77° 31' 07 46"
18	97		Gobbara yıda	0 15	12° 51' 29.9"	77° 31' 26 3*	Point (C)	12° 50'22 74"	77° 31' 04 54"
19	90		Sandal wood	0 27	12" 51' 29.7"	77° 31' 26 1''	77° 31'05 91" E	12° 50' 22 84"	77° 31' 04 29"
20	100		Hebbevu	0 38	12° 51' 29.7"	77*31'26.1"	12º 50' 19 38" N	12° 50' 22 49"	77° 31' 04 29"
21	103		Bilwara	0 69	12" 51' 30.2"	77° 31' 25 9"	77~31°01-16" E	12° 50' 22 35"	77° 31' 04 01"
22	106		Sandal	0 17	12º 51' 29.6"	77° 31' 26 0"		12° 50' 21 92"	77° 31' 03 80"
23	107		Hebbevu	65.0	12° 51' 29 8 <sup>#</sup>	77° 31' 25 5"		12° 50' 21 58"	77° 31' 04 18"
24	00		Nerle	0 28	1.05 ,15 ,51	77° 31' 25 1		12° 50' 20 83"	77° 31' 04 29"
25	112		Shivane	62.0	15= 2   29 9"	77° 31' 25 0"		12° 50' 19 64*	77° 31' 02 77°
26	113		Nerale	041	[2ª 5]* 30 2"	77° 31' 25 0"		12° 50' 20 05"	77° 31' 02 22"
27	511		Thare	1 24	12°5/'30.1"	77° 31' 24 7"		12° 50' 20 25"	77° 31' 02 74"
28	116		Thare	1 10	12" \$1" 30.0"	77° 31' 24 6"		12° 50' 20 64"	77° 31' 02 82"
29	121		kumkum	0 21	12" \$1" 30 0"	77° 31' 23 3"		12° 50' 20 85"	77° 31' 02 48"
30	122		Shivane	0 24	12º 51' 30.3"	77° 31' 23 3"		12° 50' 21 26"	77° 31 ' 02 44
31	123		Hebbevu	0 69	15-21,30 3.	77° 31' 23 0"		12° 50' 21 16	77° 31' 01 84
32	126		Hebbevu	0.52	12°51'30.2"	77° 31' 22 8"		12º 50 21 78"	77° 31' 02 43"
EE	127		Thorematti	0 27	12*51'30 3*	77° 31' 22 8"		12° 50' 21 58"	77° 31' 02 97"
34	128		kumkum	0.16	12*51'303*	77° 31' 22 8"		12° 50' 22 14"	77° 31' 02 28"
35	129		kumkum	0 21	12° 51' 30 4"	77° 31' 22 8"		12° 50' 22 49"	77° 31' 02 17"
36	130		Nerale	0.26	129:51/30.17	77° 31' 22 7"		12° 50' 22 35"	77° 31' 02 90"