



**Arbor by Design**  
3/37 Hoddle Street  
Elsternwick VIC 3185  
0411 082 573

# Preliminary Arboricultural Report

## 2-6 Fern Street

## Black Rock

for

Alicia White  
Senior Project Manager

**Bayside City Council**

**Prepared by**

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12 April 2019

## Brief

Arbor by Design has been requested to provide to provide a Preliminary Arboricultural Assessment for designated trees within 2-6 Fern Street, Black Rock and part of FG Tricks Reserve (as denoted in yellow on Site Map). Trees that have been assessed are those within defined areas outlined by Bayside City Council.

One tree, Tree 18, was not located on the plans provided and the location of this tree is estimated.

All recommendations and calculations are made with consideration of AS4970 Protection of Trees on Development Sites (AS4970).

A visual site inspection was undertaken by Sarah Priestley on 12<sup>th</sup> April 2019.

## Site Map



## Observations

1. 66 trees were identified on site
  - a. 13 trees were identified with a High Retention Value, these are trees 1, 5, 6, 9, 10, 13, 15, 16, 18, 22, 38, 39, and 49 (Figure 1 in green),
    - i. 12 trees have a Useful Life Expectancy (ULE) of greater than 20 years and one tree, Tree 22 has a ULE between 10 and 20 years, and
    - ii. Trees 5, 9 and 10 are indigenous to the local area, and Trees 6, 13, 15, 16, 18, 22, 38, 39, and 49 are native to Australia;
  - b. 23 trees were identified with a Moderate Retention Value, these are trees 2, 4, 20, 25, 31, 33, 34, 36, 40, 41, 43, 44, 45, 46, 47, 48, 50, 52, 56, 57, 60, 65 and 66 (Figure 1 in blue),
    - i. Trees 4, 20, 31, 33, 34, 40, 46, 50, 52, 56, 57, 60, 65 and 66 have a ULE of greater than 20 years, Trees 2, 36, 41, 43, 44, 45 and 47 has a ULE between 10 and 20 years and the remaining trees 25 and 48 have a ULE of between 5 and 10 years,
    - ii. Trees 25, 31, 34, 41 and 47 are indigenous to the local area, trees 4, 20, 33, 36, 40, 43, 44, 45, 46, 48, 50, 52, 56, 57, 60, 65 and 66 are native to Australia and the remaining trees are exotic, and
    - iii. Four trees, in Table 1, have a prone form, extending beyond the TPZ of the tree.

Table 1 Moderate Value trees with prone form

Tree ID	Botanical Name	TPZ	Comments
43	<i>Melaleuca lanceolata</i>	4.68	prone, approx 7m south of base
44	<i>Melaleuca lanceolata</i>	4.68	prone, approx 7m south of base
45	<i>Melaleuca lanceolata</i>	4.68	prone, approx 7m south of base
47	<i>Leptospermum laeviagatum</i>	6.6	prone, approx 16m north of base

- c. 27 trees were identified with a Low Retention Value, these trees are 3, 7, 8, 11, 12, 14, 19, 21, 23, 26-30, 32, 35, 42, 51, 53, 55, 59, 61-64, of these
  - i. Nine trees are indigenous to the local area, these are Trees 21, 28, 29, 35, 37, 51, 55, 61 and 62 and sixteen trees are native to Australia, these are Trees 3, 8, 11, 12, 14, 23, 26, 27, 30, 32, 42, 53 and 58
  - ii. One tree, Tree 30 has a prone form, extending approximately 10m south of base of the tree, and
  - iii. One tree, Tree 55, exhibits signs of significant decay and has multiple bracket fungi present, this tree is recommended for inspection by Councils Arborist.

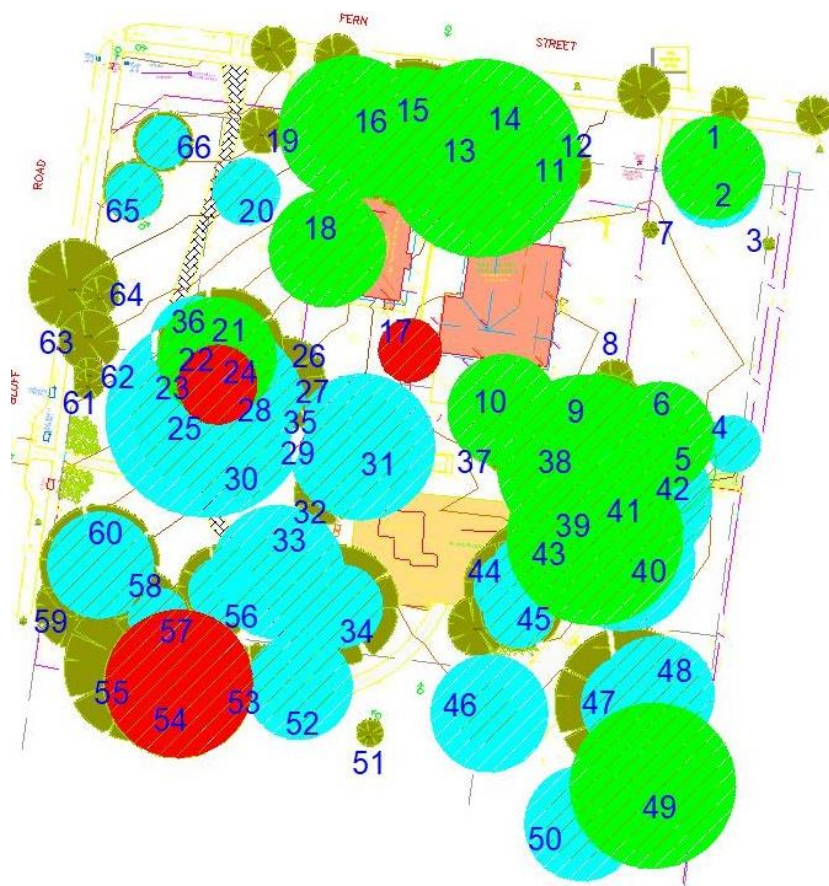


Figure 1 showing high value trees in green, moderate value trees in blue and trees to be removed in red

2. 3 trees on site have been assessed having no ULE and are recommended for removal as per Table 1.
  - a. A permit will be required to remove these trees

Table 2 Trees recommended for removal

Tree No	Genus/species	Origin	Health	Structure	ULE	Retention Value	Comments
17	Eucalyptus cinerea	Native	Dead	Good	0 Years	Remove	Dead
24	Casuarina cunninghamiana	Native	Dead	Good	0 Years	Remove	Dead
54	Casuarina cunninghamiana	Native	Poor	Poor	0 Years	Remove	multiple failures, declining canopy

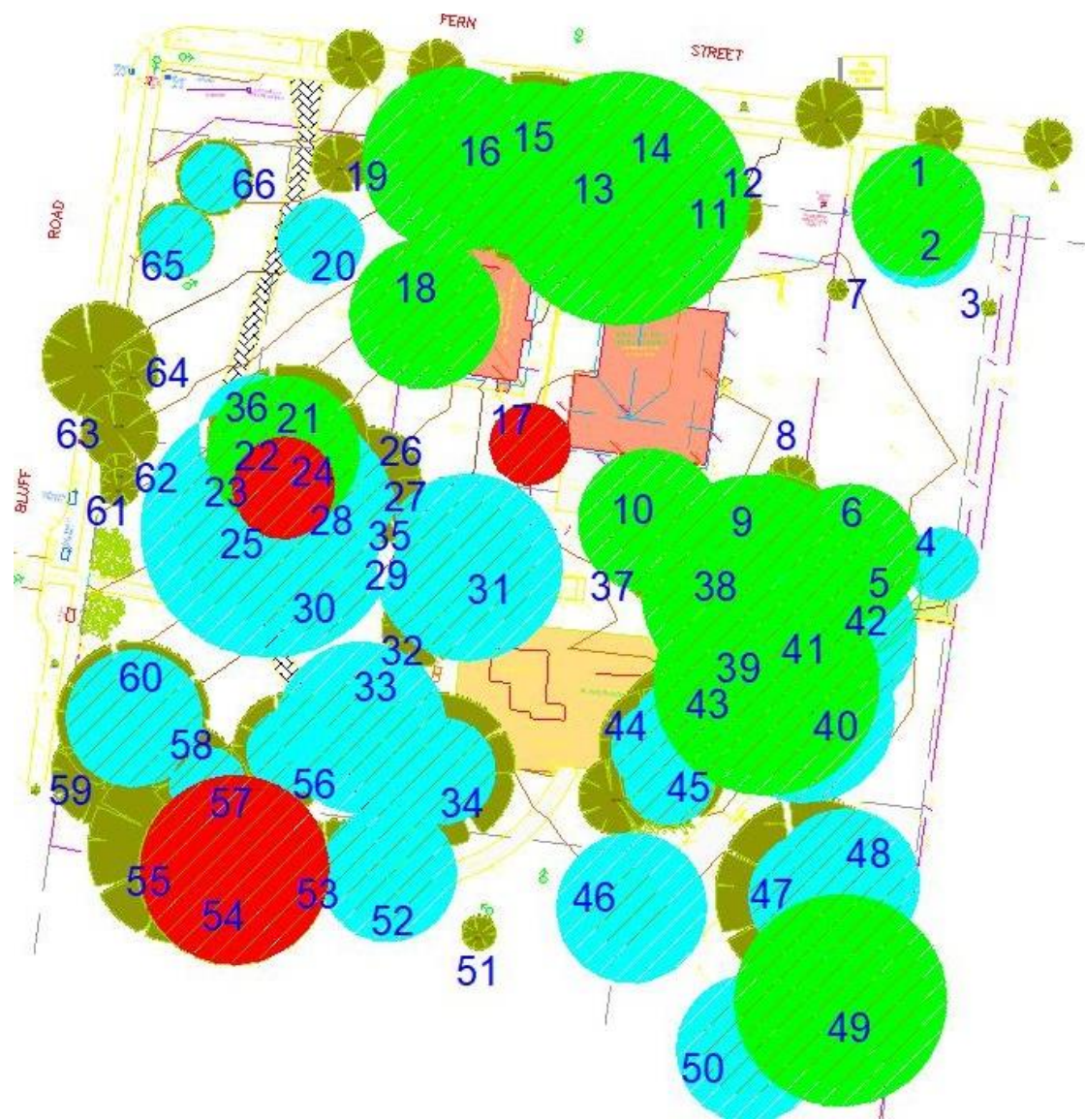
3. Native and indigenous trees on site are native and protected by Schedule 3 to the Vegetation Protection Overlay (VPO3) of the Bayside Planning Scheme and Clause 52.17.
  - a. VPO3 does not require a permit if vegetation is less than 2 metres high or has a single trunk circumference of less than 0.5 metre at a height of 1 metre above ground level.
  - b. 54 trees will require a permit to remove, lop or destroy, these are trees 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 36, 38, 39, 40, 42, 43, 44, 45, 46, 47, 48, 49, 50, 52, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65 and 66.

## Design Considerations

1. High Value Trees are generally large trees in fair condition with long ULE's. All reasonable efforts should be made to incorporate them in final design plans and to protect them during construction activities.
2. Moderate Value Trees contribute to the amenity of the site and surrounding landscape and should be retained if possible. If designing around these trees is not feasible or practical, removal and replacement would be an acceptable compromise.
3. Low Value Trees are trees whose amenity can be readily replaced with new plantings. These trees should not constrain the design.
4. All construction activity should be excluded from the Structural Root Zone (SRZ) of any tree to be retained.
5. Minor encroachment on the TPZ is less than 10%
  - a. The area lost to the encroachment should be compensated for elsewhere, contiguous to the TPZ.
  - b. consideration should be given to tree sensitive measures such as pier and beam, suspended slabs and cantilevered building sections, screw piles and contiguous piling to minimise encroachment.
  - c. If the above can be achieved tree protection requirements will be minimal.
6. Major encroachment on the TPZ is greater than 10%, additional arboricultural investigation will be required to demonstrate the tree can remain viable with a major encroachment.
  - a. consideration should be given to tree sensitive measures such as pier and beam, suspended slabs and cantilevered building sections, screw piles and contiguous piling to minimise encroachment.
7. Corridors for Utility Services should be established at the planning stage to avoid encroaching on the TPZ of trees. Plans should show the routing of all services, above and below ground, in the proximity of trees.
8. Consideration should be given to construction requirements such as scaffolding, temporary access points, site sheds and stockpiling of materials.



Tree Details



Tree ID	Botanic Name	Common Name	Origin	Health	Structure	Height (m)	DBH (cm)	TPZ (m)	SRZ (m)	ULE	Retention value
1	<i>Liquidambar styraciflua</i>	Liquidambar	Exotic	Good	Good	12	57	6.84	2.88	20+ Years	High
2	<i>Fraxinus oxycarpa</i>	Desert Ash	Exotic	Fair	Fair	10	51	6.12	2.53	10-20 Years	Moderate
3	<i>Melaleuca lanceolata</i>	Moonah	Native	Poor	Fair	4	10	2	1.45	0-5 Years	Low
4	<i>Eucalyptus leucoxylon</i>	White Ironbark	Native	Good	Fair	9	31	3.72	2.18	20+ Years	Moderate
5	<i>Banksia integrifolia</i>	Coast Banksia	Indigenous	Good	Good	12	59	7.08	2.93	20+ Years	High
6	<i>Corymbia ficifolia</i>	Red Flowering Gum	Native	Good	Fair	11	60	7.2	2.85	20+ Years	High
7	<i>Betula pendula</i>	Silver Birch	Exotic	Good	Good	4	9	2	1.61	10-20 Years	Low
8	<i>Melaleuca linarifolia</i>	Snow in Summer	Native	Fair	Good	6	57	6.84	2.76	5-10 Years	Low
9	<i>Banksia integrifolia</i>	Coast Banksia	Indigenous	Good	Good	15	57	6.84	2.92	20+ Years	High
10	<i>Banksia integrifolia</i>	Coast Banksia	Indigenous	Good	Good	14	62	7.44	3.08	20+ Years	High
11	<i>Melaleuca styphelioides</i>	Prickly Paperbark	Native	Good	Fair	6	26	3.12	2.47	20+ Years	Low
12	<i>Melaleuca nesophila</i>	Showy Honey Myrtle	Native	Fair	Fair	4	39	4.68	2.57	0-5 Years	Low
13	<i>Eucalyptus botryoides</i>	Southern Mahogany	Native	Good	Fair	23	110	13.2	3.53	20+ Years	High
14	<i>Acacia podalyriifolia</i>	Queensland Silver Wattle	Native	Good	Fair	3	22	2.64	1.85	10-20 Years	Low
15	<i>Corymbia maculata</i>	Spotted Gum	Native	Good	Good	22	76	9.12	3.15	20+ Years	High
















Tree ID	Botanic Name	Common Name	Origin	Health	Structure	Height (m)	DBH (cm)	TPZ (m)	SRZ (m)	ULE	Retention value
16	<i>Corymbia ficifolia</i>	Red Flowering Gum	Native	Good	Good	12	80	9.6	2.97	20+ Years	High
17	<i>Eucalyptus cinerea</i>	Argyle Apple	Native	Dead	Good	11	55	6.6	2.76	0 Years	Remove
18	<i>Grevillea robusta</i>	Silky Oak	Native	Good	Good	12	65	7.8	3.01	20+ Years	High
19	<i>Schinus molle</i>	Peppercorn	Exotic	Good	Good	5	35	4.2	2.37	20+ Years	Low
20	<i>Corymbia citriodora</i>	Lemon Scented Gum	Native	Good	Fair	10	37	4.44	2.39	20+ Years	Moderate
21	<i>Allocasuarina verticillata</i>	Drooping She Oak	Indigenous	Good	Good	2	1	2	0.48	20+ Years	Low
22	<i>Agonis flexuosa</i>	Willow Myrtle	Native	Fair	Fair	12	66	7.92	3.01	10-20 Years	High
23	<i>Melaleuca lanceolata</i>	Moonah	Native	Good	Poor	2	39	4.68	3.09	5-10 Years	Low
24	<i>Casuarina cunninghamiana</i>	River She Oak	Native	Dead	Good	12	44	5.28	2.80	0 Years	Remove
25	<i>Eucalyptus ovata</i>	Swamp Gum	Indigenous	Poor	Fair	12	112	13.44	3.43	5-10 Years	Moderate
26	<i>Agonis flexuosa</i>	Willow Myrtle	Native	Good	Poor	10	64	7.68	3.15	0-5 Years	Low
27	<i>Agonis flexuosa</i>	Willow Myrtle	Native	Fair	Fair	10	68	8.16	3.09	5-10 Years	Low
28	<i>Banksia integrifolia</i>	Coast Banksia	Indigenous	Fair	Good	7	30	3.6	2.57	0-5 Years	Low
29	<i>Allocasuarina verticillata</i>	Drooping She Oak	Indigenous	Good	Good	2	2	2	0.94	20+ Years	Low
30	<i>Melaleuca nesophila</i>	Showy Honey Myrtle	Native	Good	Fair	2	35	4.2	2.37	5-10 Years	Low



Tree ID	Botanic Name	Common Name	Origin	Health	Structure	Height (m)	DBH (cm)	TPZ (m)	SRZ (m)	ULE	Retention value
31	<i>Banksia integrifolia</i>	Coast Banksia	Indigenous	Good	Good	8	81	9.72	3.15	20+ Years	Moderate
32	<i>Melaleuca linarifolia</i>	Snow in Summer	Native	Poor	Fair	6	40	4.8	2.57	0-5 Years	Low
33	<i>Melaleuca linarifolia</i>	Snow in Summer	Native	Good	Fair	6	74	8.88	3.15	20+ Years	Moderate
34	<i>Eucalyptus melliodora</i>	Yellow Box	Indigenous	Good	Good	8	46	5.52	2.43	20+ Years	Moderate
35	<i>Allocasuarina verticillata</i>	Drooping She Oak	Indigenous	Good	Good	2	1	2	0.94	20+ Years	Low
36	<i>Melaleuca nesophila</i>	Showy Honey Myrtle	Native	Good	Good	4	51	6.12	2.67	10-20 Years	Moderate
37	<i>Banksia integrifolia</i>	Coast Banksia	Indigenous	Good	Good	6	14	2	1.68	20+ Years	Low
38	<i>Agonis flexuosa</i>	Willow Myrtle	Native	Good	Fair	13	99	11.88	3.69	20+ Years	High
39	<i>Agonis flexuosa</i>	Willow Myrtle	Native	Good	Fair	14	98	11.76	3.46	20+ Years	High
40	<i>Melaleuca linarifolia</i>	Snow in Summer	Native	Fair	Good	11	78	9.36	2.93	20+ Years	Moderate
41	<i>Eucalyptus pryoriana</i>	Gippsland Manna Gum	Indigenous	Fair	Fair	12	69	8.28	3.08	10-20 Years	Moderate
42	<i>Melaleuca lanceolata</i>	Moonah	Native	Fair	Fair	4	32	3.84	2.13	10-20 Years	Low
43	<i>Melaleuca lanceolata</i>	Moonah	Native	Good	Fair	3	39	4.68	2.37	10-20 Years	Moderate
44	<i>Melaleuca lanceolata</i>	Moonah	Native	Good	Fair	3	39	4.68	2.37	10-20 Years	Moderate
45	<i>Melaleuca lanceolata</i>	Moonah	Native	Good	Fair	3	39	4.68	2.37	10-20 Years	Moderate
46	<i>Melaleuca linarifolia</i>	Snow in Summer	Native	Good	Good	6	65	7.8	2.73	20+ Years	Moderate

Tree ID	Botanic Name	Common Name	Origin	Health	Structure	Height (m)	DBH (cm)	TPZ (m)	SRZ (m)	ULE	Retention value
47	<i>Leptospermum laeviagatum</i>	Coast Tea Tree	Indigenous	Good	Fair	3	55	6.6	3.09	10-20 Years	Moderate
48	<i>Melaleuca styphelioides</i>	Prickly Paperbark	Native	Fair	Fair	8	65	7.8	2.93	5-10 Years	Moderate
49	<i>Agonis flexuosa</i>	Willow Myrtle	Native	Good	Good	10	92	11.04	3.11	20+ Years	High
50	<i>Agonis flexuosa</i>	Willow Myrtle	Native	Good	Good	8	64	7.68	2.90	20+ Years	Moderate
51	<i>Acacia melanoxylon</i>	Blackwood	Indigenous	Good	Good	5	11	2	1.57	20+ Years	Low
52	<i>Melaleuca linarifolia</i>	Snow in Summer	Native	Good	Good	7	59	7.08	2.90	20+ Years	Moderate
53	<i>Eucalyptus sp.</i>	Eucalypt	Native	Good	Good	2	1	2	0.48	20+ Years	Low
54	<i>Casuarina cunninghamiana</i>	River She Oak	Native	Poor	Poor	12	77	9.24	3.21	0 Years	Remove
55	<i>Eucalyptus pryoriana</i>	Gippsland Manna Gum	Indigenous	Fair	Poor	18	106	12.72	3.35	0-5 years	Low
56	<i>Eucalyptus leucoxylon</i>	White Ironbark	Native	Good	Good	10	37	4.44	2.41	20+ Years	Moderate
57	<i>Lophostemon confertus</i>	Queensland Brush Box	Native	Fair	Good	10	33	3.96	2.39	20+ Years	Moderate
58	<i>Callistemon viminalis</i>	Weeping Bottlebrush	Native	Good	Fair	8	47	5.64	2.78	5-10 Years	Low
59	<i>Eucalyptus leucoxylon</i>	White Ironbark	Native	Good	Good	6	33	3.96	2.32	20+ Years	Low
60	<i>Schinus molle</i>	Peppercorn	Exotic	Good	Good	10	59	7.08	2.74	20+ Years	Moderate









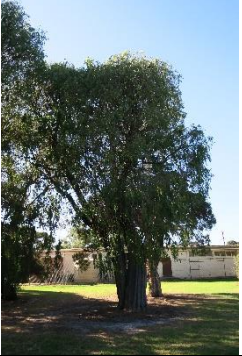






Tree ID	Botanic Name	Common Name	Origin	Health	Structure	Height (m)	DBH (cm)	TPZ (m)	SRZ (m)	ULE	Retention value
61	<i>Bursaria spinosa</i>	Sweet Bursaria	Indigenous	Good	Good	5	22	2.64	1.68	20+ Years	Low
62	<i>Bursaria spinosa</i>	Sweet bursaria	Indigenous	Good	Fair	5	18	2.16	1.75	20+ Years	Low
63	<i>Callistemon salignus</i>	Willow Bottlebrush	Native	Good	Fair	7	39	4.68	2.63	10-20 Years	Low
64	<i>Hakea laurina</i>	Pin Cushion Hakea	Native	Good	Fair	4	30	3.6	2.13	10-20 Years	Low
65	<i>Corymbia citriodora</i>	Lemon Scented Gum	Native	Good	Good	12	31	3.72	2.37	20+ Years	Moderate
66	<i>Corymbia citriodora</i>	Lemon Scented Gum	Native	Good	Good	12	29	3.48	2.15	20+ Years	Moderate

				
<b>Tree 1</b>	<b>Tree 2</b>	<b>Tree 3</b>	<b>Tree 4</b>	<b>Tree 5</b>
				
<b>Tree 6</b>	<b>Tree 7</b>	<b>Tree 8</b>	<b>Tree 9</b>	<b>Tree 10</b>
				
<b>Tree 11</b>	<b>Tree 12</b>	<b>Tree 13</b>	<b>Tree 14</b>	<b>Tree 15</b>








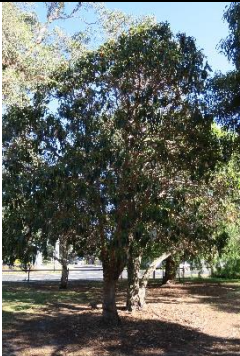


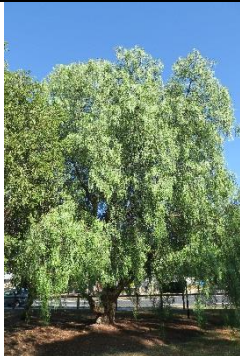


				
<b>Tree 16</b>	<b>Tree 17</b>	<b>Tree 18</b>	<b>Tree 19</b>	<b>Tree 20</b>
				
<b>Tree 21</b>	<b>Tree 22</b>	<b>Tree 23</b>	<b>Tree 24</b>	<b>Tree 25</b>
				
<b>Tree 26</b>	<b>Tree 27</b>	<b>Tree 28</b>	<b>Tree 29</b>	<b>Tree 30</b>









				
<b>Tree 31</b>	<b>Tree 32</b>	<b>Tree 33</b>	<b>Tree 34</b>	<b>Tree 35</b>
				
<b>Tree 36</b>	<b>Tree 37</b>	<b>Tree 38</b>	<b>Tree 39</b>	<b>Tree 40</b>
				
<b>Tree 41</b>	<b>Tree 42</b>	<b>Tree 43</b>	<b>Tree 44</b>	<b>Tree 45</b>



				
<b>Tree 46</b>	<b>Tree 47</b>	<b>Tree 48</b>	<b>Tree 49</b>	<b>Tree 50</b>
				
<b>Tree 51</b>	<b>Tree 52</b>	<b>Tree 53</b>	<b>Tree 54</b>	<b>Tree 55</b>
				
<b>Tree 56</b>	<b>Tree 57</b>	<b>Tree 58</b>	<b>Tree 59</b>	<b>Tree 60</b>



				
Tree 61	Tree 62	Tree 63	Tree 64	Tree 65
				
Tree 66				