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ARBORIST REPORT

**PROPOSED MIXED RESIDENTIAL DEVELOPMENT
7085 GORWAY DRIVE
MALTON, CITY OF MISSISSAUGA**

***PREPARED FOR:*
REDWOOD PROPERTIES
330 NEW HUNTINGTON ROAD, SUITE 201
VAUGHAN, ONTARIO
L4H 4C9**

***PREPARED BY:*
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OUR PROJECT NO:
19-5410**

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TABLE OF CONTENTS

Introduction	1
Site Context	1
Plans Utilized	1
Methodology	1
Tree Inventory	1
Table 1 – Tree Inventory Descriptions	1
Existing Tree Inventory	2
Observations	3
Tree Preservation	4
Table 2 – <i>Tree Protection Zones</i>	4
Private Tree Bylaw	4
Table 3 <i>Tree Categories</i>	4
Tree Removals	5
Table 4 <i>Tree Removals Subject to Private Tree Bylaw</i>	5
Tree Protection	5
Conclusion	6
Appendix A – Key Map	7
Appendix B – Site Photographs	8
Appendix C – Tree Inventory Plan	10
Appendix D – Tree Protection Hoarding Detail	11

Enclosed: Full Size V100 – *Tree Inventory & Preservation Plan*

Introduction

Strybos Barron King Ltd. was retained by Redwood Properties to prepare an Arborist Report for the subject property in accordance with City of Mississauga tree bylaw requirements. The owner is proposing to construct a mixed residential development, which includes two residential towers as well as townhouses and underground parking within the site. This report is to be read in conjunction with a completed *V100 – Tree Inventory, Preservation Plan* also prepared by Strybos Barron King Ltd.

Site Context (See Appendix A – Key Map)

The subject site (7085 Goreway Drive) is located on the east side of Goreway Drive abutting, abutting a Fire Station as well as existing residential subdivision to the north and Municipal Parklands to the east and south. An existing commercial building with associated parking lot occurs within the property. The existing building and parking lot composes much of the property area. Several landscape accent trees occur around the parking lot and within traffic islands. The perimeter of the site has been landscaped with individual trees as well as coniferous buffer groupings of trees.

Plans Utilized

A Topographic survey prepared by Krcmar along with a Site Plan provided by IBI Group, showing existing site conditions and proposed construction constraints, were used as reference to determine the location of existing trees in relation to the proposed development works.

Methodology

The trees discussed in this report were inventoried during a field study at the subject site by ISA Certified Arborist Matthew Gehres. For the purposes of determining a Diameter Breast Height (D.B.H.) for each of the trees, trunk diameters were measured by the arborist using a caliper tape at 1.4 metres from existing grade and recorded in centimetres. The trees were assessed using a health and condition rating of poor, fair or good, depending on overall vigour, presence of disease and structural integrity as recommended in the Guide for Plant Appraisal, 9th Edition, published by the International Society of Arboriculture.

Tree Inventory (See Appendix C – Tree Inventory Plan for *context* and refer to enclosed V100 – Tree Inventory, Preservation & Removals Plan for *details* pertaining to individual trees)

Trees were identified both within and immediately adjacent to the subject property. The trees are described in terms of species and a diameter at breast height (DBH – measured at 1.4m from grade). They have been assessed in terms of their general health from poor to good; **GOOD** – trees in good overall health and condition with desirable structure, **FAIR** – trees in moderate health and condition with less desirable structure, and **POOR** – trees displaying prominent health issues such as decay and disease and/or poor form and structure.

Table 1 - Tree Inventory Descriptions

Key#	This number refers to the inventory number for the tree/grouping.
Species	The common names are provided for each tree.
DBH	This refers to Diameter (in centimetres) at Breast Height and is measured at 1.4m above the ground for each tree.
Crown	Estimated diameter of tree canopy (in metres), measured from dripline to dripline (varies in most cases considering the nature of tree groupings)
Health	An assessment of the general health and vigour of the tree, derived partly through a comparison of deadwood and live growth relative to a 100% healthy tree. The size and colour of foliage are also considered in this category. During the leaf-off season, the amount and distribution of buds is an important determinant of canopy vitality. This indicator is also measured on an ascending scale of poor-fair good.
Structure	A term describing key distinguishing structural character or defect.

EXISTING TREE INVENTORY									
KEY	SPECIES	CALIPER	CROWN	HEALTH	STRUCTURE	COMMENTS	PRESERVATION	MIN. TPZ	KEY
		IN (cm)	IN (m)	G/F/P			DIRECTION		
1	NORWAY MAPLE	31.0	10.0	GOOD	GOOD FORM	HEALED FROST CRACK ON STEM	PRESERVE	2.4	1
2	MANITOBA MAPLE	26.0	10.0	FAIR	DOUBLE LEADER	IRREGULAR FORM, SUCKER GROWTH AT BASE, INTERNAL CROWN DIEBACK	PRESERVE	1.8	2
3	RED MAPLE	10.0	4.0	FAIR	NARROW FORM	BASAL DECAY, FROST CRACK ON STEM	PRESERVE	1.8	3
4	RED MAPLE	12.0	5.0	GOOD	GOOD FORM		PRESERVE	1.8	4
5	RED MAPLE	11.0	5.0	GOOD	GOOD FORM	FROST CRACK ON STEM	PRESERVE	1.8	5
6	RUSSIAN OLIVE	40.0	12.0	POOR	DOUBLE LEADERS	BASAL DECAY, SUCKER GROWTH, DEADWOOD AND DIEBACK THROUGHOUT CROWN	PRESERVE	2.4	6
7	HONEYLOCUST	12.0	5.0	FAIR	GOOD FORM	MINOR TWIG TIP DIEBACK	REMOVE	1.8	7
8	HONEYLOCUST	12.0	5.0	FAIR	GOOD FORM	MINOR TWIG TIP DIEBACK	REMOVE	1.8	8
9	HONEYLOCUST	11.0	4.0	FAIR	GOOD FORM	SOME DIEBACK THROUGHOUT, SPARSE BRANCHING	REMOVE	1.8	9
10	HONEYLOCUST	16.5	6.0	FAIR	GOOD FORM	SUCKER GROWTH AT BASE	REMOVE	1.8	10
11	ASH	20.0	6.0	DEAD			REMOVE	1.8	11
12	ASH	26.0	8.0	POOR	IRREGULAR FORM	90% DEAD	REMOVE	1.8	12
13	ASH	33.0	10.0	POOR	BROAD FORM	DECLINING	REMOVE	2.4	13
14	HONEYLOCUST	11.0	5.0	GOOD	GOOD FORM	MINOR SUCKER GROWTH ON STEM	REMOVE	1.8	14
15	HONEYLOCUST	11.0	5.0	GOOD	ASYMMETRICAL FORM	MINOR TWIG TIP DIEBACK	REMOVE	1.8	15
16	HONEYLOCUST	12.0	5.0	GOOD	GOOD FORM	MINOR TWIG TIP DIEBACK	REMOVE	1.8	16
17	HONEYLOCUST	35.0	12.0	GOOD	ASYMMETRICAL FORM	CROWDED BY ADJACENT TREE, BROKEN LOWER LIMB, OPEN CROWN	REMOVE	2.4	17
18	HONEYLOCUST	27.5	11.0	GOOD	ASYMMETRICAL FORM	CROWDED BY ADJACENT TREE, DIEBACK ON LOWER BRANCHES	REMOVE	1.8	18
19	HONEYLOCUST	29.0	13.0	GOOD	ASYMMETRICAL FORM	CROWDED BY ADJACENT TREE, DIEBACK ON LOWER BRANCHES	REMOVE	1.8	19
20	HONEYLOCUST	32.0	12.0	FAIR	GOOD FORM	EPICORMIC GROWTH THROUGHOUT CROWN	REMOVE	2.4	20
21	HONEYLOCUST	40.0	11.0	GOOD	GOOD FORM	MINOR SUCKER GROWTH ON LOWER BRANCHES	REMOVE	2.4	21
22	AUSTRIAN PINE	23.5	4.0	FAIR	NARROW FORM	CROWDED BY ADJACENT TREE, CURVED DOUBLE STEM, DIEBACK ON LOWER BRANCHES	PRESERVE	1.8	22
23	SILVER MAPLE	20.0	7.0	GOOD	ONE SIDED FORM	CROWDED BY ADJACENT TREE, DIEBACK ON LOWER BRANCHES	PRESERVE	1.8	23
24	AUSTRIAN PINE	36.5	7.0	GOOD	DOUBLE LEADER	CURVED STEM, NARROW FORM, CROWDED BY ADJACENT TREE, BRANCHING TO GRADE	PRESERVE	2.4	24
25	AUSTRIAN PINE	45.0	10.0	GOOD	BROAD FORM	CROWDED BY ADJACENT TREE, BRANCHING TO GRADE	PRESERVE	3	25
26	AUSTRIAN PINE	27.0	10.0	FAIR	MULTI-STEMMED	IRREGULAR FORM, CROWDED BY ADJACENT TREE, SPARSE BRANCHING	PRESERVE	1.8	26
27	COLORADO BLUE SPRUCE	33.0	7.0	GOOD	GOOD FORM	BRANCHING TO GRADE	PRESERVE	2.4	27
28	WHITE MULBERRY	10-23	6.0	FAIR	IRREGULAR FORM	MULTI-STEMMED, ELEVATED CROWN, CROWN VINE ENTANGLED	PRESERVE	1.8	28
29	MIXED NATURALIZED GROUPING	WHIP-20		POOR-GOOD	VARIES	IMMATURE, MIXED NATURALIZED GROUPING MAINLY COMPOSED OF DEAD OR OTHERWISE DECLINING AUSTRIAN PINE TREES. NEW REGENERATIVE GROWTH COMPOSED OF BUCKTHORN SAPLINGS, WHITE ELM, AND SILVER MAPLE. THIS GROUPING FORMS AN "ISLAND" OF VEGITATION BETWEEN MANICURED LAWN AREA AND AN ASPHALT MULTI-USE TRAIL/LEADING	PRESERVE	1.8	29
30	SCOTS PINE	27.0	7.0	GOOD	GOOD FORM	HIGH CROWN, MINOR DIEBACK ON LOWER BRANCHES	REMOVE	1.8	30

EXISTING TREE INVENTORY (continued)									
KEY	SPECIES	CALIPER	CROWN	HEALTH	STRUCTURE	COMMENTS	PRESERVATION	MIN. TPZ	KEY
		IN (cm)	IN (m)	G/F/P			DIRECTION		
31	HONEYLOCUST	19.0	7.0	GOOD	GOOD FORM	MINOR TWIG TIP DIEBACK	REMOVE	1.8	31
32	HONEYLOCUST	30.0	9.0	GOOD	GOOD FORM	MINOR INTERNAL DIEBACK	REMOVE	2.4	32
33	SCOTS PINE	33.0	6.0	GOOD	CO-DOMINANT LEADERS	HIGH CROWN, FUSED STEMS	REMOVE	2.4	33
34	SCOTS PINE	25.0	8.0	GOOD	GOOD FORM	DIEBACK ON LOWER BRANCHES	REMOVE	1.8	34
35	AUSTRIAN PINE	34.0	8.0	POOR	IRREGULAR FORM	DECLINING CROWN	REMOVE	2.4	35
36	AUSTRIAN PINE	34.0	8.0	GOOD	ASYMMETRICAL FORM	CROWDED BY ADJACENT TREE	REMOVE	2.4	36
37	AUSTRIAN PINE	30.0	7.0	GOOD	ASYMMETRICAL FORM	CROWDED BY ADJACENT TREE, ELEVATED CROWN	REMOVE	2.4	37
38	AUSTRIAN PINE	28.5	8.0	FAIR	IRREGULAR FORM	CROWDED BY ADJACENT TREE, NO CLEAR LEADER	REMOVE	1.8	38
39	AUSTRIAN PINE	27.0	6.0	FAIR	ONE SIDED FORM	CROWDED BY ADJACENT TREE, LEANING	REMOVE	1.8	39
40	AUSTRIAN PINE	29.0	6.0	POOR	ONE SIDED FORM	GIRDLED STEM, DECLINING	REMOVE	1.8	40
41	MANITOBA MAPLE	WHIP-11	11.0	GOOD	MULTI-STEMMED	BROAD FORMED CLUSTER OF SEVERAL STEMS AT GRADE	REMOVE	1.8	41
42	AUSTRIAN PINE	32.0	7.0	GOOD	IRREGULAR FORM	MULTIPLE LEADERS, DIEBACK ON LOWER BRANCHES	PRESERVE	2.4	42
43	AUSTRIAN PINE	30.0	8.0	FAIR	IRREGULAR FORM	NO CLEAR LEADER, DIEBACK ON LOWER BRANCHES	PRESERVE	2.4	43
44	AUSTRIAN PINE	25.0	8.0	FAIR	IRREGULAR FORM	CURVED STEM, NO CLEAR LEADER	PRESERVE	1.8	44
45	AUSTRIAN PINE	42.0	6.0	GOOD	ONE SIDED FORM	CROWDED BY ADJACENT TREE, DIEBACK ON LOWER BRANCHES	PRESERVE	3	45
46	AUSTRIAN PINE	43.0	7.0	GOOD	ONE SIDED FORM	CROWDED BY ADJACENT TREE, DIEBACK ON LOWER BRANCHES	PRESERVE	3	46
47	AUSTRIAN PINE	44.0	12.0	GOOD	ASYMMETRICAL FORM	CROWDED BY ADJACENT TREE, BRANCHING TO GRADE	PRESERVE	3	47
48	AUSTRIAN PINE	51.0	9.0	GOOD	DOUBLE STEM	CROWDED BY ADJACENT TREE, STEMS FUSED TOGETHER, ONE SIDED FORM	PRESERVE	3.6	48
49	AUSTRIAN PINE	27.0	6.0	FAIR	ONE SIDED FORM	CROWDED BY ADJACENT TREE, DIEBACK ON LOWER BRANCHES	PRESERVE	1.8	49
50	AUSTRIAN PINE	32.0	7.0	GOOD	DOUBLE STEM	CROWDED BY ADJACENT TREE, ONE SIDED FORM	PRESERVE	2.4	50
51	AUSTRIAN PINE	34.0	8.0	GOOD	ASYMMETRICAL FORM	CROWDED BY ADJACENT TREE	PRESERVE	2.4	51
52	AUSTRIAN PINE	35.0	9.0	GOOD	ASYMMETRICAL FORM	CROWDED BY ADJACENT TREE	PRESERVE	2.4	52
53	MOUNTAIN ASH	41.0	8.0	GOOD	ASYMMETRICAL FORM	LEANING STEM	PRESERVE	3	53
54	HONEYLOCUST	18.0	6.0	GOOD	GOOD FORM	MINOR DIEBACK ON LOWER BRANCHES	PRESERVE	1.8	54
55	HONEYLOCUST	20.0	6.0	GOOD	GOOD FORM	MINOR DIEBACK ON LOWER BRANCHES	PRESERVE	1.8	55
56	HONEYLOCUST	27.0	8.0	GOOD	ASYMMETRICAL FORM	MINOR DIEBACK ON LOWER BRANCHES	PRESERVE	1.8	56
57	HONEYLOCUST	20.0	7.0	GOOD	GOOD FORM	SOME DIEBACK IN CROWN	PRESERVE	1.8	57
58	HONEYLOCUST	25.0	7.0	GOOD		MINOR DIEBACK ON LOWER BRANCHES	PRESERVE	1.8	58
59	HONEYLOCUST	10.0	5.0	POOR	IRREGULAR FORM	STEM DECAY, DECLINING	REMOVE	1.8	59
60	HONEYLOCUST	14.0	5.0	POOR	IRREGULAR FORM	DECLINING	REMOVE	1.8	60
61	HONEYLOCUST	14.0	5.0	POOR	IRREGULAR FORM	DECLINING	REMOVE	1.8	61

Observations

The trees identified within and immediately adjacent to the property can be described as semi-mature, planted, landscape accent and coniferous buffer trees. These trees have been planted throughout the parking area as well as around the perimeter of the property. The trees summarized in this report are mainly composed of Honeylocust, Ash, Austrian Pine, Norway Maple and Manitoba Maple. The grouping beyond the proposed east grading limit is dominated by dead or dying coniferous trees with thick swaths of immature Buckthorn. Most of the area between the site and the existing pathway is manicured lawn with individual trees dotting the property limit. The contiguous wooded areas are situated on the east and south sides of the walkway. For detailed individual tree information, refer to the Tree Inventory List.

Tree Preservation

In determining the tree preservation recommendations for the site, the criteria noted below were considered:

- Overall tree health, form, size, species and predicated longevity.
- Anticipated impact from construction of buildings and proposed landscape features, road works, site servicing and grading.

Each tree was assigned a minimum Tree Preservation Zone (TPZ) as per standard requirements used by municipal by-laws (Refer to Table 2-Tree Protection Zones).

Table 2 - Tree Protection Zones

<i>Trunk Diameter (DBH)</i>	<i>Minimum Protection Zone</i>
<10 cm	1.2m
10-29 cm	1.8 m
30-40 cm	2.4 m
41-50 cm	3.0 m
51-60 cm	3.6 m
61-70 cm	4.2 m
71-80 cm	4.8 m
81-90 cm	5.4 m
91-100 cm	6.0 m
< 100 cm	6cm per 1cm DBH

Private Tree By-Law

Table 3 – Tree Categories

CITY OF MISSISSAUGA TREE CATEGORIES	
1	Trees with diameters of 15cm or more, situated on private property, on the subject site.
2	Trees with diameters of 15cm or more, situated on private property, within 6m of the subject site.
3	Trees of all diameters situated within the City road allowance adjacent to the subject site.
4 <i>(exempt)</i>	Trees that are less than 15cm diameter and located on private property.

The City of Mississauga Private Tree Bylaw protects trees found on private property that are greater than 15cm DBH (Diameter at Breast Height) as well as trees of all diameters situated within the City road allowance.

The By-law states that:

- A permit is required to remove **three (3) or more healthy trees** with a diameter greater than 15cm (6 in) within one calendar year.
- A permit is required to remove **three (3) or more dead, dying or hazardous trees** with a diameter greater than 15cm (6 in) within one calendar year.
- A permit is not required to remove **up to two (2) trees** with a diameter greater than 15cm (6 in) within one calendar year.
- A permit is not required to remove trees with a diameter of 15cm (6 in) or less.
- A permit is required to remove **any city owned tree**.

Tree Removals

The following is a summary of proposed tree removals for this site that will require a permit for removal in accordance with City of Mississauga Private Tree Bylaw.

Table 4 – Tree Removals subject to Private Tree Bylaw (Refer to Existing Tree Inventory List for details pertaining to specific trees)

TREE REMOVAL SUMMARY						
KEY	SPECIES	CALIPER	HEALTH	COMMENTS	PRESERVATION	TREE CATEGORY
		IN (cm)	G/F/P		DIRECTION	
10	HONEYLOCUST	16.5	FAIR	SUCKER GROWTH AT BASE	REMOVE	1
11	ASH	20.0	DEAD		REMOVE	1
12	ASH	26.0	POOR	90% DEAD	REMOVE	1
13	ASH	33.0	POOR	DECLINING	REMOVE	1
17	HONEYLOCUST	35.0	GOOD	CROWDED BY ADJACENT TREE, BROKEN LOWER LIMB, OPEN CROWN	REMOVE	1
18	HONEYLOCUST	27.5	GOOD	CROWDED BY ADJACENT TREE, DIEBACK ON LOWER BRANCHES	REMOVE	1
19	HONEYLOCUST	29.0	GOOD	CROWDED BY ADJACENT TREE, DIEBACK ON LOWER BRANCHES	REMOVE	1
20	HONEYLOCUST	32.0	FAIR	EPICORMIC GROWTH THROUGHOUT CROWN	REMOVE	2
21	HONEYLOCUST	40.0	GOOD	MINOR SUCKER GROWTH ON LOWER BRANCHES	REMOVE	2
30	SCOTS PINE	27.0	GOOD	HIGH CROWN, MINOR DIEBACK ON LOWER BRANCHES	REMOVE	2
31	HONEYLOCUST	19.0	GOOD	MINOR TWIG TIP DIEBACK	REMOVE	1
32	HONEYLOCUST	30.0	GOOD	MINOR INTERNAL DIEBACK	REMOVE	2
33	SCOTS PINE	33.0	GOOD	HIGH CROWN, FUSED STEMS	REMOVE	2
34	SCOTS PINE	25.0	GOOD	DIEBACK ON LOWER BRANCHES	REMOVE	2
35	AUSTRIAN PINE	34.0	POOR	DECLINING CROWN	REMOVE	2
36	AUSTRIAN PINE	34.0	GOOD	CROWDED BY ADJACENT TREE	REMOVE	2
37	AUSTRIAN PINE	30.0	GOOD	CROWDED BY ADJACENT TREE, ELEVATED CROWN	REMOVE	2
38	AUSTRIAN PINE	28.5	FAIR	CROWDED BY ADJACENT TREE, NO CLEAR LEADER	REMOVE	2
39	AUSTRIAN PINE	27.0	FAIR	CROWDED BY ADJACENT TREE, LEANING	REMOVE	2
40	AUSTRIAN PINE	29.0	POOR	GIRDLED STEM, DECLINING	REMOVE	2

Total of 20 trees

Based on the proposed development constraints including grading, servicing and construction requirements, all of the trees internal to the site are recommended for removal. In order to accommodate the required grading, several trees on the adjacent lands to the east will also require removal. All other trees on adjacent property will be preserved and protected.

Tree Protection (Refer to Appendix D – Tree Protection Hoarding Detail).

All trees on the adjacent properties to the north and south of the site are currently protected by existing chain link and wood privacy fencing. The required siltation control fencing shown on the Erosion and Sedimentation Control Plans along the limit of grading abutting the Municipal lands to the east will suffice as tree protection hoarding for this area (refer to V100 for locations). Tree protection fencing is to remain in place throughout the duration of construction and should be periodically reviewed by the Consulting Arborist to ensure that it remains in good working condition.

Conclusion

Strybos Barron King Ltd. was retained by Redwood Properties to prepare an Arborist Report for the subject property in accordance with City of Mississauga tree bylaw requirements. The owner is proposing to construct a mixed residential development, which includes two residential towers as well as townhouses and underground parking within the site. Due to the proposed construction, grading and servicing constraints, twenty (20) trees subject to the private tree bylaw will require removal. With the exception of the trees occurring within the proposed grading limits, all trees situated on adjacent properties are to be preserved and protected in accordance with City of Mississauga tree protection standards throughout the development works. In compliance with City of Mississauga Private Tree Bylaw, a permit will be required prior to the tree removal works.

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Appendix A – KEY MAP



Appendix B – SITE PHOTOGRAPHS



Northwest corner of the property – view west



Northwest corner of the property – view north



Northwest corner of the property – view northwest



North property line – view west



North property line – View north



Existing parking area - view west

Appendix B – SITE PHOTOGRAPHS



Existing parking area - view east



Existing parking area – view north



Northeast corner of the property – view north



Adjacent greenspace – view east

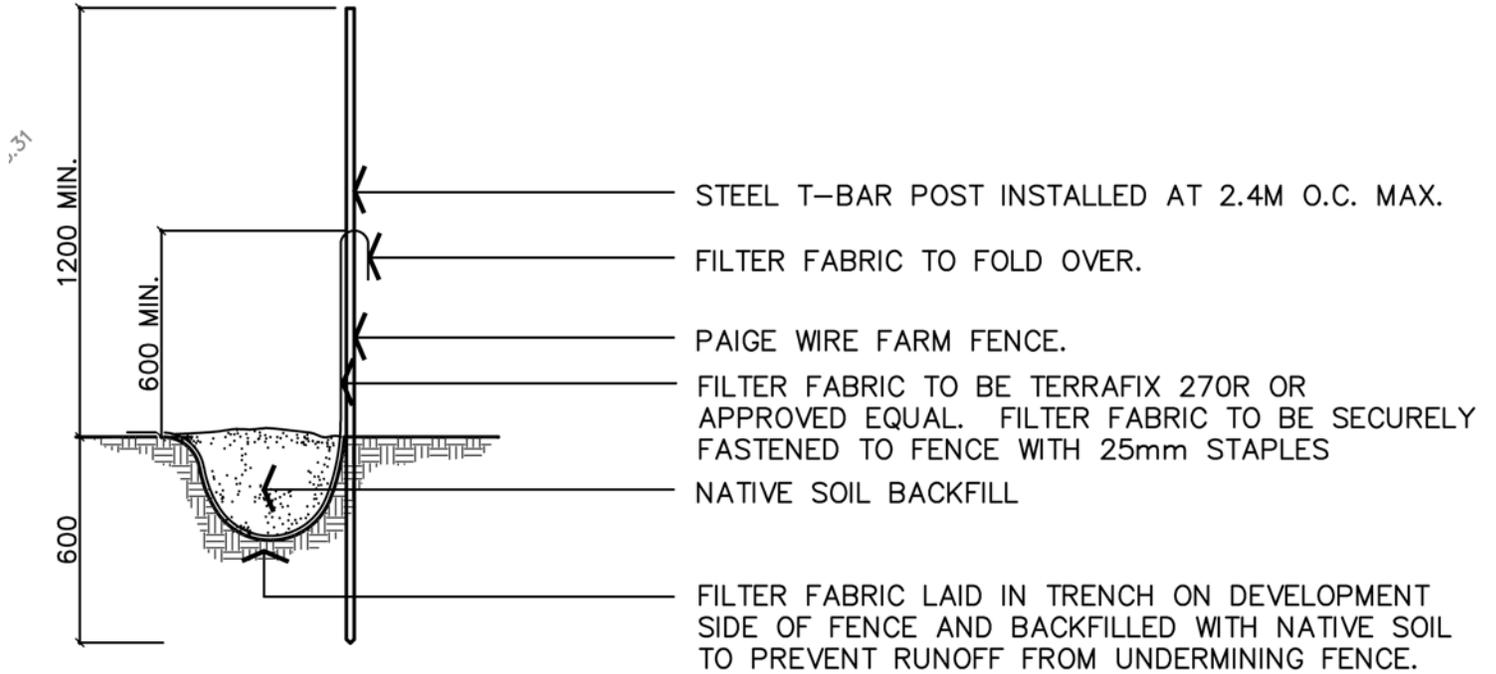


View north of Coniferous grouping at southeast corner of property



South property limit – view east

**Appendix D – SILTATION CONTROL/TREE PROTECTION HOARDING DETAIL
(PENDING CONFIRMED DETAILS FROM THE ESC PLANS)**



1
V100

SEDIMENT CONTROL FENCE