



Capital Tree Service Inc.

Arborist Report

2795 and 2799 Scafe Road,

Victoria, BC V9B 3W6

April 23, 2024

Prepared for:

Newform Construction Ltd.

Prepared by:

Capital Tree Service Inc.

Capital Tree Service Inc.

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Liability and Professional E and O, HSM Insurance - \$5 Million

Summary/Scope of Work

Capital Tree Service Inc. (CTS) was contacted by Anthony Kairouz of Newform Construction Ltd. (Client) regarding the construction of a new apartment building at 2795 and 2799 Scafe Road (the Site) in the City of Victoria. The Client indicated they required an Arborist Report and Tree Protection Plan (TPP) to move forward with the permit application.

The Client has requested that CTS provide a Basic Visual Tree Assessment (BVTA) and TPP for the Site. CTS agreed to complete the assessment and provide findings in an Arborist Report Form including a TPP.

Under the current proposal five (5) trees are proposed for removal while eight (8) trees are proposed for retention and protection. A tree inventory is included as **Appendix 'A'**. Photographs and a Site Plan are included as **Appendix 'B'** of this report.

Methodology

The Site was entered on April 11, 2024, by CTS for the purpose of conducting tree assessments and collecting inventory. Keegan Durovich, a consulting arborist and representative of CTS, provided the BVTA for the site. The weather that day was 11°C and overcast with a 5km south breeze gusting to 10km/h.

The Site was assessed from grade. No form of diagnostic tools or invasive techniques were used during the assessment, including excavation or assessment of roots below. Diameters were measured using a Richter Diameter Tape. Diameter at Breast Height (DBH) was measured approximately 1.4m above grade. Measurements and observations were recorded with the

intent to provide a static representation of the area. A tree inventory is included as **Appendix 'A'** of this report. Photographs and a Site Plan are included as **Appendix 'B'** of this report.

During the assessment, thirteen (13) trees were observed – nine (9) of which are protected under the current City of Langford Tree Protection Bylaw. Trees referenced in **Appendix 'A'** and located on the site have been tagged. Tags are located approximately 1.5-2m above grade on tree stems and were visible at the time of assessment. Trees not tagged are labeled OS (OS) trees one (1) – four (4). Trees that share a root collar have been given one (1) label with each stem given its own alphabetical differentiator.

Protected Root Zone calculations are based on the ISA recommended one foot for each one inch of trunk diameter (0.3m for each 2.5 cm). Matheny and Clark's 'Trees and Development' was used to assess relative tolerance to Development Impacts.

Observations/Discussion

During the assessment, two (2) residential lots were observed in a developing urban neighbourhood was observed. The Site was observed to treed with a variety of native and non-native trees. The Site appears plenty of direct sunlight, although the southern portion of the site is likely to be shaded during winter months by the apartment building to the south. Eight (8) trees are proposed for Retention and Protection. Construction activities are expected to have a low to moderate impact on the trees proposed for retention.

Five (5) trees are proposed for removal due to building impacts. Trees 420 (a Garry oak) and 422 (a Douglas fir) are located within the footprint of the proposed building. The proposed development will require an edge-to-edge excavation which means that trees 421 (a Douglas fir) and 423 (a Plum) will be within over excavation. OS4, a 20cm Douglas fir located 2769 Strathmore Road, is located directly adjacent to the existing fence line and would likely be destabilized by an edge-to-edge excavation. As excavation would extend to within 1.5x the trunk diameter, significant tree destabilization can be expected¹. OS4 is therefore recommended for removal.

Five (5) trees are proposed for retention and protection. Trees OS1 (a-d), OS2 (a-b), and OS3 (a-b) are located at 2765 Strathmore Road and are located ~1m from the existing fence line. Depending on the roots encountered during excavation, tree health could be significantly compromised. CTS recommends that these trees be retained and reassessed at the time of excavation. Tree removal should be predicated on the roots encountered and pruned during excavation.

¹ Larry Costello, Gary W. Watson, and Edgar Thomas Smiley, *Root Management* (Atlanta, GA: International Society of Arboriculture, 2017).

Tree Dynamics

A tree inventory is included as **Appendix 'A'** of this report.

Observed Tree Impacts

- Eight (8) trees are proposed for retention and protection.
- Five (5) trees are proposed for removal.
- Construction impact to the retained trees is expected to be moderate.
- Assessment of the site may expose further tree issues or conditions. If this occurs the project arborist will contact City staff for further recommendations.

Common and Latin Names

Apple – *Malus domestica*

Cherry – *Prunus* subg. *cerasus*

Plum – *Prunus* subg. *prunus*

Douglas fir – *Pseudotsuga menziesii*

Garry oak – *Quercus garryana*

Tree Condition Ratings Summary

Health Condition:

- Poor - significant signs of visible stress and/or decline that threaten the long-term survival of the specimen.
- Fair - signs of stress.
- Good - no visible signs of significant stress and/or only minor aesthetic issues.

Structural Condition:

- Poor - Structural defects that have been in place for a long period of time to the point that mitigation measures are limited.
- Fair - Structural concerns that are possible to mitigate through pruning.
- Good - No visible or only minor structural flaws that require no to little pruning.

Species Relative Tolerance to Construction Impacts²:

Apples (*Malus* spp.) – Moderate

Cherry (*Prunus* subg. *Cerasus*) – Generally Moderate

Plum (*Prunus* subg. *Prunus*) – Generally Moderate

Douglas-fir – Poor-good – “Tolerant of fill soil if limited to one-quarter of root zone. However, may decline slowly following addition of fill. Tolerates root pruning. Intolerant of poor drainage. Susceptible to bark beetles following injury.”

Oregon white oak/Garry oak – Good

Tree Protection Plan

Utilize Tree Protection Fencing (TPF) to restrict access to Tree Protection Zones, see Appendix C for fencing specifications. Provide signage on fencing which states: Tree Protection Area – No Admittance. Signage must be in a visible location attached to the fence. Signage must be attached to the outside of each Tree Protection Fencing area.

Contact CTS to mark locations for the Tree Protection Fencing. All Tree Protection Fencing must be installed in the locations indicated by CTS. CTS must provide inspection and verification of the fencing detail for District approval.

Each Tree Protection Zone (TPZ) must be vacated of all construction materials and/or equipment. At no time may the fencing be removed or modified unless the Project Arborist is contacted and approval given. In such cases the Project Arborist must assist fence removal and assess combined impacts which are required for construction completion. Capital Tree Service 250-217-8370 – Three business days notice required.

Landing/Storage Area

All construction materials will be stored in areas identified as ‘Landing/Storage’ in site plans. These locations are indicated on the Site Plan.

Access

A single point of access shall be utilized. This shall be in the location marked ‘Access’ on the Site Plan. Contractors and workers shall be made aware of the Tree Protection Zones and Measures in place. **Tree Protection Zones and areas of the Site not under construction or within the Zone of Impact will be strictly off limits.** It is the responsibility of the Client to schedule a pre-job meeting with the Project Arborist to discuss Tree Protection Plans, Zones, and requirements.

² Nelda P. Matheny and James R. Clark, *Trees and Development: A Technical Guide to Preservation of Trees during Land Development* (Champaign, Ill: International Soc. of Arboriculture, 1998).

Three business days notice required. Project Arborist. 250-217-8370

Root Assessment and Observation

The Project Arborist must be on site for observation and assessment when working within the Protected Root Zone of any Protected Trees. This shall include trees:

- OS1-OS3

Tree Pruning

Tree pruning required for access and egress, tree health and safety shall be performed by an International Society of Arboriculture (ISA) Certified Arborist without the use of climbing spurs. All tree pruning shall be performed in accordance with ANSI A-300 Standards for Tree Care Operations.

Blasting

The use of blasting for removal of rock may cause serious damage or death to nearby trees if not managed appropriately. CTS recommends the use of an expanding foam (e.g., Geobreak) to break the rock, if powder must be used, a low nitrogen and low velocity explosive should be utilized. Furthermore, we recommend the use of foam to strategically fracture the rock before using an excavator to breakup (using a hoe ram) and remove the rock. It is critical that ¾" plywood is used to protect (armour) retained trees and that heavy matting is used to dampen shockwaves if explosives are utilized. A removal plan for the rock will be developed with the blasting contractor and the Project Arborist. It is recommended that this plan is created prior to the blasting contractor providing a cost estimate.

Typical Excavation within PRZ Process Plan

1. Provide and schedule Project Arborist to assess site prior to construction.
2. Inventory and identify trees and hazards which could complicate excavation process.
3. Utilize hand tools and cutting equipment when large tree roots are anticipated.
4. When possible, utilize small, rubberized track excavation equipment which will reduce soil compaction.
5. Excavator operator must be well informed about dig site and goal to complete project.
6. Use shallow excavation sweeps across the site to establish a depth which roots can be easily identified. (3cm to 5cm in depth of soil for each sweep across the soil face)
7. Roots greater than 6cm in diameter shall be preserved and inspected by the Project Arborist. The project arborist will determine if roots should be pruned or cut.
8. All roots greater than 6cm in diameter should be identified and documented for project records.
9. Photos are highly recommended for documentation purposes.

Assessment of the site may expose further tree issues or conditions. If this occurs the project arborist will contact City Staff for further recommendations.

Role of the Project Arborist

As well as creating the Tree Preservation Plan, the Project Arborist must be on site to supervise work within or immediately adjacent to the tree protection areas identified on the attached

tree plan. **This will include sidewalk, driveway and any improvements proposed for the municipal boulevard.**

The Project Arborist will be present to supervise landscaping operations and activity within the tree protection areas.

At completion of the project, the Project Arborist will confirm that any tree protection or remediation related deficiencies have been addressed by the owner and building contractor. Once all deficiencies (if any) have been remedied, the Project Arborist shall prepare a letter to the City of Langford confirming completion of the project.

Tree Protection Plan Summary

- i. Provide a detailed sign specifying that tree protection measures are in place and will be followed during the project. Fines will be posted for malicious acts and can be placed on individuals who disregard the tree protection plan and its guidelines. Signs will be placed at each entrance of the project detailing what is expected when working in potentially high impact tree protection zones.
- ii. Provide tree protection fencing for all trees identified with protection requirement in this report. This fencing shall be four (4ft) feet in height and made of orange plastic. If required, header and footer boards will be used to secure the protective fencing.
- iii. Tree protection and root protection signs will be placed on the fencing (see Appendix C). No entry will be allowed, unless specified by the Project Arborist and in their presence while on site.
- iv. Restrict vehicle traffic to designated access routes and travel lanes to avoid soil compaction and vegetation disturbances.
- v. Make all necessary precautions to prevent the storage of material, equipment, stockpiling of aggregate or excavated soils within tree protection areas. No dumping of fuels, oils or washing of concrete fluids will be allowed in tree protection zones.
- vi. Provide an onsite arborist when a risk of root damage, root cutting, or limb removal is required within the tree protection zone.
- vii. Avoid alterations to existing hydrological patterns to minimize vegetation impacts to the site.
- viii. The use of a Project Arborist is required to provide layout of tree protection zones. The Project Arborist(s) will provide pre-construction information to all parties involved with the project. The Project Arborist must be notified 72hrs prior to construction activities in

sensitive areas. The Project Arborist should be used to provide root and branch pruning when diameters are greater than 6cm.

- ix. At no time will tree protection zones be removed from the project unless approved by the Project Arborist

The following is a summary of key roles of the Project Arborist.

- Participation in a site meeting prior to the commencement of works adjacent to Tree Protection Zones to discuss the preservation plan and tree protection measures in place. **It is the responsibility of the Client to schedule a pre-work site meeting. *72 hrs Notice Required. CTS 250-217-8370***
- The meeting will review the Tree Protection Plan, Tree Protection Zones and the specific measures required to protect the trees during the site preparation, construction, and landscape phases of construction.
- The Project Arborist will inspect the Tree Protection Fencing and any other tree protection measures prior to a tree permit being issued by the District and prior to work commencing on site.
- The Project Arborist will be on site during the following work within or immediately adjacent to the Tree Protection Areas as indicated on the attached Site Plan:
 - ❖ demolition
 - ❖ grading
 - ❖ excavation
 - ❖ rock removal or blasting
 - ❖ trenching for underground services and utilities
 - ❖ preparation of grade for the proposed driveways and parking areas
 - ❖ site inspections to insure adherence to Tree Protection Measures

Although this site has been assessed trees in the landscape are dynamic and changes could occur. This report is a static representation of the site during our assessment.



Keegan Durovich 23/04/2024
Capital Tree Service Inc.
ISA Certified Arborist TRAQ PN-9272A
B.A.Sc.

Capital Tree Service Inc. (CTS)**CONDITIONS OF ASSESSMENT AGREEMENT**

This Conditions of Assessment Agreement is made pursuant to and as a provision of CTS, providing tree assessment services as agreed to between the parties, the terms and substance of which are incorporated in and made a part of this Agreement (collectively the "Services").

Trees are living organisms that are subject to stress and conditions and which inherently impose some degree or level of risk. Unless a tree is removed, the risk cannot be eliminated entirely. Tree conditions may also change over time even if there is no external evidence or manifestation. In that CTS provides the Services at a point in time utilizing applicable standard industry practices, any conclusions and recommendations provided are relevant only to the facts and conditions at the time the Services are performed. Given that CTS cannot predict or otherwise determine subsequent developments, CTS will not be liable for any such developments, acts, or conditions that occur including, but not limited to, decay, deterioration, or damage from any cause, insect infestation, acts of god or nature or otherwise. Unless otherwise stated in writing, assessments are performed visually from the ground on the above-ground portions of the tree(s). However, the outward appearance of trees may conceal defects. Therefore, to the extent permitted by law, CTS does not make and expressly disclaims any warranties or representations of any kind, express or implied, with respect to completeness or accuracy of the information contained in the reports or findings resulting from the Services beyond that expressly contracted for by CTS in writing, including, but not limited to, performing diagnosis or identifying hazards or conditions not within the scope of the Services or not readily discoverable using the methods applied pursuant to applicable standard industry practices. Further, CTS' liability for any claim, damage or loss caused by or related to the Services shall be limited to the work expressly contracted for. In performing the Services, CTS may have reviewed publicly available or other third- party records or conducted interviews and has assumed the genuineness of such documents and statements. CTS disclaims any liability for errors, omissions, or inaccuracies resulting from or contained in any information obtained from any third- party or publicly available source.

Except as agreed to between the parties prior to the Services being performed, the reports and recommendations resulting from the Services may not be used by any other party or for any other purpose. The undersigned also agrees, to the extent permitted by law, to protect, indemnify, defend and hold CTS harmless from and against any and all claims, demands, actions, rights and causes of action of every kind and nature, including actions for contribution or indemnity, that may hereafter at any time be asserted against CTS or another party, including, but not limited to, bodily injury or death or property damage arising in any manner from or in any way related to any disclaimers or limitations in this Agreement.

By accepting or using the Services, the customer will be deemed to have agreed to the terms of this Agreement, even if it is not signed.

Acknowledged by:

Name of Customer: Newform Construction Ltd., 2712 163A St, Surrey, BC V3Z 6R8

Authorized Signature: _____

Date: 2024-04-23

Appendix 'A' Tree Inventory

Table 1. Tree Inventory for 2795 and 2799 Scafe Road. Diameter at breast height (DBH) is measured in centimeters. Protected root zones (PRZ) are calculated using a 0.12 multiplier and represent the protected radius area around the tree in meters. Canopy spread is the radius of the dripline measured in meters.

Capital Tree Service Inc.								
Appendix A - Tree Inventory/Hazard Ratings Summary								
Location: 2795 and 2799 Scafe Road, Langford, BC V9B 3W6								
Date: April 11, 2024					Conditions: 8°C, overcast, 5km/hr south gusting to 10km/hr			
Tag #	Species	DBH (cm)	PRZ (m)	Canopy (r) (m)	Health/Structure	Bylaw Protected	Action	Observations
OS1a	Cherry	30	4	4	F/F	Yes	Retain	Estimated DBH. 4x stem 2m above grade. ~0.5m from fenceline. Pruned for driveway clearance. Poor aspect ratio in union. Wrap with Tanglefoot application.
OS1b	Cherry	35	4	4	F/F	Yes	Retain	Estimated DBH. 4x stem 2m above grade. ~0.5m from fenceline. Pruned for driveway clearance. Poor aspect ratio in union. Wrap with Tanglefoot application.
OS1c	Cherry	15	2	4	F/F	No	Retain	Estimated DBH. 4x stem 2m above grade. ~0.5m from fenceline. Pruned for driveway clearance. Poor aspect ratio in union. Wrap with Tanglefoot application.
OS1d	Cherry	15	2	4	F/F	No	Retain	Estimated DBH. 4x stem 2m above grade. ~0.5m from fenceline. Pruned for driveway clearance. Poor aspect ratio in union. Wrap with Tanglefoot application.
OS2a	Cherry	40	5	4	F/F-P	Yes	Retain	Estimated DBH. 2x stem ~1.2m above grade. Central stem previously removed, poor cut leading to fungal infection. Narrow angle of attachment. Poor aspect ratio in union. Included bark.
OS2b	Cherry	35	4	4	F/F-P	Yes	Retain	Estimated DBH. 2x stem ~1.2m above grade. Central stem previously removed, poor cut leading to fungal infection. Narrow angle of attachment. Poor aspect ratio in union. Included bark.
OS3a	Apple	10	1	1	F/F-P	No	Retain	Estimated DBH. 2x stem ~1.1m above grade. Poor aspect ratio in union. Condensed canopy. Epicormics.
OS3b	Apple	10	1	1	F/F-P	No	Retain	Estimated DBH. 2x stem ~1.1m above grade. Poor aspect ratio in union. Condensed canopy. Epicormics.
423	Plum	52	6	6	G/F	Yes	Remove	Embedded metal. Tree house. 3x stem ~2m above grade. Poor aspect ratio in union. Limbs previously reduced leading to large epicormics.
OS4	Douglas fir	20	2	3	G/F-P	Yes	Remove	Stem deflections. Growing directly adjacent to fenceline.
422	Douglas fir	82	10	5	F-P/P	Yes	Remove	Previously topped. Chlortic canopy. Resinosis. Slightly swollen basal stem. Dieback. Relatively new development within PRZ.
421	Douglas fir	93	11	5	F/P	Yes	Remove	Previously topped. Relatively new development within PRZ. Dieback. Deadwood.
420	Garry oak	59	7	8	F/F-P	Yes	Remove	Dieback. 10cm deadwood. Relatively new development within PRZ. Uneven canopy. Embedded hardware.

Appendix 'B' Photos and Site Plan

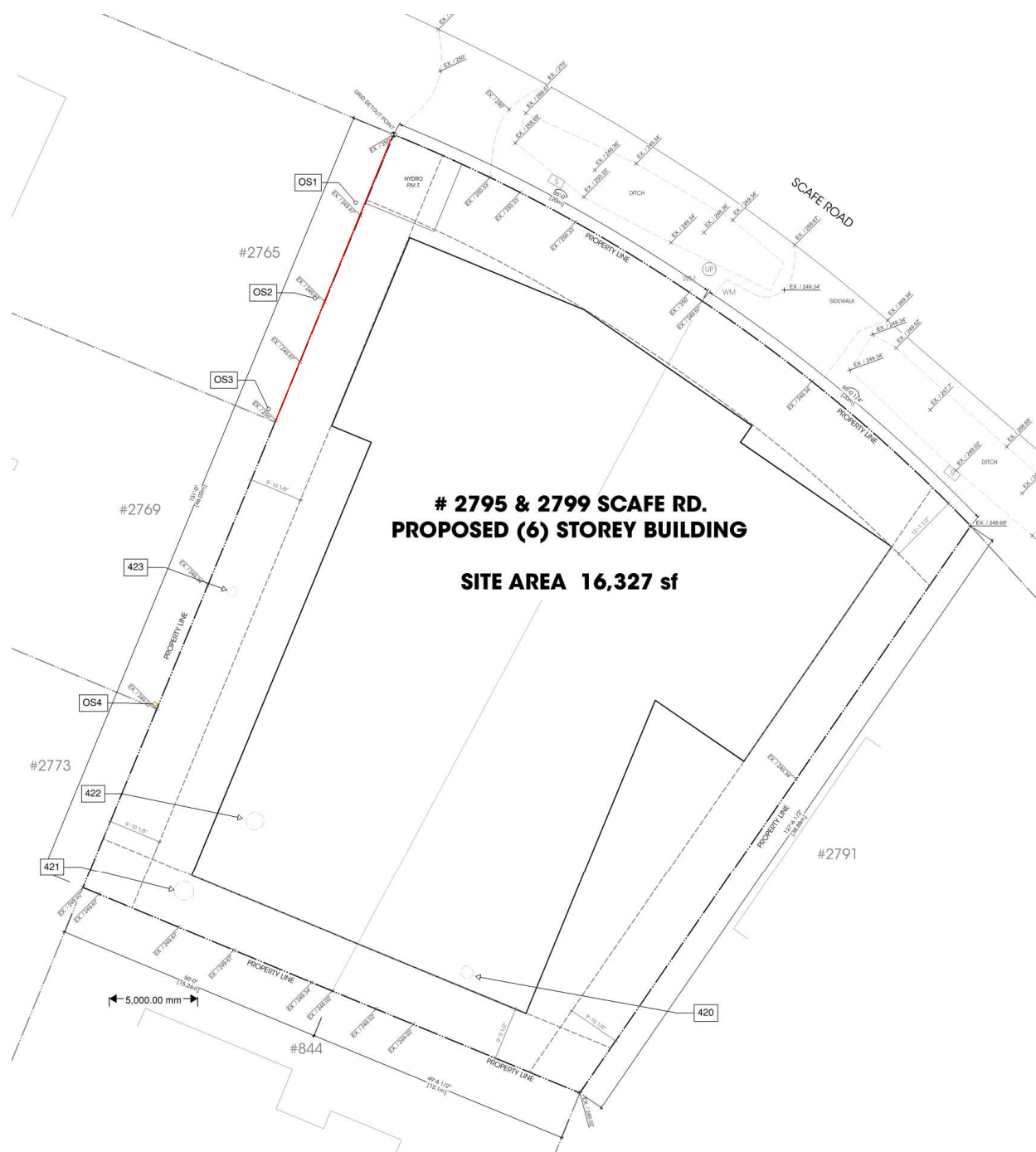


Figure 1. Site Plan. Red lines indicate Tree Protection Fencing. See Appendix C for Tree Protection Fencing specifications.



Figure 2. 2795 Scafe Road Frontage.



Figure 3. 2799 Scafe Road Frontage.



Figure 4. OS1-3. From left to right along fence are trees OS3 (in back along left side of photo), OS2 (center), and OS3 (right side).



Figure 5. Backyards. From left to right are trees 420 (Garry oak), 421 (Douglas fir), 422 (Douglas fir), OS4 (juvenile Douglas fir), and 423 (Plum).

Appendix 'C' Tree Protection Fencing

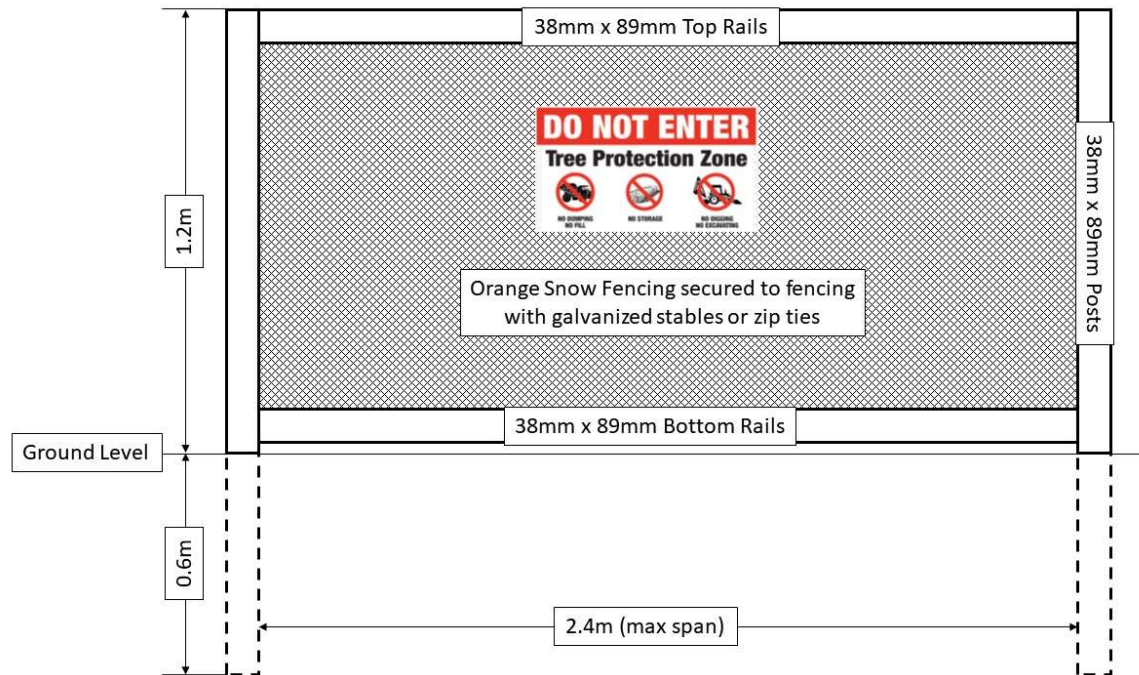


Figure 1. Tree Protection Fencing. In rocky areas, metal (t-posts or rebar) drilled into rock will be accepted instead of wooden posts.

Attach a sign with a minimum size of 407mm x 610mm (16"x24") with the following wording:

- a) DO NOT ENTER – Tree Protection Zone (for retained trees) or;
- b) DO NOT ENTER – Future Tree Planting Zone (for tree planting sites).

These signs must be affixed on every fence face or at least every 10 linear meters.