

Original document size : 24X36 Scale = 1:200

Jan 1, 2021

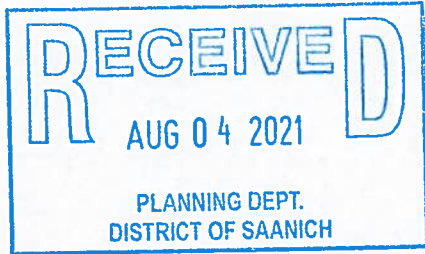
- ### TREE PRESERVATION MEASURES
1. Site meeting to review Tree Plan: Before site work commences, the contractor shall meet with the arborist to review the placement of fencing and other tree protection measures within this plan.
 2. Tree fencing: Before site preparation begins, place tree protection fencing and soil armoring as indicated. In areas designated for tree removal, it is recommended that fencing be delayed until felling and clearing operations are complete.
 3. Arborist supervision: The arborist shall be present to oversee stump removal, excavation, service trenching, site grading or blasting within, or adjacent to, the tree protection areas (TPAs).
 4. Embankment protection: The storm drain line proposed down the embankment will be "on-grade". A substantial concrete footing will anchor the pipe at the top of slope. A pathway for the pipe down the embankment will have to be cleared of debris and some vegetation. The arborist will work with the contractor to minimize tree impacts.
 5. Rock removal:
 - a) When blasting is required within 20m to a Tree Protection Area, the blasting contractor will work with the arborist to develop a rock removal plan that minimizes impacts to protected trees.
 - b) Alternate rock removal techniques may be specified where blasting is problematic.
 6. Root and branch pruning: Any damaged tree roots or branches >2cm dia. shall be pruned back to undamaged tissue by the arborist.
 7. Mulching: In areas where the protected root zone of the tree has been reduced by excavation, the remaining area will be top-dressed with 10cm of tree chip mulch at the discretion of the project arborist.
 8. Temporary access to TPAs: Requests for temporary construction access within a TPA shall be directed to the project arborist for review.
 9. Soil armoring: If it should prove necessary to reduce the tree fencing, the exposed portion of the TPA outside the fencing will be armoured with 3/4" plywood or a temporary cover of geo-textile and 200mm of road-base, moderately compacted with a plate compactor.
 10. Materials storage: No equipment, materials or excavated soil will be placed or stored within the TPA.
 11. Boulevard Replacement Trees: Eight replacement trees are required in mitigation for four boulevard trees removed. No plantable spaces are available, so cash-in-lieu is proposed.

| Tree ID | Common Name | 2017 DBH (cm) | 2019 DBH (cm) | PRZ radius (m) | Crown radius (m) | Health | Structural Condition | Legal status of tree | Bylaw Protected Tree? | Comments | Recommendations |
|---------|---------------------------|----------------|------------------|----------------|------------------|--------|----------------------|-----------------------|-----------------------|---|------------------|
| 235 | Monterey cypress | 86 | 89 | 10 | 7 | Good | Fair | Municipal tree | Yes | Crown pruned over the utility lines | Retain & protect |
| 236 | Monterey cypress (no tag) | 64 | 67 | 8 | 6 | Good | Fair | Municipal tree | Yes | Crown pruned over the utility lines | Retain & protect |
| 237 | Douglas Maple X7 | 10 to 28 | 67 (30, 25, 12) | 6 | 5 | Good | Poor | Municipal tree | Yes | Boulevard tree; conflicts with new curb and gutter | REMOVE |
| 237A | Birch (no tag) | 30 | 31 | 5 | 4 | Good | Good | Boundary tree | No | | Retain & protect |
| 237B | Birch (no tag) | 26 | 27 | 5 | 4 | Good | Good | Boundary tree | No | | Retain & protect |
| 237C | Birch (no tag) | 26 | 27 | 5 | 4 | Good | Good | Boundary tree | No | | Retain & protect |
| 237D | Birch (no tag) | 36 | 40 | 6 | 5 | Good | Good | On-site tree | No | | Retain & protect |
| 416 | Bigleaf maple | 80 | 83 | 10 | 6 | Fair | Poor | Municipal tree | Yes | Boulevard tree | Retain & protect |
| 417 | Douglas fir | 66 | 69 | 10 | 7 | Good | Good | Municipal tree | Yes | Boulevard tree | Retain & protect |
| 418 | Douglas fir | 44 | 46 | 5 | 3 | Good | Good | Municipal tree | Yes | Boulevard tree | Retain & protect |
| 419 | Douglas fir | 34 | 35 | 4 | 3 | Good | Good | Municipal tree | Yes | Boulevard tree | Retain & protect |
| 420 | Douglas fir | 74 | 77 | 8 | 6 | Good | Fair | Municipal tree | Yes | Boulevard tree | Retain & protect |
| 421 | Douglas fir | 66 | 71 | 8 | 5 | Good | Fair | Municipal tree | Yes | Boulevard tree | Retain & protect |
| 422 | Douglas fir | 110 | 114 | 13 | 8 | Good | Good | Municipal tree | Yes | Boulevard tree | Retain & protect |
| 423 | Douglas fir | 84 | 87 | 10 | 8 | Good | Good | Municipal tree | Yes | Boulevard tree | Retain & protect |
| 424 | Douglas fir | 108 | 112 | 13 | 8 | Good | Good | Municipal tree | Yes | Boulevard tree | Retain & protect |
| 424A | Lawson cypress | 125 (50+40+35) | | 15 | 5 | Good | Fair | Municipal tree | Yes | Multi-stemmed (6+) boulevard tree; stem diameters are approximate | Retain & protect |
| 425 | Douglas fir | 58 | 60 | 7 | 6 | Good | Good | Municipal tree | Yes | Boulevard tree | Retain & protect |
| 428 | Douglas fir | 90 | 94 | 11 | 8 | Good | Good | Municipal tree | Yes | Boulevard tree | Retain & protect |
| 429 | Douglas fir | 60 | 62 | 7 | 7 | Good | Good | Municipal tree | Yes | Boulevard tree | Retain & protect |
| 430 | Arbutus X3 | 64, 40, 86 | 198 (89, 67, 42) | 10 | 8 | Fair | Fair | Municipal tree | Yes | Boulevard tree | Retain & protect |
| 431 | Douglas fir | 82 | 86 | 11 | 7 | Good | Good | Municipal tree | Yes | Boulevard tree | Retain & protect |
| 432 | Douglas fir | 68 | 71 | 8 | 6 | Good | Good | Municipal tree | Yes | Boulevard tree | Retain & protect |
| 433 | Douglas fir | 96 | 94 | 11 | 8 | Good | Fair | Municipal tree | Yes | Boulevard tree | Retain & protect |
| 434 | Douglas fir | 68 | 71 | 8 | 7 | Good | Good | Municipal tree | Yes | Boulevard tree | Retain & protect |
| 435 | Douglas fir | 88 | 92 | 11 | 8 | Fair | Fair | Municipal tree | Yes | Boulevard tree | REMOVE |
| 436 | Douglas fir | 60 | 62 | 7 | 6 | Good | Good | Municipal tree | Yes | Boulevard tree | REMOVE |
| 437 | Douglas fir | 108 | 112 | 13 | 8 | Good | Good | Municipal tree | Yes | Boulevard tree | Retain & protect |
| 438 | Douglas fir | 98 | 102 | 12 | 8 | Good | Good | Municipal tree | Yes | Boulevard tree | Retain & protect |
| 438A | Birch (no tag) | 30 | 31 | 5 | 4 | Good | Good | Private off-site tree | No | | Retain & protect |
| 439 | Arbutus | 78 | 81 | 9 | 6 | Good | Fair | On-site tree | Yes | | Retain & protect |
| 440 | Atlas cedar | 74 | 77 | 9 | 8 | Fair | Fair | On-site tree | Yes | | Retain & protect |
| 440A | ML ash (no tag) | 26 | 27 | 3 | 3 | Good | Good | On-site tree | No | | Retain & protect |
| 441 | Ponderosa pine | 82 | 85 | 10 | 6 | Good | Good | On-site tree | Yes | | Retain & protect |
| 442 | Arbutus X3 | 70, 50, 80 | 208 (83, 73, 52) | 9 | 7 | Fair | Fair | On-site tree | Yes | | Retain & protect |
| 442A | Douglas fir (no tag) | 84 | 87 | 10 | 6 | Good | Good | Private off-site tree | Yes | Off-site tree | Retain & protect |
| 442B | Red cedar (no tag) | 130 | 135 | 10 | 7 | Good | Fair | Private off-site tree | Yes | Off-site tree. Four codominant stems. | Retain & protect |
| 490 | Scots pine | 32 | 33 | 4 | 3 | Fair | Fair | On-site tree | No | | Retain & protect |
| 491 | Red cedar | 36 | 37 | 5 | 4 | Good | Good | On-site tree | Yes | | Retain & protect |
| 492 | Red cedar | 40 | 42 | 6 | 5 | Good | Good | On-site tree | Yes | | Retain & protect |
| 492A | Red cedar | 28 | 30 | 5 | 4 | Good | Good | Private off-site tree | Yes | | Retain & protect |
| 493 | Ornamental plum | 48 | 48 | 7 | 6 | Good | Good | On-site tree | No | | Retain & protect |
| 494 | Lawson cypress | 34 | 35 | 5 | 4 | Good | Good | On-site tree | No | | Retain & protect |
| 495 | Walnut | 58 | 60 | 7 | 5 | Good | Fair | On-site tree | Yes | Asymmetric crown to west; internal decay | Retain & protect |
| 495A | Lawson cypress (no tag) | 56 | 58 | 5 | 4 | Good | Good | Private off-site tree | No | Off-site tree | Retain & protect |
| 495B | Lawson cypress (no tag) | 54 | 56 | 5 | 4 | Good | Good | Private off-site tree | No | Off-site tree | Retain & protect |

1. Roadway connector relocated to preserve windward Tree #s 437 & 438
2. Special tree measures required, including hydro excavation under close arborist supervision.
3. All activities within the Roadway connector fall within the root zones of bylaw protected trees and shall be supervised by the project arborist.

SUMMARY TREE STATISTICS

| CATEGORY | # OF TREES |
|---|------------|
| Total number of trees indicated on Tree Plan | 46 |
| On-site Bylaw-Protected Trees | 7 |
| On-site Unprotected Trees | 5 |
| Municipal Trees | 25 |
| Boundary Trees | 3 |
| Private Off-site Trees | 6 |
| Bylaw protected on-site trees proposed for removal | 0 |
| Non-protected on-site trees proposed for removal | 0 |
| Municipal trees proposed for removal | 4 |
| TOTAL PROPOSED TREE REMOVALS: | 4 |
| On-site replacement trees required: | 0 |
| Municipal replacement trees or cash-in-lieu required (2:1): | 8 |
| New Schedule 1 Trees Required by Sub-division bylaw | 0 |

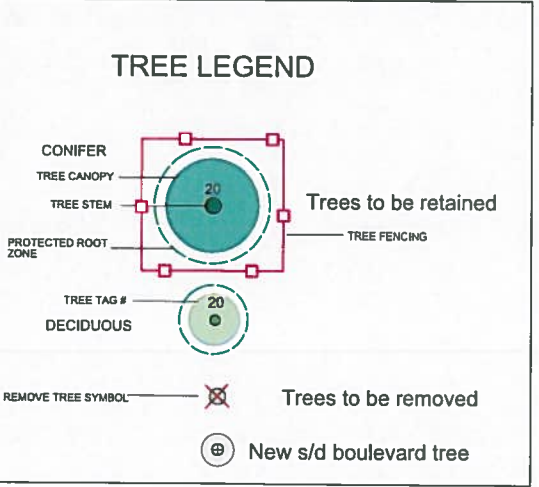


Tree Protection Fencing Detail

Modular steel panel fencing is recommended in order to reduce land-fill waste post-construction. Fencing panels shall be secured to the ground with rebar wired to panel frame.

All-weather signage will be attached, clearly designating the area within as a TREE PROTECTION AREA - NO TRESPASSING.

In cases where steel-panel fencing is not practical or available, fencing shall be constructed with a wooden 2x4 frame (side, top and bottom rails) and back-bracing supports as required to ensure robust placement. Snow-fencing will then be affixed to the frame using battens, zip-ties, staples, wire or nails.



Gyeand Associates.ca

PROJECT: 1708 Barrie Rd, Saanich, BC

SHEET TITLE: Tree Management Plan Subdivision and Servicing

| REV NO | DESCRIPTION | DATE |
|--------|------------------|---------------|
| 3 | FOR SUB-DIVISION | June 23, 2021 |
| 2 | FOR SUB-DIVISION | Sept 8, 2020 |
| 1 | FOR COORDINATION | July 23, 2020 |

PROJECT NO. 17-005
DATE Nov 5, 2019
SCALE 1:200
DRAWN BY JG
SHEET NO. T-1