

# CONCRETE JUNGLE FORESTRY LTD.

Urban & Wildland Forest Assessment & Mapping

Concrete Jungle Forestry Ltd.

## North Saanich Parks

**North Saanich Parks; Forest  
Mensuration Ground Call  
Establishment, Data Collection  
Summary Report**

Donald Skinner  
August 28, 2023

---

#16-6776 Oldfield Road  
Saanichton, BC. V8M 2A3  
Phone: 250-652-8764 Cell: 250-818-8761  
E-mail: [don@concretejungleforestry.ca](mailto:don@concretejungleforestry.ca)

# CONCRETE JUNGLE FORESTRY LTD.

## Urban & Wildland Forest Assessment & Mapping

### Executive Summary:

Between July 2 and August 24, 2023, Association of BC Forest Professionals Limited Licensee and ISA Certified Arborist Donald Skinner of Concrete Jungle Forestry Ltd. (CJF) completed 13 single point Vegetation Resources Inventory (VRI) forest mensuration ground calls (XGVs) within nine (9) wooded North Saanich Parks. Methodology used and results of this work form the body of this report. Parks visited and number of established XGVs.

- Prentice Pond Park; two.
- Green Park; two.
- Sumac Park; two.
- Denham Till Park; one.
- Nymph Point Park; one.
- R.O. Bull Park; one.
- Lillian Hoffar Park; one.
- Gulf View Park; one.
- Quarry Park; two.

### Attribute Highlights / General Observations:

#### *Most Abundant Coniferous Species:*

- Douglas-fir (FDC); 1<sup>st</sup> nine (9) XGVs, 2<sup>nd</sup> one (1) XGV.
- Western Redcedar (CW); 1<sup>st</sup> two (2) XGVs, 2<sup>nd</sup> three (3) XGVs.
- Grand Fir (BG); 2<sup>nd</sup> two (2) XGVs, 3<sup>rd</sup> one (1) XGV.

#### *Most Abundant Deciduous Species:*

- Red Alder (DR); 1<sup>st</sup> two (2) XGVs, 2<sup>nd</sup> one (1) XGV.
- Bigleaf Maple (MB); 2<sup>nd</sup> two (2) XGVs.

#### *Other Species:*

- Arbutus (RA); 3<sup>rd</sup> one (1) XGV.
- Garry oak (QG); only in comments.

#### *Conifer Ages:*

- Oldest: Nymph Point Park Douglas-fir 193 years.
- >100 years; Lillian Hoffar Park FDC, Sumac Park 1 CW, Quarry Park 1 CW, Denham Till Park 1 FDC 1<sup>st</sup> species; 138, 113, 110, 109 years respectively.
- >50 – <=100 years;
  - Prentice Pond 1 1<sup>st</sup> species FDC 86,
  - Green Park 1 1<sup>st</sup> / 2<sup>nd</sup> species FDC / CW 85 / 100,
  - Sumac Park 1 2<sup>nd</sup> species CW 84,
  - Sumac Park 2 1<sup>st</sup> species FDC 79,
  - Gulf View Park 1 1<sup>st</sup> / 2<sup>nd</sup> species FDC / BG 63 / 71,
  - Quarry Park 2 1<sup>st</sup> species FDC 65,
  - No R.O. Bull Park age.

#### *Deciduous Ages:*

- >35 – 50 years;
  - Quarry Park 1 2<sup>nd</sup> species MB 78,
  - Prentice Park 1 2<sup>nd</sup> species DR 64,
  - Prentice Park 2 1<sup>st</sup> species DR 47 years,
  - Green Park 2 1<sup>st</sup> / 2<sup>nd</sup> species DR / MB 38 / 41.

#### *Conifer Height Range:*

- Douglas-fir (FDC); Lillian Hoffar Park 1 28.8m to Sumac Park 1 50.7m.
- Western Redcedar (CW); Sumac Park 1 30.8m to R.O. Bull Park 1 41.6m.

#### *Deciduous Height Range:*

- Red Alder (DR); Prentice Park 1 34m, Prentice Park 2 DR 33.6m, Green Park 2 24m.
- Bigleaf Maple (MB); Green Park 2 18.5m, Quarry Park 1 28.7m.

#### *Condition Notes:*

- Coniferous drought stressed; repeated hot / dry summer dry seasons.
  - Western Redcedar (MB) most heavily impacted; shallow rootplate, inability to translocate sufficient soil moisture to upper canopy. Decline manifests as top-down canopy dieback.

# CONCRETE JUNGLE FORESTRY LTD.

## Urban & Wildland Forest Assessment & Mapping

- Large Grand Fir (BG) also in decline; longer dry season / reduced groundwater caused canopy decline.
- Douglas-fir decline not widely evident.
- Deciduous trees less obviously stressed;
  - Grow only where condition favor successful establishment.
  - Red Alder (DR); relatively short lived disturbed site pioneer species.
  - Bigleaf Maple mixed amongst other deciduous or coniferous.

# CONCRETE JUNGLE FORESTRY LTD.

Urban & Wildland Forest Assessment & Mapping

August 28, 2023

Ms. Sharon Hope  
Friends of North Saanich Parks  
(e) [sharonhope@shaw.ca](mailto:sharonhope@shaw.ca)

## **Re: North Saanich Parks; Forest Mensuration Ground Call Establishment, Data Collection Summary Report.**

### **Introduction:**

Between July 2 and August 24, 2023, Association of BC Forest Professionals Limited Licensee and ISA Certified Arborist Donald Skinner of Concrete Jungle Forestry Ltd. (CJF) completed 13 single point Vegetation Resources Inventory (VRI) forest mensuration ground calls (XGVs) within nine (9) wooded North Saanich Parks. Methodology used and results of this work form the body of this report. Parks visited and number of established XGVs.

- Prentice Pond Park; two.
- Green Park; two.
- Sumac Park; two.
- Denham Till Park; one.
- Nymph Point Park; one.
- R.O. Bull Park; one.
- Lillian Hoffar Park; one.
- Gulf View Park; one.
- Quarry Park; two.

### **Methodology:**

XGVs completed using BC Ministry of Forests, Forest Analysis and Inventory Branch Vegetation Resources Inventory (VRI) procedures<sup>1</sup>. Plot trees identified by Spiegel Releskop, number of bands determine Basal Area Factor (BAF = number of bands<sup>2</sup>), line trees confirmed in / out using measured distance from plot centre to trunk face + ½ measured Diameter at Breast Height (DBH = 1.3m).

Plot centre marked with wood stake, XGV initials / number (1 or 2) in black 'Sharpie', plot trees identified with a numbered metal disc tag. Stakes and tags remain in place. Each plot's lowest numbered tree first clockwise from north. Selected plot locations; representative of forest tree community with sufficient stem density to create valid plot summary attributes.

---

<sup>1</sup> [vri\\_field\\_calibration\\_procedures\\_for\\_photo\\_interpretation\\_version\\_21.pdf\(gov.bc.ca\)](#)

# CONCRETE JUNGLE FORESTRY LTD.

## Urban & Wildland Forest Assessment & Mapping

Measured /calculated plot attributes:

- Tree type; VRI code;
  - FDC; Coastal Douglas-fir (*Pseudotsuga menziesii*),
  - CW; Western Redcedar (*Thuja plicata*),
  - BG, Grand fir (*Abies grandis*),
  - DR, Red Alder (*Alnus rubra*),
  - MB; Bigleaf Maple (*Acer macrophyllum*),
  - RA; Arbutus (*Arbutus menziesii*),
  - QG; Garry oak (*Quercus garryana*)).
- DBH in centimeters.
- Calculated species composition.
- First and second species measured tree height in meters. Calculated Basal Area / density (stems per hectare).
- First and second species age core; counted age + root collar to DBH correction = total age.
- Descriptive notes.

Live and dead layers separated / summarized individually. Dead layer age / height not recorded. Indistinct deciduous growth rings reduce deciduous age count accuracy, especially without similar age in-stand conifer comparison.

*Field recorded supporting attributes;*

- Surface expression, site position, soil nutrient / moisture.
- Shrub height, herbaceous plant cover type, bryoid (moss / lichen) cover. All assigned cover percent / distribution pattern.

CJF acknowledges the following exceptions:

- Denham Till Park; age cores not permitted.
- Lillian Hoffar Park; no second species age / height; compromised second species CW structure (historic heading cut / multi new leaders) eliminated possibility of accurate age / height relationship.

Age cores field and office counted. Office count under 10x magnification / task lighting. When growth rings very narrow, dissecting microscope 20X magnification / lighting used. Age correction calculated using BC Ministry of Forests *Site Tools* software<sup>2</sup> - MB age correction determined using DR Site Tools equation.

*Field Equipment:*

- Navigation;
  - Field located park boundary;

---

<sup>2</sup> [Software download - Province of British Columbia \(gov.bc.ca\)](http://www.gov.bc.ca)

# CONCRETE JUNGLE FORESTRY LTD.

## Urban & Wildland Forest Assessment & Mapping

- iPhone; *MAPS.ME* software; mapping includes most North Saanich park boundaries. CJF location constantly identified when program active.
  - Plot Coordinates / elevation: Universal Transverse Mercator (UTM) coordinates recorded using Garmin GPSMAP 64sx; *Average Location* increased position accuracy.
  - *Backroad Mapbooks* base map includes North Saanich park boundaries (Figures 1 – 9)
  - GPS data managed / Figures 1 – 9 created using Garmin *Basecamp*<sup>3</sup> software.
- Metric DBH tape; tree diameters.
  - Vertex III / T5 transponder; horizontal distance and tree height measurements.
  - iPad data logger, XLS digital field sheet.
  - 20" increment borer to create age cores.

### Plot Location and Attribute Summary:

Figure 1: Prentice Pond Park; XGVs PP 1, PP 2.



<sup>3</sup> [Download BaseCamp | Garmin](#)

# CONCRETE JUNGLE FORESTRY LTD.

Urban & Wildland Forest Assessment & Mapping

XGV Prentice Park (PP) 1:

Park north end (Figure 1); live mixed coniferous / deciduous attribute summary.

Mapsheet	Ground Call Number	Measurement Date	Plot 1 FDC 13 dead																	
0	PP 01	07-02-23	Plot 2																	
Polygon No.			Crew			Plot 3														
0			DS																	
<b>GPS</b>																				
North		5391921																		
West		469942																		
Elevation		27																		
Ocular Sp. Comp			0																	
Signature																				
			Percent Attack																	
			Green			Red			Grey											
			0			0			0											
Layer	Vert. Complex.	Species #1	Species #1 Percent	Species #2	Species #2 Percent	Species #3	Species #3 Percent	Species #4	Species #4 Percent	Species #5	Species #5 Percent	Species #6	Species #6 Percent	AGE (1st)	Height (1st)	AGE (2nd)	Height (2nd)	Basal Area (m <sup>2</sup> /ha)	Density (stems/ha)	Snag Freq. (snags/ha)
1	3	FDC	71	DR	29									86	38.3	64	34.0	63	427	1
Surf. Expression	Site Position Meso	Soil Moisture Reg.	Soil Nutrient Reg.	Shrub Height (m)	Herb Cover Type	Bryoid	Non Veg. CT #1	Non Veg. CT #2												
N	F	4	C	1.5	HE															
				5	5				Percent Cover											
				3	3				Cover Pattern											

Dead coniferous attribute summary.

Mapsheet	Ground Call Number	Measurement Date	Plot 1																	
0	PP 1_dead	07-02-23	Plot 2																	
Polygon No.			Crew			Plot 3														
0			DS																	
<b>GPS</b>																				
North		0																		
West		0																		
Elevation		0																		
Ocular Sp. Comp			0																	
Signature																				
			Percent Attack																	
			Green			Red			Grey											
			0			0			0											
Layer	Vert. Complex.	Species #1	Species #1 Percent	Species #2	Species #2 Percent	Species #3	Species #3 Percent	Species #4	Species #4 Percent	Species #5	Species #5 Percent	Species #6	Species #6 Percent	AGE (1st)	Height (1st)	AGE (2nd)	Height (2nd)	Basal Area (m <sup>2</sup> /ha)	Density (stems/ha)	Snag Freq. (snags/ha)
1	0	FDC	100											##	##			9	50	0
Surf. Expression	Site Position Meso	Soil Moisture Reg.	Soil Nutrient Reg.	Shrub Height (m)	Herb Cover Type	Bryoid	Non Veg. CT #1	Non Veg. CT #2												
0	0	0	0																	
									Percent Cover											
									Cover Pattern											

# CONCRETE JUNGLE FORESTRY LTD.

Urban & Wildland Forest Assessment & Mapping

XGV Prentice Park (PP) 2:

Mid-park immediately north of pond (Figure 1), live deciduous attribute summary.

Mapsheet	Ground Call Number	Measurement Date
0	PP 02	23-07-02
Polygon No.	Crew	
0	DS	
GPS		
North	5391882	
West	469933	
Elevation	25	

Plot 1	#4 dead, #2 sample, round top reduces measured height accuracy, scatt MB low inter / overtopped
Plot 2	difficult age count - no comparison against similar age conifer
Plot 3	

Percent Attack		
Green	0	Red 0 Grey 0

Layer	Vert. Complex.	Species #1	Species #1 Percent	Species #2	Species #2 Percent	Species #3	Species #3 Percent	Species #4	Species #4 Percent	Species #5	Species #5 Percent	Species #6	Species #6 Percent	AGE (1st)	Height (1st)	AGE (2nd)	Height (2nd)	Basal Area (m <sup>2</sup> /ha)	Density (stems/ha)	Snag Freq. (snags/ha)
1	3	DR	100											47	33.6			31	232	0

Surf. Expression	Site Position Meso	Soil Moisture Reg.	Soil Nutrient Reg.	Shrub Height (m)	Herb Cover Type	Bryoid	Non Veg. CT #1	Non Veg. CT #2	Percent Cover	Cover Pattern
N	F	5	C	1.8	HE					
				15	5					
				8	3					

Ocular Sp. Comp 0

Signature \_\_\_\_\_

Figure 2: Green Park; XGVs GP 1, GP 2.





# CONCRETE JUNGLE FORESTRY LTD.

Urban & Wildland Forest Assessment & Mapping

XGV Green Park (GP) 1:

East of north pond (Figure 2); live coniferous attribute summary.

Mapsheets	Ground Call Number	Measurement Date	Plot 1 FDC-17 dead, OP CW -21 23m @200 degrees, FDC age not field counted																		
0	GP 01	23-07-02	Plot 2 Occ species; FDC 70%, CW 30%																		
Polygon No.			Crew			Plot 3															
0			DS			Percent Attack															
GPS			Green 0 Red 0 Grey 0																		
North			5392506																		
West			469161																		
Elevation			52																		
Ocular Sp. Comp			0																		
Signature																					
Layer	Vert. Complex.	Species #1	Species #1 Percent	Species #2	Species #2 Percent	Species #3	Species #3 Percent	Species #4	Species #4 Percent	Species #5	Species #5 Percent	Species #6	Species #6 Percent	AGE (1st)	Height (1st)	AGE (2nd)	Height (2nd)	Basal Area (m <sup>2</sup> /ha)	Density (stems/ha)	Snag Freq. (snags/ha)	
1	4	FDC	67	CW	33									85	40.8	100	20.5	54	239	0	
Surf. Expression	Site Position Meso	Soil Moisture Reg.	Soil Nutrient Reg.	Shrub Height (m)	Herb Cover Type	Bryoid	Non Veg. CT #1	Non Veg. CT #2	Percent Cover												
n	m	4	c	7	HE	BM			Cover Pattern												
				3	2	5															
				3	3	8															

Dead coniferous attribute summary.

Mapsheets	Ground Call Number	Measurement Date	Plot 1																		
0	GP 01_dead	23-07-02	Plot 2																		
Polygon No.			Crew			Plot 3															
0			DS			Percent Attack															
GPS			Green 0 Red 0 Grey 0																		
North			0																		
West			0																		
Elevation			0																		
Ocular Sp. Comp			0																		
Signature																					
Layer	Vert. Complex.	Species #1	Species #1 Percent	Species #2	Species #2 Percent	Species #3	Species #3 Percent	Species #4	Species #4 Percent	Species #5	Species #5 Percent	Species #6	Species #6 Percent	AGE (1st)	Height (1st)	AGE (2nd)	Height (2nd)	Basal Area (m <sup>2</sup> /ha)	Density (stems/ha)	Snag Freq. (snags/ha)	
1	0	FDC	100											##	##			9	72	0	
Surf. Expression	Site Position Meso	Soil Moisture Reg.	Soil Nutrient Reg.	Shrub Height (m)	Herb Cover Type	Bryoid	Non Veg. CT #1	Non Veg. CT #2	Percent Cover												
0	0	0	0						Cover Pattern												



# CONCRETE JUNGLE FORESTRY LTD.

Urban & Wildland Forest Assessment & Mapping

XGV Sumac Park (SP) 1:

50m east of west trail / down slope (Figure 3); live coniferous / deciduous attribute summary.

Mapsheet 0	Ground Call Number SP 01	Measurement Date 23-07-09	Plot 1 BG 42 dead, CW 37, 40 low intermediate - do not contribute to overstory BA, CW 38 decay at centre - office count
Polygon No. 0	Crew DS		Plot 2 slope toe, 5D CW 90%+, CW 38: incomplete core - centre rot, counted age estimate 69+36 (missing 15.5cm)=105
GPS			Plot 3 occ sp Fdc:50 Cw40 Mb 05, Bg 05 +occ Dr
North	5393321	Percent Attack	
West	467399	Green	0 Red 0 Grey 0
Elevation	99		
Ocular Sp. Comp	0		
Signature			
Layer	Vert. Complex.	Species #1	Species #1 Percent
1	4 CW	50	FDC
		Species #2	Species #2 Percent
		33	MB
		Species #3	Species #3 Percent
		17	
		Species #4	Species #4 Percent
		Species #5	Species #5 Percent
		Species #6	Species #6 Percent
		Species #6 Percent	
		AGE (1st)	113
		Height (1st)	30.8
		AGE (2nd)	84
		Height (2nd)	50.7
		Height (2nd)	
		Basal Area (m <sup>2</sup> /ha)	96
		Density (stems/ha)	507
		Snag Freq. (snags/ha)	15
Surf. Expression	Site Position Meso	Soil Moisture Reg.	Soil Nutrient Reg.
N	L	4	D
Shrub Height (m)	Herb Cover Type	Bryoid	Non Veg. CT #1
HE			
30			
8			
		Non Veg. CT #2	
		Percent Cover	
		Cover Pattern	

Dead coniferous attribute summary:

Mapsheet 0	Ground Call Number SP 01_dead	Measurement Date 07-09-23	Plot 1
Polygon No. 0	Crew DS		Plot 2
GPS			Plot 3
North	0	Percent Attack	
West	0	Green	0 Red 0 Grey 0
Elevation	0		
Ocular Sp. Comp	0		
Signature			
Layer	Vert. Complex.	Species #1	Species #1 Percent
1	0 BG	100	
		Species #2	Species #2 Percent
		Species #3	Species #3 Percent
		Species #3 Percent	
		Species #4	Species #4 Percent
		Species #4 Percent	
		Species #5	Species #5 Percent
		Species #5 Percent	
		Species #6	Species #6 Percent
		Species #6 Percent	
		AGE (1st)	##
		Height (1st)	##
		AGE (2nd)	
		Height (2nd)	
		Height (2nd)	
		Basal Area (m <sup>2</sup> /ha)	16
		Density (stems/ha)	24
		Snag Freq. (snags/ha)	0
Surf. Expression	Site Position Meso	Soil Moisture Reg.	Soil Nutrient Reg.
0	0	0	0
Shrub Height (m)	Herb Cover Type	Bryoid	Non Veg. CT #1
		Non Veg. CT #2	
		Percent Cover	
		Cover Pattern	

# CONCRETE JUNGLE FORESTRY LTD.

Urban & Wildland Forest Assessment & Mapping

XGV Sumac Park (SP) 2:

Park southwest corner west of trail (Figure 3); live coniferous attribute summary.

Mapsheet	Ground Call Number	Measurement Date	Plot 1 0 snags, scattered intermediate RA, MB, scatt BG codominant																		
0	SP 02	23-07-02	Plot 2																		
Polygon No.		Crew	Plot 3																		
0		DS																			
<b>GPS</b>			Percent Attack																		
North	539277		Green			0			Red			0			Grey			0			
West	467356																				
Elevation	104																				
Ocular Sp. Comp			0																		
Signature																					
Layer	Vert. Complex.	Species #1	Species #1 Percent	Species #2	Species #2 Percent	Species #3	Species #3 Percent	Species #4	Species #4 Percent	Species #5	Species #5 Percent	Species #6	Species #6 Percent	AGE (1st)	Height (1st)	AGE (2nd)	Height (2nd)	Basal Area (m <sup>2</sup> /ha)	Density (stems/ha)	Snag Freq. (snags/ha)	
1	3	FDC	100											79	40.3			63	271	0	
Surf. Expression	Site Position Meso	Soil Moisture Reg.	Soil Nutrient Reg.	Shrub Height (m)	Herb Cover Type	Bryoid	Non Veg. CT #1	Non Veg. CT #2													
N	M	4	C	2	BM				Percent Cover												
				5	15				Cover Pattern												
				3	8																

Figure 4: Denham Till Park; XGV DT 1.



# CONCRETE JUNGLE FORESTRY LTD.

Urban & Wildland Forest Assessment & Mapping

XGV Denham Till Park (DT) 1:

Park north end, south of Clayton Road between trail entrances (Figure 4); live coniferous attribute summary.

Mapsheet 0	Ground Call Number DT 01	Measurement Date 23-07-09	Plot 1 Fdc 100 with scattered intermediate Og, Hazlenut (either beaked or escaped domestic)																				
Polygon No. 0 Crew DS			Plot 2 Mb, Cw, also scatt Cw codominant, no dead																				
GPS			Plot 3																				
North	5392042		Percent Attack										Green	0	Red	0	Grey	0					
West	475567																						
Elevation	57																						
Ocular Sp. Comp	0		Layer	Vert. Complex.	Species #1	Species #1 Percent	Species #2	Species #2 Percent	Species #3	Species #3 Percent	Species #4	Species #4 Percent	Species #5	Species #5 Percent	Species #6	Species #6 Percent	AGE (1st)	Height (1st)	AGE (2nd)	Height (2nd)	Basal Area (m <sup>2</sup> /ha)	Density (stems/ha)	Snag Freq. (snags/ha)
Signature			1	3	FDC	100											98	37.3			45	211	0
			Surf. Expression	Site Position Meso	Soil Moisture Reg.	Soil Nutrient Reg.	Shrub Height (m)	Herb Cover Type	Bryoid	Non Veg. CT #1	Non Veg. CT #2												
			N	F	4	C	1.1					Percent Cover											
							4					Cover Pattern											
							9																

Figure 5: Nymph Point Park; XGV NP 1.











# CONCRETE JUNGLE FORESTRY LTD.

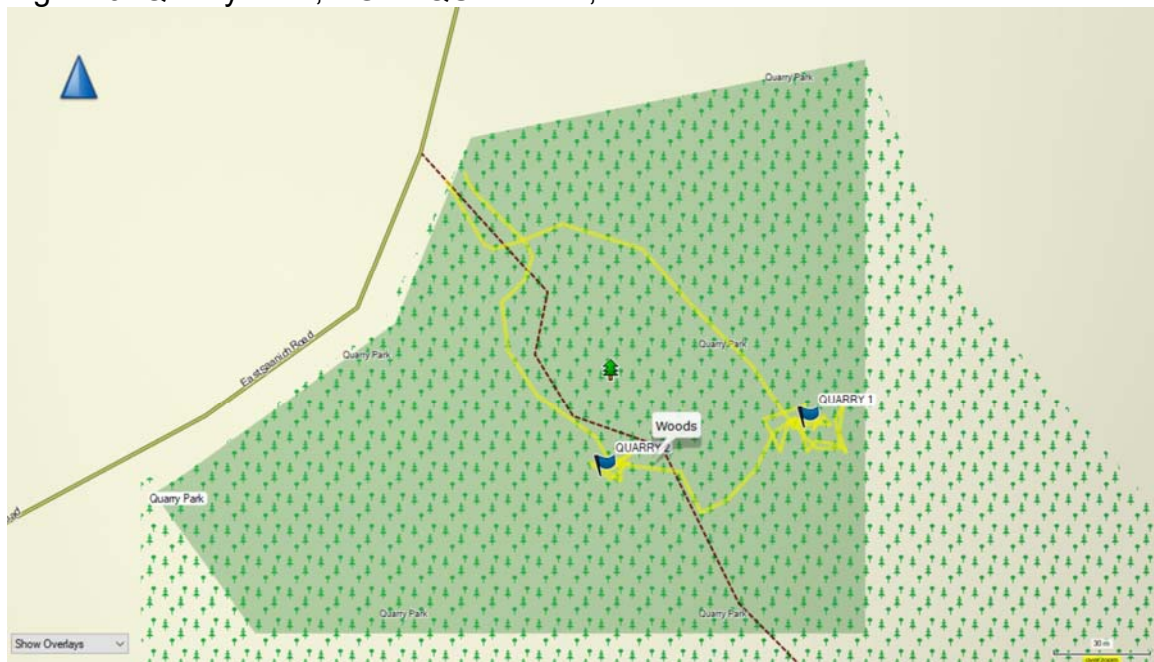
Urban & Wildland Forest Assessment & Mapping

XGV Gulf View Park (GV) 1:

North of center lawn 10m south of north park boundary (Figure 8); live coniferous attribute summary.

Mapsheet 0	Ground Call Number GV 1	Measurement Date 23-08-22	Plot 1 Occ species: Fdc 100 + occasional Bg, Mb, Ra, bedrock outcrop between lawn and E. Saanich Road																				
Polygon No. 0	Crew DS		Plot 2																				
			Plot 3																				
<b>GPS</b>			Percent Attack																				
North	5385063		Green	0	Red	0	Grey	0															
West	469353																						
Elevation	60																						
Ocular Sp. Comp	0																						
Signature																							
			Layer	Vert. Complex.	Species #1	Species #1 Percent	Species #2	Species #2 Percent	Species #3	Species #3 Percent	Species #4	Species #4 Percent	Species #5	Species #5 Percent	Species #6	Species #6 Percent	AGE (1st)	Height (1st)	AGE (2nd)	Height (2nd)	Basal Area (m <sup>2</sup> /ha)	Density (stems/ha)	Snag Freq. (snags/ha)
			1	3	FDC	86	BG	14									63	34.1	71	32.0	112	428	0
			Surf. Expression	Site Position Meso	Soil Moisture Reg.	Soil Nutrient Reg.	Shrub Height (m)	Herb Cover Type	Byruid	Non Veg. CT #1	Non Veg. CT #2												
			N	U	3	C	3	HE															
							5	10				Percent Cover											
							3	3				Cover Pattern											

Figure 9: Quarry Park; XGVs QUARRY 1, 2.



# CONCRETE JUNGLE FORESTRY LTD.

Urban & Wildland Forest Assessment & Mapping

XGV Quarry Park (QUARRY) 1:

10m east of loop trail (Figure 9); live coniferous attribute summary.

Mapsheet	Ground Call Number	Measurement Date	Plot 1 occ sp Cw98 Mb02 occasional Fdc taller Fdc up-slope, Mb age correction used DR Site Tools data Plot 2 Plot 3																
0	QUARRY 1	23-08-24																	
Polygon No.	Crew																		
0	DS																		
<b>GPS</b>																			
North	5384482																		
West	469428																		
Elevation	111																		
Ocular Sp. Comp			0																
Signature																			
Percent Attack																			
Green 0 Red 0 Grey 0																			
Layer	Vert. Complex.	Species #1	Species #2	Species #3	Species #4	Species #5	Species #6	Species #7	Species #8	Species #9	Species #10	AGE (1st)	Height (1st)	AGE (2nd)	Height (2nd)	Basal Area (m <sup>2</sup> /ha)	Density (stems/ha)	Snag Freq. (snags/ha)	
1	3	CW	80	MB	20							110	35.1	78	28.7	80	589	0	
Surf. Expression	Site Position Meso	Soil Moisture Reg.	Soil Nutrient Reg.	Shrub Height (m)	Herb Cover Type	Bryoid	Non Veg. CT #1	Non Veg. CT #2											
N	M	4	C	0.4	HE														
				2	3														
				3	3														
									Percent Cover										
									Cover Pattern										

XGV Quarry Park (QUARRY) 2:

10m west of loop trail (Figure 9); live coniferous attribute summary.

Mapsheet	Ground Call Number	Measurement Date	Plot 1 veteran Fdc 25m southwest - upslope toward street, broken tops / new leaders Plot 2 Occ species, Fdc 100 scattered Mb, Dr, Ra, deciduous shorter Plot 3																
0	QUARRY 2	23-08-24																	
Polygon No.	Crew																		
0	DS																		
<b>GPS</b>																			
North	5384466																		
West	469378																		
Elevation	113																		
Ocular Sp. Comp			0																
Signature																			
Percent Attack																			
Green 0 Red 0 Grey 0																			
Layer	Vert. Complex.	Species #1	Species #2	Species #3	Species #4	Species #5	Species #6	Species #7	Species #8	Species #9	Species #10	AGE (1st)	Height (1st)	AGE (2nd)	Height (2nd)	Basal Area (m <sup>2</sup> /ha)	Density (stems/ha)	Snag Freq. (snags/ha)	
1	4	FDC	100									65	32.2			56	739	5	
Surf. Expression	Site Position Meso	Soil Moisture Reg.	Soil Nutrient Reg.	Shrub Height (m)	Herb Cover Type	Bryoid	Non Veg. CT #1	Non Veg. CT #2											
N	F	C	3	2.5	HE														
				10	25														
				3	8														
									Percent Cover										
									Cover Pattern										

# CONCRETE JUNGLE FORESTRY LTD.

## Urban & Wildland Forest Assessment & Mapping

### **Attribute Highlights / General Observations:**

#### *Most Abundant Coniferous Species:*

- Douglas-fir (FDC); 1<sup>st</sup> nine (9) XGVs, 2<sup>nd</sup> one (1) XGV.
- Western Redcedar (CW); 1<sup>st</sup> two (2) XGVs, 2<sup>nd</sup> three (3) XGVs.
- Grand Fir (BG); 2<sup>nd</sup> two (2) XGVs, 3<sup>rd</sup> one (1) XGV.

#### *Most Abundant Deciduous Species:*

- Red Alder (DR); 1<sup>st</sup> two (2) XGVs, 2<sup>nd</sup> one (1) XGV.
- Bigleaf Maple (MB); 2<sup>nd</sup> two (2) XGVs.

#### *Other Species:*

- Arbutus (RA); 3<sup>rd</sup> one (1) XGV.
- Garry oak (QG); only in comments.

#### *Conifer Ages:*

- Oldest: Nymph Point Park Douglas-fir 193 years.
- >100 years; Lillian Hoffar Park FDC, Sumac Park 1 CW, Quarry Park 1 CW, Denham Till Park 1 FDC 1<sup>st</sup> species; 138, 113, 110, 109 years respectively.
- >50 – <=100 years;
  - Prentice Pond 1 1<sup>st</sup> species FDC 86,
  - Green Park 1 1<sup>st</sup> / 2<sup>nd</sup> species FDC / CW 85 / 100,
  - Sumac Park 1 2<sup>nd</sup> species CW 84,
  - Sumac Park 2 1<sup>st</sup> species FDC 79,
  - Gulf View Park 1 1<sup>st</sup> / 2<sup>nd</sup> species FDC / BG 63 / 71,
  - Quarry Park 2 1<sup>st</sup> species FDC 65,
  - No R.O. Bull Park age.

#### *Deciduous Ages:*

- >35 – 50 years;
  - Quarry Park 1 2<sup>nd</sup> species MB 78,
  - Prentice Park 1 2<sup>nd</sup> species DR 64,
  - Prentice Park 2 1<sup>st</sup> species DR 47 years,
  - Green Park 2 1<sup>st</sup> / 2<sup>nd</sup> species DR / MB 38 / 41.

#### *Conifer Height Range:*

- Douglas-fir (FDC); Lillian Hoffar Park 1 28.8m to Sumac Park 1 50.7m.
- Western Redcedar (CW); Sumac Park 1 30.8m to R.O. Bull Park 1 41.6m.

#### *Deciduous Height Range:*

- Red Alder (DR); Prentice Park 1 34m, Prentice Park 2 DR 33.6m, Green Park 2 24m.
- Bigleaf Maple (MB); Green Park 2 18.5m, Quarry Park 1 28.7m.

#### *Condition Notes:*

- Coniferous drought stressed; repeated hot / dry summer dry seasons.

# CONCRETE JUNGLE FORESTRY LTD.

## Urban & Wildland Forest Assessment & Mapping

- Western Redcedar (MB) most heavily impacted; shallow rootplate, inability to translocate sufficient soil moisture to upper canopy. Decline manifests as top-down canopy dieback.
- Large Grand Fir (BG) also in decline; longer dry season / reduced groundwater caused canopy decline.
- Douglas-fir decline not widely evident.
  
- Deciduous trees less obviously stressed;
  - Grow only where condition favor successful establishment.
  - Red Alder (DR); relatively short lived disturbed site pioneer species.
  - Bigleaf Maple mixed amongst other deciduous or coniferous.

### End Report:



Donald Skinner M.Sc.  
Registered Professional Biologist (#827).  
I.S.A. Certified Arborist (# PN5907A).  
I.S.A. Tree Risk Assessment Qualified.