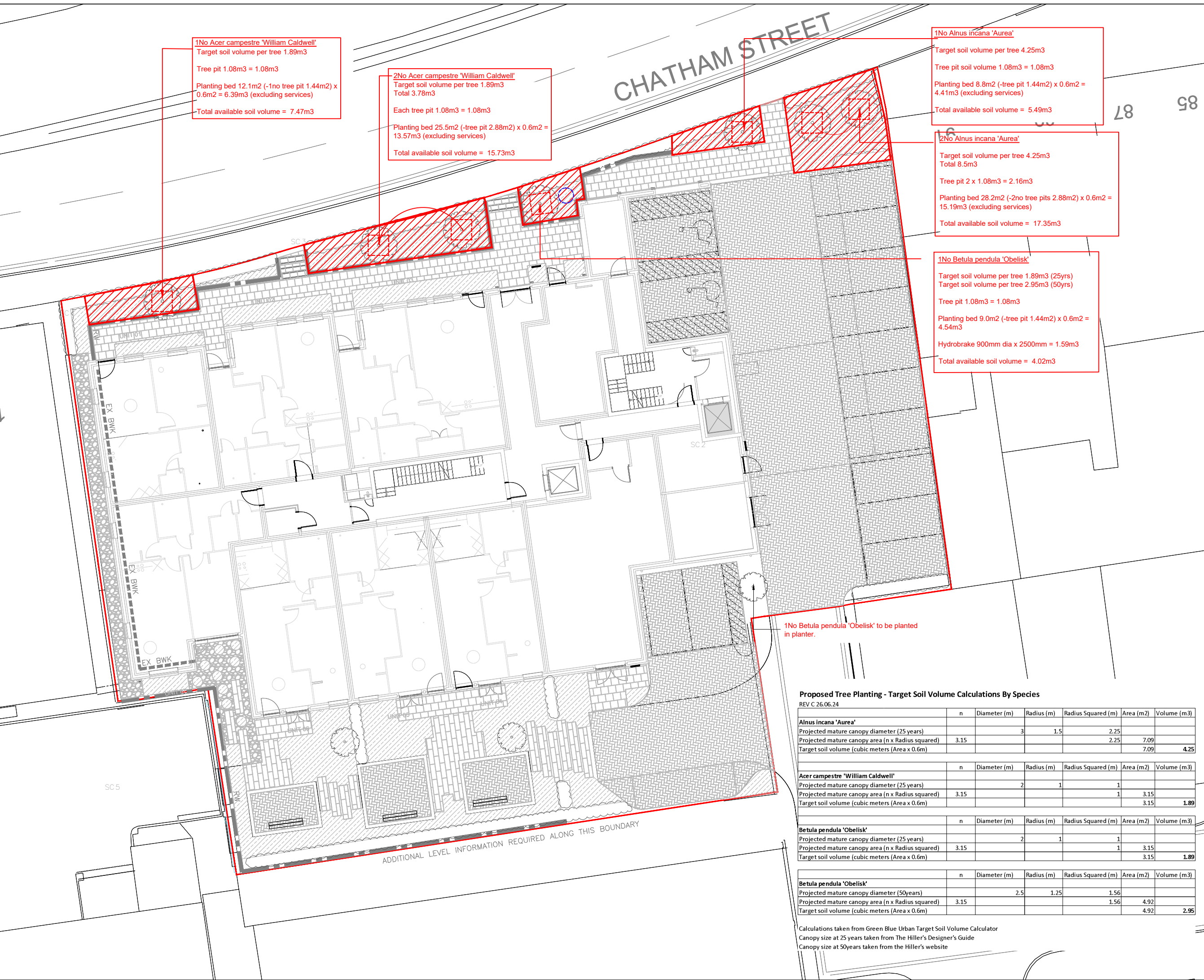




1No *Acer campestre* 'William Caldwell'
Target soil volume per tree 1.89m3

Tree pit 1.08m3 = 1.08m3

Planting bed 12.1m2 (-1no tree pit 1.44m2) x 0.6m2 = 6.39m3 (excluding services)

Total available soil volume = 7.47m3

2No *Acer campestre* 'William Caldwell'
Target soil volume per tree 1.89m3
Total 3.78m3

Each tree pit 1.08m3 = 1.08m3

Planting bed 25.5m2 (-tree pit 2.88m2) x 0.6m2 = 13.57m3 (excluding services)

Total available soil volume = 15.73m3

1No *Alnus incana* 'Aurea'

Target soil volume per tree 4.25m3

Tree pit soil volume 1.08m3 = 1.08m3

Planting bed 8.8m2 (-tree pit 1.44m2) x 0.6m2 = 4.41m3 (excluding services)

Total available soil volume = 5.49m3

2No *Alnus incana* 'Aurea'

Target soil volume per tree 4.25m3
Total 8.5m3

Tree pit 2 x 1.08m3 = 2.16m3

Planting bed 28.2m2 (-2no tree pits 2.88m2) x 0.6m2 = 15.19m3 (excluding services)

Total available soil volume = 17.35m3

1No *Betula pendula* 'Obelisk'

Target soil volume per tree 1.89m3 (25yrs)
Target soil volume per tree 2.95m3 (50yrs)

Tree pit 1.08m3 = 1.08m3

Planting bed 9.0m2 (-tree pit 1.44m2) x 0.6m2 = 4.54m3

Hydrobrake 900mm dia x 2500mm = 1.59m3

Total available soil volume = 4.02m3

1No *Betula pendula* 'Obelisk' to be planted in planter.

Proposed Tree Planting - Target Soil Volume Calculations By Species

	n	Diameter (m)	Radius (m)	Radius Squared (m)	Area (m2)	Volume (m3)
<i>Alnus incana</i> 'Aurea'						
Projected mature canopy diameter (25 years)		3	1.5	2.25		
Projected mature canopy area (n x Radius squared)	3.15			2.25	7.09	
Target soil volume (cubic meters (Area x 0.6m))					7.09	4.25
	n	Diameter (m)	Radius (m)	Radius Squared (m)	Area (m2)	Volume (m3)
<i>Acer campestre</i> 'William Caldwell'						
Projected mature canopy diameter (25 years)		2	1	1		
Projected mature canopy area (n x Radius squared)	3.15			1	3.15	
Target soil volume (cubic meters (Area x 0.6m))					3.15	1.89
	n	Diameter (m)	Radius (m)	Radius Squared (m)	Area (m2)	Volume (m3)
<i>Betula pendula</i> 'Obelisk'						
Projected mature canopy diameter (25 years)		2	1	1		
Projected mature canopy area (n x Radius squared)	3.15			1	3.15	
Target soil volume (cubic meters (Area x 0.6m))					3.15	1.89
	n	Diameter (m)	Radius (m)	Radius Squared (m)	Area (m2)	Volume (m3)
<i>Betula pendula</i> 'Obelisk'						
Projected mature canopy diameter (50years)		2.5	1.25	1.56		
Projected mature canopy area (n x Radius squared)	3.15			1.56	4.92	
Target soil volume (cubic meters (Area x 0.6m))					4.92	2.95

Calculations taken from Green Blue Urban Target Soil Volume Calculator
Canopy size at 25 years taken from The Hiller's Designer's Guide
Canopy size at 50years taken from the Hiller's website

Contractors are not to scale dimensions from this drawing

Revision	Date
A Tree planter amended	07.03.24
B Soil volumes updated	24.05.24
C Soil volumes updated	24.06.24

LEGEND

 900mm dia Hydrobrake

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Client
Oriell Housing

Project
Chatham Street, Reading

Title
Tree Pit Soil Volume

Status	Planning	Drawn	AR	Date	Jan 2024
Scale	1:100 @A1	Job number	1681-L90	Drawing number	302
				Revision	C