

RIVERSIDE DENTAL CENTRE, BRIDGE STREET, CAVERSHAM,
READING, BERKSHIRE RG4 8AA



Image 1: Looking south west to Trees T5 to T1 behind Hoardings (All Sycamore-*Acer psuedoplatanus*)

TREE CONDITION SURVEY, ARBORICULTURAL IMPLICATIONS
ASSESSMENT REPORT WITH RECOMMENDATIONS

MAY 2017

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Riverside
Dental Centre

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Tree Survey Schedule to BS 5837 (2012) including descriptions and recommendations
Tree Condition Survey Drawing Number 274/01

1.0 TERMS OF REFERENCE

- 1.1 **Goodger Design Associates (GDA)** is a practice of chartered landscape architects registered with the UK Landscape Institute coupled with membership of the Arboricultural Association (AA). Our principal is qualified with a TechArborA qualification in arboriculture from Merrist Wood College. We have compiled numerous tree condition surveys in accordance with British Standard BS 5837 (2012) (ref. 1) and BS3998 (2010) (ref. 2) and AA guidance notes since September 1999. We employ the Quantified Tree Risk Assessment (QTRA) system in association with the VTA (Visual Tree Assessment) inspection procedure and hold QTRA licence number 1271.
- 1.2 **Appointment and Objectives.** We were appointed by through TW2 Architects chartered architects on behalf of Mr Changiz Fahami the principal of the Riverside Dental Centre on 15th May 2017 to carry out a survey of 5 trees on a derelict site to the north of the current dental centre. The survey's objective is to assess the impact of a proposed extension of the dental centre on the adjacent trees. We assessed the existing relevant trees for their quality status noting their BS 5837 categories A-U, heights, diameters at breast height (DBH), branch spreads at the four cardinal points, crown clearance heights/height of first branch, vigour, physiological/structural condition, lifespans, root protection areas (RPA's), and protection radii. The survey schedule complies with BS 5837: Trees in Relation to Construction 2012 and refers to BS 3998: Recommendations for Tree Work 2010.
- 1.3 **Method.** We completed the survey fieldwork on 23rd May 2017 in sunny and dry weather. We measured each tree's diameter at breast height (DBH) with a laser measuring device. The four cardinal points were measured with a laser and by inference where they overhang the existing buildings. We checked the heights by triangulation with a laser and clear stem heights were measured with the laser device. The RPA's and the tree protection radii were plotted in response to the DBH measured at 1.5m from ground level based on the formulae stated in clause 4.6 of BS 5837 (2012) and annex C. In addition, we used Visual Tree Assessment (VTA) techniques to assess the health and stability of the trees.
- 1.4 **Context.** We are not aware of any tree preservation orders at the address and the site is not in a conservation area. Recommended treeworks are listed in the end column of the survey schedule in the appendix. The proposed scheme will require the felling and stump grinding of each tree so the survey schedule is focused in the current condition of each tree.
- 1.5 **Soils, Drainage, and Site Extents.** The Landis Soilscales maps (ref. 3) indicate that the underlying soils are Soilscale 20: Loamy and clayey floodplain soils with naturally high groundwater. The site is 297m² in area.
- 1.6 **Timescale.** The contents of this survey are valid for twelve months from the last survey dates of 23rd May 2017. Each survey takes a snapshot of the present situation. Trees are dynamic and in a constant state of change influenced by environmental/climatic conditions and tree life cycles.
- 1.7 **Disclaimer.** The recommendations in this report are given in good faith and we cannot accept responsibility if the recommendations are not implemented or trees fail where there were not any obvious defects present. We recommend treeworks to each tree for good arboricultural, aesthetic or safety reasons to BS3998 (2010) in addition to the Arboricultural Implications Assessment. It is the choice of the property owners if they wish to employ arborists to complete these treeworks. Arborists employed for carry out tree felling works must provide a felling method statement to ensure the safety of the general public and to avoid damage to surrounding property.

2.0 TREE CONDITION SURVEY REVIEW AND ARBORICULTURAL IMPLICATIONS ASSESSMENT

2.1 Tree References T1-T5 (*Sycamore-Acer psuedoplatanus*)



Image 2: Looking east towards Tree 1 to left and Trees T2-T5 to right (all Sycamore)

This group of trees was surveyed in full leaf and on good weather. Tree T1 has a decay column extending 1.8m from ground level possibly caused by a canker with no sign of reaction wood growing around the decayed area. It is likely to decrease in vitality and we estimate that it will not have a useful life beyond 20 years. It may be a maintenance issue for the adjoining property in terms of leaf/branch fall and sap drip from the leaves as it is located in a confined space for a 'forest' tree.

Tree T2 is in better condition than T1 and is a multistem. The crown is suppressed on the south side by T1 and there is a small amount of butt rot evident at the base. It is likely to be causing similar issues as T1 to the adjacent buildings.

Tree T3 is an uneven collection of seven multistems that would have arisen when the tree was cut down as a coppice in the past. There is some decay evident in the smaller stems. It is infested with ivy growth although the ivy is being controlled in the other trees in this group. It is suppressed on the north side by tree T5.

Tree T4 has an unbalanced crown growing towards the south over the roof of the dental centre and is suppressed on its north side by tree T1. The principal of the dental surgery has indicated that the overhanging trees are causing similar maintenance issues with leaf /branch fall/sap drip as to the buildings to the north side of the site.

Tree T5 is the most substantial tree on the site and is likely to have a useful remaining life of up to 40 years. It is suppressed on its north side by trees T2 and T3 and its crown is growing above the roof of the dental centre thus causing the maintenance issues already alluded to. T5 has a compression fork at 2.5m height and there is a bulge or rib present on the trunk's west face. This indicates that 'reaction' wood has grown over an area of weakness and a crack may be present between the two stems under the 'reaction' wood. This may indicate a point of instability and possibly failure in the future. The bulge is indicated in image 3 on the next page.

2.1 Tree References T1-T5 (*Sycamore-Acer pseudoplatanus*) Continued



Image 3: Close up view of the west face of Tree T5's trunk showing Pronounced bulge or Rib between two stems in a compression fork

3.0 LIST OF RECOMMENDATIONS ARISING FROM THE AIA

3.1 It is not possible to retain any of the surveyed trees within the current Dental Centre Extension Proposal as indicated on drawing nr. 274/01. Sycamore is a very widespread tree which is currently not under any significant threat from tree diseases such as those that are currently affecting Ash and Alder trees. In our opinion, it would not present a significant loss to the urban streetscape if they are removed as they are 'forest' trees not well suited to the confined space that they are currently growing in. A planted courtyard is proposed to the new building's rear for patients and staff to enjoy and we recommend the planting of two attractive fastigate tree species such as the Sweet Gum Liquidamber styraciflua 'Slender Silhouette' with a girth of 18-20cm and height of 4.5 metres. These are slender trees that will be not much more than 1m in crown width.

The local authority may wish to replace the felled Sycamores with more long lived trees such as Oak and Beech in a nearby parkland locations.

- 3.2 The arborist employed to fell the trees must provide a comprehensive method statement to ensure the health and safety of pedestrians and their workforce while felling the trees. They must be felled in sections, the ground checked for live underground services, the stumps grinded to a depth of not less than 300mm. To prevent regrowth a proprietary stump killer must be applied to the stumps after stump grinding. The hoardings should also be removed prior to the tree felling works.
- 3.3 The tree felling works must ideally be completed outside the bird nesting season between February and July. The trees and site must be checked for nesting birds and bats protected under the Wildlife and Countryside Act 1981 (Ref. 4) and advice sought if protected species are evident.
- 3.4 The local authority should be given notice that the trees are being felled in case there are highways implications.
- 3.5 Neighbouring landowners should be informed of the tree felling works so that they are made aware of the proposed felling works.

APPENDIX: (with documents bound in sequence listed below):

**Tree Survey Schedule to BS 5837 (2012) including descriptions and recommendations
Tree Condition Survey and Tree Constraints Drawing Number 274/01**

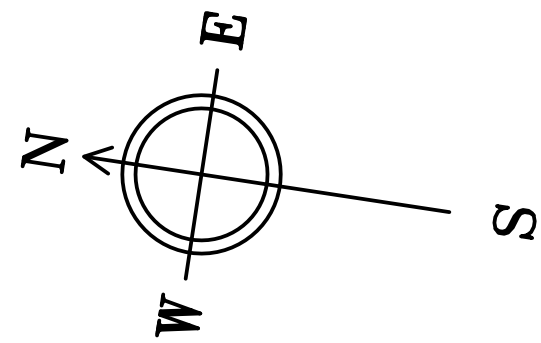
Reference 1: BS 5837: Trees in Relation to Construction 2012. British Standards Institute.

Reference 2: BS 3998: Recommendations for Tree Work 2010. British Standards Institute.

Reference 3: Cranfield University /Natural Soil Resources Institute Soils Maps. Published by www.landis.org.uk

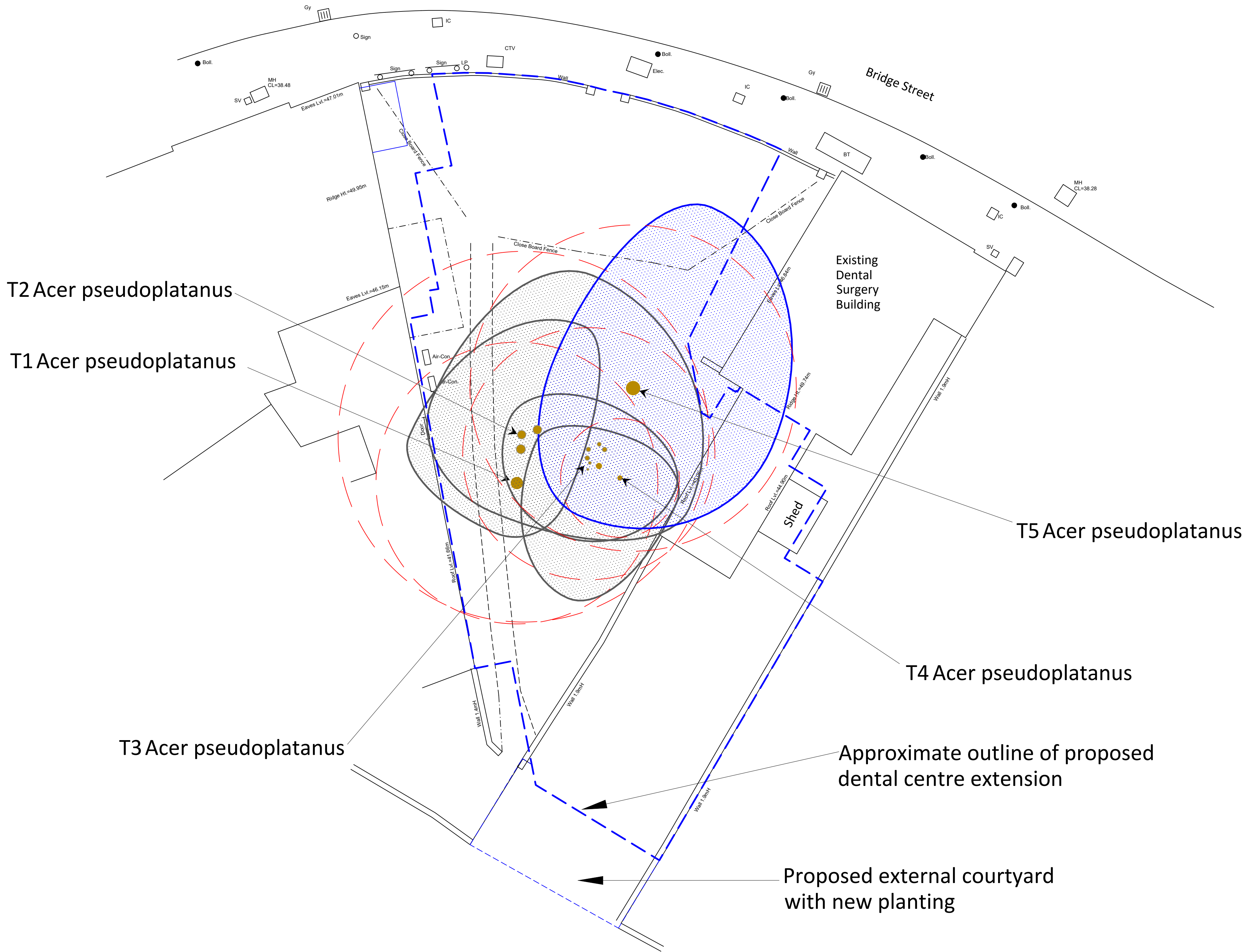
Reference 4: Wildlife and Countryside Act 1981 and associated Acts such as the CROW Act 2000. Available on line from www.legislation.gov.uk

TREE CONDITION SURVEY SCHEDULE (For further details and explanations of notations see associated arboricultural report)																
Ref	Species	Category	Height	Stem Ø	Canopy Spread Nth Est Sth Wst			Crown Clear Ht.	Age Class	Phys. Cond.	Struct. Cond.	Vigour	Est. Rem. Lifespan	RPA area	RPA radius	Description & Recommendations
T1	Acer pseudoplatanus	C2	25.6	480	4.8	6.9 2.2	2.1	4	SM	F	P	NV	10-20 Years	102m²	5.7m	Straight bole, suppressed on east side, fully leafed out, & 1.8m tall decay column on west & south of trunk.
T2	Acer pseudoplatanus Msx3	C2	25.6	345, 350, 370	4	7.1 3.3	7.3	4.2	M	F	F	NV	20-40 Years	177m²	7.5m	3 stems, fully leafed out, suppressed on south side, ivy removed, & decay evident at butt level.
T3	Acer pseudoplatanus Msx7	C2	23.6	185, 180, 190, 165, 117, 220, 90	3.5	2.15 3.5	3.8	1.7	SM	F	F	NV	20-40 Years	81m²	5.1m	Coppiced in past to create unbalanced multistem, ivy infested, fully leafed out, & uneven crown.
T4	Acer pseudoplatanus	C2	23.6	190	3.7	1.65 5.3	2.5	3.5	SM	F	F	NV	10-20 Years	18m²	2.4m	Suppressed on north side by T4, uneven crown to south over building, & ivy infested.
T5	Acer pseudoplatanus	B2	27.6	560	3.4	7.97 5.6	6.1	6.2	M	G	F	NV	20-40 Years	137m²	6.6m	Double stemmed at 2.5m, full crown unbalanced to north, tall canopy, ivy controlled, fully leafed out, rib evident on west face between compression fork where double stem joins.
Note 1: Msx2 inserted after species indicates a multistemmed tree with stem nrs indicated. The basal DBH diameter is calculated using the formulae in section 4.6 of BS5837 (2012) & as illustrated in figure C1 of BS 5837.																
Note 2: Quality categories A-C & U refer to categories described in table 1 section 4.5 of BS 5837:2012. Subcategories are: (1) Mainly arboricultural values (2) Mainly Landscape Values (3) Mainly Cultural values.																
Note 3: DBM (Stem Ø)= Diameter of tree at breast height taken at approximately 1.5 metre height from ground level. Multistemmed trees (msx....) are shown with combined diameters according to BS5837.																
Note 4: Branch spread or canopy shape is measured along the cardinal points of North(N), East(E), South(S), and West(W) measured from the trunk centre. All measurements are in linear metres unless otherwise stated.																
Note 5: The crown clearance height is the approximate distance between the prevailing ground level and first set of overhanging branches in the tree canopy.																
Note 6: Age class categories are abbreviated: J=Juvenile SM=Semi Mature or M=Mature. Vigour categories are abbreviated as follows: LV= Low vigour NV= Normal vigour HV=High vigour.																
Note 7: RPA is the Root Protection Area measured in m2 around each tree. The root protection radius is measured in metres from the centre of the tree trunk.																
Note 8: Tree highlighted in grey tone above need to be felled and grubbed up or relocated to a new location if viable.																



Tree Survey Schedule

Ref	Species	Category	Height	Stem Ø	Canopy Spread			Crown	Age	Phys.	Struct.	Vigour	Est. Rem.	RPA	RPA	Description & Recommendations	
					Nth	Est	Sth	Wst	Clear Ht.	Class	Cond.	Cond.	Lifespan	area	radius		
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Tree Survey Key to BS5837(2012)

- Category B2 trees**
(Trees of moderate quality with an estimated remaining lifespan of at least 20 years)
- Category C2 trees**
(Trees of low quality with an estimated remaining lifespan of at least 10 years)
- Tree Root protection area (RPA)**
- Outline of Proposed Dental Centre Extension**



Rev.	Modifications	By	Date

Purpose of issue & file reference: For Planning Application			
PROJECT TITLE: Land by Riverside Dental Centre, Caversham, Reading			
DRAWING TITLE: Tree Condition Survey and Tree Constraints Plan			
Client: Riverside Dental Centre		Drawing Number: 274/01	
Drawn by: TB/TG	Checked by: TG	Scale: 1:100	Date: 24/05/2017