



Metz Way/ Abbeymead Avenue

Arboricultural Report

COGL43041187 ABR Revision 0

July 2016



Document Control Sheet

Project Name:	Metz Way/ Abbeymead Avenue
Project Number:	COGL43041187
Report Title:	Arboricultural Report
Report Number:	ABR Revision 0

Issue Status/Amendment	Prepared	Reviewed	Approved
Rev 0	Name: Ellen Boardman Signature:  Date: 25/07/16	Name: Michael Peile Signature:  Date: 27/07/16	Name: Andrew Warwick Signature:  Date: 27/07/16
	Name: Signature: Date:	Name: Signature: Date:	Name: Signature: Date:
	Name: Signature: Date:	Name: Signature: Date:	Name: Signature: Date:
	Name: Signature: Date:	Name: Signature: Date:	Name: Signature: Date:

Contents

1	Introduction	1
1.1	Purpose of Report	1
1.2	Site Situation	1
1.3	Proposed Works	1
1.4	Tree Preservation Orders & Conservation Areas	2
2	Tree Survey Methodology and Application	3
2.1	Introduction BS 5837 2012	3
2.2	Survey Methodology & Limitations.....	3
3	Tree Survey Data Interpretation.....	4
3.1	Data Interpretation.....	4
3.2	Tree Constraints.....	5
3.3	Tree Protection	5
4	Conclusions and Recommendations	7
4.1	General Recommendations	7

1 Introduction

1.1 Purpose of Report

The survey was undertaken and written by Ellen Boardman BSc (Hons), Tech Arbor A, Environmentalist, Amey, to inspect trees on the proposed junction improvement schemes, as part of the Metz Way and Abbeymead Avenue Corridor development. The survey was undertaken in accordance with BS5837:2012, Trees in relation to design, demolition and construction – Recommendations. The survey captured significant trees on the site and on neighbouring land adjacent to the development boundary where they may affect or be affected by proposals.

1.2 Site Situation

This report focuses on the two following sites of the proposed schemes;

- Metz Way and Eastern Avenue
- North Upton Lane and Abbeymead Avenue

Both are situated to the south east of Gloucester city centre.

1.3 Proposed Works

The scheme has been designed to increase queueing capacity at the junctions and reduce delays. There will also be provision for bus priority to prevent bus delays. Shared use footways/cycle ways will be included within the scheme.

Metz Way and Eastern Avenue

- The carriageway will be widened into the existing verge area.
- The carriageway will be widened to extend the existing left turn lane on the southern side of the road.
- The carriageway will be widened on the northern side to accommodate the extended three lane approach.

Metz Way and North Upton Lane

- Carriageway will be widened on the north side to increase the left hand turn lane capacity.
- The existing shared use footway will be widened.

Project Name Metz Way/ Abbeymead Avenue
Document Title Arboricultural Report



- Land will be purchased to accommodate the widening.
- Crossing facilities will be improved.

1.4 Tree Preservation Orders & Conservation Areas

The presence of Tree Preservation Orders and Conservation Areas has not been confirmed for the purpose of this report.

2 Tree Survey Methodology and Application

2.1 Introduction BS 5837 2012

The British Standard is intended for use to assist with the retention of existing trees and provision of new trees within a development. A phased process, it begins with a tree survey to ascertain the number and condition of the trees onsite. The tree survey data with calculated root protection areas illustrates the impact of the proposals on the existing trees.

The data can be used further to produce a Tree Protection Plan and Arboricultural Method Statement.

2.2 Survey Methodology & Limitations

The trees have been inspected visually only. No investigation has been carried out into their internal condition. Further investigations can be made and will be recommended where necessary but are beyond the scope of this report.

This is an above-ground inspection only. Soil type has not been ascertained on site. This report is not concerned with the possible influence of tree root activity on the proposed final development.

Trees were inspected and recorded individually and as groups.

Generally only trees with a stem diameter over 75mm would be included within the survey. However there are amenity trees that have been planted adjacent to the scheme with a stem diameter of less than 75mm, these have been included for completeness.

Estimated stem diameters are indicated with a hash symbol (#).

The location of existing service routings has not been investigated within this survey.

This report is valid for one year from the date of site inspection. The condition of trees can change following severe weather conditions or due to the effect of pests and diseases or other abiotic factors, and therefore may warrant re-inspection of affected trees at a shorter interval than recommended in this report.

3 Tree Survey Data Interpretation

3.1 Data Interpretation

Metz Way and Eastern Avenue;

This part of the survey inspected a total of 21 individual trees.

In terms of public visual amenity value, the trees have a broadly equal impact.

The trees surveyed consist of six species; birch, Norway maple, cherry, pine, larch and robinia.

The structural condition of the trees within the scheme is predominantly good.

The physiological condition of the trees within the scheme is generally good although there are some stunted trees that are considered to be in poor condition.

The trees on this scheme fall within British Standard 5837:2012 categories B and C.

There are no trees onsite that fall within category A of BS 5837:2012.

There are 5 individual trees that fall within category B of BS 5837:2012.

There are 16 trees that fall within category C of BS 5837:2012.

There are no trees that fall within category U of BS 5837:2012.

North Upton Lane and Abbeymead Avenue

This part of the survey inspected a total of 15 individual trees and one group.

In terms of public visual amenity value, the trees have a broadly equal impact.

The trees surveyed consist of three species; Norway maple, pine and field maple.

The structural condition of the trees within the scheme is good and fair.

The physiological condition of the trees within the scheme is good.

The trees within this scheme fall within British Standard 5837:2012 categories B and C.

There are no trees onsite that fall within category A of BS 5837:2012.

There are 12 individual trees that fall within category B of BS 5837:2012.

There are three individual trees and one group that fall within category C of BS 5837:2012.

There are no trees that fall within category U of BS 5837:2012.

3.2 Tree Constraints

Work for this scheme will impact the rooting areas of trees.

Access facilitation pruning will be required to implement the scheme as well as to provide the required clearance for a footway.

Root protection areas are illustrated on the Tree Survey Plan.

Metz Way and Eastern Avenue

Tree impact will depend on the construction methods and working space required. Trees 7, 8, 10, 13, 14, 15, 16, 17 and 18 will need to be removed.

Trees 1, 2, 3, 4, 5, 6, 9, 11 and 12 may be able to be retained if appropriate working methods are employed. However if the rooting area is compromised these trees may need to be removed.

North Upton Lane and Abbeymead Avenue

Trees 1 to 15 inclusive will need to be removed according to the current proposals.

3.3 Tree Protection

A number of trees will be directly impacted by the works. Tree protection areas will be fenced using an approved fencing system. In the majority of areas fences are to be constructed to the minimum recommended root protection area. This will be advised onsite by the Arboriculturist.

Protective fences are to comply with BS 5837 2012. The fencing is to have all weather notices attached 'Construction Exclusion Zone – No Access'.

No materials are to be stored in this area and no construction activity to take place.

Care should be taken storing materials whose accidental spillage could damage protected trees due to the topography of the site. Such materials should be stored and handled away from the root protection area.

Any branches that extend over this protective fencing can be pruned by a competent arborist.

If any roots over 25mm diameter are found work must stop and the Amey arboriculturist should be contacted.

Any third party trees that are potentially compromised by the works should be reported to the owner or Local Authority so they can be monitored for signs of ill health.

4 Conclusions and Recommendations

4.1 General Recommendations

Working methods and construction area shall be discussed onsite with the project manager and Arboriculturist prior to any work beginning onsite.

A number of trees will require pruning prior to works commencing. This will provide adequate clearance for both construction and safe passage of pedestrians upon completion of the scheme. Future pruning will be needed to ensure adequate clearance is maintained in line with the Highways Act 1980.

Appropriate work methods will be needed within root protection areas. Any third party trees that are potentially compromised by the works should be reported to the owner or Local Authority so they can be monitored for signs of ill health.

Any replanting shall be done in accordance with BS 8545 2014.



Tree Survey

Metz Way and Eastern Avenue

Tree Ref	Species	Height (m)	Stem Diameter (mm)	Crown Spread (m)	Age	Condition		Est contribution (years)	Tree Category
						Structural	Physiological		
T1	Pine	7	300	6	EM	Good	Good	>20	B
T2	Pine	4	150	4	Y	Good	Good	>20	B
T3	Birch	7	200	7	EM	Good	Good	>40	B
T4	Larch	4	75	2	Y	Fair	Poor	>10	C
T5	Larch	4	75	2	Y	Fair	Poor	>10	C
T6	Birch	5	100	4	EM	Good	Good	>40	B
T7	Cherry	8	240	6	EM	Good	Good	>40	C
T8	Cherry	8	240	6	EM	Good	Good	>40	C
T9	Birch	4	15	4	EM	Good	Good	>40	B
T10	Cherry	7	25	7	EM	Good	Good	>40	C
T11	Larch	5	150	4	Y	Fair	Poor	>10	C
T12	Larch	5	150	4	Y	Fair	Poor	>10	C
T13	Birch	7	150	5	EM	Good	Good	>40	C
T14	Cherry	8	200	8	EM	Good	Good	>40	C
T15	Cherry	8	200	8	EM	Good	Good	>40	C
T16	Cherry	8	250	8	EM	Good	Good	>40	C
T17	Birch	4	150	4	EM	Fair	Good	>20	C
T18	Birch	5	150	5	EM	Good	Good	>20	C
T19	Norway maple	8	220	6	EM	Good	Good	>40	C



T20	Norway maple	8	220	6	Em	Good	Good	>20	C
T21	Robinia	9	800	10	Sm	Good	Good	>20	C

North Upton Lane and Abbeymead Avenue

Tree Ref	Species	Height (m)	Stem Diameter (mm)	Crown Spread (m)	Age	Condition		Est contribution (years)	Tree category
						Structural	Physiological		
T1	Pine	12	450	6	M	Good	Good	>20	B
T2	Norway maple	8	200	7	SM	Good	Good	>40	B
T3	Pine	12	600	6	M	Good	Good	>20	B
T4	Norway maple	9	250	7	SM	Good	Good	>40	B
T5	Norway maple	10	25	6	SM	Good	Good	>40	B
T6	Norway maple	9	200	5	SM	Good	Good	>40	B
G1	Norway maple	9	200	5	SM	Fair	Good	>20	C
T7	Norway maple	10	300	8	SM	Good	Good	>40	B
T8	Norway maple	10	350	9	SM	Good	Good	>40	B
T9	Norway maple	10	300	7	SM	Fair	Fair	>20	C
T10	Field maple	9	250	7	SM	Good	Good	>40	B
T11	Field maple	10	250	8	SM	Good	Good	>40	B
T12	Field maple	9	300	4	SM	Good	Good	>40	B
T13	Field maple	9	250	4	SM	Good	Good	>40	B
T14	Norway maple	9	400	6	SM	Fair	Good	>20	C
T15	Norway maple	9	600	5	SM	Fair	Good	>20	C

Root Protection areas

Metz Way and Eastern Avenue

Tree Ref	Species	Stem Diameter (mm)	Root Protection Radius RPR (m)	Root Protection Area (m2)
T1	Pine	300	3.6	41
T2	Pine	150	1.8	10
T3	Birch	200	2.4	18
T4	Larch	75	0.9	3
T5	Larch	75	0.9	3
T6	Birch	100	1.2	5
T7	Cherry	240	3	28
T8	Cherry	240	1.8	10
T9	Birch	150	1.8	10
T10	Cherry	250	3	28
T11	Larch	150	1.8	10
T12	Larch	150	1.8	10
T13	Birch	150	1.8	10
T14	Cherry	200	2.4	18
T15	Cherry	200	2.4	18
T16	Cherry	250	3	28
T17	Birch	150	1.8	10
T18	Birch	150	1.8	10
T19	Norway maple	220	2.7	23
T20	Norway maple	220	2.7	23
T21	Robinia	800	9.6	2.9

Project Name Metz Way/ Abbeymead Avenue

Document Title Arboricultural Report



North Upton Lane and Abbeymead Avenue

Tree Ref	Species	Stem Diameter (mm)	Root Protection Radius RPR (m)	Root Protection Area (m2)
T1	Pine	450	5.4	92
T2	Norway maple	200	2.4	18
T3	Pine	600	7.2	163
T4	Norway maple	250	3	28
T5	Norway maple	25	3	28
T6	Norway maple	200	2.4	18
G1	Norway maple	200	2.4	18
T7	Norway maple	300	3.6	41
T8	Norway maple	350	4.2	55
T9	Norway maple	300	3.6	41
T10	Field maple	250	3	28
T11	Field maple	250	3	28
T12	Field maple	300	3.6	41
T13	Field maple	250	3	28
T14	Norway maple	400	4.8	72
T15	Norway maple	600	7.2	163