TREE SOLUTIONS



Arboricultural Impact Assessment

Alliance Manchester Business School

Prepared for:

Halliday Meacham Architects

Our Ref: 26/AIA/MAN/52

March 2026

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1.0 INSTRUCTION

1.1 We have been instructed by Halliday Meacham Architects to undertake an Arboricultural Impact Assessment (AIA) to evaluate the proposed development in relation to existing trees on site. This assessment has been carried out in accordance with the principles and guidance set out in British Standard 5837:2012 *'Trees in Relation to Design, Demolition and Construction - Recommendations'*.

1.2 We have been instructed to prepare this report to assist all parties involved in the planning process in making informed and balanced judgements regarding arboricultural features in relation to the proposed works at Alliance Manchester Business School, Booth St W, Manchester, M15 6PB. Accordingly, all trees within influencing distance of the proposed works both on-site and on adjacent land have been surveyed. These trees are detailed within the Tree Survey Schedule (Appendix 1) and are plotted on all relevant accompanying plans.

1.3 A Stage 1 tree survey was carried out in March 2026. The appraisal of the mechanical integrity of the trees on site is considered sufficient to inform the current development proposal.

1.3.1 The assessment was conducted from ground level and did not involve any invasive investigations. Consequently, the potential presence of concealed or subsurface defects cannot be fully ruled out. While the primary purpose of the survey was not to assess tree safety, any obvious structural defects considered significant in the context of the existing or proposed land use have been recorded.

1.3.2 It should be noted that detailed tree safety inspections fall outside the scope of this report, unless such assessments were explicitly instructed in writing.

1.4 Four individual trees (T1-T4) were surveyed and mapped on a Preliminary Tree Constraints & Impact Assessment Plan Ref: 26/AIA/MAN/52, Drawing No. 1 & 2 at ***Appendix 2***. All arboricultural information recorded during the survey is presented within a schedule at ***Appendix 1***.

1.5 The Arboricultural Impact Assessment is based on the latest proposed layout plan Ref: 5928-HMA-AMBS-00-DR-A-00002 (Rev P2) provided by Halliday Meacham Architects.

2.0 PLANNING POLICY & STATUTORY CONTROLS

2.1 Relevant Local Planning Policy

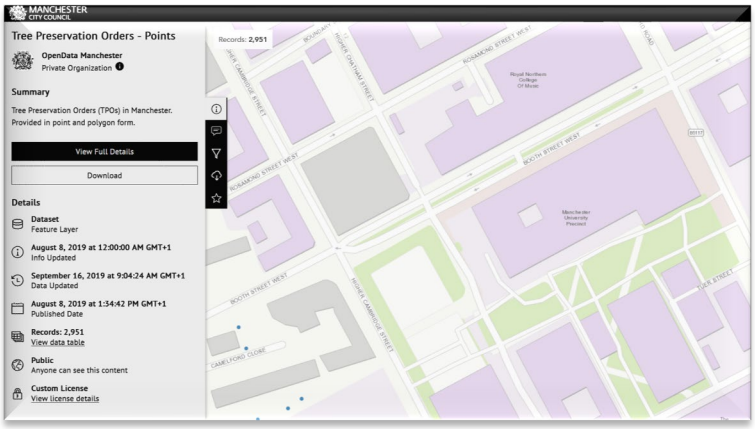
2.1.1 The planning application will be assessed against the relevant policies of the Manchester Core Strategy (2012) and saved policies of the Manchester Unitary Development Plan. Policy EN9 (Green Infrastructure), Policy EN10 (Safeguarding Open Space) and Policy EN12 (Urban Design) are relevant, as they support the protection and integration of trees, landscaping and wider green infrastructure within development proposals. Relevant Supplementary Planning Documents will also be material considerations, together with the requirements of the National Planning Policy Framework (2024).

2.1.2 This report has been prepared in accordance with the guidance and recommendations set out in *BS 5837:2012*, which provides nationally recognised best practice for the integration of trees within the planning, design, and construction process.

2.2 Protected Trees

2.2.1 A review of Manchester City Council's online mapping system indicates that no trees within the site are subject to a Tree Preservation Order. It has not been possible to confirm whether the site lies within a designated Conservation Area; however, as no tree works are proposed as part of this application, this does not present a constraint to the development.

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P1 – Extract from MCC interactive map showing no TPO trees

2.3 Protected Species

2.3.1 Mature trees often feature cavities, crevices, and hollows that provide potential roosting or nesting sites for protected species, notably bats and barn owls. Both species are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), as well as The Conservation of Habitats and Species Regulations 2017 (as amended), which incorporates the provisions of the former 2007 Regulations. Any works affecting such trees must be preceded by appropriate ecological surveys and, if necessary, mitigation measures to ensure legal compliance.

2.5 Wildlife Habitats

2.5.1 Trees and hedgerows of various species offer valuable nesting habitat for a wide range of birds. It is likely that nesting birds will be present on site during the breeding season, typically from March to September. As such, any vegetation clearance or tree works during this period should be preceded by a nesting bird check conducted by a suitably qualified ecologist. Works should be delayed if active nests are identified, in line with wildlife protection legislation.

3.0 THE SITE

3.1 The application site comprises an area of communal landscaped grounds located to the south of Alliance Manchester Business School. The site is currently laid to grass with linear planting beds around the boundaries. Trees are located within the southern boundary, beyond which lies a public footpath.



P1 – Existing area laid to grass with trees on boundary

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4.0 DEVELOPMENT PROPOSAL

4.1 The proposal seeks planning permission for the installation of new café doors and the creation of an associated outdoor seating area.

5.0 GENERAL CONSTRAINTS DATA - CONSTRUCTION EXCLUSION ZONES (CEZ's)

5.1 GENERAL

5.1.1 *During the development process, there may be three or even four key constraints to consider in relation to retained trees. These include:*

1. ***Construction Exclusion Zones (CEZ):*** *Areas around retained trees where no construction activity, ground compaction, or material storage is permitted, to protect the root system and overall tree health.*
2. ***Crown Protection Areas (or CEZ 2):*** *Above-ground space required to accommodate the tree's existing and future crown spread, including allowances for safe working distances and potential pruning limits.*
3. ***Root Protection Areas (RPA):*** *Below-ground zones defined to safeguard the tree's root system, as per BS5837:2012 guidelines, where development and soil disturbance are strictly limited.*
4. ***Working Space Buffers (if applicable):*** *Additional space around CEZ or RPA boundaries required to ensure safe access for construction personnel and machinery, without compromising tree protection measures.*

5.2 ROOT PROTECTION AREA (RPA)

5.2.1 The RPA, expressed in square metres (m^2), must be protected both prior to and throughout any demolition or construction activities. This protection is essential to ensure the successful retention of trees by safeguarding a sufficient quantity of viable, functioning roots.

The RPA is derived from a radial measurement taken from the centre of the tree stem. For single-stemmed trees, this is calculated by multiplying the stem diameter (measured at 1.5 m above ground level) by a factor of 12. For multi-stemmed trees, the calculation is based on the formula: (mean stem diameter^2) × number of stems**.**

5.2.2 During the Arboricultural Impact Assessment (AIA) process, this radial distance is converted by the Arboriculturalist into an actual area to be protected, considering the specific site conditions and any environmental or developmental influences that may have impacted the tree's rooting pattern.

Initially, the RPA for each tree should be represented as a circle centred on the base of the stem. However, where site conditions suggest asymmetric rooting due to factors such as physical obstructions, topography, or historic ground disturbance a polygon of equivalent area may be substituted. Any deviation from a circular RPA must be underpinned by a robust arboricultural assessment, accurately reflecting the likely distribution of roots.

5.2.3 The RPA shall be protected by the installation of appropriate tree protection fencing prior to the commencement of any works and retained for the duration of the development. No potentially harmful activities shall take place within this area, including excavation, soil stripping, storage of materials, level changes or the installation of impermeable surfaces. Where works are required in close proximity to retained trees, additional measures such as temporary ground protection or low-impact construction techniques may be necessary to minimise disturbance to the rooting environment.

5.3 CEZ 2: TREE CROWN PROTECTION ZONE

5.3.1 The Tree Crown Protection Zone (CEZ 2) is defined as the area above ground occupied by the crown (branch structure) of a tree, including an allowance for safe working distances and, where appropriate, anticipated future crown development. The extent of CEZ 2 is determined by considering the current and projected crown spread, with reference to any acceptable levels of pruning in accordance with *BS 3998:2010 – Tree Work Recommendations*.

5.3.2 Trees are small semi-mature specimens with their canopies clear of all development works. Subsequently, no access facilitation pruning is required to carry out the proposed works.

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5.4 CEZ 3: TREE DOMINANCE ZONE

5.4.1 This is not considered applicable given the non-residential nature of the proposed development. Furthermore, all retained trees are set well back from the proposed works.

5.5 CEZ 4: NEW PLANTING ZONE

5.5.1 Refer to landscape proposals.

6.0 SURVEY METHODOLOGY

6.1 The method used in the preparation of this report is based on the principles of BS 5837: 2012.

1. Tree heights were surveyed to the nearest 1m
2. Trunk diameters were measured by use of forestry girth tape
3. The category assessment (Table 1) on which the trees is based include current and long-term arboricultural, landscape, cultural and conservation values (BS5837: 2012). This table can be found at ***Appendix 1***
4. For clarity, the grading system is summarised from ***Table 2*** of the BS as follows:

U grade – trees for removal, effective for less than 10 years

A grade – trees of high quality and value, effective for more than 40 years

B grade – trees of moderate quality and value, effective for more than 20 years

C grade – trees of low quality and value, effective for 10 years

Note: We have indicated colour coding on the drawing and therefore a monochrome copy should not be relied on.

6.2 SOIL ASSESSMENT

6.2.1 Tree Solutions Ltd does not undertake soil investigations as part of this commission. The client is therefore advised to seek specialist geotechnical or soil science expertise where site-specific soil assessment is required to inform the design, construction methodology, or future landscape management.

7.0 JUXTAPOSITION OF TREES AND STRUCTURES

7.1 Below ground constraints

7.1.1 The below ground constraints are generally summarised as the RPA. The shape of the RPA and its exact location will depend upon arboricultural considerations including likely tolerance of the tree to root disturbance; morphology and disposition of the roots when known influenced by past or existing site conditions; soil type and structure; and topography and drainage.

7.1.2 The purpose of the RPA is to prevent physical damage to tree roots and to prevent damage to the soil structure. Tree roots are damaged by soil compaction, changes in soil levels or soil contamination which could reduce tree health and/or stability.

7.1.3 In accordance with BS 5837:2012, the RPAs have been determined based on stem diameter measurements and adjusted to reflect on-site conditions that are likely to influence root morphology. Root development is affected by both site topography and the physical characteristics of the soil or substrate. Where trees are located adjacent to existing hard surfaces or below-ground obstructions, lateral root spread may be constrained due to compacted subgrades and structural barriers.

7.1.4 The RPA of all trees have been plotted as standard circular areas based on stem diameter measurements recorded during the tree survey, as no significant below-ground constraints were identified that would justify deviation from the default model.

7.2 Underground Services

7.2.1 There are no proposed services routes within the RPA of trees.

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8.0 Arboricultural Impact Assessment Summary

8.1.1 A detailed tree survey was undertaken by Tree Solutions Ltd in accordance with BS5837:2012. All trees and arboricultural features within and adjacent to the site were recorded, including species, dimensions, physiological and structural condition, and categorised in accordance with the Standard. RPAs were calculated and plotted on a Tree Constraints Plan, which informed the design process and the preparation of the Tree Constraints and Arboricultural Impact Assessment Plan.

8.1.2 The proposed layout has been developed with full regard to the arboricultural constraints of the site. No trees require removal to facilitate the development, and all works are located outside the RPAs of retained trees. The design prioritises the retention of higher-quality trees, particularly those forming the site boundaries, with all built development and associated infrastructure positioned outside Construction Exclusion Zones in accordance with BS5837:2012.

8.1.3 All retained trees will be protected throughout the demolition and construction phases through the implementation of the submitted Arboricultural Method Statement and Tree Protection Plan. Subject to adherence to these measures, the development will not adversely affect the health, stability or long-term viability of retained trees.

9.0 PROPOSED REVISIONS TO THE SCHEME

9.1 Any revisions to the scheme with potential implications for retained trees or their RPAs should be reviewed by the project arboriculturist to ensure continued compliance with BS5837:2012 and best practice guidance.

10.0 CONCLUSIONS

10.1 The proposed development has been designed in accordance with BS5837:2012, with arboricultural considerations informing the layout from the outset. The scheme retains all trees and responds appropriately to the identified site constraints.

10.2 No tree removal is required to facilitate the development, and all works are located outside the RPAs of retained trees. As such, the proposals will not result in any adverse impact on the character or amenity of the site.

10.3 All retained trees will be safeguarded through the implementation of the Arboricultural Method Statement and Tree Protection Plan submitted in support of this application. Subject to adherence to these measures, the development will not adversely affect the health, stability or long-term viability of retained trees.

10.4 There are no arboricultural constraints that would warrant refusal of the application.

11.0 LIMITING CONDITIONS

Unless stated otherwise, the following conditions apply:

- The information contained in this report pertains only to the trees that were inspected and reflects their condition at the time of the survey.
- The findings and recommendations within this report are considered valid for a period of two years from the date of inspection.
- The inspection was limited to a visual assessment from ground level only. No invasive investigations such as dissection, excavation, probing, or coring were undertaken. As such, no warranty or guarantee, express or implied, is offered that undetected issues may not arise in the future.
- This report has been prepared solely for the use and benefit of the client. Tree Solutions Ltd accepts no liability or responsibility to any third party.
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Appendix One

Tree Survey Schedule

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TREE SURVEY SCHEDULE (BS5837: 2012)

TREE SOLUTIONS

SITE:	ALLIANCE MANCHESTER BUSINESS SCHOOL
CLIENT:	HALLIDAY MEACHAM ARCHITECTS LTD
BRIEF:	ARBORICULTURAL IMPACT ASSESSMENT & METHOD STATEMENT

SURVEYOR:	A. HENDERSON
ASSESSMENT DATE:	MARCH 2026
VIEWING CONDITIONS:	CLEAR
JOB REFERENCE:	26/AIA/MAN/52

TREE NO. T - Tree G - Group H- Hedge	SPECIES (COMMON NAME)	AGE	HEIGHT (m) + CROWN CLEARANCE/ DIRECTION OF GROWTH (N.S.E.W)	RADIAL CROWN SPREAD (m) N	S	E	W	STEM/ MULTI-STEM* DIA. (mm)	VITALITY	COMMENTS	MANAGEMENT	CATEGORY & SUB-CATEGORY GRADING BS 5837	BS 5837 RADIUS (m) RPA (m^2)
G1	Pin Oak x 4	SM	7 1N	1.2	1.2	1.2	1.2	≤120	G	• Extra Heavy standards planted as part of wider landscaping of grounds • All trees have established well and show no signs of educed vigour although this is difficult to quality as they are dormant • Attractive landscape feature and offer high amenity value to site and wider area • E.R.C.20+	• No works	B2	1.5 6.5m²

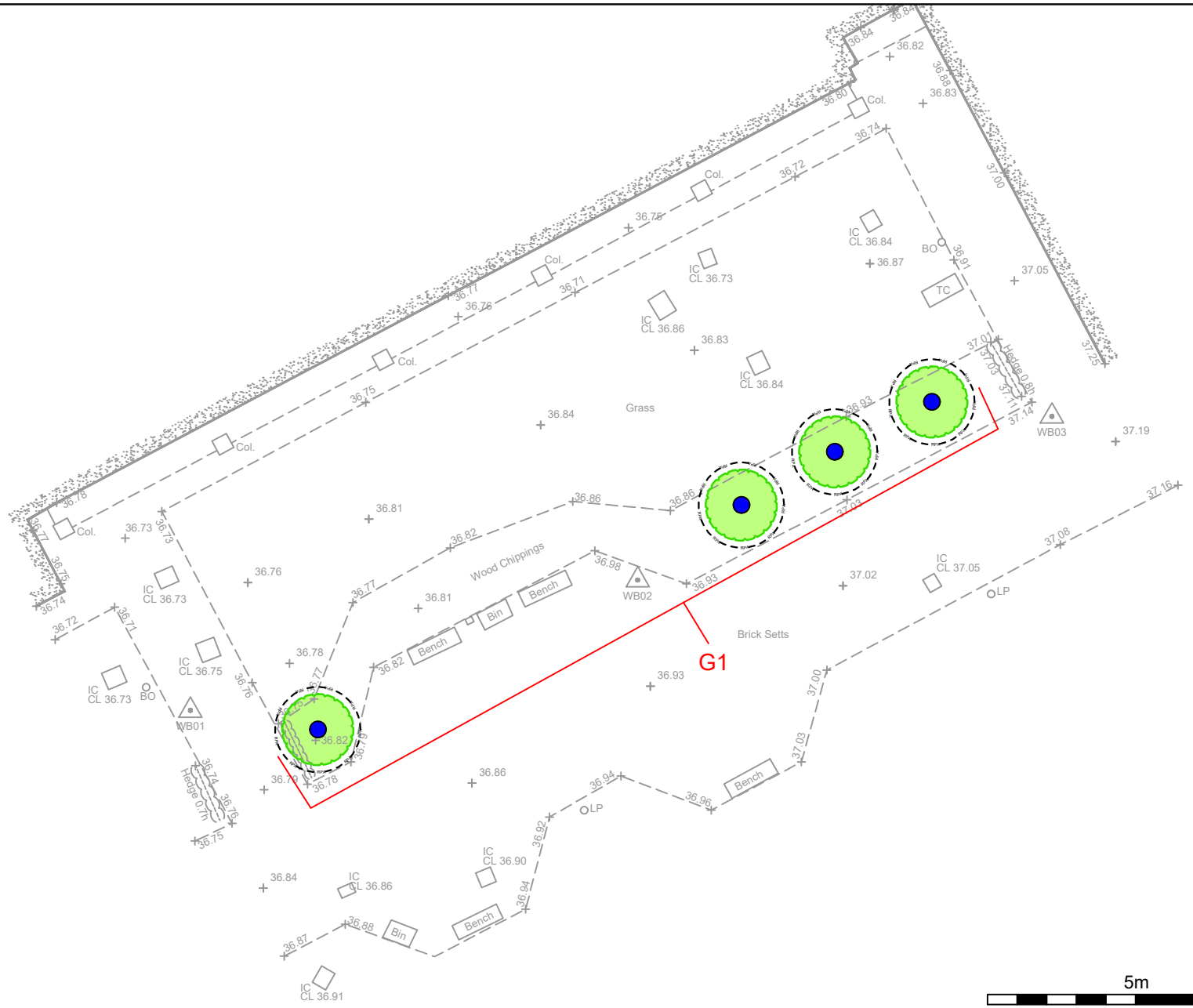
HEADINGS & ABBREVIATIONS

TREE NO.	REFERENCE NUMBER. REFER TO PLAN OR NUMBERED TAGS WHERE APPLICABLE (T = TREE, G = GROUP, H = HEDGE)
SPECIES:	COMMON NAME (LATIN NAMES AVAILABLE ON REQUEST)
AGE RANGE/LIFE STAGE:	Y = YOUNG, SM = SEMI MATURE, EM = EARLY MATURE, M = MATURE, PM = POST MATURE
HEIGHT:	ESTIMATED AND RECORDED IN METRES. APPROXIMATELY 1 IN 10 TREES ARE MEASURED USING A CLINOMETER AND THE REMAINDER ESTIMATED AGAINST THE MEASURED TREES
CROWN SPREAD:	MAXIMUM CROWN RADIUS MEASURED TO THE FOUR CARDINAL COMPASS POINTS FOR SINGLE SPECIMENS ONLY (MEASUREMENT FOR TREE GROUPS - MAXIMUM RADIUS OF THE GROUP)
CROWN CLEARANCE & DIRECTION OF GROWTH:	HEIGHT IN METERS OF CROWN CLEARANCE ABOVE ADJACENT GROUND LEVEL (TO INFORM ON GROUND CLEARANCE, CROWN/STEM RATIO AND SHADING)
STEM DIA/MULTI-STEM DIA:	STEM DIAMETER - MEASURED AT APPROXIMATELY 1.5 METRES ABOVE GROUND LEVEL OR A COMBINATION OF STEMS FOR MULTI-STEMMED TREES
VITALITY:	A MEASURE OF PHYSIOLOGICAL CONDITION. D = DEAD, MD = MORIBUND, P = POOR, M = MODERATE, G = GOOD
E.R.C. = ESTIMATED REMAINING CONTRIBUTION:	RELATIVE USEFUL LIFE EXPECTANCY (YEARS)
BS 5837CATEGORY & SUB-CATEGORY GRADING:	A = HIGH QUALITY AND VALUE, B = MODERATE QUALITY AND VALUE, C = LOW QUALITY AND VALUE, U = UNSUITABLE FOR RETENTION (SUB-CATEGORY REFERS TO ARBORICULTURAL., LANDSCAPE AND CULTURAL/CONSERVATION VALUES)
BS 5837 RADIUS & BS 5837 RPA:	PROTECTIVE DISTANCE - RADIUS FROM THE CENTRE OF THE STEM TO THE LINE OF TREE PROTECTION (CONSTRUCTION EXCLUSION ZONE - CEZ) AND PROTECTIVE BARRIER ROOT PROTECTION AREA - BS 5837 (2012) ANNEX D (THE RECOMMENDATIONS STATE THAT THE RPA SHOULD BE CAPPED AT 707 M^2) NOTE – ALL CALCULATIONS ROUNDED TO NEAREST DECIMAL

Appendix Two

Preliminary Tree Constraints Plan

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Legend

Root Protection Area Modified to Account for Site Features

Category
Crown Spread
Tree Number
Root Protection Area

- Category A (High Quality)
- Category B (Moderate Quality)
- Category C (Low Quality)
- Category U (Dead/Dying/In Decline)

Client: Halliday Meacham Architects Limited	
Project: Alliance Manchester Business School	
Title: Preliminary Tree Constraints Plan	
Scale: 1:200 at A4	Date: March 2026
Drawn By: SD	Revision: ----
Job Ref: 26/AIA/MAN/52	Drawing No: 01

Do not scale from this drawing all dimensions to be checked on site.

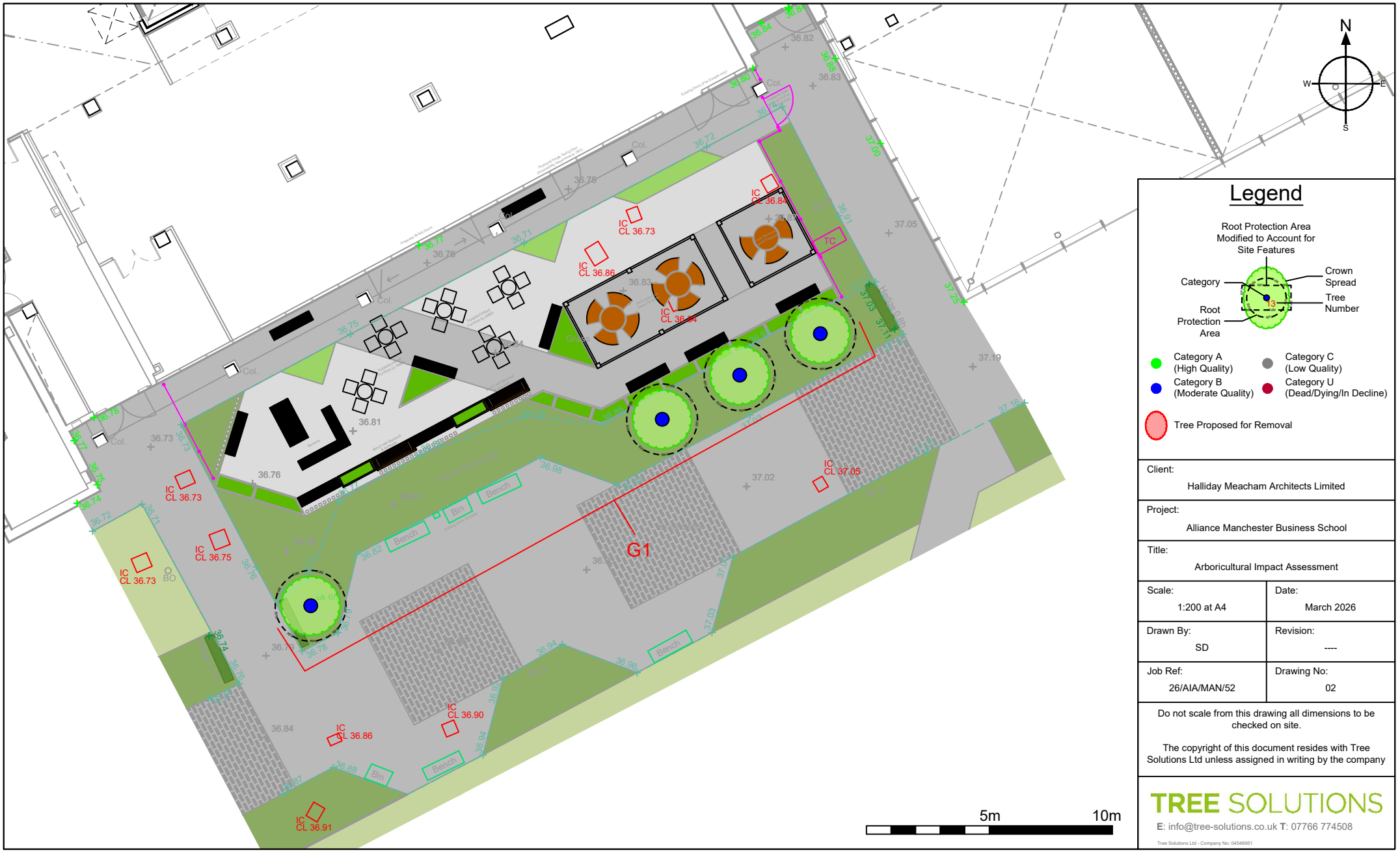
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Appendix Three

Impact Assessment Plan

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Legend

Root Protection Area Modified to Account for Site Features

Category
Crown Spread
Tree Number
Root Protection Area

- Category A (High Quality)
- Category B (Moderate Quality)
- Category C (Low Quality)
- Category U (Dead/Dying/In Decline)
- Tree Proposed for Removal

Client: Halliday Meacham Architects Limited	
Project: Alliance Manchester Business School	
Title: Arboricultural Impact Assessment	
Scale: 1:200 at A4	Date: March 2026
Drawn By: SD	Revision: ----
Job Ref: 26/AIA/MAN/52	Drawing No: 02

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