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Introduction

1. This Supplementary Planning Document (SPD) is aimed at developers, planners, tree and landscape professionals and others. It has been prepared to enable cost effective and efficient implementation of adopted Norwich Local Plan policy on trees and landscape in new development.
2. The SPD is a material consideration in the assessment of planning applications and will help to ensure that development meets national planning and environmental legislative and local policy requirements. This will help to ensure that Norwich's successful long term approach of protecting trees and enhancing landscapes, including through appropriate provision of new trees related to new development, is continued.
3. The SPD relates to strategic policies in the Joint Core Strategy, JCS1 (Climate change and Environmental Assets), JCS2 (Design), JCS 10 (Locations for major new or expanded communities in the Norwich Policy Area), JCS11 (City Centre), JCS 12 (Remainder of the Norwich urban area) and JCS20 (Implementation). These policies promote high quality landscaping to create a strong sense of place in new development, the development of green infrastructure networks and the provision and maintenance of open spaces to secure sustainable development. The SPD also supplements more detailed Development Management policies DM3 (Design), DM6 (Natural Environment) and DM7 (Trees).
4. As trees and landscape issues are cross cutting and play a vital role in ensuring development is of a high quality and is sustainable, the SPD is also relevant to a number of other policies, including DM1 (Sustainable Development), DM2 (Amenity), DM5 (Flooding), DM8 (Open Space), DM12 (Housing development) and DM28 (Sustainable travel).
5. The JCS policies are available [here](#) and the DM policies [here](#). A summary of the legal framework and the policies is in appendix 6.
6. The SPD sets out in detail the information to be submitted with planning applications to implement local plan policies. These requirements reflect current best practice on trees, landscape, design, demolition and construction. Its main purpose is to inform those involved in development of the standards that the Council will expect from new development proposals as they relate to trees and the landscape. Adherence to it will help ensure that legislative and policy requirements are met and that trees and landscape features are afforded due consideration in the planning process so that they can be successfully integrated into new developments and that landscape enhancement is considered as integral to design. By providing clarity for all those involved in

landscape and trees in the development and planning process in Norwich, the SPD will enable planning applications to be processed more efficiently.

7. The SPD also aims to encourage greater awareness of the importance of trees and landscape in development in general and to ensure early consideration is given to tree and landscape matters so that development will have a stronger sense of place and character and will help to achieve a higher quality environment.

Submission requirements

8. Table 1 provides guidance on submitting information proportionate to the nature and scale of development proposals. This information is required for the Council to reach an informed decision on development proposals development. Further details about these requirements are in parts one and two of this document.
9. In accordance with the National Planning Policy Framework, applicants are encouraged to seek pre-application advice to ensure the appropriate level of information is included with the application.
10. For environmentally sensitive, complex or major applications, professional advice should also be sought from the outset. Contact details for Landscape Architects and explanation of their services can be obtained from the Landscape Institute at www.landscapeinstitute.org

Trees and Landscape Supplementary Planning Document
Consultation draft, July 2015

Submission Material	Pre Application	Householder planning consent	Outline planning consent	Full planning consent	Full planning consent major applications
Topographical survey (or land survey/site survey)	✓	✓	✓	✓	✓
BS 5837 Tree Survey		✓	✓	✓	✓
Arboricultural Impact Assessment (AIA)		✓	✓	✓	✓
Tree Protection Plan (TPP)		✓	✓	✓	✓
Supplementary Arboricultural Method Statement (AMS)		By condition	By condition	By condition	By condition
Site analysis Plan	✓		✓		
Landscape and Visual Impact Assessment			If required by Town and Country Planning (EIA) Regulations 2011		If required by Town and Country Planning (EIA) Regulations 2011
Informal Landscape and Visual Impact Appraisal or equivalent			For sensitive sites, or conservation areas		For sensitive sites, or conservation areas
Landscape Design Statement				In design + access statement	✓
Outline landscape Scheme	✓	✓	✓	✓	
Detailed Landscape Proposals		By condition	Reserved matter and/or by condition	By condition	✓
Landscape Specification		By condition	Reserved matter and/or by condition	By condition	✓
Landscape Management Plan		By condition	Reserved matter and/or by condition	By condition	✓
Note: This table is an advisory summary of minimum requirements unless otherwise agreed or advised at Pre-application advice stage.					

Table 1 Schedule of guidance on submitting appropriate level of information

14. For approval of reserved matters relating to landscaping, material submitted should be sufficient to fulfil the requirements cited in the [Planning Portal Help Text](#) relating to application for approval of reserved matters following outline approval, i.e.:

Details should explain and justify the proposed landscaping scheme, explaining the purpose of landscaping private and public spaces on the site in terms of biodiversity, amenity, safety, appearance, accessibility and usability sustainability, and its relationship to the surrounding area.

Applications for approval of reserved matters following outline approval should also address any conditions attached to the permission.

15. For applications to remove a condition following grant of planning permission, be it outline approval or full planning permission, the material submitted should be specifically as set out within the Conditions applied, and where relevant sufficient to demonstrate compliance with those conditions.

DRAFT

Part One - Tree Protection

Tree Preservation Orders

16. The City Council has the power to create Tree Preservation Orders (TPOs) to maintain the amenity of the local environment.
17. With regard to development proposals, Norwich City Council will utilise TPOs in a flexible manner. This may include:
 - (i) Serving TPOs prior to development proposals.
 - (ii) Serving TPOs after receiving development proposals.
 - (iii) Serving TPOs during active development.
 - (iv) Serving TPOs after development is complete.
 - (v) Not serving TPOs if appropriate.
18. The above range of responses will be implemented on the basis of the site's importance, individual specimen importance, the development proposals and the level of data provided to the Council with regard to development.
19. It should be borne in mind that on development sites situated within designated conservation areas all trees that are over 75mm diameter at 1.5m above ground level are already protected to an equable level to that of a specific TPO.
20. In the event that a TPO is placed on a site or that the site is in a conservation area, Norwich City Council encourages consultation between the developers and officers of the Council's Planning Services section.

British Standards

21. The British Standards Institute British Standard BS 5837: 2012 Trees in relation to design, demolition and construction - Recommendations.

Developers, architects and landscape architects are particularly advised to consider this standard as it gives recommendations and guidance on the relationship between trees and design, demolition and construction processes and sets out the principles and procedures to be applied to achieve a harmonious and sustainable relationship between trees and structures.

22. The British Standards Institute British Standard BS 8545:2014 Trees: from nursery to independence in the landscape - Recommendations.

Landscape Architects are also advised to consider this standard as it gives recommendations for transplanting young trees successfully from the nursery, through to achieving their eventual independence in the landscape, specifically covering the issues of planning, design, production, planting and management and, although this standard does not give specific recommendations for other woody material, many of its provisions can be applied to such material, e.g. to shrubs.

23. Norwich City Council stresses that developers should ensure that experts commissioned to advise on matters of technical content within planning applications should have the appropriate qualifications and experience of both the planning process and current best practice guidance in order for them to be able to advise fully on such logistical and specification frameworks. This is of particular importance in light of the detailed specifications of the Construction Design and Management Regulations in relation to trees.

Survey Requirements

24. To comply with DM7 and to provide an informed basis for decisions, it is essential that development proposals commission detailed land and tree surveys. These should be submitted before validation of a planning application. This applies to all sites on which trees are growing and those proposals which will affect neighbouring trees. All plans should be to scale and should state to which ISO A paper size the scale relates, as well as showing a scale bar and a north point.

Land Surveys

25. An accurately measured topographical land survey should be undertaken showing all relevant features. Where clearance of undergrowth is essential to facilitate the survey process, it is important that this is undertaken in consultation with relevant professionals, in order to avoid damage to, for example, arboricultural, landscape, archaeological or ecological features. Where appropriate, this should include expert attendance on site during the works.

This should record:

- The position and basal ground level of all trees, shrub masses, significant individual shrubs, hedges, hedgerows and stumps within the site and spot levels of ground throughout the site.
- The position of trees that overhang the site or are located beyond the site boundaries within a distance of up to 12 times their stem diameter
- For individual trees, the crown spread taken at four cardinal points; for woodlands or substantial groups, the overall extent of the canopy. Other relevant existing features such as streams, structures, boundary features, trenching scars near to trees, and overhead and underground utility apparatus, including drainage runs with manholes and invert levels.

28. A topographical negative will not only inform the production of the tree survey but will allow interpretation of any arboricultural implications of proposed changes in ground

surface treatments and levels. On complex or large sites a full hydrological and / or soil survey may also be required in order to facilitate an Arboricultural Implications Assessment of the proposed changes.

Soil Assessment

29. A soil assessment should be undertaken by a competent person in order to inform any decisions relating to:

- Root protection areas [RPAs] and general tree protection
- New planting design; and
- Foundation design in relation to any retained and new trees, shrubs, hedges etc.

The assessment should consider such factors as whether the soil is shrinkable, soil structure, composition and also pH should be assessed in relation to new landscape planting.

Tree Surveys

30. A pre-development tree survey should use the tree categorisation method described in the British Standards Institute BS5837: 2012 "Trees in relation to design, demolition and construction – Recommendations" and be undertaken by an arboriculturist. This survey should record information about the trees both on and adjacent to a site. The resulting data, including material constraints arising from existing trees that merit retention, should be used to inform feasibility studies and design options. The tree survey should be completed and made available to designers prior to and/or independently of any specific proposals for development.

The survey will therefore need to include:

- all trees included in the topographic survey sequentially numbered;
- A plan showing the location to within 1 metre of all existing trees on site, individually numbered as specimens or distinct individuals, or as groups where the trees are growing together. Woodland numbering and the use of designated

compartments is acceptable if no development is occurring within the woodland, though the woodland edge trees may still require individual numbering. Where woodland is within a site, it should be accurately plotted with all boundary trees shown. If development is proposed within the woodland area, it will be necessary to plot all trees. If woodlands are outside the site boundary, then the woodland edge (including crown spread) should be shown. Hedgerows should also be accurately plotted. Certain shrubs may be of sufficient interest as to merit plotting, e.g. groups of rhododendron or other evergreen species.

- A table showing the tree no./ species / height in metres/ ultimate height/ stem diameter in millimetres/ branch spread to the North, East, South & West/ predicted branch spread /Height of crown-ground clearance/ age class / physiological condition / structural condition/ preliminary management recommendations/ nominal RPA radius in metres / RPA in metres² /estimated safe useful life expectancy in years/ retention category grading.

31. In addition, all survey works and any recommendations given for the management of trees and vegetation must comply with The Wildlife & Countryside Act 1981 and schedules.

Street Tree Planting

32. In accordance with Policy DM7, where it is appropriate to do so, the Council will require street trees to be included in the landscaping scheme. This will include streets created within developments in appropriate circumstances. It will particularly be applied where the development fronts onto a street with trees in the highway already.
33. Street trees will not be required where access points mean that visibility for vehicles accessing the highway would be unduly curtailed by such planting, or where the density and form of development make it inappropriate to focus planting on the highway frontages.
34. On a site specific basis Council officers will specify the number of street trees required with due consideration given to available planting space and planting distances. Where the highway is not within the development boundary and planting is appropriate on that frontage, a commuted payment for street tree planting will be sought through a section 106 agreement or a unilateral agreement.
35. The commuted sum will be based upon the planting and establishment costs that are current on the signing date of the section 106 agreement, and will be sufficient for a thirty year period. For example, for the financial year 2015-2016 the total sum per tree will be £1,034.67. This amount breaks down as indicated appendix 5 and is based upon the minimum initial cost for a tree:
36. The costs are in line with the Council's current tree contract; selection of trees will be carried out by the Council's arboricultural officer as scheduled into the Council's next planting programme.

Development Proposals

37. In determining applications, Norwich City Council will look upon the effect on trees and the overall landscape as a material consideration, with due regard to the Norwich Local Plan, government advice, this SPD and the overall Tree Strategy.
38. As set out in paragraph 7.5 of the local plan supplementary text, an arboricultural impact assessment will be required to meet policy DM7 where proposed development retains existing trees on site. The arboricultural impact assessment and other detailed submissions will be an important aspect in assisting Norwich City Council in evaluating the balance between tree & landscape losses and gains, thus providing a basis for determining appropriate planning conditions and s106 agreements.
39. The fullest range of reports, surveys, drawings (including cross-sections) should be submitted in order to allow officers of Norwich City Council to fully appraise and assess proposals and report to the Planning Committee. Production of an accurate land survey and pre-development tree survey will allow the informed production of an Arboricultural Impact Assessment.

Arboricultural Impact Assessment (AIA)

40. This document must be produced with due consideration to the land survey, tree survey, and any identified tree constraints in relation to the development proposals and after consultation (including possible site visit) with the Council's Tree Protection Officer.

The purpose is to produce a document that evaluates both the direct and indirect effects of the proposed design and recommends appropriate mitigation where necessary, which can be read in conjunction with layouts and should take account of:

- The effects of any tree loss required to implement the design
- Any potentially damaging activities proposed in the vicinity of retained trees, shrub masses or hedges
- Site access requirements

- On-site storage of materials, and furthermore should include:
 - The tree survey
 - Trees selected for retention
 - trees to be removed
 - trees to be pruned [including any access facilitation pruning
 - areas designated for structural landscaping that need to be protected from construction operations in order to prevent the soil structure being damaged
 - evaluation of impact of proposed tree losses;
 - evaluation of tree constraints
 - a draft tree protection plan [produced in accord with BS 5837: Clause 5.5]
 - issues to be addressed by an arboricultural method statement [arboricultural method statements should be produced in accord with BS 5837: Clause 6.1]
 - an auditable system of arboricultural site monitoring and supervision
 - a protected tree protocol for site workers that will be integrated into the site induction process

Part Two Landscape and Development

41. Where an applicant is required to submit material as listed in Table 1 to demonstrate compliance with JCS and DM policies, these materials should be produced in line with the following:

Preparation material

Site plan and Topographical survey

42. As outlined in paragraphs 27 & 28 of this document, detailed topographical site surveys should be carried out before the design of any building or landscape is begun.

Site Analysis

43. Analysis and interpretation of the site survey and additional site observations should highlight information such as site features, and constraints and opportunities. This information can be recorded in the form of an individual plan or can be included as site analysis graphics within a landscape design statement or the landscape section of the design access statement. The site analysis should include as relevant the following:

- *Additional information or analysis of local environment and local plan context*
- *Site access and relationship to streetscape*
- *Site characteristics*
- *Landscape character, locally distinctive features,*
- *Enclosure, level of screening or openness*
- *Areas of natural features, additional info on vegetation, existing habitats or opportunities to establish habitat*
- *Designations such as TPO's, Special Landscape Areas, Wildlife Sites*
- *Important historical notes, archaeological protection or interpretation*
- *Analysis of routes (permissive and statutory)*
- *Visibility and sight lines*

- *Sensitive views (in and out of site)*
- *Additional analysis of levels, gradients, exposure that may help interpret information on visibility and views*
- *Interpretation of hydrology*

Landscape and Visual Impact Assessment

44. Landscape and Visual Impact Assessments (LVIA's) are part of a process that operates within the overall framework of Environmental Impact Assessments (EIA).
45. A detailed Environmental Impact Assessment is required for particular types of use and larger scale development. This is set out in Government Legislation - 'The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 - 2000', 'The Regulations - (S.I. 293/1999 2867/2000).
46. Where developments exceed the thresholds within schedules 1 or 2 of the EIA Regulations or are in a sensitive area further advice should be taken from council officers. The screening procedure requires the local authority to determine whether significant effects are likely and hence whether an assessment is required. The need for an LVIA will be determined through the scoping process; which will be decided by the council along with advice from specialist bodies or organisations and statutory consultees.
47. The aim of an LVIA is to ensure that all possible effects of change and development both on the landscape itself, and on views and visual amenity, are taken into account in decision-making. If an LVIA is required, the scope and level of information should be agreed with council officers to ensure it is appropriate and relevant to the type, scale and size of the proposal.
48. LVIAs should be produced in line with the third edition of Guidelines for Landscape and Visual Impact Assessment (GLVIA3). Information should be presented in a clear and concise way within the LVIA and a relevant non-technical summary included within the Environmental Statement.

Informal Landscape and Visual Impact Appraisal

49. Informal LVIA's are an appraisal tool that contribute to the design process and assist development management in assessing the effects of a proposed development on the existing built environment and landscape, and the suitability of the site for the proposed use. To avoid confusion between the terms 'Landscape and Visual Impact Assessment' and 'Landscape and Visual Impact Appraisal', Norwich city council will refer to the process for non EIA projects as Informal Landscape and Visual Impact Appraisals.
50. Where an Informal Landscape and Visual Impact Appraisal is required, this should present in a concise way information regarding landscape and visual changes arising from the development. The requirements are less rigid than the defined terms of an EIA, though the principles are similar, an informal appraisal should not attempt to assess or comment upon the significance of a proposed development. The differences between a formal LVIA and an informal appraisal are fully explained within the GLVIA3, which should be referred to, to achieve a best practice approach.
51. Informal appraisals should be presented as a stand-alone document, or where appropriate to the type, scale and size of proposal can be combined with a landscape design statement or strategy document.
52. For sites requiring analysis of the setting of heritage assets, the Historic England *Historic Environment Good Practice Advice in Planning, Note 3 – The Setting of Heritage Assets*, should be referred to for guidance. In these circumstances it will not be necessary to duplicate information, and the Heritage assessment document can substitute an informal Landscape and Visual Impact Appraisal.

Landscape Proposals

Landscape Design Statement

53. Design statements (also sometimes referred to as landscape design strategy) should be a brief explanation of the context and analysis that have informed design rationale. The

statement should set out the design principles and provide information on the design solution, in relation to how it works with the characteristics of the site and the wider context.

54. The format and level of detail should be proportionate to the type, scale and size of the proposal. For smaller developments a section on 'landscape' incorporated into the design access statement will suffice. For major or more complex developments a concise stand-alone written document will be appropriate which can be read in conjunction with drawings.

The Landscape Scheme

55. In accordance with local plan policies, a landscape scheme should form part of any development proposal that fulfils the policy criteria; whether required as an outline or detailed scheme, such a landscape scheme should be developed with due consideration given to retained trees and other significant landscape features, in order that a fully integrated development can be achieved.
56. Provision should be made for protection of areas of future structure planting to avoid soil compaction due to construction activity. Where such pre-development action is not possible, prior remediation measures should be used before planting and details covered within the specification.

Outline Landscape Scheme

57. An Outline or Concept Landscape Scheme should include the main existing and proposed hard and soft landscape areas and show at least indicatively the treatment of different areas through hatching and simple notation. This should be submitted in plan format.
58. Plans should indicate the approximate location of features such as woodland, shelter belts, individual tree planting, ground cover, ornamental planting, lawns, meadows, water features, retained vegetation and any associated proposed adjustments, links through the site, urban plazas or civic spaces, areas of seating, street furniture, external

walls and features, and play spaces should also be shown as relevant. Outline plans should also indicatively highlight any significant level changes or areas of cut and fill, for example bunding or mounds.

59. Information on Outline Landscape Schemes should also include proposals to remove features, indicate existing or proposed services, land drainage and boundary treatments. Any basic details of proposed phasing should also be included if known.
60. Where a landscape scheme is provided in the form of an Outline Landscape Scheme, a more detailed landscape scheme will typically be required as a condition of any permission.

Detailed Landscape Proposals

61. Detailed landscape proposals provide more comprehensive specifics of the landscape scheme inclusive of details of soft and hard landscape. Detailed landscape proposals will demonstrate the quality of landscape and address key issues relating to landscape.
62. Detailed landscape proposals must identify existing landscape features, proposed soft and hard landscape and should include the following information as applicable;

Existing landscape details

- location, spread and levels of existing trees, hedgerows and other significant areas of vegetation on or adjoining the site
- details of existing boundary treatments and forms of enclosure
- details of existing open watercourses or other aquatic feature and associated vegetation on the site.

Hard landscape details

- details of materials for paved areas, including manufacturer, product type and colour, layout (hard surfacing bond where applicable), build up

- information on any root protection measures proposed
- proposed and existing functional services above and below ground (e.g. power and communication cables, pipelines, indicating manholes, supports etc.)
- details of all new boundary treatments at the site, including the material and colour finish of any walls, fences or railings; details of new external lighting
- details of pedestrian access and circulation areas
- details of car parking layouts and cycle parking provision
- proposed finished levels or contours
- details of any minor artefacts and structures (e.g.) furniture, play equipment, refuse or other storage units, signs)
- additional details or larger scale detail drawings or sections may be useful to support the above

Soft landscape details

- planting plans showing the location, species and numbers of proposed new trees, hedging, shrubs and other planting on the site
- planting schedules, noting the species planting sizes (at time of planting) and proposed numbers/densities where appropriate
- written specifications (including cultivation and other operations associated with plant and grass establishment) (see specification section below)
- an implementation programme clearly indicating a timescale for the completion of all landscaping works

Specification

63. Specifications are essential in ensuring the appropriateness, quality and success of a scheme. Written specifications can be incorporated into a drawing where information is concise and brief, where there is more extensive information this should be a stand-alone document, or can be combined with the Landscape Management Plan.

64. Specifications should include the following information as applicable to the scheme;

- Ground/soil preparation
- Quality of Topsoil
- Methods of planting
- Weed control/mulching
- Quality of plant stock
- Grass seeding/turf
- Protection of existing trees, shrubs and hedges
- Remedial work to existing trees, shrubs and hedges
- Basic information on maintenance of the scheme
- Defects liability period
- Relevant British Standards

Landscape Management Plans

65. Planned maintenance operations are required for both hard and soft landscape areas to sustain attractive and successful landscape settings. An initial defects liability period and short term maintenance plan will be required on all developments to ensure the establishment of planting. This should be referenced on the Detailed Landscape Proposals plan.

66. For more comprehensive schemes where a written document forms the Landscape Management Plan these should include the following information as applicable;

General details

- Statement of overall design vision to explain the long term vision of the developed landscape
- Identification of sub-areas specific to the characteristics/ properties of each area

- Highlight any specific or specialised areas/habitats
- Suggested actions required in the maintenance/management of the areas identified (see list below)
- Frequencies of maintenance actions
- Monitoring, a timed/programmed method for reviewing the quality/success of planned operations
- Plan review process to include a way in which the community can be involved

Specific maintenance/management actions

- Maintenance of hard landscaped areas (could include-cleaning, repainting, relaying, sweeping, re-levelling, litter removal, removal of temporary items)
- Special design features (water features, public art, lighting, play facilities, specialist equipment)
- Planting establishment period (should cover ornamental shrubs, hedges and mass planting, grass, trees), what operations should be carried out within that time and how regular, replacement of failures and how long the liability period is

67. Norwich city council require an initial 12 months defects period to be applied to all landscape elements of developments, with a 5 year management plan applied to ensure the establishment of schemes. It will not be necessary to duplicate information if it is covered within material elsewhere for example within a habitat management plan that includes landscape elements.

Design Considerations

68. The policies that this SPD relates to require recognition of local distinctiveness and character, a timely and integrated approach to the protection of landscape and trees, and a high standard of integrated design for the provision of new trees and landscape. To achieve this, the following points should be considered in relation to schemes:

Context

69. Norwich has a diverse character, with a historic centre and extensive areas of open space, historic parks and gardens, wildlife sites and wooded ridges in the city. Policies DM1 and DM3 specifically recognise the importance of local distinctiveness and character. Therefore the most successful schemes will be those that fit in with their surroundings and have a strong sense of place, character and quality.
70. Sites should be considered in context of their wider setting, any change has potential to positively or negatively impact the surroundings. Consideration should be given for how well a site sits within the surrounding landscape and its character. Designs should complement the surroundings and where possible link to the existing rather than detrimentally impact the surrounding landscape. This will be of particular importance to sites in designated areas.
71. The design of site boundaries is important, screening can be useful in protecting boundaries and views, and can buffer land uses. However boundary treatments should protect quality scenic views and vistas in and out of developments. Site context should inform boundary treatments and boundaries should take account of local landscape character to avoid becoming visually intrusive. Simply screening a development is not a substitute for good design or replacement for measures to integrate a design into a site including appropriate planning, siting, layout and design.
72. On sites where buffer zones are required, these may comprise grass, shrubs and trees; structure planting belts; sympathetically graded earth bunding; walls or fencing; or a combination of several of these.
73. The provision of green space within a development is important and sites should wherever possible also link their boundaries into surrounding landscape through Green Infrastructure (GI). Sites should be designed to contribute to the GI network in Norwich. The core areas of the network are set out in Appendix 3.

Existing Features

74. Retention of existing natural features can contribute to the character of a development, providing sense of place and early maturity. Existing features should be assessed and incorporated into designs where possible; topography, wooded areas, mature trees and hedgerows, watercourses, and other ecologically valuable features should inform design decisions.
75. Wherever possible existing features should be protected and enhanced within layout proposals. If layouts and street designs work with the character of the development they will provide clear circulation for people to access the site and move through it. For larger developments effective landscaping will also contribute to achieving a hierarchy of circulation, highlighting key routes. Schemes should include an appropriate amount of space for trees and landscaping within street layouts. In addition semi private spaces fronting on to streets can contribute to character and distinctiveness of an area so their design should be carefully considered.

On site Open Space

76. Open spaces should provide a clear purpose and use to ensure their success. The design of open spaces should contribute to the character of the surrounding area either by reflecting distinctiveness and identity and enhancing the character of the existing surroundings or by creating new character for a development if little exists. They should be attractive and contribute to enriching ecology, alleviating pressures from flood, and promote health and wellbeing through multifunctional spaces for sport, play recreation and community events. In short, open space should wherever possible be part of a green infrastructure approach.

Sustainability and Environment

77. Good planning of landscape offers the opportunity to achieve multiple benefits. The council welcomes landscape designs that incorporate principles of sustainability. Landscaped spaces will therefore need wherever possible to include SUDs to comply with policy DM5, increase biodiversity and wildlife enhancement, and provide accessible

routes to aid permeability and sustainable transport options to comply with policy DM3 and DM28.

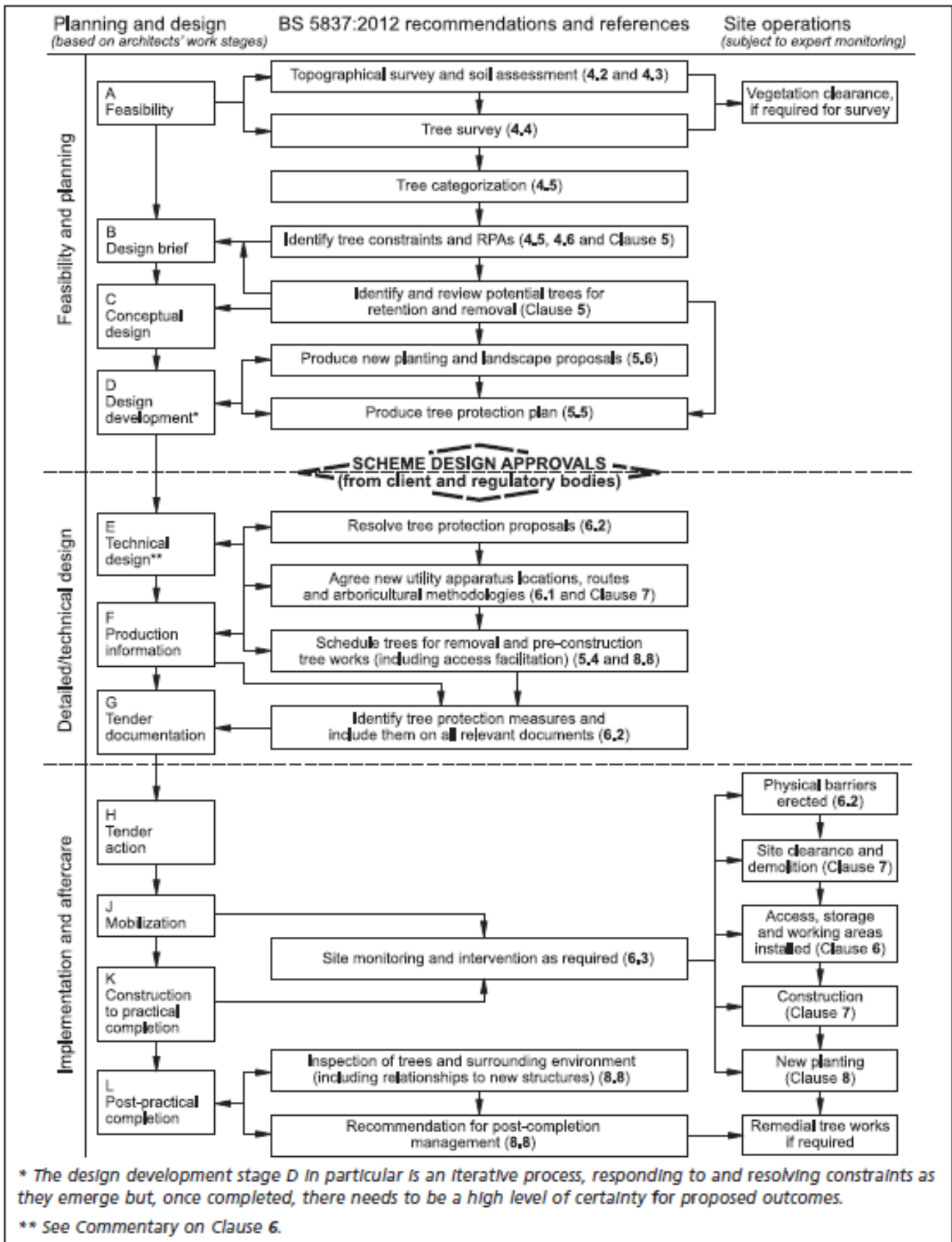
Implementation of Planning Permission

78. The construction industry is experienced in the programming and implementation of building proposals. However, existing trees, other landscape features and proposed new landscaping have often been relegated to either secondary issues or emergency responses. Appendix 1 is a flow chart that should prove useful to developers where existing trees and other soft landscape features form part of their proposals.
79. Norwich City Council seeks to encourage developers and others considering construction works to plan beyond the obtaining of planning permissions to provide for the protection of trees and landscape, and for their integration into the development. The careful planning of the location of service runs and apparatus is important in this regard.
80. Norwich City Council will also require developers and their advisers who are planning construction projects to obtain the appropriate professional advice. With regard to existing trees, woodlands and other vegetation, (including hedgerows), this will extend to supervision of the construction phase by the developers' own arboriculturist.

Planning Conditions

81. In line with the NPPF, Norwich city council will consider if otherwise unacceptable developments can be made acceptable through the use of planning conditions. These will only be imposed where they are necessary, relevant to planning and to the development permitted, enforceable, precise and reasonable in all other respects.
82. There are a number of Standard Planning Conditions which can be applied in relation to landscape and trees. These will also be adjusted or special conditions applied to respond to case specific circumstances.

Appendix 1 - The design and construction process and tree care



Appendix 2 - Arboricultural site inspection

Site: _____

Developer: _____

Site agent: _____

Date: _____ Planning application no. _____

	Yes	No
Was all tree protective fencing in place?	<input type="checkbox"/>	<input type="checkbox"/>
Was Construction Exclusion Zone (CEZ) to agreed dimensions?	<input type="checkbox"/>	<input type="checkbox"/>
Was any debris/storage/groundwork evident within CEZ?	<input type="checkbox"/>	<input type="checkbox"/>
Are any special works scheduled for coming building period?	<input type="checkbox"/>	<input type="checkbox"/>
Was there any evidence of damage to trees?	<input type="checkbox"/>	<input type="checkbox"/>

Give details: _____

Any amendments proposed to plans? Yes No

Give details: _____

Additional comments: _____

See additional sheet Yes No

Signed: _____ Signed: _____

Name: _____ Name: _____

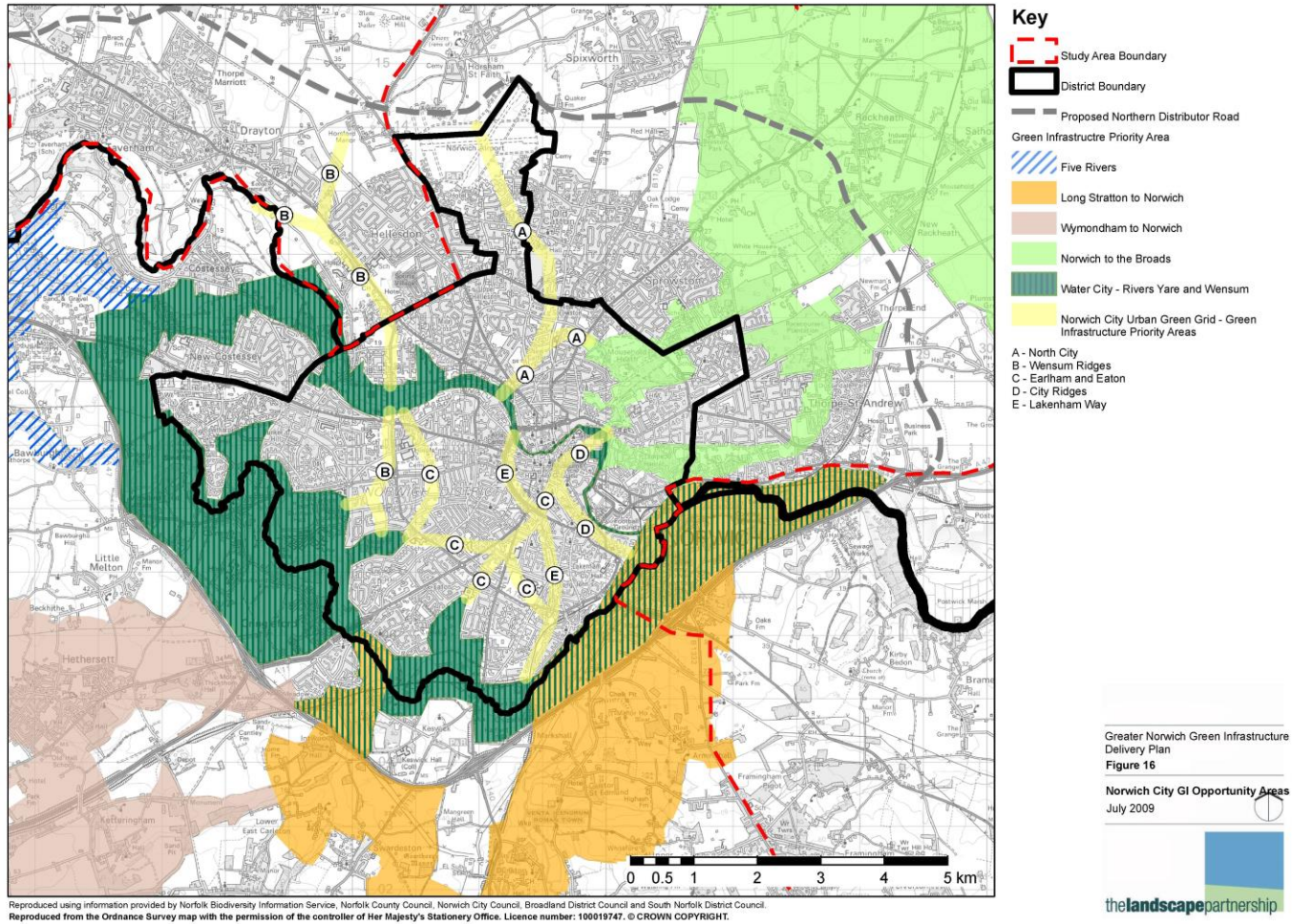
Consulting Arborist for and on behalf of: _____ Developer/Main Contractor for and on behalf of: _____

Company: _____ Company: _____

Circulation

Norwich City Council	_____	_____
Developers Head Office	_____	_____
Site Agent	_____	_____
Architect	_____	_____
Consulting Arborist	_____	_____

Appendix 3 – Greater Norwich Green Infrastructure delivery plan



Appendix 4 - British Standards relevant to vegetation management and development proposals

British Standards that apply to vegetation management and development proposals. *(NB BSI standards are subject to regular revision)*

BS 5837	Trees in relation to construction - Recommendations (2005)
BS 1192	Construction drawing practice Part 4 Recommendations for landscape drawings
BS 1377	Methods of test for soils for civil engineering purposes
BS 1722	Fences Part 1 Specification for chain link fences Part 4 Specification for cleft chestnut pale fences
BS 3936	Nursery Stock Part 1 Specification for trees and shrubs Part 4 Specification for forest trees Part 5 Specification for poplars and willows
BS 3998	Recommendations for tree work
BS 4043	Recommendations for transplanting root-balled trees
BS 4428	Code of practice for general landscape operations (excluding hard surfaces)
BS 5930	Code of practice for site investigations
BS 8004	Other relevant publications: 'Low-rise building on shrinkable clay soils:Part 1' BRE Digest 240 : 1980
BRE	BRE Digest 298 : 1985 'The influence of trees on house foundations in clay soils'

NHBC Standards, Chapter 4.2 'Building near trees'

NJUG

National Joint Utilities Group – Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees.

AAIS

APN1. Driveways Close To Trees

Appendix 5 - Tree planting and establishment costs 2015 -2016

	RPI uplift	2.30%
Year 1		15/16
Tree purchase		£67.16
Plant heavy standard		£51.39
Wood tree surround		£26.86
Erect tree surround		£17.15
Mulch tree		£9.15
Water tree (12 visits p/a @ £4.43)		£54.38
Young tree maintenance		£18.30
		£244.40
Year 2 - 4	Each tree will be inspected 2 times between years 2 and 4	
Water tree (12 visits p/a @ £4.43)		£108.77
Young tree maintenance		£36.60
		£145.36
Year 5 - 15	Each tree will be inspected 3 times between years 5 and 15	
Crown raise		£39.83
Formative prune		£13.28 Once
Remove frame		£5.73 Once
Weed tree pit		£13.73
		£72.57
Year 16 - 20	Each tree will be inspected 3 times between years 16 and 20	
Crown raise		£39.83
Weed tree pit		£13.73
Formative prune		£13.28 Once
		£66.84
Year 21 - 25	Each tree will be inspected 3 times between years 21 and 25	
Crown raise		£159.36
Weed tree pit		£13.73
		£173.09
Year 26 - 30	Each tree will be inspected 3 times between years 21 and 25	
Crown raise		£159.34
Clean out / remove deadwood		£159.34
Weed tree pit		£13.72
		£332.40
Total		£1,034.67

Appendix 6 - The Legal and Policy Framework

Legislation

83. Section 197 of the Town and Country Planning Act 1990(as amended) states that it shall be the duty of the local planning authority

(a) “To ensure whenever it is appropriate that, in granting planning permission for any development, adequate provision is made by the imposition of conditions for the preservation or planting of trees”.

(b) “To make such orders (*Tree Preservation Orders*) under Section 198 as appear to the authority to be necessary in connection with the grant of such permission, whether for giving effect to such conditions or otherwise”.

In support of Norwich City Council’s duty as set out in the 1990 Act, policies relating to trees and woodlands are incorporated within the Local Plan.

Local authorities also have a duty to have regard to the conservation of biodiversity in exercising their functions. This duty was introduced through the Natural Environment and Rural Communities Act and came into force on 1 October 2006. The duty affects all public authorities and aims to raise the profile and visibility of biodiversity, to clarify existing commitments with regard to biodiversity, and to make it a natural and integral part of policy and decision making. Conserving biodiversity includes restoring and enhancing species populations and habitats, as well as protecting them.

National policy

The National Planning Policy Framework (NPPF) requires local authorities to protect valued landscapes. It also sets a requirement to minimise impacts on, and provide net gains in biodiversity, where possible, aiming to halt the overall biodiversity decline which has occurred over recent years.

The NPPF also states that plans should identify and map local ecological networks, including: international, national and local sites of importance for biodiversity, wildlife corridors and areas identified by local partnerships for habitat restoration or re-creation. This involves planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure.

Local policies

The Norwich Local Plan contains a number of relevant policies, most particularly JCS 1, 2, 11 and 20 and DM 3, 6 and 7.

A summary of these policies is set out below, along with other relevant policies (DM1, DM2, DM4, DM5, DM8, DM12 and DM28).

The JCS

Policies in the [Joint Core Strategy](#) (JCS) for Broadland, Norwich and South Norfolk (adopted 2011, amendments adopted 2014) provide the strategic framework for the Norwich Local Plan.

JCS1 (Climate change and Environmental Assets) protects environmental assets and requires the development and maintenance of the green infrastructure network set out on page 33 of the JCS. This network was identified through evidence studies supporting the JCS. This includes the map in appendix 3 of this document which identifies the Yare and Wensum valleys and as

sub regional green infrastructure corridors and green infrastructure hubs. It proposes development of a new corridor from Mousehold Heath to the north east into Broadland. It also identifies local corridors and County Wildlife Sites.

JCS2 (Design) requires development to be designed to the high possible standards to create a strong sense of place and to respect local distinctiveness. Landscaping will play a key role in this.

JCS10 (Locations for major new or expanded communities in the Norwich Policy Area). The green infrastructure map supporting this policy on page 69 of the JCS also identifies the Yare and Wensum valleys and as priority areas for green infrastructure.

JCS11 (Norwich City Centre) requires an integrated approach to economic, social, physical and cultural regeneration to enable greater use of the city centre and enhancement of its regional centre role. To support this, improvements will be required to open spaces, green linkages and connections between open spaces, linking the river corridor and the open countryside. The City Centre key diagram identifies opportunities for enhanced principal Green Links.

JCS12 (Remainder of the Norwich urban area) promotes development to support sustainable housing and employment growth and regeneration in the rest of the urban area and fringe parishes, including the promotion of green infrastructure links and protecting the landscape setting of the city.

JCS20 (Implementation) requires development to provide and maintain open space and green infrastructure to secure sustainable development, specifically identifying the need for trees, hedgerows, woodland and landscaping as well as habitat creation and parks.

DM Policies Local Plan

The [Development Management Policies local plan](#) provides more detailed policies for Norwich.

Policy DM3 requires all new developments to achieve a high quality built and natural environment, building on the strength of existing design and promoting local distinctiveness. It requires all new development to make appropriate provision for the protection of existing and provision of new green infrastructure. The policy expects identified gateway sites to be marked by development of exceptionally high quality that reflect distinctiveness, and seeks to manage and control development which could affect key long views.

DM3 also requires developers to make efficient use of space, provide a permeable and legible network of routes and spaces for public access, and incorporate well-designed and well-defined private, semi-private and public open space for all developments. The design of streets, routes and spaces that enhance the environment will be required.

Policy DM6 implements national and JCS requirements to ensure the protection, management and enhancement of the city's valued natural environmental assets and, along with policy DM3, requires green infrastructure networks to be promoted through development.

Policy DM7 specifically covers trees and development. It requires trees and significant hedges and shrubs to be retained as an integral part of the design of development except where the trees are in poor condition or there are exceptional benefits in accepting their loss, and sets out the requirements for replacement planting where the loss of trees is accepted.

DM7 also requires street trees to be provided on new developments, either on site or through a section 106 or unilateral agreement as and where appropriate.

In addition the SPD also relates to the following policies:

- **Policy DM1** sets out sustainable development principles for Norwich and establishes the expectation that development proposals will protect and enhance the physical environmental and historic assets of the city and safeguard the special visual and environmental qualities of Norwich for all users;
- **Policy DM2** requires for residential developments the provision of external private or communal amenity space, appropriate for and integral to the residential development and forming a key part of the overall design of the site;
- **Policy DM4** identifies landscaping as a mitigation measure to minimise potential negative visual impacts of renewable energy generation schemes;
- **Policy DM5** stipulates that development proposals will be assessed and determined having a regard to the need to manage and mitigate against flood risk;
- **Policy DM8** requires all new development involving the construction of new dwellings to contribute to the provision, enhancement and maintenance of local open space;
- **Policy DM12** requires proposals for residential development to have no detrimental impact upon the character and amenity of the surrounding area including open space and designated and locally identified natural environmental assets;
- **Policy DM28** requires proposals to incorporate measures to aid sustainable travel, including integral links within the development and the surrounding area, along with specific treatments where development proposals front on to the rivers Wensum and Yare.

These policies will ensure that development is planned to take a comprehensive view of tree issues and landscape features at an early stage in the design process.

Site Allocations Local Plan

The [Site allocations plan](#) sets out detailed policies and proposals on 73 sites across the city where change is anticipated or proposed, setting out preferred land uses for those sites including housing and employment. Site allocations policies set development requirements on allocated sites in relation to landscape and trees, including requirements to retain specific tree groups, create links to existing woodland, retain views and, mainly on larger sites, create new open spaces and enhance biodiversity.