

Summary Description & Outline Project Specification

- Enhanced woodland edge to Hay Wood & other pockets of woodland, creating an improved transition & greater integration within the landscape from arable/pasture to woodland (including new oak pollards plus broadleaf native woodland (oak-sweet chestnut) at initial planting density of 1.5m centres, with pollards at 20m intervals).
- Field landscape scale improvements, with new hedgerows to reflect historical land ownership & the assatting of woodland (e.g. hedge rows to be Hawthorn, double staggered rows at 6/m2, with intermediate Oak standards).
- Recognition & enhancement of the historic parkland / designed landscape of Wroxall Abbey.
- Existing footpath enhancement & creation - upgrade existing PROW network to 1.2m wide hoggin path (where appropriate), with new access routes to match upgrades, (feasibility/further consideration to scale & surface required to Wroxall Abbey). Historic interpretation signage package to path trails.
- Enhanced wetland environment as an extension of existing water bodies, ponds & wooded streams. Increased habitat diversification. Potential future flood alleviation benefits.
- Grassland/heathland creation & enhanced pasture.

Project Rationale & Drivers:

Delivery of new native woodland & character enhancements link to the objectives for a unified landscape set out in the landscape strategy for the Arden Parklands character area within the Warwickshire Landscape Guidelines - creating greater unification with enhanced woodland character. Woodland creation & enhancement to Hay Wood satisfies the aims of the Forestry Commission, Warwick Wildlife Trust (for habitat) & the Woodland Trust (More Woods Project). New woodland coppice management opportunities for production. Areas of heathland & grassland regeneration would enhance and restore habitats as set out in the Local Biodiversity Action Plan. Enhancing/restoring the existing parkland setting of Wroxall Abbey links to the objectives of the WLG. Potential contribution to WKWT Living Landscapes objectives for Arden through localised wetland habitat creation.

Issues Associated with Delivery:

Dependant on landownership negotiation to management changes & enhancement objectives for the Arden landscape - uptake of relevant schemes (i.e. HLS & VGS). Delivery likely to come through a range of mechanisms with regards to parkland restoration, woodland creation, coppice woodland, grassland/heathland creation & wetland habitat formation. Need for partnership working & designated project lead (the district) to oversee delivery of a cohesive vision/palette for the different aspects. Where access is provided, appropriate surfacing & widths within the landscape setting is likely to limit DDA compliance. Need for a land survey to identify historic constraints, (refer to Historic Environment Records).

Possible Approaches to Delivery:

Funding bodies (i.e. Forestry Commission & Natural England) for native woodland/abatat creation through schemes such as the Woodland Grant Scheme & HLS. Historic Arden parkland restoration projects (e.g. Wroxall Abbey) to demonstrate potential for Heritage Lottery Funding (i.e. community participation, historic interpretation & access).

Improved footpath network, connecting into the existing PROW network & using existing landscape features & views to enhance the user experience (i.e. designed landscape at Wroxall Abbey).

Enhanced wetland environment within existing network of water bodies, ponds & streams. Enhanced & restored wet meadow, wet woodland - riparian habitat creation & landscape diversification. Potential future flood alleviation benefits.

Existing woodlands

Existing watercourses

Existing green access links

Proposed green access links

Proposed woodland linkages

Proposed wetland / flood meadow

Proposed grassland enhancement

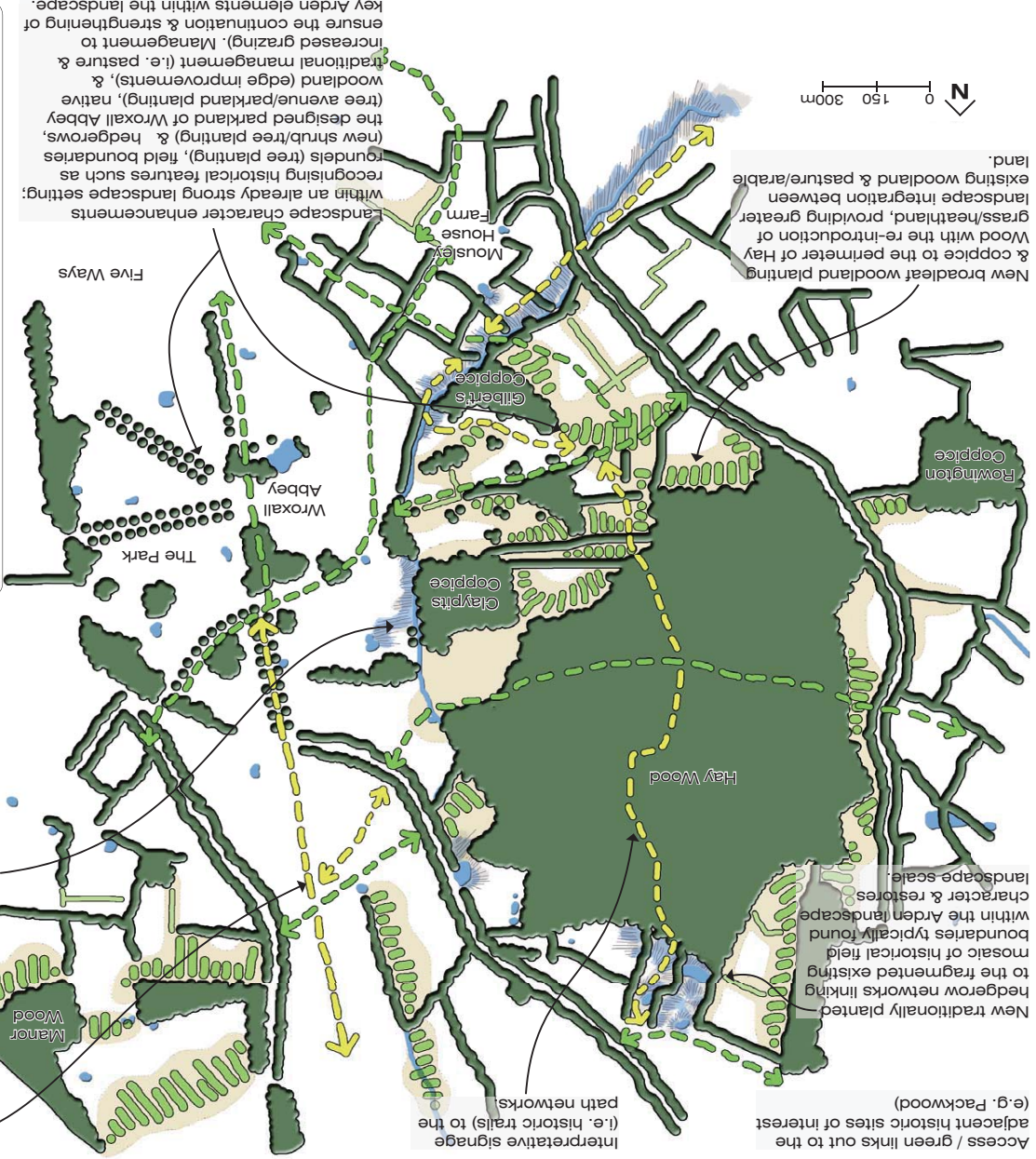
Interpretative / focus opportunity / focus

CONNECTED COUNTRYSIDE: CONCEPT FOR ENHANCEMENTS FOR THE ARDEN LANDSCAPE

SCALE: SEE SCALE BAR

KEY:

- Existing woodlands
- Existing watercourses
- Existing green access links
- Proposed green access links
- Proposed woodland linkages
- Proposed wetland / flood meadow
- Proposed grassland enhancement
- Interpretative / focus opportunity / focus



Landscaping character enhancements within an already strong landscape setting: recognising historical features such as gundels (tree planting), field boundaries (new shrub/tree planting) & hedgerows, (tree avenue/parkland planting), native woodland (edge improvements), & traditional management (i.e. pasture & increased grazing). Management to ensure the continuation & strengthening of key Arden elements within the landscape.

WARWICK DISTRICT GREEN INFRASTRUCTURE PROJECT OPPORTUNITY : RIVER LEAM TREE PLANTING AND WETLAND HABITAT CREATION

Summary Description

- Identification of broad opportunities for new woodland planting for landscape connectivity and to aid flood risk management functions in Leam Valley
- Opportunities for new broadleaf and wet woodland (floodplain woodland) are identified in terms of landscape character and connectivity
- Where wet woodland is created this should form part of a linked set of wetland improvements e.g. creation of wet scrapes and enhanced flood meadows, to also contribute to landscape character and biodiversity
- Further investigations will be needed including with hydrologists and arboriculturists, to develop a more resolved scheme
- Enhanced access links could be considered as part of the development of the project

Project Rationale & Drivers:

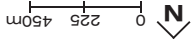
Project can help contribute to upstream alleviation of flood risk in Leamington (as identified in Strategic Flood Risk Assessment and by stakeholders). Potentially complements objectives for riverine quality in the Water Framework Directive and River Severn Basin Management Plan. Landscape connectivity, enhancement and woodland linkage are complementary to strategy for the Dunsmore Plateau Fringe character area in the Warwickshire Landscape Guidelines. Project can also complement landscape scale restoration objectives of the Warwickshire Wildlife Trust's Living Landscapes Project (links to Princethorpe Woods with Woodland Trust aspirations for new broadleaf woodland creation.

Issues Associated with Delivery:

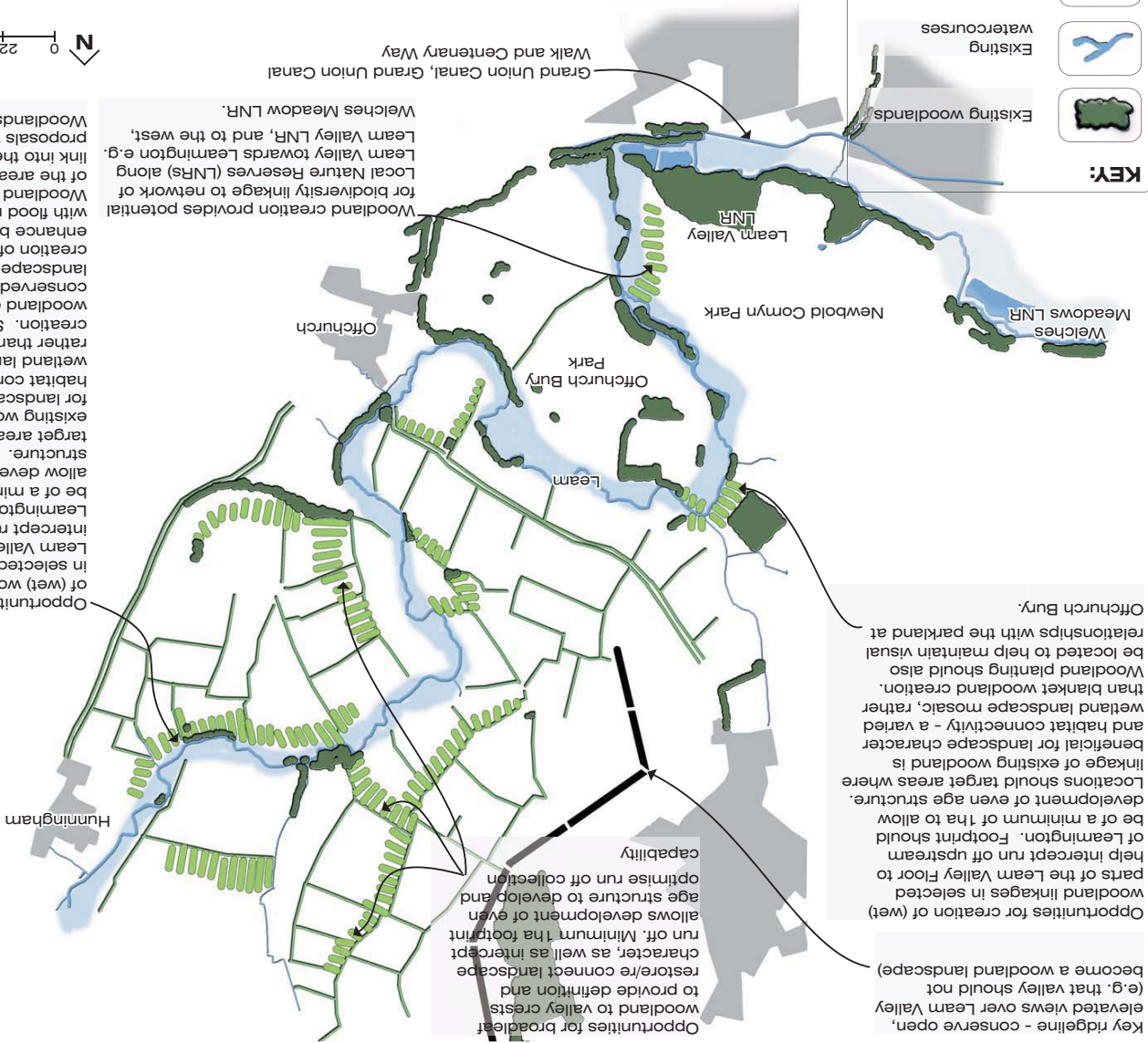
Further survey and investigation such as local level flood modelling and calculation of viable woodland areas, needed, to determine final/optimum locations. Need to refer to Historic Environment Record and undertake land and archaeology surveys to identify any archaeological constraints/appropriate mitigation. Further local level/fine grain landscape character assessment, within the strategic framework set by the Warwickshire Landscape Guidelines would also be useful. Project would require liaison with Environment Agency in relation to any large scale planting in the catchment and the flood plain. Land ownership negotiation is the other key issue, as is the take up of relevant grant aid schemes such as Higher Level Stewardship (HLS)/English Woodland Grant Scheme (EWGS).

Possible Approaches to Delivery:

Project has potential to form part of a wider countryside management initiative to conserve & restore the Leam Valley landscape - a partnership approach involving Warwickshire Wildlife Trust, Woodland Trust, Warwick District, the Environment Agency and landowners. With inclusion of an enhanced access provision as part of the project, Warwickshire County Council Rights of Way Team could form part of the partnership. Otherwise aspects could be delivered on a phased basis, through promotion of uptake of HLS/EWGS grant schemes.



Opportunities for creation of (wet) woodland linkages in selected parts of the Leam Valley Floor to help intercept run off upstream of Leamington. Footprint should be of a minimum of 1ha to allow development of even age structure. Locations should target areas where linkage of existing woodland is beneficial for landscape character and habitat connectivity - a varied wetland landscape mosaic, rather than blanket woodland creation. Such localised woodland creation should be conserved as part of a whole landscape approach, with creation of wetland scrapes to enhance biodiversity and help woodland creation in the north Leam Valley LNR, and to the west, Welches Meadow LNR.



Key ridge line - conserve open, elevated views over Leam Valley (e.g. that valley should not become a woodland landscape).

Opportunities for broadleaf woodland to valley crests to provide definition and restore/connect landscape character, as well as intercept run off. Minimum 1ha footprint allows development of even age structure to develop and optimise run off collection capability

Opportunities for creation of (wet) woodland linkages in selected parts of the Leam Valley Floor to help intercept run off upstream of Leamington. Footprint should be of a minimum of 1ha to allow development of even age structure. Locations should target areas where linkage of existing woodland is beneficial for landscape character and habitat connectivity - a varied wetland landscape mosaic, rather than blanket woodland creation. Woodland planting should also be located to help maintain visual relationships with the parkland at Offchurch Bury.

KEY:

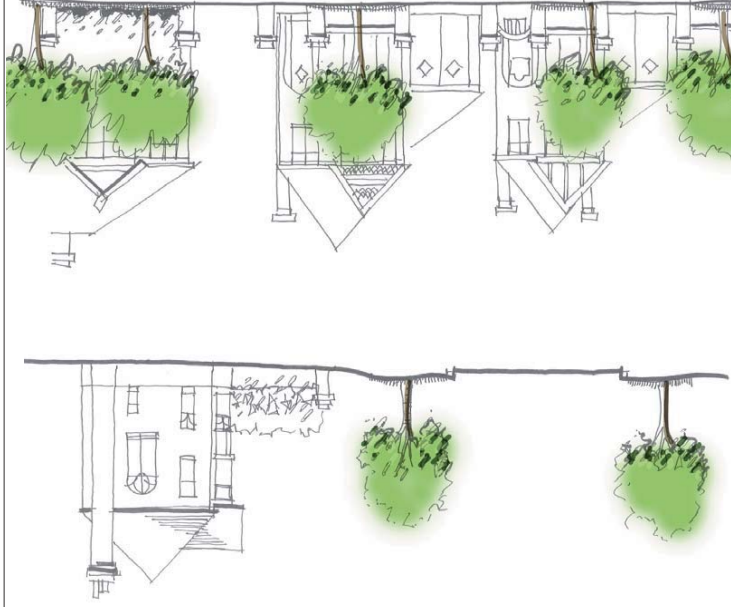
- Existing woodlands
- Existing watercourses
- Proposed woodland linkages

RIVER LEAM FLOOD ALLEVIATION TREE PLANTING : LANDSCAPE CONCEPT

SCALE: SEE SCALE BAR

Below are some guiding principles for tree planting in relation to townscape character/for retrofitting urban street trees, for new tree planting in development, and ideas about long term strategies to maintain tree cover in Warwick District's towns.

Box 1 : Townscape character: Retrofitting and adaptation



Lower density traditional residential suburbs (street: building proportions of 1:4 or greater, as in the sketch sections above) present greatest opportunities for retrofitting:

A continuous tree line is desirable for character and urban biodiversity - aim to plant larger grade street trees aligned to plots/at 10-15 metres centres to reinforce this established streetscape character/visual identity. This would also assist in protecting amenity, and avoiding shadowing.

Appropriate tree grades to provide visual continuity for gap filling/replacement: Use of semi mature plant material of at least 14-16 cm girth (typical improved resistance to urban conditions e.g. vandalism, trafficking and parking clear stem height of such specimens would be 4.25 – 6.00m, to provide commercial/retail sites.

URBAN TREE PLANTING: PRINCIPLES AND GUIDANCE DRAWINGS NOT TO SCALE

Box 2: Possible long term strategies for maintaining urban tree cover/green' rootscapes in the district

An approach to a possible tree strategy would need to be widely consulted upon at brief development stage – below are guidelines/initial points to consider:

- Survey:**
- Tree quality
 - Condition
 - Life expectancy
 - Identify dead/dying/dangerous trees

- Analysis: Assess trees' contribution to amenity:**
- Townscape character assessment
 - Neighbourhood Plan
 - Map regression analysis
 - Stakeholder/community views and values
 - Designated/legal status of trees
 - Value of ecosystem services provided by trees

- Plan: Opportunity assessment:**
- Identify areas for action, and phasing and whether part/full replanting

- Develop and consult on Tree Strategy**

New urban public realm trees: Replacement planting schemes should draw from comparable/associated species, or climate change adapted equivalents, using semi mature grade planting of minimum 14-16 cm girth, preferably 16-18/18-20, e.g. to withstand trafficking. Such trees should be double staked or cost allowing, preferably underground guyed, and fitted with proprietary tree grilles and irrigation tubes. **Factor in a minimum of 3 years' aftercare post planting.**

Summary Description

- Development of initial principles for urban tree planting, to provide shading and cooling, townscape character enhancement and urban biodiversity.
- Consideration of outline specifications for appropriate grades of public realm tree planting
- Providing messages for developers on type and level of tree planting appropriate for GI/place led development
- Masterplanning
- Guide level of investment for CIL charging schedule
- Project also sets out formative steps for planning to maintain long term tree cover, within initial pointers towards an approach for a Tree Strategy for the district

Project Rationale & Drivers:

An extensive level of very high quality tree cover characterises much of the district's urban environment, although this is over mature and there is currently no coordinated programme for management or replacement. Therefore there is a need to sustain good levels of tree cover not only for GI benefits but also in terms of sense of place. This needs to be both through principles for new tree planting and through consideration of strategies for maintaining long term tree cover and this aspect of urban character.

Issues Associated with Delivery:

New urban tree planting requires liaison with county/highways authority and with service/utilities providers, particularly where retrofitting options are being considered. Need for a strong policy position, drawing from/building upon requirements of developers. Also to set out requirements for appropriate grade of structural GI in CIL charging schedules. Consultation and brief development needed on a formal Tree Strategy to plan for long term tree cover in the district towns. Implementation of such a strategy dependent on perception/community support/good public relations.

Possible Approaches to Delivery:

Potential for the district to lead a district wide approach to delivery of urban trees in towns and smaller settlements, through co ordination of bid to National Tree Planting Fund, and liaison with parishes and local groups. Otherwise public realm tree funding will occur at district level, other than by developer/retailer led schemes. The Woodland Trust may be another potential partner re: fund brokering, particularly if tree planting schemes can help increase connectivity between broadleaf woodlands (e.g. considering landscape and townscape interface).

Box 3: Tree planting principles for development

Planting distances and sizes – amenity and shadowing, safety/permeability, sense of place, microclimate

Keep at least 3m depth between pedestrian paths and tree boles for standard width shared use paths of 2.4-2.6 metres (to avoid over shadowing), with smaller distance of 1m and 700mm for larger specimen shrubs and clipped hedges respectively where these form part of the planting scheme.

The planting in urban parks: Seek to allow at least 8-10m clear/unshaded space between groups of tree canopies, to provide usable informal space for individuals/groups.

Building shadowing: To avoid unnecessary shadowing to dwellings seek to allow for a distance of half the mature tree's height from buildings, to provide appropriate stand off in light of shadowing. This principle is recognised in BS 5837: 2005.

Suggested principles for tree planting in relation to development density and layouts are set out under Landscape Integration and Visual Foliage, below

The sketch sections below show key principles to plan for visual integration between new settlement edges and wider landscape, based on landscape pattern and scale in the wider landscape (for example in the Arden character area, connecting woodland belts of 20-30m in width provide a template for new landscape belts to settlement edges). A 20-30m band allows for creation of multi functional landscape corridors, e.g. incorporation of pedestrian/riding/cycle routes, series of different spaces and sequences, different planting types and management regimes – e.g. to provide foliage/dappling rather than blanket screening. In addition to application of BS 5837:2005 for protection of existing plant material, consideration should also be given to development layout and porosity to settlement edges in particular to allow for meaningful levels of new planting for character, setting and connectivity – landscape bleeding in to townscape, reducing edge density to below 30 dph, whilst potentially increasing elsewhere, to allow for greater level of tree planting/larger grade native material, emphasising 'forested' Arden landscape character. This approach would also allow a greater level of tree planting in new front gardens. If densities cannot be reduced, developers should make greater allowances for foundation depth in scheme design to enable this principle to be reflected in development schemes.

Potential specifications for new public realm tree planting

For robustness, use advanced nursery stock/semi mature grade planting of minimum 14-16 cm girth, preferably 16-18/18-20, e.g. to withstand trafficking. Such trees should be double staked or cost allowing, schemes should factor in a minimum of 3 years aftercare (general maintenance and irrigation to establishment).

Landscape integration and visual foliage

As well as application of BS 5837:2005 for protection of existing plant material, scheme designers should consider development layout to settlement edges to allow for meaningful levels of new planting for character, setting and connectivity, considering edge density reductions to below 30dph (**Sketch Section A**), to allow for larger tree planting. Alternatively, accommodate greater foundation depth in scheme design. Ideally the principle of a level of native planting of species that respects wider landscape context should be established at project feasibility/concept, and that other guidance used by developers (e.g. NHBC standards) should work within this principle, rather than be used to dictate level of planting delivered on site.

Sketch sections B and C show this principle in context, e.g development edge as a response to wider landscape pattern and scale (type, level and stature of planting). For example in the Arden landscape character area, connecting woodland belts of 20-30m in width can provide a template for new landscape belts to settlement edges (**Sketch Section B**). A 20-30m band allows for creation of multi functional landscape corridors, e.g. incorporation of pedestrian/riding/cycle routes, series of different spaces and sequences, different planting types and management regimes and land shaping – e.g. to provide foliage/dappling rather than blanket screening. (**Sketch Section C**).

URBAN TREE PLANTING: PRINCIPLES AND GUIDANCE
DRAWINGS NOT TO SCALE

