Sheffield City Highways
Tree Survey
2006-2007
Survey Objectives

- Inventory
- Assess
- Recommend
From This ...
To This
Data Collection

- Tree Species
- Age-class
- Size – DBH
- Surface
- Condition
- Recommendations
- Priority of works
Survey Findings

• 35,057 Trees
• 25,877 Mature & Over-mature Trees
• 7,487 Semi-mature Trees
• 1,693 Young Trees
• 28,258 In Areas of Soft-standing (verges etc)
Survey Findings

• Approximately 10,000 trees needed some form of remedial treatment
• 25,000 trees requiring no work at present
• Of those requiring work:
  » 25 - immediate priority
  » 1200 - within 1 month priority
  » 3000 – within 3 months priority
  » 4000 – within 9 months
  » 2000 – if budget allows
Survey Findings

Works Required:

• 1000 Felled
• 1500 To deadwood or crown-clean
• 2900 To crown-lift
• 550 To crown-reduce
• 241 To crown-reduce or consider removal
Survey Findings

Works Required:

• 296 Required aerial inspection
• 458 Required further inspection including decay detection
Survey Findings

Other recommendations included:
- Epicormic removal
- Ivy removal
- Minor tree pruning works
- Tree-tie and stake removal
Age-class Spread

Tree Age-class Structure

- Mature: 74%
- Semi-mature: 21%
- Young: 5%
Species Mix

Tree Species Mix

- Horse Chestnut: 22%
- Sycamore: 16%
- Cherry spp: 5%
- Oak spp: 4%
- Plane: 4%
- Maple spp: 5%
- Whitebeam spp: 5%
- Rowan: 6%
- Lime: 13%
- Ash: 11%
- Poplar spp: 1%
- Willow spp: 1%
- Elder: 1%
- Apple spp: 6%
- Birch spp: 3%
- Alder spp: 1%
- Holly: 0%
Most Common Tree Works Identified

- Fell
- Remove Deadwood or Crown-clean
- Crown-lift
- Crown-reduce
- Crown-reduce or consider removal

Tree Works Spread
Decay Detection & Aerial Inspection

Decay Detections and Aerial Inspections

Decay Detection

Aerial Inspection

No Such Intervention
Implications

• Mature Stock
• Even Aged
• Few Young Trees
• Decline will accelerate
• Incidence of Felling will increase
• Dramatic change in Sheffield streetscapes
Where to now?
Replanting & Replacing

• Increased new planting
  Planting on previously unused verges
  Planting on verges left empty after tree removal
  Mixed genus and species – right tree, right place
  Tree choice to suit all factors
  New trees on highways in new developments

• Replacement NOT removal
  Lose the concept of removal – always replacement
  Costs should always include a standard rate for the replacement tree, planting and aftercare.
  If the value and costs of installing a new tree is known this information can be used to correctly gauge the value and cost implications of a tree in the final stage of life
The value of replacement?

• 241 trees were highlighted for works so extensive that consideration should be given to their future replacement.
Future Survey

• 3 year rolling survey
• Health & safety requirement
• Monitor problem areas
• Analyse population changes
• Aid management direction
Tree Strategy

• A formal Document
• Ratified by Council
• Detailing policies
• Detailing best practise
• Detailing Procedures
• Outlining the goals & objectives
The Urban Forest
elliott consultancy ltd.