



Planning

Durham City/County Landscape Manual Revision

Major Revisions

- Text revisions
- UDO amendments & new planting installation certifications
- Plant chart revisions
- Revised planting details & examples
- Future recommendations



Text Revisions

- Updated text to show current best practices & trends in the industry
- Removal of the separation of recommended and required techniques
- Added eco-friendly tips to promote ecologically sound installation and maintenance practices



UDO Amendments & New Planting Installation Certifications

- Increase the percentage of native species required to be used in tree replacement areas
- A certification requirement for planting quality that requires a licensed landscaped architect or licensed landscape contractor to certify that the correct planting techniques were used



Revised Plant Tables

Updated invasive species

- Reviewed against local and national plant data
- Expanded prohibited plant list, based on recommendations from Urban Forestry staff, the Durham Environmental Coalition, and NC State University



Revised Plant Tables

- Organized 8 current plant tables to 4 & adjusted graphics for better legibility
- Removed the majority of individual cultivars
- Removed ambiguous designations



Current Tree Plant Table Format

Landscape Manual for Durham, North Carolina

Revised April 3, 2013

Table 1A: Allowed Trees, Deciduous Canopy, Native to Durham

Table 1A: Allowed Trees, Deciduous Canopy, Native to Durham		Requirements										Recommended Cultural Information				
Scientific Name	Common Name	Required Minimum Root Area ²	Approved Location of Use Categories ¹									Planting Conditions			Mature Height x Spread (in Feet) and Form	Cultural Notes
			Street Trees				Parks	Vehicle Use Areas	Tree Coverage	Buffers		Sun Exposure ³	pH Range ⁴	Wet/Dry and Soil Tolerance ⁵		
			Rural / Suburban Tiers	Urban Tier	Compact Neighborhood/ Downtown Tiers	Under Power Lines				Constructed	Solid Hedge					
<i>Acer barbatum</i>	Southern Sugar Maple	3	Y	Y	Y		Y	Y	Y	Y		FS PS	5.0-7.0	7	50 x 50 rounded	Heat-tolerant, native sugar maple, good fall color
<i>Acer rubrum</i>	Red Maple	3	Y	Y			Y		Y	Y	Y	FS SH	5.0-7.0	6	50 x 50, rounded	Pyramidal crown in youth; thin bark susceptible to heat scorch; planting in poor soils will produce a shallow root system: not for Downtown, due to scale
<i>Acer rubrum</i> Burgundy Belle® ('Magnificent Magenta')	Red Maple (smaller cultivars)	3	Y	Y			Y		Y	Y		FS SH	5.0-7.0	6	25-35 x 35, round	Compact, round cultivars
<i>Acer rubrum</i> Northwood®, 'October Brilliance', Red Sunset® ('Franksred'), Redpointe®, 'Somerset', 'Sun Valley'	Red Maple (medium cultivars)	3	Y	Y			Y		Y	Y		FS SH	5.0-7.0	6	40-50 x 30-40, oval	Medium-maturing varieties with mature oval form (pyramidal in youth)

¹ Allowed Location of Use Categories: Y = Allowed;

Y* = Allowed if demonstrated conditions provided;

Blank = Not approved for required landscaping in category listed


² Required Minimum Root Area (Trees): 1 = 150sf; 2 = 250sf; 3 = 350sf

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³ Sun Exposure: FS = Full Sun PS = Part Sun / Shade FS = Full Shade

⁴ pH Range: 4.0 - 6.2 (Acid); 6.2 - 6.8 (Neutral); 6.8 - 9.0 (Basic)

⁵ Wet/Dry and Soil Tolerance - see Figure 6, Plant Table Key, on page 37;

Options 7, 8, and 9 are designated as a  Waterwise species



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Revised Tree Plant Table Format

TABLE 1A: ALLOWED DECIDUOUS TREES

ALLOWED TREES				APPROVED LOCATION OF USE CATEGORIES								CULTURAL INFORMATION	
Native = N Canopy = C Understory = U Water-Wise = W				Allowed = Y									
Plant Type	Scientific Name	Common Name	Required Minimum Root Area	Street Trees				Vehicle Use Area	Solid Hedge	Tree Coverage	Buffers		
				Rural / Suburban Tier	Urban Tier	Compact Neighborhood/ Downtown Tier	Under Power Lines				Constructed	Riparian	
C	<i>Parrotia persica</i>	Persian Parrotia	150 sf			Y	Y	Y		Y	Y		Small canopy tree with three - season interest <ul style="list-style-type: none">▪ H 30' x W 30'▪ Full Sun, Part Sun / Shade▪ pH 5.1 - 6.5▪ Round
C W	<i>Pistacia chinensis</i>	Chinese Pistache	250 sf	Y	Y	Y	Y	Y		Y			Tough, small canopy tree with good fall color <ul style="list-style-type: none">▪ H 35' x W 35'▪ Full Sun, Part Sun / Shade▪ pH 4.5 - 7.5▪ Round
N C	<i>Platanus occidentalis</i>	Sycamore, American-Planetree	350 sf									Y	Massively-large tree of bottom lands and moist, deep soils; <i>Anthraco</i> severely limits use; see <i>P. xacerifolia</i> in Table 1B <ul style="list-style-type: none">▪ H 70' - 90' x W 60' - 80'▪ Full Sun, Part Sun / Shade▪ pH 5.5 - 7.5▪ Large, wide spreading, irregular



Current Shrub Plant Table Format

Landscape Manual for Durham, North Carolina

Revised April 3, 2013

Scientific Name	Common Name	Requirements							Recommended Cultural Information				
		Approved Location of Use Categories ¹					Planting Conditions			Mature Height x Spread (in Feet) and Form	Cultural Notes		
		Urban Conditions	Vehicle Use Areas	Sight-Distance Triangles	Under Tree Coverage	Buffers	Sun Exposure ³	pH Range ⁴	Wet/Dry and Soil Tolerance ⁵				
						Constructed	Solid Hedge	Riparian					
<i>Calocedrus decurrens</i> (formerly <i>Libocedrus decurrens</i>) 'Compacta'	'Compacta' California Incensecedar	Y*				Y			FS	6.2-6.8	7	6 x 6, globe	Zones 5-8; prefers moist, well-drained, fertile soil, but tolerant of many soil types; intolerant of smog, pollution, and high wind areas; once established, is drought- and heat-tolerant
<i>Calocedrus decurrens</i> 'Maupin Glow'	'Maupin Glow' California Incensecedar	Y*				Y			FS	6.2-6.8	7	8-15 x 4-5, columnar	Same as above;
<i>Camellia japonica</i>	Japanese Camellia	Y			Y	Y	Y*		PS	5.5-6.0	4	10-15(25) x 6-10, densely pyramidal, sometimes more open, formal, stiff	Zones 6-9; prefers moist, acid, high organic content, well-drained soils; high Pine shade best; shallow-rooted, so mulch and do not cultivate around base; bloom January-April, depending on cultivar; numerous cultivars with different color blooms, some double; location of use is predicated on the mature or maintained height of the plant or cultivar
<i>Camellia oleifera</i>	Tea-Oil Camellia	Y			Y	Y			FS PS	5.5-6.0	4	12-15 x 8-12, pyramidal-to-rounded; multi-stem	Zones 6-9; culture similar to <i>C. japonica</i> and <i>C. sasanqua</i> ; blooms October to January; hardier than other camellias (look for Ackerman Hybrids); less formal than other camellias; location of use is predicated on the mature or maintained height of the plant or cultivar

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² Required Minimum Root Area (Trees): 1 = 150sf; 2 = 250sf; 3 = 350sf

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³ Sun Exposure: FS = Full Sun PS = Part Sun / Shade FS = Full Shade

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⁵ Wet/Dry and Soil Tolerance - see Figure 6, Plant Table Key, on page 37;

Options 7, 8, and 9 are designated as a  Waterwise species



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Revised Shrub Plant Table Format

TABLE 2A: ALLOWED EVERGREEN SHRUBS

ALLOWED SHRUBS Native = N Water-Wise = W			APPROVED LOCATION OF USE CATEGORIES Allowed = Y						CULTURAL INFORMATION
Plant Type	Scientific Name	Common Name	Vehicle Use Area	Site Distance Triangle	Under Tree Coverage	Solid Hedge	Buffers		
							Constructed	Riparian	
W	<i>Berberis julianae</i>	Wintergreen Barberry			Y		Y		A barrier plant with thorns; does not prune well; cut to six inches above ground to rejuvenate as needed <ul style="list-style-type: none">▪ H 6'-10' x W 6'-10'▪ Full Sun, Part Sun / Shade▪ pH 6.2-6.8▪ Rounded, impenetrable mass
W	<i>Berberis x gladwynensis</i> 'William Penn'	William Penn Barberry			Y		Y		Does best with moist, well-drained soil, but tolerates poor soils; a barrier plant; not widely available <ul style="list-style-type: none">▪ H 3'-4' x W 3'-4'▪ Full Sun, Part Sun / Shade▪ pH 5.5-6.8▪ Dense, rounded
W	<i>Berberis x mentorensis</i> / (<i>B. julianae</i> x <i>B. thunbergii</i>)	Mentor Barberry			Y		Y		Semi-evergreen; does best with moist, well-drained soil, but tolerates poor soils; a dense barrier plant if not pruned extensively; not widely available <ul style="list-style-type: none">▪ H 5'-7' x W 5'-7'▪ Full Sun, Part Sun / Shade▪ pH 5.5-6.8▪ upright, stiff, rounded, spreading with age



Revised, Modified, & Added Planting Details and Example Graphics

- Replaced poor quality graphics with clean legible graphics
- Modified details to reflect current best practices & trends in the industry
- Added examples based on most common inquiries received during site plan reviews



Current Details & Examples

Landscape Manual for Durham, North Carolina

Revised April 3, 2013

Figure 1, Required Tree Planting Detail

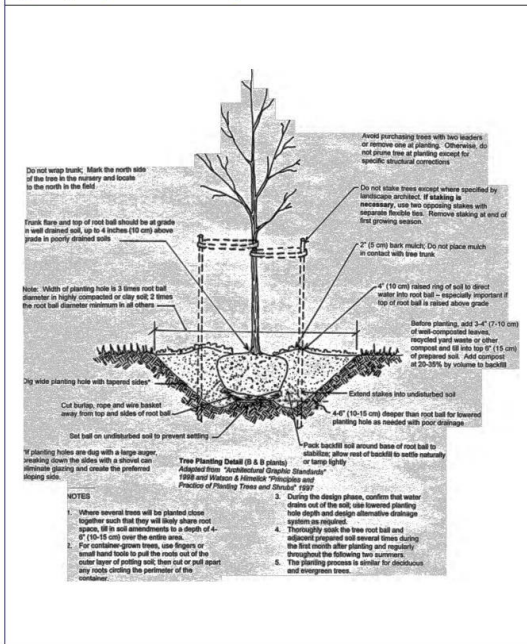
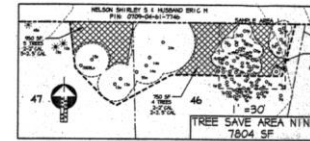
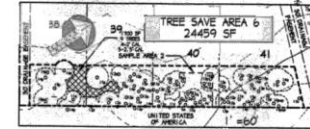


Figure 5, Sample Area Example



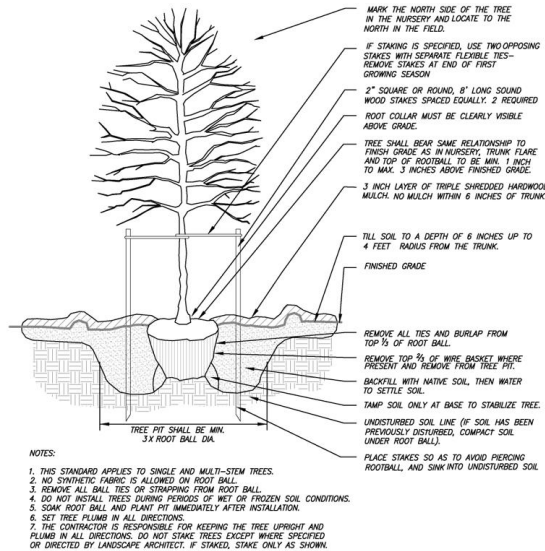
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98	10000 SF	10000 SF	10000 SF	10000 SF	10000 SF
99	10000 SF	10000 SF	10000 SF	10000 SF	10000 SF
100	10000 SF	10000 SF	10000 SF	10000 SF	10000 SF

AREA 1		AREA 2		AREA 3		AREA 4		AREA 5	
TYPE	QTY	TYPE	QTY	TYPE	QTY	TYPE	QTY	TYPE	QTY
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6	1	7	1	8	1	9	1	10	1
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86	1	87	1	88	1	89	1	90	1
91	1	92	1	93	1	94	1	95	1
96	1	97	1	98	1	99	1	100	1

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Revised Details & Examples

Figure 1: Required Tree Planting Detail

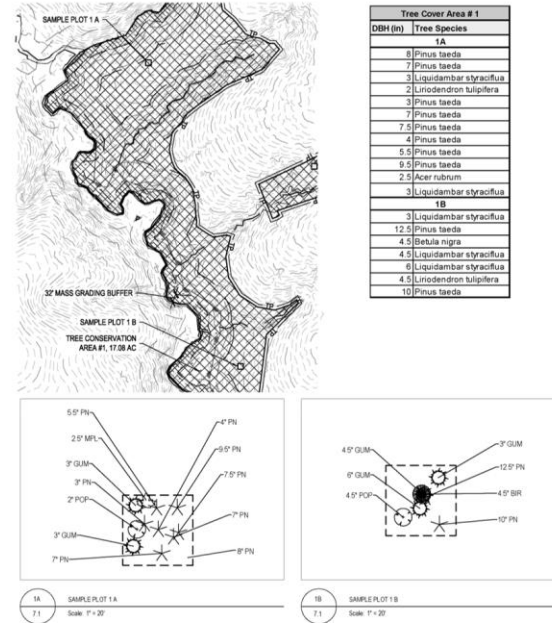


TREE PLANTING DETAIL
NTS

Courtesy of
Coultter Jewell Thames P.A.

Figure 5: Sample Area Example

(See paragraph 9.3.3, Sampling, of the Durham Unified Development Ordinance.)



Courtesy of
WithersRavenel, Inc



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Future Recommendations

- Updating the Landscape Manual on a five-year cycle



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