

excavation/soil preparations and protection

existing soft zones retained (Phoenix Sensory Garden & retained trees):
protect existing soils insitu, no access or storage allowed/werec fencing around entire zones & tree canopies
limited removal of protective fencing only for execution of the works locally

ornamental soft landscape with treepits within soft landscape & Parterres (entire Parterre zone):
reduce dig 1000 to offset tip or raise levels to form Parterre equivalent
ensure freely draining subbase, import specified topsoil/subsoil
protect from storage or any use other than soft landscape works once soiling implemented

ornamental soft landscape without treepits:
reduce dig 550 to offset tip or raise levels to form Parterre equivalent
ensure freely draining subbase, import specified topsoil/subsoil
protect from storage or any use other than soft landscape works once soiling implemented

bulk hedge:
reduce dig 1050 to offset tip
ensure freely draining subbase, import specified topsoil/subsoil
protect from storage or any use other than soft landscape works once soiling implemented

shallow SUDS raingardens and Play soft landscape strips:
SUDs to JUBB design/specification
reduce dig 1000 to offset tip or raise levels to form Parterre equivalent
protect from storage or any use other than soft landscape works once soiling implemented

deep SUDS raingardens and matching/abutting CycleWay soft landscape strip:
SUDs to JUBB design/specification
reduce dig 1050 +100JUBB depth to offset tip, import drainage layer/specified soil
protect from storage or any use other than soft landscape works once soiling implemented
(dig depth is determined by system supporting hard landscape)

all SUDS raingardens with treepits:
SUDs to JUBB design/specification
reduce dig 1320 (245hard/75400/600) +100JUBB depth to offset tip, import drainage layer/specified soil
protect from storage or any use other than soft landscape works once soiling implemented
(dig depth is determined by system supporting hard landscape)
NB all treepits require 1000Deep soil

all new treepits in hard landscape:
reduce dig 1355 (280hard/65Ray + 215RootDirector/75airdeck/400/600RootSpace)
+100JUBB to offset tip, import drainage layer/specified soil
protect from storage or any use other than soft landscape works once soiling implemented
(dig depth is determined by system supporting hard landscape & treepit depth)
NB all treepits require 1000Deep soil

lawns
reduce dig 500 to offset tip or raise levels to form Parterre equivalent
ensure freely draining subbase, import specified topsoil/subsoil
protect from storage or any use other than soft landscape works once soiling implemented
NB all treepits require 1000Deep soil

- NB**
- finished soft landscape levels are determined by abutting hard landscape finished surface levels (+10 or -50 or flush according to location)
 - no geotextile or membrane beneath mulches (to allow root penetration/water percolation & aeration)
 - no membrane wrap between soil types (to allow root penetration/water percolation & aeration)
 - membrane wrap installed only for SUDs to collect percolated raingarden water (to JUBB design/specification)
 - refer to specific cross-section details when available
 - anticipated excavation depths for RootSpace will evolve at detail design RIBA4s stage
 - all soiling in dry conditions, laid to even running levels and a single plain, without humps or dips
 - cultivations/planting within RPAs or in existing planters retained must be by-hand, aware of/avoiding damage to existing root systems

maintenance notes
also refer to separate specific schedules on plans & LEMP

clipped block hedge 750high
3" back batter to open elevations (fronts & sides) with horizontal top
hand weed x3 per year/clip x2 per year for years 1-2, thereafter x1
remove arisings to PCC compost
replenish barkmulch x2 per year

clipped formal hedge minimum 1100high from fall-risk side &/or +1000 above Cor Ten top
3" back batter to all elevations with horizontal top
hand weed x3 per year/clip x2 per year for years 1-2, thereafter x1
remove arisings to PCC compost
replenish barkmulch x2 per year

loose ornamental hedge/raingardens/Cycle way strips/ornamental planting zones
hand weed x1 monthly April-November
remove arisings to PCC compost
December remove dead/degenerating plant remains (but leave sturdy stems/seedheads)
February remove remaining grass/perennial seedheads & stems
replenish gravel topping x2 per year
replenish barkmulch x2 per year

amenity lawn turf (laid to falls)
rotary mow every two weeks April-October/let arisings fly/trim tree bases with shield or up to mulch bases
ensure flush N end of raised Parterres & egress points off path system
remove excess arisings to PCC compost
turf repairs to desirables/footfall erosion (protect with temporary protective fencing)

shade meadowturf/wildflower 34turf
trim x2 per year, once grasses spring (to keep sward open) & later autumn (after self-seeding)
remove arisings to PCC compost
turf repairs to desirables (protect with temporary protective fencing)

mown path
rotary mow every two weeks April-October/single mower width
remove arisings to PCC compost

reinforced grass
trim as/ff needed occasionally
remove arisings to PCC compost
reseed/turf/replace Golpa as necessary (protect with temporary protective fencing)

reeds
hand weed x2 a year (spring & autumn)
remove arisings to PCC compost
check inlets/outlets are free

Play mulch
rake to retain an even flat plain x52 per year (weekly)
check efficacy/performance
replenish barkmulch x5 per year or as required to maintain a safe play surface

footfall mulch
replenish barkmulch x2 per year

specimen trees
water monthly or as needed
monthly check for damage
seek expert advice when ill-health noticed

all areas
x2 visits per month to keep litter-free/clean & tidy/remove detritus to PCC tip
x2 visits October-November to sweep clear of leaves & remove arisings to PCC compost
final checks & actions end of November/early December each year for 30years
NB Contractor maintenance responsibilities end after 24months Defects Liability Period, thereafter by client PCC

drawing NOTE

- all levels & all hard construction details/supporting structures to architect/engineers design/specification
- all drainage/subsurface elements to engineers design/specification
- all aspects of hard landscape/retaining wall/membranes/geotextiles/existing or new compacted subbase are inferred
- vertical sides to excavations required in all situations (to achieve volumes), in existing fill or new compacted fill
- do not set out or construct directly from this drawing unless instructed (follow architect set-out dims/coordinates)
- finished soft levels follow hard landscape finished levels -50 or +10 or flush as specified
- follow proprietary systems details/specification/workmanship at all times where these are used (invite suppliers advice/inspection for approvals)
- construction details will evolve responding to site investigations & build
- ensure haunching/root barriers/geotextiles are not visible after finishes -50 below paving lip
- mitigate against any contamination from works during construction at all times; apply clean work practices & cover up to protect installation

GENERAL NOTES

Check all dimensions on site. Do not scale from this drawing. Report any discrepancies and omissions to Studio Agora Architects.

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DESIGN/SKETCH DESIGN

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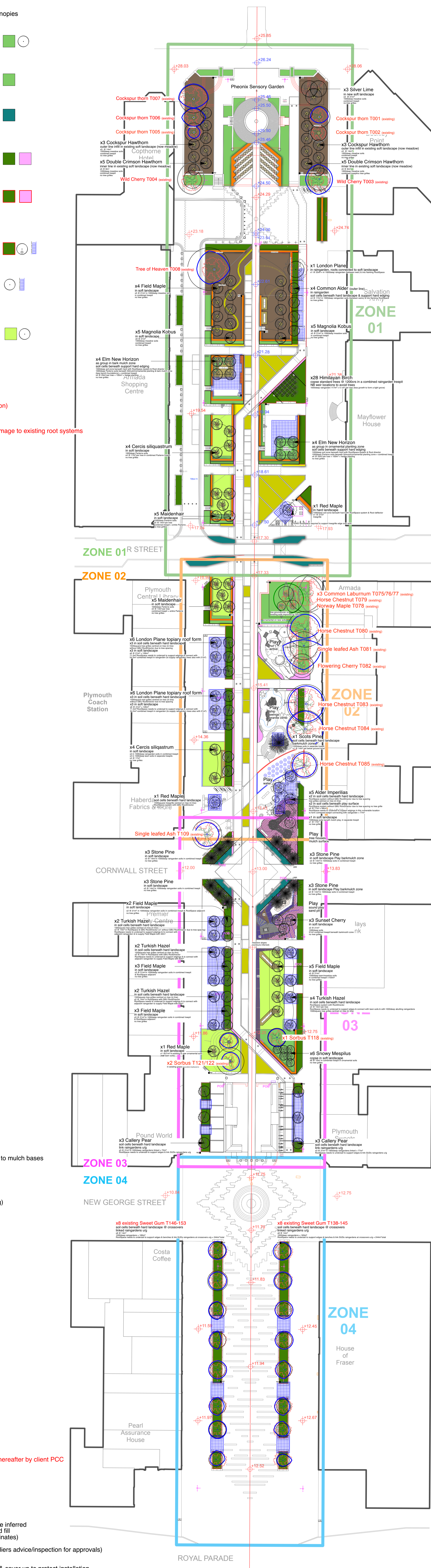
AREA CALCULATIONS

The areas shown are approximate only and have been measured from preliminary drawings as the likely areas at the current state of design using the stated option from the Code of Measuring Practice 4th edition (RICS/819). These may be affected by future design development and construction tolerances or the result of surveys for existing buildings. Take account of these factors before preparing any financial or property development purpose or strategy and seek confirmation of latest areas before decision making.

3RD PARTY INFORMATION

This drawing includes information provided by independent surveyors and/or consultants to whom all enquiries shall be made. Studio Agora Architects accept no liability for its content or accuracy.

Client: **PLYMOUTH CITY COUNCIL**



soft finishes & build-up

- clipped block hedge @ 300crs in groups of x3 same species
- 50barkmulch on imported natural sandy loam soils or GreenBlueUrban RootSoil: 400topsoil on 600subsoil on freely draining subbase finished levels -50below paving retaining edge
- temporary protective fencing to inner face or on diagonal
- clipped formal hedge 600wide x2 rows @ 300crs staggered, in groups of x3 same species
- 50barkmulch on imported natural sandy loam soils or GreenBlueUrban RootSoil: 400topsoil on 600subsoil on freely draining subbase in Parterres & ornamental gardens, finished levels flush
- 50barkmulch on existing soils where extant retained & freely draining in Phoenix Garden, finished levels flush
- 50barkmulch on imported natural sandy loam soils or GreenBlueUrban RootSoil: 400topsoil on 600subsoil on freely draining subbase in 75gravel topping on full depth GreenBlueUrban ArborSoilHydroMAX with soil depths as raingardens depths, finished levels -50below paving retaining edge
- temporary protective fencing to inner face
- loose ornamental hedge 600wide, x3 rows @ 300crs, staggered
- 75gravel topping on GreenBlueUrban ArborSoilHydroMAX (ota 500deep) on freely draining subbase at ground level beside Parterres, finished levels -50below paving retaining edge
- 600wide gravel strip beside Cycleway and to Play Zone perimeter, planted to rear beside Cor Ten, gravel visible to front
- 75gravel topping on GreenBlueUrban ArborSoilHydroMAX, depths as raingardens, finished levels -50below paving retaining edge
- rain garden planting @ 12m²
- 75gravel topping on GreenBlueUrban ArborSoilHydroMAX in raingardens 500deep or 1000deep, finished levels -50below paving retaining edge
- 100drainage layer to JUBB design/specification
- temporary protective fencing to inner edge until establishment where deemed vulnerable
- Everedge Cor Ten 150 raingarden for raingarden gravel retention beside soft landscape (see annotation & planting plans)
- ornamental grass/herbaceous planting @ 9m²
- 50barkmulch on imported natural sandy loam soils or GreenBlueUrban RootSoil: 400topsoil on 600subsoil on freely draining subbase in Parterres
- 50barkmulch on imported natural sandy loam soils or GreenBlueUrban RootSoil: 400topsoil on 100subsoil on freely draining subbase, to zones at ground level, finished levels flush
- 50barkmulch on existing soils where extant (or imported make up levels as above) & freely draining in Phoenix Garden, finished levels flush
- temporary protective fencing to inner edge until establishment where deemed vulnerable
- Tilers Arena Turf amenity lawn turf (laid to falls) pre grown
- @ https://www.tilersurf.co.uk/landscape-turf
- on imported natural sandy loam soils or GreenBlueUrban RootSoil: 200topsoil on 300subsoil on freely draining subbase with finished levels +10above paving/hard edges
- temporary protective fencing to perimeter until establishment
- Boston Seeds shade tolerant wildflower meadow turf, pre grown
- @ https://www.bostonseeds.com/products/wildflower-turf-1/shady-place-wildflower-turf.html
- where extant in Phoenix Garden: strip existing grass turf to 100depth and re-lay upsidedown insitu, after tree planting, finished levels +10above paving/hard edge
- where not extant: lay turf on imported poor fertility natural sandy loam soils laid to top 200topsoil above existing soils, after tree planting, on freely draining subbase with finished levels finished levels +10above paving/hard edge
- all turf laid to even constant falls, with temporary protective fencing to perimeter until establishment where deemed vulnerable
- mown path (mower width)
- Boston Seeds Landscape34 wildflower Turf to lawn banks, pre grown
- @ https://www.bostonseeds.com/products/uk-native-wildflower-turf.html
- reinforced pregrown Golpa turf unit system cut to fit, finished levels flush with paving/hard/unit edge laid to a single plane
- 38unit on 100Rootzone(70/30 sand/soil) @ http://www.geosyn.co.uk/product/golpa-grass-gravel-reinforcement
- on GreenBlueUrban 200RootSale @ https://greenblue.com/gb/products/root-sale-filled-with-type3-on-existing-fill
- reeds @ 5m²
- specific aggregate layers in tray (Fill & planter, rejoining Fill)
- container grown plants within aggregate/finished levels set -50below paving retaining edge
- no soiling mulch
- to OCMS design/specification
- 100barkmulch to footfall wear locations & mowing strips
- on geotextile to bench perimeter in lawn/meadow 600wide, finished levels flush with edges/lawn
- @ https://meicourt.co.uk/products/ornamental-bark-mulch/
- 300barkmulch in Play zones on geotextile over natural sandy loam soils or GreenBlueUrban RootSoil: 400topsoil on subsoil on freely draining subbase
- finished levels flush with edges/lawn
- @ https://meicourt.co.uk/products/ornamental-bark-mulch/
- rubber crumb safety surface
- to Studio Agora design/specification
- Cor Ten
- 600high fins generally (safety/planting protection)
- 1400high fins to Place de Brest (to read above bulk planting)
- +110 above Parterre highest corner ground level (cladding/horizontal top/safety)
- to Studio Agora design/specification

selected specimen trees & accessories

- in hard landscape with GreenBlueUrban RootSpace beneath: GreenBlueUrban grille Tray/RootDirector/ArborVent/RootSpace/Arboryguy/RootRainPrecinct @ https://greenblue.com
- imported natural sandy loam soils or GreenBlueUrban RootSoil: 400topsoil on 600subsoil in soil cells
- on 100drainage layer to JUBB design/specification on freely draining subbase
- underground guying
- gravel topping to flush with treegrille surface
- in raingardens and with GreenBlueUrban RootSpace adjacent: GreenBlueUrban ArborVent/RootSpace/Arboryguy/RootRainPrecinct @ https://greenblue.com
- 75thick gravel topping, 20a loose-tipped & tamped
- imported GreenBlueUrban ArborSoilHydroMAX
- on 100drainage layer to JUBB design/specification on freely draining subbase
- underground guying
- in soft landscape: combined treepits to full depth
- 50barkmulch as certified 1200a or to entire tree-groups (as indicated, using planting mulch where extant) on imported or on improved existing soils (as indicated above), 400topsoil on 600subsoil
- GreenBlueUrban RootRain Urban
- on freely draining subbase
- underground guying
- GreenBlueUrban tube irrigation RootRainUrban or RootRainPrecinct per tree: watering by hand from stand pipes (all Zones)
- irrigation necklace to OCMS design/specification 50litres tree⁻¹ day⁻¹: watering by captured Rill system (Zones 1-2-3, not Zone 4)
- tree pits = minimum growing soil medium per tree, utilising an entire planted or lawned zone or Parterre or as combined pits
- treepit layouts adapted to suit context
- u/g GreenBlueUrban RootSpace soil cell system 1075deep (75400/600 or 75400 above underground tank)
- @ https://greenblue.com/gb/products/root-space
- on 100drainage layer to JUBB design/specification on freely draining subbase
- with 200wide gravel surround
- refer to specific drawings
- NB do not install membrane barriers between soil cells & raingardens**

- pop-up standpipe waterpoints (with covers flush to finished levels)
- locate fully in hard landscape in locations where soft landscape is tight/small (do not straddle both)
- otherwise, locate just within soft landscape right next to adjacent hard landscape
- OCMS/EOP design/layout/specification
- retained existing trees protected by Heras fencing at RPA
- NB no change in levels**
- to YGSEnvironmental tree protection specification

- tree planting dimensions in mm
- tree set out to follow architects/engineers coordinates, aligned to geometry, in straight lines
- hard landscape paving set-out determines tree location and treegrille location
- plant at Nursery root-collar depth, supply to site only when required for planting directly in the ground without delay,
- temporarily protect with hessian from windblow/evaporation and water as required
- peat or peat based products are not permitted.
- artificial fertilisers are not permitted.
- All topsoil zones (400thick when cultivated & settled) to incorporate to full depth 100thick PAS compost, with 50thick composed woodchip above
- all products/systems to or similar/equal approved:
- plant within minimum treepits dimensions: these follow arborist advice to supply required soil volume per tree species & desired mature size
- NB Birch** requires less m³ in order to restrict growth to form mass
- NB topiary Planes** could require less m³ in order to reduce growth & optimise maintenance (ideal shown)
- underground guying: GreenBlueUrban ArborGuy system, driven or attached to concrete deadmen with x3 straps, gauge to suit tree size
- @ https://greenblue.com/gb/products/arboryguy
- feed at planting: GreenBlueUrban RootStart mycorrhiza
- @ https://greenblue.com/gb/products/rootstart

- soft landscape mulch: place 1200a to minimum 50depth around trees in lawn areas
- Meicourt Ornamental barkmulch to soft planted locations
- @ https://meicourt.co.uk/products/ornamental-bark-mulch
- hard landscape mulch: place 20a clean gravel as mulch beneath tree grilles, to flush with soffit
- raingarden topping: place 20a clean gravel as mulch & percolation layer, average c.75h1k to surface of raingardens
- root barriers: GreenBlueUrban ReRoot Ribbed300 adjacent kerb edge
- GreenBlueUrban ReRoot Flat2000 placed adjacent to underground services only where deemed essential.
- @ https://greenblue.com/gb/products/root-management/

- soft landscape planting locations
- natural soils incorporating 100depth recycled compost PAS100 throughout topsoil layer
- use salvaged topsoil where/ff possible: these require soil-test prior to a decision to use assessing structure/nutrients and necessary amelioration according to Soil Test Report
- where soils are imported
- pH-neutral blended-sand-loam topsoil with natural high organic content (to BS3882 2015 revised) and certified free of toxins/contaminants over imported subsoil (to BS8601) or GreenBlueUrban equivalents

- tree schedule dimensions in cm
- minium sizes quoted
- semi-mature selected specimens (species/supply dependent), true to form for species

Zone	Planting	Quantity	Notes	
Zone 01	Lienco Field Maple	25-30girth soil volume per tree 21m ³		
	Red Maple	40-45girth soil volume per tree 21m ³		
	Common Alder	25-30girth soil volume per tree 17m ³		
	Himalayan Birch	18-20girth container soil volume per tree 14m ³		
	Judas (Love) tree	25-30girth soil volume per tree 17m ³		
	Cockspur Hawthorn	25-30girth soil volume per tree 14m ³		
	Double Crimson Hawthorn	25-30girth soil volume per tree 14m ³		
	Maidenhair Tree	25-30girth soil volume per tree 14m ³		
	Northern Japanese Magnolia	45-50girth soil volume per tree 21m ³		
	London Plane	40-45girth soil volume per tree 21m ³		
	Silver Lime	40-45girth soil volume per tree 21m ³		
	New Horizon Elm	25-30girth soil volume per tree 25m ³		
Zone 02	Cockspur Thorn	existing retained T001/002-005/006/007		
	Wild Cherry	existing retained T003/004		
	Tree of Heaven	existing retained T008		
Zone 03	Red Maple	40-45girth soil volume per tree 21m ³		
	Double Alder Tree	25-30girth soil volume per tree 17m ³		
	Judas Tree	25-30girth soil volume per tree 17m ³		
	Maidenhair Tree	25-30girth soil volume per tree 14m ³		
	Scots Pine	45-50girth soil volume per tree 21m ³		
	London Plane (topiary roof form)	25-30girth topiary specials soil volume per tree <21m ³		
	Zone 04	Common Laburnum	existing retained T075/76/77	
		Norway Maple	existing retained T078	
		Horse Chestnut	existing retained T079/80/83/84/85	
		Single leaved Ash	existing retained T081	
		Flowering Cherry	existing retained T082	
	Zone 04 (continued)	Lienco Field Maple	25-30girth soil volume per tree 21m ³	
Red Maple		40-45girth soil volume per tree 21m ³		
Snowy Mesquitol		25-30girth soil volume per tree 10m ³		
Juneberry		40-45girth soil volume per tree 21m ³		
Turkish Hazel		25-30girth soil volume per tree 14m ³		
Scots Pine		25-30girth soil volume per tree 14m ³		
Callery Pear		40-45girth soil volume per tree 21m ³		
Zone 04 (continued)		Single leaved Ash	existing retained T109	
		Sorbus sp.	existing retained T119/121/122	
		Sweet Gum	existing retained T138-153	
		Sorbus sp.	existing retained T119/121/122	

- total retained x8
- total existing x8
- Zone 02
- x1 Acer rubrum
- x5 Alnus glutinosa Imperialis
- x4 Cercis siliquastrum
- x5 Ginkgo biloba Mayfield
- x1 Pinus sylvestris
- x12 Platanus hispanica
- total new x28
- x3
- x1
- x3 total existing x11
- Zone 03
- x13 Acer campestre Lienco
- x1 Acer rubrum
- x6 Anemonechier lamarcii
- x3 Prunus Sunset Boulevard
- x10 Corylus colurna
- x12 Pinus pinea
- x6 Pyrus calleryana Chanticleer
- total new x51
- x1
- x1
- x3 total existing x4
- Zone 04
- x16 Sweet Gum
- total retained x39
- total new x163
- total trees x202

sizes & soil volumes to YGSEnvironmental advice

Rev | Comment | Date | By | Chk | Internal Project Number: 22101

P01 | PRELIM PRICING ISSUE & LEMP'ING | 05.12.23 | AR | LF

P02 | PRELIM PRICING ISSUE & LEMP'ING | 10.12.23 | AR | LF

P03 | PRELIMINARY PRICING ISSUE & LEMP'ING | 15.12.23 | AR | LF

P04 | PRELIMINARY PRICING ISSUE & LEMP'ING | 08.02.24 | AR | LF

Project: **ARMADA WAY PUBLIC REALM, PLYMOUTH**

Drawing Number: **67CA09-STA-ZZ-XX-DR-L-40-001**

Drawing Title: **PROPOSED SOFT LANDSCAPE PLAN - ALL ZONES**
soft GA/planting types/soils/cells/typical maintenance

Scale @ A0: 1:500 | Date Drawn: 05.12.23 | Drawn by: AR | Checked by: LF | Suitability: D1 | Revision: P04

Client: **PLYMOUTH CITY COUNCIL**

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