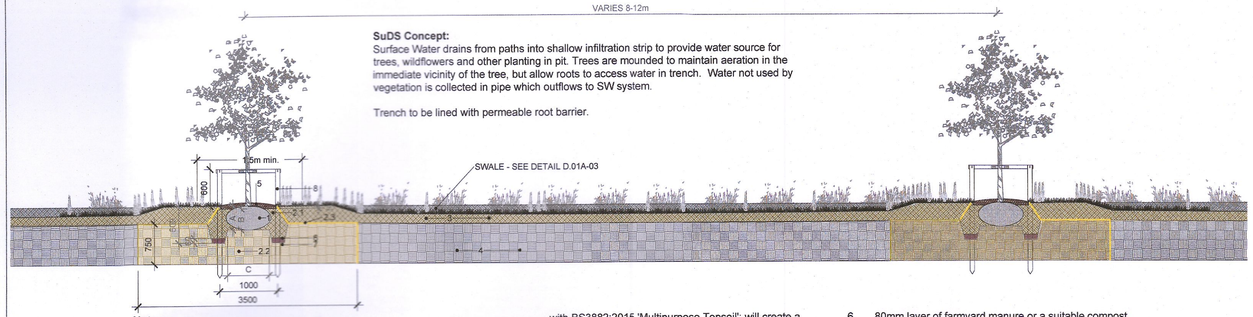
SuDS Street Tree Pit / Swale - Long Section — D01 / 03
Scale 1:50



SuDS Concept:
Surface Water drains from paths into shallow infiltration strip to provide water source for trees, wildflowers and other planting in pit. Trees are mounded to maintain aeration in the immediate vicinity of the tree, but allow roots to access water in trench. Water not used by vegetation is collected in pipe which outflows to SW system.

Trench to be lined with permeable root barrier.

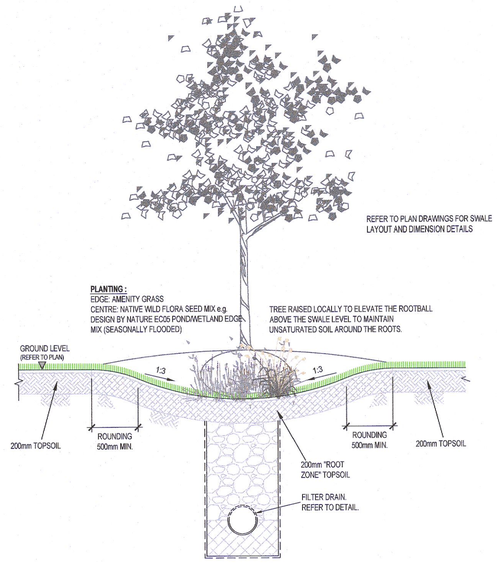
Notes:

1. Tree: rootball (nom. 450mm diameter); note - tree raised locally to elevate the rootball above the swale level to maintain unsaturated soil around the roots..
2. Tree Pit
   - 2.1. Topsoil around rootball and tree pit form in accordance with current Arboricultural best practice - wide, shallow topsoil area and free-draining subsoil similar to natural soil profile; Good quality topsoil around rootball sourced from site or imported and compliant with BS3882:2015 'Multipurpose Topsoil' with slow release fertiliser incorporated into backfill; 200mm depth between tree pits for grass; 450mm for shrubs/hedging stock.
   - 2.2. Structural Soil - 60% Clean Stone / 40% Good quality topsoil sourced from site or imported and compliant with BS3882:2015 'Multipurpose Topsoil'; will create a long-term and robust rootingn zone; min. 3.5x3.5x0.75m (c.9cu.m per tree, sufficient for medium street tree).
   - 2.3. Root barrier and root director to control root spread. This will allow for future re-purposing of the streetscape, protecting the tree roots from future excavation for hard surfacing, if required.
3. Free-draining soil layer with from site 50-150mm max. as substrate for wildflower seed planting. Variable soil depths and low fertility are compatible with wildflower establishment; precise seed mix to be determined in collaboration with Ecologist following soil analysis and detailed design.
4. Free Draining Fill / Subsoil (to proposed levels and falls); subgrade to be broken up.
5. Bark mulch, 75mm depth.
6. 80mm layer of farmyard manure or a suitable compost material .
7. Base and sides of tree pit to be broken up / glazed sides roughened.
8. Double stake and crossbar; timber uprights 75mm dia. and crossbar min. 75x35mm; crossbar attached to uprights with timber screws; 40mm min. Nylon Reinforced Rubber Tree Tie strapping and flatback tree pad (70x42x22mm min.) to be attached using screws and washers.

TREE PIT DIMENSIONS:
- A. Depth equal to rootball diameter
- B. Rootball diameter *minus* 50mm to accommodate root flare
- C. Width equal to diameter of rootball

Above detail developed with input from Arborist based on recent research and experience.

Typical Planted Swale Detail — D01A / 03
Scale 1:25



Key Plan 1:2000

SuDS Street Tree Pit / Swale - Long Section — D.02 / 03
Scale 1:50

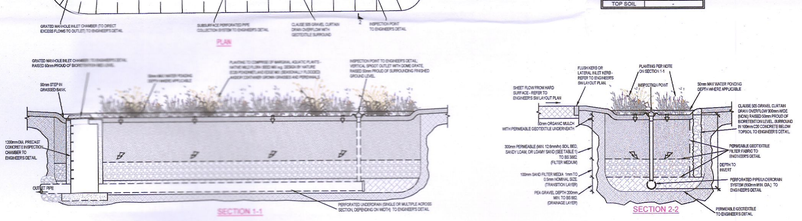


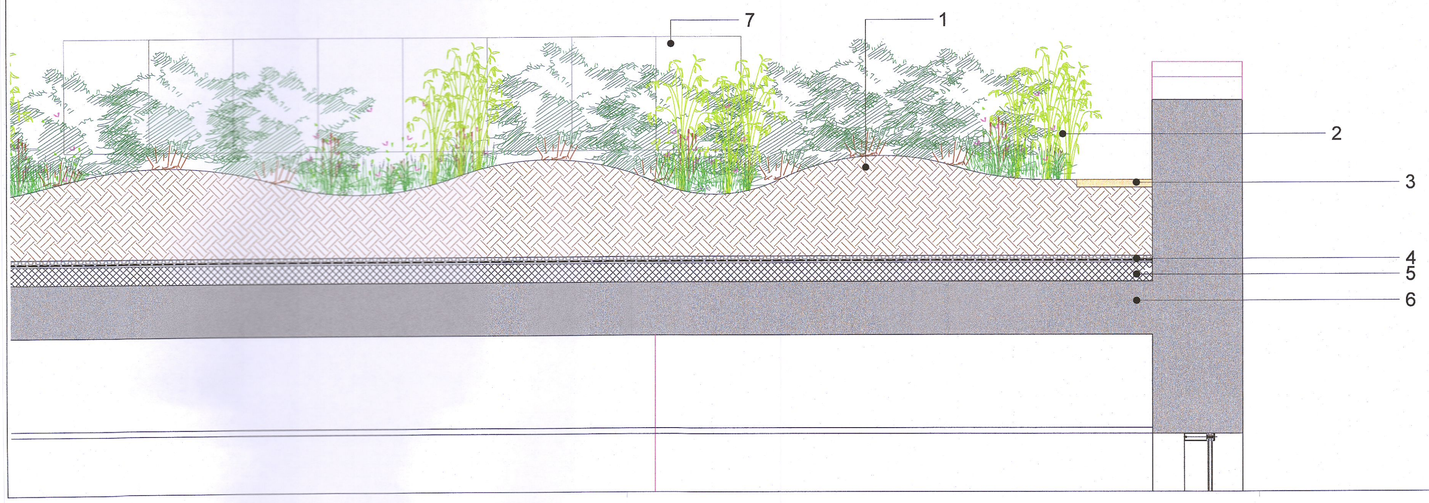
TABLE 1	
COMPONENT	% MIXTURE
SAND	35-60%
SILT	25-50%
CLAY	10-30%
ORGANIC MATTER	0-4%
TOP SOIL	

TYPICAL PERMEABLE PAVING DETAILS — D.04 / 03
sc.:1:20

PERMEABLE PAVING SURFACE COURSE:
80mm THICK PERMEABLE PAVING - TOBERMORE HYDROPAVE 240 (OR EQUIVALENT APPROVED)
OR
PERMEABLE RESIN BOUND AGGREGATE (e.g. SURESET PERMEABLE SYSTEM) WITH NOM. AGGREGATE SIZE OF 6MM / DEPTH OF 18MM OVER PERMEABLE ASPHALT BASE

ON BASE TO ENGINEER'S DETAIL

TYPICAL INTENSIVE BROWN ROOF DETAIL/SECTION — D.03 / 03
sc.:1:20



NOTES:

1. Brown Roof - Topsoil / Subsoil / Gravel from site clearance; undulating layout to create ecological niches with depth of 300-600mm.
2. Planting to include native shrubs, climbers, grasses, perennials: e.g. *Rosa arvensis, Rosa canina, Cornus sanguinea, Lonicera periclymenum, Hedera helix, Carex flacca, Luzula sylvatica, Deschampsia caespitosa, Caltha palustris, Anemone nemorosa, Alchemilla mollis, Digitalis purpurea, Dipsacus fullonum, Geranium sanguineum, Verbascum thapsus.*
3. Border of Pea Gravel 8-12mm dia. 50mm depth
4. Filter Fleece - nom. 1mm over Drainage Layer -nom. 25mm Deep over Protection Fleece - nom. 2mm
5. Insulation & Waterproofing to Architect's Details
6. Slab / Structure to Engineer's & Architect's Details
7. Indicative Photovoltaic Cells on roof; planting will not block same.

NOTE: SuDS DETAILS HAVE BEEN COORDINATED WITH DBFL ENGINEERS AND COMPLY WITH THE REQUIREMENTS OF 'South Dublin Co. Council SuDS Explanatory, Design and Evaluation Guide 2022'

1. This drawing is intended to show landscape arcnitectural proposals only. Please refer to Architects and Engineers drawings for relevant details of buildings, structures, roads, parking, etc
2. The copyright of this drawing is vested with Murray & Associates. This drawing may not be copied or reproduced without written consent.
3. All materials referred to on this drawing - including plant species - are indicative and subject to change following detailed site investigation. Significant changes, if any are required, will be referred to the relevant authority for agreement.
4. This drawing is not suitable for use for construction purposes.
5. Discrepancies to be referred to Murray & Associates for clarification.

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REV	DATE	REVISION	DRAWN	CHECKED
A	06/09/22	RFI	IV	MB
A	23/08/22	RFI	IV	MB
0	01/04/22	Planning Issue	HT	

CLIENT
Blackwin Limited

PROJECT TITLE
Warehousing / Logistics and Office Development at Calmount Road

SHEET TITLE
Landscape Details
Sheet 2 of 3
SuDS Details

SHEET NO	SHEET SIZE
1878_PL_D_03	A1
SCALE: As Shown	REVISION: B
STAGE: PLANNING	DATE: 06/09/22