



GI PLAN - ROOF LEVEL  
SCALE 1:100@A2

**GREEN INFRASTRUCTURE PLAN - NUMBERED LEGEND**  
The development is a 'small-scale development' in terms of the CDP. Our GI and landscape strategy has been to consider objectives to protect or restore existing on site GI assets; provides for connection to local or primary GI corridors and/or includes elements which allow the site to act as a local stepping stone. As the subject site is located close to a Core or Corridor the development should, at a minimum, protect any existing GI assets and enhance same (for example, not breaking a GI Corridor but enhancing same with a connecting piece of planting, retaining hedgerows or woodlands).

Positive measures the design team has undertaken at FI stage to respond to the issues raised by the local authority in relation to GI include the following:

1. integration of bat-boxes, bee bricks and swift boxes into the walls of the proposed building
2. bird/bat boxes hung from the new River Birch trees in the front garden, which are pollinator-friendly trees, min. 18-20cm in size, grown in Ireland. Trees specified have been chosen for their climate-resilient properties. *Betula*

3. rounded granite erratic boulders acted as a bird 'dish' in the surface to collect rainwater and act as a small bath. Frogs and other small amphibians like to rest on warm stones
4. planting of boundary Hornbeam hedges that retain leaf cover during the winter to preserve shelter habitat for wildlife during the cold months. Hornbeam is 'naturalised' in Ireland and is pollinator-friendly.
5. planting of continuous 'hedge-in-the-sky' pleached Hornbeam trees to screen views into and out of the new dwellings' garden. Hornbeam is 'naturalised' in Ireland and is pollinator-friendly.
6. permeable paving generally (flexible construction) salvaged stone setts (flexible construction) in vehicle manoeuvring areas (circular economy principle)
7. 'rain-garden' type amenity planter beds with Irish nursery-grown pollinator-friendly plants including ornamental grasses, flowering perennials and decorative

8. multi-stemmed small trees/large shrubs with appropriate moisture-tolerant plants
9. semi-intensive bio-diverse green-roof with gravel perimeter trims to the dwellings with wildlife and habitat panels, flowers in bloom from April to November and early spring bulbs, dried and rotting logs. Habitat panels and dew ponds made from a mix of found materials for invertebrate nesting and over-wintering and growing substrates made from recycled secondary waste with a low nutrient level. Plants and plugs must be certified by Floral.Locale.
10. semi-intensive green roofed aluminium frame 3-bin shelter docks with integrated FSC larch posts and climbing plant wires to each dwelling. Larch posts to be provided to provide solitary bee nesting habitats.
11. Wall greening system
12. Amenity grass lawn with min. 250mm depth multi-purpose topsoil
13. Reflecting pool with bubble-jet water fountain
14. Constructed SuDS tree pit

**EXISTING VEGETATION, LANDSCAPE MITIGATION & PLANTING RATIONALE**

There are no extant trees on the site or stands of vegetation, save for several topiary small shrubs in the front garden; in short there is no vegetation on the site worthy of retention. The proposed landscape plan illustrates 40 no. proposed treed/clear-stemmed trees with 15 no. multi-stemmed trees (55 no. in total) as mitigation planting.

Generally the planting palette rationale has been to concentrate on the planting of pollinator-friendly trees min. 18-20cm in size and decorative multi-stemmed trees, all to have been grown in an Irish nursery. The trees specified have been chosen for their climate-resilient properties, such as pollinator-friendly River Birch *Betula nigra*, which is chosen for its resilience in an expected 2° temperature increase by 2050, and pollinator-friendly Hornbeam. Similarly planting stock for container-grown plants and bulbs in amenity planter beds has been specified as pollinator-friendly, low-maintenance plants, which should establish easily and help absorb cloud-burst rain events, detaining and absorbing water on site. All planting stock must be certified as Irish nursery-grown.

**GREEN INFRASTRUCTURE PLAN**  
Landscape and GI measures by the design team taken to protect, enhance and restore green infrastructure and biodiversity at the site; outline description of 'soil' landscape measures and planting

	<b>BIRD/BAT NESTING BOX:</b> wood/cercrete bird nesting box 'Nest Box 20R' galvanneal steel hanger by Schwager, with three hole 27mm Ø entrances to support Blue, Marsh, Great and Crested Tits. Due to the small size of the entrance hole no other species can occupy it. An additional recess for bats has been created inside. Hung on new trees.
	<b>ROOFTOP SUPPORTS TO EACH DWELLING:</b> • Swift Nest Box No. 17A (Triple cavity) 00 61347 by Schwager hung on the elevation or below overhanging eaves at min. 5.00m ht off FFL, out of direct sunlight and not obstructed by cables or climbing plants. • Sparrow Terrace '15P 00 56016' with three brood chambers by Schwager, built into an elevation wall at min. 2.00m ht off FFL. • Insect House 'DEP 00 3737' by Schwager for solitary bees and wasps, mounted in a sunny location.
	<b>BOULDERS: ROUNDED GLACIAL ERRATIC BOULDERS:</b> Cherted glacial erratic boulders (granite or sandstone) of variable size with either chamfered smooth edges or natural rounded shapes, depressed in the landscape finish to 0.30-0.40m depth, to achieve a 0.02m max height above the surrounding finished landscape levels to act as informal seating elements and/or bollards. Sharp edges, if present, to be deburred. Boulders of 0.75m (w) 1.50m (l), 1.00m (h) set on sub-base to engineer's design detail and specification on well-consolidated ground.
	<b>DRIFTS OF BULL PLANTING:</b> plug-planted with top size 5/6 bulbs 50% characteristic 'Crosswars', <i>Galanthus nivalis</i> , <i>Allium ursinum</i> , <i>Anemone nemorosa</i> , <i>Hyacinthoides non-scripta</i> and 50% exotic species bulbs selected for pollinator-friendly characteristics.
	<b>PERENNIAL PLANTING TYPES + MIXES:</b> Moisture-tolerant perennial pollinator-friendly container-grown plants to planter beds with a diverse mix 70:30 ratio of ornamental grasses, bulbs, corms, ferns, ground-cover plants, sedums to flowering perennials of both native cultivars and exotic species to ensure a pollinator-friendly planting mix in line with the 'National Pollinator Plan'. These plants should establish quickly requiring minimal maintenance.
	<b>HEAVY STANDARD TREES</b> <i>Bt</i> (River Birch) <i>Betula nigra</i> 'Heritage' 4xtr 20-25cm, 2.00m ht. clear-stem Irish-grown tree
	<b>HEAVY STANDARD TREES</b> <i>Cp</i> (Hornbeam) <i>Carpinus betulus</i> 4xtr 18-20cm, 2.00m ht. clear-stem, Irish-grown trees 1.50mH x 1.2mL crown with 2.00m clear-stem trunk. Crowns of trees to touch and be secured together using horticultural wires
	<b>MULTI-STEMMED TREES, LARGE SHRUBS</b> <i>Al</i> <i>Amelanchier canadensis</i> , 2xtr/1xtr/2.50-3.00m ht. <i>Bt</i> <i>Betula nigra</i> 'Heritage', 2xtr/1xtr/2.50-3.00m ht. <i>Hs</i> <i>Hamamelis intermedia</i> 'Jelena', 2xtr/1xtr/2.00-2.50m ht. <i>Au</i> <i>Arbutus unedo</i> , 2xtr/1xtr/2.00-2.50m ht.
	<b>PAVING: PERMEABLE PEDESTRIAN PAVING:</b> A-rated in accordance with Green Guide Specification Edition 4, A+ rated when used with a prepared recycled sub-base. Permeable sub-base and bedding layer to be flexible, SUDSFlow spaces
	<b>PAVING: PERMEABLE GOLDEN GRAVEL:</b> recycled permeable sub-base and bedding layer, plastic honeycomb retaining grid can be made of recycled plastic
	<b>PAVING: PERMEABLE SALVAGED NATURAL STONE SETTS:</b> recycled durable recycled material such as natural stone setts reinforced circular economy principles. Area can 'sheet-drain' into adjacent planter bed and permeable paving construction, and drain via channel drain at site entrance.
	<b>SEMI-INTENSIVE TYPE BIO-DIVERSE GREEN ROOF:</b> FLL and GPO certified green roof with 150-200mm undulating lightweight low-eminent recycled substrate on 40mm combined drainage/irrigation board, on protection layer. Test to BS 8116 and provide mains water tap connection for occasional maintenance in times of drought, and ensure safe access for same. Plug plants, bulbs and wildflower meadow mat.
	<b>H1 - NEW HORNBEAM CONTAINER-GROWN HEDGEROW</b> <i>Carpinus betulus</i> (Hornbeam), a naturalised plant in Ireland, keeps its leaf cover year-round, turning from a fresh green in spring to a deep golden yellow in winter months. Keeping its leaf cover means it can maintain a screen-like character and act as year-round habitat for wildlife.
	<b>STREET FURNITURE - GREEN ROOFED BIN DOCK</b> 'Bin Dock' by Front Yard Company UK, with aluminium roof - end-frames polymer powder-coat painted (top coat 'Spring Forest Green'), polyethylene roof tray lines for green roof (see 200kg). FSC larch posts drilled for hosting solitary bees and wasps; GS cables for climbing plants; slatted spruce (wood FSC certified) panels for ends. Dimensions 2.01m x 0.83m x 1.34m to 8.2 no. 140L or 240L bins. Drain rainwater outlets and aluminium rain chains.
	<b>WALL GREENING SYSTEM</b> 316 grade stainless steel trellis system INOX by Jakob or equivalent system 'Webnet Green Wall' wire mesh or 'Jakob Green Wall' cable rope and rod system. Planned weight of both systems 20-30kg/m², rainscreen fixed to the building elevation. Each component made of A316 316 and AISI 316L, 1.4404. Plant self-climbing climbing plants at 0.5m centres at base of trellis system.
	<b>BIODIVERSITY ROOF ELEMENTS:</b> • Small boulders & rock piles: rounded glacial granite erratic boulders with chamfered smooth or rounded edges to mound together to form rock piles and rain-filled bird baths. Sharp edges deburred. Boulders of 0.25-0.5m diameter set 0.10-0.20m deep into landscape finish and fixed securely. No sharp edges to stones. • Placed smooth hardwood tree trunks laid to create log piles formed from trunks and logs to provide a habitat for wildlife. • Variety of features such as hollow log piles, different substrate types such as low (350mm H) mounds of sand and rubble, piles of cleaved bricks (max 350mm H), piles of local cobbles in mounds (max 350mm H), different vegetation layers and such as nesting boxes, insect hotels and a small 0.60mØ dew pool
	<b>REFLECTING POOL:</b> 0.40m height 0.50m width 2.00m length insulated fresh low-carbon concrete water feature table (reflecting pool) with integrated low bubble-jet fountain and perch seating area. Water to be self-circulating, with electrically powered pump concealed in sub-base. 2 water connections & overflow pipe. Integrated 2-pip pump (outdoor socket required) & LED lighting
	<b>BIODIVERSITY ELEMENTS: HABITATS &amp; BOULDERS</b> 'Wings' by Vestre model 5283C combination 3 bird boxes of different sizes and integrated insect hotel mounted on a pole. Hot-dip galvanneal steel, powder-coated with RAL colour to selection.
	<b>RAIN-GARDEN PLANTER BEDS</b> Blue dashed line indicates extent of 200mm depth 'tree-board' areas to planter beds designated as 'rain-gardens'. Provide 50mm depth non-organic mulch to top planter, 600mm depth rain garden/bio-retention filter media/topsoil e.g. 'BioRetention Solla' by Earthlife, min. 100mm depth filter layer of pits gravel on geotextile, and 500mm depth of drainage layer/sub-soil (min. 100mm depth in areas where excavations are limited). Detail design by consulting civil engineers to all drainage elements.
	<b>PROPRIETARY SUGS TREE PITS (TP-01, TP-02, TP-03, TP-04)</b> Tree planting in proprietary SUDS tree pits with appropriate accessories including ventilation and irrigation pipe 3.00m. Sprayer irrigation inlet installed around geyser rootball. Rootballs to be geyser using proprietary 'ArborClay' system. Root restricting membrane to live all sides of pits. No services runs to be laid in tree pits. Proprietary stormwater management system 'ArborFlow' by GreenBlue Urban with modular 'RootSpace' soil cells filled with 'RootSoil Hydro' and appropriate root management systems and details, or equivalent approved. 20% soil by volume, all to engineer's design detail and specification.

Additional Information  
Planning Ref: SD22A/0466  
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**landscape design services**  
LANDSCAPE ARCHITECTS & CONSULTANTS

PROJECT: PROPOSED DEVELOPMENT AT TEMPLEVILLE DRIVE, TEMPLELOGGIE, DUBLIN 16, DUBLIN

CLIENT: BARRY & SUSANNE COLEMAN

PROJECT ARCHITECTS: COLIN MCCARTHY ARCH

JOB NO: 21\_235

PLANNING PERMISSION REF: E2024066

DRAWING NO: GREEN INFRASTRUCTURE PLAN (PROTECTION, ENHANCEMENT & RESTORATION PROPOSALS)

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