

- LANDSCAPE - NUMBERED KEY**
1. 'Cow Path' path surfaced in gravel, min. 1.80m width, varying
 2. 3.00m width boulevard pathway paved in permeable paving and fenced with combination wood and steel 'T-40' guardrail by Tertu along park-side. Permeable paving to parallel car parking spaces alongside the path.
 3. 3.00m width boulevard pathway paved in in-situ concrete treated with exposed aggregate surface retarder with avenue of streetscape tree planting in pits between the car-parking bays. Seating and planter beds at regular intervals.
 4. Stepped and gently-sloped 3.00m width access route from Millbrook/Home Zone street to provide universal access to the riverside amenity; new pedestrian link surfaced in in-situ concrete treated with an exposed aggregate retarder, natural stone steps, hardwood seats at regular resting points, and playable short-cuts to continue the 'Play Along The Way' theme through the site. Heavily planted with shrubs, trees, bulb drifts and ornamental planting, and seeded with conservation grass/wildflower seed mixes appropriate to the site conditions for aesthetic and wildlife reasons. Planted areas suitable for locating bat and bird boxes, insect hotels etc.
 5. Direct pedestrian connection to 'Green Ginneys' universal access path between the housing terracing down the slope, paved in permeable hard-binding golden gravel.
 6. Area over underground attenuation tanks to be graded as per architect's and engineer's site levels. Area to be seeded with 'rough' grass and wildflower meadow conservation seed mix appropriate to the aspect, slope gradients and site conditions, such as 'EC12 Wild Flora for Earth Banks, Bunds and Ditches'
 7. Landscape levels graded down at steepest gradient 1:3 to the riverside amenity open space from the new boulevard avenue above. Area to be landscaped with wildflower meadow and new tree planting
 8. New sculpture to mark focal point
 9. Direct connection to Millbrook through continued gently-sloped shared footpath/cycle route
 10. Gathering Space around retained T3, Common Oak *Quercus robur* surfaced in 'no-dig' paving and provided with seats, benches and picnic sets
 11. Existing field drain to be seeded with appropriate wildflower meadow seed mix, native bulb drifts for naturalising, and tree planting as landscape mitigation measures. The consulting engineers have detailed a wildlife tunnel under the boulevard avenue in compliance with the TII standards to ensure that commuting animals can gain safe access along this old field drain route through the site
 12. New 'light touch' contemporary wood and corten bridge to be provided over the field drain to give universal access into the junior play area from the Cow Path
 13. Larch all-weather shelter meeting house with shingle roof and 4 integrated benches (4.00x4.00m plan dimensions, 2.20m ht eaves and 3.25m ht roof
 14. Gathering space for carers, guardians and parents provided with south-west oriented seating benches and picnic sets
 15. 236m² junior children's play space 'The Mill' enclosed with chestnut fence and hedging and provided with larch play equipment including a sailing ship, a toddler parkour route with play barrels and a sand/water elemental play feature to echo the old mill workings downstream
 16. New tree and transplant planting of riparian native plants in biotope shape to provide additional amenity area for wildlife and mature to screen views of the development. Suitable location for wildlife mitigation measures such as bird and bat boxes, dead wood piles etc
 17. Designated 'Streamside Zone', min. 10.00m width as per IFI guidelines, to protect the immediate riparian zone and the physical integrity of the watercourse. Within a 5.00m distance of the stream, a riparian buffer must be retained and protected to support natural regeneration of native wetland scrub. This area is fenced-off in the landscape proposals with a chestnut pale and post fence. Allowable uses in this area under the guidelines are fishing and walking trails.
 18. Existing riparian scrub (Group G3-C2, Common Oak *Quercus robur* Alder *Alnus glutinosa* and Crack Willow *Salix fragilis*) retained in riparian buffer 'Streamside Zone' to be allowed develop naturally
 19. Riparian buffer zones to existing field drain and Urrin River to be fenced with sweet chestnut pale and post fencing system to protect vegetation and wildlife corridor, roughly located on the line of the protective fencing to these areas as indicated by our consulting arborist
 20. Building entrance highlighted by nodal seating and planting to encourage gathering outside in a south-westerly facing area
 21. Threshold to 'Home Zone' area
 22. 'Millbrook' 3.00m width shared pedestrian/cycle connection path










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CLIENT	TORCA DEVELOPMENTS LTD.	PROJECT ARCHITECT	BRIAN DUNLOP ARCHITECTS
JOB NO.	20_174	STAGE	PLANNING
DRAWING	LANDSCAPE MASTERPLAN - DETAIL OPEN SPACE 3 - RIVERSIDE AMENITY OPEN SPACE		
DRAWING NO.	20_174-PD-005	FIRST ISSUED	03.06.2020
DRAWN BY	J COUGHLIN MLI	CHECKED	COLM KENNY MLI
STATUS:	PLANNING	SCALE	1:200 @ A1
		DATE	11.10.2021
		REVISION	D

NOTES:
All dimensions are in millimeters unless otherwise stated and shall be checked and confirmed by the contractor on site. Any discrepancies shall be immediately reported to the landscape architects. Work to figured dimensions only - Do not scale from drawing. Do Not Scale. Use Figured Dimensions Only. Not for Construction Purposes unless Specifically Marked.
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'HARD' LANDSCAPE MATERIALS - OUTLINE SPECIFICATION KEY	
Levels, site entrance, boundaries, road crossings and associated tactile levels, paving bedding + sub-bases, geotextiles etc to engineers' and architects' design detail and specification. 18-month long landscape maintenance and LA-certified Defects Liability Period required post-Practical Completion	
	PAVING - INSITU CONCRETE In-situ concrete with exposed aggregate finish with slip-form straight edge treatment or kerb to engineer's design detail and specification. Joints at approx 3.00m centres. Concrete with Ecocom, GGBS and local rounded aggregates.
	STEPPED PERMEABLE LINKS IN LANDSCAPE locally sourced golden granite steps with tactile warning surfaces to top and bottom of flights, with wooden handrails on corten steel uprights
	DRAINAGE STRIP TO BASE OF ELEVATIONS 500mm width, 300mm depth layer of 10-20mm diameter washed and graded pebble laid on permeable 500mm strip of 'T1000' geotextile by Terram at base of building elevations or walls, edged with pressure-treated softwood
	PERMEABLE PAVING - HARD-BINDING GOLDEN GRAVEL Golden-coloured hard-binding gravel/dust path of locally sourced aggregates, e.g. 'Ballyusk' or equivalent approved. Edged with 102x76 L-shaped aluminium edging trim on continuous 200x300mm concrete haunch or pressure-treated softwood edging in areas of cell-web paving as designated by consulting arborist.
	PERMEABLE PAVING - HOME ZONE Permeable paving of sharp-edge pre-cast concrete granite aggregate 120mm depth sets 'Clima-Pave Grangeormart' by Kilsaran in Ground Finish, with golden granite kerbs, tactile paving and crossing details
	PERMEABLE PAVING - GRASSCRETE (COMMUNAL AMENITY) 'Reedes' by Escofet vibro-moulded reinforced concrete cast stone and paving in 100mm depth 600x600mm format, with 50% of surface area 'hard' and 40% formed by openings filled with a modified topsoil mix. Lay on 40-60mm depth bed of compacted sand on levelled P.M 95% compacted soil (UNE 103-501-94) on permeable sub-base, and seed or turf with amenity grass seed mix suitable for amenity play
	ROUNDED BOULDERS Rounded 0.70-1.50m Ø glacial granite erratic boulders with either chamfered smooth edges or rounded shapes, set 300-400mm into landscape finish to act as informal seating/rain-filled bird baths. Sharp edges deburred.

ACCESS ROAD - NATURAL STONE KERBS + CROSSINGS	
Natural stone 300x250mm kerb, bull-nosed with radiused corner to exposed edge, with medium bush-hammered finish. Flame-textured tactile paving warning surfaces and mixed pineapple/flame-textured 'rubble strip' sets to pedestrian crossings and at junctions. Provide kerb-cuts to allow asphalt surfacing to drain to planting. CE-marked.	
KERBS - IN-SITU CONCRETE	
Slip-form concrete kerb detailed with 'kerb-cut' details to allow asphalt road surfacing to drain excess surface water into adjacent planter beds or landscaping	
CAR-PARKING PAVING - PERMEABLE	
pre-cast paving 'Newgrange Clima-Pave' 200x100mm 80mm depth paving sett by Kilsaran in shot-blast square-edged 'Black Granite' finish, edged with flush-finished 'Tara' pre-cast kerb by Kilsaran in 'Silver Granite' finish to delineate individual spaces.	
PERMEABLE FOOTPATHS + DWELLING FRONT ENTRANCES	
Pre-cast concrete paving 'Clima-Pave Killeen' 4-size mix 70mm depth square edge paving sett in 'Silver Granite' ground finish by Kilsaran, edged with L-shaped aluminium edging trim on C20P concrete races 200x300mm.	
DWELLING PATIOS	
Pre-cast concrete paving 5-size mix 80mm depth 'Pembroke' flags by Kilsaran in 'Silver Granite' colour and ground finish to dwelling front and rear patios, edged with L-shaped aluminium edging 'AsphaltEdge' on C20P 200x300mm concrete races	
PERMEABLE IMPACT ATTENUATING PLAY SAFETY SURFACING	
Well-graded, chunky pine bark loose materials impact attenuating safety surfacing on free-draining sub-base. Dust and fines removed. Nominal particle size 30-60mm, e.g. '10/50' play bark by Melcourt or equivalent approved, tested and certified in accordance with EN 1177 to 3.00m CFH to 400mm settled depth on free-draining sub-base and geotextile to engineer's design detail and specification.	
PERMEABLE IMPACT ATTENUATING SURFACING (PLAY SAND)	
400mm depth washed and screened silica safety surfacing play sand suitable for children's play on free-draining sub-base, edged with earthen bund, tested and certified in accordance with EN 1177 to appropriate CFHs.	
PERMEABLE IMPACT ATTENUATING SURFACING (GRAVEL)	
Washed and screened loose impact attenuating play pea gravel surfacing suitable for children's play to EN 1177, on free-draining sub-base and edged with earthen bund, tested and certified in accordance with EN 1177 to appropriate CFHs.	

VEHICULAR CARRIAGEWAY - ASPHALT	
asphalt or tarmac surfaceway	
BRIDGES OVER WATERCOURSES/DRAINS	
'Solo Bridge' by Streetlife NL with FSC hardwood posts and Cor-Ten steel floor plate, stainless steel handrails.	
LOCATION OF SCULPTURE	
Graphic denotes suggested location for contemporary art sculpture at focal areas throughout the proposed development to assist way-finding	
SPECIALIST GROUND PROTECTION (TREES)	
Approximate extent of specialist ground protection, of 'no-dig' cellular permeable construction, to support retention of existing trees, suitable for trafficking by wheelchairs, 'Cellweb' TRP plastic cellular confinement system on 'Treelet' geotextile by Geosyntec laid on existing grade or sub-grade as required to appropriate depth (vehicular 150-200mm or pedestrian 100mm), installed with permeable paving on top of layer. CE-marked 'no-dig' surfacing to comply with BS-5837.	
STREET FURNITURE - INDICATIVE FEATURE LIGHTING LAYOUT	
'Fu' tapered lighting masts by Escofet, in 5mm thick Corten steel finish to act as focal elements in the amenity open space (in varying heights 5.0, 7.0, 9.0m), with LED light projectors. Residenza City Elements' lighting posts and bollards provided to 3.0m width paths. 'Cream L, M + S' by Escofet used elsewhere. 'Rough Ready' bollards by StreetLife to restrict access. Lighting layout to M+E's design to meet. CIBSE.	
OAK GATHERING SPACE - LARGE FORMAT 'STEPPING STONES'	
250x150mm pre-cast concrete granite aggregate kerbs laid flush with paving/lawn surfacing to create stepping stone paths through landscape	
STREET FURNITURE - BENCHES + SEATS	
'Drifter' seats and benches by Streetlife NL in standard lengths of 2.0m and 3.0m with galvanised steel finish supports (finished with a double layer powder coating), provided with 1.8m length back-rests to 2.0m seats with a variety of L1 (300mm depth) + L2 (620mm) seat widths. 'Drifter' picnic sets in 2.00m lengths with table depth of 620mm (2 beams). Recycled 100% hardwood to these streetscape elements. 'Rough and Ready' seats in curved arcs by Streetlife NL in weathering steel finish, armrests and backrests.	
CONCRETE FIRE PIT	
1800mm³ raised fire-pit or sand-pit, edged in board-marked in-situ concrete, containing a fire-pit for grilling food or a communal barbeque.	

CYCLE SHELTERS WITH GREEN ROOFS (8 SPACES EACH)	
'8x Bike Shelter' (1 no. 'Elvis' 4 no. cycle stand, 8 no. parking spaces each shelter) by Green Roof Cycle Shelters or EQA. 3.70x2.25x2.00x2.078m LxWxD with green roof substrate, planting, external wildlife panels for solitary bees and invertebrates, and bird nesting boxes. Cycle shelters with built-in locking bars and timber cladding to 3 elevations, open to front.	
CYCLE SHELTERS WITH GREEN ROOFS (6 SPACES EACH)	
'8x Bike Shelter' (3 no. Sheffield-style cycle stands, 6 no. parking spaces per shelter) by Green Roof Cycle Shelters. 2.15m H, 2.77m W, 2.07 D with green roof substrate, planting, external wildlife panels for solitary bees and invertebrates, and bird nesting boxes. Cycle shelters with built-in locking bars and timber cladding to 3 sides.	
BIN DOCKS WITH GREEN ROOFS (TO DWELLINGS)	
'Bin Dock' by Green Roof Cycle Shelters, with aluminium roof: + end-frames polyester powder-coat painted (top coat 'Spring Forest Green'), polyethylene roof tray liner for green roof (w=200kg). Larch post with solitary bee nesting holes; SS cables for climbing plants; slatted spruce (wood FSC certified) panels for ends. Dimensions 2.01Lx0.83Dx1.3Hm to fit 3 no. 140L or 240L bins. Brass rainwater outlets and aluminium rain chains.	
BIN STORES WITH GREEN ROOFS (TO APARTMENTS)	
Free-standing bin shelters. 2.15m H to fit 6 no. 240L or 1100L Euro-bins as tidy collection points for refuse or recycled materials. Flank walls composed of wildlife habitats using recycled materials, 4 no. nesting hole sizes for a broad variety of solitary bees (leaf-cutters, mason, carter, mackerel) and bird nesting boxes. Nectar-rich plants on the green roof.	
SENSORY EQUIPMENT - AMENITY OPEN SPACES	
Durable vandal-proof equipment to provide sensory stimulation to users of all ages and abilities and create focal elements in open spaces.	
PLAY EQUIPMENT - AMENITY OPEN SPACES	
Larch with steel feet wooden play equipment selected to provide play opportunities for children of all abilities, designed, manufactured and installed to EN 1176 and EN 1177. Specialist foundations to river park play features to engineer's design detail and specification.	
FITNESS EQUIPMENT - WALKING ROUTES	
Larch with steel feet wooden 'fitness' equipment selected to provide exercise equipment, designed, manufactured and installed to EN1176 and EN 1177.	
ALL-WEATHER SHELTER	
Larch all-weather shelter meeting house with shingle roof and 4 integrated benches (4.00x4.00m plan dimensions, 2.20m ht eaves and 3.25m ht roof, to provide a space suitable for community gatherings.	

LANDSCAPE DESIGN RATIONALE - RIVERSIDE AMENITY OPEN SPACE 3

The site layout design has been developed in detail design by the project architects and consulting engineers to open up a direct 3.00m shared pedestrian and cycle path link from Millbrook down to the amenity riverside open space. This route has been gently-sloped and graded to facilitate universal access through the site and support inclusion. The project engineer has undertaken detail design in order to retain T3, a mature Common Oak *Quercus robur*, designated as worthy of retention by our consulting arborist.

Along the gently-sloped route of the shared foot/cycle path from Millbrook we have provided 'snakes and ladders' access choices. People can have the choice of using the 3.00m width path to get to the river or using steps as short cuts; or playable elements such as climbing ropes, balance logs and embankment slides to draw children's interest and create opportunity for exercise.

The retained Oak and its Root Protection Area (RPA) as designated by the arborist have allowed us to provide a 'gathering space' square in the centre of the subject site. The consulting engineer has re-routed services designs to circle around the RPA and has provided a wildlife tunnel under the boulevard avenue road so that wildlife can continue to commute safely through the site along the route of the existing field drain. This gathering space has been surfaced with 'no-dig' type permeable cellular paving support system, and provided with seats, benches and picnic sets. This space will have beautiful views over the riparian landscape and amenity park. A raised table ensures pedestrian priority access across the boulevard road to the amenity park.