

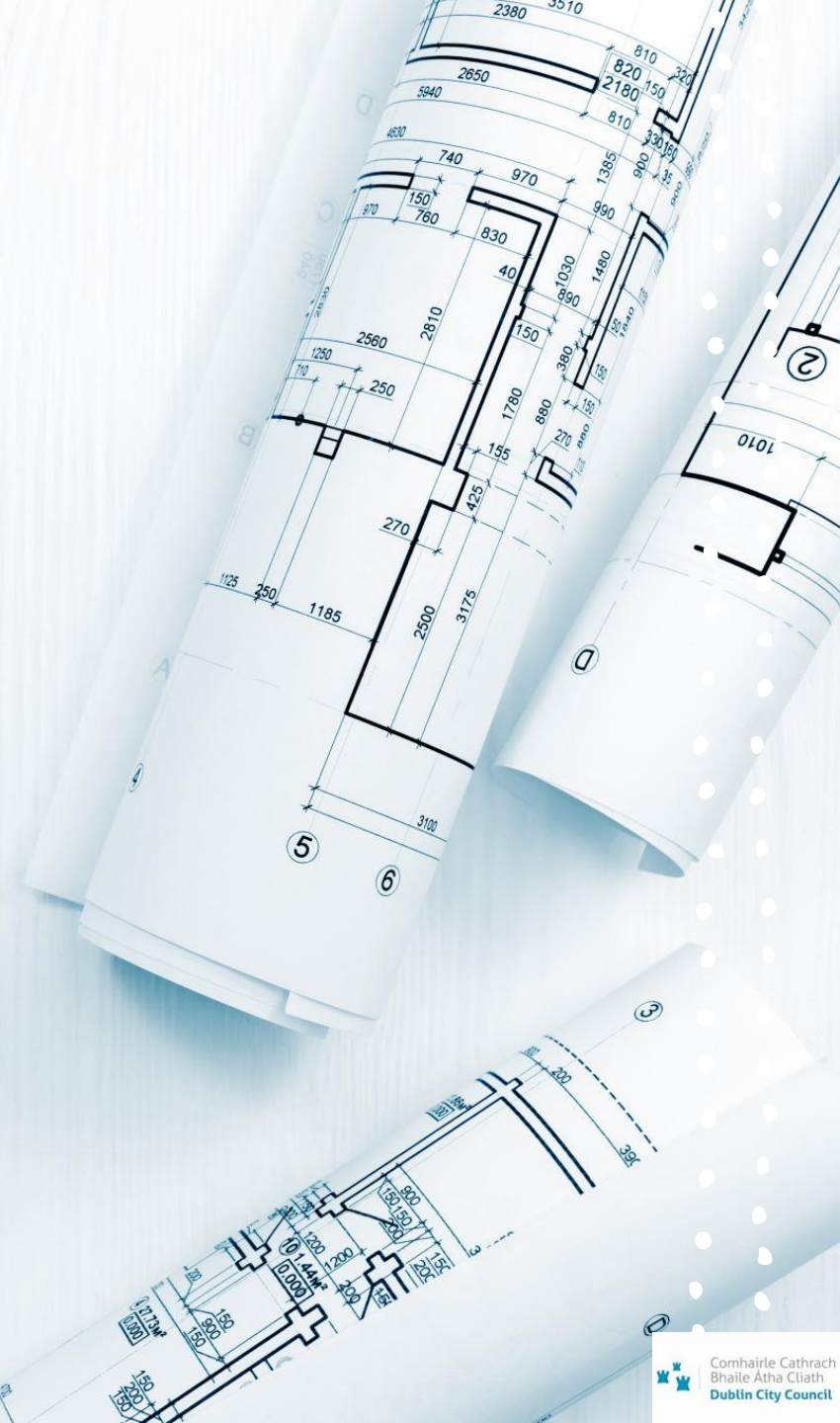
John Stack, Senior Executive Engineer,
Protection of Water Bodies Office

Rainscapes

NATURE - BASED SOLUTIONS FOR
STORMWATER MANAGEMENT

Agenda

- What is the Rainscapes project?
- What are Rainscapes?
- Why Rainscapes?
- Proposals
- Next steps
- Further information



What is the Rainscapes project?

A pilot project to retrofit and study Nature-Based Solutions (NBS) in the public realm

To measure the capacity of NBS to:

- Reduce pluvial flooding (flooding from rainfall)
- Reduce pollution load discharging to rivers (from urban runoff)
- Improve biodiversity/ecology within the public realm
- Add aesthetic and amenity value to the public realm

What are Rainscapes?

- A form of Nature-Based Solution
- Adapted green space or other surfaces designed to temporarily hold rainwater
- Has potential to deliver additional benefits



Why Rainscapes

- Sustainably manage pluvial flood risk in dense, urban areas
- Can reduce impact of urban runoff on our rivers, beaches, coastal waters
- Can deliver multiple/additional benefits over and above storm water management



Sites

- Originally 9 sites selected within Santry and Dodder catchments
 - Initial stakeholder consultation in May 2021
 - Reduced to 4 following detailed site assessment and initial stakeholder consultation
 - One additional site added (collaboration with Parks and Roads Departments)
- Dodder Catchment
 - Milltown Road
 - Eglinton Road
 - Herbert Cottages
 - Simmonscourt Road
 - Santry
 - Dunree Park
 - McAuley-Ribh-Lein
 - Springdale Road
 - Brookvale
 - Lein Gardens
 - Montpelier Hill

McAuley-Ribh-Lein

Location

McAuley Park

Ribh Road

Lein Road



Catchment

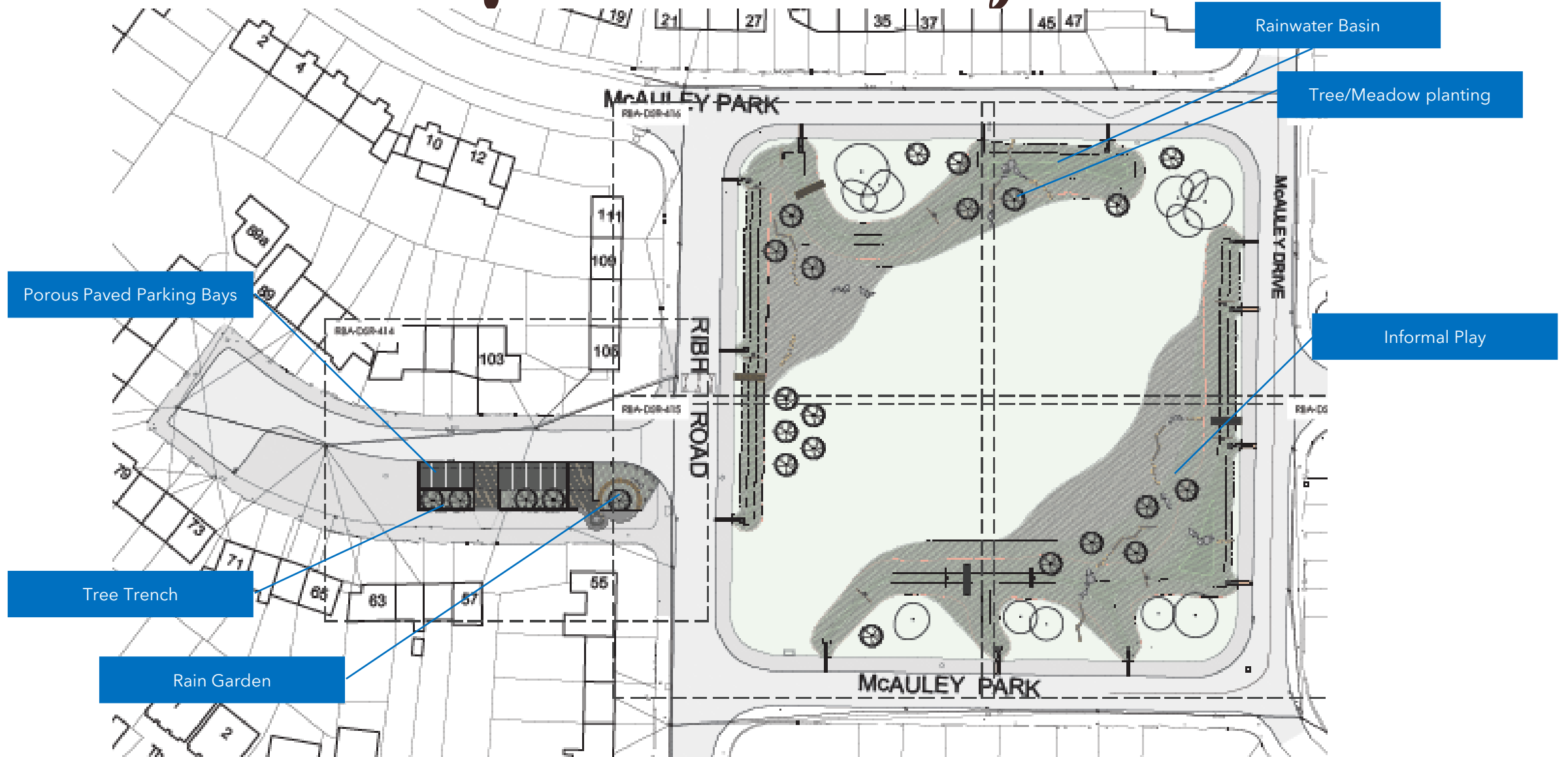
Surface
Water
Drainage

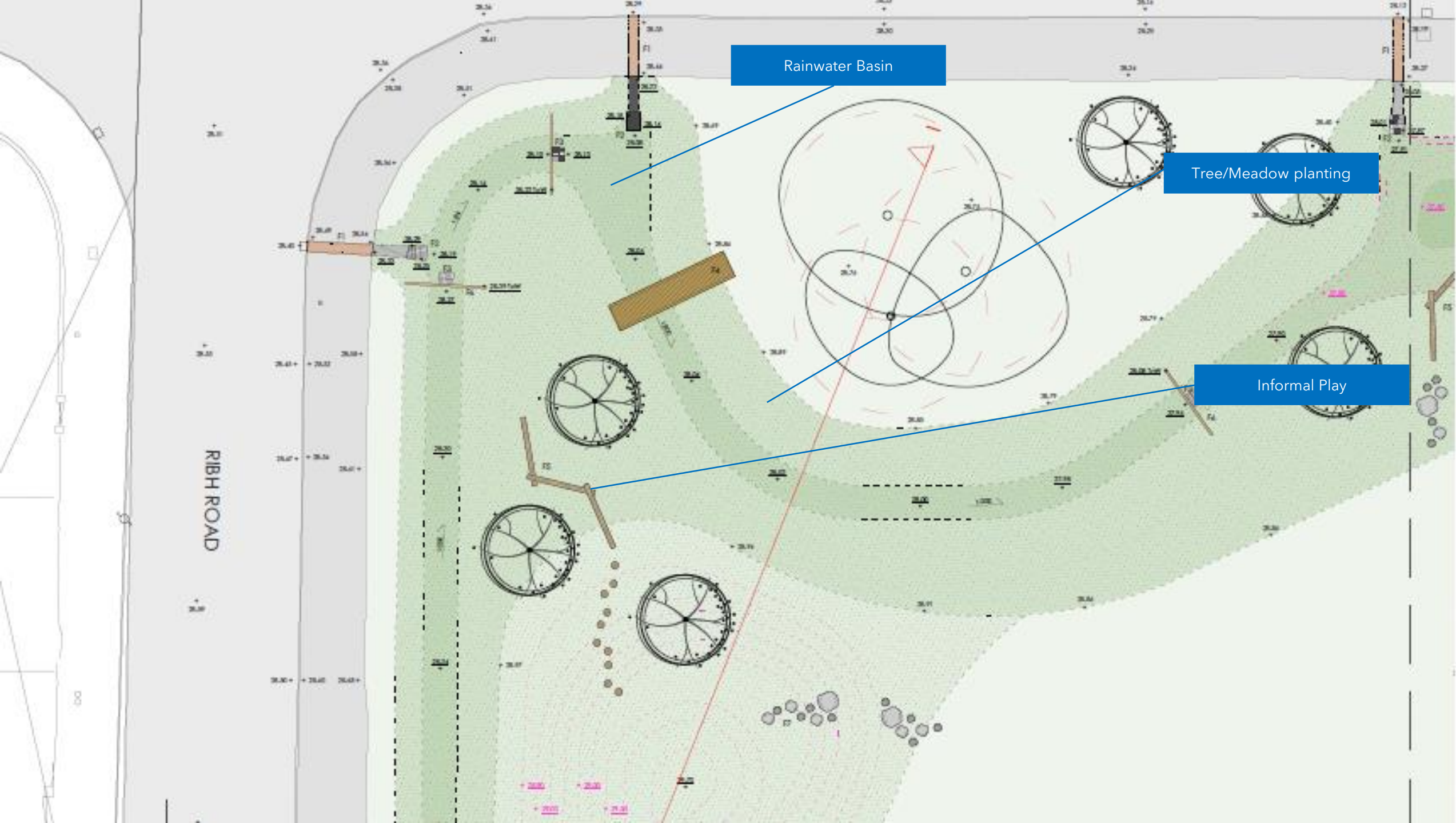


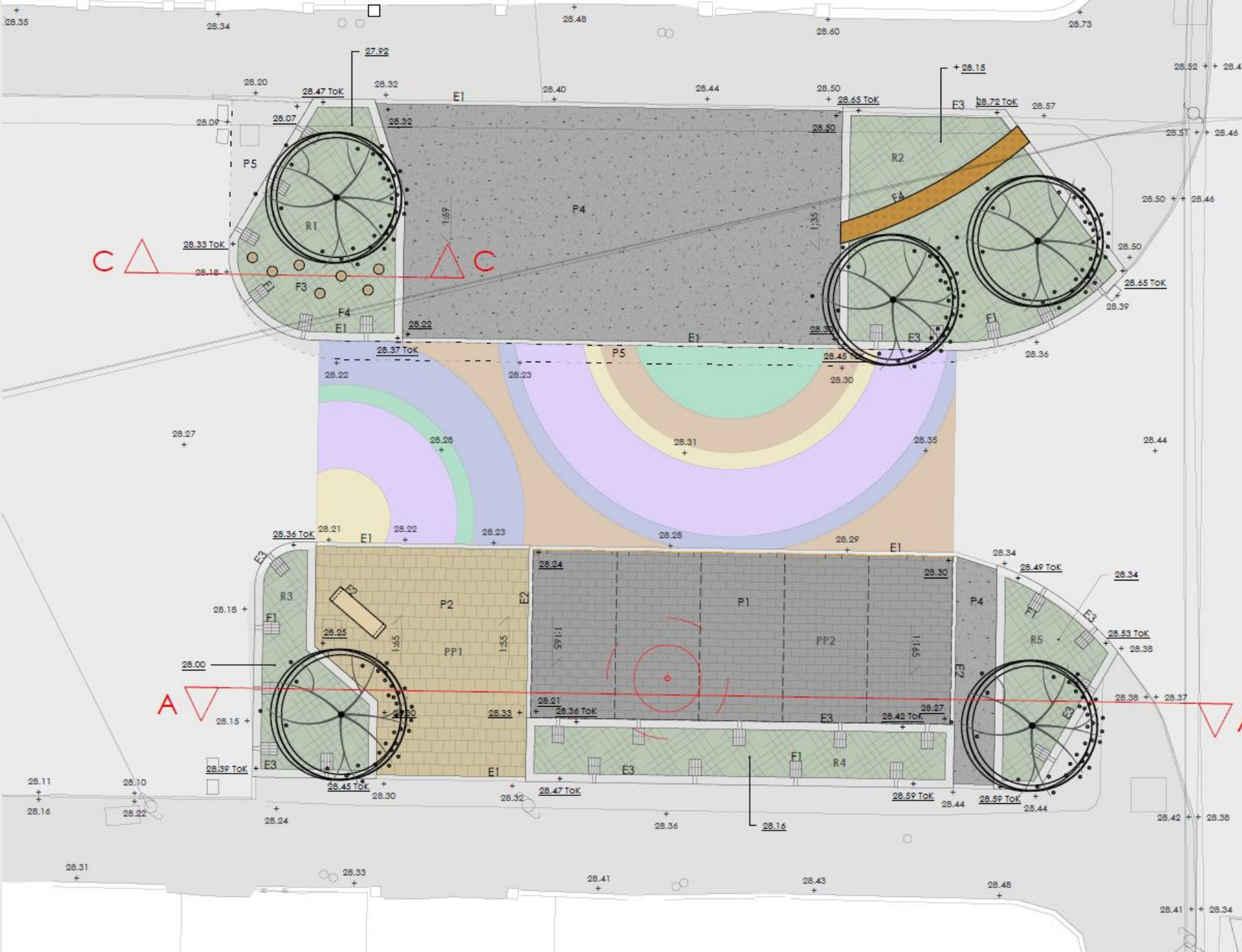
Street View – McAuley Park



Proposal - McAuley Park







HARD LANDSCAPE

- | | |
|----|--|
| P1 | Block paving - permeable, vehicular grade, dark brown |
| P2 | Block paving - permeable, pedestrian+ grade, buff |
| P3 | Block paving - pedestrian+ grade, feature sett details, grey stone |
| P4 | Asphalt - vehicular grade surfacing/ resurfacing |
| P5 | Concrete surfacing - vehicular grade surfacing / resurfacing |
| | Parking bay delineation - using different coloured blocks |
| | Feature markings - decorative thermoplastic road markings - design TBC |
| E1 | Concrete centre kerb - standard 125mm wide, laid flush |
| E2 | Concrete kerb - standard bullnose, 125mm wide, 125mm show |
| E3 | Stone kerb - for raingardens, 200mm wide, raised 150mm from road surface |
| E4 | No formal edging - existing paving cut to suit design, made good where necessary |
| E5 | Feature edge - Stone / rockery edge delineates raingarden |
| F1 | Erosion control - with associated road inlet between kerb |
| F2 | Bench - OMOS, s56 bench, no anti-skate bars needed |
| F3 | Informal play features - timber balance beams and stepping logs |
| F4 | Wall play features - raised balance wall through raingardens |
| F5 | Boulders - CED Ltd Celtic Boulders, assorted sizes 0.4 - 1.0m diameter |
| S1 | Steps - Paved steps with contrasting nosing |
| | Existing lampost - overhead cables |

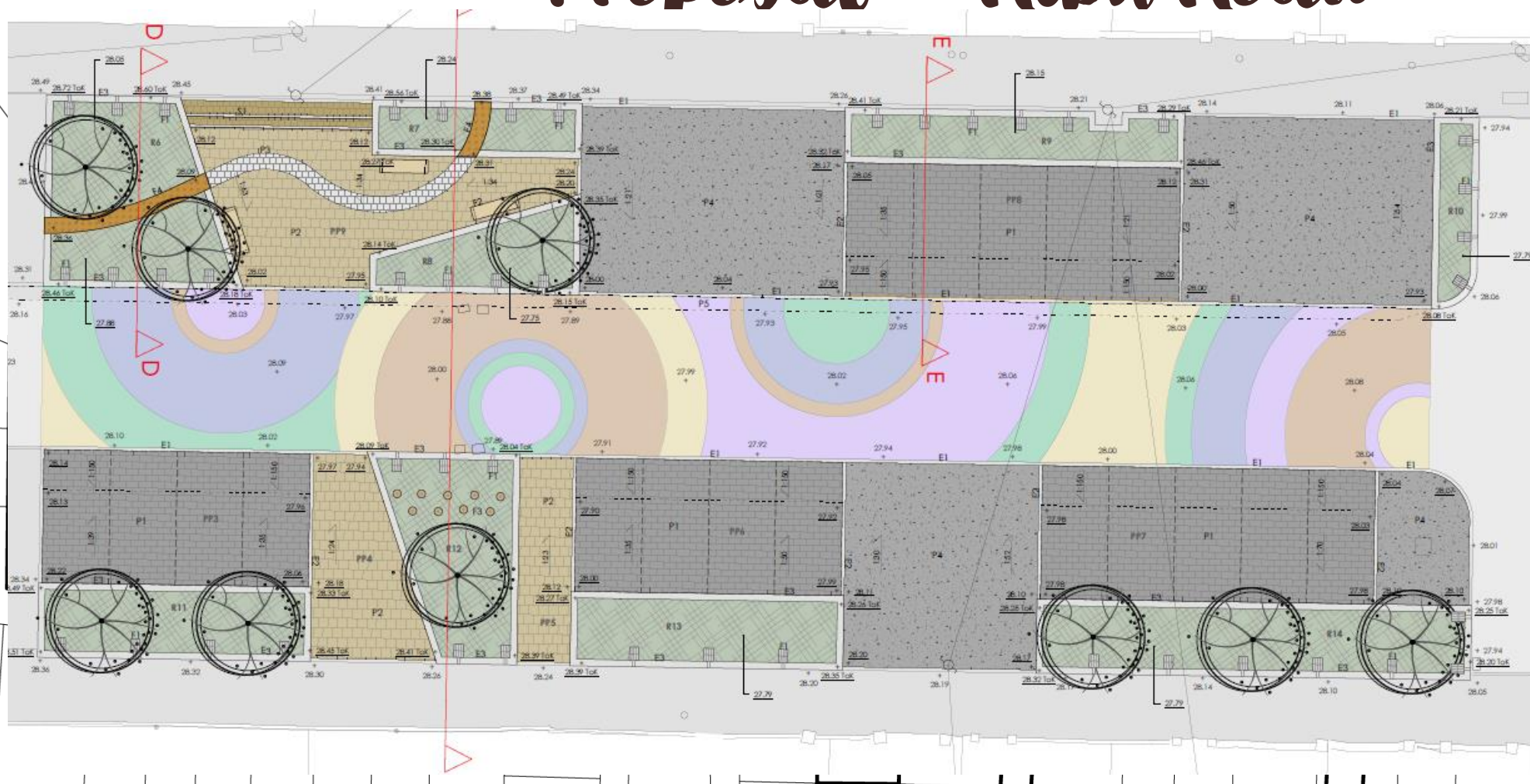
SOFT LANDSCAPE

- | | |
|--|--|
| | Bio-retention raingarden - shrub and herbaceous planting |
| | Tree retained - with associated root protection area |
| | Tree proposed |

Street View – Ribh Road



Proposal - Ribh Road



HARD LANDSCAPE

- P1** Block paving - permeable, vehicular grade, dark brown
- P2** Block paving - permeable, pedestrian+ grade, buff
- P3** Block paving - pedestrian+ grade, feature sett detail, grey stone
- P4** Asphalt - vehicular grade surfacing/ resurfacing
- P5** Concrete surfacing - vehicular grade surfacing / resurfacing
- Parking bay delineation** - using different coloured blocks
- Feature markings** - decorative thermoplastic road markings - design TBC
- E1** Concrete centre kerb - standard 125mm wide, laid flush
- E2** Concrete kerb - standard bullnose, 125mm wide, 125mm show
- E3** Stone kerb - for raingardens, 200mm wide, raised 150mm from road surface
- E4** No formal edging - existing paving cut to suit design, made good where necessary
- E5** Feature edge - Stone / rockery edge delineates raingarden
- F1** Erosion control - with associated road inlet between kerb
- F2** Bench - OMOS, s56 bench, no anti-skate bars needed
- F3** Informal play features - timber balance beams and stepping logs
- F4** Wall play features - raised balance wall through raingardens
- F5** Boulders - CED Ltd Celtic Boulders, assorted sizes 0.4 - 1.0m diameter
- S1** Steps - Paved steps with contrasting nosing
- Existing lamppost** - overhead cables

SOFT LANDSCAPE

- Bio-retention raingarden** - shrub and herbaceous planting
- Tree retained** - with associated root protection area
- Tree proposed**



Proposal - Lein Road



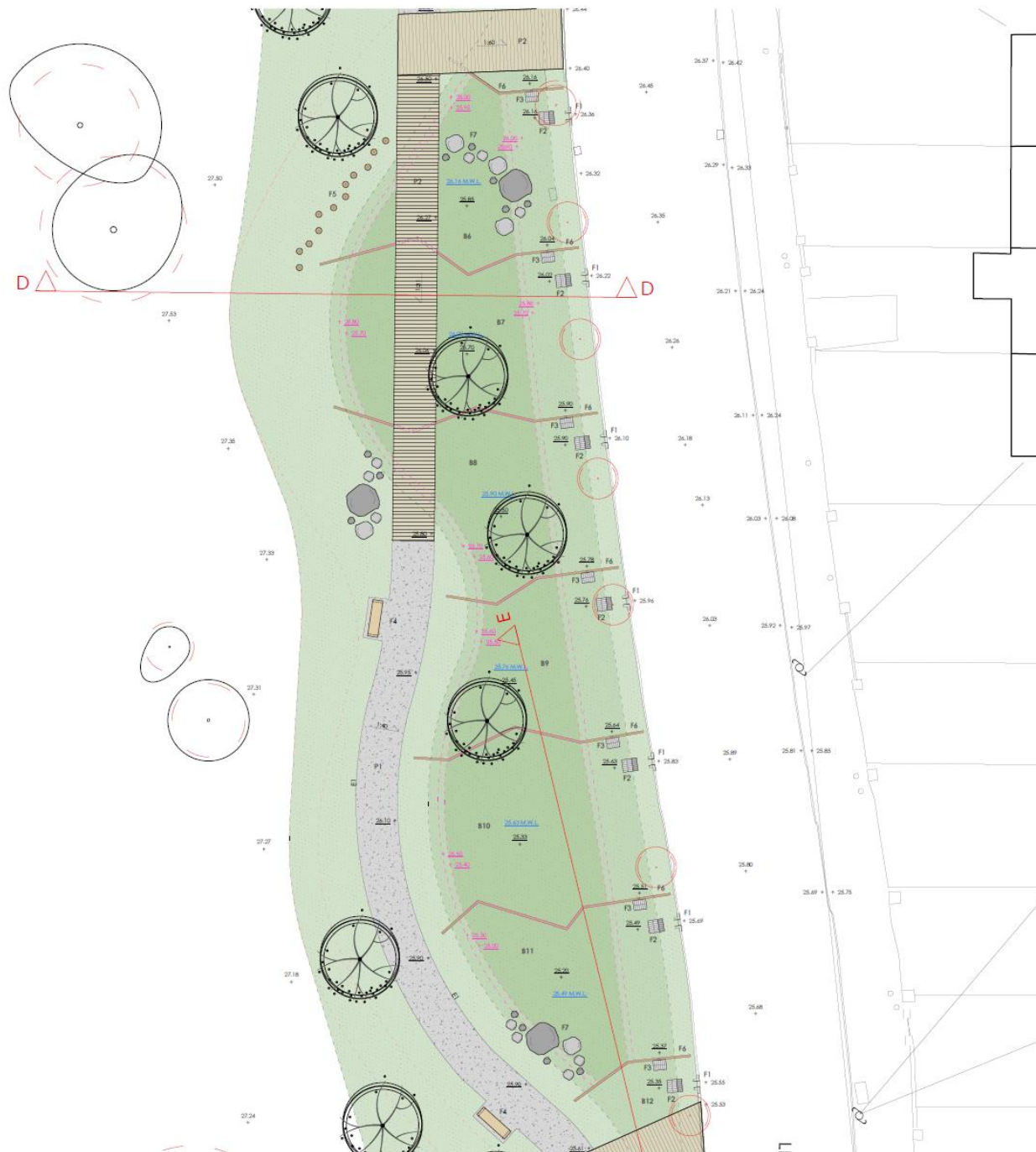
HARD LANDSCAPE

P1	Concrete surfacing - pedestrian grade surfacing / resurfacing
P2	Composite Decking - composite timber, light timber colour
E1	Aluminum Edging - shallow depth to formalise edge - refer to engineers details
W1	Timber Edge - Timber retaining edge, 300m high
F1	Inlet - Kerb corner piece detail, refer to engineers details
F2	Erosion control - formed with concrete blockwork
F3	Erosion control - with associated weir detail
F4	Bench - OMOS, s56 bench, no anti-skate bars needed
F5	Informal play features - timber balance beams and stepping logs
F6	Slot weir - composite timber sleeper
F7	Boulders - CED Ltd Celtic Boulders, assorted sizes 0.4 - 1.0m diameter

SOFT LANDSCAPE

	Bio-retention rain garden - shrub and herbaceous planting
	Rainwater basin
	Meadow planting - within basins and swales
	Tree retained - with associated root protection area
	Tree proposed

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HARD LANDSCAPE

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I1	Inlet - Kerb corner piece detail, refer to engineers details
F2	Erosion control - formed with concrete blockwork
F3	Erosion control - with associated weir detail
F4	Bench - OMOS, s56 bench, no anti-skate bars needed
F5	Informal play features - timber balance beams and stepping logs
F6	Slot weir - composite timber sleeper
F7	Boulders - CED Ltd Celtic Boulders, assorted sizes 0.4 - 1.0m diameter

SOFT LANDSCAPE

	Bio-retention raingarden - shrub and herbaceous planting
	Rainwater basin
	Meadow planting - within basins and swales
	Tree retained - with associated root protection area
	Tree proposed

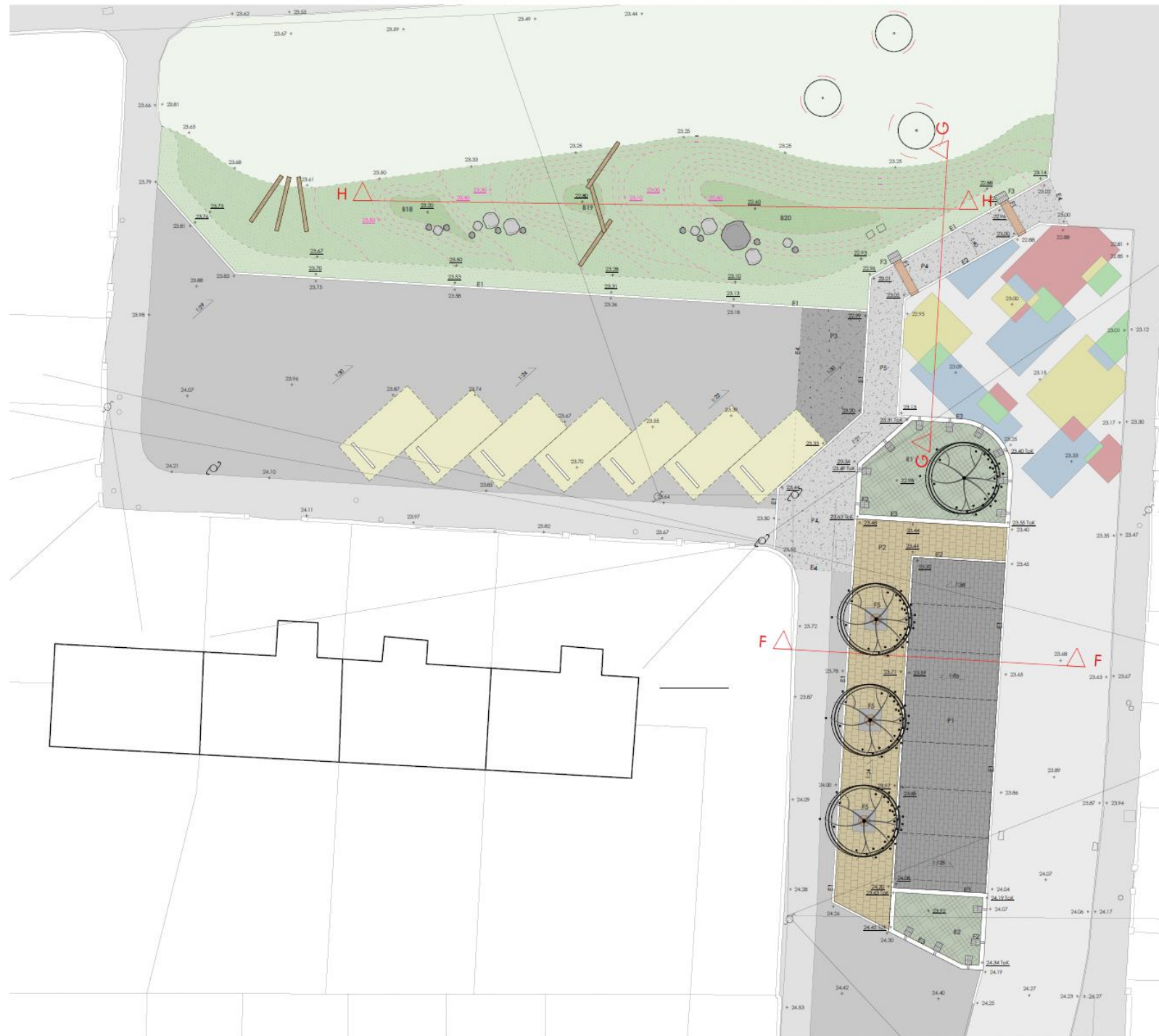


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SOFT LANDSCAPE

	Bio-retention raingarden - shrub and herbaceous planting
	Rainwater basin
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- ### HARD LANDSCAPE
- P1** Block paving - permeable, vehicular grade, dark brown
 - P2** Block paving - permeable, pedestrian+ grade, buff
 - P3** Asphalt - vehicular grade surfacing / resurfacing
 - P4** Concrete surfacing - pedestrian+ grade surfacing / resurfacing
 - P5** Concrete surfacing - vehicular grade surfacing / resurfacing
 - Parking bay delineation** - thermoplastic markings
 - Feature markings** - decorative thermoplastic road markings - design TBC
 - E1** Concrete centre kerb - standard 125mm wide, laid flush
 - E2** Concrete kerb - standard bullnose, 125mm wide, 125mm show
 - E3** Stone kerb - for raingardens, 200mm wide, raised 150mm from road surface
 - E4** No formal edging - existing paving cut to suit design, made good where necessary
 - F1** Inlet channel - decorative steel grille
 - F2** Erosion control - with associated road inlet between kerb
 - F3** Erosion control - associated with steel road inlet
 - F4** Informal play features - timber balance beams and stepping logs
 - F5** Tree grille - OMOS, c/c LC tree grille, silver
 - Existing lamppost** - overhead cables

- ### SOFT LANDSCAPE
- S1** Rainwater basin
 - S2** Meadow planting - within basins and swales
 - Tree retained** - with associated root protection area
 - Tree proposed**



Dunree Park



Detailed design not yet available.



Next Steps

- Q2, 2023 – Stakeholder Consultation
- Q2, 2023 – S.38 or Part 8
- Q3/4, 2023 to Q2, 2024 – Construction
- 2024 – 2025 – Monitoring Programme
- Q1, 2026 – Final Report

*approximate/anticipated timeline

More information

- [River Santry and River Dodder Rainscapes | Dublin City Council](#)
- wfd@dublincity.ie

Thank you

QUESTIONS?

