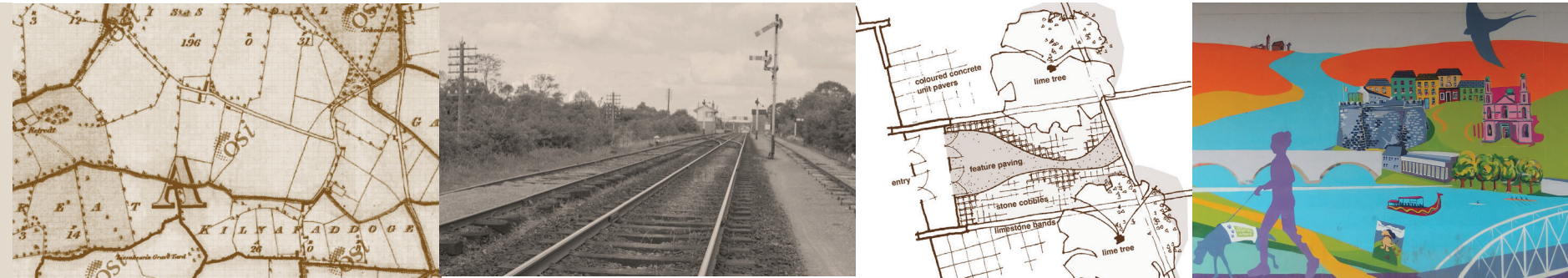


THE GREEN QUARTER

Proposed Residential and Student Development
Cartronroy, Kilnafaddoge, Lissywollen and Ardnaglug (townlands), Athlone, Co. Westmeath
for Avenir Homes Limited

14th December 2021



LANDSCAPE and VISUAL IMPACT ASSESSMENT DRAWINGS

- LVA1 - LVIA Methodology
- LVA2 - View Receptor Map A
- LVA3 - View Receptor Map B
- LVA4 - View Receptors 1-3 Descriptions
- LVA5 - View Receptors 4-6 Descriptions
- LVA6 - View Receptors 7-9 Descriptions
- LVA7 - View Receptors 10-12 Descriptions
- LVA8 - Visual References
- LVA9 - Conclusion
- Booklet of Photomontages

LANDSCAPE DRAWINGS

- L200 - Landscape Strategy
- L201 - Landscape Policy Assessment
- L202 - Public Park Analysis
- L203 - Existing Vegetation
- L204 - Tree Retention and Removals
- L205 - Amenity Diagram
- L206 - Landscape Masterplan
- L207 - West Boundary Analysis
- L208 - West Boundary Proposals
- L209 - Southwest Corner Plan Enlargement
- L210 - South Boundary Proposals
- L211 - East Boundary Proposals
- L212 - Student Quarter Plan Enlargement
- L213 - North Boundary Proposals
- L214 - South Boundary Planting Details

LANDSCAPE STRATEGY

Development of lands at Lissywollen provides an excellent opportunity for increasing the housing stock in close proximity to the transport benefits of the N6, the amenity offering of the Regional Sports Centre and the educational centre of Athlone Institute of Technology (Technological University of the Shannon). With direct adjacency to the Old Rail Trail, there is an opportunity to strengthen the town identity by creating a residential estate that exhibits unique features and acts as a node at the east end of town.

The landscape design is cognisant of national and local policy, adhering strongly to the Lissywollen South Framework Plan 2018-2024 (refer dwg. L201). A tree and hedgerow survey has been carried out (Appendix L1) and the scheme retains the most beneficial trees and hedgerow segments, while compensating for lost low-quality planting with more than 275 new semi-mature trees and 800 native transplants. The landscape documents also provide a comprehensive Landscape and Visual Impact Assessment with photomontages of the proposed development (Appendix L2). The site has a low degree of sensitivity, being nearly imperceptible from the majority of National Monuments, Protected Structures and Designated Views. Impact is localised and mitigated through the retention of Old Rail Trail and Lissywollen Avenue vegetation.

A modern public park is provided with more than 7400 sq.m. of usable amenity space across the site, accounting for 19.7% of the developable area. There are open green parks, a children's playground, family zones and biodiversity gardens.

The layout promotes cycling and pedestrian movement in a comfortable setting by designating 4m wide corridors, totaling more than 400m in length (this is in addition to the amenity space figure). These arteries are separated from vehicular traffic, which inherently makes cycling more attractive to new users and enhances the aim of promoting healthy lifestyles.

As a feature to the public realm, the L40061 (Blackberry Lane) evolves into a foraging corridor, where all plants have edible components. It's an educational laneway, reconnecting suburban Athlone with the traditions of the land and enhancing the town perception as a food aware destination.

The student quarter has its own distinct character, facilitating outdoor use and interaction. It contains a central plaza open to the public, feeling more like a town centre space rather than a segregated entity. This openness facilitates community interaction and acceptance as part of a unified functioning neighbourhood.

Biodiversity plays strongly into the selected planting palette and function of spaces. Part of our compensatory biodiversity solutions follows the All-Ireland Pollinator Plan by extending the food source seasons for fauna with targeted planting. The landscape also collaborates with engineering solutions by providing a large volume of temporary stormwater storage. As undulations in the terrain, the general public is unlikely to realise the spaces can accommodate such natural processes. The urban biodiversity features give purpose to areas that could otherwise just be aesthetic.



Biodiversity garden linked to a housing estate loop walk.



A public orchard with heritage apple trees will be incorporated into the design. An easily maintained landscape for the local authority, an orchard benefits biodiversity and interacts with the residents. In addition to the aesthetic, orchards are a modern landscape tool for community interaction.



The student quarter is well supervised, yet made comfortable with a large shrub framework and contiguous tree canopy layer. Multi-purpose site furniture accommodates studying, socialising and accessibility.



The central parklands are catered to and have attractions for all ages. Open spaces are well supervised and there is opportunity for light exercise within the site without having to cross a road.



Tree planting is designed to create contiguous commuting corridors for fauna, while providing functional filter screening, aesthetics for residents, safety and manageability.

LANDSCAPE POLICY REFERENCES

The following are objectives and relevant guidelines from the Lissywollen South Framework Plan 2018-2024 as pertains the landscape strategy for the site.

PART 2.6 - Figure 4 Built Heritage Map - Identifies Historic Road (1837 map) along the west boundary.

Note: The scheme respects the historic fabric by retaining the existing track and enhancing it with a biodiversity corridor based on a public foraging route (refer dwg. L207).

PART 3.5.1 - Retention of Key Landscape Features (unspecified)

Note: Drawing L203 describes the existing vegetation and breaks it down into 6 categories based on landscape quality and benefit of retention. 100% of Categories 1 and 2 (highest priority) are retained. 75% of Category 3 is retained. For the minor features removed, compensation will consist of new contiguous green corridors with a high degree of biodiversity.

PART 3.5.2 - Open Space Network - Starts by calling for the retention of existing landscape features, then emphasising connectivity.

Note: The scheme meets the aims of a “linked network of open spaces” with contiguous mixed amenity, designed to link to the Old Rail Trail (Greenway) in the future. “Landscape quality” takes the form of significant tree planting, bespoke site furniture and public art.

PART 3.5.5 - Landscape and Urban Form Objectives (a list of 16 items, numbered the same as the Objectives in Part 3.5.5). 5 of them are pertinent to the landscape and applicable to this site:

O-LUF1 - Existing Landscape Features - Retention, amenity and biodiversity, incorporating same into the urban structure.

Note: The most significant features are retained as shown on dwg. L203. Urban biodiversity plays a key role, as described in dwgs. L206-208.

O-LUF2 - Structural Tree Lines - Linking to Lissywollen Avenue

Note: The objective is met with 3 no. tree line corridors linking the Greenway hedgerow with Lissywollen Avenue.

O-LUF4 - Hierarchy of Spaces - Active and passive recreation

Note: Future links to the Greenway combined with well-supervised passive recreation in the student zone and active recreation with children’s play area and kickabout areas in the residential zone.

O-LUF5 - Biodiversity - Protection and Extension

Note: Significant trees and hedgerows are being retained. Extensive biodiversity corridors are being reinstated in consultation with an Ecologist. Refer dwgs. L206-208, in particular.

O-LUF7 - Greenway Supervision - Contiguous frontage

Note: Housing blocks S1 and R1 provide excellent Greenway supervision (from above and through the existing retained hedgerow).

ART 4.4.2 - Guiding Principles of Parcel 2 - Mentions the terms “pocket parks” and “larger recreational spaces”. Cycleways often mentioned and need to be considered.

Note: North/South cycle links are provided and form the spines of contiguous amenity spaces, approximating a “large park” in sq.m. However, it is not a traditional static ‘open parkland’, but rather a ‘modern’ park space with a transition of experiences and activities. Description of same provided on dwg. L202.

PART 4.4.3 - Objective P2-KS06 - To provide a public park along the eastern end of Parcel 2 to serve new residential development, the student quarter and adjoining business district.

Note: Such a park needs to address 3 very different needs. This is the basis for providing the spatial equivalent of a large public park broken down into a series of varying spaces. Refer dwg. L202.

PART 4.6.2 - Guiding Principles of Parcel 4 - Speaks of an ‘interactive urban edge’ to the Greenway and socially interactive open spaces.

Note: The scheme is designed with future Greenway connections in mind. A large central courtyard is the social core of the student accommodation and also open to the public as an urban square. The Figure 8 visualisation shows direct open access to the Greenway, but this is not part of the site (adjacent parcel to the east where conditions are different; no embankment).

PART 5.2.4 - Public Open Space - Open Space rate of 15%. Emphasising overlooking, biodiversity and SuDS.

Note: Open space is 20%. SuDS concepts have been considered and incorporated into the Engineering report and landscape design. Planting communities and tree selection have been carried out with biodiversity in mind, refer dwg. L206.



Objective No.	It is an objective of Westmeath County Council: <i>(table 8)</i>
P2-KS06	To provide a public park along the eastern end of Parcel 2 to serve new residential development, the student quarter and adjoining business district.

The objective calls for a park to serve 3 types of users with very different needs. The first step in defining the park is to identify what the 3 types of users desire out of a park and gauge their compatibility.

Residential Development Needs:

- Open space that is safe and supervised, deterring anti-social behaviour
- Open space protected from vehicular interaction
- A play area for children with the ability for parents and grandparents to sit and interact
- Grass kickabout space
- A detached, yet open space for teenagers to interact
- Open space to walk the dog

Student Quarter Needs:

- External study/relaxation nooks with a degree of privacy
- External areas where groups can gather
- BBQ and activity area distinct for students
- Cycle-friendly access and cycle parking
- Safe access to a running path
- Well lit access to home
- External Wi-fi

Business District Needs:

- External space in sun to eat lunch (homemade or local shop purchase)
- Sit down cafe for lunch, coffee service and informal meetings
- Loops paths for 10-20 min walks
- Peaceful external space with quality furniture and planting
- External Wi-fi

In identifying the configuration of parkland, consideration was given to creating a single open parkland parcel. This concept was deemed unsuitable on two grounds. One is the presence of the amazing facility at the Regional Sports Centre only 1km away, which contains basketball and all-weather pitches, a large adventure playground, adult and youth exercise areas and extensive open space and walking paths. The other is the diversity of needs (and incompatibilities) of the 3 user types.

Instead, it was deemed most suitable to create a series of linked spaces as a modern urban parkland. The transition of spaces increases the degree of interest and allows differing activities to occur without uncomfortable association.

Despite differences, there are 3 key components universal to all users:

- 1) Future links to the Greenway and Lissywollen Avenue, back to the town centre, AIT and Regional Sports Centre
- 2) Internal loop walk(s)
- 3) A large green space is always visible as a destination point



Diagram illustrating the intention for designed loop walks (and their associated distances). The aim is to provide routes that are easy to navigate and allow for integration with future development lands and Greenway links.

The New Urban Parkland



Student Quarter / Mixed-Use zoning interface



Multi-function green spaces



Urban adventure play

LANDSCAPE GRADING of EXISTING VEGETATION

The site is currently laid to pasture and framed by hedgerows of varying quality. This diagram illustrates and grades the hedgerows in clusters as a *landscape amenity*. There are a select few trees with individual merits, but the majority of trees function as integrated clusters.

An *Arboricultural Impact Assessment (Tree Survey)* in accordance with BS 5837:2012 has been carried out (refer Appendix L1) and is reflected in the hedgerow numbering. It should be noted that the diagram on this page goes beyond the AIA by assessing landscape amenity qualities.

Because the trees are organised in hedgerows and not a woodland or parkland setting, they are interdependent with adjacent vegetation. Additionally, the sod/stone ditches upon which they reside significantly influence their method of growth and root protection areas. Consequently, it is preferable to grade segments of trees as larger habitat features. This is a *Landscape Grading* that results in 6 different levels of vegetation quality and their potential to contribute to urban development. Landscape Grading of the vegetation is based on the following criteria:

Value 1-5 (1=very low, 2=low, 3=moderate, 4=high, 5=very high)

A) Benefit to Biodiversity

(influenced by species diversity, detracted by non-native presence)

B) Visual Benefit to Contextual Landscape

C) Value of Retention versus Removal and Compensation
(Influenced by replacement time, tree age, health, species)

D) Suitability for Retention in an Urban Environment
(influenced by long term prognosis, health and safety)

Hedgerow 1 (Ash, Oak, Sycamore, Thorn, broad understorey)
A=4, B=5, C=5, D=5 Avg. = 4.75

Hedgerows 2,3,7,9 (Oak, Ash, Hawthorn, Alder, Hazel, Willow)
A=5, B=4, C=4, D=3 Avg. = 4.00

Hedgerow 8 (Treeline - Lime, Hazel)
A=3, B=4, C=3, D=3 Avg. = 3.25

Hedgerows 2,7 (Small Tree - Hawthorn, Blackthorn, Willow)
A=4, B=2, C=3, D=2 Avg. = 2.75

Hedgerows 3,10 (Small Tree/Scrub - Thorn, Willow, Elder, Bramble)
A=4, B=1, C=2, D=2 Avg. = 2.25

Hedgerow 5 (Regeneration - Immature Ash, Blackthorn, Willow)
A=3, B=2, C=2, D=1 Avg. = 2.00

Hedgerows 4,6,10 (Scrub Ditch - Thorn, Bramble, Gorse)
A=3, B=1, C=1, D=1 Avg. = 1.50



Notes

1. For proposed removals, refer dwg. L204. For integration of retained hedgerows into proposed scheme, refer *Landscape Masterplan* dwg. L206.
2. Tree numbering reflects the identification in the Arboricultural Impact Assessment (Appendix L1).

Job no. 2025	Drawn by MW	Scale 1:1500	Date 06.DEC.2021	Status SHD APPLICATION	Revision B
Job Title Proposed Mixed-Use Development at Lissywollen South, Athlone, Westmeath			Drawing Set LANDSCAPE DEVELOPMENT PACKAGE		Drawing No. L203
Client Avenir Homes Ltd.			Drawing Title Existing Vegetation		

PROPOSED RETENTION and REMOVALS

With the vegetation analysed on drawing L203, there is clarity as to which trees and treelines should be protected and designed into the scheme. The proposed development was modified after the Section 247 consultation to increase the percentage of hedgerows retained.

To facilitate the development, removals are aimed at Category C or U hedgerows (refer Arboricultural Impact Assessment), typically comprising the lowest Landscape Grading. Their loss is minor and with suitable compensation, both aesthetic and habitat can be improved upon when compared to existing conditions.

Landscape Grading 1 (Trees of Merit) = 100% retained

Landscape Grading 2 (Priority Hedgerow) = 98% retained

Landscape Grading 3 (High Quality Hedgerow) = 75% retained

Landscape Grading 4 (Moderate Quality Hedgerow) = 50% retained

Landscape Grading 5 (Low Quality Hedgerow) = 5% retained

Landscape Grading 6 (Poor Quality Hedgerow) = 0% retained

TREE PROTECTION FENCING

Prior to the commencement of construction, fencing will be installed internally where trees are to be retained, to ensure safeguarding of this amenity. It will be removed only when final landscape works are underway (i.e. grass seeding and pathways through).

Fencing shall consist of min. 1.8m high panels, chainlink with galvanised posts, or similar material allowing sunshine and wind to filter through. To minimise root disturbance, fence footings shall be concrete blocks, or similar, that sit on the surface and are not installed in the ground. The fencing shall not be moved, even temporarily, during construction and under no circumstances shall materials be stored under the tree canopies. The landscape architect or horticulturalist should be consulted prior to any proposed alteration to the protection fencing. Refer BS 5837 Code of Practice for Trees in Relation to Construction for best practice standards.

TREE PROTECTION FENCING - CONSTRUCTION NOTES

- 1) The fencing shall be maintained in good and effective condition for the duration of construction activities.
- 2) The following measures shall also be adhered to:
 - a- Materials are never to be stored within the canopy of the tree;
 - b- No oil, tar, bitumen, cement or other deleterious material shall come in contact with the ground within the root zone;
 - c- Trees to be retained shall neither be used as anchorages or support mechanisms for equipment or services nor utilised in any other construction activities;
 - d- No notices, telephone cables or other services should be attached to any part of the tree;
 - e- Soil levels are to be maintained as existing within the protection fencing. The majority of roots lie within the upper 500mm of the soil. Any alteration to soil levels within the root zone must be agreed with the landscape architect prior to excavation.



Notes

1. For overview of hedgerow assessment refer dwg. L203.
2. Proposed scheme is shown outlined for context, refer *Landscape Masterplan* dwg. L206 for trees retained within development.
3. Refer *Arboricultural Impact Assessment* for categorisation of trees per BS 5837:2012.

LANDSCAPE AMENITY AREAS AND COMPONENTS

ZONE 1 - STUDENT QUARTER (1540 sq.m.)

Components: Broad pedestrian avenue with overhead tree canopy; seating nooks for large and small group gathering; Illuminated spaces; more than 200 sq.m. of public seating.

ZONE 2 - SOUTH PARKLAND (900 sq.m.)

Components: Community picnic area; large grass area in parkland setting with elevation change; Inclusive access and informal activity. Junction includes bicycle parking, seating and a public information board; visible from proposed Old Rail Trail link.

ZONE 3 - COMMUNITY ORCHARD AND BIODIVERSITY NOOK (700 sq.m.)

Components: An open green space to greet Old Rail Trail users, characterised by dry and damp wildflower meadows. A public orchard and 2 no. bench seats are provided.

ZONE 4 - ACTIVE NODE WITH BIODIVERSITY LINK (300 sq.m.)

Components: A gathering spot with seating and adult exercise equipment overlooking a habitat zone; Safe and central without the feeling of being monitored.

ZONE 5 - CENTRAL ACTIVE GREEN (800 sq.m.)

Components: Large grass area with picnic and seating; 150 sq.m. designated pitch zone with 2 no. jr. goals; part of Pollinator Corridor.

ZONE 6 - CHILDREN'S PLAY AREA (440 sq.m.)

Components: Well supervised play area catering for 1-10 yrs old with a mix of natural play and prefabricated equipment; Pollinator corridor.

ZONE 7 - NORTH PARKLAND (1280 sq.m.)

Components: Mounded open space resulting in informal amenity areas, buffered from Lissywollen Avenue; Circular seat bench; Wildflower meadow; SuDS attenuation landscape for high biodiversity.

ZONE 8 - PUBLIC FORAGING LANEWAY (1450 sq.m. / 240 lin.m.)

Components: Reinstated biodiversity corridor; A primary link between the Old Rail Trail and the Lissywollen Avenue extension and estate to the west; To be known as a public foraging corridor, using native nut, flower and berries; Repaved laneway with seating and interpretive signage.

ZONES S1-S3 - STUDENT SEMI-PRIVATE GARDENS (510 sq.m.)

Components: Exclusive to students; BBQ area; Study pods; Kickabout space that doubles as high capacity gathering area for organised events.

ZONES R1-R2 - RESIDENTIAL SEMI-PRIVATE GARDENS (658 sq.m.)

Components: Shared gardens for apartment residents; Family areas, reading nooks and child supervision areas.

ZONE R3 - CRECHE GARDEN (100 sq.m.)

Components: Toddler and Infant play areas with option for shaded activity; Framed by 2.0m conc. block walls, clad in brick to public side.



1.8m high brick-clad garden wall offset 2.0m from 45m forward visibility splay; trees offset from 1.0m from wall, installed with 2.4m clear stem to ensure through views

Foraging and Biodiversity Corridor, 1450 sq.m.
an interactive natural amenity developed using edible plants; encouraging public picking, awareness through interpretive signage, 3 no. bench seats; refer dwgs. L207-208

Note: planting along foraging corridor is low, with a max. ht. of 2.5m, so as not to impede light cast

Car parking bays laid to permeable paving, mixed grey/charcoal colours; refer Arch dwgs. layout, types and numbers, typ.

Raised tables as pedestrian crossing points aligned with Blackberry Lane link walks; all crossings to incorporate buff colour tactile warning paving, typ.

Central Parkland, 900 sq.m.
open grass area with large canopy trees as communal space oriented towards R1 - S1/S2; incl. Rain Garden 63 cu.m. gently depressed area to accommodate 1/100 yr excess rainfall event; refer Eng dwg. C-451 for overflow details

Existing veteran Ash tree retained in public realm; boundary wall footing cantilevers for 4m to protect roots (no excavation for 4m)

Foraging Corridor begins here, for details refer L208

0.9m evergreen hedge (Euonymus) as buffer to private garden, while allowing supervisory views out

Wildflower meadow with Public Orchard, 300 sq.m.
entire meadow open to L40061, path through orchard to encourage public interaction; for details refer L209

Pedestrian and cycle link to L40061, gate modification in agreement with Local Authority; for details refer L209

Biodiversity Node with Rain Garden, 400 sq.m.
damp meadow habitat to complement Greenway hedgerow; 30 cu.m. basin (potential up to 60 cu.m.) to accommodate 1/100 yr excess rainfall event; refer L209

REV	DATE	DRAWN	DESCRIPTION
B	08/12/21	MW	Issue for Stage 3 SHD planning submittal.
A	05/08/21	MW	Issue for Stage 2 Tripartite consultation.

Plan Enlargement L213

1.3m berm and hedging for noise attenuation; refer L213 and DKP Noise Analysis report

Dashed purple lines identify water/foul services corridor (incl. offset) where no tree planting is to occur; any trees within 2m of the offset will be installed with a root barrier

Northern Parkland, 1280 sq.m.
Rolling grassland buffered to Lissywollen Avenue by mounded earth to 1.5m and clusters of trees with autumn highlights; space incl. a seating circle and a mounded earth play nook; depressed area south of mounds serves as a 148 cu.m. Rain Garden to accommodate 1/100 yr excess rainfall event; refer Eng dwg. C-451 for overflow details

- Existing route of L40061 (Blackberry Lane)
- Raised table laid to specialist tarmac with yellow chip, typ. to all tables
- Entry verges laid to grass and planted with flowering bulbs blooming in Feb-Apr, Crocus and Daffodils; ensures clear visibility
- Removable bollards at all locations where amenity path meets vehicular road, 1.1m stainless steel with reflective warning band
- Orange dots identify pole light locations, coordinated w/ lighting layout
- Dashed orange lines indicate 5m offsets for tree planting guidance

R2 private creche garden, 100 sq.m.
Laid to grass for finish by prospective tenant; enclosed by brick-clad wall (refer Arch dwgs.)

Green Roofs to all apartment blocks; refer Arch dwgs for extent; planting to be blended Sedum varieties (hispanicum, reflexum, album, acre) providing a mixed colour hue and extended pollinator season

Tree cluster with 2 no. picnic tables below

R2 private amenity, 410 sq.m.
Area laid to lawn to back of hedgerow, which serves as a natural enclosure; for use as informal play and resident gathering

Children's Play Area, 440 sq.m.
Catering to children 1-10 years with internal mounds to 1.5m to define space, 1.2m perimeter fence with 2 no. self-closing gates, 3 benches for adults; equipment includes: Toddler slide on mound, climbing structure, nest and standard swings, nature play (balance with boulders, logs) and 1 no. wheelchair accessible spinner

R2 access paths coordinated with gaps in hedgerow to ensure no tree removal (scrub only); this open 2m wide; refer dwg. L211

Access paths laid to select coloured conc. unit pavers with stone walls to frame hedgerow ope and low-level lighting

Community Parkland, 800 sq.m.
open grass area with large canopy trees, incl. picnic cluster, bench seating and level pitch with galv. junior goals at each end and 1.2m weld mesh (Paldan) fencing for ball containment

Existing trees to be retained identified by a green outline

Node laid to integrally coloured concrete (brown), able to accommodate various routes of emergency vehicle turning

Rain garden (dark green outline) 21 cu.m. (up to 55 cu.m.), depressed area to accommodate 1/100 yr excess rainfall event; refer Eng dwg. C-451 for overflow details

Adult Exercise and Habitat Link, 300 sq.m.
fringe of node contains 3 no. adult exercise equipment; open space linked to hedgerow with native trees with damp wildflower meadow serving as compatible habitat feeding grounds

Existing hedgerow retained to here; new hedgerow extension on sod ditch frames student courtyard

S3 private amenity, 230 sq.m.
primary private space for student functions; large bbq, patio and grass amenity areas

Student car park laneway laid to permeable paving as part of SuDS programme

Permitted (unbuilt) Lissywollen Avenue shown for clarity

S2 private amenity, 50 sq.m.
patio framed by hedge and 1.2m fence, suited to 8 no. study tables

Pole lights installed in grass verge adj. to paved lane; boundary fence installed to back of lighting

Student Quarter Amenity, 1540 sq.m.
select unit pavers to ped/cycle (and emergency access) laneways; 2 no. seat benches and 140 sq.m. of social platform seats; refer dwg. L212

Apartment roofs topped with mix of solar panels, green roofs (Sedum) and gravel areas; refer Arch dwgs.

(p) Boundary fence (dashed blue line); 1.8m high weld mesh panels, powdercoated colour Green

S1 private amenity, 230 sq.m.
raised beds with perennial herbs, bbq area and 2 large patios with tables

Existing hedgerow along Greenway retained as-is (apart from scrub removal @ access point)

20 no. specialist conifer trees (dark green) to open ground between boundary hedgerow and (p) buildings as visual filter; refer dwg. L214

28 no. native broadleaf trees to supplement (e) hedgerow, north side of ditch; refer dwg. L214

6 no. Aln glu (12-14cm) 2 no. Pru avi (10-12cm) 6 no. Bet pen (12-14cm) 14 no. Que rob (10-12cm)

Pedestrian and cycle link to Greenway, in agreement with Local Authority; refer dwg. L210

Tree Planting Schedule (272 no. semi-mature and specimen trees)

Abbreviation	No. of Trees	Tree Description
AG	10	Alnus glutinosa (Alder, 10-12cm girth BareRoot)
AC	24	Acer campestre 'Elsrijk' (Field Maple, 12-14cm girth BR)
AP	17	Acer platanoides 'Emerald Queen' (Norway Maple, 12-14cm girth BR)
AR	3	Acer rubrum 'October Glory' (Red Maple, 12-14cm girth RootBall)
BC	21	Betula costata (Golden Birch, 10-12cm girth BR)
BP1	8	Betula pendula (Silver Birch, 12-14cm BR)
BP2	4	Betula pubescens (Downy Birch, 14-16cm girth BR)
CB	12	Carpinus betulus 'Fastigiata' (Fastigiata Hornbeam, 12-14cm girth BR)
CA	6	Corylus avellana (Hazel, 300/350cm ht., multi-stem BR)
CM	6	Crataegus monogyna (Hawthorn, 10-12cm girth BR)
FS	6	Fagus sylvatica (Beech, 18-20cm girth BR)
LS	6	Liquidambar styraciflua (Sweet Gum, 16-18cm girth, RB)
MD	9	Malus domestica (Mixed variety Apple trees, MM106 rootstock)
MS	5	Malus 'Evereste' (Flowering Crabapple, 10-12cm girth BR)
MK	2	Magnolia kobus (Magnolia, 14-16cm girth RB)
NA	3	Nothofagus antarctica (Arctic Beech, 350/400cm ht. multi-stem)
PS	14	Pinus sylvestris (Scots Pine, 50-60cm girth, 6-8m ht.)
PW	6	Pinus strobus (White Pine, 60-70cm girth, 7-10m ht.)
PO	9	Platanus orientalis 'Minarette' (Plane, 20-25cm girth RB)
PA	12	Prunus avium 'Plena' (Flowering Cherry, 10-12cm girth BR)
PY	6	Prunus yedoensis (Yoshino Cherry, 14-16cm girth RB)
QC	7	Quercus cerris (Turkey Oak, 20-25cm girth RB)
QJ	1	Quercus ilex (Evergreen Holm Oak, 175/200cm ht. RB)
QP	4	Quercus palustris (Pin Oak, 14-16cm girth RB)
QR1	10	Quercus robur (Pedunculata Oak, 20-25cm girth specimen RB)
QR2	21	Quercus robur (Pedunculata Oak, 12-14cm girth RB)
SB	2	Salix babylonica (Weeping Willow, 18-20cm girth RB)
SC	6	Salix caprea (Goat Willow, 200/250cm ht. feathered transplant)
SA	4	Sorbus aucuparia (Rowan, 10-12cm girth BR)
TCG	8	Tilia cordata 'Greenspire' (Small-Leaved Lime, 12-14cm girth RB)
TCR	11	Tilia cordata 'Roelvo' (Avenue Lime, 14-16cm RB)
UH	9	Ulmus hollandica 'Doddeens' (Hybrid Elm, 16-18cm RB)

Green dot (●) denotes small trees with a mature canopy less than 5m dia. after 25 yrs.
Brown dot (●) denotes medium trees with a mature canopy of 5-8m dia. after 25 yrs.
Blue dot (●) denotes larger canopy trees, but are typically slower growing.

L40061 (Blackberry Lane) Foraging Corridor Planting Schedule (600 no. bareroot transplants)

No. of Plants	Planting Description
25	Corylus avellana (Hazel, 150/200cm ht., multi-stem BR)
25	Malus sylvestris (Crabapple, 6-8cm girth tree BR)
50	Prunus spinosa (Blackthorn, 1+2, 90/120)
90	Sambucus nigra (Elder, 1+1 60/90)
100	Ribes nigrum (Black Currant, 1+0 40/60)
70	Ribes uva-crispi (Gooseberry, 1+0 40/60)
80	Rosa canina (Dog Rose, 0+1 40/60)
80	Rubus fruticosus (Blackberry canes, 0+1 40/60)
80	Vaccinium myrtillus (Bilberry, 1+1 60/90)
herbs	Mentha aquatica (Water Mint, 9cm pots) native bulbs Wild Garlic (Allium ursinum) and Bluebells (Hyacinthoides non-scripta)

Graphic Legend

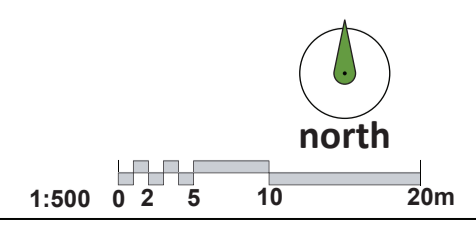
- Tarmac - standard (left) and coloured with Buff chip (right)
- Tarmac - coloured with Red chip, with Buff warning paving
- Concrete Unit Pavers - permeable, mixed grey colours
- Concrete Footpath - cast in situ, standard grey colour
- Concrete Unit Pavers - mixed colour/sizes to private gardens
- Select Concrete Unit Pavers - vehicular, mixed beige/grey
- Permeable Structural Paving - gravel (left), grass (right)
- Existing Retained Trees
- Proposed Semi-Mature Tree Planting
- Evergreen Foundation Shrubs - 400-900mm ht.
- Flowering Perennials - 200-600mm ht.
- Hedging - as barrier, 1000-1500mm ht.
- Green Roof - mixed Sedum (adj. to solar panels)

Landscape Programme of Implementation

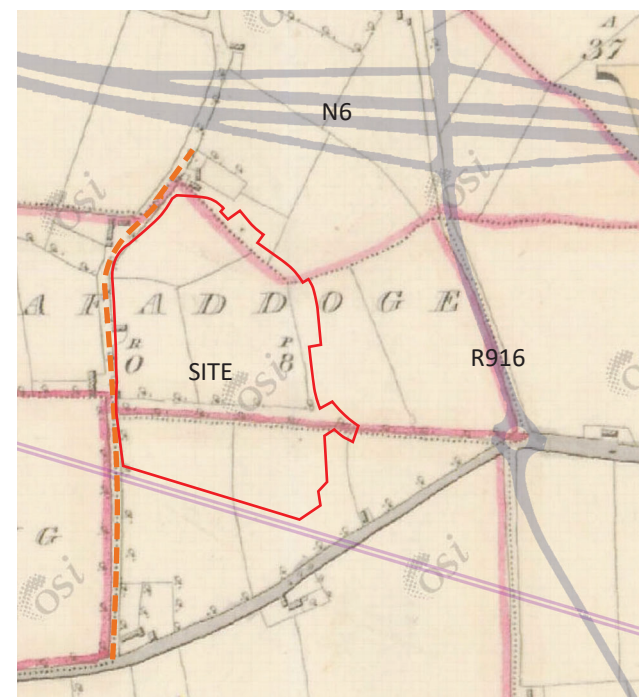
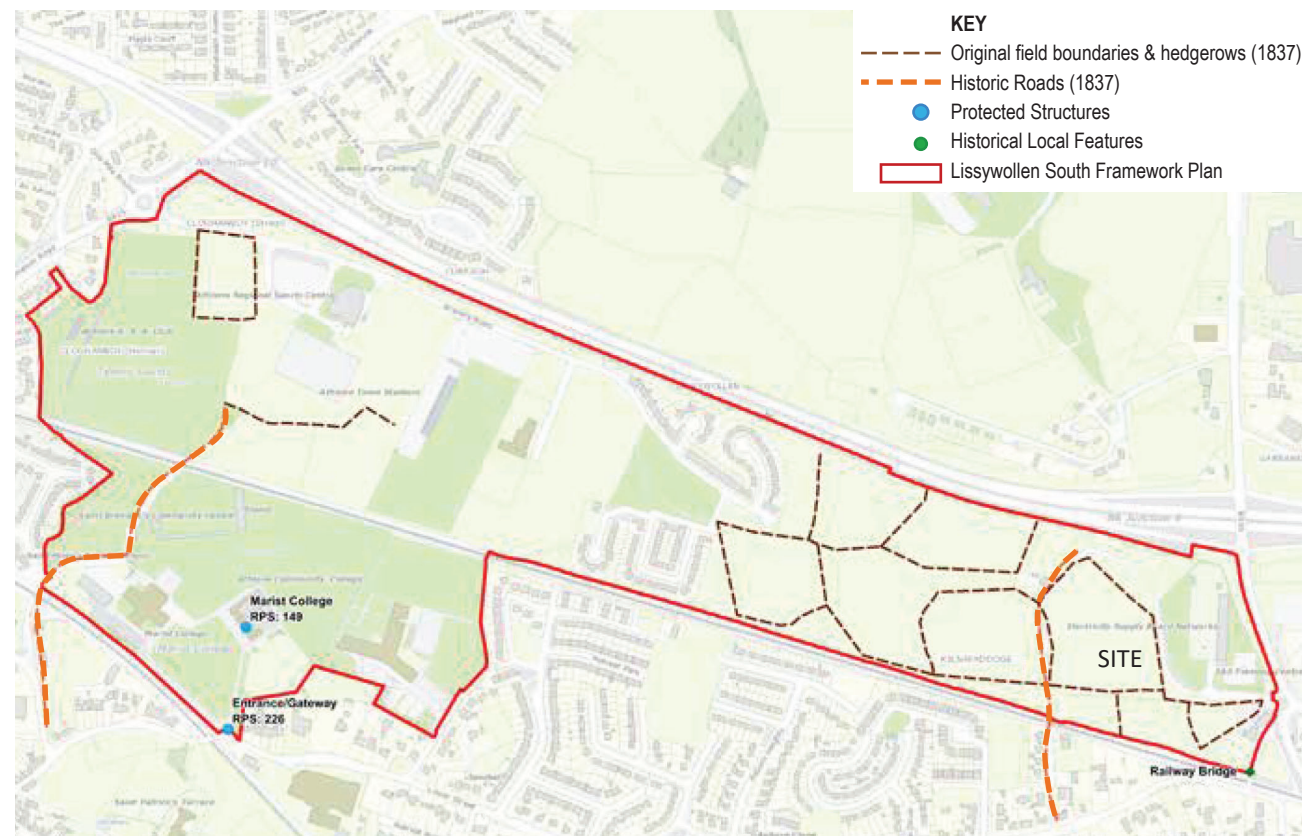
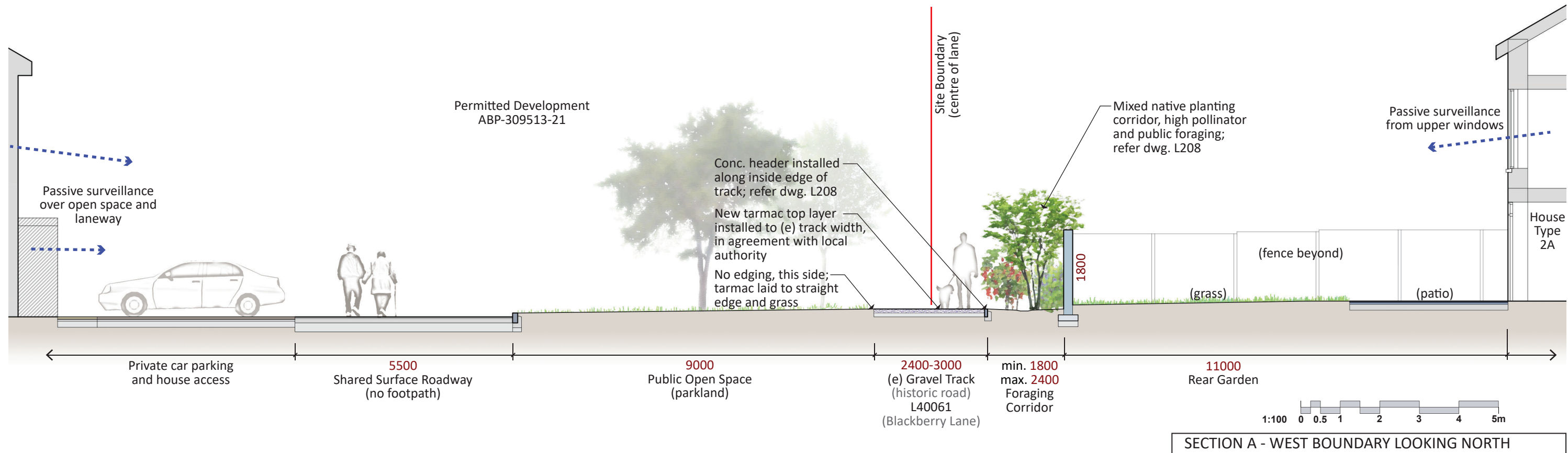
1. Install tree protection fencing to protect retained trees as indicated drawing L204, prior to commencement of construction.
2. Remove topsoil (upper 400mm of soil) from entire development area and stockpile for later use. Do not drive vehicles or store machinery on reserved soil.
3. Prior to the commencement of construction, supply and install the specialist conifers and Greenway tree planting, to ensure early establishment of filter planting.
4. Trim and finish a 10m segment of Lissywollen Avenue hedgerow proposed for removal, for Local Authority review and agreement, prior to completion of Block R2.
5. Upon substantial completion of housing blocks, install all landscape hardworks and planting to courtyards, garden steps and planting beds adjacent to structure. Install all proposed trees and shrubs during the first available planting season (Nov-Mar). Stake all trees.
6. Fine grade disturbed fringe areas and seed with Irish grass seed once available and are free from future construction traffic or storage.
7. Implement a programme of aftercare for a minimum of 12 months after project completion and ensure that any dead plants or trees are replaced within the nearest planting season.
8. Ensure a maintenance regime is in place, regularly tending to the planting beds at entry points to the estate. All new and established trees are to receive annual care, optimising health and longevity. Maintenance to be formalised under management companies separated under apartment and student accommodation developments.



Job no.	2025	Scale	1:500 @A1	Date	06.DEC.2021	Status	SHD PLANNING	Revision	B
Job Title	Proposed Mixed-Use Development at Lissywollen South, Athlone, Co. Westmeath			Client	Avenir Homes Ltd.				
Client	Avenir Homes Ltd.			Drawing Set	LANDSCAPE DEVELOPMENT PROPOSALS				
Client	Avenir Homes Ltd.			Drawing Title	LANDSCAPE MASTERPLAN				
Client	Avenir Homes Ltd.			Drawing No.	L206				



Notes:
1. For site layout and services refer Architecture and Engineering drawings.
2. With the transport and planting embargo on native Ash trees (Hymenosyphus fraxineus, Ash Dieback disease), none can be planted at this time (thus none are specified). Should this status change, the quantity of non-native acclimatised species will be reduced so that Ash constitutes 10% of the overall planting within the southern and eastern boundaries.



Extract from 6-inch Ordnance Survey map (1837), overlaid by the railway line (double purple) and modern road infrastructure (grey, N6 and R916). The laneway along the west boundary carried higher significance north from Cartonroy than the current R916, but has since been made redundant by modern road works.

WEST BOUNDARY CONTEXT

Treatment of this boundary needs to consider the statutory references and historic context, as well as existing or permitted adjacent development. The boundary follows what is currently a gravel track. In the 1800's this was a through north/south road that appears to have served a moderate level of traffic based on road size and number of dwellings along it (visible in historic maps). Its' status declined with time as other roads became more developed and was eventually made redundant by the presence of the N6. Recently permitted development opens up to the road with a grass open space dotted with trees, but it does little to engage the public.

Characteristics of the adjacent permitted development:

- Open, parkland landscape with good visibility through
- Trees provide commuting route for flying fauna
- Mown grass results in low degree of biodiversity
- No defined edge to existing track

Potential complementary elements:

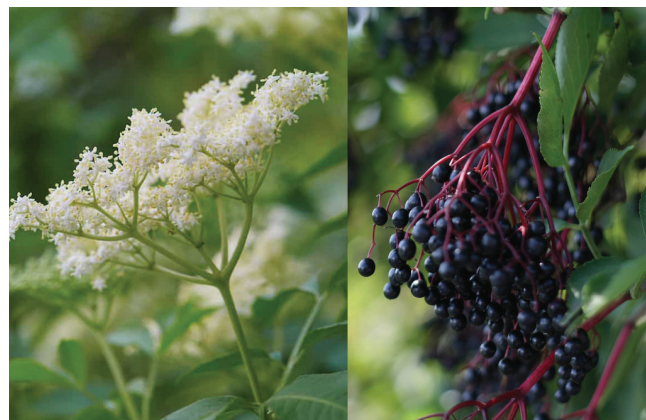
- A high biodiversity landscape for terrestrial fauna
- An uninterrupted biodiversity corridor / habitat
- Give the historic road purpose and create place-making

By using these as guidelines, development on this site can respect and enhance the historic road.

Notes

1. For details to boundary treatment, refer dwg. L208.
2. Information pertinent to adjacent lands is taken from the permitted planning application no. ABP-309513-21.

Job no. 2025	Drawn by MW	Scale 1:100	Date 06.DEC.2021	Status SHD APPLICATION	Revision B
Job Title Proposed Mixed-Use Development at Lissywollen South, Athlone, Westmeath			Drawing Set LANDSCAPE DEVELOPMENT PACKAGE		Drawing No. L207
Client Avenir Homes Ltd.			Drawing Title West Boundary Analysis		



Elder (*Sambucus nigra*) - Versatile foraging plant with flowers for cordial in the spring and berries in autumn.



Hazel (*Corylus avellana*) - Edible nuts in autumn, also supporting Red Squirrel. This small tree provides structural framework.



Sloe/Blackthorn (*Prunus spinosa*) - Autumn fruit for gin and jams, this shrubby tree is important for habitat diversity.

LAYER 3



Wild Garlic (*Allium ursinum*) Early spring flowering for ID, the leaves make a highly regarded pesto.



Dog Rose (*Rosa canina*) - A long-flowering pollinator, this low shrub provides late season foraging for Rose Hips (syrup).

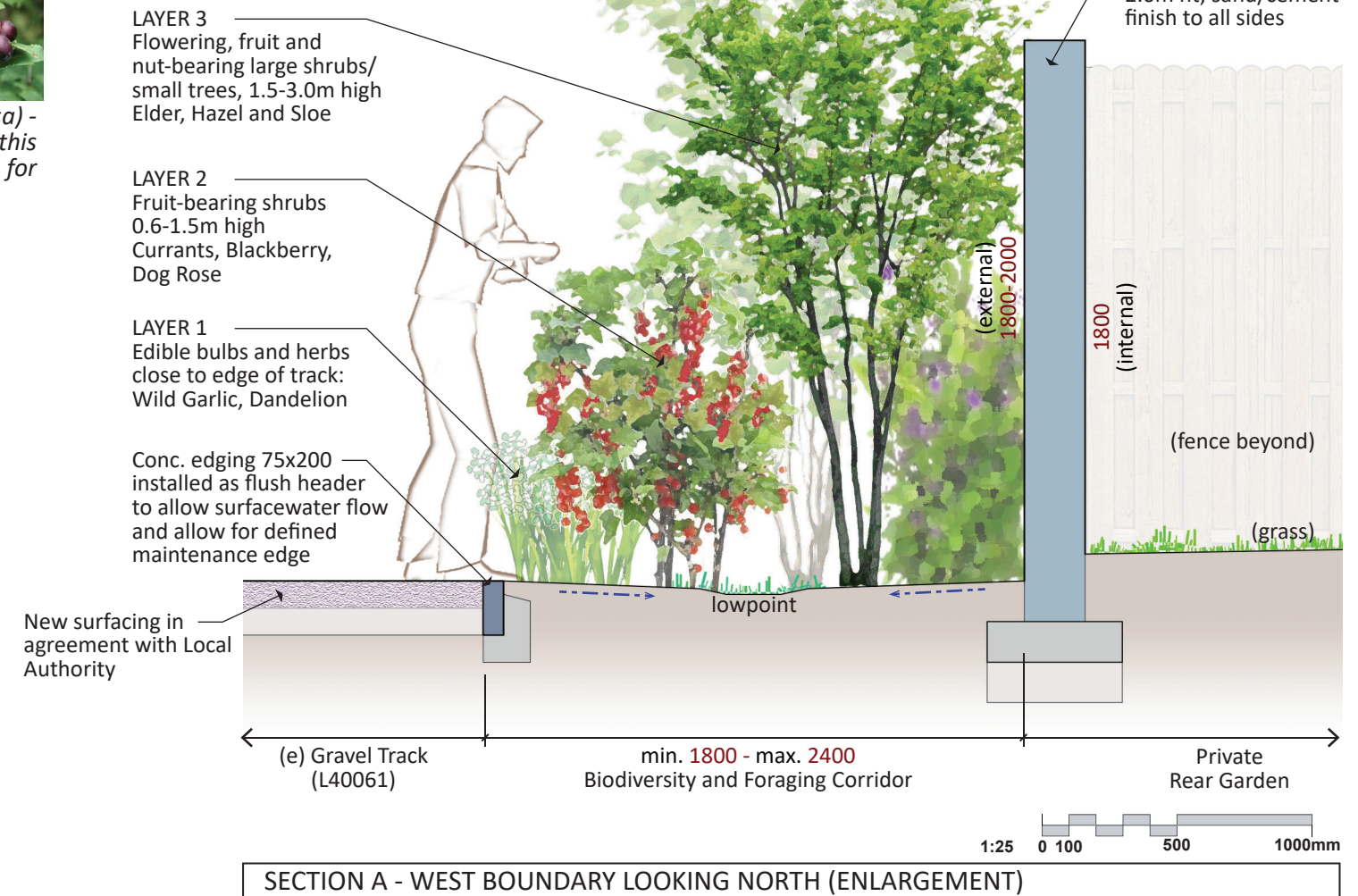
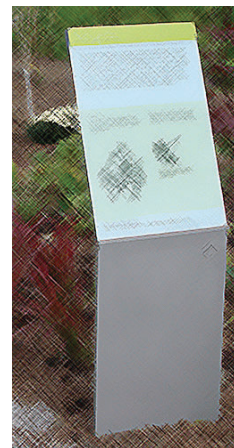


LAYERS 1-2

Blackberry (*Rubus fruticosus*) An early pollinator, the late-summer berries can be eaten raw on the spot, or collected and used for jam.



Example of interpretive signage along the corridor, introducing the activity of foraging to newcomers. Content might include photos of the edible plant parts, times of year for collecting and recipes to take home. A sign interpreting the historic laneway in context of Athlone will also be included. 4 no. interpretive signs in total.



SECTION A - WEST BOUNDARY LOOKING NORTH (ENLARGEMENT)

PROPOSED BIODIVERSITY AND FORAGING CORRIDOR

The west boundary is treated as a public amenity that complements the larger food culture of the town. It becomes an active and recognisable corridor off of the Old Rail Trail. This amenity reconnects locals with the healthy lifestyle activity of foraging - gathering food directly from the plant for use in home cooking. Many people are unsure about the process and safety of foraging. This corridor is designed to make people comfortable with collecting fruit, leaves and flowers. A 'beginners' course. All plants are native and all have something to offer the forager. The scheme will educate users by means of interpretive signage.

Additionally, this will serve as an extremely beneficial biodiversity corridor. It has a long pollinator season and a long food season for both birds and terrestrial fauna. The historic road and boundary wall define the corridor and keep it tidy, yet it will feel active with wildlife.

When people are able to use a natural amenity, particularly if there are tangible benefits for them (free food), a strong sense of accountability and ownership ensues. It is also a socially-inclusive activity, bringing together neighbours beyond just this development. It is very likely this 'designed' foraging corridor would be talked about in various niche media, recognising Athlone as a step ahead in food culture and awareness.

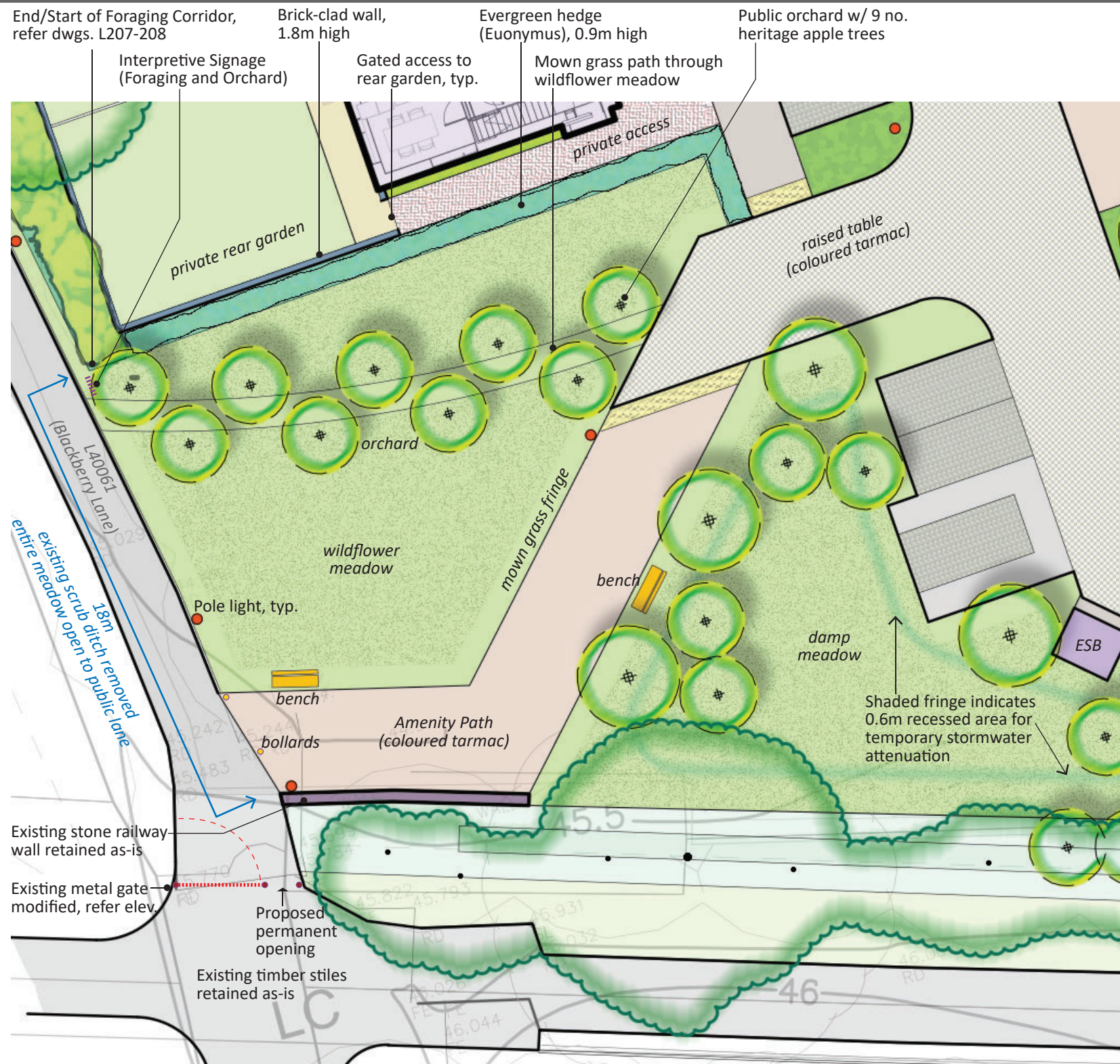
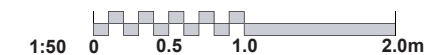
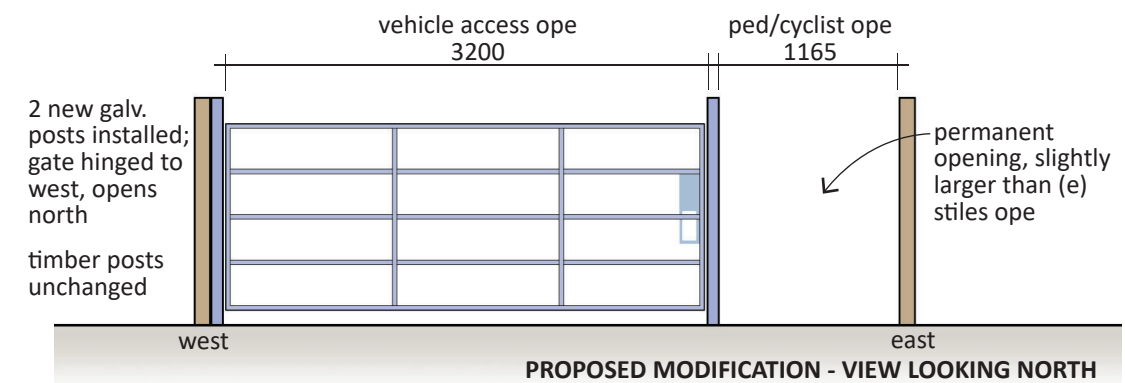
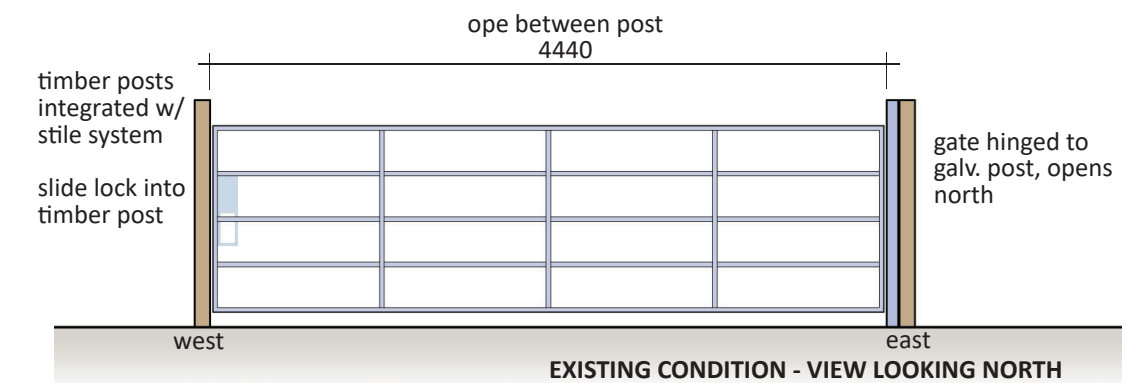


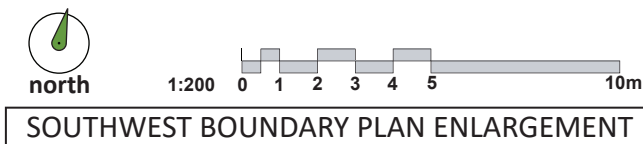
Image of existing gate (view from Greenway stiles, looking northeast; stone railway wall hidden beneath ivy overgrowth).
To access Blackberry Lane, the gate must be opened (and closed) manually. Gate opens towards the site.



GATE BETWEEN OLD RAIL TRAIL AND L40061



Image of heritage apple orchard; illustrating tree spacing and path through.



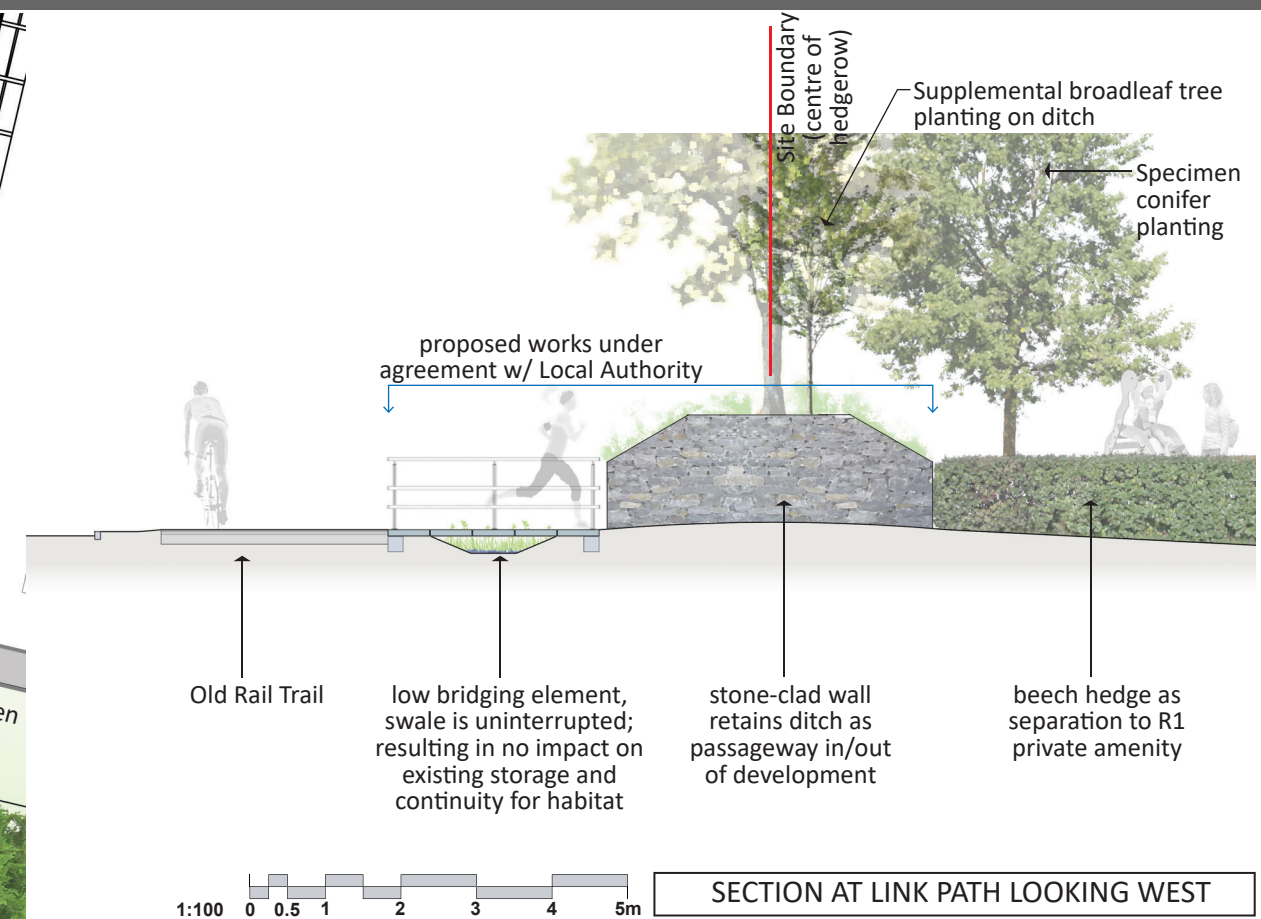
PUBLIC INTERFACE AT SOUTHWEST CORNER OF SITE

Blackberry Lane (L40061) becomes a vibrant new corridor as part of the Old Rail Trail experience. The site is opened up to the Greenway and the Lane with a large meadow and orchard, hinting at the foraging amenity. Bench seating is located at the entrance, indicating an invitation to enter the space.

Under agreement with the Local Authority, a practical aim is to ensuring adequate access for amenity users and existing landowners. In doing so, a minor modification is proposed to the gate at the Greenway. Farm access is still required to the parcel west of the site. A 3.2m wide gate can facilitate tractor access. This leaves an opening where individual pedestrians and cyclists can pass the gate without hindrance. All timber fencing and stiles on the Greenway are to be retained as-is.



1:100 0 0.5 1 2 3 4 5m PLAN - OLD RAIL TRAIL LINK



OLD RAIL TRAIL INTERFACE AND SOUTH BOUNDARY STRATEGY

The scheme responds to the Lissywollen South Framework Plan by providing a physical link to the Old Rail Trail. The link aligns with the amenity path and is designed to be a primary cycle and pedestrian artery.

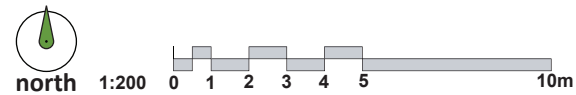
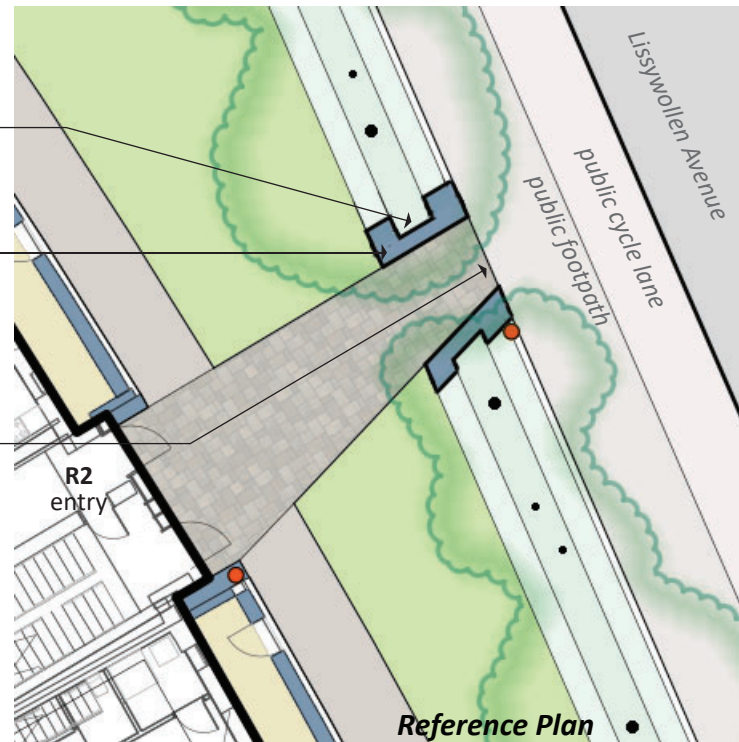
The proposals include removal of a 6m wide portion of the ditch. This will essentially be a slice through the hedgerow. The ends of the exposed ditch will be clad with stone walls, resulting in a quality detailed passageway. The existing natural drainage swale parallel to the Old Rail Trail will be retained as-is. By bridging over the swale, fauna and insects can continue to move uninterrupted along the damp verge.

The link flares wider at the Old Rail Trail, allowing for a more fluid movement of pedestrians and cyclists and focusing views down the amenity path. The proposals provide active elements adjacent to the link by means of private amenity. The aim is that when a user is walking along the Greenway, they'll be able to catch a glimpse of students on the S1 terrace or residents playing or gardening at R1. Visual interaction. These spaces are separated by 1.2m high Beech hedging; low enough to allow secondary supervision, yet tall enough to define space. The student quarter includes the added boundary of a low stone wall. This wall clearly delineates the student zone while providing a clean, attractive edge to the north/south amenity path.

3.0m wide portion of ditch removed; adjustable on site to avoid removing trees (scrub only)
 retained ditch framed in stone clad walls (local source) to height of ditch; walls wrap around ditch for clean retention and to create informal seating

change to private realm identified by change in paving (select coloured conc. unit pavers)

Note: Lissywollen Avenue and associated cycle and pedestrian paths are permitted, but currently unbuilt.



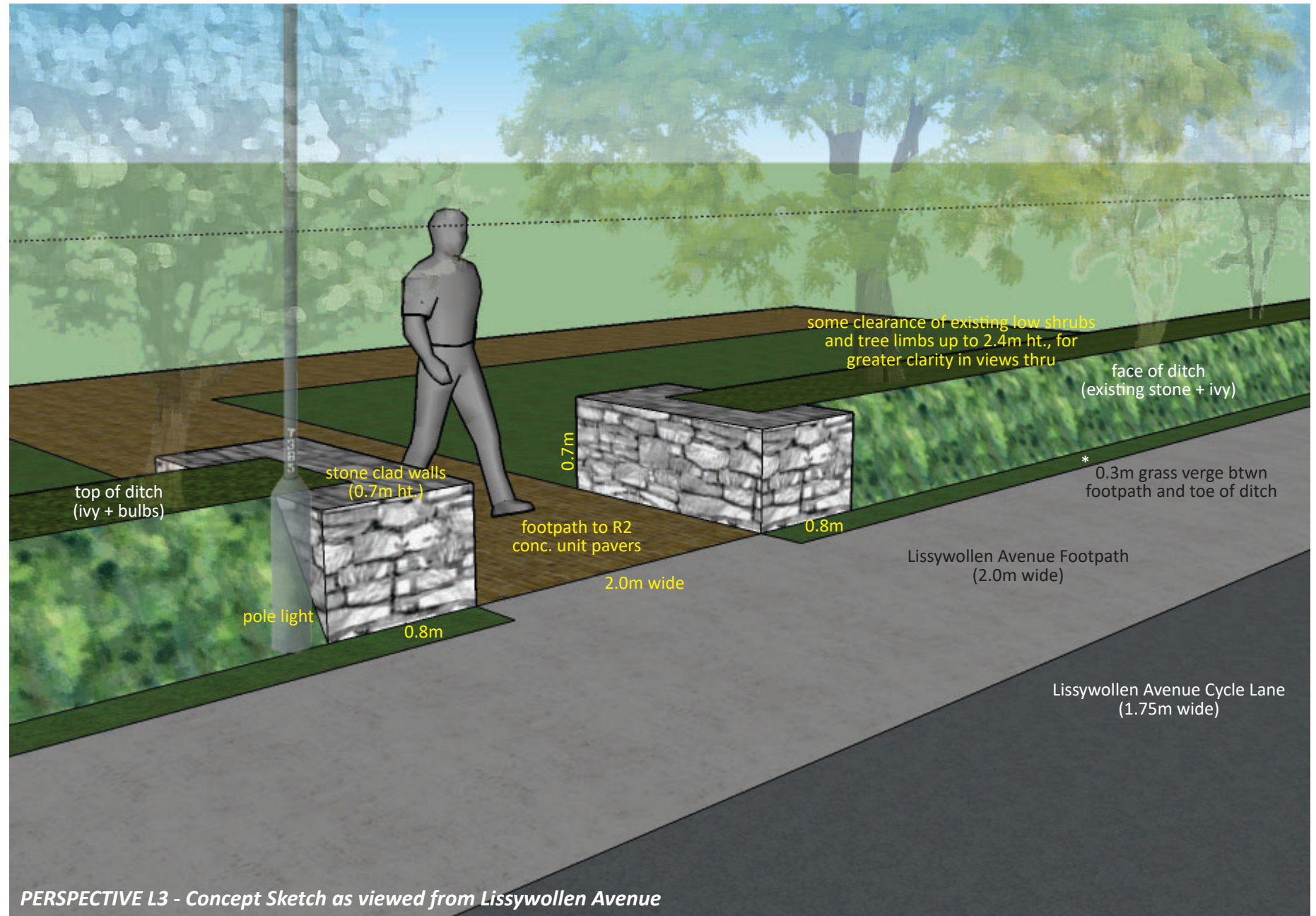
LISSYWOLLEN AVENUE INTERFACE AT BLOCK R2

With retention of the existing hedgerow, Lissywollen Avenue is presented with a ready-made mature visual filter and nod to the traditional character of the road. Becoming a layer within the proposed urban form, a distinct character is created that softens the built form and highlights the role of habitat in urban design.

The wild nature of the hedgerow is made to appear managed by incorporating quality stonework at entry points and increasing clarity through the hedgerow at ground level. This allows a sense of visual integration for road users, secondary supervision of the public realm, while retaining a sense of separation and privacy for residents. With retention of the hedgerow, the scheme will be particularly attractive at night.



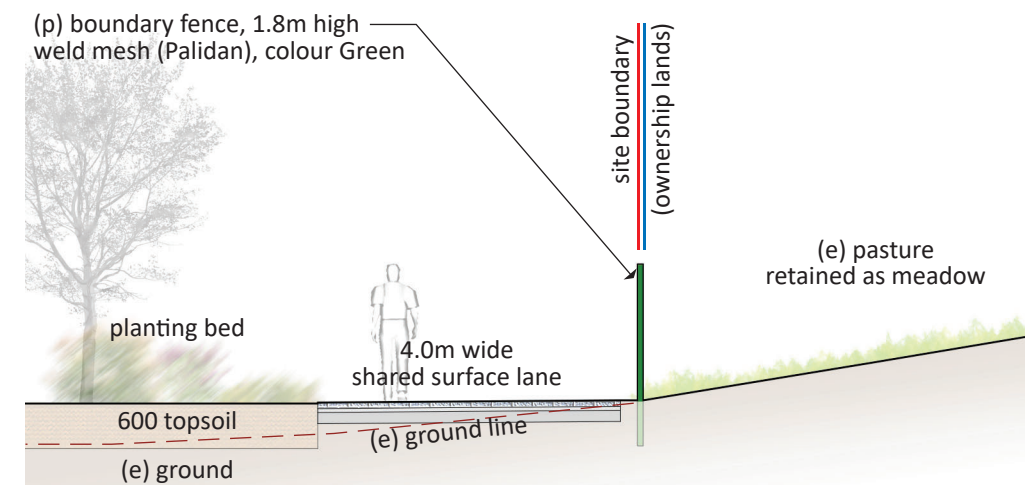
Image of the existing hedgerow proposed for retention. There are already pockets of clarity through the trees. This would be enhanced through Crown Uplift (some lower branch removal), Crown Thinning (removal of some internal branching for a lighter feel) and Understorey Management (on ditch).



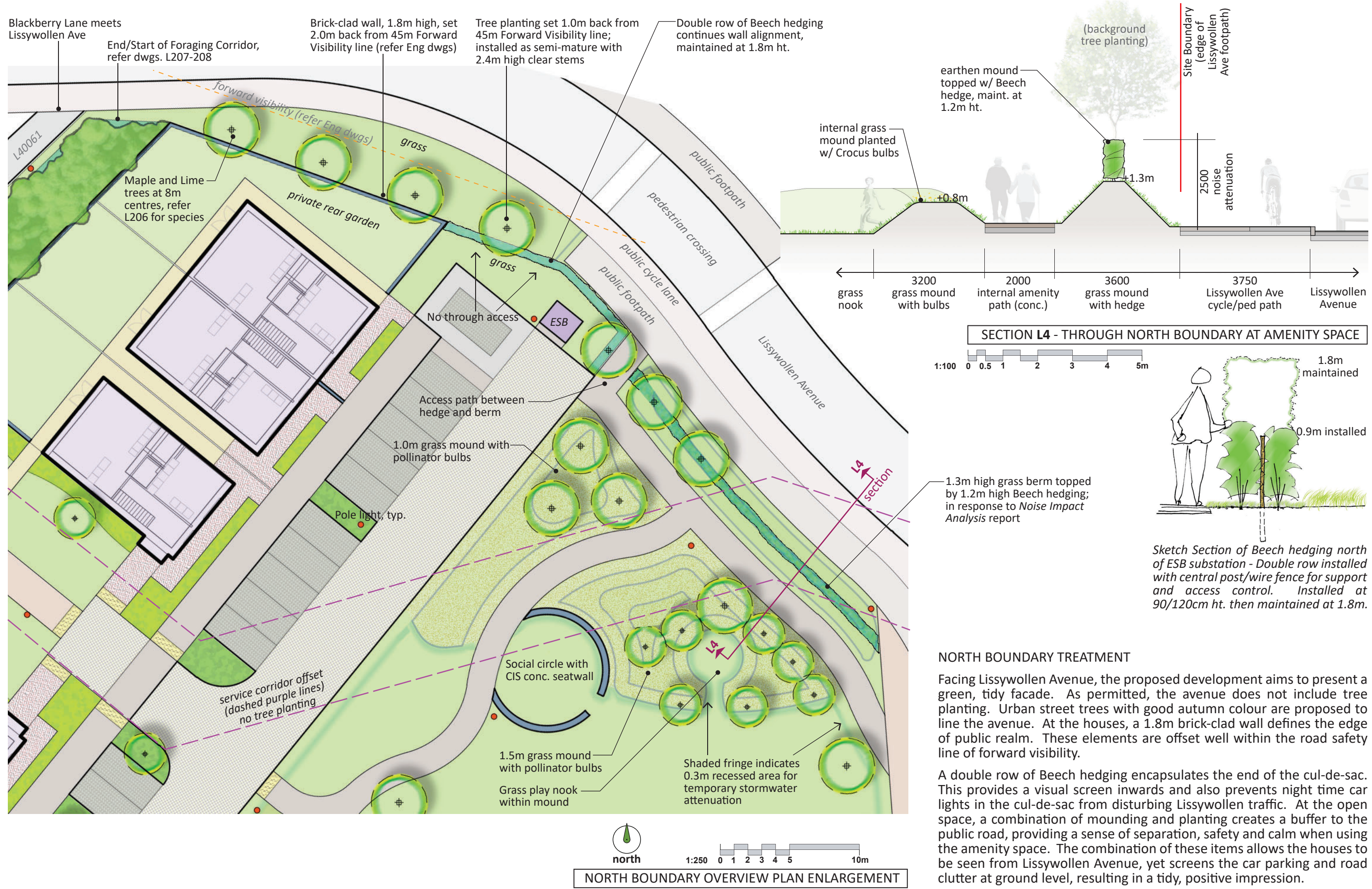
PERSPECTIVE L3 - Concept Sketch as viewed from Lissywollen Avenue



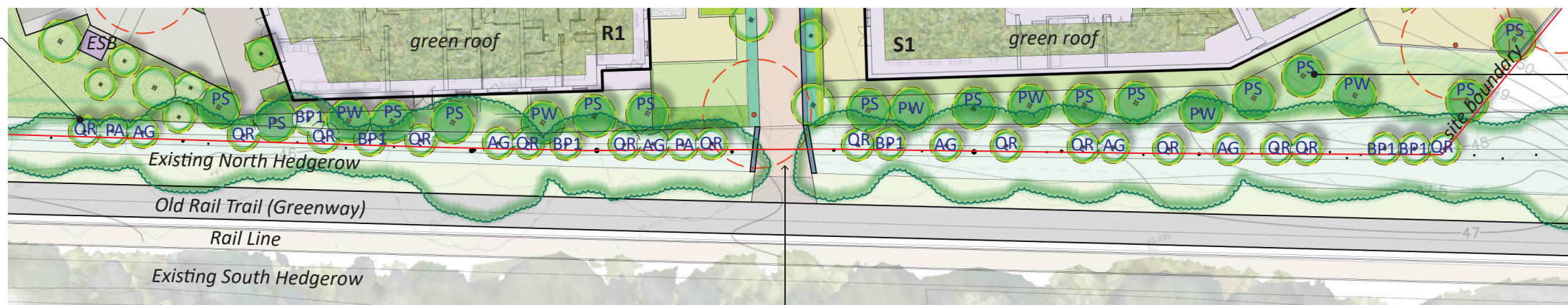
Image of east boundary fence at student blocks.



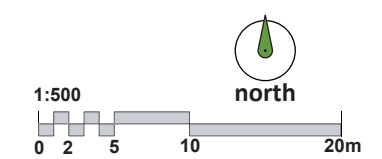
SECTION L3 - EAST BOUNDARY NEAR BLOCK S2



28 no. native broadleaf trees (light green) to supplement (e) hedgerow on north side of ditch (within site boundary)
 6 no. AG(12-14cm)
 6 no. BP1 (12-14cm)
 2 no. PA (10-12cm)
 14 no. QR (10-12cm)



20 no. Specialist Conifer trees (dark green) to open ground between boundary hedgerow and (p) bldgs as visual filter
 6 no. PT (60-70cm girth, 7-10m ht.)
 14 no. PS (50-60cm girth, 6-8m ht.)



Filter Tree Planting Summary

AG = Alnus glutinosa (Alder, 10-12cm girth BareRoot)
 BP1 = Betula pendula (Silver Birch, 12-14cm BR)
 PA = Prunus avium 'Plena' (Flowering Cherry, 10-12cm girth BR)
 PS = Pinus sylvestris (Scots Pine, 50-60cm girth, Rootball, 6-8m ht.)
 PW = Pinus strobus (White Pine, 60-70cm girth, Rootball, 7-10m ht.)
 QR = Quercus robur (Pedunculate Oak, 10-12cm girth BR)

Greenway pedestrian / cycle link

Extract from Landscape Masterplan dwg. L206

PROPOSED SUPPLEMENTAL SOUTH BOUNDARY PLANTING

SOUTH BOUNDARY PLANTING STRATEGY

During development of the site sections and review of the photomontages, it was deemed beneficial to provide an additional layer of tree planting to aid in filtering views. Currently, views through the Greenway from S1 and R1 benefit from two layers of mature hedgerows. With two layers, these natural features provide excellent visual filtering, even in winter. However, the southern hedgerow (south of the rail line) lies outside of ownership lands and its management cannot be guaranteed. As a result, a new third layer of filter planting will be installed between the existing hedgerow and the proposed buildings. This will ensure that there are always minimum two layers of filter planting.

The Greenway hedgerow trees are entirely deciduous (broadleaves), apart from intermittent Gorse and Holly that have shrub-like stature. To minimise impact on the existing ecosystem, no evergreen trees are proposed to be planted on the ditch / within the hedgerow. Instead, it is proposed to create a third layer of tree planting, which will be entirely evergreen. It is also proposed to strengthen the hedgerow, but this will be carried out with native deciduous species. The two types of additional tree planting proposed are:

New Third Filter Layer

100% evergreen coniferous species. With building heights reaching 6-storeys at the Greenway, it is proposed to install specialist specimen conifers. 2/3 will be native Scots Pine and 1/3 White Pine. Both pines are available as Irish-grown trees, with the Scots Pine at maximum 8m heights and the White Pine up to 10m. These require specialist installation and thus are best suited to the level ground between the hedgerow and buildings. 20 no. conifers are proposed. They will be spaced at approximately 6m centres. This will vary on site, where density will increase where there are visual gaps and spacing will be farther apart where an existing mature Ash or Sycamore commands the space.

Supplemental Broadleaves within the Hedgerow

The aim of additional planting is to ensure uniformity in screening and longevity in hedgerow health. The hedgerow is Ash and Sycamore dominant and could benefit from greater species diversity. Periodic gaps could benefit from larger canopy species (Oak and Alder), while regenerative infill is best suited to Birch. Highlights of Wild Cherry are also included. Because the ditch has a network of existing tree roots, proposed planting is limited to bareroot trees, which have size limitations. Installation will be to the top of the ditch and on the north embankment of the ditch. They will be installed by hand to ensure greater protection of existing tree roots and locations will vary depending on root massing. 28 no. new trees are proposed, installed at approximately 3-4m centres.

new native broadleaf trees shown at the top of ditch and back of ditch; Alder and Birch have no leaves while Oak will retain golden/brown leaves into Dec

White Pine will grow 1.0m per year, while Scots Pine will grow 0.3m per year (increasing with age)

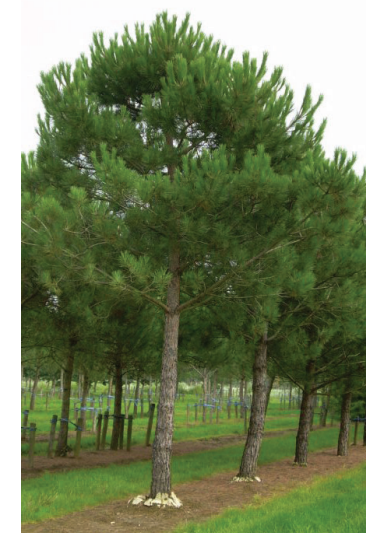
Existing southern hedgerow opposite the gap is 6-9m high and several layers thick



Reference - View Receptor no. 11, from the Greenway looking at block R1. Photomontage includes proposed planting illustrated with winter foliage, 3 years after installation. Note, this portion of the hedgerow contains a gap and has the lowest existing vegetation density of any hedgerow portion adjacent to R1 or S1. In such instance, new planting density is increased.



Scots Pine installed as specialist 6m tree 2 yrs previously.



7m Pine as available at the nursery.

Notes

1. For location of enlargement in Masterplan context and proposed tree species, refer dwg. L206.
2. For contextual sections through boundary, refer Architectural drawings.

Job no. 2025	Drawn by MW	Scale 1:200	Date 14.DEC.2021	Status SHD PLANNING	Revision A
Job Title Proposed Mixed-Use Development at Lissywollen South, Athlone, Westmeath			Drawing Set LANDSCAPE DEVELOPMENT PACKAGE		Drawing No. L214
Client Avenir Homes Ltd.			Drawing Title South Boundary Planting		