APPENDIX 1

BUILT HERITAGE

A barrow has been highlighted as a national monument (KE066-066) inside this site boundary. Please refer to the archaeological assessment with this development package.

There are three NIAH listed buildings located along the Western boundary of the development site as shown;

1-4 Port Cottages – 21400805

5-6 Port Cottages – 21400804

Port Cottages – 21400806

There are direct views of the site to/from these structures.

APPENDIX 2

RECEIVING ENVIRONMENT

Landscape Character

The site is located in Killarney town and is a green field surrounded by urban development. It is a proposed residential phase within the Killarney town zoning map as per Killarney Municipal District LAP 2018-2024. The field's appearance is enclosed due to its surrounding boundary planting and urban development.

It is enclosed with native hedgerow, specimen trees and woodland along the south, eastern and northern boundaries of the site. Urban development surrounds the boundaries of the site with educational development to the south and residential development to the northern, western and eastern boundaries of the site.

Steep topography occurs towards the south of the site with panoramic view of Managerton mountain from the north of the site looking south in good weather.

The tree tops of Knockreer Park frame the background of the eastern boundary with listed existing residences to the foreground. Views from this boundary will be most prevalent for the development.

Clustered development of housing neighbours north of the site. Community hospital and residential care homes occur along the eastern boundary of the site-enclosing the site from the town centre view.

Landscape Significance/ Designations

Please refer to 6620-RP03-Photomontage Report on conjunction with reading the following text.

There are a number of planning policies within Kerry County Development Plan 2022-28 and Killarney Municipal District LAP 2018-2024 to site and surrounding landscape, including;

Landscape and Visual

No scenic routes occur near the development site. Glimpses of the site can be viewed from Port Road which lies adjacent to Knockreer park (Killarney National Park) which is a protected landscape. Please refer to Photomontage views 1-3 highlighting views from this road.

There are numerous listed buildings located within walking distance of the site such as;

Saint Columbanus Home – 21306623 (c. 25km north of the development site)

Mercy Convent – 21400812 (c.0.2km east of the eastern development site)

Kerry Parents & Friends Monastery – 21400803 (c.0. 3km south of the western development site)

Saint Brendan's College- 21400808 (c.0. 3km south)

Bishops Palace-21400809 (c.0. 35km south)

Saint Marys Terrace-21400875 (c.0. 3km south east)

John Paul III Pastoral Centre (c.0. 3km east)

There are no views of the site to/from these structures.

Natural Heritage

The site is located beside Knockreer Park-Killarney National Park, which forms part of a wider network of ecological protection:

- Killarney National Park, Macgillcuddy's Reeks and Caragh River Catchment (SAC 000365)
- Killarney National Park (SPA 004038)

Please refer to the Archaeological Impact Assessment and AA screening report accompanying this submission.

Kerry County Development Plan 2022-28

The following County Plan objectives are of relevance for consideration:

KCDP 11-22 - Encourage and facilitate the retention and creation of features of local biodiversity value, ecological corridors and networks that connect areas of high conservation value such as watercourses, woodlands, hedgerows, earth banks and wetlands.

KCDP 11-25 - Support projects such as the swift nesting project (that are compatible with protection of our architectural heritage); pollinator friendly initiatives, tree planting, nature based sustainable urban drainage systems and other actions that seek to enhance urban wildlife.

KCDP 11-27 - Support the preservation and enhancement of the general level of broadleaf tree cover throughout the County in both urban and rural areas and ensure that development proposals satisfactorily retain existing trees and/or provide additional native planting. A Tree Survey Report shall inform applications where appropriate.

KCDP 11-28 - Encourage the provision of locally provenanced native tree species including those recommended by the All-Ireland Pollinator Plan as part of development landscaping schemes.

Kerry County Development Plan 2022-28, Volume 2: Town Development Plans

KA 15 Facilitate the provision of a range of housing solutions, to cater for the diverse housing demand within the town, catering for individuals and families at appropriate scales and attractive alternatives to urban generated housing in rural areas

KA 18 Ensure that all new developments in the Town are energy efficient and reflect the sustainability ethos in their approach to development.

KA 19 Strengthen Killarney's existing green and blue Infrastructure and facilitate its sustainable expansion in line with The EU's Biodiversity Strategy 2030.

KA 27 Protect non designated habitats and species, local biodiversity features and to maintain and enhance ecological corridors and natural features of the landscape such as hedgerows, trees, rivers, lakes, parklands, ponds and roadside verges.

KA 28 Seek to achieve a sustainable pattern of development which will facilitate the conservation of natural resources and habitats and minimise pollution. SuDS and other nature-based solutions will be encouraged for the protection of water quality.

KA 68 Ensure that usable and high-quality open space is provided to enhance the character of residential areas.

KA 76 Develop and promote a more cycle and pedestrian friendly network and ancillary infrastructure throughout Killarney, having regard to environmental designations in the area.

KA 78 Develop cycling and walking linkages between Killarney town centre, key strategic public amenities and residential neighbourhoods in the town, having regard to environmental designations in the area.

Landscape Sensitivity

The proposed development will have moderate to significant effects to Killarney and the surrounding areas. The development is zoned and is consistent with existing and emerging baseline trends planned for the area.

LANDSCAPE VISUAL APPRAISAL

Characteristics of Development

The proposed scheme includes for development of a residential development with 224 units in a mix of housing typologies such as detached, semi-detached and terrace homes, duplexes and apartments. A crèche, neighbourhood play area, local playground, amenity walkways and associated parking and storage are proposed in the scheme. The proposal will have a number of associated features, which will give rise to landscape and visual impact, namely;

- New circulation roads and streets
- Alterations to ground levels
- Removal of existing trees and vegetation where necessary
- Car parking
- Public lighting
- Change of Character due to change in land use.

Impacts of the development

Predicted impact;

In landscape and visual terms, the proposed development will impact in varying degrees upon inter-related aspects, namely;

- The perceived character of the area
- Existing views

Landscape character impacts

The site is currently an agricultural field on the fringe of Killarney town centre. It is enclosed by detached residential development along the eastern and northern boundaries of the site with educational establishments bordering the southern boundary of the site and care home buildings to the east.

The conversion of this green field site is likely to be perceived as a natural development in this urban environment. In this context, the proposed development will represent a significant but neutral long term impact on the character of the area.

The character of the residential properties adjoining the development will not be altered as they are currently located in the town built up area.

During construction, there will be moderate and negative impact on the character of the surrounding area due to the visual disturbance caused by construction. However, this will lesson once the scheme is operational and the planting mitigation measures establish and mature. The overall development will have slight, neutral visual impact on the wider landscape.

Cumulative impact on landscape character

This zoned development will likely change the intensification of land use in the area. The proximity of the town centre and nearby schools help mitigate this intensification.

Visual impacts

Refer to 6620-RP06 Photomontages with this section. The figure numbers of the existing and proposed views for each photomontage viewpoint are included here for reference.

View 1- From North of Port Road looking East

Existing View (Fig. 1.1.1): The current view location is c. 50m south of the proposed entrance to the site from Port Road and is situated on the east side of the road looking east. The view is defined by the dwelling to the right and established mixed hedgerow, including young trees, to the left. Together these elements frame a view towards the boundary of the proposal site. The existing concrete post and mesh fence is visible at the rear of the private garden of the dwelling. In the middle of the view the land is seen rising steeply behind the fence and is covered with scrub vegetation.

View of Proposal (Fig. 1.1.2): There will be views of development at c. 45m from the rear elevation of the existing dwelling. A steel post and infill panel fence will be visible behind the existing mesh fence of the existing property. Native scrub and hedgerow planting will be visible on the sloping ground behind the fence with a mix of semi-mature trees planted at 6-7m height providing a screen of vegetation in the middle ground of this view.

The ground floor of proposed properties will be screened from view, with filtered views of first floor level and roof profiles of properties at the northern end of the proposed street. This will result in a significant to moderate negative impact.

View 2- From Middle of Port Road at Community College looking East

Existing View (Fig. 1.2.1): This viewpoint is located on the east side of Port Road c.60m north of the junction with New Road. The view looks northeast into the Killarney Community College grounds in the direction of the site. The green lawn of the college grounds, and the college building and a large oak tree take up the fore and middle ground of this view. An existing hedgerow boundary of an adjacent property on Port Road is visible behind the crown of a mature tree to the left of the view before it passes to the rear of the college building. The remainder of the college grounds and boundary are screened by the college building.

View of Proposal (Fig. 1.2.2): The recently completed extension to Killarney Community Collage is comprised of a ground floor with angular roof forms of different sizes projecting above. The proposed apartment buildings are screened by the college building in this view. The college building in the left of the view screens the southern end of the proposed development on the site with the remaining portion of the proposed houses screened by the existing hedge with mature trees along the boundary with the college land. The effects from this view are considered moderate to slight negative impact.

View 3 - From South of Port Road looking East beside St Mary's

Existing View (Fig. 1.3.1): This viewpoint is located on the west side of Port Road c. 100m north of the junction with Mission Road. The view looks northeast towards the proposed development site. The railings of St. Mary's Cathedral are in the foreground with open green recreation grounds extending back to the middle ground of the view. The middle and background of the view is framed by the cut limestone built elevations of the Old Monastery on the left and the Diocesan Offices on the right. The existing urban settlement occupies the middle to background of the view comprised of a mosaic of various buildings, roof profiles and the crowns of mature trees.

View of Proposal (Fig. 1.3.2): There are glimpse views of portions of the south elevations of the proposed apartment buildings between the mature trees and buildings that occupy the middle and background of the view. The lower portions of the proposed apartments are screened from view by the existing buildings that extend across the middle of the view. The visible portions of the proposed apartments do not extend above the roofline of the existing built form and the proposal blends into the existing urban setting resulting in moderate to low negative impact.

View 4 - From New Road looking north opposite Muire na Mainistreach)

Existing View (Fig. 1.4.1): This view is located on New Road c. 50m west of the junction with St. Mary's Road. The access gate, garden and west end of an existing single story dwelling is visible in the right to centre of the foreground. The Muire na Mainistreach school buildings occupy the left to centre foreground. A portion of the southern end of Killarney Nursing Home is visible above the trees to the rear of the existing dwelling fronting New Road. The crowns of existing trees extend across the centre of the background of the view.

View of Proposal (Fig. 1.4.2): The proposed development is c. 140m north of the viewpoint. The top two storeys of south and end elevations of proposed apartment building (Block L) are visible above the existing trees. The parts of the top floor of the east and south end elevation of proposed apartment (Block J) are visible. The scale of the visible portion of the proposed development is similar to the nursing home buildings which form part of the view. This is a glimpse view between existing buildings and the developed urban character of the view will not change resulting in a moderate to slight negative impact.

View 5 - View from Cheshire nursing home southwest towards development site

Existing View (Fig. 1.5.1): This view is located on the footpath along the access drive to Cheshire Nursing Home c30m south of the junction with St. Margaret's Road. The view looks southwest towards the proposed development site which is situated c. 90m from the viewpoint. The fore and middle ground is dominated by the access drive with the east elevation of the nursing home extending down the right-hand side. A managed landscape of mown lawn with various specimen trees of extends along the left. These existing features channel the view to a relatively narrow view of tops of mature trees in Knockreer Park with the mountain

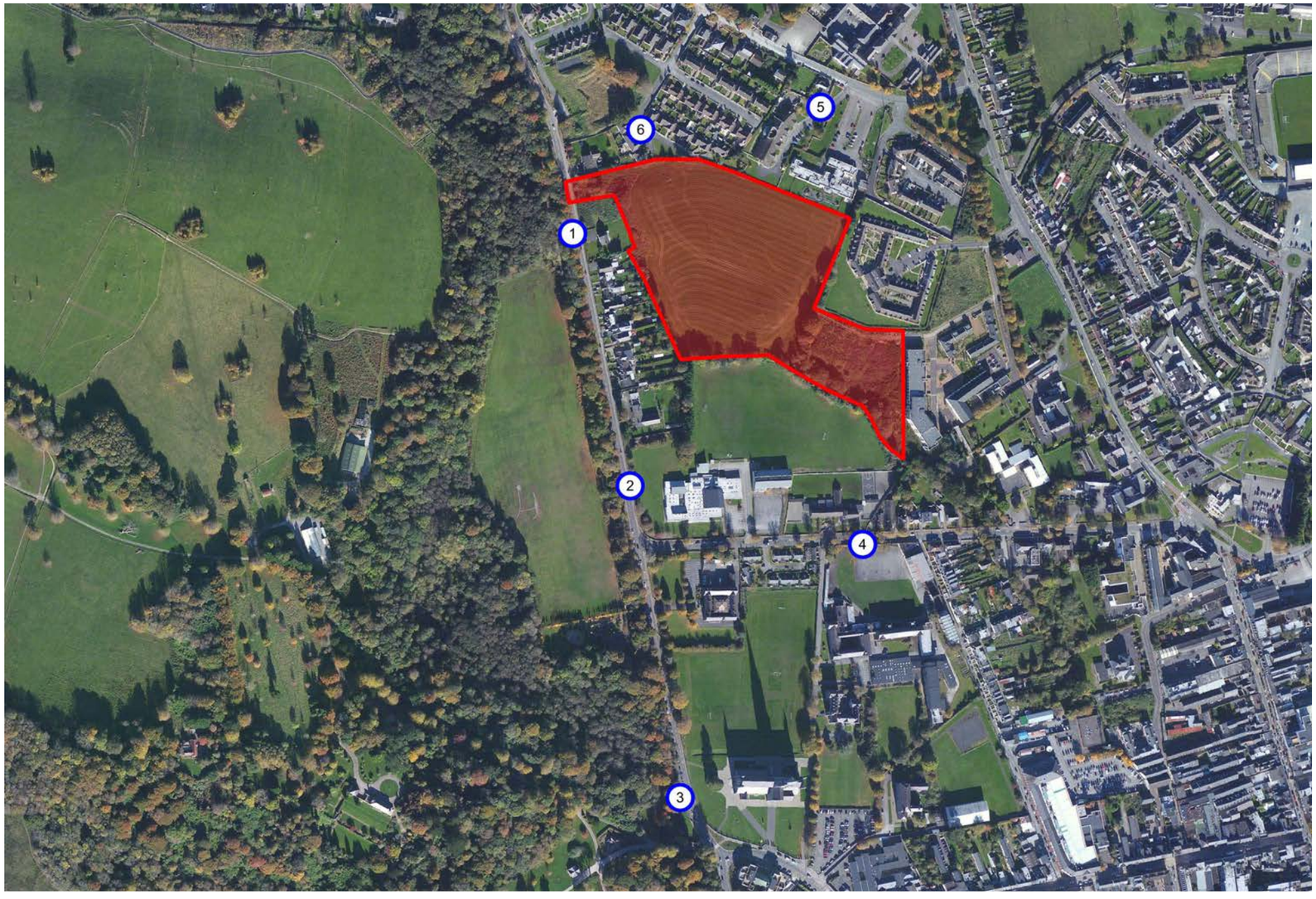
landscape of the National Park rising in the distance above them.

View of Proposal (Fig. 1.5.2): The roofs of four proposed semi-detached homes will be visible at the end of the view along the access drive. A small portion of two other proposed semi-detached homes will be visible to the left and right of the view. A small portion of the upper floor of two proposed homes will be visible. The proposed development does not project above the roof level of the Cheshire Nursing Home in this view and the mountains of the National Park will remain visible above the roofs of the new homes. In the distance There will be views of the proposed development roofline from Cheshire nursing home. The suburban developed character of the view and its context will not be changed by the proposed development resulting in a slight and negative impact.

View 6- View at Millwood estate looking south towards development

Existing View (Fig. 1.6.1): This view is located on the access street of the Millwood development looking south towards c 20m from the site boundary. The foreground is dominated by the macadam carriageway defined by the boundary walls of the properties along both sides. An area of grass sits in the centre of the view. A hedgerow comprised of low growing scrub vegetation with some larger shrubs and trees extends across the middle ground of the view with glimpse views into the proposal site. A powerline extends into the site with two poles and the top of St. Mary's Cathedral Spire is visible in the middle distance above the existing vegetation on the boundary. There are glimpse views of the mountains in the National Park in the distance.

View of Proposal (Fig. 1.6.2): The existing hedgerow vegetation and trees along the boundary of the proposal site is visible with the proposed mixed native hedge immediately behind it. The eastern end of the proposed creche is visible to the right behind the existing and proposed hedge and tree planting. Set further back and to the left of the crèche, the front elevation of proposed dwellings is visible behind trees. The existing and proposed vegetation in the centre left of the view screens the proposed homes behind it. There is a glimpse view of the rear elevations of proposed homes to the left of the view, framed by the retained existing trees on the boundary and the evergreen trees on the boundaries of the existing properties along the left of the view. The proposed footpath link from the development site is seen emerging through the retained hedgerow with the asphalt path running up to a dropped kerb and uncontrolled crossing. The power line and pylons are removed from the view, but the top of the spire on St. Mary's Cathedral is visible to the left with the mountains in the distance behind. The soft landscape treatment of this boundary and the proposed car park and planted landscape in the area immediately behind this boundary set proposed development back from this edge. These measures mitigate the impact of proposed development to result in a significant to moderate, negative impact.



Viewpoint locations plan. Refer to document reference 6620-RP06-Photomontages for existing and proposed views.

Impacts on trees

The majority of existing trees will be retained with tree removal occurring due to health and safety of tree, with the exception of at the entrance of the development which will require two mature trees in good health to be removed. The existing trees will be protected as per BS 5837:2012 Trees in relation to design, demolition and construction.

Hedgerow along the norther boundary will have to be removed due to level changes but will be replaced with a native hedgerow and tree planting in the scheme.

The full extent of the trees and hedgerows removed and protected measures proposed are highlighted on drawing 6620_100.

Impacts on Recreation Amenity

The site has not been formally been used for recreation. The provision of a neighbourhood play area and two local play, trails and bio-diverse meadows in the site will have a positive impact in affording a range of both passive and active recreational activities in the area.

'Do-nothing' Scenario

Without the proposed development the area would continue in its current state, however the lands are zoned for residential development and are likely to be developed at some stage in the future.

Mitigation Measures

Concern for the reduction of visual impact has determined the following aspects of the proposed layout and building development:

- The retention and protection of existing trees on site. Additional tree planting will be established to form green fingers through the development reinforcing the existing green fringe in and around the site.
- The varied range of building types which have a range of colour and materials creating a dappled built up mosaic which helps blend into Killarney's surrounding environs.
- The provision of convenient ways into and though the site for pedestrians and vehicles
- To provide a diversity of active and passive open spaces for local residences.
- Landscape planting to further ameliorate visual impact and enhance the overall development is also incorporated within the layout. Its principle objective are to;
  - Assist in the visual integration of the development into the surrounds with a scale of planting appropriate to the extent of buildings and open space on site.
  - To provide an internal site landscape structure, enhance internal roads and further reduce the impact of the environment from outside the site.
  - Car parking throughout the scheme will be screened by tree and low hedge/shrub planting.
  - The planting scheme will be implemented with the appropriate tree and shrub species that will suit the site's location and character.
  - Landscaping in open areas which shall include mounding, wildflower and grass seeding shall be consistent with the aims, objectives and proposals as indicated on the masterplan (Drawings 6620-300)
  - All landscape areas shall be formed using adequate depths of subsoil and good quality topsoil. Sub-base/topsoil shall be adequately decompacted and to BS 3882:2015.

A detailed landscaping scheme has been prepared for the site. Please refer to Drawings 6620/100/300-304 and this Landscape Visual Appraisal and Design Report Document. The objectives of the plan of the site will be visual integration of the scheme into the surrounds in order to minimize the visual intrusion of the development and to provide an attractive environment for residence of the scheme. The long-term effect at this process will be to provide an aesthetic screen for on-site activities such that the proposed development will not create a significant visual intrusion for sensitive receptors in the area.

APPENDIX 3

SOLUTIONS FOR PLANTING ADJACENT TO WATER MAINS

New Standards issued by Irish Water in April 2016 (Connection and Developer Services-Water Infrastructure Standard Details –IW-CDS-5020-01) outline the requirements for water services infrastructure within developments.

Landscape issue arises from the new standards, and in particular to Drawing STD-W-12 in the Watermain Report and to Drawing STD-WW-06 in the Wastewater Report. These drawings highlight the same information which is;

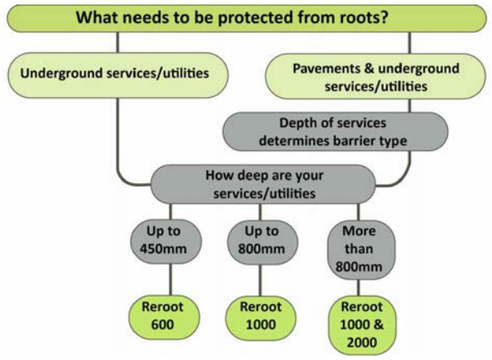
- Shrub planting to be restricted to 3m from a water main.
- Tree planting restricting to 6m to watermains,
- Poplar and Willow planting restricted to 12m from watermains.

In the Irish Water Code of Conduct: Section 3.26. it states 'Tree planting will not normally be allowed directly over the Works or within the distances referred to in Table A1 of BS 5837, but this may be relaxed where it can be shown that appropriate species selection and protection measures can be provided to prevent root ingress damage to the satisfaction of Irish Water. Such protection measures may include root barriers, root directors and by avoiding planting next to joints, valves or other sensitive parts of the pipe system.'

Permeable root barriers will protect services in developments from planting. Brady Shipman Martin have compiled solutions for planting adjacent to services with root barrier membranes. The following two drawings highlight these solutions.

Greenleaf- Urban Blue

Which Root Barrier to use?



(Greenleaf/GreenBlue Urban Product references. O.S.E.A)

Root Barrier Images

(Images from Greenleaf/GreenBlue Urban July 2016)

Reroot Barriers

(Greenleaf July 2016):

CODE REF: RER600 & RER1000
ReRoot 600 AND ReRoot 1000 products are ribbed root barriers designed for the protection of paved surfaces, shallow service duct & utilities. Available in roll form in two different depths. The number 600 and 1000 denote the depth in mm. 1mm Thick. Benefits:

- Easy to install, no specialist equipment needed.
- Available in 600mm & 1000mm depth
- Supplied in roll form to any 10lin.m increment
- Ribbed construction prevents root swirl and directs the root downward and outward.
- Flexible design allows the barrier to curve around obstacles but is rigid enough to hold its form when backfilling.
- Reroot jointing tape will ensure root proof joints when joining roll ends.

CODE REF: RER220x2.0
ReRoot 2000 root barrier is a high strength barrier for deeper applications. 2mm Thick. Benefits:

- Resistant to puncture by sharp objects or tearing as a result of soil movement
- Durable, resistant to biodegradation and photodegradation.
- East to install, no specialist equipment needed
- Available in standard 0.3m, 0.6m, 1.0m, 1.5m and 2.0m depth rolls, up to 6m deep rolls to special order.
- Available in 1.0mm and 2.0mm thickness.
- Effective in control of Japanese Knotweed and other invasive plants.
- Manufactured from 100% recycled material

Terram

(Greenleaf/GreenBlue Urban Product references. O.S.E.A)

Root Barrier Images

(Images from TERRAM August 2016)

Terram Rootguard

(Terram & PGI Company):

TERRAM ROOTGUARD: **Permeable solution**-Non-woven geotextile

Mechanical properties
Tensile Strength kN/m 18.00, Elongation 30%, CBR Puncture Resistance N 3250.

Physical properties
Mass per unit area g/m2 260

Roll dimensions
Width 2.25m, Length 25m

Terram Rootguard Plus

(Terram & PGI Company):

TERRAM ROOTGUARD PLUS: **Impermeable Solution**-Non-woven extrusion coated with high density polyethylene

Mechanical properties
Tensile Strength kN/m 14.00, Elongation 25%, CBR Puncture Resistance N 2550.

Physical properties
Mass per unit area g/m2 275

Rill dimensions
Width 2.00m, Length 25m

Reference Note: Irish Water Code of Conduct: Section 3.26.
Tree planting will not normally be allowed directly over the Works or within the distances referred to in Table A1 of BS 5837, but this may be relaxed where it can be shown that appropriate species selection and protection measures can be provided to prevent root ingress damage to the satisfaction of Irish Water. Such protection measures may include root barriers, root directors and by avoiding planting next to joint s, valves or other sensitive parts of the pipe system.

Rev	Date	Drawn	Checked	Description

Project: Ballynaroon Residential Development		Project No.: 6589	
Drg.: Solutions For Planting Adjacent To Water Mains		Drawing No.: SK01	Rev.: 00
Scales: N/A	Status: Information	Date: 14/08/2018	
Penrose Wharf Business Centre, Penrose Wharf, Cork Tel: +353(0) 21 242 5620 mail@bradyshipmanmartin.com www.bradyshipmanmartin.com		Drn.: EMD / Chd.: DB	Passed

BSM Est. 1968

APPENDIX 4

OUTLINE SPECIFICATION

WORKMANSHIP

Works and workmanship shall be carried out to a high standard on the site. The following standards shall apply:

BS 5837: Trees in relation to design, demolition and construction. Recommendations

BS 3882: Specification for topsoil and requirements for use

BS 3936: (Various). Specification for Nursery Stock

BS 4428: Code of practice for general landscape operations (excluding hard surfaces)

BS 7370-4: Grounds maintenance recommendations for maintenance of soft landscape (other than amenity turf)

SOILS

Topsoil

Topsoil shall conform to B.S. 3882: 2007, and shall be a free draining sandy loam. It shall be acid, pH 5.0-6.0, free of stones over 50 mm diameter, and stones over 10 mm diameter shall not exceed 5% by weight. It shall be free from subsoil, sods, roots of trees and shrubs, and rubbish.

Topsoil shall be from the original surface layer of grassland or cultivated land, to a maximum depth of 200 mm. Soils from woodland, heathland, bog or contaminated land will not be acceptable. Do not strip from under the canopy of any tree, nor closer than 4 metres to a hedge.

Topsoil shall be friable, well aerated and with a good crumb structure. It shall not be obtained from a site subject to waterlogging. It shall be free from persistent weeds, including dock, creeping thistle, stinging nettle, ragwort and couch grass.

Topsoil shall be subject to the inspection and approval of the landscape architect before spreading. Visible presence of fibrous roots and plant remains will be required.

Topsoiling

Before topsoiling, remove all stones, rubble and rubbish over 75 mm diameter from the surface of the subsoil formation. Dig out any areas polluted by oil or chemicals and make up with clean soil. Break up the formation under any areas liable to ponding of rainwater, so that they drain.

Topsoiling shall be moved and spread only in dry weather. No work to topsoil shall be carried when it is waterlogged, or if its moisture content is conducive to structural deterioration. Minimise compaction of topsoil and subsoil during spreading, running machinery over the surface as little as possible.

PLANTING

Plant Materials and Plant Standards

All plant material shall be good quality nursery stock, free from fungal, bacterial or viral infection. Aphis, Red Spider or other insect pest, and physical damage. It shall comply with the requirements of the following sections of BS 3936, Specification for Nursery Stock, where applicable:

BS 3936 Part 1: 1992: Nursery Stock Specification for Trees and Shrubs.

BS 3936art 9: 2001: Nursery Stock Specification for Bulbs, Corms and Tubers.

BS 3936 Part 10: 1990: Nursery Stock Specification for Ground Cover Plants.

All plants shall have been nursery grown in accordance with good practice and shall be supplied through the normal channels of the wholesale nursery trade. They shall have the habit of growth that is normal for the species.

Species

All plants supplied shall be exactly true to name as shown in the plant schedules. Unless stipulated, varieties with variegated or otherwise coloured leaves will not be accepted, and any plant found to be of this type upon leafing out shall be replaced.

Bundles of plants shall be marked in conformity with the relevant part of BS 3936 (as above). Any plants that are found not to conform to the labels will be replaced. An inspection of plants shall be undertaken prior to planting to ensure quality control.

Standard Trees up to Semi-mature Trees

All trees will be of the specified girth and typical clear stems and overall height of the specified species and size. All trees shall have a sturdy, reasonably straight stem, a well-defined and upright central leader, with branches growing out of the stem with reasonable symmetry, or a well-balanced branching head according to the Schedule. The crown and root systems shall be well formed and in keeping with the nature of the species. Roots shall be in reasonable balance with the crown and shall be conducive to successful transplantation.

Trees shall be supplied rootballed rooted unless otherwise specified. They shall have been regularly undercut or transplanted. They shall have been lifted carefully to avoid tearing of major roots and to preserve a substantial proportion of smaller and fibrous roots. Trees shall have been grown on their own roots. Budded or grafted trees will be rejected.

Shrubs and Groundcover

Shrubs shall have several stems originating from or near ground level and be of reasonable bushiness, healthy, well-grown, and with a good root system. Grasses and groundcover plants shall have dense growth typical of the species. Plants will be pot or container grown. Plants shall not be pot bound, nor with roots deformed or restricted. Bare root material will not be used.

Weedkiller Application

All weedkiller shall be applied to manufacturers' recommendations, with properly designed equipment, maintained in good working order and calibrated to deliver the specified volume, evenly and without local over-dosing. Measure all quantities of weedkiller with a graduated measuring vessel.

Bulky Organic Manure/ Mushroom Compost

Bulky organic manure shall consist either of spent peat compost, mushroom compost, spent hops, or of well-rotted manure. Well spent compost shall be used in all ornamental planting areas.

Fertilisers

Controlled release fertiliser N: P: K 15:9:11 plus trace elements - Osmocote plus or similar approved applied at specified rates.

Stakes for Standard to Heavy Standard Trees

Stakes shall be of peeled larch, pine or douglas fir, preserved with water-borne copper-chrome-arsenic to I.S. 131, to a net dry salt retention of 5.3kg per cubic metre of timber. Stakes shall be turned, and painted one end. Sizes shall be as follows:-

Standard to selected standard trees:	1no x 2700 x 75mm dia.
Selected standard to extra heavy standard trees:	2no x 2700 x 75mm dia.

Set stakes vertically in the pit, to the western side of the tree station, and drive before planting.

All semi-mature trees shall have underground guying.

Tree Ties

Tree ties shall be of rubber, P.V.C. or proprietary fabric laminate composition, and shall be strong and durable enough to hold the tree securely in all weather conditions for a period of three years. Ties shall be min. 40 min. wide and shall be flexible enough to allow proper tightening of the tie. Provide a simple collar, free of rough or serrated edges, to prevent chafing. Provide for subsequent adjustment of the tie either by means of a buckle (nail tie to stake immediately behind it) or by leaving heads of securing nails slightly proud, to permit easy extraction and repositioning. All nails shall be galvanised.

Protection

The interval between the lifting of stock at the nursery and planting on site is to be kept to an absolute minimum. Plants shall be protected from drying out and from damage in transport. All stock awaiting planting on site shall be stored in a sheltered place protected from wind and frost, from drying out and from pilfering. Pots shall not be removed until plants have been carried to their planting station. Plants packed in polythene must be stored in shade.

Plants shall be handled with care at all times, including lifting in and despatch from the nursery. Plants or bundles of plants shall not be tossed, dropped of subjected to any stress likely to break fine roots.

Damage

Any roots damaged during lifting or transport shall be pruned to sound growth before planting. On completion of planting any broken branches shall be pruned.

Vine Weevil

Line out all container grown plants on level ground. Drench pots with 40 g of 40% Diazinon W.P. in 100 litres water. Allow to stand for at least three days before planting.

Setting Out

Setting out shall be from figured dimensions where indicated, and otherwise by scaling.

Trees shall be planted at locations shown. Shrubs and ground covers planted in mass as indicated on the drawings. Shrubs shall not generally be planted closer to a kerb or to the edge of a planting area than a distance equal to half the spacing indicated for that species.

Tree Planting

Excavate tree pits to 0.5 cubic metres volume (circa 90cm diameter x 750 cm deep). The base of the pit shall be broken up to a depth of 15cm and glazed sides roughened. Remove subsoil, stones and rubbish to tip off site. Supply and backfill with urban tree soil/ light weight soil as required to make up levels / backfill.

Mix the following ameliorants evenly throughout the soil while it is stacked beside the pit. (Quantities are calculated for a pit of the specified dimensions):-

Organic Compost: 0.042 cubic m (equivalent to manure 15 cm deep over 60cm diameter of tree pit).

Osmocote plus: 250 gm

Trees shall be planted at the same depth as in nursery, as indicated by the soil mark on the stem of the trees. They shall be centred in the planting pit and planting upright. The roots shall be spread to take up their normal disposition. Supply and drive the stake and fit tie. Clean neat circle 1000 mm dia. all round.

Planting of Shrubs and Ground Cover

Remove all plastic and non-degradable wrappings and containers before planting. Excavate hole to min. 1 cm greater diameter than the root spread, and to a depth to allow planting to same depth as in the nursery. Backfill in layers of not more than 10cm, firming each layer and on completion.

Replacements

The planting will be inspected in September following planting. Any tree or shrub found to have died will be replaced. Replacement planting shall conform in all respects with this specification, including all specified excavation, provision and incorporation of all fertilisers and ameliorants, and weedkiller treatments.

GRASS SEEDING

Seeds

Seeds shall be of the specified varieties and cultivars and shall conform in all respects to the European Communities (Seed of Fodder Plants) Regulations, 2002.

Seeds shall be obtained only from a firm registered as a Seed Mixer under the said Regulations. Each bag of mixed seed shall be labelled inside and outside in accordance with the Regulations. The Contractor shall produce a certificate from his supplier stating the varieties used in the mixture, if not indicated on the label.

The Contractor shall include for a sample of 250 grammes to be taken by the Architect for testing composition, purity and germination, of each specified mixture.

The varieties of seed to be used shall not be altered without the Employers Representative written agreement. Agreement will be given only if the specified variety is not available in Ireland, and cannot be imported within the time required. The Contractor shall be responsible for ordering materials in good time to meet his programme.

Seed Mixture

The seed mixture is specified on the work schedule for the type of sward required. Ensure that the correct mixture and seed rate are used for each area of grass seeding. Retain all labels from seed bags and hand over to the Employers Representative, together with a delivery note or invoice stating the quantity of each mixture supplied for the works.

Fertiliser

10:10:20, N: P: K - supplied in bags bearing the names of the manufacturer, the analysis of the contents and the net weight. The Contractor shall produce to the Architect the original delivery docket or invoice stating the quantity supplied for these works.

Pre-seeding Weedkiller

Use only where specified or approved, and then only suitable products as listed by the Department of Agriculture, in accordance with the Sustainable Use Directive and only by certified, competent and experience spraying operatives, taking all necessary precautions to protect humans and the environment.

Where work is near water, drainage ditches or land drains, comply with the Department of Agriculture for the use of herbicides on weeds in or near water courses and lakes.

Observe all precautions recommended by the manufacturer and remove containers from site immediately they have been emptied or are no longer required.

Operatives must hold a Teagasc Certificate of Competence, or work under the supervision of a Certificate holder.

All weedkiller shall be applied with properly designed equipment, maintained in good working order and calibrated to deliver the specified volume, evenly and without local over-dosing.

Follow the manufacturer's instructions for the use of weedkillers, and for all safety precautions.

Post Emergence Weedkiller

Apply approved herbicide when grasses have reached the two-leaf stage or beyond, and when seedlings have emerged and have reached cotyledon or two-leaf stage (approx. 4 weeks after sowing). Do not mow within 7 days of treatment. Do not apply during drought. Apply on a fine, still, warm day.

Machinery

All machinery shall be in good and serviceable condition. Harrows and cultivators shall have their full complement of tines, which shall be sharp, effective, and set to give the specified depth of cultivation. Mowers shall be sharp and evenly set to the specified height, and shall in use avoid pulling or laying the sward.

Weather

All work to soil shall be carried out in dry weather, and when the soil can be reduced to a friable condition, avoiding smearing or panning, and rutting and compaction by tractors.

Seeding shall be carried out in the fine, still weather. Seed shall not be permitted to fall onto hard surfaces or into planting areas. Any grass germinating there shall immediately be treated with a total weedkiller at the Contractor's expense.

Weedkilling

Application: Killing existing grass and weeds pre-seeding, and killing weeds germinating in re-spread topsoil.

If germinating weed grasses are less than 100 mm high and broad leafed weeds have not produced full-sized leaves, apply approved herbicide to manufacturer's recommendations 4 to 7 days before cultivating.

Cultivation

The Contractor shall cultivate the site to break up the full depth of topsoil by two passes in transverse directions of suitable machinery and a tilth up to 25 mm suitable for seeding shall be produced in the topsoil by rotavating and/or chain harrowing. Remove weeds and roots, metal items and rubbish. The bed shall be fine, smooth, evenly firmed but not over consolidated.

Hand cultivations shall be carried out to achieve the same finish on areas where machine cultivations are impossible, i.e. adjacent to kerbs, manholes, small grass areas and footpath junctions.

Bar levels or other machinery that may cause excessive or uneven compaction shall not be used. Any areas which in the opinion of the Architect have been over compacted shall be forked over and worked over until a suitable seed bed is produced.

On completion of cultivations, the surfaces shall be lightly graded to running levels.

Surplus vegetable matter, rubbish and stones having any dimensions greater than 25 mm shall be collected and removed from the site by the Contractor.

If rotary cultivators are used, the ratio of tractor speed to tine speed shall be sufficient to avoid smearing at the base of the cultivation.

Final Raking and Harrowing

In preparation for sowing the surface will be lightly and uniformly firmed and reduced to a fine tilth up to 25 mm in depth by raking or harrowing. Stones exceeding 25 mm in size in any direction will be removed from the surface. Raking and harrowing to produce a full tilth will include marrying in with adjoining soil areas.

Final Grading

Where required, areas to be grassed will be finely graded during cultivation with a light blade grader to bring them to a uniform and even grade at the correct finished levels and to remove all minor hollows and ridges. This operation will only be carried out when the soil is in reasonably dry and crumbly condition.

Fallow Period

The Contractor shall include in his tender price for carrying out any cultivation from time to time, as and when instructed by the Architect, to destroy all weed growth if owing to the time of year, weather, or other causes, there is a period of waiting between completion of soiling and preparation and the actual seeding operations.

Ameliorants

Incorporate approved ameliorants to the full specified cultivation depth, with at least four passes of cultivators. Mix ameliorants evenly into soil throughout the cultivated depth.

Finishes

Topsoil shall stand 35mm proud of manholes, paths and kerbs after cultivation and firming.

Fertilizer

During last stages of cultivation, apply fertilizer evenly over the full area of seeding in two equal passes in transverse directions, and incorporate into the seed bed up to 50 mm deep.

Seeding

Grass seed shall be sown to the rates stated.

No seeding will be carried out until the cultivation and preparatory work have been approved by the Employers Representative.

Before seeding, seed beds shall be firm. If soil is puffy, roll at end of cultivation sequence. A slight impression of a heel (12 mm) will indicate an acceptable standard.

Sowing shall be carried out during suitable calm weather conditions using an efficient broadcast machine for large areas or by hand in small areas and confined spaces. The operation will be carried out in equal sowings in transverse directions.

Broadcast seed evenly through a calibrated machine over the whole area in two equal passes in transverse directions, to the total rate specified. Seed shall be thoroughly re-mixed before sowing.

After sowing the ground will be raked or chain harrowed, then rolled and cross-rolled with a light-weight roller. All stones exceeding 25 mm in any direction which are brought to the surface during this operation will be removed. Where the ground cannot be rolled, due to gradient, all stones exceeding 25 mm in any direction will be removed.

All seeded areas will be top dressed with a spring fertiliser in April, to be applied at the manufacturer's recommended rate and requirements.

All damaged grass areas will be made good with either approved turf or re-seeded in accordance with this specification.

Depressions and subsidence must be made good prior to the end of the maintenance period and any damage to the grass made good.

Seed Mix

30% Slender Creeping Red Fescue

20% Chewings Fescue

40% Perennial Ryegrass

5% Browntop Bent

5% Creeping Bentgrass

Sowing rate at 35-50g per sq metre.

First Cut

About 48 hours before topping, stones (over 25 mm diameter) will be removed and grass areas rolled with a light roller to firm grass and press in remaining stones.

Arising's shall not be deposited on paved surfaces or planting areas.

When the grass reaches 75 mm height or otherwise as instructed, it will be topped with a suitable cutter so as to leave 50 mm growth.

Quality

The Contractor shall make good any areas not of approved quality. Make up and seed over any depressions which develop after seeding. Cultivate and re-seed any areas which fail to germinate or which die off.

AFTERCARE

Intensive landscape aftercare will be required for 12 months after planting, during which any dead, dying or defective material will be replaced.

Introduction

The aftercare operations are grouped under the following headings:

- Newly planted trees
- Shrub beds
- Groundcover
- General litter clearance

Care of Newly Planted Trees - General

Young trees will need regular attention to ensure establishment.

Maintenance Objective

Establish a stable and healthily growing tree with a well-shaped framework for future growth.

Maintenance Operations

a) Maintain a 1m diameter circle of plant-free soil around the base of each tree by hoeing or the use of approved herbicide.

This operation may be replaced by the application of bark mulch as ground cover.

b) Check stakes and ties for firmness and support and adjust as necessary. Allow for checking twice a year, preferably in late spring and late summer.

d) Firm the soil around the roots to ensure that the plant is securely planted in the ground and upright. Allow for firming once in the spring after planting.

e) Formative prune to remove any dead, diseased or damaged shoots and create a balanced form for future growth. Allow for pruning once in the season after planting. Remove arising's from site.

Shrub Beds - General

The borders must be kept weed free, particularly of perennial weeds, to allow planting to give early cover. In time plants may also require thinning so that retained shrubs are able to achieve an attractive form.

Maintenance Objective

Maintain shrub growth to cover as much as possible of the bed area and allowing the individual plants to achieve as nearly as possible their natural form. Maintain the borders free of visible weeds and shape and prune the shrubs to avoid obstructing pathways or blocking light to, or adhering to windows.

Maintenance Operations

a) After planting, if appropriate and in season for the species involved, prune shrubs to develop their desirable ornamental characteristics. Remove arising's from site.

b) Lightly cultivate the surface soil, to a depth of approximately 50 mm, remove or bury all annual weed or natural litter and break any surface capping. Take special care to avoid unnecessary damage to the shrub plants and ensure that all the shrubs are firmly bedded in the soil. Once a year operation in early winter.

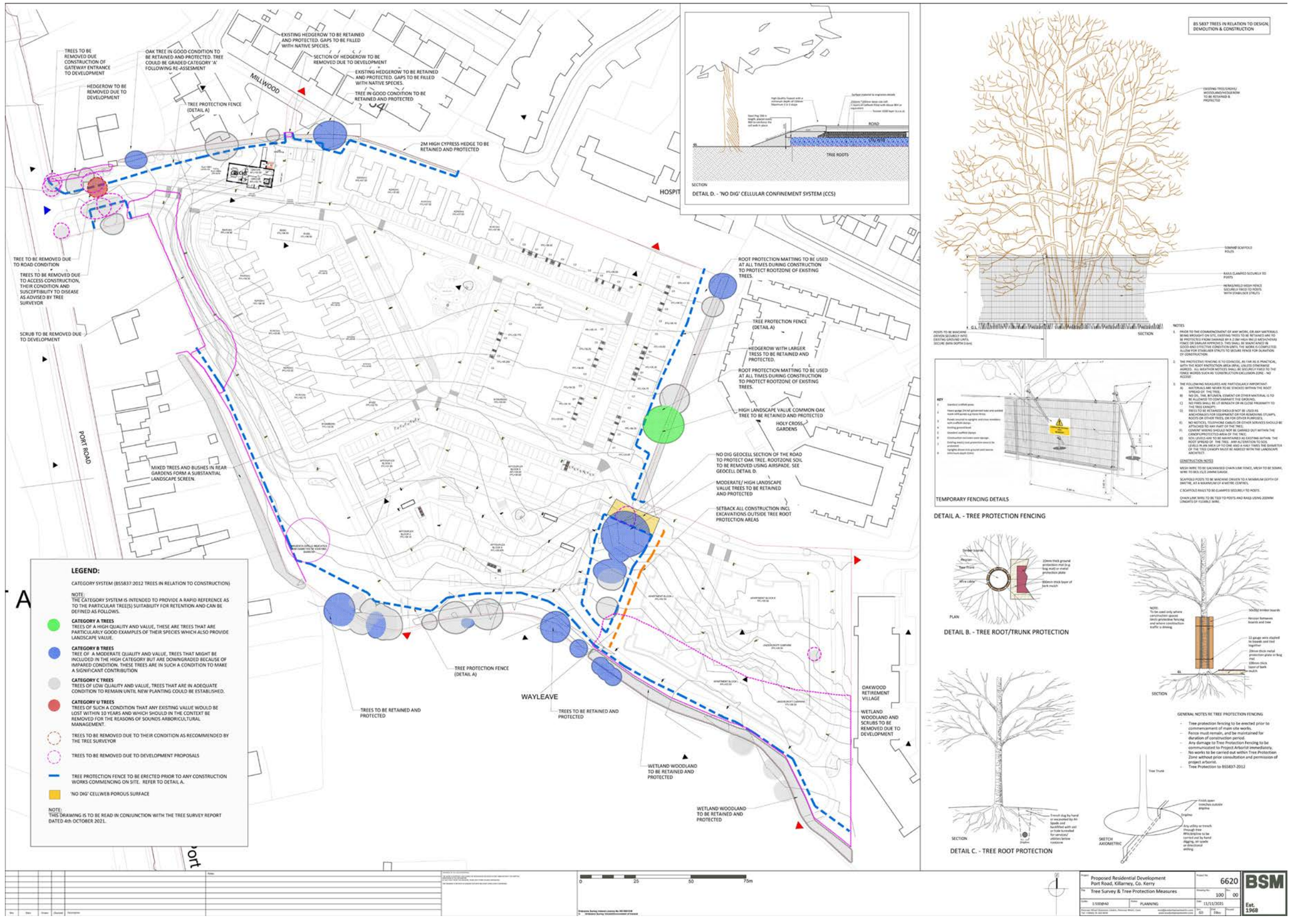
This operation may be replaced by the application of bark mulch as ground cover.

c) Maintain the soil surface substantially free of weeds (less than 10 per cent weed cover) by hand removal and spot treating approved herbicide. Spot treatment at approximately four-weekly intervals in the main growing season.

This operation may be replaced/reduced by the application of bark mulch as ground cover.

APPENDIX 5

Landscape Drawings



LEGEND:

HARDSCAPE LEGEND:

+55.78 Existing levels

+56.25 Proposed levels

Proposed:

Proposed Surface:

- **Tarmacadam asphalt to access/spine road** to engineer detail with upstand road kerb
- **Natural stone rumble strips** as part of traffic calming measures
- **Imprinted concrete/bitumen macadam surface** to raised table
- **Shared surface carriageway** finished in bound natural aggregate with coloured binder
- **Bitumen macadam surface** to shared pedestrian/cycle path
- **Compacted gravel amenity paths**
- **Concrete paving blocks,** laid in stretcher bond random pattern, to footpaths adjacent to buildings
- **Concrete paving blocks,** laid in herringbone pattern, to podium surface
- **Recycled plastic decking & balustrade paths and mini bridges**
- **Permeable Grasscrete finish to parking spaces**
- **Safety rubber surface to Play Areas**
- **Section of proposed path/road in the proximity and under the trees RPZ constructed using 'No dig' cellular confinement system.**

Proposed structures/walls:

- **Stone wall** at new pedestrian and vehicular entrance to match existing wall
- **Retaining wall to engineers detail**
- **Stone gabion retaining structure to slopes**
- **Undulating mounding**
- **Raised planters to deck**
- **Uncontrolled crossing points**

SOFTSCAPE LEGEND:

Existing:

- **Existing trees and vegetation to be retained and protected**
- **Existing wetland vegetation to be retained and protected** where feasible
- **Existing tree and vegetation to be removed** as part of development (Refer to Tree Survey dwg 6620-100)

Proposed Planting Schedule:

Street Trees - Columnar form with a narrow crown, cultivars of native species and/ or non invasive introduced species

Semi-Mature Trees

Key	Species	Height	Girth	Stem	Type
Uc	*Ulmus 'Columella'*	5-5.5m	20-25cm	Clear 2m	RB
Cb	*Carpinus betulus 'Frans Fontaine'*	5-5.5m	20-25cm	Clear 2m	RB
AcB	*Acer 'Autumn Blaze'*	5-5.5m	20-25cm	Clear 2m	RB
PrC	*Pyrus calleryana 'Chanticleer'*	5-5.5m	20-25cm	Clear 2m	RB

Trees to Public Open Spaces and Boundary - Native irish species and/ or cultivars of native species

Extra-Heavy Standard Trees

Key	Species	Height	Girth	Stem	Type
ME	*Malus 'Everest'*	4.5-5.0m	16-18cm	Clear 2m	RB
Pa	*Prunus avium 'Plena'*	4.5-5.0m	16-18cm	Clear 2m	RB
SaS	*Sorbus aucuparia 'Sheerwater Seedling'*	4.5-5.0m	16-18cm	Clear 2m	RB
Bp (m)	*Betula pendula*	4.5-5.0m		Multistem	RB
Ag	*Alnus glutinosa*	4.5-5.0m	16-18cm	Clear 2m	RB
Bp	*Betula pendula*	4.5-5.0m	16-18cm	Clear 2m	RB
Qr	*Quercus robur*	4.5-5.0m	16-18cm	Clear 2m	RB

Conifers

Key	Species	Height	Girth	Stem	Type
Ps	*Pinus sylvestris*	2.5-3m		Feathered	BR

Multistem Small Trees for Podiums

Key	Species	Height	Girth	Stem	Type
AB	*Amelanchier x grandiflora 'Autumn brilliance'*	2.5-3m		multistem	RB
PAR	*Prunus x subhirtella 'Autumnalis Rosea'*	2.5-3m		multistem	RB
MG	*Magnolia 'Galaxy'*	2.5-3m		multistem	RB

Clipped Hedge Planting (Planted double staggered row)

Key	Species	Height	Size	Spacing	Type
H1	*Fagus sylvatica*	0.9-1.2m	1+2	@ 0.45m	BR
H2	*Taxus baccata*	30-50cm	2+2	@ 0.45m	BR

Native Hedgerow Planting Mix - Planted double staggered row

Key	Species	Height	Mix %	Spacing	Type
NH	*Ilex aquifolium*	30-40cm	30%	@ 0.45m	CG
	Prunus spinosa	90-120cm	30%	@ 0.45m	BR
	Crataegus monogyna	90-120cm	40%	@ 0.45m	BR

Screen Planting

Key	Species	Height	Mix %	Density	Type
ScP	*Ilex aquifolium*	90-40cm	20%	3/m2	CG
	Prunus avium	90-120cm	15%	3/m2	BR
	Rosa canina	90-90cm	15%	3/m2	BR
	Prunus spinosa	120-150cm	15%	3/m2	BR
	Crataegus monogyna	120-150cm	20%	3/m2	BR
	Corylus avellana	120-150cm	15%	3/m2	BR

Groundcover Shrub Planting

Key	Species	Height	Size	Density
GSP	*Prunus lauro. Zabeliana*	30-40cm	2L	3/m2
	Pittosporum tenuifolium 'Tom thumb'	30-40cm	2L	3/m2
	Skimmia japonica 'Fragrans'	30-40cm	2L	3/m2
	Hypericum x hidcoteense 'Hidcote'	20-30cm	2L	3/m2
	Hedera helix 'Green Ripple'	30-40cm	1.5L	3/m2
	Hedera hibernica	30-40cm	1.5L	3/m2
	Vinca minor 'Atropurpurea'	20-30cm	2L	5/m2
	Geranium 'Johnson's Blue'	full pot	2L	3/m2
	Athyrium filix-femina	full pot	2L	3/m2
	Dryopteris affinis 'Cristata'	full pot	2L	3/m2
	Epimedium x youngianum 'Niveum'	full pot	2L	5/m2
	Luzula nivea	full pot	2L	5/m2

Shrub and Perennial Planting

Key	Species	Height	Size	Spec	Density
SP1	**Mix 1 - planting mix to public areas**				
	Choisya ternata 'Sundance'	20-30cm	2L	Bushy	3/m2
	Euonymus fortunei 'Emerald Gaity'	20-30cm	2L	Bushy	4/m2
	Hypericum 'Hidcote'	20-30cm	2L	Bushy	3/m2
	Prunus 'Zabeliana'	30-40cm	2L	Bushy	3/m2
	Photinia x fraseri 'Red Robin'	30-40cm	2L	Branched	3/m2
	Lonicera pileata	30-40cm	2L	Bushy	3/m2
	Hydrangea serrata 'Bluebird'	30-40cm	2L	Bushy	4/m2
	Hebe 'Pewter Dome'	30-40cm	2L	Bushy	4/m2
	Skimmia japonica 'Nymans'	30-40cm	2L	Bushy	4/m2
	Rosmarinus officinalis 'Roseus'	30-40cm	2L	Full Pot	5/m2
	Salvia nemorosa		2L	Full Pot	5/m2
	Verbena bonariensis		2L	Full Pot	5/m2
	Euphorbia epithymoides		2L	Full Pot	5/m2
	Rudbeckia fulgida 'Goldsturm'		2L	Full Pot	5/m2
	Geranium x johnsonii 'Johnson's Blue'		2L	Full Pot	5/m2
	Pennisetum alopecuroides 'Hameln'		2L	Full Pot	5/m2
	Stipa tenuissima		2L	Full Pot	5/m2
Key	Species	Height	Size		Density
SP2	**Mix 2 - planting mix to podium, to screen private apartments, give filtrate view**				
	Hebe 'Wiri Cloud'	20-30cm	2L		3/per m. sq.
	Hebe 'Nicola's Blush'	20-30cm	2L		5/per m. sq.
	Skimmia japonica 'Nymans'	30-40cm	2L		3/per m. sq.
	Ilex crenata 'Golden Gem'	30-40cm	2L		3/per m. sq.
	Dechampsia cespitosa 'Goldtau'	full pot	2L		5/per m. sq.
	Calamagrostis x acutiflora 'Karl Foerster'	full pot	2L		3/per m. sq.
	Stipa gigantica	full pot	2L		3/per m. sq.
	Pennisetum alopecuroides hameln	full pot	2L		5/per m. sq.
	Anemone x hybrida 'Konigin charlotte'	full pot	2L		5/per m. sq.
	Verbena bonariensis	full pot	2L		5/per m. sq.
	Sedum 'Matrona'	full pot	2L		5/per m. sq.
	Salvia nemorosa 'Caradonna'	full pot	2L		5/per m. sq.
	Rudbeckia fulgida var sullivanti 'Goldsturm'	full pot	2L		5/per m. sq.

Bioswale Shrub and Perennial Planting

Key	Species	Height	Size	Density
BP1	**Type 1**			
	Deschampsia cespitosa	20-30cm	2L	6/m2
	Echinacea purpurea	15-20cm	1L	7/m2
	Euphorbia epithymoides	15-20cm	1L	7/m2
	Geranium nozanne 'Gerwat'	15-20cm	1L	7/m2
	Hemerocallis 'Burning Daylight'	15-20cm	1L	7/m2
	Iris sibirica 'Harpswell Happiness'		Root K3	7/m2
	Iris sibirica 'Soft Blue'		Root K3	7/m2
	Rudbeckia fulgida 'Goldsturm'	15-20cm	2L	7/m2
	Salvia nemorosa 'Caradonna'	15-20cm		7/m2
BP2	**Type 2**			
	Ajuga reptans	20-30cm	2L	6/m2
	Campanula glomerata	15-20cm	1L	7/m2
	Carex pendula	20-30cm	3L	6/m2
	Dryopteris felix mas	20-30cm	2L	6/m2
	Eupatorium cannabinum	15-20cm	1L	7/m2
	Helleborus foetidus	20-30cm	2L	6/m2
	Inula hookeri	15-20cm	1L	7/m2
	Iris pseudacorus		Root K3	7/m2
	Juncus effusus	15-20cm	1L	7/m2

Climbers

Key	Species	Height	Size	Spacing
C1	*Parthenocissus tricuspidata* (Boston Ivy)	60-80	2L	1m ctrs
C2	*Parthenocissus quinquefolia* (Virginia creeper)	60-80	2L	1m ctrs

Native Origin Irish Wildflower Seed Mixtures

Key	Wildflower Meadow Type	Pr Code
WM1	**Type 1: Hedgerow Wild Flower Mixture**	EC04
	Hedgerow Wild Flower Mixture requires light shade and will require occasional maintenance to rake the soil open for new seedlings to germinate.	
	Species List: *Birdsfoot Trefoil, Black Meddick, Burdock, Bluebell, Corn Marigold, Corn Poppy, Cornflower*, Cowslip, Devils Bit Scabious, Foxglove, Hedge Garlic Mustard, Hemp Agrimony, Knapweed, Meadowsweet, Mullein, Ox-Eye Daisy, Purple Loosestrife, Primrose, Ragged Robin, Red Campion*, Ribwort Plantain, Sorrel, St. Johnswort, Upright Hedge Parsley, Wild Angelica, Wood Avens, Sweet Violet, Dog Violet*	
WM2	**Type 2: Wetland Wild Flora (Seasonally Wet)**	EC05
	Vigorous, medium-tall mixture which can compete with the often fertile wetland soils on which many wetlands are situated. This range of seed mixture will encourage wildlife and local biodiversity as the plants will attract species suited to the ecology.	
	Species List: *Devils Bit Scabious, Common Sorrel, Cowslip, Fleabane*, Greater Trefoil*, Hemp Agrimony, Lesser Knapweed, Marsh Marigold, Meadow Buttercup, Mindowsweet, Meadow Rue, Oxeye Daisy, Purple Loosestrife, Ragged Robin, Red Clover, Red Rattle, Ribwort Plantain, Selfheal, Sneezewort*, Tufted Vetch, Water Avens*, Wild Angelica, Wild Valerian, Yarrow, Yellow Flag Iris, Yellow Rattle, Corn Marigold, Corn Poppy, Cornocke*, Cornflower*, Scented Mayweed, Redshank* may be added for very wet soils*	

SUPPLIER: Design By Nature, Seed House, Manavea, Carlow, Ireland R93 T289. Info@wildflowers.ie, or equivalent.

Proposed low maintenance grass seeding to public open space

Proposed low maintenance grass seeding to private gardens

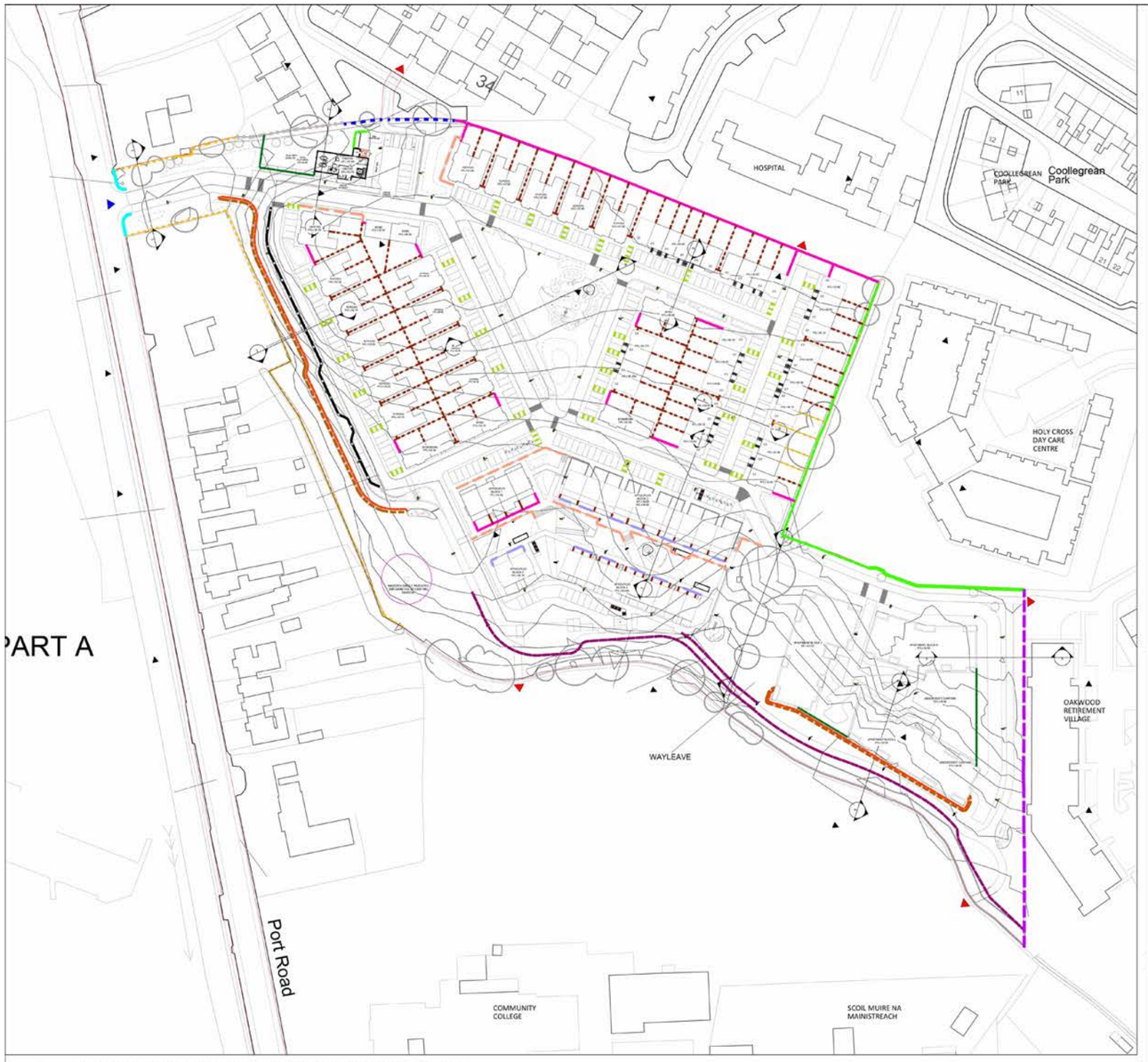
Low maintenance grass mix

Mix %	Species
30%	*Slender Creeping Red Fescue*
20%	*Chewings Fescue*
40%	*Perennial Ryegrass*
5%	*Creeping Bentgrass*
5%	*Brownlop Bentgrass*

SUPPLIER: National Agrochemical Distributors Ltd., Blake's Cross, Lusk, Co. Dublin Email: sales@nadirt.com, Tel: (+353-1) 843-7808 or (+353-1) 843-7484

Project	Proposed Residential Development Port Road, Killarney, Co. Kerry
Project No.	6620
Title	Landscape Plan
Drawing No.	300
Rev.	01
Scale	1:500@A0
Status	PLANNING
Date	23/04/2024
Drn.	CD
Chkd.	DB
Issued	

BSM Est. 1968



01 PROPOSED BOUNDARY TREATMENT PLAN
Scale 1:1000

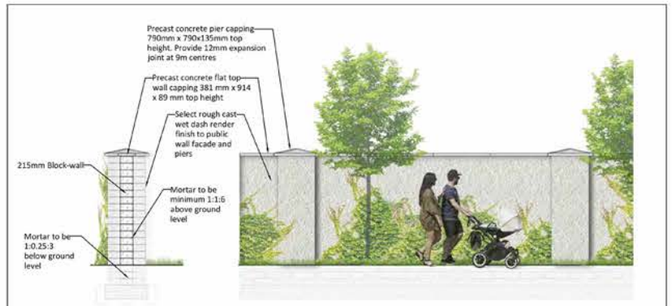
LEGEND:

Existing:

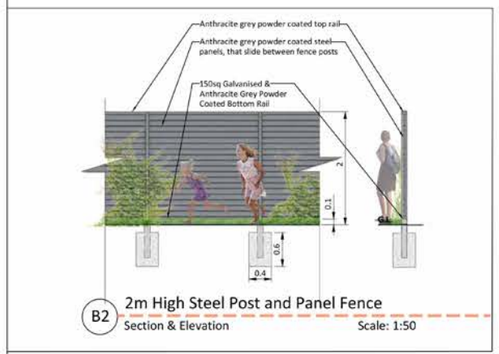
- **Existing vegetation** to be retained and protected where feasible
- **Existing 2.4m paladin fence** to east boundary of proposed Apartment buildings to be retained
- **Existing retaining structure and southern boundary** to 36 Millwood property to be retained

Proposed:

- **Proposed capped stone wall** to the main vehicular entrance, appearance and height (approx. 0.9-1m) to match existing
- **Proposed 2m high blockwork wall with wet rough cast finish** to public side (refer to detail B1)
- **Proposed 2m high blockwork wall** with fair faced finish to back gardens.
- **Proposed 2m high steel post and panel infill** in order to retain and protect existing vegetation. Steel post to minimize damage to existing tree and hedgerow vegetation along the development boundaries and in rear gardens (refer to Detail B2)
- **Proposed 1.8m high galvanized, powder coated Anthracite Grey railing** (refer to Detail B4)
- **Proposed 1.2m high galvanized, powder coated Anthracite Grey railing** (matching detail B3) fixed to top of concrete bioretention planter edge or retaining wall
- **Proposed low retaining wall** to engineer's detail with **1.2m high galvanized, powder coated Anthracite Grey railing** (refer to detail B3)
- **Proposed soft boundary with Millwood Estate: native hedgerow mix** (refer to planting schedule on a dwg 6620-300) **with 1.2m high recycled plastic post and rail with chainlink fence** (refer to detail B5)
- **Proposed soft boundary between front gardens: bioretention features with hedge and tree planting**
- **Proposed 1.2m high hooped top fencing** to play area perimeter (refer to detail B6)
- **Proposed PVC coated wire mesh limestone filled gabions**, 500mm square retaining element erected at an angle with stepped profile to engineer's specifications.
- **Proposed crush barrier** along edge of carriageway, 160mm round beam pressure treated timber cladding on galvanised steel to meet EN1317 standards, Tertu Car Pak Railing 16 with C100 post with antivandal fixings or equivalent approved.
- **Proposed 1.2m high recycled plastic handrail** to decking and south boundary
- **Proposed 1.2m high galvanized, powder coated Anthracite Grey safety railing**

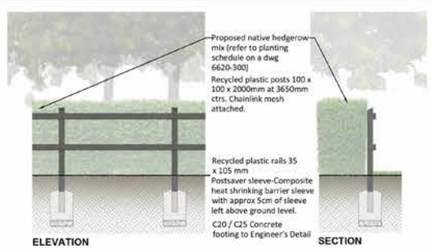


B1 2m High Blockwork Wall with wet rough cast finish
Section & Elevation Scale: 1:50



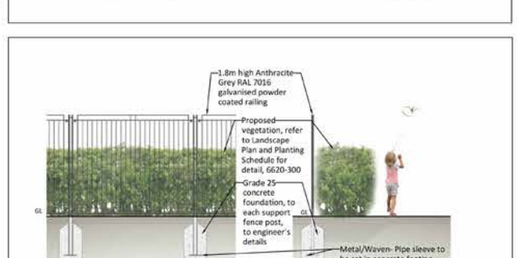
B2 2m High Steel Post and Panel Fence
Section & Elevation Scale: 1:50

B3 1.2m High Railing on Retaining Stub Wall
Section & Elevation Scale: 1:50



NOTE:
Nails shall be round pointed nails conforming to BS 1202-i and hot dipped galvanised in accordance with BS 729.

B5 1.2m High Post & Rail Fence
Section & Elevation Scale: 1:50



B4 1.8m high Railing
Section & Elevation Scale: 1:50

Rev	Date	Drawn	Checked	Description
01	11/04/2024	CD	DB	Updated to 2024 landscape plan
00	11/11/2023	AK	GD	

Notes

Project	Proposed Residential Development Port Road, Killarney, Co. Kerry
Project No.	6620
Drg.	Boundary Treatment - Plan and Details
Drawing No.	301
Rev.	01
Scales	As shown @A1
Status	PLANNING
Date	11/04/2024
Drn.	CD
Chd.	DB
Passed	

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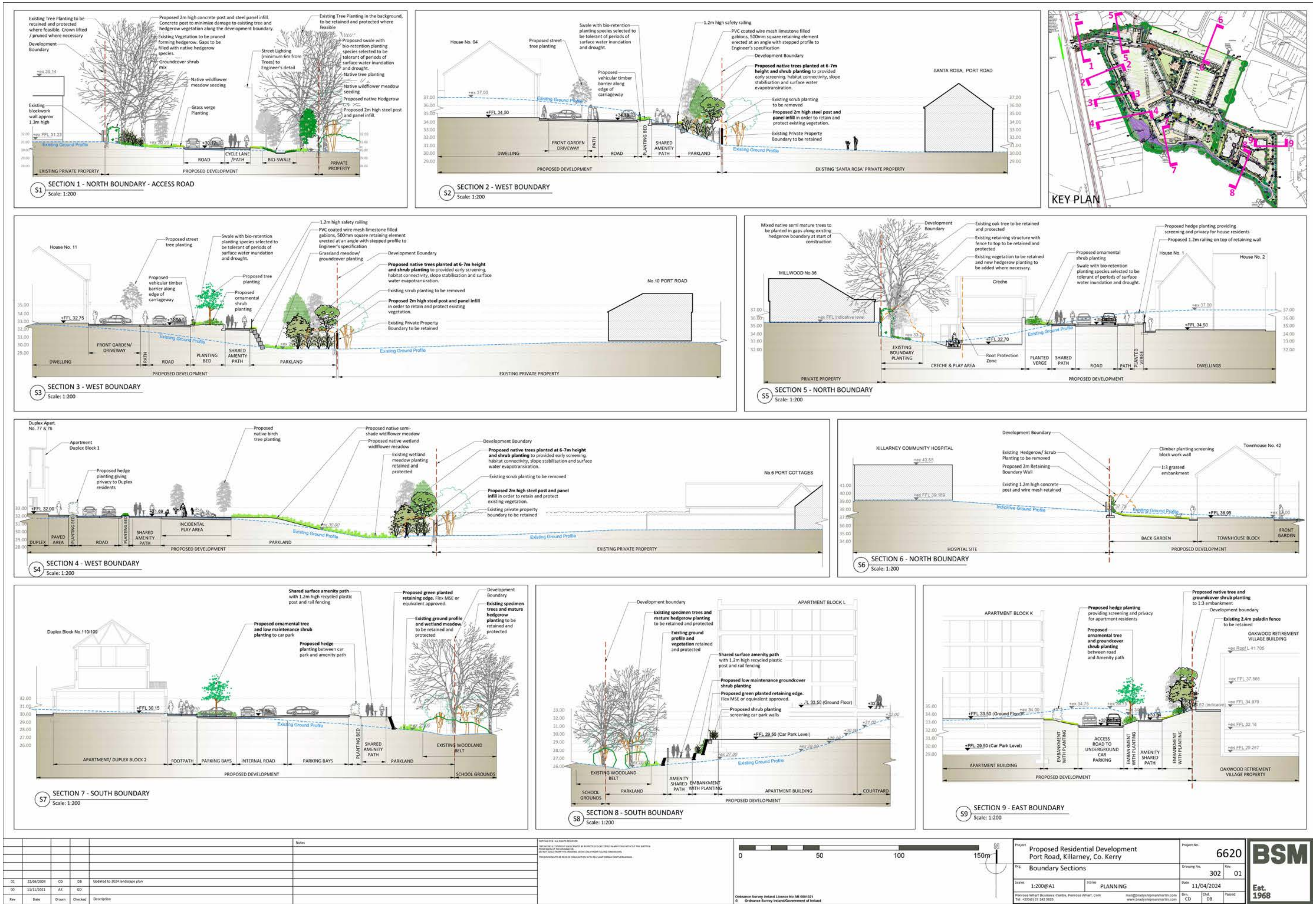
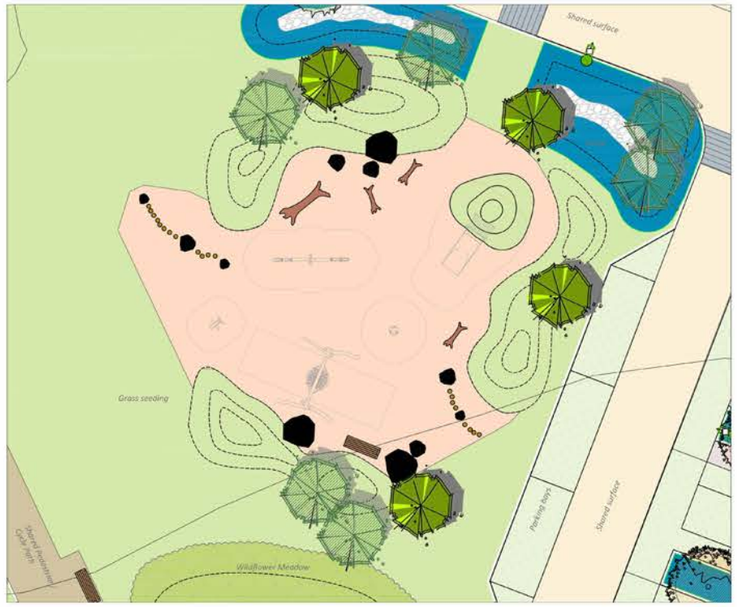

SECTION 1 - NORTH BOUNDARY - ACCESS ROAD
Scale: 1:200
SECTION 2 - WEST BOUNDARY
Scale: 1:200
KEY PLAN
SECTION 3 - WEST BOUNDARY
Scale: 1:200
SECTION 5 - NORTH BOUNDARY
Scale: 1:200
SECTION 4 - WEST BOUNDARY
Scale: 1:200
SECTION 6 - NORTH BOUNDARY
Scale: 1:200
SECTION 7 - SOUTH BOUNDARY
Scale: 1:200
SECTION 8 - SOUTH BOUNDARY
Scale: 1:200
SECTION 9 - EAST BOUNDARY
Scale: 1:200
Proposed Residential Development
Port Road, Killarney, Co. Kerry
Boundary Sections
6620
302
01
1:200@A1
PLANNING
11/04/2024
BSM
Est. 1968

THE VILLAGE GREEN
PLAY AREA 'A' - 270 sq.m.

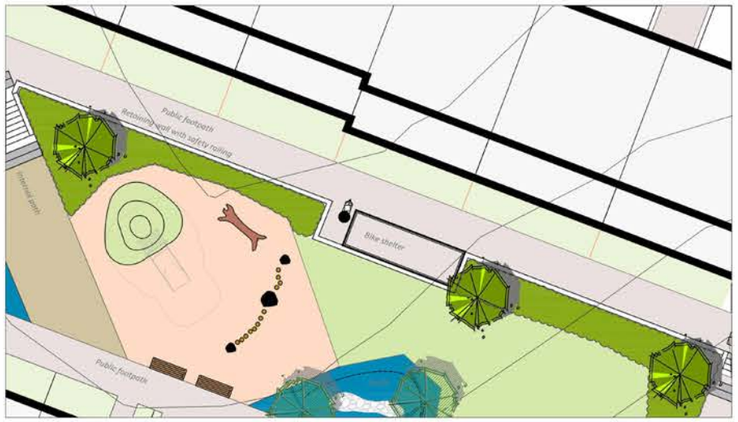



1.Wide Slide with Platform


2. Basket Swing


3. Double Seesaw

THE GARDEN COURT
PLAY AREA 'B' - 120 sq.m.




4. Springer

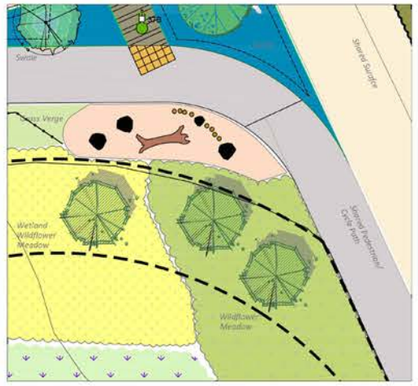

5. Spinner Plate


6. Balance Beam

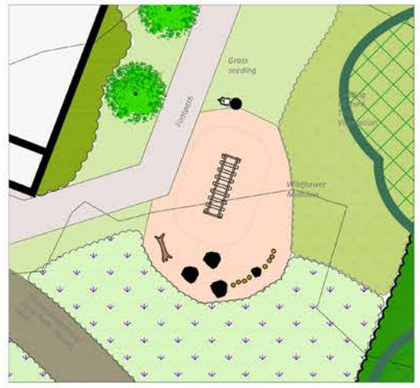

7. Balance / Totter Bridge


8. Stepping Posts

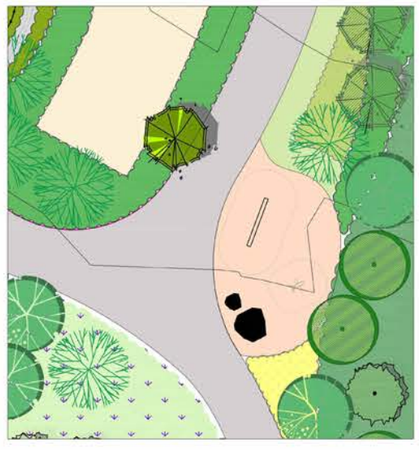
THE GREEN LINK
INCIDENTAL PLAY AREA 'C' - 43 sq.m.



THE GREEN SPINE
INCIDENTAL PLAY AREA 'D' - 62 sq.m.



THE GREEN LINK
INCIDENTAL PLAY AREA 'D' - 57 sq.m.




9. Boulders


10. Rubber Safety Surface


11. Tree Trunks

Rev	Date	Drawn	Checked	Description
01	11/04/2024	CD	DB	Updated to 2024 landscape plan
00	11/11/2021	AK	GD	

Notes

Note: For further details on the approach to design and specification of play see Doc Ref No. 6620-RP05: *Landscape Design Report*, page 3 and the section titled *Landscape Strategy, Play Spaces & Incidental Play Network*, pages 20-21.

Project	Proposed Residential Development Port Road, Killarney, Co. Kerry
Project No.	6620
Drg.	Play Areas
Drawing No.	303
Rev.	01
Scales	1:150@A1
Status	PLANNING
Date	11/04/2024
Drn.	CD
Chd.	DB
Passed	

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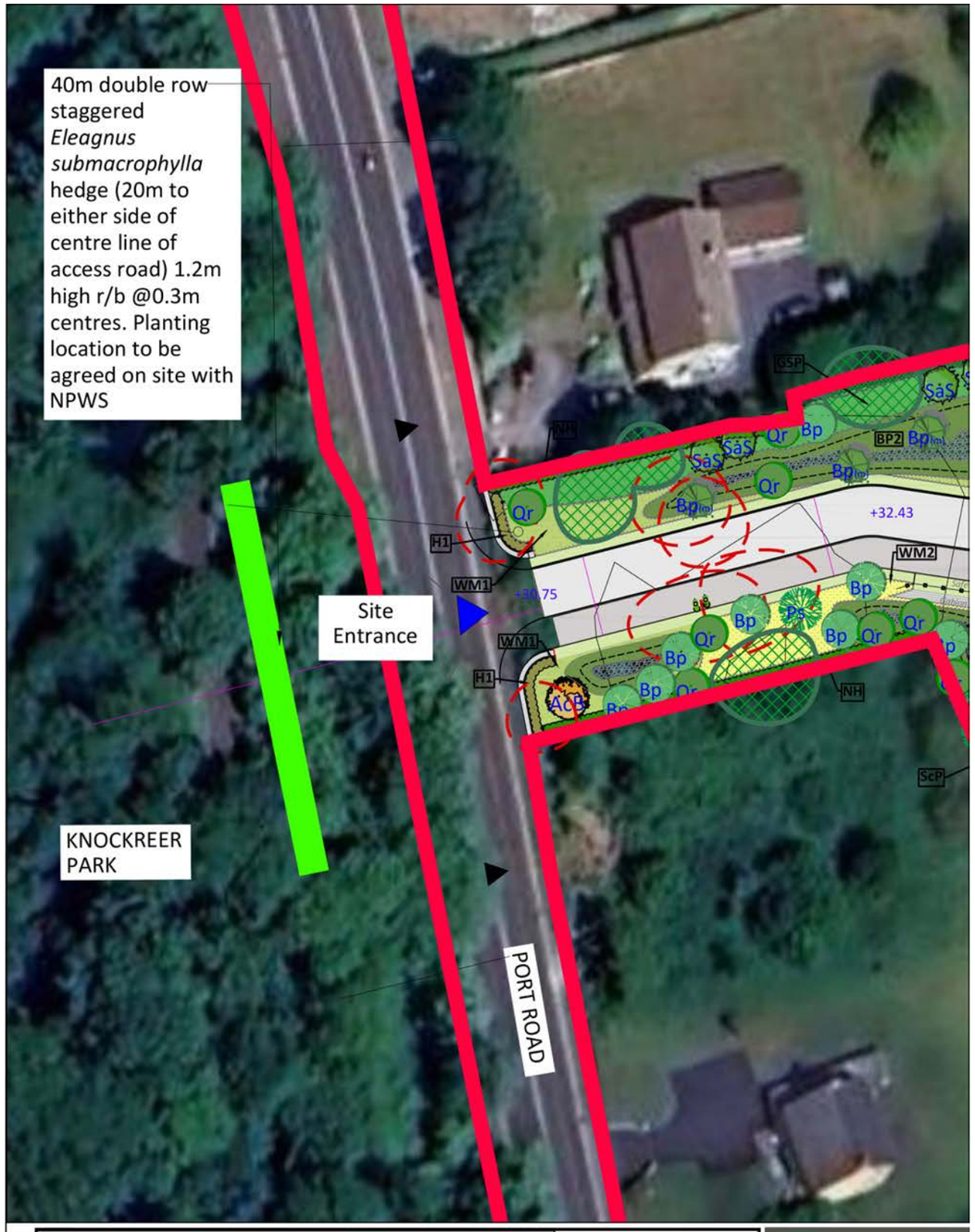
APPENDIX 6

OFFSITE PLANTING IN NATIONAL PARK

In accordance with the mitigation strategy agreed through consultation with Kerry County Council and National Parks and Wildlife Service (NPWS), the plan opposite indicates the location and specification of planting off site to mitigate potential effects of lights from vehicles exiting the proposed development from the east side of Port Road directed into the National Park.

The proposed planting will be funded by way of a planning condition on the approval of the planning application. The detailed layout and implementation of planting will be undertaken by others in accordance with the planning condition.



Project: Proposed Residential Development Port Road, Killarney, Co. Kerry		Project No. 6620	
Drg. Offsite Planting Plan As Per NPWS Requirements		Drawing No. 304	Rev. 00
Scales 1:500@A4	Status PLANNING	Date 23/04/2024	
Penrose Wharf Business Centre, Penrose Wharf, Cork Tel: +353(0) 21 242 5620 mail@bradyshipmanmartin.com www.bradyshipmanmartin.com		Drn. CD / Chd. DB	Passed

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