

PROPOSED LARGE SCALE HOUSING DEVELOPMENT

AT SPA GLEN, MALLOU, CO. CORK

ON BEHALF OF O'FLYNN CONSTRUCTION CO UNLIMITED COMPANY

GREEN INFRASTRUCTURE STATEMENT



Aerial View Site Area shown outlined in red

INTRODUCTION

This green infrastructure assessment relates to a site for a development of a residential housing scheme together with a Creche facility by O'Flynn Construction Co (unlimited company) on lands at Spa Glen, Mallow, County Cork. The proposed development application will seek permission to construct;

- 168No. Dwelling Houses in a mix of 48no. 2bed, 145no. 3bed, and 16No. 4bed accommodations in a mix terraced and semi-detached typologies.
- 18No. Duplex Apartment dwellings all 1No bed accommodations.
- 01No. Creche Facility to accommodate 50No. Childcare places

All associated siteworks will be undertaken to provide for the development proposed together with road improvement works on the N72 National Road at its' junction with the L5331.

Sustainable Residential Developments in Urban Areas, Guidelines for Planning Authorities, 2008, identifies as a fundamental that development should protect and enhance biodiversity and green infrastructure.

Protect & enhance public open space and recreational facilities in a sustainable manner and to recognise the importance of urban wildlife corridors and sites of nature conservation.

Key Themes

- Sustainable Water Management
- Climate Change Adaptation and Mitigation
- Recreation & Amenity Provision
- Landscape Protection
- Biodiversity Protection
- Archaeological & Architecture Heritage Protection
- Flood Risk Alleviation

Planning application has regard for the county green infrastructure resources ensuring that development proposals protect existing green infrastructure and provide new green infrastructure as part of the development.

County Development Plan Objective

GI 3-1 : Green Infrastructure - New Developments

Require new developments to contribute to the protection, management and enhancement of the existing green infrastructure of the County and the delivery of new green infrastructure, where appropriate.

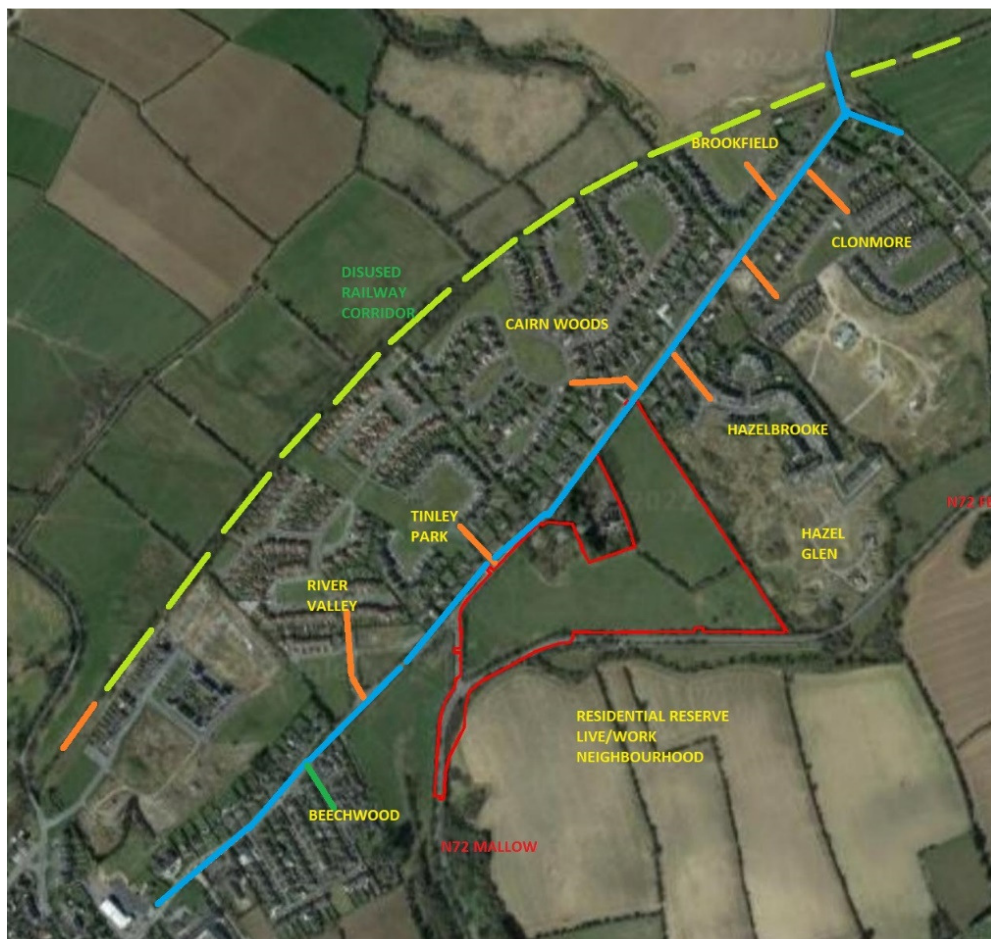
The Green Infrastructure strategy for the development seeks to provide a framework within which natural & built heritage assets within the site can be assessed and valued and to identify where conservation may be achievable within the context of the land zoning. Additionally, mitigation actions for loss of vegetation and habitat area within the site may need to be adopted as part of the development especially within the proposed open space areas, (green spaces, habitats and ecosystems).

This strategy is informed by;

- the assessment and analysis of the green infrastructure components found within and along the boundaries of the existing green field site.
- The assessment and analysis of existing structures on site for architectural and or heritage value.
- Current flood study data and mapping
- Green Infrastructure feasibility studies and planning in the general environs.

Site area is predominantly

- agricultural grassland areas
- hedgerow/ treelines bounding grassland areas
- disused farmyard area (overgrown with recolonising scrub)
- South Caherduggan River flows through the southwest corner of site.
- Derelict stone buildings former residence and stables
- A derelict steel frame barn



The area outlined in red is the development site and this will complete the Spa Glen/Ballyvinitter district of Mallow adding further neighbourhood areas to the existing cluster of estates and dwellings straddling the Ballyvinitter Road. The district is bounded on the north by the disused Mallow to Lismore Railway Corridor and to the south by the N72 Mallow to Fermoy Road and the Spa Glen Stream.

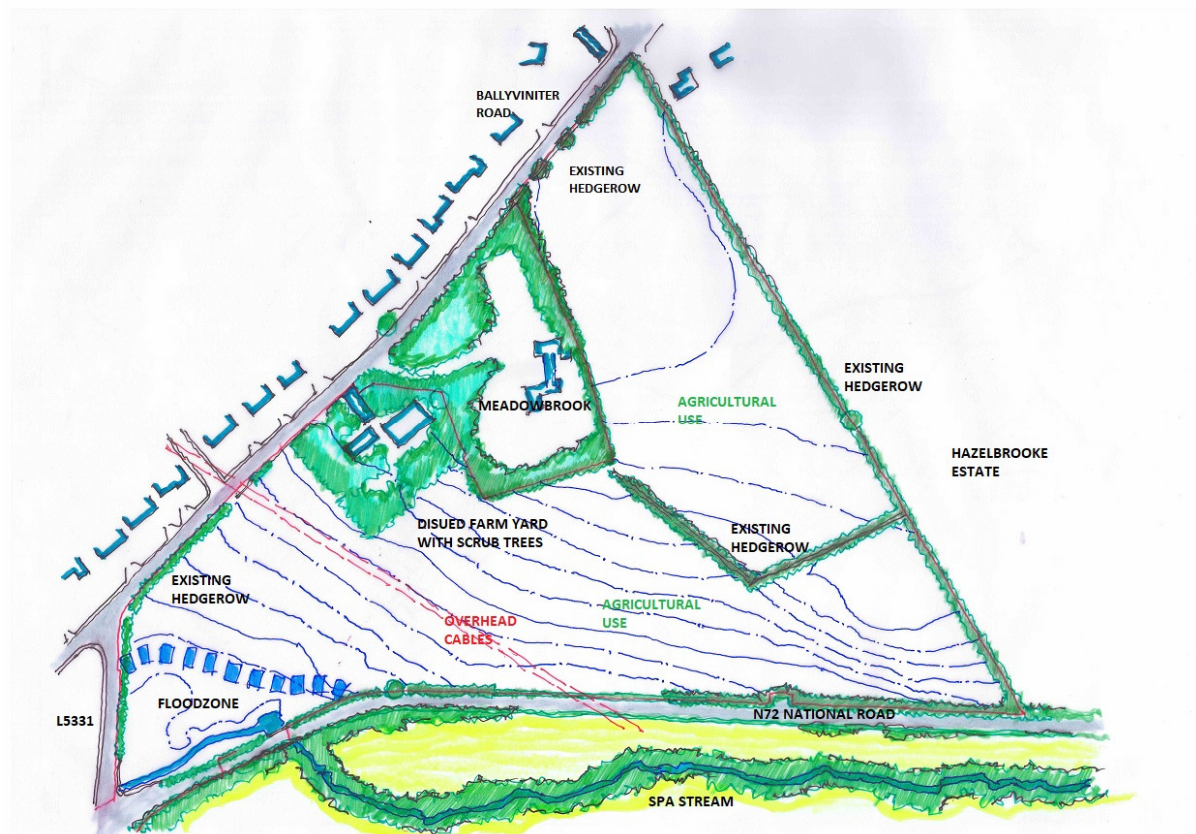
EXISTING SITE DESCRIPTION

The preliminary ecological evaluation (*Technical Note, E1883: Proposed Housing Development at Ballyvinitier, Malone O'Regan Environmental, 2021*) deems the site not to be of significant ecological value.

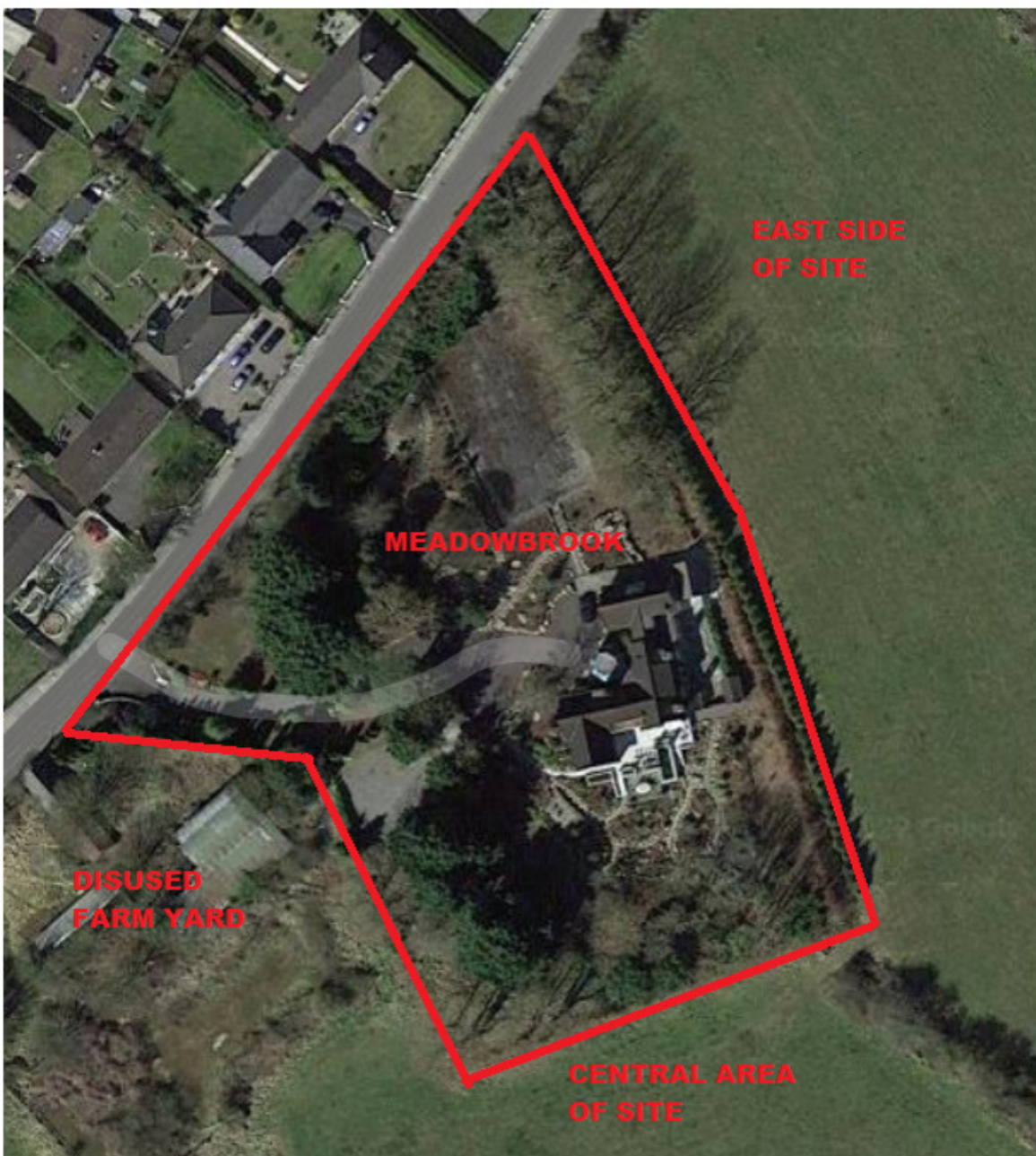
The natural assets hedgerows, watercourse, scrub and derelict structures are identified as having the potential to support protected/notable species.

The outcome of a Bat Emergence Study & Static monitoring confirms there is no current bat roost on site within identified PRF trees or on-site buildings

The site area overall is 7.9ha. The site is mainly 'greenfield', composed of two field areas in pasture and a group of disused farm buildings. The site area is u-shaped and wraps around an existing dwelling 'Meadowbrook' (Eircode P51 R007) with an extensive garden area. There is no visibility between the existing dwelling and the site as the mature garden landscaping is abundant with conifers along the boundaries with the site which provide shelter and screening.



Sketch Diagram identifying the green infrastructure currently in place at the development site



Meadowbrook indents the site area and splits the site along its road frontage.

The disused farm complex is seen in the bottom left of the aerial image.



An existing gable wall is on the edge of the Ballyvinitter Road. There is a likelihood that existing rubble stone may be retained and reused in the development. General views of the Farm Complex this area is now cleared and used for storage.

The group of farm structures and yard spaces is located east of the entrance to Meadowbrook and has an access to the Ballyvinitter Road. The complex has become over grown with self-seeded scrub. This vegetation links with the existing mature landscape around Meadowbrook and currently the disused farmyard is concealed from external view except for the stone gable of an old shed or former cottage which meets the road edge.

The field to the west has road frontage on three sides; the L5331 Ballyvinitter Road to the north, the N72 road to the south with a short road connecting the two other roads on the west. The levels in this field fall from 65m on the northern side to general 54m level along the N72 road edge approximately 34% slope. The existing road frontages are defined by mature hedgerows with some individual trees. The Ballyvinitter road is well screened with the existing hedgerow vegetation. On the other side of the road there has been development with the removal of previous hedgerows to facilitate bungalow dwellings and an entrance to the Tinley Park housing estate. On the opposing side of the road there are public footpaths and lighting, so it is rural on one side and urban on the other.



L5331 Ballyvinitter Road looking west from the existing entrance to Tinley Park.

On the west and south west corner of the site there is an open drain and this connects with the Spa Glen Stream. The stream flows into the site from the east under the N72 and exits the site at an existing stone bridge over which the minor road meets the N72. This portion of the field area is part of the floodplain for the stream. Because of the existing stream and the mapped floodplain area this portion of the site is classed as undevelopable so as to protect the existing riparian habitat and the Blackwater River system downstream of the site.

East of the stream the remainder of the field is elevated relative to the N72 rising from the existing hedgerow along the roadside. It does not form part of the floodplain. The hedgerow vegetation gives a good general screen to the traffic on the N72. The stream flows east to west along the south side of the N72 and the riparian corridor there will be considered undevelopable.

On the east side of the site the field narrows and bounds with an existing recently built housing development called Hazel Glen. The boundary is defined with an existing mature hedgerow. Roads and footpaths in the Hazel Glen development terminate at the hedgerow in the south east corner and at other points.



View south west; the Spa Glen stream and its floodplain area in the corner of the field. The Spa Glen Amenity Corridor is beyond and offsite with Mallow town centre (1.5km distance). The field to the left is off site across the N72 Road and is part of the zoned urban expansion area.

The north eastern field area is relatively flat and fully enclosed with vegetation with hedgerows on the east and north bounding onto Hazelbrooke and the Ballyvinitter road. On the opposing side of the road the hedgerow has been removed with bungalow dwellings now fronting on to the road together with footpaths and public lighting.

To the east there is an existing thatched cottage with a blank stone gable wall at the roadside. At the north eastern field corner there is an existing entrance to the Cairn Woods Estate. To the west the existing mature garden landscaping around Meadowbrook encloses the field. The garden boundary then extends as a hedgerow to close the southern end of the field and splits the site into two field areas.



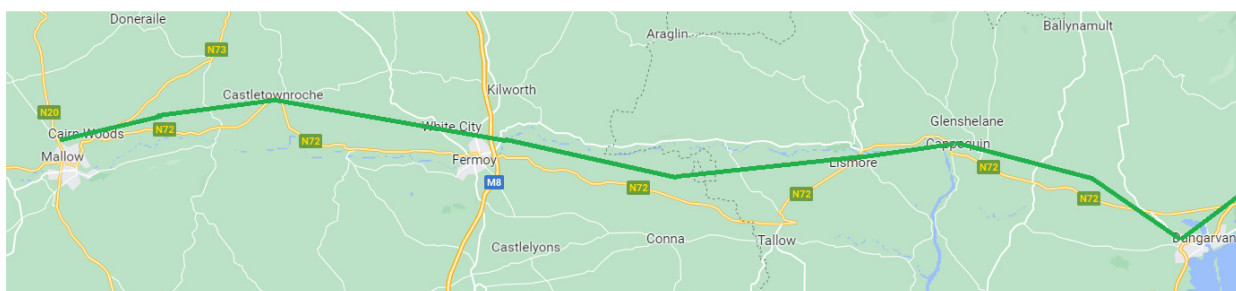
View from the Ballyvinitter Road on to the east side of the site. To the left is Hazel Glen well concealed by the existing hedgerow vegetation. The field beyond is part of the proposed Urban Expansion Area.

DISUSED RAILWAY CORRIDOR

To the north of the site the lands are already developed for residential use with existing estates together with bungalows fronting on to the Ballyvinitter Road. North of these residential neighbourhoods there is a disused railway line that connected Mallow to Fermoy, Lismore, Cappaquin and on to Dungarvan Junction. The railway line is currently at a feasibility planning stage to be reopened as a greenway as part of Ireland's Greenway strategy in a bid to increase the number, length and regional spread of off-road walking and cycling tracks across the country.



View looks west with the Road frontage to the Ballyvinitter Road on the eastern side of the proposed development site. This is located close to the Hazel Brooke / Hazel Glen and Cairn Woods estate entrance points.



Route of Mallow to Dungarvan railway closed in 1967



Mallow to Dungarvan Greenway study could take two years to complete

The project could create a greenway all the way from the north Cork town to Waterford via Fermoy and Dungarvan



“The greenway would incorporate a compelling 77.35km stretch of scenic countryside which, in its journey from Mallow to Fermoy and onto Dungarvan, would run alongside the Blackwater River. This route incorporates some stunning scenery owing to the breadth of the river and viaduct crossings at key landmark locations”

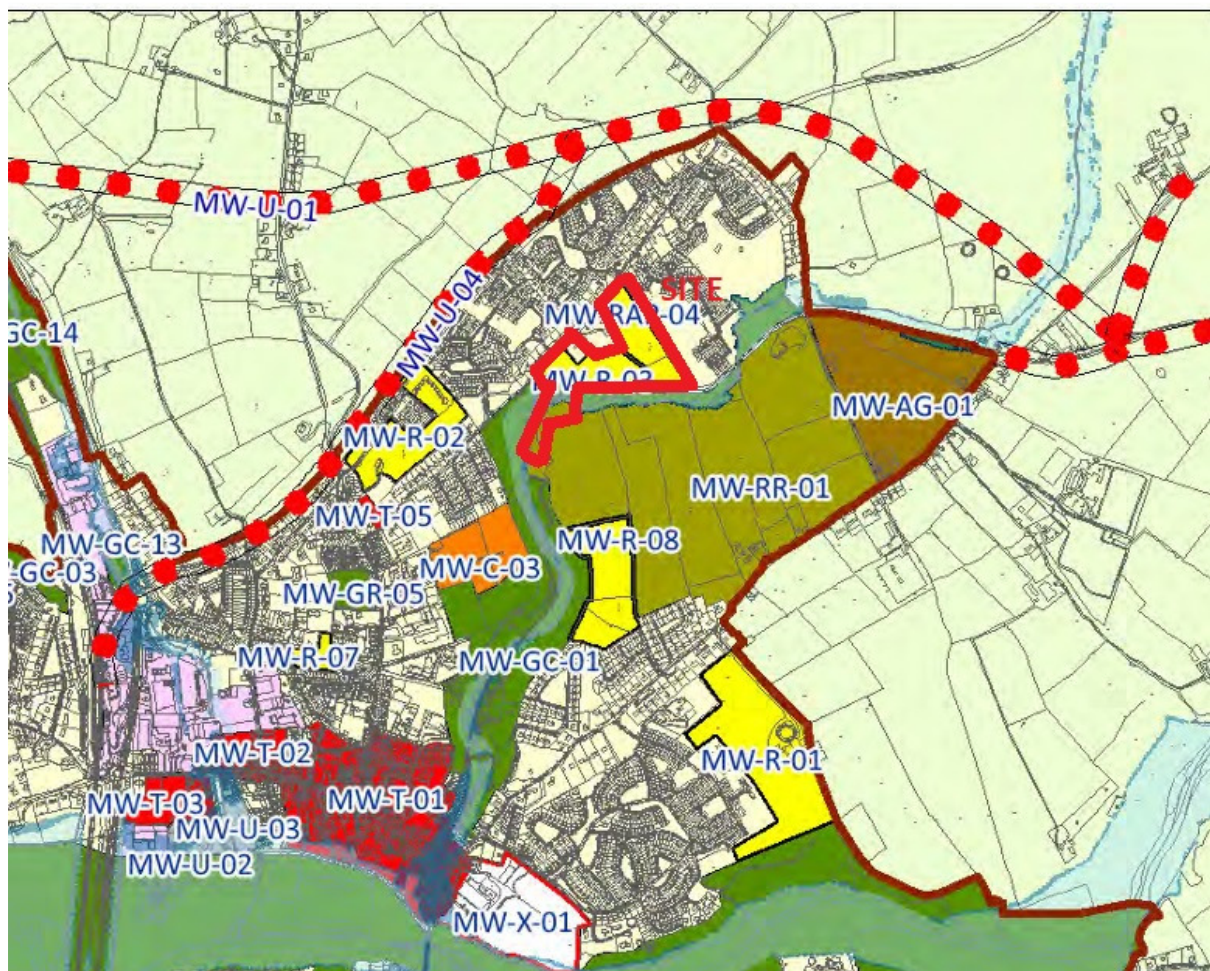
This is a potentially significant piece of green infrastructure with the potential to establish a 77km long Greenway that would connect Mallow, Castletownroche, Ballyhooley, Fermoy, Clondulane, Ballyduff, Tallow Road, Lismore, Cappoquin, Cappagh to Dungarvan. From Dungarvan an existing 46km Greenway is already in place and connects Durrow, Kilmacthomas, Carroll's Cross, Kilmeaden before terminating in Waterford. This Greenway corridor is 0.35km distance from the site.

At a more local level this greenway if implemented will give segregated pedestrian and bicycle connection west to Mallow Junction Railway Station with both mainline and commuter services. It also connects to the zoned Neighbourhood Centre MW-T-01 centred on the Junction of Fair Street and Spa Springs Road and the Education Campus nearby.

EXISTING ZONING CONTEXT

The proposed application site is zoned MW-R-03 and MW-R-04 medium density within the Mallow Environs and bounds with the former Mallow Town boundary at the south west corner where the stream exits to the south west via the Spa Glen to its confluence with the Blackwater. The Spa Glen is designated as an amenity corridor MW-GC-01 and is an attractive well wooded narrow glen. Currently the N72 runs alongside the stream at the base of the glen sloping gently down to the town centre.

With future plans to divert the N72 north of the town (Mallow Northern Relief Road) this road maybe downgraded for vehicular traffic and there is potential to transfer space fully or partially to a pedestrian and bicycle route to access from Ballyvinitier/Spa Glen directly to the town centre. This would strengthen the Spa Glen as an amenity corridor and provide an improved active travel route with a very suitable gently sloped direct link between the site and the Ballyvinitier district in general to the town centre & Town Park on the Blackwater River.



The site location is indicated showing its position relative to the Greenway route MW-U-04, the Spa Glen Amenity Corridor and floodplain shows the course of the Spa Glen Stream flowing from the north east which is undevelopable and will likely become an extension of the Spa Glen Amenity Corridor creating a linear riparian habitat space and natural separation between the Ballyvinitier/ Spa Glen District and the new MW-RR-01 Residential Reserve for a Live/Work Neighbourhood to the south.

On the south side of the existing N72 road the lands are in agricultural use but are zoned MW-RR-01 Residential Reserve for a Live/Work Neighbourhood. The plan is to deliver 3000 homes, an education campus, a neighbourhood centre and employment areas across the 48.6ha. allocated under the zoning. This zoning seeks to ensure that there is an emphasis on green infrastructure including pedestrian and bicycle transportation, with good permeability to surrounding urban areas as well as seeking to extend the well wooded Spa Glen Amenity corridor. The latter strategy will presumably be focussed on the Spa Glen Stream and its floodplain straddling the existing N72 route. This corridor is partially within the site and in close proximity along the entire southern site boundary on the southside of the N72.

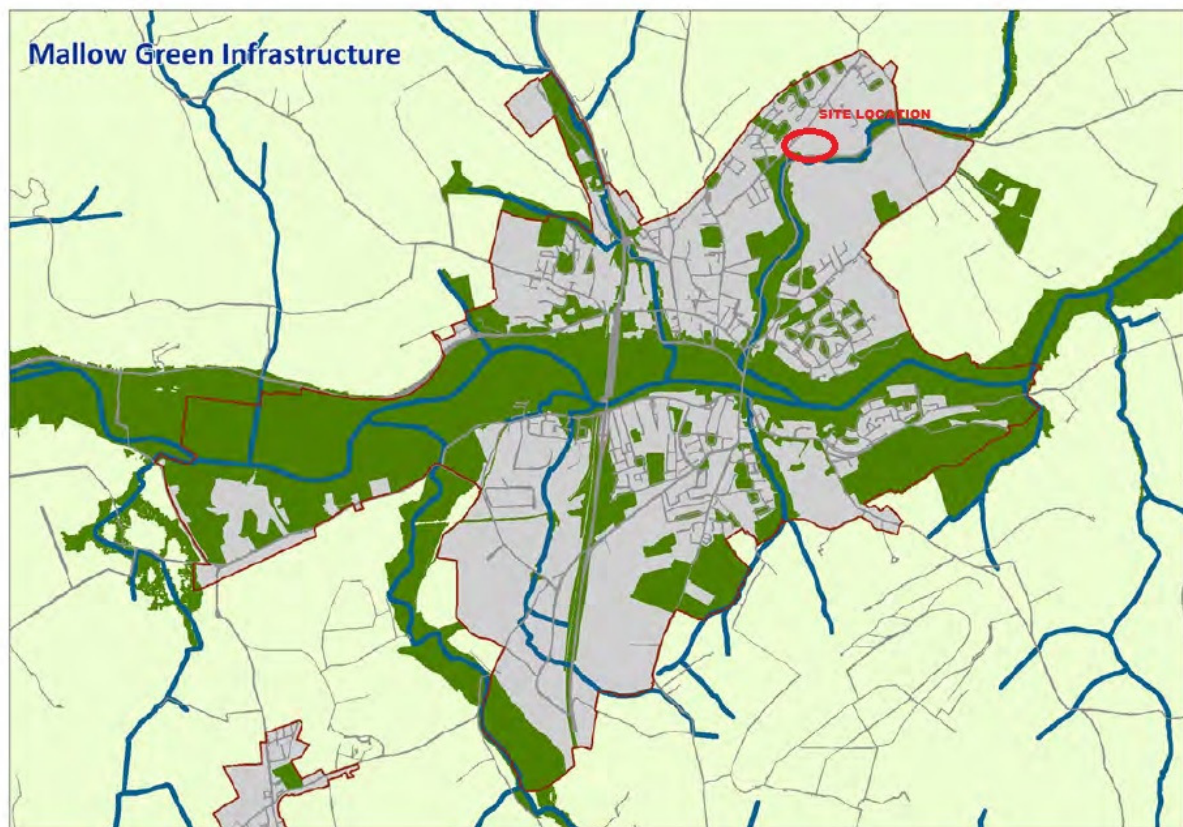
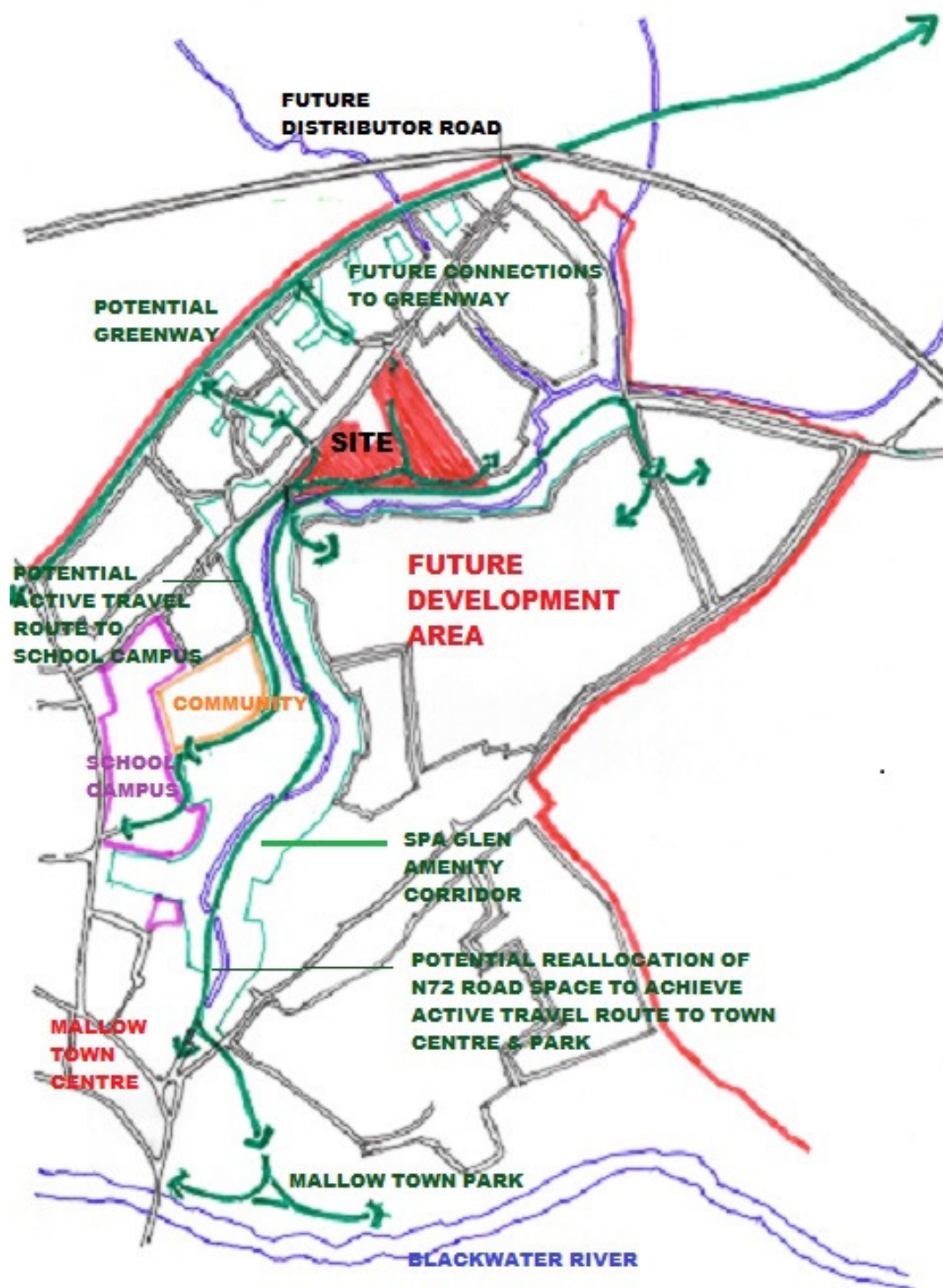


Figure 3.2.3 – Mallow Green Infrastructure Diagram

The site location is indicated with a red circle demonstrating that the development site is in a key nodal location whereby active travel routes provided can benefit the existing suburban district to the north east making the Spa Glen Amenity Corridor more accessible.





Overview of amenity provision showing the potential 77km pedestrian and Cycle route from Mallow to Dungarvan to connect with the existing 44km Waterford Greenway. The current location of the site relative to the existing Blackwater Amenity Corridor and to the Spa Glen Amenity corridor which at present is the route of the N72 and therefore just a pleasant landscape to drive through exit or entering Mallow town centre. The Spa Glen Corridor route is indicated where the desire is expressed to strengthen the existing amenity corridor just to the south or within the application site.

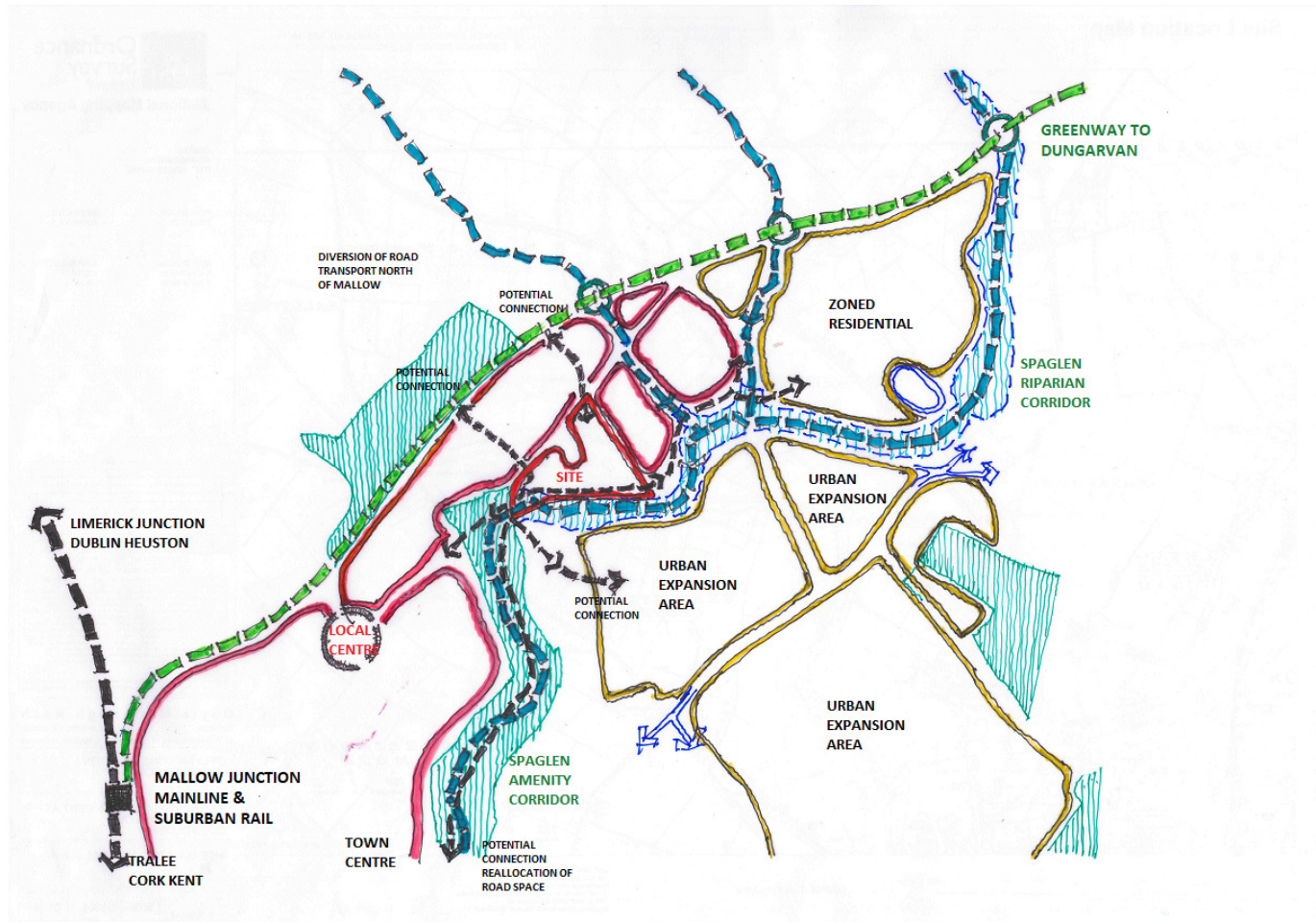


Site Layout Plan



Diagram illustrates the relationship between active frontages and open space areas proposed. Biodiversity planting is concentrated along the southern boundary to strengthen the Spa Glen Corridor as an amenity biodiversity corridor.

PROPOSED DEVELOPMENT & GREEN INFRASTRUCTURE



The site is U-shaped wrapping around the existing Meadowbrook house and gardens and is split into two sections each with road frontage onto the Ballyvinitter Road. This naturally creates two areas within the development overall each with an access point off the Ballyvinitter road one into each section. There is a disused complex of buildings in stone and metal. These have been assessed and are deemed not to have heritage value. The gable end of the former cottage abuts the tarmac road surface on the Ballyvinitter Road and will need to be removed to allow for sightlines carriageway realignment and a new public footpath. Please see *Ballyvinitter Residential Development, Spa Glen, Mallow 'Summary assessment of derelict farm complex' John Cronin & Associates 2022* for further information.

The N72 runs along the southern boundary of the site, it was never proposed to provide a vehicular access point from this road or from the short section of road connecting the N72 to the Ballyvinitter Road on the western boundary in to the site. This leaves the N72 Road frontage intact as existing while the short connecting road will see hedgerow removal to facilitate footpaths and a pedestrian/bicycle entrance and crossing point.

To facilitate the upgrading of the existing Ballyvinitter Road frontage with pedestrian footpaths and to achieve safe entrance and egress with appropriate sightline triangles and turning provision from the site. It will be necessary to further remove the existing rubble stone walls and the existing mature hedgerow vegetation along all of the Ballyvinitter Road frontage.

This will damage and degrade the site's bio-diversity value and it is intended to mitigate for this

- with augmented landscaping emphasising bio-diversity planting on the Spa Glen Corridor / N72 side of the development site.
- by augmenting the vegetation and habitat potential along the south side of the site close the Spa Glen Stream. This will enhance the stream as a corridor for nature; flora and fauna and extend the wooded Glen upstream from the town centre linking to the retained vegetation and new landscaping along the south sides of the neighbouring developments of Hazel Glen and Clonmore.
- implement the 'All Ireland Pollinator Plan' wherever opportunities exist in open space areas within the development generally.
- by stepping the development back from the Ballyvinitter road edge and landscaping the resulting linear space to a high standard. This will reinstate a vegetative buffer to the existing bungalows along the north side of the road and help mitigate for the loss of bio-diversity due to the hedgerow removal.
- Further mitigation is achieved by dead ending vehicular traffic along the south side of the site to create a quiet zone more attractive to fauna and to walkers and cyclists.
- Pedestrians and cyclists will have full access to a 3m wide trail proposed running peripherally along the southern, western and north western sides of the development.
- The trail route extends to the north side of the site to make future connections to the Greenway proposed on the disused Mallow – Dungarvan Railway corridor.
- Connections to this future greenway will be facilitated with two crossing points on the Ballyvinitter Road at the Cairn Woods and Tinley Park estate entrances.
- Retaining the eastern hedgerow forms a vegetative screen between the proposed development and the Hazelbrooke and Hazel Glen neighbours next door.

This strategy ties in with the Cork County Development Plan 2022-2028 to extend the existing Spa Glen Amenity corridor over land zoned MW-GC-01 east and west of the site and a further pedestrian/bicycle crossing point is proposed to provide access between the development site and this zoned amenity space corridor towards the town centre and town park.

In the future the N72 traffic is proposed to be diverted to the north of the Greenway and away from the Spaglen altogether so the section of the road from the site to the town centre may potentially become quieter and space could be reallocated in part or fully to more amenity and or sustainable transport uses. This has the potential to become a significant piece of green infrastructure.

The Spa Glen Stream flows along the southern side of the N72 and this is a floodplain area. This is therefore undevelopable and it can be expected that the bio-diversity area reserved as part of this development proposal will be significantly augmented with riparian habitat enhancements as part of the Urban Expansion Area master planning on lands south of the stream across the N72 route.

The trail is also designed to connect directly with the Hazel Glen neighbourhood to the east of the development with the possibility for an onward connection through to the Clonmore Estate under construction by the applicant further east and upstream.

The connectivity between the future greenway, existing estates, the future urban expansion area and via the Spa Glen amenity corridor to Mallow town centre means that the green infrastructure retained, augmented and proposed as part of this development is nodal and will bring excellent connectivity for both flora and fauna and for pedestrian and bicyclists.

The site is actually a key nodal point for the general Ballyvinitter residential district to make sustainable transport pedestrian and cycle connections west to the existing Neighbourhood Centre and Education Campus, South west to the historic Town centre, and the Blackwater Amenity Corridor, south to the new urban expansion district and in turn offers links from those locations to the potential greenway to the north.

The management of water drainage on site is well planned with sustainable urban drainage principles adopted to ensure that rainfall runoff from the development is appropriately managed to ensure there are no negative downstream impacts on the Blackwater.

The design allows for the retention of existing hedgerows where possible, and the creation of large areas of public open space providing for both the amenity of the residents and providing space for a bio-diversity corridor to mitigate for the loss of hedgerow vegetation. Amenity spaces are generously provided within the design scheme and knitted together with the provision of a pedestrian and cycle trail.

The open space amenity areas are designed to ensure sustainable drainage is incorporated in the design.

The design has been integrated with the existing Ballyvinitter Residential District and the Spa Glen Amenity Corridor contexts ensuring that the new neighbourhood addition capitalises on the existing features and green infrastructure fabric that give Ballyvinitter its unique character and sense of place. In its turn the proposed design complements the existing contexts providing an upgraded road frontage along the northern edge and enhancing habitat space and vegetative screening along the south side fronting the N72, the Spa Stream and the future Urban Expansion Area on the hillside to the south.

The design response to the Ballyvinitter and N72 road frontages positively reinforces the quality and distinctiveness of the Ballyvinitter District which will become bounded by strong green infrastructure elements on the north side with the Greenway and to the south the enhancement of the Spa Glen and stream as a biodiversity corridor.

The development will deliver pedestrian and cycle routes that are permeable to the north terminating at the Ballyvinitter Road to connect with existing neighbourhoods and positioned for future access to the Greenway corridor just 0.35km away. It also includes a pedestrian and cycle crossing point at the Tinley Park and Cairn Woods entrance locations as well as a crossing point to access the Spa Glen amenity corridor. It is likely that with the realisation of the Northern Relief Road north of the district. Space on the existing N72 can be transferred to more sustainable and active transport like enhanced pedestrian and segregated two-way cycleway provision. The Spa Glen crossing will also connect to the Spa Springs Road to access the Neighbourhood centre 0.7km west and to the south future linkages can be achieved to the proposed urban expansion area on the 257ha. to the south.

CONCLUSION

The proposal achieves an appropriately scaled development within the constraints of the land, its topography and neighbouring uses and the design therefore achieves a sustainable use of development land. The overall net density of the development is 29.81 units per Ha which is considered an appropriate density, balancing the need to maximise the efficient use of zoned land while also respecting the site's context and its constraints. The design allows for the retention of

some existing hedgerows, and the creation of large areas of public open space providing for both the amenity of the residents whilst also promoting bio-diversity.

The Spa Glen Stream corridor is identified and incorporated as a key green infrastructural element important to the Ballyvinitter/Spa Glen neighbourhood as a riparian/green corridor for flora and fauna, running from the eastern edge of the town through to the town centre and on to the Blackwater River. It will also act as a key element in providing a break between the Ballyvinitter/Spa Glen neighbourhood and the future neighbourhoods within the Live/Work Neighbourhood zoning to the south.

The development is at a key nodal point between the Mallow town centre, the Ballyvinitter/Spa Glen neighbourhood, the future Parkadallane & Keatley Close (Residential Reserve Live/Work Neighbourhood) and the future 77km Mallow to Dungarvan Greenway. This will connect north to link to the future Greenway/Active Travel Corridor via pedestrian and bicycle crossing points to Tinley Park and Cairn Woods (0.35km distance). A further connection to the southwest with a further pedestrian/bicycle crossing where a trail may be continued south via the picturesque Spa Glen to Mallow town centre and the Blackwater Amenity Corridor (1.5km distance). This will also connect west via the Spa Springs Road leading to the existing Education Campus and the Neighbourhood Centre at Fair Street (0.7km distance). At the eastern boundary of the site the proposed trail will connect directly with the Hazel Glen development and potentially beyond to the Clonmore Estate. The trail proposed within the development can therefore advance active / sustainable travel significantly for the entire north eastern sector of Mallow town.