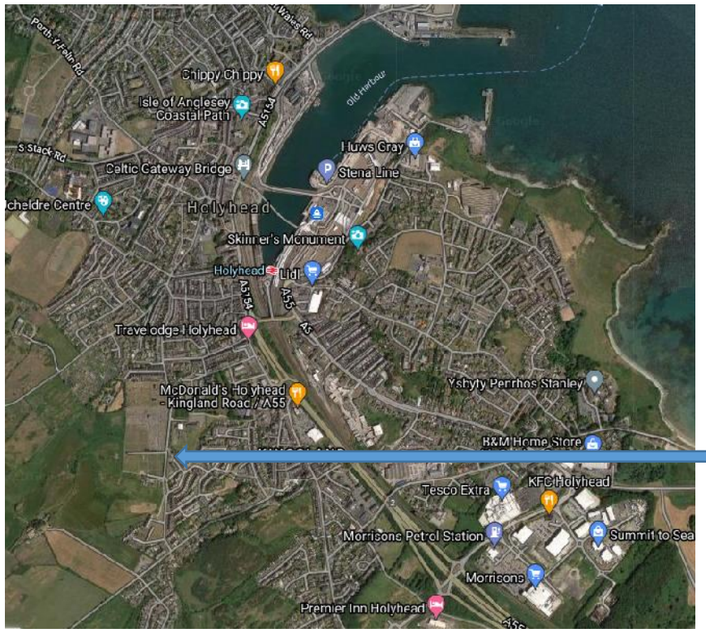
Pre – Planning Advice Application Statement
Datblygiad Tai Newydd ar hen safle Ysgol Syr Thomas Ellis
New Housing on the former site of Ysgol Syr Thomas Ellis, Holyhead

Background, Site Location, History and Context

George + Tomos were appointed to develop the design of a new housing development on the former site of Ysgol Syr Thomas Ellis School in Holyhead to the South West of the Town Centre on Treseifion Road. The former school has been demolished and the site is currently vacant. The document and drawings have been prepared to obtain initial feedback on the sketch proposals to enable the scheme to be developed to PAC and planning application.



The site lies to the South West of the town centre - Postcode is LL65 2AP , Grid Reference is 224506, 381749.

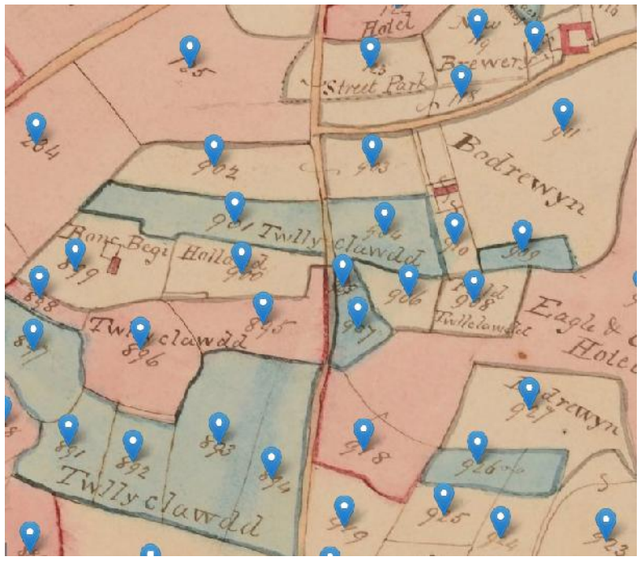
The site lies on previously developed land , the school has now been demolished in preparation for the development.

Photograph of site from Treseifion Road

Site History

It is likely that the site was initially developed during the 1960's / 70's as part of the housing development of this area of Holyhead. Prior to the 60's 70's development the site was agricutural land.

Extract from 1888-1919 OS Map - the site lies on the site of the farmstead Twll-y-Clawdd



Extract from Tithe Map prior to the development of the town, site is on land parcel 907/906

This part of the Town was developed in the 1970's as part of a programme to improve housing in Holyhead. Between 1964 and 1974, 1,200 houses were demolished by Holyhead Urban District Council and 1,000 new houses built. Many of these are in the areas around the site in the Treseifion and Tan – yr Efail Estate to the South and East of the site. Maeshyfryd Cemetry is to the West of the Site which dates from the 1870's

Aerial Photo with the site in the centre, Treseifion and Tan-yr-Efail estates to the South and East and the Cemetery to the West on the opposite side of Treseifion Road.

Treseifion Estate to the South of the Site

Tan-yr Efail Estate to the East of the site

Housing to the North of the site off Cleveland Avenue

Maeshyfryd Cemetry to the West with an open aspect and views to the West towards South Stack

The site in detail and Constraints

The school buildings have been demolished since the aerial photo. To the northwest of the site there is a small coppice of trees , this is currently subject to a ecology/arboriculture report to has been excluded from the initial proposals until these reports have been carried out. The site topography is an even, gradual slope falling about 3m from the South West Corner to the North East Corner of the site.

There is a footpath which runs along the North edge of the site which links Treseifion Road to the housing at Cleveland Avenue (north) and Tan-yr Efail (east)

View from Treseifion Road looking East showing footpath and coppice

The site boundaries are currently weld mesh type fencing and a stone wall to Treseifion Road

View down Treseifion Road looking South with site on the left and the Cemetery to the right.

Site Opportunities and initial proposals.

To enhance the frontage along Treseifion Road to provide an avenue with an attractive urban character.

Improve the pedestrian links through the site and to the adjacent housing estates and to the town centre.

Provide integrated public green spaces to link with the adjacent areas

Create attractive, energy efficient homes which will reduce fuel poverty and encourage a sense of community.

The initial proposals show two options, one with one site entrance and one with two entrances to provide a development with two zones of slightly different character and housing mix with flats, houses and single units to the North nearer the town and houses and bungalows to the South.

The planning application will also include a new link road to improve the traffic flows between the Treseifion and Tan yr Efail Estates and the town. The transport report for this road is included as an annex to this statement. Current sketch proposals show between 42-46 Units , the proposals have been developed as semi-detached units to enable direct access to rear gardens and provide better integration of the parking provision with the dwellings.

Initial Developed sketch proposal looking from the South

Suggested Housing Mix on Sketch Proposals

The initial brief consisted of a mixture of family homes, flats with individual access and 4 starter pod type homes for young people together with 2 and 3 bed bungalows to reflect the housing need in the area.

The current proposed mix is as follows:

4 Nr, Single Person 1 bed units;

12 Nr. I Bedroom 2 Person Walk up Flats , each with its own front door

14 Nr. 2 Bedroon, 4 Person Houses

Nr. 4 Bedroom, 7 Person Houses

4 Nr. 2 Bedroom 3 Person Bungalows

4 Nr. 3 Bedroom 5 Person Dormer type Bungalows with one ground floor bedroom

4 Nr. 3 Bedroom, 5 Person Houses

The Site area is approximately 1.4 Ha , density is currently around 33 Units per Hectare

The scale and mass is similar to the surrounding houses which are predominantly 2 storey dwellings and flats.

Site from the East with footpath link

Site from the South

Street level view from Treseifion Road

The proposed layout and orientation of dwellings has been carefully considered in order to ensure that the amenity of adjacent existing residents is not unduly harmed. Here, the proposals accord with the requirements of the LDP as well as TAN 12: Design. Acceptable distances are proposed between the application site and existing residential properties.

Internally, the layout has been designed to achieve appropriate amenity standards with each dwelling provided with ample external amenity areas and parking provision which is well related to the associated dwelling.

It is considered that the development's orientation, scale and density are appropriate in relation to the site's immediate and wider surroundings.

Whilst material choices have not been finalised, it is hoped that pre- application with the planning authority will allow for a discussion on favoured material choices in this location. The selection of appropriate and carefully considered materials will ensure that the character and appearance of the area is further enhanced, ensuring accordance with TAN 12: Design.

Highways – The initial proposals have been developed in line with the principles of Manual for Streets, we would welcome comments from Highway officers before the layout is developed . Sketch proposals indicate 5.5m wide roads and 2m footways. Proposals also suggest an element of traffic calming on Treseifion Road due to its width and straightness.

Ecology – A preliminary ecological assessment is being undertaken

Trees – The coppice of trees is show as being retained – consideration should be given as to how this area will be developed and managed in the future.

Existing and Proposed indicative sketch images of Treseifion Road

Planning Policy

As shown on an extract from the inset map for Holyhead on the current UDP the site lies within the development line for Holyhead. there is an area of protected open space to the South East of the site, a safeguarded employment site to the East of the site which is the location of the proposed link road from the adjacent Tan yr Efail Estate.

Annexes

Site Appraisal Sketch A3

Sketch Drawing Proposals. Sk1, Sk2, Sk3 A3

Initial Massing Model images

Transport Report for link road with drawings.

OPEN VIEWS

SETTING SUN.

SITE ENTRANCE

CEMETERY.

15.5m

SITE ENTRANCE

HIGHEST POINT +16AOD

TRESEIFION ROAD

EXISTING TREES.

SITE BOUNDARY

LOWEST POINT ON SITE +8M AOD

RISING SUN

St Mary's Roman Catholic Cemetery

Cwm

Maesllwyd

Canolfan Menter Enterprise Centre

PEDESTRIAN LINES.

PROPOSED LINK ROAD.

SUDS / GREEN CORRIDOR

TAN-YR-EFAIL

El Sub Sta

LLYS TRESEIFION

TAN-YR-EFAIL

TCB

N

SITE APPRAISAL

1-4 1B1P x4
5-16 1b2p Fflat/Flat x12
17-30 2b4p Ty / House x14
31-34 3b5p Ty/House x4
35-38 4p7p Ty / House x4
39-42 2b3p Byngalo/ Bungalow x4
43-46 3b5p Dormer Byngalo
46 Uned / Unit

Client
Ynys Mon

Tai Newydd / New Housing
Safle Ysgol Syr Thomas Ellis

BRASGYNLLUN
SKETCH SCHEME

Job Nr. 21-04

Drawing Nr. SK4

Graddfa / Scale 1:1000 @ A3
1:500 @A1

Dyddiad / Date Ebrill 2021 dt

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SITE BOUNDARY.

PG

PG PUBLIC GREEN SPACE

1-4 1B1P x4
5-16 1b2p Fflat/Flat x12
17-30 2b4p Ty / House x14
31-34 3b5p Ty/House x4
35-38 4p7p Ty / House x4
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	BRASGYNLLUN SKETCH SCHEME
Job Nr. 21-04	Drawing Nr. SK3
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22 TŶ / HOUSES
7 BUNGALOW
12 WALK UP FLAT 1B
41
4
45
1 BED PD

TAN YR EFAIL

LLYS TRESEITION

N

21/04 SK2

SAFLE YSGOL THOMAS ELLIS

1:500 @ A2

ALTERNATIVE FOR PODS?

SUDS?

TAN YR EFAIL

TRESEIFION

MYNWENT CEMETERY

LLYS TRESEIFION

4+1 4B7P HOUSE
5. TY 3B5B HOUSE
~~9~~ TY 2B4P HOUSE
5 ~~11~~ 2B3P BUNGALOW
12 1B2P WALK UP FLAT
4 1B1P POD
2 3B5P BUNGALOW
40 ~~43~~ ?

DATBLYGIAD TAI / HOUSING DEVELOPMENT
SAFLE YSGOL SYR THOMAS ELLIS SCHOOL SITE
CAERGYBI / HOLYHEAD.
21/045k1 5/3/2020
1:500 @ A3

Caulmert Limited

Engineering, Environmental & Planning
Consultancy Services

Cyngor Sir Ynys Mon / Isle of Anglesey County Council

Possible Link Road Between Tan-Yr-Efail

And Holyhead Enterprise Park

Transport Review

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Document Reference:

4526-CAU-XX-XX-RP-D-0300.S3-P1

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engineering environmental planning

APPROVAL RECORD

Site:	Tan-Yr-Efail/Enterprise Park, Holyhead
Client:	Cyngor Sir Ynys Mon / Isle of Anglesey CC
Project Title:	Tan-Yr-Efail / Holyhead Enterprise Park Link
Document Title:	Transport Review
Document Ref:	4526-CAU-XX-XX-RP-D-0300.S3-P1
Report Status:	**Consultation**
Project Manager:	Jonathan Sykes
Caulmert Limited:	Unit 14, St Asaph Business Park, St Asaph , Denbighshire, LL17 0LJ

Author	Phil Smith Principal Engineer	**Date**	September 2020
Reviewer	Jonathan Sykes Associate Director	**Date**	November 2020
Approved	Jonathan Sykes Associate Director	**Date**	November 2020

Revision Log			
Revision	**Description of Change**	**Approved**	**Effective Date**
P1.0	Incomplete Draft Issued for comment		14.10.20
P1.0	PAC version for comment		05.11.20

DISCLAIMER

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APPENDICES

1.0 INTRODUCTION

1.1 Background

1.1.1 The Isle of Anglesey County Council (The Council) is aware that traffic flows along the northernmost part of Porthdafarch Road in Holyhead can at times be impeded due to the road layout and on-street parking around Hen Ddu Terrace and Mountain View, and hence that there is local concern that future increases in traffic might exacerbate the situation.

1.1.2 To better understand these concerns The Council appointed Arup Consultants to investigate and as part of their data collection Arup carried out a 24-hour video survey of traffic movements along the northern part of Porthdafarch Road. The survey confirmed that parking demand was generally less than the potential availability of spaces (capacity) and consequently gaps between parked vehicles were available that enabled vehicles traveling along the road in opposing directions to pass with minimal delay. Arup noted however that on 19 occasions over the 24-hour period surveyed drivers had been observed reversing into a gap between parked vehicles to allow an oncoming vehicle to pass and that on 6 further occasions drivers mounted the footway to make more room to pass an oncoming vehicle.

1.1.3 Whilst the number of incidents was comparatively low over a 24-hour period, and did not lead to any accidents or near misses occurring, the Arup report indicated they were undesirable and observed that if traffic use of the road rose over current levels then clearly there would be a potential to increase the frequency of such manoeuvres.

1.1.4 A Transport Assessment Report by RSK consultants relating to development of the former Ysgol Thomas Ellis site included an outline suggestion for a scheme whereby a new section of road was provided to link the Tan-Yr-Efail estate to the nearby Enterprise Park as a means to potentially relieve traffic use of Porthdafarch Road north. The Council has appointed Caulmert to prepare this report to examine the suggested scheme in more detail.

1.2 Commission Brief

1.2.1 The commission brief was to develop a possible layout for the potential link road to a level of detail suitable for consideration via a planning application and review available traffic data to provide an estimate of the traffic relief the scheme could potentially deliver along to the area of concern, Porthdafarch Road (north).

1.2.2 To assist, The Council provided copies of the reports listed below. When cross reference is made to them it is highlighted within the text of this report.

- June 2019 Technical Note by Singleton Clamp for the housing development on land adjacent to the Cae-Rhos estate,
- July 2019 Report by RSK regarding developing the former Ysgol Thomas Ellis site,
- March 2020 Arup Review of Cae Rhos Development / Porthdafarch Road North.

1.3 Site Location

1.3.1 'The Site' location is shown below.

Figure 1 - Site Location Plan

2.0 EXISTING CONDITIONS

2.1 Site Characteristics

2.1.1 The proposed scheme would provide a new link between Tan-Yr-Efail and the Enterprise Park to the north via the area noted as 'The Site' in Figure 1. The objective of the proposal would be to provide residents of Tan-Yr-Efail with an alternative route to Porthdafarch Road for some journeys and thus potentially remove some existing traffic movements along the northeast part of Porthdafarch Road.

2.1.2 The existing conditions applicable to each of the roads that would be affected by the scheme is now reviewed.

Tan-Yr-Efail

2.1.3 Tan-Yr-Efail is a cul-de-sac housing estate of around 100 houses. The estate road is typically around 5m wide and has a 2m footway with lighting columns along each side. Traffic-calming road humps are provided at regular intervals along its length.

2.1.4 Reference to Figure 1 shows that the main estate road heads in a north/south direction with linear housing along its eastern side and with side road stubs and loops off the west side.

2.1.5 A typical view of the main spine road at Tan-Yr-Efail and at the northern end from where the link would be created are provided in Photographs 1 and 2 below (note that at the time of writing non-essential travel was not permitted in Wales and so the existing conditions photographs below are taken from Google Maps and date from 2014).

Photograph 1 – Main Spine Road Tan-Yr-Efail

Photograph 2 – Northern End of Tan-Yr-Efail

2.1.6 The only point of vehicle access to Tan-Yr-Efail is from Porthdafarch Road to the south, to which it connects via a simple tee-junction.

2.1.7 Visibility along Porthdafarch Road for drivers exiting Tan-Yr-Efail junction is potentially less than would typically be required to meet design standards for 30mph traffic speeds and especially to the east (left at exit) due to a sharp bend in Porthdafarch Road. Road humps are however provided to each side of the junction on Porthdafarch Road to constrain passing traffic speeds.

Photograph 3 - Tan-Yr-Efail Junction with Porthdafarch Road

2.1.8 Holyhead town centre is to the north of the area and thus all traffic movements between it and Tan-Yr-Efail are currently made via the north-eastern part of Porthdafarch Road – the area reviewed in the Arup report.

Porthdafarch Road

2.1.9 With the exception of its eastern end, where it curves northward to join the B4545 Kingsland Road (see Figure 1), Porthdafarch Road runs in a roughly east/west direction and has Porth Dafarch a small cove at the sea at its western end.

2.1.10 The western length of Porthdafarch Road is an unlit rural standard road subject to the national speed limit. It has a footway along the north side and passes through open countryside between Cae Rhos and the coast. At a point roughly 50m to the west of the Cae Rhos housing estate (which itself is approximately 400m west of Tan-Yr-Efail) the speed limit reduces to 30mph and from here eastward there is housing along both sides of the road.

2.1.11 Within the 30mph zone Porthdafarch Road is lit during darkness hours by means of lighting columns and the north side footway continues to the east of Tan-Yr-Efail. Only the last (north-eastern) section of the road leading to the B4545 has a footway to each side but as the layout is historic, with terraced housing close to the road on each side, the footways are narrower than modern design standards dictate.

2.1.12 A typical view of Porthdafarch Road a short distance from the B4545 (i.e. within the area reviewed in the Arup report) taken from Google Maps is provided below.

Photograph 4 – Porthdafarch Road (northeast)

Enterprise Park

2.1.13 The Enterprise Park is a comparatively small estate that connects via a 6m wide access road to Kingsland Road by means of a simple tee junction which lies a short distance to the north of a roundabout that provides a link to the A55 trunk road. Access to Holyhead town centre from the Enterprise Park can be gained via either Kingsland Road (and other streets to the north) or the A55 - which becomes the A5154 Victoria Road a short distance north of the Kingsland Road roundabout.

2.1.14 Aside from a builders merchant located directly off Kingsland Road the only staffed business unit on the Park is the 'Digartref' housing charity which is located at the southwest corner of the site adjacent to where the proposed link to Tan-Yr-Efail road would connect. A view is provided at Photograph 4 below (Tan-Yr-Efail is through the trees to the right).

Photograph 5 – The Enterprise Park Road

2.1.15 Photograph 5 shows an existing footway link that heads east in front of the Digartref offices to Kingsland Road and a shared foot/cycleway leading to/from Tan-Yr-Efail.

2.1.16 The link road would be created by utilising a strip of land from an existing site that is operated by the 'Lock Stock' company, which provides container storage units for rent by individuals. The road alignment passes to the side of the area used for container storage so as not to impact on the current operation of the Lock Stock site.

2.1.17 The Enterprise Park was established comparatively recently and hence the design of the junction that connects it to Kingsland Road meets acceptable standards. Double yellow lines to prohibit parking are provided along the estate road. A view of the Kingsland Road junction is provided below.

Photograph 6 – Junction connecting the Enterprise Park to Kingsland Road

2.2 Traffic Volumes and Composition

2.2.1 The Arup report includes a 24-hour traffic survey conducted in February 2020 at Porthdafarch Road just to the north of Arthur Street. The survey recorded 1,706 two-way movements over the full 24 hours from which the peak hour two-way flows of 132 vehicles was recorded 08:00-09:00 and 145 vehicles 15:00-16:00 hours; suggesting that the peak period flows are each around 8 to 9% of the daily total. This is close to the 10% ratio that typically applies on main distributor routes. Traffic surveys are generally undertaken in 'neutral' months when background conditions are unlikely to be unduly affected by holiday periods or when adverse weather and shorter daylight hours might influence behaviour. February is not a neutral month and so with the consent of The Council reference has also been made to a turning count at the Tan-Yr-Efail / Porthdafarch Road junction that was carried out in June (a neutral month) 2019 for the report produced by RSK consultants.

2.2.2 The June survey monitored activity from 07:00-09:30 and 16:00-18:30 hours and recorded peak AM flows between 08:00 and 09:00 and peak PM activity 17:00 to 18:00 hours. These time periods correspond to those typical to areas where commuting trips are made.

2.2.3 The Tan-Yr-Efail junction count recorded the vehicle type which indicated that traffic flows along the northeast section of Porthdafarch Road comprised roughly 96% cars with the remaining 4% being predominantly service buses and an occasional goods vehicle (probably service/delivery vehicles associated with existing housing).

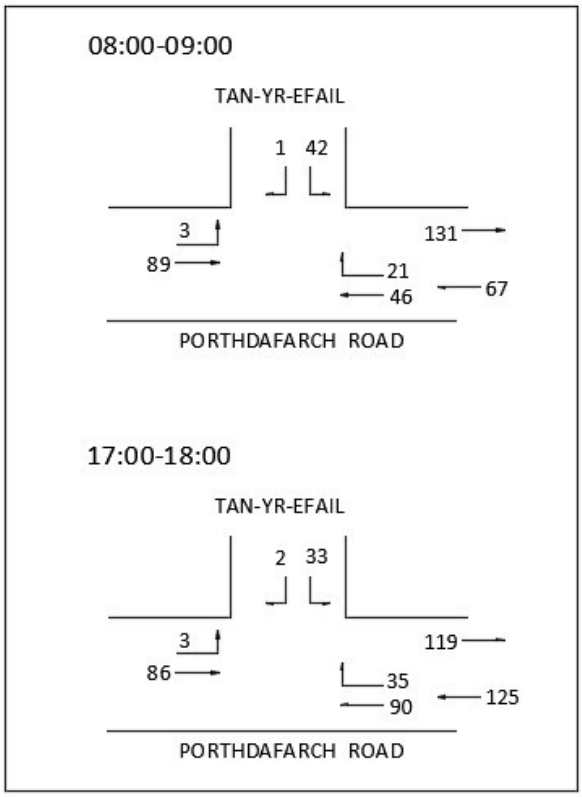


Figure 2 – June 2019 Turning Movements at Tan-Yr-Efail Junction

2.2.4 As shown in Figure 2, the June survey recorded 198 two-way movements at Porthdafarch Road east of Tan-Yr-Efail in the AM peak and 244 in the PM peak and therefore 50% higher AM and 68% higher PM than the volumes recorded in February 2020. There was still a bias in trips to the north in the morning (as per the February survey) but more-or-less equal directional movements in the afternoon. Whilst Arthur Street lies between the two survey sites and thus could account for a minor variation in the results, the 2020 survey pre-dated when travel restrictions were imposed due to the coronavirus outbreak and so it is unlikely that could have contributed to the difference in results.

2.2.5 Traffic data for the Enterprise Park was also collected as part of the RSK report, which showed that just 15 inbound and 7 outbound vehicle movements were made 08:00-09:00 and 6 in / 11 out 17:00-18:00 hours.

2.2.6 Most of the movements were by cars / light goods vehicles and it is noteworthy that any trips associated with the Lock Stock site during these hours would be included in these figures. The count confirms that peak hour traffic activity at the Enterprise Park is very low in volume.

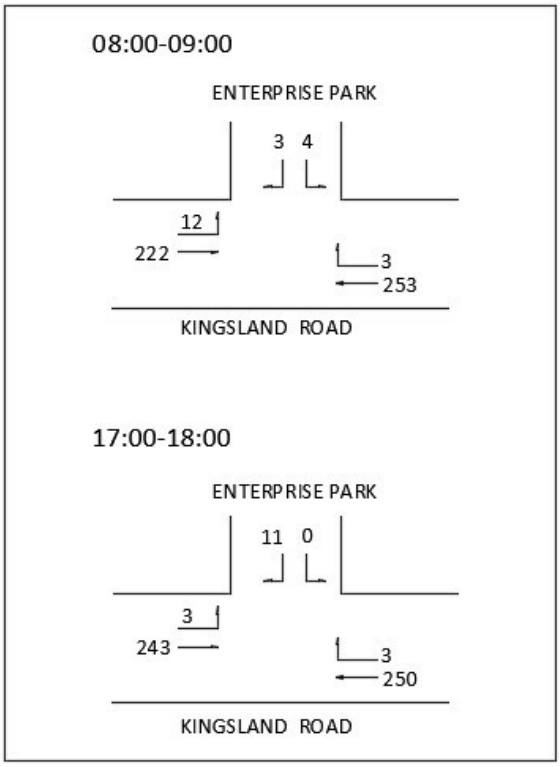


Figure 3 – June 2019 Turning Movements at Enterprise Park Junction

2.3 Tan-Yr-Efail Trip Rate

2.3.1 The turning movements recorded to and from Tan-Yr-Efail can be used to establish a trip rate per dwelling for the estate as follows:

AM Peak Hour: Outbound 42/100 = ***0.420*** Inbound 25/100 = ***0.250***
PM Peak Hour: Outbound 35/100 = ***0.350*** Inbound 38/100 = ***0.380***

2.3.2 For comparison purposes the trip rates that are outlined in the Transport Assessment by SCP for the Cae Rhos development and the RSK report for the former school site (as were applied in predicting possible trips for the new housing schemes) are reproduced below:

Cae Rhos:
AM Peak Hour: Outbound 14/36 = ***0.389*** Inbound 5/36 = ***0.139***
PM Peak Hour: Outbound 7/36 = ***0.194*** Inbound 13/36 = ***0.361***
(Note: The SCP Report text states the development would be for 36 houses, but the trip prediction Table 4.2 of the report indicates 38 units. For the purposes of the above exercise it has been assumed that the trips from Table 4.2 should be divided by 36).

Ysgol Thomas Ellis Site:
AM Peak Hour: Outbound = ***0.387*** Inbound = ***0.154***
PM Peak Hour: Outbound = ***0.150*** Inbound = ***0.338***

2.3.3 The above exercise confirms that application of the trip rates derived from the turning count undertaken at Tan-Yr-Efail would provide the most robust values for use in assessing a possible reassignment of trips to the proposed link road via the Enterprise Park.

2.4 Personal Injury Accidents

2.4.1 Review via the Crash Map site confirms that no personal injury accidents have been recorded on any of the roads or junction associated with the scheme over the past 5 years.

3.0 PLANNING POLICY / LAYOUT OF PROPOSED TAN-YR-EFAIL LINK ROAD

3.1.1 The following Planning Policies are considered relevant to the provision of a new link road to the Tan-Yr-Efail estate.

Planning Policy Wales TAN 18:

- *promoting resource and travel efficient settlement patterns*
- *ensuring that new development and major alterations to existing developments include appropriate provision for pedestrians (including those with special access and mobility requirements), cycling, public transport, and traffic management and parking/servicing.*
- *ensuring that transport infrastructure or service improvements necessary to serve new development allow existing transport networks to perform their identified function.*

Active Travel (Wales) Act 2013

- *"requires the Welsh Ministers and local authorities to take reasonable steps to enhance the provision made for, and to have regard to the needs of, walkers and cyclists"*

Ynys Mon LDP Policy TRA 1: TRANSPORT NETWORK DEVELOPMENTS

Indicates that improvements to existing transport infrastructure / network *"will be granted provided they conform to the following criteria:*

i. The choice of route and/or site minimises the impact on the built and natural environment, landscapes and property; and

ii. Permanent land-take is kept to the minimum that is consistent with good design and high quality landscaping; and

iii. In the case of cycle ways, park and ride schemes, roads and roadside service areas, the scheme will help to improve road safety; and

iv. In the case of new roads a full range of practicable solutions to the transport problem has been considered and road enhancement provides the optimum solution;"

3.1.2 As noted previously, the Tan-Yr-Efail link was suggested in the report by RSK Consultants which also contained traffic data and capacity checks relating to the proposal that have been reused in this report with the consent of The Council.

3.1.3 The scheme suggested in the RSK report was to provide the road link between Tan-Yr-Efail and the Enterprise Park and close the existing junction to the south of the estate off Porthdafarch Road so that *all* traffic movements to and from Tan-Yr-Efail would then be made via the Enterprise Park, thereby removing all current traffic associated with Tan-Yr-Efail from Porthdafarch Road.

3.1.4 Whilst the above solution would remove a definitive volume of traffic from Porthdafarch Road it had the disbenefit of requiring all trips to/from Tan-Yr-Efail regardless of the destination to be made via the Enterprise Park and thus it limited route choice. Consultation with The Council Highway Authority confirmed that improved access permeability was considered important and thus it would be preferred if the link to the Enterprise Park was provided in addition to the existing access off Porthdafarch Road. Such an arrangement would still provide some relief to Porthdafarch Road north but additionally would offer the following benefits in relation to traffic movements:

- TAN 18, 5.2 notes that *"Connected streets should generally eliminate the need for drivers to make three point turns".* By not including the need for a dead-end the proposed layout meets this objective.
- Increased options for travel direction for residents and service vehicles visiting Tan-Yr-Efail means that drivers would likely take the most direct route for their journey which then spreads the movement of motor-vehicles across the network and doesn't create a concentration of activity at one particular area.
- Two points of access to Tan-Yr-Efail improves options for emergency vehicles if required.
- Having two points of access also improves working options for The Council's when highway maintenance activities are required, by enabling things such as an ability to temporarily close one access to undertake works or implement a one-way operation to facilitate work without adversely delaying traffic by using traffic signals, etc.

3.1.5 Investigation into the land around the Lock Stock site has confirmed that the new road link would pass through an area identified as possible flood zone on Natural Resources Wales mapping. This designation does not preclude building the road link through the land; however, it would also assist this aspect if the existing point of access was kept to provide an alternative route in the event that flooding affected the area to the north of Tan-Yr-Efail. A separate Flood Consequences Assessment is provided to support the planning application.

4.0 SCHEME DESIGN

4.1.1 A design for the link has been developed in consultation with the Highway Authority and incorporates the following features:

- A new road approximately 30m long with a 5.5m carriageway width and 2.5m minimum verge width.
- A simple tee-junction to connect to the Enterprise Park estate road.
- Revisions to the existing shared foot/cycleway at the Enterprise Park.
- New shared-use foot/cycleways at Tan-Yr-Efail to link to the existing routes, improving accessibility by these modes. The new paths would be formed using parts of the existing turning head at the end of Tan-Yr-Efail.
- A road hump would be provided where southbound traffic enters Tan-Yr-Efail / ahead of where pedestrian and cyclists may be crossing the road or joining/leaving the shared path.
- Redundant parts of the existing highway would be incorporated into adjacent properties on the east of the road and open space area to the west.

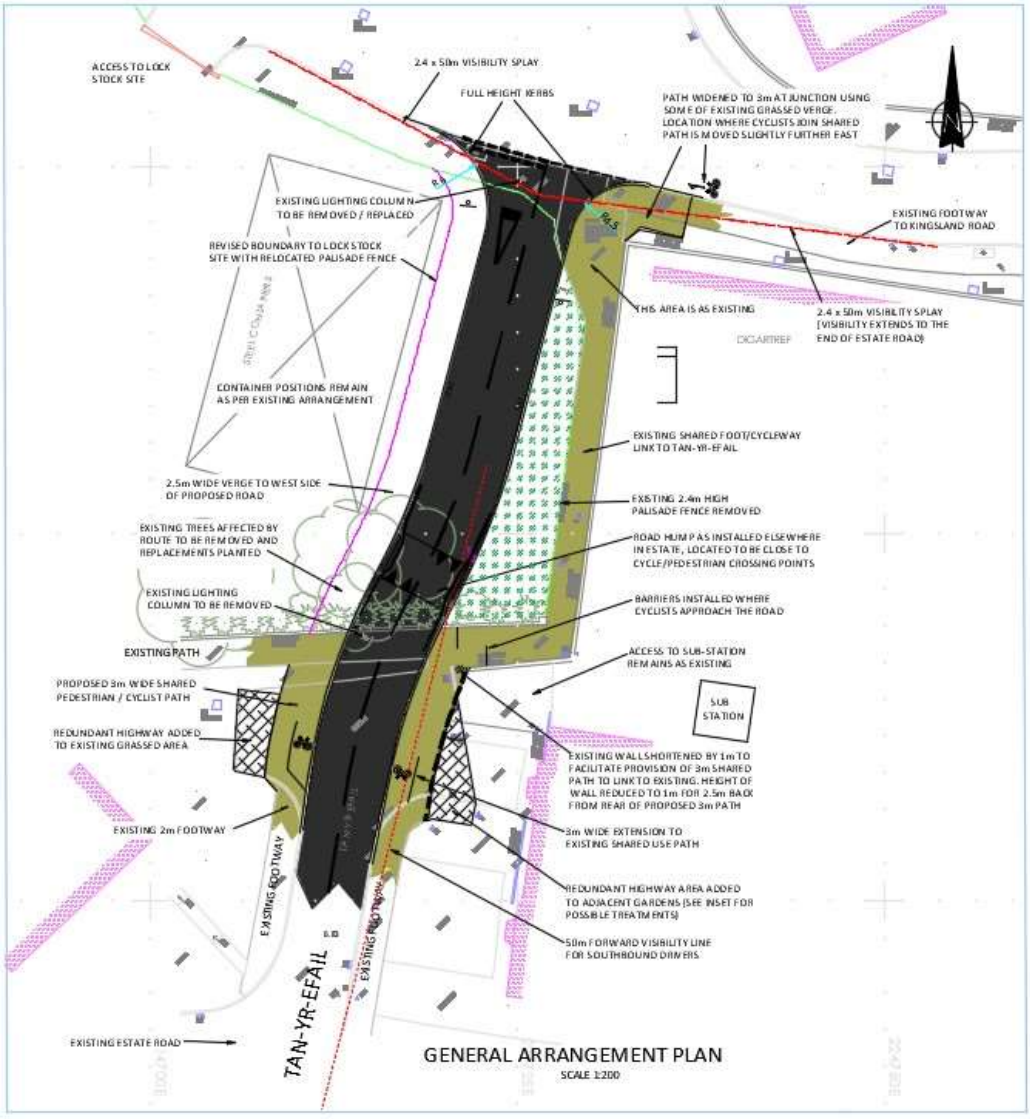


Figure 4 – Schematic layout of Link to Enterprise Park

4.1.2 The Enterprise Park and northern end of Tan-Yr-Efail are at a similar level and hence the new road link would basically follow the existing ground levels and would not require significant earthworks cuttings or embankments.

4.1.3 Surface water drainage for the new link would be provided via a controlled discharge into the existing surface water sewer system, using appropriate sustainable drainage methods.

4.1.4 The existing road lighting has been reviewed by the council and the proposed arrangement to upgrade it to suit the addition of the new link road is included on the General Arrangement drawing at Appendix A. The alterations include relocating an existing column where the new road connects to the Enterprise Park, providing new columns at Tan-Yr-Efail and improved lighting along the shared route path between Tan-Yr-Efail and the Enterprise Park.

4.1.5 The scheme proposals have been reviewed by the council ecologist and it has been concluded that as the trees that would be affected by the route of the new road are all immature they do not have a high ecological value and thus suitable compensation could be achieved by replacement planting. The mix and best location for replacement tree planting would be developed in conjunction with landscaping proposals for the road scheme.

4.1.6 The existing palisade boundary fence to the Lock Stock site currently runs alongside the shared foot/cycleway between Tan-Yr-Efail and the Enterprise Park. The existing fence would be removed and relocated along the revised boundary for the Lock Stock site to the west side of the link road. This alteration would leave a more open aspect to the shared path and thus would improve the environment for users.

5.0 TRIP REASSIGNMENT / CAPACITY CHECKS

5.1.1 As outlined previously, a traffic survey was undertaken at the existing Tan-Yr-Efail junction in June 2019, from which it was possible to derive peak period trip rates relative to the existing quantum of housing. The survey derived trip rates were compared to those applied in recent planning applications for nearby residential development and were shown to be robust.

5.1.2 The measured trip rates have therefore been applied in assessing the amount of traffic that could potentially transfer to using the proposed link, thus leading to a concomitant reduction in traffic flows along the northern section of Porthdafarch Road.

5.1.3 Vehicle trips to/ from the north from Tan-Yr-Efail via the proposed link and the existing route via Porthdafarch Road would converge at the Kingsland Road roundabout and so a simple assessment has been made based on the assumption that if the link was available residents of Tan-Yr-Efail, those heading to/from destinations to the north would use the shortest and thus potentially quickest route to the roundabout.

5.1.4 The assessment has been based on measuring the journey distance by each route as described below and illustrated on Figure 5.

5.1.5 The distance from the existing northern end of Tan-Yr-Efail to the roundabout via the link road to the Enterprise Park (‘A’ to ‘Y’ on Figure 5) is approximately 300m, whilst from the existing southern junction of Tan-Yr-Efail to the roundabout (‘B’ to ‘Y’) is approximately 350m.

5.1.6 Simplistically it could be considered that the shorter distance via the proposed road could result in a bias in trips to/from the estate via the new link; however, that does not take account of the distance travelled within Tan-Yr-Efail to reach points ‘A’ and ‘B’, which may influence matters as drivers might consider that shortest distance from their property within the estate to a connecting road will offer the quickest route.

5.1.7 The existing north/south spine road at Tan-Yr-Efail is approximately 250m long and therefore application of the above logic would suggest that the mid-point of the estate could represent a reasonable cut-off point in reassignment. That location is illustrated as ‘X’ in Figure 5.

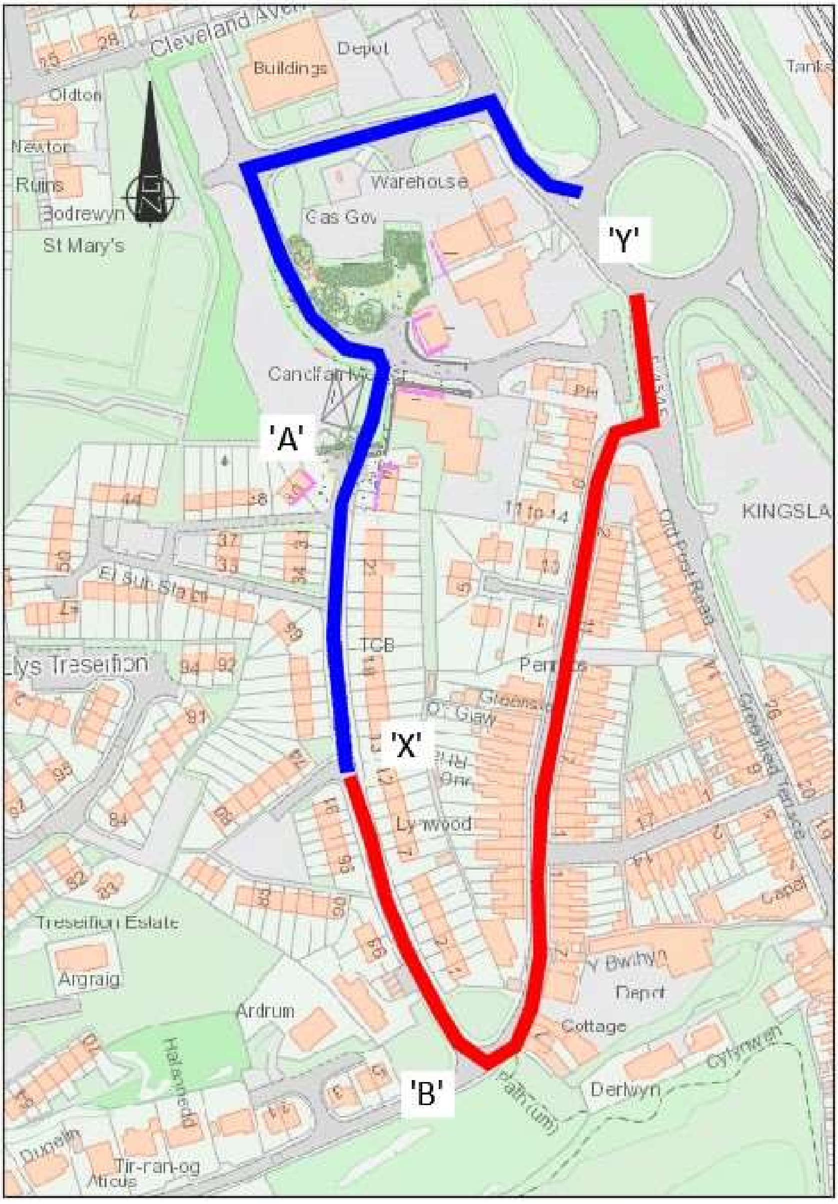


Figure 5 – Assumed Trip Reassignment Cut-off Point

5.1.8 With point 'X' being equidistant from the existing northern end of Tan-Yr-Efail at 'A' and the junction with Porthdafarch Road at 'B', a journey via the blue route (proposed link road) is approximately 430m distance to the roundabout, and via the red route (existing junction and Porthdafarch Road) is around 470m.

5.1.9 68 houses lie to the north of 'X' and 32 to the south suggesting a possible two-thirds of existing trips to/from Tan-Yr-Efail and destinations to the north would be shorter by using the new link and thus might reasonably be expected to occur. This assumption on reassigning trips has therefore been applied in establishing the predictions outlined below.

5.1.10 It should be noted that any trips between Tan-Yr-Efail and destinations to the south would continue to be made via the existing junction; however, the junction count confirmed such movements are few in number (4 during the AM peak and 5 PM) and so on that basis their origin within the estate is not important in assessing reassignment.

5.1.11 The trip rates established for existing traffic movements at Tan-Yr-Efail are:
AM Peak Hour: Outbound = ***0.42*** Inbound = ***0.25***
PM Peak Hour: Outbound = ***0.35*** Inbound = ***0.38***

5.1.12 Application of these rates to 68 houses would result in 29 outbound and 17 inbound journeys in the AM peak hour and 24 out / 26 in during the PM peak hour and represents the volume of Tan-Yr-Efail based traffic that simplistically could be expected to reassign to the new link during these hours. The assumption would be that the remainder of the measured movements would continue to use the existing junction and northeast part of Porthdafarch Road.

5.1.13 Figure 6 provides a diagram of the revised traffic pattern assuming the above scenario.

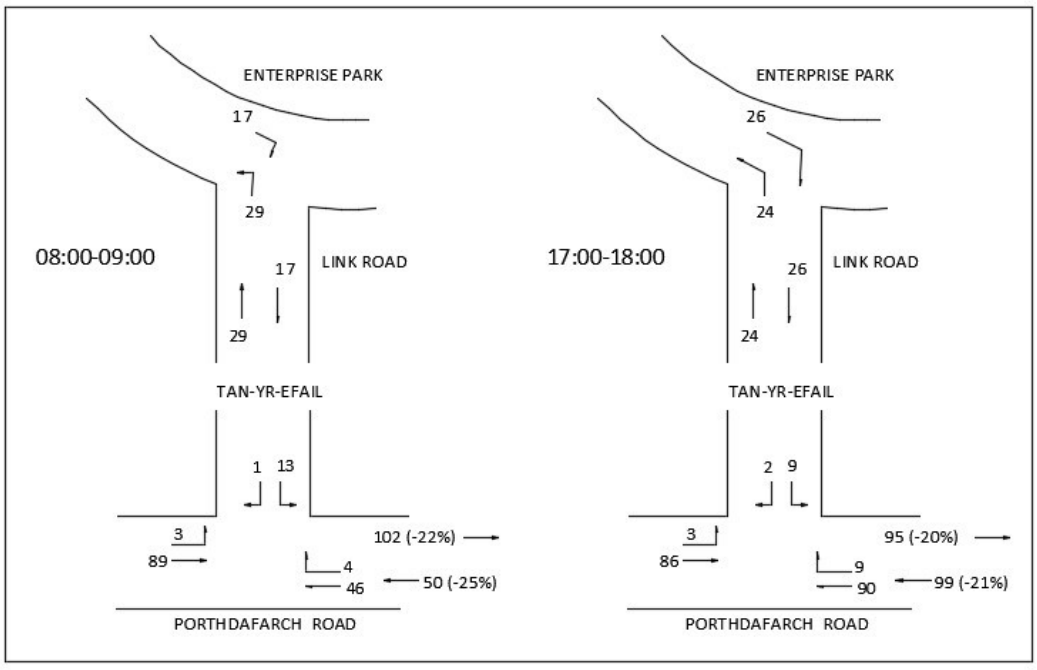


Figure 6 – Assumed Tan-Yr-Efail Trip Distribution with Link Road

Reassignment of network traffic

5.1.14 Due to the length of the existing Tan-Yr-Efail estate road, the fact it is traffic-calmed using road humps and taking into consideration the travel distances to the Kingsland Road roundabout it seems unlikely that the provision of the proposed link road from the north end of Tan-Yr-Efail would encourage general network traffic to reassign. As noted previously, from the existing Tan-Yr-Efail/Porthdafarch junction ('B') to Kingsland Road roundabout ('Y') via the existing (red) route is journey length of approximately 350m; in contrast, via the Tan-Yr-Efail and the proposed link road (blue route) the journey distance is 550m - an increase of around 60%.

5.1.15 A possible exception to the above could be trips made between the units at the Enterprise Park (i.e. the 'Digartref' housing charity offices, Lock Stock storage facility and builder's merchants) and areas served by Porthdafarch Road to the southwest of Tan-Yr-Efail as a slightly shorter journey might then be possible via the proposed link.

5.1.16 All traffic movements to the Enterprise Park and above destinations are currently made via the junction off Kingsland Road and as Figure 3 confirms the traffic count there recorded only a small number of traffic movements in the peak hours. On that basis it seems unlikely that traffic associated with the Enterprise Park has the potential to adversely affect traffic movements along Tan-Yr-Efail with the link provided. The builder's merchants is perhaps the facility that might attract most trips; however, as that is located adjacent to Kingsland Road the distance to it from Porthdafarch Road west would be similar via either route and so there would be no clear benefit in using the traffic-calmed route via Tan-Yr-Efail.

5.1.17 Overall, an assessment based on the available information and assumptions outlined suggests that the provision of a link road between Tan-Yr-Efail and the Enterprise Park has the potential to remove around 46 two-way traffic movements from Porthdafarch Road in the morning peak hour (08:00-09:00) and an estimated 50 during the afternoon peak (17:00-18:00). If realised, that would equate to a reduction of around 23% and 20% respectively to existing flows along Porthdafarch Road north during these time periods. The traffic surveys referenced suggested that peak hour flows using Porthdafarch Road are around 9 - 10% of the daily volume and so clearly more traffic than is noted in the peak hours would be removed overall each day.

5.2 Junction Capacity Tests

5.2.1 The report by RSK included capacity tests for the existing Enterprise Park junction up to a design year of 2024 assuming that the link was in place with the existing Tan-Yr-Efail junction stopped up and thereby 100% of Tan-Yr-Efail based traffic movements would switch to the Enterprise Park junction. The RSK assessment thus tested the junction against higher traffic demands than would occur based on the reassignment assumptions described in this report - whereby the existing junction to Tan-Yr-Efail remains in use in addition to the Enterprise Park link being provided.

5.2.2 RSK thereby tested a worst-case situation but nonetheless confirmed that the Enterprise Park junction would operate well within capacity under the 100% reassignment of traffic to/from Tan-Yr-Efail scenario. This confirms the junction would thus operate within capacity under the lesser demand suggested in this report. With the permission of The Council the results from the RSK capacity testing (Table 9.1 of the RSK report) is reproduced below:

Table 9.1 - Summary of Kingsland Road / access to industrial estate junction with sensitivity PICADY results

	Base 2019		Base 2024		Base 2024 + Sensivity	
	Max Q	RFC	Max Q	RFC	Max Q	RFC
AM Peak						
Exiting the industrial estate	0.04	0.03	0.04	0.03	0.17	0.14
Right turn onto the industrial estate	0.05	0.05	0.06	0.05	0.01	0.01
PM Peak						
Exiting the industrial estate	0.02	0.02	0.02	0.02	0.13	0.11
Right turn onto the industrial estate	0.01	0.01	0.01	0.01	0.00	0.00

Max Q = mean maximum queue during modelled period
RFC = ratio of flow to capacity

5.2.3 As the existing junction to Tan-Yr-Efail from Porthdafarch Road would experience traffic relief due to the proposed scheme its capacity performance would not be affected and hence does not need to be tested.

6.0 CONCLUSIONS

6.1.1 This report has reviewed a design for a possible new road to link the Tan-Yr-Efail housing estate at Holyhead to the nearby Enterprise Park.

6.1.2 The proposed design for the link road has been developed in consultation with the Highway Authority and would incorporate improved facilities for pedestrians and cyclists that would link to existing routes to encourage active travel.

6.1.3 The objective of the scheme would be to remove some existing traffic from Porthdafarch Road north, to reduce the potential for on-street parking to impede the free flow of traffic and thereby lessen the potential for the infrequent but undesirable driver manoeuvres highlighted by the Arup review to be exacerbated in the future.

6.1.4 This report provides a simple assessment of the extent to which provision of the link might alter existing traffic flows locally. Based on available survey data, and assumptions on reassignment as described, it has been shown that enabling residents of Tan-Yr-Efail to make journeys to/from the north via the Enterprise Park could potentially reduce peak period traffic flows at Porthdafarch Road north by around 20%.

6.1.5 On that basis it can be concluded that provision of a link between Tan-Yr-Efail and the Enterprise Park could help mitigate existing issues of concern at Porthdafarch Road north.

7.0 REFERENCES

- Reports as listed
- PPW TAN 18
- Active Travel (Wales) Act 2013
- IACC Local Development Plan

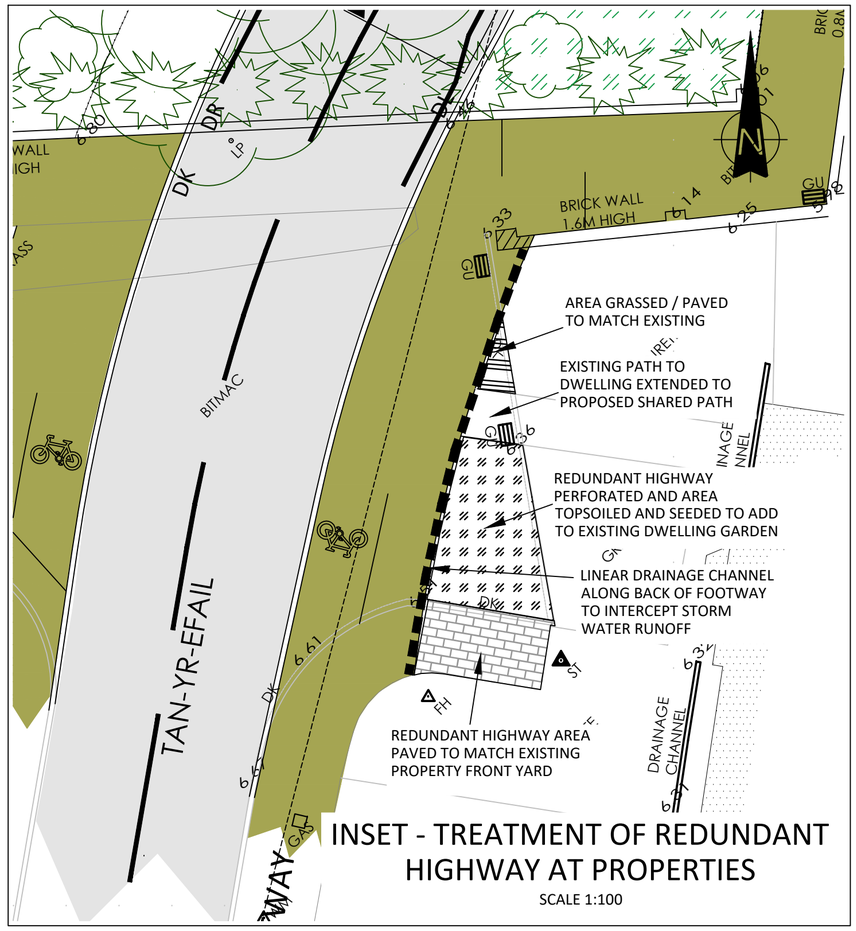
APPENDIX A - DRAWING

Proposed Scheme Drawings


Caulmert
engineering environmental planning

GENERAL ARRANGEMENT PLAN

SCALE 1:200



INSET - TREATMENT OF REDUNDANT HIGHWAY AT PROPERTIES

SCALE 1:100

NOTES

1. DO NOT SCALE FROM THIS DRAWING, WORK FROM FIGURED DIMENSIONS ONLY. ALL DIMENSIONS AND LEVELS ARE IN METRES UNLESS NOTED OTHERWISE.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ASSOCIATED PLANNING APPLICATION DOCUMENTS.
3. SIGNAGE AND ROAD MARKING PROPOSALS SHOWN ARE INDICATIVE ONLY AND WOULD BE DEVELOPED FURTHER AT DETAILED DESIGN STAGE.
4. THE POTENTIAL REQUIREMENT TO INSTALL BOLLARDS TO THE EXISTING PATH TO THE WEST END OF TAN-YR-EFAIL IS TO BE ASSESSED AT DETAILED DESIGN STAGE.
5. A REPLACEMENT TREE PLANTING / LANDSCAPING SCHEME WILL BE DEVELOPED AT DETAILED DESIGN STAGE.
6. PAVEMENT CONSTRUCTION SPECIFICATION IS SUBJECT TO ASSESSMENT OF GROUND CONDITIONS AT DETAILED DESIGN STAGE.
7. SEE DRAWING 1501 FOR ILLUSTRATIVE PROPOSALS FOR STREET LIGHTING AND KERBING.
8. THE LOCATION OF EXISTING SERVICES HAS NOT BEEN ASSESSED AND WILL NEED TO BE ESTABLISHED AT DETAILED DESIGN STAGE.

ISSUED FOR CONSULTATION

REV	MODIFICATIONS	BY	RE	AP	DATE
P02	PAC CONSULTATION	PS	JS	JS	05.11.20
P01	DRAFT ISSUE FOR COMMENT	PS	JS	JS	17.09.20

PURPOSE OF ISSUE: DRAFT
STATUS:

CLIENT: CYNGOR SIR YNYS MÔN ISLE OF ANGLESEY COUNTY COUNCIL

PROJECT: LINK ROAD BETWEEN TAN-YR-EFAIL / ENTERPRISE PARK HOLYHEAD

TITLE: PROPOSED GENERAL ARRANGEMENT

DESIGNED BY	DRAWN BY	REVIEWED BY	AUTHORISED BY
PS	PS	JS	

DATE	SCALE @ A2	JOB REF:	REVISION
July 2020	SHOWN	4526	P02

DRAWING NUMBER: 4526-CAU-XX-XX-DR-C-1500

Caulmert engineering environmental planning

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