MEATH COUNTY COUNCIL

Proposed Library Development, Seaview Terrace, Bettystown, Co. Meath

Transport Assessment Report (TAR01)

June 2020

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For and on behalf of
MPA Consulting Engineers

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Contents:

APPENDICES:

1.0 INTRODUCTION

1.1 Background and Proposal

1.1.1 MPA Consulting Engineers was commissioned by Meath County Council (MCC) to prepare a Traffic Assessment Report (TAR) for the library development at Seaview Terrace, Bettystown.

1.1.2 In accordance with the plans prepared by Robin Lee Architecture, the proposal seeks to develop the site for the purpose of a four-storey building comprising;

- A library with a gross internal area (GIA) of 1,046 square metres;
- An adjoining lifeguard station with a gross internal area of 55 square metres; and
- Public toilets with a gross internal area of 74 square metres.

1.1.3 Meath County Council (MCC) proposes to allocate 12 on-street parking spaces, located in front of the development site, for the library and life guard use. The allocation comprises ten standard parking spaces (seven perpendicular and three (3) parallel), an accessible space and an electric vehicle charging space. Refer to **FIGURE 1.1** for details of the proposed development parking layout.

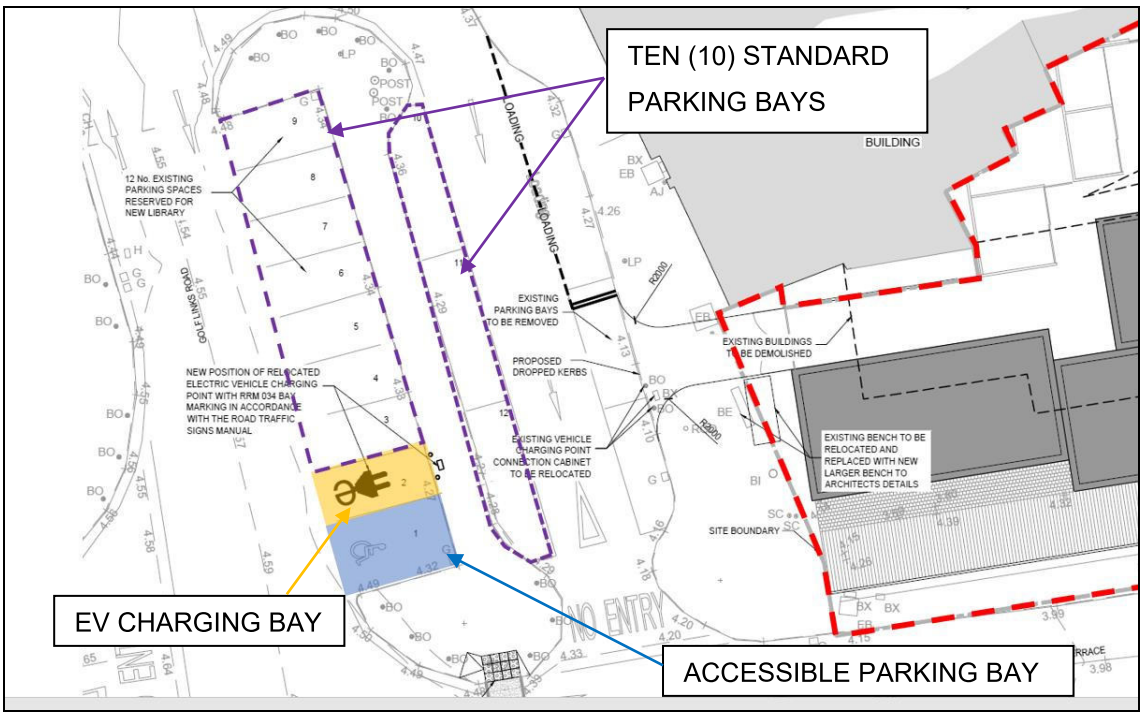


FIGURE 1.1: PROPOSED LIBRARY AND LIFE GUARD STATION PARKING

1.2 Purpose of this Report

1.2.1 The report sets out an assessment of the anticipated traffic and parking implications of the development, including consideration of the following:

- The level of the traffic impacts of the development;
- The acceptability of car parking arrangements;

- The adequacy of bicycle parking in terms of supply (quantum);
- The adequacy of loading and waste collection arrangements; and
- The adequacy of site access.

1.3 Methodology

1.3.1 Our approach to the study accords with policy and guidance both at a national and local level. The methodology adopted responds to best practice in addition to current and emerging guidance, exemplified by a series of publications, all of which advocate this method of analysis. Key publications consulted include:

- Plans of the proposed development prepared by Robin Lee Architecture, dated 1 May 2020.
- '*Meath County Development Plan 2013-2019'*;
- *'Laytown and Bettystown Public Realm Plan (February 2020)'*;
- *'Smarter Travel – A Sustainable Transport Future'* Department of Transport Tourism & Sport *(2009);*
- *'Design Manual for Urban Roads and Streets'* Department of Transport Tourism & Sport and Department of Environment, Community & Local Government (2012); and
- *'Geometric Design of Junctions DN-GEO-03060'* Transport Infrastructure Ireland (June 2017).

1.3.2 Our methodology incorporated a number of key stages, including:

- **Site Audit:** A remote virtual inspection of the site was undertaken to quantify existing road network issues and identify local traffic characteristics, in addition to establishing the level of accessibility to the site in terms of walking, cycling and public transport.
- **Traffic Counts:** Meath County Council (MCC) made available 24-hour classified turning movement counts, from November 2015, at the R150 / Triton Road roundabout and of the R150 / School Access Road intersection. The data has been interpolated to establish present day traffic conditions in the town.
- **Car Parking Inventory and Occupancy Survey:** A parking inventory and occupancy survey has been carried out using historical aerial photography from Google Earth Pro.
- **Trip Generation:** A trip generation exercise has been undertaken based on use of the TRICS trip rate database and on first principle assumptions. The likely level of vehicle trips generated by the development have then been identified through both reference to the overall building footprint and through a first principles assessment.
- **Network Impact:** Following on from generation, we have determined the specific level of impact generated by the development on the wider road network.
- **Car Parking Demand Assessment:** A car parking demand assessment has been undertaken using TRICS database and estimated footfall data. The data has been interpolated to quantify the likely parking demands of the development.

2.0 EXISTING CONDITIONS

2.1 Location and Existing Environment

2.1.1 The development site is located on the north-east corner of the R150 and Seaview Terrace intersection, as shown in **FIGURE 2.1.**

FIGURE 2.1: SITE LOCATION

2.1.2 The site is located within a B1 Commercial/Town Centre Zone and surrounding land use is predominately commercial, retail and residential in nature. Some key non-residential land uses within walking distance of the site include:

- Colaiste Na Hinse and Scoil Oilibhear Naofa, located approximately 900 metres south of the site,
- Bettystown Foreshore, located to the immediate east of the site;
- Tesco Supermarket, located approximately 400 metres west of the site; and
- McDonagh's Caravan Park located approximately 280 metres west of the site and Lynches Caravan Park located approximately 400 metres north of the site.

2.1.3 **FIGURE 2.2** shows the location of the site and the Meath County Council Planning Zones and an aerial view of the site and its surrounds is presented in **Figure 2.3**.

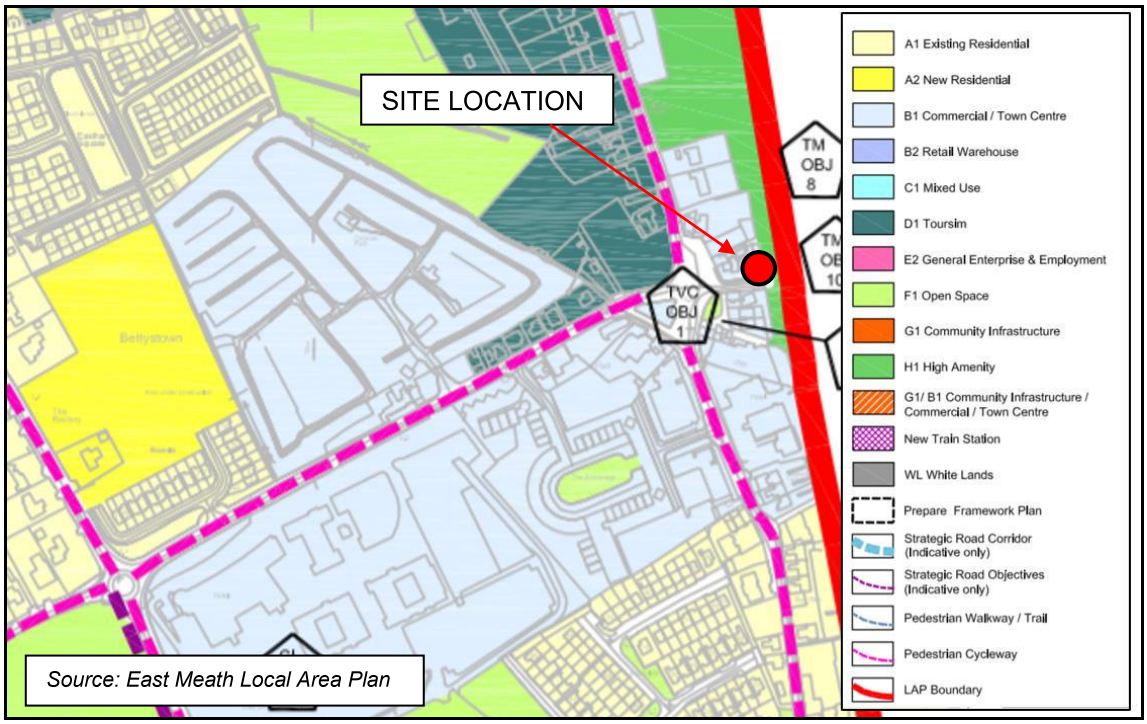


FIGURE 2.2: MEATH PLANNING ZONES

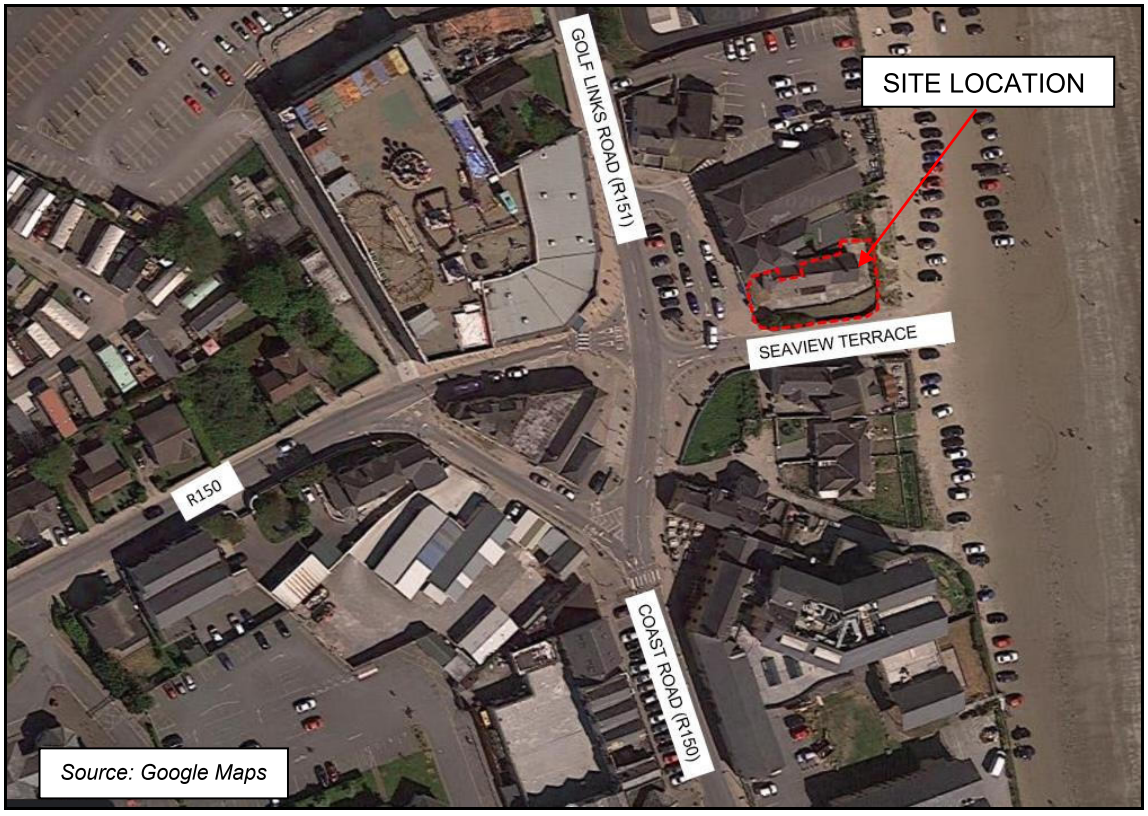


FIGURE 2.3: AERIAL VIEW OF THE SITE AND SURROUNDS

2.2 Road Network

2.2.1 **The R150 (Coast Road)** is a Council managed road that extends between Drogheda and Bettystown, before continuing south and connecting with the R132 at Julianstown. Adjacent to the

subject site, the R150 operates with a single traffic lane in each direction and has a posted speed limit of 50km/h. A mixture of unrestricted parallel and 90-degree car parking is available in the town centre.

FIGURE 2.4: VIEW OF THE R150 LOOKING SOUTH TOWARDS THE PUBLIC CAR PARK

2.2.2 **Seaview Terrace** is a truncated Council road that extends between the R150 and its terminus at Bettystown Beach. The road operates with a single lane of traffic in each direction and constructed footpaths are available on both sides of the road. Parking is prohibited on both sides of Seaview Terrace.

2.2.3 A view of Seaview Terrance within the vicinity of the site is shown in **FIGURE 2.5**

FIGURE 2.5: VIEW OF SEAVIEW TERRACE LOOKING EAST TOWARDS THE FORESHORE

2.3 Traffic Conditions (November 2015)

2.3.1 To better understand traffic conditions, MPA Consulting Engineers liaised with Meath County Council, who provided 24-hour turning movement data from November 2015, at the following intersections:

- R150 and Triton Road intersection; and
- R150 and School Access Road intersection.

2.3.2 A summary of the turning movement count data is presented below.

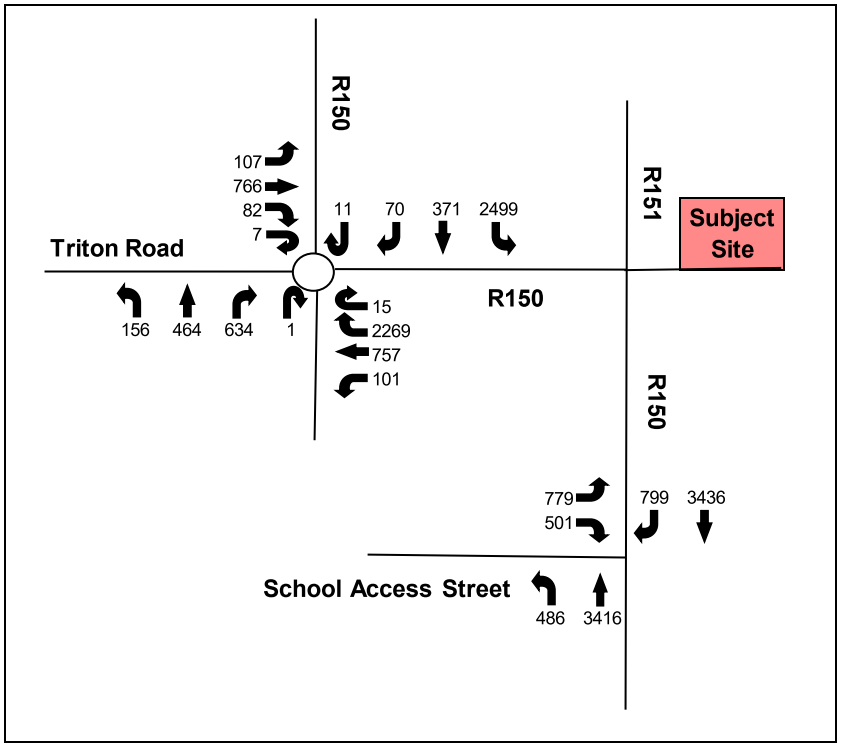


FIGURE 2.6: 24-HOUR PASSENGER CAR UNIT (PCU) MOVEMENT SUMMARY (2015)

2.3.3 A review of the turning movement count data concludes that on a typical weekday in 2015, between 7,000 and 8,400 vehicles (PCU) pass through the town.

2.3.4 The data identified the network AM and PM peak hours to be between 8.15am - 9.15am and 2.45pm - 3.45pm respectively.

2.3.5 The peaks typically coincide with school drop off and pick up times. This is expected given that Colaiste Na Hinse and Scoil Oilibhear Naofa have a combined enrolment of over 1,400 students[1] and schools are notorious high trip generators.

2.4 Traffic Conditions in 2020

2.4.1 Estimated traffic volumes for 2020 were derived by applying a growth factor to the base year (2015) counts. Annual growth indices were updated in October 2016 by the TII in the *Project Appraisal Guidelines for National Road Unit 5.3 (October 2016)* and **TABLE 2.1** outlines the appropriate growth factors relevant to the site.

[1] Enrolment for Colaiste Na Hinse and Scoil Oilibhear Naofa was sourced from Schooldays.ie, an online resource for teachers and parents in the Irish education system.

Location	Central Growth Factor (2013-2030)	
	Light Vehicle (LV)	Heavy Vehicle (HV)
Region 2 – Mid-East (Meath)	1.0140	1.0237

TABLE 2.1: GROWTH FACTORS

2.4.2 For the purpose of estimating 2020 volumes, a growth factor of 1.0720 (Light Vehicle) has been applied to the PCU base year counts, as presented in **FIGURE 2.7.**

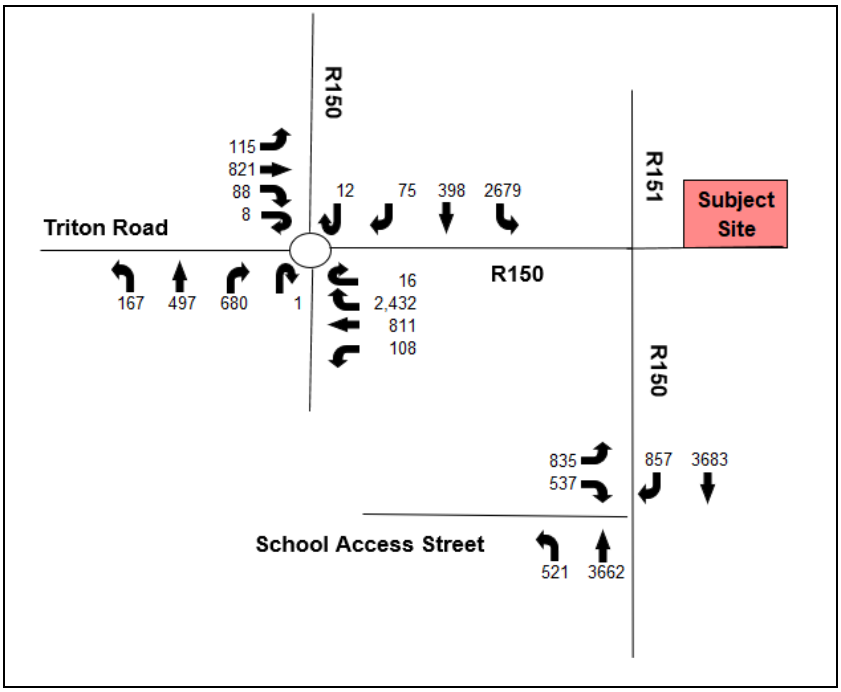


FIGURE 2.7: 24-HOUR PASSENGER CAR UNIT (PCU) MOVEMENT SUMMARY (2020)

2.4.3 In 2020, it is estimated that between 7,500 and 9,000 vehicles (PCU) pass through Bettystown.

2.5 Sustainable Transport Modes

Public Transport Network

2.5.1 The site has very good access to the public transport network with several bus services located within convenient walking distance of the site. A bus stop, located in front of the site, offers access to Bus Routes D1, D2 and 912.

2.5.2 Bus Routes D1 and D2 connect Drogheda to Laytown and operate to a 30-minute frequency from Monday to Sunday.

2.5.3 Route 912 connects Drogheda to Connolly Railway Station (Dublin) and operates to a mixture of 30-minute and one-hour frequencies on a weekday with reduced services available on a Saturday and Sunday. This route can be accessed at the bus stop in the town centre.

2.5.4 Route 910 connects Drogheda to UCD's Belfield Campus. The Route operates to a mixture of 30-

minute and one-hour frequencies on a weekday with reduced services available on a Saturday and Sunday. Route 910 can be accessed at the bus stop outside Tesco Supermarket, approximately 400 metres west of the site.

2.5.5 Laytown Railway Station is located approximately 2.8 km south of the site and is accessed via Bus Routes D1 and D2.

2.5.6 A summary of the bus services within close proximity of the site is presented in **FIGURE 2.8**.

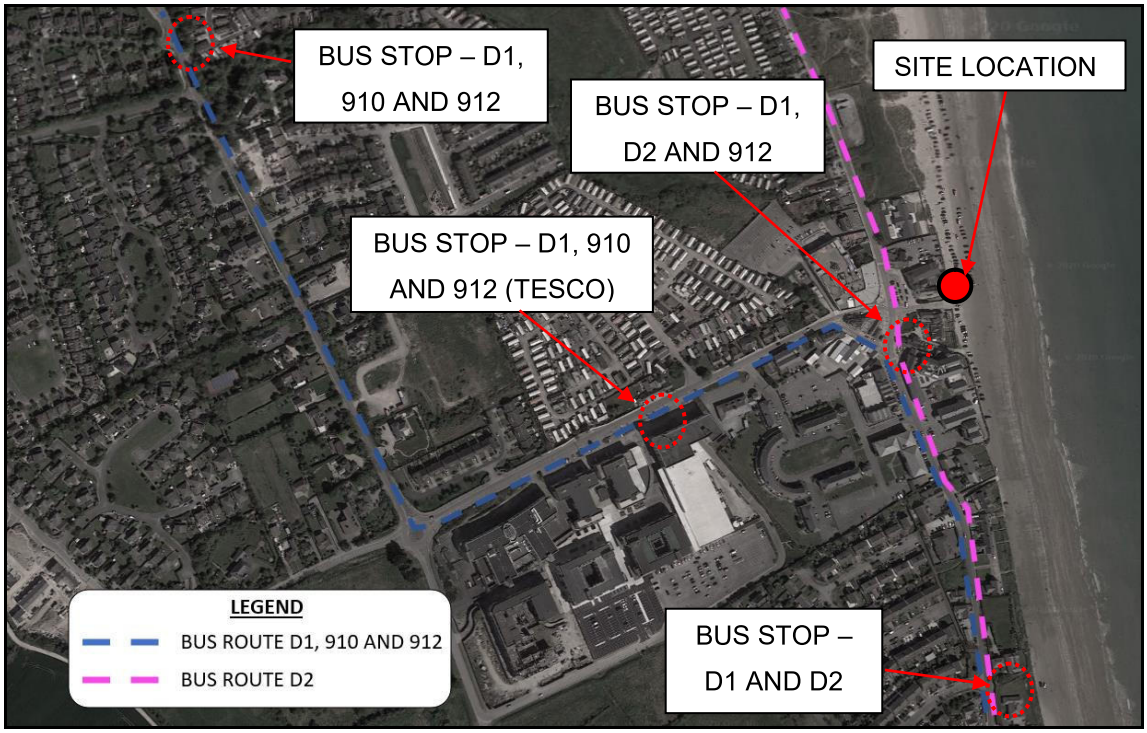


FIGURE 2.8: LOCAL BUS NETWORK IN BETTYSTOWN

Bicycle Network

2.5.7 Bettystown currently has a limited bicycle network. Notwithstanding this, the proposed Spine Road Project (to be delivered in 2021) will provide dedicated off-road cycle tracks on both sides of the new road. The project will deliver an excellent and safe cycling link between Laytown, the local schools (Colaiste Na Hinse, Scoil Oilibhear Naofa and Laytown National School) and Bettystown.

2.5.8 The new off-road cycling paths will connect with existing off-road cycling infrastructure at the Triton Road roundabout.

Pedestrian Network

2.5.9 Pedestrian movements in the town centre are well facilitated with footpaths typically provided on both sides of all roads. Furthermore, zebra crossings in the town centre provide safe crossing points and links to the library development and bus network.

2.5.10 A new courtesy crossing is proposed on Seaview Terrace at the R150 junction and the facility will further enhance pedestrian safety and access to the proposed library and lifeguard station.

2.6 Smart Travel

Local Policy

2.6.1 The Meath County Development plan 2013-2019 broadly outlines MCC's aim to reduce car dependence by promoting walking, cycling and public transport use.

2.6.2 The Development Plan outlines a number of key strategic policies that aim to achieve these goals. The following policies are relevant to the proposal.

- **Transport Strategic Policy 1:** *'To support the sustainability principles set out in national and regional policy documents and guidelines and to ensure that land use and zoning are integrated with transportation, especially along public transport nodes/corridors and at accessible urban sites as recognized in the Core Strategy'.*
- **Transport Strategic Policy 2:** *'To promote the sustainable development of walking, cycling, public transport and other more sustainable forms of transport as an alternative to the private car, together with the development of the necessary infrastructure and promotion of the initiatives contained within 'Smarter Travel, A Sustainable Transport Future 2009 – 2020''.*
- **Transport Strategic Policy 4:** *'To promote land use planning measures which facilitate transportation efficiency, economic returns on transport investment, minimisation of environmental impacts and a general shift towards the use of public transportation throughout the county'.*
- **Transport Strategic Policy 5:** *'To promote the location of quality employment and residential developments in proximity to each other in order to reduce the demand for travel and dependence on private car transport whilst development must be increasingly related to a significantly enhanced public transport system'.*
- **Transport Strategic Policy 10:** *'To facilitate alternative transport modes to the private car, including good public transport links between Designated Towns (as defined in the NTA's draft Transport Strategy) and Dublin city centre; frequent local bus services linking residential areas to District Centres and Designated Towns, and which serve shopping areas, employment areas and other activity centres, and connecting to key transport interchange points'*

National Policy

2.6.3 *Smarter Travel – A Sustainable Transport Future 2009-2020* aims to deliver a sustainable transport system as an important dimension of the climate change agenda.

2.6.4 In this document the Government reaffirms its vision for sustainability in transport and sets out five key goals:

- To reduce overall travel demand;
- To maximise the efficiency of the transport network;
- To reduce reliance on fossil fuels;
- To reduce transport emissions; and

- To improve accessibility to transport and improve our quality of life.

2.7 Laytown and Bettystown Public Realm Plan 2020

2.7.1 The Laytown and Bettystown Public Realm Plan is a long-term plan that sets out the future approach to the streets and space in Laytown and Bettystown. The vision statement for Bettystown is to *'improve the public realm through a reorganization of the centre of the town with better connections to the beach. Parking should be better organized along the main routes with enhanced gateways to the town and the identification of opportunity for regeneration.'*

2.7.2 Amongst others, the guiding principles are to:

- Create more regular safe crossing points, especially in the main square;
- Create a pedestrian space / square as a focus of the town centre;
- Introduce traffic calming measures but do not create traffic jams;
- Introduce time restrictions for parking in the town centre;
- Improve links to the beach; and
- Remove perpendicular parking and replace with parallel.

2.7.3 The Public Realm Plan identifies improved pedestrian links in the town centre, promotes safety and aligns with the stated objectives of the Design Manual for Urban Roads and Streets (DMURS). A view of the Public Real Plan is presented in **FIGURE 2.9**.

2.7.4 The timing and funding for the Realm Plan is not yet known.

FIGURE 2.9: ENVISAGED CENTRE OF BETTYSTOWN

3.0 TRAFFIC ASSESSMENT

3.1 Trip Generation

Library Trip Generation

3.1.1 Guidance on an appropriate trip rate for a library has been sought from TRICS database. The database contains details of numerous traffic surveys undertaken at various sites and can be used to identify typical trip rates for all types of development proposals. In this instance, the database has been interrogated using the land use classification Leisure and the category Library in regional areas.

3.1.2 With respect to the library, the database (refer to Appendix A) identified the following trip generation rates:

- AM Network Peak (8:15am – 9:15am): The library will open at 10.00am and will therefore not generate vehicle movements during the AM Network Peak hour period.
- PM Network Peak (2:45pm – 3:45pm): **1.191 vehicle movements** per 100 square metres of gross floor area (GFA);
- Evening Peak (5.00pm – 6.00pm): **2.262 vehicle movements** per 100sqm GFA; and
- Daily trips:**10 vehicle movements** per 100 sqm GFA.

Life Saving Club Traffic Generation

3.1.3 The trip generation for the lifeguard station has been estimated on a first principles basis. MCC advise that a maximum of five staff will be on duty at any one time and we estimate that approximately 65 percent[2] of staff will drive to work.

3.1.4 It is further assumed that all staff will arrive during the AM network peak (8:15am-9:15pam) and depart during the evening peak (5:00pm – 6:00pm).

3.1.5 The lifeguard station will therefore generate:

- Three vehicle movements during the network AM peak hour period;
- Three vehicle movements during the evening peak hour period (5:00pm – 6:00pm); and
- Daily trips: Six vehicle movements.

Total Development Trip Generation

3.1.6 Applying the above, the development would be expected to generate the following peak hour and daily trips:

[2] Analysis of 2016 Census data indicates that approximately 65 percent of workers, over the age of 15, in Laytown, Bettystown and Mornington travel to work in a motor vehicle (driver).

Use	AM Network Peak Trips (VPH)	PM Network Peak Trips (VPH)	Evening Peak Trips (VPH)	Daily Trips
Library (1046 sqm)	0	12	24	105
Life Saving Club	3	0	3	6
TOTAL	**3**	**12**	**27**	**111**

TABLE 3.1: DEVELOPMENT TRAFFIC GENERATION

3.2 Network Impact

3.2.1 As per **TABLE 3.1**, the development is predicted to generate an additional three (3) and 12 vehicle movements during the network AM and PM peak hour periods respectively. This equates to an average of one additional vehicle movement every 20 minutes during the AM network peak hour period and every five (5) minutes during the network PM peak hour period.

3.2.2 The extent of the additional traffic is insignificant in the context of existing conditions, (refer to Section 2.4), and will therefore not materially impact on the operation of the wider road network.

3.2.3 The Institution of Highways and Transportation document 'Guidelines for Traffic Impact Assessments' and the TII document 'Traffic & Transport Assessment Guidelines' state that the impact of any proposed development upon the local road network is considered material when the level of traffic it generates surpasses 10% and 5% on normal and congested networks respectively.

3.2.4 As per **TABLE 3.1**, the development is predicted to create an additional 111 daily vehicle movements on the surrounding road network, which represents an approximate 1.5 percent increase on existing conditions.

3.2.5 The increase (1.5 percent) falls well under the threshold, set out in the TII Guidelines, for a detailed Traffic and Transport Assessment.

3.2.6 The analysis presented in Section 3.2 is therefore deemed satisfactory.

3.3 Trip Generation during the Construction Activities

3.3.1 Matters relating to construction traffic is discussed in Section 3.4 of the Outline Construction Management Plan, prepared by MPA Consulting Engineers.

3.3.2 It is anticipated that construction activity will generate up to 10 HGV arrival and departure movements throughout the working day. These movements will be spread evenly and will therefore have a minimal impact during peak traffic periods.

3.3.3 Construction personnel are predicted will generate between five (5) and eight (8) vehicle movement at the start and at the end of the working day. Construction personnel will typically arrive (before 8.00am) on site before the AM network peak hour period and depart (after 5:00pm) after the PM network peak period.

3.3.4 The previous section of this report has shown that the predicted traffic associated with the completed development will have minimal impacts on the operation of the surrounding road network. It is

considered highly unlikely that construction activities would generate more traffic than that predicted for the completed development. The impact of construction traffic is therefore deemed to be acceptable.

4.0 PARKING ASSESSMENT

4.1 Car Parking

4.1.1 As mentioned previously, MCC propose to allocate 12 public parking spaces (10 standard, one accessible and one EV space) for the library and lifeguard station use. These spaces will be used exclusively by staff and library patrons.

4.2 Car Parking Demand Assessment

TRICS Data Parking Assessment

4.2.1 An analysis of TRICS data (refer to Appendix B for the parking assessment) suggests the library will generate a peak demand for up to 17 car parking spaces. The peak (17 spaces) includes both longer (staff) and shorter stay (visitor) parking demand.

4.2.2 Staff are anticipated to create a demand for up to five (5) car parking spaces[3]. All longer stay (staff) demands will be accommodated in the allocated parking area to the front of the building.

4.2.3 Assuming that the longer stay (staff) demand remains constant throughout the day, the assessment suggests the library will generate a peak shorter stay (library patrons) demand for up to 12 spaces.

4.2.4 A temporal profile of the library's shorter and longer stay parking demand is presented in **FIGURE 4.1.** The shorter stay demand is expected to vary throughout the day and peak in the evening when classes and group meeting are taking place in the library.

4.2.5 The temporal profile (refer to **FIGURE 4.1**) indicates the library would generates an average demand for 12 parking spaces for the majority of the day (between 12:00noon and 4:00pm).

4.2.6 The anticipated peak period (after 4:00pm) would coincide with lower use of public parking spaces in the town centre.

[3] MCC advised that the library will have a maximum of seven (7) staff (6 full time staff and one caretaker). Census data from 2016 indicates that 65 percent of people in Laytown, Bettystown and Mornington, over the age of 15, drive to work. Adopting this, it is anticipated that library staff will generate a demand for up to five parking spaces.

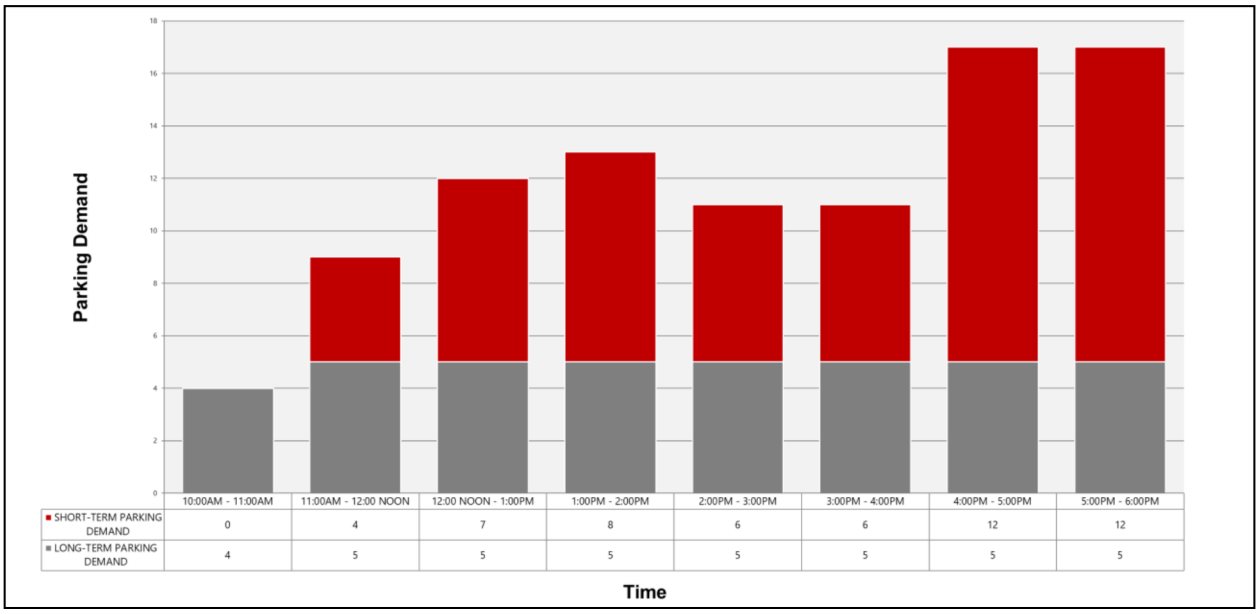


FIGURE 4.1: TEMPORAL PROFILE OF THE LIBRARY'S PARKING DEMAND

First Principles Assessment

4.2.7 MPA Consulting Engineers has undertaken a first principles assessment to further verify the likely shorter stay parking demands of the library.

4.2.8 The assessment relies on an estimated annual footfall, imparted by MCC, and on the assumptions outline below, as agreed with in our discussions with MCC.

- The library will have an annual footfall (number of library visitors) of 95,000. The footfall is estimated based on known data from the library in Ashbourne;
- The library will open for 10 hours on a typical weekday (Monday - Friday) and for seven (7) hours on a Saturday;
- The library will not open on a Sunday or on a public holidays;
- A peak factor of 1.5 has been applied to the average footfall to determine a peak hour parking demand; and
- It is assumed that 65 percent of library visitors will drive to the library and each vehicle will have three library visitors; and

4.2.9 The first principles assessment (refer to Appendix B for the parking assessment) indicates the library would generate a peak shorter stay demand for 10 spaces on a weekday and for 14 spaces on a Saturday.

Summary of Car Parking Demand Assessment

4.2.10 MPA Consulting Engineers is satisfied that the findings of the first principles assessment correlates well with the findings of the TRICS data assessment.

4.2.11 In light of the above, MPA Consulting Engineers can say, based on the TRICS assessment and staff no's, that the development will generate a longer stay (staff) parking demand for up to five (5)

spaces and a shorter stay parking demand for between four (4) and 12 spaces.

4.3 Car Parking Occupancy Survey

4.3.1 A car parking occupancy survey has been undertaken to determine the current parking conditions and capacity within the town centre. The occupancy survey has been conducted using historical aerial photography[4]. The study area is shown in **FIGURE 4.2** and the results are presented in **TABLE 4.1** and on **FIGURE 4.3.**

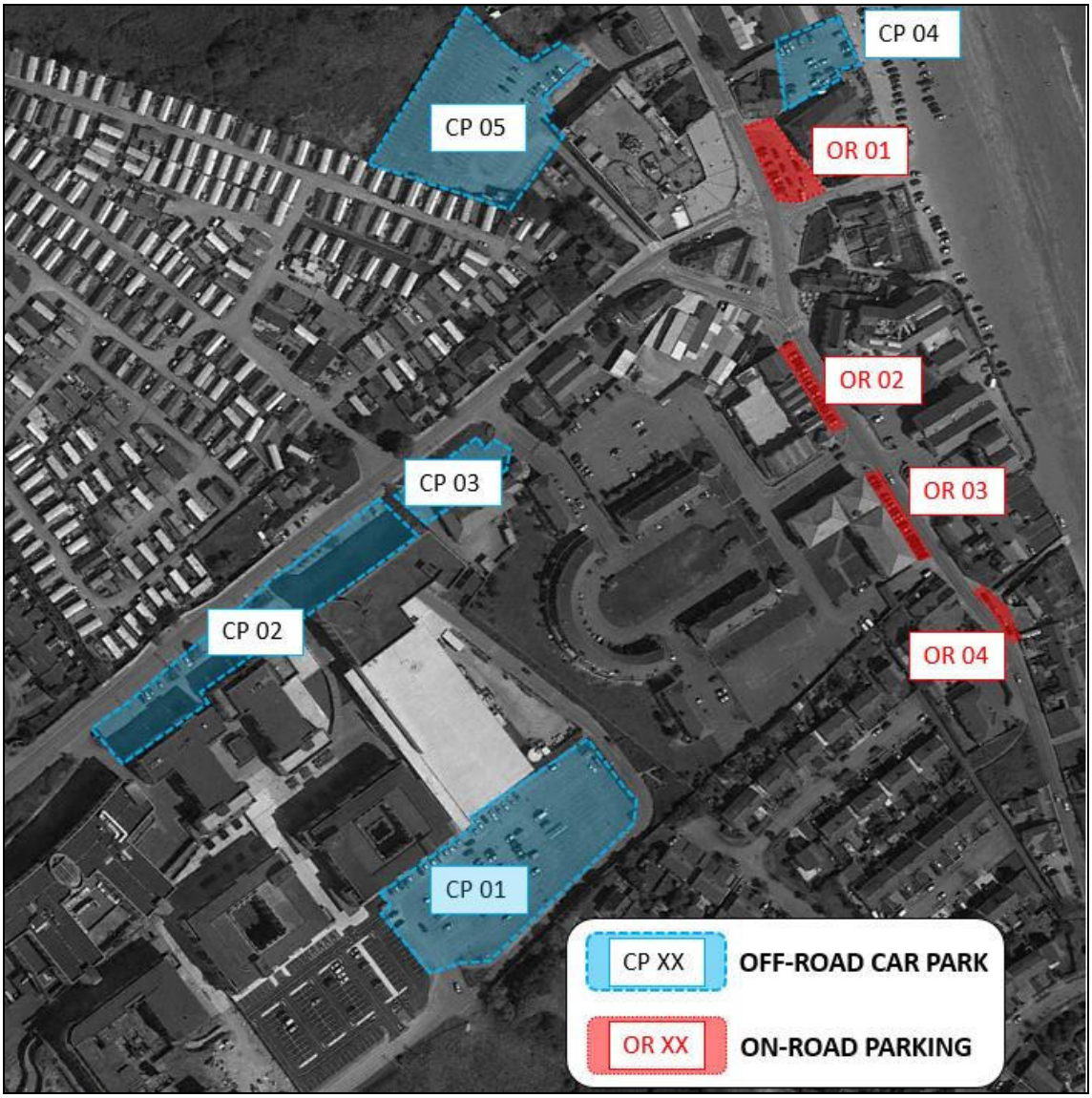


FIGURE 4.2: CAR PARKING SURVEY AREA

[4] Aerial images from Google Earth Pro. The survey dates were chosen based on the clarity and legibility of the aerial imagery.

Parking Location and Inventory*	Number of Spaces Occupied		
	7 May 2017 (Sunday)	6 June 2018 (Wednesday)	27 June 2019 (Thursday)
PRIVATE PARKING OPEN TO THE PUBLIC			
Car Park 1 (CP01) – 186 Spaces	56	61	62
Car Park 2 (CP02) – 56 Spaces	20	15	10
Car Park 3 (CP03) – 15 Spaces	1	2	6
Car Park 4 (CP04) – 33 Spaces	16	18	28
Car Park 5 (CP05) – 184 Spaces	16	11	23
PUBLIC PARKING			
On-Street Parking 01 – 14 Spaces	13	14	15
On-Street Parking 02 – 17 Spaces	16	15	16
On-Street Parking 03 – 18 Spaces	17	17	17
On-Street Parking 04 – 4 Spaces	4	3	4
TOTAL PARKING INVENTORY - 527	-		
TOTAL OCCUPIED SPACES	**159**	**156**	**181**

* Car Parking Inventory counted from Google Earth Pro aerial photography.

^ One vehicle parked in the loading bay

TABLE 4.1: CAR PARKING INVENTORY AND PARKING SURVEY

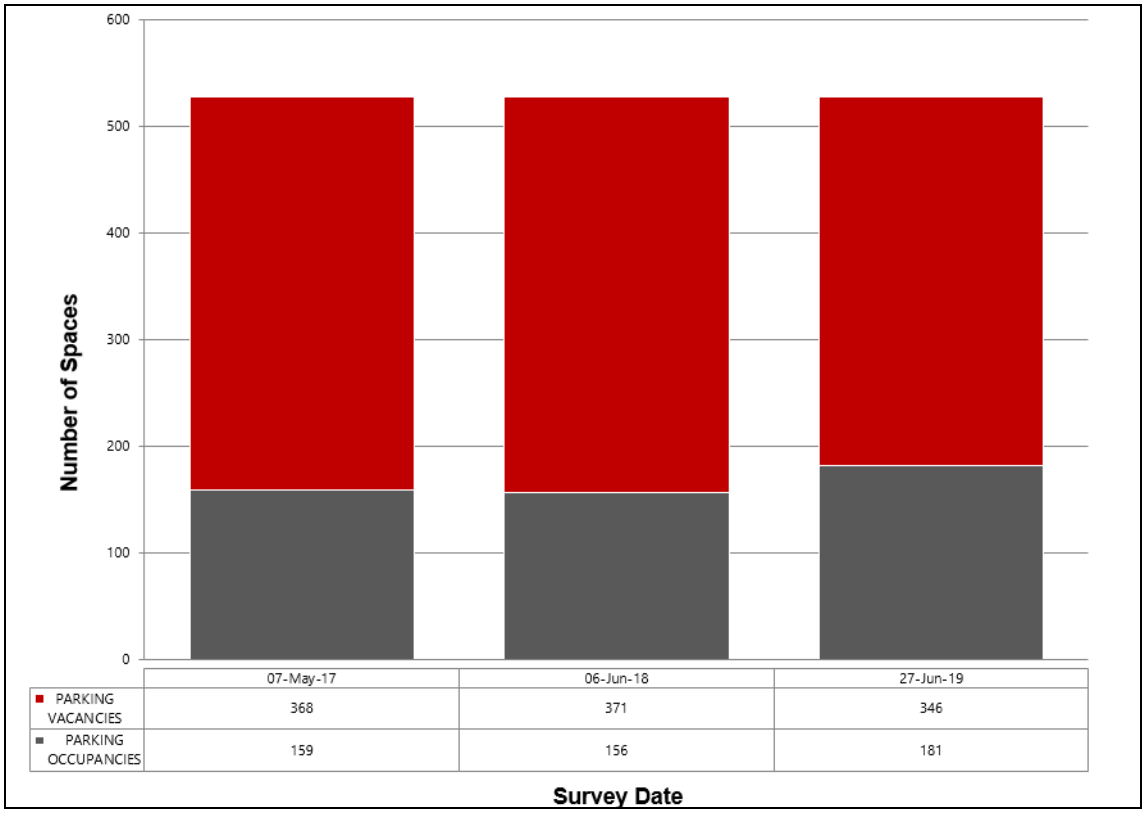


FIGURE 4.3: CAR PARKING SURVEY RESULTS

4.3.2 The survey excluded the Ancorage as it is understood that parking is this area is predominately used by residents. Similarly, the new private car parking, west of the Tesco car park, has been excluded as it is also understood to be predominately used by residents and hotel guests.

Survey Summary

4.3.3 The inventory has identified 53 on-street and 474 private parking spaces.

4.3.4 The overall parking demand is low with no fewer than 346 parking spaces available on the busiest day (Thursday 27 June 2019).

4.3.5 It is acknowledged that the demand is stronger near the development site. However it is noted that ample spare capacity is available in CP04 and CP05.

4.3.6 On this basis, we are therefore satisfied that ample parking is available within the broader town to accommodate any overspill parking from the development.

4.4 Justification for the Parking Scheme

4.4.1 The Car Parking Demand Assessment concludes that the development will generate a longer stay demand for up to five (5) parking spaces and a shorter stay demand for between four (4) and 12 spaces.

4.4.2 A total of 12 on-street spaces would be allocated to the development, noting that one space is an electric vehicle charging bay.

4.4.3 It is expected that all staff parking would be accommodated within the allocation, thus leaving six (6) spaces for short term parking (library patron parking).

4.4.4 The TRICS analysis concludes that the peak demand would occur in the evening (after 4:00pm), during which time the demand for public parking in the town is lower.

4.4.5 Give the location of the site within an Activity Centre (town centre), the likelihood of multi-purpose trips is high. Activity Centre's typically attract people due to the wide range of goods and service available. In this instance, the library is expected to operate to some extent as ancillary to the surrounding Activity Centre and will draw a significant proportion of its visitors from passer-by foot traffic and from people already in the activity centre for other reasons – linked trips.

4.4.6 It could be expected that up to 70% of trips to the library would be linked trips, which would utilize other parking facilities in the town centre, however in order to be robust we will assume 50% of trips to the library are linked and will already be in the town centre when they visit the library.

4.4.7 This equates to 6 trips / car spaces that can be discounted from the TRICS parking assessment of up to 12 short term spaces, which means that there is a likely demand for 6 short term spaces specific to library trips and 5 staff spaces, giving at total demand of 11 spaces which are provided local to the library.

4.4.8 It is further recognised that it is physically impractical to require individual sites within a town centre or Activity Centre to provide anything approaching the required number of car parking spaces on-site. In this instance, a 'centre based' approach is adopted where parking is provided in larger

centralised public car parking areas and can be accessed by all visitors to the town centre or Activity Centre.

4.4.9 It is also understood that Council will deliver 76 parking spaces as part of the Spine Road project. These spaces are expected to help alleviate the longer term parking demands of the town and are likely to free up existing parking in the town centre.

4.4.10 Given the site's location with respect to access to alternative transport modes (refer to Section 2.5), staff and library visitors can travel to the library without relying on the use of a private motor vehicle. The provision of staff bicycle parking and end of trip facilities will encourage staff to cycle or walk to work and potentially reduce car parking demands.

4.4.11 Footpaths are typically provided on both sides of all roads and provide reasonable pedestrian links to the library from the surrounding townland. A good pedestrian network will encourage walking as a means of travel and potentially reduce car parking demands in the town centre. Colaiste Na Hinse and Scoil Oilibhear Naofa are both located within convenient walking distance and students can easily access the site by foot.

4.4.12 The proposal aligns with MCC and National policy to reduce private motor vehicle use and promote walking, cycling and public transport use.

4.5 Proposed Changes to On-Street Parking

4.5.1 Access to the service yard for the development will result in the following changes to on-street parking:

- The electric vehicle changing bay will be relocated; and
- MPA Consulting Engineers recommend a mobility impaired parking bay near the front of the building.

4.6 Parking during the Construction Phase

4.6.1 Construction phase parking is discussed in the Outline Construction Traffic Management Plan, prepared by MPA Consulting Engineers. It is envisaged that up to six (6) parking spaces will be provided in the site compound for construction personnel.

4.7 Bicycle Parking

4.7.1 The proposed development includes 18no. bicycle spaces in line with County Development Plan requirements.

4.7.2 The application plans show four staff bicycle parking spaces at ground floor level.

4.7.3 An additional 14 publicly accessible bicycle parking spaces (seven bicycle rails) are recommend for library and foreshore visitor use.

4.7.4 The application plans include details of staff showering facilities at first floor level staff. MPA Consulting Engineers recommend offering staff locker facilities at first floor level to further promote cycling and walking as an alternative mode of transport to work.

5.0 SERVICING AND LOADING REVIEW

5.1 Waste Collection

5.1.1 We are advised that waste and recyclables will be collected kerb side (on the R151) by a private waste contractor. This arrangement is deemed to be acceptable and is similar to what is curently taking place in the town centre.

5.2 Loading Facility

5.2.1 The service yard will serve the mobile library (van) and will be utilised for the occasional delivery of goods to the library and lifeguard station.

5.2.2 An assessment (refer to Appendix C) of the accessibility to the service yard, using 'Autotrack Vehicle Tracking' software has been conducted. A 5.9-metre-long light van was used in the assessment and it was found that the vehicle can reverse into the service yard in a satisfactory manner.

5.2.3 Given the bay's occasional use, a reverse in manoeuvre is deemed to be acceptable from a traffic engineering perspective.

5.3 Review of Pedestrian Safety at the Service Yard Access

5.3.1 Footpath build-outs are recommended to promote pedestrian safety and to ensure appropriate visibility is available for exiting vehicles.

5.3.2 A pedestrian visibility envelop measuring four metres along the front of the site frontage and extending two metres into the site is recommended in accordance with DMURS and DN-GEO-03030 requirements. Any landscaping within this envelope will remain below 600mm in height. Refer to **FIGURE 5.1** for details.

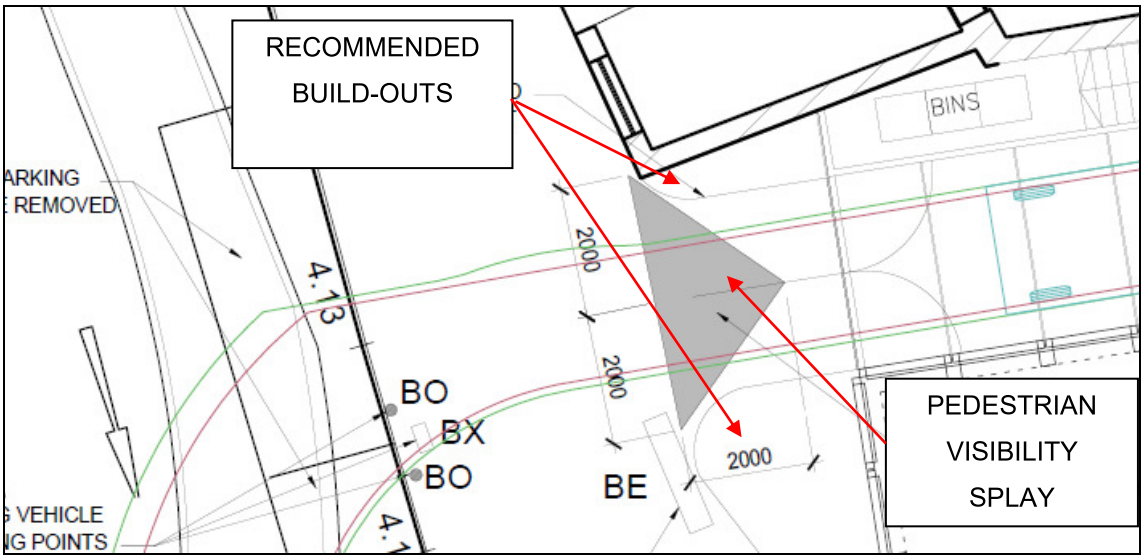


FIGURE 5.1: VISILITY AT BACK OF FOOTPATH CROSSING

6.0 SUMMARY, RECOMMENDATIONS AND CONCLUSION

6.1 Summary

6.1.1 Based on the analysis and discussions presented within this report, the following summary is presented.

- The development is anticipated to generate up to three (3) and 12 vehicle movements during the network AM and PM peak hour periods respectively. This is a moderate increase in traffic engineering terms and will not adversely impact the operation of the wider road network.
- The predicted development traffic volume is below the thresholds set down in the TII publication 'Traffic & Transport Assessment Guidelines' from 2014 for the implementation of full Traffic & Transport Assessments. A full Traffic & Transport Assessment is therefore not warranted.
- MCC will allocate 12 parking spaces to the development (including one accessible and one EC charging space). The allocation will meet the development's staff parking demands (five spaces) and provide six spaces for short stay visitors to the library.
- Any other residual parking demand is expected to be generated from linked trips to Bettystown town centre and these linked trips will be served by existing parking facilities within the town centre.
- The car parking occupancy survey indicates that ample parking is available in the town to accommodate any overspill parking demands of the development.
- MPA Consulting Engineers recommend providing 18 bicycle parking spaces (nine bicycle rails) to meet the requirements of the County Meath Development Plan 2013-2020.
- Loading and unloading can be undertaken on site. Waste and recyclables will continue be collected on-street.
- The footpath on Seaview Terrace will be upgraded (widened to two metres) as part of the development works.

6.2 Recommendations

6.2.1 MPA Consulting Engineers recommend that the following external works are delivered as part of the scheme.

- Pedestrian outstands and sight envelopes are recommended at the service yard access.
- An informal courtesy crossing is recommended on Seaview Terrace at the Seaview Terrace / R150 intersection.
- A pedestrian crossing is recommended on the R150, to promote safer pedestrian access from the west.
- A mobility impaired parking bay is recommended at the front of the building.

6.3 Conclusions

6.3.1 There is no traffic engineering reasons why planning for the library development at Seaview Terrace, Bettystown, should be refused, subject to the inclusion of MPA Consulting Engineers recommendations.

APPENDIX A

TRICS Data Sheets

Calculation Reference: AUDIT-464201-200407-0415

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
Category : V - LIBRARY
VEHICLES

Selected regions and areas:
14 LEINSTER
WX WEXFORD 1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross Floor Area
Actual Range: 1680 to 1680 (units: sqm)
Range Selected by User: 992 to 1680 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/12 to 24/09/14

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:
Wednesday 1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:
Manual count 1 days
Directional ATC Count 0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:
Town Centre 1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:
Built-Up Zone 1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:
D1 1 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:
15,001 to 20,000 1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Secondary Filtering selection (Cont.):

Population within 5 miles:
25,001 to 50,000 1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:
1.1 to 1.5 1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:
No 1 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:
No PTAL Present 1 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 WX-07-V-01 LIBRARY WEXFORD
MALLIN STREET
WEXFORD

Town Centre
Built-Up Zone
Total Gross Floor Area: 1680 sqm
Survey date: WEDNESDAY *24/09/14* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 07 - LEISURE/V - LIBRARY
VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	1680	0.000	1	1680	0.000	1	1680	0.000
10:00 - 11:00	1	1680	0.357	1	1680	0.060	1	1680	0.417
11:00 - 12:00	1	1680	0.595	1	1680	0.417	1	1680	1.012
12:00 - 13:00	1	1680	0.655	1	1680	0.476	1	1680	1.131
13:00 - 14:00	1	1680	0.536	1	1680	0.655	1	1680	1.191
14:00 - 15:00	1	1680	0.476	1	1680	0.655	1	1680	1.131
15:00 - 16:00	1	1680	0.655	1	1680	0.536	1	1680	1.191
16:00 - 17:00	1	1680	1.131	1	1680	0.536	1	1680	1.667
17:00 - 18:00	1	1680	0.595	1	1680	1.667	1	1680	2.262
18:00 - 19:00	1	1680	0.000	1	1680	0.000	1	1680	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			5.000			5.002			10.002

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	1680 - 1680 (units: sqm)
Survey date date range:	01/01/12 - 24/09/14
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

APPENDIX B

Parking Assessment

Martin Peters Associates Consulting Engineers	Contract: Bettystown Library	Job ref.: 191018	Sheet ref.: 1 of 2
	Calculations by: JA	Checked by: MJP	Date: 13.05.20

CAR PARKING DEMAND ASSESSMENT (TRICS DATA ANALYSIS)

Library Area = 1046 sqm

Time	Arrival Rate (TRICS)	Departure Rate (TRICS)	Trips arriving (VPH)	Trips Departing (VPH)	Rounded Trips Arriving (VPH)	Rounded Trips Departing (VPH)	Parking demand at the each of each hour	Maximum Possible parking demand during one hour period
9.00 -10.00	0	0	0	0	0	0	0	0
10.00-11.00	0.357	0.06	3.73422	0.6276	4	1	3	4
11.00-12.00	0.595	0.417	6.2237	4.36182	6	4	5	9
12.00-13.00	0.655	0.476	6.8513	4.97896	7	5	7	12
13.00-14.00	0.536	0.655	5.60656	6.8513	6	7	6	13
14.00-15.00	0.476	0.655	4.97896	6.8513	5	7	4	11
15.00-16.00	0.655	0.536	6.8513	5.60656	7	6	5	11
16.00-17.00	1.131	0.536	11.83026	5.60656	12	6	11	**17**
17.00-18.00	0.595	1.667	6.2237	17.43682	6	17	0	**17**
18.00-19.00	0	0	0	0	0	0	0	0
	5	5.002	52.3	52.32092	53	53		

Parking Calculations

Maximum parking demand at the end of each hour	11
Maximum Parking Demand =	**17**

Martin Peters Associates Consulting Engineers	Contract: Bettystown Library	Job ref.: 191018	Sheet ref.: 2 of 2
	Calculations by: JA	Checked by: MJP	Date: 13.05.20

CAR PARKING DEMAND ASSESSMENT (FOOTFALL ANALYSIS)

Expected total yearly foot traffic =	95000	patrons
Number of working days per year	305	days
Number of working week days =	253	days
Number of working Saturdays =	52	days

Average number of patrons each day =	311.4754	patrons

ASSUMED OPENING HOURS

Weekday - Assume the library will open between (10.00am - 8.00pm) on a weekday =	10	hours
Saturday - Assume the library will open between (10.00am - 5.00pm) on a Saturday =	7	hours

Average number of patrons each hour on a weekday =	31	patrons
Average number of patrons each hour on a weekend =	44	patrons

To covert to a parking demand, the following assumptions are made:

No. of people in each vehicle =	3
Peak Factor =	1.5
Percentage of patrons that drive to library =	65

Estimated peak parking demand (weekday) =	**10**
Estimated Peak Parking Demand (Weekend) =	**14**

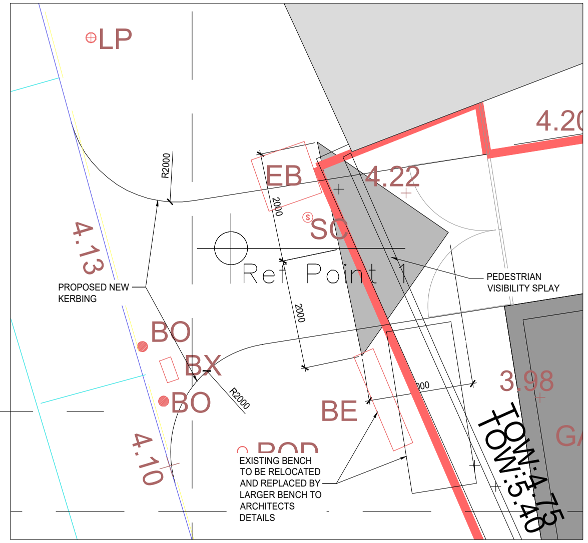
APPENDIX C

Swept Path Assessment

A3

PROPOSED AUTOTRACK LAYOUT

SCALE 1:250 @ A3



PEDESTRIAN VISIBILITY SPLAY

SCALE : 1:100@A3

Issue Register

No.	Date	Description	Drawn	Checked	Approved
PL1	26/06/20	PLANNING ISSUE	MT	MJP	MJP

GENERAL NOTES:-

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS & ENGINEERS DRAWINGS & SPECIFICATIONS.
2. DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS & ELEVATIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION. ALL DISCREPANCIES TO BE NOTIFIED, IN WRITING TO ENGINEERS & ARCHITECTS FOR RESOLUTION.
4. ALL DIMENSIONS ON DRAWINGS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
5. FOR DETAILS AND SETTING OUT OF RWP, SVP, WVP & ALL OPENINGS SEE THE RELEVANT ARCHITECTS DRAWINGS.
6. FOR RADON BARRIER, D.P.C. & INSULATION DETAILS REFER TO ARCHITECTS DRAWINGS.

ALL SETTING OUT DIMENSIONS TO BE CHECKED AGAINST ARCHITECTS DRAWINGS. ARCHITECTS DRAWINGS TO TAKE PRECEDENCE.

DRAWING NOTES:-

REFER TO NOTES TEMPLATE

ABBREVIATIONS:-

BTM	BOTTOM
C/C	CENTRE TO CENTRE
CTRS	CENTRES
SFL	STRUCTURAL FLOOR LEVEL
FFL	FINISHED FLOOR LEVEL
TOC	TOP OF CONCRETE
TP	TOP
TOS	TOP OF STEEL
UNO	UNLESS NOTED OTHERWISE

GENERAL LEGEND:-

DENOTES SITE BOUNDARY

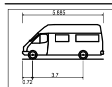
DENOTES EXISTING BUILDING

DENOTES PROPOSED BUILDING

54.04 — DENOTES EXISTING SITE LEVELS

FFL +0.000m — DENOTES FINISHED FLOOR LEVEL

VEHICLE PROFILE



4.6t Light Van

Overall Length	5.885m
Overall Width	2.000m
Overall Body Height	2.526m
Min Body Ground Clearance	0.299m
Track Width	1.765m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	6.000m

comhairle chontae na mí
meath county council

PLANNING

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Client: MEATH COUNTY COUNCIL

Project: BETTYSTOWN LIBRARY SEAVIEW TERRACE, BETTYSTOWN

Drawing Title: PROPOSED AUTOTRACK & ACCESS DETAILS

Project No:	Scale @ A3:
191018	1:250@A3
Drawing No: 191018/C/006	Rev: PL1

Drawn:	Checked:	Date:
MT	MJP	30/04/20