North Schools Programme

Mull Campus – Site Selection

Site Analysis Report

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Contents

1.0 Executive Summary

As part of the North Schools Programme, hub North Scotland have supported Argyll and Bute Council with site selection activities for the proposed 2-18 Mull Campus. This report details the analysis of site-options to allow for Argyll and Bute Council to undertake a scored evaluation of short-listed sites.

2.0 Report

2.1 Scope of Works

As part of the Site Selection activity we have undertaken the following;

- Outlining site requirements to support a call for sites
- Supporting with the development of evaluation criteria for site selection
- Undertaking screening and assessment of submitted sites for both long-listing and short-listing
- Detailed technical analysis of short-listed sites in order to provide suitable information for Argyll and Bute Council to score against evaluation criteria
- Community Engagement from 17th-25th September 2024, with output report to capture feedback.
- Integrated Impact Assessments capturing socio-economic impacts of site selection.
- Valuation of short-listed sites.

This report brings together the information gathered and produced during the above activities and is intended to support informed decision-making in terms of selecting a suitable site for the proposed 2-18 Mull Campus.

2.2 Community Engagement

A Community Engagement exercise was undertaken between the 17th and 25th September in a range of locations across Mull and Iona, these sessions were set-up to help understand which factors were important to the Community in selecting a site for the new 2-18 Mull Campus.

2.3 Call for Sites

Argyll and Bute Council issued a call for sites on 28 August 2024 which outlined the initial criteria for land to site the proposed Mull Campus. The initial request was for sites to be at least 2.3 hectares and provisions of as much information as possible to assess the site. Our team undertook an initial screening of each site to confirm its suitability in terms of area for inclusion within the Long List.

2.3.1 Long List

Following the Call for Sites a long list was produced which included ten sites to be reviewed for consideration as to whether they could accommodate the new 2-18 Mull Campus. Our team undertook a high-level review of each site to consider key constraints such as flood risk, ground conditions, accessibility and site abnormals which could make the sites prohibitive to development.

An initial focus was given on suitability of each site to deliver the brief in terms of size, fit and accessibility. The Architect initially overlaid a footprint for a comparative project on each option to establish how this would fit. It was then possible to consider how this would sit within a wider site context to deliver an overall site which would be able to safely operate.

Our technical team provided commentary relevant to Civil and Structural requirements, such as topographical and ground condition risks. Some of the sites provided through the Call for Sites were found to have substantial level changes and contain very poor marsh and peaty ground, making them unsuitable for development without significant remediation.

A review of Mechanical & Electrical requirements focused primarily on utility risk and how easy it would be to service each site. As is typically the case in remote regions, there is unlikely to be an extensive network of utility services outwith primary routes and as such many sites were found to be located a distance away from existing infrastructure.

For each long-listed site an initial review was carried out in terms of any transport impact. Several sites were found to have constrained accesses which would not be able to accommodate significant amounts of traffic during the delivery of the Mull Campus project or in final operation once the facility is live.

Where more detail was provided at the long-listing stage this was also reviewed to understand any additional impact. Examples of this are seen around sites which may already have planning or detailed ground investigation/surveys carried out.

The outcome of the long-listed sites was as follows;

Site Reference	Reason for not short-listing
Existing Site (Tobermory)	Shortlisted
Site 001 (Craignure)	Shortlisted
Site 003 (Eas Brae)	The site is considered to have a significant flood risk and is too constrained to include the full brief.
Site 004 (Garmony)	Site has significant flood risk and would struggle to accommodate the full brief.
Site 005 (Garmony)	Shortlisted
Site 007 (Tobermory South)	Access to the site would be challenging through existing residential area. Ground conditions are boggy/peat and topography of the site varies significantly.
Site 008 (Salen)	The site has significant flood risk and is constrained by existing infrastructure, including a power line through the site. The ground is also peat over bedrock which would require significant remediation.
Site 011 (Tobermory South)	Sites constrained and reliant on a 2 site approach. Unlikely to have suitable space to accommodate parking and drop-off/pick-up facilities.
Site 012 (Tobermory)	The site is too small to capture the full brief and is constrained in terms of adjustments. Access would be difficult and the site varies significantly in terms of levels.
Site 013 (Tobermory)	Shortlisted
Site 014 (Tobermory)	Access from the road is very steep and significant level change is seen across the site. Additionally ground conditions are boggy and drainage routes run across the site which restricts development.

On conclusion of this exercise it was agreed that three sites, plus the existing Tobermory School site would be progressed to a short-list for a more detailed site analysis.

Full details of the long-listing review, which includes the high level analysis of each site, along with the existing Tobermory School site is included in Appendix B

2.3.2 Short List

Following the long list review it was agreed that 4no. sites would be short-listed for detailed analysis. These are listed as follows;

Site 1 – Existing Tobermory School

Site 2 - Development site, Craignure

Site 3 - Garmony

Site 4 – South Tobermory

3.0 Site Analysis

- In order to undertake a comprehensive evaluation of the short-listed sites we worked collaboratively with Argyll and Bute Council to set-out evaluation criteria consistent with site selection for comparable projects. This initially focused on key themes of;

- **Deliverability** – A technical review of sites to confirm suitability for building of the new Campus. This was to focus on utilities, ground conditions and flood risk.

- **Education** – A look in to how each site could meet educational requirements through a review of external environments and confirming how each site could cope with adaptation and expansion. Travel times are also to be included.

- **Community and Place** – A view on how each site would impact the region through impact on residents, families and staff/pupils. Consideration should also be given to any impact on the local economy.

- **Accessibility and Transport** – An improved understanding around the impacts of travel and transport against each of the identified sites. This would focus on existing links, including active travel and how the wider infrastructure network would support access to each site.

- **Sustainability –** Consideration around how different sites could have an impact in terms of embodied carbon through existing structures, whilst also looking at carbon related to travel.

- **Affordability –** A review on any site abnormals across various sites, also picking up site acquisition costs and any revenue implications across sites.

- **Risk –** Any consideration around impact to the construction programme, along with any details around wayleaves, legal restrictions and planning risks.

Within each of these headings we detailed out information that could be provided to support the evaluation activity.

The Strategic Board for the 2-18 Mull Campus project agreed the following Evaluation Criteria;

Criteria Category	Report Reference	Evaluation Criteria	Supplementary Appendix
Deliverability	3.X.1.1	Utility infrastructure - capacity and need for any diversions	Appendix D
	3.X.1.2	Ground conditions	Appendix E
	3.X.1.3	Topography	Appendix E
	3.X.1.4	Flood risk	Appendix F
	3.X.1.5	Site abnormals	-
	3.X.1.6	Habitat constraints	-
Education	3.X.2.1	Is the site capable of accommodating the brief in full?	-
	3.X.2.2	Quality of external environment to support outside learning, sports activities etc	-
	3.X.2.3	Does the site provide capacity for future expansion?	-
	3.X.2.4	Travel times for ELC and primary school pupils	Appendix H
	3.X.2.5	Travel times for staff and secondary school pupils	Appendix H
	3.X.2.6	Access and connectivity to good community facilities and services	Appendix H
Community and Place	3.X.3.1	Impact on family life	Appendix K
	3.X.3.2	Equitable - unites north & south of island	Appendix K
	3.X.3.3	Sustain and support local economy	Appendix K
	3.X.3.4	Impact of construction activities on existing school/ residential areas	-
Accessibility & Transport	3.X.4.1	Good public transport links to site and location	Appendix H
	3.X.4.2	Existing safe active travel links to site	Appendix H
	3.X.4.3	Number of user journeys - bus, car, pedestrian (Pupil/ staff mode split)	Appendix H
	3.X.4.4	Potential impact on public transport network	Appendix H
	3.X.4.5	Ability of existing (wider) roads infrastructure to service site	Appendix H
	3.X.4.6	Trips with complex dependencies/ multiple stages and modes of travel	Appendix H
Sustainability	3.X.5.1	Potential for re-use of existing infrastructure and buildings (embodied carbon)	-
	3.X.5.2	Carbon impact of travel (travel distances and mode of transport)	Appendix H
Affordability	3.X.6.1	Costs associated with site abnormals	Appendix I
	3.X.6.2	Potential acquisition/disposal costs	Appendix L
	3.X.6.3	Other (revenue) cost implications e.g. pupil transport	-
Risk	3.X.7.1	Wayleaves, legal restrictions and site acquisition risk	Appendix J
	3.X.7.2	Construction Programme risk	-
	3.X.7.3	Planning designation and sensitive receptors	-

The X in the 'Report Reference' above is to be replaced with the number for each site as follows;

1 – Existing Tobermory School

2 – Development Site, Craignure

3 - Garmony

4 – South Tobermory

This numbering links to the relevant sections within this report.

3.1 Site 1 – Existing Tobermory School

3.1.1 Deliverability

3.1.1.1 Utility Infrastructure – capacity and need for any diversions

Re-use of the existing school site for the New Mull Education Campus benefits from having existing Utilities infrastructure connectivity supporting the function of the existing school.

Whilst existing connections exist, further engagement will be necessary with Utilities companies in respect of any anticipated increased capacities, particularly in relation to electrical infrastructure.

We are advised that the existing school has an authorised capacity of 31kVA but that should be nearer 230kVA. Argyle and Bute Council are in the process of requesting an uplift in authorised capacity to reflect the current maximum demand.

From the record information we can establish that utilities infrastructure is not present across the area proposed for the new school.

There is however a strategy to be developed to maintain utilities to the existing school whilst the new school is constructed. It is anticipated that within that strategy existing Utilities diversions/ protection will be necessary that will affect Electricity, Water and Communications Infrastructure.

Potential for positive Business Case for future connection of Net Zero heat networks

The existing school site is located in the heart of the most populated settlement on Tobermory. Having the ability to connect the school in an area with the greatest population mass would be advantageous and could also be supported by potentially introducing waste heat energy into the network from businesses such as Tobermory Distillery.

3.1.1.2 Ground Conditions

Based on desk study review only, it is envisaged that within Site 1 where raised beach deposits of sand and gravel are recorded to be present a shallow pad or traditional strip foundation design would be suitable. If softer material than expected is encountered a trench fill solution could potentially be adopted. Compressible superficial deposits are unlikely to be present onsite, indicated by the successful construction of the existing school building and associated infrastructure. If made ground is encountered at significant depths within the Site 1 boundary, related to historical quarries and construction on Site, the extraction of contaminated material would be required prior to forming foundations, or potentially piled foundations would be required.

If bedrock is present at shallow depths, it is envisaged strip or pad foundations could be utilised bearing directly onto bedrock.

The above is based on reasonable assumptions from published information only, and would require to be confirmed following completion of a targeted intrusive ground investigation campaign.

The suitability of deposits underlying Site 1 are unknown and therefore the deposits earthworks suitability for reuse cannot be speculated upon prior to an intrusive ground investigation.

No site or laboratory testing information is currently available with regards to the strength, density, water content and compressibility. It is therefore recommended that an intrusive ground investigation including in-situ testing and sampling for laboratory testing is conducted to fully assess the reusability characteristics of the underlying geology.

It is highlighted that the presence of an igneous dyke (olivine) on the site may result in 'hard-dig' / possible need for blasting to facilitate excavation dependant on depth to rock and site levels.

3.1.1.3 Topography

Topography imposes constraints on the existing school site, both within the grounds, and on the approaches to it. The existing school boundary area is elevated above land to the south, west and east, with land continuing to rise to the north, where residential properties overlook the school grounds. This present access challenges when approaching from west, east or south, with the only level route into the site coming from the northern edge.

Within the school site, the ground slopes from north to south, with significant level changes which impact on the suitability of the existing buildings on site. All accommodate multiple levels internally to deal with the level changes. To avoid decant, developable land is restricted to the eastern part of the site, which comprises the all weather pitch and grass area to its south. This zone is surrounded by level changes - the eastern edge of the site drops down significantly to the level of the children's play park. Land to the south drops steeply, while there is rocky ground to the north of this area as the land rises.

The topography will impact on development primarily in the extent of useable external space available, and accessible routes being limited to coming in from the northern edge. The area of land comprising the pitch and grass area would allow an accessible, two storey solution to be built on site with limited or no internal level changes, as well as a 7 aside pitch.

3.1.1.4 Flood Risk

The SEPA flood map indicates that Site 1 is not impacted by flooding from high tides or storm surges, or from fluvial flooding from nearby watercourses.

Scottish Water's infrastructure records indicate that a 228mm diameter vitrified clay combined sewer is located on Erray Road to the north, the likely location of an existing connection to the public sewer network. A 152mm diameter combined sewer is also location on Western Road at its eastern boundary.

Scottish Water would need to confirm in a Pre-Development Enquiry response that there is sufficient capacity in their network to service the development of a new Education Campus. This can be offset by understanding what the current flow rate from the existing school provides.

There is no public surface water drainage shown on the Scottish Water infrastructure records within the boundaries of the site. There are also no watercourses in the vicinity of the site which surface water runoff could be discharged to. It is therefore considered that the surface water runoff from the existing school facility must be conveyed to the existing public combined sewer network or drained into soakaways or to a combination of these drainage options.

Scottish Water will only allow surface water from new development to discharge to the combined sewer network under exceptional circumstances. It is therefore not expected that surface water runoff from any redevelopment of the site will be permitted to be conveyed to the existing combined sewer network. However, if the site currently benefits from a surface water connection to the combined sewer and it can be shown that the amount of hardstanding has not been increased and is attenuated, a connection to the combined sewer may be possible. They may also require use of raingardens/bio retention zones and green roofs to be appropriately considered as well as potential for rainwater harvesting.

The requirement to infiltrate surface water runoff to the subsoils will be dependent on Scottish Water permission to discharge surface water to the existing sewers and the rate of any allowance.

The appropriate form of SUDS for redevelopment of the site will depend on the method of surface water disposal. Irrespective of the actual form of the SUDS, a significant proportion of the lowest lying area of the site will require to be allocated for the SUDS and this will place a constraint the development proposals.

3.1.1.5 Site Abnormals

The key abnormal issues for the existing school site are taking into account the requirement for a tandem build, which will necessitate a phased approach, which will have an impact on programme duration and prelim costs.

The area of the site where it is proposed to build the new campus is also designated as King George V land, with a presumption that it is retained for outdoor use. While there would still be an overall balance in the amount of external space provided as part of a new campus, consultation with Fields in Trust will be required to ensure the proposals are acceptable.

It is also anticipated there will be a need for retention to the southern edge of the parking area and newly formed 7 aside all weather pitch.

3.1.1.6 Habitat Constraints

All sites will require to have habitat and ecological surveys carried out as a matter of course as part of statutory approvals process to identify any protected and invasive species present. From a walkover of the existing school site, the potential for significant habitat impact would appear to be limited, though it is worth noting existing structures increases the possibility of bat roosting.

3.1.2 Educational Impact

3.1.2.1 Is the site capable of accommodating the brief in full?

The site area is 2.3 ha. but the existing school must remain in operation during the construction stage, which limits the area of land available for locating the school. There is sufficient space on site to accommodate the new campus brief over two storeys and the levels of parking and servicing required, although parking areas will require significant regrading. Bus drop off may potentially need to maintain the current situation of 14m buses parking on adjacent streets depending on how drop off is prioritised against providing external space. The other limitation of the site is the inability to accommodate a full size 100m x 60m all weather pitch, and the extent of external learning and social space. A seven aside all weather pitch could be accommodated on site.

3.1.2.2 Quality of external environment to support outside learning

The BB103 maximum and minimum areas for the pupil roll of the proposed Mull 2-18 campus (31 ELC children, 90 primary learners and 177 secondary learners) is 21,374sqm – 22,847sqm. The existing school site is 23,000sqm. External space is limited on site, although there still exists scope to create external learning environments, the majority enjoying a southerly aspect. The location of the new building as a result of keeping the existing school in operation means that external space will wrap around parking areas, which is less than optimal. The site has limited potential for a quality external learning environment.

3.1.2.3 Does the site provide capacity for future expansion?

While the site is constrained, and the area of development restricted to the western part of the site due to the need to keep the existing school operational, there is scope to plan for modest future expansion to the east. This future expansion could extend to two additional standard sized classrooms, one at ground and one at first floor, plus ancillary areas. Locating the expansion at the east allows building servicing to remain operational during any future extension construction period.

3.1.2.4 Travel times for ELC and primary school pupils

The estimated one-way travel times for ELC and Primary pupils are derived from the Transport Review included in Appendix H is shown below. The travel times presented are an aggregate, encompassing the wide range of trips which would be made to the site. Travel time for minor legs of a trip (such as walking to the bus stop, a ferry crossing or travelling by car to access bus stops on the main road) are not accounted for in this analysis. In any case, the nature of these journeys are likely to remain constant across all four sites.

SITE	COHORT	TAXI	BUS	CAR	WALK	TOTAL	AVERAGE
Site 01 - Tobermory	Primary	18	22	153	280	**473**	5

Note: minor discrepancies as a result of rounding

3.1.2.5 Travel times for staff and secondary school pupils

The estimated one-way travel times for Secondary pupils and Staff are derived from the Transport Review included in Appendix H is shown below. The travel times presented are an aggregate, encompassing the wide range of trips which would be made to the site. Travel time for minor legs of a trip (such as walking to the bus stop, a ferry crossing or travelling by car to access bus stops on the main road) are not accounted for in this analysis. In any case, the nature of these journeys are likely to remain constant across all four sites.

SITE	COHORT	TAXI	BUS	CAR	WALK	TOTAL	AVERAGE
Site 01 – Tobermory	Secondary	0	2,356	162	588	**3,106**	20
Site 01 – Tobermory	Staff	0	0	695	163	**858**	15

Note: minor discrepancies as a result of rounding

3.1.2.6 Access and connectivity to good community facilities and services

The existing school site is located centrally in Tobermory, the largest settlement on Mull. It is in close proximity to the residential areas which form the catchment for the primary school. It is also nearby residential areas which supply the single largest number of secondary school pupils to Tobermory High School. The school is well served in this location by a range of shops, food and drink offerings and cultural and community facilities.

The existing school site is located centrally within Tobermory, and as a result enjoys the potential for easy links with local businesses, community resources and employers.

3.1.3 Community and Place

3.1.3.1 Impact on family life

In a survey of Bunessan Primary School families, only 5% of respondents said that they would consider sending their children to a high school in Tobermory. During public engagement sessions, a number of parents and young people in the South West of Mull have expressed concerns around their children's ability to fully

enjoy family life if they are required to board on the mainland from Monday to Friday. Many respondents have raised concerns about the impact this has on young people during their teenage years which is a significant developmental period.

Many members of the community have referenced Article 9 – Children should not be separated from their parents in relation to the current scenario where children from the Ross of Mull are required leave their family homes weekly to board on the mainland in order to attend Oban High School. Many argue that secondary-school aged children are entitled to remain with their families during the week and the current catchment provision does not allow for this. A central site option could allow greater choice for pupils and families living in the Ross of Mull to attend secondary school on the island which would allow children to more fully enjoy all aspects of family life during their time at secondary school.

- While the premise of citing Article 9 is important, the Article legally does not apply to the current proposals. However, that should not invalidate the concerns of children, young people and their families who wish to avoid boarding on the mainland as part of the decision-making process. Equitable – best access for as many as possible

Further details can be found in the Integrated Impact Assessment Report within Appendix K

3.1.3.2 Equitable – unites north & south of island

Retaining education provision in Tobermory would positively impact pupils, families and community members currently utilising the existing Site through the re-provision of enhanced and contemporary facilities. This could also encourage population retention and growth in the area.

However, there would be no additional benefit to families living in the South West of Mull, who would likely continue with status quo education arrangements for local primary schooling and off-island secondary-school attendance. This option poses the continued risk of depopulation with the South West of Mull, where families may make decisions to relocate on the basis of their child's education and to avoid the possibility weekly boarding on the mainland.

Site 01 - Tobermory will retain familiar travel patterns as current conditions would largely be unchanged. It is conveniently located within walking distance for most existing housing in Tobermory with 90% of pre-5 and primary school pupils currently living within a 5-minute walking distance as highlighted in Appendix H. Constraints have been noted for the site whereby access for larger vehicles such as HGVs and buses may be challenging.

3.1.3.3 Sustain and support local economy

An Economic Impact Assessment has been prepared, this outlines that if the campus was located in Tobermory, the economic benefit would be £3,147,000 higher than would be the case if the campus was built in a central island location.

This assessment takes into account investment stimulus acknowledging that schools influence the attractiveness of an area for potential residents and therefore the value of future housing developments.

The full Economic Impact Assessment is included in Appendix K.

3.1.3.4 Impact of construction activities on existing school/ residential facilities

The existing school is located on central Tobermory, with residential streets to the north on Erray Road and Western Road, and the residential back lane to the south. Back Brae has less residential properties, but falls

steeply away from the school site to the west. The surrounding streets are narrow, and will present logistical challenges during the construction phase of the project, with inevitable impact to surrounding residential properties.

A tandem build will also impact on the daily operations of the school due to the close proximity of construction activity with associated deliveries and noise. However, a competent contractor can successfully manage operations on a live school site and mitigate impact with appropriate forward planning.

3.1.4 Accessibility & Transport

3.1.4.1 Good public transport to site and location

Existing Conditions

The morning and afternoon school services current serve the site by way of the bus layby on Erray Road. Tobermory is additional served throughout the day by the 494 and the 95/495.

Future Conditions

The site could incorporate approximately three bus stances adjacent to the school entrance to enable safe boarding and disembarkation of pupils. Alternatively, as a result of site constraints, the use of the bus bays on Erray Road could continue to be utilised, perhaps with some rationalisation or upgrade.

3.1.4.2 Existing safe active travel links to site

Existing Conditions

Pedestrian facilities are limited to larger residential streets on the adjacent road network such as Erray Road and Victoria Street. There is also an off-road path between Back Brae and Main Street via Middle Brae and a set of steps.

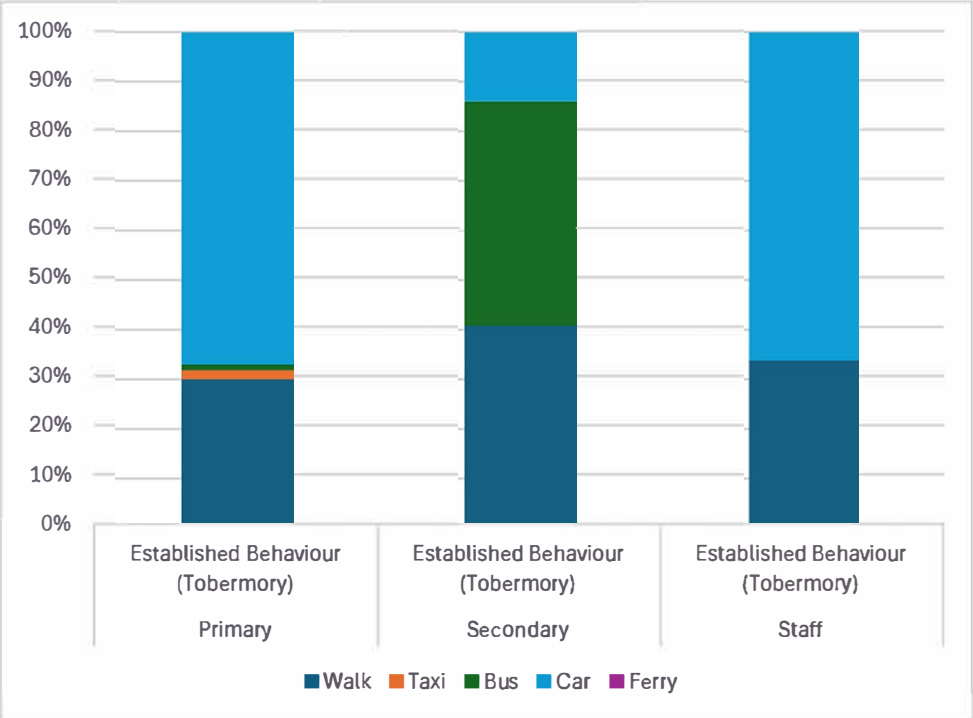
Future Conditions

While infrastructure is currently limited, off-site improvement works would likely be a requirement following the standard consultation and transport assessment processes.

3.1.4.3 Number of user journeys – bus, car, pedestrian (Pupil/staff mode split)

As there will be little change to travel characteristics the anticipated mode share for the Tobermory site it has been assumed the mode share will remain the same as the results of a hands up survey conducted at the existing Tobermory 2-18 school. For completeness this mode share is presented below;

Site 01 – Mode Share



Currently around 30% of primary-aged pupils walk to the site and 70% are driven to the site. There are also a few trips facilitated by taxi or bus. 40% of secondary-aged currently walk to the site and 45% arrive by bus. A further 15% drive or are driven to the school. 33% of staff walk to the site and the remining 67% currently drive.

Based on the expected student cohort and staff numbers, the expected number of trips by each mode is presented below;

Site 01 – Multi-Modal Trips

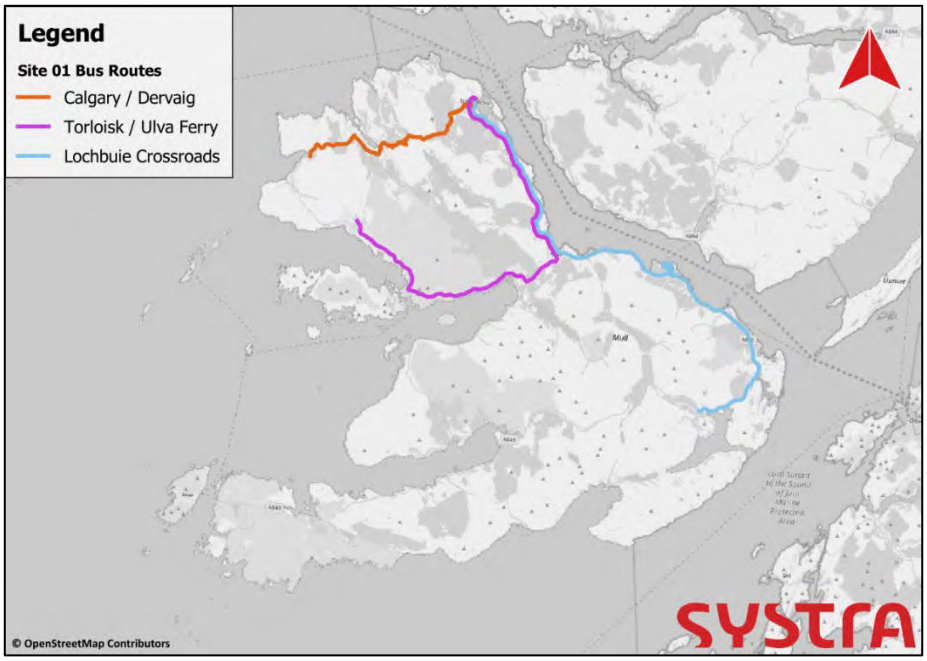
SITE	COHORT	WALK	TAXI	BUS	CAR	FERRY	TOTAL
Site 01 - Tobermory	Primary	29	2	1	64	0	95
Site 01 - Tobermory	Secondary	64	0	71	22	0	157
Site 01 - Tobermory	Staff	20	0	0	39	0	59

Note: minor discrepancies as a result of rounding

As the Tobermory site is located on the existing school site no changes to the current bus operations are anticipated. The buses which would be required for secondary school pupils are one bus from Calgary / Dervaig, one bus from Torloisk and Ulva Ferry via Salen and one bus from Lochbuie Crossroads. The annual revisions of the network and its complex dependencies are expected to be broadly in line with existing operations.

The below map illustrates the anticipated bus network for Site 01.

Site 01 Anticipated Bus Network



3.1.4.4 Potential impact on public transport network

As there will be no requirement to amend the bus services associated with school transport there is unlikely to be any impact, positive or negative, on the wider public transport network.

3.1.4.5 Ability of existing (wider) roads infrastructure to service site

The site is already a part of the established road network and the site's vehicular access would remain. The increase in car parking within the site will reduce the instances of on-street car parking occurring on the adjoining residential streets, in turn making it easier for buses to navigate these streets.

There can at times be complexities in accommodating and manoeuvring larger vehicles on the site, particularly when multiple vehicles are present at once. Buses which arrive via Argyll Terrace then have to reverse up Erray Road with the aid of a banksman.

3.1.4.6 Trips with complex dependencies/multiple stages and modes of travel

Complex dependencies are likely to be broadly similar regardless of the selected site. Further details on this criterion are provided in Section 9.3 of the Transport Review in Appendix H. For pupils who live remotely from the main road network and key population centres, an additional leg of their journey will be required to intersect the bus service. This secondary journey will be facilitated by specific arrangements to them and may include a taxi or short car trip by a parent/carer.

3.1.5 Sustainability

3.1.5.1 Potential for re-use of existing infrastructure and buildings (embodied carbon)

There are a range of existing buildings on site with the potential for re-use. However, their suitability is severely impacted by the level changes which occur within most buildings which result in accessibility issues. The ELC building is more recent than other structures and does have re-use potential with appropriate internal reconfiguration, although the external spaces would benefit from upgrading and reorientation. The site also

benefits from existing servicing although it is anticipated that some upgrading of capacity may be required. There is existing pedestrian links and vehicular access to the site, although the gradients present a challenge.

3.1.5.2 Carbon impact of travel (travel distances and mode of transport)

The estimated one-way vehicle miles by cohort and vehicle for the Tobermory site are presented below. The values presented in this table represent the driven milage of each vehicle as opposed to each passenger. This accounts for the fact that one bus can carry multiple passengers.

Site 01 – Travel Distance (Miles)

Site	Cohort	Taxi	Bus	Car	TOTAL
Site 01 - Tobermory	Primary	6	0	42	**48**
Site 01 - Tobermory	Secondary	0	63	57	**121**
Site 01 - Tobermory	Staff	0	0	303	**303**
Site 01 - Tobermory	**Total**	**6**	**63**	**402**	**471**

As with any new development of this nature Travel Planning measures have the potential to positively influence travel, particularly among staff members. A Travel Plan would seek to encourage behaviours such as car sharing or public transport usage in order to reduce the number of vehicle miles incurred.

Applying the carbon emission assessment methodology outlined in Section 10.7 the estimated carbon emissions for one-way travel (of all vehicles) to the Tobermory site is presented below.

Site 01 – Carbon Emissions (Kg Co2e)

Site	Cohort	Taxi	Bus	Car	TOTAL
Site 01 - Tobermory	Primary	0	0	9	**9**
Site 01 - Tobermory	Secondary	0	67	12	**79**
Site 01 - Tobermory	Staff	0	0	67	**67**
Site 01 - Tobermory	**Total**	**0**	**67**	**89**	**156**

Any increase in carbon emissions from bus travel may only be temporary. In line with current national policy bus fleets are gradually transitioning to electric and hydrogen systems. A similar transition is likely to occur to the car fleet, as residents increasingly embrace the use of electric cars.

3.1.6 Affordability

3.1.6.1 Costs associated with site abnormals

The existing school site will have a number of key factors impacting on the construction capital cost associated with this particular site compared to any other. A key difference is the need to construct the site adjacent to a 'live' school, and this adds a further layer of complexity to construction management. Men, plant and materials will need to be organised in a different way from a 'green field' and unfettered site. This may mean phased operations, different working hours and material delivery regime and this will result in impact on programme of works usually increasing the time to build the same building here as opposed to the alternative site options.

Ground conditions have yet to be fully understood and engineering consultants Waterman have indicated potential for the need to break out rock, which comes at a cost premium, but at this stage is dependent on site investigation and geotechnical reporting. Watermans have also suggested there could logically be the presence of contamination within the site given the central Tobermory location, the existing school site adjacent and the former quarrying on the site. Ground remediation potentially comes at a significant cost, but again is un tested and unquantifiable at this stage and is subject to further reporting.

The efficiency of being able to accommodate 71 carparking spaces, bus lay down areas and provide service vehicles to access the new school will differ for each site, either requiring more or less hard standing than the other alternative sites. Site 1 has slightly more hardstanding than the alternative sites so this comes at a potential additional cost, though conversely does not require any new access roads to be built to accommodate the new school.

Site levels indicate the need to provide some ground retention works to accommodate the site's natural slope to the south. As a result, an allowance for retaining walls to the southern carparking and the 7 a side pitch has been made here.

Flood risk is considered non existent and normal surface water drainage management is anticipated. This site will have the advantage of not requiring any separate drainage system provided the drainage management design can be shown not to increase current surface water discharge into the existing drainage infrastructure.

Utilities provision, the site is adjacent to the full suite of utilities provision. Design consultants RYBKA have noted that capacity and ability for the new school to connect to the existing infrastructure will be subject to further design and discussion with utility providers, but at the moment is assumes to have no abnormal cost uplift. Due to the 'live' site and proximity to the retained school, some element of protection and diversion of utilities will be likely and has been assessed here.

Summary:

Site	Site 1 - Existing Tobermory School Site
CONSTRUCTION CONSTRAINTS	[redacted]
GROUND CONDITIONS	[redacted]
SITE WORKS	[redacted]
FLOOD RISK AND DRAINAGE	[redacted]
UTILITIES	[redacted]
TOTALS	[redacted]

3.1.6.2 Potential acquisition/disposal costs

Argyll and Bute Council are in ownership of the existing Tobermory School site, therefore there would be no assumed acquisition costs. A valuation report has been provided in Appendix L to give an indication.

3.1.6.3 Other (revenue) cost implications e.g. pupil transport

Argyll and Bute Council have assumed there would be no adjustment to revenue costs in relation to transport costs if the existing Tobermory school site is selected, as shown below;

Additional revenue Costs	Detail	Site 1 - Existing Tobermory site	Site 2 - Craignure	Site 3 - Garmony	Site 4 - Tobermory south site
Pupil Transport - additional cost	4 buses @ £6k per calendar month for 10.5 months	0	221,600	252,000	0
Staff Travel- additional cost	10 journey per week 40 weeks *miles *45p per mile less £2.91 per week	0	69,519	58,587	0
Total potential additional cost per annum		**0**	**291,119**	**310,587**	**0**

3.1.7 Risk

3.1.7.1 Wayleaves, legal restrictions and site acquisition risk

Argyll and Bute Council have provided information detailing out ownership, wayleaves, legal restrictions and site acquisition risks within Appendix J.

3.1.7.2 Construction Programme risk

The construction programme for the existing Tobermory site is likely to be longer due to requirement for a tandem-build and the need to undertake phased delivery which will likely include construction of a new school, demolition of the existing school and any landscaping/pitch works to be completed. There is also a risk delay due to implications of working within a constrained site and having to adapt methodology. All sites are impacted evenly in terms of reliance on ferry crossings to support construction activities.

3.1.7.3 Planning designation and sensitive receptors

The site has no designation under LDP2. The King George V land is designated as an Open Space Protection Area. The site lies at the edge of the Conservation Area so there will likely be a requirement for a Visual Impact Appraisal. Under NPF4 a case for the demolition rather than reissue or refurbishment of the school would also be required. There is no requirement for HSE consultation with this site.

3.2 Site 2 – Craignure

3.2.1 Deliverability

3.2.1.1 Utility Infrastructure – capacity and need for any diversions

The site is situated to the northern boundary of Craignure and adjacent to Mull and Iona Community Hospital.

The utilities record drawings received show that the proposed site is clear of existing utilities with no anticipated abnormal costs for diversions within the proposed site.

Existing Electricity (LV and 11kV), Mains Water and Communications infrastructure exists to the south of the site and serves the Hospital, Swimming Pool and Hotel to the south as well as residential units.

On the assumption that capacities are available in the existing infrastructure they would need to be extended by approximately 400m to reach the proposed new school and will need to be co-ordinated with the proposed future housing development site arrangement.

Alternatively, there is potential to connect into the existing infrastructure along the A849 to the west of the site. Infrastructure would need to extend approx. 400m and may present better opportunities in terms of capacity availability.

Potential for positive Business Case for future connection of Net Zero heat networks

Opportunities for a supporting a business case at Craignure exist given the close proximity of larger energy consuming facilities such as the Hospital, Swimming Pool and Hotel. At present heat network support to the local community near the Craignure site is limited although this may be increased should the proposed future housing development progress.

3.2.1.2 Ground Conditions

Published mapping indicates raised marine deposits are present within Site 2. Raised marine deposits frequently contain soft organic clays which, dependant on thickness, may potentially require more onerous foundation solutions such as piles, or ground improvement, in place of traditional shallow foundations. This is largely speculative however, based on reasonable assumptions from published information only, and would require to be confirmed following completion of a targeted intrusive ground investigation campaign.

The stratum recorded to underly Site 2 is predominantly Raised Marine and Beach deposits including sands, gravels, cobles and sites are greater depths. No site or laboratory testing information is currently available with regards to the strength, density, water content and compressibility. It is therefore recommended that an intrusive ground investigation including in-situ testing and sampling for laboratory testing is conducted to fully assess the reusability characteristics of the underlying geology.

It is highlighted that the presence of olivine basalt below the northern half of the site may result in ‘hard-dig’ / possible need for blasting to facilitate excavation dependant on depth to rock and site levels.

3.2.1.3 Topography

Topography has limited impact on the proposed development site. The site has a gradual but significant fall from southeast to northwest, and is bound at the northern corner by a steep level change which rises up to higher ground at the north, although this step from a natural boundary to the site. The nature of the main fall across the site is gradual, and would not present a significant issue in developing the new campus.

It is anticipated that the site would be formed so that parking and the main school building occupy the lower portion of the site to the northwest, with the pitch occupying the higher ground to the southeast. External social space would be used to accommodate the level change in a way which limits the use of any retaining walls.

Topography will impact on any potential new access road formed from the west however, as the A848 is at a significantly higher level than the adjacent part of the site. Ensuring appropriate gradients for any new route is a key consideration.

3.2.1.4 **Flood Risk**

The SEPA flood map indicates that Site 2 is not impacted by flooding from high tides or storm surges. The SEPA Flood Map show medium to high risks around the Site 2, but the Site boundary is at "low to no" risk of surface water flooding. The proposed development should incorporate measures for effective surface water management. Specifically, it is essential to intercept, treat, and attenuate surface water before it is discharged in a controlled manner through a new on-site drainage network. Implementing these measures will ensure compliance with local council policy and contribute to effective flood risk management and water quality protection.

Scottish Water's infrastructure records indicate that the nearest location for wastewater disposal is located in the adjacent housing development in Java Place with 100mm diameter uPVC combined sewers discharging towards coastal waters. Scottish Water would need to confirm in a Pre-Development Enquiry response that there is sufficient capacity in their network to service the development of a new Education Campus.

It should be noted that offsite improvement works may be required to facilitate a connection to the Scottish Water network but depending on timing, this work may be carried out as part of any planned housing development surrounding the Site. Placement of carrier drains through adjacent land would need to be considered so that it does not cause issues for future development if School site is developed in advance of any housing development.

There is no public surface water drainage shown on the Scottish Water infrastructure records within the boundaries of the site. There are also no watercourses in the vicinity of the site which surface water runoff could be discharged to.

Scottish Water will only allow surface water from new development to discharge to the combined sewer network under exceptional circumstances. It is therefore not expected that surface water runoff from any redevelopment of the site will be permitted to be conveyed to the existing combined sewer network. A new surface water connection through Java place towards the existing outfall may be considered but again, depending on timing, a surface water connection may have been made by any planned housing development.

It should be noted that no records are available for the Mull and Iona Community Hospital surface water discharge and can be assumed that this infiltrates to the ground. Therefore, an appropriate method for treating and disposing of surface water from a new facility on the site would need to be established. Further investigation and consultations are required to establish the feasibility of these options.

The investigations that are required to establish if surface water runoff from proposed development can be infiltrated into the subsoils will comprise intrusive ground investigation and insitu testing to determine the suitability of the ground conditions. The requirement to infiltrate surface water runoff to the subsoils will be dependent on Scottish Water permission to discharge surface water to the existing sewers and the rate of any allowance.

The appropriate form of SUDS for redevelopment of the site will depend on the method of surface water disposal. Irrespective of the actual form of the SUDS, a significant proportion of the lowest lying area of the site will require to be allocated for the SUDS and this will place a constraint the development proposals.

3.2.1.5 Site Abnormals

The Craignure site has limited abnormals, but there is the need to form a new vehicular access from the A848 to an acceptable standard. The proximity of the helipad servicing the hospital will also need taken into consideration, particularly during the construction phase.

3.2.1.6 Habitat Constraints

All sites will require to have habitat and ecological surveys carried out as a matter of course as part of statutory approvals process to identify any protected and invasive species present. Ecological surveys have been carried out in close proximity to the site previously, which identified no evidence of protected species. The site is at low risk of any habitat constraints.

3.2.2 Educational Impact

3.2.2.1 Is the site capable of accommodating the brief in full?

At 3.27ha, the identified site has sufficient capacity to accommodate the new campus building at two storeys, a full size all weather pitch, external learning areas and associated car parking, servicing and bus drop off areas on site.

3.2.2.2 Quality of external environment to support outside learning

The BB103 maximum and minimum areas for the pupil roll of the proposed Mull 2-18 campus (31 ELC children, 90 primary learners and 177 secondary learners) is 21,374sqm – 22,847sqm. The Craignure site is 33,000 sqm and is therefore able to accommodate the required amount of external space provision. The site has the capacity to enjoy a broad south facing aspect for secure external learning, sports and social spaces, clearly distinct from carparking, servicing and drop off areas. With good long range views, it has high potential to create good quality external learning environments.

3.2.2.3 Capacity of site for future expansion

The Craignure site is large enough to allow for generous future expansion, which we anticipate would be located at the western end of the school to allow the servicing yard and plant areas to remain operational during any future extension construction period. While the extent of any future expansion is unknown at this time, an additional four standard sized classrooms plus supporting spaces would be easily accommodated over two floors.

3.2.2.4 Travel times for ELC and primary school pupils

The estimated one-way travel times for ELC and Primary pupils are derived from the Transport Review included in Appendix H shown below. The travel times presented are an aggregate, encompassing the wide range of trips which would be made to the site. Travel time for minor legs of a trip (such as walking to the bus stop, a ferry crossing or travelling by car to access bus stops on the main road) are not accounted for in this analysis. In any case, the nature of these journeys are likely to remain constant across all four sites.

SITE	COHORT	TAXI	BUS	CAR	WALK	TOTAL	AVERAGE
Site 02 - Craignure	Primary	70	3,084	140	0	**3,294**	35

Note: minor discrepancies as a result of rounding

3.2.2.5 Travel times for staff and secondary school pupils

The estimated one-way travel times for Secondary pupils and Staff are derived from the Transport Review included in Appendix H shown below. The travel times presented are an aggregate, encompassing the wide range of trips which would be made to the site. Travel time for minor legs of a trip (such as walking to the bus stop, a ferry crossing or travelling by car to access bus stops on the main road) are not accounted for in this analysis. In any case, the nature of these journeys are likely to remain constant across all four sites.

SITE	COHORT	TAXI	BUS	CAR	WALK	TOTAL	AVERAGE
Site 02 - Craignure	Secondary	0	5,147	328	48	**5,523**	35
Site 02 - Craignure	Staff	0	0	1,966	16	**1,982**	34

Note: minor discrepancies as a result of rounding

3.2.2.6 Access and connectivity to good community facilities

The Craignure site enjoys the benefit of close adjacency to the Mull Community Pool for enhanced sports provision. It is also close to the Mull and Iona Community Hospital and Isle of Mull Hotel, which has the potential for partner working with secondary pupils. The site is also close to the ferry terminal, which offers advantages for access for visiting staff from the mainland.

The Craignure site is in close proximity to the ferry terminal, and directly adjacent to Mull and Iona Community Hospital, Isle of Mull Hotel and the Community Swimming Pool. There is a small number of residential properties to the east of the site, with a planning consent in place for future residential development to the south and east of the proposed school site. The main Craignure settlement is further to the southeast, connected by a pedestrian footpath, which contains housing, a shop and café.

3.2.3 Community and Place

3.2.3.1 Impact on family life

A central location would allow the majority of high-school pupils living on Mull to attend the same school. This would benefit all young people but in particular allow young people from the Ross of Mull to attend high-school on the island and return home to their families daily. This would bring a significant positive impact to young people in localities who are currently required to board on the mainland. There is also a strong community sentiment that this could help to reverse trends of depopulation in the Ross of Mull and continue to support population growth for young people and families elsewhere on the island.

With a central location, journey times would increase for families living in Tobermory (assumed to double in time on average) and families living in South West Mull would still need to undertake longer journey times of approximately 1 hour each way, which is significantly higher than average school journey times across Scotland. This is likely to impact family life for many children, young people and their families who currently live in close proximity to Tobermory High-School or who would be required to undertake longer daily journeys as a result of the central location. This could affect the working patterns of parents who would be required to collect/drop-off children from school or other clubs and activities.

A central location option would require more children and young people aged 2-18 to undertake longer daily journeys to school by bus. A number of children and young people in Tobermory Primary and High School have expressed concerns around the implications of daily travel to a central location and the impact this could have on their health and wellbeing, including tiredness, ability to concentrate in school and opportunities to be active either through walking to school or having time to attend afterschool clubs. These impacts could also have a knock-on effect on pupil's family lives if they are unable to fully participate in family live due to longer travel times, feeling tired or not having their needs met in terms of access to leisure, social opportunities and time to be physically active.

3.2.3.2 Equitable – unites north & south of island

West Mull has experienced a depopulation rate of 8% amongst its 0-15 year old age group while North Mull has experienced a depopulation rate of 3% in this age group. Comparatively, the South of Mull has seen a significant increase in population growth for this age group at 36%, while Tobermory has experienced a 15% increase in this age group.

A centrally located campus is sensitive to the demographic challenges faced by families living in South West Mull and would benefit families with teenage children attending secondary school in this region. A number of local families have expressed that attending boarding school on the mainland has negatively impacted their children and discourages young people from settling back in the local community in adulthood, increasing worries over depopulation.

A centrally sited option is expected to allow all children on Mull to attend the same high school with reduced travel times for many pupils in the South and South West of Mull areas and allow for greater socialising amongst young people on Mull. This could have the potential to strengthen community cohesion amongst young people and their families leading to positive social benefits for all island communities. It would also encourage unity between communities in the North and South of Mull.

With a Central site option, there is also the potential for negative demographic implications for those living in Tobermory which is Mull's largest settlement area. Views expressed from community members suggest that families could choose to move away from Tobermory if early years and primary school provision were removed which could result in depopulation if families choose to leave the island.

Both Site 03 Garmony and Site 04 Craignure would lead to increased travel times, distances and carbon emissions, particularly if the catchments are expanded to include the Ross of Mull. Average journey times would increase by approximately 20 minutes for Craignure and 15 minutes for Garmony, necessitating additional bus services in each case. While Craignure offers some potential for active travel with its proximity to an 80-unit residential housing allocation, it is noted that improvements would need to be made footways and cross infrastructure. Garmony lacks nearby housing and has no planned developments at present. There are also limited benefits from improving footways or crossings on the adjacent highway network at this location.

3.2.3.3 Sustain and support local economy

An Economic Impact Assessment has been prepared, this outlines that if the campus was located in Tobermory, the economic benefit would be £3,147,000 higher than would be the case if the campus was built in a central island location.

This assessment takes into account investment stimulus acknowledging that schools influence the attractiveness of an area for potential residents and therefore the value of future housing developments.

The full Economic Impact Assessment is included in Appendix K.

3.2.3.4 Impact of construction activities on existing school/ residential facilities

Although the Craignure site is open, the site is in close proximity to the Mull and Iona Community Hospital which would be impacted on by adjacent construction operations, with the close proximity of the helicopter landing pad requiring pre-construction dialogue with the Air Ambulance service to mitigate the impact of construction operations.

Residential properties around Java Place will not be significantly impacted on by site operations as it is highly likely construction traffic will not access the site along the existing road leading to it.

3.2.4 Accessibility & Transport

3.2.4.1 Good public transport links to site and location

Existing Conditions

The adjacent Mull and Iona Community Hospital is currently served by the service 95 bus. The 96/496 Craignure to Fionnphort service terminates at the nearby ferry terminal.

Future Conditions

The site would incorporate approximately four bus stances to enable pupils to board and disembark safely. These bays would ideally be positioned within the site such that bus doors opened directly onto an expansive pedestrian space, thereby removing the needs for pupils to interact with the car park and other trafficked spaces.

The primary and secondary school days finish approximately 20 minutes apart. Unlike the morning period, where buses are only present on site for as long as it takes for pupils to disembark, buses are required to be present on site in anticipation of the afternoon school bell. This means it is more likely that several buses would be present on site at once.

To avoid a scenario where buses blocked the operation of the car park, bays could be incorporated to the site access road to enable empty buses/coaches for the secondary school to dwell while the primary school buses are boarded.

3.2.4.2 Existing safe active travel links to site

Existing Conditions

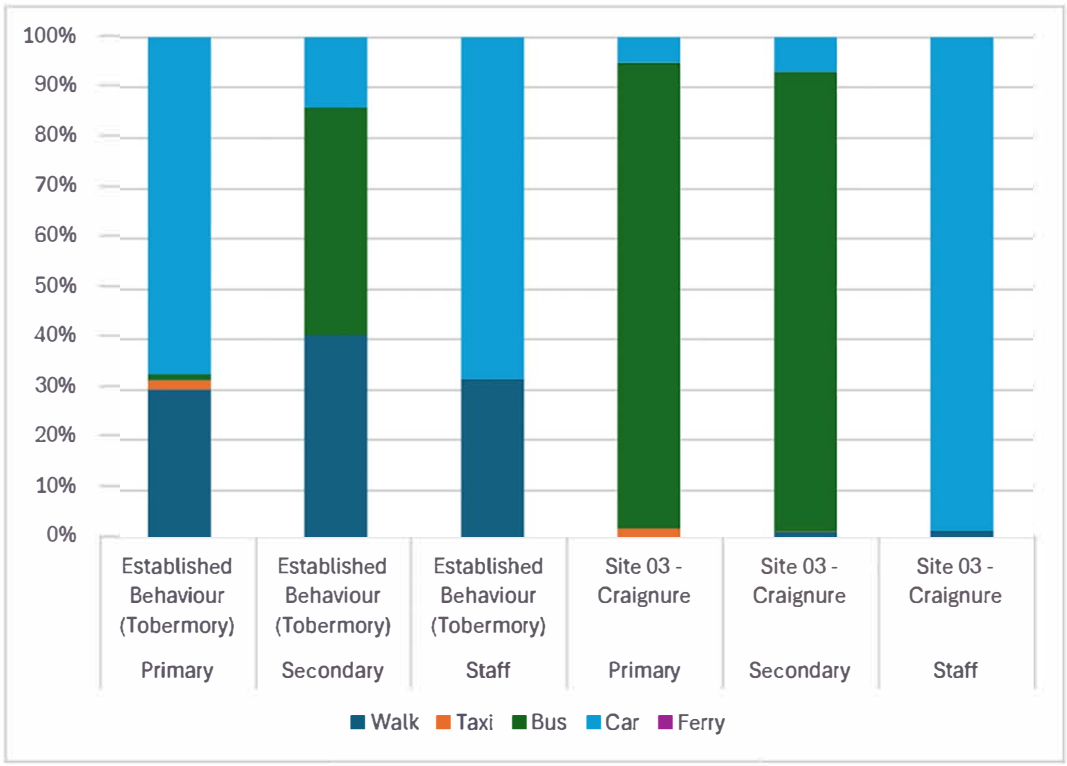
There is currently limited active travel provision in Craignure. Footways which are provided on both sides of the A849 in the 30mph section are narrow. The footway is present on the north side of the road only, beyond the ferry terminal. This footway then stops beyond the entrance to the Mull Community Swimming Pool. There are currently no formal pedestrian crossings on the A849.

Future Conditions

While infrastructure is currently limited, it is clear that a package of off-site improvement works would be required to ensure the safe integration of the site to the established transport network. The scope of those works would emerge through the detailed Transport Assessment which would accompany and inform a Planning Application. At the time of writing, it seems likely that this package would at least comprise enhancements to existing footways, provision of new links where none are currently present and the delivery of new, safe crossing opportunities. It seems reasonable to assume that the adjacent residential allocation could be developed in a manner which facilitates active travel between Craignure and the school site.

3.2.4.3 Number of user journeys – bus, car, pedestrian (Pupil/staff mode split)

The anticipated mode share for the Craignure site, in a scenario where the catchments do not change, is presented below. For comparative purposes, the forecast mode split is presented in the context of established travel behaviour at the existing Tobermory 2-18 school.



Site 02 – Indicative Mode Share

The majority of both primary and secondary-aged pupils would be required to travel to the Craignure site by bus for the main leg of their trip. This mode share is based upon existing travel behaviours and the modelling exercise which is outlined in Chapter 9 of the Transport Review in Appendix H.

If established pupil and staff cohorts were to transfer to this site, a clear implication would be that those whose existing trip is made on foot would need to select an alternative travel mode. In view of the Council's obligation to provide school buses for pupils whose trip cannot be made on foot, it would seem likely that the majority of existing pedestrian trips would become bus trips.

While such a change is likely to cause some disruption in the short-term, the principle established by the existing Tobermory to Salen GMU bus demonstrates that primary school transport over an extended distance is practical and feasible. Importantly, in the context of the Salen GMU service, the Council has been able to understand, and address, concerns which had initially been expressed by parents around the requirement for primary school age children to travel by bus.

There will be limited opportunities the Craignure site to support trips on foot with just a handful of secondary school pupils and staff currently residing in Craignure. Should the adjacent site be developed with housing, it is reasonable to anticipate that a larger number of trips by active travel modes would result.

Based on the expected student cohort and staff numbers, the expected trips by each mode is presented in below;

Site 02 – Multi-Modal Trips

SITE	COHORT	WALK	TAXI	BUS	CAR	FERRY	TOTAL
Site 02 - Craignure	Primary	0	2	88	5	0	95
Site 02 - Craignure	Secondary	3	0	143	11	0	157
Site 02 - Craignure	Staff	1	0	0	58	0	59

Note: minor discrepancies as a result of rounding

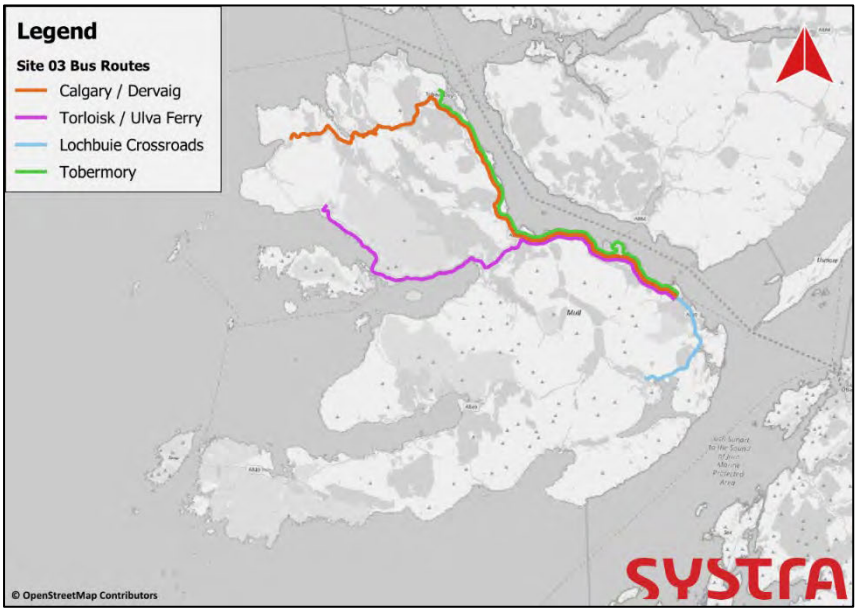
In order to serve the anticipated 231 pupils travelling by bus a total of approximately 7 buses will be required. It is expected that two buses/coaches would be provided to serve primary pupils travelling from Tobermory to Craignure. These would likely have a capacity of around 45 seats each and would operate as closed-door services, i.e. not open to members of the public.

For secondary school pupils, up to five buses (potentially of varying size) would be required.

- One smaller bus would collect children from Calgary and Dervaig before operating non-stop to Craignure. This is necessary as a result of a weight restriction on the Calgary road (B8073) which prohibits the use of buses with more than 33 seats.
- Two buses would collect children from around Tobermory and then collect pupils who live within a reasonable distance of the A849 (such as at Aros or Pennygown) enroute to Craignure. This could be reduced to one bus in the event that a higher-capacity bus/coach was used.
- A further bus would originate in Torloisk and collect children from Ulva Ferry and Salen before continuing non-stop to Craignure.
- Lastly, in the event that school catchments don't change a minibus or large taxi could collect pupils from communities south of Craignure such as Lochbuie and Lochdonhead.

The below map illustrates the anticipated bus network for Site 02.

Site 02 Anticipated Bus Network



School buses would be funded as school transport where pupils meet Argyll and Bute Council's requirements in line with the summary which is provided in Section 3.4 of the Transport Review in Appendix H. Notwithstanding the Council's preparedness to meet the costs of additional bus services, their provision depends on the ability of operators to recruit and retain a sufficient number of drivers, noting the practical operating issues relating to AM and PM-only journeys.

3.2.4.4 Potential impact on public transport network

It is likely that additional buses will be required to facilitate pupil transport. The availability of more buses and drivers has the potential enhance general levels of public transport provision on the island, noting that many existing scheduled local bus services arise primarily because of school transport requirements.

3.2.4.5 Ability of existing (wider) roads infrastructure to service site

The site is well served by the adjoining A849 although there is currently no formalised access into the site.

There is the potential for access to the site to be taken from a new junction formed on the A849. The design of this junction would be subject to technical assessments at an early stage to ensure the suitability of its placement and format in view of road characteristics and adjacent accesses, if applicable. Any new junction would need to comply with driver visibility criteria in line with standard assessment procedures.

3.2.4.6 Trips with complex dependencies/multiple stages and modes of travel

Complex dependencies are likely to be broadly similar regardless of the selected site. Further details on this criterion are provided in Section 9.3 of the Transport Review in Appendix H. For pupils who live remotely from the main road network and key population centres, an additional leg of their journey will be required to intersect the bus service. This secondary journey will be facilitated by specific arrangements to them and may include a taxi or short car trip by a parent/carer.

3.2.5 Sustainability

3.2.5.1 Potential for re-use of existing infrastructure and buildings (embodied carbon)

The Craignure site is a greenfield site, so there is no scope to re-use existing structures on site. However, if programme aligns, there could be scope for shared servicing and utility arrangements with the proposed adjacent housing development. The close proximity of the hospital and the hotel means that there is existing services infrastructure in close proximity, although the capacity would likely require upgrading.

3.2.5.2 Carbon impact of travel (travel distances and mode of transport)

The estimated one-way vehicle miles by cohort and vehicle for the Craignure site are presented in the table below. The values presented in this table represent the driven milage of each vehicle rather than each passenger. This accounts for the fact that one bus can carry multiple passengers.

Site 02 – Travel Distance (Miles)

SITE	COHORT	TAXI	BUS	CAR	TOTAL
Site 03 - Craignure	Primary	40	41	81	**162**
Site 03 - Craignure	Secondary	0	127	192	**319**
Site 03 - Craignure	Staff	0	0	1,113	**1,113**
Site 03 - Craignure	**Total**	**40**	**168**	**1,386**	**1,594**

The above table shows a modest uplift in the driven vehicle miles particularly among staff. As with any new development of this nature travel planning would seek to encourage behaviours such as car sharing or public transport usage in order to reduce these vehicle miles.

The estimated carbon emissions for one-way travel (of all vehicles) to the Craignure site is presented in the table below.

Site 02 – Carbon Emissions (Kg Co2e)

SITE	COHORT	TAXI	BUS	CAR	TOTAL
Site 03 - Craignure	Primary	9	43	18	**70**
Site 03 - Craignure	Secondary	0	135	42	**177**
Site 03 - Craignure	Staff	0	0	245	**245**
Site 03 - Craignure	Total	**9**	**178**	**305**	**492**

3.2.6 Affordability

3.2.6.1 Costs associated with site abnormals

The Craignure school site is located adjacent to Mull and Iona community hospital. There is a helipad adjacent to the site and whilst the full risk of construction next to the helipad needs to be understood, this could present some degree of inflexibility on contractor operations. Most likely this could result in a shut down in operations until an all clear is given and so an allowance for 10 shut downs has been made which equates to around 2.5 working days, though actual frequency of helipad use would need to be reviewed to build a more accurate risk profile for costing.

Ground conditions have yet to be fully understood and engineering consultants Waterman have indicated potential for the need to break out rock, which comes at a cost premium, but at this stage is dependent on site investigation and geotechnical reporting. Watermans have also indicated the presence of lacustrine deposits

which could potentially affect foundation choice and piling alternatives would cost significantly more that pad and strip foundation solutions. However this is subject to further investigation and unproven at this stage.

The efficiency of being able to accommodate 71 carparking spaces, bus lay down areas and provide service vehicles to access the new school will differ for each site, either requiring more or less hard standing than the other alternative sites. Site 2 has slightly more hardstanding than Site 3 Garmony, but significantly this site requires a new 264m long access road and junction with the A849 to be built to accommodate the new school. An alternative access could be considered but would be subject to the adjacent housing development and council approvals for same.

Site levels indicate no need for ground retention.

Flood risk is considered non existent on site but rises to high risk adjacent to the site however normal surface water drainage management is anticipated. A separate drainage system will be required as it is unlikely SEPA will allow connection into any existing combined systems.

There are no existing utilities recorded on the site so no protection or diversions required. Design consultants RYBKA have noted that capacity and ability for the new school to connect to the existing infrastructure will be subject to further design and discussion with utility providers, but at the moment is assumes to have no abnormal cost uplift. Abnormal cost will however be incurred as the nearest infrastructure utilities connections are some 400m away from the site either utilising the local residential utilities infrastructure or alternatively the utilities within the A849 might offer a better alternative with more robust capacity, though connections will still be approx 400m from the site. The new junction for the access road will require some lowering of local utilities.

Summary:

Site	SITE 2 - CRAIGNURE
CONSTRUCTION CONSTRAINTS	
GROUND CONDITIONS	
SITE WORKS	
FLOOD RISK AND DRAINAGE	
UTILITIES	
TOTALS	

3.2.6.2 Potential acquisition/disposal costs

Argyll and Bute Council are to undertake this directly with landowners. A valuation report has been provided in Appendix L to give an indication of potential costs.

3.2.6.3 Other (revenue) cost implications e.g. pupil transport

Argyll and Bute Council have assumed an increase of £321,519 to revenue costs would be expected if Site 02 – Craignure was selected. This is detailed below by considering additional transport requirements.

Additional revenue Costs	Detail	Site 1 - Existing Tobermory site	Site 2 - Craignure	Site 3 - Garmony	Site 4 - Tobermory south site
Pupil Transport - additional cost	4 buses @ £6k per calendar month for 10.5 months	0	221,600	252,000	0
Staff Travel- additional cost	10 journey per week 40 weeks *miles *45p per mile less £2.91 per week	0	69,519	58,587	0
Total potential additional cost per annum		**0**	**291,119**	**310,587**	**0**

3.2.7 Risk

3.2.7.1 Wayleaves, legal restrictions and site acquisition risk

Argyll and Bute Council have provided information detailing out ownership, wayleaves, legal restrictions and site acquisition risks within Appendix J.

3.2.7.2 Construction Programme risk

Construction Programme risk at Site 02 – Craignure is assumed to be low based on the land being relatively flat and ready for development. There are minimal constraints or risks to site access due to location near the ferry terminal. All sites are impacted evenly in terms of reliance on ferry crossings to support construction activities.

3.2.7.3 Planning designation and sensitive receptors

Under Argyll and Bute's Local Development Plan 2, the site is designated as H4022 – Housing. The area to the south of the housing boundary is noted as Open Space Protection Area. Craignure is noted as an area for significant infrastructure action to help increase resilience in the strategic transport network and deliver opportunities for economic and residential development. This particularly includes a focus on Craignure Ferry Terminal.

In September 2022, a detailed planning application for the erection of a residential development comprising 97 residential units and a commercial unit with all associated external works and landscaping was submitted and later approved in December. Part of the proposed application site to the northeast suggested a mixed-use area subject to future detailed applications, which has been proposed to be used for Mull campus. There is no requirement for HSE consultation with this site.

3.3 Site 3 – Garmony

3.3.1 Deliverability

3.3.1.1 Utility Infrastructure – capacity and need for any diversions

The site is situated to the west of the A849 with very little amenity or residential developments in close proximity to the site.

The utilities record drawings received show that the proposed site is clear of existing utilities with no anticipated abnormal costs for diversions within the proposed site.

HV Electric overhead lines exist in close proximity to the site. 11KV lines run along the western side of the A849 and to the south11kV overhead lines connect the community hydro schemes 500kVA sub station to the main infrastructure.

Access to the site will be constrained as it will require to pass under the overhead lines. This will likely be subject to restrictions imposed by SSE in constructing a new access road and will present a risk for construction traffic. At this stage we would suggest abnormal costs are applied to underground a section of this supply cable as enabling works to minimise the associated risk.

If a new junction is formed off the A849 it is anticipated that alterations will be necessary to protect the existing underground water and communications infrastructure introducing further abnormal costs.

On the assumption that capacities are available in the existing infrastructure they would need to be extended by approximately 250m to reach the proposed new school.

Potential for positive Business Case for future connection of Net Zero heat networks

The area around the Garmony site is not heavily populated and very little public amenity facilities in close proximity. There are limited positive elements that could contribute to a business case.

3.3.1.2 Ground Conditions

Published mapping indicates raised marine deposits are present below Site 3. Although indicated as Sand and Gravel, raised marine deposits frequently contain soft organic clays which, dependant on thickness, may potentially require more onerous foundation solutions such as piles, or ground improvement, in place of traditional shallow foundations. This is largely speculative however, based on reasonable assumptions from published information only, and would require to be confirmed following completion of a targeted intrusive ground investigation campaign.

The stratum recorded to underly Site 3 is predominantly Raised Marine deposits including gravel and shelly sand. No site or laboratory testing information is currently available with regards to the strength, density, water content and compressibility. It is therefore recommended that an intrusive ground investigation including in-situ testing and sampling for laboratory testing is conducted to fully assess the reusability characteristics of the underlying geology.

The entirety of Site 3 is underlain by olivine basalt which may result in ‘hard-dig’ / possible need for blasting to facilitate excavation dependant on depth to rock and site levels.

3.3.1.3 Topography

The site is expansive and generally level. There is a knoll of higher ground to the north west corner, but as this sits in the flood plain, this would not be an area of land identified for development. Land rises significantly to the west outside the site boundary, but topography is not a major constraint on the developable area of this site.

3.3.1.4 Flood Risk

The SEPA flood map indicates that Site 3 is not impacted by flooding from high tides or storm surges but is impacted on its northern boundary by fluvial flooding from the watercourse that bounds the northern boundary.

It will be necessary to assess the 1:200-year flood event including an appropriate allowance for climate change. No development will be permitted within the flood plain other than landscaped features that do not alter the existing levels and affect flood plain storage. Proposed school buildings sit out with indicative flood extents but Flood Risk Assessment with modelling of watercourse would be required to confirm site constrains for school buildings and the finished floor level.

Scottish Water's infrastructure records indicate that there are no public sewers nearby for wastewater disposal. Wastewater generated by the school would need to be treated at source via a reed bed, or other treatment process, prior to discharge into the watercourse, subject to SEPA approval.

Suitable space within the red line boundary of the development would need to be provided for this treatment but is not expected to be an issue.

There is no public surface water drainage shown on the Scottish Water infrastructure records within the boundaries of the site. However, there is a watercourse in the vicinity of the site which surface water runoff could be discharged to.

The appropriate form of SUDS for redevelopment of the site will depend on the method of surface water disposal. Irrespective of the actual form of the SUDS, a significant proportion of the lowest lying area of the site will require to be allocated for the SUDS and this will place a constraint the development proposals.

SEPA approval would not be required for disposal of surface water to the watercourse if drainage complies with their General Binding Rules. A non-return valve would need to be included to restrict flood waters entering the drainage system with overland flood routes considered to ensure surcharging of drainage network during flood event does not pose a risk to school building.

3.3.1.5 Site Abnormals

The Garmony site will require a significant upgrade to the junction with the A848, and a new access road into the useable area of the site. The wider site is larger than required, so agreeing final extents and any treatment to land left over needs to be considered. The exact extent of the watercourse flood plain will need to be clarified through FRA modelling.

3.3.1.6 Habitat Constraints

All sites will require to have habitat and ecological surveys carried out as a matter of course as part of statutory approvals process to identify any protected and invasive species present. The site contains a range of different natural settings, including grassland, wetland, watercourses and areas of trees. This diversity of natural setting increases the likelihood that there may be some habitat constraints found on the site.

3.3.2 Educational Impact

3.3.2.1 Is the site capable of accommodating the brief in full?

The Garmony site is large at 9 ha, although the actual usable area is smaller at approximately 2.4 ha. This useable area has sufficient capacity to accommodate the new campus building at two storeys, a full size all weather pitch, external learning areas and associated car parking, servicing and bus drop off areas on site.

3.3.2.2 Quality of external environment to support outside learning

The BB103 maximum and minimum areas for the pupil roll of the proposed Mull 2-18 campus (31 ELC children, 90 primary learners and 177 secondary learners) is 21,374sqm – 22,847sqm. The overall Garmony site is 95,000sqm, although the effective useable area is 37,000sqm. This provides sufficient area to deliver the recommended amount of external space. The site enjoys fantastic long range views, and can be laid out to maximise south facing social, learning and sports spaces and provide good separation from vehicular areas. The site potential for a quality outdoor learning environment is high.

3.3.2.3 Capacity of site for future expansion

The Garmony site is large enough to allow for generous future expansion, which we anticipate would be located at the eastern end of the school to allow the servicing yard and plant areas to remain operational during any future extension construction period. While the extent of any future expansion is unknown at this time, an additional four standard sized classrooms plus supporting spaces would be easily accommodated over two floors.

3.3.2.4 Travel times for ELC and primary school pupils

The estimated one-way travel times for ELC and Primary pupils are derived from the Transport Review included in Appendix H shown below. The travel times presented are an aggregate, encompassing the wide range of trips which would be made to the site. Travel time for minor legs of a trip (such as walking to the bus stop, a ferry crossing or travelling by car to access bus stops on the main road) are not accounted for in this analysis. In any case, the nature of these journeys are likely to remain constant across all four sites.

SITE	COHORT	TAXI	BUS	CAR	WALK	TOTAL	AVERAGE
Site 03 - Garmony	Primary	57	2,623	117	0	**2,797**	29

Note: minor discrepancies as a result of rounding

3.3.2.5 Travel times for staff and secondary school pupils

The estimated one-way travel times for Secondary pupils and Staff are derived from the Transport Review included in Appendix H shown below. The travel times presented are an aggregate, encompassing the wide range of trips which would be made to the site. Travel time for minor legs of a trip (such as walking to the bus stop, a ferry crossing or travelling by car to access bus stops on the main road) are not accounted for in this analysis. In any case, the nature of these journeys are likely to remain constant across all four sites.

SITE	COHORT	TAXI	BUS	CAR	WALK	TOTAL	AVERAGE
Site 03 - Garmony	Secondary	0	4,479	283	0	**4,762**	30
Site 03 - Garmony	Staff	0	0	1,670	0	**1,670**	28

Note: minor discrepancies as a result of rounding

3.3.2.6 Access and connectivity to good community facilities

The Garmony site is isolated, with the only potential connectivity being with the Isle of Mull Rugby Club pitches.

The Garmony site is remote from residential areas and other amenities, with the closest facility being the Isle of Mull Rugby Club and associated pitches to the north.

3.3.3 Community and Place

3.3.3.1 Impact on family life

Site 03 – Garmony is impacted similarly to Site 02 – Craignure and is detailed in Section 3.2.3.1

3.3.3.2 Equitable – unites north & south of island

This is considered to be similar to Site 02 – Craignure and is detailed in Section 3.2.3.2

3.3.3.3 Sustain and support local economy

An Economic Impact Assessment has been prepared, this outlines that if the campus was located in Tobermory, the economic benefit would be £3,147,000 higher than would be the case if the campus was built in a central island location.

This assessment takes into account investment stimulus acknowledging that schools influence the attractiveness of an area for potential residents and therefore the value of future housing developments.

The full Economic Impact Assessment is included in Appendix K.

3.3.3.4 Impact of construction activities on existing school/ residential facilities

The Garmony site has no residential properties in close proximity, with the nearest structures at Argyll Industrial Supplies being over 300m away. The impact of construction activity on existing properties is negligible.

3.3.4 Accessibility & Transport

3.3.4.1 Good public transport links to site and location

Existing Conditions

The service 95/495 currently stops at the nearby rugby club, although this stop is unmarked.

Future Conditions

The site would incorporate four bus stances to enable pupils to board and disembark safely. These bays would ideally be positioned within the site such that bus doors opened directly onto an expansive pedestrian space, thereby removing the needs for pupils to interact with the car park and other trafficked spaces.

The primary and secondary school days finish approximately 20 minutes apart. Unlike the morning period, where buses are only present on site for as long as it takes for pupils to disembark, buses are required to be present on site in anticipation of the afternoon school bell. This means it is more likely that several buses would be present on site at once. To avoid a scenario where buses blocked the operation of the car park, bays could be incorporated to the site access road to enable empty buses/coaches for the secondary school to dwell while the primary school buses are boarded.

3.3.4.2 Existing safe active travel links to site

Existing Conditions

There is currently limited active travel provision in Garmony. No footways are present on this section of A849.

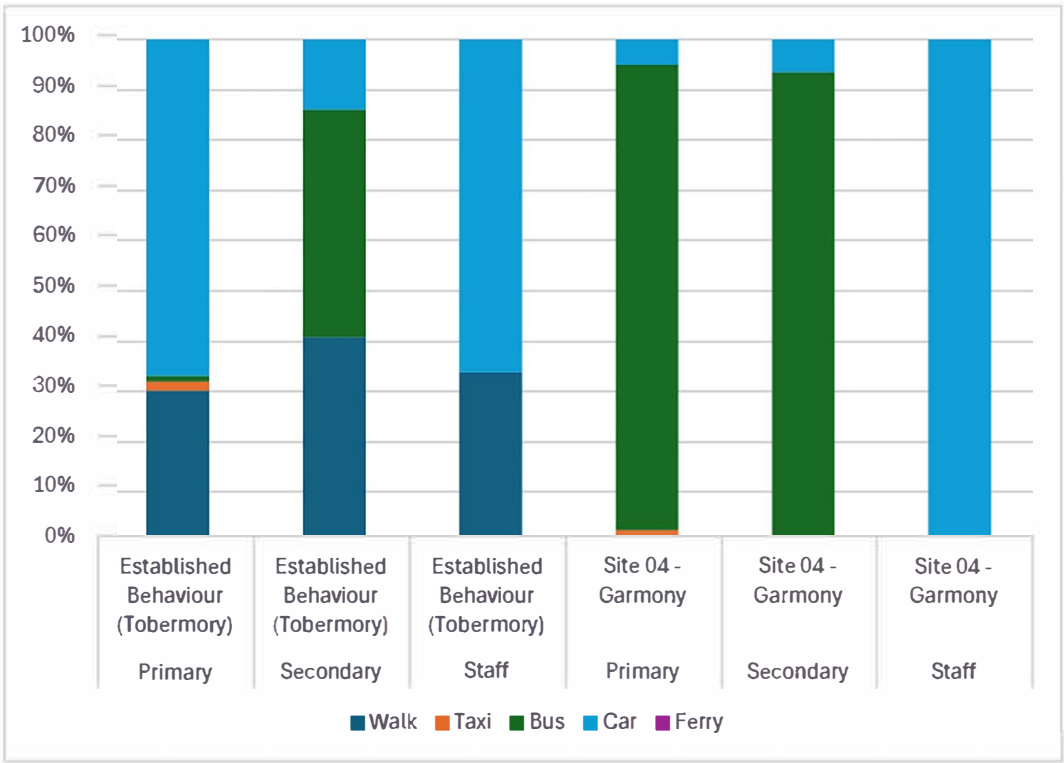
Future Conditions

While infrastructure is currently limited, it is clear that a package of off-site improvement works would be required to ensure the safe integration of the site to the established transport network. The scope of those works would emerge through the detailed Transport Assessment which would accompany and inform a Planning Application. At the time of writing, it seems likely that this package would at least comprise provision of new links where none are currently present.

3.3.4.3 Number of user journeys – bus, car, pedestrian (Pupil/staff mode split)

The anticipated mode share for the Garmony site, in a scenario where the catchments do not change, is presented in the table below. For comparative purposes, the forecast mode split is presented in the context of established travel behaviour at the existing Tobermory 2-18 school.

Site 03 – Indicative Mode Share



The majority of both primary and secondary-aged pupils would be required to travel to the Garmony site by bus for the main leg of their trip. This mode share is based upon existing travel behaviours and the modelling exercise which is outlined in Appendix H.

If established pupil and staff cohorts were to transfer to this site, a clear implication would be that those whose existing trip is made on foot would need to select an alternative travel mode. In view of the Council's obligation to provide school buses for pupils whose trip cannot be made on foot, it would seem likely that the majority of existing pedestrian trips would become bus trips.

While such a change is likely to cause some disruption in the short-term, the principle established by the existing Tobermory to Salen bus demonstrates that primary school transport over an extended distance is

practical and feasible. Importantly, in the context of the Salen service, the Council has been able to understand, and address, concerns which had initially been expressed by parents around the requirement for primary school age children to travel by bus.

There will be limited opportunities for the Garmony site to support trips on foot with a very limited number of pupils or staff currently living locally.

Based on the expected student cohort and staff numbers, the expected number of trips by each mode is presented in the table below.

Site 03 – Multi-Modal Trips

SITE	COHORT	WALK	TAXI	BUS	CAR	FERRY	TOTAL
Site 04 - Garmony	Primary	0	2	88	5	0	95
Site 04 - Garmony	Secondary	0	0	147	10	0	157
Site 04 - Garmony	Staff	0	0	0	59	0	59

Note: minor discrepancies as a result of rounding

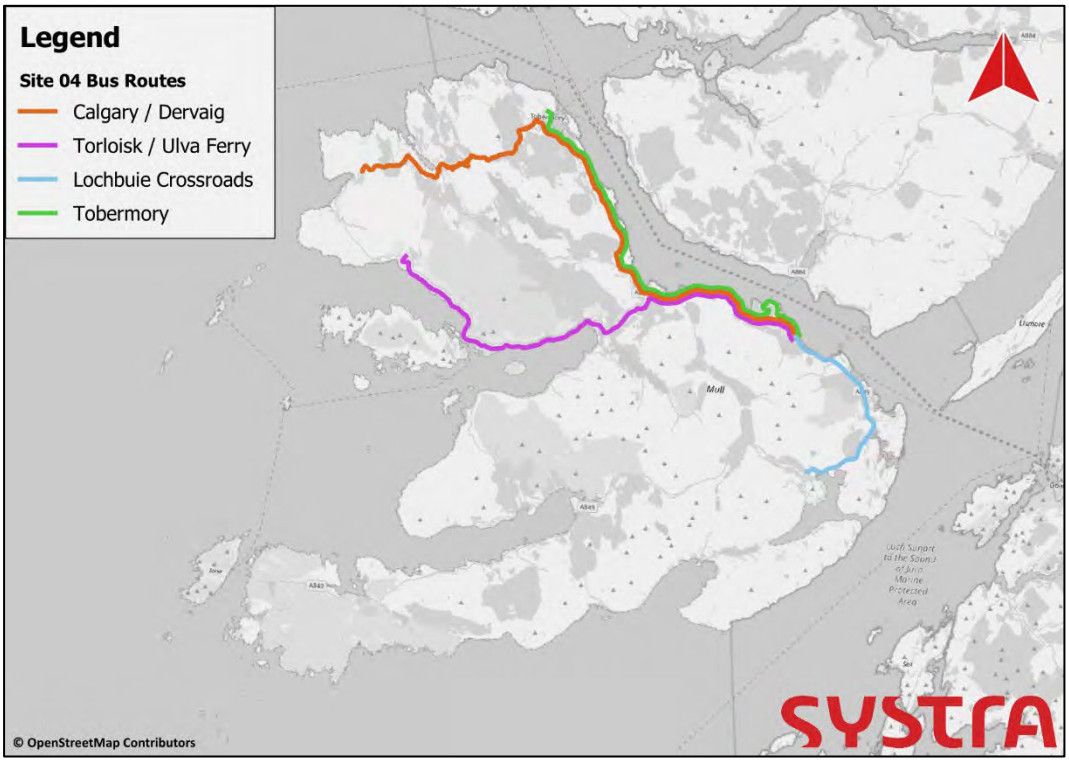
In order to serve the anticipated 235 pupils travelling by bus a total of approximately 7 buses will be required. It is expected that two buses/coaches would be provided to serve primary pupils travelling from Tobermory to Garmony. These would likely have a capacity of around 45 seats each and would operate as closed-door services, i.e. not open to members of the public.

For secondary school pupils, up to five buses (potentially of varying size) would be required.

- One smaller bus would collect children from Calgary and Dervaig before operating non-stop to Garmony. This is necessary as a result of a weight restriction on the Calgary road (B8073) which prohibits the use of buses with more than 33 seats.
- Two buses would collect children from around Tobermory and then collect pupils who live within a reasonable distance of the A849 (such as at Aros or Pennygown) enroute to Garmony. This could be reduced to one bus in the event that a higher-capacity bus/coach was used.
- A further bus would originate in Torloisk and collect children from Ulva Ferry and Salen before continuing non-stop to Garmony.
- Lastly, in the event that school catchments don't change a minibus or large taxi could collect pupils from communities south of Garmony such as Lochbuie and Lochdonhead.

The below map illustrates the anticipated bus network for Site 03.

Site 03 Anticipated Bus Network



Notwithstanding the Council's preparedness to meet the costs of additional bus services, their provision depends on the ability of operators to recruit and retain a sufficient number of drivers, noting the practical operating issues relating to AM and PM-only journeys.

3.3.4.4 Potential impact on public transport network

As discussed in Paragraph 14.2.7 and 14.2.8 of the Transport review in Appendix H, it is likely that additional buses will be required to facilitate pupil transport. The availability of more buses and drivers has the potential enhance general levels of public transport provision on the island, noting that many existing scheduled local bus services arise primarily because of school transport requirements.

3.3.4.5 Ability of existing (wider) roads infrastructure to service site

The site is well served by the adjoining A849 although there is currently no formalised access into the site.

There is the potential for access to the site to be taken from a new junction formed on the A849. The design of this junction would be subject to technical assessments at an early stage to ensure the suitability of placement and format in view of road characteristics and adjacent accesses, if applicable. Any new junction would need to comply with driver visibility criteria in line with standard assessment procedures.

3.3.4.6 Trips with complex dependencies/multiple stages and modes of travel

Complex dependencies are likely to be broadly similar regardless of the selected site. Further details on this criterion are provided in Section 9.3 of the Transport Review in Appendix H. For pupils who live remotely from the main road network and key population centres, an additional leg of their journey will be required to intersect the bus service. This secondary journey will be facilitated by specific arrangements to them and may include a taxi or short car trip by a parent/carer.

3.3.5 Sustainability

3.3.5.1 Potential for re-use of existing infrastructure and buildings (embodied carbon)

The Garmony site is an undeveloped site with no existing structures present for reuse. There is also no servicing to the site currently, although overhead power cables run parallel with the western edge of the site. There is currently no pedestrian or adequate vehicle infrastructure to the site that could be re-used.

3.3.5.2 Carbon impact of travel (travel distances and mode of transport)

The estimated one-way vehicle miles by cohort and vehicle for the Garmony site, are presented below. The values presented in this table represent the driven milage of each vehicle rather than each passenger. This accounts for the fact that one bus can carry multiple passengers.

Site 03 – Travel Distance (Miles)

SITE	COHORT	TAXI	BUS	CAR	TOTAL
Site 03 - Garmony	Primary	35	35	70	**140**
Site 03 - Garmony	Secondary	0	123	159	**283**
Site 03 - Garmony	Staff	0	0	960	**960**
Site 03 - Garmony	**Total**	**35**	**159**	**1,190**	**1,383**

The above table shows a modest uplift in the driven vehicle miles particularly among staff. As with any new development of this nature travel planning would seek to encourage behaviours such as car sharing or public transport usage in order to reduce these vehicle miles.

The estimated carbon emissions for one-way travel (of all vehicles) to the Garmony site is presented in the table below.

Site 03 – Carbon Emissions (Kg Co2e)

SITE	COHORT	TAXI	BUS	CAR	TOTAL
Site 03 - Garmony	Primary	8	37	15	**60**
Site 03 - Garmony	Secondary	0	130	35	**166**
Site 03 - Garmony	Staff	0	0	211	**211**
Site 03 - Garmony	**Total**	**8**	**168**	**262**	**437**

3.3.6 Affordability

3.3.6.1 Costs associated with site abnormals

The Garmony school site is a greenfield site with no likely or obvious restriction to construction of a new building.

Ground conditions have yet to be fully understood and engineering consultants Waterman have indicated potential for the need to break out rock over the entirety of the site, which comes at a cost premium, but at this stage is dependent on site investigation and geotechnical reporting.

The efficiency of being able to accommodate 71 carparking spaces, bus lay down areas and provide service vehicles to access the new school will differ for each site, either requiring more or less hard standing than the other alternative sites. Site 3 has the smallest footprint in this respect of the 4 sites. However this site also requires a new 260m long access road and a new roundabout to be built to accommodate the new school.

Site levels indicate no need for ground retention.

Fluvial flood risk exists to the northern part of the site. A 1 in 200 year assessment will need to be made to model the risk but an allowance has been included to accommodate some form of flood defence. A separate drainage system would be required as it is unlikely SEPA will allow connection into any existing combined systems.

There are significant existing utilities recorded on the site, in particular an existing HV overhead line and 11kV lines skirt the site to the west and south of the site and site access will most likely need to cross below the HV lines and SSE may impose constraints in constructing the new access road and for works during the construction. The recommendation is to allow abnormal costs for diverting part of the HV lines below ground. Further, some degree of protection to the existing utilities will be required on the site. Design consultants RYBKA have noted that capacity and ability for the new school to connect to the existing infrastructure will be subject to further design and discussion with utility providers, but at the moment is assumes to have no abnormal cost uplift. Abnormal cost will however be incurred as the nearest infrastructure utilities connections are some 250m away from the site either utilising the closest utilities infrastructure.

Site	SITE 3 - GARMONY
CONSTRUCTION CONSTRAINTS	
GROUND CONDITIONS	
SITE WORKS	
FLOOD RISK AND DRAINAGE	
UTILITIES	
TOTALS	

3.3.6.2 Potential acquisition/disposal costs

Argyll and Bute Council are to undertake this directly with landowners. A valuation report has been provided in Appendix L to give an indication of potential costs.

3.3.6.3 Other (revenue) cost implications e.g. pupil transport

Argyll and Bute Council have assumed an increase of £310,587 to revenue costs would be expected if Site 03 – Garmony was selected. This is detailed below by considering additional transport requirements.

Additional revenue Costs	Detail	Site 1 - Existing Tobermory site	Site 2 - Craignure	Site 3 - Garmony	Site 4 - Tobermory south site
Pupil Transport - additional cost	4 buses @ £6k per calendar month for 10.5 months	0	221,600	252,000	0
Staff Travel- additional cost	10 journey per week 40 weeks *miles *45p per mile less £2.91 per week	0	69,519	58,587	0
Total potential additional cost per annum		**0**	**291,119**	**310,587**	**0**

3.3.7 Risk

3.3.7.1 Wayleaves, legal restrictions and site acquisition risk

Argyll and Bute Council have provided information detailing out ownership, wayleaves, legal restrictions and site acquisition risks within Appendix J.

3.3.7.2 Construction Programme risk

If Site 03 – Garmony was selected then initial site investigation would be needed to fully understand site conditions. Following visits to the site it's expected that an element of remediate would be needed to make the land suitable for development. All sites are impacted evenly in terms of reliance on ferry crossings to support construction activities.

3.3.7.3 Planning designation and sensitive receptors

The site has no designation under the Local Development Plan. It is noted as within the countryside area.

3.4 Site 4 – South Tobermory

3.4.1 Deliverability

3.4.1.1 Utility Infrastructure – capacity and need for any diversions

The site is situated to southern edge of Tobermory with the western boundary adjacent to the A848.

The utilities record drawings received show that the proposed site is clear of existing utilities.

However, it is evident that 5 overhead power lines exist within the site and located in the vicinity of the proposed car park area in the adjacent sketch. One of the poles appears to have a pole mounted transformer but with no obvious signs that it is connected. As this infrastructure is not shown on record drawings and given the above observations it is assumed that this infrastructure is redundant and can be removed without any significant abnormal cost to the project

Existing Electricity (LV and 11kV), Mains Water and Communications infrastructure exists in close proximity to the site.

Whilst existing infrastructure exists, further engagement will be necessary with Utilities companies in respect of any anticipated increased capacities.

Potential for positive Business Case for future connection of Net Zero heat networks

The site is located at the southern edge of Tobermory and approximately ¾ km from the most densely populated part of town. The connection of the school to support a business would be positive but diminishes the further it is away from the most populated areas. It would however help to support any proposals to extend infrastructure to residences and business that are located towards the southern boundary of the town.

3.4.1.2 Ground Conditions

At Site 4, superficial deposits have not been recorded within the available mapping, if bedrock is present beneath the topsoil strip, it is envisaged shallow strip or pad foundations could be utilised bearing directly onto bedrock.

If Superficial deposits however are present at significant depths at Site 4, more onerous foundations may be required.

The above is based on reasonable assumptions from published information only, and would require to be confirmed following completion of a targeted intrusive ground investigation campaign.

The suitability of deposits underlying Site 4 are unknown and therefore the deposits earthworks suitability for reuse cannot be speculated upon prior to an intrusive ground investigation.

The entirety of Site 4 is underlain by olivine basalt which may result in ‘hard-dig’ / possible need for blasting to facilitate excavation dependant on depth to rock and site levels.

3.4.1.3 Topography

Commentary is based on the assumption the additional parcels of land adjacent to the A848 are included as part of the overall site. Given the site is located on the ridge at the southern end of town, topography will play a key role in the design solution.

From the western boundary, the site generally slopes down significantly towards the eastern edge defined by the A848, with a significant shelf at the line of the current site boundary. On the Western edge of the site the land falls steeply towards the West.

The sloping nature of the site will result in a design solution which has to address the level change, by adopting a stepped floor plan. This is an approach that has been successfully adopted in schools for Argyll

and Bute previously, such as Kirn Primary and will deliver a fully accessible learning environment. It is anticipated that retaining walls will be required internally at this level change, and to external areas I conjunction with some rock excavation, particularly around the all weather pitch provision which will add to costs.

3.4.1.4 Flood Risk

The SEPA flood map indicates that Site 4 is not impacted by flooding from high tides or storm surges but fluvial flooding is noted from the watercourse near its western boundary, but flooding does not enter Site.

Proposed school buildings sit out with indicative flood extents but a Flood Risk Assessment with modelling of watercourse will likely be required from planning to confirm site constrains for school buildings and the finished floor level. It will be necessary to assess the 1:200-year flood event including an appropriate allowance for climate change.

Scottish Water's infrastructure records indicate that there are public sewers nearby for wastewater disposal. Wastewater generated by the school would connect to the foul sewer located within the grass verge between the A848 and Meadhonish cottage.

A Pre-Development Enquiry (PDE) would need to be submitted to Scottish Water to ensure capacity is available within their network to allow a connection from the proposed school campus.

There is an existing public surface water sewer shown on the Scottish Water infrastructure records located within the grass verge between the A848 and Meadhonish cottage.

A Pre-Development Enquiry (PDE) would need to be submitted to Scottish Water to ensure capacity is available within their network to allow a connection from the proposed school campus and what limit surface water would be restricted to.

Alternatively, surface water could discharge to the Tobermory River, SEPA approval would not be required for disposal of surface water to the watercourse if drainage complies with their General Binding Rules. A non-return valve would need to be included to restrict flood waters entering the drainage system with overland flood routes considered to ensure surcharging of drainage network during flood event does not pose a risk to school building.

The appropriate form of SUDS for redevelopment of the site will depend on the method of surface water disposal. Irrespective of the actual form of the SUDS, a significant proportion of the lowest lying area of the site will require to be allocated for the SUDS and this will place a constraint the development proposals.

3.4.1.5 Site Abnormals

The site has a number of abnormals. There are currently overhead powerlines which enter the site and then stop in close proximity to the site boundary, which will need either removed or diverted. The sloping nature of the site means that there will be areas of excavation and retaining walls under the proposed building location, with retaining walls across the external areas on site, particularly between the car park and social areas, and the south and east edges of the 7 aside all weather pitch.

Due to limitations in space, 14m long buses will require to be accommodated in a layby formed along the edge of the A848 rather than within the site.

3.4.1.6 Habitat Constraints

All sites will require to have habitat and ecological surveys carried out as a matter of course as part of statutory approvals process to identify any protected and invasive species present. The site is bound to the

east by the A848 which acts as a barrier to coastal species. Elsewhere the land is sloping paddock land at the lower levels, with grassed areas on higher ground, although rock is close to the surface. There is likely to be limited impact from habitat restrictions.

3.4.2 Educational Impact

3.4.2.1 Is the site capable of accommodating the brief in full?

At 2.1ha, the site can accommodate the new campus brief, but the change in level on site will dictate a design solution which works with the site levels, being formed over three levels. Car parking can be accommodated on site, but bus drop off would need dealt with by forming a layby adjacent to the site. The other limitation of the site is the inability to accommodate a full size 100m x 60m all weather pitch, and the extent of external learning and social space. A seven aside all weather pitch could be accommodated on site. The building and external areas will require a series of retaining walls to deal with the change in level across the site.

3.4.2.2 Quality of external environment to support outside learning

The BB103 maximum and minimum areas for the pupil roll of the proposed Mull 2-18 campus (31 ELC children, 90 primary learners and 177 secondary learners) is 21,374sqm – 22,847sqm. The South Tobermory site is 20,500sqm, and as is below the recommended minimum area for external space. While the site is too small to provide a full size all weather pitch, the nature of the site topography does create the opportunity for a rich and varied external learning environment, with the site able to be laid out to maximise the external space available, and good separation from parking and service areas. The site has medium potential for a quality outdoor learning environment.

3.4.2.3 Capacity of site for future expansion

The site is compact, but scope for future expansion exists by designing the building in such a way that it can be extended by a structural bay to the northwest. This would realise an additional two standard sized classrooms plus supporting space on a single level. This would allow the school to remain operational during construction with limited disruption.

3.4.2.4 Travel times for ELC and primary school pupils

The estimated one-way travel times for ELC and Primary pupils are derived from the Transport Review included in Appendix H are shown below. The travel times presented are an aggregate, encompassing the wide range of trips which would be made to the site. Travel time for minor legs of a trip (such as walking to the bus stop, a ferry crossing or travelling by car to access bus stops on the main road) are not accounted for in this analysis. In any case, the nature of these journeys are likely to remain constant across all four sites.

SITE	COHORT	TAXI	BUS	CAR	WALK	TOTAL	AVERAGE
Site 04 – South Tobermory	Primary	0	80	150	440	**670**	7

Note: minor discrepancies as a result of rounding

3.4.2.5 Travel times for staff and secondary school pupils

The estimated one-way travel times for Secondary pupils and Staff are derived from the Transport Review included in Appendix H are shown below. The travel times presented are an aggregate, encompassing the

wide range of trips which would be made to the site. Travel time for minor legs of a trip (such as walking to the bus stop, a ferry crossing or travelling by car to access bus stops on the main road) are not accounted for in this analysis. In any case, the nature of these journeys are likely to remain constant across all four sites.

SITE	COHORT	TAXI	BUS	CAR	WALK	TOTAL	AVERAGE
Site 04 – South Tobermory	Secondary	0	2,110	135	948	**3,192**	20
Site 04 – South Tobermory	Staff	0	0	655	293	**948**	16

Note: minor discrepancies as a result of rounding

3.4.2.6 Access and connectivity to good community facilities

While not as centrally located within Tobermory as the existing school site, the South Tobermory site still retains the potential for easy links with local businesses, community resources and employers.

The South Tobermory site enjoys the same advantages as the existing Tobermory school site as a result of it's proximity to the primary settlement on island. It is located approximately 900m further south than the existing school site. While it is not as centrally located as the current school site within the wider settlement, the location at the southern end of the town places it close-by areas designated for future residential development.

3.4.3 Community and Place

3.4.3.1 Impact on family life

It's assumed that this will be the same as siting the proposed campus on the existing Tobermory School site as per Section 3.1.3.1.

3.4.3.2 Equitable – unites north & south of island

Retaining education provision in Tobermory would positively impact pupils, families and community members currently utilising the existing Site through the re-provision of enhanced and contemporary facilities. This could also encourage population retention and growth in the area.

However, there would be no additional benefit to families living in the South West of Mull who would likely continue with status quo education arrangements for local primary schooling and off-island secondary-school attendance. This option poses the continued risk of depopulation with the South West of Mull, where families may make decisions to relocate on the basis of their child's education and to avoid the possibility weekly boarding on the mainland.

Site 04 South Tobermory is walkable from local housing and a proposed residential allocation for 112 new homes offers further potential for active travel to and from this proposed site. Other impacts are expected to remain consistent with baseline conditions for Site Option 01.

3.4.3.3 Sustain and support local economy

An Economic Impact Assessment has been prepared, this outlines that if the campus was located in Tobermory, the economic benefit would be £3,147,000 higher than would be the case if the campus was built in a central island location.

This assessment takes into account investment stimulus acknowledging that schools influence the attractiveness of an area for potential residents and therefore the value of future housing developments.

The full Economic Impact Assessment is included in Appendix K.

3.4.3.4 Impact of construction activities on existing school/ residential facilities

The South Tobermory site only has one road adjacent to it's boundary, the A848 to the west. While there are residential properties north and south of the site, the impact on these properties would be minimal as construction traffic would not use residential roads, instead coming directly into the site off the A848.

3.4.4 Accessibility & Transport

3.4.4.1 Good public transport links to site and location

Existing Conditions

The existing service 95/495 passes the site frontage. There are a pair of bus stops located south of the site at Struan Crescent.

Future Conditions

The site could incorporate approximately three bus stances adjacent to the school entrance to enable safe boarding and disembarkation of pupils. Alternatively, as a result of site constraints, bus bays could be provided adjacent to the site on the A848.

The service 494 bus from Calgary to Tobermory would not have to be significantly diverted from its present route in order to service the South Tobermory Site.

3.4.4.2 Existing safe active travel links to site

Existing Conditions

There are currently footways on both sides of the A848 between Eas Brae and the site. Footways are provided on at least one side of the road down into the town centre and up into Rockfield Road and the Tobermory Medical Practice. These footways are generally lit and appear to be of a good quality, albeit narrow in some locations.

There are currently no footways provided on Dervaig Road or Breadalbane Street, both of which are narrow and unsuitable for pedestrians. There is a pedestrian footway between Argyll Terrace and Eas Brae enabling access between the site and the majority of housing in Tobermory.

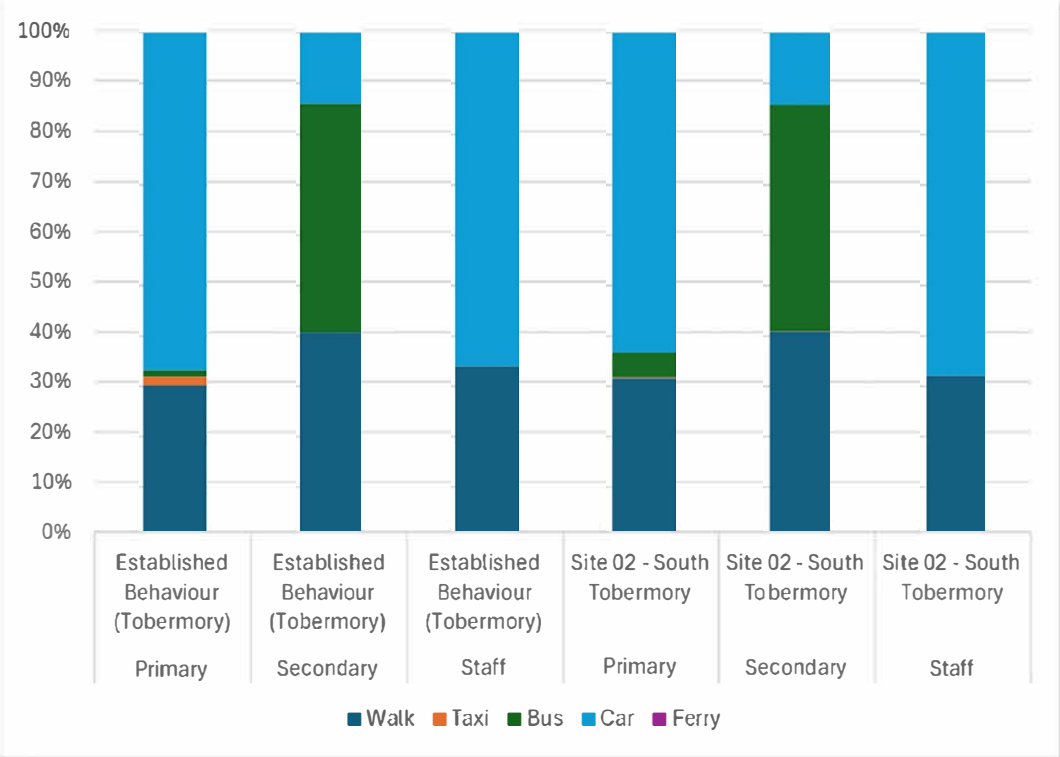
There are currently no formalised pedestrian crossings on the A848 in the vicinity of the site.

Future Conditions

While crossing infrastructure is currently limited, off-site improvement works of this nature would likely be a requirement following the standard consultation and transport assessment processes. It seems reasonable to assume that the adjacent residential allocation could be developed in a manner which facilitates active travel between these sites and the school site.

3.4.4.3 Number of user journeys – bus, car, pedestrian (Pupil/staff mode split)

The anticipated mode share for the South Tobermory site is anticipated to be broadly similar to that of the existing school site. For comparative purposes, the forecast mode split is presented in the context of established travel behaviour at the existing Tobermory 2-18 school in the graph below.



The above graph demonstrates that mode share among all cohorts is expected to remain broadly similar. The main difference is the slight increase in bus travel among primary-aged pupils. While this is borne out as a result of the modelling assumptions there are a handful of pupils who live outwith the catchment but on the main A849/A848 road. There is potential, therefore, for these pupils to be transported to the site by bus.

Based on the expected student cohort and staff numbers, the expected number of trips by each mode is presented in the table below.

Site 04 – Multi-Modal Trips

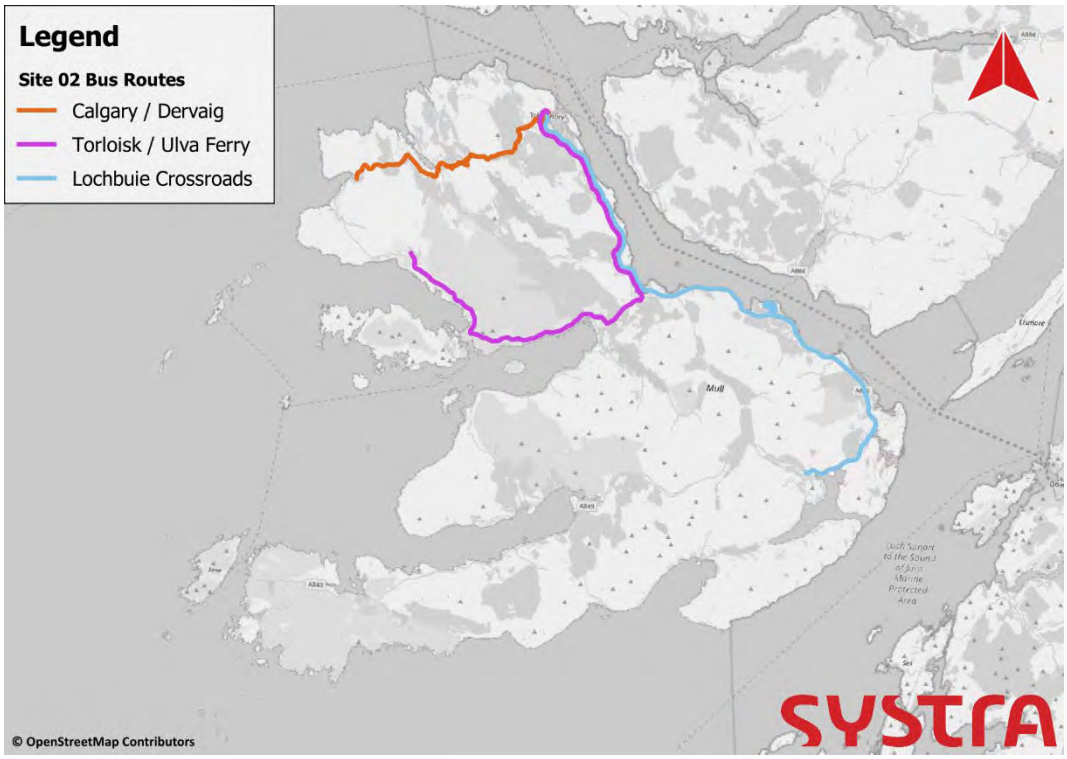
Site	Cohort	Walk	Taxi	Bus	Car	Ferry	TOTAL
Site 04 – South Tobermory	Primary	30	0	5	60	0	**95**
Site 04 – South Tobermory	Secondary	64	0	70	22	0	**157**
Site 04 – South Tobermory	Staff	19	0	0	40	0	**59**

Note: minor discrepancies as a result of rounding

As the Tobermory site is located just 0.7miles from the existing school site no changes to the current bus operations are anticipated. The buses which would be required for secondary school pupils are one bus from Calgary / Dervaig, one bus from Torloisk and Ulva Ferry via Salen and one bus from Lochbuie Crossroads. The annual revisions of the network and its complex dependencies are expected to be broadly in line with existing operations.

The map below illustrates the anticipated bus network for Site 04.

Site 04 Anticipated Bus Network



School buses would be funded as school transport where pupils meet Argyll and Bute Council's requirements as detailed in Appendix K.

3.4.4.4 Potential impact on public transport network

As there will be no material requirement to amend the bus services associate with school transport there is unlikely to be any impact, positive or negative, on the wider public transport network.

3.4.4.5 Ability of existing (wider) roads infrastructure to service site

The site is well served by the adjoining A848 although there is currently no formalised access into the site.

There is the potential for access to the site to be taken from a new junction formed on the A848. The design of this junction would be subject to technical assessments at an early stage to ensure the suitability of junction placement and format in view of road characteristics and adjacent accesses, if applicable. Any new junction would need to be checked for driver visibility in line with standard assessment procedures.

3.4.4.6 Trips with complex dependencies/multiple stages and modes of travel

Complex dependencies are likely to be broadly similar regardless of the selected site. Further details on this criterion are provided in Section 9.3 of the Transport Review in Appendix H. For pupils who live remotely from the main road network and key population centres, an additional leg of their journey will be required to intersect the bus service. This secondary journey will be facilitated by specific arrangements to them and may include a taxi or short car trip by a parent/carer.

3.4.5 Sustainability

3.4.5.1 Potential for re-use of existing infrastructure buildings (embodied carbon)

The South Tobermory site is undeveloped, with no scope for the re-use of existing structures on site. It benefits from existing footpath infrastructure from the town centre, and has overhead power lines coming into the site.

3.4.5.2 Carbon impact of travel (travel distances and mode of transport)

The estimated one-way vehicle miles by cohort and vehicle for the South Tobermory site are presented below. The values presented in this table represent the driven milage of each vehicle as opposed to each passenger. This accounts for the fact that one bus can carry multiple passengers.

Site 04 – Travel Distance (Miles)

SITE	COHORT	TAXI	BUS	CAR	TOTAL
Site 04 – South Tobermory	Primary	0	0	37	**37**
Site 04 – South Tobermory	Secondary	0	62	50	**112**
Site 04 – South Tobermory	Staff	0	0	304	**304**
Site 04 – South Tobermory	**Total**	**0**	**62**	**390**	**453**

The above table shows a minor decrease in the driven vehicle miles compared to existing conditions. This is primarily as a result of marginally shorter trips for those travelling from the south of Mull.

The estimated carbon emissions for one-way travel (of all vehicles) to the South Tobermory site is presented below;

Site 04 – Carbon Emissions (Kg Co2e)

SITE	COHORT	TAXI	BUS	CAR	TOTAL
Site 04 – South Tobermory	Primary	0	0	8	**8**
Site 04 – South Tobermory	Secondary	0	66	11	**77**
Site 04 – South Tobermory	Staff	0	0	67	**67**
Site 04 – South Tobermory	**Total**	**0**	**66**	**86**	**152**

3.4.6 Affordability

3.4.6.1 Costs associated with site abnormals

The Tobermory South school site is a greenfield site with no likely or obvious restriction to construction of a new building.

Ground conditions have yet to be fully understood and engineering consultants Waterman have indicated potential for the need to break out rock, which comes at a cost premium, but at this stage is dependent on site investigation and geotechnical reporting. Watermans have also indicated the presence of lacustrine deposits which could potentially affect foundation choice and piling alternatives would cost significantly more that pad and strip foundation solutions. However this is subject to further investigation and unproven at this stage.

The efficiency of being able to accommodate 71 carparking spaces, bus lay down areas and provide service vehicles to access the new school will differ for each site, either requiring more or less hard standing than the other alternative sites. Site 4 has the second largest footprint in this respect of the 4 sites. This site requires a new junction to the A849 as well as off site bus lay down zones to the east of the site.

Site levels indicate significant changes in topography and much more sloped that the alternative sites with the need to some ground retention works to accommodate the site's natural slope to the south. As a result, an allowance for retaining walls to the eastern boundary with the A849, the carparking area and the MUGA pitch has been made here. In addition Ryder have advised that the preferred location of the school will require it to 'step' up the hill to be efficient with the substructures, however this will introduce retaining walls into the build.

Fluvial flood risk exists to the western part of the site. A 1 in 200 year assessment will need to be made to model the risk but an allowance has been included to accommodate some form of flood defence. A separate drainage system would be required as it is unlikely SEPA will allow connection into any existing combined systems.

Design consultants RYBKA have noted that capacity and ability for the new school to connect to the existing infrastructure will be subject to further design and discussion with utility providers, but at the moment is assumes to have no abnormal cost uplift. No existing utilities infrastructure on the site recorded so no diversion costs expected. Five overhead power lines cross the location of the proposed carpark, however RYBKA believe the lines may be redundant and can be removed with no significant abnormal cost. A full suite of utilities exist in close proximity to the site so no significant connection runs expected and any increase in capacity to be discussed with Utilities in due course. The existing watermain at the new A849 junction would need to be lowered.

Summary:

Site	SITE 4 - TOBERMORY SOUTH
CONSTRUCTION CONSTRAINTS	
GROUND CONDITIONS	
SITE WORKS	
FLOOD RISK AND DRAINAGE	
UTILITIES	
TOTALS	

3.4.6.2 Potential acquisition/disposal costs

Argyll and Bute Council are to undertake this directly with landowners. A valuation report has been provided in Appendix L to give an indication of potential costs.

3.4.6.3 Other (revenue) cost implications e.g. pupil transport

Argyll and Bute Council have assumed there would be no adjustment to revenue costs in relation to transport costs if Site 04 – Tobermory South is selected, as shown below;

Additional revenue Costs	Detail	Site 1 - Existing Tobermory site	Site 2 - Craignure	Site 3 - Garmony	Site 4 - Tobermory south site
Pupil Transport - additional cost	4 buses @ £6k per calendar month for 10.5 months	0	221,600	252,000	0
Staff Travel- additional cost	10 journey per week 40 weeks *miles *45p per mile less £2.91 per week	0	69,519	58,587	0
Total potential additional cost per annum		**0**	**291,119**	**310,587**	**0**

3.4.7 Risk

3.4.7.1 Wayleaves, legal restrictions and site acquisition risk

Argyll and Bute Council have provided information detailing out ownership, wayleaves, legal restrictions and site acquisition risks within Appendix J.

3.4.7.2 Construction Programme risk

There is not assumed to be any significant Construction Programme risk associated with construction stage as the site is generally accessible. The site will require preparation for development, however this could be done at an early stage to mitigate any impact on the construction end date. All sites are impacted evenly in terms of reliance on ferry crossings to support construction activities.

3.4.7.3 Planning designation and sensitive receptors

The site is located at the edge of the settlement area and countryside area. Under LDP 2, it is designated under housing as H4018 - Tobermory 3. It is located across from the business and Industry Area and is close to Tobermory 1 and Tobermory 2 which are designated as housing under the Strategic Masterplan Area. There is no requirement for HSE consultation with this site.

4.0 Appendices

Appendix A – Engagement Report

Appendix B – Long List Report

Appendix C – Short List Site Layouts

Appendix D – Existing Utilities Report

Appendix E – Desktop Geotechnical Report

Appendix F – Flooding and Drainage Report

Appendix G – Place Plans

Appendix H – Transport Review

Appendix I – Site Abnormals Cost

Appendix J – Wayleaves, Legal and Site Acquisition Risk

Appendix K – Integrated Impact Assessment Report

Appendix L – Valuation Report