Stage 4: Network planning for Walking

Core design principles

Accessibility for Disabled people underpins the design of good walking infrastructure. All footways should be of an aspirational minimum width of 1.5-2.0m, and footways, crossings and shared carriageways should be designed to enable a wheelchair user or visually impaired pedestrian to navigate the entire island street network without physical impediment and preferably independently without assistance.

'Access barriers' should not be installed, and bollarded entrances should be designed with bollards 1.5m apart. Footway crossfalls should not exceed 1:40, and other gradients should be minimised subject to natural topography. Footways should be continuous without undulation at private driveways and entrances.

On the Coastal Path where heavy engineering is inappropriate, "reasonable adjustments" should be made to enable most people to enjoy the coastline. Alternative routes should be available to people with more severe impediments to mobility.

Junction designs should emphasise the priority given to pedestrians across the minor arm, as set out in the Highway Code. Features such as whole junction speed tables, 'continuous footway' and 'side-road zebra crossings' should be considered alongside measures to reduce crossing distances, turning radii and vehicle speeds.

Where necessary, measures should be introduced to prevent obstructive footway parking as this impedes the progress of people with buggies, mobility scooters and wheelchairs.

Trip generators, funnel routes and core walking zones

Map Figure 8 shows the island's walking network, key trip generators (as identified by residents' questionnaire responses) and funnel routes defined as streets where all other routes from a particular direction converge. Alongside key desire lines, this provides a clear indicator for prioritisation where funnel routes are the higher priority followed by principal feeder routes.

Network assessment methodology

The walking network has been scored based on the best and worst conditions on the islands and also typically nationwide.

Lighting has been left out of the following scoring list. Whilst it might normally be provided, it would be regarded inappropriate in context, and most people carry torches.

The islands annually celebrate their status of having some of the darkest night skies in the United Kingdom, and dark skies are an important feature of the National Landscape (AONB), adding to the islands' peace and tranquillity. There are some local planning guidance documents covering this, including ways in which low lighting is good for nature.

All links score the highest in the range for 'best', 'middling' or 'poor' with subtractions made for other considerations.

Best (7-9)

Existing section has either:

- Smoothly-surfaced footway(s) with a minimum clear width of 1.5m and no undulations.
- Crossfalls continuous in one plane and not exceeding 1:40 (estimate – a footway with this crossfall would be subjectively level).
- Good quality kerbs with no breaks, and well-laid with due regard to accessibility.
- Bollards or enforcement where necessary to prevent footway parking.
- Ramped crossovers with level footway (not undulating footway surface)
- Continuous footway treatment at side road junctions
- Safe crossing points where needed.
- Handrails and other accessibility assistance where needed, if heavy engineering of hard surfaces and ramps would be inappropriate.
- Appropriate tactile information where flush dropped kerbs are present.
- Off-road routes and roads shared between vehicles and pedestrians have a quality hard surface in good condition.

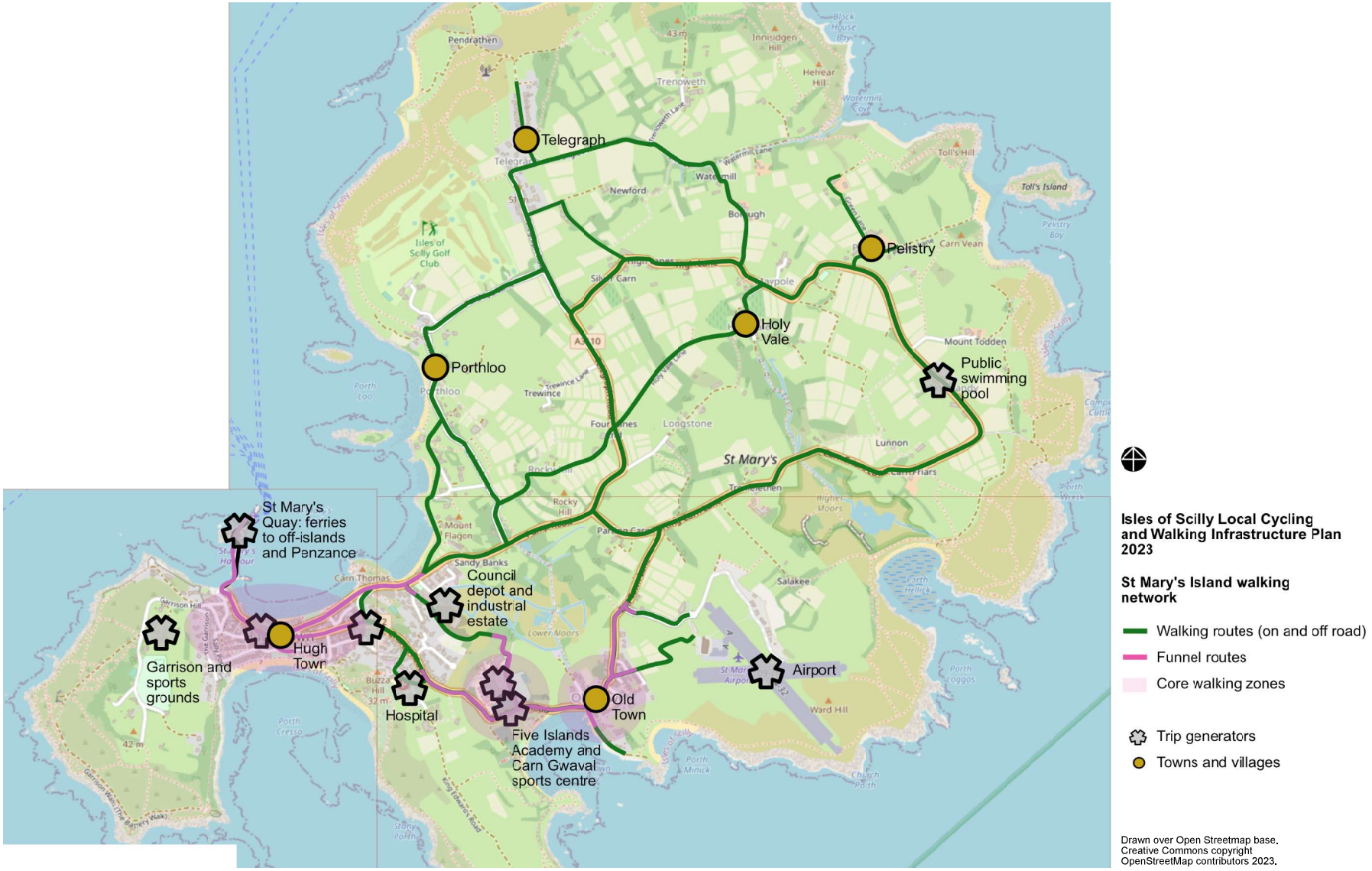

Figure 8: St Mary's Island utility walking network

Middling (4-6)

Existing section has either:

- Substandard width footways in reasonable condition, or
- Absent or substandard footways – but the road has low volume of traffic and good sight lines so that pedestrians can be seen when walking in the carriageway.
- Undulating access to private properties nonetheless accessible for wheelchair users.
- Kerbs in generally good condition with some areas of disrepair or discontinuity of treatment.
- Inconsistent and absent tactile information.
- Crossing points with accessible flush kerbs but not necessarily any tactile information.
- Some encroachment from vegetation.
- Frequent footway parking and moving vehicle incursion.
- No specific measures to assist Disabled or visually impaired users.
- Off-road routes have a bound gravel surface with some imperfections.
- Conflicts with cycles at peak times on min 3m width shared use path.

Poor (1-3)

Existing section has:

- Busier traffic exceeding 20mph combined with no footways at all or substandard width or poorly surfaced footways.
- Narrow road with vegetation overgrowing and limited space for vehicles and pedestrians to pass.
- Poor quality, inconsistent kerbs that create trip hazards
- No (accessible) crossing points
- No continuity at side roads (including kerbs that are not dropped for side roads)
- Damage and potholes, poor quality surface including no hard surface finish at all.
- Extensive encroachment from vegetation
- Frequent parked and moving vehicle incursion.
- No specific measures to assist Disabled or visually impaired users – no tactile information.
- Off-road routes are in poor repair with standing water, undulating surfaces, protruding rocks and evidence of water runoff.
- Conflicts with cycles on substandard width shared use path.

Other considerations

- Footpath or footway is so uneven as to be impassable by buggies, wheelchairs and scooters (subtract 1)
- A footpath that provides an important off-road connection is only accessible to non-disabled people and is missing reasonable adjustments that would make it accessible to more people (fail).
- Note that 'reasonable adjustments' on environmentally sensitive routes may include handrails and manageable steps rather than engineered ramps.

Poor quality narrow footway on route where traffic exceeds 20mph

Junctions

All junctions score the highest in the range for 'best', 'middling' or 'poor' with subtractions made for other considerations.

Best (7–9)

Junction has:

- Continuous footways running across the side-road or the entire junction with steeply ramped tables and surfacing materials that blend with the footway rather than the carriageway. The continuous footway is not interrupted by any raised or flush kerbs or colour-contrasting tactile paving; or
- Tight bellmouth and give way lines set back to give the footway priority, ideally with a colour-contrasting strip to further highlight the crossing, or
- Tight bellmouth and appropriate tactile indicators and flush kerbs without ponding in wet weather.

Middling (4–6)

Junction has:

- Reasonably tightly defined bellmouth radii and give way lines aligned with the front of the footway; and
- Appropriate tactile indicators and flush kerbs with or without ponding in wet weather.

Poor (1–3)

Junction has:

- Wide 'DMRB' bellmouth radii (or the junction takes up as much space as is available).
- No, or missing dropped kerbs.
- No tactile warnings.
- Poor quality surfacing on the footways around the junction.
- Presence or absence of give way lines aligned with the front of the footway.

Other considerations

- Footway is present only on one side of the junction bellmouth (subtract 1)
- Footway is <1m and not useful for pedestrians (fail)
- Poor visibility in any one or more direction (into, or from, the junction) – (fail)
- Conflicts due to high traffic levels at certain times (eg school travel times) (subtract 1)

Intervisibility is poor at this junction

Very wide junction mouth combines with poor visibility from opposite footway and high approach speeds to create a hazardous environment.

Cycling and Walking Network assessment maps

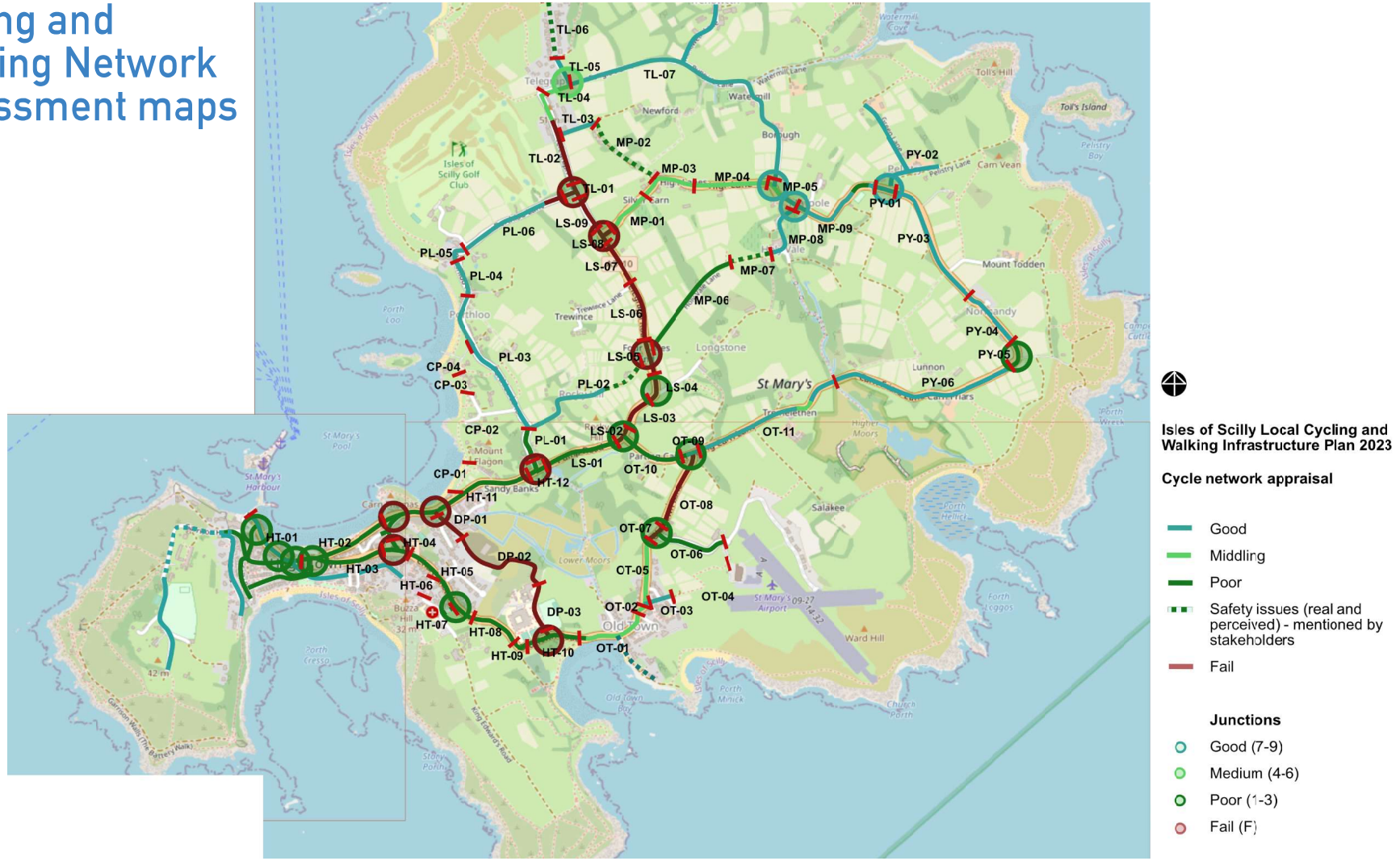

Figure 9: Cycling network appraisal St Mary's Island

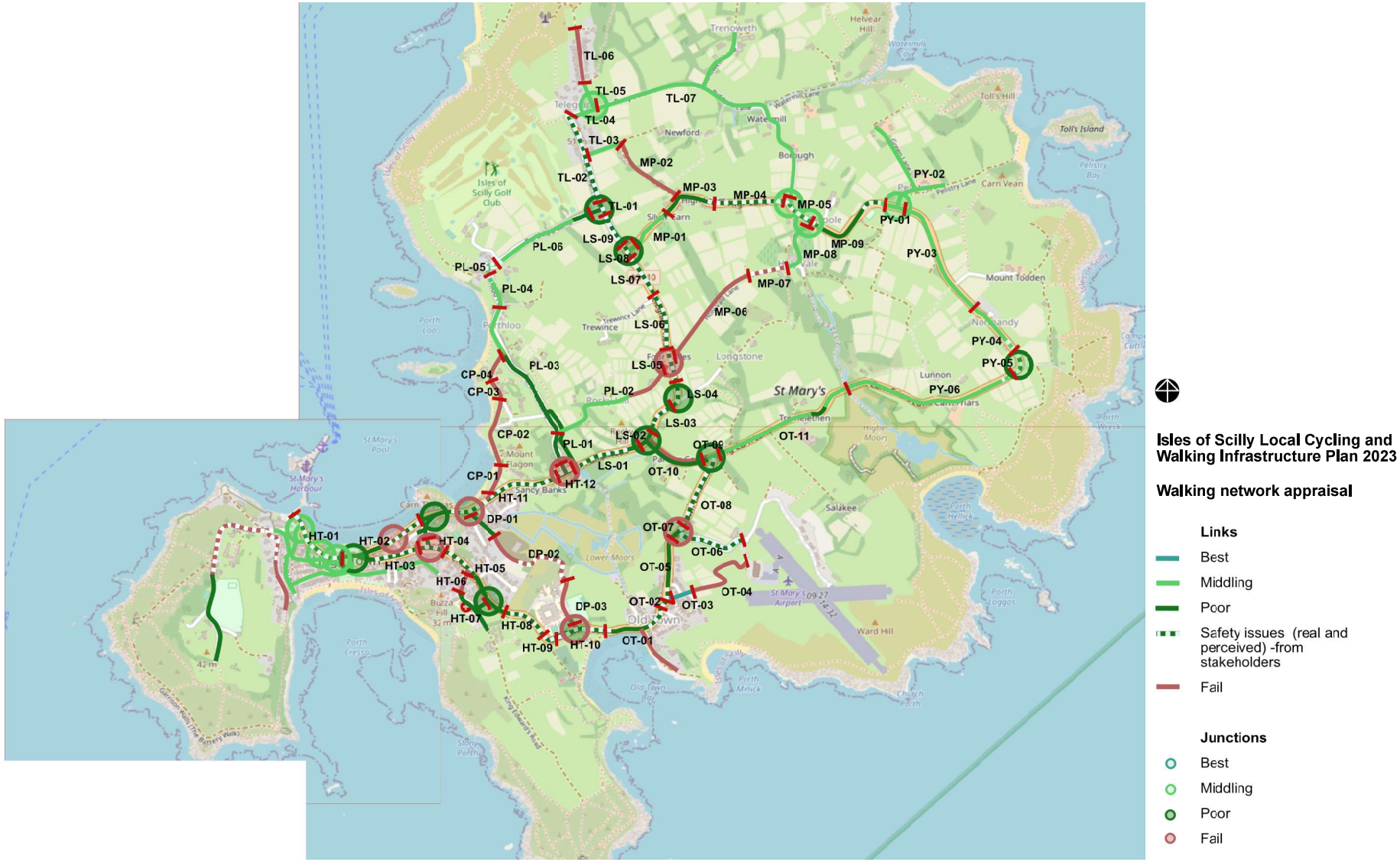

Figure 10: Walking network appraisal St Mary's Island