Appendix G - Matrix to Assess Climate Change Impacts

Aim is to reduce Carbon Emissions (CO2) by 80% by 2050	Positive impact	Negative impact	Mitigation measure	Effect on CO2 emissions (+ or - tonnes of CO2)	Opportunity to promote
Water Water Use and Flooding		Use of impermeable material for cycling infrastructure could increase potential flooding	Use permeable paving, SUD systems.		Flooding exacerbated by climate change can be mitigated by using permeable materials and adhering to SUD guidance. Their use will be encouraged.
Energy Energy efficiency and energy saving in buildings, including opportunities for installation of renewable energy generation	Mini Holland will endeavour to use renewable energy as far as possible, e.g. to power automatic cycle counters, lighting				
Air Air quality, pollution	Mini Holland seeks to increase journeys made by bike (10% by 2020), and reduce trips by car (-5% by 2020). This will have obvious air quality benefits (e.g. reduction in NOx, PMs).			An annual reduction of 5% in CO_2 emissions would equate to approximately 3,700 Tonnes per year.	
Waste – reducing, reusing and recycling waste	Contractors working on MH will be required to re-use and recycle materials wherever feasible.	Waste disposed of in landfill	Recycling and Re-use of materials. Term contracts include a performance indicator which measures the amount of construction and demolition waste reused or recycled.		

Aim is to reduce Carbon Emissions (CO2) by 80% by 2050	Positive impact	Negative impact	Mitigation measure	Effect on CO2 emissions (+ or - tonnes of CO2)	Opportunity to promote
Land Use of brown-field and green-field sites	N/A				
Bio-diversity Effects on bio-diversity including green space, trees, rivers and streams	Mini Holland aims to reduce motor traffic, which will have a positive impact on biodiversity by reducing land take for roads/ parking, reducing road kill, noise and other disturbance, and a reduction in harmful emissions (NOx, PMs) which negatively impact on flora, fauna, air and water quality.				
Transport **Travelling to deliver service.**	Reduction in carbon emissions through cycling, walking and the use of low emission vehicles	Transport and the type of vehicles used produce substantial carbon emissions.	Staff and contractors will be encouraged to walk, cycle and use public transport in the course of work to deliver the MH programme. Where the use of motor vehicles is necessary, fuel-efficient, low emission vehicles will be preferred.	100 miles reduced lorry mileage [HGV 3.5 – 7.5 tonne] (161 kms) saves 0.106 tonnes of CO2. So for every mile of reduced lorry travel saves 1.06kgs of CO2. (Source: Defra)	Transport and the type of vehicles used produce substantial carbon emissions. The term contracts include a performance indicator to measure conformity with Euro standards.

Aim is to reduce Carbon Emissions (CO2) by 80% by 2050	Positive impact	Negative impact	Mitigation measure	Effect on CO2 emissions (+ or - tonnes of CO2)	Opportunity to promote
Buildings Adaptability of buildings to heat or flooding. Use of green roofs, rainwater harvesting etc.	N/A				

Commentary on any differences in financial costings for climate change mitigation / adaptation measures including energy efficiency and potential external grant sources
Potential "whole life costing" savings ie: increased installation costs will achieve running cost savings over lifetime; including reduced use of resources eg: water saving devices
Explanation of Proposal chosen in context of results matrix assessment, including what mitigating steps can and have been taken
Total Tonnes of CO2 & DEC rating of building to be occupied
An annual reduction of 5% in CO_2 emissions would equate to approximately 3,700 Tonnes per year.