Submission No.	44
Organisation Name or Name of Submitter	Ciaran Cuffe

Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Submission on NC06F.302010 - Railway Order from Estuary to St. Stephen's Green, Dublin				
1	Cover Letter	1	I welcome the construction of Metrolink as a transformative piece of infrastructure for Dublin. Metrolink represents a major modal shift towards sustainable transport. This investment must be pioneering in its sustainability, emphasis on active and low-carbon travel and commitment to achieving our climate goals as laid out in the 2021 Climate Action Plan.	TII wish to thank you for taking the time to make this submission. Your positive support is gratefully appreciated. TII share your aspirations on sustainability and are committed to achieving the goals set out by the now 2023 Climate Action Plan and realising the Project to deliver the benefits that MetroLink will bring. As outlined in EIAR Chapter 3, Need for the Proposed Project, there is a significant focus on achieving the UN Sustainable Development Goals in national policy and this is central to the National Planning Framework to ensure that Ireland has a more sustainable future. The Environmental Protection Agency (EPA) Sustainable Transport Performance Measures (EPA 2011) highlights that sustainable transport is central to efforts to control greenhouse gas emissions, air pollution and environmental damage. The benefits of a sustainable transport system of which MetroLink is a key element extends beyond environmental considerations, delivering improvements in congestion, productivity, health and quality of life. EIAR Chapter 4, Project Description, section 4.6.3 outlines what sustainability means for the project. This includes delivering and operating an efficient, low carbon and climate-resilient metro system, which better connects passengers as part of an integrated transport system, unlocks regeneration opportunities, and enables compact growth for present and future generations, while also being designed to be responsive to future demand requirements. The Project design includes a number of sustainability initiatives in order to meet the project sustainability aims as outlined in TII's Sustainability Implementation Plan and these are detailed in full in EIAR Chapter 4, Section 4.6.3. EIAR Chapter 17, Climate, focuses specifically on how the Project will mitigate and reduce carbon, including: • Implement a whole-life Carbon Management Plan aligned to PAS 2080 (Green Construction Board 2016) to inform the design, build and operation of MetroLink utilising TII's Carbon Assessment Tool; • Achieve Net Zero for operational energy by the design year, with a stretch aspiration to be close (>80%) to Net Zero at start of operation through energy efficiency, innovation, green power purchases and offsetting residual emissions; • Achieve a reduction in mains water use during operation through the use of rainwater harvesting, water re-use and efficiency systems and devices at all work sites, stations, and buildings. Wastewater from the vehicle washing plant will be treated and recycled in-situ to reduce water usage; • Requiring operations to achieve high recycling rates with an aspiration to achieve zero waste directly to landfill; • Mitigation measures to be applied to the power operational demand as metro systems offer an immediate opportunity for reducing energy requirements. This will be achieved on the proposed Project by the recycling of braking energy. When vehicles brake, their kinetic energy is converted into electricity and returned to the traction power line. The installation of reverse substations on the proposed Project system will offer the opportunity to reuse a portion of braking energy. Based on the inclusion of two reverse substations (at Dardistown and Charlemont) it is estimated that the system could potentially regenerate 0.119MW. This recovery equates to 0.6% of the energy needed to run the stations (19.58MW). Further, MetroLink will address transport challenges within the Greater Dublin Area, including generating a modal shift away from private car use and help Ireland meet its climate change targets in line with Climate Action Plan 2021, and make Dublin a more liveable and sustainable city.

Submission No.	44
Organisation Name or Name of Submitter	Ciaran Cuffe

Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Submission on NC06F.302010 - Railway Order from Estuary to St. Stephen's Green, Dublin				
2	Pedestrian and Persons with Disabilities Infrastructure	1	The Walk21 Conference on active travel this year in Dublin showed us what could be achieved regarding pedestrian infrastructure and catering for the needs of those with disabilities. Seamless pedestrian access and level access should be a priority where feasible, as well as well-designed, adequately sized and managed lifts where level changes are needed. Catering for the needs of persons with disabilities should be a key aspect of the project from the outset. Advice should be sought from disability organisations, as well as the Irish Centre for Universal Design and the Trinity Haus Project. 1 . I welcome the new pedestrian crossing planned at the Swords Central stop and encourage a greater rollout of zebra crossings along the route, along with lower speed limits. Long and frequent pedestrian crossings are central to ensuring safety and accessibility. 2. The notable footpath widening at Stephen's Green East is welcome. Footpath widening must be prioritised. As a rule, half the width of a street in the city centre should be designated for pedestrian use. 3. I am pleased to see the canopies featured in the Retained Cut Station design - offering a communal space for passengers as a meeting point. 4. Funding provisions for pedestrian and cycling infrastructure must be integrated into the Metrolink project	Catering for persons with disabilities is a key requirement of the proposed Project, as set out in EIAR Chapter 6 Metrolink Operations and Maintenance, section 6.8.2 Access for All. The proposed Project has been designed on the principle of Access for All, which requires that the design has been developed to meet all legislative requirements relevant to accessibility including the Disability Act 2005 and in turn the Sectoral Plan for Accessible Transport under the Disability Act 2005 (DTTAS 2012). Specifically, for MetroLink, this includes station design to support wayfinding through the station, onto and use of the trains, and use of station facilities. To date, and as documented by EIAR Appendix A8.19 Meetings Register, a number of disability organisations have been consulted, including Fighting Blindness, National Council for the Blind of Ireland (NCBI), Irish Wheelchair Association and National Disability Authority (NDA), as well as consultation with the Irish Senior Citizens Group, residential property/landowners and resident associations, families with disabled members and the Luas User Group. TII has been in contact with the Irish Centre for Universal Design and the Trinity Haus Project and will continue to work with this and other bodies as the scheme progresses through the contruction and operations phases. Thank you for the supportive comments in relation to footpath widening, new crossings and public space offered by the MetroLink stations. TII will continue to work with the local authorities and the NTA to integrate pedestrian and cycling infrastructure with the Metrolink and the wider receiving environment.
3	Cycling Infrastructure	2	Metrolink must be developed in tandem with active modes of transport. The following suggestions are made for cycling infrastructure: 1.Cycle lanes near planned metro stops should be safe and segregated from heavy traffic by planting, level changes and road markings, rather than unsightly plastic bollards. 2. Segregation of pedestrians and cyclists will encourage active modes of transport. A place-making approach involving segregated space for pedestrians, cyclists and public transport should be implemented where possible. 3. It is important to provide adequate cycling parking at metro-stations to meet demand, as much at grade as feasible. 4. The cycling infrastructure on the R108 Ballymun Road should be reinstated and improved 5. Adequate provisions should be made on Metrolink carriages for along bycicles and emobility devices along with integration to existing bike-sharing schemes across the city. The approach taken on Danish commuter trains that have bicycle storage with flip up seats that can accommodate bikes or seated passengers depending on demand should be used.	The MetroLink Project is not being developed in isolation and will provide significant benefits not only to those who choose to use it, but also to other transport network users, by reducing the demand for road space and creating the opportunity for the road transport system to achieve optimum levels of efficiency and effectiveness. As outlined in EIAR Chapter 3, the proposed Project is part of an integrated transport network that also includes for BusConnects and DART+ which are all included under Project Ireland 2040. Together, these projects will result in a reliable, sustainable, affordable, integrated public transport network that will support the economy, help Ireland meet its climate change targets in line with Climate Action Plan 2023, and make Dublin a more liveable and sustainable city. Whilst MetroLink is a standalone project that is not dependent on any other projects for its delivery or effective operation, it is nonetheless a critical part of the proposed integrated transport network for the Greater Dublin Area. With regards the five particular observations: 1. The design and delivery of cycle lanes near Metro stations will be undertaken in accordance with the relevant design standards so that they are safe to use. 2. Where possible segregation of space has been incorporated within the design. 3. There will be a need for high density cycle parking into the future to accommodate demand from the Project, as well as demand from the general increase in cycling forecasted within the City. Our analysis, detailed in the EIAR Appendix A4.1, Methodology for Potential Cycle Demand, indicates that the demand for cycle parking facilities at specific stations will exceed the amount of cycle parking facilities that TII can physically accommodate at each station site. Where our analysis indicates a shortfall in cycle parking spaces, TII, NTA, DCC and FCC have committed the implementation of a multi-agency approach to ensure that the required number of cycling parking spaces are provided city wide by opening year. This will be achieved through a combination of appropriately located mobility hubs, e-bike stations and cycle parking facilities to meet forecasted demand and ensure effective cycle connectivity at every station. 4. The proposed Project includes the reinstatement of cycle infrastructure along the R108, as shown on the Railway Order Plans\Drawings, Alignment Details Book 2 of 2 Dublin City Council. The cycle infrastructure proposed is to the same standard as that proposed for the BusConnects corridor design and is therefore an improvement to the current facilities along the R108. 5. MetroLink Station and Rolling Stock is designed to accommodate bicycle and e mobility devices. A decision as to whether in practice such devices will be allowed on to carriages is subject to the establishment of an appropriate policy in this regard. TII are aware of the advantages and disadvantages associated with allowing such devices on public transport and careful consideration is required before a policy is established, adopted and implemented.

Submission No.	44
Organisation Name or Name of Submitter	Ciaran Cuffe

Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Submission on NC06F.302010 - Railway Order from Estuary to St. Stephen's Green, Dublin				
4	Integration with other Public Transport Modes	2	1. Metrolink provides significant opportunities to improve bus, commuter rail, Luas and DART connectivity. Each station should maximise the possibilities for inter-modal journeys with easy to follow transfers where appropriate. 2. During the construction process, there should be constant communication and integration between the Metro project and developing proposals for other forms of public transport. 3. It may be appropriate to put in place a public transport users group to advice on, and assist in the successful delivery of the project. 4. It may also be appropriate to put in place a project lead member charged with the integration of transport modes.	1. As detailed in EIAR Chapter 6, MetroLink Operations and Maintenance, the proposed Project has been designed to ensure maximum interchange with other modes of transport, specifically more sustainable modes of transport such as walking, cycling and public transport. All operational stations will have pedestrian and cycle access, with bus stops located either adjacent to or within the site to facilitate integration with MetroLink. Interchange with Luas and rail/DART has been a key consideration for station locations, as presented in EIAR Chapter 7, Consideration of Alternatives. 2. EIAR Chapter 30 details the cumulative impacts of interaction between other projects and MetroLink. Significant consultation has taken place to date with BusConnects and Irish Rail, among others, as detailed in EIAR Chapter 8, Consultation. TII will maintain this engagement throughout the design phase (note once designs are finalised for construction and construction is underway there will be limited opportunity for change). Through coordination with the NTA, TII will ensure communication and integration between MetroLink and developing proposals for other forms of public transport. 3. TII support the establishment of public transport user group to advise on the successful deleivery of the proposed Project, however it will be for the NTA, with its wider public transport remit, to establish such a group. 4. This putting in place of a project lead member charged with the integration of transport modes falls outside the remit of TII and is a matter for the NTA, with their wider public transport remit.
5	Vehicular Infrastructure	2	The Metrolink project is an opportunity for a modal shift away from car-centricity and towards public transport. As is noted in the Environment Impact Assessment Report, Inrix has ranked Dublin the fifth worst city globally for time spent in traffic. (Those these surveys tend to focus only on car-based journeys). The benefits of a modal change span from increased social cohesion, lower levels of obesity and a reduction in transport emissions. On this matter: 1 . With much of the route following the Ballymun Road and other main arteries across the city, there is an opportunity to provide state-of-the-art walking and cycling infrastructure and redesign carriageway sections and junctions to optimise this. 2. The scheme should provide for passengers coming from outside the Greater Dublin Area i.e. the Dublin-Belfast Corridor to alight at Donabate Railway Station and reach Estuary in a timely fashion to continue their journey with Metrolink. Increased frequency on the 33B bus service can help provide this or the provision of a new shuttle service. This could aid in reducing long-distance commutes as sprawl reaches further areas outside the existing Greater Dublin Area. 3. The presumption must be against increased road capacity with any road maintenance or new interventions attributed to the Metrolink project possibly leading to induced demand 4. The provision of electric vehicle charging points at the Estuary Park & Ride is welcome. Electric Vehicle provision including charging and pro-cabling must exceed the requirements in the proposed AFIR Directive. 5. Kiss-and-Ride facilities that allow car drivers to drop off intending Metro passengers should be provided for beside the proposed stations. 6. It may be appropriate to provide for car-sharing facilities at or adjacent to the proposed stations. 7. If Park and Ride Facilities are provided, they should form part of mixed-use transport infrastructure with frontage development and other uses at, or above the proposed parking sites as part of an urban design and place making strategy.	MetroLink will generate a modal shift away from private car use and help Ireland meet its climate change targets in line with Climate Action Plan 2023. In response to the specific observations made: 1. MetroLink includes the reinstatement or improvement of walking and cycling infrastructure within the scope and remit of the Project. The BusConnects project also includes the provision of improved walking and cycling infrastructure, a redesigned carriageway, and redesigned junctions along the Ballymun Road. TII and MetroLink will liaise and integrate with the BusConnects Project. 2. MetroLink provides for the Dublin-Belfast corridor through the Park & Ride at Estuary that includes provision for interchange with bus services. As part of the ongoing service planning reviews by the NTA, the local bus services around Swords and to the north are regularly reviewed. These reviews will consider options to revise services/increase frequencies and provide new services to improve the overall public transport offering, including new and developing opportunities provided by the MetroLink project. 3. The EIAR transport assessments show a reduction in road use with MetroLink in operation. 4. The proposed design includes for approximately 23% of the car parking spaces (694 spaces) with EV charging points installed. This is above the minimum 20% required by current legislation. The design of the P&R at Estuary will allow this provision to increase in line with demand and any further changes required with the proposed AFIR Directive. 5. MetroLink will form part of an integrated public transport network and patrons will use the public transport network, walking and cycling to access the stations. The provision of drop-off facilities has been considered during the design process with such facilities only provided at locations that are less likely to encourage unnecessary short journey car trips in the local area. 6. TII will consider car sharing opportunities as part of the detail design of car parking areas provided by the Project, and will liaise with the relevant local authority in relation to the potential provision of car-sharing facilities in the wider receiving environment. 7. The proposed Park & Ride and Estuary Station have been designed to facilitate connection to the zoned Metro Economic Corridor lands to the west and north at Lissenhall and incorporate appropriate hard and soft landscaping. The Station will form a destination node for the future residents and workers in the area, centred on the station entrance. Access to the Station is provided for vehicles, buses and for pedestrians and cyclists. Pedestrian and cyclist access is segregated from vehicular traffic routes to the station and Park & Ride building to provide safe and conducive access. The Park & Ride building is set back from the Swords Western Distributor Road and a landscape strategy has been developed to soften the visual impact of the building when viewed from the north. TII are therefore of the view that the structure will provide an appropriate frontage development to the Lissenhall lands along the section of the Swords Western Distributor Road included in the proposed Project.

Submission No.	44
Organisation Name or Name of Submitter	Ciaran Cuffe

Item No.	Section Ref.	Page No.	Observation Statement	TII Response
Letter Re: Submission on NC06F.302010 - Railway Order from Estuary to St. Stephen's Green, Dublin				
6	Spatial Planning and Land Use	3	The Metrolink allows us to envisage a Dublin well connected by active / sustainable travel modes - fostering an appropriate environment for transit-oriented development of medium to high density. The following is proposed: 1. Improved land-use strategies around Metrolink stops to reduce long-distance travel journeys should be a priority, with much potential for the development of new housing in the North Inner City in particular. A place-sensitive approach to higher density, well-designed development is required. 2. Operate under a presumption of at least six-floor height at well-served locations, as it is wasteful to allow one-storey developments along a quality route such as this. The airspace above stations should be utilised for development. 3. It may be appropriate to develop over stations using the 'air rights' associated with same as these stations by design will be well-served by public transport. 4. In new developments, adequate green, open or wild space should be an integral part of any scheme.	1. Metrolink has been developed to support the principles of transit-oriented development and to facilitate the development of higher-density, well-connected places at each of the station locations. The delivery of MetroLink provides an impetus to the introduction of future land-use and transport policies, by Fingal County Council and Dublin City Council, that respond to the enhanced accessibility and potential capacity of the areas in its vicinity. The comments made regards housing strategies are noted and understood but fall outside of the remit of TII and are a matter for the Local Authority. 2&3. Opportunities for oversite development and adjacent site development potentially exist at a number of key scheme locations. Whilst such development does not form part of this Railway Order Application, TII are in consultation with a number of parties directly affected by the works who have expressed interest in promoting such future developments of residual properties at these locations. 4. The design of the stations allows for soil and growth substrate above the infrastructure so that planting can be considered and implemented as part of the proposed Project. This planting ranges from large mature trees to blocks of shrub planting and SuDS (Sustainable Drainage Systems) elements as part of the design. The individual identity of each station is enhanced and defined by a feature tree or a feature group of trees and the nature of the associated planting. The planting palette is inspired by its setting in the landscape, for example by the nearby estuary and coastal planting.
7	Other Issues	3	Beyond these five overarching themes, some other issues arise 1. I hope that in the outlined plan to reduce carbon emissions during the Construction Phase of the project that there will be a move to specify green, low-carbon concrete 2. I am pleased to see the emphasis on integration with the built environment - hoping that lessons have been learnt from the garish 'Luashenge' phenomenon of unplanned utility boxes. I note the integration of the Albert Park air duct in particular and hope this approach will feature elsewhere. Utility cabinets should be considered from the offset and fully integrated into the design. 3. There should be a concerted move away from the excessive signage seen on the Luas Red Line - as seen particularly between the Four Courts and Jervis Street stops. 4. Lighting should be sensitively designed, and should be designed to ensure the safety of all, particularly women and girls. It should also ensure that light is not projected upwards to avoid interference with the 'night sky' and should decrease in brightness later at night if there are no people present. 5. Operating hours seem to exclude 1am to 5:30am. To ensure a thriving night-time economy and reflecting the progress made by Minister Catherine Martin on the matter, services should be provided on a 24 hour / 7 days a week / 365 days a year basis. 6. The range of active mobility and sustainability challenges present are such that one individual should be assigned responsibility for climate action and to whom concerns can be brought. Given the building activity due to commence, better use of our existing assets is the most environmentally friendly approach. Where existing infrastructure can be repurposed or retrofitted, it should be done.	In response to the observations made: 1. TII will implement a whole-life Carbon Management Plan aligned to PAS 2080 (Green Construction Board 2016) to inform the detailed design, build and operation of MetroLink. The use of low carbon concrete as well as other low carbon materials and products will be a key consideration which will inform the development of all procurement documents and tender requirememts. 2. Integration with the existing urban environment is a key objective of the architectural design, that not only considers the proposed MetroLink structures as a whole, but also individual items such as lifts (passenger and fire fighting) and surface penetrations to accommodate ventilation. Your particular comment regards utility cabinets is noted and TII provide the assurance that the architectural design is designed to minimise the impact on the existing urban realm. 3. Signage will be consistent across the proposed Project and fit-for-purpose whilst also being cognisant of its environment. There is a balance to be struck with how signage is integrated with the existing urban realm whilst also providing clear and sufficient wayfinding to stations. This balance will be carefully considered during the detailed design phase. 4. EIAR Chapter 4, Description of the MetroLink Project, section 4.12.8.3 explains the approach taken to lighting, including that "The additional benefit of LED compared to traditional light sources is the enhanced control of light spill and reduced direct upward light, which helps reduce light spill beyond the roads and pedestrian areas wherever possible in compliance with the Institute of Lighting Profession GN01 Guidance Notes for the Reduction of Obtrusive Light document". With regards to the wider issue of security, this is addressed by EIAR Chapter 6, MetroLink Operations and Maintenance, section 6.6.5.8, including the architectural and urban realm design is designed to discourage anti-social behaviour, for example through the attractive setting, use of public lighting, open sight-lines, and avoidance of areas where individuals and groups of people can hide. 5. As set out by EIAR Chapter 6, MetroLink Operations and Maintenance, section 6.4.3, "It is anticipated that services will operate between 05:30 and 00:30, every day". At this time there is no economic justification for a service running 24 hours day, 7 days a week, however as with any transport system, the future development and needs for serving the Dublin population may change in time, and this would be considered if such a situation arose requiring extended MetroLink operating hours. 6. Post receipt of an enforceable railway order, TII will establish a lead represenative within the project team which will be tasked with ensuring besdt practice and compliance with active mobility. sustainailty and Client Action. A key objective of the MetroLink delivery, and which is reflected by the submitted EIAR, is the management of environmental impacts and their mitigation, which will also include the modification, adaptation and repurposing of existing infrastructure where practicable. T