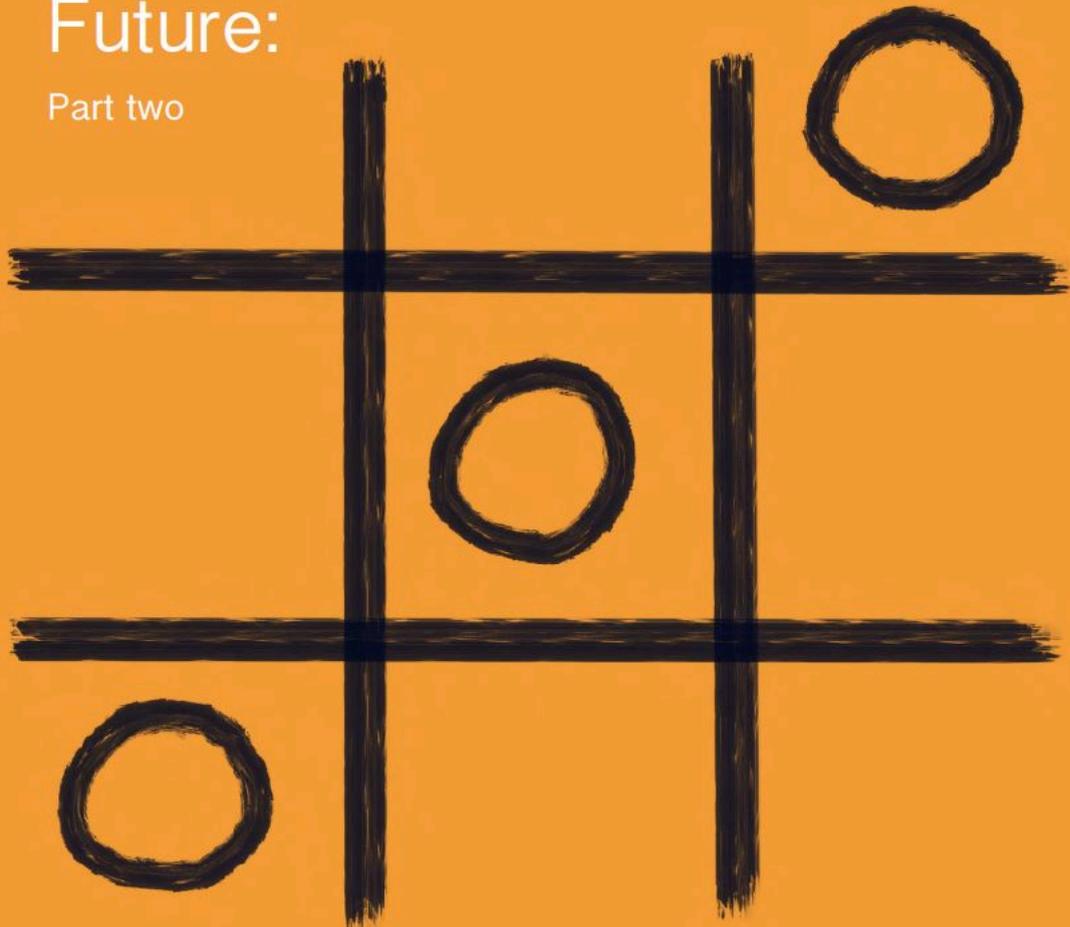


# Journey to the Future:

Part two



## **S1E8:** Journey to the Future Part 2

**Description:** In the second part of Journey to the Future Peter Bennett, Design Coordinator with the Dublin Metrolink delves into the design of the Dublin Metrolink project. It covers all aspects of the service from the route and the stations along it to their design including the accessibility features the service will provide users with.

### **About the Team**

The team behind the podcast:

**Sarah O'Donnell** is our podcast host and TII's Assistant Chief Architect. Sarah has worked on the design of TII's major public transport projects, with a

focus on urbanism, place-making and sustainable design. As TII's Access Officer, Sarah has worked for many years with the User Groups on accessibility and universal design in public transport.

**Trevor Cudden** is a Senior Technician working with Sarah on the design of major TII public transport projects. He has a keen interest in music production and acted as editor and producer for this podcast.

**Kathleen Jacobi** is the Sustainability Portfolio Co-ordinator of TII. Having a specific interest in gender equality and travel equity she is a member of the 'Diversity & Inclusion' Working Group within the International Association of Public Transport (UITP) and the European Commission's 'Ambassadors for Diversity in Transport Network'.

**Rachel Cahill** is the Head of the Executive Office at TII, and senior sponsor for the podcast.

**Claire Scott** is a Senior Communications Consultant at Arup and works with TII across a number of projects, including as a producer of the podcast. Claire has a particular interest in how we can improve equity in access to and experience of public transport.

**Sinead Foley** is a Graphic Design student at Technological University Dublin and designed all graphics for the podcast.

**Lisa Harvey** is an Irish Sign Language Interpreter who interpreted the podcast episodes to make sure accessibility for all included the Deaf community.

Hello and welcome to all Aboard TII's Accessibility Podcast this is a podcast about accessibility and sustainable public transport brought to you by Transport Infrastructure Ireland I'm Claire Scott and I'm joined by our All Aboard podcast host Sarah O'Donnell throughout the series we'll be hearing firsthand accounts from people who use and design public transport systems and specifically the role accessibility plays in these experiences and who is this podcast for in the first instance we hope to connect with people with disabilities who use our services but also it's for anyone who is drawn to human interest stories and has a curiosity to learn more and of course we hope to attract listeners who are designers and decision makers for transport systems who through the podcast might get a better understanding of some of the problems and potential solutions that are out there so without further ado let's give this a go and get all aboard Tii's Accessibility Podcast!

So Sarah what's the focus for this episode hi Claire so in journey to the future part 2 we talk to Peter Bennett design coordinator with the Dublin Metrolink Project he talks us through the proposed route and the design of the future stations and he also touches on some of the issues and concerns that have been raised with the user group and how these are being addressed hope you enjoy it!

Thank you so much Peter for coming in to join us for this interview to talk about Metrolink in Dublin and we're really delighted to have you it's a huge project but before we get into the detail of it maybe you tell us a little bit about yourself and your background and your role on the project team absolutely thanks very much Sarah for having me on it's great to be a part of this this great initiative and this great podcast in TII my name is Peter Bennett I'm the design coordinator for the Metrolink project so I've been working on the project now for almost 7 years pretty much since the initial project inception really where we started to look at the initial routes etc so throughout that phase really my role in the project has been to effectively coordinate the inputs of the many different suppliers consultants designers advisors that we have on board specifically around the overall design of the scheme but also the operations the coordinating with the architectural advisors that we have on board and all of the other various parties that are engaged with the project over that past seven year period so it's been pretty big task and in fairness it's been a busy number of years and it's only gonna get busier as well hopefully anyway so like when we were thinking about this podcast and what we wanted to talk about we were of course hoping that it would appeal to anybody who's interested in the Metrolink scheme but particularly we were thinking that the audio format is really beneficial to people maybe who are blind or visually impaired or who might ordinarily not be able to access the drawings and the documents as easily as others so what I'd love to do is to paint an audio picture of this future project and to allow people to imagine what it's gonna be like in the ground when it's finally built so with that in mind maybe if you could just start with a kind of a broad description of the route where it starts and ends and parts of the city it serves and then we can start zoning in on particular stations absolutely Sarah and maybe what I'll do is I'll start from the north I'm working my way down into the city so at the very north of the line starting in an area around Estuary which is very close to the junction to the M1 just near Swords town itself at that stop we'll have our one of our only surface stations so effectively it's not gonna be in the actual ground itself it's gonna be flat at the same surface it's gonna

be also in proximity to a new park and ride that we're also establishing very close to the actual station itself with accessible links and to allow for people to come from park and ride into the station and vice versa moving down further down south so come to one of our first major structures which is a effectively a bridge viaduct structure which brings the line over the Broadmeadow River just located there just near the R132 road there just along near Swords town itself and that brings us then along if you can imagine the R132 which is obviously one of the main bypass roads outside of the town itself leading up to the M1 junction that bridge runs along effectively the west side of that road at which then we start to dive under the ground and effectively what we're in it is a structure called a cut and cover tunnel which is effectively a concrete box below the ground right which brings us directly right under the road to come around to the east side of that that road which is where we come to one of our first stations our first minus 1 level stations which is a Seatown which is different from the Estuary station which is obviously surface level the station is an out of minus 1 level which means effectively we're down one level from the ground effectively and these stations are also open cut again we'll get into the more detail of the stations as we when we come to the next part of this discussion so from Seatown we continue along the east side of the R132 and again we're in a combination of what those concrete box structure or it could be an open box structure with no roof on it effectively which allows us then to come beneath any roads that we need to come beneath but also provide us any openings that we need for any operational reasons that we may need to have access to the to the top of the stations that brings us down towards two other minus 1 level stations at Swords Central which is very close to the shopping centre yep Pavilion shopping centre so that that brings that the Swords Central Station which is across the road effectively in very close proximity to the Pavilion shopping Centre we continue further heading further south down again until we come to the next minus one level station called Fosterstown at which point we swap back over across the R132 again which leaves us on the west side of heading down towards the airport so effectively we're going down into the actual very first tunnel section that we're constructing for the for the project and the very first underground station that we will come to us we're going from north to south so the first underground station is at the airport itself so as I said it's within a an actual bore tunnel which we're gonna be boring from the from either side of the airport effectively to allow us to come directly underneath the airport without impacting on any of the services within the airport or impacted in any of the operations of the actual airport itself amazing so the airport station obviously is gonna be a critical station in the overall Metrolink scheme providing that that connectivity to the airport that everyone's obviously fully aware of the Metrolink scheme but that that will obviously be a critical station in terms of driving demand on the system and also obviously providing that connection to the actual airport itself and we're in very close discussions with the daa at the moment obviously to ensure that that we have a solution that works for all parties and deliver that and that'll serve obviously T1 and T2 and all kind of future expectations for the airport absolutely and the aim is to leave as much flexibility as we can in the design to allow for future initiatives potentially to you know further improve that connectivity to the various terminals or various locations around the airport so leaving the airport station again we were in the tunnel bore again all the way down towards the South End of the airport lands itself so once we come out from the old airport road which is just running at the south of the actual airport proper and that's when we start to come back overground again and in this area we have a future station so this is a station that won't initially isn't

proposed to be initially opened when we actually start the operations but it is a station that's there for future development that's the Dardistown station and that Dardistown station until we actually have it open as a fully fledged station once the surrounding development provides the necessary demand that you would need in order to have a fully functional station in that location it'll form part of the operations to allow to get staff in and out of the depot which would be located very adjacent effectively to the Dardistown future station itself so that depot obviously will contain all of the infrastructure the buildings you know the all the storage areas for trains that we'll actually need for full operations of the Metrolink system over the next 20 30 40 years so it's we're effectively planning for the future really when we when we're designing this this level of infrastructure so from the Dardistown area we start to rise up again and effectively the reason is to get over the M50 so we're on a viaduct or bridge structure that runs over the M50 allowing the alignment to come back over for the south and then once we're over the M50 then we start to dive again and underground the whole way then from that point on then we're effectively we're in the full tunnel structure so it's gonna be up see what the density of Dublin city centre see the going underground is your only real option there in that scenario so and also provides us that level of segregation that we need given the type of system that we have and we can talk about that a little bit more later sure so we're now into entering into the city centre our first station is Northwood station which effectively straddles across the Ballymun Road there and provides an entrance on either side of the station and that was important obviously to ensure that we could provide connectivity to the station for areas of demand from both sides of that that quite a quite a very busy road at the Ballymun Road there and again looking at potential future development around that area oh absolutely I mean that the whole area is right for you know for further development for inclusion housing etcetera and that's the hopeful of land banks up there that could be further developed see our plans and currently in place to do so but you know the arrival of Metrolink obviously will accelerate that exactly accelerate that that process even further so from the west side then we're coming down until we hit the Ballymun area and I'm not sure if you remember there is an old shopping centre site it's located there which is opposite the Civic Centre basically that's right that's right and it's I think it's been recently demolished and cleared by Dublin City Council but effectively that will be the location where we're going to locate our next station the Ballymun underground station now that development will be done in conjunction with whatever development plans that DCC have for the old shopping centre site itself so the idea is that you'll have an underground Metrolink station but above ground you know you'll have street level and then above ground you'll have whatever Dublin City Council have planned for that exactly and I looked at the way from our discussions with DCC that the two projects can sit independently from each other so we're not gonna be having any sort of clashes or major interfaces to have to resolve there sure it could be kind of combined in the future once it's all done they'll kind of work as a piece absolutely

So from Ballymun we're continuing to go further south until we hit our next station which is Collins Avenue which is just at that Collins Avenue junction there just outside of the our lady of victories church there that's located just near the actual junction there to towards DCU around that direction so the station there effectively will take this a large green piece of land that's just outside of the church area there we're gonna use that space to build our station box and then effectively reinstate the garden in front of the church exactly to maintain that sense of green space and an

openness effectively that's currently there at the moment so heading for the South from Collins Avenue our next stop is Griffith Park which is the next station along the line which is again underground station this is located just in the grounds where currently Home Farm play a number of their matches and carry out the training effectively along some of the pitches so we're effectively going to take the pitch area as the location for our station box and effectively we're gonna reinstate the land over to return the pitch to its current its current quality of the Na Fianna club is what is up there Na Fianna are located just beside just beside the location there so this is the Home Farms location so effectively using that site that was the location for the station moving further down from Griffith Park are obviously getting deeper and deeper now into the city centre but our next stop is Glasnevin station which is an absolute a key interchange station for Metrolink so it's at this location that effectively ourselves and Irish Rail are gonna effectively construct a station box a station box for the Metrolink station but also all the station facilities are would be required for heavy rail stations for Irish Rail and what this will do obviously is provide a significant amount of integration between the heavy rail network and the Dart Plus project obviously that the Irish Rail developing for Maynooth and the Kildare lines and provide a single point of interchange then for people who are coming off those heavier lines and want to access Metrolink then to either go north or south down the actual spine itself very good and the and the station entrance is there by Crosscons bridge beside the canal that's right and will there be a shared Irish Rail Metrolink concourse as you come into the building and then absolutely and then you can make your decision once you're in there everything will be will be clearly lined out and signage effectively be in place to ensure you can get a clear understanding as to where you need to go to get to what particular service you actually want to actually get to so it's gonna be that will be a key point of interchangeous significant driver demand as well for the Metrolink system overall so moving further south down so again we're remaining in the tunnel we're coming down towards Mater Hospital and just outside Mater Hospital there's a small triangular park 4 Masters Park at least is the name of the actual green space itself and it's in within that location then we're gonna be building the Mater station box and station and it's a quite a tight site and obviously there's a lot of busy roads and a lot of consideration has been made for of seeing any traffic in and out of the hospital especially and you've got a mixture of kind of quiet residential streets then mixed with the busier hospital and so you know that's it so there are there will be a significant amount of challenge to ensure that we can we can construct this but the minimal of the disturbance and interruption to the various residents around and the users of the road as well and but once it's in place I believe it will be a massive plus and a massive bonus for this surrounding area and then the park the little park is going to be reinstated you know substantially once the Metrolink portal and station boxes in that's it the intention is to return it to as close as we can obviously there will be some certain infrastructure that has to be constructed within that green area for the actual operation of the station but obviously our intention is to return as much as possible as effectively a green amenity for the local people so from Mater Station then we're veering into the city centre our next stop is obviously landmark stop I think for a friendly metro system Ireland is on O'Connell Street and we are the station box will be located just along the old Carrollton Cinema site around that that section of O'Connell Street of the north end of the street sure there is a currently plans for development a mixed development of both residential and commercial buildings to be located in around that area so our intention is to construct the station box beneath that development and then development will take

place above the actual station box itself we have obviously a clear entrances to the Metrolink station from O'Connell Street and also there's an additional entrance to the rear as well as you're coming off more in which as part of the development is intended to be to be upgraded to some extent to ensure that we have you know you can have a clear access between on the street and it catches that kind of Henry Street catchment as well people coming from that direction and it can come in through the Moore street entrance and of course you have the Luas Green Line as well then on O'Connell Street kind of that's a point of interchange as well that's right and effectively you could come off the Luas Green Line stop there on O'Connell Street and effectively walk across the street and you're effectively into the Metrolink station then so it's a very easily accessible exactly

So moving down further south and from O'Connell then we're moving down towards Tara Street and again Tara Street is gonna be an absolute critical interchange point for the for Metrolink scheme with all the Irish Rail services running through Tara so we are constructing our station just effectively adjacent to the Tara Street station itself which will allow for initially a very easy walking interchange into the Irish Rail station or vice versa into into the Metrolink station we're currently proposing to redevelop the area above the station box to provide an open space plaza area which will effectively you know provide some level of open space and meeting areas expected for people as opportunities potentially for some commercial development will take place in around that area as well but obviously once we have the station constructed obviously development will naturally follow especially when you see the amount of demand that will be increased obviously by this this key interchange with the Irish Rail system in this location sure and that plaza area is accessible mainly from Townsend Street or from Tara Street from both Townsend and Tara Street you'll have access to and it coming off the Quay's as well you can access as well so it's so from all sides of that block absolutely and of course really important interchange with the Dart and like you said the other absolutely so from Tara Street then we're again we're heading down further south and we're into Stephen's Green now we're located at the northeastern side of Stephen's Green currently where if any of your listeners are aware of around that site but there's an effectively a plaza area there already and there's a famine memorial and I think there's a wolf tone memorial as well in that location so we're effectively using that location and spot to construct the station and obviously just obviously not like a lot of concerns wherever you're impacting on national monuments effectively as important as Stephen's Green especially what we believe we have the right mix of the location to be able to minimise as much as possible impact on the park and minimise the amount of impact that we would have on the surrounding roads as well which are our key routes for public transport for buses for cars etcetera so bit of a balance right there but for sure to be I think once the station has been established and already know that it will effectively meld into the surrounding area and that corner is setback anyway with the Wolf Tone Monument kind of curving around on the corner that's right so the kind of I suppose the scale of the plaza there will be more less similar to what's there at present in terms of your the fore court Metrolink station will be similar in feel to what's there at the moment oh absolutely I think the only difference is you're making that space now is the entrance to the to the station as well obviously as providing the that route station and all of that as well and then leaving Stephen's Green again finally we're heading further south out towards Charlemont where we currently obviously we have our green line Luas running around the area with the Charlemont Luas stop there and

our station will effectively be located roughly where the current Carrol's building is located the new development that's currently being constructed around the Carroll's building and in just behind it and our station will effectively be located within that grounds of that development with an entrance just off Grand Canal facing onto the canal that's it exactly so Charlemont is effectively the current terminus for the station I've seen that there are maybe potentially plans in the future to extend nothing has been decided as yet so but our Charlemont obviously offers an easy interchange then to Luas Green line services heading down towards Sandyford and we have a stairs and a lift that'll allow for people passengers coming out of the Charlemont station to access the higher up Charlemont station Luas stop that is located there so so you come out of the Metrolink station and just walk to where the current entrance to the Luas Green Line is now and take a lift upstairs or whatever up to the Green Line that's it that was a fantastic and very comprehensive description from north to south it's a huge project and so many different elements and you know but that that was a great description of it and I suppose in many people's minds you know when they think of Metrolink they think this is a high speed link to the airport you know that's the kind of primary objective but there are loads of other objectives with this project

Maybe you wanna talk a little bit about that and what you're hoping to achieve I mean that's absolutely correct I mean it will provide a high speed high capacity link to the airport and as you said that's the only one of many different sort of outcomes and objectives that we have for this project and what this project will actually deliver quickly when it's in operation I mean Metrolink itself it's a single biggest investment in transport infrastructure in the history of the state you know and ultimately it forms part of an overall integrated transport system you know which effectively has been defined in various guidance documents you know for the greater Dublin area and that also that overall transport system also includes sort of systems that we've touched on such as bus connects and the Dart Plus project and a number of future Luas Line etc so you and all of the kind of I suppose future kind of growth and in Swords and elsewhere you know the kind of residential expansion of Dublin as well this I mean I've had some statistic I think at the last census I think in 2016 I think we've had one recently but in 2016 I think there was a growth in population growth in Dublin city as a whole of around 5.1% however north Dublin itself to saw a growth of 8% within that sort of same time period so you can see north Dublin is significantly growing Swords as I think it's now the second biggest town in Ireland's in terms of the level extent of growth that's experience as well so you have the Swords area you have north Dublin as well which is you know not very well service at the moment and you know requires something like Metrolink to be able to provide that level connectivity not just a north self-connectivity but a connectivity to all of these other sort of transport systems that are also gonna be introduced or are being introduced at the moment that they work together exactly so you know we've been very cognisant this wasn't the design of measuring to ensure that you know we do have these interchanges that can be made at that for put on part of the bus system Luas Dart Plus and I suppose it's important to say that because it's fully segregated as well and that it's high capacity but also high frequency so that you can get that kind of you know constant running of trains to be able to move volumes of people that's it I mean just to give you an indication the Metrolink system is currently designed sort of a peak capacity around 20,000 passengers per direction per hour and if you compare that to say the Luas Green Line which obviously knows has been hugely

successful and potentially oversubscribed in terms of number of passengers and in some peak periods and that system has been designed around sort of 9,000 passengers per hour so you can see it's a big jump in how many people in the little capacity to move down that that sort of that spine corridor all the way down from Swords down into the city centre let's kind of try zooming in a little bit now and try and kind of paint a picture of a typical underground station so these would be the stations that really are between the airport to Charlemont all of those tunnelled stations and I mean while there are kind of differences depending on the context there are kind of similarities are kind of continuing themes and motifs and the basic layout of the typical station doesn't change much from stop to stop so I thought that maybe if we just took St Stephen's Green by way of example and imagine it's the early 2030s and Metrolink is up and running and imagine you're standing with your back to the Shelbourne Hotel looking towards the stop maybe Peter if you could just describe you know what's in front of you and how a person will move through the station to catch the train absolutely Sarah so if you could imagine yourself that you're back is to the Shelbourne you're looking over as well as at the northeastern corner of the Stephen's Green Park and I think as we previously mentioned there will be a plaza area that the plaza that's currently there at the moment that plaza will be effectively also acting as the plaza area in front of the station box so obviously the key factor for designing of these plazas is you have a bit of a balancing act between ensuring that you have a wide open space that that you know provides a constrains corridor to get into the station but also trying to ensure that that it's clear for those especially those with any sort of vision impairment or vision impairment or any sort of such a disability exactly that they're able to navigate and orientate themselves toward where the actual entrance is sure without having to face a sea of clutter etc so that's gonna be a key part of the design before is to ensure that we can maintain that clutter free area for passengers to move through so when you're looking in at the station at Stephens Green Station itself again hopefully you should be able to very clearly orientate yourself through the plaza area to get to the entrance of the station and the entrance to the station in common with all of the underground stations is effectively a sort of a covert portal if you use those sort of words which provides a cover effectively a visual clue indication as to where the actual entrance for the station is and from that point then you can effectively either use the lift down of the which is proximity close by to the portal itself or use the escalators or stairs to actually make it make your way down into the first level of the actual station so once you're down in the first level of station I think the first thing you'll notice as you walk into the stations is the sense of space and one of the key lessons that we've learnt from number of other projects that we've looked at over the over the many years that we've been working on this scheme is that sense of space that effectively if you feel like you're being constrained or you're some way sort of kuraled or claustrophobic feeling that I've had in the number of different stations that I've been in the world you know that sense of space as you go especially as you go underground is quickly important so the other critical importance as well which where we can achieve we try where we can't we try to use other ways to bring this into the station but there's a bit light Stephens Green we will have skylights effectively allow to bring natural light as far down into the station as we can the intention is to try and get it down as low as possible so in the day effectively you're getting lots of natural light into the actual station itself so as you go down to down the station down into the concourse level and down towards the mezzanine level again that hopefully that sense of life that sense of space will provide us over you know you won't be so claustrophobic exactly

and actually what's nice about the stations just from is that because you know they're not so deep underground almost you know you go to some London Underground station some of the older ones particularly and they're very far underground of course this is maybe it seems to me closer to maybe the Jubilee line you've got a sense from the moment you enter the portal is a kind of a sense that you're not too far from the platform you know you almost know it's obvious you're just a kind of a level or two away and that there's like you say the natural light is getting down so you have that kind of logic and simplicity for navigating your way through the station that's it and I think that that navigation piece I think is has been critical I suppose up to date in terms of how we've been trying to lay these stations out you know in some ways obviously we've tried to maintain as standard as possible in approach cross the design of all of the stations but as you say there are some stations of where you're unavoidably need to change things around a little bit but even for those stations I mean I think that something that the key design drivers really in terms of developing these stations has been to ensure that passengers as soon as they enter the station have a consistent idea of how to get to where they need to go and as is it because we are a sort of a single bored tunnel where the tracks are side by side that would lead itself to the fact that as it enters the station then you have a platform either side of those tracks so it's very important obviously in such a station to ensure that passengers when they're using it of all abilities are able to fully understand where they need to get to within the station to access the direction they need to get to sure so that sort of clear sightlines as you're coming down station to understand the platforms of where they're located what direction you're going in but also obviously for those who are say visually impaired for example who are maybe using a lift for example that needs how that both the audible and visual guides in terms of understanding clearly what they need to do to get to the station so the platform you have potentially on the lift you know mezzanine level a light here for you know and that once you get to the mezzanine then you're making a decision northbound southbound and you either go right or left that's straight down to the platform so you either you can either stay on that lift particular lift that you're on to get to one platform or you will have to make a change as you said at the mezzanine level for example to get to the other lift to get down to the other platform so you know that to be able to have such a system in place at these it's critical that you were able to clearly communicate to those people are using that where they need to go what they need to do in order to complete their journey you know I think the navigation does work very well for me you know knowing the drawings and the design and all of that you do have that simple kind of progression concourse mezzanine platform and it's you know like we were saying earlier not too far underground and not too many long circuitous corridors or you know dead end spaces that you sometimes get in these systems that's it and also not only as a general design point I mean having those clear sightlines not having any corners or you know having clear passive surveillance of where you're actually needing to get to can be a huge important part of the travelling experience for you know for many passengers to for them to feel safe and secure and to know that there aren't any sort of corners that people can congregate in or you know that that obviously is a critical sort of input in terms of development designs from these stations as well so when you're on the platform what will the platform layout be I mean actually it's probably important to say that it's a driverless system isn't it so Metrolink will be obviously Ireland's first fully automated rail system the Metro system that we're putting in place and that sort of system while obviously there are plenty of other systems around the world that that do have drivers that that

use platform screen doors we will be using platform screen doors in our Metro system which is common with many new systems put in place now so these are platforms screen doors are effectively doors that sit just at the edge of the platform provide complete separation for passengers that are on the platform and the actual track itself and the tunnel environment and everything that happens the other side of the platform effectively and so what happens is when you have one of these automated trains pull up to the actual station it automatically aligns itself with its doors aligned to the platform screen doors and the two open effectively simultaneously then to you know to effectively almost act as an area for a clear path but I mean these doors are hugely positive I think in terms of improving that overall so the travelling experience I know myself being over in London for example on the tube being at one of those busy stations you know you're holding onto your child with your knuckles wide almost in terms of concern that they're going to potentially run out near the platform and tumble over or whatever you know and just for especially with the automated system as well you just have that kind of efficiency the train pulls in at as fast as speed as it needs to that's it and the door is open you know efficiently and aligned and all that and it seems to work is it used in in the Copenhagen metro as well that's right Copenhagen use them the recently Elizabeth line that's opened in London also have them on the stations as well so tried and tested but I mean another key benefit and I know this from personal experience as well as is especially where you have someone who's it can be very sensitive to noise and that that vibration rumble and you know that the air that typically comes out of the tunnel which is not always pleasant to get a blast off and I know this well from London so to have separation from all of that sort of dirty and the things if you want to call it and the wind tunnels so it's a consistent experience no matter what station you're at it's you know you don't have that loud noises you don't have that sort of loud disruption as the train comes in so it's a much more of a pleasurable commuting experience rather than the noise you would have to get used to and I suppose some of the feedback we've had through the user group is concerned about you know misalignment of doors or getting caught between one and the other but of course you maybe be able to assure people that the technology has been tried and tested on big systems across many cities across the world absolutely and I know there has been cases where this sort of system has been sort of a retrofitted into existing metros and you know in that scenario you do sometimes have to make choices in terms of you know such as the distances between the doors the gap that that many are concerned about obviously naturally concerned about when you know access in these sort systems I mean again that one of the good things about having a greenfield project a brand new project is you can spec and design inspect ensure that those gaps are brought right down absolutely and then there's all sorts of other you know technical solutions to ensuring that you don't get that misalignment because obviously that's you know that's not where you want to be in terms of where the train is fully stopped and that should be always fully aligned with those doors sure and just on the platforms then so you've got the platform screens doors but generally speaking what else will you have on the platforms in terms of furniture and like how well I think the intention is to try and keep the stations as clutter free as possible to only provide what we absolutely think we need to provide

So obviously you can have some level of seating available you can have you know screens up information screens etc and but the key is to try and keep it as uncluttered as possible so only what is necessary should be really on the platform

itself and to keep that consistent and across all of the stations in as far as possible so when people go down they can they have a kind of an expectation that this is the pattern of furniture and this is generally where the help point is and this is usually where the seat exactly now obviously in some stations it's not possible to have full coordination consistency between for example where the escalators are compared or the you know where the lifts are and there may be some calls to in some of those cases to have change our modifications but you know the key point here is really to ensure that that passengers can confine those facilities are clearly sign posted they're clearly you know set out and consistent in terms of how they're actually and maybe judicious use of tactile paving to kind of guide towards the key you know exits or they are the help points or whatever I know certainly easier than trying to get a consistent layout in the city centre where you've got like on street where you've got shop fronts and doorways and at least with the with the underground there's a little bit more flexibility to get that consistency in place so I mean that is a typical Stephens Green could be said to be a typical kind of underground stop and then you've got the open cut stops so I thought maybe Swords probably represents a good example Sword central that probably represents a pretty typical open cut station so how will that look and feel and how would people navigate through it I suppose to give you a feel of the station maybe I need to especially for these sort of minus 1 level stations give you a feel of the sort of surrounding area as well and currently the R132 road that that runs just in the outskirts of Swords town and it's effectively almost it's a dual carriageway it's 80 kilometre an hour dual carriage road effectively and there's the only way to able to get from one side or the other is to use a series of footbridges that are currently located along that road to be able to provide access to one side or the other which obviously doesn't lend itself to any for any accessibility really in terms of able to get to either side of this busy carriageway so we are working the station that we will be locating on Sword Central will be done in the context of the fact that R132 road will be will be effectively upgraded and to become much more of an urbanised street rather than the dual carriageway effectively as it is now at the moment so that their plans to reduce the speed of that road to 50 kilometres an hour and to provide actual crossings rather than having foot bridges or any sort of a structure of these is navigated exactly so the actual crossing stem will obviously provide the much more of an easy access accessibility in terms of getting from the sword side of the R132 over to the other side of the eastern side which is where the station will be located so as you cross over the R132 if you can imagine crossing that to at that actual crossings to get over to the where the station is you notice obviously that there is again similar with many of our stations there's a silver plaza area in front of the actual station itself and you notice there's this bike parking facilities especially at the minus 1 level stations of the north end and just a significant amount of bike parking which we provided so will that be a combination of covered bike buildings or structures and then surface hoops and the kind of ones were used to exactly it'll be a combination of both as we were aiming to try and provide this as high spec as possible in terms of the you know the cover storage and parking facilities for cycles but I think the key thing that we need to obviously ensure is obviously that we have the space for cyclists to park their bikes into to use this change mode of transport to use Metrolink but it's also critical to ensure that we lay it out such a way that we can segregate from cyclists using the facilities and travelling to the station and parking their bike and those pedestrians who were using the footpaths for example to get into the stations and I know obviously there's been a bit of back and forth as well some terms of concerns about

and it's everywhere really the shared space is particularly not that you've got e scooters and faster bikes and everything that there's so again aims to try and ensure that the final design fully as much as possible and obviously you can't count for human nature unfortunately sometimes but to try and to push the cyclists and all of the sort of traffic away from pedestrians to keep let's provide at least that level of confidence clear and safe paths or exactly and using kind of landscape features over there that's it and that that will that'll form large part as well as of the this little plaza area in front of these stations to be landscaping inventions to both obviously to act as an aesthetic but also to be functional in terms of you know providing a directional or preventing from you know pedestrians and cyclists from you know mixing specialisations against our station so as you were approaching the front of the station again you're effectively you're starting to see a lot of the same features that you would when you look at the station from the city centre the key difference here obviously at a minus 1 level station and we don't have a closed box effectively like a station box effectively the top of the box has been taken off and instead what we have is a canopy that runs from the front of the station of covering a part of the plaza area all the way to the to the back of the actual station itself so we have complete cover there to provide for environmental Protection but if you were to look over the side walls if they were if it was possible I don't know how high they are but if you were you'd be able to kind of see down onto the platform below you'd be able to see exactly and we'll have glazing obviously protecting and stopping from anyone from accident looking too close into the station box absolutely so you're it's a slightly different from the underground stations in that you have two lifts with the option to use either lift to go down the single story effectively to get down to your chosen platform or use the stairs or escalators to get down into the into the mezzanine that make your choice as to where which direction you want to go down this so from street level if you if you want to go outbound or southbound I suppose how we describe it and you know you might go to the left side as you're facing and if you want to go northbound you go to the right hand lift and the lifts bring you straight onto the platforms but there's a little mezzanine typically you've gone straight down to the actual station to the actual platform level from ground level effectively so it's much easier suppose it's a very simple approach I suppose in terms of you just need to pick your right lift to go to whatever your right direction that you're actually going to travel in but again you know clear signage is critical use of tactile is going to be absolutely critical you know there's a lot of these things that need to get a right to ensure that everyone can access the system to ensure that level consistency across all of the stations that as well you know but again they're quite I think quite clearly laid out in their fundamental form and that there is a kind of a consistent you know forecourt you know similar architectural language and then you know pretty you know as far as possible pretty simple navigation so that's it hopefully that'll work then in combination with whatever signage is needed like you say absolutely and that's great and there are glass screen doors on the platforms there as well obviously and again the kind of whatever platform furniture is in the covered ones will continue through and again same language same layout as far as possible exactly and as we said the key the key is to try and ensure that the platforms are consistent as possible so whether your first time user or you know grizzled veteran at that stage you know you'll have a clear understanding what to expect when you get off of the next stop you know the layouts etc which obviously for those who are visually impaired is very critical to be able to clearly know where they are supposed at any point in time very good and so Peter I know that you've attended many of the user group meetings

where we have the kind of stakeholder engagement with people with disabilities and how that works is that we give updates on projects and we get feedback then on how it what it's like to use it on the ground and we've had several Metrolink meetings which you've presented at and attended and everything so you're very familiar with some of the concerns and feedback that we've been getting so maybe I thought if we maybe touch on some of those and like the concerns vary depending on the nature of the disabilities so but I think looking at maybe people who use wheelchairs or who have mobility issues a big concern would be the capacity and the reliability of lifts and so what kind of measures does Metrolink need to take to address those I mean the from the discussions that we've had I think we've touched on a number of the other concerns that we raised the shared space is for example you know the application of tactile you know all of these things that absolutely need to be considered one the biggest ones that came on from discussions is in terms of wheelchair users and access to the stations so the current ranking for the underground stations is that we have a single lift at the surface which either bring it down to one of the platforms directly or you will need to make a change at the at the mezzanine level to access another lift on your side to get down to the correct if you're going to be at the direction exactly and obviously the concern is ultimately that's that lift to the surface is out of action then if you're someone who who's in the wheelchair and needs the lift access then the fact of it is your station has been effectively put in out of action for you and obviously that's a huge concern but I think it will absolutely be critical to ensure that when we actually have an operator engaged and that we have the strongest possible provisions in place to ensure that those lifts are considered to be absolute critical system for the actual overall workings of the station so no different than a platform screen door if a platform screen door isn't working then that station is effectively you know it's potentially not safe to use we don't have a lift that can bring those passengers down into the actual station then that would be you know my mind is a similar level of urgency request emergency and no complacency absolutely and there's someone about to fix it straight away or there are emergency lifts if need be if there is if there were ever a serious emergency there are we do have it there is a separate set of lifts that have been normally designed for Dublin fire brigade to access in the event of emergency or an issue yes but again if needs be obviously this is something that we need to tease out as we was working more detail as opposed on the scheme and develop our specifications and requirements you know there's potential there I'll see in the case that we need to get people in or out of the station to use emergency lift as well especially for those who are when in a wheelchair or other ways you know physically unable to bring themselves up the stairs or escalators to get out of the station sure and but I mean oh I guess from a day to day operations it's the kind of highest spec best customer service and all of that the lifts are like you say considered a critical part of the infrastructure at every station that's it that's it and I know what many of those user group meetings you know the fact that this will be an automated service I did raise some supposed questions or concerns about you know what about staff effectively or are we just taking staff out the system effectively just to try and save money effectively no so but I mean ultimately it's the opposites to that really I mean by providing an automated system such as in use in really all new metro lines that are constructed nowadays and it allows you to actually focus more on the customer service side of it exactly so rather than taking people out of the system they're effectively using people more productively towards you know helping the passengers helping our general customers as well as in terms of their day to day

community so you will have you will have the customer service officers I suppose is how you describe them kind of going on board the vehicles and roving from station to station absolutely and we'll have teams that will be roving through the stations to the system and will have to find response times for those teams to get to a particular situation or to provide assistance so you know absolutely there's a lot of work to be done to try and get the black and white down on paper as well as in terms of getting these specifications finalised I think that's pretty useable would be you know a huge benefit to be able to engage with them and to you know to further honour specifications and requirements before we ultimately put it out to the market for sure and just some of the other issues that have come up I know that you know set down and access I suppose whether that's whether you're interchanging by bus or whether you're being dropped off by somebody now it's probably not that easy in the city centre to be able to set aside space for you know immediate set down and parking spaces or whatever but I suppose is it fair to say that it's at least been considered where possible and will be included where possible oh I mean you know we're looking to provide these you know where we can and those obviously have been set up and down the design that's gone for railway order but I mean your hundred percent right it's not always easy to actually find it on these set down locations you know especially when your city centre in terms of density and the use of existing space there it can be often very difficult to get anywhere really that's close enough to station to actually you know constitute the set down area to get down so but where possible absolutely its intention to provide those wherever we can really and they're changing places that was an important policy documents again what can Metrolink do there originally we weren't intended to provide any toilets and again we're talking we're going back to 2015 year 2016 but you're right the environment has changed so quickly over that that that five six years in terms of you know what constitutes you know the facilities that that absolutely should be provided and these changing places facilities I think I've see something that that you know all of the city councils are now starting to buy into Dublin city council introducing a number of these as well on a rolling basis effectively across the city so currently we're proposing we built an Infinite Designs as it is the moment to provide these changing spaces facilities at the Domain Interchange stations and that's obviously the Tara Street Glasnevin the airport I think also at the park and ride as well potentially so we'll have these changing spaces at these key interchange these key interchanges which hopefully and I suppose when you consider to get from the Estuary from the very north the line down to the city centre you're talking maybe 25 26 minutes right so we're hoping that you know by providing these four five or six changing facilities along the line at intermittent spaces that it is if you could give you good coverage across the exactly and in terms of ticketing are there ticket barriers or is it a completely open system or it's currently proposed to be a completely open system similar to Luas where you effectively can just walk up to the platform and get on the train and you validate your Leap Card or whatever you do exactly or buy your ticket from ticket well if we're talking the 2030s maybe it might be gone but I know that the NTA have a new next generation ticketing sort of arrangement that's gonna be in place which you know will we'll work with the NTA to provide whatever facilities are needed there but you're right I mean I think it's moving closer to just a sort of a tag on tag off validate your journey effectively of approach rather than having to handle change and cash and go through the barriers and all of that kind of thing the project was submitted to An Bord Pleanála in September 2022 just a couple of months ago and as part of the railway order process and the observation period is closed but I

suppose it's important to say and you kind of touched on the therapies and you know there's a huge level of engagement still to happen really it's you know the process is really only beginning maybe if you wanted to describe the future process in terms of engagement with Metrolink team and how that's planned to work absolutely Sarah you're absolutely right we've submitted now our application to An Bord Pleanála back in September which feels like a lifetime ago now been my head in the early March 23 so effectively that so that line in the sand has been drawn in terms of our planning designs but the planning design level of design we got to at the moment is really the starting point effectively there is a significant amount of work to be done over the next coming years more immediately the next stage is to develop the tender designs and tender specifications and requirements and that's going to be a critical process in terms of ensuring that those requirements and specifications capture everything that we need to include to actually end up in the actual final system that's gonna be built so we would hope to work very closely with the user group from you know in this next stage to get those requirements set the stone and get agreements across the table as well in terms of what we're actually proposing to put into this the rolling stock alone it's gonna be a significant piece of work absolutely let alone the rest of the infrastructure the buildings themselves and of course something that comes up very often is that you know while the streets have been dug up and there are diversions and people who might be used to walking down a certain street suddenly it's closed or they have to walk around hoarding or their normal route is significantly disrupted so that would be another kind of focused piece of work as well just to make sure that all of the contractors who are on site have really good awareness of I suppose the vulnerabilities of people with disabilities on the street but also as you say during that construction phase to obviously keep on talking and ensure that the contractors you know meet their obligations of requirements in terms of maintaining accessibility and maintaining access routes around it the city effectively as they dig it up I think the only difference this time around this book maybe compared to Luas projects is at least where were very much contained in certain areas whereas obviously with Luas you have the potential to whole streets that are effectively taken up I mean that's amazing really cause you imagine with a project of this scale that it would be you know huge kind of chasms in the ground or whatever to each but so is that the idea that the tunnel boring is a kind of a niche or incision and just like the easier to that's it to manage most work in terms of the route will take place below the grounds without impacting anyone so you know it's amazing from that perspective you know it's an it's a positive but regardless you're still talking about major at certain points in the city that need to be managed and the station boxes and says those will be opened up and covered over so it's and then the sections in between or it's totally boring and underground you'll be up to keep going and then as though nothing is happening underground and then it'll all review yes exactly fantastic and just should we mention the teams as with a lot of work has gone in from Grimshaw Architects and from Jacobs and all the partners and indeed from TII themselves the in house worker bees that's been I mean the significant amount of work from across the board from all of our suppliers obviously from you know food not only the mentioning team in TII but across the board in TII I think we found input from of course from all the departments so really it's I suppose it's one of these projects that have effectively given the scale of it to some unavoidable you we need to get everyone's assistance and to try and pull through so pull on their resources exactly so it's it's gonna be a great project for the city it'll be a great project for TII but feeling a great project for the passengers effectively as

ultimately beneficial at the end of the day absolutely and actually what just struck me there is just in terms of ongoing communication we're looking as well at a whole series of models you know again people to get a sense of those the underground stations the open cut stations models tactile maps all of that kind of thing just absolutely I think we're definitely the beneficiaries of the fact that you know across the water in the UK they've just finished the Elizabeth line and they're in the process of delivering HS2 at the moment so we've a huge amount of resources and lessons learnt that we can we can build from these very recent projects and one of the most in Crossrail for example having a sort of a mock-up of a platform area but which allows people to come in early and get a sense of space and you know understanding how eventually the final project will actually look effectively which obviously is this hugely helpful when you're engaging with stakeholders such as to user group's particularly when you get down to the kind of and this question of you know this scope to change things move things around get it right you know brilliant well Peter Bennett thank you very much for coming in and talking to all Aboard TII's accessibility podcast about Metrolink

So that's it for this episode we hope you enjoyed our conversations on disability and design and gain some insight into the role we can all play in ensuring public transport is truly for everyone thank you to our host Sarah O'Donnell to Trevor Cudden sound to the production team Kathleen Jacoby Rachel Cahill and Claire Scott to Sinead Foley from TU Dublin who designed our fantastic graphics and to everyone else who helped make this podcast please send us your comments and feedback to [allaboard@tii.ie](mailto:allaboard@tii.ie) and for more episodes from all aboard please go to Spotify iTunes or wherever you get your podcasts until next time