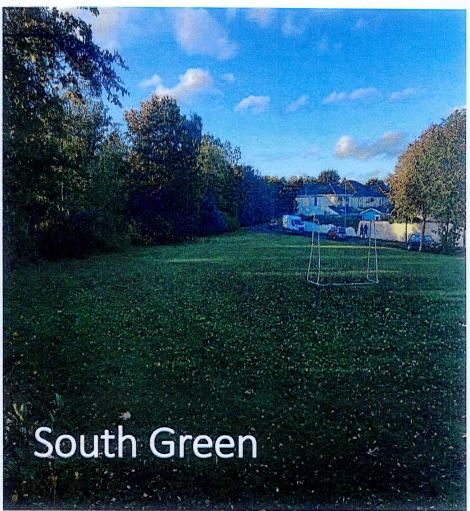


Summary

- Estuary Court & Importance of our Greens
- TII Construction Programme for Estuary Court
- Solutions Proposed re-alignment on R132
- TII's response to our proposed re-alignment
- Our proposal
- Closer Look at the main Road Junctions
- Multiple Benefits of re-alignment proposal
- Greenway opportunity
- Value Engineering Precast Tunnel
- R132 Key enabler to solution
- Conclusion

Back Garden Boundary Wails North Green Lotus Makeup By Rache 2m High Small Back Gardens Coundary South Green Stone Wall and Railing at R132 Pedestrian and Vehicular Entrance

Ariel View of Estuary Court

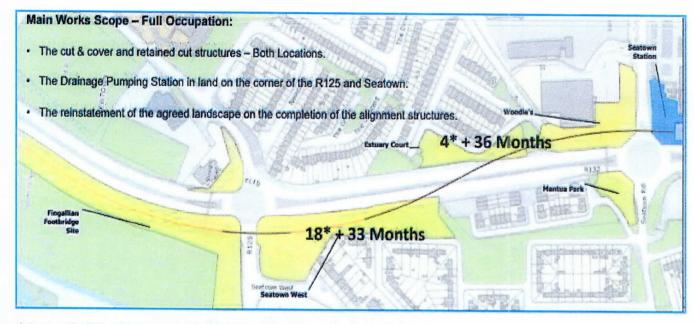




Our Greens – Where it starts

Matt Doherty

Time TII will Occupy Estuary Court Greens



Advance Enabling Works* - Duration Before Main Worksites are established:

- Seatown West 18 months: Site Clearance, Surveys, Utility Diversions and Monitoring Work.
- Estuary Court 4 months: Site Clearance, Surveys, Utility Diversions and Monitoring Work.

36 Months Construction Programme X 19
Working Days per Month (excl. Sat)
= 684 working Days for Estuary Court (105m of Cut and Cover)

Therefore **6.5 days per M** of Metrolink through Estuary Court.

19.4km Total Length of Metrolink

@ 6.5days /m = 126,100 Working Days

228 Working Days per Year = **553 years** to complete the Metrolink based on the above

Even allowing for 10 different areas being constructed concurrently – **55 years**

But TII say Metrolink will be completed in 8 – 9 years. Why so long in Estuary Court?

TII Construction Programme - Compounds

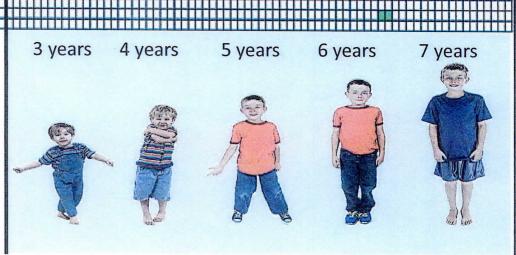
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Estuary Court Programme - Our Kids lives

No green areas to play on in Estuary Court for 6 years

Pivotal time in their Development and Growth

"Give me a child until 7 and I'll show you the man"





What would you choose for your kids?

What can be done?

- Estuary Court welcome the Metrolink however, there must be due consideration for the existing Residents
- Solution to work for all?
- Proposed Re-alignment onto the R132 was included in Estuary Court's Submission
- Opportunity with the R132 FCC have their own project whereby they are changing the nature of this dual carriageway road to a road that functions as an Urban Street - Game Changer
- No reference to R132 connectivity project in TIIs final decision report
- FCC to facilitate the Metrolink however they can -Collaboration needed between FCC and TII

Additional Construction Impacts

Further to response number (4) above, an alternative open structure solution running alongside a reconfigured R132 Connectivity project would have the following additional impacts:

- To make a space for construction access to the works would require the relocation of 4 lanes of traffic towards the northbound verge of the X132. The consequence of this is to push cumulative traffic noise towards more residential receptors on a temporary basis during construction.
- While 2 lanes of vehicular traffic can be accommodated in both directions within the space available between the existing boundary walls
 of the R132 and the construction site. However, any existing pedestrian, cycle ways or bus stops along the R132 would have to be
 suspended throughout the construction phase. (See also response number (13) above.
- Am atternative would require a reduction of vehicular traffic to one lane in both directions with cycle/Pedestrian/Bus stops accommodated. See also response number (13) above.
- Working space inside of the structure would also require land take on the eastern verge along the whole route, including part of the park at Estuary Court and potentially the gardens at the rear of the Crescent,
- To create access to build the stations will require temporary landtake outside of the existing boundaries of the R132 to divert traffic to
 provide. For Seatown Station, this has the potential to impact on residential, commercial, and school (St Colmcille's) receptors close to
 Seatown Walks.

Additional Permanent Impact

Whilst not an issue in terms of operational noise or vibration impacts, an open retained alignment would be located along the eastern vergs of the R132 and at the rear of the park at Estuary Court and The Cresent.

As stated above in response number (4) Til have reviewed many options for the delivery of the MetroLink through Swords with the option presented in the EIAA the least impactful to the stakeholders along the R132, while resolving the visual impact objection to the elevated alignment and ensuring that the scheme remains economical for delivery under the business case.

Alternative Residents Solution.

As with all of the options considered, the solution proposed on Fig 5.1 to effectively build the MetroLink Alignment under the existing R132 Southbound c/way is of course possible. However, we would offer the following initial observations in addition to those previous stated in response number (4) above:

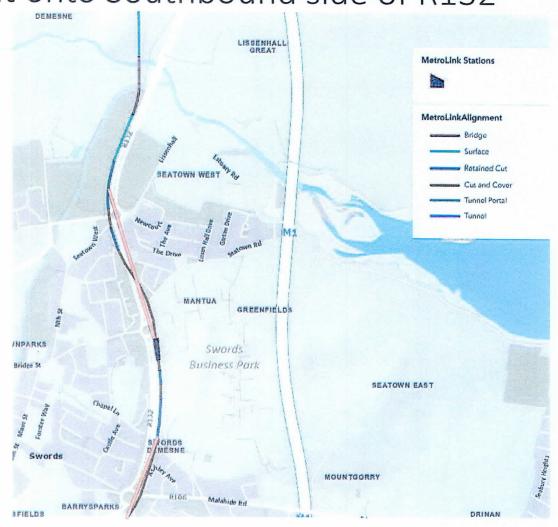
- This afternative scheme assumes a full cut & cover solution, which is not the scheme proposed under the EIAA, nor was it ever TH's intention to provide such a scheme when moving away from the initial preference for an elevated alignment. See response number (13) above.
- In its current layout, this afternative scheme would be unworkable in delivering the R132 Connectivity Scheme with an open retained Metroclink alignment. However, it is potentially feasible to have an open retained Metroclink with a full R132 Connectivity configuration running alongside it but pushed into the northbound verge, Further impacts of such a solution are outlined below.

Proposed Re-alignment – TII Response to Estuary Court Submission

- TII acknowledges alignment under the existing R132 is of course possible!
- TII say alternative assumes full cut and cover. This is incorrect. Only 100m of additional Cut and Cover required for R132 alignment. However, efficiencies to be made on construction as it is now a straight line
- Can't accommodate cycle lanes and paths these are not currently on the road
- Additional working space required see later in presentation
- Impact of Moving Seatown Station. No impact Station to remain as proposed by TII.

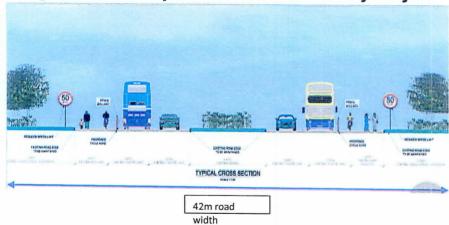
Alternative – Re-alignment onto Southbound side of R132

- Red Line proposed alternative cut and cover re-alignment on southbound carriageway of R132.
- This avoids the Metrolink going through Seatown Villas, Estuary Court, Woodies and Ashley Avenue.
- It provides a construction corridor lending itself to a more efficient construction of the Metrolink.
- Once Cut and cover is complete a new cycle greenway can be installed on top.

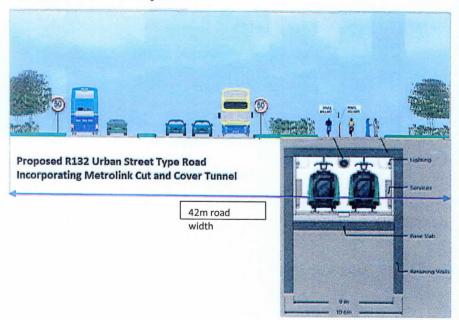


R132 Cross Section

Fingal Co. Co. Proposed R132 Connectivity Project



Alternative R132 incorporating Metrolink Cut and Cover where required



Width Required for Alternative R132 & Metrolink Construction Corridor

Width required to accommodate R132 re-design – Urban Street

- 5 lanes x 3.2m wide = 16m
- Allow for verges / extra over say 4m

Total 20m

Width required for Metrolink Construction Corridor

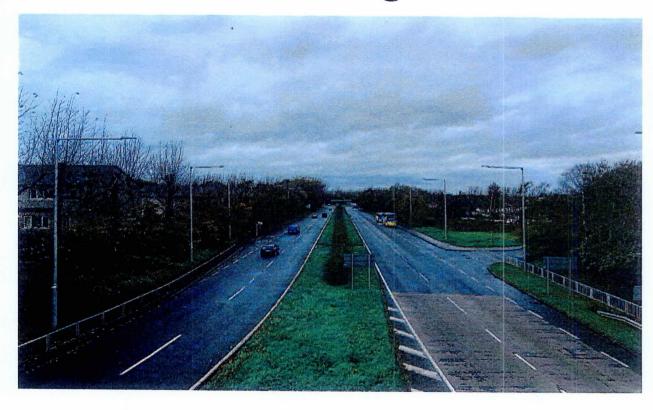
- Construction footprint 12m
- Working space either side 2m each side
- · 4m haul road -

Total 22m

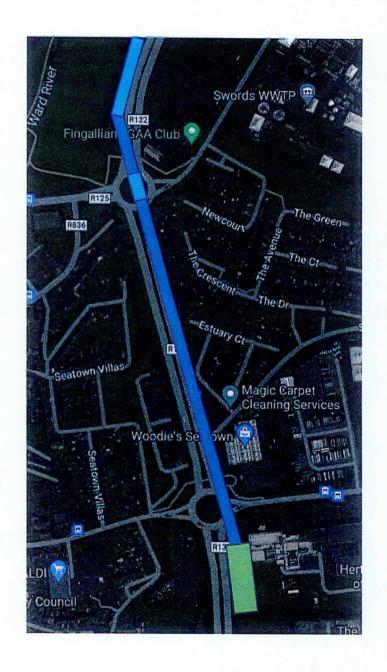
Width of R132 at narrowest / pinch points -

Total 42m

R132 Road – Straight line



Balheary Pitches to Seatown Station 710m (560m to retained cut)



Estuary Junction

Metrolink - Open Cut

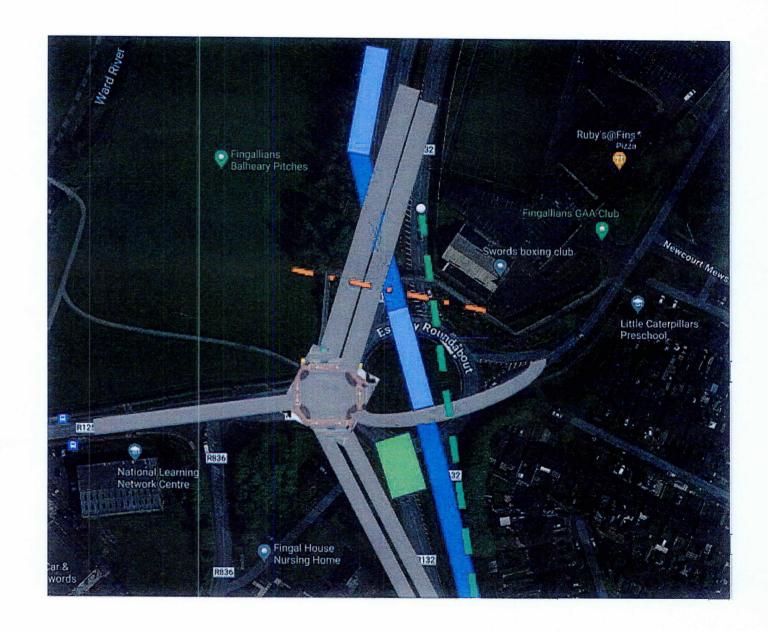
Metrolink - Cut and Cover

Roadway

Greenway - Cycle

Pedestrian Underpass

Pumping Station



Seatown Junction

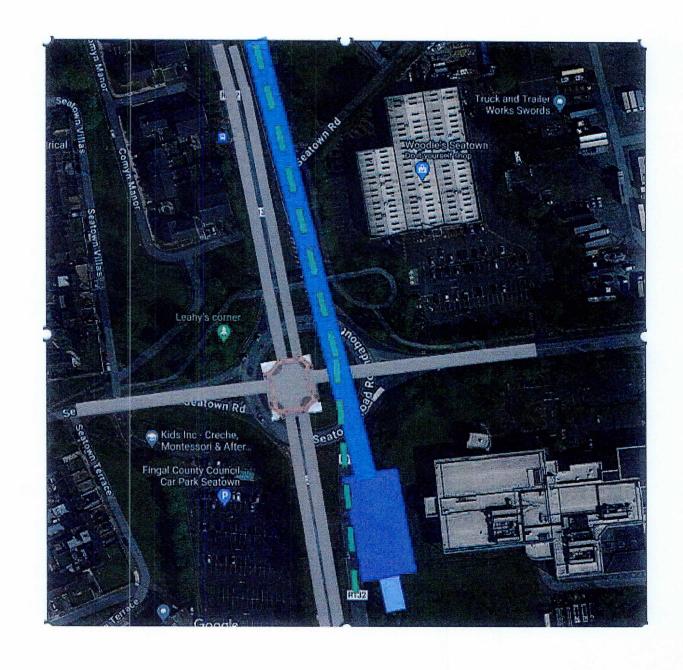
Metrolink - Open Cut

Metrolink - Cut and Cover

Roadway

Greenway - Cycle

Seatown Metro Station



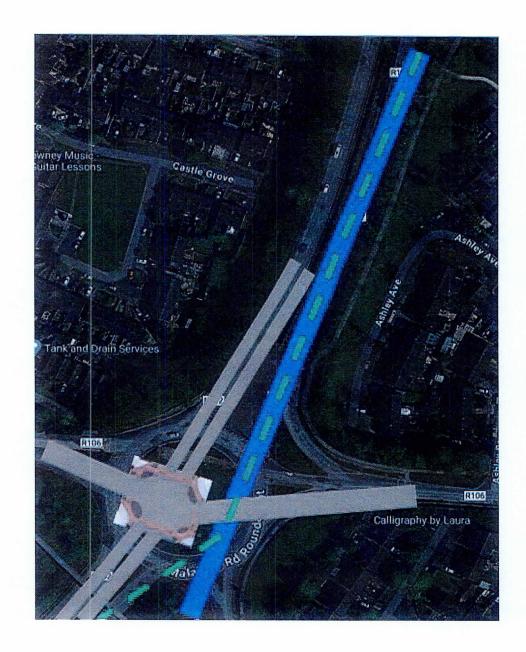
Malahide Rd Junction

Metrolink - Open Cut

Metrolink - Cut and Cover

Roadway

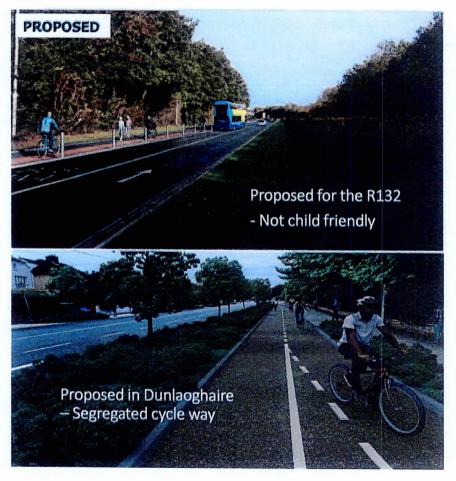
Greenway - Cycle

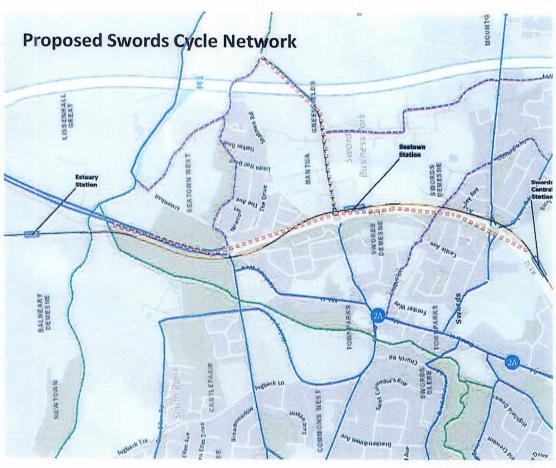


Alternative Re-alignment - Benefits

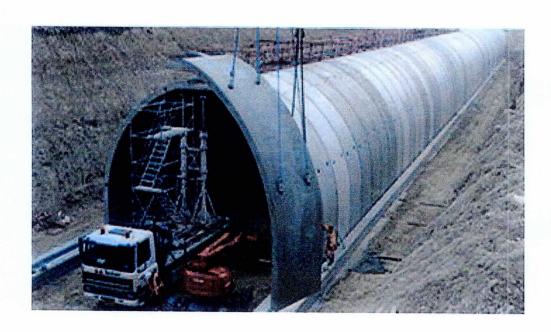
- With R132 re-aligned to West side of existing R132 22m wide construction corridor available for Metrolink construction - lends to easier construction and reduce the requirement for Traffic Management
- No requirement to occupy the green areas from Estuary Court,
 Seatown Villa, Ashley Avenue or Woodies Car park.
- Opportunity to install safe green way along R132 on top of Metrolink cut and cover
- Opportunity to have underpass from Fingallians Club to new allweather pitch at Balheary
- The re-alignment is a straight line from Balheary Pitches to Seatown Station. This provides an opportunity for Value Engineering a Precast tunnel construction which has multiple advantages over in-situ tunnel

Opportunity for Greenway along R132





Precast Concrete Option for Cut and Cover



Canopy Molded Waterproofing Filling Drill tube wrapped concrete in geotextile Ø90 corrugated Pipe Ø110 Porous Corrugated perforated Weepers pipe Ø160 Water collection channel

New Road Tunnel in France

Precast Tunnel with Secant piling

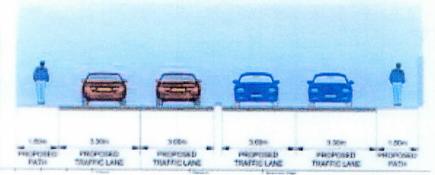
Advantages of Precast Tunnel over In-situ

- Rapid Construction (170m of Hollingbourne tunnel (UK) completed in just 4 weeks)
- Cost effective solution
- A lot less men required on site less welfare / offices required, less workers car parking
- Less compounds / land take required
- Enhanced construction safety
- Less dependency on weather
- Quality assurance
- Less construction traffic / noise / dust
- Less on-site waste
- Less Carbon Footprint

R132 – Key Enabler to re-alignment

- R132 changing its nature from fast dual carriageway distributor road to urban style street.
- No requirement for wide verges, central median and extra width lanes - Use this space for the Metrolink!
- FCC said they welcome the Metrolink and will facilitate whatever way they can and work with TII
- Why install cycle lanes before that will be dug up and cut through by the Metrolink construction?
- Cycle route incomplete at Metrolink road crossing.
- No cycle lanes and pathways for last 35 years. Why shoehorn in now before a major infrastructure project? Are there safety implications? Risk should be designed out not in?
- No reference to R132 in Preferred Route Design Report. Did TII consider the opportunity the R132 offers when selecting the route?

TYPICAL CROSS SECTION A-A



Conclusion

- Our Greens are an inherent part of our estate and crucial for our kids development.
- We can't live without a green space for kids for 5 years
- Practical and viable option to Re-align onto R132
- Very little change on overall TII design to this area – straightening route
- Value Engineering option of using precast tunnelling to save time and cost
- Our Ask- Collaboration required between TII and Fingal Co Co to achieve a win - win for all parties including the local residents and people of Swords.