

An Bord Pleanála  
64 Marlborough Street  
Dublin D01 V902

5<sup>th</sup> September 2019

Dear Sirs,

**Planning Application PL29N.304888 by Dublin Port Company** (15-year permission for development at Oil Berth 3 and Oil Berth 4, Eastern Oil Jetty and at Berths 50A, 50N, 50S, 51, 51A, 49, 52, 53 and associated terminal yards to provide for various elements including new Ro-Ro jetty and consolidation of passenger terminal buildings).

The Irish Academy of Engineering makes the following observations in relation to this application.

#### **1. Requirement for development on the scale proposed**

The application envisages that the total port throughput will increase from 28.9 mt in 2010 to 77.2 mt in 2040 and that the volume of unified freight, i.e. Ro-Ro + Lo-Lo, would increase from 1.078 million units in 2010 to 3.174 million units in 2040. As unified freight is projected to provide the bulk of growth this projection is examined in the following.

The growth in Ireland's unified freight in the period 2007-2018 is detailed in Appendix 1. As can be seen from this table Dublin Port's share of the total market increased from 74% in 2007 to 84% in 2018. This represented a continuation of the longer term trend identified in the Academy's report *Brexit: Implications for Transport Infrastructure Investment*, pp. 5&6 and Appendix 1, copy attached (soft copy available from the Academy's website [www.iae.ie](http://www.iae.ie)).

The relationship between unified freight demand and real economic activity in Ireland is examined in Appendix 2 which shows that there is a very close relationship between these two variables where reported economic activity is measured by GNI\* at constant prices – which is now the CSO's preferred measure of real economic growth in Ireland.

Based on the relationship shown in Fig. 1 the Academy has calculated that if real economic growth increased at 3% p.a. in the period 2019-2040, as advised by ESRI for longer term analysis, the index of GNI\* would increase from 130.0 in 2018 to 249.1 in 2040 (base year 2010). Based on the relationship calculated in Appendix 2 the Index of unified freight would correspondingly increase from 132.0 in 2018 to 256.9 in 2040 (i.e.  $1.0254(249.1) + 1.4433$ ).

The total demand for unified freight is predicted, on this basis, to grow from 1.297 million units in 2010 (the base year) to 3.332 million units (i.e.  $256.9 \div 100 \times 1.297$ ) in 2040. Thus Dublin Port's projections are consistent with the Academy's analysis, provided Dublin Port's share of the total market for unified freight transport in Ireland exceeds 95% by 2040.

## **2. Appropriateness of developing Dublin Port in the manner envisaged in this application**

The Academy's analysis looks at the issue from a short, medium and longer term perspective

### *(a) Short term issues*

The Academy's *Brexit* report, published in Jan 2018, highlighted the need to plan for a 'Hard Brexit' and the corresponding desirability of increasing throughput via the south coast ports, to provide shorter sea crossings to Continental Europe and provide for more balanced regional development. The Academy understands that Department of Tourism Transport and Sport (DTT&S) has recently commissioned a port capacity study which will examine this potential.

The Academy's report noted that throughput at the Ringaskiddy Lo-Lo terminal, now under development, will be restricted by the planning condition imposed by ABP, until the M28, for which planning approval was granted by ABP though now the subject of judicial review, is completed.

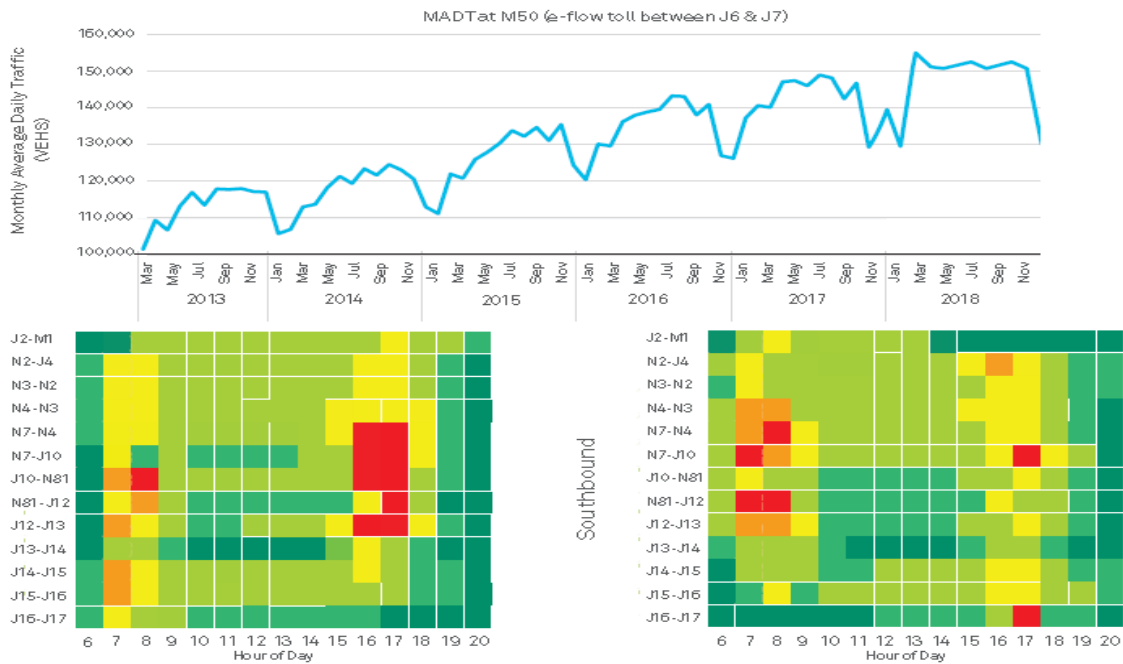
The Dublin Port assessment of the potential for utilising the south coast ports and specifically Ringaskiddy assumed the planning restriction would continue indefinitely. It also ignored the potential for operating both the Tivoli and Ringaskiddy Lo-Lo facilities until the M28 was completed. This option was not proposed initially but the Academy understands it is now under consideration by the Port of Cork Co.

The potential to maximise the capacity of other ports needs to be considered in greater detail, particularly given the potential impact of Brexit.

### *(b) Medium term issues*

The application envisages that unified freight traffic through Dublin will increase from 1.439 million units in 2018 to 3.174 million units in 2040, i.e. a 120% increase in the period. The application is however silent on how this additional traffic would be transported to and from Dublin port. The M50 and Port Access Tunnel handle virtually all of this traffic at present and it appears to be assumed that these routes will continue to accommodate the substantially increased traffic volume.

But Transport Infrastructure Ireland's National Roads Network Indicators 2018 report shows that traffic volumes on the M50 have been increasing steadily since 2013 and as indicated in the graphic traffic levels, in both directions, now exceed Stable Flow Capacity for much of the day between 06.00 and 21.00.



While it is recognised that HGVs account for less than 10% of daily traffic on the M50 in practice, in terms of road utilisation, they account for multiples of that figure. Thus increasing the volume of HGV traffic to and from Dublin Port by 120% by 2040 would have very serious consequences for M50 traffic flows.

This problem will be made more acute by the most recent proposal by the National Transportation Authority (NTA) that the completion of the proposed MetroLink, from Swords to Sandyford, would not commence for 20 years. The Academy had previously argued for this development as a means of reducing private car traffic on the M50.

The Academy welcomes the proposed development by Dublin Port Co. of an 'inland port' at Coldwinters, St Margarets, Co. Dublin, for the storage and repair of empty containers, tasks previously undertaken at Dublin Port on very valuable land. But the Academy notes ABP's conclusion in determining the planning appeal by Dublin Port against conditions imposed by FCC that "The proposed development will result in an approximately 7% increase in PCU traffic flows at the N2/R135 junction. In the Opening Year + 15 years scenario, traffic generated by the proposed development will amount to 5.6% of the traffic on the N2/R135 junction". Given that the 2018 AADT at this point on the on the N2 was only 38,500 this implies that the proposed inland port would make little contribution to reducing the additional HGV traffic envisaged in this application.

The Academy is also conscious of international trends in port development. Historically ports were located as close to major cities as possible, save for those specialising in bulk cargoes. Indeed it could be argued that major cities located near potential ports. This was of course determined by the fact that goods were transported to and from ports by horse and cart initially and later by railways, thus favouring location in or immediately adjoining cities. But with the

switch from rail to road haulage using HGV's, the requirement to locate adjoining cities no longer applied and most ports have moved or developed some significant distance from major cities. Indeed Dublin Port is now the largest surviving cityport in these Islands, as may be seen from Appendix 2 of the Academy's Brexit report.

*(c) Longer term considerations*

The requirement to protect cities, in the future, against the potential adverse impact of rising sea levels looms larger every day. The Academy, in several recent reports, considered how Ireland's greenhouse gas emission (GHG) targets could be met in the future. The conclusions were that it will be technically very difficult and extremely costly. It appears prudent to assume that it may not be possible to arrest sea level rise and that remedial measures must be planned for.

Fortunately Dublin City Council has been to the fore in this regard and commissioned a report on an 'Integrated Water Resource Management Planning for the Dublin City/Dublin Coastal Region'. This report was prepared by CDM and DHI, both highly reputable international consultants and was completed in June 2009. It concluded that, in addition to the flood prevention measures undertaken in the past ten years, it may be necessary to provide a tidal barrier across the mouth of the Liffey, between the eastern extremities of the North and South Bull Walls, to protect the city from flooding in the foreseeable future.

The construction and operation of such a barrier could have very significantly adverse implications for port operations. This issue needs to be addressed as part of longer term port planning and as part of this application.

***(d) Conclusions***

The Academy is of the view that there are a number of very serious issues that need to be addressed by the applicant and indeed by others before a positive determination can be made in relation to this application. Given the complexity of the issues involved the Academy considers that an oral hearing will be necessary.

This observation is accompanied with the required fee of €50.

Yours sincerely



Dr. Gabriel Dennison  
Chief Executive



Appendix 2

