

DART + WEST ELECTRIFIED RAILWAY ORDER 2022 Ref ABP-314232-22

Module F: Landowner and Observer Submissions Zone F: Maynooth Station to Depot



TOM PHILLIPS + ASSOCIATES IN COLLABORATION WITH MAXPRO CONSULTANTS, AND CALLAN TANSEY SOLICITORS LLP

Wednesday, 11 October 2023

#### **Prepared for:**

Carlos Clarke Limited
Tynan Dillon Chartered Accountant
74 Northumberland Road
Dublin 4
D04 XF75

#### Prepared by:

Tom Phillips + Associates 80 Harcourt Street Dublin 2 D02 F449

#### **OUR FOCUS AT DART+ WEST ORAL HEARING**

Objection to the Proposed Siting of the EMU Depot and the associated Compulsory Purchase Order of Lands at Maws Farm, Maynooth West, Co. Kildare

#### **CARLOS CLARKE LIMITED**



#### **Presenters**

- Tom Phillips, MD of Tom Phillips + Associates
   Town Planner & Urban Designer
   Adjunct Associate Professor, Architecture, Planning & Env. Policy, UCD
- 2. Ciaran Costello, Consultant Engineer, Maxpro Consultants
- 3. Christopher Callan, Callan Tansey Solicitors Client's representative



Placeholder Image – Ciaran Costello



### **Three-part format to our Oral Hearing Presentation**

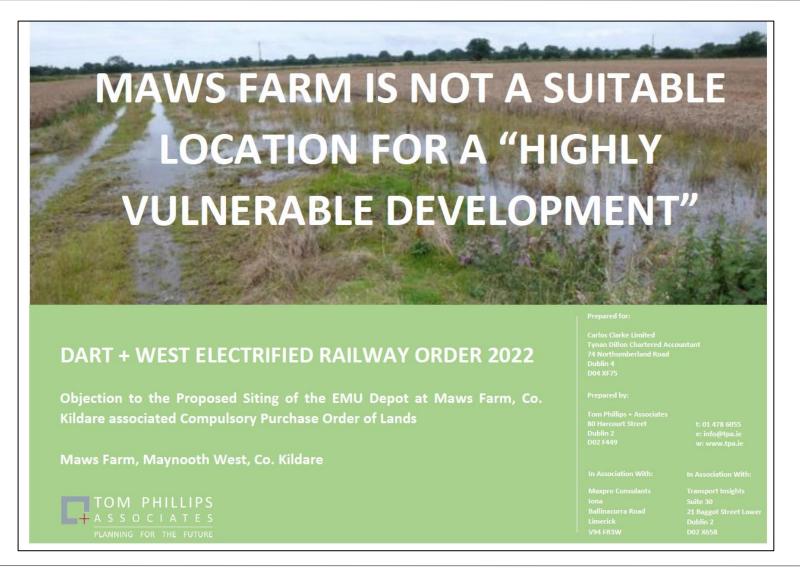
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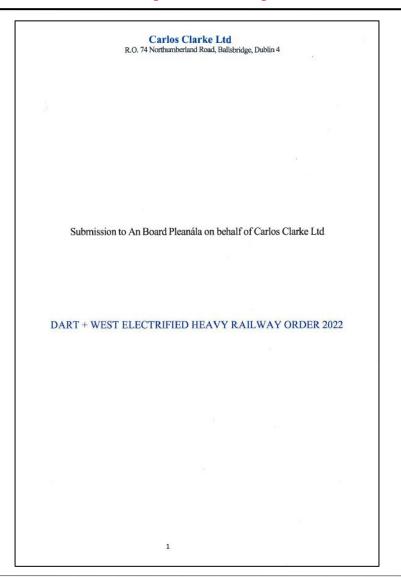
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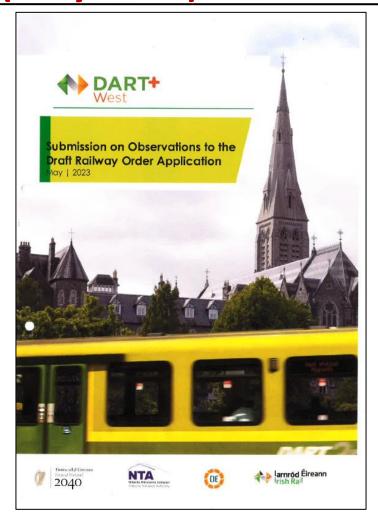
# Taken as read – Carlos Clarke Ltd (October 2022) (1 of 2) – and ...



### ... Maxpro Submission (2 of 2)



## Required Oral Hearing Focus: IE submission on Observations (May 2023)



Sections Ref. No.39-LO099a and No.40-LO099b

#### **Future DART Network Layout**

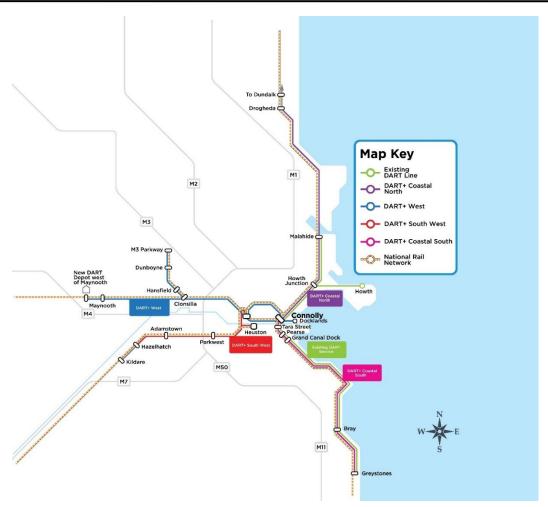


Figure 4.1: Schematic drawing of the current and future proposed DART network layout. (Source: DART West Planning Report, July 2022.)

#### Extensive area in which a Depot could be +

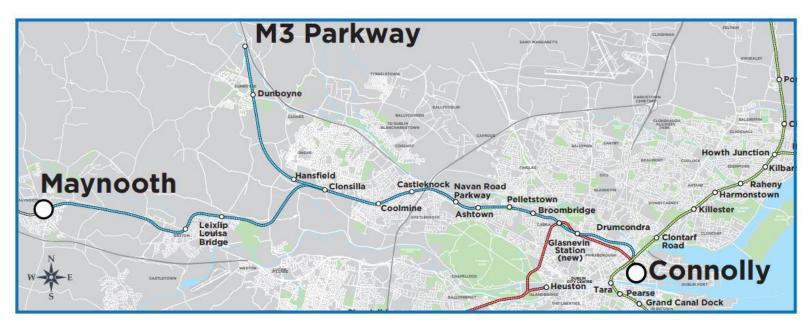


Figure 4.2: DART + West Route Layout. (Source: DART + Programme Brochure.)

#### Depot will split integrated landholding

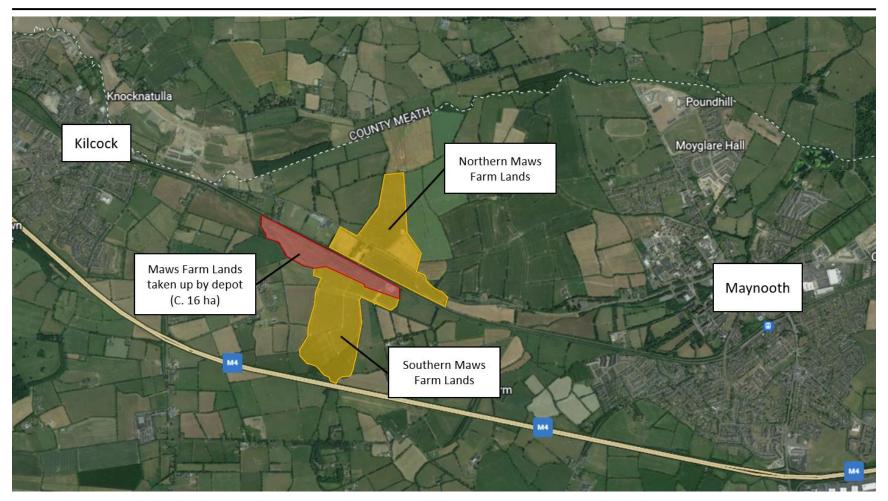


Figure 2.1: Overview of Maws Farm lands and proposed segment of lands to be used for the development of the DART EMU Depot. (Source: Google Maps, annotated by Tom Phillips + Associates, October 2022.)

#### Unzoned lands between settlements

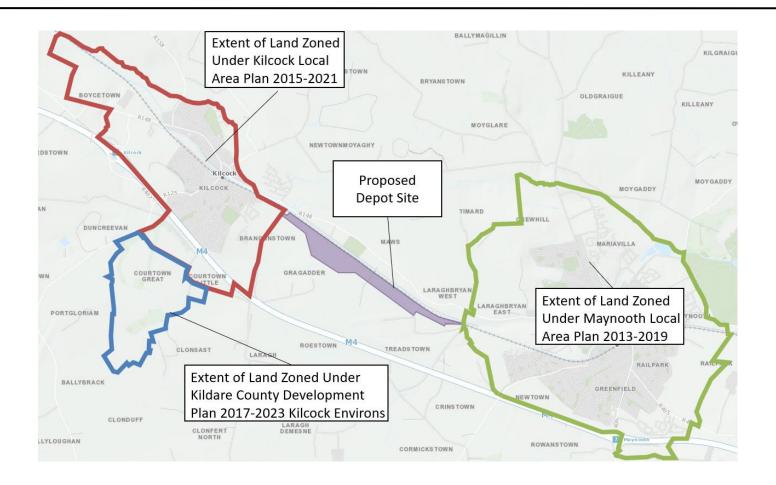


Figure 3.4: Location of proposed Depot and surrounding Local Area Plan jurisdictions. (Source: MyPlan, annotated by Tom Phillips + Associates, October 2022)

### Single entity in three separate parcels

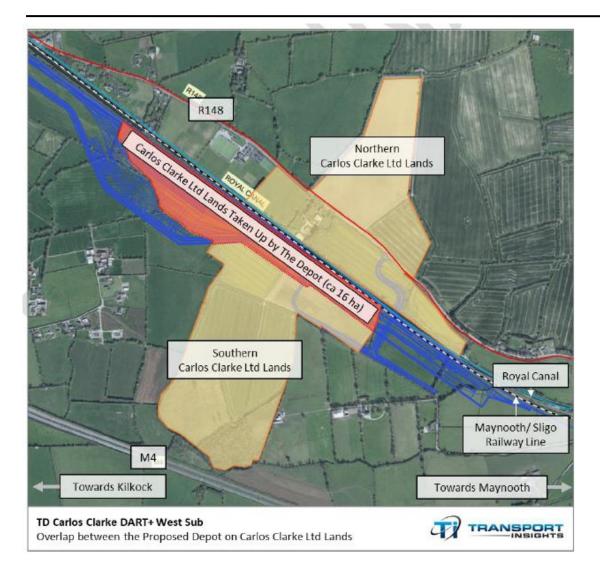


Figure 2.2: Overlap between the proposed Depot on Maws Farm lands. (Source: Transport Insights, October 2020.)

#### And require extensive works – covered by EIA

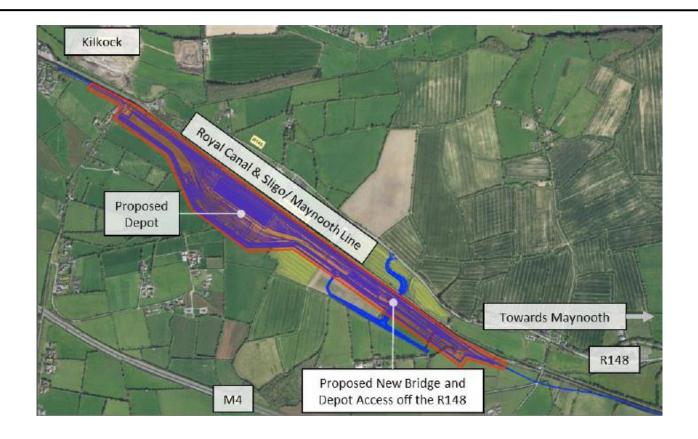


Figure 4.4: Proposed DART Depot location. (Source: Transport Insights, October 2020.)

#### Heritage items will be removed/affected

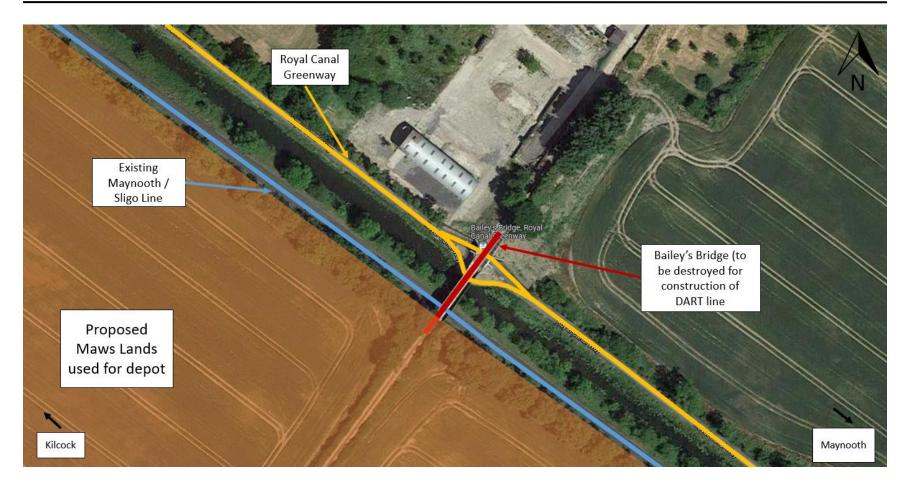


Figure 2.3: Overview of Maws Farm lands and proposed segment of lands to be used for the development of the DART EMU Depot and the location of Bailey's Bridge. (Source: Google Maps, annotated by Tom Phillips + Associates, October 2022.)

### A key crossing point of the Royal Canal



Figure 2.4: Bailey's Bridge. (Source: Google Maps, October 2022.)

#### Jackson's Bridge: historic Protected Structure



Flooding – Drains into the canal and it floods occasionally

Figure 2.6: Photo of Jacksons Bridge (Reg. No. 11900505). (Source: National Inventory of Architectural Heritage.)

### A major infrastructural undertaking: details?

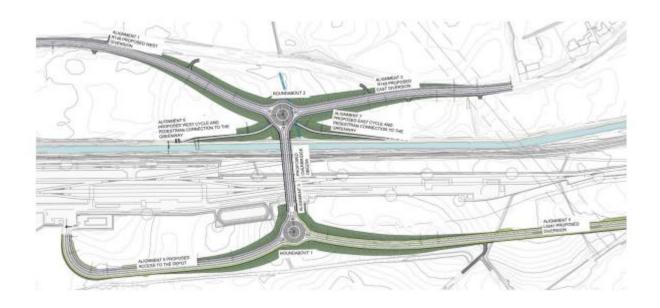


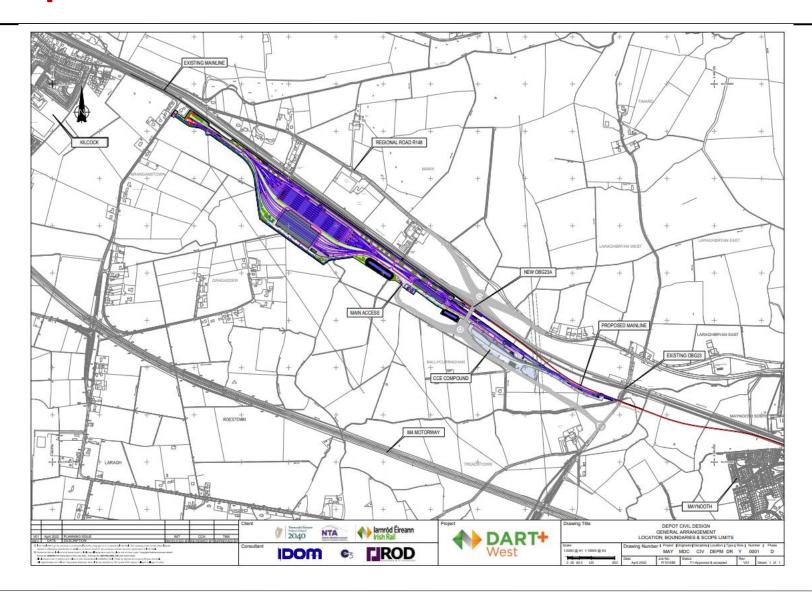
Figure 4.7: Road Alignment sections for the OBG23A road network. (Source: *Depot Options' Selection Report*, June 2020.)

#### **Depot proximate to other Protected Structures**

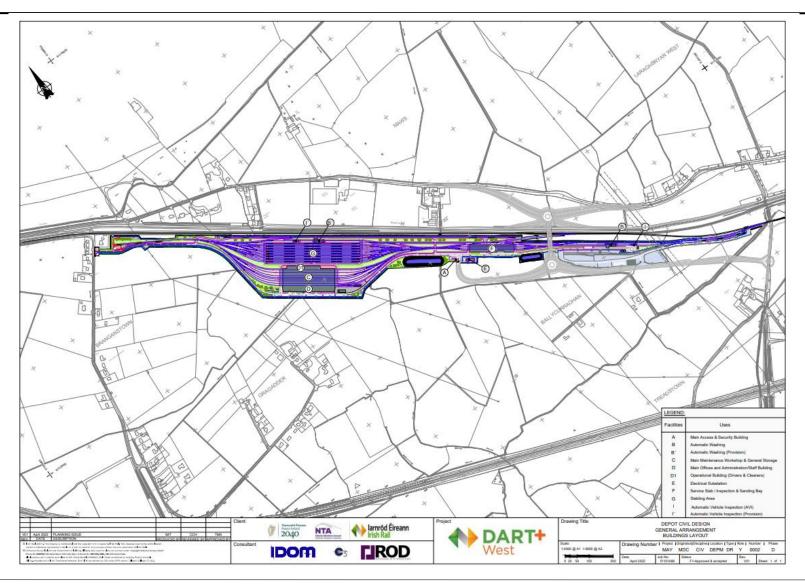


Figure 2.12: Photo of Chamber's Bridge (Reg. No. 11900504). (Source: National Inventory of Architectural Heritage.)

### **Proposal affects several kilometres**



### **Abutting the Royal Canal**



#### Many facilities, but dearth of cited floor areas?

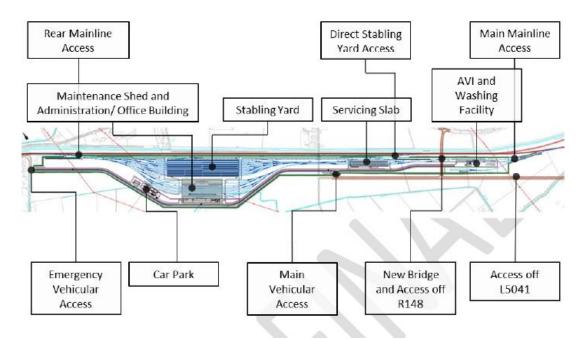


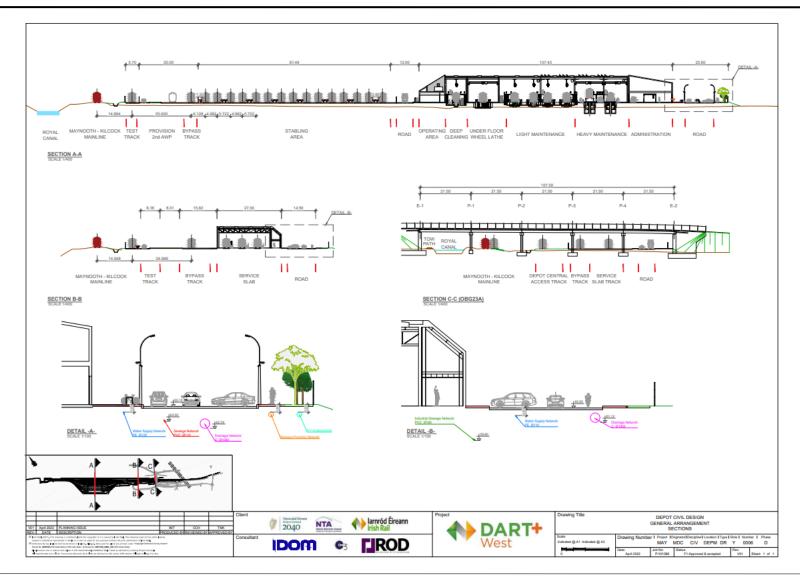
Figure 4.5: Proposed Depot orientation and layout of site. (Source: Transport Insights, October 2020.)

#### Any different than a major Data Centre?



Figure 4-241 Main depot building

#### World's greatest architect couldn't draw this



## Critical judgment cannot be suspended because it's not a Data Centre or Civic Plaza



- Apple at Athenry, Co Galway
- 2. ABP Ref. PL07.245518
- 3. Flood Zone C





An aerial view of the site of Apple's shelved data centre in Athenry, Co Galway: the project is now likely to be revived



## Critical judgment cannot be suspended because it's not a Data Centre or Civic Plaza



- 1. Meta (Facebook) at Clonee, Co Meath
- 2. ABP Ref. PL17.245347 (2015)/VA 0018
- 3. Flood Zone C



## Critical judgment cannot be suspended because it's not a Data Centre or Civic Plaza



- 1. Civic Plaza
- 2. ABP Reg Ref. JA29S.JA0039



# **Graphics Submitted as Part of the College Green Plaza Proposal (2017)**





## **Environmental Impact Assessment rules not suspended for Irish Rail**





- 2. ABP Ref. 314232-22
- Flood Zone A

### Distilling the Apple/Meta Assessments – sufficient detail for Maws?

- 1. Principle of Development, site location and consideration of Alternatives
- 2. Impact on residential and other amenity (noise, overbearing Impact)
- 3. Landscape and visual amenity
- 4. Ecology and biodiversity
- 5. Transport and access/ traffic considerations
- 6. Energy demand/use, climate change and sustainability
- 7. Hydrology and hydrogeology
- 8. EIA
- 9. Impacts on cultural heritage
- 10. Appropriate assessment
- 11. Legal status of the local area plan
- 12. Compliance with strategic and local land use policy
- 13. Security
- 14. Potential health Issues
- 15. Drainage Issues
- 16. Socio-economic, air/light, pollution
- 17. Other issues (Alternatives, project spitting, other)



#### Where not to build: Archaeological sensitivity

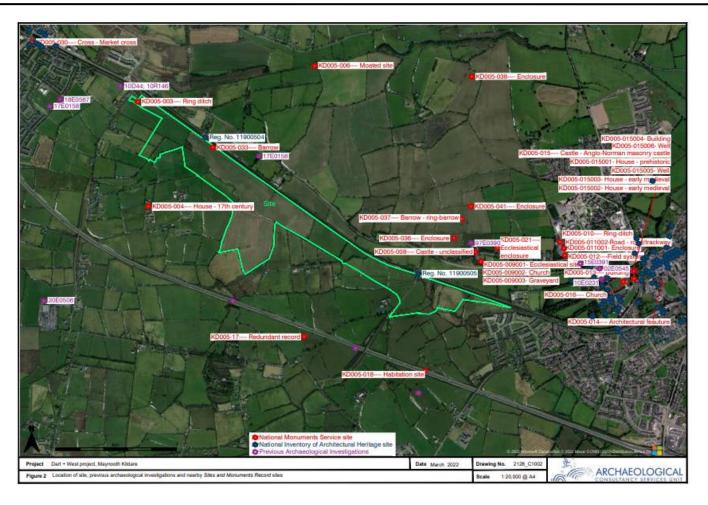


Figure 2.11: Extract from DART + West *EIAR Vol 4 App A20.4 Geophysical Survey Report* (Source: EIAR Vol 4 App A20.4 Geophysical Survey Report, March 2022.)

#### **Archaeological Remains – Bronze Age**

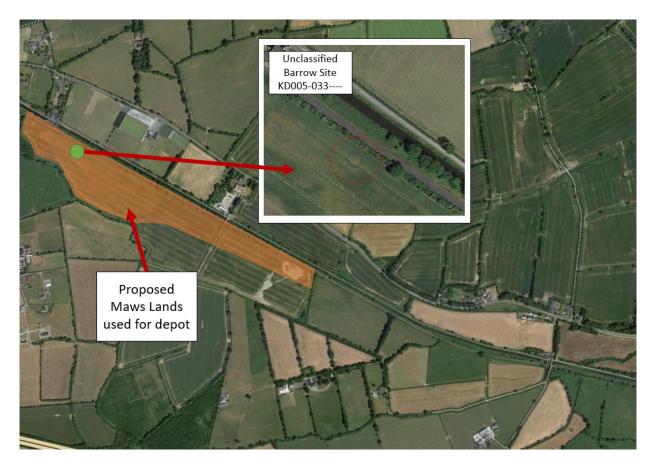
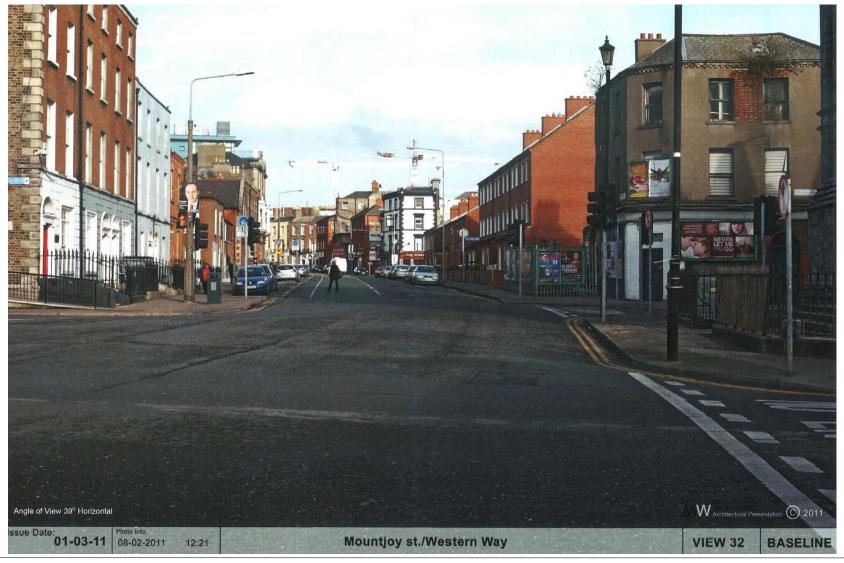


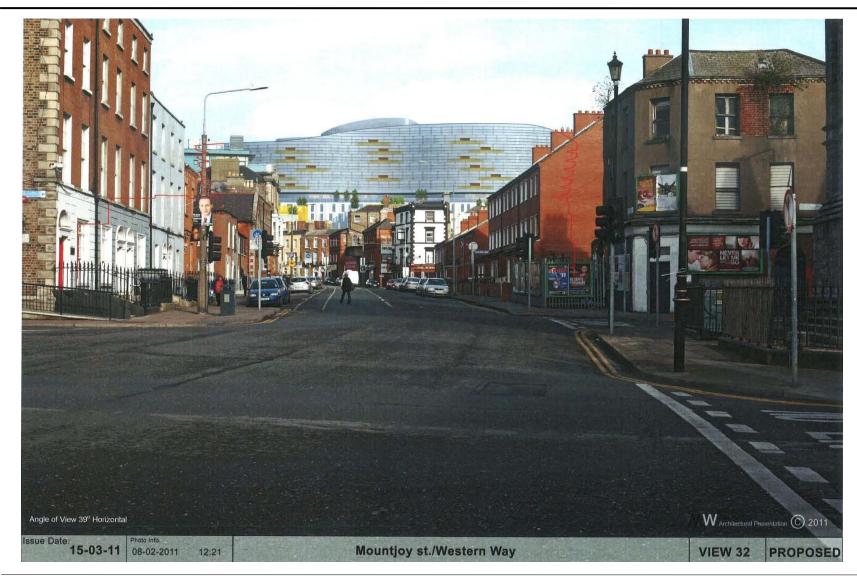
Figure 2.10: Location of Unclassified Barrow Site within Proposed Maws Depot Lands (Source: Google Maps, annotated by Tom Phillips + Associates, October 2022.)

#### Factors leading to the 'Key Issue Arising'

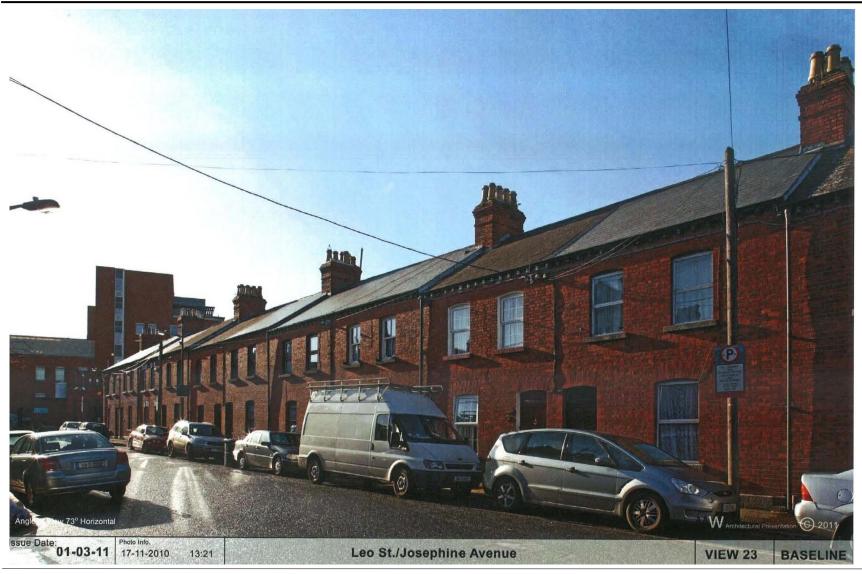
"The Fatal Fallacy of Too-Big-to-Fail"

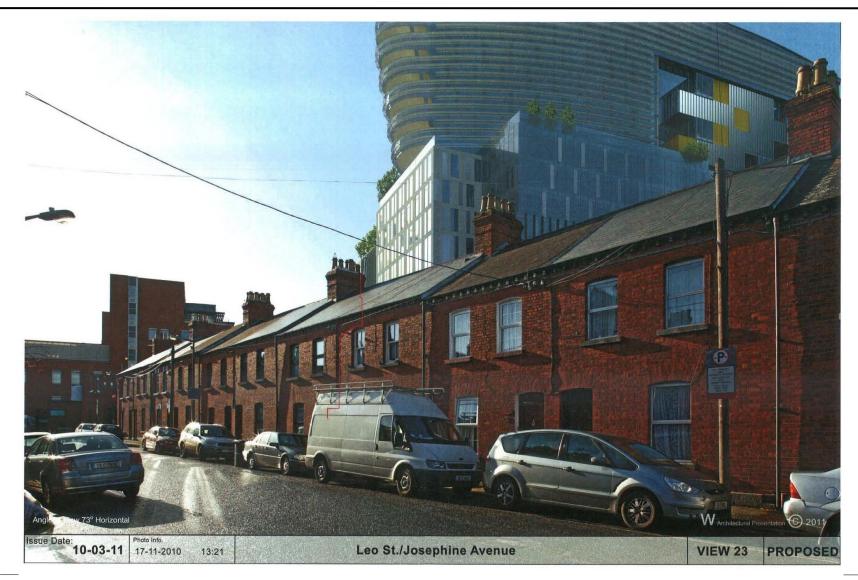
# Lessons from the Children's Hospital (Mater Site) (2011)





### **Before**





# Inspector recommended refusal of CHol: key lessons (ABP Ref. PL29S.PA0024)

#### 1. Reconciliation impossible

"... Residential environmental effects of such significance in respect of their adverse impact that they cannot be reconciled with the need for the proposed facility."

#### 2. Incorrect prioritisation

"Application is culmination of a process where the consideration of the impacts on the receiving environment have been second to clinical requirements and critical care adjacencies, particularly in respect of the residual visual impacts on the setting of the historic city core."

#### 3. Site vs. brief



"The **suitability** of the **site** in principle and the **ability** of the receiving environment to **absorb** the **facility**, the impact of which has emerged since the development of the model of care are **two very different considerations** and this in my opinion is the crux of the issue."

## **CHol 1: planning lessons for assessing sites**

- 1. Realistic brief?
- Realistic criteria?
- Best team?
- 4. The right site?
- 5. The right proposal?
- 6. Compliance with statutory planning context?
- 7. Height, form, scale and mass?
- 8. Elevations?
- 9. Effect on zone of visual potential and key vistas?
- 10. Effect on Conservation Areas and Protected Structures?
- 11. Lessons from Planning History?
- 12. Nebulous concept of "PPSDA"?

Other?

### **PPSDA**

"... proper planning and sustainable development of the area ..."

### Site vs. brief

### **Applicable to Maws Farm Depot Site**



"The suitability of the site in principle and the ability of the receiving environment to absorb the facility, the impact of which has emerged since the development of the model of care are two very different considerations and this in my opinion is the crux of the issue."

## **Three-part format to our Oral Hearing Presentation**

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## Maxpro submission – IR identifies 12 No. points

1. Selection procedure: Flawed

2. Hazelhatch = Maynooth West: Development costs not evaluated

3. Environmental and hydraulic problems: Access and Layout

4. Greenway and M4: Propensity for flooding

5. Design detail: Incomplete

6. Depot elevations and longitudinal sections: Missing

## Synopsis of Maxpro submission (12 No. points)

7. Depot stormwater drainage, treatment: Missing

8. SuDs Design details: Omission (numerous)

9. Direct access to site from M4: No details

10. Royal Canal site drainage: No details

11. Kilcock expansion: Not considered

12. Existing M and K sections: Congested

" ... incomplete ...[lack of] sufficient information supplied ... to allow an informed decision to be made."



# Complementary TPA's 44 No. line items: Distillation of key concerns (October 2022)

- 1. EMU Maintenance Deport location
- 2. Maynooth West versus Hazelhatch West
- 3. Proximity to three dwellings
- 4. Ease of access construction versus operation
- 5. Flood Liability and character of the Royal Canal Greenway
- 6. Significance of land take and viability of the residual lands
- 7. Habitat/wildlife degradation and the rural greenbelt
- 8. Effect on Jackson's Bridge discussion

- 9. Effect on Jackson's Bridge environmental and historic
- 10. Archaeological analysis the barrow
- 11. Effect on Chamber's Bridge
- 12. Effect on 3 No. scenic viewpoints
- 13. Visual impact on the Royal Canal Greenway
- 14. Contravention of NPF NPOs 60,61 and 62
- 15. EM RSES RFO 5.8 greenway expansion
- 16. RSES RPOS 7.7 +7.9 (air and light), RPO 7.10, 7.11 and 7.16 (disrupt waterways)

- 17. Unzoned land between two LAPs
- 18. Noise, air and light pollution
- 19. Water and sewage capacity
- 20. Aquifer during construction and operation
- 21. Preclusion of Maynooth HGVs
- 22. Regional planning and Maynooth's heritage
- 23. Discharged silt during construction
- 24. Surface water drainage network



- 25. Flooding and FRA
- 26. Effects on an SAC
- 27. Flood Zone A
- 28. Groundwater flooding
- 29. Incomplete flood mapping
- 30. Contrary to Flood Risk Guidelines
- 31. Flood Zone A, the aquifer and the proposed compensatory storage areas
- 32. The Ballyeaghan stream



- 33. Weighting of "environment" in the assessment criteria
- 34. Status of stakeholder consultation
- 35. Flooding as a factor in choosing a location
- 36. Weighting given Maynooth West's positive criteria
- 37. Hazelhatch extra running time and the need for a second track
- 38. Length of otherwise unserviceable track (5km)
- 39. The Cork Line effect
- 40. Suitability: flooding, demolition and an extra 5km

- 41. Ecology and heritage
- 42. Access via Kilcock or Maynooth
- 43. Hazelhatch West and Kildare County Council
- 44. Maws Farm flood study

## All listed items distilled to 3 No. generic "Examination of Alternatives" issues

- 1. Alternative Locations
- 2. Alternative **Processes**
- 3. Alternative **Designs**

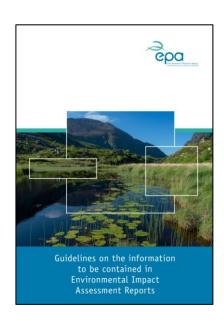
## The EIA Guidelines require requisite analysis

### Context and General Approach

Section 3.4 Consideration of Alternatives (Stage 3 of 7)

- 3.4.3 Alternative Locations
- 3.4.4 Alternative Layout
- 3.4.5 Alternative **Designs**
- 3.4.6 Alternative Processes
- 3.4.7 Alternative Mitigation Measures
- 3.4.8 Consultation about **Consideration of Alternatives**







### **Guidelines refer to other measures**

#### Section 3.3, Preparing an EIAR

- 3.3 Scoping (Stage 2 of 7)3.3.5 Consideration of **Other Assessments**
- 3.8 Mitigation & Monitoring (Stage 7 of 7) 3.8.1 Mitigation (& Offsetting)

## Other measures required

#### Section 2.4 Context and General Approach

- 2.4 Fundamental Principles
  - 2.4.1 Anticipating, Avoiding and Mitigating Significant Effects
  - 2.4.2 Maintaining **Objectivity**
  - 2.4.3 Ensuring **Clarity** and Quality
  - 2.4.4 Providing **Relevant Information** to Decision Makers
  - 2.4.5 Facilitating Better Consultation

#### Section 3.3 Preparing an EIAR

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  - 3.3.5 Consideration of Other Assessments
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## Applicants' Response to the Maxpro Concerns-Ref. No. 40-LO099b

- Site Selection
- 2. Equal ranking
- 3. Depot access and layout
- 4. Greenway effects and M4 flooding
- 5. Incomplete documentation
- 6. No elevation or longitudinal sections
- 7. Stormwater drainage
- 8. Adequacy of SuDS' Design Details
- Possible Direct access
- 10. Site drainage to the Royal canal
- 11. Future planning and expansion
- 12. Limited carparking

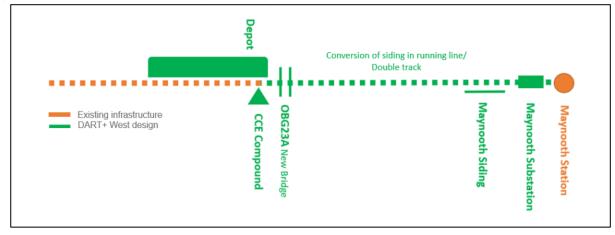


### Max 1. Site Selection

1. Site Selection

#### **Irish Rail Response**

- 1. Section 2.7.1 of the May 2023 Irish Rail Response
- 2. "... Satisfied that the site selection process for the EMU Depot is robust and transparent".
- 3. All sites equivalent on SuDS' principles



## Max 2. Equal ranking?

2. Equal Hazelhatch/Maynooth West ranking:

### **Irish Rail Response**

1. Challenges identified in Hazelhatch access

## Maynooth West / Hazelhatch West side-by-side

	Maynooth West	Hazelhatch West
Minimised empty running		
Maximise track access		
Complexity of access and egress		
Availability of suitable lands		
Adjacent Environment		
Road vehicle access		
Transport and Land Use Compliance		
Short term impact on DART Expansion Programme		

## **Drogheda or Hazelhatch?**

Strategic Location	Pre-Appraisal Conclusion	
Fairview Depot	Discontinued from assessment	
Connolly Station	Discontinued from assessment	
Heuston Station	Discontinued from assessment	
Pearse Station	Discontinued from assessment	
North Wall Railway Yard	Discontinued from assessment	
East Wall Railway Yard	Discontinued from assessment	
Inchicore Railway Works	Discontinued from assessment	
Drogheda Station/ Depot	Taken forward for further assessment	
Maynooth Station	Taken forward for further assessment	
M3 Parkway Station	Taken forward for further assessment	
Hazelhatch Station	Taken forward for further assessment	
Greystones Station	Discontinued from assessment	
Bray Station	Discontinued from assessment	

## Must be on a rail line, but options available

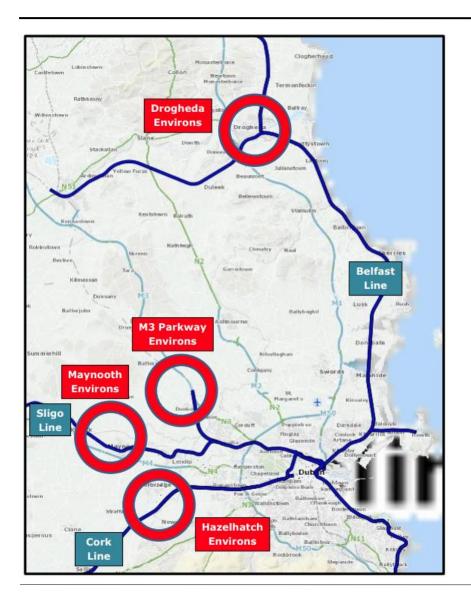
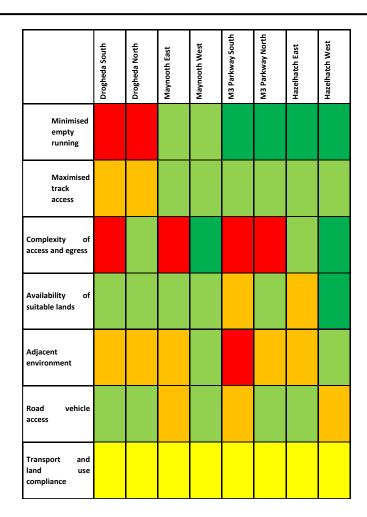
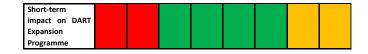


Figure 6.1: Regional Location of Potential Depot Site for Assessment. (Source: *DART WEST Centre* of Excellence Report, July 2019.)

## Weighting must be objective





## A traffic light system tied to EIA



Most preferable, with significant advantages over other options

Preferable, with some advantages over other options

Neutral, comparable to other options

Not preferable, with some disadvantages to other options

Least preferable, with significant disadvantages to other options

## Maynooth West/ Hazelhatch West side-by-side

	Maynooth West	Hazelhatch West
Minimised empty running		
Maximise track access		
Complexity of access and egress		
Availability of suitable lands		
Adjacent Environment		
Road vehicle access		
Transport and Land Use Compliance		
Short term impact on DART Expansion Programme		

The table depicts side-by-side ranking of the Maynooth West and Hazelhatch West potential Depot sites to show the suitability of the Hazelhatch site as a place for consideration in place of the Maynooth West site.

## Maynooth flood analysis

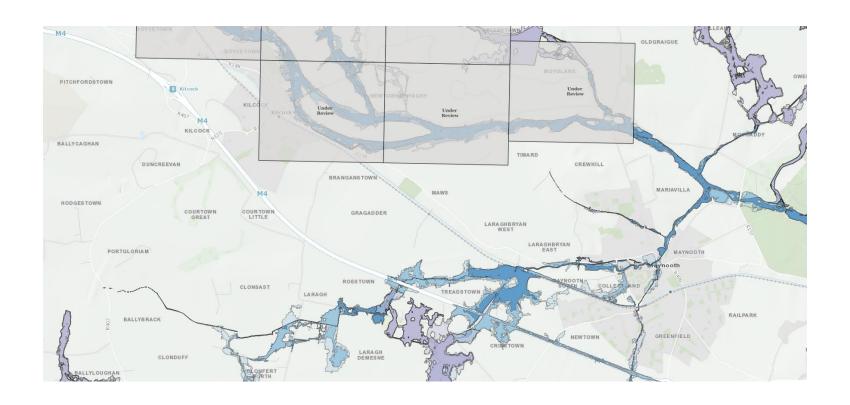


Figure 6.2: Maynooth environs and proposed Depot site flood mapping.

## **Hazelhatch flood analysis**

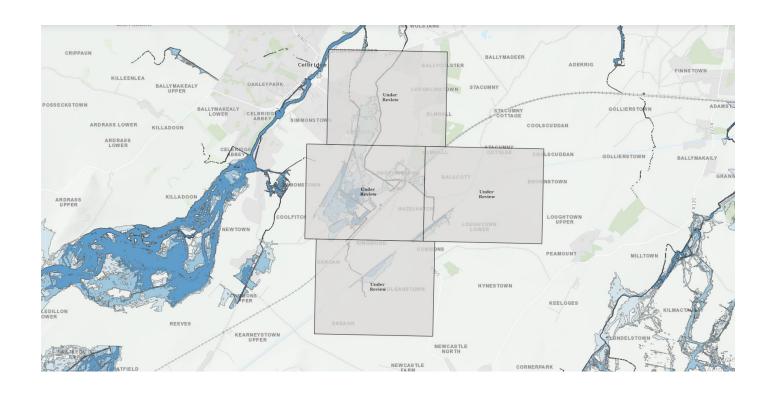


Figure 6.3: Hazelhatch environs flood mapping.

## M3 flood analysis

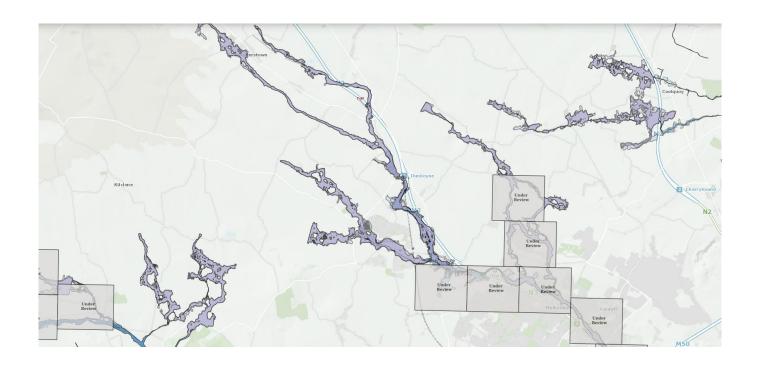


Figure 6.4: M3 Parkway environs flood mapping.

## **Drogheda flood analysis**

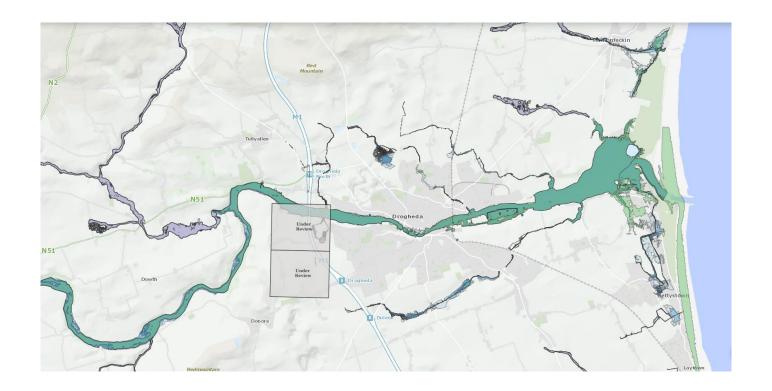


Figure 6.5: Drogheda environs flood mapping.

Is Drogheda subject to flooding

## Max 3. "Nothing to see here – move along"

#### 3. Depot access and layout:

Environmental and hydraulic problems

#### **Irish Rail Response**

"The depot access has been designed with due regard to flood risk and an appropriate surface water drainage system".

## A significant environmental feat

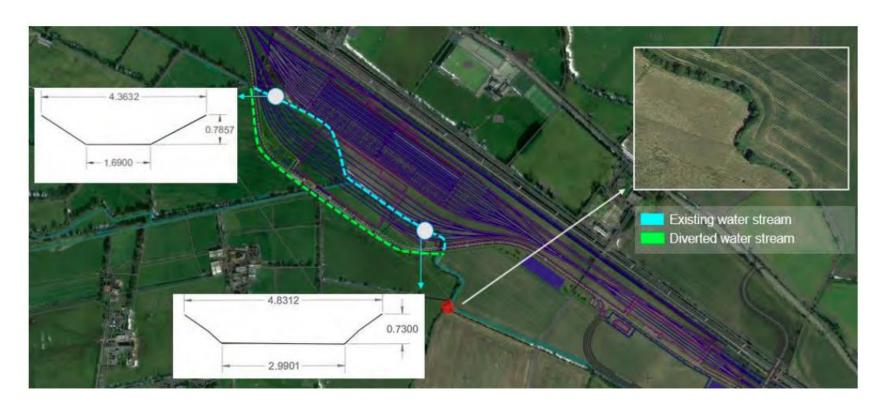


Figure 4-251 Proposal for diversion of the existing water stream

## Railway Order/NTA Guide don't override basics

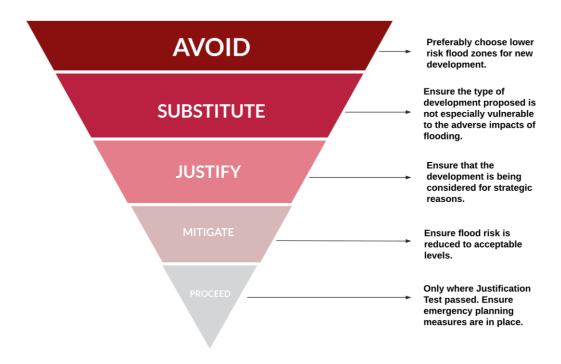


Figure 5.15: Sequential approach principles in flood risk management. (Source: *Planning System and Flood Risk Management. Guidelines for Planning Authorities* (DEHLG, 2009).

#### How can future flood risk be discounted?

Proper application of the *Guidelines on the Planning System and Flood Risk Management* by the planning authorities is essential to avoid inappropriate development in flood prone areas, and hence avoid unnecessary increases in flood risk into the future.

The existing flood mapping as related to the proposed Depot site is incomplete.

### It's highlighted red for a reason

Flood Zone Category	Definition		
Flood Zone A	The probability of flooding from rivers and the sea is highest (greater than 1% or 1 in 100 for river flooding or 0.5% or 1 in 200 for coastal flooding)		
Flood Zone B	The probability of flooding from rivers and the sea is moderate (between 0.1% or 1 in 1000 and 1% or 1 in 100 for river flooding and between 0.1% or 1 in 1000 year and 0.5% or 1 in 200 for coastal flooding)		
Flood Zone C	The probability of flooding from rivers and the sea is low (less than 0.1% or 1 in 1000 for both river and coastal flooding). Flood Zone C covers all areas of the plan which are not in zones A or B		

Table 5.14: Definitions of Flood Zones by *The Planning System and Flood Risk Management – Guidelines for Planning Authorities* (2009). (Source: OPW.)

## Why choose a flood zone?



Figure 5.1: Flooding Locations on Maws Farm Lands and points of interest. (Source: Google Maps, annotated by Tom Phillips + Associates, October 2022.)

# Suitable for parking trains in tunnelled slots?



Figure 5.2: Location 1: Flooding looking west from Maws Farm access ramp (Proposed Depot Location). (Source Carlos Clarke Limited.)

# Detailed design will follow?



Figure 5.3: Location 1: Flooding looking West from Maws Farm access ramp (Proposed Depot Location). (Source Carlos Clarke Limited.)

# Farm prone to flooding



Figure 5.4: Location 2: Flooding along Railway looking West towards Kilcock. (Source Carlos Clarke Limited.)

## Following clearing – as old as Canal



Figure 5.5: Location 3: Bridge over unnamed stream looking East. (Source Carlos Clarke Limited.)

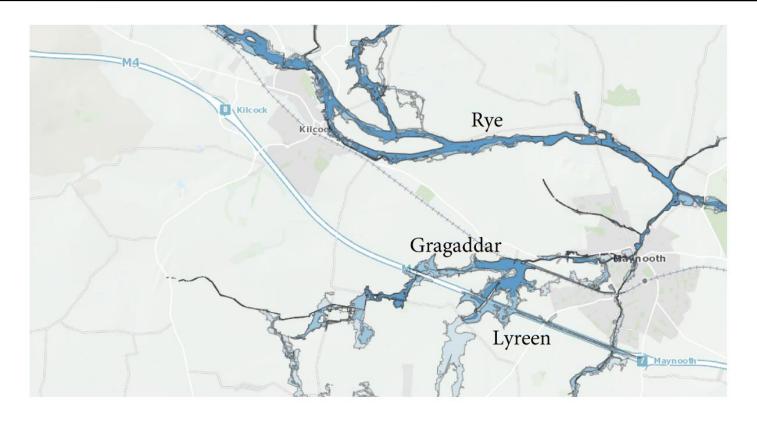
#### Streams will be affected



Photo shows stream after it was cleaned

Figure 5.6: Location 4: Unnamed stream looking West. (Source Carlos Clarke Limited.)

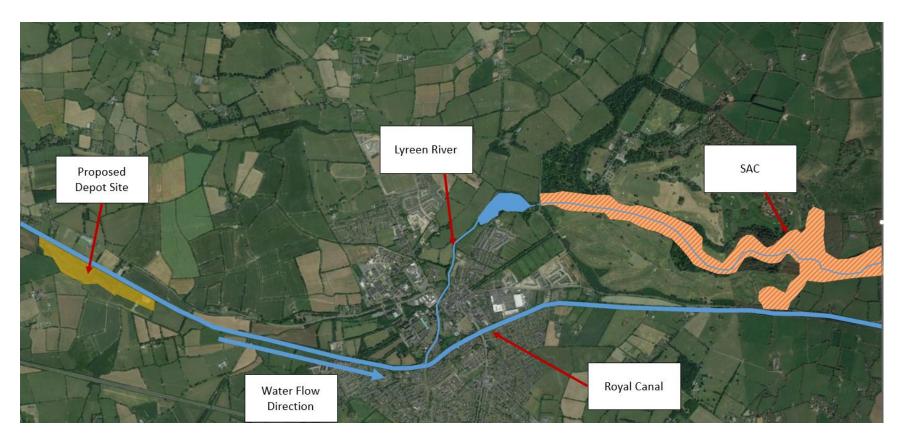
# **Predicted flooding**



Motorway floods between Gragaddar and Lyreen

**Figure 5.7: Catchment Flood Risk Area Predicted Flooding** 

#### Pathways to an important SAC



Impact on SAC

Lyreen flows into SAC. It also flows by Intel which are playing for monitoring

Orange colour SAC is being monitored by UCD.

Figure 5.8: Location of proposed Depot relative to Rye Water Valley/Carton SAC. (Source: Google Maps, annotated by Tom Phillips + Associates, October 2022.)

## "At risk" aquifer

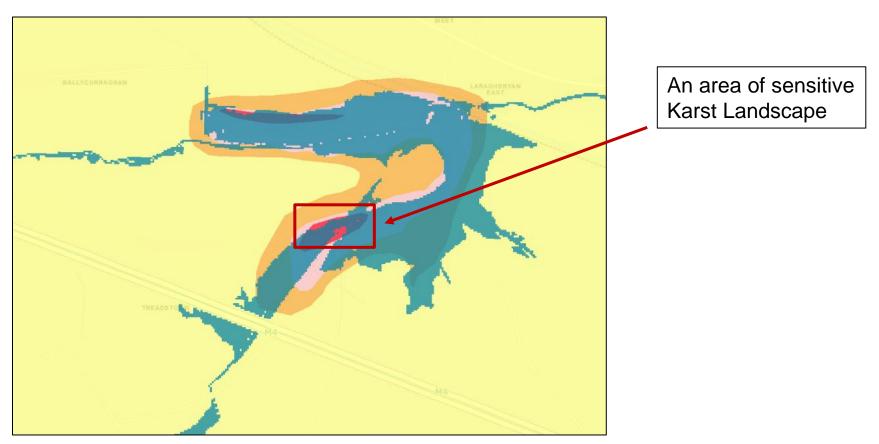


Figure: 5.9: Overview of the aquifer and Flood extent fluvial current 10% AEP (or 10-year flood events). Note that the streams represented by this fluvial flooding are identified as being "At Risk" according to the European Level Law by the Water Framework Directive. (Source: ESM Webtool, Geological Survey of Ireland, annotated by Tom Phillips + Associates, October 2022.)

### Max 4. Greenway effects and M4 flooding

3. Greenway effects and M4 flooding

#### **Irish Rail Response**

- 1. Well screened
- 2. "However the primary vista along the canal corridor is not impacted".
- 3. "Additional screening is proposed to assist in mitigating any impact to the views"

#### **Before**



# A solid grey?



# From a nearby road



# Why angle the shot obliquely?



# Take the shot with summer foliage?



#### View that should be in winter



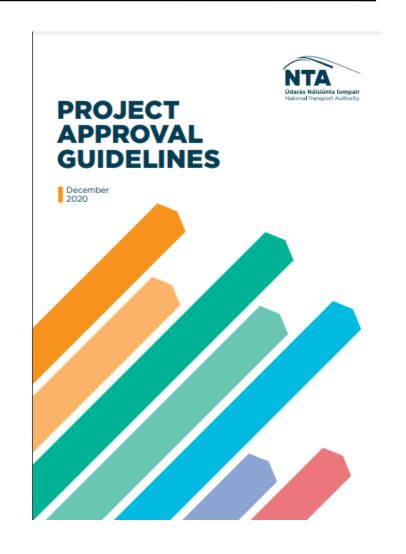
# Max 5. "In accordance with NTA Project Approval Guidelines 2020"

5. Incomplete documentation:

#### **Irish Rail Response**

"the necessary level of design has been prepared to inform the draft RO submission"

Non-statutory Guidelines override EU EIA Legislation?



#### The key features of the Depot are:

#### Key features of the Depot are:

- Area 32.6 hectares
- Length 2.58 km
- Maximum width 260 m

# 4.11.12.4 Depot Facilities: plant and equipment at the depot

There are seven main facilities shown in Figure 4-20 below.

- 1. Access building
- 2. Admin depot building
- 3. Stabling area
- 4. The service slab facility
- 5. The automatic washing plant
- 6. The electrical substation
- 7. The CCE compound area

#### **Documentation short on Gross Floor Areas**



Figure 4-240 Depot facilities

# A 1.6 hectares' footprint!



Figure 4.3: CGI of proposed Depot building and site

# Reader obliged to do the maths

Table 4-24 Depot buildings

Building	Building dimensions (width x length)	Height	Materials	Foundation
Workshop	77 m x 216 m	10.5 m	Steel columns Steel rafter	Isolated foundations
Drivers & Cleaners Area	11 m x 128 m	10.5 m	Steel columns Steel rafter	Isolated foundations
Administrative area	18 m x 136 m	10.5 m	Concrete columns Concrete slab Steel rafter	Isolated foundations
General Storage Area	18 m x 80 m	10.5 m	Steel columns Truss	Isolated foundations
Service Slab	23.7 m x 184 m	9.0 m	Steel columns Steel rafter	Isolated foundations
Automatic Washing Plant Building	8.7 m x 40 m	7.0 m	Steel columns Steel rafter	Isolated foundations
Electrical Substation	11 m x 48 m	6.0 m	Concrete columns Concrete beams	Isolated foundations
Access Control Building	5 m x 5 m	3.0 m	Steel columns Steel beam	Single footings

## Architectural concept - "take our word for it"

"Without neglecting aesthetics, the depot buildings are designed to meet strict functional and structural criteria, while also allowing a harmonious dialogue with the environment.

There is a need to develop an eminently industrial design, but architectural design has been considered as well.

The result is a building suitable for its use but also possessing clear aesthetic qualities." (EIAR Chapter 4.11.12.5.)

#### ABP accept a data centre without details?



#### Figure 4-242 Main depot building

Photomontage not accurate. Most advantageous angles. Chambers banks rise up. Summer + winter shots Can't see vertical parts

Don't know what the elevations area.

CGI + Photomontage show different angles.

Apex + Angles not shown.



# **Limited views presented**



Figure 4-244 General view

## ABP's critical review not suspended for Irish Rail

- 1. The Balscaddan Case (2020)
- 2. JR [2020 No 375 JR]
- 3. Judgment of Mr Justice Richard Humphreys 25 November 2020

# Balscadden Judgement: "Inadequacy of drawings"

56. If taking into account irrelevant considerations was the only problem with the decision, I would consider remitting it to the board for reconsideration at the point in time immediately prior to when the problem arose; that is immediately before the statutory submission by the council. But there is a more fundamental problem."

Grounds 29 to 31 in Balscadden complain about the lack of adequate and consistent plans. While the statement of grounds in Balscadden refers loosely to the "obligations under the Planning and Developments Acts" the specific regulations were identified in argument.

58. Regulation 297(4)(a) of the Planning and Development Regulations 2001 (S.I. No. 6Q0 of 2001) (inserted by reg. 5 of the Planning and Development (Strategic Housing Development) Regulations 2017 (S.I. No. 271 of 2017), provides that "[a]n application referred to in subarticle (1) shall be accompanied by such plans (including a site or layout plan and drawings of existing and proposed floor plans, elevations and sections which comply with the requirements of article 298) and such other particulars as are necessary to describe the works to which the application relates together with any information specified by the Board under article 285(5)(b)."

Regulation 298(1)(a) (also inserted by the 2017 regulations) says that plans, drawing and maps accompanying an application shall be in metric scale and comply with the following requirements: "(a) site or layout plans shall be drawn to a scale (which shall be indicated thereon) of not less than 1: 500 or such other scale as may be agreed with the Board prior to the submission of the application in any particular case, the site boundary shall be clearly delineated in red, and buildings, roads, boundaries, septic tanks and percolation areas, bored wells, significant tree stands and other features on, adjoining or in the vicinity of the land or structure to which the application relates shall be shown".

60. Regulation 298(1)(f) goes on to say, "plans and drawings of floor plans, elevations and sections shall indicate in figures the principal dimensions (including overall height) of any proposed structure and the site, and site or layout plans shall indicate the distances of any such structure from the boundaries of the site".

61. These issues arise because there are no planning drawings for the largely although not entirely subterranean sheet piling structures, which consist of five huge structures up to 15 metres high. The only drawings are sketches with incomplete dimensions that are for proof of concept purposes only and not as construction drawings. This is not an academic issue. The board has purported to grant permission in accordance with the drawings, but those drawings don't define where the structures are located, in particular how close to the boundary with dwellings on Asgard Park, or what size they are to be.

62. Mr. Mulcahy submits that there is nothing in the regulations to say that the descriptions of a structure should include a subterranean structure. But that argument doesn't hold water. Let's start with the ordinary meaning of "structure".

63. The Shorter Oxford English Dictionary (3rd ed., Oxford, 1944, 1973), Vol. II, p. 2156, gives among the definitions of "structure" the following: "[t]hat which is built or constituted; a building or edifice of any kind, esp. one of considerable size or imposing appearance 1615. .. an organised body or combination of mutually connected and dependent parts or elements."

Examples given expressly include a subterranean which is "Of the internal S[tructure] of the Earth, Goldsm[ith]". That is a reference to Chapter VII of Oliver Goldsmith, A History of the Earth, and Animated Nature (London 1774). So one of the very definitional examples of the term "structure" is subterranean.

64. "Structure" is defined by the Planning and Development Act 2000 s. 2(1) as meaning "any building, structure, excavation, or other thing constructed or made on, in or under any land, or any part of a structure so defined, and-(a) where the context so admits, includes the land on, in or under which the structure is situate ... ". So the Act reinforces the ordinary meaning in that respect by expressly referencing subterranean structures.

Obviously, meanings in an instrument are normally those in the parent Act (Interpretation Act 2005, s. 19), and the 2001 regulations albeit amended by subsequent legislation are themselves made under the 2000 Act.

65. The language of the 2001 regulations is mandatory.

Consistent with Monaghan U.D.C. v. Alf-a-Bet Promotions Ltd. [1980] I.L.R.M. 64, a significant departure from a proper description renders an application a nullity.

The fact that Alf-a-Bet was decided in the default context doesn't change the principle.

Departure from a mandatory requirement regarding a description, whether of an application or an appeal, would normally go to validity unless the matter was covered by the de minimis principle or as alternatively put by McDonald J. in Dalton v. An Bord Pleanála [2020] IEHC 27 (Unreported, High Court, 28th January, 2020), the party concerned had "substantially complied with the obligation" (para. 41).

#### **Balscadden: EIA and NIS**

66. In the SHD context there is a specific provision at s. 8(3)(a) of the 2016 Act (as amended) that "[t]he Board may decide to refuse to deal with any application made to it under section 4(1) where it considers that the application for permission, or the environmental impact assessment report or Natura impact statement if such is required, is inadequate or incomplete, having regard in particular to the permission regulations and any regulations made under section 12, or section 177 of the Act of 2000, or to any consultations held under section 6."

### Balscadden: "a Henry VIII Clause"

67. That, however, is by no means a blanket setting-aside of mandatory statutory requirements at the discretion-of the board, and nor is it phrased as such.

To read it in that manner would be to effectively create a Henry VIII Clause which would allow normal statutory provisions to be set at naught at the discretion of the decision-maker. That would raise significant constitutional issues.

Continued overleaf



No definite principles or policies are set out for what is suggested to be an implied discretion to treat an application as valid notwithstanding breach of the statute or regulations - having regard to regulations isn't much of a principle or policy if the actual issue is whether those regulations should be set aside.

At an absolute minimum, even if such a power to set aside the regulations was intended to be conferred, which I don't accept to be the case, it would have to be exercised expressly, which certainly wasn't done here.

68. Mr. McGrath submits that reference to floor plans means only reference to buildings and he says that if that is extended to structures it would lead to "absurd results", because it would lead to requirements to provide dimensions of every light standard, metre box, post box, wall fence or sign.

But I don't see that there is any absurd result whatsoever here.

Where any structure is of a significant size, its dimensions and location constitute necessary information, and to interpret the regulations as meaning that is not only not remotely absurd but absolutely necessary.

Continued overleaf



It is both what the regulations say and also makes complete sense because it allows the application to be properly processed and also allows informed submissions and public participation as envisaged by the legislative scheme.

Obviously, the "principal" dimensions means the principal relevant dimensions, so where structures such as signs or fences for example don't have any particular depth, the relevant dimensions required will relate to their location and height rather than trying to track every dimension on a millimetre-by-millimetre basis.

70. Mr. McGrath submits that this would mean one would have to give dimensions of foundations for houses or other buildings which you would "never ever get on planning drawings."

That submission unfortunately invites the response "why not?"

It seems highly desirable if not essential that the dimensions of foundations would be shown so that the planning decision-maker could be satisfied that they were adequate to stability.

That would be so even if, counterfactually, this wasn't what the regulations said.

## Balscadden: nullifying floodgates' argument

71. Mr. McGrath submits that the proposition put forward by the applicants is "actually quite radical" and would have a "huge impact" which would "lead to the invalidation of nearly every single application before any planning authority anywhere in the country."

While one has to admire the ambition of that floodgates argument, I don't accept that such a consequence is the case.

The real problem here is that the sheet piling structures are not a *de minimis* subterranean structure. They are quite massive, up to 15m in height.

Continued overleaf



### **Balscadden: proof of concept**

The precise location of the five structures concerned is of critical importance to the objectors and their exact spacing will determine the slope concerned and the impact on the neighbours' properties.

The regulations specifically require the distance of the structure to the boundary, but none of this information is actually provided in the legally binding plans and drawings submitted.

The only limited information is in the proof of concept which is not intended to be binding for construction purposes and which is inadequate even if it was because in the absence of dimensions one can't know the slope involved.

72. The present decision insofar as it relates to the need to show the dimensions and location of subterranean structures doesn't invalidate every planning permission in the pipeline.

#### The floodgates argument is overblown in at least four respects:

- (i) It doesn't apply if there are no subterranean structures.
- (ii) It doesn't apply if there are adequate dimensions and locations for any subterranean structures shown in the drawings submitted with the application.
- (iii) Nor does it apply if the omissions are *de minimis*.
- (iv) And obviously it doesn't apply to permission already granted more than eight weeks before any challenge is launched.

73. The proof of concept can't be acceptable because it is not part of the grant of permission, which is stated to be in accordance with the plans submitted.

Indeed the proof of concept has itself been diluted because a greater degree of dimensions was set out in the original geotechnical engineering report (at p. 8).

But following criticisms from the applicant the first time around, based on making calculations from the information provided, some of that information has simply been deleted from the report for the current application.

The omission of those dimensions of the structures may be convenient for reducing the opportunity for detailed calculations and criticisms but it certainly doesn't help the respondent and notice party answer the point made by the present proceedings.

74. Mr. Mulcahy submits that the court should adopt a purposive approach and regard the information as to the exact location of the sheet piling and its exact spacing as being unnecessary because it would serve no useful purpose.

But that is an entirely misconceived submission.

Clearly such information would serve an essential purpose (even if it wasn't statutorily required, which it is).

It is essential to know where the subterranean structures are located in order to know that they are to be properly constructed and what the impact is on the overall environment.

That fairly obvious point applies to subterranean structures generally, for example underground car parks or even building foundations.

75. Mr. Mulcahy also said that the inspector was satisfied with the adequacy of the information.

Indeed he was, that's why we're here; but of course that isn't the point.

The issue is not whether the inspector is satisfied with the adequacy of the information the issue is compliance with the regulations by providing all of the principal dimensions of the structures to be erected and their locations, which among other things allows proper consideration of the application and informed public participation.

76. Ultimately then there are two fundamental problems with the lack of formal drawings showing the dimensions and locations of the sheet piling.

Firstly, that it is a breach of the requirement to submit drawings in accordance with the regulations.

#### **Balscadden: plans and particulars**

It is not cured by some sort of implicit acceptance of the application by the board under s. 8 because that does not confer a jurisdiction to proceed despite breach of mandatory requirements, and even if it did that would have to be exercised expressly.

Secondly, the actual grant of permission is devoid of meaning because the permission is to construct the development in accordance with the plans submitted, but those plans do not include adequate details as to the location and dimensions of the sheet piling.

### So what of the Maws Farm Depot?



### Max 6. Completeness of Application drawings

6. No elevation or longitudinal sections of the depot:

#### **Irish Rail Response**

" also section 4.11.12 of the EIAR provides information on the depot levels". (Page 136.)

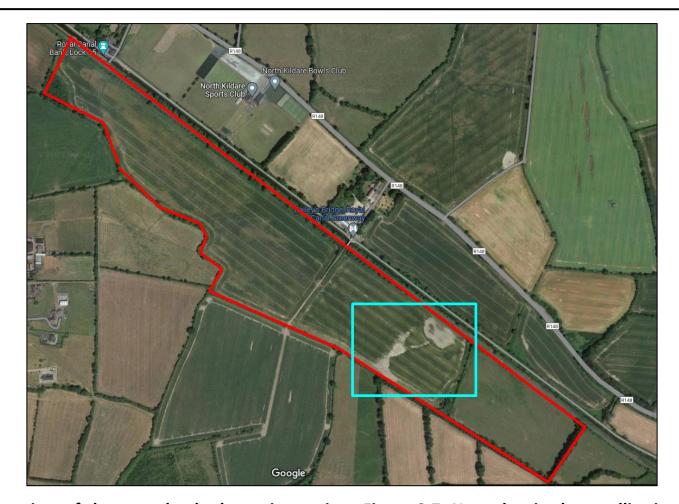
#### Max 7. Stormwater drainage

7. No details of the Depot stormwater drainage, treatment, flow rates or discharge parameters given: (page 136.)

#### **Irish Rail Response**

"See section 4.11.12.7 of the EIAR."

## **Existing propensity to flood**



Backflow – Drain flows into outlet for the canal

Figure 2.8: Overview of the same lands shown in previous Figure 2.7. Note that in the satellite imagery, one can easily make out some of the lands that are seasonally covered by flood water. We have indicated these marks within the light blue line boundary. (Source: Google Maps, annotated by Tom Phillips + Associates, October 2022.)

### **Relationship of Aquifer to Watercourses**

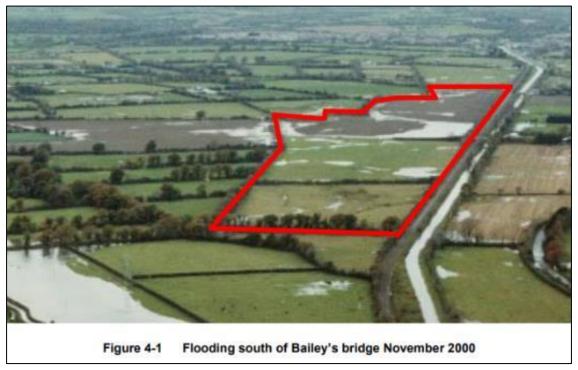


Figure 2.5: View of the site of the proposed DART + West Depot, indicated approx. by red line boundary. Note the extensive Turloughs occurring on the lands at the proposed site for development. The issues of biodiversity, water quality, and conservation intersect at this point and it may be worth considering and consulting European Law on these matters. Additionally, there is a recognised Aquifer underneath the lands within and without the shown red line boundary. This aquifer appears from hydrological mapping to have a relationship with the watercourses above the surface. (Source: *DART + West SFRA DOCUMENT*, page 16, annotated by Tom Phillips + Associates, October 2022.)

#### **Sub-catchments**

Catchments not taken into consideration.
Continuations.
C+B incorrectly drawn
A not fully drawn

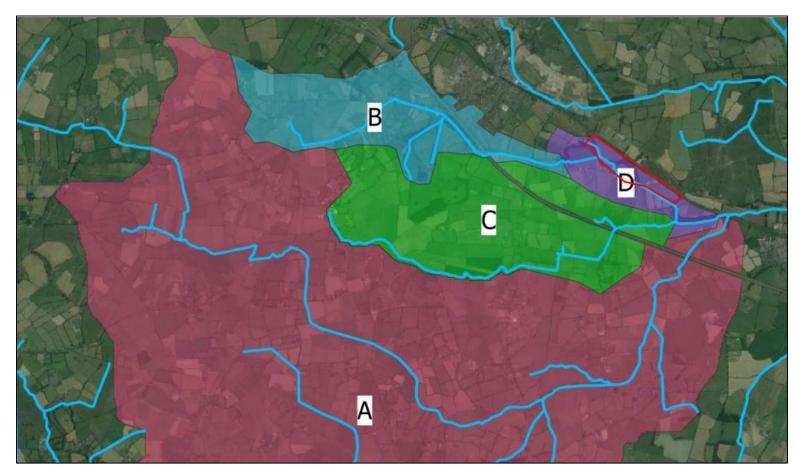


Figure 2.7: Overview of the sub-catchments for Hydrological Assessment at Depot/Jackson's Bridge. Each letter A, B. C and D refer to different Catchment Areas of the Lyreen River. (Source: DART + West SFRA Document, page 24, annotated by Tom Phillips + Associates, October 2022.)

#### Further assessment required

#### 4.4 Conclusion of Stage 2 SFRA

The available sources consulted above indicate that discreet sections of the development lands are liable to flood in extreme events. Existing available information is not sufficient to provide a quantitative appraisal of flood risk to the proposed development at these locations. As per the OPW Guidelines, a Stage 3 detailed flood risk assessment is required to be undertaken to confirm flood risk (water levels and flood extents) to the proposed development. Further assessment is required at:

- Barberstown (XG012) Level Crossing.
- Between Maynooth and Kilcock.

Extract 2.9: The Conclusion to the Stage 2 SFRA for the DART + West project found that Further Assessment would be required of the lands between Maynooth and Kilcock. (Source: DART + West SFRA, page 18.)

#### 4.11.13 Compensatory storage area

The lands between Maynooth and Kilcock have a significant history of flooding that effects the existing rail line at Jackson's Bridge (OBG23), the M4 motorway and lands southeast of Kilcock (proposed depot site).

The DART+ West project requires the realignment of the rail line to the south to address the complex hydraulic constraints present at OBG23.

This will ensure that the proposed development can achieve an appropriate standard of flood protection while maintaining the existing flood regime upstream and downstream of the development.

#### 4.11.13 Compensatory storage area

Compensatory storage will be required to manage displaced flood waters and flood risk.

The provision of "like for like" compensatory storage is a requirement of The OPW Guidelines (2009) and the 2017-2023 Kildare County Development Plan Strategic Flood Risk Assessment.

#### Excavate 123k cubic metres of overburden

Estimated required compensatory volumes are given below:

- Adjacent to OBG23: ~38,800 m3 + 24,200 m3 over excavation
- Depot lands: ~45,800 m3 + 13,700 m3 over excavation

The provision of these volumes of compensatory storage will require an excavation of ~123,000 m3 of overburden.

### Flooding adjacent to OBG23

As per the above determining factors and volume requirements, compensatory storage is proposed as follows:

The proposed compensatory storage at this location comprises making amendments to existing floodplain levels.

The outline area required is presented in the figures below.

The provision of the "like for like" compensatory storage ensures that the minimum area of land is inundated in each flood event i.e. less area is flooded in the 1 in 10 year event than the 1 in 100 year event.

### Flooding within the proposed depot lands

The interaction of the existing flood regime and proposed development at this location necessitates both the provision of compensatory storage for displaced flood waters and the realignment of the watercourse itself.

To minimise future maintenance requirements (and potential for flooding due to blockages) the watercourse will be diverted and kept in open channel.

### Flooding within the proposed depot lands

It should also be noted that due to the generally flat topography at the depot lands, a larger land take is required to compensate for a smaller volume in comparison to the proposed measures at OBG23.

### Flooding within the proposed depot lands

The most suitable lands for compensatory storage are identified as the lands between and adjacent to the historic channel and the current route of the channel as shown in the figure below.

A minor bund is to be provided along the eastern and southern boundary of the compensatory storage area adjacent to the depot with a height no greater than 1m above existing ground levels.

## **Maws Farm Compensatory Storage**



Figure 4-260 Compensatory storage area within proposed depot lands (c.16.5 ha)

# **Jackson's Bridge Compensatory Storage**

drawings. Writing too small

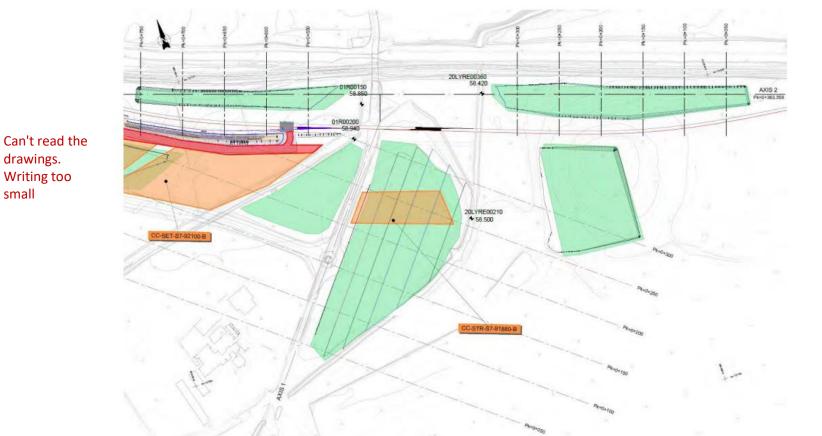


Figure 4-258 Compensatory storage area adjacent to OBG23 (c.9ha)

### Flood Zone A and an aquifer vs proposal

The DART + West SFRA has conducted an analysis of the hydrology of the lands and local area for the proposed Depot, but has not mentioned the aquifer that occurs close to the surface, on Flood Zone A lands, and directly beneath the proposed *Compensatory Storage Areas*.

### **Extreme vulnerability**

The roadway floods the whole way.

It is a further Karst land area.

Areas of sensitive Karst Landscape



Figure 5.10: Overview of OGB23 Jackson's Bridge and the proximity of the bridge to the elements of the local aquifer, which are close to the surface and considered to be classified as vulnerability: high and vulnerability: extreme. (Source: Geohive, Geological Survey of Ireland, annotated by Tom Phillips + Associates, October 2022.)

## No indication of flooding identified. Really?

#### 3.7.5 Groundwater Flooding

Ground water flooding is a result of upwelling in occurrences where the water table or confined aquifers rises above the ground surface. This tends to occur after long periods of sustained rainfall and/or very high tides. High volumes of rainfall and subsequent infiltration to ground will result in a rising of the water table. Groundwater flooding tends to occur in low-lying areas, where with additional groundwater flowing towards these areas, the water table can rise to the surface causing groundwater flooding. No indication of historic or predicted groundwater flooding was identified within the study area. Therefore, the risk of groundwater flooding is classified as low and no further assessment is required.

Factually incorrect.

Groundwater flooding is typical on Karst areas.

Figure 5.11: Extract from DART West SFRA section 3.7.5 discussing Groundwater Flooding of the proposed Depot site. (Source: DART + West SFRA Document.)

### Compensatory storage versus a natural aquifer

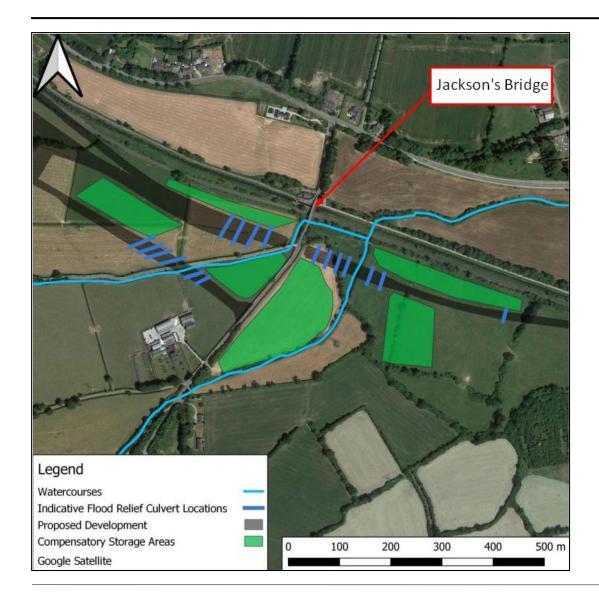


Figure 5.12: Map taken from DART + West SFRA Document showing the proposed *Compensatory Storage Areas* located south of Jackson's Bridge and directly above a vulnerable aquifer. (Source: DART + West SFRA Document, page 33, annotated by Tom Phillips + Associates, October 2022.)

Blue lines are tunnels under Railways. The river isn't opened to help release. Analysis is flawed.

### How will flooding be controlled?

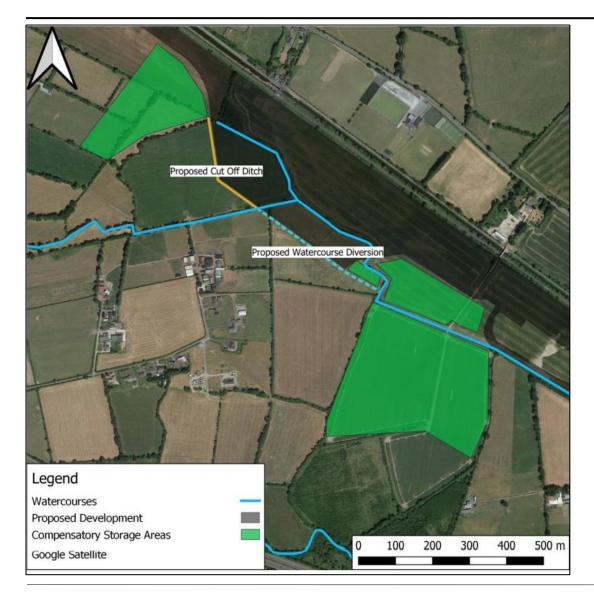


Figure 5.13: Overview of the proposed water attenuation storage areas located at the northwestern portion of the Depot site. (Source: SART + West SFRA Document, page 34.)

No analysis on 16 hectares. Flow control mechanism. Section excavated into ground – how will they control flooding.

## **Existing scenario: M4 floods**

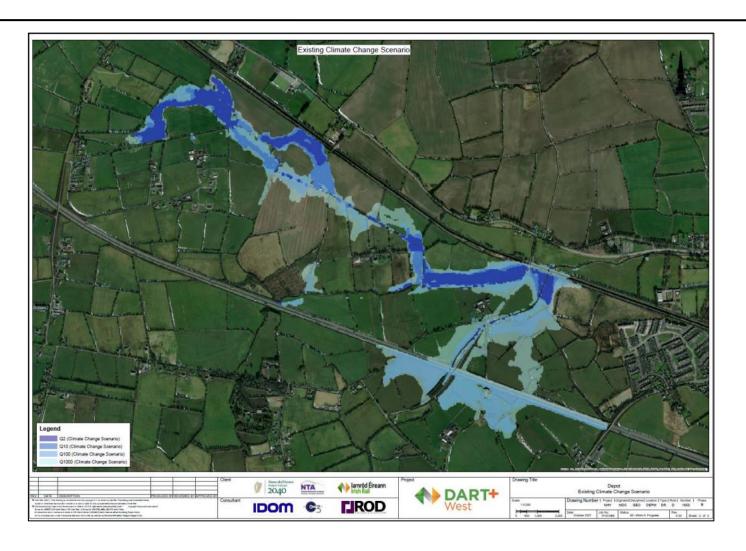


Figure 5.16: Existing Climate Change Scenario. (Source: DART + West SFRA Document.)

## Proposal: displacement, but no effect on M4?



Figure 5.16: Post Development Climate Change Scenario. (Source: DART + West SFRA Document.)

## What is absent?

CAF Parameter	Criteria	SET Electrification	OHLE Clearance at Structures	Permanent Way	Level Crossings	Stations	Depot	Depot Access	Substations & Technical Buildings	Construction Compounds
3. Environment	Noise and Vibration	✓	✓	<b>✓</b>	✓	✓	✓	✓	✓	✓
	Air Quality and Climate		✓	<b>✓</b>	✓	✓	✓	✓	✓	✓
	Landscape and Visual (including light)	<b>✓</b>	<b>~</b>	~	<b>√</b>	~	~	~	<b>✓</b>	<b>~</b>
	Biodiversity (flora and fauna)		<b>~</b>	~	<b>V</b>	<b>~</b>	~	<b>~</b>	<b>✓</b>	<b>✓</b>
	Cultural, Archaeological and Architectural Heritage		~	~	<b>~</b>	~	~	~	<b>~</b>	<b>~</b>
	Water Resources		✓	<b>✓</b>	✓	✓	✓	<b>✓</b>	✓	✓
	Agriculture and Non- Agricultural		<b>~</b>	~	<b>√</b>	<b>~</b>	~	~	<b>✓</b>	<b>~</b>
	Geology and Soils (including waste)		<b>√</b>	<b>~</b>	<b>~</b>	~	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>
	Radiation and Stray Current	<b>~</b>	<b>~</b>	~	<b>*</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>*</b>	<b>✓</b>

## Is flooding such a low priority?



Source: TPA's own research conducted by CD

In the assessment of the 13 No. potential Depot sites, and 4 No. more detailed assessment, flooding was not listed as a factor when deciding the location of a Depot.

### Max 8. Adequacy of SuDS' design details

8. Carlos Clarke Ltd questions the omission of design details

### **Irish Rail Response**

"the specific detail of these systems will be finalised during detail Design Stage"

# Max 9. Possible direct access to the site by the construction of new motorway exits

9. No study was undertaken

### **Irish Rail Response**

"the existing motorway junctions on the M4 are considered appropriate for temporary access to the proposed depot site during the construction phase". (Page 136.)

### Max 10. Site drainage to the Royal Canal?

10. No study made of continuing the site drainage to the Royal Canal

### **Irish Rail Response**

- 1. Two culverts detected.
- 2. Waterways Ireland ruled the option out "as it was not considered acceptance [sic] to allow the discharge of new stormwater systems into the Royal Canal".

# Max 11. Passing reference only to future planning and expansion of transport services

### 11. Passing reference

### **Irish Rail Response**

- Recognition of expansion accepted Maynooth /Dunboyne lines.
- 2. Design outside the scope of the project.
- 3. Not practical insufficient detail available.

# Max 12. Maynooth and Kilcock existing Stations Congested – EIA issue?

12. Limited Car parking - no proposals for accessible park and ride from the M4

### **Irish Rail Response**

1. "Upgrades to Kilcock Station and the provision of park and ride facilities are outside the scope of the DART+ West Project".

### **Access to Depot**

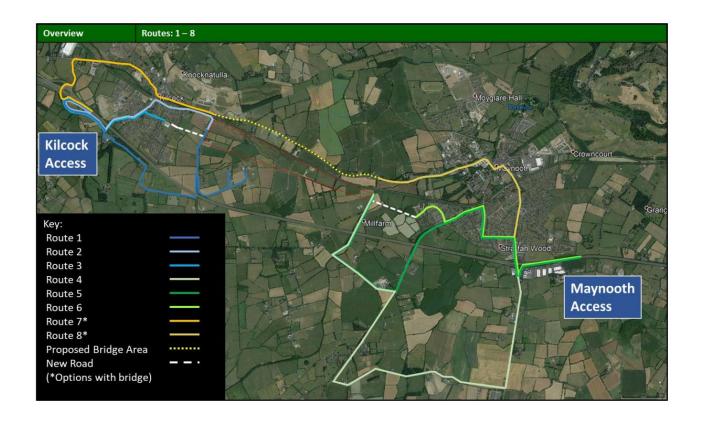
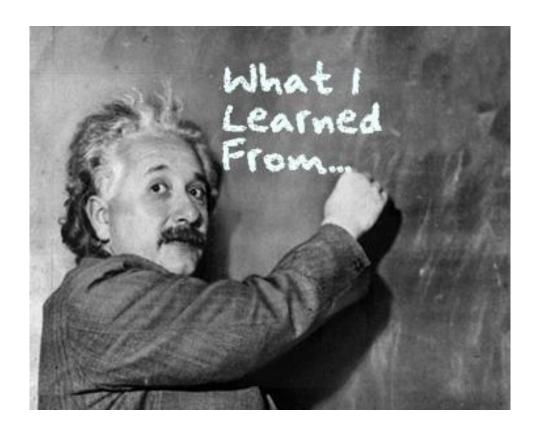


Figure 4.6: Road Access Route to proposed Depot location (Source: *Depot Options Selection Report*, June 2020.)

## **Concluding comments – key ABP challenges**



## **Inherent conflict with CDP Objectives**

We submit that the proposed development would conflict with policies of Kildare County Council:

Kildare County Development Plan 2023-2029

"12.10 Inland Waters: Lakes, Rivers, Streams and Groundwater

Over 112 km of the canals, the Grand Canal, Royal Canal and the Barrow Line, extend across Kildare. Once the lifeline of the local economy, forming the main transport routes in Kildare, these waterways and their towpaths now support a large eco-system of diverse plant and animal species along with a significant leisure resource in the county."

### Pathway to salmonoid rivers

"Kildare is also traversed by some of the more productive and important salmonid systems in the region, the River Liffey, the River Barrow and the River Boyne.

Rivers and streams should be maintained in an open, semi-natural condition.

Their corridors and valleys provide effective measures to protect and maintain biodiversity and to help manage fluvial and pluvial flooding while supporting a quality, multifunctional green network generating multiple benefits for the environment, tourism and society."

## Sufficient EIA data to support the conclusions?

"Groundwater is important for supplying water and maintaining wetlands and river flows in dry periods.

Groundwater resources should be protected and managed in a sustainable manner."

### Can the Board be satisfied ...

1. That the siting of a major Rail Depot complex on Flood Zone A lands that include Bronze Age remains constitutes orderly development?

### Can the Board be satisfied that ...

2. Having regard to the significant adverse, yet not fully quantified, environmental impacts of the proposed Rail Depot development that the development as proposed constitutes the optimum solution?

### Can the Board be satisfied that ...

3. The large industrial development located in an unspoilt rural setting proximate to protected structures in an area of scenic, ecological, agronomic and agricultural value lacking in public services and essential facilities represents proper planning?

### Site vs. brief

### **Applicable to Maws Farm Depot Site**



"The suitability of the site in principle and the ability of the receiving environment to absorb the facility, the impact of which has emerged since the development of the model of care are two very different considerations and this in my opinion is the crux of the issue."



DART + WEST ELECTRIFIED RAILWAY ORDER 2022 Ref ABP-314232-22

Module F: Landowner and Observer Submissions Zone F: Maynooth Station to Depot



TOM PHILLIPS + ASSOCIATES IN COLLABORATION WITH MAXPRO CONSULTANTS, AND CALLAN TANSEY SOLICITORS LLP

Wednesday, 11 October 2023

#### **Prepared for:**

Carlos Clarke Limited
Tynan Dillon Chartered Accountant
74 Northumberland Road
Dublin 4
D04 XF75

#### Prepared by:

Tom Phillips + Associates 80 Harcourt Street Dublin 2 D02 F449

## **Closing Statement to Oral Hearing**

