21023-02-001

Proposed Residential Development at Devoy Barracks, Naas

STAGE 1 QUALITY AUDIT

(incorporating an access, cycling, walking and road safety audit)

for

CS Consulting

March 2022



7, Ormonde Road Kilkenny. R95 N4FE

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1. INTRODUCTION

- 1.1 Roadplan Consulting has been commissioned by CS Consulting to carry out a Quality Audit of proposed residential development at Devoy Barracks, Naas.
- 1.2 The proposed development site is located at Devoy Barracks, John Devoy Road, Naas, County Kildare. The site is located in the administrative jurisdiction of Kildare County Council and has a total gross area of approximately 4.14 ha.
- 1.3 The site is bounded to the north by existing residential properties and a commercial unit; to the east by Kildare County Council Offices and car park facility; to the southeast by the John Devoy Road; and to the west and south west by the existing Arconagh and Elsmore residential estates.
- 1.4 The proposed development is for the construction of 219 no. residential units, comprising of a mix of terraced houses (42 no. 3 bed units), and duplex / apartment units (177 no.: 64 no. 1 bed units; 105 no. 2 bed units and 8 no. 3 bed units), a 59-place childcare facility, public open spaces and all associated site works and infrastructure.
- 1.5 Vehicular access to the development will be via the existing roundabout on John Devoy Road.
- 1.6 The main pedestrian access to the development is provided via John Devoy Road and Arconagh residential estate.

2. QUALITY AUDIT

- Quality Audit is a defined process, independent of, but involving, the design team that, through planning, design, construction and management stages of a project provides a check that high quality places are delivered and maintained by all relevant parties, for the benefit of all end users. Quality Audit is a process, applied to urban roads, traffic management or development schemes, which systematically reviews projects using a series of discrete but linked evaluations and ensures that the broad objectives of place, functionality, maintenance and safety are achieved.
- Quality Audit was introduced in the publication *Design Manual for Urban Roads* and *Streets* following concerns that in the design of new streets provisions made for motor vehicles frequently led to a poorly-designed public realm. In an urban area there is a high level of competing demand from different classes of road users. A well-balanced street will have minimal visual clutter and obstacles; it will use durable materials and most importantly, will encourage a degree of negotiation between road users as they make their way through it.
- Quality Audit involves various assessments of the impacts of a street scheme in terms of road safety, visual quality and the use of streets by the community. Access for disabled people, pedestrians, cyclists and drivers of motor vehicles is considered.
- 2.4 In the context of a Quality Audit, road safety assessment is considered to be an appropriate method of examining road safety issues as it incorporates both the hazard identification techniques used in road safety audit and formal risk assessment techniques. This allows the opportunity at an early stage for road safety issues to be considered in a more dynamic way within the design process, and to ensure that safety issues are considered as part of the design rather than after design work is completed.
- 2.5 The Quality Audit Team reports findings with suggestions for future action. It should be noted that, in a Quality Audit, it is not the intention that suggestions would be binding on the design team; they are offered for detailed consideration in the design process.

3. METHODOLOGY

- 3.1 The Audit Team was as follows:
 - George Frisby Chartered Engineer MIEI
 - Richard Frisby BSc AEng MIEI.
- 3.2 Road safety, non-motorised users, visual quality, access for disabled and functionality were considered in the Quality Audit. This exercise focused on issues such as:
 - the design rationale as it related to vehicle, cycle and pedestrian movements;
 - pedestrian desire lines both to and through the site;
 - · access requirements for all modes of transport;
 - access requirements for disabled people and other vulnerable users;
 - any road safety concerns associated with the scheme;
 - the visual appearance of the scheme as it is experienced by those entering it and moving around within the street, including how this affects road user behaviour; and
 - any other issues considered relevant to each constituent element of the Quality Audit process.
- 3.3 The documents provided for the audit were:

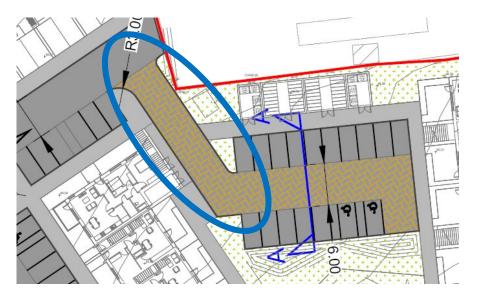
Drawing number	Rev	Drawing Title
DEV-CSC-00-XX-DR-C-0102	P08	Proposed Site Layout
DEV-CSC-00-XX-DR-C-0103	P09	Proposed Road Layout
DEV-CSC-00-XX-DR-C-0107	P08	Swept Path Analysis Fire Tender
DEV-CSC-00-XX-DR-C-0108	P08	Swept Path Analysis Refuse Truck
DEV-CSC-00-XX-DR-C-0116	P09	Proposed Road Markings & Signage
DEV-CSC-00-XX-DR-C-0160	P02	Undercroft Carpark Layout

Copies of these audited drawings are contained in Appendix A.

4. KEY FINDINGS, SUGGESTED ACTIONS AND COMMENTS

4.1 Issue:

It is unclear if the internal road at the north eastern corner of the development has adequate width. Two vehicles may have difficulty in passing one another along this section of road, particularly at the changes in direction of the road alignment, which may contribute to a collision at this location.

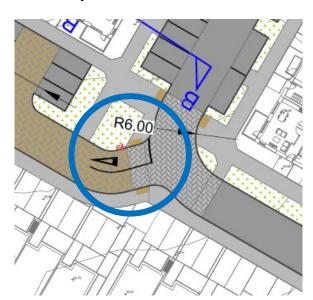


Suggestion:

Ensure that adequate two-way width is provided at this location to accommodate two-way flow of vehicles.

4.2 <u>Issue:</u>

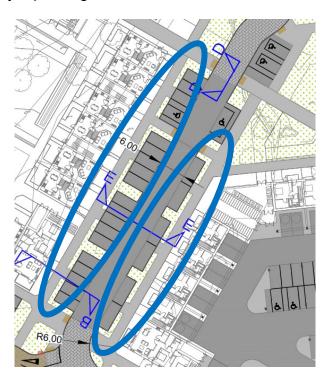
There is an abrupt change in the alignment at the junction shown in the image below which may result in drivers of vehicles tracking into the opposing lane resulting in a collision at the junction.



Realign the junction to ensure drivers of vehicles do not track into the opposing lane.

4.3 Issue:

Throughout the development parking is provided adjacent to footpaths. However, at a number of locations a grass verge is provided between the parking bays and the footpath resulting in pedestrians requiring to transverse the grass verge in order to gain access to the footpath. This may result in pedestrian, particularly mobility impaired persons, travelling along the carriageway to gain access to the footpath where they would be at an increased risk of being hit by a passing vehicle.



Suggestion:

Remove the grass verge at these locations and ensure pedestrians can gain direct access to the footpath.

4.4 Issue:

There is a number of low radius bends proposed along the development access roads. Two vehicles may have difficulty in passing one another on these bends which may lead to a side swipe collision. Stopping sight distance at the bends may also be restricted by the proposed parking, planting and boundaries on the inside of the bends.



Revise the layout at the bends to ensure that two vehicles can safely pass oneanother, and that adequate stopping sight distance is provided.

4.5 Issue:

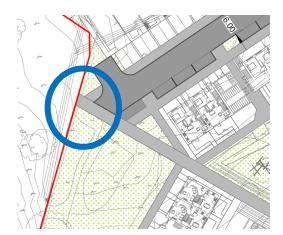
An existing cycle path/shared space is provided on either side of John Devoy Road. No cycle facilitates are shown to be provided within the proposed development. No details are provided to indicate how a cyclist can safely access / egress the cycle path/shared facility John Devoy Road from the proposed development.



Provide adequate dropped kerbs, tactile paving and signage to ensure cyclists can safely access / egress the existing cycle path/shared facility located on John Devoy Road.

4.6 Issue:

The proposed footpath within the development is shown to provide a link to the existing Arconagh housing estate which is located to the west of the proposed development. However, no details are provided to indicate how a pedestrian can safely access / egress the existing footpath within the Arconagh housing estate.



Suggestion:

Provide an adequate footpath link from the proposed footpath within the Arconagh housing estate.

4.7 Issue:

There are a number of locations where pedestrian crossing facilities such as dropped kerbs and tactile paving are not shown to be provided to cater for the desired route for pedestrians. A lack of pedestrian connectivity may increase collision risk within the proposed development.

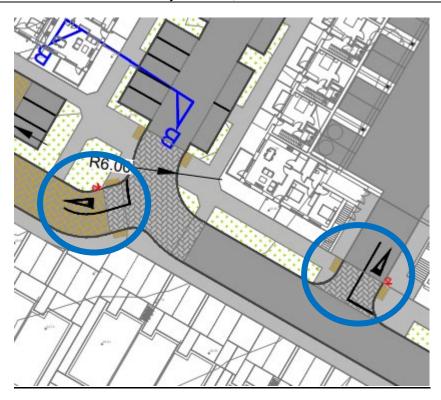


Suggestion:

Ensure adequate crossing facilities are provided to cater for the desired route for pedestrians throughout the proposed development.

4.8 Issue:

Throughout the development the yield road marking symbol is located in advance of pedestrian crossing locations. This may lead to collision between drivers of vehicles and pedestrians as priority at the crossing may be unclear.



Advance the yield symbol to the back of the yield line at all internal junctions.

4.9 Issue:

Throughout the development pedestrian crossing facilities are provided within the proposed development. However, it is unclear whether adequate intervisibility at a number of these crossings is provided between drivers of vehicles travelling along the internal access road and pedestrians stopped waiting to cross. The proposed parking spaces adjacent to the pedestrian crossing facilities may obstruct visibility splays.

Suggestion:

Ensure adequate inter-visibility splays between drivers of vehicles travelling along the internal access road and pedestrians stopped waiting to cross at the pedestrian crossings is provided.

4.10 <u>Issue:</u>

Pedestrian routes to and from stairwells / exits are not clearly defined within the undercroft carpark.

Suggestion:

Appropriate signs and markings should be provided to direct pedestrians to the nearest exit.

4.11 Issue:

Street lighting exists along the public road. However, street lighting is not shown to be provided within the proposed development. Road safety would be enhanced with the provision of street lighting.

Provide adequate street within the proposed development.

4.12 Issue:

From the drawings provided it appears that no charging points for electric vehicles have been identified. Over the coming years electric vehicles will become the norm and provision should be made for this at this time. If there are very limited electric charging points on the site this could lead to driver frustration and risk taking, leading to injuries.

Suggestion:

Consideration should be given to providing charging points for a number of electric vehicles at this time and to ensure that nothing in the design prevents extending the number charging points for electric vehicles, as may be required in the future.

4.13 Issue:

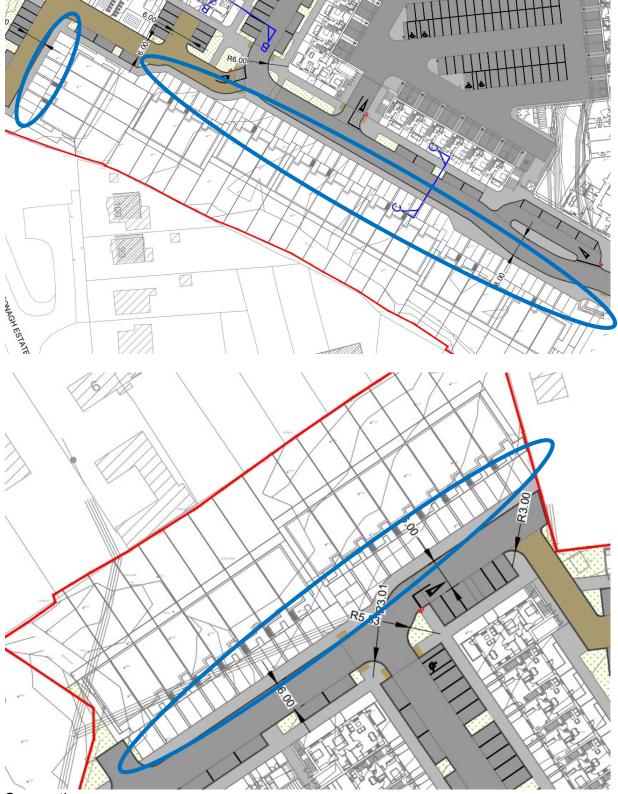
Visibility splays for drivers of vehicles at a number of junctions may be restricted by vehicles parked in adjacent car parking spaces. A lack of adequate visibility may contribute to a collision at these locations.

Suggestion:

Ensure that adequate visibility splays are provided at all junctions within the proposed development.

4.14 Issue:

There are a number of locations within the development where adequate width may not be provided between parked vehicles to allow pedestrians, in particular mobility impaired pedestrians, to access the dwelling units from the proposed footpath.



Ensure adequate width is provided in all areas throughout the development to allow pedestrians, including mobility impaired pedestrians, to safely access the proposed dwellings.

4.15 Issue:

It is unclear from the drawings provided where bin storage spaces are located. A lack of an adequate refuge storage and collection plan may contribute to accessibility issues within the proposed development.

Suggestion:

Ensure that adequate bin storage areas are provided within the proposed development.

4.16 Issue:

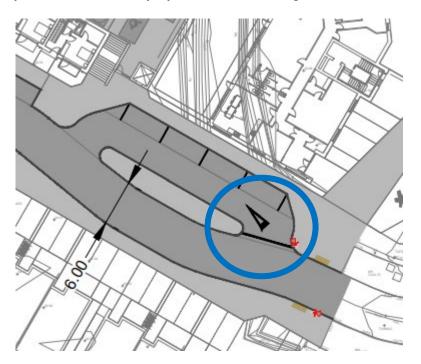
A number of disabled parking spaces are shown to be provided within the proposed development. However, it is unclear whether mobility impaired pedestrians can safely access these parking spaces.

Suggestion:

Provide appropriate dropped kerbs and tactile paving to allow mobility impaired pedestrians to safely access these parking spaces.

4.17 Issue:

A one-way circulating area is provided to a number of parking spaces near the entrance to the development. Drivers of vehicles entering the development may inadvertently enter the one-way system in the wrong direction.



Suggestion:

Provide appropriate signage to deter drivers from entering the one-way circulating area in the wrong direction.

4.18 Issue:

Priority at a number of internal junctions within the undercroft carpark may be unclear as no junction control is shown to be provided.

Suggestion:

Provide appropriate junction control at all the internal junctions within the undercroft carpark.

4.19 Issue:

Visibility splays for drivers of vehicles at a number of internal junctions within the undercroft carpark may be restricted by vehicles parked in adjacent car parking spaces. A lack of adequate visibility may contribute to a collision at these locations.

Suggestion:

Ensure that adequate visibility splays are provided at all of the internal junctions within the undercroft carpark.

4.20 Issue:

Vehicles turning at the internal junctions/bends at the eastern side of the undercroft carpark may find it difficult to remain in lane due to the lack of junction radii at these locations. A lack of adequate junction radii will lead to vehicles tracking over into the opposing lane and as a result may increase collision risk with opposing vehicles at these locations.



Provide an adequate layout at these locations to ensure that vehicles can remain in lane when turning.

QUALITY AUDIT FEEDBACK FORM

Scheme: Proposed Residential Development at Devoy Barracks, Naas

Audit Reference No.: 21023-02-001

Date Audit Completed: 2nd March 2022

Paragraph		To Be Completed by Audit Team Leader			
No. in Safety Audit Report	Problem accepted (yes/no) Recommended measure accepted (yes/no)		Describe alternative measure(s). Give reasons for not accepting recommended measure. Only complete if recommended measure is not accepted.	Alternative measures or reasons accepted by auditors (yes/no)	
4.1	Yes	Yes	-	-	
4.2	No	No	The Junction has been autotracked and two cars can safely pass each other with the current design layout.	Yes	
4.3	Yes	Yes	-	-	
4.4	Yes	Yes	-	-	
4.5	Yes	No	Existing signage and tactile paving etc is already constructed on the roundabout arm that confirm the cycletrack facilities have ended.	Yes	
4.6	Yes No a		The future link is outside lands in the ownership of the developer. Completion of this link shall be agreed with the Local Authority prior to commencement of the development following a favourable grant of planning.	Yes	
4.7	Yes	Yes	-	-	
4.8	Yes	Yes	-	-	
4.9	Yes	Yes	-	-	
4.10	Yes	Yes	-	-	
4.11	Yes	Yes	-	-	
4.12	Yes	Yes	-	-	
4.13	Yes	Yes	-	-	
4.14	Yes	Yes	-	-	
4.15	Yes	Yes	-	-	
4.16	Yes	Yes	-	-	
4.17	Yes	Yes	-	-	

4.18	Yes	Yes	-	-
4.19	Yes	Yes	-	-
4.20	Yes	Yes	-	-

Gay Madee

Signed Design Team Leader Date 11/03/2022

Print Name Gary Lindsay

Quality Audit

Signed off Audit Team Leader Date ...16/3/22...

Print NameGeorge Frisby.......

Please complete and return to: Roadplan Consulting Ltd.

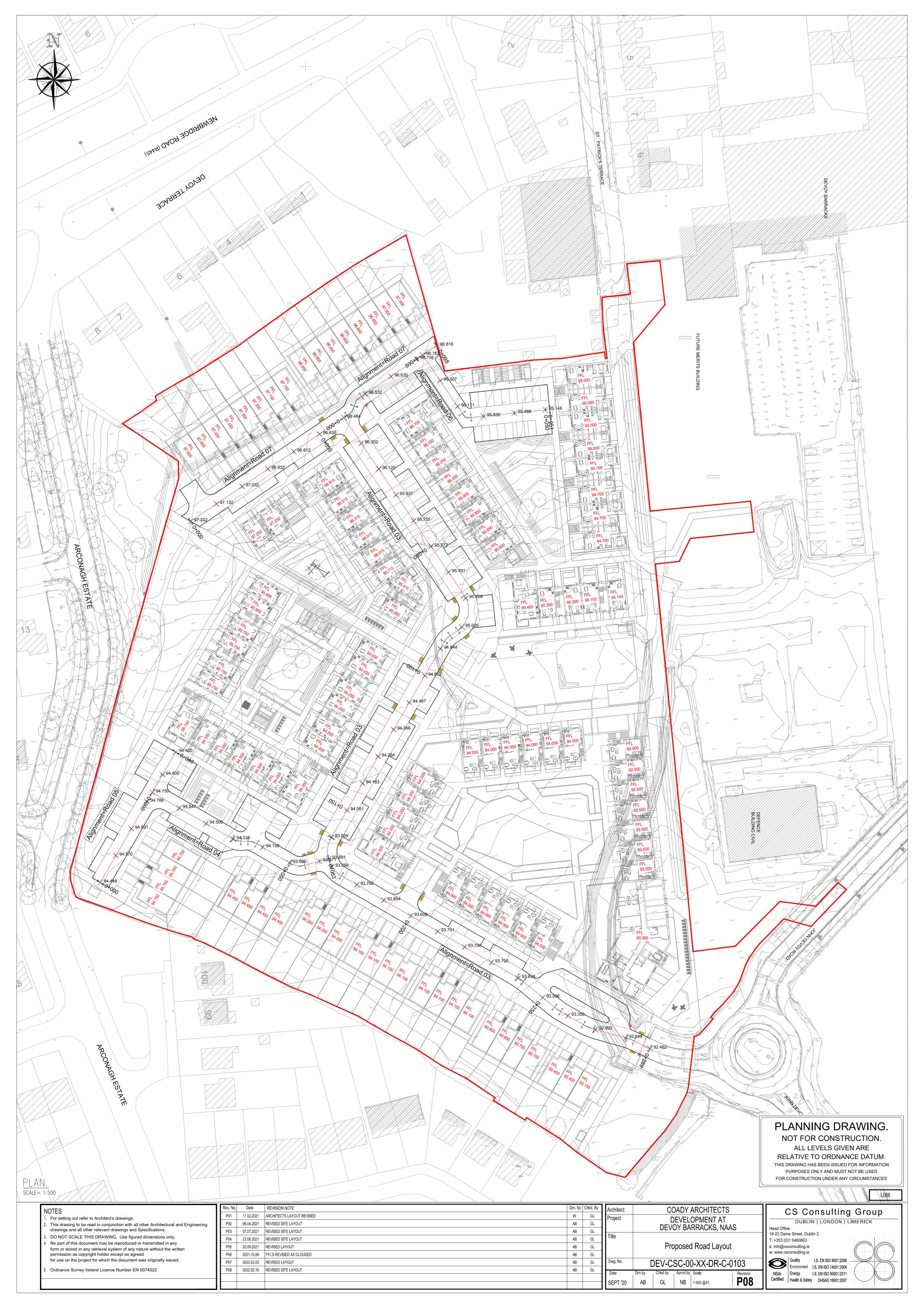
7, Ormonde Road

Kilkenny

Email: info@roadplan.ie

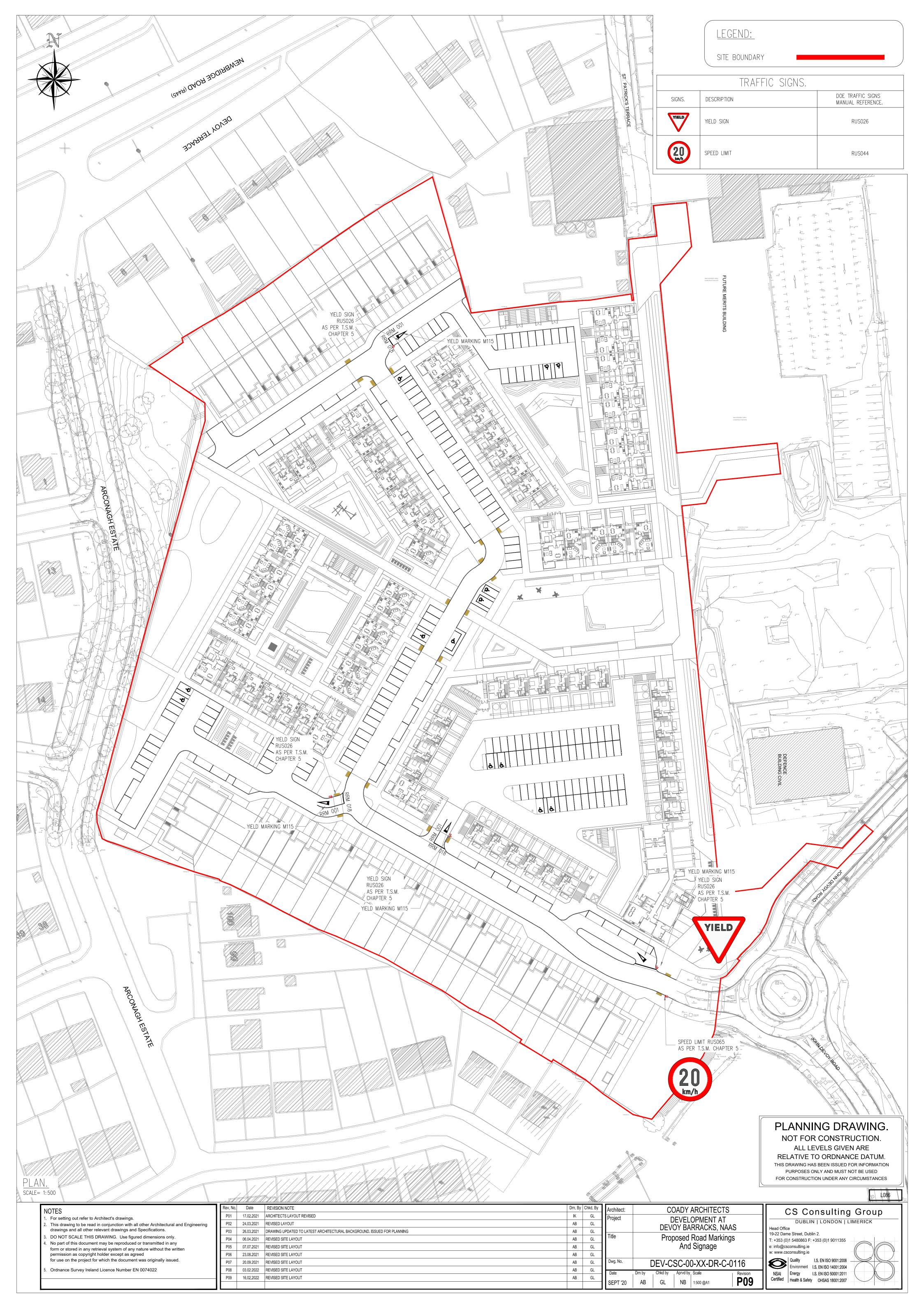














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 This drawing to be read in conjunction with all other Architectural and Engineering drawings and all other relevant drawings and Specifications.

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	Rev. No.	Date	REVISION NOTE	Drn. By	Chkd. By	Client
	P01	2022.02.03	REVISED SITE LAYOUT	AB	GL	Project
a	P02	2022,02,16	REVISED SITE LAYOUT	AB	GL	Fioject
						Title
						Dwg. No.
						Data
						Date
						SEPT '20

PT '20	AB	GL	NB	AS SHOWN @A1	P02	
е	Drn by	. Chkd by	Aprvd by	. Scale	ı Revision	
j. No.	DEV-CSC-00-XX-DR-C-0160					
•	PROPOSED UNDERCROFT CAR PARK LAYOUT					
ect	DEVELOPMENT AT DEVOY BARRACKS, NAAS					
nt	COADY ARCHITECTS					

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