

Reddy Architecture + Urbanism

Lands at Former Central Mental Hospital Site, Dundrum, Dublin 14

Stage 1 Road Safety Audit



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Document Control

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1. Introduction

This is a Stage 1 Road Safety Audit which examines the road safety implications of a proposed development of no. 934 residential units and ancillary non-residential units with associated public open space. The site is located to the east of Dundrum Road in Dublin 14 within the grounds of the former Central Mental Hospital.

The audit includes a single new vehicular access junction, an alteration to the existing access to allow emergency vehicle access and non-motorised user, along with dedicated additional cycle and pedestrian access points and the internal road/footway/cycleway arrangements.

The Feedback Form for this Stage 1 Road Safety Audit is included at Appendix B of this report.

This Stage 1 Road Safety Audit is based upon the information within the TTA document and drawings provided to the design team, at Appendix A.

This Stage 1 Road Safety Audit has been conducted generally in accordance with the Transport Infrastructure Ireland publication entitled Road Safety Audit, ref. GE-STY-01024, March 2015.

This Stage 1 Road Safety Audit specifically examines the road safety aspects of the proposed development. It is not an appraisal of policy or strategic issues associated with the planning of the development and it does not examine or verify the compliance of the design to any other design criteria or guidelines. The designer and all concerned stakeholders must therefore defend all actions taken on the basis that such care was taken, as was in all circumstances reasonably required, to ensure that the roadway was not unsafe for road users. It is important, therefore that where possible the recommendations in this report are acted upon.

The Road Safety Audit Team membership was as follows:

Mark Andrews MCIHT, MIHE
Principal Consultant
HyTraS Ltd

Colin Blue
Associate Consultant
HyTraS Ltd

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2. Items raised at previous Road Safety Audit

HyTraS are aware of two previous audits having been completed for this site. However, this scheme is considered as a new proposal. This audit examines changes to the access arrangements for the site.

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3. Items raised at this Road Safety Audit

3.1 Reduced visibility

Location: Western Perimeter

Summary: Vegetation with visibility requirements

The details provided for audit indicate a row of trees to be planted to the western perimeter of the site between the existing access point and the proposed signal controlled access point. It is not clear from the information what form these trees will take and how they will impact on junction inter-visibility requirements at the access location. Of particular concern is how vegetation may occlude visibility to the signal heads.

Recommendation

It is recommended that the design team ensures that all visibility requirements are clear of landscaping, planting, and other roadside features.

3.2 Drainage

Location: Throughout the site

Summary: Drainage details do not indicate low spots

The information provided for audit shows standard details of gullies and offlets to drain the paved areas of both carriageway and footway. However, there are no details of where these facilities will be placed or details of levels to indicate where low spots that need draining will be. Without appropriate drainage the paved areas may pond resulting in slip and skid incidents (particularly in cold weather), or road users (both motorised and non-motorised) taking an alternative and inappropriate path to avoid the ponding resulting in collisions with other road users.

Recommendation

It is recommended that the design team ensures that the road network is appropriately drained with a full detailed drainage design completed.

3.3 Tactile Paving

Location: Throughout the site

Summary: No details of tactile paving layouts or form

The information provided for audit shows that there is tactile paving proposed within the existing road and footway connections, but there is no detail of how conflict points within the site or proposed pedestrian crossing points are to be treated, signed and marked. Without appropriate guidance, markings, signs and paving pedestrians may come into conflict with cyclists or cross the carriageway at inappropriate locations.

Recommendation

It is recommended that the design team ensures that appropriate tactile paving, signs and markings are included at the detail design stage.

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3.4 Raised crossing platforms

Location: Throughout the site

Summary: Limited details for raised crossing platforms

The information provided for audit shows locations raised speed control type areas throughout the site. The information provided does not detail any advance warning for these features, or what form they will take. Without appropriate signage these features may be driven into at an inappropriate speed resulting in a loss of control.

Recommendation

It is recommended that the design team ensures that signage and guidance is in place to inform road users of the nature and location of these speed control devices.

3.5 Site signage

Location: Throughout the site

Summary; No sign details

The information provided has no details of signs proposed throughout the development. Without appropriate signs road users may not be fully aware of Yield locations, speed limits, raised platforms, crossing areas or other roadside features and hazards within the site

Recommendation

It is recommended that the design team ensure that signs and markings are designed and detailed appropriately to inform all road users of controls and hazards within the site.

3.6 Emergency vehicle access

Location: Existing gated access

Summary: No details of access arrangements

The information provided audit shows that the existing gated access is to be used as an emergency vehicle access only. However, there are no details of how this will be controlled, gated or access otherwise restricted. Inappropriate controls or restrictions may allow inappropriate access with vehicles using the access in a manner that would not be anticipate or desirable bringing all road users into conflict.

RECOMMENDATION

It is recommended that the design team ensure that access controls and restrictions are in place to allow appropriate vehicles to use the arrangements safely and restricted vehicles to be guided to the correct access location.

3.7 Proposed signal controlled access.

Location: New primary access junction.

Summary: Limited details for traffic signal controls.

The information provided for audit shows very limited details for the proposed signal controlled access arrangements. Inappropriate design or control measures may lead to a junction that does not efficiently control traffic leading to numerous road safety issues; including but not limited to - reduced capacity

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and queues, incorrect pedestrian controls, lack of signal intervisibility, incorrect or inappropriate vehicle detection. This may result in shunts, side swipes and potentially vehicle pedestrian conflicts.

RECOMMENDATION

It is recommended that the design team complete a full detailed signal control design to include correct traffic signal and pedestrian signal layouts, full detection layout to provide measures to ensure capacity can be attained.

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4. Audit Team Statement

We certify that this Road Safety Audit has been carried out in accordance with GG119.

Road Safety Audit Team Leader

Mark Andrews MCIHT MIHE

Signed:



Principal Consultant

HyTraS Ltd.

Date: 17/09/2024

Road Safety Audit Team Member

Colin Blue

Signed:



Associate Consultant

HyTraS Ltd.

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Appendix A – List of audited documents

Documents provided for Audit:

- DCD-BMD-00-00-DR-C-10000 Civil General Notes
- DCD-BMD-00-00-DR-C-11000 Roads Layout and Levels
- DCD-BMD-00-00-DR-C-11001 Roads Finishes Markings and Signage
- DCD-BMD-00-00-DR-C-11002 Dundrum Road Access Junction (South)
- DCD-BMD-00-00-DR-C-11003 Dundrum Road Access Junction (North)
- DCD-BMD-00-00-DR-C-11004 Vehicle Tracking. Refuse Vehicle (Twin Rear Axle)
- DCD-BMD-00-00-DR-C-11005 Vehicle Tracking. Dublin Fire Brigade Tender Vehicle
- DCD-BMD-00-00-DR-C-11011 Typical Roads Cross Sections (Sheet 1 of 2)
- DCD-BMD-00-00-DR-C-11012 Typical Roads Cross Sections (Sheet 2 of 2)
- DCD-BMD-00-00-DR-C-11100 Roads Long sections (Sheet 1 of 2)
- DCD-BMD-00-00-DR-C-11101 Roads Long sections (Sheet 2 of 2)
- CMHD-EDC-00-00-DR-E-3000 Site Lighting Layout
- CMHD-EDC-00-XX-RP-PL-3000 Site Lighting Report
- DCD-02-SW-L00-DR-RAU-AR-1012 Site Wide, Ground Floor, Bicycle Parking Plan
- DCD-02-SW-ZZZ-DR-RAU-AR-1010 Site Wide, Parking Plan

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Appendix B – Road Safety Audit Feedback Form

Road Safety Audit Reference HTS20240823 RSA HOU 01.01

Audit Stage Stage 1

Date Road Safety Audit Completed 17th September 2024

Problem	Problem Accepted (Y/N)	Recommendation Accepted (Y/N)	Comments / Alternative Measures (Describe)	Alternative Measures Accepted by Auditor? (Y/N)
3.1	Y	Y	This will be addressed at detailed design stage to ensure that there are no visibility issues due to trees at the junction.	Y
3.2	Y	Y	The road network drainage will be designed to ensure that there will be no ponding of water at low points.	Y
3.3	Y	Y	Appropriate tactile paving, signs and markings will be included at detailed design stage at all pedestrian crossing points and possible conflict locations.	Y
3.4	Y	Y	Signage and guidance as necessary will be provided to inform road users of the nature and location of all speed control devices.	Y

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Problem	Problem Accepted (Y/N)	Recommendation Accepted (Y/N)	Comments / Alternative Measures (Describe)	Alternative Measures Accepted by Auditor? (Y/N)
3.5	Y	Y	Road sign details are provided on Barrett Mahony (BM) drg no.DCD-BMD-00-00-DR-C-11001. These will be reviewed at detailed design stage to ensure that all road users are adequately informed of all controls and hazards within the site	Y
3.6	Y	Y	Removable bollards will be provided at the existing Dundrum Road entrance to control access (emergency vehicles only). These are now shown on BM drawing no. DCD-BMD-00-00-DR-C-11003.	Y
3.7	Y	Y	A full detailed signal control design will be provided at detailed design stage. This will include correct traffic signal and pedestrian signal layouts & a full detection layout to provide measures to ensure capacity can be attained.	Y
Signed <u>John Considine</u> For BARRETT MAHONY				
Design Team Leader <u>JOHN CONSIDINE</u> Date <u>18/9/2024</u> (Please Complete and return to the Auditor)				
Safety Audit Signed Off; Road Safety Audit Team Leader Date <u>19/09/24</u>				