

16143-04-003

**MAGEE BARRACKS, MIXED-USE
DEVELOPMENT, KILDARE**

**QUALITY AUDIT
(incorporating a walking
and road safety audit)**

for

Ballymount Properties Ltd.

July 2019

ROADPLAN

CONSULTING

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Kilkenny.
R95 N4FE

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1. INTRODUCTION

- 1.1 Roadplan Consulting was commissioned by Garland to carry out a confined Quality Audit of a proposed mixed use development at Magee Barracks, Kildare, Co. Kildare. The scope of the audit was confined by the Client to the proposed development outlined in red below and does not include the proposed signalised junction with the R445 or associated works on the R445. The signalised junction and associated works on the R445 were subject to an audit under planning reference number 18149.
- 1.2 The scheme consists of 375 residential units, a crèche and retail units along with car parking.

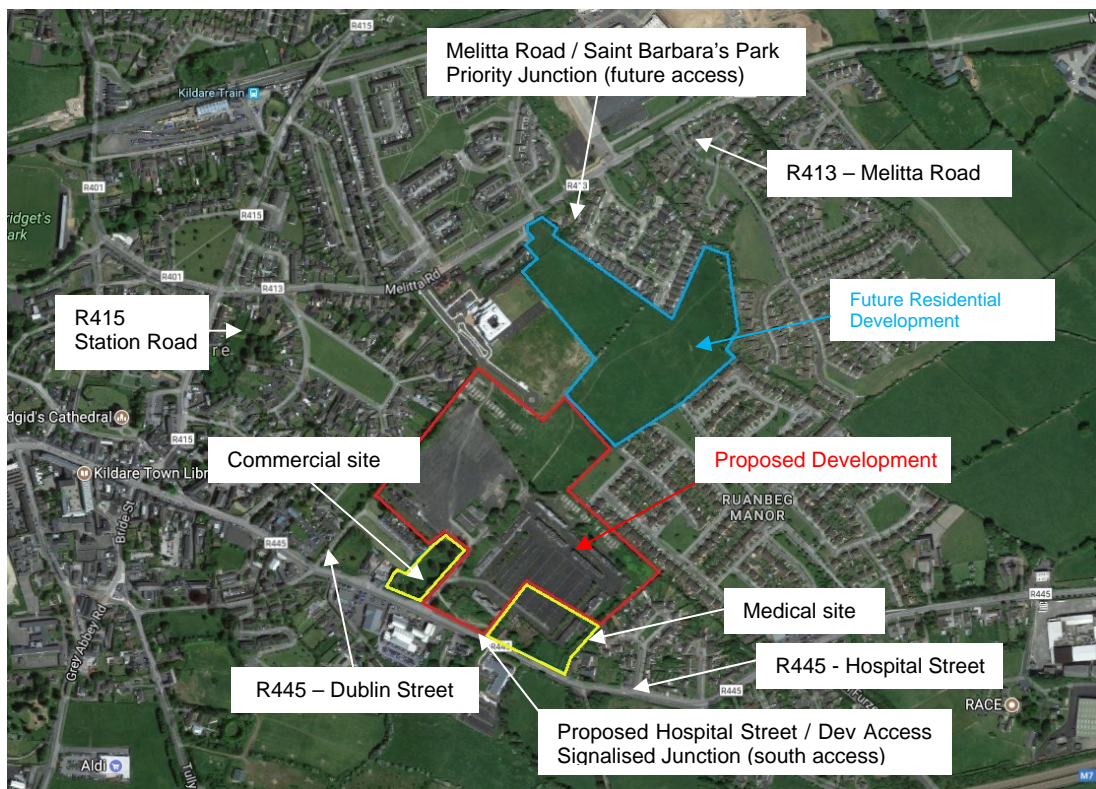


Figure 1.1: Site Location Map



Photo 1: Proposed Site Access



Photo 2: View to right from Site Access



Photo 3: View to left from Site Access

2. QUALITY AUDIT

- 2.1 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.
- 2.2 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.
- 2.3 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 |
| Kevin Donovan | Architect B.A., B.Arch., M.Phil / DEA |

Both audit team members visited the site.

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:

| Reference | Title |
|-------------|---------------------------|
| A1002 Rev - | Site Layout Plan: Phase 1 |
| 1005 Rev A | Road Signs and markings |

The scope of the audit was confined by the Client to the proposed development outlined in red Figure 1.1 and does not include the proposed signalised junction with the R445 or associated works on the R445. The signalised junction and associated works on the R445 were subject to an audit under planning reference number 18149 and were therefore not considered in this audit.

The Designer informed the audit team that the design speed selected for the spine road through the site, based on its function and context, is 20km/hr.

Copies of these audited drawings are contained in Appendix A.

4 KEY FINDINGS, SUGGESTED ACTIONS AND COMMENTS

4.1 Issue

Visibility splays at some of the junctions within the development may be restricted by on-street parking located adjacent to the junctions.

Suggestion

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

4.2 Issue

Dropped kerbs and tactile paving are not shown at all the proposed pedestrian crossing locations within the development.

Suggestion

Provide dropped kerbs and tactile paving at all the pedestrian crossing locations.

4.3 Issue

Pedestrian crossing lines are proposed to the front of the stop line on the minor arm of a number of T-junctions. Priority between pedestrians and drivers of vehicles at this location may be unclear as the proposed crossing layout is neither that of a controlled or uncontrolled pedestrian crossing.

Suggestion

Remove the pedestrian crossing line and advance the stop line to within 600mm of the carriageway edge.

4.4 Issue

Public lighting is not shown to be provided within the proposed development.

Suggestion

Public lighting should be provided throughout the proposed development.

4.5 Issue

The bicycle parking associated with the commercial zone is not visible from within the common space, occupying instead the footpath to the rear of the proposed gallery. In addition, the resulting footpath width may be too narrow to cater for mobility impaired pedestrians when the bicycle stands are in use.

Suggestion

Ensure that adequate unobstructed footpath width is available for pedestrians, and that cycle parking is located where it can both be easily found and provide safe parking.

4.6 Issue

The development has a number of internal roads with long straight sections. Such long straight sections may encourage high speeds within the proposed development.

Suggestion

Provide measures along the internal roads within the development to deter high speeds.

4.7 Issue

It is not clear what boundary type is to be provided to the front gardens of the dwellings within the proposed development. High boundaries could obstruct visibility between drivers and pedestrians.

Suggestion

Fences etc. should be low enough to ensure inter-visibility between motorists and pedestrians.

4.8 Issue

The levels of kerbing and footpaths at driveways across the scheme are not clear from the information supplied. If these are continuously rising and falling along the length of the access roads, some of which are very long, this may detract from the visual amenity of the scheme. Furthermore, if the green areas between driveway access points are planted with grass, motorists may tend to park on them, further detracting from both the visual amenity and from the durability of the surfaces.

Suggestion

Frequent level changes should be minimised. Small areas of grass could be planted with appropriate low-level planting (ensuring inter-visibility between motorists and pedestrians) to deter parking.

4.9 Issue

The height differential between the parallel parking spaces throughout the development and the footpath is not shown.

Suggestion

Ensure a kerb with sufficient upstand is provided in these areas to protect footpath users.

4.10 Issue

The nature of the boundary to the outdoor area of the crèche is not specified.

Suggestion

The boundary should be such as to prevent children from accessing the adjoining road and car park.

4.11 Issue

Parallel parking spaces along the spine road are adjacent to the proposed cycle lane, potentially provoking a conflict between opening car doors, passengers alighting from cars and oncoming cyclists.

Suggestion

Provide a buffer zone between the cycle lane and parking bays, wide enough for opening car doors and those alighting from parked cars.

4.12 Issue

The nine steps shown outside the retail units in the commercial zone suggest a height differential of over 1.5 metres between the unit facing the R455 and its neighbour to the north. The ramp shown in the public space does not appear to be of sufficient length (including landings) to accommodate this differential at a suitable slope.

Suggestion

Ensure that the design of this common area accords to best practice for universal access.

4.13 Issue

No bin store is shown for the Camara Gardens apartments.

Suggestion

Provide adequate and accessible bin storage for these apartments.

4.14 Issue

No covered, secure cycle parking appears to be provided for the apartments.

Suggestion

Provide covered, secure cycle parking for the apartments.

4.15 Issue

A number of low radius bends are proposed along the internal development access roads which may lead to a side swipe collision. Two opposing vehicles may have difficulty in passing one another on these bends. Stopping sight distance at the bends may also be restricted by the proposed parking and/or boundary treatment on the inside of the bends.

Suggestion

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

4.16 Issue

The cycle lane within the proposed development appears to be an on-road cycle lane. However, signage proposed along the internal spine road indicates a segregated cycle track.

Suggestion

Change the signage if it is conflicting with the actual cycle facility.

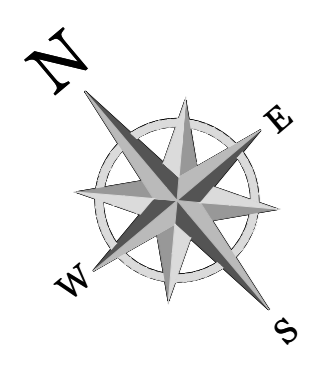
4.17 Issue

Signage poles at a number of locations are shown to be provided in the centre of the proposed footpath which may obstruct mobility impaired pedestrians using the footpaths.

Suggestion

Ensure all signage poles located within the footpaths do not conflict with pedestrians using the footpaths.

Appendix A - Drawings



THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND ALL RELEVANT ARCHITECTS AND SERVICES ENGINEERS DRAWINGS.

DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.

ALL DIMENSIONS SHALL BE CHECKED BY CONTRACTOR AND ANY DISCREPANCIES (DIMENSIONS) SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE WORK IS COMMENCED.

REFER TO GARLAND DRAWING R1831-1001 FOR ROAD LAYOUT AND LEVELS.

DESIGN SPEED WITHIN DEVELOPMENT: 20 KM/H.

ALL ROAD MARKINGS, SIGNS AND REFERENCES TO BE IN ACCORDANCE WITH THE DEPARTMENT OF TRANSPORT TRAFFIC SIGNS MANUAL (TSM).

BUFF COLOURED BLISTERED PAVING TO BE LAID ON FOOTPATHS AT EACH UNCONTROLLED PEDESTRIAN CROSSING. RED COLOURED BLISTERED PAVING TO BE LAID ON FOOTPATHS AT EACH CONTROLLED PEDESTRIAN CROSSING.

KERBS TO BE DROPPED AT EACH CONTROLLED AND UNCONTROLLED PEDESTRIAN CROSSING UNLESS WITHIN RAISED TABLE FLAT TOP.

SIGNS PLANTED TO HAVE MINIMAL EFFECT ON PEDESTRIAN MOVEMENT. ALL RAISED TABLES TO BE SURFED IN BUFF COLOURED CONCRETE/HAZARD PAVING.

ZEBRA CROSSING WITH REFUGE ISLAND ROAD MARKINGS AND GENERAL LAYOUT TO COMPLY WITH DTD NO. PC3 004 OF NRA, PEDESTRIAN CROSSING SPECIFICATION AND GUIDANCE.

ZEBRA CROSSING ROAD MARKINGS AND GENERAL LAYOUT TO COMPLY WITH DTD NO. PC3 003 OF NRA, PEDESTRIAN CROSSING SPECIFICATION AND GUIDANCE.

NOTE
ALL ROAD MARKINGS AND ROAD SIGNS TO COMPLY WITH TSM TRAFFIC SIGNS MANUAL OF THE DEPARTMENT OF TRANSPORT.

LEGEND

| ROADMARKING COMBINATIONS | DESCRIPTION |
|--------------------------|--|
| 1 | STOP SIGN - R107 STOP TRANSVERSE LINE MARKING - RRM 017 STOP MARKING MARKING - M 114 SOLID WHITE LINE - S04 020 |
| 2 | YIELD SIGN - R102 YIELD TRANSVERSE LINE MARKING - RRM 018 SOLID WHITE LINE - S04 020 |
| 3 | COLLECTOR SIGN - F300 |
| 4 | BUFF BLISTER TACTILE PAVEMENT DROPPED KERB FOR PEDESTRIAN ACCESS |
| 5 | BROKEN CENTER LINE MARKING - RRM 008 |
| 6 | SOLID WHITE LINES - PEDESTRIAN CROSSING ON WIDE - M 112 |
| 7 | KEEP LEFT SIGN - R101 (ON WALLS) |
| 8 | SINGLE OVERHANG (TO THE RIGHT) - W 501R |
| 9 | ROAD MARKINGS ON LEFT SIDE SIGN - W 501L |
| 10 | SCHOOL AHEAD SIGN - W 141 |
| 11 | CHILDREN CROSSING SIGN - W 142 |
| 12 | PEDESTRIAN AND CYCLE FACILITIES SEGREGATED TRACK - R10 030R |
| 13 | NO U-TURN SIGN - R107 |
| 14 | WATCHED MARKINGS ON THE APPROACH TO A CENTRAL ISLAND OR REFUGE - F10 20 OF TSM |
| 15 | SPEED LIMIT SIGN - 20 km/h |
| 16 | SPEED LIMIT SIGN - 20 km/h |
| 17 | DISABLED PERSONS PARKING SIGN - F 304 |
| VELOCITY SPRAYS | |
| 18 | ZEBRA CROSSING TO R10 021 OF TRAFFIC SIGNS MANUAL |
| 19 | RED TACTILE BLISTER PAVING WITH BUFF COLOURED DROPPED KERBS FOR PEDESTRIAN ACCESS |
| | PEDESTRIAN SYMBOL - M 111 OF TSM |
| | CYCLE SYMBOL - M 112 OF TSM |
| | CYCLE TRACK DIRECTION ARROW - STRAIGHT AHEAD M 113 OF TSM |
| | CYCLE TRACK TRIANGULAR YIELD MARKING M 115 OF TSM |
| | AREA COVERED BY PLANNING APPLICATION REF NO. 18149 |

| | | | | |
|---|----------|----------------------------------|----|-------|
| REV | DATE | DESCRIPTION | BY | CHKD |
| A | 06/06/19 | LAYOUT REVISED TO ARCHITECTS DRG | JC | CR |
| REV | DATE | DESCRIPTION | BY | CHKD |
| | | | | |
| CLIENT: BALLYMOUNT PROPERTIES LTD. | | | | |
| ARCHITECT: PRO ARCHITECTS 59 NORTHUMBERLAND ROAD DUBLIN 4 | | | | |
| GARLAND | | | | |
| DUBLIN LIMERICK WATERFORD INTERNATIONAL T: +353 1 4546422 F: +353 1 310708 T: +353 1 850111 T: +353 1 310708 E: info@garlandconsultancy.com W: www.garlandconsultancy.com | | | | |
| PROJECT: RESIDENTIAL AND NEIGHBOURHOOD CENTRE DEVELOPMENT (PHASE 1) AT FORMER MAGEE BARRACKS | | | | |
| TITLE: ROAD SIGNS AND MARKINGS | | | | |
| STATUS: PLANNING APPLICATION | | | | |
| DRAWN: | SL | DES. BY: | BM | |
| CHK. BY: | BM | APP. BY: | CR | |
| DATE: | 05/06/19 | CAD. NO.: | | |
| AD. SCALE: | 1:2000 | | | R1831 |
| DRG. NO.: | | | | |

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SITE PLAN
1:750 @ A0

PHASE 1 SCHEDULE

RESIDENTIAL PHASE 1

| | |
|--------------------------|------------|
| 3 BED SEMI DETACHED | 76 |
| 3 BED TERRACE | 42 |
| 4 BED SEMI-D. & DETACHED | 67 |
| 1 BED APT. (DUPLX) | 16 |
| 2 BED APT. (DUPLX) | 34 |
| 3 BED APT. (DUPLX) | 18 |
| 1 BED APT. (BLOCK) | 26 |
| 2 BED APT. (BLOCK) | 96 |
| TOTAL | 375 |

COMMERCIAL NEIGHBOURHOOD CENTRE (SQM)

| | |
|----------------------|---------------|
| CRECHE | 680 |
| CAFE/GALLERY | 300 |
| INDL. GALLERY SPACE | 335 |
| NEIGHBOURHOOD RETAIL | 12.5 |
| BIN STORE | 12.5 |
| TOTAL | 1327.5 |

APPLICATIONS BY OTHERS WITHIN MASTERPLAN

COMMERCIAL SUPERMARKET UNIT (BY OTHERS) APPROXIMATE AREA: 2,200 sqm

MEDICAL CANCER TREATMENT CLINIC (BY OTHERS) APPROXIMATE AREA: 3,555 sqm

NOTE:
REFER TO 1:500 LAYOUT PLANS (A1010-A1011) FOR COMPLIANCE WITH PLANNING AND DEVELOPMENT REGULATIONS.

BOUNDARY LEGEND

- AREA OF PROPOSED WORKS ON ROAD OUTSIDE THE OWNERSHIP OF THE APPLICANT SHOWN HATCHED RED
- PHASE ONE SITE BOUNDARY
- LANDS WITHIN APPLICANTS OWNERSHIP
- WAYLEAVE

RESIDENTIAL LEGEND

- A1 3 BED SEMI-DETACHED
- A1a 3 BED SEMI-DETACHED (CORNER)
- A2 3 BED SEMI-DETACHED
- A3 3 BED DETACHED (CORNER)
- B1 3 BED TERRACE (CORNER)
- B2 3 BED TERRACE (DAY WINDOW)
- B3 3 BED TERRACE (GABLE FRONT, CORNER)
- B4 3 BED TERRACE (GABLE FRONT, CORNER)
- C1 4 BED SEMI-DETACHED
- C1a 4 BED SEMI-DETACHED (CORNER)
- C2 4 BED DETACHED
- D & E1 1 BED & 2 BED DUPLEX 2 STOREY
- E1 & F1 2 BED & 3 BED DUPLEX 3 STOREY
- E2 & F2 2 BED & 3 BED DUPLEX 3 STOREY (CORNER)
- 1 BED APARTMENT
- 2 BED APARTMENT

COMMERCIAL LEGEND

- RETAIL UNITS
- CRECHE
- CAFE/GALLERY
- EXISTING BUILDINGS
- SUPERMARKET
- CANCER TREATMENT CLINIC

INDICATIVE LANDSCAPE LAYOUT - PLEASE REFER TO BSM LANDSCAPE ARCH. FOR LANDSCAPE DESIGN

BALLYMOUNT PROPERTIES LTD.

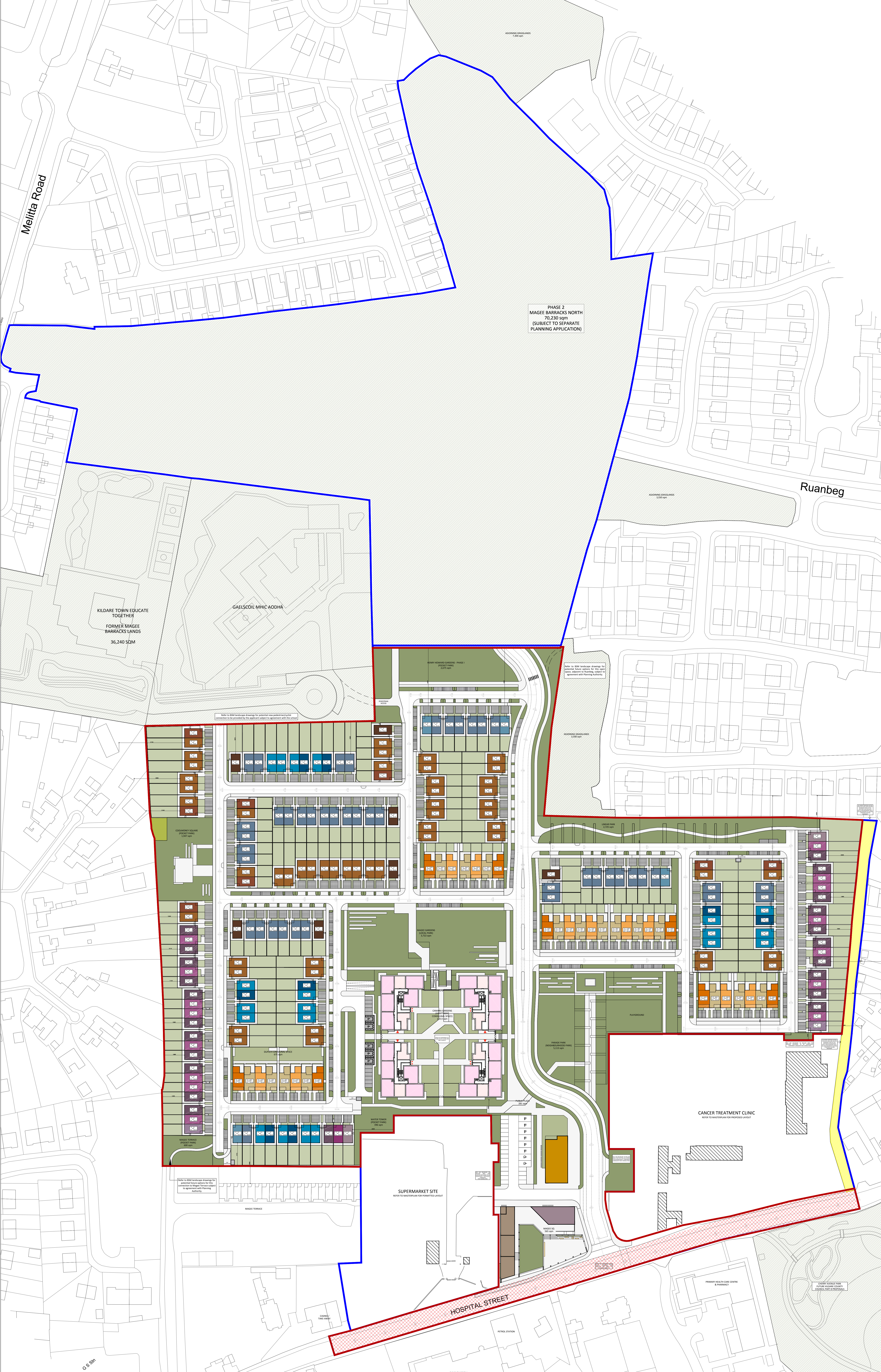
PLANNING

PROJECT: RESIDENTIAL AND NEIGHBOURHOOD CENTRE DEVELOPMENT (PHASE 1)

PRODUCT: FORMER MAGEE BARRACKS SITE, DUBLINE TOWN.

DWG TITLE: SITE LAYOUT PLAN - PHASE 1

| | | | |
|-----|----|------------|------------------|
| REV | NO | DATE | DESCRIPTION |
| 1 | 1 | 08/05/2019 | ISSUE FOR PERMIT |



PHASE 2
MAGEE BARRACKS NORTH
70,230 sqm
(SUBJECT TO SEPARATE
PLANNING APPLICATION)

KILDARE TOWN EDUCATE
TOGETHER
FORMER MAGEE
BARRACKS LANDS
36,240 sqm

GAELSCOIL MHC AODHA

Ruanbeg

SUPERMARKET SITE
WITH TRANSPORTATION INFRASTRUCTURE

CANCER TREATMENT CLINIC
REFER TO MASTERPLAN FOR PROPOSED LAYOUT

HOSPITAL STREET

QUALITY AUDIT FEEDBACK FORM

Scheme: Proposed Mixed Use Development at Magee Barracks, Kildare,
Co. Kildare

Audit Reference No.: 16143-04-003

Date Audit Completed: 19th June 2019

| Paragraph No. in Quality Audit Report | To Be Completed By Designer | | | To Be Completed by Audit Team Leader |
|---------------------------------------|-----------------------------|-------------------------------------|---|--|
| | Issue accepted (yes/no) | Suggested measure accepted (yes/no) | Describe alternative measure(s). Give reasons for not accepting suggested measure | Alternative measures or reasons accepted by auditors |
| 4.1 | ✓ | YES | — | — |
| 4.2 | ✓ | YES | — | — |
| 4.3 | ✓ | YES | — | — |
| 4.4 | ✓ | YES | — | — |
| 4.5 | ✓ | YES | — | — |
| 4.6 | ✓ | YES | — | — |
| 4.7 | ✓ | YES | — | — |
| 4.8 | ✓ | YES | — | — |
| 4.9 | ✓ | YES | — | — |
| 4.10 | ✓ | YES | — | — |
| 4.11 | ✓ | YES | — | — |
| 4.12 | ✓ | YES | — | — |
| 4.13 | ✓ | YES | — | — |
| 4.14 | ✓ | YES | — | — |
| 4.15 | ✓ | YES | — | — |

| | | | | |
|------|---|-----|---|---|
| 4.16 | ✓ | YES | — | — |
| 4.17 | ✓ | YES | — | — |

Signed *Peter J. Quigley* Design Team Leader
Date *23/7/2019*

Safety Audit Signed off *George Smith* Audit Team Leader
Date *24/7/2019*

Please complete and return to: Roadplan Consulting Ltd.
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Kilkenny
Email: info@roadplan.ie