

NOTES:
 ALL WORKS WILL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE IRISH WATER (IW) CODE OF PRACTICE (COP) FOR WASTEWATER INFRASTRUCTURE IW-CDS-5030-03 AND IRISH WATER STANDARD DETAILS IW-CDS-5030-01.

THE CONTRACTOR SHALL ENSURE IRISH WATER CONNECTION DETAILS ARE ADHERED TO. REFER TO STANDARD DETAILS AVAILABLE FROM <https://www.water.ie/connections/developer-services/>

INDIVIDUAL WASTEWATER SERVICE CONNECTIONS TO EACH DWELLING ARE SHOWN INDICATIVELY. FINAL DESIGN WILL BE CONFIRMED WITH M&E DESIGNER AND SHALL BE AS PER STANDARD DETAILS STD-WW-02, STD-WW-03, STD-WW-04 AND STD-WW-05 & 05A.

INDIVIDUAL STORM SEWER CONNECTIONS TO EACH DWELLING ARE SHOWN INDICATIVELY. FINAL LOCATIONS TO BE CONFIRMED WITH M&E DESIGNER.

AS PER THE BUILDING REGULATIONS TECHNICAL GUIDANCE DOCUMENT - PART H AND IRISH WATER CODE OF PRACTICE, FOUL SERVICE CONNECTIONS TO BE LAID AT MINIMUM 1:40 WHERE NO WC IS CONNECTED AND MINIMUM 1:60 ONCE WC HAS BEEN PICKED UP. CONTRACTOR TO WORK WITHIN ABOVE GRADIENT LIMITS WHILE ENSURING THE REQUIRED SEPARATION DISTANCES ARE ACHIEVED.

ALL STORM SERVICE CONNECTIONS TO BE LAID AT MINIMUM 1:80 GRADE.

INSPECTION CHAMBERS SHALL BE IN COMPLIANCE WITH STANDARD DETAILS STD-WW-03 AND STD-WW-13 AND WILL BE LOCATED WITHIN 1.0m OF EACH PROPERTY BOUNDARY.

GRAVITY SEWER PIPE MATERIALS USED SHALL BE IN COMPLIANCE WITH SECTION 3.13 OF THE CODE OF PRACTICE. UNPLASTICISED PVC PIPES AND FITTINGS SHALL BE OF STIFFNESS CLASS OF 8kN/m².

PIPE MATERIALS WILL BE UNPLASTICISED PVC (WAVSPEC SN8 OR SIMILAR) FOR THE MAIN SEWERS AS PER SECTION 3.13.3 OF THE CODE OF PRACTICE. MANHOLES ARE REQUIRED TO CONFORM TO STANDARD DETAILS STD-WW-09, STD-WW-10, STD-WW-11 AND/OR STD-WW-12 AS APPROPRIATE.

SEPARATION DISTANCES OF FOUL SEWERS TO STRUCTURES AND OTHER UTILITIES WILL COMPLY WITH SECTION 3.5 OF THE CODE OF PRACTICE. REFER TO SECTIONS 3.5.16, 3.5.17 AND 3.5.18 OF THE WASTEWATER CODE OF PRACTICE FOR UNAVOIDABLE SERVICE CROSSINGS.

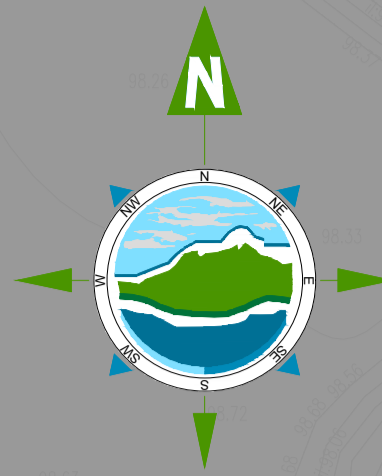
REFER TO STANDARD DETAILS STD-WW-06, STD-WW-06A AND STD-W-12A AND SECTION 3.21 OF THE CODE OF PRACTICE FOR PLANTING RESTRICTIONS TO WATER AND WASTE WATER INFRASTRUCTURE. IF REQUIRED, ROOT PROTECTION TO BE ReRoot 2000 OR SIMILAR.

MANHOLE COVERS SHALL BE SET IN POSITION FLUSH WITH FINISHED GROUND SURFACE, WHETHER ROAD, PAVEMENT OR OPEN GROUND.

REFER TO SECTION 3.5.14 OF THE IW COP FOR GUIDANCE ON STAGGERING OF FOUL AND STORM MANHOLES.

ALL STORM SEWER AND FOUL SEWER PIPES TO BE LAID WITH MINIMUM 1200mm COVER TO CROWN OF PIPES IN ROADS AND DRIVEWAYS AND MINIMUM 900mm COVER IN OPEN SPACES & FOOTPATHS NOT ADJACENT TO CARRIAGEWAYS. WHERE IT IS NOT POSSIBLE TO ACHIEVE THESE MINIMUM COVER DEPTHS, PIPES SHALL BE BEDDED AND ENCASED IN CONCRETE 150mm THICK.

AS PER SECTION 3.5.16 OF THE CODE OF PRACTICE, EXTERNAL FACE OF PROPOSED MANHOLE TO BE MINIMUM 0.5m FROM KERB LINE AND EXTERNAL FACE OF SEWERS TO BE A MINIMUM OF 1.0m FROM KERB LINE.

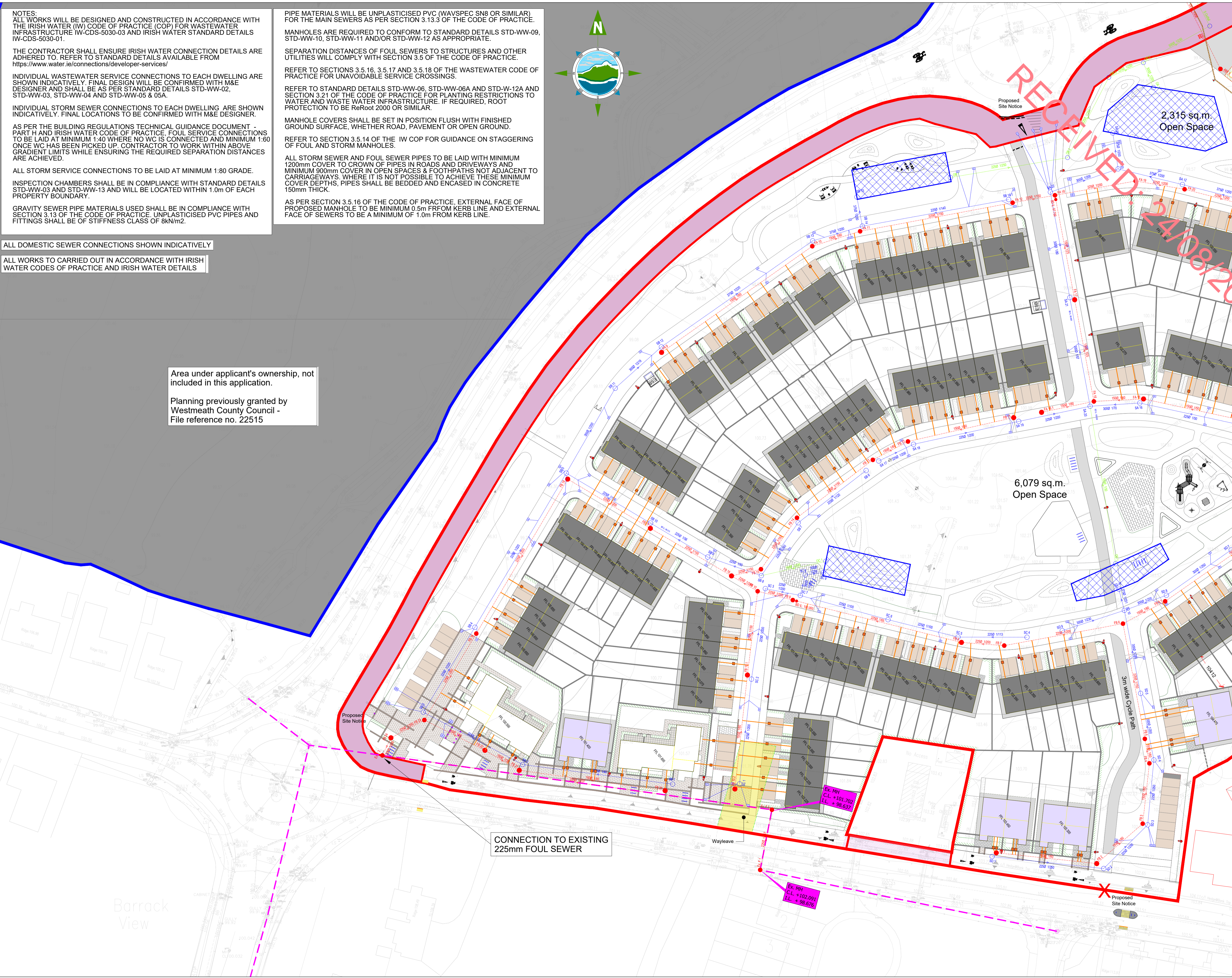


ALL DOMESTIC SEWER CONNECTIONS SHOWN INDICATIVELY

ALL WORKS TO CARRIED OUT IN ACCORDANCE WITH IRISH WATER CODES OF PRACTICE AND IRISH WATER DETAILS

Area under applicant's ownership, not included in this application.

Planning previously granted by Westmeath County Council - File reference no. 22515



THE INFORMATION ON THIS DRAWING IS TO THE ORDNANCE SURVEY IRELAND ITM COORDINATE SYSTEM

LEGEND:

- Site Boundary
- Existing Ø225mm uPVC Foul Sewer
- Proposed Foul Sewer
- Proposed Storm Network
- Proposed Overflow Sewer & Manhole
- Proposed Ø100mm HDPE Rising Main
- Proposed Soakaway Unit
- Proposed Gullys
- Proposed Domestic Connection and Inspection Chamber as per STD-WW-03/STD-WW-13

- NOTES:**
1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING.
 2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE.
 3. ENGINEER/EMPLOYERS REPRESENTATIVE, AS APPROPRIATE, TO BE INFORMED BY THE CONTRACTOR OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES.
 4. THE CONTRACTOR SHALL UNDERTAKE A THOROUGH CHECK FOR THE ACTUAL LOCATION OF ALL SERVICES/UTILITIES ABOVE AND BELOW GROUND, BEFORE ANY WORK COMMENCES.
 5. ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD.

Rev	Date	Description	By	Chkd.
P01	11.08.2023	Issued For Planning	MN	RB

Client: Marina Quarter Ltd.

Project: Residential Development at Rathgowan, Mullingar.

Title: Proposed Drainage Layout Sheet 1 of 2

Scale @ A1: 1:500 / @A3 1:1000

Prepared by: MN Checked by: RB Date: August 2023

Drawing Status: Planning

TOBIN
 CONSULTING ENGINEERS

Tel: +353 (0)91 565 211
 Email: info@tobin.ie
 www.tobin.ie

Drawing No.: 10906-2503 Revision: P01

Area under applicant's ownership, not included in this application.

Planning previously granted by Westmeath County Council - File reference no. 22515

Attenuation B:
IL: 96.51m
Volume: 276m³ @ 95% Voids
1.2m Depth

Hydrobrake Discharge Rate 6 l/s

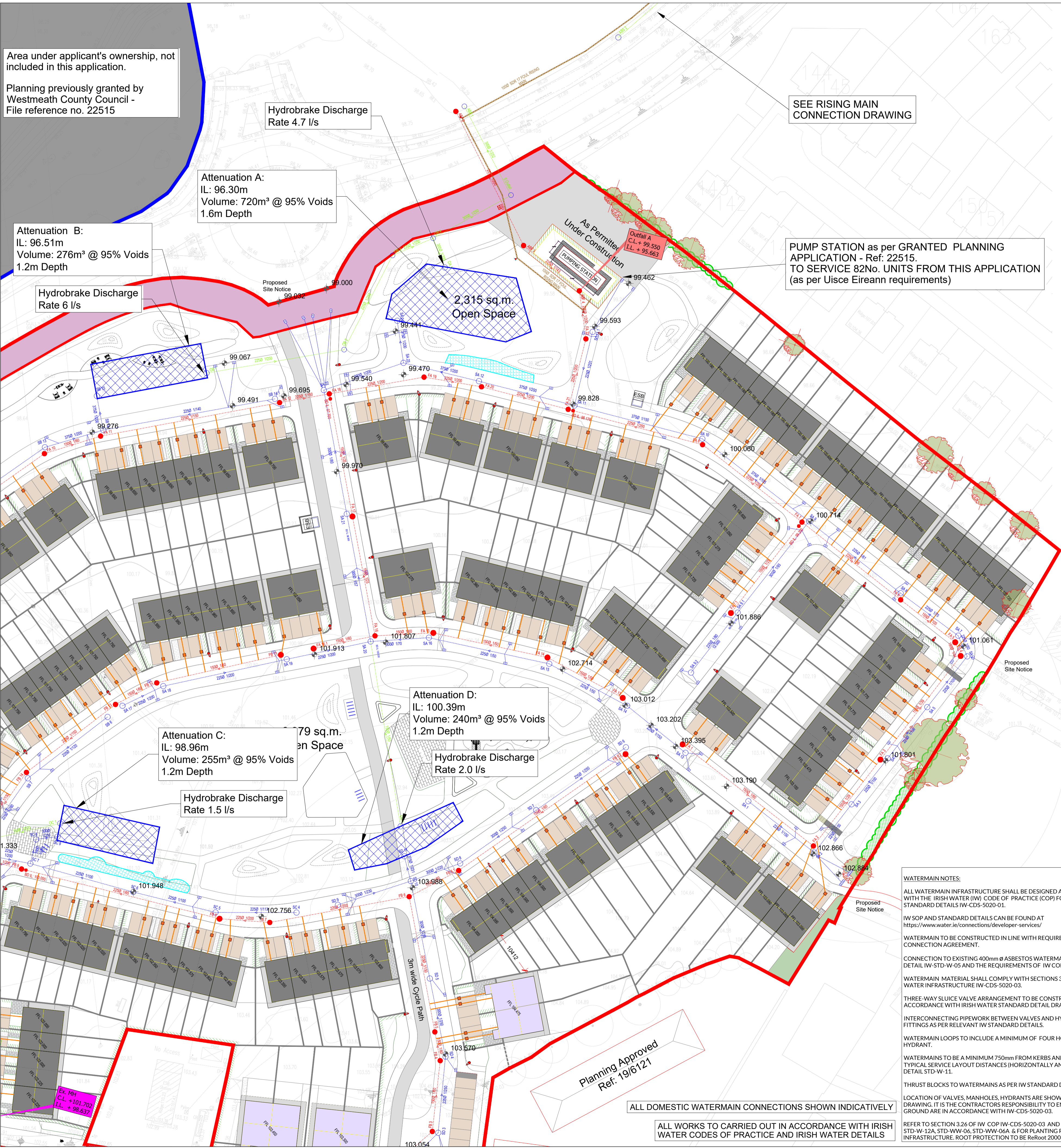
Attenuation A:
IL: 96.30m
Volume: 720m³ @ 95% Voids
1.6m Depth

Hydrobrake Discharge Rate 4.7 l/s

2,315 sq.m. Open Space

SEE RISING MAIN CONNECTION DRAWING

PUMP STATION as per GRANTED PLANNING APPLICATION - Ref: 22515. TO SERVICE 82No. UNITS FROM THIS APPLICATION (as per Uisce Eireann requirements)



Attenuation C:
IL: 98.96m
Volume: 255m³ @ 95% Voids
1.2m Depth

Hydrobrake Discharge Rate 1.5 l/s

79 sq.m. Open Space

Attenuation D:
IL: 100.39m
Volume: 240m³ @ 95% Voids
1.2m Depth

Hydrobrake Discharge Rate 2.0 l/s

Planning Approved Ref: 19/6/21

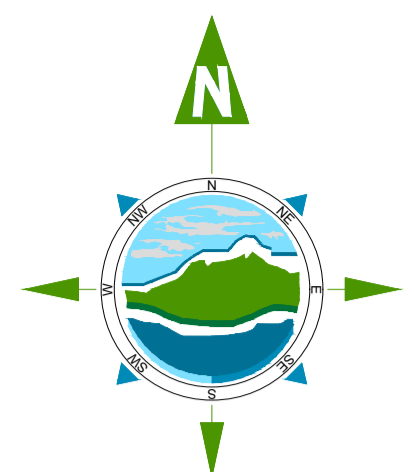
ALL DOMESTIC WATERMAIN CONNECTIONS SHOWN INDICATIVELY

ALL WORKS TO CARRIED OUT IN ACCORDANCE WITH IRISH WATER CODES OF PRACTICE AND IRISH WATER DETAILS

WATERMAIN NOTES:
ALL WATERMAIN INFRASTRUCTURE SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE IRISH WATER (IW) CODE OF PRACTICE (COP) FOR WATER IW-CDS-5020-03 AND STANDARD DETAILS IW-CDS-5020-01.
IW SOP AND STANDARD DETAILS CAN BE FOUND AT https://www.water.ie/connections/developer-services/
WATERMAIN TO BE CONSTRUCTED IN LINE WITH REQUIREMENTS OF IRISH WATER CONNECTION AGREEMENT.
CONNECTION TO EXISTING 400mm Ø ASBESTOS WATERMAIN TO COMPLY WITH STANDARD DETAIL IW-STD-W-05 AND THE REQUIREMENTS OF IW COP IW-CDS-5020-01.
WATERMAIN MATERIAL SHALL COMPLY WITH SECTIONS 3.3 AND 3.9 OF IRISH WATER COP FOR WATER INFRASTRUCTURE IW-CDS-5020-03.
THREE-WAY SLUICE VALVE ARRANGEMENT TO BE CONSTRUCTED WITH DUCTILE IRON AND IN ACCORDANCE WITH IRISH WATER STANDARD DETAIL DRAWINGS STD-W-04 TO STD-W-10.
INTERCONNECTING PIPEWORK BETWEEN VALVES AND HYDRANTS TO BE DUCTILE IRON FITTINGS AS PER RELEVANT IW STANDARD DETAILS.
WATERMAIN LOOPS TO INCLUDE A MINIMUM OF FOUR HOUSE CONNECTIONS AND A FIRE HYDRANT.
WATERMANS TO BE A MINIMUM 750mm FROM KERBS AND 300mm FROM ANY OTHER SERVICE. TYPICAL SERVICE LAYOUT DISTANCES (HORIZONTALLY AND VERTICALLY) AS PER STANDARD DETAIL STD-W-11.
THRUST BLOCKS TO WATERMANS AS PER IW STANDARD DETAIL DRAWING STD-W-28.
LOCATION OF VALVES, MANHOLES, HYDRANTS ARE SHOWN INDICATIVE ONLY ON THIS DRAWING. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE POSITIONS ON THE GROUND ARE IN ACCORDANCE WITH IW-CDS-5020-03.
REFER TO SECTION 3.26 OF IW COP IW-CDS-5020-03 AND IW STANDARD DRAWINGS STD-W-12, STD-W-12A, STD-W-06, STD-W-06A & FOR PLANTING RESTRICTIONS NEAR WATER INFRASTRUCTURE. ROOT PROTECTION TO BE RR-Root 2000 OR SIMILAR.

ALL WATERMANS TO BE A MINIMUM OF 3.0m FROM SMALL SIZED AMENITY TREES AND 6.0m FROM DECIDUOUS TREES (STD-W-12A).
ALL WATERMANS TO BE KEPT 1.5m TO 2.0m FROM TREES WITH ROOT PROTECTION. TREES TO BE NO GREATER THAN MEDIUM SIZE E.G. ASH, HOLLY, WHITEBEAM OR SIMILAR.
VALVE AND CHAMBER COVERS LOCATED IN GRASSED AREAS TO HAVE 200mm ALL ROUND CONCRETE PLINTH AND 100mm DEEP FORMED WITH C20/25 CONCRETE, 20mm AGGREGATE, BEDDED IN CLAUSE 804 MATERIAL. THE PLINTH SHALL BE COMPLETE WITH BULL-NOSED FINISH TO ITS PERIMETER AND BE PROVIDED WITH A MILD STEEL REINFORCEMENT LINK.
SCOUR VALVES TO BE LOCATED AT LOW POINTS. A NON-RETURN VALVE IS REQUIRED AT SCOUR VALVE LOCATIONS TO PREVENT BACKFLOW TO THE WATER SUPPLY NETWORK SYSTEM AND CONNECTION TO BE AGREED WITH THE LOCAL AUTHORITY. REFER TO SECTION 3.16.4 AND 3.21 OF THE IW COP FOR WATER INFRASTRUCTURE.
SCOUR VALVES TO HAVE SCOUR CHAMBERS AS PER IRISH WATER STANDARD DRAWING STD-W-30. IF A CONNECTION TO A SW MANHOLE IS NOT FEASIBLE, A CONNECTION TO A WASHOUT HYDRANT IN ACCORDANCE WITH STANDARD DETAILS STD-W-30A IS REQUIRED.
SCOUR VALVE ON AN OFFLINE PIPES TO BE AGREED BY LOCAL AUTHORITY. REFER TO SECTIONS 3.16.4 AND 3.21 OF IW COP.
VALVES, CHAMBERS AND HYDRANTS TO COMPLY WITH SECTION 3.18 OF THE IW COP FOR WATER INFRASTRUCTURE. WHERE PROVIDED IN GRASSED AREAS SHALL BE SURROUNDED BY CONCRETE PLINTH, 200mm ALL ROUND AND 100mm DEEP FORMED WITH C20/25 CONCRETE, 20mm AGGREGATE SIZE, BEDDED IN CLAUSE 804 MATERIAL. THE PLINTH SHALL INCORPORATE MILD STEEL REINFORCEMENT LINKS ALL AROUND AND SHALL HAVE BULL NOSE FINISH AROUND ITS EXTERNAL PERIMETER.
FOR WATERMAIN CONNECTIONS TO DWELLINGS, REFER TO M&E DRAWING DETAILING "POP-UP" LOCATIONS. ALL WATERMANS CONNECTIONS TO BE INSTALLED AS PER IRISH WATER COP IW-CDS-5030-03.
WATERMAIN HOUSE CONNECTIONS TO COMPLY WITH SECTIONS 3.7 & 3.15 OF THE IW COP AND STANDARD DETAIL DRAWING STD-W-03 AND STD-W-26.
BOUNDARY BOX AND INDIVIDUAL HOUSE WATERMAIN CONNECTION LOCATIONS SHOWN INDICATIVELY. FOR POP-UP LOCATIONS REFER TO M&E DRAWINGS.
PIPE MATERIALS SHALL BE HDPE OR MDPE IN ACCORDANCE WITH IW COP.

RECEIVED: 24/08/2023



THE INFORMATION ON THIS DRAWING IS TO THE ORDNANCE SURVEY IRELAND ITM COORDINATE SYSTEM

- LEGEND:
- Site Boundary
- Existing Ø225mm uPVC Foul Sewer
- Proposed Foul Sewer
- Proposed Storm Network
- Proposed Overflow Sewer & Manhole
- Proposed Ø100mm HDPE Rising Main
- Proposed Soakaway Unit
- Proposed Gullies
- Proposed Domestic Connection and Inspection Chamber as per STD-WW-03/STD-WW-13

- NOTES:
1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING.
2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE.
3. ENGINEER/EMPLOYERS REPRESENTATIVE, AS APPROPRIATE, TO BE INFORMED BY THE CONTRACTOR OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES.
4. THE CONTRACTOR SHALL UNDERTAKE A THOROUGH CHECK FOR THE ACTUAL LOCATION OF ALL SERVICES/UTILITIES, ABOVE AND BELOW GROUND, BEFORE ANY WORK COMMENCES.
5. ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD.

Revision table with columns: Rev, Date, Description, By, Chkd. Includes entry P01 11.08.2023 Issued For Planning MN RB.

Client: Marina Quarter Ltd.

Project: Residential Development at Rathgowan, Mullingar.

Title: Proposed Drainage Layout Sheet 2 of 2

Scale @ A1: 1:500 / @A3 1:1000

Prepared by: MN Checked by: RB Date: August 2023

Drawing Status: Planning

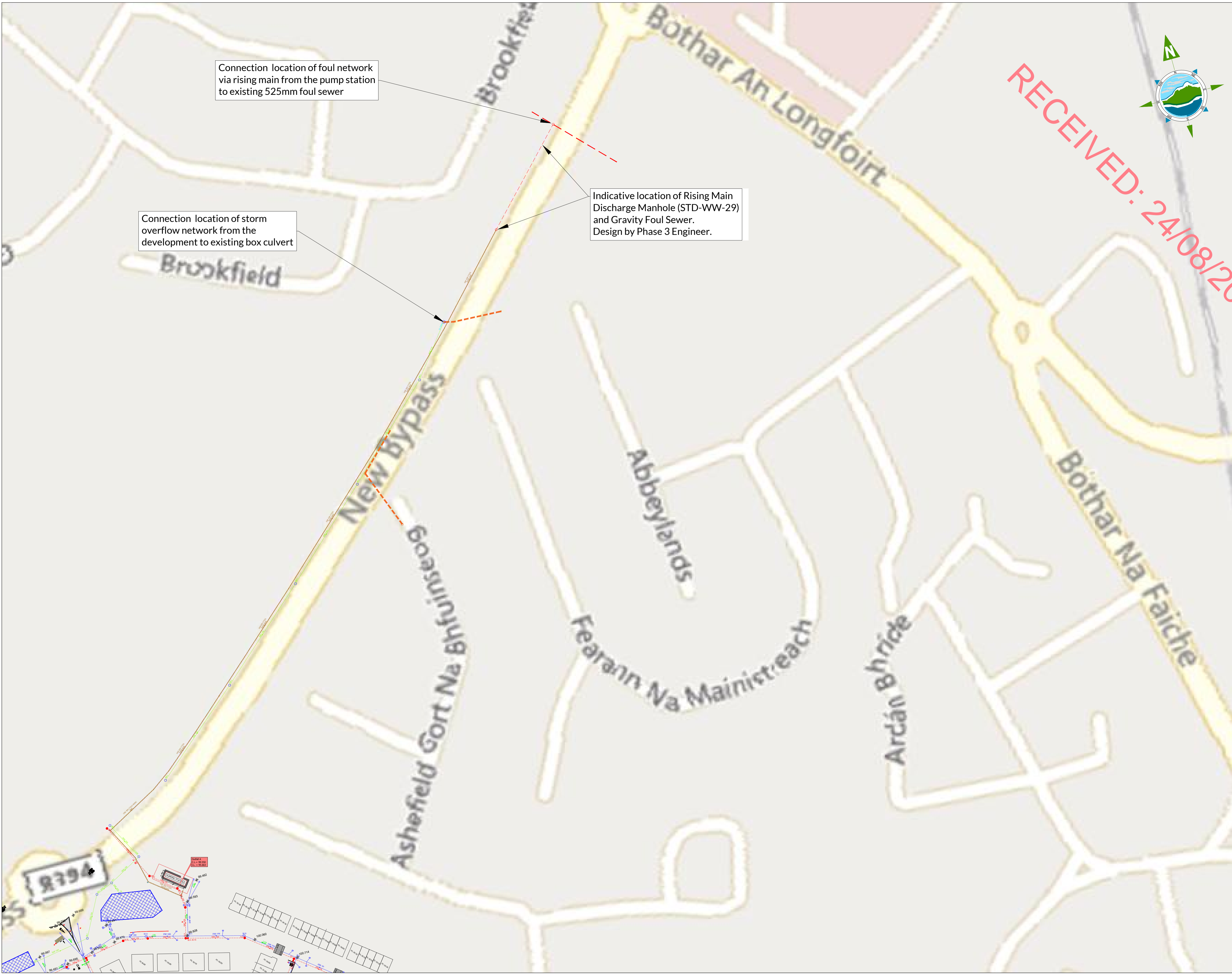


Drawing No.: 10906-2504 Revision: P01

THE INFORMATION ON THIS DRAWING IS TO THE ORDNANCE SURVEY IRELAND ITM COORDINATE SYSTEM



RECEIVED: 24/08/2023



Connection location of foul network via rising main from the pump station to existing 525mm foul sewer

Connection location of storm overflow network from the development to existing box culvert

Indicative location of Rising Main Discharge Manhole (STD-WW-29) and Gravity Foul Sewer. Design by Phase 3 Engineer.

- LEGEND:**
- Site Boundary
 - Proposed Foul Sewer & Manhole
 - Proposed Storm Sewer & Manhole
 - Proposed Overflow Sewer & Manhole
 - Proposed Soakaway
 - Proposed Ø100mm HDPE Rising Main
 - ▶ Proposed Rising Main Thrust Blocks
 - ▲ PROPOSED 5.30 m Proposed Road Levels
 - Proposed Road Gully & Ø100mm Connection
 - Existing Irish Water Ø525mm Network
 - Existing Storm Network

- NOTES:**
1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING.
 2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE.
 3. ENGINEER/EMPLOYERS REPRESENTATIVE, AS APPROPRIATE, TO BE INFORMED BY THE CONTRACTOR OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES.
 4. THE CONTRACTOR SHALL UNDERTAKE A THOROUGH CHECK FOR THE ACTUAL LOCATION OF ALL SERVICES/UTILITIES, ABOVE AND BELOW GROUND, BEFORE ANY WORK COMMENCES.
 5. ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD.

Rev	Date	Description	By	Chkd.
P01	11.08.2023	Issued For Planning	MN	RB

Client: **Marina Quarter Ltd.**

Project: **Residential Development at Rathgowan, Mullingar.**

Title: **Proposed Rising Main and Storm Overflow Connection**

Scale @ A1: 1:500 / @A3 1:1000

Prepared by: MN	Checked by: RB	Date: August 2023
--------------------	-------------------	----------------------

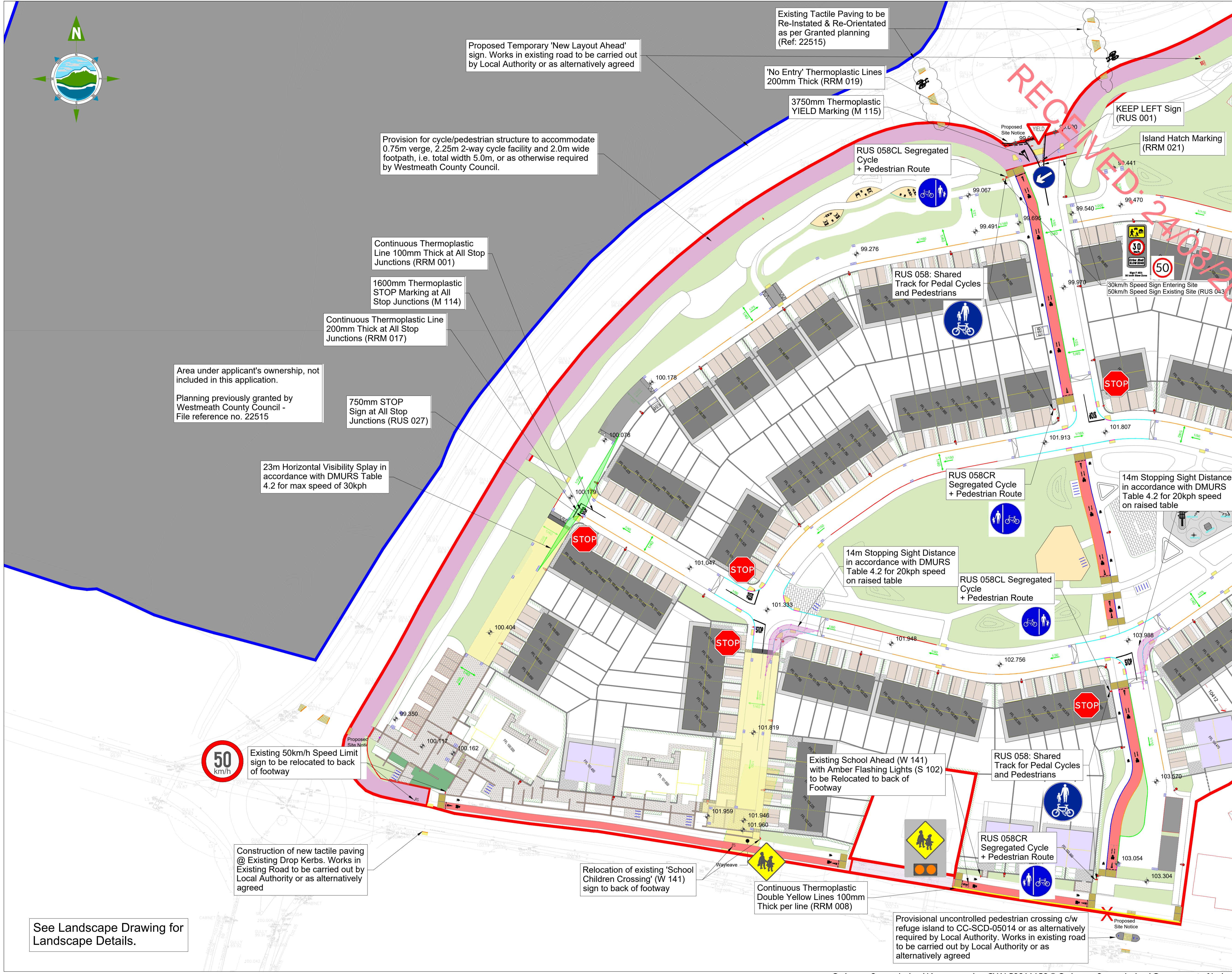
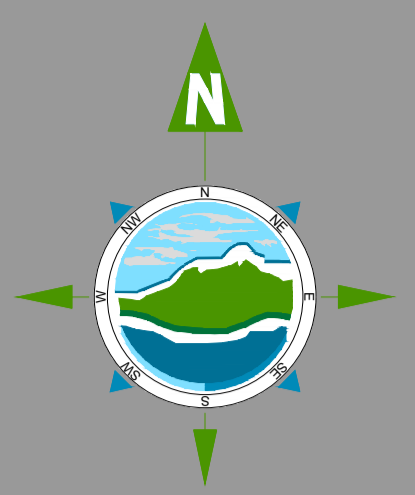
Drawing Status: **Planning**

TOBIN

CONSULTING ENGINEERS

Tel: +353 (0)91 565 211
Email: info@tobin.ie
www.tobin.ie

Drawing No.: 10906-2505	Revision: P01
-----------------------------------	-------------------------



THE INFORMATION ON THIS DRAWING IS TO THE ORDNANCE SURVEY IRELAND ITM COORDINATE SYSTEM

- LEGEND:**
- Site Boundary
 - Shared Surface & Ladder Tactile Paving
 - Direction of Road Fall and Gradient
 - Tactile Paving
 - 25mm Dropped Kerb
 - Drainage Kerb
 - Traffic Sign & Post as per Traffic Sign Manual - Chapter 7
 - Proposed Road Level
 - Proposed Road Gully
 - Reservation for 2 way cycle path for development by local authority if required in the future
 - 75mm Kerb Separating Cycle Track from Carriageway as per National Cycle Manual Section 5.6
 - 50mm Bevelled Kerb Separating Cycle Track from Pedestrian Path as per National Cycle Manual Section 5.6
 - 50mm Standard Kerb
 - 0-6mm Dropped Kerb
 - Raised Junction

- NOTES:**
1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING
 2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE
 3. ENGINEER/EMPLOYERS REPRESENTATIVE, AS APPROPRIATE, TO BE INFORMED BY THE CONTRACTOR OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES
 4. THE CONTRACTOR SHALL UNDERTAKE A THOROUGH CHECK FOR THE ACTUAL LOCATION OF ALL SERVICES/UTILITIES, ABOVE AND BELOW GROUND, BEFORE ANY WORK COMMENCES
 5. ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD.

Rev	Date	Description	By	Chkd.
P01	11.08.2023	Issued For Planning	NG	RB

Client: **Marina Quarter Ltd.**

Project: **Residential Development at Rathgowan, Mullingar.**

Title: **Proposed Road Layout Sheet 1 of 2**

Scale @ A1: 1:500 / @A3 1:1000

Prepared by: NG Checked by: RB Date: August 2023

Drawing Status: Planning



Drawing No.: **10906-2506** Revision: **P01**

See Landscape Drawing for Landscape Details.