



Robert Walpole
Waterman Moylan
Block S
Eastpoint Business Park
Alfie Byrne Road
East Wall
Dublin 3
D03H3F4

Uisce Éireann
Bosca OP 448
Oifig Sheachadta na
Cathrach Theas
Cathair Chorcaí

Irish Water
PO Box 448,
South City
Delivery Office,
Cork City.

www.water.ie

18 January 2023

**Re: Design Submission for Clonburris, Adamstown, Lucan, Dublin (the “Development”)
(the “Design Submission”) / Connection Reference No: CDS22008208**

Dear Robert Walpole,

Many thanks for your recent Design Submission.

We have reviewed your proposal for the connection(s) at the Development. Based on the information provided, which included the documents outlined in Appendix A to this letter, Irish Water has no objection to your proposals.

This letter does not constitute an offer, in whole or in part, to provide a connection to any Irish Water infrastructure. Before you can connect to our network you must sign a connection agreement with Irish Water. This can be applied for by completing the connection application form at www.water.ie/connections. Irish Water’s current charges for water and wastewater connections are set out in the Water Charges Plan as approved by the Commission for Regulation of Utilities (CRU)(https://www.cru.ie/document_group/irish-waters-water-charges-plan-2018/).

You the Customer (including any designers/contractors or other related parties appointed by you) is entirely responsible for the design and construction of all water and/or wastewater infrastructure within the Development which is necessary to facilitate connection(s) from the boundary of the Development to Irish Water’s network(s) (the “**Self-Lay Works**”), as reflected in your Design Submission. Acceptance of the Design Submission by Irish Water does not, in any way, render Irish Water liable for any elements of the design and/or construction of the Self-Lay Works.

If you have any further questions, please contact your Irish Water representative:

Name: Antonio Garzón

Email: antonio.garzon@water.ie

Yours sincerely,

Yvonne Harris
Head of Customer Operations

Appendix A

Document Title & Revision

- 21-055-P1200A Drainage General Arrangement
- 21-055-P1201A Drainage Layout Sheet 1 of 2
- 21-055-P1202A Drainage Layout Sheet 2 of 2
- 21-055-P1210A Foul Sewer Longitudinal Sections Sheet 1
- 21-055-P1301 Watermain Layout Sheet 1 of 2
- 21-055-P1302 Watermain Layout Sheet 2 of 2

Additional Comments

The design submission will be subject to further technical review at connection application stage.

Irish Water cannot guarantee that its Network in any location will have the capacity to deliver a particular flow rate and associated residual pressure to meet the requirements of the relevant Fire Authority, see Section 1.17 of Water Code of Practice.

For further information, visit www.water.ie/connections

Notwithstanding any matters listed above, the Customer (including any appointed designers/contractors, etc.) is entirely responsible for the design and construction of the Self-Lay Works. Acceptance of the Design Submission by Irish Water will not, in any way, render Irish Water liable for any elements of the design and/or construction of the Self-Lay Works.



NOTE:
ALL INDIVIDUAL PRIVATE FOUL WATER DRAINS TO BE 100MM PIPES, MIN AT 1/80, MAX AT 1/30.
ALL PRIVATE SURFACE WATER DRAINS TO BE 150MM PIPES.
ALL COLLECTOR FOUL WATER DRAINS TO BE 150MM PIPES.

NOTE:
PIPE MATERIAL SPECIFICATION AS PER NOTES ON GENERAL ARRANGEMENT DRAWING NO. P1200.

- LEGEND**
- EX XXXX @ 1/XXX ○ EX/SX EXISTING SURFACE WATER SEWER CL, X WITH PIPE SIZE, GRADE, MANHOLE I, X, REF. AND INVERT LEVEL.
 - EX XXXX @ 1/XXX ● EX/SX EXISTING FOUL WATER SEWER WITH PIPE SIZE, GRADE, MANHOLE REF. AND INVERT LEVEL.
 - XXXX @ 1/XXX ○ FX PROPOSED FOUL WATER SEWER CL, X WITH PIPE SIZE, GRADE, MANHOLE I, X, REF. AND INVERT LEVEL.
 - XXXX @ 1/XXX ● FX PROPOSED SURFACE WATER SEWER CL, X WITH PIPE SIZE, GRADE, MANHOLE I, X, REF. AND INVERT LEVEL.
 - PROPOSED INSPECTION CHAMBER
 - XXXX @ 1/XXX ○ SX PROPOSED GULLY AND 150MM GULLY PIPE DOUBLE GULLY AT LOW POINTS
 - PERMEABLE PAVING
 - PROPOSED GREEN ROOF MIN 60% COVERAGE

5 December 2022
-- DRAFT --
Nick Strain

Attenuation Area 1
Pond
Permanent water depth: 0.5m
Active storage depth: 1.5m
TW: 56.704
PWS: 55.704
E: 55.104
Vol: 4.830m³

SEWER TO BE PROTECTED WITH CONCRETE SURROUND IN ACCORDANCE WITH SECTION 3.3 OF IRISH WATER WMP

SEWER TO BE PROTECTED WITH CONCRETE SURROUND IN ACCORDANCE WITH SECTION 3.3 OF IRISH WATER WMP

APARTMENT BLOCKS TO DRAIN TO ADJACENT FOUL VIA INTERNAL DRAINAGE FROM CAR PARK INTERNAL DRAINAGE TO BE DESIGNED AT DETAIL DESIGN STAGE

APPROXIMATE LOCATION OF PROPOSED HEADWALL IS 55.805

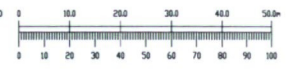
NOTES:
DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.
THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECTURAL AND ENGINEERING DRAWINGS.
ALL PROPOSED PUBLIC STORM WATER DRAINAGE WORKS TO BE IN ACCORDANCE WITH FINGLA COUNTY COUNCIL'S REQUIREMENTS FOR TANKING IN CHARGE AND IN ACCORDANCE WITH THE GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS.
ALL PROPOSED PUBLIC FOUL WATER DRAINAGE WORKS TO BE IN ACCORDANCE WITH IRISH WATER REQUIREMENTS.
ALL PRIVATE DRAINAGE WORKS SHALL BE IN ACCORDANCE WITH THE BUILDING REGULATIONS PART H.
ALL COVER LEVELS ARE INDICATIVE ONLY AND SHOULD BE SET TO SUIT THE FINISHED ROAD OR PRIVATE LEVELS IN REAR GARDENS HAVE BEEN ASSUMED AS STRAIGHT GRADE TO ADJACENT BOUNDARY FROM FTL - 150mm. EXTERNAL LEVELS TO BE CONFIRMED BY ARCHITECT

GRAVITY SEWER PIPE MATERIAL TYPES
WASTEWATER PIPE MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 3.13 OF THE IRISH WATER CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE.
THE TYPES AND FITTINGS OUTLINED HEREIN SHALL BE USED IN THE CONSTRUCTION OF THE GRAVITY SEWERS. PIPE MATERIAL SHOULD NOT CHANGE BETWEEN MANHOLES. THE LIST BELOW DOES NOT APPLY TO PIPES INSTALLED BY PIPE JACKING OR MICRO TUNNELLING.
CONCRETE: CONCRETE SEWER PIPES WITH SPIGOT AND SOCKET JOINTS AND RUBBER RING FITTINGS SHALL COMPLY WITH IS EN 1916 (2002), BS 5911, PART 1 (2002-2010) AND IS 6 (2004) OR EQUIVALENT STANDARD, STRENGTH CLASS 120 WITH MINIMUM CRUSHING LOADS IN ACCORDANCE WITH TABLE 6 OF BS 5911-1 (2002/2010).
ALL PIPES AND FITTINGS SHALL HAVE GASKET JOINT TYPES OF SPIGOT AND SOCKET OR REBATE FORM (PIPE DIAMETERS 225MM AND ABOVE).
THERMOPLASTIC STRUCTURED WALL PIPES: THERMOPLASTIC STRUCTURED WALL PIPES SHALL COMPLY WITH THE PROVISIONS OF IS EN 13476 (2007/2009). PIPES TO BE OF STIFFNESS CLASS BKN/42 AND TO BE CAPABLE OF DEMONSTRATING A JETTING RESISTANCE OF 2,600 PSI (180 BAR) WITHOUT DAMAGE WHEN TESTED IN ACCORDANCE WITH SECTION 3.3 OF IWS 4-25-01 (2008). (SEWER DIAMETERS 150MM UP TO 450MM. SERVICE CONNECTIONS OF 100MM DIAMETER).
UNREINFORCED PVC: UNREINFORCED PVC PIPES AND FITTINGS SHALL COMPLY WITH THE PROVISIONS IS EN 1401 (2008/2012). PIPES TO BE APPLICATION AREA CODE 'U0', STIFFNESS CLASS BKN/42. PROVISION FOR JETTING SHALL BE BASED ON THE WRC SEWER JETTING CODE OF PRACTICE, JUNE 1997. PIPES TO BE CAPABLE OF RESISTING A MAXIMUM JETTING PUMP PRESSURE OF 2,600PSI (180 BAR) WITHOUT DAMAGE. (SEWER DIAMETERS 150MM UP TO 450MM. SERVICE CONNECTIONS OF 100MM DIAMETER).
OTHER: THE USE OF ALTERNATIVE PIPE TYPES AND MATERIALS WILL REQUIRE THE PRIOR WRITTEN AGREEMENT OF IRISH WATER.

WHERE 1.2m COVER TO FOUL WATER PIPE SOFFIT IS NOT ACHIEVABLE IN ROADWAYS, CONCRETE SURROUND SHALL BE PROVIDED IN ACCORDANCE WITH STD-WW-08 OF WASTEWATER INFRASTRUCTURE STANDARD DETAILS.

SERVICE LAYOUT DISTANCES:
HORIZONTAL AND VERTICAL SERVICE LAYOUT DISTANCES SHALL BE AS PER IRISH WATER STANDARD DETAIL STD-WW-05.
THE EXTERNAL FACE OF MANHOLES SHALL BE AT LEAST 0.5m FROM KERB LINE.

RESTRICTIONS ON PLANNING:
PLANTING ADJACENT TO WASTEWATER INFRASTRUCTURE SHALL BE IN COMPLIANCE WITH IRISH WATER STANDARD DETAILS STD-WW-06 AND STD-WW-06A.



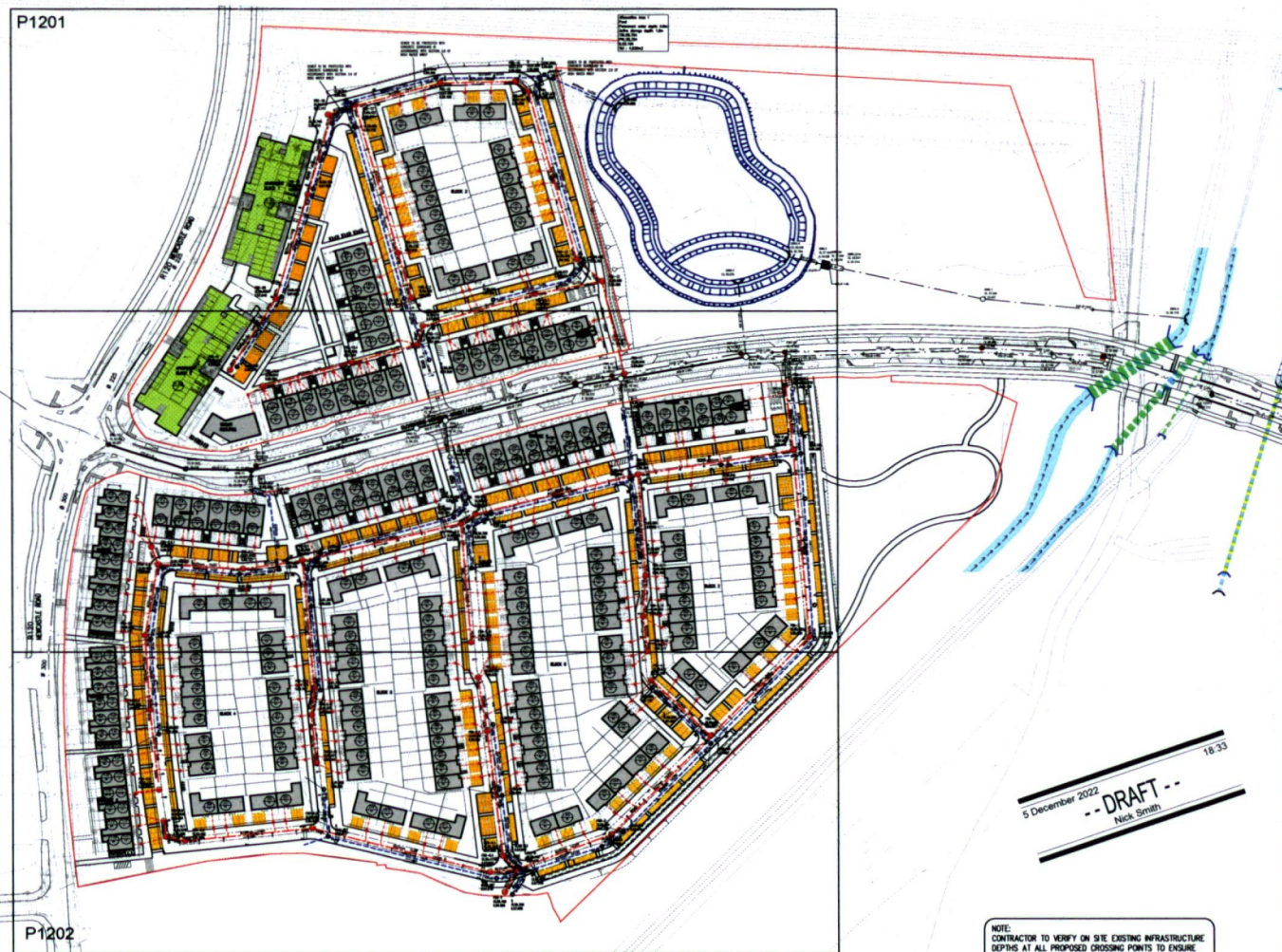
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A	REVISED TO SUIT COMMENTS FROM IRISH WATER	NS	RM
REV	DATE	AMENDMENT	DRN APP'D
STATUS: PLANNING			

Waterman Moylan
Engineering Consultants
BLOCK 8 BATHPOINT BUSINESS PARK, ALPHE BYRNE ROAD, DUBLIN D03 K7WY (IRELAND)
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Email: info@waterman-moylan.ie www.waterman-moylan.ie

CLIENT: **QUINTAIN**
ARCHITECT: **BKD ARCHITECTS**
PROJECT: **CLONBURRIS**

TITLE: DRAINAGE LAYOUT SHEET 1 OF 2			
DRAWN: MS	DESIGNED: RM	APPROVED: MD	DATE: NOV 2022
SCALE: 1:500 @ A1	JOB NO: 21-055	DRG NO: P1201	REVISION: A



- NOTES:
1. DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.
 2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECTURAL AND ENGINEERING DRAWINGS.
 3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL WORKS ARE CONSTRUCTED IN ACCORDANCE WITH THE IRISH WATER CODE OF PRACTICE AND STANDARD DETAILS. THE CODE OF PRACTICE AND STANDARD DETAILS ARE AVAILABLE TO DOWNLOAD FROM THE IRISH WATER WEBSITE AT WWW.WATER.ie/CONNECTIONS/DEVELOPER-SERVICES/ WHERE THE DETAILS CONTAINED ON THIS DRAWING DIFFER FROM THE IRISH WATER CODE OF PRACTICE OR STANDARD DETAILS THIS MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY. IRISH WATER STANDARDS WILL TAKE PRECEDENCE.

NOTES:

ALL PROPOSED PUBLIC STORM WATER DRAINAGE WORKS TO BE IN ACCORDANCE WITH FINCH COUNTY COUNCIL'S REQUIREMENTS FOR URBAN IN CHARGE AND IN ACCORDANCE WITH THE GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS.

ALL PROPOSED PUBLIC FOUL WATER DRAINAGE WORKS TO BE IN ACCORDANCE WITH IRISH WATER REQUIREMENTS.

ALL PRIVATE DRAINAGE WORKS SHALL BE IN ACCORDANCE WITH THE BUILDING REGULATIONS PART 8.

ALL COVER LEVELS ARE INDICATIVE ONLY AND SHOULD BE SET TO SUIT THE FINISHED ROAD OR PAVED LEVEL. LEVELS IN ROOF GARDENS HAVE BEEN ASSUMED AS SLOPES DOWN TO ADJACENT BOUNDARY FROM FFL - 150mm. EXISTING LEVELS TO BE CONFIRMED BY ARCHITECT.

GRAVEL UNDER PIPE MATERIAL TYPES

UNDERSTREET PIPE MANHOLES SHALL BE IN ACCORDANCE WITH SECTION 3.1.3 OF THE IRISH WATER CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE. THE TYPES AND FITTINGS OUTLINED HEREIN SHALL BE USED IN THE CONSTRUCTION OF THE COVERED SYSTEMS. PIPE MATERIAL SHOULD NOT CHANGE BETWEEN MANHOLES. THE LIST BELOW DOES NOT APPLY TO PIPES INSTALLED BY PIPE JACKING OR MICRO TUNNELLING.

CONCRETE CONCRETE SINKER PIPES WITH SPIGOT AND SOCKET JOINTS AND RUBBER RING FITTINGS SHALL COMPLY WITH 6 EN 1818 (2002), BS 5911, PART 1 (2002) - 2005 AND 6.1 (2006) OR EQUIVALENT STANDARD. STRENGTH CLASS 120 WITH MINIMUM CRACKING LOADS IN ACCORDANCE WITH TABLE 8 OF BS 5911-1 (2002/05).

ALL PIPES AND FITTINGS SHALL HAVE GASKET TYPE JOINTS OF SPIGOT AND SOCKET OR REBATED FORM (PIPE DIAMETERS 225mm AND ABOVE).

UNLAPLACED PVC UNLAPLACED PVC PIPES AND FITTINGS SHALL COMPLY WITH THE PROVISIONS 6 EN 1401 2006/2012. PIPES TO BE APPLICATION AREA CODE USE. STRENGTH CLASS 120mm PROVISION FOR FITTING SHALL BE BASED ON THE IBC SINKER JETTING CODE OF PRACTICE, JUNE 1987. PIPES TO BE CAPABLE OF WITHSTANDING A MINIMUM JETTING FORCE PROVISION OF 2.0MPa (200 TONS) WITHOUT DAMAGE. (COVER DIAMETERS 100mm UP TO 400mm. SERVICE CONNECTIONS OF 100mm DIAMETER).

UNLAPLACED PVC UNLAPLACED PVC PIPES AND FITTINGS SHALL COMPLY WITH THE PROVISIONS 6 EN 1401 2006/2012. PIPES TO BE APPLICATION AREA CODE USE. STRENGTH CLASS 120mm PROVISION FOR FITTING SHALL BE BASED ON THE IBC SINKER JETTING CODE OF PRACTICE, JUNE 1987. PIPES TO BE CAPABLE OF WITHSTANDING A MINIMUM JETTING FORCE PROVISION OF 2.0MPa (200 TONS) WITHOUT DAMAGE. (COVER DIAMETERS 100mm UP TO 400mm. SERVICE CONNECTIONS OF 100mm DIAMETER).

FOUL: THE USE OF ALTERNATIVE PIPE TYPES AND MATERIALS WILL REQUIRE THE PRIOR WRITTEN AGREEMENT OF IRISH WATER.

WHERE 1.5m COVER TO FOUL WATER PIPE SOFFIT IS NOT ACHIEVABLE IN ROADWAYS, CONCRETE SURROUNDS SHALL BE PROVIDED IN ACCORDANCE WITH 510-WH-08 OF WASTEWATER INFRASTRUCTURE STANDARD DETAILS.

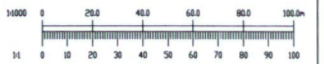
SERVICE LAYOUT DISTANCES

HORIZONTAL AND VERTICAL SERVICE LAYOUT DISTANCES SHALL BE AS PER IRISH WATER STANDARD DETAIL 510-WH-08.

THE EXTERNAL FACE OF MANHOLES SHALL BE AT LEAST 0.5m FROM KERB LINE.

RESTRICTIONS ON PLANNING

PLANNING ADJACENT TO WASTEWATER INFRASTRUCTURE SHALL BE IN COMPLIANCE WITH IRISH WATER STANDARD DETAIL 510-WH-08 AND 510-WH-09A.



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5 December 2022
 -- DRAFT --
 Nick Smith

NOTE:
 CONTRACTOR TO VERIFY ON SITE EXISTING INFRASTRUCTURE DEPTHS AT ALL PROPOSED CROSSING POINTS TO ENSURE SUITABLE INFRASTRUCTURE SEPARATION DISTANCES CAN BE ACHIEVED IN ACCORDANCE WITH IRISH WATER CODE OF PRACTICE AND STANDARD DETAIL REQUIREMENTS.

NOTE:
 1. CONTRACTOR TO ALLOW FOR 100mm DIAMETER UPVC DRAINS BETWEEN PROPERTY AIS AND STORM/FOUL COLLECTOR DRAINS. MINIMUM FALL 1:40 BETWEEN AIS AND COLLECTOR DRAIN. 2. 100mm FILTER DRAIN AND FREE DRAINING STONE TO BE ALLOWED FOR AT ALL BOUNDARY RETAINING WALLS. ALLOW 1 CHAMBER PER 25m OF FILTER DRAIN AND CONNECTION LENGTH TO NEAREST STORM NETWORK.

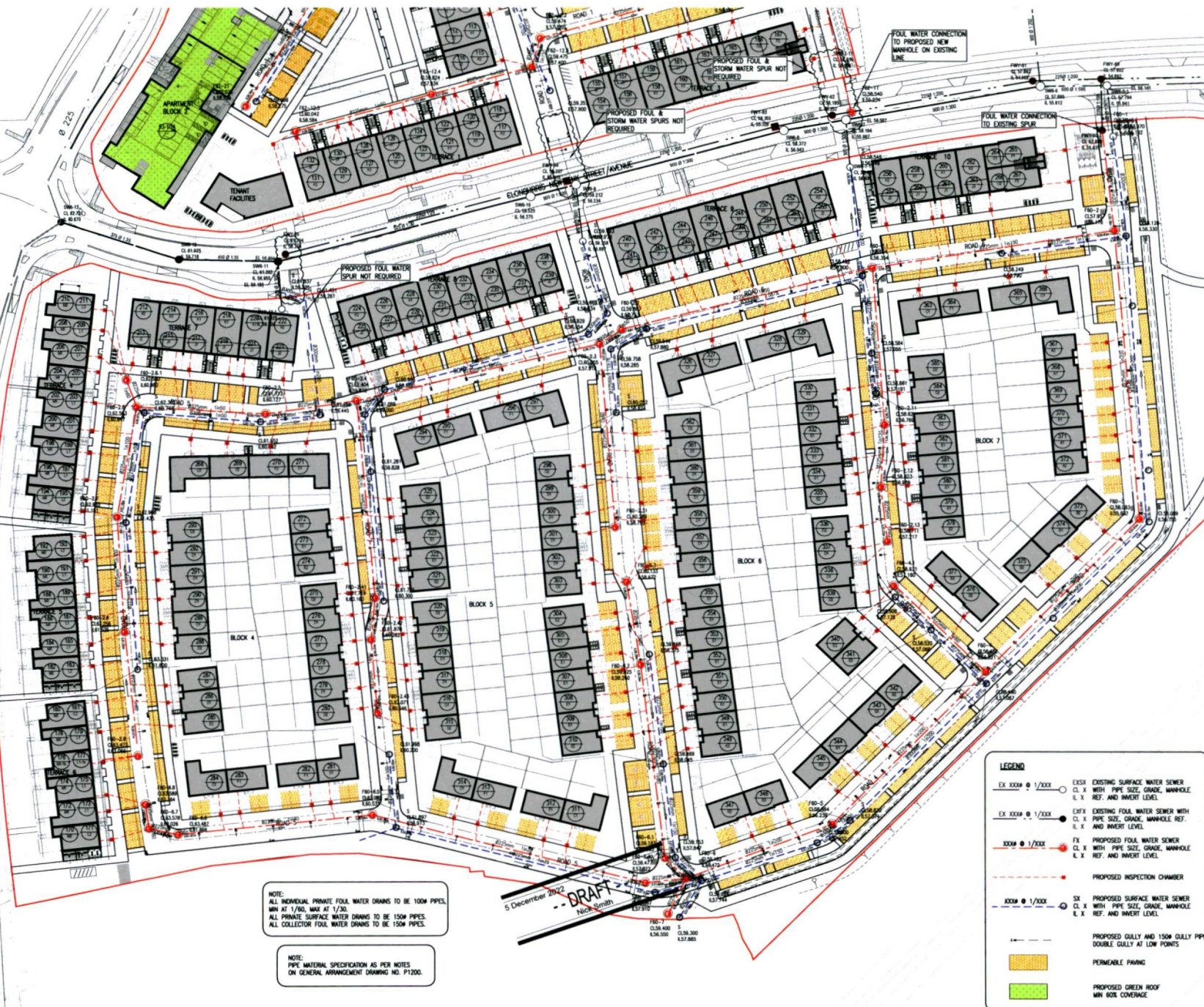
OS	Ordnance Survey Ireland Licence No. EN 0006022 © Ordnance Survey Ireland/Government of Ireland		
A	REVISED TO SUIT COMMENTS FROM IRISH WATER	NS	RM
REV	DATE	AMENDMENT	DRN APPD

Waterman Moylan
 Engineering Consultants
 BLOCK 5, EASTPOINT BUSINESS PARK, ALFIE BYRNE ROAD, DUBLIN D03 K7M9 IRELAND.
 Tel: (01) 884 8800 Fax: (01) 881 3818
 Email: info@waterman-moylan.ie www.waterman-moylan.ie

CLIENT: **QUINTAN**
 ARCHITECT: **BKD ARCHITECTS**
 PROJECT: **CLONBURRIS**

TITLE: **DRAINAGE GENERAL ARRANGEMENT**

DESIGNED	APPROVED	DATE
RM	MD	NOV 2022
SCALE	JOB NO.	DRG NO.
1:1000 @ A1	21-055	P1200
		REVISION
		A



NOTES:

DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECTURAL AND ENGINEERING DRAWINGS.

ALL PROPOSED PUBLIC STORM WATER DRAINAGE WORKS TO BE IN ACCORDANCE WITH FINCH COUNTY COUNCIL'S REQUIREMENTS FOR PAVING IN CHARGE AND IN ACCORDANCE WITH THE GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS.

ALL PROPOSED PUBLIC FOUL WATER DRAINAGE WORKS TO BE IN ACCORDANCE WITH IRISH WATER REQUIREMENTS.

ALL PRIVATE DRAINAGE WORKS SHALL BE IN ACCORDANCE WITH THE BUILDING REGULATIONS PART H.

ALL COVER LEVELS ARE INDICATIVE ONLY AND SHOULD BE SET TO SUIT THE FINISHED ROAD OR FOOT LEVEL LEVELS IN REAR GARDENS HAVE BEEN ASSUMED AS STRAIGHT GRADE TO ADJACENT BOUNDARY FROM FTL - 150mm. EXTERNAL LEVELS TO BE CONFIRMED BY ARCHITECT

GRAVITY SEWER PIPE MATERIAL TYPES

WASTEWATER PIPE MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 3.1.3 OF THE IRISH WATER CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE.

THE TYPES AND FITTINGS OUTLINED HEREIN SHALL BE USED IN THE CONSTRUCTION OF THE GRAVITY SEWERS. PIPE MATERIAL SHOULD NOT CHANGE BETWEEN MANHOLES. THE LIST BELOW DOES NOT APPLY TO PIPES INSTALLED BY PIPE JACKING OR MICRO TUNNELLING.

CONCRETE CONCRETE SEWER PIPES WITH SPIGOT AND SOCKET JOINTS AND RUBBER RING FITTINGS SHALL COMPLY WITH IS EN 1916 (2002), BS 5911, PART 1 (2002 - 2010) AND IS 6 (2004) OR EQUIVALENT STANDARD, STRENGTH CLASS 120 WITH MINIMUM CRUSHING LOADS IN ACCORDANCE WITH TABLE B OF BS 5911-1 (2002/2010).

ALL PIPES AND FITTINGS SHALL HAVE GASKET TYPE JOINTS OF SPIGOT AND SOCKET OR REBATED FORM (PIPE DIAMETERS 225MM AND ABOVE).

THERMOPLASTIC STRUCTURED WALL PIPES: THERMOPLASTIC STRUCTURED WALL PIPES SHALL COMPLY WITH THE PROVISIONS OF IS EN 14748 (2007/2009). PIPES TO BE OF STIFFNESS CLASS BKN/A2 AND TO BE CAPABLE OF DEMONSTRATING A JETTING RESISTANCE OF 2,600 PSI (180 BAR) WITHOUT DAMAGE WHEN TESTED IN ACCORDANCE WITH SECTION 3.3.3 OF WS 4-35-01 (2008). (SEWER DIAMETERS 150MM UP TO 450MM. SERVICE CONNECTIONS OF 100MM DIAMETER).

UNPLASTICISED PVC UNPLASTICISED PVC PIPES AND FITTINGS SHALL COMPLY WITH THE PROVISIONS IN EN 1401:2008/2012. PIPES TO BE APPLICATION AREA CODE '100'. STIFFNESS CLASS BKN/A2. PROVISION FOR JETTING SHALL BE BASED ON THE WRC JETTING CODE OF PRACTICE, JUNE 1997. PIPES TO BE CAPABLE OF RESISTING A MAXIMUM JETTING PUMP PRESSURE OF 2,600PSI (180 BAR) WITHOUT DAMAGE. (SEWER DIAMETERS 150MM UP TO 450MM. SERVICE CONNECTIONS OF 100MM DIAMETER).

OTHER USE OF ALTERNATIVE PIPE TYPES AND MATERIALS WILL REQUIRE THE PRIOR WRITTEN AGREEMENT OF IRISH WATER.

WHERE 1.2m COVER TO FOUL WATER PIPE SOFFIT IS NOT ACHIEVABLE IN ROADWAYS, CONCRETE SURROUND SHALL BE PROVIDED IN ACCORDANCE WITH STD-WW-08 OF WASTEWATER INFRASTRUCTURE STANDARD DETAILS.

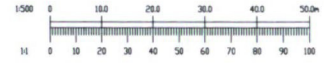
SERVICE LAYOUT DISTANCES

HORIZONTAL AND VERTICAL SERVICE LAYOUT DISTANCES SHALL BE AS PER IRISH WATER STANDARD DETAIL STD-WW-05.

THE EXTERNAL FACE OF MANHOLES SHALL BE AT LEAST 0.5m FROM KERB LINE.

RESTRICTIONS ON PLANTING

PLANTING ADJACENT TO WASTEWATER INFRASTRUCTURE SHALL BE IN COMPLIANCE WITH IRISH WATER STANDARD DETAILS STD-WW-08 AND STD-WW-06A.



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REV	DATE	AMENDMENT	DRN	APPD
A	04/24	REVISED TO SUIT COMMENTS FROM IRISH WATER	NS	RM

STATUS **PLANNING**

Waterman Moylan
Engineering Consultants
BLOCK 8, EASTPORT BUSINESS PARK, ALPHE BYRNE ROAD,
DUBLIN D05 K7W1 IRELAND.
Tel: 011 884 8800 Fax: 011 881 3818
Email: info@waterman-moylan.ie www.waterman-moylan.ie

CLIENT **QUINTAIN**
ARCHITECT **BKD ARCHITECTS**
PROJECT **CLONBURRIS**

TITLE **DRAINAGE LAYOUT SHEET 2 OF 2**

DRAWN	DESIGNED	APPROVED	DATE
MS	RM	MD	NOV 2022
SCALE	JOB NO	DRG NO	REVISION
1:500 @ A1	21-055	P1202	A

LEGEND

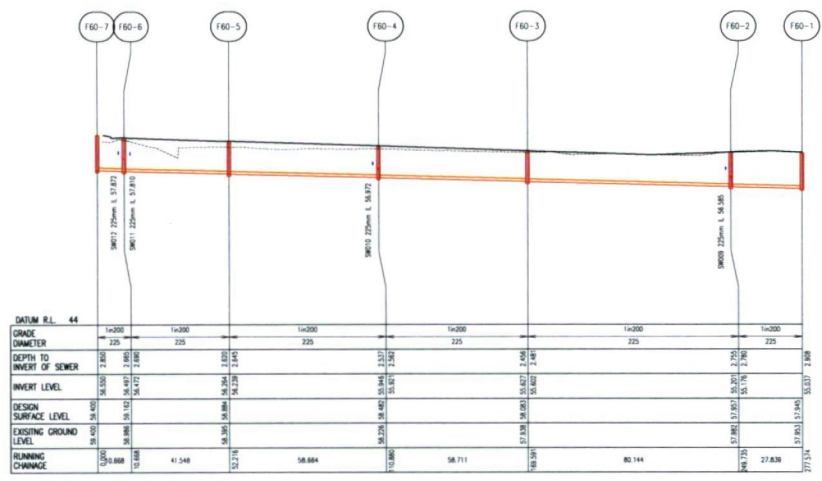
- EX XXXX @ 1/XXX ○ EXISTING SURFACE WATER SEWER
- CL X WITH PIPE SIZE, GRADE, MANHOLE
- I, X REF. AND INVERT LEVEL
- EX XXXX @ 1/XXX ○ EXISTING FOUL WATER SEWER WITH
- CL X PIPE SIZE, GRADE, MANHOLE REF.
- I, X AND INVERT LEVEL
- XXXX @ 1/XXX ○ FX PROPOSED FOUL WATER SEWER
- CL X WITH PIPE SIZE, GRADE, MANHOLE
- I, X REF. AND INVERT LEVEL
- PROPOSED INSPECTION CHAMBER
- XXXX @ 1/XXX ○ SX PROPOSED SURFACE WATER SEWER
- CL X WITH PIPE SIZE, GRADE, MANHOLE
- I, X REF. AND INVERT LEVEL
- PROPOSED GULLY AND 150MM GULLY PIPE, DOUBLE GULLY AT LOW POINTS
- PERMEABLE PAVING
- PROPOSED GREEN ROOF MIN BOX COVERAGE

NOTE:
ALL INDIVIDUAL PRIVATE FOUL WATER DRAINS TO BE 100M PIPES,
MIN AT 1/60, MAX AT 1/30.
ALL PRIVATE SURFACE WATER DRAINS TO BE 150M PIPES.
ALL COLLECTOR FOUL WATER DRAINS TO BE 150M PIPES.

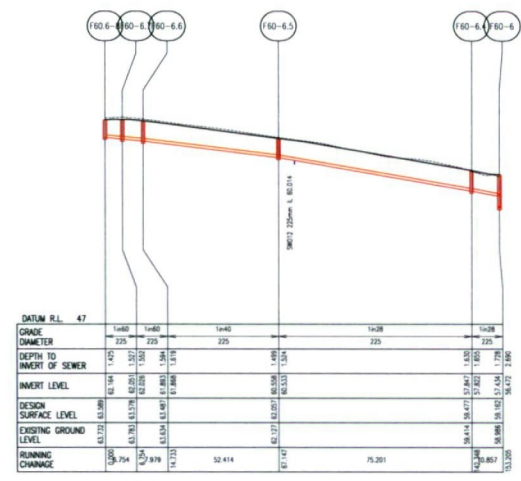
NOTE:
PIPE MATERIAL SPECIFICATION AS PER NOTES
ON GENERAL ARRANGEMENT DRAWING NO. P1200.

5 December 2022
DRAFT
Nick Smith

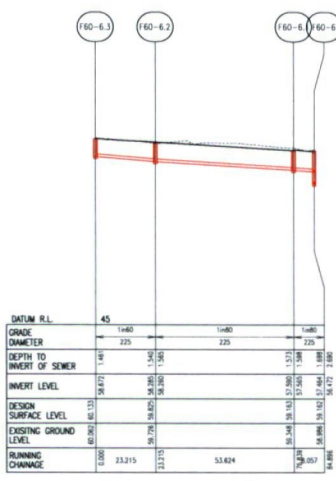
- NOTES:
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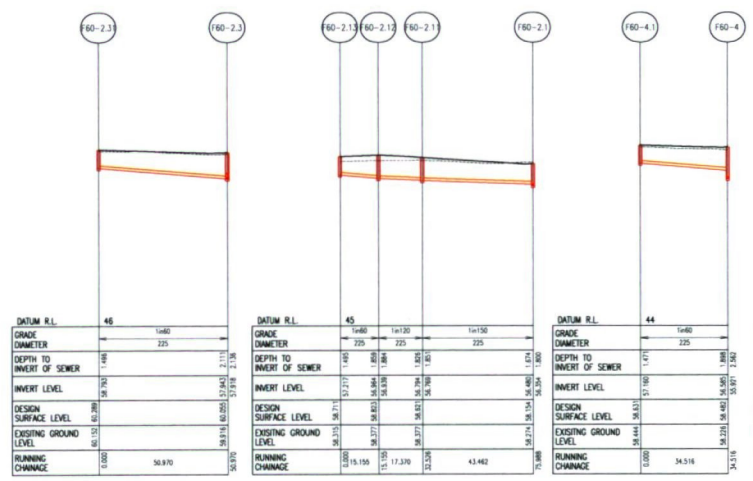
FS-001



FS002



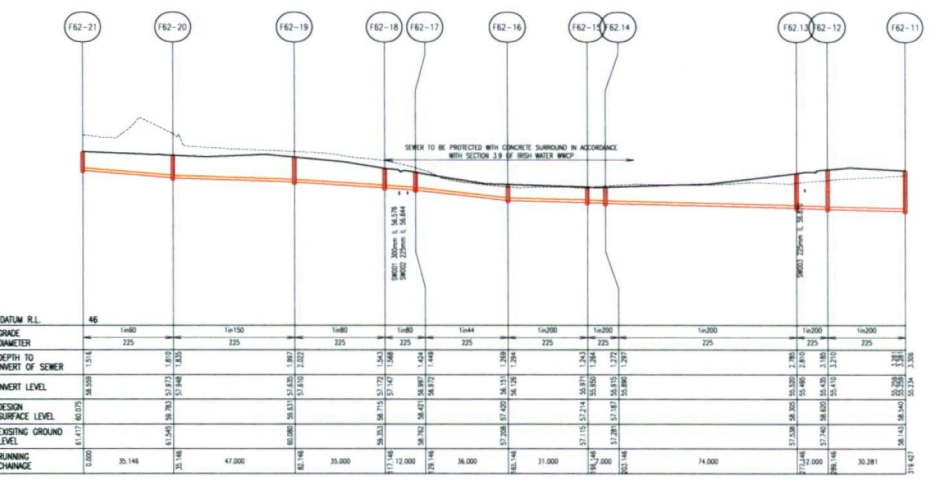
FS003



FS006

FS007

FS008



FW001

5 December 2022
 -- DRAFT --
 Nick Smith

REV	DATE	AMENDMENT	DRN	APPR
A	06/15/21	REVISED TO SUIT COMMENTS FROM IRISH WATER	NS	RM

STATUS **PLANNING**

Waterman Moylan
 Engineering Consultants
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 DUBLIN D03 K7W9 IRELAND
 Tel: (01) 664 8800 Fax: (01) 661 3816
 Email: info@waterman-moylan.ie www.waterman-moylan.ie

CLIENT **QUINTAN**
 ARCHITECT **BKD ARCHITECTS**
 PROJECT **CLONBURRS**
 TITLE **FOUL DRAINAGE LONGITUDINAL SECTIONS SHEET 1 OF 2**

DRAWN	DESIGNED	APPROVED	DATE
MS	RM	MD	NOV 2022
SCALE	JOB NO	DRG NO	REVISION
1:500 @ A1	21-055	P1210	A



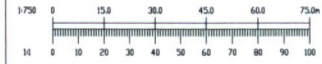
P1301

P1302



- NOTES:
- DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECTURAL AND ENGINEERING DRAWINGS.
 - ALL PIPE MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 3.9 OF THE IRISH WATER CODE OF PRACTICE FOR WATER INFRASTRUCTURE. WATERMANS SHALL BE EITHER DUCTILE IRON (DI) OR POLYETHYLENE (PE), WITH PERB OR PE100 RATING (HDPE, HDPEOR HDPE). ALL PLASTIC WATER PIPES SHALL BE BLUE IN COLOUR.
 - ALL SERVICE CONNECTIONS TO BE 254 HDPE(SDR-17).
 - ALL WATERMANS UNDER ROADS OR AT ROAD CROSSINGS TO BE HDPE OR DUCTILE IRON.
 - HDPE DISTRIBUTION PIPES TO BE PE-100(SDR-17).
 - DUCTILE IRON PIPES TO IS EN 545 WITH C40 POWER RATING.
 - AIR VALVE AND HYDRANT COVERS, WHERE LOCATED IN GRASS AREAS, SHALL BE SURROUNDED BY A CONCRETE PLINTH, 200MM ALL ROUND AND 100MM DEEP FORMED WITH 120/25 CONCRETE, 20MM AGGREGATE SIZE, RECESSED IN CLAUSE B04 MATERIAL. THE PLINTH SHALL INCORPORATE MILD STEEL REINFORCED LINKS AND SHALL HAVE BULL-NOSE FINISH AROUND ITS EXTERNAL PERIMETER.
 - THRUST BLOCKS SHALL BE PROVIDED AT EACH BEND ALONG THE COURSE OF THE WATERMAIN.
 - PLANTING ADJACENT TO WATER INFRASTRUCTURE SHALL COMPLY WITH IRISH WATER STANDARD DETAIL STD-W-12A.
 - HORIZONTAL AND VERTICAL SERVICE LAYOUT DISTANCES SHALL BE AS PER IRISH WATER STANDARD DETAIL STD-W-11.
 - FOR ANY BOOSTED WATER SUPPLY SYSTEMS, AN ACCEPTABLE ISOLATION DEVICE SHALL BE PROVIDED USING A CONNECTION VIA AN UNRESTRICTED AIR-GAP DEVICE (A TYPE DEVICE, IS EN 1717) TO PREVENT BACKFLOW FROM THE INTERNAL WATER DISTRIBUTION SYSTEM TO IRISH WATER'S NETWORK TO PREVENT THE RISK OF BACKFLOW CONTAMINATION.
 - IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT ALL WORKS ARE CONSTRUCTED IN ACCORDANCE WITH THE IRISH WATER CODE OF PRACTICE AND STANDARD DETAILS. THE CODE OF PRACTICE AND STANDARD DETAILS ARE AVAILABLE TO DOWNLOAD FROM THE IRISH WATER WEB SITE AT: WWW.WATER.ie/CONNECTIONS/DEVELOPER-SERVICES/ WHERE THE DETAILS CONTAINED ON THIS DRAWING DIFFER FROM THE IRISH WATER CODE OF PRACTICE OR STANDARD DETAILS THIS MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY. IRISH WATER STANDARDS WILL TAKE PRECEDENCE.

1 December 2022
 -- DRAFT --
 Paul Donoghue



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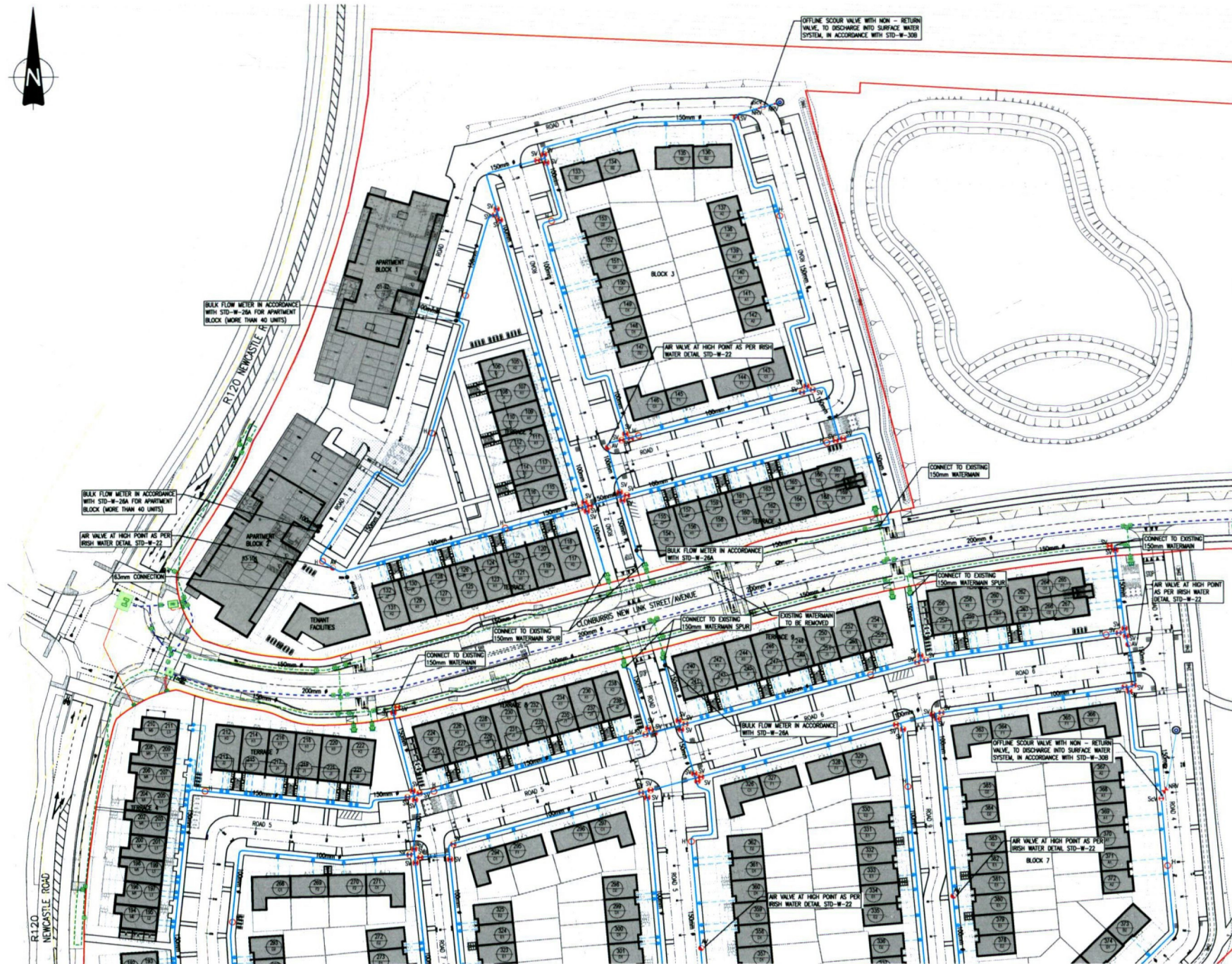
REV	DATE	AMENDMENT	DRN	APPD

STATUS **PLANNING**

Waterman Moylan
 Engineering Consultants
 BLOCK 6, EASTPORT BUSINESS PARK, ALFIE BYRNE ROAD,
 DUBLIN D03 K7W7 IRELAND
 Tel: (01) 884 8800 Fax: (01) 861 2616
 Email: info@waterman-moylan.ie www.waterman-moylan.ie

CLIENT **QUINTAN**
 ARCHITECT **BKD ARCHITECTS**
 PROJECT **CLONBURRS**
 TITLE **WATERMAIN GENERAL ARRANGEMENT**

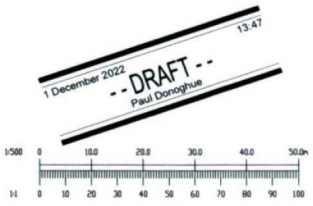
DRAWN	DESIGNED	APPROVED	DATE
MS	RM	MD	NOV 2022
SCALE	JOB NO.	DRG. NO.	REVISION
1:750 @ A1	21-055	P1300	



- NOTES:
- DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECTURAL AND ENGINEERING DRAWINGS.

LEGEND

300mm #	PROPOSED HOPE WATERMAIN WITH PIPE SIZE
SV	PROPOSED SLUICE VALVE
H	PROPOSED HYDRANT
AV	PROPOSED AIRVALVE
SCV	PROPOSED SCOUR VALVE
●	PROPOSED BOUNDARY BOX AND CONNECTION
150mm #	EXISTING WATERMAIN WITH PIPE SIZE
200mm #	EXISTING WATERMAIN WITH PIPE SIZE



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REV	DATE	AMENDMENT	DRN	APPO

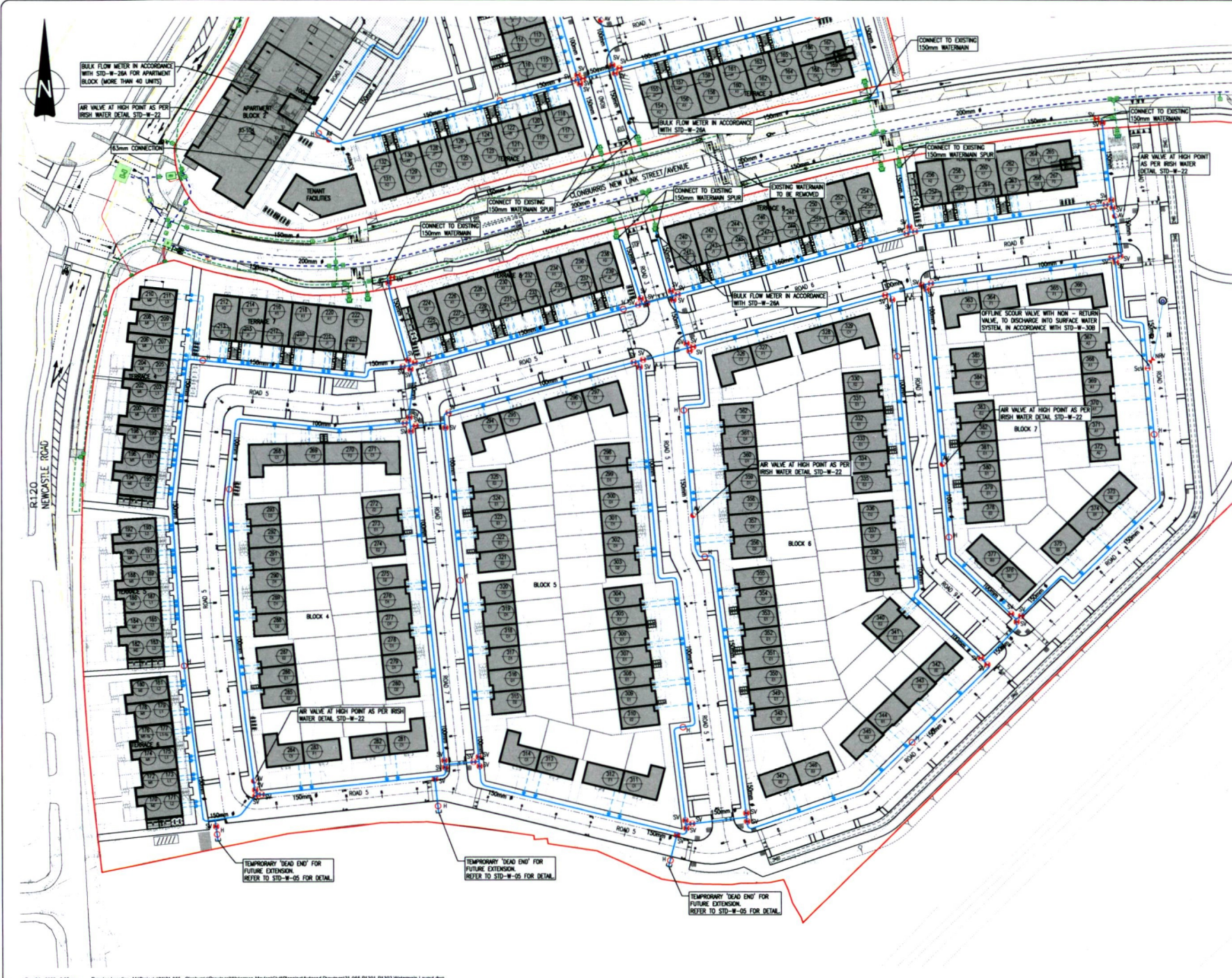
STATUS **PLANNING**

Waterman Moylan
 Engineering Consultants
 BLOCK 5, EASTPOINT BUSINESS PARK, ALFIE BYRNE ROAD,
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 Email: info@waterman-moylan.ie www.waterman-moylan.ie

CLIENT **QUINTAN**
 ARCHITECT **BKD ARCHITECTS**
 PROJECT **CLONBURRIS**

TITLE **WATERMAIN LAYOUT SHEET 1 OF 2**

DRAWN	DESIGNED	APPROVED	DATE
MS	RM	MD	NOV 2022
SCALE	JOB NO.	DRG. NO.	REVISION
1:500 @ A1	21-055	P1301	



- NOTES:
- DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECTURAL AND ENGINEERING DRAWINGS.

LEGEND

- 300mm # PROPOSED HOPE WATERMAIN WITH PIPE SIZE
- SV PROPOSED SLUICE VALVE
- H PROPOSED HYDRANT
- AV PROPOSED AIRVALVE
- ScV PROPOSED SCOUR VALVE
- PROPOSED BOUNDARY BOX AND CONNECTION
- 150mm # EXISTING WATERMAIN WITH PIPE SIZE
- 200mm # EXISTING WATERMAIN WITH PIPE SIZE



1 December 2022 14.05

DRAFT

Paul Donoghue

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REV	DATE	AMENDMENT	DRN	APPO

STATUS **PLANNING**

Waterman Moylan
Engineering Consultants

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Email: info@waterman-moylan.ie www.waterman-moylan.ie

CLIENT **QUINTAN**
ARCHITECT **BND ARCHITECTS**
PROJECT **CLONBARRIS**

TITLE **WATERMAIN LAYOUT SHEET 2 OF 2**

DRAWN	DESIGNED	APPROVED	DATE
MS	RM	MD	NOV 2022
SCALE	JOB NO.	DRG NO.	REVISION
1:500 @ A1	21-055	P1302	

CONFIRMATION OF FEASIBILITY

Robert Walpole

Waterman Moylan
Block S Eastpoint Business Park
Alfie Byrne Road
East Wall, Dublin 3
Dublin
D03H3F4

Uisce Éireann
Bosca OP448
Oifig Sheachadta n:
Cathrach Theas
Cathair Chorcaí

Irish Water
PO Box 448,
South City
Delivery Office
Cork City.

www.water.ie

10 January 2023

**Our Ref: CDS22008208 Pre-Connection Enquiry
Clonburris, Adamstown, Lucan, Dublin**

Dear Applicant/Agent,

We have completed the review of the Pre-Connection Enquiry.

Irish Water has reviewed the pre-connection enquiry in relation to a Water & Wastewater connection for a Housing Development of 385 unit(s) at Clonburris, Adamstown, Lucan, Dublin, (the **Development**).

Based upon the details provided we can advise the following regarding connecting to the networks;

- **Water Connection** - Feasible without infrastructure upgrade by Irish Water
- The Development should be supplied, as a temporary solution, from the existing 400mm DI main (blue highlighted mains). Valves on the supply line must be adjusted to allow the water supply from Peamount Reservoir. A connection main should be a 150mm ID pipe with a control valve installed on the line. The control valve will be closed during normal operation, after a permanent connection installation.



- The Development is a part of Clonburris Development Zone and future (permanent) supply will be through the Zone from the East. Water infrastructure within the Development must be designed and installed in accordance with Clonburris SDZ Master Plan including the proposed 200mm main within the site boundaries. Developer is required to pay for the section of the future 200mm ID main.

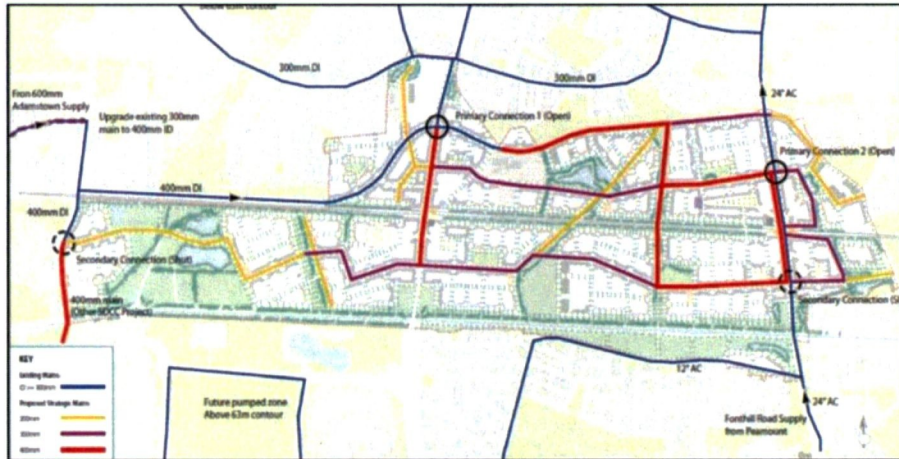
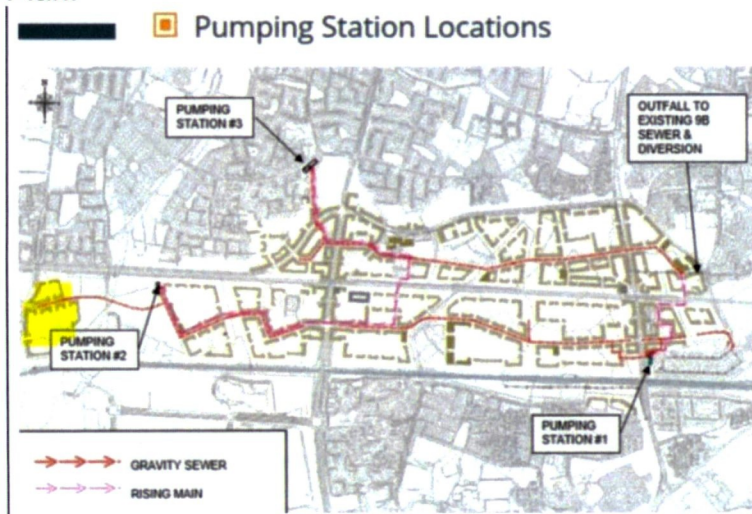


Figure 4.1: SDZ Water Strategy Layout

- **Wastewater Connection** - Feasible Subject to upgrades

- The Development is a part of Clonburris Development Zone. In order to facilitate the proposed Development, all relevant core wastewater infrastructure within the Zone have to be completed, connected to the Irish Water network and in operation. That includes Clonburris Pumping Station 02, associated rising main and foul network (Northern Sewer Route) to be delivered by Clonburris Infrastructure Ltd (CIL).
- On an interim basis, a connection may be permitted in advance of completion of the Northern Sewer Infrastructure (to be delivered by CIL), subject to the delivery of Clonburris Pumping Station 01 (to be delivered by Irish Water), available capacity in PS01 at the moment, progress of works on the Northern Sewer Infrastructure and connection from customer site to PS01 (to be delivered by the Customer and CIL)
- All required works will need to be in accordance with Clonburris SDZ Master Plan.



Section A - What is important to know?

What is important to know?	Why is this important?
<p>Do you need a contract to connect?</p>	<ul style="list-style-type: none"> • Yes, a contract is required to connect. This letter does not constitute a contract or an offer in whole or in part to provide a connection to Irish Water's network(s). • Before the Development can connect to Irish Water's network(s), you must submit a connection application <u>and be granted and sign</u> a connection agreement with Irish Water.
<p>When should I submit a Connection Application?</p>	<ul style="list-style-type: none"> • A connection application should only be submitted after planning permission has been granted.
<p>Where can I find information on connection charges?</p>	<ul style="list-style-type: none"> • Irish Water connection charges can be found at: https://www.water.ie/connections/information/charges/
<p>Who will carry out the connection work?</p>	<ul style="list-style-type: none"> • All works to Irish Water's network(s), including works in the public space, must be carried out by Irish Water*. <p>*Where a Developer has been granted specific permission and has been issued a connection offer for Self-Lay in the Public Road/Area, they may complete the relevant connection works</p>
<p>Fire flow Requirements</p>	<ul style="list-style-type: none"> • The Confirmation of Feasibility does not extend to fire flow requirements for the Development. Fire flow requirements are a matter for the Developer to determine. • What to do? - Contact the relevant Local Fire Authority
<p>Plan for disposal of storm water</p>	<ul style="list-style-type: none"> • The Confirmation of Feasibility does not extend to the management or disposal of storm water or ground waters. • What to do? - Contact the relevant Local Authority to discuss the management or disposal of proposed storm water or ground water discharges.
<p>Where do I find details of Irish Water's network(s)?</p>	<ul style="list-style-type: none"> • Requests for maps showing Irish Water's network(s) can be submitted to: datarequests@water.ie

This letter does not constitute an offer, in whole or in part, to provide a connection to any Irish Water infrastructure. Before the Development can be connected to our network(s) you must submit a connection application and be granted and sign a connection agreement with Irish Water.

As the network capacity changes constantly, this review is only valid at the time of its completion. As soon as planning permission has been granted for the Development, a completed connection application should be submitted. The connection application is available at www.water.ie/connections/get-connected/

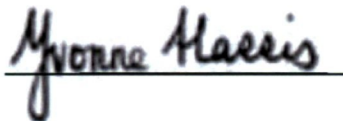
Where can you find more information?

- **Section A** - What is important to know?
- **Section B** - Details of Irish Water's Network(s)

This letter is issued to provide information about the current feasibility of the proposed connection(s) to Irish Water's network(s). This is not a connection offer and capacity in Irish Water's network(s) may only be secured by entering into a connection agreement with Irish Water.

For any further information, visit www.water.ie/connections, email newconnections@water.ie or contact 1800 278 278.

Yours sincerely,

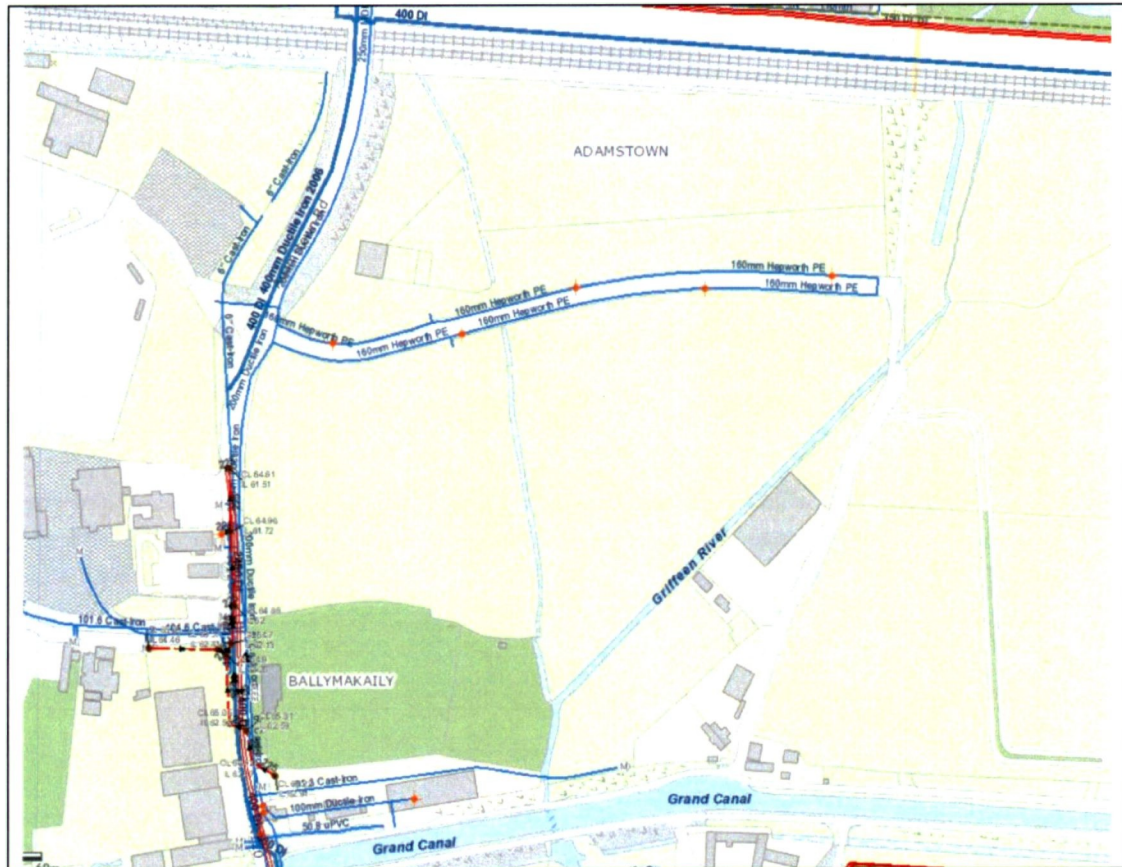
A handwritten signature in black ink that reads "Yvonne Harris". The signature is written in a cursive style and is positioned above a horizontal line.

Yvonne Harris
Head of Customer Operations

Section B – Details of Irish Water’s Network(s)

The map included below outlines the current Irish Water infrastructure adjacent the Development: To access Irish Water Maps email

datarequests@water.ie



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Note: The information provided on the included maps as to the position of Irish Water’s underground network(s) is provided as a general guide only. The information is based on the best available information provided by each Local Authority in Ireland to Irish Water.

Whilst every care has been taken in respect of the information on Irish Water’s network(s), Irish Water assumes no responsibility for and gives no guarantees, undertakings or warranties concerning the accuracy, completeness or up to date nature of the information provided, nor does it accept any liability whatsoever arising from or out of any errors or omissions. This information should not be solely relied upon in the event of excavations or any other works being carried out in the vicinity of Irish Water’s underground network(s). The onus is on the parties carrying out excavations or any other works to ensure the exact location of Irish Water’s underground network(s) is identified prior to excavations or any other works being carried out. Service connection pipes are not generally shown but their presence should be anticipated.

<p>What are the design requirements for the connection(s)?</p>	<ul style="list-style-type: none"> The design and construction of the Water & Wastewater pipes and related infrastructure to be installed in this Development shall comply with <i>the Irish Water Connections and Developer Services Standard Details and Codes of Practice</i>, available at www.water.ie/connections
<p>Trade Effluent Licensing</p>	<ul style="list-style-type: none"> Any person discharging trade effluent** to a sewer, must have a Trade Effluent Licence issued pursuant to section 16 of the Local Government (Water Pollution) Act, 1977 (as amended). More information and an application form for a Trade Effluent License can be found at the following link: https://www.water.ie/business/trade-effluent/about/ <p>**trade effluent is defined in the Local Government (Water Pollution) Act, 1977 (as amended)</p>