DRAWING / DOCUMENT REGISTER AND ISSUE SHEET

Sheet No. 1

Project No.	23D046
Project Name	DUNLEER HOUSING
Day	10
Month	04
Year	24

Drg No.	Drawing / Document Name	Format	R.C. Sched. Sheets	Drawing Revisions
01	Proposed Site Levels Layout	A1		P
02	Proposed Drainage Layout	A1		P
03	Proposed Watermain Layout	A1		P
04A	Irish Water Foul & Surface Drainage Details - Sheet 1	A1		P
04B	Irish Water Foul & Surface Drainage Details - Sheet 2	A1		P
04C	Irish Water Foul & Surface Drainage Details - Sheet 3	A1		P
04D	Irish Water Foul & Surface Drainage Details - Sheet 4	A1		P
05A	Irish Water Watermain Details - Sheet 1	A1		P
05B	Irish Water Watermain Details - Sheet 2	A1		P
05C	Irish Water Watermain Details - Sheet 3	A1		P
05D	Irish Water Watermain Details - Sheet 4	A1		P
06	Proposed Cycling & Pedestrian Crossing Layout	A1		P
07	Proposed Swept Path Analysis Layout	A1		P

Distribution		Initials	Name	No. of copies
Client			L.C.C.	1
Architect			EML Architects	1
Project Manager				
Quantity Surveyor				
Main Contractor	Head Office			
	Site			
Mech. / Elec. Engineer				
Structural Engineer			H.H.P	1
Planning Authority			L.C.C.	1
Irish Water				
Fire Authority				
Construction Manager				
Tank Copy				

HAYES HIGGINS PARTNERSHIP
Chartered Engineers
Project Managers

The Glass House, 11 Coke Lane, Smithfield, Dublin 7
T. 01 - 661 2321, F. 01 - 662 5804
E. admin@hayeshiggins.ie

ISSUED FOR	P
DOCUMENT TYPE	EM
R.C SCHEDULE	

Symbols Key

Issued For						Document Type			
Preliminary	A	Planning	P	Measurement	M	Prints	PR	Email	EM
Information	I	Tender	T	Construction	C	Disks	CD	Upload Share Drive	UP

PROPOSED SITE LEVELS LAYOUT

SCALE 1:500

NOTES

GENERAL

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2.) DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.

LEGEND

- SITE BOUNDARY
- RETAINING WALL
- 19.970 PROPOSED ROAD/FOOTPATH LEVEL
- PROPOSED PEDESTRIAN FOOTPATH
- PROPOSED CYCLE PATHWAY
- PROPOSED GRASS BUFFER ZONE

REV	DATE	DESCRIPTION	DWG BY	APPR. BY
P	01.03.24	S 179 A	ROC	RM

ISSUED: **S 179 A**

CLIENT: LOUTH COUNTY COUNCIL

PROJECT NAME: DUNLEER HOUSING

DRAWING NAME: **PROPOSED SITE LEVELS LAYOUT**

PROJECT No.: **23D046**

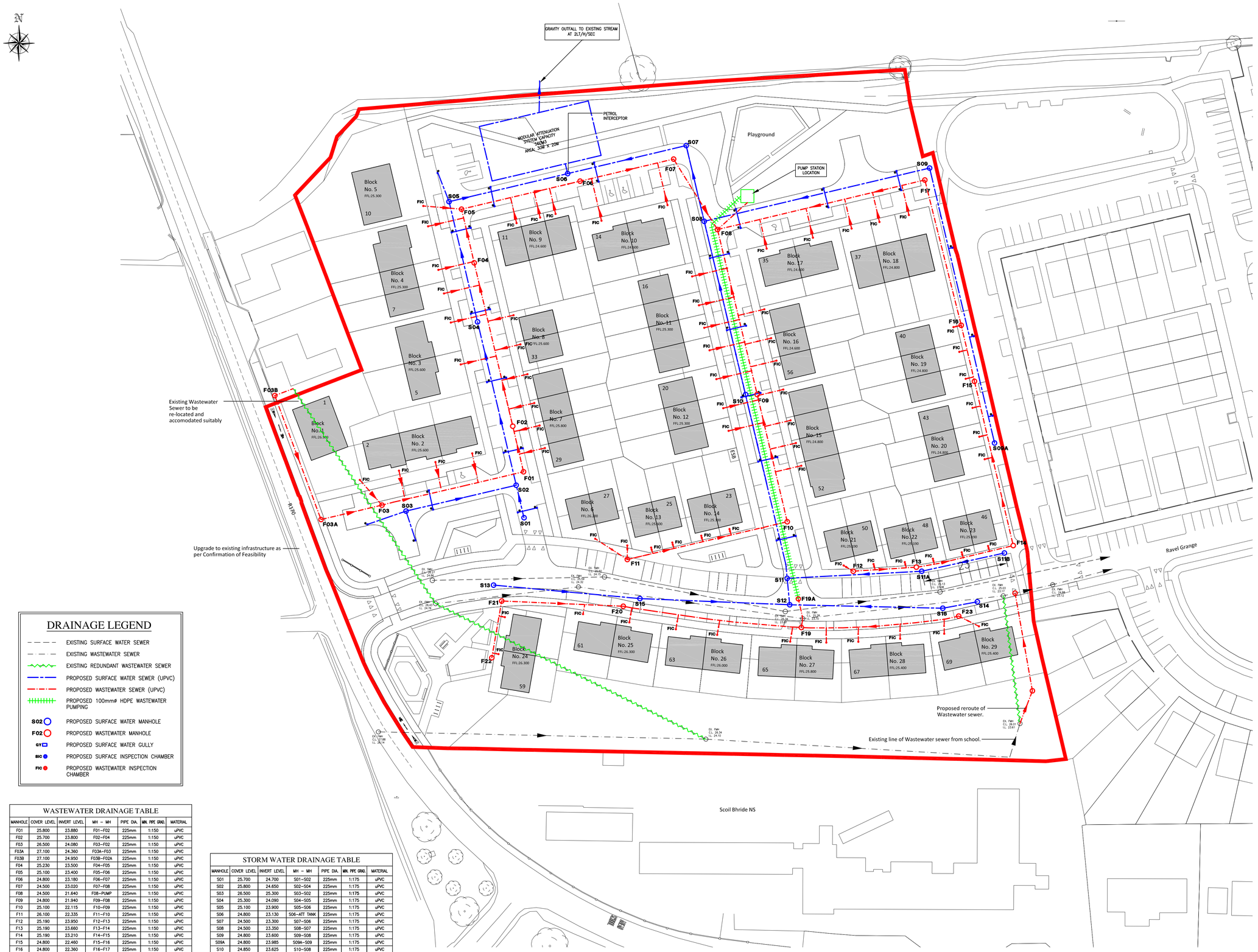
DRAWING No.	REVISION
01	P

SCALE	DRAWN DATE
1:500	15.01.24

CAD DRAWN BY	CHECKED BY	APPROVED BY
R.O.C.	R.M.	L.M.

HAYES HIGGINS PARTNERSHIP
The Glass House, 11 Coke Lane
Smithfield, Dublin 7. Tel: 01 6612321
E-mail: admin@hayeshiggins.ie
Gas House Lane, Kilkenny. Tel: (056) 7764710
Email: info@hhp.ie

A1



DRAINAGE LEGEND

- EXISTING SURFACE WATER SEWER
- EXISTING WASTEWATER SEWER
- EXISTING REDUNDANT WASTEWATER SEWER
- PROPOSED SURFACE WATER SEWER (UPVC)
- PROPOSED WASTEWATER SEWER (UPVC)
- PROPOSED 100mmø HDPE WASTEWATER PUMPING
- S02 PROPOSED SURFACE WATER MANHOLE
- F02 PROPOSED WASTEWATER MANHOLE
- GY PROPOSED SURFACE WATER GULLY
- SIC PROPOSED SURFACE INSPECTION CHAMBER
- FIC PROPOSED WASTEWATER INSPECTION CHAMBER

WASTEWATER DRAINAGE TABLE

MANHOLE	COVER LEVEL	INVERT LEVEL	MH – MH	PIPE DIA.	MIN. PIPE GRAD.	MATERIAL
F01	25.800	23.880	F01–F02	225mm	1:150	uPVC
F02	25.700	23.800	F02–F04	225mm	1:150	uPVC
F03	26.500	24.080	F03–F02	225mm	1:150	uPVC
F03A	27.100	24.360	F03A–F03	225mm	1:150	uPVC
F03B	27.100	24.950	F03B–F02A	225mm	1:150	uPVC
F04	25.230	23.500	F04–F05	225mm	1:150	uPVC
F05	25.100	23.400	F05–F06	225mm	1:150	uPVC
F06	24.800	23.180	F06–F07	225mm	1:150	uPVC
F07	24.500	23.020	F07–F08	225mm	1:150	uPVC
F08	24.500	21.640	F08–PUMP	225mm	1:150	uPVC
F09	24.800	21.940	F09–F08	225mm	1:150	uPVC
F10	25.100	22.115	F10–F09	225mm	1:150	uPVC
F11	26.100	22.335	F11–F10	225mm	1:150	uPVC
F12	25.190	23.950	F12–F13	225mm	1:150	uPVC
F13	25.190	23.660	F13–F14	225mm	1:150	uPVC
F14	25.190	23.210	F14–F15	225mm	1:150	uPVC
F15	24.800	22.460	F15–F16	225mm	1:150	uPVC
F16	24.800	22.360	F16–F17	225mm	1:150	uPVC
F17	24.800	22.000	F17–F08	225mm	1:150	uPVC
F19A	25.280	23.900	F19A–EX.MH	225mm	1:150	uPVC
F19	25.800	23.800	F19–EX.MH	225mm	1:150	uPVC
F20	25.900	24.600	F20–F19	225mm	1:150	uPVC
F21	26.100	25.145	F21–F20	225mm	1:150	uPVC
F22	26.100	25.400	F22–F21	225mm	1:150	uPVC
F23	25.250	24.090	F23–F19	225mm	1:150	uPVC

STORM WATER DRAINAGE TABLE

MANHOLE	COVER LEVEL	INVERT LEVEL	MH – MH	PIPE DIA.	MIN. PIPE GRAD.	MATERIAL
S01	25.700	24.700	S01–S02	225mm	1:175	uPVC
S02	25.800	24.650	S02–S04	225mm	1:175	uPVC
S03	26.500	25.300	S03–S02	225mm	1:175	uPVC
S04	25.300	24.090	S04–S05	225mm	1:175	uPVC
S05	25.100	23.900	S05–S06	225mm	1:175	uPVC
S06	24.800	23.130	S06–ATT TANK	225mm	1:175	uPVC
S07	24.500	23.300	S07–S06	225mm	1:175	uPVC
S08	24.500	23.350	S08–S07	225mm	1:175	uPVC
S09	24.800	23.600	S09–S08	225mm	1:175	uPVC
S09A	24.800	23.985	S09A–S09	225mm	1:175	uPVC
S10	24.850	23.625	S10–S08	225mm	1:175	uPVC
S11	25.190	23.890	S11–S10	225mm	1:175	uPVC
S11A	25.190	24.070	S11A–S11	225mm	1:175	uPVC
S11B	25.190	24.185	S11B–S11A	225mm	1:175	uPVC
S12	25.190	23.910	S12–S11	225mm	1:175	uPVC
S13	26.100	25.100	S13–S15	225mm	1:175	uPVC
S14	25.200	24.200	S14–S16	225mm	1:175	uPVC
S15	25.900	24.870	S15–S12	225mm	1:175	uPVC
S16	25.250	24.150	S16–S12	225mm	1:175	uPVC

PROPOSED DRAINAGE LAYOUT

SCALE 1:500

NOTES

GENERAL

1. THESE DRAWINGS TO BE READ IN CONJUNCTION WITH ALL RELEVANT HAYES HIGGINS ENGINEERING DRAWINGS AND SPECIFICATIONS.
2. DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.

DRAINAGE

3. ALL DRAINAGE WORKS ARE TO BE DESIGNED TO LOUTH COUNTY COUNCIL TAKING IN CHARGE STANDARDS. PLEASE CONSULT WITH LCC PLACE MAKING & PHYSICAL DEVELOPMENT DEPARTMENT. DESIGN TO COMPLY WITH LATEST VERSION OF THE GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS.
4. ALL WASTEWATER INFRASTRUCTURE TO BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH CURRENT UISCE EIREANN WATER REQUIREMENTS. ALL DESIGN SUBJECT TO AGREEMENT WITH UISCE EIREANN AT CONNECTION APPLICANT STAGE.
5. ALL DRAINAGE WORK TO BE CARRIED OUT IN ACCORDANCE WITH "LOUTH COUNTY DEVELOPMENT PLAN & "CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY 6TH CURRENT EDITION".
6. ALL DRAINAGE CONNECTIONS FROM BUILDINGS TO CONFORM TO THE BUILDING REGULATIONS 2010, PART H.
7. THE SURFACE/STORM WATER DRAINAGE TO CONSIST OF A SUSTAINABLE URBAN DRAINAGE (SUDS) TREATMENT SYSTEM MANAGEMENT APPROACH, REFER TO DMURS ADVICE NOTE 5: ROAD & STREET DRAINAGE USING NATURE BASED SOLUTIONS. THE CONTRACTORS DESIGN TEAM TO FORWARD THE SUDS TREATMENT STRATEGY FOR APPROVAL TO LOUTH COUNTY COUNCIL WATER SERVICES DEPARTMENT.
8. CLASS E BEDDING TO ALL PIPES WITH COVER GREATER THAN 1.2m UNDER ROAD & 0.9m UNDER OTHER AREAS.
9. LADDERS ARE REQUIRED IN MANHOLES WHERE DEPTH FROM COVER LEVEL EXCEEDS 2.5m.
10. ALL ABANDONED PIPE RUNS AND MANHOLES TO BE BROKEN OUT AND BACKFILLED WITH 15/20N LEAN MIX CONCRETE.
11. ROAD GULLIES TO BE PROVIDED ALONG THE CARRIAGEWAY AT AS SHOWN & TO BE DESIGNED BY THE CONTRACTORS DESIGN TEAM.
12. ALL ROAD GULLIES AND MANHOLES COVERS TO EN 124 D400 IN ROADS AND B125 IN ALL OTHER PAVED AREAS, FOOTWAYS AND LANDSCAPED AREAS.
13. ALL PROPOSED SURFACE SEWERS SHALL BE CLEANED, CCTV SURVEYED AND TESTED IN ACCORDANCE WITH LOUTH COUNTY COUNCIL'S & 2HP'S SPECIFICATIONS. LCC SHALL BE GIVEN THE OPPORTUNITY TO WITNESS THE TESTING.
14. THE CONTRACTOR ON COMPLETION SHALL PROVIDE AS CONSTRUCTED DRAWINGS OF INSTALLED DRAINAGE GIVING DETAILS OF TESTING RESULTS AND RE-TESTING IF NECESSARY.
15. CONTRACTOR TO REFER TO SERVICE/UTILITY PROVIDER FOR FURTHER SPECIFICATIONS & DETAILS ON COVER & SEPARATION DISTANCES TO SERVICES.

REV	DATE	DESCRIPTION	DWG BY	APPR. BY
P	01.03.24	S 179 A	ROC	RM

ISSUED
S 179 A

CLIENT
LOUTH COUNTY COUNCIL

PROJECT NAME
DUNLEER HOUSING

DRAWING NAME
PROPOSED DRAINAGE LAYOUT

PROJECT No.
23D046

DRAWING No.	REVISION
02	P
SCALE: 1:500	DRAWN DATE: 15.01.24

CAD DRAWN BY	CHECKED BY	APPROVED BY
R.O.C.	R.M.	L.M.

HAYES HIGGINS PARTNERSHIP
The Glass House, 11 Coke Lane
Smithfield, Dublin 7. Tel: 01 6612321
E-mail: admin@hayeshiggins.ie
Gas House Lane, Kilkenny. Tel: (056) 7764710
Email: info@hhp.ie

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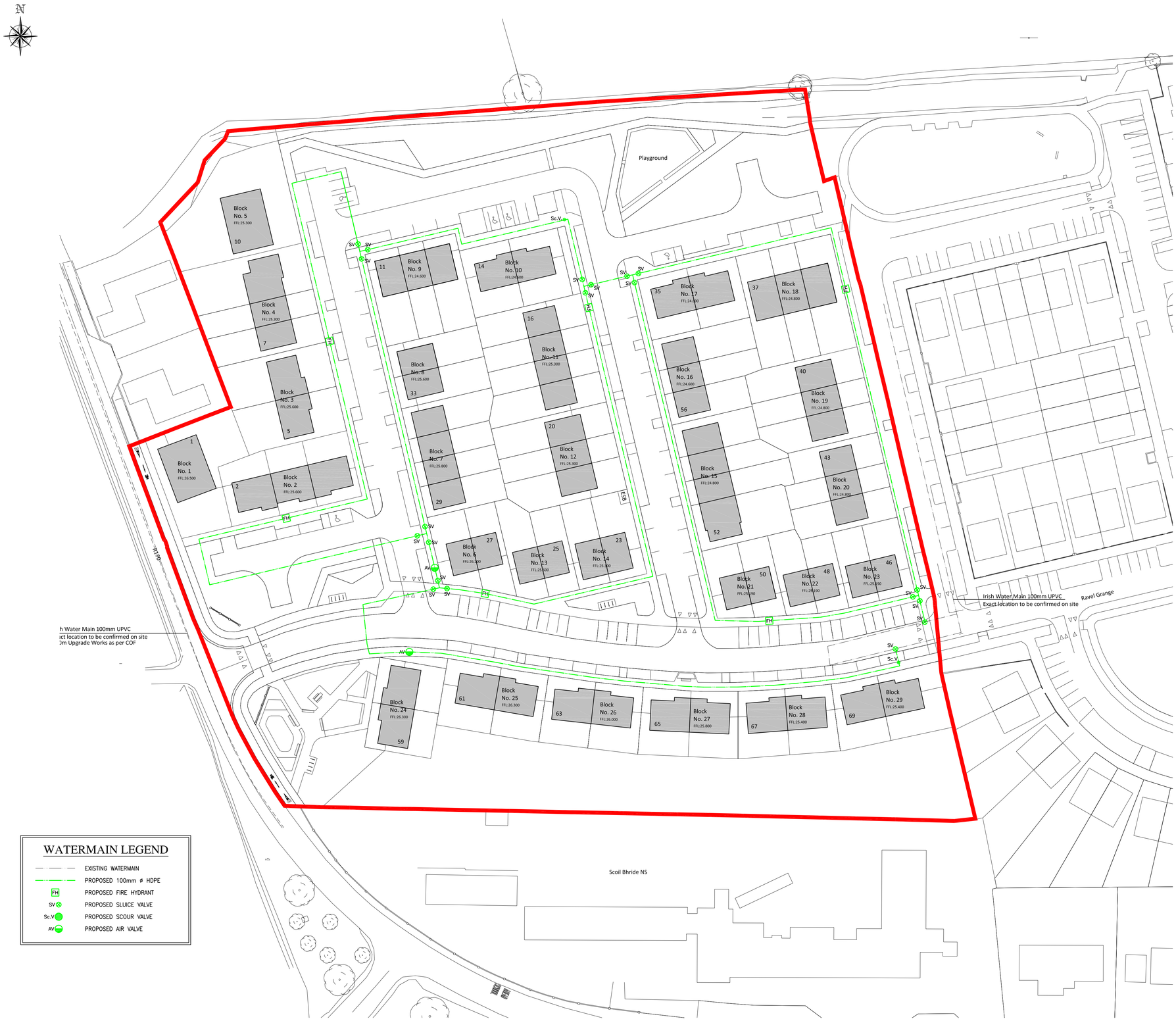

WATERMAIN LEGEND

- EXISTING WATERMAIN
- PROPOSED 100mm ø HDPE
- FH — PROPOSED FIRE HYDRANT
- SV — PROPOSED SLUICE VALVE
- Sc.V — PROPOSED SCOUR VALVE
- AV — PROPOSED AIR VALVE

PROPOSED WATERMAIN LAYOUT

SCALE 1:500

A1

NOTES

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WATERMAIN

3. ALL WORKS MUST COMPLY WITH IRISH WATER/UISCE EIREANN, WATER STANDARD DETAILS & CODE OF PRACTICE.
4. THE CONTRACTOR SHOULD CONFIRM THE LOCATIONS OF ALL EXISTING WATERMAIN INFRASTRUCTURE ON SITE AND REPORT TO THE ENGINEER.
5. ALL DESIGN SUBJECT TO AGREEMENT WITH UISCE EIREANN AT CONNECTION APPLICANT STAGE.
6. WATERMAIN PIPES SHOULD HAVE A MINIMUM NOMINAL PRESSURE CLASSIFICATION OF 10 BAR. MOPVC PRESSURE PIPES SHALL CONFORM TO UK WATER INDUSTRY SPECIFICATION NO 4-31-08 OR EQUIVALENT. MANUFACTURERS SHALL OPERATE A QUALITY SYSTEM IN COMPLIANCE WITH BS 5750 PART 2 (EN9002)
7. WATERMAIN PIPES SHOULD HAVE A MINIMUM COVER OF 900mm.
8. AN APPROVED MARKER TAPE CONTAINING A TRACER WIRE SHOULD BE AFFIXED TO THE TOP SURFACE OF ALL WATERMAINS
9. CONCRETE THRUST BLOCKS SHOULD BE PROVIDED ON WATERMAINS AT DEAD ENDS, TEES, BENDS OF CURVATURE GRATER THAN 22.5 AND AT BOTH SIDES OF A SLUICE VALVE CHAMBER. ANCHOR BLOCKS SHOULD ENCASE THE PIPE IN CONCRETE (CLASS E, CLAUSE 1502, SPECIFICATION FOR ROADWORKS) TO A MINIMUM THICKNESS OF 150mm ALL AROUND AND SHOULD BE A MINIMUM LENGTH OF 750mm.
10. SLUICE VALVES SHOULD COMPLY WITH THE REQUIREMENTS OF BS 5163. THE DEPTH OF THE SLUICE VALVE SPINDLE CAP BELOW FINISHED GROUND LEVEL SHOULD NOT EXCEED 300mm.
11. HYDRANTS SHOULD BE OF THE MALE THREAD SCREW DOWN TYPE IN COMPLIANCE WITH THE REQUIREMENTS OF BS 750. HYDRANT OUTLETS SHOULD COMPLY WITH THE CHIEF FIRE OFFICERS REQUIREMENTS. THE DEPTH OF THE HYDRANT OUTLET BELOW FINISHED GROUND LEVEL SHOULD NOT EXCEED 200mm.
12. SCOUR VALVES TO BE LOCATED AT LOW POINTS AND AIR VALVES AT HIGH POINTS ALONG THE VERTICAL PROFILE OF THE WATERMAIN. CONTRACTOR TO AGREE SPECIFICATION FOR VALVES WITH LOUTH COUNTY COUNCIL.
13. CONTRACTOR TO ALLOW FOR ROAD OPENING UP LICENCE FOR WORKS IN PUBLIC ROAD, WHERE NECESSARY.
14. ALL FIRE HYDRANTS TO BE LOCATED IN ACCORDANCE WITH TGD B, BUILDING REGULATIONS.

REV	DATE	DESCRIPTION	DWG BY	APPR. BY
P	01.03.24	S 179 A	ROC	RM

ISSUED: **S 179 A**

CLIENT: LOUTH COUNTY COUNCIL

PROJECT NAME: DUNLEER HOUSING

DRAWING NAME: **PROPOSED WATERMAIN LAYOUT**

PROJECT No.: **23D046**

DRAWING No.	REVISION
03	P

SCALE	DRAWN DATE
1:500	15.01.24

CAD DRAWN BY	CHECKED BY	APPROVED BY
R.O.C.	R.M.	L.M.

HAYES HIGGINS PARTNERSHIP
The Glass House, 11 Coke Lane
Smithfield, Dublin 7. Tel: 01 6612321
E-mail: admin@hayeshiggins.ie
Gas House Lane, Kilkenny. Tel: (056) 7764710
Email: info@hhp.ie

NOTES

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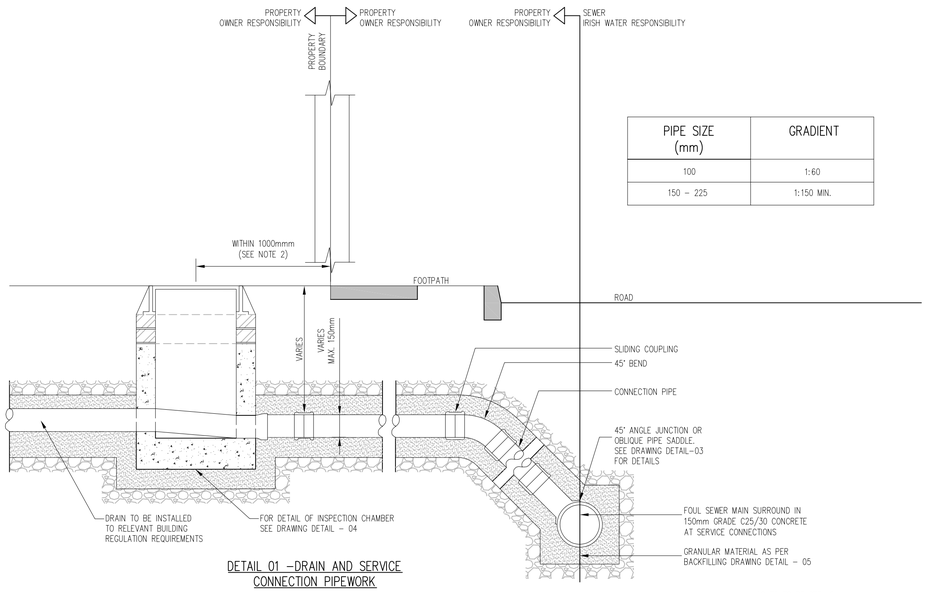
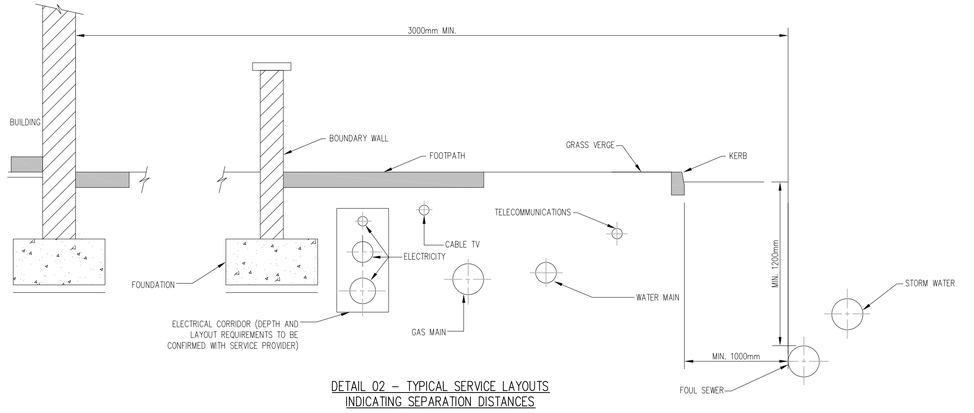
3.) FOUL WATER/WASTE WATER TO CURRENT IRISH WATER SPECIFICATION AND DETAILS (IW-CDS-5030-01).

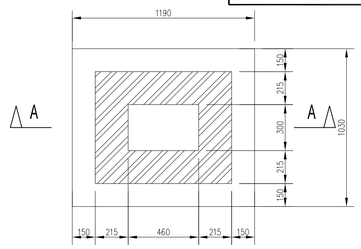


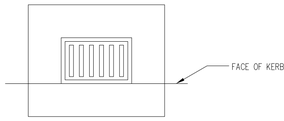
DETAIL 01 –DRAIN AND SERVICE CONNECTION PIPEWORK

PIPE SIZE (mm)	GRADIENT
100	1:60
150 – 225	1:150 MIN.

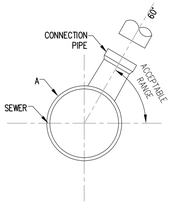


DETAIL 02 – TYPICAL SERVICE LAYOUTS INDICATING SEPARATION DISTANCES

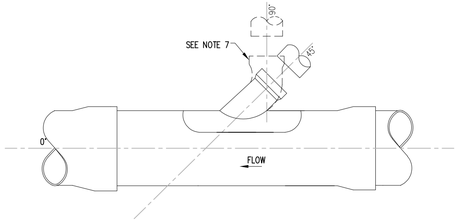




BASE AND SURFACE PLANS

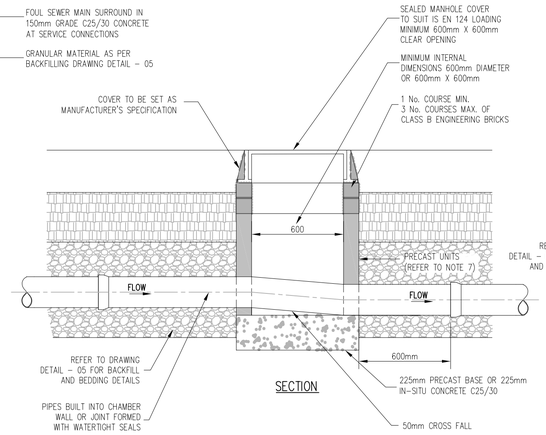


CROSS-SECTIONAL VIEW OF SEWER

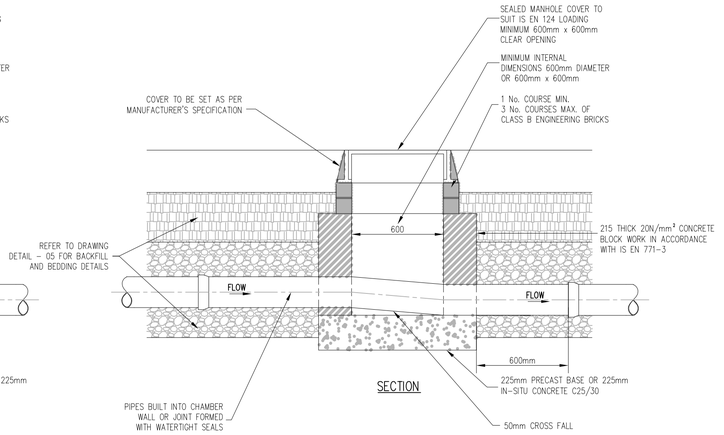


VIEW IN DIRECTION OF ARROW A

APPROVED 45° SADDLE CONNECTION



SECTION



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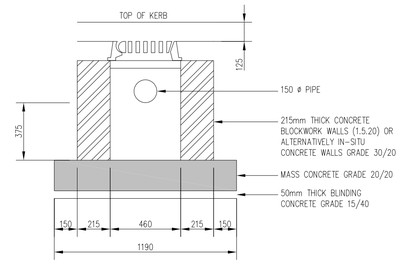
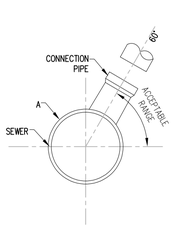
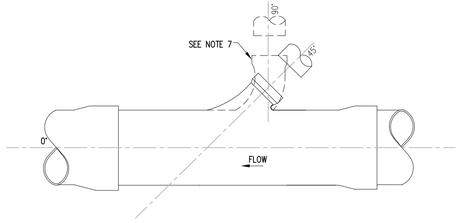


SECTION A-A

ROAD GULLY



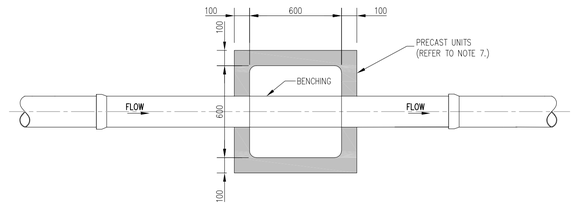
CROSS-SECTIONAL VIEW OF SEWER



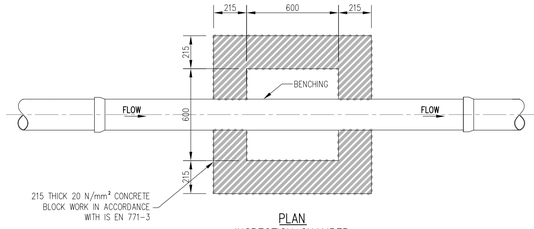
VIEW IN DIRECTION OF ARROW A

45° JUNCTION

DETAIL 03 – TYPICAL SEWER/SERVICE PIPE CONNECTION

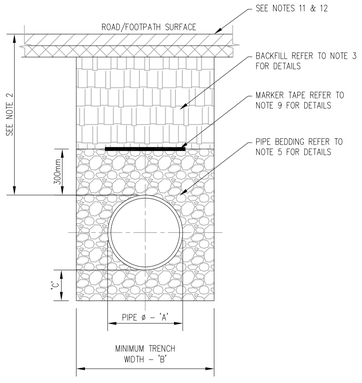


PLAN
INSPECTION CHAMBER
(PRECAST CONCRETE CONSTRUCTION)



PLAN
INSPECTION CHAMBER
(BLOCKWORK CONSTRUCTION)

DETAIL 04 – PRIVATE SIDE INSPECTION CHAMBER

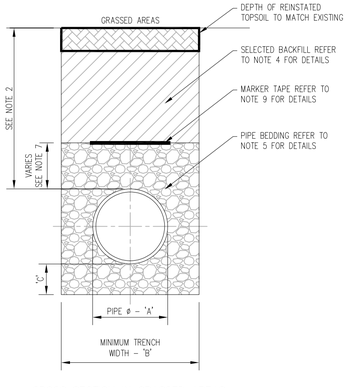


CROSS SECTION IN ROADS

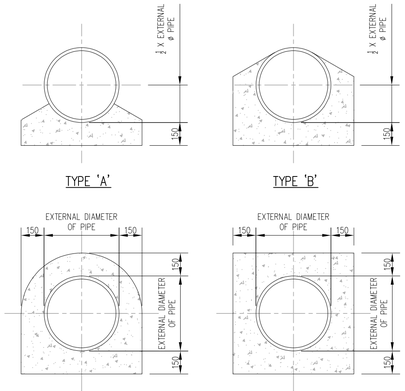
PIPE DIAMETER 'A' (mm)	DEPTH OF BEDDING 'C' (mm)
≤ 100	100
150 – 450	200

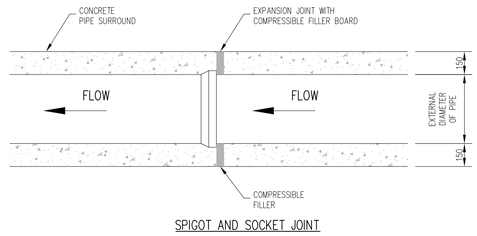
PIPE DIAMETER 'A' (mm)	TRENCH WIDTH 'B' (mm)
≤ 80 RISING MAIN	SEE NOTE 10.
100	500
150	600
200	600
250	750
300	750
350	750
400	900
450	900

DETAIL 05 – TRENCH BACKFILL AND BEDDING



CROSS SECTION IN GRASSED AREAS





SPIGOT AND SOCKET JOINT

DETAIL 06 –CONCRETE BED, HAUNCH AND SURROUND TO WASTEWATER PIPES
SCALE 1:20

REV	DATE	DESCRIPTION	DWG BY	APPR. BY
P	01.03.24	S 179 A	RM	LM

ISSUED
S 179 A

CLIENT
LOUTH COUNTY COUNCIL

PROJECT NAME
DUNLEER HOUSING

DRAWING NAME
IRISH WATER FOUL & SURFACE DRAINAGE DETAILS SHEET 1 OF 4

PROJECT No.
23D046

DRAWING No.	REVISION
04A	P

SCALE	DRAWN DATE
AS SHOWN	24.11.23

CAD DRAWN BY	CHECKED BY	APPROVED BY
R.M.	L.M.	D.H.

HAYES HIGGINS PARTNERSHIP
The Glass House, 11 Coke Lane
Smithfield, Dublin 7. Tel: 01 6612321
E-mail: admin@hayeshiggins.ie
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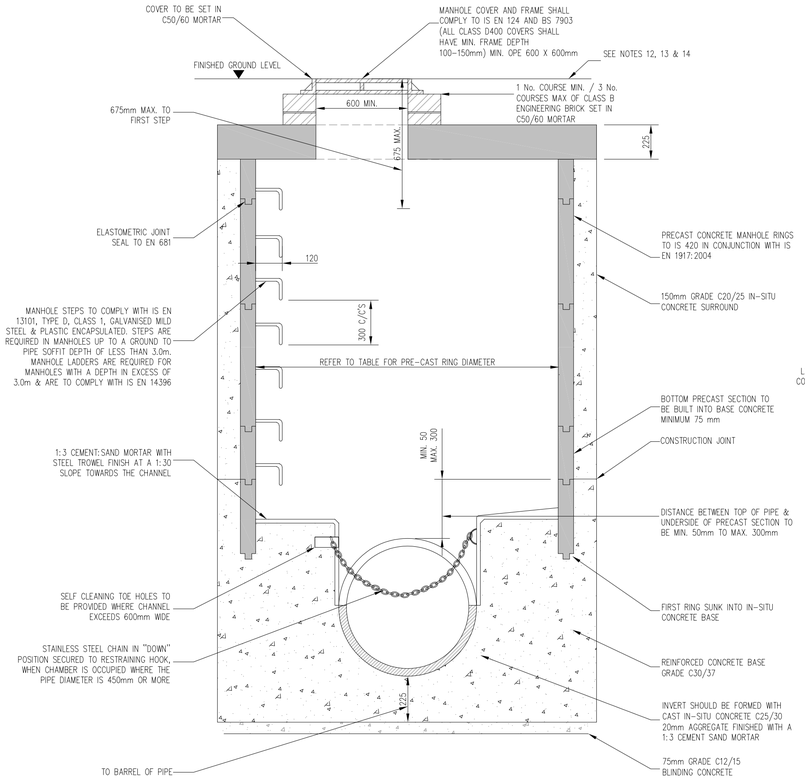
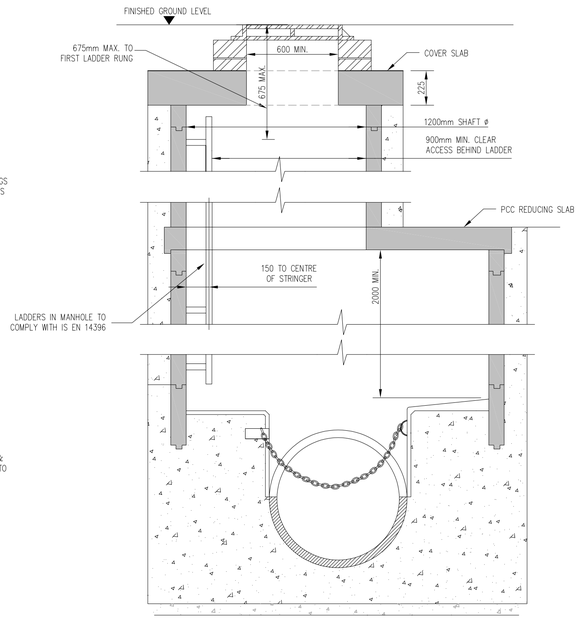
Email: info@hhp.ie

A1



SECTION A–A



MANHOLE DETAIL > 3m & < 6m GROUND TO SOFFIT DEPTH

(NOTE: ON MANHOLES <1.5mø, REDUCING SLAB NOT TO BE USED & PCC RINGS TO CONTINUE UP TO COVER SLAB)

ROCKER PIPE LENGTH	
PIPE DIAMETER (mm)	ROCKER PIPE LENGTH (mm)
150 – 600	600
> 600 – 750	1000
> 750	1250

MINIMUM MANHOLE DIAMETERS	
DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIAMETER OF MANHOLE (mm)
< 375	1200
375 TO 450	1350
500 TO 750	1500

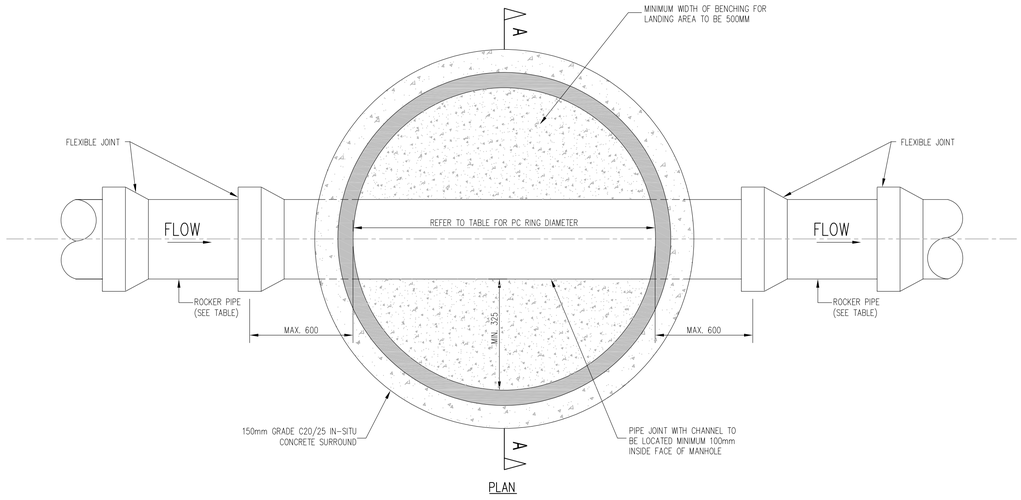
NOTES

GENERAL

1.) THESE DRAWINGS TO BE READ IN CONJUNCTION WITH ALL RELEVANT HAYES HIGGINS ENGINEERING DRAWINGS AND SPECIFICATIONS.

2.) DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.

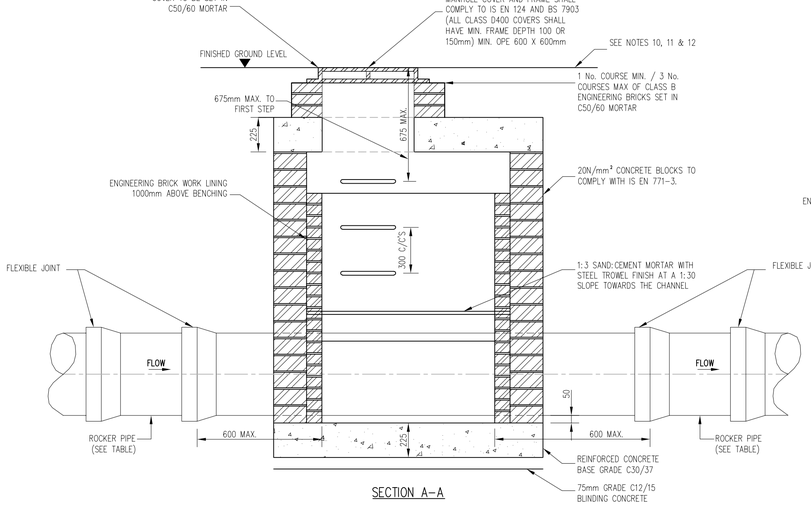
3.) FOUL WATER/WASTE WATER TO CURRENT IRISH WATER SPECIFICATION AND DETAILS (IW–CDS–5030–01).



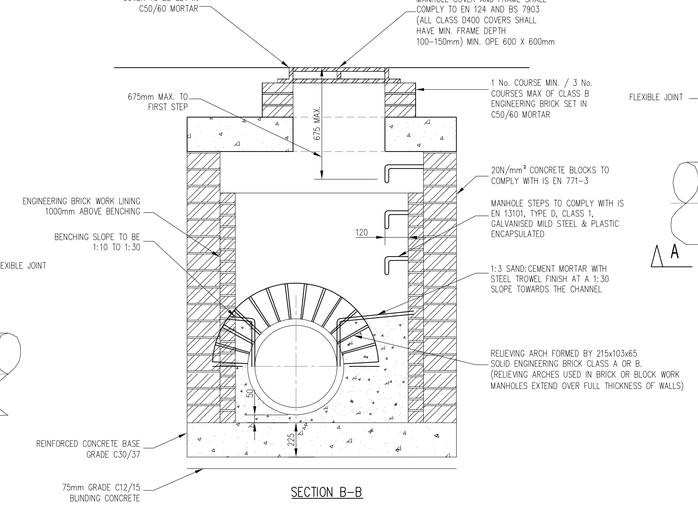
PLAN

DETAIL 08 – PRE–CAST CONCRETE MANHOLE

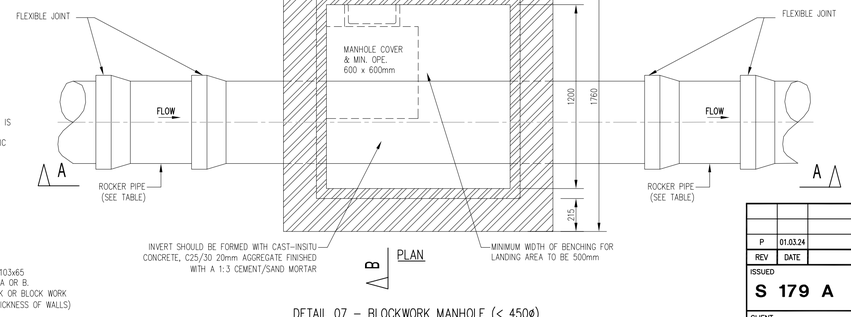
ROCKER PIPE LENGTH	
PIPE DIAMETER (mm)	ROCKER PIPE LENGTH (mm)
150 – 600	600
> 600 – 750	1000
> 750	1250



SECTION A–A

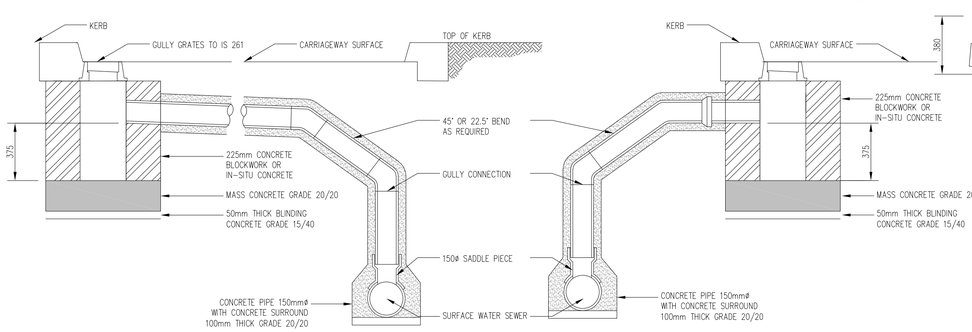


SECTION B–B



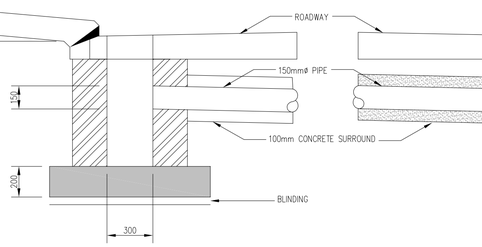
PLAN

DETAIL 07 – BLOCKWORK MANHOLE (< 450ø)

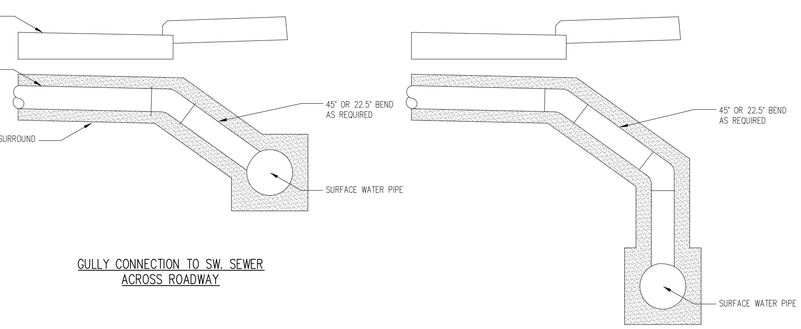


GULLY PIT TO SW. SEWER ON OPPOSITE SIDE OF CARRIAGEWAY

GULLY PIT TO SW. SEWER ON SAME SIDE OF CARRIAGEWAY



GULLY CONNECTION TO SW. SEWER ACROSS ROADWAY



REV	DATE	DESCRIPTION	DWG BY	APPR. BY
P	01.03.24	S 179 A	RM	LM

ISSUED

S 179 A

CLIENT

LOUTH COUNTY COUNCIL

PROJECT NAME

DUNLEER HOUSING

DRAWING NAME

IRISH WATER FOUL & SURFACE DRAINAGE DETAILS SHEET 2 OF 4

PROJECT No.

23D046

DRAWING No.	REVISION
04B	P
SCALE: AS SHOWN	DRAWN DATE: 24.11.23

CAD DRAWN BY	CHECKED BY	APPROVED BY
R.M.	L.M.	D.H.

HAYES HIGGINS PARTNERSHIP
The Glass House, 11 Coke Lane
Smithfield, Dublin 7. Tel: 01 6612321
E-mail: admin@hayeshiggins.ie
Gas House Lane, Kilkenny. Tel: (056) 7764710
Email: info@hhp.ie

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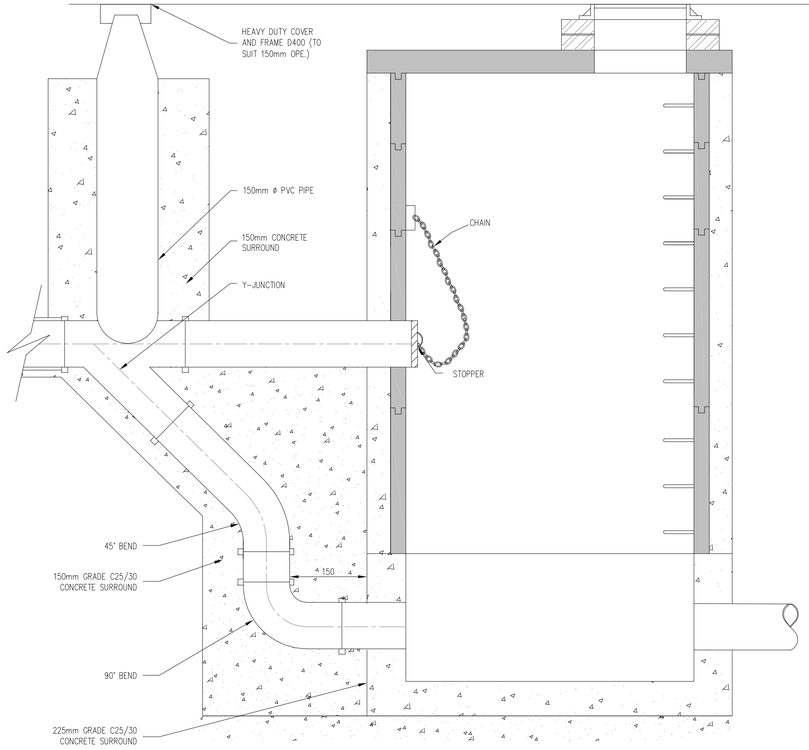
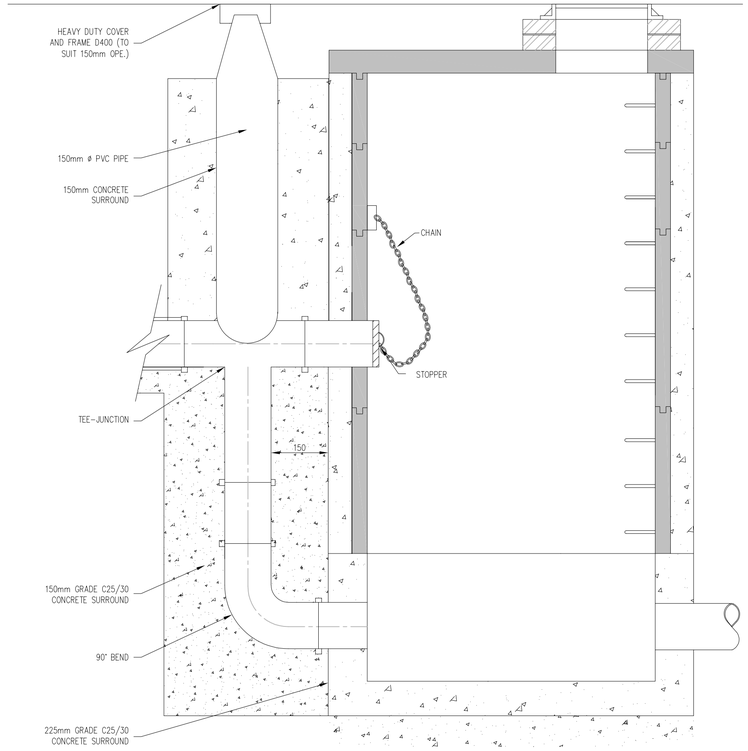


TYPE No.1

150mm – 450mm ø (INCL.) DROP GREATER THAN 1700mm
500mm – 900mm ø (INCL.) DROP GREATER THAN 2300mm



TYPE No.2

150mm – 450mm ø (INCL.) DROP GREATER THAN 900mm AND LESS THAN 1700mm
500mm – 900mm ø (INCL.) DROP GREATER THAN 1300mm AND LESS THAN 2300mm

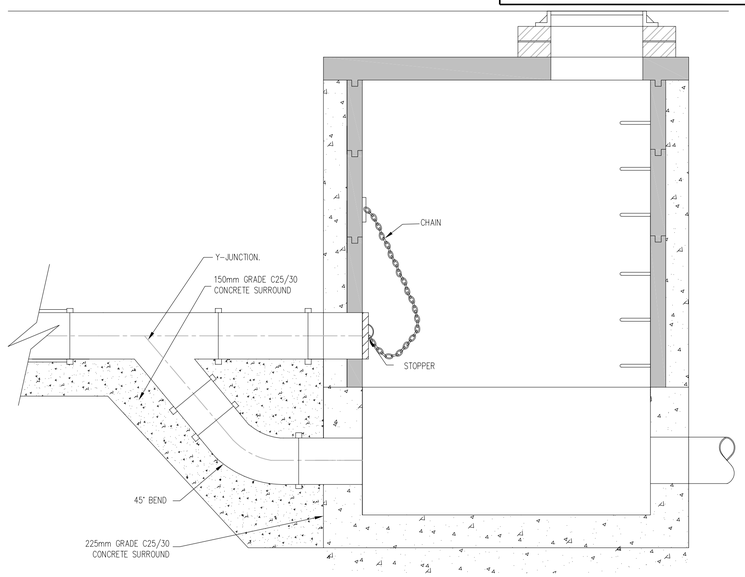
NOTES

GENERAL

1.) THESE DRAWINGS TO BE READ IN CONJUNCTION WITH ALL RELEVANT HAYES HIGGINS ENGINEERING DRAWINGS AND SPECIFICATIONS.

2.) DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.

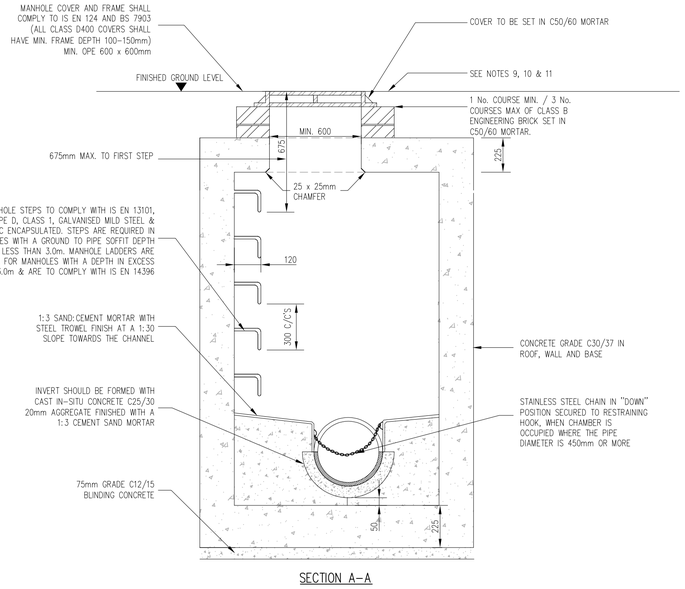
3.) FOUL WATER/WASTE WATER TO CURRENT IRISH WATER SPECIFICATION AND DETAILS (IW-CDS-5030-01).



TYPE No.3

150mm – 450mm ø (INCL.) DROP GREATER THAN 600mm AND LESS THAN 900mm
500mm – 900mm ø (INCL.) DROP GREATER THAN 600mm AND LESS THAN 1300mm

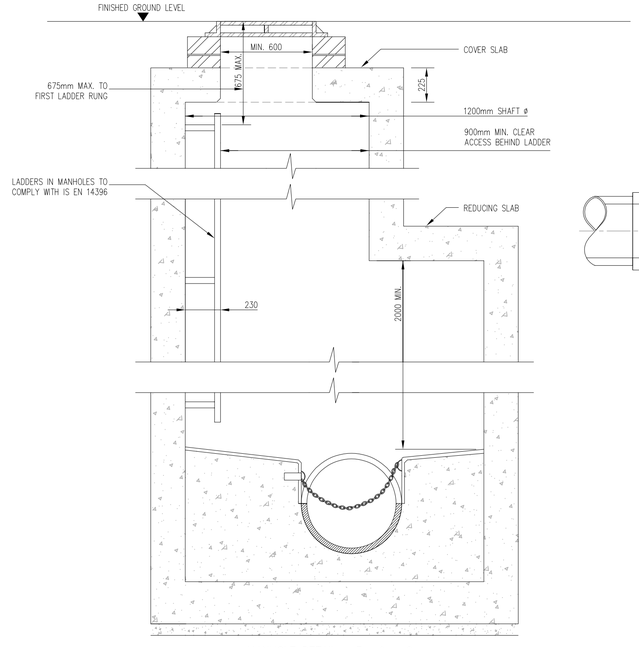
DETAIL 10 – BACKDROP MANHOLES



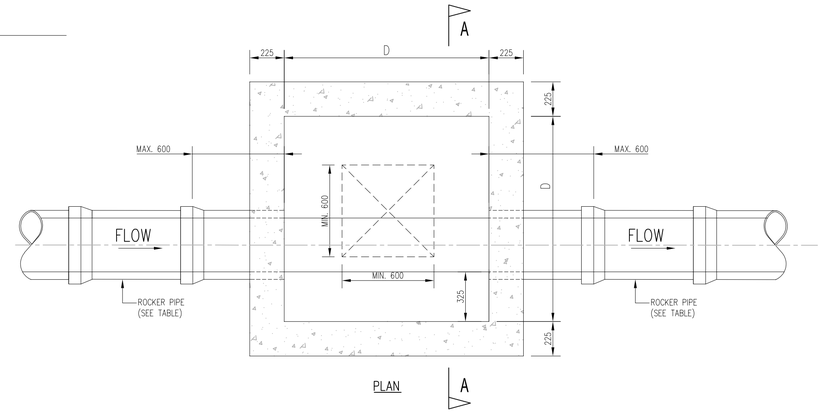
SECTION A–A

ROCKER PIPE LENGTH	
PIPE DIAMETER (mm)	ROCKER PIPE LENGTH (mm)
150 – 600	600
> 600 – 750	1000
> 750	1250

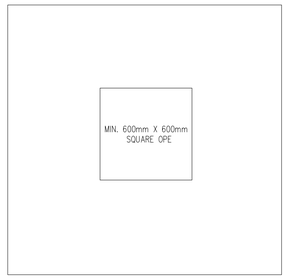
MINIMUM MANHOLE DIMENSIONS "D"	
DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIMENSION OF MANHOLE (mm)
< 375	1200
375 – 450	1350
500 – 750	1500



MANHOLE DETAIL > 3m & < 6m GROUND TO PIPE SOFFIT DEPTH
(NOTE: ON MANHOLES <1.5m SHAFT DIMENSION, REDUCING SLAB NOT TO BE USED & SHAFT TO CONTINUE UP TO COVER SLAB)



PLAN



ROOF PLAN

DETAIL 09 – IN-SITU CONCRETE MANHOLE

REV	DATE	DESCRIPTION	DWG BY	APPR. BY
P	01.03.24	S 179 A	RM	LM

ISSUED
S 179 A

CLIENT
LOUTH COUNTY COUNCIL

PROJECT NAME
DUNLEER HOUSING

DRAWING NAME
IRISH WATER FOUL & SURFACE DRAINAGE DETAILS SHEET 3 OF 4

PROJECT No.
23D046

DRAWING No.	REVISION
04C	P

SCALE	DRAWN DATE
AS SHOWN	24.11.23

CAD DRAWN BY	CHECKED BY	APPROVED BY
R.M.	L.M.	D.H.

HAYES HIGGINS PARTNERSHIP
The Glass House, 11 Coke Lane
Smithfield, Dublin 7. Tel: 01 6612321
E-mail: admin@hayeshiggins.ie
Gas House Lane, Kilkenny. Tel: (056) 7764710
Email: info@hhp.ie

A1

NOTES

GENERAL

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3.) FOUL WATER/WASTE WATER TO CURRENT IRISH WATER SPECIFICATION AND DETAILS (IW-CDS-5030-01).

NOTES

DETAIL 01 – DRAIN AND SERVICE CONNECTION PIPEWORK

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. AN INSPECTION CHAMBER SHOULD BE LOCATED AT OR WITHIN 1m OF THE PROPERTY BOUNDARY AT THE UPSTREAM END OF EACH SERVICE CONNECTION ON THE PRIVATE SIDE OF THE CURTILAGE, IF PRACTICABLE, CONSULT WITH IRISH WATER ON ALTERNATIVE LOCATIONS.
3. ANY PIPE AND ASSOCIATED ACCESS UPSTREAM OF THE POINT OF CONNECTION TO A PUBLIC SEWER WITHIN THE CONFINES OF A PRIVATE BOUNDARY IS A PRIVATE DRAIN AND SHOULD BE CONSTRUCTED IN ACCORDANCE WITH BUILDING REGULATIONS.

DETAIL 02 – TYPICAL SERVICE LAYOUT INDICATING SEPARATION DISTANCES

NOTES:

1. THE SEPARATION DISTANCES OUTLINED ARE MINIMUM REQUIREMENTS.
2. SPECIFIC SEPARATION CLEARANCE DISTANCES IN EXCESS OF THESE MINIMA SHALL BE PROVIDED FOR SERVICES SUCH AS GAS, ELECTRICITY, FIBRE-OPTIC OR OIL FILLED CABLES AS THE CASE MAY BE. THE PARTICULAR UTILITY PROVIDERS SHALL BE CONSULTED TO DETERMINE THESE MINIMUM SEPARATION DISTANCES AND EVIDENCE OF THIS CONSULTATION, WITH THE SPECIFIED SEPARATION DISTANCES, SHALL BE PROVIDED TO IRISH WATER AT DESIGN STAGE.
3. NOTIFICATION IN WRITING IS REQUIRED SHOULD WORKS BE WITHIN THE FOLLOWING DISTANCES FROM AN EXISTING WATER MAIN OR WASTEWATER RISING MAIN:

HORIZONTAL

1m AT EITHER SIDE OF AN EXISTING MAIN LESS THAN 200mm DIAMETER.

2m AT EITHER SIDE OF AN EXISTING MAIN OF 200mm TO 350mm DIAMETER.

5m AT EITHER SIDE OF AN EXISTING MAIN OF 350mm OR GREATER IN DIAMETER.

WHERE DUCTS OR PIPES ARE TO BE LAID CLOSE TO AN EXISTING WATERMAIN OR SEWER IN THE OWNERSHIP OR IRISH WATER, NOTIFICATION IN WRITING SHALL BE PROVIDED A MINIMUM OF 10 DAYS AHEAD OF ADVANCEMENT OF THE WORK.

NOTIFICATION IN WRITING IS REQUIRED SHOULD WORKS BE WITHIN 1.5m DISTANCE OF A WASTEWATER SEWER.

REQUIREMENTS SHALL ALSO APPLY TO TRIAL HOLES OR SLIT TRENCHES TO LOCATE THE MAIN OR GAIN GROUND INFO DATA.

LARGER DIAMETERS >350mm DISTRIBUTION AND TRUNK MAINS, IRISH WATER MUST BE NOTIFIED AT LEAST 1 MONTH IN ADVANCE.

DEVELOPERS SHALL ALSO COMPLY WITH ANY NOTIFICATION REQUIREMENTS OF OTHER UTILITY PROVIDERS (ESB, GAS MAIN, TELECOMMUNICATION ETC.).

4. DETAILED PROPOSALS, INCLUDING WORK METHOD STATEMENTS, INSURANCE CONFIRMATION AND DETAILS OF WORK COMPLETED OF A SIMILAR NATURE MUST BE SUBMITTED TO IRISH WATER FOR ITS CONSIDERATION BEFORE AGREEMENT WILL ISSUE. ALL SUCH WORKS IN THE VICINITY OF ARTERIAL WATER MAINS AND SEWERS (MAINS GREATER THAN 400mm) SHALL BE SUBJECT TO WRITTEN AGREEMENT WITH IRISH WATER BEFORE CONSTRUCTION COMMENCES ON SITE. THIS AGREEMENT SHALL ALSO INCLUDE ANY NECESSARY PROTECTION FOR WATER MAINS.
5. ANY DAMAGE SHALL BE NOTIFIED IMMEDIATELY TO IRISH WATER. THE PERSON WHO CAUSES THE DAMAGE TO A SEWER MAIN OR FITTING WILL BE DEEMED TO HAVE COMMITTED AN OFFENCE UNDER SECTION 45 OF THE WATER SERVICES ACT 2007.
6. UNDER NO CIRCUMSTANCES WILL IRISH WATER ACCEPT SEWER MAIN INSTALLATIONS UNDER STRUCTURES, EXISTING OR PROPOSED, OR IN CLOSE PROXIMITY TO ANY EXISTING STRUCTURES OR FEATURES THAT WILL INHIBIT ACCESS FOR POST INSTALLATION MAINTENANCE AND ACCESS.
7. THE MINIMUM CLEAR DISTANCE WILL BE INCREASED IF THE SEWER IS GREATER THAN 3m DEEP OR IF THE DIAMETER IS GREATER THAN 375mm. THE MINIMUM CLEAR DISTANCE IN THESE SITUATIONS SHALL BE > DEPTH TO INVERT OR 10 TIMES THE SEWER DIAMETER, WHICH EVER IS GREATER.
8. THE EXTERNAL FACES OF MANHOLE SHALL BE AT LEAST 0.5m FROM KERB LINE.
9. WHERE DESIGN DEVIATES FROM TYPICAL DETAILS, THE LAYOUT IS SUBJECT TO REVIEW BY IRISH WATER.

DETAIL 03 – TYPICAL SEWER/SERVICE PIPE CONNECTION

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS NOTED OTHERWISE.
2. AS FAR AS PRACTICABLE, JUNCTIONS AND SERVICE CONNECTIONS SHALL BE BUILT IN FOR ALL PLANNED USERS WHEN THE SEWER IS BEING CONSTRUCTED. WHERE IT IS NECESSARY TO MAKE A POST-CONSTRUCTION CONNECTION THE DEVELOPER SHALL BRING THE SEWER TO THE INSPECTION CHAMBER, INSTALL THE INSPECTION CHAMBER AND SEAL THE UPSTREAM END UNTIL THE CONNECTION IS REQUIRED.
3. THE VERTICAL ANGLE BETWEEN THE SERVICE CONNECTING PIPE AND THE HORIZONTAL SHALL BE GREATER THAN 0° AND NOT MORE THAN 60°.
4. WHERE THE CONNECTION IS BEING MADE TO A SEWER WITH A NOMINAL INTERNAL DIAMETER OF 300mm DIAMETER OF LESS, CONNECTIONS SHALL BE MADE USING 45° ANGLE JUNCTIONS.
5. WHERE THE CONNECTION IS BEING MADE TO A SEWER WITH A NOMINAL INTERNAL DIAMETER GREATER THAN 300mm :
   A) IF THE DIAMETER OF THE CONNECTING PIPE IS GREATER THAN HALF THE DIAMETER OF THE SEWER, AN ACCESS MANHOLE SHALL BE CONSTRUCTED TO FORM THE CONNECTION POINT; OR
   B) IF THE DIAMETER OF THE CONNECTING PIPE IS LESS THAN OR EQUAL TO HALF THE DIAMETER OF THE SEWER, THEN THE CONNECTION SHALL BE MADE USING A PREFORMED SADDLE FITTING WITH A SLOW BEND BETWEEN THE SADDLE AND THE CONNECTING SEWER/DRAIN.
6. CONNECTIONS MADE WITH SADDLE FITTINGS SHALL BE MADE BY CUTTING AND SAFELY REMOVING A CORE FROM THE PIPE AND JOINTING THE SADDLE FITTING TO THE PIPE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS TO ENSURE A WATERTIGHT JOINT. THE CONNECTING PIPE SHALL NOT PROTRUDE INTO THE SEWERS.
7. THE USE OF 90° CONNECTIONS TO THE SEWER MAY BE ALLOWED SUBJECT TO IRISH WATER REVIEW, PROVIDED THE SADDLE OR BRANCH INCORPORATES A SWEPT TEE CONNECTION TOWARDS THE DIRECTION OF FLOW.

DETAIL 04 – PRIVATE SIDE INSPECTION CHAMBER

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. AN INSPECTION CHAMBER SHOULD BE LOCATED AT OR WITHIN 1m OF THE PROPERTY BOUNDARY AT THE UPSTREAM END OF EACH SERVICE CONNECTION ON THE PRIVATE SIDE OF THE CURTILAGE, IF PRACTICABLE, CONSULT WITH IRISH WATER ON ALTERNATIVE LOCATIONS.
3. ANY PIPE AND ASSOCIATED ACCESS UPSTREAM OF THE POINT OF CONNECTION TO A PUBLIC SEWER IS A PRIVATE DRAIN AND SHOULD BE CONSTRUCTED IN ACCORDANCE WITH THE BUILDING REGULATIONS.
4. ACCESS POINTS SHOULD BE LOCATED SO THAT THEY ARE ACCESSIBLE AND APPARENT TO THE MAINTAINER AT ALL TIMES FOR USE. THEY SHOULD AVOID REAR GARDENS OR ENCLOSED LOCATIONS AND THEY SHOULD NEVER BE OVERLAIN WITH SURFACE DRESSING, TOPSOIL, ETC.
5. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY IRISH WATER.
6. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
7. PROPRIETARY PREFABRICATED CHAMBER UNITS MAY ALSO BE USED, SUBJECT TO REVIEW BY IRISH WATER.
8. CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 804 OR CLAUSE 808 MATERIAL AS PER DETAIL – 05.

DETAIL 05 – TRENCH BACKFILL AND BEDDING

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. THE MINIMUM DEPTH OF COVER FROM THE FINISHED SURFACE TO THE CROWN OF GRAVITY PIPES WITHOUT PROTECTION SHOULD BE AS FOLLOWS:

A) GARDENS AND PATHWAYS WITHOUT ANY POSSIBILITY OF VEHICULAR ACCESS – DEPTH NOT LESS THAN 0.5M (THIS WOULD NORMALLY RELATE TO DRAINS IN PRIVATE PROPERTY, SHALLOW PIPES OF THIS NATURE ARE UNDESIRABLE AND SHOULD BE INSTALLED IN ACCORDANCE WITH THE CURRENT BUILDING REGULATIONS).

B) DRIVEWAYS, PARKING AREAS AND YARDS WITH HEIGHT RESTRICTIONS TO PREVENT ENTRY BY VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES – DEPTH NOT LESS THAN 0.75m.

C) DRIVEWAYS, PARKING AREAS AND NARROW STREETS WITHOUT FOOTWAYS (EG MEWS DEVELOPMENTS) WITH LIMITED ACCESS FOR VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES – DEPTH NOT LESS THAN 0.9m.

A. DEPTHS OF SEWERS IN GATED ESTATES SHALL BE SIMILAR TO THAT OUTLINED ABOVE.

B. AGRICULTURAL LAND AND PUBLIC OPEN SPACE – DEPTH NOT LESS THAN 0.9m.

C. OTHER HIGHWAYS AND PARKING AREAS WITH UNRESTRICTED ACCESS TO VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES – DEPTH NOT LESS THAN 1.2m.

3. CLAUSE 804/808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS IS TO BE USED AS BACKFILL MATERIAL WHERE THE SEWER MAIN IS LOCATED IN ROADS, FOOTPATHS OR WHEN THE NEAREST PART OF THE TRENCH IS WITHIN 1M OF THE PAVED EDGE OF THE ROADWAY. CLAUSE 804/808 IS TO BE COMPACTED AS PER CLAUSE 802 OF THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS. CLAUSE 808 IS TO BE USED WITHIN 500mm OF CEMENT BOUND MATERIALS, CONCRETE PAVEMENTS, CONCRETE STRUCTURES OR CONCRETE PRODUCTS, OTHERWISE CLAUSE 804 MAY BE USED.
   ALTERNATIVE BACKFILL MATERIAL TO THAT DESCRIBED ABOVE (CLAUSE 804 OR 808) OF THE PIPE TRENCH WILL ONLY BE ALLOWED BY IRISH WATER WHERE THE ROADS AUTHORITY IN WHOSE FUNCTIONAL AREA THE DEVELOPMENT IS LOCATED, PROVIDES WRITTEN APPROVAL TO THE DEVELOPER TO THE USE OF SUCH ALTERNATIVE MATERIAL.
4. SELECTED EXCAVATED MATERIAL MAY BE USED IN GREENFIELD AREAS ABOVE GRANULAR PIPE SURROUND MATERIAL SUBJECT TO REVIEW BY IRISH WATER.
5. PIPE BEDDING SHALL COMPLY WITH WIS 4-08-02 AND IGN 4-08-01 GRANULAR MATERIAL SHALL BE 14mm TO 5mm GRADED AGGREGATE OR 10mm SINGLE SIZED AGGREGATE IS EN 13242. CONCRETE BED, HAUNCH & SURROUND, WHERE REQUIRED, SHALL BE TO DETAIL – 06.
6. IN SOFT GROUND CONDITIONS (CBR < 5) THE MATERIAL SHOULD BE EXCAVATED AND DISPOSED OF IN ACCORDANCE WITH THE WASTE MANAGEMENT ACT AND CLAUSE 804 / 808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS SHALL REPLACE THE EXCAVATED MATERIAL, WRAPPED IN GEO-TEXTILE WRAPPING. ALTERNATIVELY,
7. IN GREENFIELD AREAS, TYPE B BACKFILL (SELECTED EXCAVATED MATERIAL) WILL BE ALLOWED ABOVE THE SIDE HAUNCH GRANULAR MATERIAL IN THE CASE OF RIGID PIPES. A GRANULAR SURROUND OF A MINIMUM DEPTH OF 150mm ABOVE THE CROWN OF THE PIPE IS REQUIRED FOR FLEXIBLE PIPES, AND TYPE B MATERIAL MAY BE USED AS BACKFILL ABOVE THIS. ALL RISING MAINS IN GREENFIELD AREAS SHALL HAVE A MINIMUM COVER OF 300mm OF GRANULAR MATERIAL ABOVE THE EXTERNAL CROWN OF THE PIPE.
8. PIPES SHALL NOT BE SUPPORTED ON STONES, ROCKS OR ANY HARD OBJECTS AT ANY POINT ALONG THE TRENCH. ROCK SHALL BE EXCAVATED TO A DEPTH OF 150mm BELOW THE ACTUAL DEPTH OF THE TRENCH WITH VOID FILLED WITH CLAUS 804/808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS. THE GRANULAR MATERIAL SHALL BE LAID ABOVE THIS VOID BACKFILL MATERIAL.
9. NON DEGRADABLE MARKER TAPE SHOULD BE INSTALLED AT THE TOP OF PIPE BEDDING LAYER. IN THE CASE OF NON METAL PIPE MATERIAL THE MARKER TAPE SHOULD INCORPORATE A TRACE WIRE WHICH IS LINKED TO FITTINGS AND TERMINATED AT THE WASTE WATER PUMPING STATION AND THE DISCHARGE MANHOLE.
10. TRENCH WIDTHS FOR PIPES SIZES <=80mm MAY BE <500mm SUBJECT TO CONSIDERATION BEING GIVEN TO THE TRENCH DEPTH, HEALTH & SAFETY & CONSTRUCTION ACCESS REQUIREMENTS
11. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
12. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF 'GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS' BY THE DEPT. OF TRANSPORT, TOURISM & SPORT OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.

DETAIL 06 – CONCRETE BED, HAUNCH AND SURROUND TO WASTEWATER PIPES

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS NOTED OTHERWISE.
2. CONCRETE PIPE BEDS AND HAUNCHES MAY BE REQUIRED TO ADDRESS MINIMUM COVER SITUATIONS, AND SHALL BE SUBJECT TO SUBMISSION AND ASSESSMENT BY IRISH WATER BEFORE ADVANCING WITH THE WORKS.
3. CONCRETE PIPE BEDS AND HAUNCHES SHALL HAVE A MINIMUM THICKNESS OF 150MM WITH AN ABSOLUTE MINIMUM DEPTH OF COVER ABOVE THE EXTERNAL CROWN OF THE PIPE OF 750MM.
4. CONCRETE TO BE IN ACCORDANCE WITH IS EN 206 AND TO BE CLASS C16/20 .
5. THE HAUNCHES AND SURROUNDS TO BE FORMED USING FORM WORK TO PROVIDE A ROUGH CAST FINISH.
6. EXPANSION JOINTS IN THE CONCRETE SHALL BE PROVIDED AT ALL PIPE JOINTS TO ALLOW FOR PIPE FLEXIBILITY, COMPRESSIBLE FILLER BOARD TO BE IN ACCORDANCE WITH BS EN 622-1 AND BS EN 622-4, AND TO BE 18mm THICK.
7. POLYETHYLENE PIPES SHALL BE WRAPPED IN PLASTIC SHEETING HAVING A COMPOSITION IN ACCORDANCE WITH BS 6076 BEFORE BEING CAST INTO CONCRETE.
8. BITUMINOUS MATERIAL SHALL NOT BE PUT IN CONTACT WITH PE OR PVC PIPES.

DETAIL 07 – BLOCKWORK MANHOLE (<450mm ø)

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. SOLID BLOCKWORK TO BE OF HIGH STRENGTH (20N/mm²) TO IS EN 771.
3. MAXIMUM DEPTH OF BLOCK WORK MANHOLE IS 1.20m (THE USE OF BLOCK WORK IN DEEPER MANHOLES WILL BE CONSIDERED BUT SUCH USE WILL REQUIRE DETAILED STRUCTURAL DESIGN AND BE SUBJECT TO IRISH WATER REVIEW).
4. WALLS TO BE FLUSH POINTED AND NOT PLASTERED INTERNALLY, INTERNAL LINING OF ENGINEERING BRICK TO IS EN 771-1 TO A HEIGHT OF 1m ABOVE BENCHING. ENGINEERING BRICK TO BE BONDED TO BLOCKWORK USING ENGLISH GARDEN WALL BOND.
5. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS FOR ROOF AND BASE SLABS TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO IRISH WATER FOR REVIEW. MANHOLE ROOFS SHALL CONSIST OF A REINFORCED CONCRETE SLAB OF IN-SITU CONCRETE, C30/37, WITH A MINIMUM THICKNESS OF 225mm DESIGNED TO CARRY ALL LIVE AND DEAD LOADS. ALTERNATIVELY, APPROVED PRE-CAST CONCRETE ROOF SLABS MAY BE USED SUBJECT TO IRISH WATER REVIEW AND COMPLIANCE WITH BS 5911 PART 4: 2002.
6. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW FROM IRISH WATER.
7. 200M ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
8. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE SHOULD ANTI-FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY IRISH WATER.
9. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206: 2013
10. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
11. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
12. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF 'GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS' BY THE DEPT. OF TRANSPORT, TOURISM & SPORT OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.

DETAIL 08 – PRECAST CONCRETE MANHOLE

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS NOTED OTHERWISE.
2. PRE-CAST MANHOLES UNITS: COMPLYING WITH REQUIREMENTS OF IS EN 1917 AND BS 5911-PART 3.
3. THICKER MANHOLE BASES REQUIRED FOR SEWERS IN EXCESS OF 3m DEEP WHERE THE SIZE IS GREATER THAN THE STANDARD MINIMUM SIZE.
4. APPROVED PRE-CAST CONCRETE BASES MAY BE USED INCORPORATING CHANNELS, BENCHING ETC. SUBJECT TO IRISH WATER REVIEW AND COMPLYING WITH BS 5911-PART 4 2002.
5. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO IRISH WATER FOR REVIEW.
6. MANHOLES GREATER THAN 3m IN DEPTH WILL REQUIRE A DETAILED STRUCTURAL DESIGN AND BE SUBJECT TO IRISH WATER REVIEW.
7. MANHOLE ROOFS SHALL CONSIST OF A REINFORCED CONCRETE SLAB OF IN-SITU CONCRETE, C30/37, WITH A MINIMUM THICKNESS OF 225mm DESIGNED TO CARRY ALL LIVE AND DEAD LOADS. ALTERNATIVELY, APPROVED PRE-CAST CONCRETE ROOF SLABS MAY BE USED SUBJECT TO IRISH WATER REVIEW AND COMPLIANCE WITH BS 5911 PART 4: 2002.
8. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY IRISH WATER.
9. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
10. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI-FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY IRISH WATER.
11. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206: 2013.
12. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
13. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
14. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF 'GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS' BY THE DEPT. OF TRANSPORT, TOURISM & SPORT OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.
15. IF DEPTH FROM GROUND TO PIPE SOFFIT IS GREATER THAN 6m DEEP, A SITE SPECIFIC ENGINEERED SOLUTION FOR ACCESS SHALL BE PROVIDED.
16. PROPRIETARY WATERTIGHT PCC MANHOLE RING SYSTEMS WITH A WALL THICKNESS >125mm, & A WATER TIGHT JOINT SEALING SYSTEM, MAY BE USED WITHOUT CONCRETE SURROUND, SUBJECT TO THE GROUND WATER LEVEL AT THE MANHOLE BEING LOW, & SUBJECT TO REVIEW BY IRISH WATER.

DETAIL 09 – IN-SITU CONCRETE MANHOLE

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. IN-SITU MANHOLES TO HAVE A MINIMUM WALL AND FLOOR THICKNESS OF 225mm FOR MANHOLE DEPTHS UP TO 3.0m AND 300mm OR MORE WHEN THE MANHOLE DEPTH EXCEEDS 3.0m.
3. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO IRISH WATER FOR REVIEW. MANHOLE ROOFS SHALL CONSIST OF A REINFORCED CONCRETE SLAB OF IN-SITU CONCRETE, C30/37, WITH A MINIMUM THICKNESS OF 225mm DESIGNED TO CARRY ALL LIVE AND DEAD LOADS. ALTERNATIVELY, APPROVED PRE-CAST CONCRETE ROOF SLABS MAY BE USED SUBJECT TO IRISH WATER APPROVAL AND COMPLIANCE WITH BS 5911 PART 4: 2002.
4. MANHOLES GREATER THAN 3m IN DEPTH WILL REQUIRE A DETAILED STRUCTURAL DESIGN AND BE SUBJECT TO IRISH WATER REVIEW.
5. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY IRISH WATER.
6. 200M ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
7. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI-FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY IRISH WATER.
8. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206: 2013
9. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
10. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
11. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF 'GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS' BY THE DEPT. OF TRANSPORT, TOURISM & SPORT OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.
12. IF DEPTH FROM GROUND TO PIPE SOFFIT EXCEEDS 6m, A SITE SPECIFIC ENGINEERED SOLUTION FOR ACCESS SHALL BE PROVIDED.

DETAIL 10 – BACKDROP MANHOLES

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. RODDING EYE CHAMBER SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS 261 AND BS 5834. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO REVIEW BY IRISH WATER.
3. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI-FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY IRISH WATER.
4. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
5. MANHOLE DETAILS TO BE IN ACCORDANCE WITH DETAIL – 07, 08 & 09.

REV	DATE	DESCRIPTION	DWG BY	APPR. BY
P	01.03.24	S 179 A	RM	LM

ISSUED

S 179 A

CLIENT

LOUTH COUNTY COUNCIL

PROJECT NAME

DUNLEER HOUSING

DRAWING NAME

IRISH WATER FOUL & SURFACE DRAINAGE DETAILS SHEET 4 OF 4

PROJECT No.

23D046

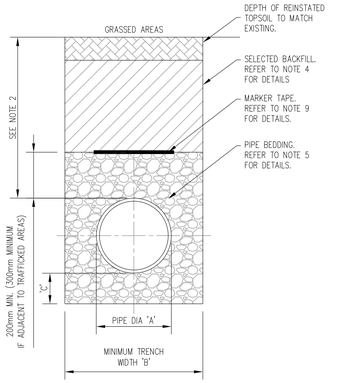
DRAWING No.	REVISION
04D	**P**

SCALE	DRAWN DATE
AS SHOWN	24.11..23

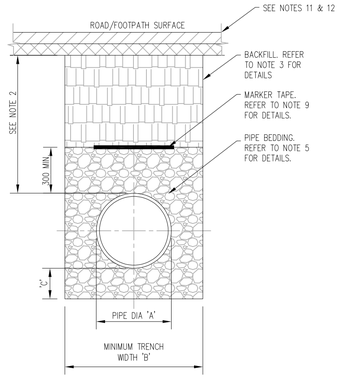
CAD DRAWN BY	CHECKED BY	APPROVED BY
R.M.	L.M.	D.H.

HAYES HIGGINS PARTNERSHIP
The Glass House, 11 Coke Lane
Smithfield, Dublin 7. Tel: 01 6612321
E-mail: admin@hayeshiggins.ie
Gas House Lane, Kilkenny. Tel: (056) 7764710
Email: info@hhp.ie

A1

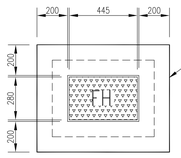


CROSS SECTION IN GRASSED AREAS
SCALE 1:40

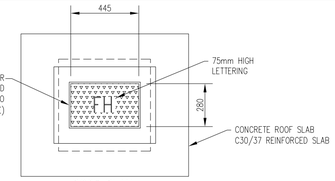


CROSS SECTION IN ROADWAYS
SCALE 1:40

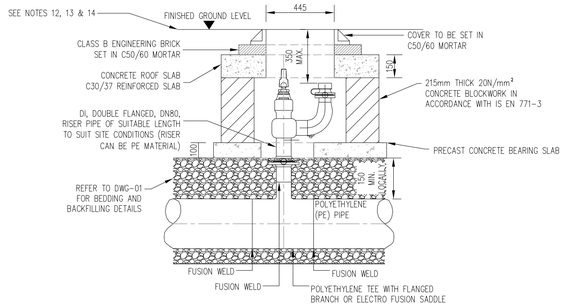
DETAIL 01 – TRENCH BACKFILL AND BEDDING



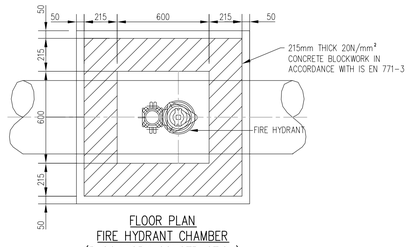
PLINTH DETAIL IN GRASS AREA
SCALE 1:40



ROOF PLAN
SCALE 1:40

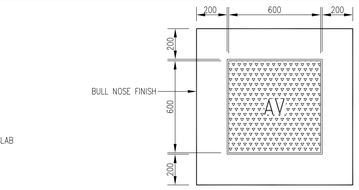


SECTION
SCALE 1:40

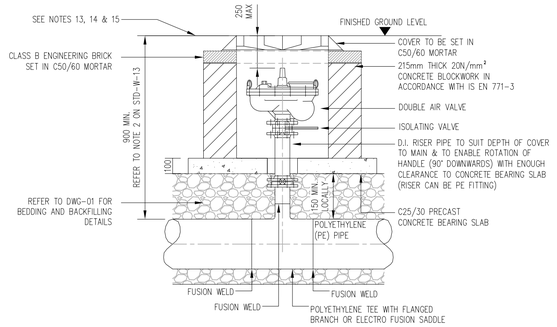


FLOOR PLAN
FIRE HYDRANT CHAMBER
(BLOCKWORK CONSTRUCTION)
SCALE 1:40

DETAIL 02 – ON-LINE HYDRANT FOR POLYETHYLENE (P.E.) PIPE



PLINTH DETAIL IN GRASS AREA
SCALE 1:40



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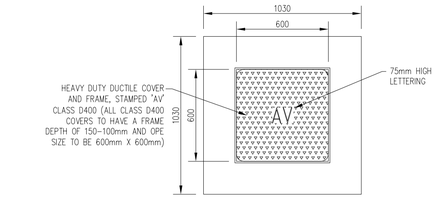
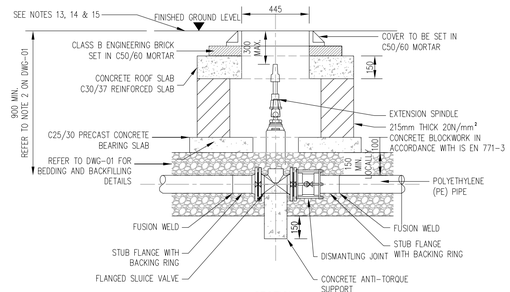


ROOF PLAN
SCALE 1:40

PLINTH DETAIL IN GRASS AREA
SCALE 1:40



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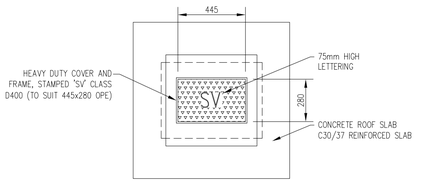
SCALE 1:40



ROOF PLAN
SCALE 1:40

NOTES

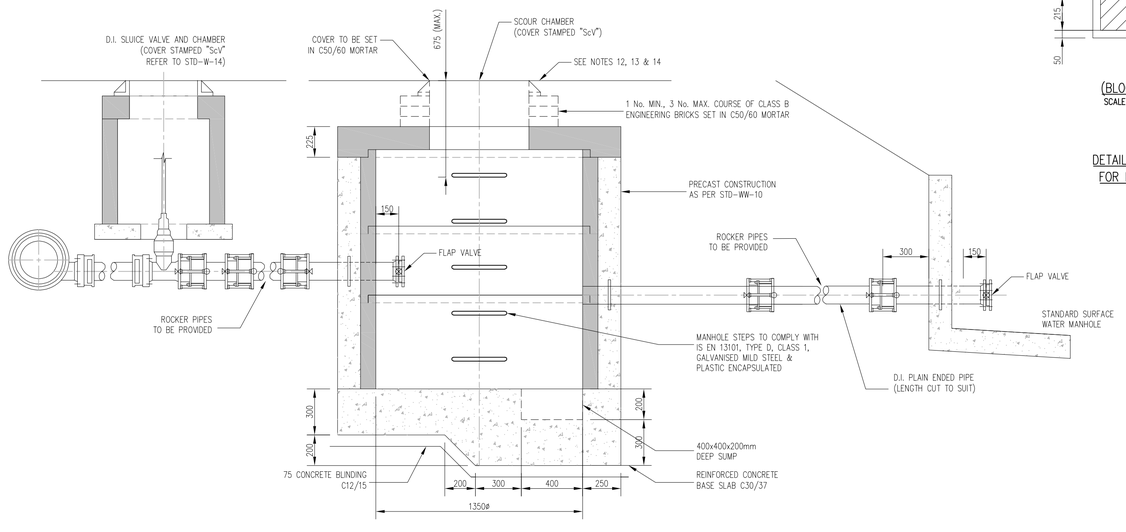
GENERAL

1.) THESE DRAWINGS TO BE READ IN CONJUNCTION WITH ALL RELEVANT HAYES HIGGINS ENGINEERING DRAWINGS AND SPECIFICATIONS.

2.) DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.

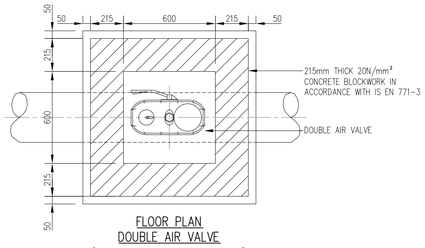
PIPE DIAMETER 'A' (mm)	DEPTH OF BEDDING 'C' (mm)
≤ 200	150
≥ 250	200
PIPE DIAMETER 'A' (mm)	TRENCH WIDTH 'B' (mm)
≤ 80	SEE NOTE 10.
100	500
150	600
200	600
250	750
300	750
350	750
400	900
450	900

DIAMETER OF MAIN	UP TO 250 (mm)	250 TO 350 (mm)
DIAMETER OF BRANCH	80mm	100mm
BORE OF VALVE INLET	80mm	100mm



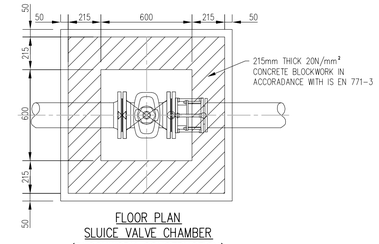
SECTION
NTS

DETAIL 10 – SCOUR VALVE CHAMBER FOUL RISING MAIN (<200mm ø)



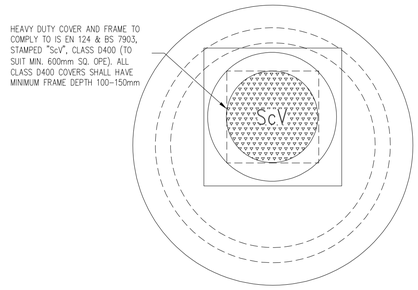
FLOOR PLAN
DOUBLE AIR VALVE
(BLOCKWORK CONSTRUCTION)
SCALE 1:40

DETAIL 03 – ON-LINE AIR VALVE FOR POLYETHYLENE (P.E.) PIPE

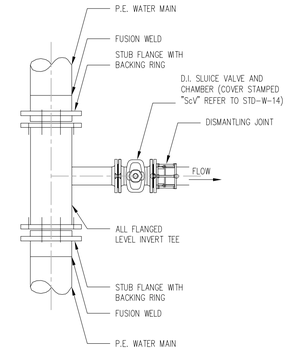


FLOOR PLAN
SLUICE VALVE CHAMBER
(BLOCKWORK CONSTRUCTION)
SCALE 1:40

DETAIL 04 –SLUICE VALVE FOR POLYETHYLENE (P.E.) PIPE (<350mm ø)



ROOF PLAN
NTS



PLAN (POLYETHYLENE WATER MAIN)
NTS

REV	DATE	DESCRIPTION	DWG BY	APPR. BY
P	01.03.24	S 179 A	RM	DH

ISSUED
S 179 A

CLIENT
LOUTH COUNTY COUNCIL

PROJECT NAME
DUNLEER HOUSING

DRAWING NAME
IRISH WATER WATERMAIN DETAILS SHEET 1 OF 4

PROJECT No.
23D046

DRAWING No.	REVISION
05A	P
SCALE: AS SHOWN	DRAWN DATE: 17.11.23

CAD DRAWN BY	CHECKED BY	APPROVED BY
R.M.	L.M.	D.H.

HAYES HIGGINS PARTNERSHIP
The Glass House, 11 Coke Lane
Smithfield, Dublin 7. Tel: 01 6612321
E-mail: admin@hayeshiggins.ie
Gas House Lane, Kilkenny. Tel: (056) 7764710
Email: info@hhp.ie

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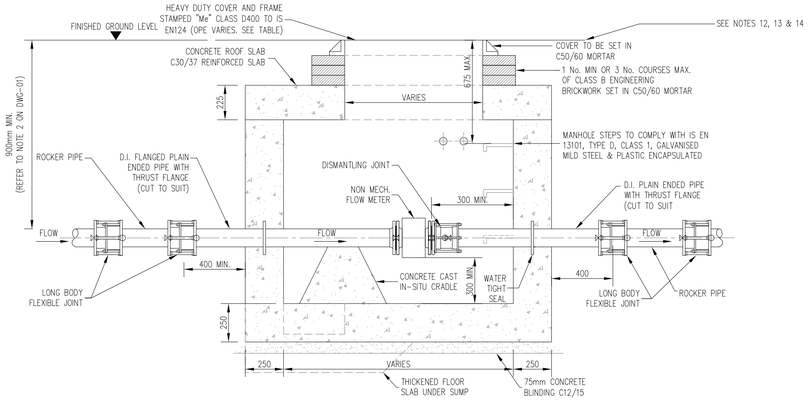
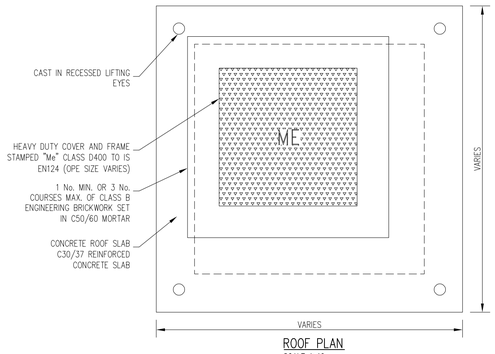
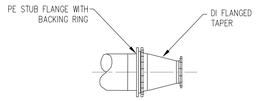


SECTION
SCALE 1:40

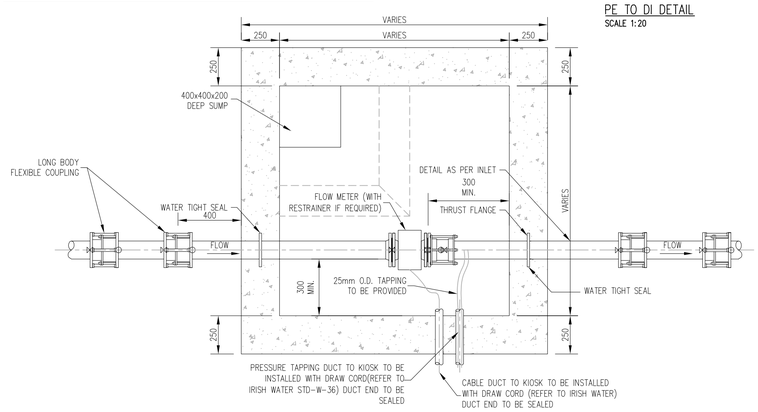


ROOF PLAN
SCALE 1:40

METER DIAMETER 'A' (mm)	INTERNAL CHAMBER DIMENSIONS	COVER DIMENSIONS
50 – 100	1200 x 1200mm	750 x 750mm
101 – 250	1500 x 1500mm	900 x 900mm

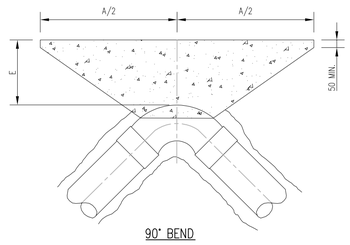


PE TO DI DETAIL
SCALE 1:20

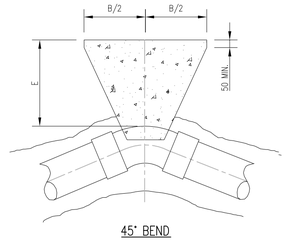


FLOOR PLAN
SCALE 1:40

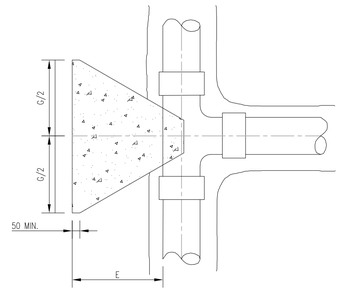
DETAIL 05 – NON-MECH.
METER CHAMBER (40-250mm ø)



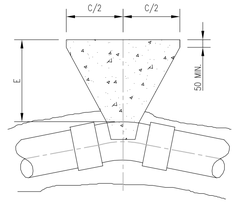
90° BEND



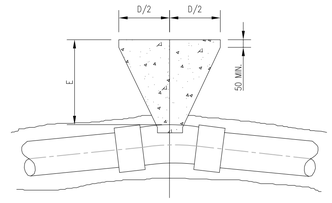
45° BEND



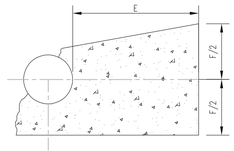
TEE



22.5° BEND



11.25° BEND

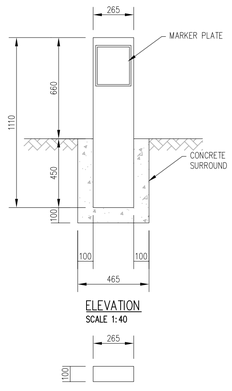


SECTIONAL ELEVATION FOR BEND OR TEE

HORIZONTAL BENDS

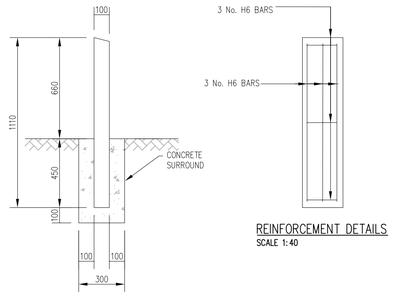
NOM. DIAMETER (mm)	15 BAR TO 18 BAR TEST PRESSURE DIMENSIONS 'A'	'B'	'C'	'D'	'E'	'F'	'G'
100	750mm	400mm	205mm	100mm	220mm	400mm	530mm
150	1250mm	700mm	350mm	180mm	250mm	500mm	890mm

DETAIL 06 – WATER MAIN
THRUST AND SUPPORT BLOCKS



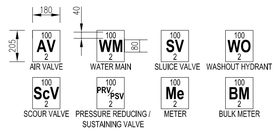
ELEVATION
SCALE 1:40

PLAN
SCALE 1:20

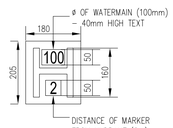


SECTION
SCALE 1:40

REINFORCEMENT DETAILS
SCALE 1:40



DETAIL 07 – MARKER POSTS/PLATES



HYDRANT

NOTES

GENERAL

1.) THESE DRAWINGS TO BE READ IN CONJUNCTION WITH ALL RELEVANT HAYES HIGGINS ENGINEERING DRAWINGS AND SPECIFICATIONS.

2.) DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.

REV	DATE	DESCRIPTION	DWG BY	APPR. BY
P	01.03.24	S 179 A	RM	LM

ISSUED
S 179 A

CLIENT
LOUTH COUNTY COUNCIL

PROJECT NAME
DUNLEER HOUSING

DRAWING NAME
IRISH WATER WATERMAIN DETAILS SHEET 2 OF 4

PROJECT No.
23D046

DRAWING No.	REVISION
05B	**P**

SCALE	DRAWN DATE
AS SHOWN	17.11.23

CAD DRAWN BY	CHECKED BY	APPROVED BY
R.M.	L.M.	D.H.

HAYES HIGGINS PARTNERSHIP
The Glass House, 11 Coke Lane
Smithfield, Dublin 7. Tel: 01 6612321
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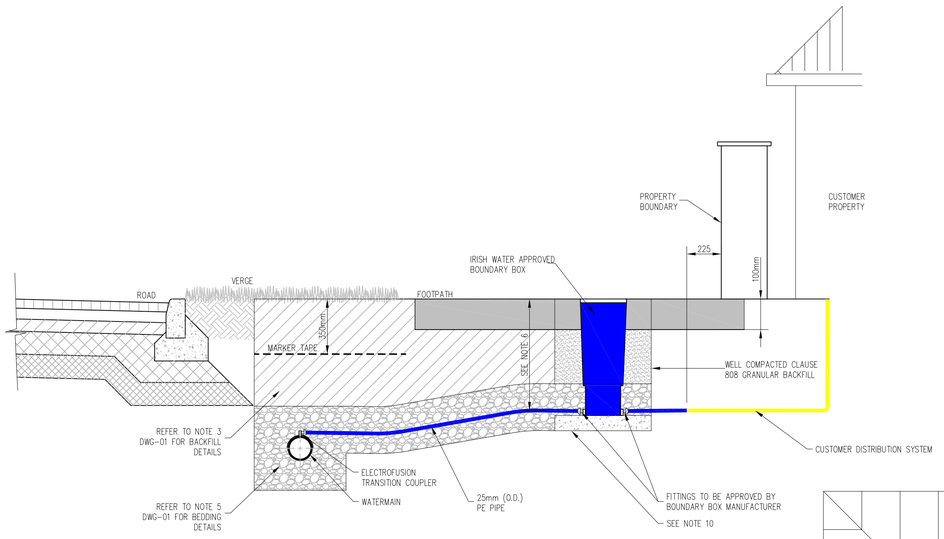
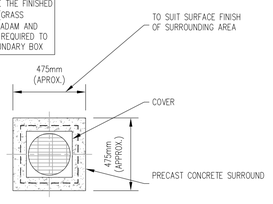
A1

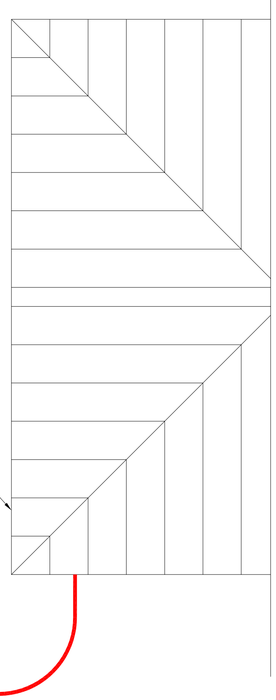


SECTION
(CUSTOMER CONNECTION AND BOUNDARY BOX)
SCALE 1:40

NOTE:
THIS DETAIL APPLIES TO WHERE THE FINISHED SURFACE IS EITHER UNBOUND (GRASS VERGE), BRICK PAVING OR MACADAM AND WHERE A CONCRETE PLINTH IS REQUIRED TO SUPPORT THE TOP OF THE BOUNDARY BOX



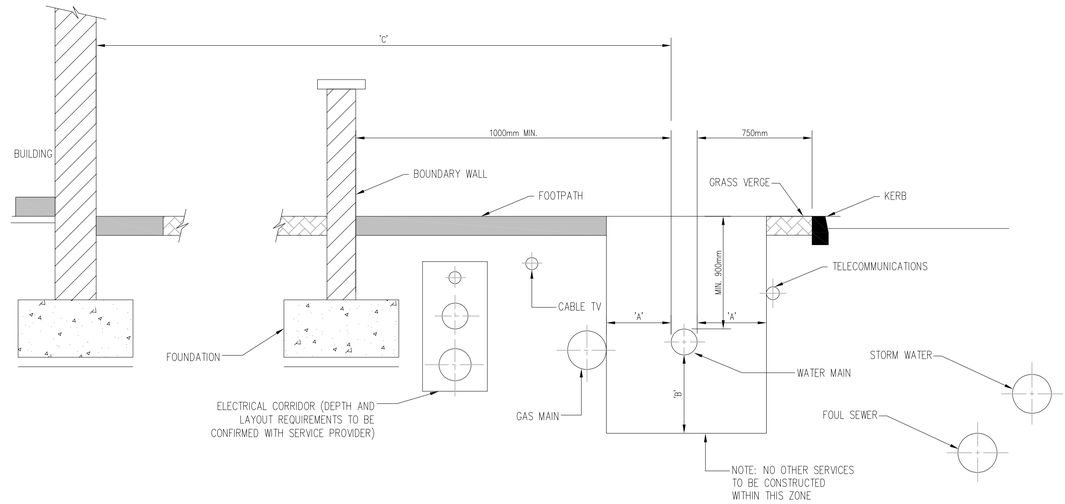
PLAN
(CONCRETE SURROUND TO BOUNDARY BOX COVER)
SCALE 1:40



FOR POLYETHYLENE (PE) WATERMAIN ONLY
SCALE 1:20

PLAN
(CUSTOMER CONNECTION AND BOUNDARY BOX)
SCALE 1:20

DETAIL 08 – CUSTOMER CONNECTION AND BOUNDARY BOX (25mm OD PIPE)



DIAMETER (mm)	'A' (mm)	'B' (mm)
< 300	300	300
300 – 450	500	500
> 450	3000	500

DIAMETER (mm)	'C' (mm)
≤ 150	3000
200 – 600	5000
> 600	8000

DETAIL 09 – TYPICAL SERVICE LAYOUT INDICATING SEPARATION DISTANCES

NOTES

GENERAL

1.) THESE DRAWINGS TO BE READ IN CONJUNCTION WITH ALL RELEVANT HAYES HIGGINS ENGINEERING DRAWINGS AND SPECIFICATIONS.

2.) DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.

REV	DATE	DESCRIPTION	DWG BY	APPR. BY
P	01.03.24	S 179 A	RM	LM

ISSUED
S 179 A

CLIENT
LOUTH COUNTY COUNCIL

PROJECT NAME
DUNLEER HOUSING

DRAWING NAME
IRISH WATER WATERMAIN DETAILS SHEET 3 OF 4

PROJECT No.
23D046

DRAWING No.	REVISION
05C	**P**

SCALE	DRAWN DATE
AS SHOWN	17.11.23

CAD DRAWN BY	CHECKED BY	APPROVED BY
R.M.	L.M.	D.H.

HAYES HIGGINS PARTNERSHIP
The Glass House, 11 Coke Lane
Smithfield, Dublin 7. Tel: 01 6612321
E-mail: admin@hayeshiggins.ie
Gas House Lane, Kilkenny. Tel: (056) 7764710
Email: info@hhp.ie

A1

NOTES

GENERAL

1.) THESE DRAWINGS TO BE READ IN CONJUNCTION WITH ALL RELEVANT HAYES HIGGINS ENGINEERING DRAWINGS AND SPECIFICATIONS.

2.) DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.

DETAIL 01 – TRENCH BACKFILL & BEDDING

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. THE MINIMUM DEPTH OF COVER FROM THE FINISHED GROUND LEVEL TO THE EXTERNAL CROWN OF THE PIPE SHALL BE 900mm WHERE THE PIPE IS TO BE LOCATED IN HOUSING ESTATE ROADS. GREATER DEPTHS OF COVER AND/OR PIPE STRENGTH AND/OR A HIGHER CLASS OF BEDDING MATERIAL MAY BE REQUIRED WHERE HIGH TRAFFIC LOADING IS ANTICIPATED. THE DESIRABLE COVER FOR A WATERMAIN SHOULD BE 1200mm, WHERE PRACTICABLE & SHOULD NOT EXCEED 3.0m.

   CLAUSE 804/808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS IS TO BE USED AS BACKFILL MATERIAL WHERE THE WATER MAIN IS LOCATED IN ROADS, FOOTPATHS OR WHEN THE NEAREST PART OF THE TRENCH IS WITHIN 1m OF THE PAVED EDGE OF THE ROADWAY. CLAUSE 804/808 IS TO BE COMPACTED AS PER CLAUSE 802 OF THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS. CLAUSE 808 IS TO BE USED WITHIN 500mm OF CEMENT BOUND MATERIALS, CONCRETE PAVEMENTS, CONCRETE STRUCTURES OR CONCRETE PRODUCTS. OTHERWISE CLAUSE 804 MAY BE USED. ALTERNATIVE BACKFILL MATERIAL TO THAT DESCRIBED ABOVE (CLAUSE 804 OR CLAUSE 808) OF THE PIPE TRENCH WILL ONLY BE ALLOWED BY IRISH WATER WHERE THE ROADS AUTHORITY IN WHOSE FUNCTIONAL AREA THE DEVELOPMENT IS LOCATED, PROVIDES WRITTEN APPROVAL TO THE DEVELOPER TO THE USE OF SUCH ALTERNATIVE MATERIAL.
4. SELECTED EXCAVATED MATERIAL MAY BE USED IN GREEN-FIELD AREAS ABOVE GRANULAR PIPE SURROUND MATERIAL SUBJECT TO REVIEW BY IRISH WATER.
5. PIPE BEDDING SHALL COMPLY WITH WS 4-08-02 AND IGN 4-08-01 GRANULAR MATERIAL SHALL BE 14mm TO 5mm GRADED AGGREGATE OR 10mm SINGLE SIZED AGGREGATE TO IS EN 13242.
6. IN SOFT GROUND CONDITIONS (CBR <5) THE MATERIAL SHOULD BE EXCAVATED OUT AND DISPOSED OF IN ACCORDANCE WITH THE WASTE MANAGEMENT ACT AND CLAUSE 804/808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROADS WORKS SHALL REPLACE THE EXCAVATED MATERIAL, WRAPPED IN GEO-TEXTILE WRAPPING. ALTERNATIVELY, SPECIAL PIPE SUPPORT ARRANGEMENTS, INCLUDING PILING ETC. MAY BE REQUIRED WHERE THE DEPTH OF SOFT MATERIAL IS EXCESSIVE. SUCH ARRANGEMENTS SHALL BE SUBJECT TO ASSESSMENT BY IRISH WATER BEFORE ADVANCING WITH THE WORK.
7. PIPES SHALL NOT BE SUPPORTED ON STONES OR ROCKS, OR ANY HARD OBJECT AT ANY POINT ALONG THE TRENCH. ROCK SHALL BE EXCAVATED TO A DEPTH OF 150mm BELOW THE ACTUAL DEPTH OF THE TRENCH WITH THE VOID FILLED WITH CLAUSE 804/808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS. THE GRANULAR MATERIAL SHALL BE LAID ABOVE THIS VOID BACKFILL MATERIAL.
8. SHOULD MINIMUM COVER NOT BE ACHIEVABLE, CONCRETE GRADE C8/10 SHALL BE USED AS BACKFILL MATERIAL.
9. MARKER TAPE TO BE 400mm WIDE BLUE POLYETHYLENE MATERIAL IN ACCORDANCE WITH EN 12163, PLASTIC PIPES SHALL HAVE WARNING TAPE INCORPORATING A REINFORCED BAND BRACING WIRE. SERVICE PIPES SHALL HAVE 200mm WIDE MESH TAPE. MARKER TAPE TO BE LAID AT TOP OF PIPE BEDDING LAYER.
10. TRENCH WIDTHS FOR PIPE SIZES ≤80mm MAY BE <500mm SUBJECT TO CONSIDERATION BEING GIVEN TO THE TRENCH DEPTH, HEALTH & SAFETY & CONSTRUCTION ACCESS REQUIREMENTS.
11. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
12. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, TOURISM & SPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.

DETAIL 02 – ON-LINE HYDRANT FOR POLYETHYLENE (P.E.) PIPE

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. HYDRANT CHAMBERS SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS 261 OR BS 5834. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO REVIEW BY IRISH WATER.
3. ALL HYDRANTS, SURFACE BOX FRAMES & COVERS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF IS EN 14339, IS EN 1074-6 & BS 750. FIRE HYDRANTS SHALL BE TYPE 2. THE HYDRANT INLET SHALL BE 80mm DIAMETER WITH PN16.
4. ALL HYDRANTS SHALL BE CLOCKWISE CLOSING.
5. HYDRANT CHAMBER TO BE CONSTRUCTED OF PRECAST CONCRETE UNITS OR HIGH DENSITY BLOCKWORK. ALTERNATIVELY PROPRIETARY PREFABRICATED CHAMBER UNITS MAY ALSO BE USED, SUBJECT TO REVIEW BY IRISH WATER. ROOF SLABS SHALL BE DESIGNED TO CARRY ALL LIVE LOADS & DEAD LOADS, & CONSIST OF A REINFORCED CONCRETE SLAB OF IN-SITU CONCRETE, GRADE C30/37, WITH A MINIMUM THICKNESS OF 150mm. ALTERNATIVELY, PRE-CAST CONCRETE ROOFS MAY BE USED, SUBJECT TO IRISH WATER REVIEW, & COMPLIANCE WITH BS 5911, PART 4.
6. CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 808 MATERIAL AS PER DRAWING 01.
7. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 545. PE PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 12201:2011.
8. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
9. THRUST BLOCKS (NOT SHOWN ON DRAWING), TO BE PROVIDED AS PER STANDARD DRAWING 06 AT ALL TEES, BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
10. ANTI-CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
11. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206
12. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
13. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
14. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, TOURISM & SPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.

DETAIL 03 –ON-LINE AIR VALVE FOR POLYETHYLENE (P.E.) PIPE

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. AIR VALVE CHAMBERS SHALL BE COVERED WITH APPROVED VENTILATED HEAVY DUTY DUCTILE IRON COVERS TO IS EN 124 RATING D400. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO REVIEW BY IRISH WATER.
3. AIR VALVES SHALL COMPLY WITH THE REQUIREMENTS OF IS EN 1074-4. AIR VALVES SHALL BE DOUBLE ORIFICE TYPE AND SHALL INCLUDE AN ISOLATING VALVE. THE ISOLATING VALVE SHALL BE EITHER A GATE VALVE CONFORMING TO IS EN 1074-2 & SHALL BE OF A BOLTLESS BONNET DESIGN, OR A BUTTERFLY VALVE TO IS EN 1074-2.
4. SERVICE CONNECTIONS SHALL NOT BE PROVIDED WITHIN 2m OF THE AIR VALVE LOCATION.
5. AIR VALVE CHAMBERS TO BE OF PRECAST CONCRETE UNITS OR HIGH DENSITY BLOCKWORK. ALTERNATIVE PROPRIETARY PREFABRICATED CHAMBER UNITS MAY ALSO BE USED, SUBJECT TO REVIEW BY IRISH WATER.
6. PRECAST CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 808 MATERIAL AS PER DRAWING 01.
7. DUCTILE IRON PIPES/FITTINGS AND PE PIPES/FITTINGS TO BE IN ACCORDANCE WITH IS EN 545 AND IS EN 12201:2011.
8. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
9. THRUST BLOCKS (NOT SHOWN ON DRAWING), TO BE PROVIDED AS PER STANDARD DRAWING 06 AT ALL TEES, BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
10. ANTI-CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
11. THE LOCATION OF THE AIR VALVE SHALL BE THE SUBJECT OF PARTICULAR AGREEMENT WITH IRISH WATER TO ENSURE THAT THE RISK OF CONTAMINATION THROUGH THE VALVE IS ELIMINATED.
12. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
13. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
14. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
15. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, TOURISM & SPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.

DETAIL 04 – SLUICE VALVE FOR POLYETHYLENE (P.E.) PIPE (<350mm ø)

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. SLUICE VALVE CHAMBERS SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS 261 OR BS 5834. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO REVIEW BY IRISH WATER.
3. SLUICE VALVES SHALL BE RESILIENT SEATED AND SHALL COMPLY WITH BS 5163-1, BS 5163-2, IS EN 1074-1, IS EN 1074-2, OR EQUIVALENT E.U. SPECIFICATIONS.
4. ALL SLUICE VALVES SHALL BE ANTI-CLOCKWISE CLOSING.
5. VALVE CHAMBER TO BE CONSTRUCTED OF PRECAST CONCRETE UNITS OR HIGH DENSITY BLOCKWORK. ALTERNATIVELY PROPRIETARY PREFABRICATED CHAMBER UNITS MAY ALSO BE USED, SUBJECT TO REVIEW BY IRISH WATER. ROOF SLABS SHALL BE DESIGNED TO CARRY ALL LIVE LOADS & DEAD LOADS, & CONSIST OF A REINFORCED CONCRETE SLAB OF IN-SITU CONCRETE, GRADE C30/37, WITH A MINIMUM THICKNESS OF 150mm. ALTERNATIVELY, PRE-CAST CONCRETE ROOFS MAY BE USED, SUBJECT TO IRISH WATER REVIEW, & COMPLIANCE WITH BS 5911, PART 4.
6. CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 808 MATERIAL AS PER DRAWING 01.
7. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 545. PE PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 12201:2011.
8. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
9. THRUST BLOCKS (NOT SHOWN ON DRAWING), TO BE PROVIDED AS PER STANDARD DRAWING 06 AT ALL TEES, BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
10. ANTI-CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
11. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
12. 450x450mm INTERNAL DIMENSION CHAMBERS MAY BE PROVIDED SUBJECT TO REVIEW BY IRISH WATER. SUCH CHAMBERS SHALL BE PROVIDED WITH GRADE 'A' HEAVY DUTY COVER & FRAME & STAMPED 'SV'.
13. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER AND FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
14. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
15. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, TOURISM & SPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.

DETAIL 05 – NON-MECH. METER CHAMBER (40 – 250mm ø)

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. STRUCTURAL DESIGN AND REINFORCEMENT DETAIL TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO IRISH WATER FOR REVIEW. ROOF SLABS SHALL BE DESIGNED TO CARRY ALL LIVE LOADS & DEAD LOADS, & CONSIST OF A REINFORCED CONCRETE SLAB OF IN-SITU CONCRETE, GRADE C30/37, WITH A MINIMUM THICKNESS OF 225mm. ALTERNATIVELY, PRE-CAST CONCRETE ROOFS MAY BE USED, SUBJECT TO IRISH WATER REVIEW, & COMPLIANCE WITH BS 5911, PART 4.
3. CONCRETE FOR FLOW METER CHAMBER TO BE C30/37.
4. PRECAST UNITS COMPLETED WITH RUBBER SEALING GASKET BETWEEN UNITS, COMPLYING WITH THE REQUIREMENTS OF IS EN 1917 AND BS 5911-PART 3, COMPLETE WITH 150mm CONCRETE SURROUND MAY BE USED AS AN ACCEPTABLE ALTERNATIVE. CONCRETE SURROUND TO BE GRADE C16/20 IN ACCORDANCE WITH IS EN 206.
5. METER CHAMBER SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS EN124 RATING D400. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO REVIEW BY IRISH WATER.
6. 200mm ALL ROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GRASS AREAS.
7. ANTI-CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
8. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN545. PE PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 12201:2011.
9. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI-FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY IRISH WATER.
10. PIPEWORK TO BE DOWNSIZED TO ACCOMMODATE THE REQUIRED RANGE OF THE FLOW METER. STRAIGHT PIPE LENGTHS UPSTREAM AND DOWNSTREAM OF THE METER TO BE PROVIDED. THE METER SHALL BE CAPABLE OF ACCURATE NIGHT FLOW MEASUREMENTS.
11. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
12. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
13. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
14. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, TOURISM & SPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.

DETAIL 06 – WATER MAIN THRUST AND SUPPORT BLOCKS

NOTES:

1. ALL DIMENSIONS IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. CONCRETE THRUST BLOCKS (ANCHORAGE) SHALL BE POSITIONED SYMMETRICALLY WITH RESPECT TO THE CONNECTING PIPE & BENDS.
3. TRENCH DIMENSIONS: REFER TO DRAWING 01.
4. THRUST BLOCKS SHALL BEAR ON UNDISTURBED SOIL. IF FOR ANY REASON THEY CANNOT THEN THE DEVELOPER SHALL NOTIFY IRISH WATER IMMEDIATELY WITH A PROPOSED SOLUTION.
5. THRUST BLOCK REINFORCEMENT REQUIRES SPECIFIC DESIGN.
6. FOR TEST PRESSURES GREATER THAN 18 BAR, THRUST BLOCK DESIGN IS TO BE SUBMITTED TO IRISH WATER FOR REVIEW.
7. THRUST BLOCKS ARE DESIGNED FOR AN AVERAGE BEARING PRESSURE OF 100kN/m (TYPICAL FOR SOFT CLAY) FOR OTHER CONDITIONS. ACTUAL DIMENSIONS MAY BE ALTERED ON INSTRUCTIONS FROM IRISH WATER.
8. CONCRETE IN THRUST BLOCKS SHALL BE GRADE C20/25.
9. COMPRESSIBLE FILLER FOR CONCRETE PROTECTION TO BE IN ACCORDANCE WITH BS EN 622-1 AND BS EN 622-4. BITUMINOUS MATERIAL SHALL NOT BE PUT IN CONTACT WITH PLASTIC PIPES. THE THICKNESS OF COMPRESSIBLE FILLER FOR MAINS < 450mm IN DIAMETER IS TO BE 18mm.
10. CONCRETE THRUST BLOCKS FOR POLYETHYLENE PIPE TO COMPLY WITH THE MANUFACTURER'S REQUIREMENTS.
11. POLYETHYLENE PIPES SHALL BE WRAPPED IN PLASTIC SHEETING HAVING A COMPOSITION IN ACCORDANCE WITH BS 6076 BEFORE BEING CAST INTO CONCRETE.
12. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.

DETAIL 07 – MARKER POSTS/PLATES

NOTES:

1. WHERE PRACTICAL MARKER PLATES SHALL BE FIXED TO ADJACENT WALLS OR ALTERNATIVELY ATTACHED TO MARKER POSTS.
2. PLATES TO BE FIXED IN POSITION USING WALL PLUGS AND STAINLESS STEEL SCREWS.
3. MARKER PLATES TO BE MANUFACTURED IN ACCORDANCE WITH BS 3251.
4. FOR HYDRANT PLATE ALL CHARACTERS SHOULD BE BLACK AND THE REMAINDER OF THE FRONT FACE SHOULD CONFORM TO COLOUR REFERENCE No. 309 (CANARY YELLOW) OF BS 381C.
5. PIPE DIAMETER ON HYDRANT PLATE TO REFER TO WATERMAIN NOT BRANCH.
6. SLUICE VALVE, AIR VALVE, SCOUR VALVE, WASHOUT HYDRANT AND METER PLATES SHOULD BE CAST IRON. ALL CHARACTERS SHOULD BE BLACK ON WHITE PAINT BACKGROUND. ALTERNATIVE MATERIAL MAY BE USED SUBJECT TO ACCEPTANCE BY IRISH WATER.
7. CONCRETE SURROUND TO MARKER POST TO BE GRADE C25/30 AND IN ACCORDANCE WITH IS EN 206/2013.
8. PLASTIC MARKER POSTS ARE NOT ACCEPTABLE.
9. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.

DETAIL 08 – CUSTOMER CONNECTION AND BOUNDARY BOX (25mm OD PIPE)

NOTES:

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS NOTED OTHERWISE.
2. FOR CONNECTION TO AN EXISTING MAIN THE CONNECTION SHALL BE AS PER THE PIPE MANUFACTURER'S SPECIFICATION.
3. ELECTRO FUSION COUPLING TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
4. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.

BOUNDARY BOX NOTES:

1. THE BOUNDARY BOX IS TO BE IN ACCORDANCE WITH THE IRISH WATER SPECIFICATION, INCORPORATING ALL A G1.5 MANIFOLD, STOP-TAP, FROST PLUG & NON-RETURN VALVE.
2. THE BOUNDARY BOX SHALL BE POSITIONED IN PUBLIC SPACE & AS CLOSE AS POSSIBLE TO THE PROPERTY BOUNDARY BUT NO PART OR FITTING TO BE WITHIN 225mm OF THE PROPERTY LINE.
3. THE BOUNDARY BOX SHALL BE LOCATED WHERE IT IS SAFE TO OPEN THE COVER & ACCESS THE STOP TAP OR VISUALLY READ THE METER, i.e. ON A FOOTPATH OR VERGE, & NOT IN A CARRIAGEWAY.
4. THE SURFACE BOX COVER ON THE BOUNDARY BOX SHOULD NOT BE LESS THAN GRADE C (BS 5834-2-2011): & THE BOUNDARY BOX SHOULD BE LOCATED SUCH THAT HEAVIER GRADES OF COVER WOULD NOT BE REQUIRED.
5. THE SHAFT OF THE BOUNDARY BOX IS TO BE INSTALLED VERTICALLY, & THE SURFACE BOX/COVER INCLINED TO MATCH THE SURFACE GRADIENT.
6. THE BOUNDARY BOX IS TO BE INSTALLED AT A MINIMUM DEPTH OF 600mm (+/- 25mm) TO THE CROWN OF THE INLET & OUTLET FITTINGS ON THE OUTSIDE OF THE BOX.
7. THE SERVICE CONNECTION PIPE SHALL NOT BE WRAPPED AROUND THE SHAFT OF THE BOUNDARY BOX OR BENT IN ANY RADIUS LESS THAN THAT APPROVED BY THE MANUFACTURER.
8. THE PIPE FITTINGS TO THE BOUNDARY BOX SHALL BE APPROVED BY THE BOUNDARY BOX MANUFACTURER.
9. THE BOUNDARY BOX SHALL BE INSTALLED HYGIENICALLY & LEFT CLEAN & FREE OF CONSTRUCTION WASTE OR DIRT FOR LATER METER INSTALLATION BY IRISH WATER.
10. BOX TO BE FOUNDED ON 100mm DEPTH OF C12/15 CONCRETE AND SURROUNDED WITH CLAUSE 808 GRANULAR MATERIAL.
11. THE DESIRABLE MINIMUM COVER FROM THE FINISHED GROUND LEVEL TO THE EXTERNAL CROWN OF A SERVICE CONNECTION SHALL BE 750mm WITH AN ABSOLUTE MINIMUM DEPTH OF 600mm FOR SHORT DISTANCES (SUBJECT TO IRISH WATER AGREEMENT). THE DESIRABLE MAXIMUM COVER FOR A SERVICE CONNECTION PIPE SHOULD BE 1200mm, WHERE PRACTICABLE.
12. CUSTOMER'S DISTRIBUTION PIPEWORK WITHIN THE PREMISES SHOULD BE SUITABLY SIZED TO ACCOMMODATE FLOW FROM 20mm INTERNAL DIAMETER SERVICE PIPE.

DETAIL 09 – TYPICAL SERVICE LAYOUT INDICATING SEPARATION DISTANCES

NOTES:

1. THE SEPARATION DISTANCES OUTLINED ARE MINIMUM REQUIREMENTS.
2. SPECIFIC SEPARATION CLEARANCE DISTANCES IN EXCESS OF THESE MINIMA SHALL BE PROVIDED FOR SERVICES SUCH AS GAS, ELECTRICITY, FIBRE-OPTIC OR OIL FILLED CABLES AS THE CASE MAY BE. THE PARTICULAR UTILITY PROVIDERS SHALL BE CONSULTED TO DETERMINE THESE MINIMUM SEPARATION DISTANCES AND EVIDENCE OF THIS CONSULTATION, WITH THE SPECIFIED SEPARATION DISTANCES, SHALL BE PROVIDED TO IRISH WATER AT DESIGN STAGE.
3. WATERMAIN (PROPOSED) SEPARATION DISTANCES

HORIZONTAL

300mm TO DISTRIBUTION MAINS OF LESS THAN 300mm DIAMETER.

500mm TO TRUNK MAINS BETWEEN 300mm AND 450mm DIAMETER.

3m TO ARTERIAL WATER MAINS OF GREATER THAN 450mm DIAMETER.

VERTICAL

300mm TO DISTRIBUTION MAINS OF LESS THAN 300mm DIAMETER.

500mm TO TRUNK/ARTERIAL MAINS OF DIAMETER GREATER THAN 300mm.

ANY PROPOSED PIPE CROSSING SHOULD BE LOCATED MID-WAY BETWEEN THE WATER JOINTS WITH MINIMUM CLEAR DISTANCE OF 300mm AND UP TO 500mm. ALL CROSSINGS SHOULD BE AT LEAST 500mm AWAY FROM FITTINGS OR JOINTS.

4. WATERMAIN (EXISTING) SEPARATION DISTANCES

HORIZONTAL

500mm AT EITHER SIDE OF MAINS UP TO AND INCLUDING 200mm IN DIAMETER.

1m AT EITHER SIDE OF MAINS OF 225mm TO 250mm DIAMETER.

2m AT EITHER SIDE OF MAINS OF 300mm AND 375mm IN DIAMETER.

5m AT EITHER SIDE OF MAINS OF 400mm AND 450mm IN DIAMETER.

SPECIFIC IRISH WATER ADVISED DISTANCES FOR MAINS IN EXCESS OF 475mm DIAMETER.

5. NOTIFICATION IN WRITING IS REQUIRED SHOULD WORKS BE WITHIN THE FOLLOWING DISTANCES FROM AN EXISTING WATERMAIN OR WASTEWATER RISING MAIN:

HORIZONTAL

1000mm AT EITHER SIDE OF EXISTING MAINS LESS THAN OR EQUAL TO 200mm DIAMETER.

2000mm AT EITHER SIDE OF EXISTING MAINS OF 250mm TO 350mm DIAMETER.

5000mm AT EITHER SIDE OF EXISTING MAINS OF DIAMETER GREATER THAN 350mm DIAMETER.

WHERE DUCTS OR PIPES ARE TO BE LAID CLOSE TO AN EXISTING WATERMAIN OR SEWER IN THE OWNERSHIP OF IRISH WATER, NOTIFICATION IN WRITING SHALL BE PROVIDED A MINIMUM OF 10 DAYS AHEAD OF ADVANCEMENT OF THE WORK.

NOTIFICATION IN WRITING IS REQUIRED SHOULD WORKS BE WITHIN 1.5m DISTANCE OF A WASTEWATER SEWER.

REQUIREMENTS SHALL ALSO APPLY TO TRIAL HOLES OR SLIT TRENCHES TO LOCATE THE MAIN OR GAIN GROUND INFO DATA. LARGER DIAMETERS >300mm DISTRIBUTION AND TRUNK MAINS, IRISH WATER MUST BE NOTIFIED AT LEAST 1 MONTH IN ADVANCE.

DEVELOPERS SHALL ALSO COMPLY WITH ANY NOTIFICATION REQUIREMENTS OF OTHER UTILITY PROVIDERS (ESB, GAS MAIN, TELECOMMUNICATION ETC.)

6. DETAILED PROPOSALS, INCLUDING WORK METHOD STATEMENTS, INSURANCE CONFIRMATION AND DETAILS OF WORK COMPLETED OF A SIMILAR NATURE MUST BE SUBMITTED TO IRISH WATER FOR REVIEW. ALL SUCH WORKS IN THE VICINITY OF ARTERIAL WATER MAINS AND SEWER (MAINS GREATER THAN 400mm) SHALL BE SUBJECT TO WRITTEN AGREEMENT WITH IRISH WATER BEFORE CONSTRUCTION COMMENCES ON SITE. THIS AGREEMENT SHALL ALSO INCLUDE ANY NECESSARY PROTECTION FOR WATER MAINS.
7. ANY DAMAGE SHALL BE NOTIFIED IMMEDIATELY TO IRISH WATER. THE PERSON WHO CAUSES THE DAMAGE TO A WATER MAIN OR FITTING WILL BE DEEMED TO HAVE COMMITTED AN OFFENCE UNDER SECTION 45 OF THE WATER SERVICES ACT 2007.
8. WATERMAINS OF ANY SIZE SHALL NOT BE WITHIN 1m OF THE BOUNDARY TO A PREMISES.
9. UNDER NO CIRCUMSTANCES WILL IRISH WATER ACCEPT WATER MAIN INSTALLATIONS UNDER STRUCTURES, EXISTING OR PROPOSED, OR IN CLOSE PROXIMITY TO ANY EXISTING STRUCTURES OR FEATURES THAT WILL INHIBIT ACCESS FOR POST INSTALLATION MAINTENANCE AND ACCESS.
10. WHERE THE DESIGN DEVIATES FROM THIS STANDARD DETAIL, THE DESIGN SHALL BE SUBJECT TO THE REVIEW OF IRISH WATER.
11. SEPARATION DISTANCES BETWEEN UTILITIES MAY BE INCREASED TO PROVIDE FOR CHAMBER & THRUST BLOCKS AT BENDS.

DETAIL 10 – SCOUR VALVE CHAMBER FOUL RISING MAIN (<200mm ø)

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. VALVE SURFACE BOX TO BE IN ACCORDANCE WITH IS 261 OR BS 5834. SCOUR CHAMBERS SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS EN 124 RATING D400. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY IRISH WATER.
3. SLUICE VALVES SHALL BE DOUBLE FLANGED WITH DUCTILE IRON RESILIENT SEAL GATE VALVES, SUITABLE FOR USE IN RISING MAINS. THEY SHALL COMPLY WITH THE REQUIREMENTS IS EN 1074 AND THEY SHALL HAVE THE APPROPRIATE CE MARKINGS.
4. SCOUR CHAMBER TO BE IN ACCORDANCE WITH BS EN 1992-3.
5. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO IRISH WATER FOR REVIEW. ROOF SLABS SHALL BE DESIGNED TO CARRY ALL LIVE LOADS & DEAD LOADS, & CONSIST OF A REINFORCED CONCRETE SLAB OF IN-SITU CONCRETE, GRADE C30/37, WITH A MINIMUM THICKNESS OF 225mm. ALTERNATIVELY, PRE-CAST CONCRETE ROOFS MAY BE USED, SUBJECT TO IRISH WATER REVIEW, & COMPLIANCE WITH BS 5911, PART 4.
6. THRUST BLOCKS (NOT SHOWN ON DRAWING), TO BE PROVIDED AS PER STANDARD DRAWING STD-WW-14 AT ALL TEES, BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
7. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
8. ANTI CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
9. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
10. ALL DUCTILE IRON PIPEWORK AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 598.
11. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY IRISH WATER.
12. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
13. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
14. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, TOURISM & SPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.

REV	DATE	DESCRIPTION	DWG BY	APPR. BY
P	01.03.24	S 179 A	FS	LM

ISSUED

S 179 A

CLIENT

LOUTH COUNTY COUNCIL

PROJECT NAME

DUNLEER HOUSING

DRAWING NAME

IRISH WATER WATERMAIN DETAILS SHEET 4 OF 4

PROJECT No.

23D046

DRAWING No.	REVISION
05D	**P**

SCALE	DRAWN DATE
AS SHOWN	17.11.23

CAD DRAWN BY	CHECKED BY	APPROVED BY
R.M.	L.M.	D.H.

HAYES HIGGINS PARTNERSHIP
The Glass House, 11 Coke Lane
Smithfield, Dublin 7. Tel: 01 6612321
E-mail: admin@hayeshiggins.ie
Gas House Lane, Kilkenny. Tel: (056) 7764710
Email: info@hhp.ie

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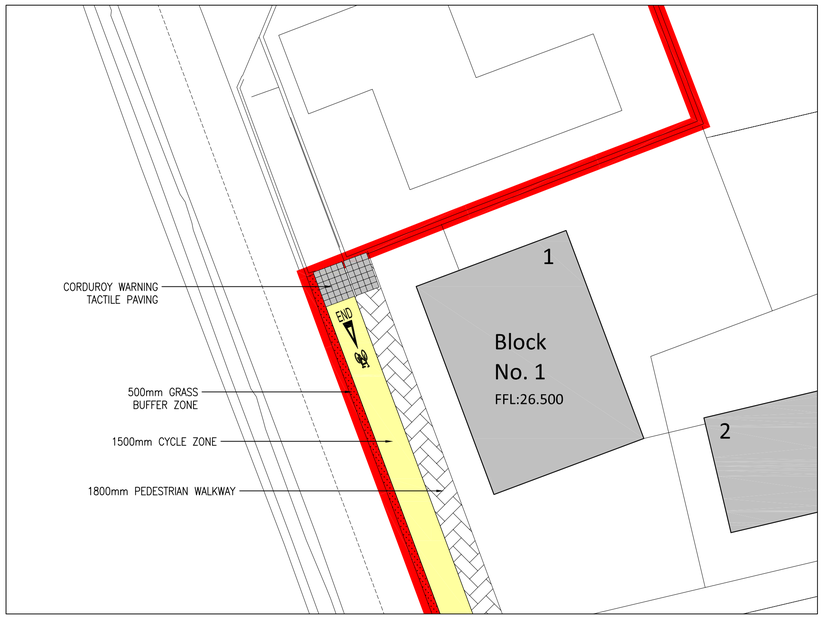
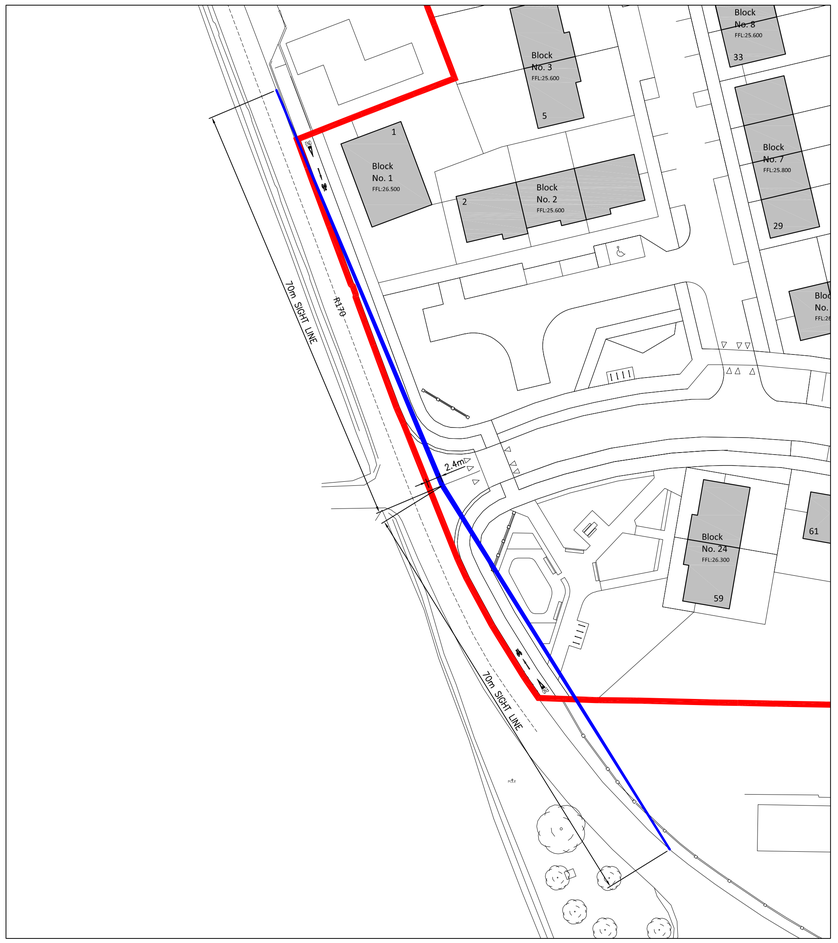


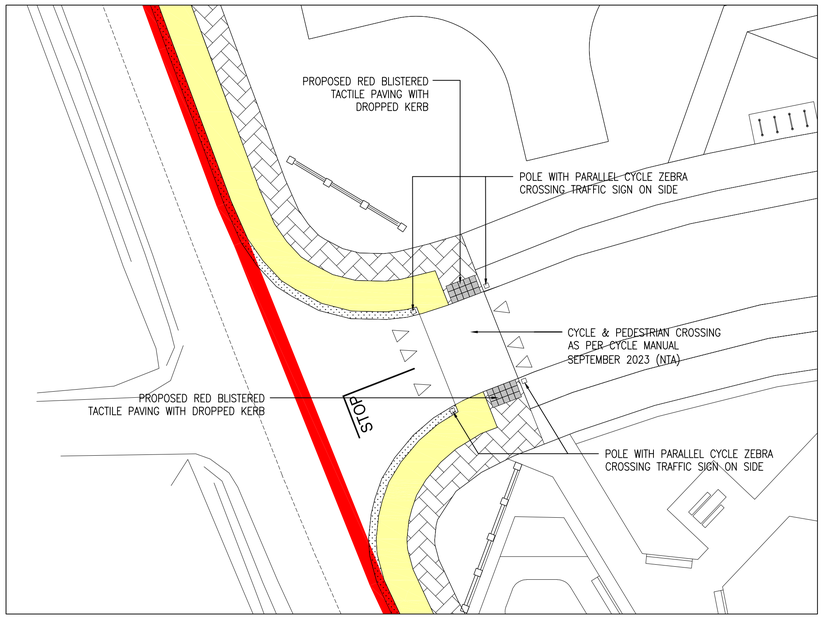
PROPOSED CYCLING & PEDESTRIAN CROSSING LAYOUT - DETAIL A

SCALE 1:200



SIGHT SPLAY HORIZONTAL ALIGNMENT

SCALE 1:500



PROPOSED CYCLING & PEDESTRIAN CROSSING LAYOUT - DETAIL B

SCALE 1:200

LEGEND

- SITE BOUNDARY
- 19.970 PROPOSED ROAD/FOOTPATH LEVEL
- PROPOSED PEDESTRIAN FOOTPATH
- PROPOSED CYCLE PATHWAY
- PROPOSED GRASS BUFFER ZONE

NOTES

- LEVELS ON PROPOSED CYCLE AND PEDESTRIAN PATH TO MATCH EXISTING FOOTPATH LEVELS.
- EXISTING KERB TO REMAIN INSITU
- NEW FOOTPATH AND CYCLE LANE TO HAVE NOMINAL CROSSFALL OF 2.5% TOWARDS EXTERNAL ROAD
- ON PROPOSED CYCLE AND FOOTPATH, ALL EXISTING MANHOLE COVERS TO BE MAINTAINED
- TACTILE PAVING AND DROPPED KERBS AT ALL PEDESTRIAN AND CYCLE CROSSING POINTS
- ALL TACTILE PAVING TO BE MINIMUM 1200X1200mm.

NOTES

GENERAL

1.) THESE DRAWINGS TO BE READ IN CONJUNCTION WITH ALL RELEVANT HAYES HIGGINS ENGINEERING DRAWINGS AND SPECIFICATIONS.

2.) DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.

REV	DATE	DESCRIPTION	DWG BY	APPR. BY
P	01.03.24	S 179 A	ROC	RM

ISSUED
S 179 A

CLIENT
LOUTH COUNTY COUNCIL

PROJECT NAME
DUNLEER HOUSING

DRAWING NAME
PROPOSED CYCLING & PEDESTRIAN CROSSING LAYOUT

PROJECT No.
23D046

DRAWING No.	REVISION
06	**P**

SCALE	DRAWN DATE
AS SHOWN	15.01.24

CAD DRAWN BY	CHECKED BY	APPROVED BY
R.M.	R.M.	L.M.

HAYES HIGGINS PARTNERSHIP
The Glass House, 11 Coke Lane
Smithfield, Dublin 7. Tel: 01 6612321
E-mail: admin@hayeshiggins.ie
Gas House Lane, Kilkenny. Tel: (056) 7764710
Email: info@hhp.ie

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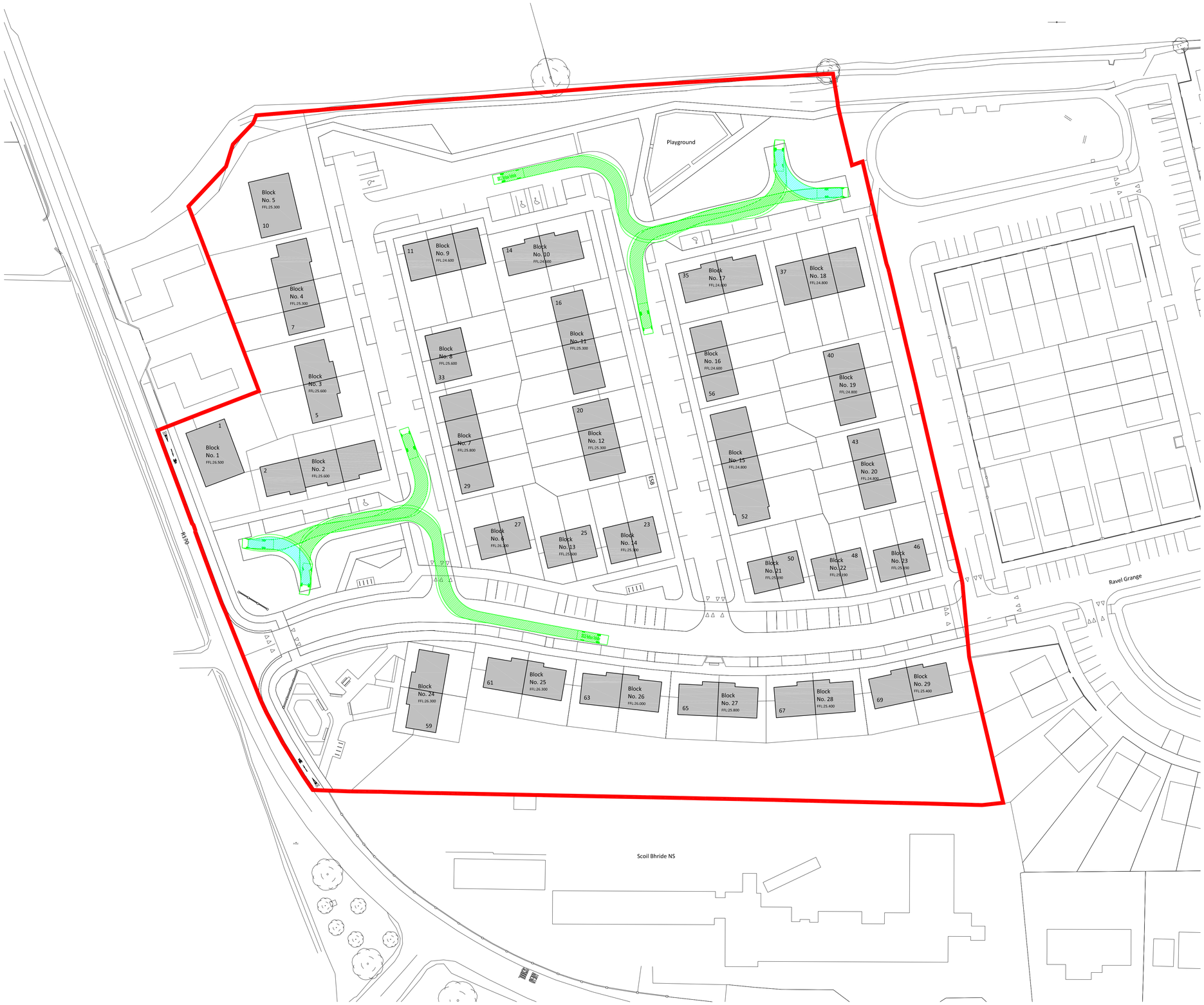

PROPOSED SWEPT PATH ANALYSIS LAYOUT

SCALE 1:500

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NOTES

GENERAL

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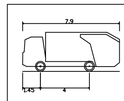

DB32 Refuse Vehicle	
Overall Length	7.900m
Overall Width	2.400m
Overall Body Height	3.183m
Min Body Ground Clearance	0.388m
Max Track Width	2.400m
Lock-to-lock time	6.06s
Curb to Curb Turning Radius	9.625m

REV	DATE	DESCRIPTION	DWG BY	APPR. BY
P	01.03.24	S 179 A	ROC	RM

ISSUED
S 179 A

CLIENT
LOUTH COUNTY COUNCIL

PROJECT NAME
DUNLEER HOUSING

DRAWING NAME
PROPOSED SWEPT PATH ANALYSIS LAYOUT

PROJECT No.
23D046

DRAWING No.	REVISION
07	P

SCALE	DRAWN DATE
1:500	15.01.24

CAD DRAWN BY	CHECKED BY	APPROVED BY
R.O.C.	R.M.	L.M.

HAYES HIGGINS PARTNERSHIP
The Glass House, 11 Coke Lane
Smithfield, Dublin 7. Tel: 01 6612321
E-mail: admin@hayeshiggins.ie
Gas House Lane, Kilkenny. Tel: (056) 7764710
Email: info@hhp.ie