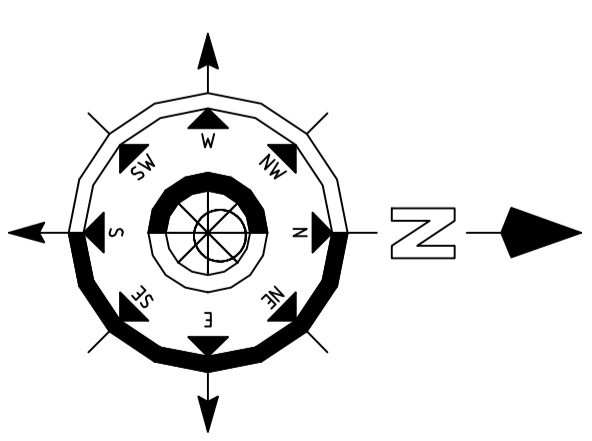


Notes

1. This drawing is to be read in conjunction with all relevant engineers and architects drawings and specifications.
2. Do not scale drawings. Use figured dimensions only. All dimensions to be checked on site.
3. All dimensions are in millimetres (mm).
4. Any discrepancies to be reported immediately to the consulting engineer.



LEGEND:	
97.00	PROPOSED LEVELS
▲	PROPOSED ROAD
---	EXISTING CONTOUR LAYOUT
---	PROPOSED ROAD GRADIENT
29.40	PROPOSED FINISH FLOOR LEVEL
▲	TACTILE PAVING
■	ASPHALT ROAD
■	COLOURED ASPHALT ROAD

PROPOSED ROAD & LEVELS LAYOUT

SCALE 1:500

Rev	Date	Drawn	Description	Check
1	14/03/19	DT	Issue for Planning	MA
2	15/03/19	DT	Issue for Planning	MA
3	15/03/19	DT	Issue for Planning	MA

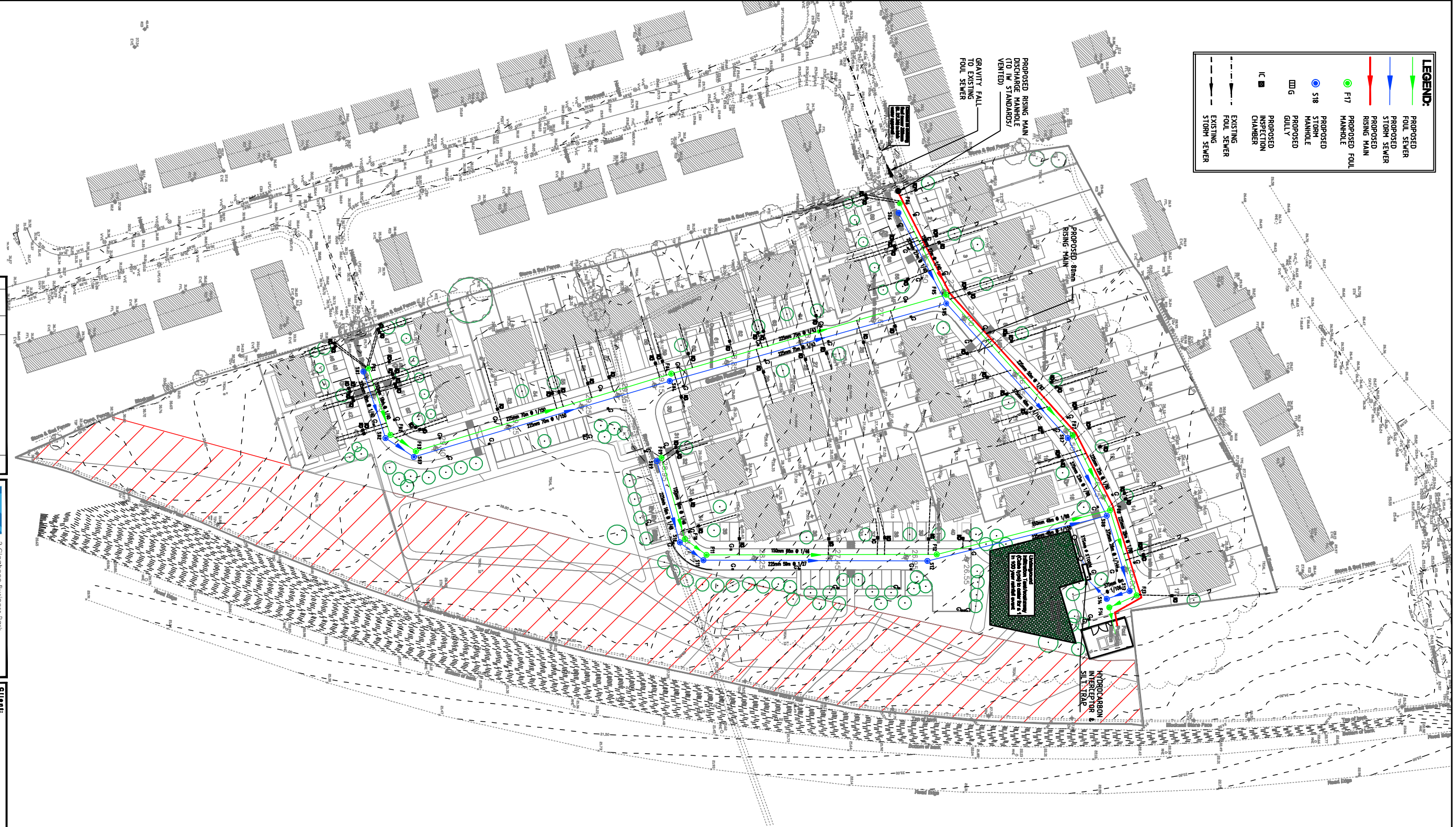
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 CONSULTING ENGINEERS
 CIVIL | STRUCTURAL | PROJECT MANAGEMENT

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Client:
 Cork City Council

Project:
 Galdrin Ruechain, Carrigrohane,
 Ballycollig, Co. Cork

Drawing Title:			
Proposed Road & Levels Layout			
Designer:	DT	Date:	April'19
Eng. Check:		Scale:	1:500 @ A1
Project No:	0541000	Revision:	
Drawing No:	01	Sheet:	PL1



LEGEND:

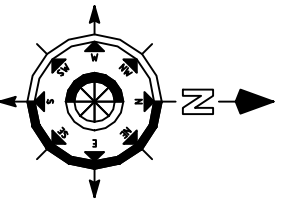
	PROPOSED FOUL SEWER
	PROPOSED STORM SEWER
	PROPOSED RISING MAIN
	PROPOSED FOUL MANHOLE
	PROPOSED STORM MANHOLE
	PROPOSED GULLY
	PROPOSED INSPECTION CHAMBER
	EXISTING FOUL SEWER
	EXISTING STORM SEWER

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Original Drawing Size A1

Notes

- The drawing to be used by the contractor shall refer to the following:
 - All dimensions are to the centre of lines.
 - All levels refer to the Irish Mean Sea Level.
 - The drawing is to be used in conjunction with the approved specification for the works.
 - Any work not shown on the drawing shall be done in accordance with the approved specification for the works.
 - Any work shown on the drawing shall be done in accordance with the approved specification for the works.
- The drawing shall be used by the contractor to construct the works in accordance with the approved specification for the works.
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- The drawing shall be used by the contractor to construct the works in accordance with the approved specification for the works.



PROPOSED DRAINAGE LAYOUT

SCALE 1:500

Author	DR
Checked	DR
Drawn	DR
Issue Date	02/04/2010

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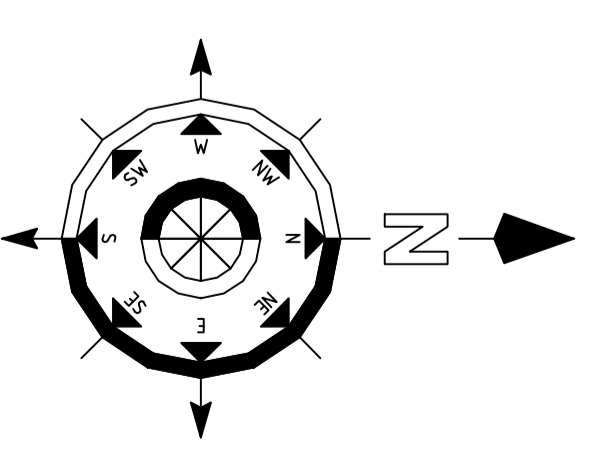
2 Cloughreen Business Park,
 Blarney Road, Cork,
 Ireland.
 T: +353 (0)21 4399799
 E: dr@rka.ie
 W: www.rka.ie

Client:	Cork City Council
Project:	Gaibhín Spioncán, Carrigrohane, Cork City, Co. Cork

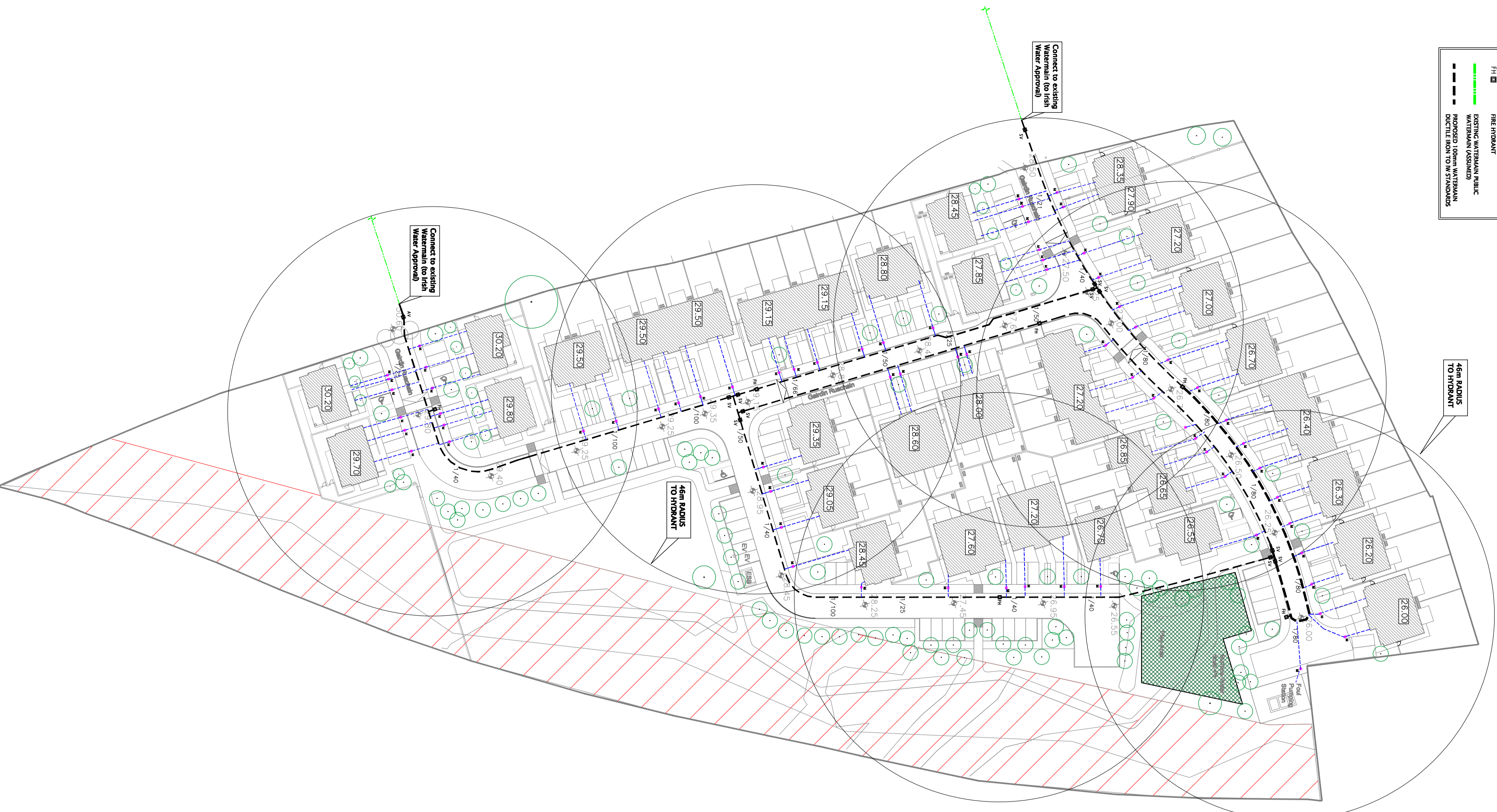
Drawing Title:			
Proposed Drainage Layout			
Designer:	DR	Date:	Apr/10
Eng. Check:	DR	Scale:	1:500 @ A1
Project No:	02/10/00	Sheet:	PL1
Drawing No:	02	Revision:	PL1

Notes

1. Do not scale drawing. Use figured dimensions only.
2. Report any discrepancies immediately to the Design Team.
3. This drawing to be read in conjunction with all other relevant Architectural, Mechanical/Electrical and Engineering drawings.
4. All works carried out must comply with the relevant parts of the current Building Regulations and Technical Guidance Documents, ensuring the works are carried out using 'proper materials which are fit for use for which they are intended and for the conditions in which they are used'.
5. All materials used shall be verified in accordance with the EU Construction Product Regulations (CPR) (No. 305/2011), Refer to Annex IV of the Regulations for the list of applicable products.
6. Details of the treatment of all existing water services to the site, shall be agreed with Irish Water.
7. Number of fire hydrants to be agreed with the Fire Officer.
8. All valves, 100mm or greater, shall be anti-clockwise closing.
9. All road and footway water fitting covers, shall be marked to indicate what is underneath.
10. Meter plates shall be installed for all existing and new watermain fittings, on or adjacent to the site, to the satisfaction of Irish Water.
11. All watermains and fittings to be laid in accordance with Irish Water Infrastructure Standard Details Document Number IW-CIS-5029-01 and Irish Water Code of Practice for Water Infrastructure Document IW-CIS-5029-01.



LEGEND:	
	IN APPROVED WATERMAIN FEED & BOUNDARY BOX
	SLURGE VALVE
	FIRE HYDRANT
	EXISTING WATERMAIN PUBLIC WATERMAIN (ASSUMED)
	PROPOSED 100mm WATERMAIN DUCTILE IRON TO IW STANDARDS



PROPOSED WATERMAIN LAYOUT
SCALE 1:500

Rev	Date	Drawn	Description	CHKD
PL1	Apr 20	MM	Issued for Planning	MM
T	Apr 19	DT	Issued for Tender	
PL	Oct 19	DT	Issued for Planning	
A	Nov 19	DT	Issued for Contract	

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CONSULTING ENGINEERS

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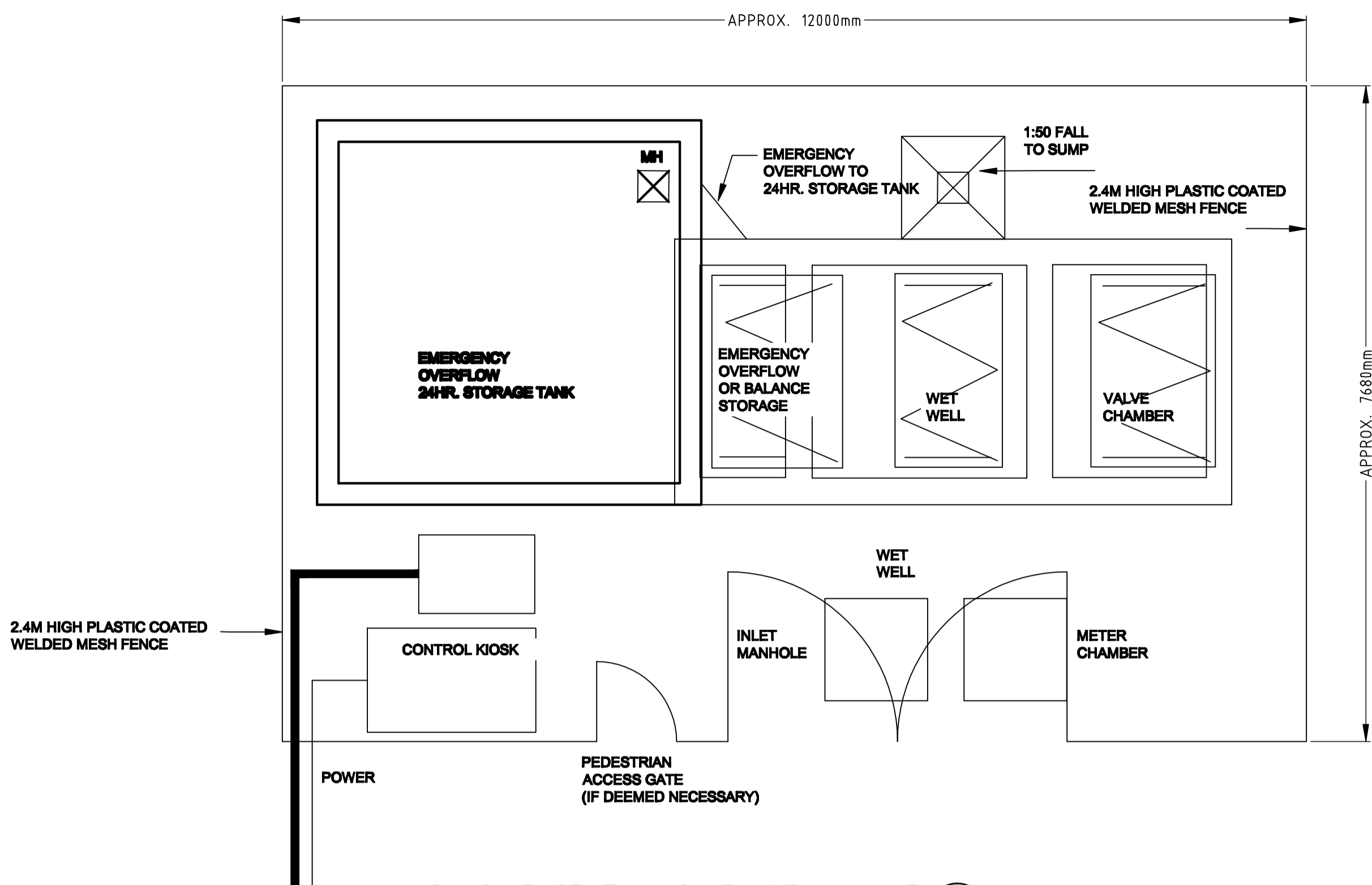
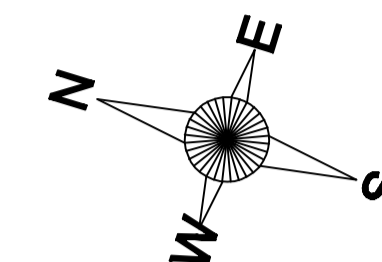
2 Cloheen Business Park,
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Ireland.
T: +353 (0)21 4399799
F: +353 (0)21 4399797
E: admin@rka.ie
W: www.rka.ie

Client:	Cork City Council
Project:	Gaileán Ruceláin, Carrigrohane, Bollinacolla, Co. Cork

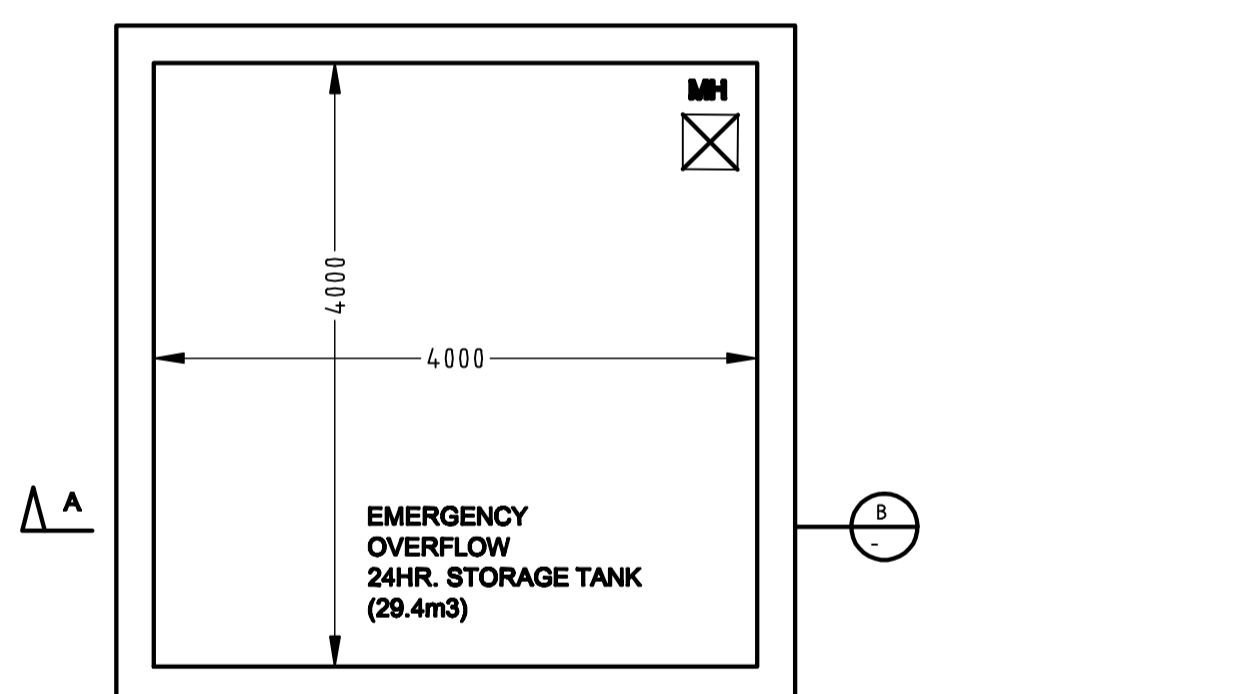
Drawing Title:			
Proposed Watermain Layout			
Designed:	D.T.	Date:	April 19
Eng. Check:		Scale:	1:500 @ A1
Project No:	0541000	Stage:	Planning
Drawing No:	03	Rev:	PL1

Notes

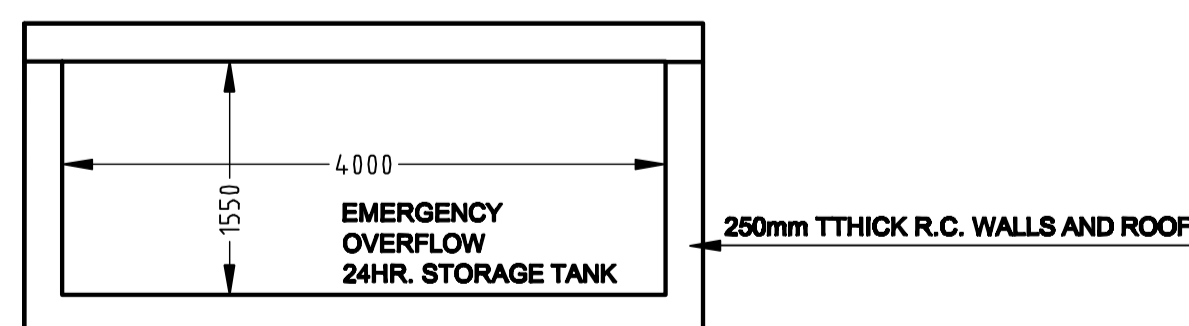
1. This drawing is to be read in conjunction with all relevant engineers and architects drawings and specifications.
2. Do not scale drawings. Use figured dimensions only. All dimensions to be checked on site.
3. All dimensions are in millimetres (mm).
4. Any discrepancies to be reported immediately to the consulting engineer.
5. Please refer to Irish water wastewater infrastructure details document IW-CDS-5030-01 and Irish Code of Practice for wastewater infrastructure



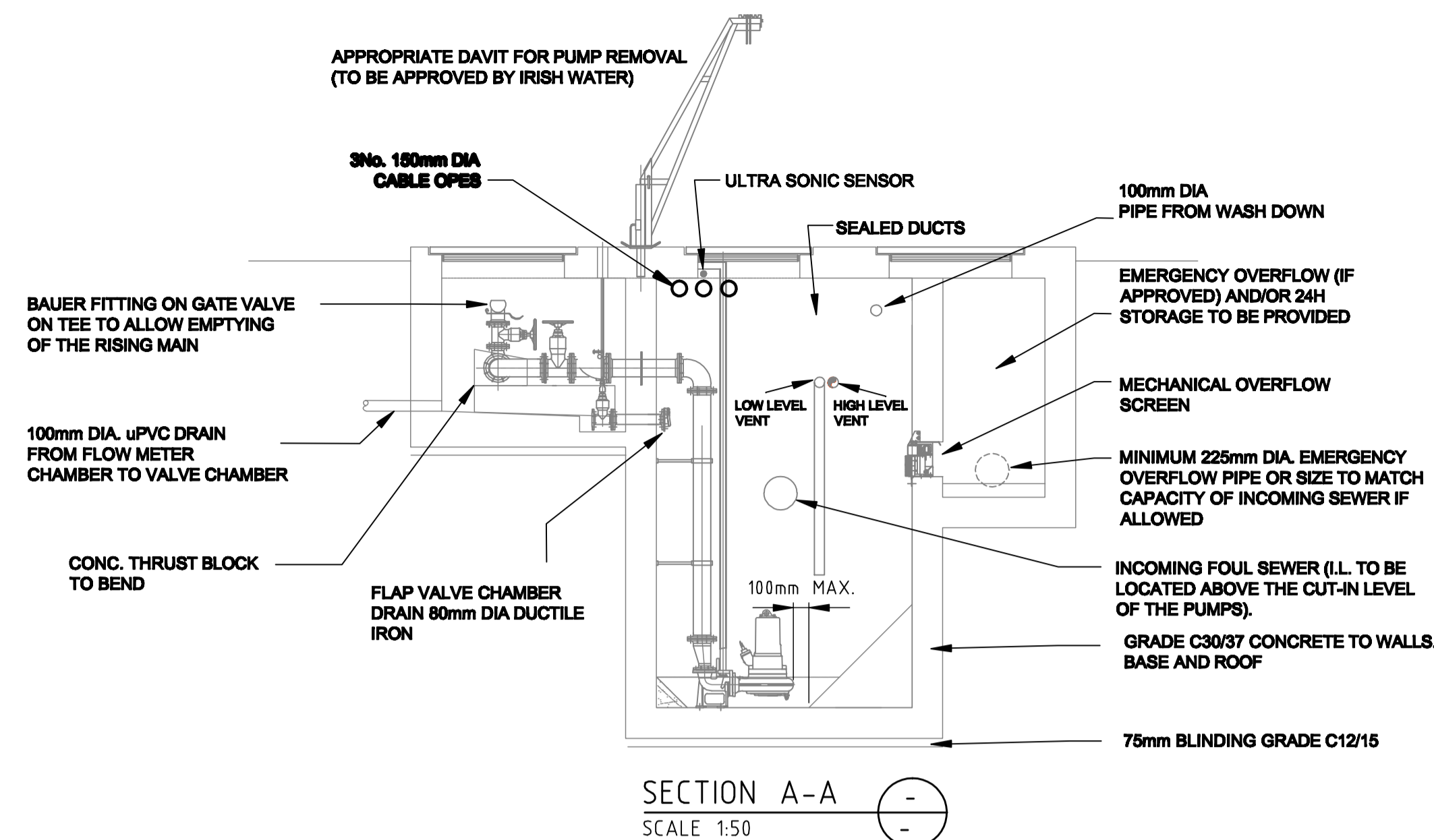
PUMPING STATION COMPOUND LAYOUT
SCALE 1:50



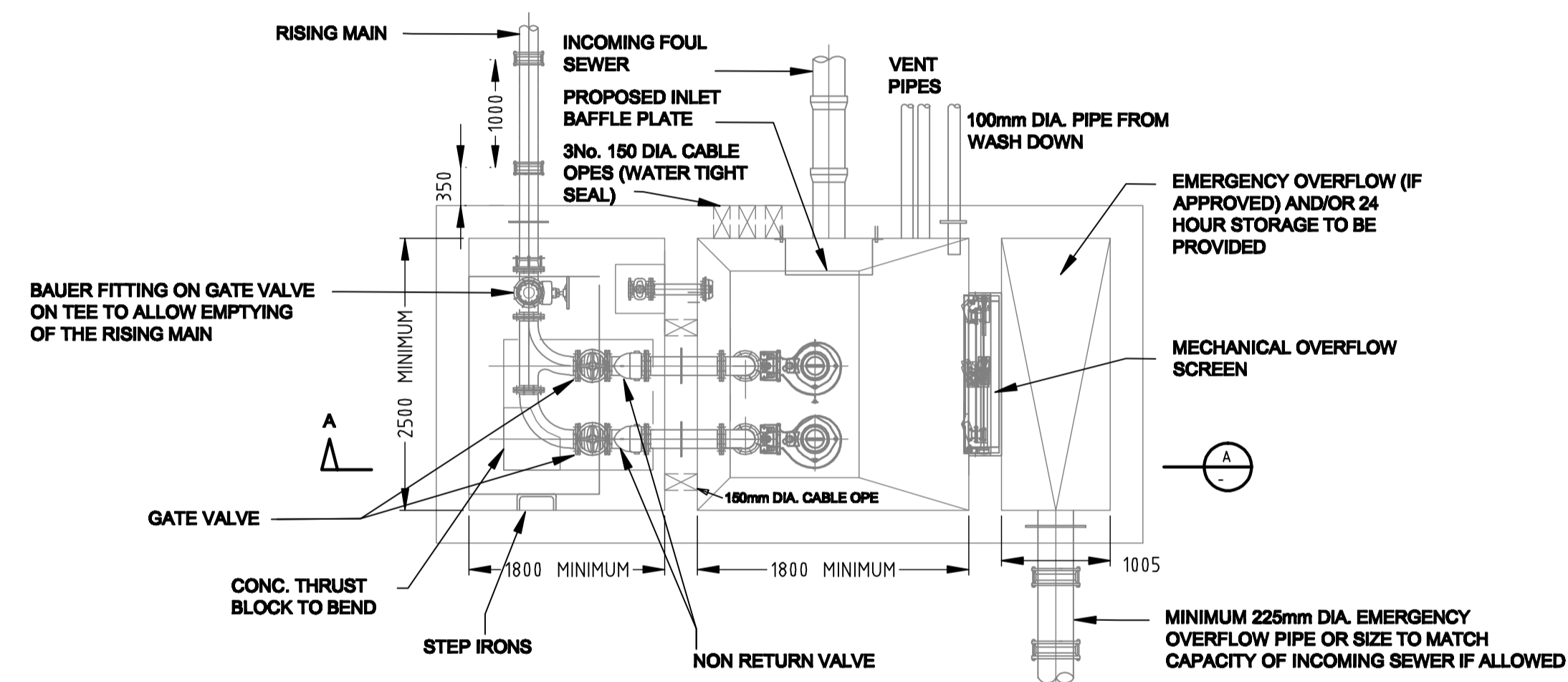
24HR. STORAGE R.C. CONCRETE TANK PLAN
SCALE 1:50



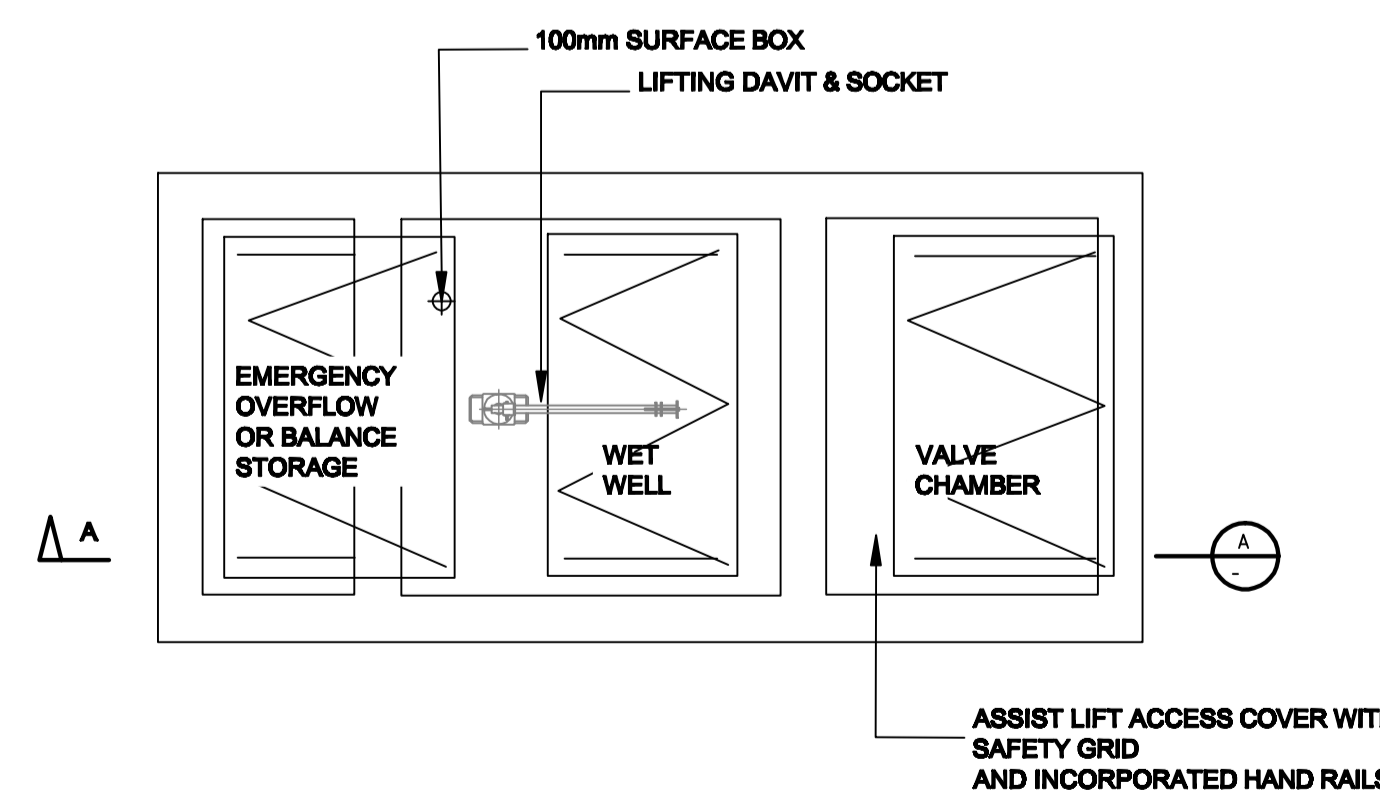
24HR. STORAGE R.C. CONCRETE TANK SECTION
SCALE 1:50



SECTION A-A
SCALE 1:50



PUMPING STATION CHAMBER PLAN
SCALE 1:50



PUMPING STATION CHAMBER ROOF PLAN
SCALE 1:50

PROPOSED PUMPING STATION LAYOUT DETAILS

Rev	Date	Drawn	Description	Ch'kd
PL1	Jan '20	ME	Issued for Planning	BA
T	Nov '19	DT	Issued for Tender	
PL	Oct '19	DT	Issued for Planning	
A	May '19	DT	Issued for Costing	

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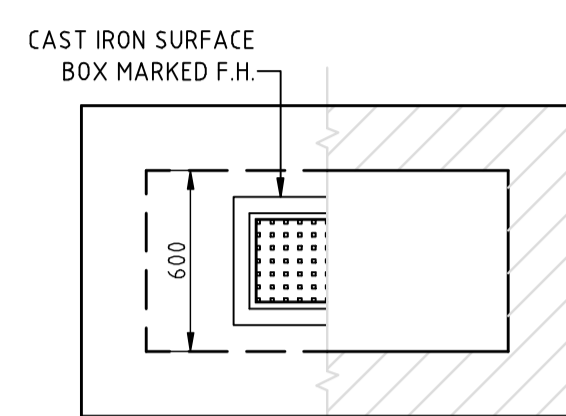
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Client:
Cork City Council

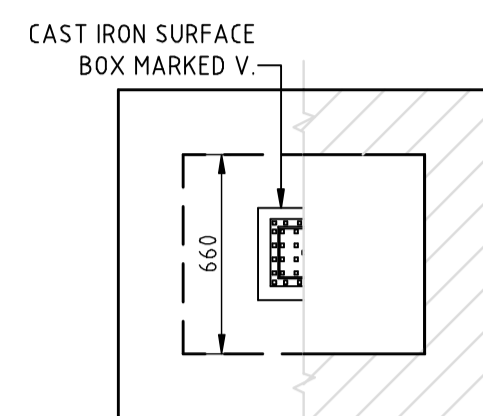
Project:
**Gairdin Ruachain, Carrigrohane,
Ballincollig, Co. Cork**

Drawing Title:
Proposed Pumping Station Layout Details

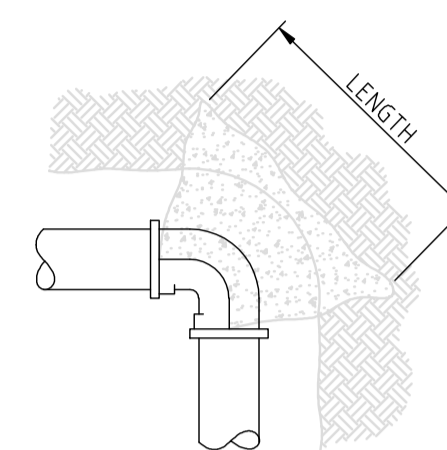
Designed:	Drawn: DT	Date: May'19
Eng Chk:	Dwg. Chk:	Scale: Shown @ A1
Project No:	0541000	
Drawing No:	Status: Planning	Rev: PL1
	04	



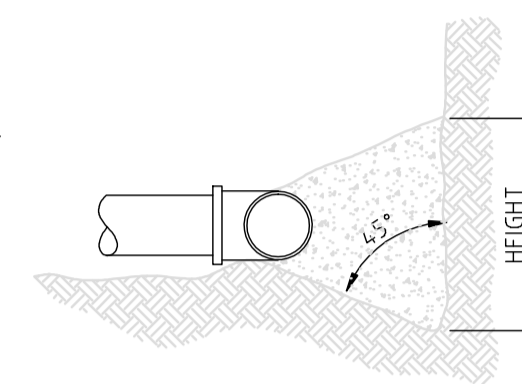
FIRE HYDRANT PLAN
(SCALE 1:25)



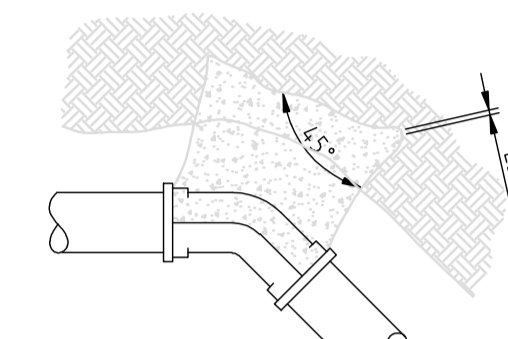
SLUICE VALVE PLAN
(SCALE 1:25)



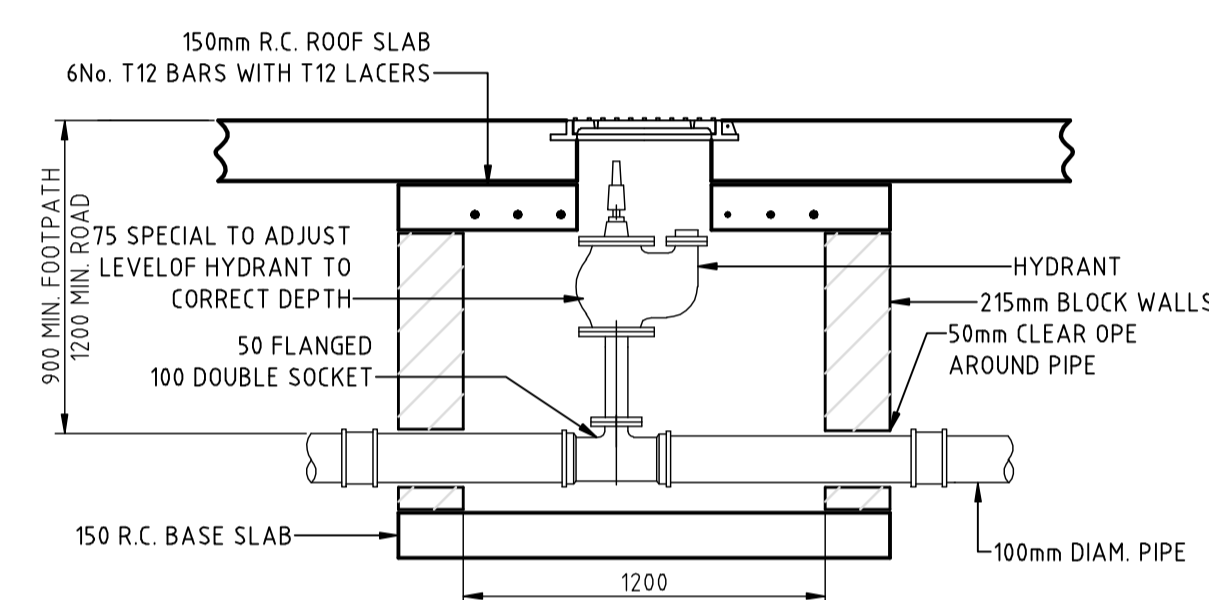
90° BEND PLAN
(SCALE 1:25)



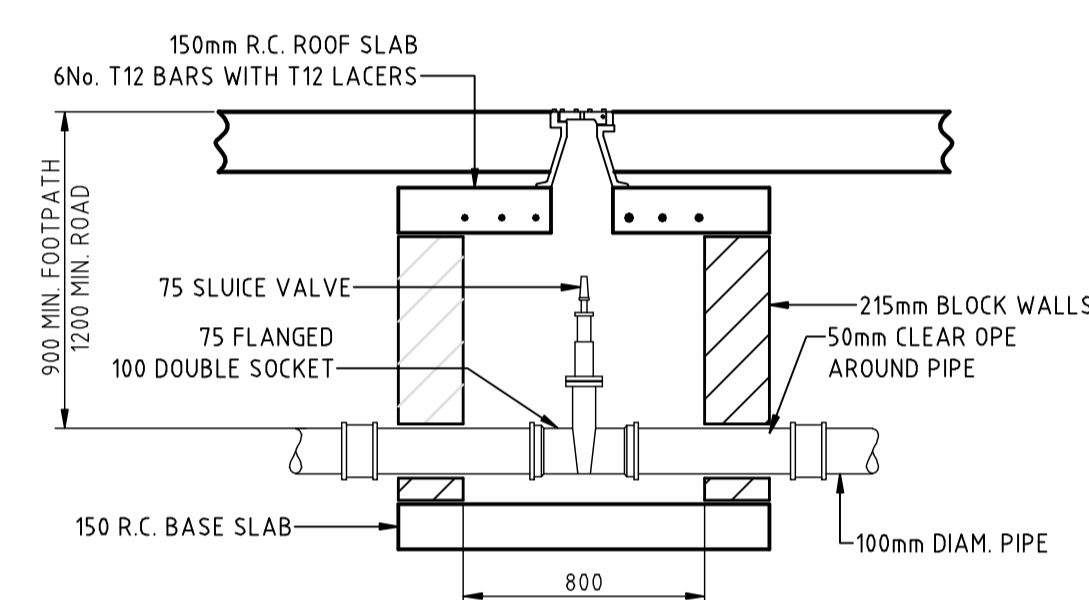
90° BEND ELEVATION
(SCALE 1:25)



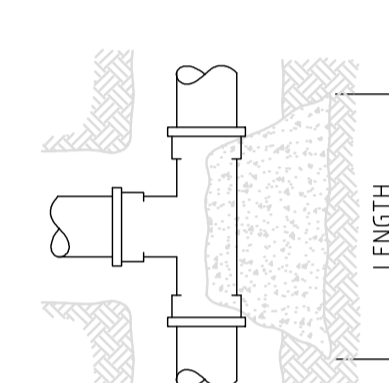
45° BEND ELEVATION
(SCALE 1:25)



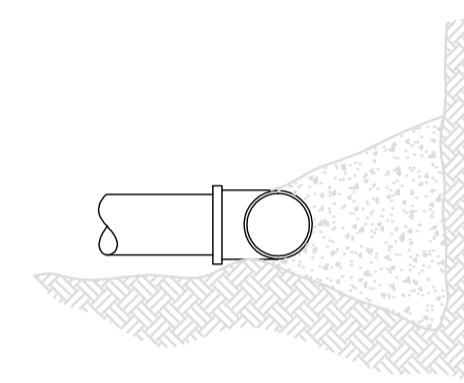
FIRE HYDRANT SECTION
(SCALE 1:25)



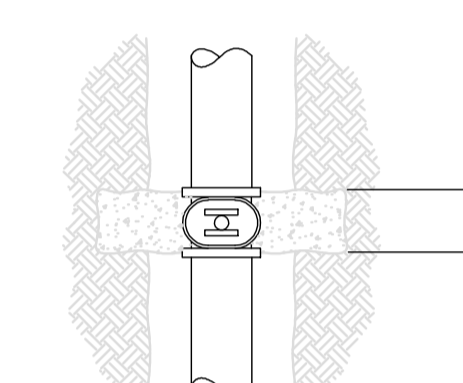
SLUICE VALVE SECTION
(SCALE 1:25)



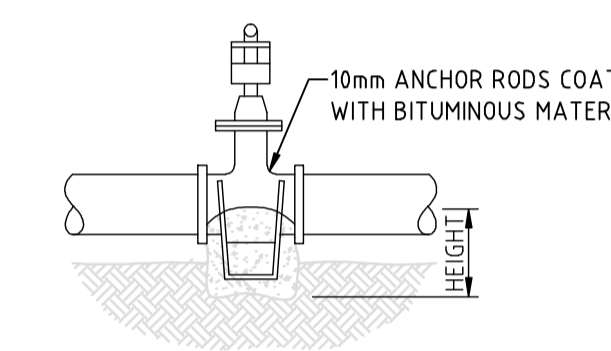
TEE PLAN
(SCALE 1:25)



TEE ELEVATION
(SCALE 1:25)



VALVE PLAN
(SCALE 1:25)



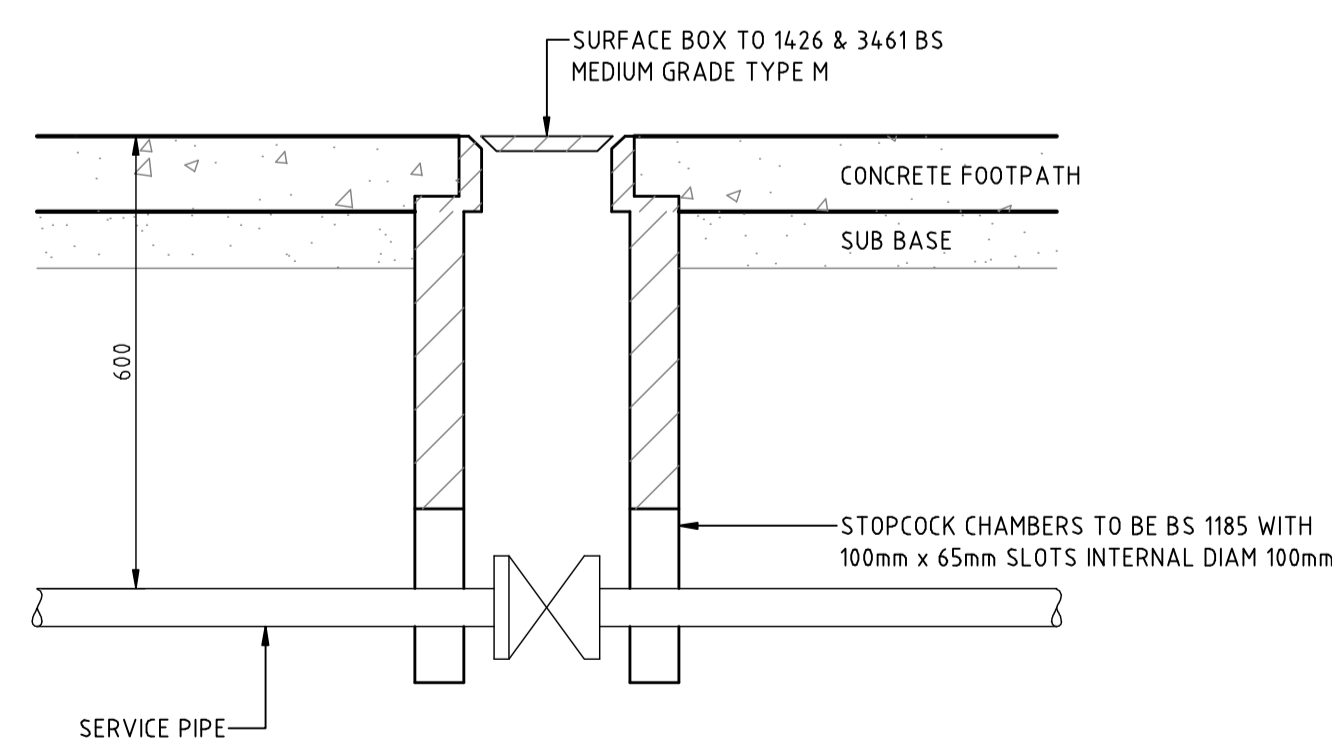
VALVE ELEVATION
(SCALE 1:25)

THRUST BLOCK DETAILS

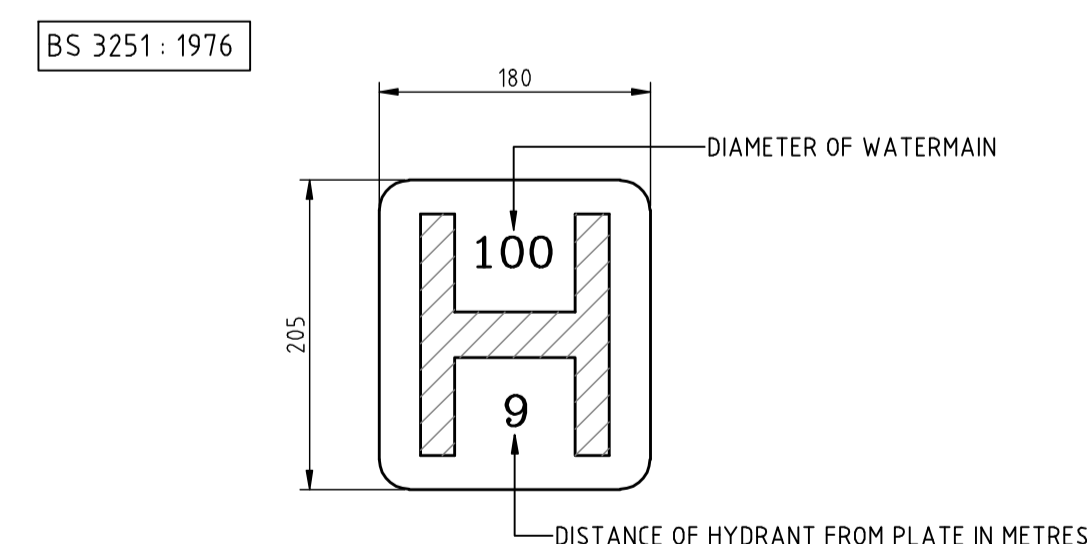
BEARING SURFACE AGAINST UNDISTURBED EARTH - MINIMUM DIMS.

NOM PIPE SIZE	90° BEND		45° BEND		TEES, PLUGS, CAPS, HYDRANTS & VALVES	
	LENGTH	HEIGHT	LENGTH	HEIGHT	LENGTH	HEIGHT
100mm	600mm	600mm	600mm	600mm	600mm	600mm

UNDISTURBED EARTH ONLY, FOR DISTURBED EARTH USE TIE RODS PLUS THRUST BLOCKS



STOP COCK DETAIL
(SCALE 1:10)



HYDRANT INDICATOR PLATE
(SCALE 1:5)

VALVE CHAMBERS
CHAMBER SIZE (INTERNAL)

PIPE DIAMETER	LENGTH	WIDTH
100mm	450mm	250mm
150mm	450mm	475mm

HYDRANT CHAMBERS

PIPE DIAMETER	LENGTH	WIDTH
≤ 200mm	450mm	300mm

Rev	Date	Drawn	Description	Ch'kd
PL1	Jan '20	ME	Issued for Planning	BA
T	Nov '19	DT	Issued for Tender	
PL	Oct '19	D.T.	Issued for Planning	
A	May '19	D.T.	Issued for Costing	

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CONSULTING ENGINEERS
CIVIL | STRUCTURAL | PROJECT MANAGEMENT

Client:
Cork City Council

Project:
**Gairdin Ruachain, Carrigrohane,
Ballincollig, Co. Cork**

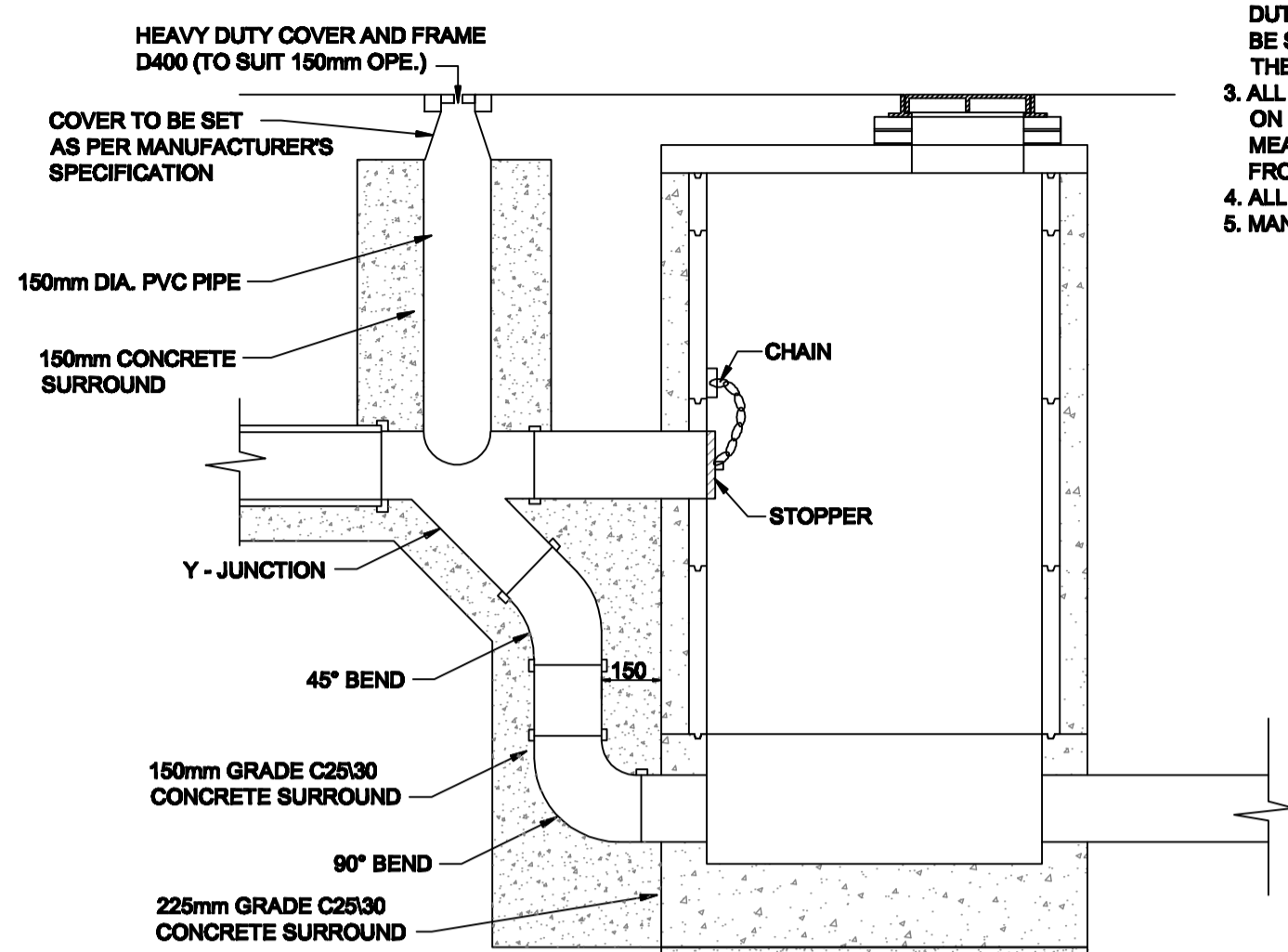
Drawing Title:
Proposed Watermain Details

Designed: -	Drawn: D.T.	Date: May'19
Eng Chk:	Dwg. Chk:	Scale: Shown @ A1
Project No: 0541000		
Drawing No: 06	Status: Planning	Rev: PL1

Notes

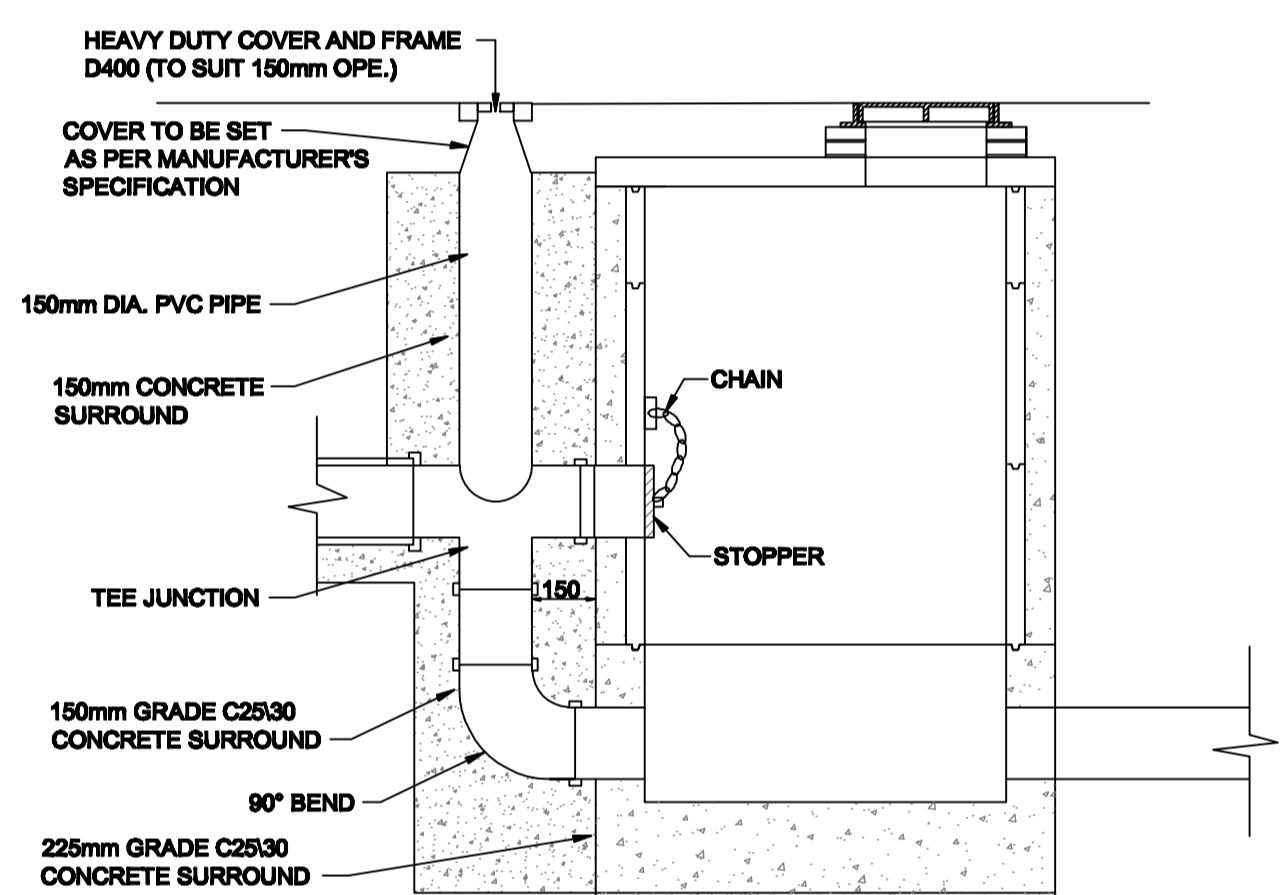
- This drawing is to be read in conjunction with all relevant engineers and architects drawings and specifications.
- Do not scale drawings. Use figured dimensions only. All dimensions to be checked on site.
- All dimensions are in millimetres (mm).
- Any discrepancies to be reported immediately to the consulting engineer.

- ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
- RODDING EYE CHAMBER SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS 281 AND BS 5834. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO THE APPROVAL OF IRISH WATER.
- ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOTATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO APPROVAL FROM IRISH WATER.
- ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
- MANHOLE DETAILS TO BE IN ACCORDANCE WITH STD-WW-09, 10 AND 11



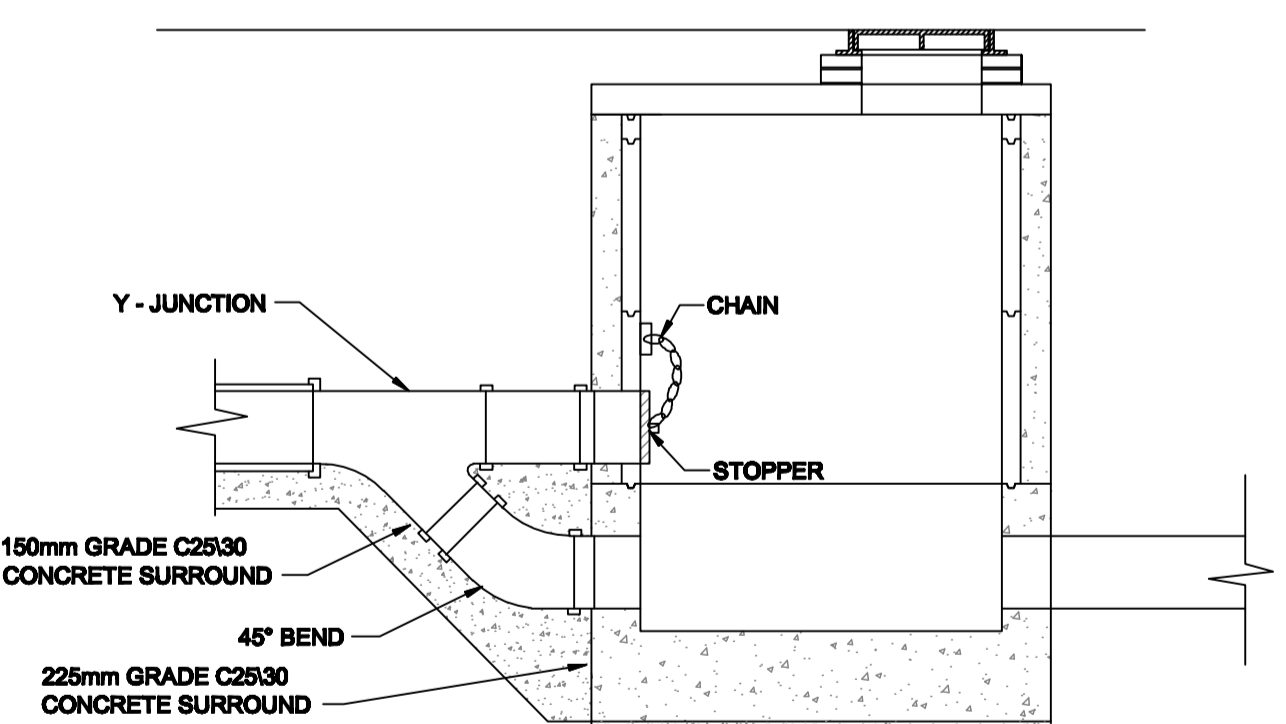
TYPE No. 1

150mm - 450mm DIA. (INCL.) DROP GREATER THAN 1700mm
500mm - 900mm DIA. (INCL.) DROP GREATER THAN 2300mm



TYPE No. 2

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



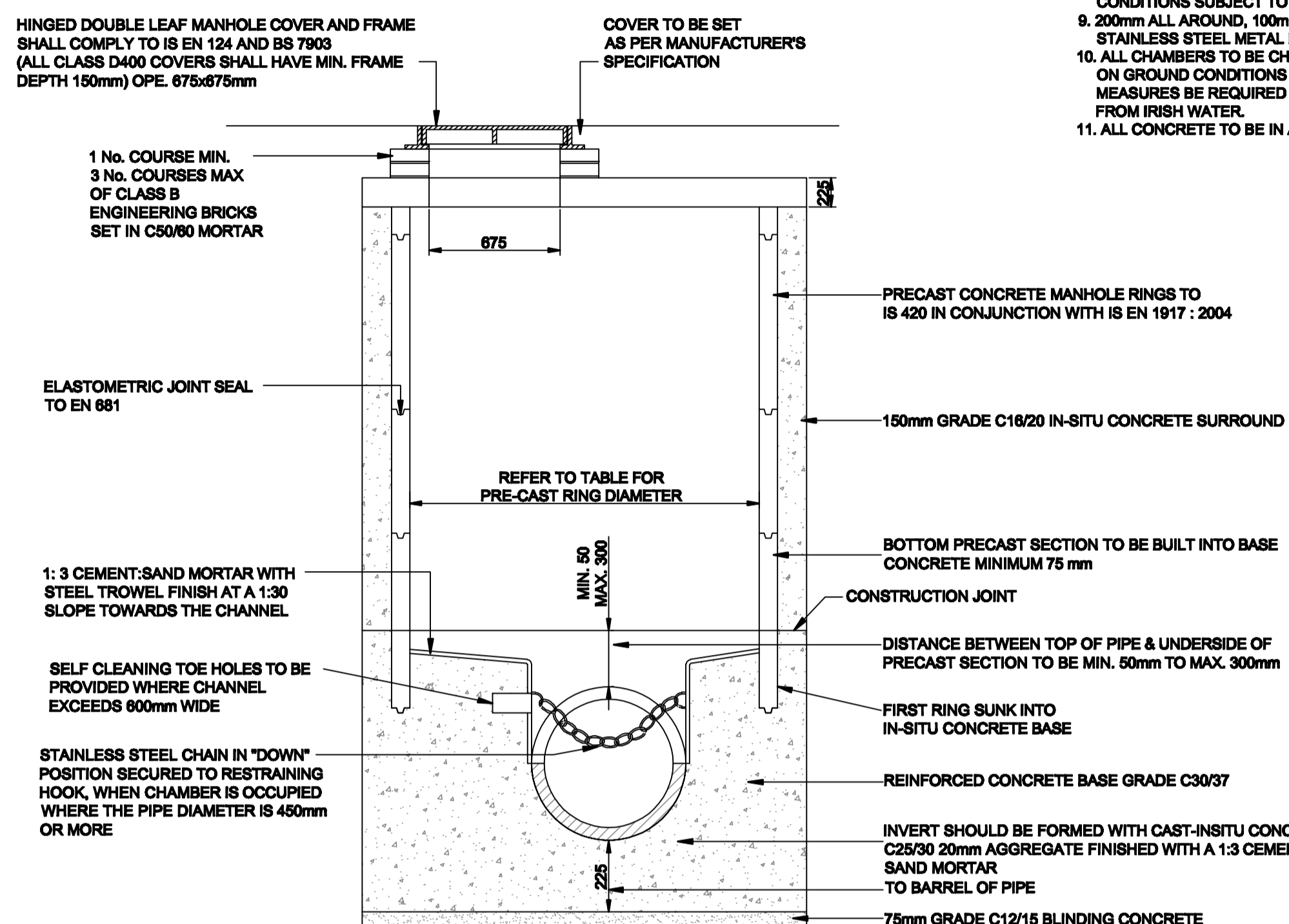
TYPE No. 3

150mm - 450mm DIA. (INCL.) DROP GREATER THAN 600mm AND LESS THAN 800m
500mm - 900mm DIA. (INCL.) DROP GREATER THAN 600mm AND LESS THAN 1300mm

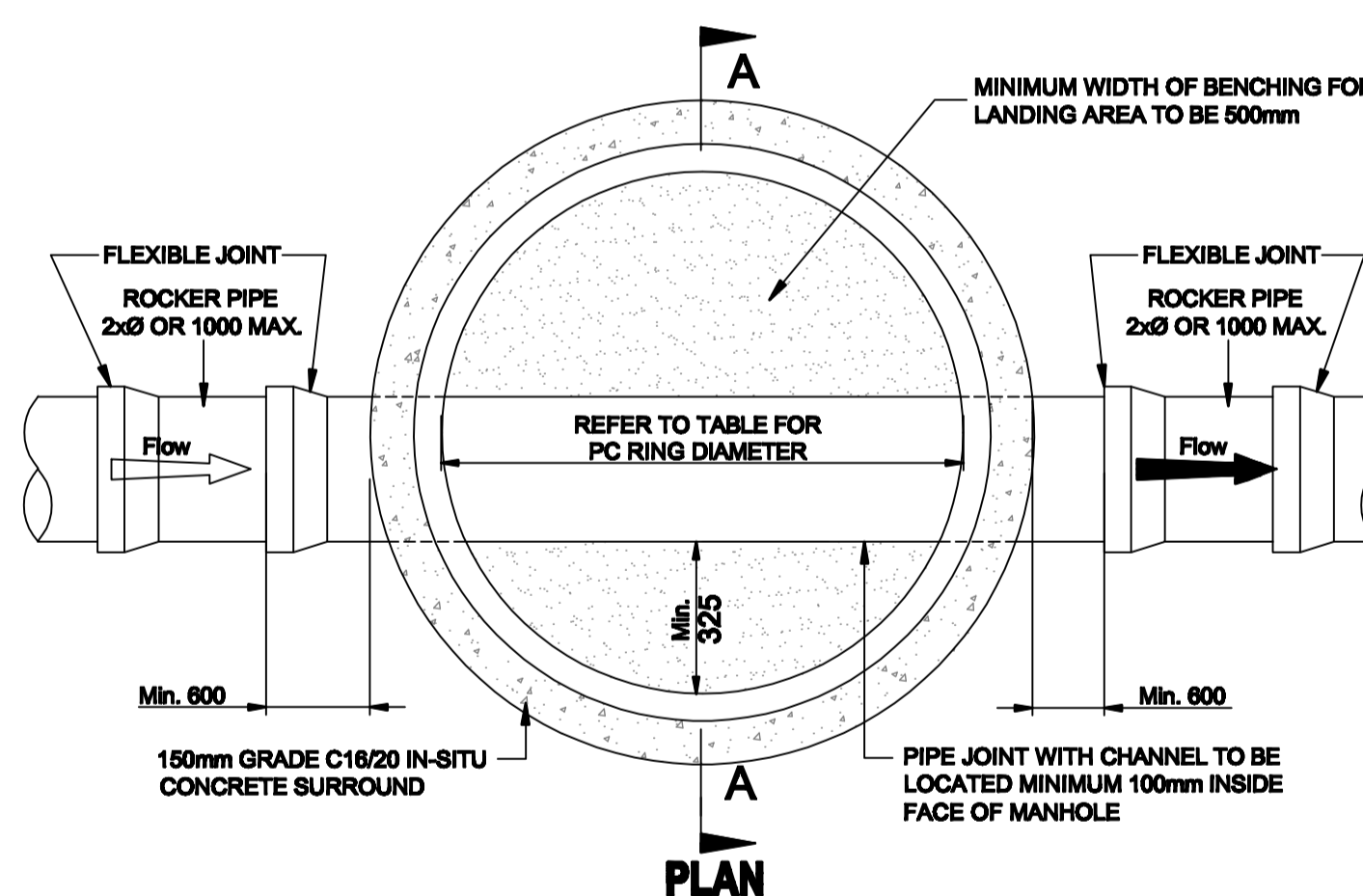
BACKDROP MANHOLES

MANHOLES

- Pre-cast concrete manholes to be accordance with IS 420: 1989.
- Manhole covers to roads to be Cavanagh Panther heavy duty Ref: A0011 to EN 124 or similar approved.
- Manhole covers to gardens and medium trafficked areas to be Cavanagh Tiger Duty Ref: A0053 to EN 124 or similar approved.



SECTION A-A



PLAN

MINIMUM MANHOLE DIAMETERS	
DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIAMETER OF MANHOLE (mm)
LESS THAN 375	1200
375 TO 450	1350

NORMAL INTERNAL DIAMETER	MINIMUM TRENCH WIDTH (mm)	MAXIMUM TRENCH WIDTH (mm)
100	450	650
150	500	700
225	600	800
300	700	900
375	950	1150
450	1050	1250

MAX. & MIN. TRENCH WIDTHS

PRE-CAST CONCRETE MANHOLE

GENERAL NOTES:

- DRAWINGS TO BE READ IN CONJUNCTION WITH ARCHITECTS DRAWINGS.
- ALL DIMENSIONS IN MILLIMETRES.
- SETTING OUT DETAILS TO BE OBTAINED FROM ARCHITECTS DRAWINGS.
- ARCHITECT TO BE INFORMED OF ANY DISCREPANCIES IMMEDIATELY.
- ENGINEER TO BE NOTIFIED OF ANY STRUCTURAL CONC. POURS SO THEY MAY BE INSPECTED AND PASSED.
- ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH CURRENT IRISH AND BRITISH STANDARDS.
- ALL WORKS TO BE CARRIED OUT IN CONJUNCTION WITH CORK COUNTY COUNCIL/IRISH WATER DRAINAGE DEPARTMENT.
- CONTRACTOR TO KEEP FULL RECORDS OF POSITIONS OF ALL DRAINS AND CONNECTIONS AND ON COMPLETION, FULL AS-BUILT DRAWINGS TO BE PRODUCED BY THE CONTRACTOR.

PROPOSED MANHOLE DETAILS

Rev	Date	Drawn	Description	Ch'kd
PL1	Jan '20	ME	Issued for Planning	BA
T	Nov '19	DT	Issued for Tender	
PL	Oct '19	D.T.	Issued for Planning	
A	May '19	D.T.	Issued for Costing	

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RAY KEANE & ASSOCIATES
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CIVIL | STRUCTURAL | PROJECT MANAGEMENT

Client:
Cork City Council

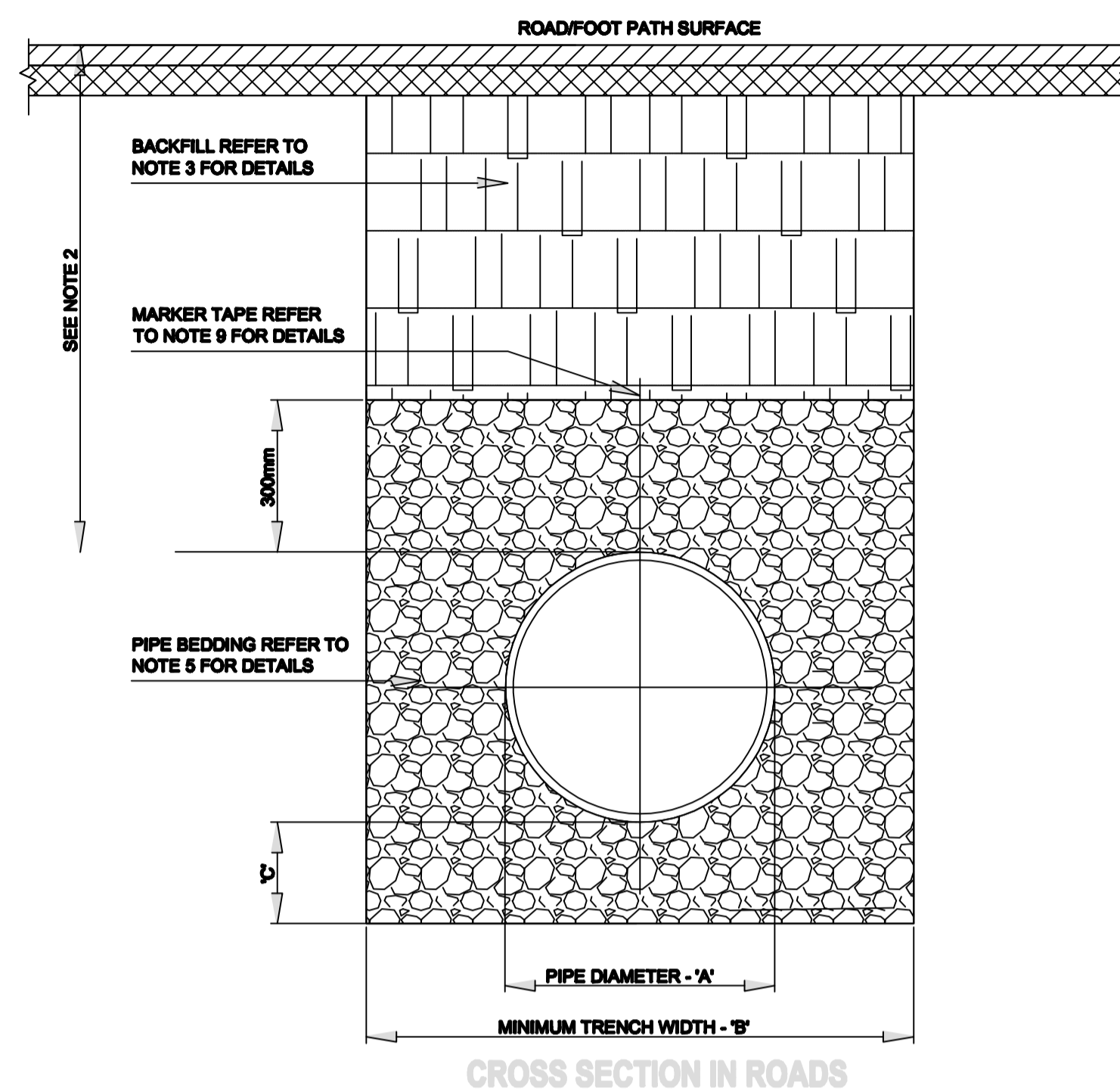
Project:
**Gairdín Ruachain, Carrigrohane,
Ballincollig, Co. Cork**

Drawing Title:
Proposed Manhole Details

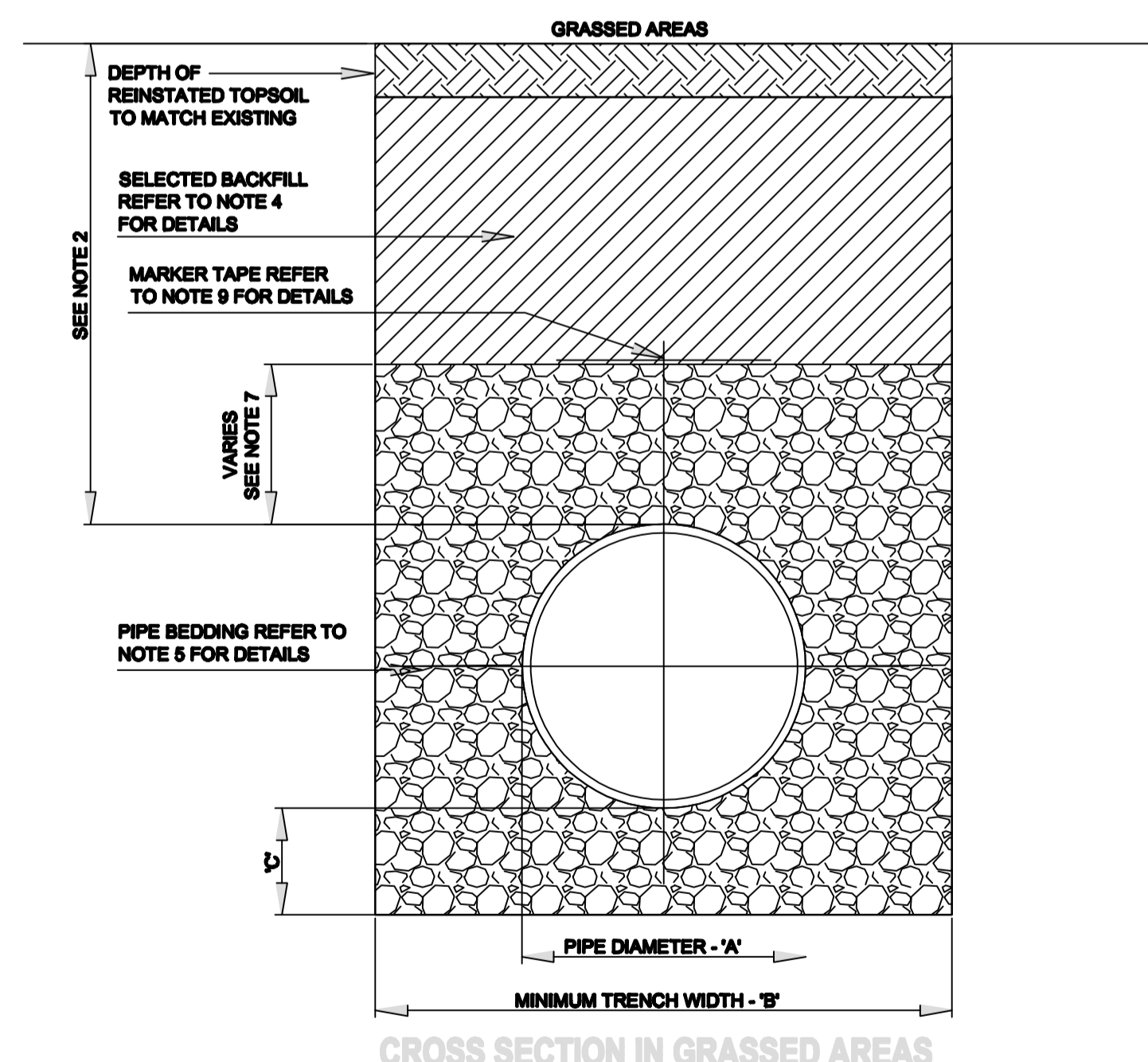
Designed: -	Drawn: D.T.	Date: May'19
Eng Chk:	Dwg. Chk:	Scale: Shown @ A1
Project No: 0541000		
Drawing No: 07	Status: Planning	Rev: PL1

Notes

- This drawing is to be read in conjunction with all relevant engineers and architects drawings and specifications.
- Do not scale drawings. Use figured dimensions only. All dimensions to be checked on site.
- All dimensions are in millimetres (mm).
- Any discrepancies to be reported immediately to the consulting engineer.



CROSS SECTION IN ROADS



CROSS SECTION IN GRASSED AREAS

- ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
- THE MINIMUM DEPTH OF COVER FROM THE FINISHED SURFACE TO THE CROWN OF GRAVITY PIPES WITHOUT PROTECTION SHOULD BE AS FOLLOWS:
 - GARDENS AND PATHWAYS WITHOUT ANY POSSIBILITY OF VEHICULAR ACCESS - DEPTH NOT LESS THAN 0.5 M. (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).
 - 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 0.75 M.
 - DRIVEWAYS, PARKING AREAS AND NARROW STREETS WITHOUT FOOTWAYS (E.G. MEWS DEVELOPMENTS) WITH LIMITED ACCESS FOR VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES - DEPTH NOT LESS THAN 0.9 M.
 - DEPTHS OF SEWERS IN GATED ESTATES SHALL BE SIMILAR TO THAT OUTLINED ABOVE.
 - AGRICULTURAL LAND AND PUBLIC OPEN SPACE - DEPTH NOT LESS THAN 0.9 M.
 - 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.
- CLAUSE 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 808 IS TO BE COMPACTED AS PER CLAUSE 802 OF THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS.
- SELECTED EXCAVATED MATERIAL MAY BE USED IN GREEN-FIELD AREAS ABOVE GRANULAR PIPE SURROUND MATERIAL SUBJECT TO THE APPROVAL OF IRISH WATER.
- 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 12620. CONCRETE BED, HAUNCH & SURROUND, WHERE REQUIRED, SHALL BE TO STD-WW-08.
- IN SOFT GROUND CONDITIONS (CBR < 5) THE MATERIAL SHOULD BE EXCAVATED AND DISPOSED OF IN ACCORDANCE WITH THE WASTE MANAGEMENT ACT AND CLAUSE 808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD 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.
- IN GREEN FIELD 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.
- 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 THE VOID FILLED WITH CLAUSE 808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS. THE GRANULAR MATERIAL SHALL BE LAID ABOVE THIS VOID BACKFILL MATERIAL.
- NON DEGRADABLE MARKER TAPE SHOULD BE INSTALLED AT 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.
- TRENCH WIDTHS FOR PIPE SIZES ≤80mm MAY BE <500mm, SUBJECT TO CONSIDERATION BEING GIVEN TO THE TRENCH DEPTH, HEALTH & SAFETY & CONSTRUCTION ACCESS REQUIREMENTS.

PIPE DIAMETER 'A' (mm)	TRENCH WIDTH 'B' (mm)
100	500
150	600
200	600
250	750
300	750

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

GENERAL NOTES:

- DRAWINGS TO BE READ IN CONJUNCTION WITH ARCHITECTS DRAWINGS.
- ALL DIMENSIONS IN MILLIMETRES.
- SETTING OUT DETAILS TO BE OBTAINED FROM ARCHITECTS DRAWINGS.
- ARCHITECT TO BE INFORMED OF ANY DISCREPANCIES IMMEDIATELY.
- ENGINEER TO BE NOTIFIED OF ANY STRUCTURAL CONC. POURS SO THEY MAY BE INSPECTED AND PASSED.
- ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH CURRENT IRISH AND BRITISH STANDARDS.
- ALL WORKS TO BE CARRIED OUT IN CONJUNCTION WITH CORK COUNTY COUNCIL/IRISH WATER DRAINAGE DEPARTMENT.
- CONTRACTOR TO KEEP FULL RECORDS OF POSITIONS OF ALL DRAINS AND CONNECTIONS AND ON COMPLETION, FULL AS-BUILT DRAWINGS TO BE PRODUCED BY THE CONTRACTOR.

Rev	Date	Drawn	Description	Chk'd
PL1	Jan '20	ME	Issued for Planning	BA
T	Nov 19	DT	Issued for Tender	
T	Nov 19	DT	Issued for Tender	
PL	Oct'19	D.T.	Issued for Planning	
A	May'19	D.T.	Issued for Costing	


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RAY KEANE & ASSOCIATES
CONSULTING ENGINEERS
 CIVIL | STRUCTURAL | PROJECT MANAGEMENT

Client:
Cork City Council

Project:
Gairdin Ruachain, Carrigrohane, Ballincollig, Co. Cork

Drawing Title:
Proposed Pipe Bedding Details

Designed: -	Drawn: D.T.	Date: May'19
Eng Chk:	Dwg. Chk:	Scale: Shown @ A1
Project No: 0541000		
Drawing No: 08	Status: Planning	Rev: PL1

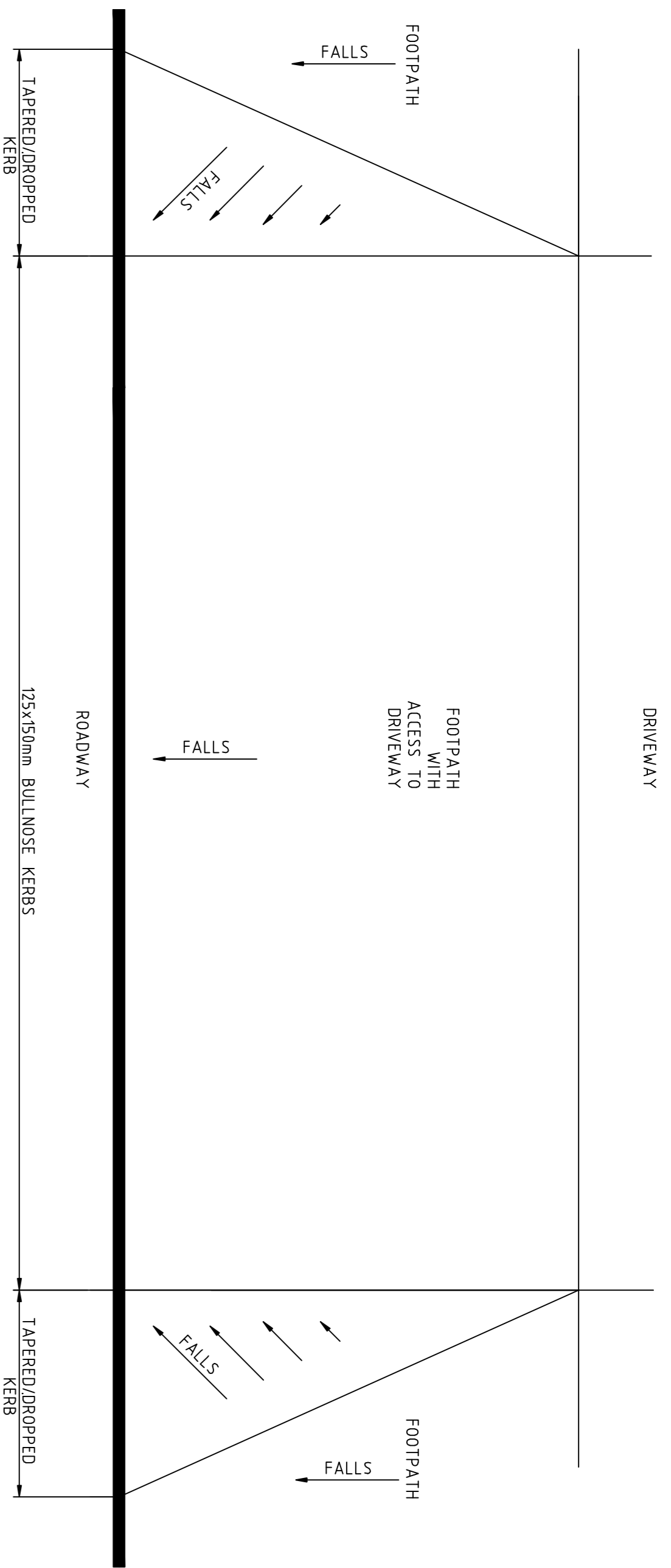
PROPOSED PIPE BEDDING DETAILS

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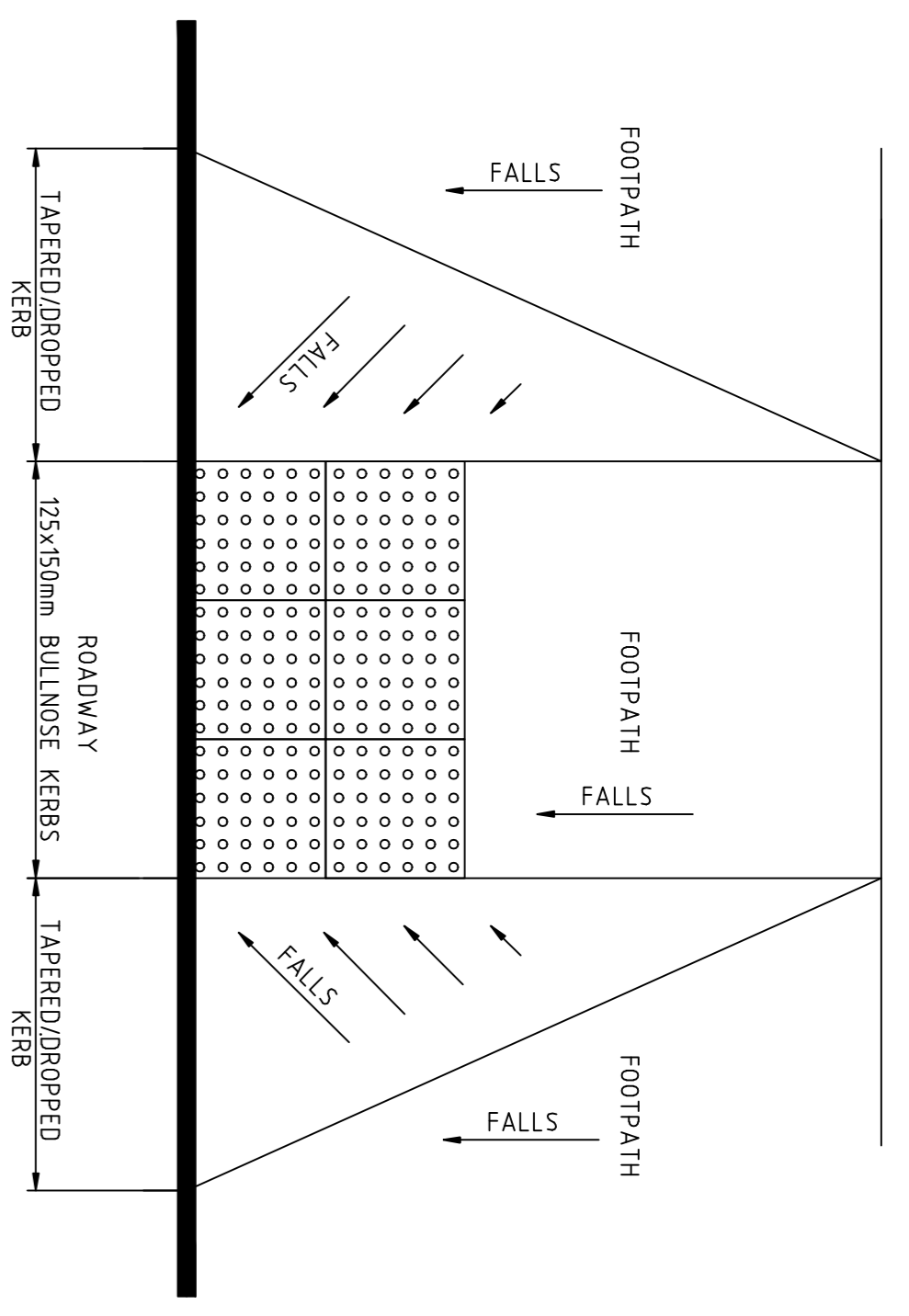
Original Drawing Size A1

Notes

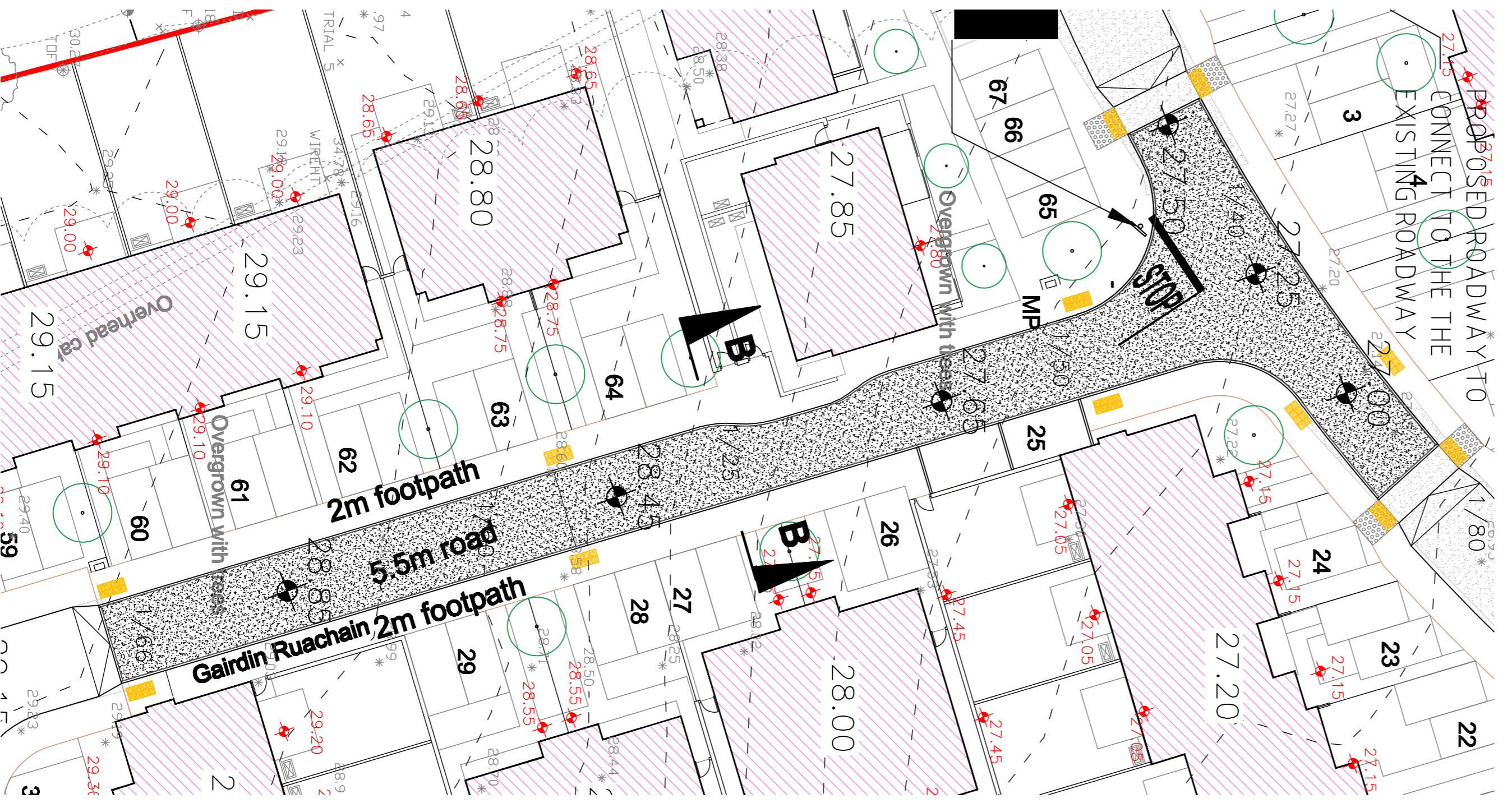
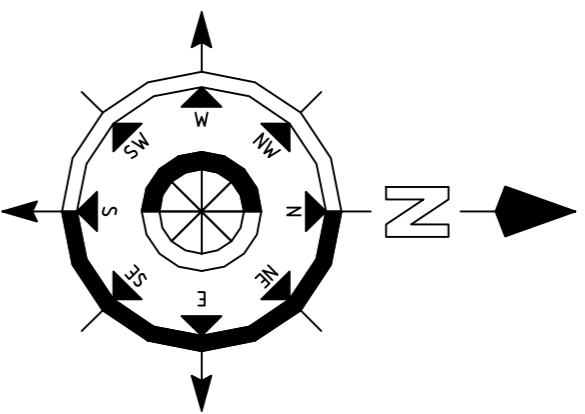
1. This drawing is to be read in conjunction with all relevant engineers and architects drawings and specifications.
2. Do not scale drawings. Use figured dimensions only. All dimensions to be checked on site.
3. All dimensions are in millimetres (mm).
4. Any discrepancies to be reported immediately to the consulting engineer.



PLAN OF ACCESS TO DRIVEWAYS
SCALE 1:20



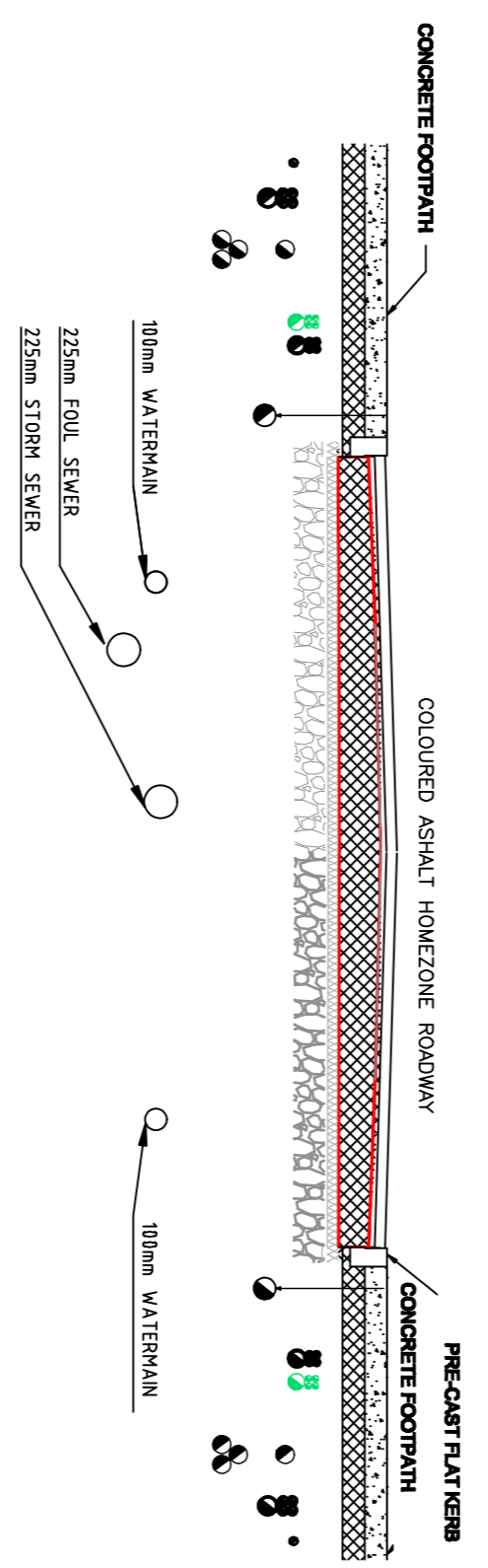
PLAN OF TACTILE PAVING CROSSING DETAIL
SCALE 1:20



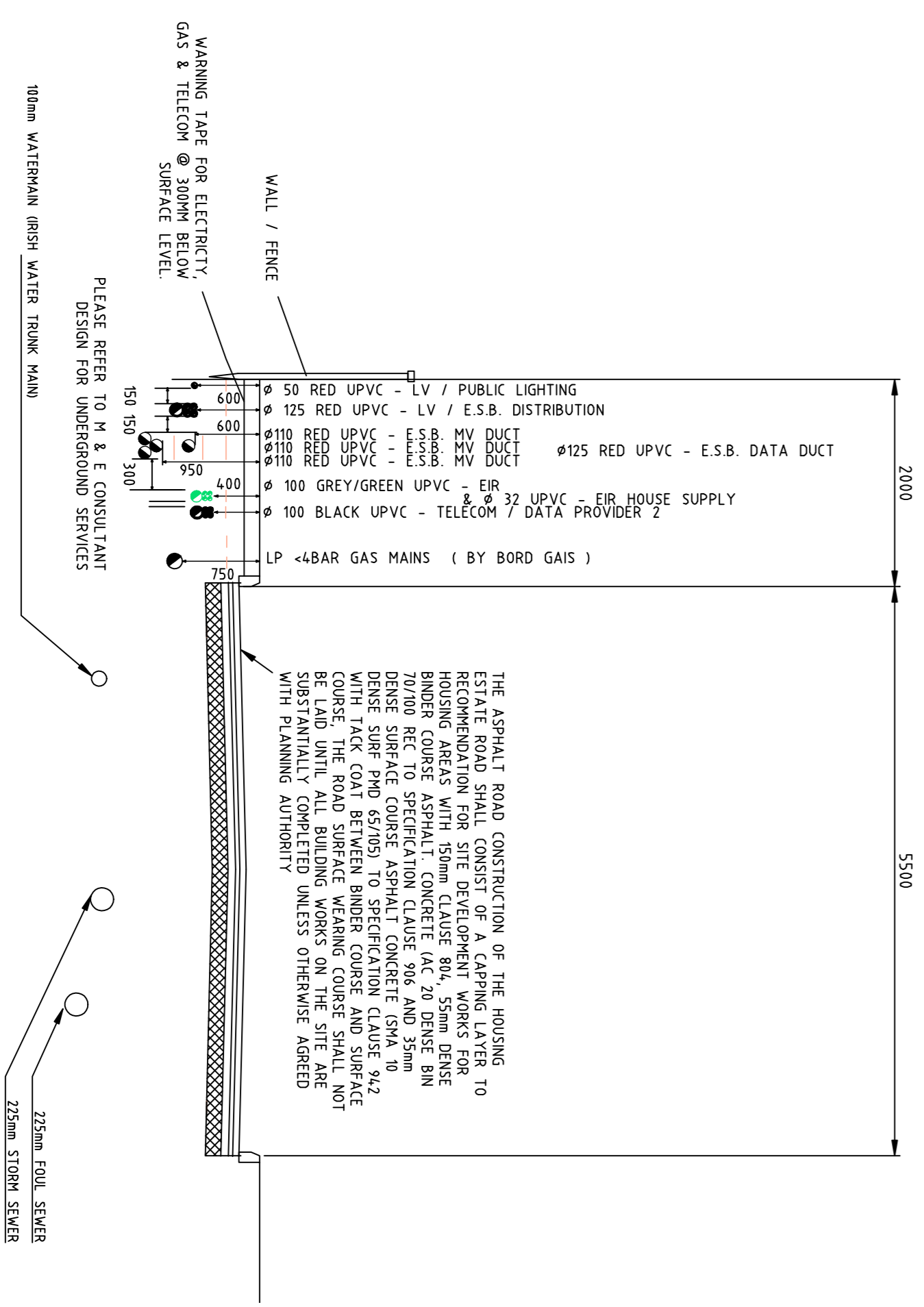
RAISED HOMEZONE PAVED AREA NO.1
SCALE 1:250



RAISED HOMEZONE PAVED AREA NO.2
SCALE 1:250



HOME ZONE ROADWAY SECTION B-B
SCALE 1:50



ROAD SECTION A-A
SCALE 1:50

Rev	Date	By	Description	Checked
PL1	Jan 20	ME	Issued for Planning	BA
T	Nov 19	DT	Issued for Tender	
B	Oct 18	DT	Issued for Planning	
A	May 18	DT	Issued for Planning	
Rev	Date	By	Description	Checked

Client:
Cork City Council

Project:
Gairdin Ruachain, Carrigrohane,
Ballycullig, Co. Cork

Drawing Title:
Proposed Traffic Calming
Road and Footpath Details

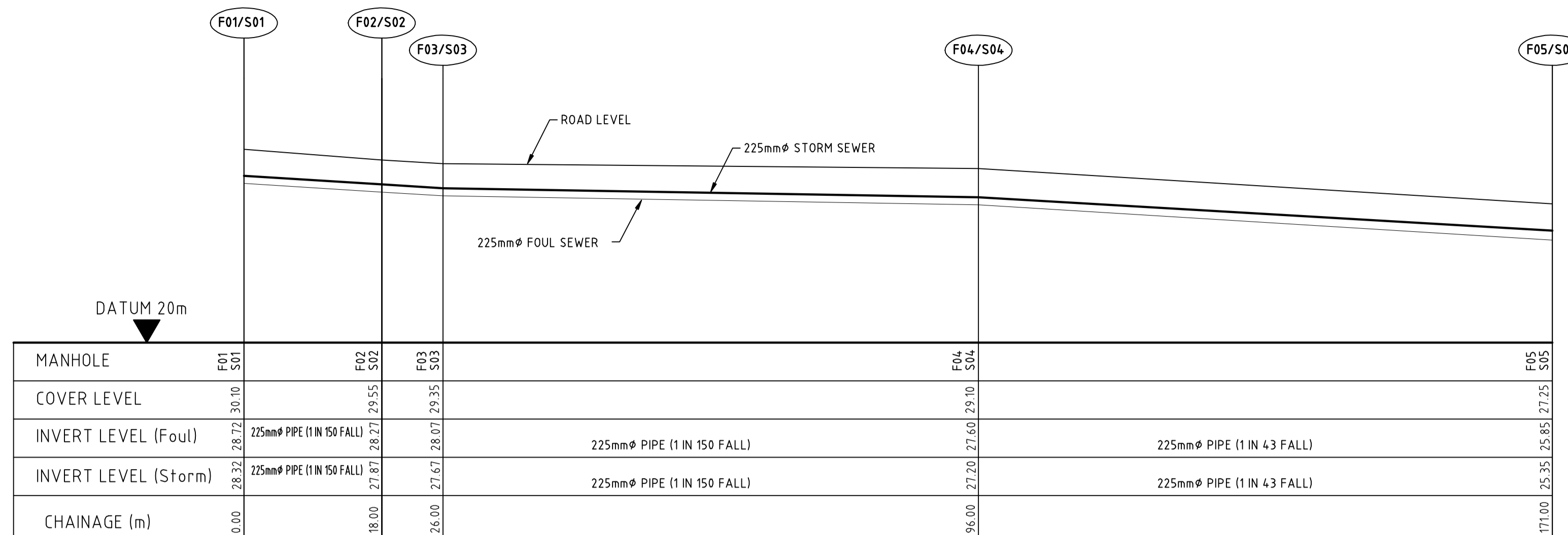
Design: -
Eng. date: -
Project No: 0541000
Drawing No: 09

Drawn: D.T.
Scale: SHOWN @ A1

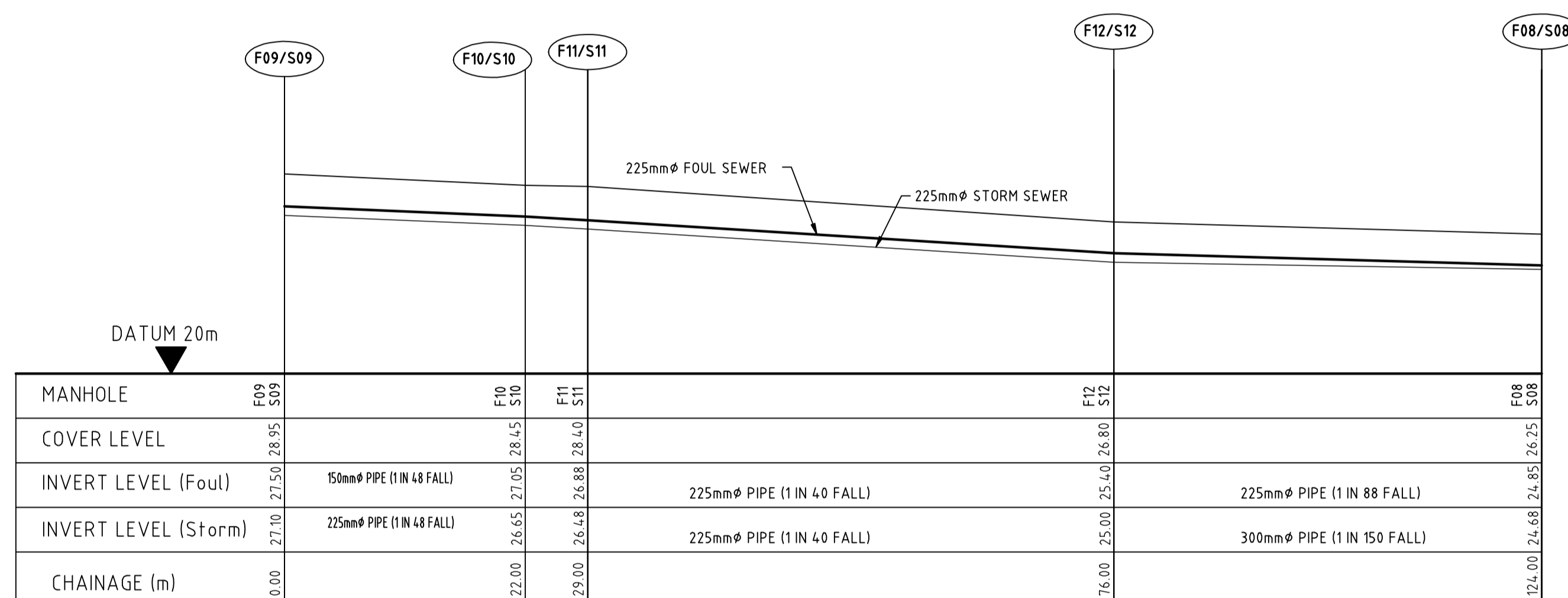
Date: May'19
Scale: SHOWN @ A1
Rev: PL1

Notes

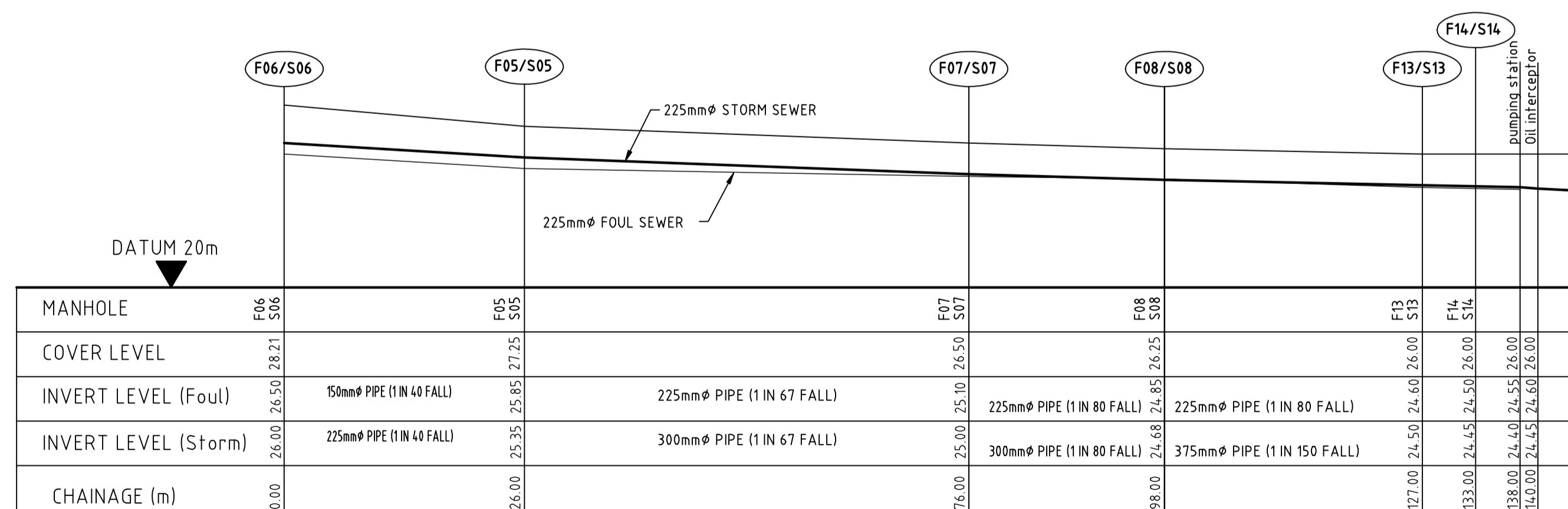
- This drawing to be read in conjunction with relevant Architectural, Mechanical/Electrical and Engineers drawings and specifications.
- All dimensions are in millimetres (mm).
- All levels refer to Malin Head Datum.
- Use figured dimensions only. Do not scale from this drawing. All dimensions to be checked on site.
- Report any discrepancies to Engineer immediately.
- Surface Water Drainage works should comply with:
 - (A) Requirements of BS 8005: Part 1 and BS 830.
 - (B) "Recommendations for Site Development Works for Housing Areas" by Department of the Environment and Local Government 1998.
 - (C) The existing City Council Engineer's Requirements on Site Development Works.
- Pipes shall be laid with a minimum cover of 1.2m in roads and driveways, 0.9 m in open spaces and footpaths not adjacent to carriageway and 0.9 m in gardens. Where it is not possible to achieve these minimum covers, pipes shall be bedded and surrounded in concrete 150 mm thick subject to the Engineer's approval.
- Surface Water Drains shall be tested by the following methods:
 - (A) Water test
Surface water sewers shall be tested for a minimum of 30 minutes and the test head of water shall be not less than 1 meter over the crown at the high point and not more than 2 metres of water over the crown at low points of the line under test. Acceptance criteria for the maximum allowable loss of water per hour per 100 lineal meters of pipe shall be as given in Table 7 unless otherwise approve.
 - Where the surface water drains fail the appropriate tests, remedial work shall be subject to approval.
 - (B) Air test
Air shall be pumped into the section of drain under test until a pressure of 100 mm of water is indicated on a U-tube connected to the system. The air pressure shall not fall less than 75-mm head of water during a period of 5 minutes without further pumping, after a period of stabilization.
 - Failure to pass this test is not conclusive and, when failure does occur, a water test as specified in (A) shall be carried out. Acceptance or rejection of the line under test shall be based on the results of this water test.
- A CCTV survey of the public storm/foul sewerage systems in the vicinity of the proposed development shall be undertaken prior to commencement and again on completion. The scope of the surveys shall be agreed in writing in advance, with the relevant authorities.
- No public storm/foul sewer shall be damaged as a result of the proposed development.
- All drainage shall be separated throughout.
- Foul sewers shall be tested in accordance with Section 4.10 of Irish Water Code of Practice for Wastewater Infrastructure Connections and Developer Services Document IW-CD5-5030-03.
- All pipes and fittings to be laid to Irish Water Standards. Please refer to Irish Water Wastewater Infrastructure Standard Details Connections and Developer Services Document Number IW-CD5-5030-01 and Irish Water Code of Practice for Wastewater Infrastructure Connections and Developer Services Document IW-CD5-5030-03.



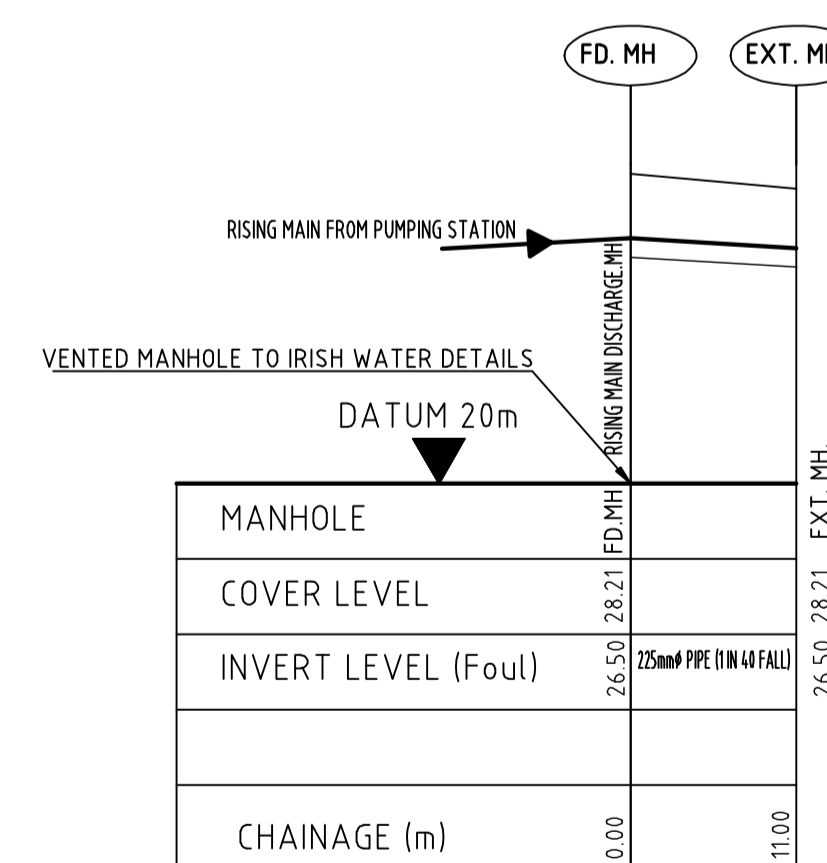
LONGITUDINAL SECTION FROM F01 & S01 TO F05 & S05
LONGITUDINAL SCALE 1:500 ; VERTICAL SCALE 1:200



LONGITUDINAL SECTION FROM F09 & S09 TO F08 & S08
LONGITUDINAL SCALE 1:500 ; VERTICAL SCALE 1:200



LONGITUDINAL SECTION FROM F06 & S06 TO FOUL PUMPING STATION & SOAKAWAY
LONGITUDINAL SCALE 1:500 ; VERTICAL SCALE 1:200



LONGITUDINAL SECTION FROM RISING MAIN DISCHARGE MANHOLE TO EXISTING MANHOLE
LONGITUDINAL SCALE 1:500 ; VERTICAL SCALE 1:200

GRAVITY SEWER PIPE MATERIALS SHALL COMPLY WITH SECTION 3.13 OF IRISH WATERS CODE OF PRACTICE

GENERAL NOTES:
1. ALL LEVELS ARE RELATED TO MALIN HEAD DATUM.

PL1	Jan 20	ME	Issued for Planning	BA
T	Nov 19	D.T.	Issued for Tender	
Rev	Date	Drawn	Description	Checked

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RAY KEANE & ASSOCIATES
CONSULTING ENGINEERS

CIVIL | STRUCTURAL | PROJECT MANAGEMENT

Client:
Cork City Council

Project:
Gairdin Ruachain, Carrigrohane, Ballincollig, Co. Cork

Drawing Title:
Proposed Drainage Sections

Designed:	Drawn: D.T.	Date: Oct '19
Eng Check:	Draw Check:	Scale: Shown @ A1
Project No:	05541000	
Drawing No:	11	Status: Planning
		Rev: PL1