TJ O'CONNOR & ASSOCIATES
CONSULTING ENGINEERS

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Tel: (01) 295 2321 Email: tjoc@tjoc.ie Web: www.tjoc.ie

ISSUE SHEET

PLANNING DRAWINGS & DOCUMENTS (Civil)

Project Ref: **Dundrum Village - SHD**

Project No. **16031**

Client: **DUNDRUM RETAIL GP DAC (ACTING FOR AND ON BEHALF OF DUNDRUM RETAIL LIMITED PARTNERSHIP)**

Ref	Files issued to	Company	Contact	Date of Transmittal	21.03.2022	30.03.2022							
					E = Email C = CDE 1,2 etc. = Hard Copies								
1	**Client**	Hammerson PLC	Rob Bloomer		C	C							
2	**Executive Architect**	Grid Architects	Colin Veitch		C	C							
3	**Delivery Architect**	O'Mahony Pike	Michael Hussey		C	C							
4	**Planning Consultant**	BMA Planning	Ray Ryan		C	C							
5	**M&E Consultant**	BDP	Patrick Kavanagh		C	C							
6	**Quantity Surveyor**	KSN	Justin Travers		C	C							
7	**Project Manager**	Cogent Associates	Glen Roche		C	C							
8	**FSC / DAC Engineer**	MJP	Luke Fagan		C	C							
9	**Landscape Architect**	NMP	John Montgomery		C	C							
10													

Status Codes in accordance with Table NA.1 of BS EN ISO 19650-:2018
Shared
S1 Coordination; S2 Information; S3 Review & Comment; S4 Stage Approval
Published
An Authorised & Accepted where n= P for Planning Issue, n=T for Tender Issue and n=C for Construction Issue

File Name	File Title	Current Revision	AP	AP							
16031-TJOC-00-XX-DR-C-1000	Existing Site Layout 1:500	C02	C02								
16031-TJOC-00-XX-DR-C-1010	Proposed Overall Lower Ground Floor Layout 1:500	C02	C02								
16031-TJOC-00-XX-DR-C-1011	Lower Ground Floor - Zone 1 & 2 - 1:250	C01	C01								
16031-TJOC-00-XX-DR-C-1012	Lower Ground Floor - Zone 3 & 4 - 1:250	C01	C01								
16031-TJOC-00-XX-DR-C-1014	Escape Routes - Lower Ground Floor	C01	C01								
16031-TJOC-00-XX-DR-C-1015	Escape Routes - Podium Level	C01	C01								
16031-TJOC-00-XX-DR-C-1045	Existing Development with Fluvial Flood Extents	C01	C01								
16031-TJOC-00-XX-DR-C-1046	Existing Development with 0.1% Fluvial Flood Depths	C01	C01								
16031-TJOC-00-XX-DR-C-1047	Existing Development with Pluvial Flood Extents	C01	C01								
16031-TJOC-00-XX-DR-C-1048	Existing Development with 0.1% Pluvial Flood Depths Site	C01	C01								
16031-TJOC-00-XX-DR-C-1049	Existing Development with 0.1% Fluvial Flood Extents - Sections - Sheet 1	C01	C01								
16031-TJOC-00-XX-DR-C-1050	Existing Development with 0.1% Fluvial Flood Extents - Sections - Sheet 2	C01	C01								
16031-TJOC-00-XX-DR-C-1051	Proposed Development with Fluvial Flood Extents	C03	C02	C03							
16031-TJOC-00-XX-DR-C-1052	Proposed Development with 0.1% Fluvial Flood Depths	C03	C02	C03							
16031-TJOC-00-XX-DR-C-1053	Proposed Development with Pluvial Flood Extents	C03	C02	C03							
16031-TJOC-00-XX-DR-C-1054	Proposed Development with 0.1% Pluvial Flood Depths Site	C03	C02	C03							
16031-TJOC-00-XX-DR-C-1055	Proposed Development with 0.1% Fluvial Flood Extents - Sections - Sheet 1	C03	C02	C03							
16031-TJOC-00-XX-DR-C-1056	Proposed Development with 0.1% Fluvial Flood Extents - Sections - Sheet 2	C03	C02	C03							
16031-TJOC-00-XX-DR-C-1057	Overland Flood Flow Routes	C02	C01	C02							
16031-TJOC-00-XX-DR-C-1058	Compensatory Storage Details Sheet 1	C02	C01	C02							
16031-TJOC-00-XX-DR-C-1059	Compensatory Storage Details Sheet 2	C01	C01								
16031-TJOC-00-XX-DR-C-1060	Existing Site Services - Combined Layout	C02	C02								
16031-TJOC-00-XX-DR-C-1061	Proposed Combined Services Layout 1:500 - Podium Level	C02	C02								
16031-TJOC-00-XX-DR-C-1062	Proposed Combined Services Layout 1:500 - Lower Ground Floor Level	C02	C01	C02							
16031-TJOC-00-XX-DR-C-1063	Proposed Watermain Layout 1:500	C02	C02								
16031-TJOC-00-XX-DR-C-1064	Proposed Watermain Layout 1:250 - Sheet 1	C01	C01								
16031-TJOC-00-XX-DR-C-1065	Proposed Watermain Layout 1:250 - Sheet 2	C01	C01								
16031-TJOC-00-XX-DR-C-1066	Irish Water Sewer Diversion 1:500 with Longsection	C01	C01								
16031-TJOC-00-XX-DR-C-1067	Proposed Foul Pumping Station Rising Main Layout and Longsection	C02	C01	C02							

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File Name	File Title	Current Revision	AP	AP							
16031-TJOC-00-XX-DR-C-1068	Proposed Foul Drainage Layout 1:500 - Podium	C01	C01								
16031-TJOC-00-XX-DR-C-1069	Proposed Foul Drainage Layout 1:500 - Lower Ground Floor	C02	C01	C02							
16031-TJOC-00-XX-DR-C-1070	Foul Pumping Station Layout	C02	C01	C02							
16031-TJOC-00-XX-DR-C-1071	Proposed Foul Sections - Sheet 1	C02	C01	C02							
16031-TJOC-00-XX-DR-C-1072	Proposed Foul Sections - Sheet 2	C01	C01								
16031-TJOC-00-XX-DR-C-1073	Proposed Foul Sections - Sheet 3	C01	C01								
16031-TJOC-00-XX-DR-C-1074	Proposed Foul Sections - Sheet 4	C02	C01	C02							
16031-TJOC-00-XX-DR-C-1075	Wastewater Infrastructure Standard Details - Standard Manhole Details	C01	C01								
16031-TJOC-00-XX-DR-C-1076	Wastewater Infrastructure Standard Details - Standard Pipe Connections	C01	C01								
16031-TJOC-00-XX-DR-C-1077	Wastewater Infrastructure Standard Details - Standard Miscellaneous Details	C01	C01								
16031-TJOC-00-XX-DR-C-1078	Wastewater Infrastructure Standard Details - Standard Hydrant Details	C01	C01								
16031-TJOC-00-XX-DR-C-1079	Wastewater Infrastructure Standard Details - Standard Valve Details	C01	C01								
16031-TJOC-00-XX-DR-C-1080	Existing Impervious / Pervious Areas	C02	C02								
16031-TJOC-00-XX-DR-C-1081	Proposed Roof Surface Water Drainage Layout	C02	C02								
16031-TJOC-00-XX-DR-C-1082	Proposed Surface Water Drainage Layout 1:500 - Podium	C02	C02								
16031-TJOC-00-XX-DR-C-1083	Proposed Surface Water Drainage Layout 1:500 - Lower Ground Floor Layout	C02	C01	C02							
16031-TJOC-00-XX-DR-C-1084	Proposed Surface Water Drainage Layout 1:250 - Sheet 1	C02	C01	C02							
16031-TJOC-00-XX-DR-C-1085	Proposed Surface Water Drainage Layout 1:250 - Sheet 2	C01	C01								
16031-TJOC-00-XX-DR-C-1086	Proposed Surface Water Sections - Zone 1 Sheet 1	C02	C01	C02							
16031-TJOC-00-XX-DR-C-1087	Proposed Surface Water Sections - Zone 1 Sheet 2	C01	C01								
16031-TJOC-00-XX-DR-C-1088	Proposed Surface Water Sections - Zone 2 Sheet 1	C01	C01								
16031-TJOC-00-XX-DR-C-1089	Proposed Surface Water Sections - Zone 2 / Zone 3 Sheet 2	C01	C01								
16031-TJOC-00-XX-DR-C-1090	Proposed Stormtech Attenuation Details - Zone 1	C02	C01	C02							
16031-TJOC-00-XX-DR-C-1091	Proposed Stormtech Attenuation Details - Zone 2	C02	C01	C02							
16031-TJOC-00-XX-DR-C-1092	Site Surface Water Drainage Details - Sheet 1 of 2	C01	C01								
16031-TJOC-00-XX-DR-C-1093	Site Surface Water Drainage Details - Sheet 2 of 2	C01	C01								
16031-TJOC-00-XX-DR-C-1094	Standard Bedding Details for Surface Water Pipes	C01	C01								
16031-TJOC-00-XX-DR-C-1095	Standard Manhole Details for Insitu Manholes	C01	C01								
16031-TJOC-00-XX-DR-C-1096	Standard Manhole Details Precast Manholes - Surface Water	C01	C01								
16031-TJOC-00-XX-DR-C-1097	Overland Flood Flow Routes Onsite Flooding	C02	C01	C02							
16031-TJOC-00-XX-DR-C-1098	Typical Road Details	C01	C01								

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File Name	File Title	Current Revision	AP	AP							
16031-TJOC-00-XX-DR-C-1099	Proposed Surface Water Sections - Zone 3 Sheet 2	C01	C01								
16031-TJOC-00-XX-DR-C-1100	Proposed Surface Water Sections - Zone 4 Sheet 1	C01	C01								
16031-TJOC-00-XX-DR-C-1101	Proposed StormTech Attenuation Layout - Zone 1&2	C02	C01	C02							
16031-TJOC-00-XX-DR-C-1102	Proposed StormTech Attenuation Layout - Zone 3&4	C01	C01								
16031-TJOC-00-XX-DR-C-1103	Proposed Surface Water Structure & Pipe Tables	C02	C01	C02							
16031-TJOC-00-XX-DR-C-1104	Proposed Watermain Long Sections - Sheet 1	C01	C01								
16031-TJOC-00-XX-DR-C-1105	Proposed Watermain Long Sections - Sheet 2	C01	C01								
16031-TJOC-00-XX-DR-C-1106	Proposed Drainage Catchment Areas	C01	C01								
16031-TJOC-00-XX-DR-C-1107	Proposed Stormtech Attenuation Zone 3 Details - Sheet 3	C01	C01								
16031-TJOC-00-XX-DR-C-1108	Proposed Stormtech Attenuation Zone 4A Details - Sheet 4	C01	C01								
16031-TJOC-00-XX-DR-C-1109	Drainage North Catchment Pipe and Manhole References	C02	C01	C02							
16031-TJOC-00-XX-DR-C-1110	Drainage South Catchment Pipe and Manhole References	C01	C01								
16031-TJOC-00-XX-DR-C-1111	Proposed Surface Water Sections - Zone 4 Sheet 2	C01	C01								
16031-TJOC-00-XX-DR-C-1112	Proposed Stormtech Attenuation Zone 4B Details - Sheet 5	C01	C01								
PLANNING REPORTS:											
16031-TJOC-ZZ-ZZ-RP-Z-3702	DVSHD - Engineering Services Report	C02	C02								
16031-TJOC-ZZ-ZZ-RP-Z-3701	DVSHD - Site Specific Flood Risk Assessment	C02	C02								

LEGEND

SITE APPLICATION BOUNDARY

REV	STAT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING	25.03.2022
C01	AP	ISSUED FOR PLANNING	30.09.2021

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	TG	TG

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PROJECT: Dundrum Village - Strategic Housing Development

CLIENT: Dundrum Retail GP DAC (acting for and on behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: Existing Site plan

SCALE: 1:750 (A1)

PROJECT - ORGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1000

REV: C02

FOR JUNCTION INFORMATION & DETAIL SEE SYSTRA DRAWING

FOR JUNCTION INFORMATION & DETAIL SEE SYSTRA DRAWING

REFER TO LANDSCAPE ARCHITECTS DRAWING FOR DETAILS OF ALL BOUNDARY LANDSCAPE PROPOSALS

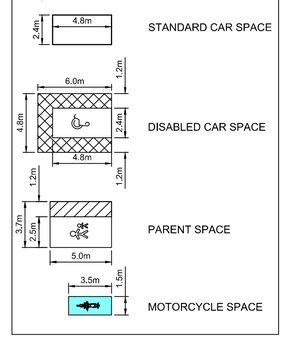
REFER TO DRAWING 16031-TJOC-00-XX-DR-C-1033 FOR DETAILS ON LINK TO DUNDRUM TOWN CENTRE

FOR JUNCTION INFORMATION & DETAIL SEE SYSTRA DRAWING

FOR JUNCTION INFORMATION & DETAIL SEE SYSTRA DRAWING

FOR JUNCTION INFORMATION & DETAIL SEE SYSTRA DRAWING

TYPICAL BAY SIZES:



LOWER GROUND FLOOR PLAN - CARPARK LAYOUT

SCALE: 1:500

Car Parking Spaces						Motorcycle spaces (4 per 100 spaces)	EV Spaces	Car Share Spaces
						Note: Totals include provision of EV and Car Share spaces		
Zone	Standard	Disabled Spaces	Parent Spaces	Totals			e-car	Car Share Space
Zone 1	41	4	7	52		2	4 + 1 Disabled	0
Zone 2	137	7		144		7	19 + 1 Disabled	6
Zone 3	108	4		112		5	11 + 1 Disabled	3
Zone 4	62	3		65		3	5 + 1 Disabled	2
Totals	348	18	7	373		17	43	11
Residential Ratio (Zone 2, Zone 3 & Zone 4) 318 to 881 units = 0.361								
Note: Total includes 3No. Creche staff car parking spaces within Zone 4, not included with residential ratio								

LEGEND:

OUTLINE OF AREA OF PROPOSED WORKS

REV	STAT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING	25.03.2022
C01	AP	ISSUED FOR PLANNING	30.09.2021

DRAWING STATUS: ISSUED FOR PLANNING

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PROJECT: Dundrum Village - Strategic Housing Development

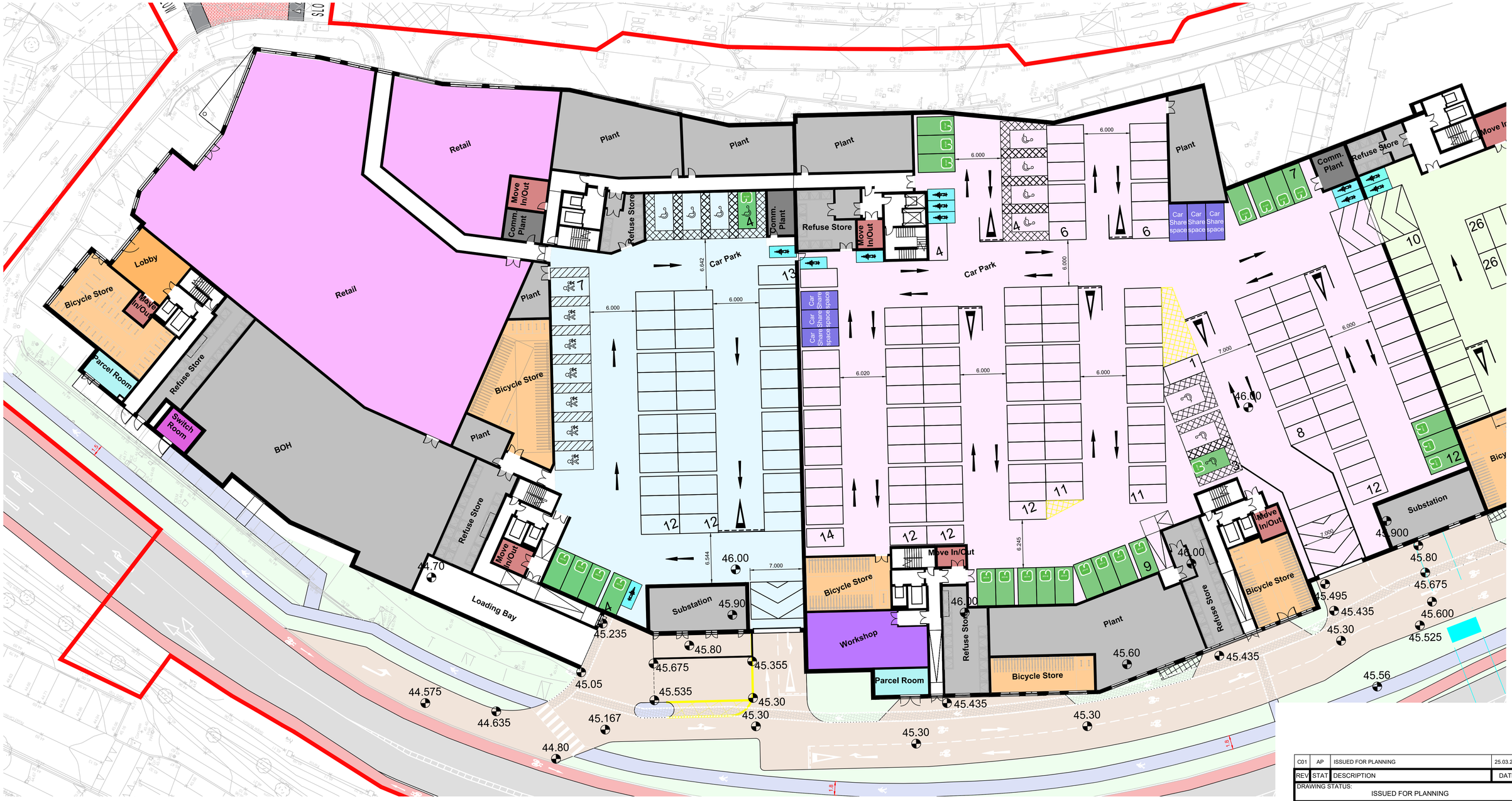
CLIENT: Dundrum Retail GP DAC (acting for and on behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: Proposed Overall Lower Ground Floor Layout

SCALE: 1:500 (A1)

PROJECT - ORGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1010

REV: C02



LOWER GROUND FLOOR PLAN - CARPARK LAYOUT (ZONE 1 +2)
SCALE: 1:250

Car Parking Spaces						Motorcycle spaces (4 per 100 spaces)	EV Spaces	Car Share Spaces
							Note: Totals include provision of EV and Car Share spaces	
Zone	Standard	Disabled Spaces	Parent Spaces	Totals			e-car	Car Share Space
Zone 1	41	4	7	52		2	4 + 1 Disabled	0
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Zone 3	108	4		112		5	11 + 1 Disabled	3
Zone 4	62	3		65		3	5 + 1 Disabled	2
Totals	348	18	7	373		17	43	11
Residential Ratio (Zone 2, Zone 3 & Zone 4) 318 to 881 units = 0.361								
Note: Total includes 3No. Creche staff car parking spaces within Zone 4, not included with residential ratio								

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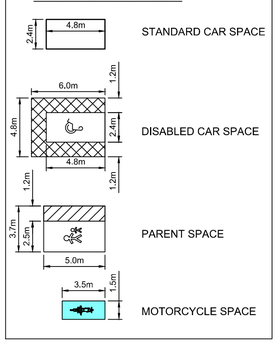

REV	STAT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

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PROJECT: Dundrum Village - Strategic Housing Development

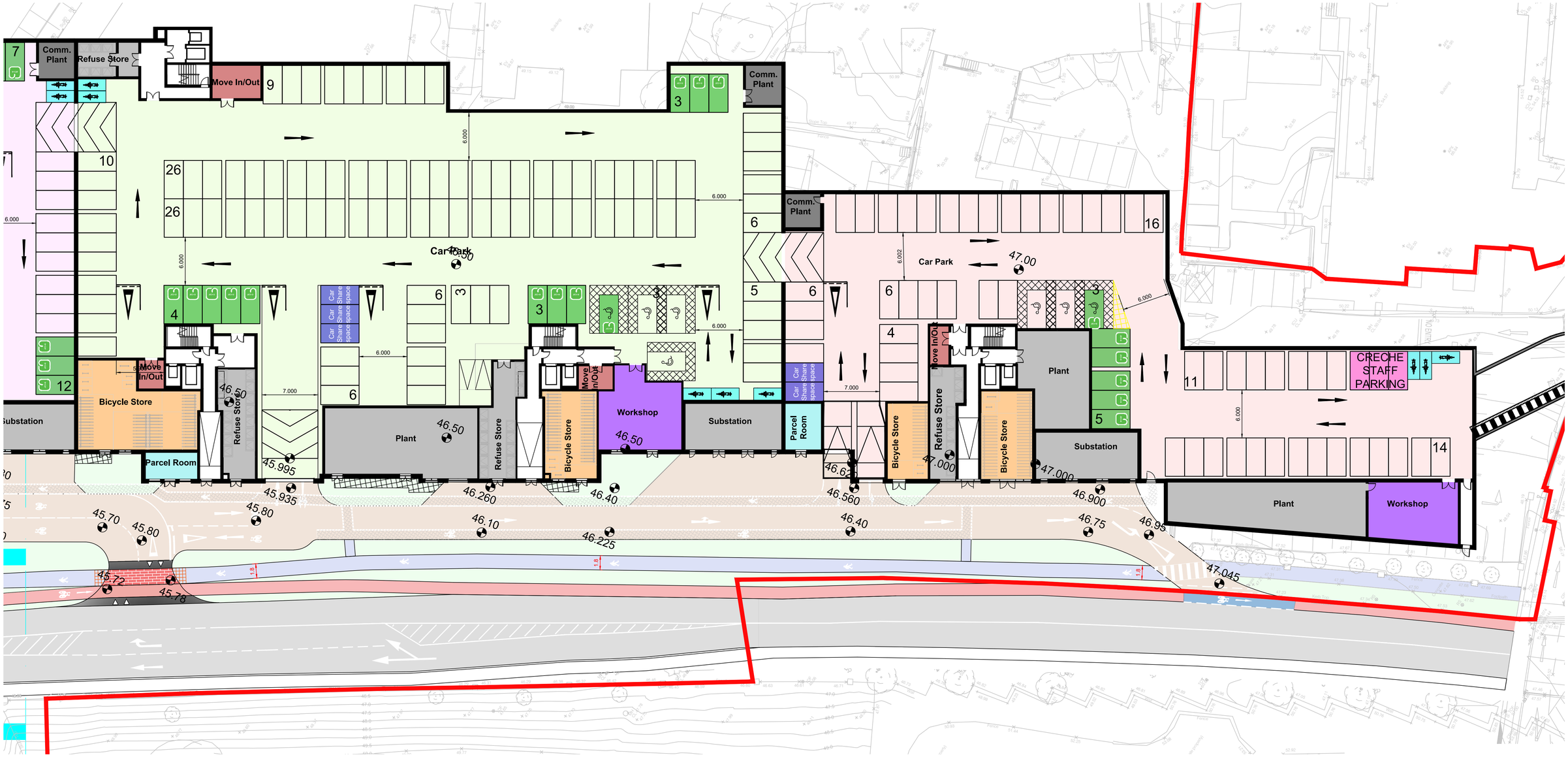
CLIENT: Dundrum Retail GP DAC (acting for and on behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: Zone 1 + 2 Lower Ground Floor Layout

SCALE: 1:250 (A1)

PROJECT - ORGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1011

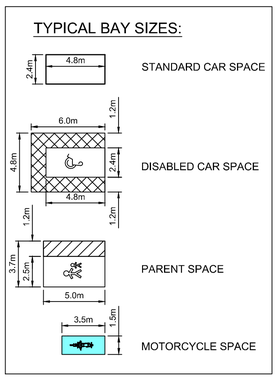
REV: C01



LOWER GROUND FLOOR PLAN - CARPARK LAYOUT (ZONE 3 +4)
SCALE: 1:250

Zone	Standard	Disabled Spaces	Parent Spaces	Totals		Motorcycle spaces (4 per 100 spaces)	EV Spaces (Note: Totals include provision of EV and Car Share spaces)	Car Share Spaces (Car Share Space)
Zone 1	41	4	7	52		2	4 + 1 Disabled	0
Zone 2	137	7		144		7	19 + 1 Disabled	6
Zone 3	108	4		112		5	11 + 1 Disabled	3
Zone 4	62	3		65		3	5 + 1 Disabled	2
Totals	348	18	7	373		17	43	11
Residential Ratio (Zone 2, Zone 3 & Zone 4) 318 to 881 units = 0.361								
Note: Total includes 3No. Creche staff car parking spaces within Zone 4, not included with residential ratio								

TYPICAL BAY SIZES:



REV	STAT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

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PROJECT: Dundrum Village - Strategic Housing Development

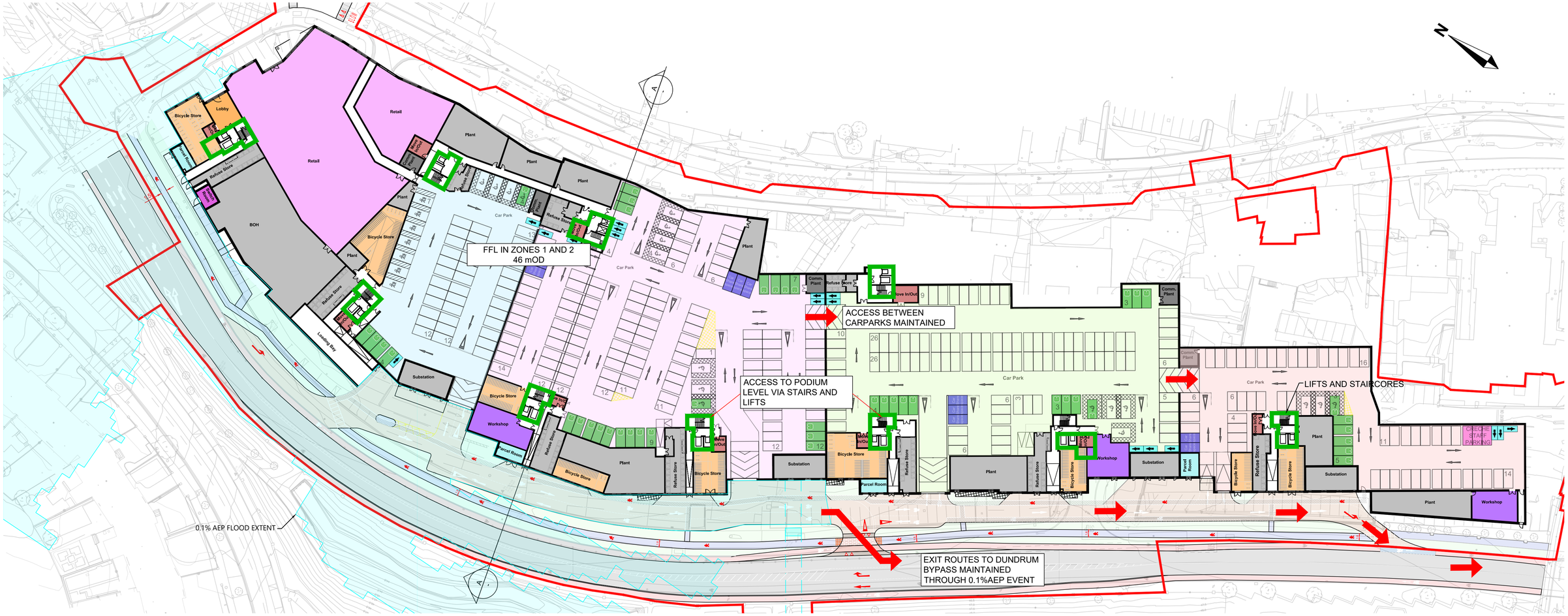
CLIENT: Dundrum Retail GP DAC (acting for and on behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: Zone 3 + 4 Lower Ground Floor Layout

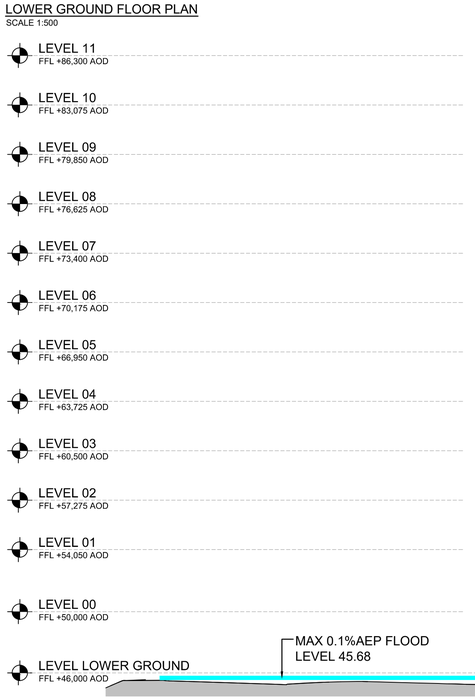
SCALE: 1:250 (A1)

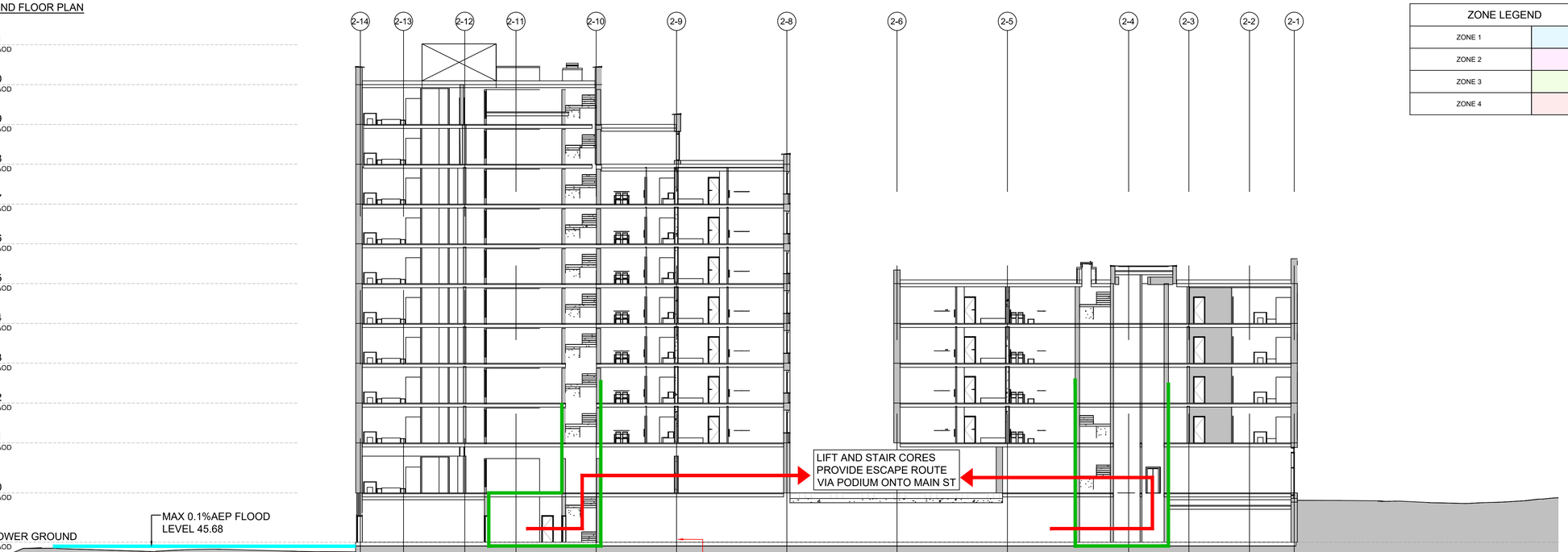
PROJECT - ORGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1012

REV: C01



LOWER GROUND FLOOR PLAN
SCALE 1:500





SECTION
SCALE 1:200

ZONE LEGEND	
ZONE 1	
ZONE 2	
ZONE 3	
ZONE 4	

BORDER LEGEND	
SITE BOUNDARY (PLANNING BOUNDARY)	

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING	25.03.2022

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PROJECT: DUNDRUM VILLAGE - STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and on behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: ESCAPE ROUTES - LOWER GROUND FLOOR LAYOUT

SCALE: AS SHOWN (A1)

PROJECT - ORGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1014

REV: C02

EMERGENCY ACCESS FROM MAIN ST VIA FIRE TENDER ACCESS ROUTE TO PODIUM LEVEL

EMERGENCY ACCESS FROM MAIN ST VIA FIRE TENDER ACCESS ROUTE TO PODIUM LEVEL

EMERGENCY ACCESS FROM MAIN ST VIA FIRE TENDER ACCESS ROUTE TO PODIUM AND CHURCH SQUARE.

LIFTS AND STAIRCORES

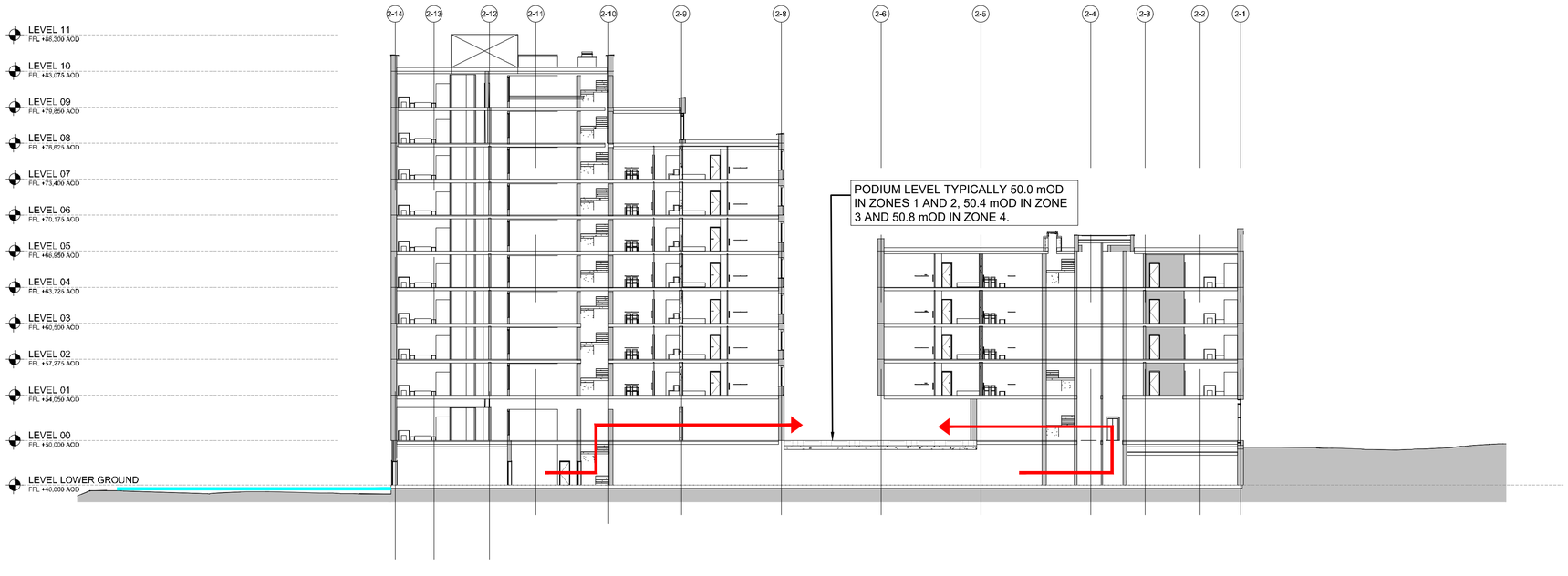
EGRESS ROUTE FROM LOWER GROUND FLOOR

EGRESS ROUTE VIA PEDESTRIAN AND CYCLE BRIDGE

0.1% AEP Flood extent

1A 1B 1C 2A 2B 2C 3A 3B 3C 4A 4B

PODIUM LEVEL
SCALE 1:500



SECTION
SCALE 1:250

BORDER LEGEND	
SITE BOUNDARY (PLANNING BOUNDARY)	

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

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PROJECT: DUNDRUM VILLAGE - STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and on behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: ESCAPE ROUTES - PODIUM LEVEL LAYOUT

SCALE: AS SHOWN (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1015

REV: C01

NOTES:

1. FLUVIAL FLOOD EXTENTS BASED ON DUNDRUM RIVER SLANG FLUVIAL FLOOD EXTENT MAP NO. 122862-BVL-Z0-00-DR-R-00014 SHEET 6 OF 8, DATED JULY 2020 AND DLRCC DRAFT DEV PLAN 2022 - 2028 FLOOD EXTENT MAP 1.
2. UNDERGROUND AND TOPOGRAPHICAL SURVEY INFORMATION SHOWN WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD. IN MAY 2021.
3. ADDITIONAL SURVEY WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD. DURING AUGUST 2021.
4. ALL LEVELS SHOWN RELATE TO ORDNANCE DATUM MALIN HEAD.

N

INSERT 1

NODE SL22 0.1% AEP
FLOOD LEVEL 47.56mOD

8
C-1050

NODE SL22 0.1% AEP
FLOOD LEVEL 47.56mOD

INSERT 1

7
C-1050

6
C-1050

5
C-1050

4
C-1049

3
C-1049

2
C-1049

1
C-1049

2.3m WIDE
PEDESTRIAN
ENTRANCE.

39m GAP IN
PERIMETER
WALL

NODE SL15 0.1% AEP
FLOOD LEVEL 45.21mOD

NODE SL21 0.1% AEP
FLOOD LEVEL 45.68mOD

NODE SL16 0.1% AEP
FLOOD LEVEL 45.60mOD

LEGEND	
HATCH LEGEND	
EXISTING BUILDINGS	
10% AEP FLUVIAL EVENT	
1% AEP FLUVIAL EVENT	
0.1% AEP FLUVIAL EVENT	

OTHER	
EXISTING STORM WATER NETWORK	
0.1% AEP FLOODLINE LEVEL INTERPOLATED	
SITE BOUNDARY (PLANNING BOUNDARY)	

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: EXISTING DEVELOPMENT WITH FLUVIAL FLOOD EXTENTS

SCALE: 1:500 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1045

REV: C01

NODE LABEL	WATER LEVEL (OD) 10% AEP	FLOW (m³/s) 10% AEP	WATER LEVEL (OD) 1% AEP	FLOW (m³/s) 1% AEP	WATER LEVEL (OD) 0.1% AEP	FLOW (m³/s) 0.1% AEP
SL15	42.86	4.320	43.790	9.500	45.210	12.870
SL16	42.97	4.150	44.100	9.210	45.600	12.360
SL21	44.58	4.150	44.940	9.000	45.680	12.330
SL22	47.56	4.070	47.960	8.690	48.270	13.400

LEVEL (mOD)	TOTAL VOLUME IN FLOOD ZONE B (m³)	VOLUME IN FLUVIAL FLOOD ZONE B WITHIN SITE BOUNDARY (m³)	VOLUME IN PLUVIAL FLOOD ZONE B WITHIN SITE BOUNDARY (m³)
44.480	2044.120		
44.580	2274.058		
44.680	2514.481		
44.780	2769.689		
44.880	3068.043	0.022	
44.980	3446.747	2.458	
45.080	3936.994	28.413	0.547
45.180	4575.891	100.176	10.042
45.280	5406.700	235.461	63.340
45.380	6483.183	465.610	186.696
45.480	7738.995	752.811	349.191
45.580	9144.884	1073.742	539.198
45.680	10686.178	1398.075	751.266

DESCRIPTION	TOTAL AREA (m²)	AREA WITHIN FLUVIAL 0.1% AEP FLOOD ZONE B BASED ON DLRCC FLOOD EXTENT MAP (m²)	AREA WITHIN COMBINED FLUVIAL AND PLUVIAL FLOODLINE LEVELS INTERPOLATED (m²)*
SITE BOUNDARY (LEGAL BOUNDARY)	26 261.535	4 387.690	9 319.038
SITE BOUNDARY (RED LINE PLANNING BOUNDARY)	35 331.491	7 378.519	13 764.812

* AREA INCLUDES AREAS ALLOCATED TO PLUVIAL FLOODING IN DLRCC FLOOD EXTENT MAPPING.

INSERT 1

NODE SL22 0.1% AEP FLOOD LEVEL 47.56mOD

N

INSERT 1

NODE SL22 0.1% AEP FLOOD LEVEL 47.56mOD

8 C-1050

7 C-1050

6 C-1050

5 C-1050

4 C-1049

1 C-1049

2 C-1049

3 C-1049

2.3m WIDE PEDESTRIAN ENTRANCE.

39m GAP IN PERIMETER WALL.

NODE SL15 0.1% AEP FLOOD LEVEL 45.21mOD

NODE SL21 0.1% AEP FLOOD LEVEL 45.68mOD

NODE SL16 0.1% AEP FLOOD LEVEL 45.60mOD

LEGEND	
HATCH LEGEND	
EXISTING BUILDINGS	
FLUVIAL 0.00 - 0.25m DEPTH	
FLUVIAL 0.25 - 0.50m DEPTH	
FLUVIAL 0.50 - 1.00m DEPTH	
FLUVIAL 1.00 - 1.50m DEPTH	
FLUVIAL 1.50 - 2.00m DEPTH	
FLUVIAL > 2.00m DEPTH	

OTHER	
EXISTING STORM WATER NETWORK	
0.1% AEP FLOODLINE LEVEL INTERPOLATED	
SITE BOUNDARY (PLANNING BOUNDARY)	
SITE BOUNDARY (LEGAL BOUNDARY)	

NOTES:

1. UNDERGROUND AND TOPOGRAPHICAL SURVEY INFORMATION SHOWN WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD. IN MAY 2021.

2. ADDITIONAL SURVEY WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD DURING AUGUST 2021.

3. ALL LEVELS SHOWN RELATE TO ORDNANCE DATUM MALIN HEAD.

4. FLUVIAL FLOOD DEPTH BASED ON RIVER SLANG FLOOD MAPPING DRAWING 122862-BVL-Z0-00-DR-R-00022 MAP SHEET 5 OF 8.

5. NODE POINTS AS PER ABOVE DRAWING.

6. SECTIONS THROUGH THE EXISTING SITE ARE SHOWN AT DRAWINGS 16031-TJOC-00-XX-DR-C-1049 AND 16031-TJOC-00-XX-DR-C-1050.

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: EXISTING DEVELOPMENT WITH 0.1% FLUVIAL FLOOD DEPTHS

SCALE: 1:500 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1046

REV: C01

INSERT 1

NOTES:

1. PLUVIAL FLOOD DEPTH EXTENTS BASED ON DUNDRUM RIVER SLANG PLUVIAL FLOOD EXTENT MAP NO. 122862-BVL-Z0-00-DR-R-00025 SHEET 6 OF 8, DATED JULY 2020.
2. UNDERGROUND AND TOPOGRAPHICAL SURVEY INFORMATION SHOWN WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD. IN MAY 2021.
3. ADDITIONAL SURVEY WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD DURING AUGUST 2021.
4. ALL LEVELS SHOWN RELATE TO ORDNANCE DATUM MALIN HEAD.
5. NODE POINTS AS PER RIVER SLANG FLOOD MAPPING DRAWING 122862-BVL-Z0-00-DR-R-00022 MAP SHEET 5 OF 8.
6. SECTIONS THROUGH THE EXISTING SITE ARE SHOWN AT DRAWINGS 16031-TJOC-00-XX-DR-C-1049 AND 16031-TJOC-00-XX-DR-C-1050.

N

NODE SL22 0.1% AEP FLOOD LEVEL 47.56mOD

NODE SL22 0.1% AEP FLOOD LEVEL 47.56mOD

INSERT 1

8 C-1050

7 C-1050

6 C-1050

5 C-1050

4 C-1049

39m GAP IN PERIMETER WALL

2.3m WIDE PEDESTRIAN ENTRANCE.

1 C-1049

2 C-1049

3 C-1049

NODE SL15 0.1% AEP FLOOD LEVEL 45.21mOD

NODE SL16 0.1% AEP FLOOD LEVEL 45.60mOD

NODE SL21 0.1% AEP FLOOD LEVEL 45.68mOD

LEGEND
HATCH LEGEND
EXISTING BUILDINGS
10% AEP PLUVIAL EVENT
1% AEP PLUVIAL EVENT
0.1% AEP PLUVIAL EVENT

OTHER	
EXISTING STORM WATER NETWORK	
0.1% AEP FLOODLINE LEVEL INTERPOLATED	
SITE BOUNDARY (PLANNING BOUNDARY)	

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: EXISTING DEVELOPMENT WITH PLUVIAL FLOOD EXTENTS

SCALE: 1:500 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1047

REV: C01

INSERT 1

NOTES:

1. PLUVIAL FLOOD DEPTHS BASED ON EXTRACT FROM THE UNPUBLISHED DUNDRUM RIVER SLANG PLUVIAL FLOOD DEPTH MAP PROVIDED BY DLRCC - NO MAP NUMBER WAS PROVIDED.
2. THE PREDICTED PLUVIAL FLOOD EXTENTS AT MAHER'S TERRACE, ON THE BALLINTEER ROAD, IGNORES LEVEL DIFFERENCE BETWEEN GROUND AND FLOOR LEVELS IN MAHER'S TERRACE AND LEVEL IN ADJACENT CHURCH PROPERTY.
3. NODE POINTS AS PER RIVER SLANG FLOOD MAPPING DRAWING 122862-BVL-Z0-00-DR-R-00022 MAP SHEET 5 OF 8.
4. SECTIONS THROUGH THE EXISTING SITE ARE SHOWN AT DRAWINGS 16031-TJOC-00-XX-DR-C-1049 AND 16031-TJOC-00-XX-DR-C-1050.

N

LOCATION OF DTC DEMOUNTABLE FLOOD BARRIER.

NODE SL22 0.1% AEP FLOOD LEVEL 47.56mOD

+52.54
+52.72
+52.18
+52.69
+52.20
+53.24
LEVEL ALONGSIDE CHURCH +54.28

8 C-1050

NODE SL22 0.1% AEP FLOOD LEVEL 4

INSERT 1

7 C-1050

GULLY AT LOW POINT GL 45.40
LOW POINT 45.50
GULLY AT LOW POINT GL 45.00
GULLY AT LOW POINT GL 45.03
GULLY AT LOW POINT GL 45.04
LOW POINT 45.25
LOW POINT 46.51
TOP OF WALL 47.28
TOP OF WALL 46.78
6 C-1050

LOW POINT 49.172

GULLY AT LOW POINT GL 45.27
GULLY AT LOW POINT GL 44.98
GULLY AT LOW POINT GL 44.88
GULLY AT LOW POINT GL 44.86
GULLY AT LOW POINT GL 45.72
2.3m WIDE PEDESTRIAN ENTRANCE.
DOUBLE GULLY AT LOW POINT GL 44.50
GULLY AT LOW POINT GL 45.52
STEP IN TOP OF WALL 45.80 46.18
39m LONG GAP IN UPSTAND WALL
TOP OF WALL 46.74
GROUND LEVEL AT FENCE 45.71
5 C-1050
TOP OF WALL 46.43
GROUND LEVEL AT GAP IN FENCE 45.71
4 C-1049
CULVERT A ON SLANG STREAM

1 C-1049
NODE SL15 0.1% AEP FLOOD LEVEL 45.21mOD
DOUBLE GULLY AT LOW POINT ON BYPASS GL 44.44
GULLY AT LOW POINT GL 45.30
GULLY AT LOW POINT GL 45.28
TOP OF WALL 46.47
GULLY AT LOW POINT GL 45.02
TOP OF WALL 46.03
STEP IN TOP OF WALL 46.11 45.77
NODE SL21 0.1% AEP FLOOD LEVEL 45.68mOD
2 C-1049
3 C-1049
OPEN CHANNEL SECTION OF SLANG STREAM
NODE SL16 0.1% AEP FLOOD LEVEL 45.60mOD

LEGEND	
HATCH LEGEND	
EXISTING BUILDINGS	
PLUVIAL 0.00 - 0.25m DEPTH	
PLUVIAL 0.25 - 0.50m DEPTH	
PLUVIAL 0.50 - 1.00m DEPTH	

OTHER	
EXISTING STORM WATER NETWORK	
0.1% AEP FLOODLINE LEVEL INTERPOLATED	
SITE BOUNDARY (PLANNING BOUNDARY)	

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

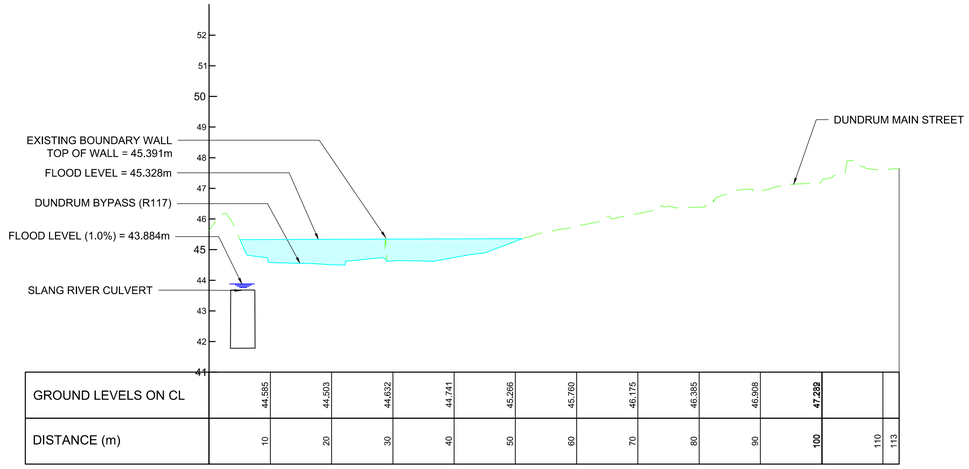
CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: EXISTING DEVELOPMENT WITH 0.1% PLUVIAL FLOOD DEPTHS SITE

SCALE: 1:500 (A1)

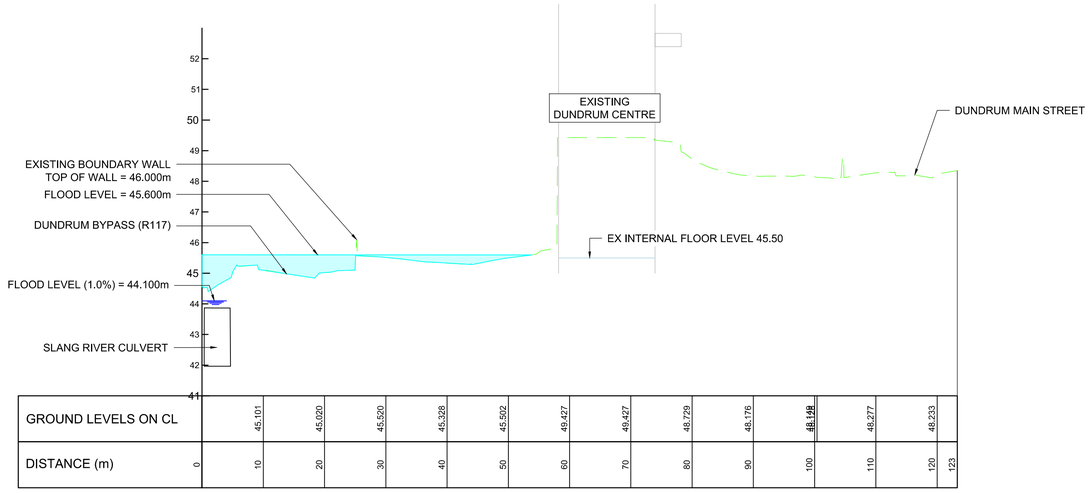
PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1048

REV: C01



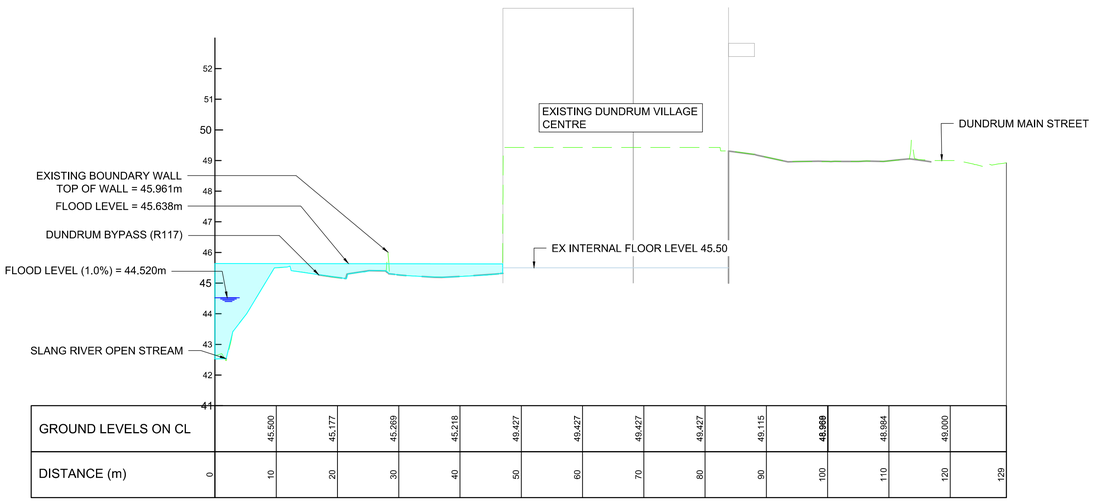
GROUND LEVELS ON CL	44.585	44.503	44.632	44.741	45.266	45.760	48.175	46.385	46.908	47.289		
DISTANCE (m)	10	20	30	40	50	60	70	80	90	100	110	113

SECTION 1
SCALE: Horizontal 1:500
Vertical 1:100



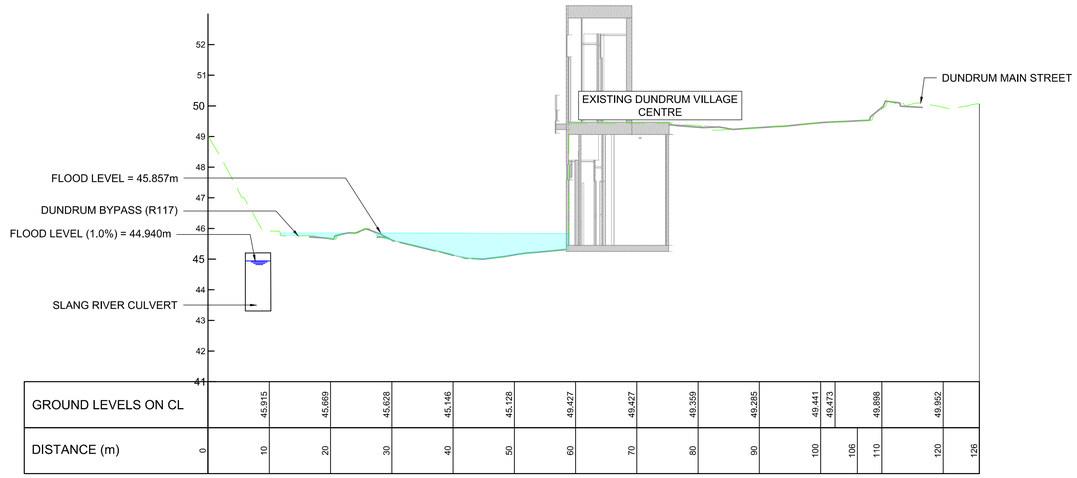
GROUND LEVELS ON CL	45.101	45.020	45.520	45.328	45.502	49.427	49.427	48.729	48.176	48.198	48.277	48.233	
DISTANCE (m) 0	10	20	30	40	50	60	70	80	90	100	110	120	123

SECTION 2
SCALE: Horizontal 1:500
Vertical 1:100



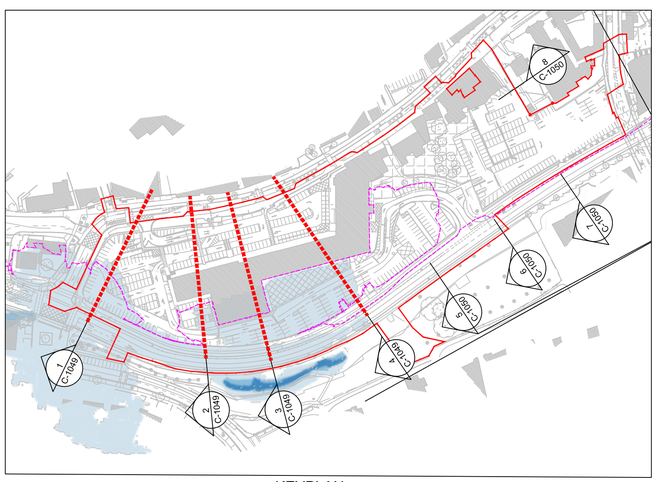
GROUND LEVELS ON CL	45.500	45.177	45.269	45.218	49.427	49.427	49.427	49.427	49.115	48.960	48.984	49.000	
DISTANCE (m) 0	10	20	30	40	50	60	70	80	90	100	110	120	129

SECTION 3
SCALE: Horizontal 1:500
Vertical 1:100



GROUND LEVELS ON CL	45.915	45.669	45.628	45.146	45.128	49.427	49.427	49.359	49.285	49.441	49.473	49.898	49.952	
DISTANCE (m) 0	10	20	30	40	50	60	70	80	90	100	106	110	120	126

SECTION 4
SCALE: Horizontal 1:500
Vertical 1:100



KEYPLAN
SCALE: 1:2000

NOTES:

1. ALL LEVELS SHOWN IN METERS AND RELATE TO ORDNANCE DATUM MALIN HEAD.
2. FLUVIAL FLOOD DEPTHS BASED ON RIVER SLANG FLOOD MAP NO. 122862-BVL-Z0-00-DR-R-00022 RIVER SLANG FLUVIAL FLOOD DEPTH MAP SHEET 5 OF 8.
3. FLOOD LEVELS WITHIN SECTIONS ARE INTERPOLATED BETWEEN THE NODES, AS PER ABOVE MAP NUMBER. (NODES SL15, SL16, SL20, SL21)
4. NODE POINTS AS PER ABOVE FLOOD MAP NO. AND CAN ALSO BE SEEN ON DRAWING 16031-TJOC-00-XX-DR-C-1045.
5. REFER TO DRAWING 16031-TJOC-00-XX-DR-C-1045 FOR FLUVIAL FLOOD EXTENTS ON EXISTING SITE.
6. REFER TO DRAWING 16031-TJOC-00-XX-DR-C-1047 FOR PLUVIAL FLOOD EXTENTS ON EXISTING SITE.

HATCH LEGEND	
INTERPOLATED FLOOD LEVEL (0.1% AEP)	
INTERPOLATED FLOOD LEVEL (1.0% AEP)	

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: EXISTING DEVELOPMENT WITH 0.1% FLUVIAL FLOOD EXTENTS - SHEET 1
SECTIONS 1 - 4

SCALE: AS SHOWN (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1049

REV: C01

GROUND LEVELS ON CL		45.012	44.644	44.774	45.565	45.569	45.488	45.584	49.427	49.427	49.427	49.427	49.427	49.427	49.427	49.367	49.217	49.230	49.264	49.427	49.427	49.427	47.000	48.562	48.591	48.931	49.032	49.251	49.014	50.327	50.310	50.273	51.045	50.980	51.015	52.796
DISTANCE (m)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	212	220	230	240	250	260	100	270	280	290	300	310	320	328

SECTION 8
SCALE: Horizontal 1:500
Vertical 1:100

GROUND LEVELS ON CL		46.229	46.051	45.825	45.510	45.312	45.300	45.270	45.581	52.380	51.686	49.427	50.944
DISTANCE (m)	0	10	20	30	40	50	60	70	80	90	100	110	119

SECTION 5
SCALE: Horizontal 1:500
Vertical 1:100

GROUND LEVELS ON CL		47.002	46.504	47.334	48.703	47.544	48.494	49.050	49.198	51.041	51.282	51.617	52.098	52.383
DISTANCE (m)	0	10	20	30	40	50	60	70	80	90	100	110	120	

SECTION 6
SCALE: Horizontal 1:500
Vertical 1:100

GROUND LEVELS ON CL		46.828	46.900	49.279	49.647	50.020	50.355	50.845	51.023	51.331	51.880	53.926	54.283	54.280
DISTANCE (m)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	133

SECTION 7
SCALE: Horizontal 1:500
Vertical 1:100

KEYPLAN
SCALE: 1:2000

NOTES:

1. ALL LEVELS SHOWN IN METERS AND RELATE TO ORDNANCE DATUM MALIN HEAD.
2. FLUVIAL FLOOD DEPTHS BASED ON RIVER SLANG FLOOD MAP NO. 122862-BVL-Z0-00-DR-R-00022 RIVER SLANG FLUVIAL FLOOD DEPTH MAP SHEET 5 OF 8.
3. FLOOD LEVELS WITHIN SECTIONS ARE INTERPOLATED BETWEEN THE NODES, AS PER ABOVE MAP NUMBER. (NODES SL15, SL16, SL20, SL21)
4. NODE POINTS AS PER ABOVE FLOOD MAP NO. AND CAN ALSO BE SEEN ON DRAWING 16031-TJOC-00-XX-DR-C-1045.

HATCH LEGEND	
INTERPOLATED FLOOD LEVEL (0.1% AEP)	
INTERPOLATED FLOOD LEVEL (1.0% AEP)	

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY: HH | REVIEWED BY: MV | APPROVED BY: DC

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: EXISTING DEVELOPMENT WITH 0.1% FLUVIAL FLOOD EXTENTS - SHEET 2
SECTIONS 5 TO 8

SCALE: AS SHOWN (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1050

REV: C01

NODE LABEL	WATER LEVEL (OD) 10% AEP	FLOW (m³/s) 10% AEP	WATER LEVEL (OD) 1% AEP	FLOW (m³/s) 1% AEP	WATER LEVEL (OD) 0.1% AEP	FLOW (m³/s) 0.1% AEP
SL15	42.86	4.320	43.790	9.500	45.210	12.870
SL16	42.97	4.150	44.100	9.210	45.600	12.360
SL21	44.58	4.150	44.940	9.000	45.680	12.330
SL22	47.56	4.070	47.960	8.690	48.270	13.400

AREA WITHIN RED LINE PLANNING BOUNDARY	3.5331 ha
AREA WITHIN BLUE LINE (SITE) BOUNDARY	2.6261 ha
AREA WITHIN FLOOD ZONE A	0.000 ha
AREA WITHIN FLOOD ZONE B (BASED ON DLRCC FLOOD EXTENT MAP)	0.7379 ha
AREA WITHIN FLOOD ZONE B (BASED ON INTERPOLATED FLOODLINE LEVELS)	1.3765 ha
AREA OF COMPENSATORY FLOOD STORAGE WITHIN SITE SERVICE ROAD, OUTSIDE PROPOSED BUILDING	0.2493 ha
AREA OF COMPENSATORY FLOOD STORAGE OUTSIDE PROPOSED BUILDING	0.1405 ha
AREA OF COMPENSATORY FLOOD STORAGE UNDER PROPOSED BUILDING	0.1668 ha

NOTES:

1. FLUVIAL FLOOD EXTENTS BASED ON DUNDRUM RIVER SLANG FLUVIAL FLOOD EXTENT MAP NO. 122862-BVL-Z0-00-DR-R-00014 SHEET 6 OF 8, DATED JULY 2020 AND DLRCC DRAFT DEV PLAN 2022 - 2028 FLOOD EXTENT MAP 1.
2. SITE SERVICE ROAD AND LANDSCAPED AREAS ALONGSIDE ZONE 1 TO PROVIDE 911m³ OF STORAGE IN 0.1%AEP EVENT.
3. COMPENSATORY STORAGE RESERVOIR BENEATH BUILDING, PROVIDES MINIMUM 1 810m³ OF STORAGE IN 0.1% AEP EVENT.
4. FOR FLUVIAL FLOOD EXTENTS ON EXISTING SITE TOPOGRAPHY SEE DRAWING 16031-TJOC-00-XX-DR-C-1045.
5. FOR FLUVIAL FLOOD DEPTHS IN PROPOSED DEVELOPMENT SCENARIO SEE PLAN DRAWING 16031-TJOC-00-XX-DR-C-1052 AND SECTION DRAWINGS 16031-TJOC-00-XX-DR-C-1055 AND 16031-TJOC-00-XX-DR-C-1056.
6. UNDERGROUND AND TOPOGRAPHICAL SURVEY INFORMATION SHOWN WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD DURING MAY 2021 AND AUGUST 2021.
7. ALL LEVELS SHOWN RELATE TO ORDNANCE DATUM MALIN HEAD.
8. SECTIONS THROUGH PROPOSED SITE ARE SHOWN AT DRAWINGS 16031-TJOC-00-XX-DR-C-1055 AND 16031-TJOC-00-XX-DR-C-1056.

INSERT 1

NODE SL22 0.1% AEP FLOOD LEVEL 47.56mOD

N

ZONE 1

ZONE 2

ZONE 3

ZONE 4

R/Retail

S/Plant

S/Bin Store

R/Food Store

A/Lobby

A/Cycle Store

S/BOH

S/Car Park

S/Substation

Main Store

A/Cycle Store

PROPOSED SWALE TO DIVERT PLUVIAL FLOOD FROM BALLINTEER ROAD TOWARD S THE SLANG CULVERT WITHIN THE BYPASS ROAD. FOR DETAIL SECTION - SEE DRAWING NO 16031-TJOC-00-XX-DR-C-1093

EXISTING SURFACE WATER DIVERTED FROM DUNDRUM TOWN CENTRE BUILDING 13 AND CHURCH NETWORK SEE DRAWING NO 16031-TJOC-00-XX-DR-C-1083

NODE SL2 FLOOD LEVE

INSERT 1

8 C-1056

7 C-1056

6 C-1056

5 C-1056

4 C-1056

1 C-1055

2 C-1055

3 C-1055

NODE SL15 0.1% AEP FLOOD LEVEL 45.21mOD

COMPENSATORY STORAGE DRAIN DOWN TO DISCHARGE INTO MH51 OF SURFACE WATER DRAINAGE SYSTEM SEE DRAWINGS NO 16031-TJOC-00-XX-DR-C-1083

FOR DETAILS OF COMPENSATORY STORAGE RESERVOIR CONSTRUCTION AND INLET DETAILS SEE DRAWING NO 16031-TJOC-00-XX-DR-C-1058.

NODE SL16 0.1% AEP FLOOD LEVEL 45.60mOD

NODE SL21 0.1% AEP FLOOD LEVEL 45.68mOD

LEGEND

HATCH LEGEND

PROPOSED BUILDINGS	
COMPENSATORY STORAGE FLOOD VOLUME	
10% AEP FLUVIAL EVENT	
1% AEP FLUVIAL EVENT	
0.1% AEP FLUVIAL EVENT	

OTHER

0.1% AEP FLUVIAL FLOOD EXTENT ON EXISTING SITE	
0.1% AEP FLOODLINE LEVEL	
COMPENSATORY STORAGE	
PROPOSED SWALE	
PROPOSED SW MANHOLE	
PROPOSED SW 600mm PIPE	
PROPOSED SW HEADWALL	
SITE BOUNDARY (SITE BORDER)	

REV	SUIT	DESCRIPTION	DATE
C03	AP	ISSUED FOR PLANNING WITH REVISED COMPENSATORY STORAGE AREA	30.03.2022
C02	AP	ISSUED FOR PLANNING	25.03.2022
C01	AP	ISSUED FOR PLANNING	30.09.2021

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY: HH | REVIEWED BY: MV | APPROVED BY: DC

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED DEVELOPMENT WITH FLUVIAL FLOOD EXTENTS

SCALE: 1:500 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1051

REV: C03

EXISTING FLOOD VOLUMES				PROPOSED FLOOD VOLUMES			
LEVEL (mOD)	TOTAL VOLUME IN FLOOD ZONE B (m^3)	VOLUME IN FLUVIAL 0.1% AEP FLOOD ZONE B WITHIN SITE BOUNDARY (m^3)	VOLUME IN PLUVIAL 0.1% AEP FLOOD EXTENT WITHIN SITE BOUNDARY (m^3)	VOLUME STORED OUTSIDE BUILDING FOOTPRINT (m^3)	VOLUME UNDERNEATH BUILDING FOOTPRINT (m^3)	TOTAL WITHIN SITE BOUNDARY (m^3)	EXCESS OVER EXISTING FLOOD VOLUME WITHIN SITE BOUNDARY (m^3)
44.480	2044.120				25.023	25.023	25.023
44.580	2 274.058				150.136	150.136	150.136
44.680	2 514.481				316.955	316.955	316.955
44.780	2 769.689			2.665	483.773	486.438	486.438
44.880	3 068.043	0.022		19.817	650.591	670.408	670.386
44.980	3 446.747	2.458		64.664	817.409	882.073	879.615
45.080	3 936.994	28.413	0.547	132.737	984.227	1 116.964	1 088.004
45.180	4 575.891	100.176	10.042	216.834	1 151.045	1 367.879	1 257.661
45.280	5 406.700	235.461	63.340	314.776	1 317.864	1 632.640	1 333.839
45.380	6 483.183	465.610	186.696	426.552	1 484.682	1 911.234	1 258.928
45.480	7 738.995	752.811	349.191	556.761	1 651.500	2 208.261	1 106.189
45.580	9 144.884	1 073.742	539.198	716.063	1 809.977	2 526.040	913.100
45.680	10 686.178	1 398.075	751.266	910.958	1 809.977	2 720.935	571.594
TOTAL			2149 m^3				

SITE COMPENSATORY STORAGE VOLUMES IN 0.1% AEP EVENT FOR PROPOSED DEVELOPMENT	
VOLUME IN STORAGE BENEATH BUILDING (BASED ON TWL OF 45.68mOD)	1 810 m^3
VOLUME STORED WITHIN SITE LANDSCAPED AREAS AND SERVICE ROAD	911 m^3
TOTAL VOLUME AVAILABLE IN 0.1%AEP EVENT	2 721 m^3
PERCENTAGE IN EXCESS OF EXISTING VOLUME	26.6 %

INSERT 1

NODE SL22 0.1% AEP FLOOD LEVEL 47.56mOD

NODE SL15 0.1% AEP FLOOD LEVEL 45.21mOD

NODE SL16 0.1% AEP FLOOD LEVEL 45.60mOD

NODE SL21 0.1% AEP FLOOD LEVEL 45.68mOD

FOR DETAILS OF COMPENSATORY STORAGE RESERVOIR CONSTRUCTION AND INLET DETAILS SEE DRAWING NO 16031-TJOC-00-XX-DR-C-1058.

ZONE 1

ZONE 2

ZONE 3

ZONE 4

1 C-1055

2 C-1055

3 C-1055

4 C-1055

5 C-1056

6 C-1056

7 C-1056

8 C-1056

NOTES:

1. TOPOGRAPHICAL SURVEY INFORMATION SHOWN WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD. IN MAY 2021.
2. ADDITIONAL SURVEY WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD DURING AUGUST 2021.
3. ALL LEVELS SHOWN RELATE TO ORDNANCE DATUM MALIN HEAD.
4. SITE SERVICE ROAD AND LANDSCAPED AREAS ALONGSIDE ZONE 1 CAN ACCOMMODATE 911m^3 FLOOD VOLUME IN 0.1% AEP FLOOD EVENT.
5. FLUVIAL FLOOD DEPTHS BASED ON RIVER SLANG FLOOD MAPPING DRG 122862-BVL-Z0-00-DR-R-00022 RIVER SLANG FLUVIAL FLOOD DEPTH MAP SHEET 5 OF 8.
6. NODE POINTS AS PER ABOVE DRAWING.
7. SECTIONS THROUGH PROPOSED SITE ARE SHOWN AT DRAWINGS 16031-TJOC-00-XX-DR-C-1055 AND 16031-TJOC-00-XX-DR-C-1056.

LEGEND
HATCH LEGEND
PROPOSED BUILDINGS
COMPENSATORY STORAGE FLOOD VOLUME
FLUVIAL 0.00 - 0.25m DEPTH
FLUVIAL 0.25 - 0.50m DEPTH
FLUVIAL 0.50 - 1.00m DEPTH
FLUVIAL 1.00 - 1.50m DEPTH
FLUVIAL 1.50 - 2.00m DEPTH
FLUVIAL > 2.00m DEPTH

OTHER
0.1% AEP PLUVIAL FLOOD EXTENT ON EXISTING SITE
0.1% AEP FLUVIAL FLOOD EXTENT ON EXISTING SITE
0.1% AEP FLOODLINE LEVEL
COMPENSATORY STORAGE
PROPOSED SWALE
PROPOSED SW MANHOLE
PROPOSED SW 600mm PIPE
PROPOSED SW HEADWALL
SITE BOUNDARY (PLANNING BOUNDARY)
SITE BOUNDARY (LEGAL BOUNDARY)

REV	SUIT	DESCRIPTION	DATE
C03	AP	ISSUED FOR PLANNING WITH REVISED COMPENSATORY STORAGE AREA	30.03.2022
C02	AP	ISSUED FOR PLANNING	25.03.2022
C01	AP	ISSUED FOR PLANNING	30.09.2021

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY: HH | REVIEWED BY: MV | APPROVED BY: DC

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED DEVELOPMENT WITH 0.1% FLUVIAL FLOOD DEPTHS

SCALE: 1:500 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1052

REV: C03

INSERT 1

NOTES:

1. PLUVIAL FLOOD DEPTHS BASED ON EXTRACT FROM DUNDRUM RIVER SLANG PLUVIAL FLOOD EXTENT MAP NO. 122862-BVL-Z0-00-DR-R-00025 SHEET 6 OF 8, DATED JULY 2020.
2. TOPOGRAPHICAL SURVEY INFORMATION SHOWN WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD. IN MAY 2021.
3. ADDITIONAL SURVEY WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD DURING AUGUST 2021.
4. ALL LEVELS SHOWN RELATE TO ORDNANCE DATUM MALIN HEAD.
5. SECTIONS THROUGH PROPOSED SITE ARE SHOWN AT DRAWINGS 16031-TJOC-00-XX-DR-C-1055 AND 16031-TJOC-00-XX-DR-C-1056.

N

NODE SL22 0.1% AEP FLOOD LEVEL 47.56mOD

LOW POINT IN BALLINTEER ROAD 52.54

DETAILS OF DRAINAGE OF LOW POINT TO BE COORDINATED WITH LOCAL AUTHORITY ROADS AND DRAINAGE

LOW POINT IN YARD 52.18

FLOOR LEVEL IN STORES AT MAHER'S TERRACE 52.20

OVERLAND FLOOD RELIEF SEWER TO EXTEND TO SITE BOUNDARY FOR FURTHER EXTENSION BY DLRCC TO LOW POINT IN ROAD

IL OF 600 DIA SW SEWER FROM BALLINTEER ROAD = 51.10mOD

HEADWALL IL 50.80mOD

8 C-1056

BALLINTEER ROAD NEWLY CONSTRUCTED SURFACE WATER OUTLET ADJACENT TO STAIRWAY WITH NEW HEADWALL PROPOSED SWALE AT PODIUM LEVEL TO CONVEY OVERLAND FLOOD FLOWS FROM BOUNDARY OF SITE TO NEW SURFACE WATER NETWORK BEFORE DISCHARGING INTO SLANG CULVERT

NODE SL2 FLOOD LEVE

INSERT 1

SWALE IL 50.30 AT DISCHARGE CHAMBER TO SLANG STREAM

ZONE 4 LOWER GROUND FLOOR LEVEL 47.00m OD

OUTLET CHAMBER CL 50.80 IL 45.756 DIA OUT TO SLANG CULVERT

+47.00

+47.18

+47.00

7 C-1056

ZONE 3 LOWER GROUND FLOOR LEVEL 46.50m OD

PLUVIAL FLOW DEPTH ALONG THE SERVICE ROAD LIKE TO BECOME LESS THAN 250mm (DLRCC EXTENTS SHOWN)

+46.50

+46.31

6 C-1056

PLUVIAL FLOW DEPTH WILL BE LESS THAN 250mm AS A RESULT OF THE CAR PARK ENTRANCE BEING REPLACED WITH A FOOTPATH (DLRCC EXTENTS SHOWN)

ZONE 2 LOWER GROUND FLOOR LEVEL 46.00m OD

ZONE 1 LOWER GROUND FLOOR LEVEL 46.00m OD

5 C-1056

PLUVIAL FLOODING FROM COMBINED SEWER CAN BE CONTROLLED BY SEALING MANHOLES MH62 & MH59

+45.98

+45.30

+45.80

+45.85

+45.60

+45.72

+45.70

4 C-1055

+45.50

NODE SL15 0.1% AEP FLOOD LEVEL 45.21mOD

1 C-1055

FOR DETAILS OF COMPENSATORY STORAGE RESERVOIR CONSTRUCTION AND INLET DETAILS SEE DRAWING NO 16031-TJOC-00-XX-DR-C-1058.

NODE SL21 0.1% AEP FLOOD LEVEL 45.68mOD

2 C-1055

3 C-1055

NODE SL16 0.1% AEP FLOOD LEVEL 45.60mOD

PLUVIAL FLOODING FROM COMBINED SEWER CAN BE CONTROLLED BY SEALING MANHOLES MH75 & MH74

LEGEND	
HATCH LEGEND	
PROPOSED BUILDINGS	
COMPENSATORY STORAGE FLOOD VOLUME	
10% AEP PLUVIAL EVENT	
1% AEP PLUVIAL EVENT	
0.1% AEP PLUVIAL EVENT	

OTHER	
0.1% AEP PLUVIAL FLOOD EXTENT ON EXISTING SITE	
0.1% AEP FLUVIAL FLOOD EXTENT ON EXISTING SITE	
0.1% AEP FLOODLINE LEVEL	
COMPENSATORY STORAGE	
PROPOSED SWALE	
PROPOSED SW MANHOLE	
PROPOSED SW 600mm PIPE	
PROPOSED SW HEADWALL	
SITE BOUNDARY (SITE BORDER)	

REV	SUIT	DESCRIPTION	DATE
C03	AP	ISSUED FOR PLANNING WITH REVISED COMPENSATORY STORAGE AREA	30.03.2022
C02	AP	ISSUED FOR PLANNING	25.03.2022
C01	AP	ISSUED FOR PLANNING	30.09.2021

DRAWING STATUS: ISSUED FOR PLANNING

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HH	MV	DC

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED DEVELOPMENT WITH PLUVIAL FLOOD EXTENTS

SCALE: 1:500 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1053

REV: C03

NOTES:

1. PLUVIAL FLOOD DEPTHS BASED ON EXTRACT FROM DUNDRUM RIVER SLANG PLUVIAL FLOOD DEPTH MAP PROVIDED BY DLRCC - NO MAP NUMBER WAS PROVIDED.
2. THE PREDICTED PLUVIAL FLOOD EXTENTS AT MAHER'S TERRACE, ON THE BALLINTEER ROAD, IGNORES LEVEL DIFFERENCE BETWEEN GROUND AND FLOOR LEVELS IN MAHER'S TERRACE AND LEVEL IN ADJACENT CHURCH PROPERTY.
4. FOR PLUVIAL FLOOD EXTENTS ON EXISTING SITE TOPOGRAPHY SEE DRAWING 16031-TJOC-00-XX-DR-C-1047.
5. FOR PLUVIAL FLOOD EXTENTS IN PROPOSED DEVELOPMENT SCENARIO SEE PLAN DRAWING 16031-TJOC-00-XX-DR-C-1053.

LEGEND
HATCH LEGEND
PROPOSED BUILDINGS
COMPENSATORY STORAGE FLOOD VOLUME
PLUVIAL 0.00 - 0.25m DEPTH
PLUVIAL 0.25 - 0.50m DEPTH
PLUVIAL 0.50 - 1.00m DEPTH

OTHER
0.1% AEP PLUVIAL FLOOD EXTENT ON EXISTING SITE
0.1% AEP FLUVIAL FLOOD EXTENT ON EXISTING SITE
0.1% AEP FLOODLINE LEVEL
COMPENSATORY STORAGE
PROPOSED SWALE
PROPOSED SW MANHOLE
PROPOSED SW 600mm PIPE
PROPOSED SW HEADWALL
SITE BOUNDARY (SITE BORDER)

REV	SUIT	DESCRIPTION	DATE
C03	AP	ISSUED FOR PLANNING WITH REVISED COMPENSATORY STORAGE AREA	30.03.2022
C02	AP	ISSUED FOR PLANNING	25.03.2022
C01	AP	ISSUED FOR PLANNING	30.09.2021

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY: HH | REVIEWED BY: MV | APPROVED BY: DC

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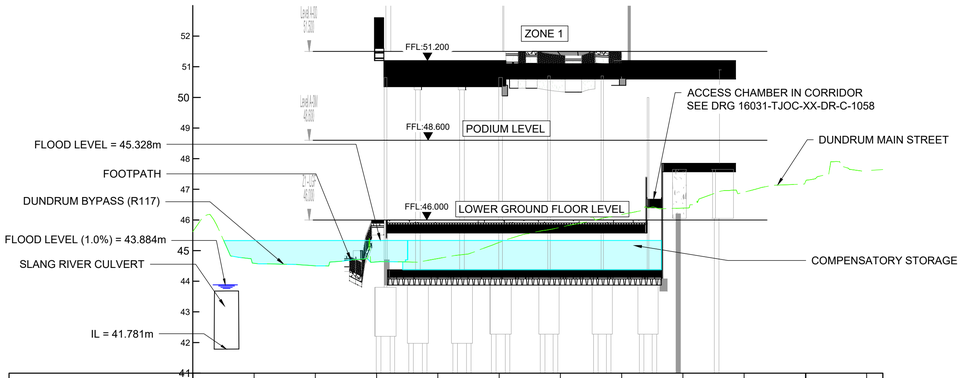
PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED DEVELOPMENT WITH 0.1% PLUVIAL FLOOD DEPTHS SITE

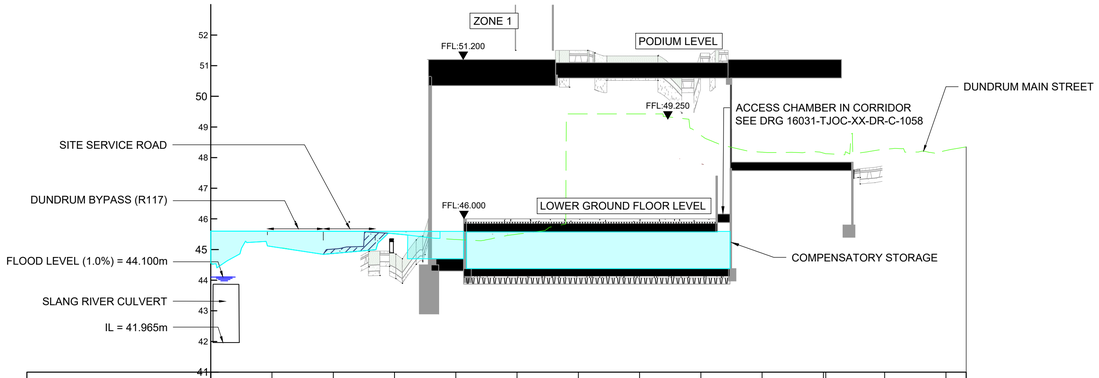
SCALE: 1:500 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1054 | REV: C03



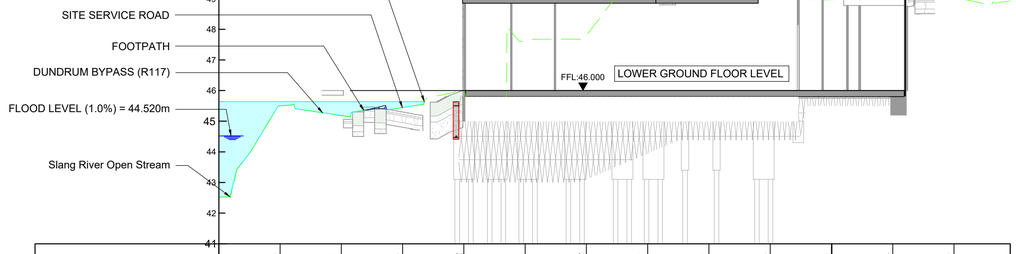
GROUND LEVELS ON CL	44.585	44.503	44.632	44.741	45.266	45.760	46.175	46.385	46.908	**47.289**		
DISTANCE (m)	10	20	30	40	50	60	70	80	90	**100**	110	113

SECTION 1.
SCALE: Horizontal 1:500
Vertical 1:100



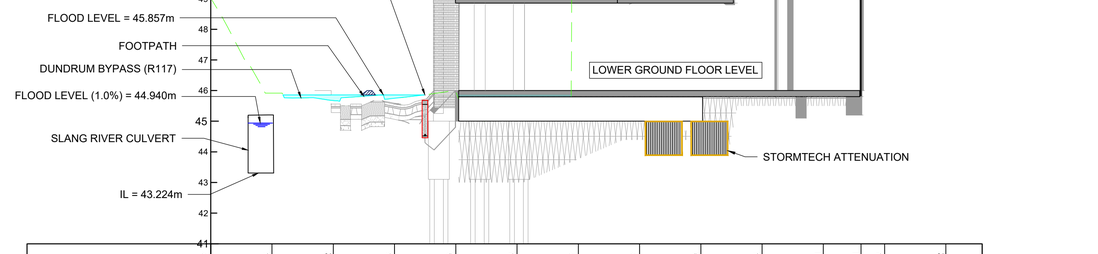
GROUND LEVELS ON CL	45.101	44.876	45.520	45.328	45.502	49.427	49.427	49.729	49.176	**48.148**	48.277	49.233		
DISTANCE (m)	0	10	20	30	40	50	60	70	80	90	100	110	120	123

SECTION 2.
SCALE: Horizontal 1:500
Vertical 1:100



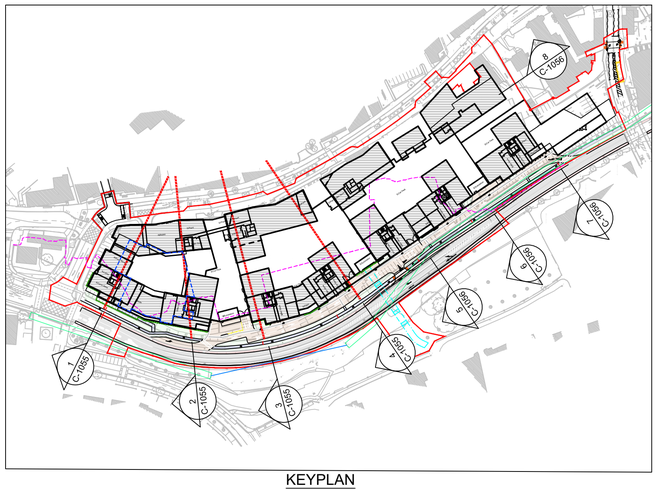
GROUND LEVELS ON CL	45.500	45.177	45.445	46.002	47.628	47.802	49.427	49.427	49.115	**48.069**	48.984	49.000	
DISTANCE (m)	0	10	20	30	40	50	60	70	80	90	100	110	120	129

SECTION 3.
SCALE: Horizontal 1:500
Vertical 1:100



GROUND LEVELS ON CL	49.017	45.915	45.672	45.746	45.969	45.128	49.427	49.427	49.359	49.285	49.441	49.511	49.898	49.952	
DISTANCE (m)	0	10	20	30	40	50	60	70	80	90	100	106	110	120	126

SECTION 4.
SCALE: Horizontal 1:500
Vertical 1:100



KEYPLAN
SCALE: 1:2000

NOTES:

1. TOPOGRAPHICAL SURVEY INFORMATION SHOWN WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD. IN MAY 2021.
2. ADDITIONAL SURVEY WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD DURING AUGUST 2021.
3. ALL LEVELS SHOWN RELATE TO ORDNANCE DATUM MALIN HEAD.
4. SITE SERVICE ROAD AND LANDSCAPED AREAS ALONGSIDE ZONE 1 CAN ACCOMMODATE 911 m³ FLOOD VOLUME IN 0.1% AEP FLOOD EVENT.
5. FLUVIAL FLOOD DEPTHS BASED ON RIVER SLANG FLOOD MAP NO. 122862-BVL-Z0-00-DR-R-00022 RIVER SLANG FLUVIAL FLOOD DEPTH MAP SHEET 5 OF 8.
6. FLOOD LEVELS WITHIN SECTIONS ARE INTERPOLATED BETWEEN THE NODES, AS PER ABOVE MAP NUMBER. (NODES SL15, SL16, SL20, SL21)
6. NODE POINTS AS PER ABOVE FLOOD MAP NO, AND CAN ALSO BE SEEN ON DRAWING 16031-TJOC-00-XX-DR-C-1051.

HATCH LEGEND	
INTERPOLATED FLOOD LEVEL (0.1% AEP)	
35% NO FINES AGGREGATE	
INTERPOLATED FLOOD LEVEL (1.0% AEP)	

REV	SUIT	DESCRIPTION	DATE
C03	AP	ISSUED FOR PLANNING WITH REVISED COMPENSATORY STORAGE AREA	30.03.2022
C02	AP	ISSUED FOR PLANNING	25.03.2022
C01	AP	ISSUED FOR PLANNING	30.09.2021

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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TJ O'CONNOR & ASSOCIATES
CONSULTING ENGINEERS
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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT:
DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

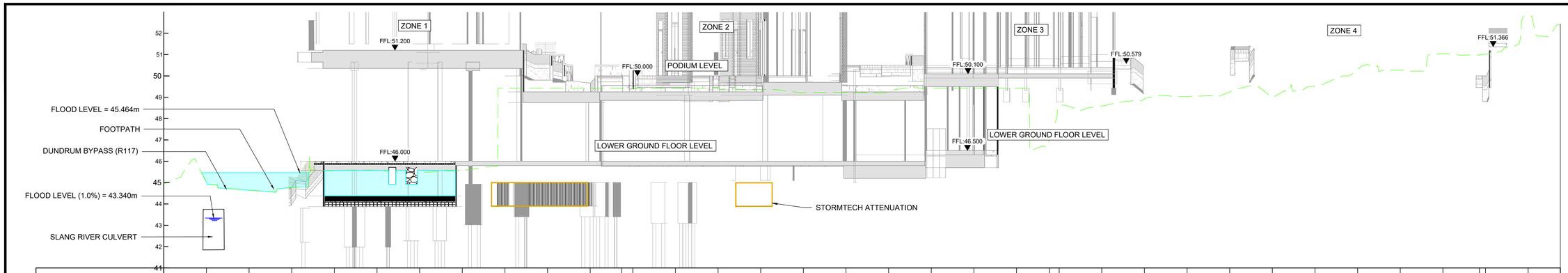
CLIENT:
DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE:
PROPOSED DEVELOPMENT WITH 0.1% FLUVIAL FLOOD EXTENTS - SHEET 1
SECTIONS 1 - 4

SCALE: AS SHOWN (A1)

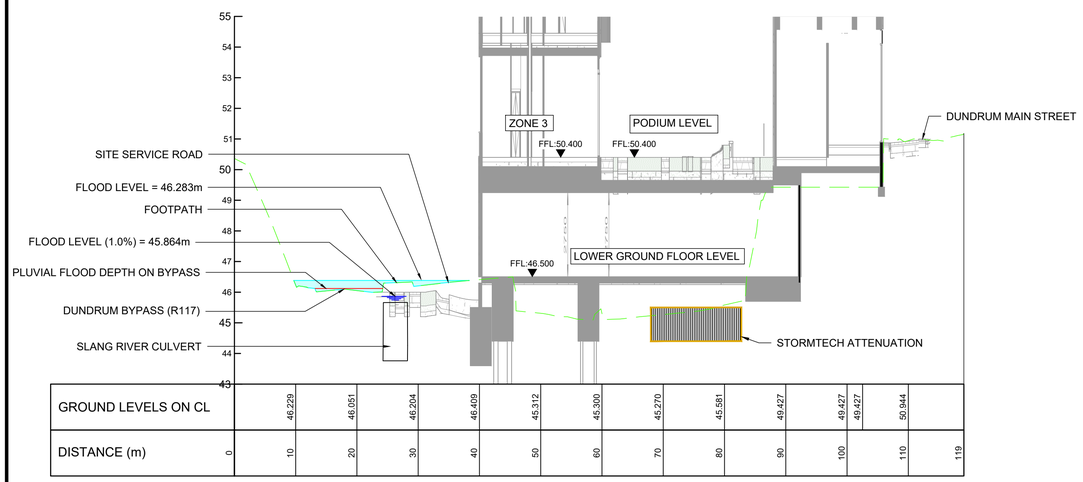
PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1055

REV: C03



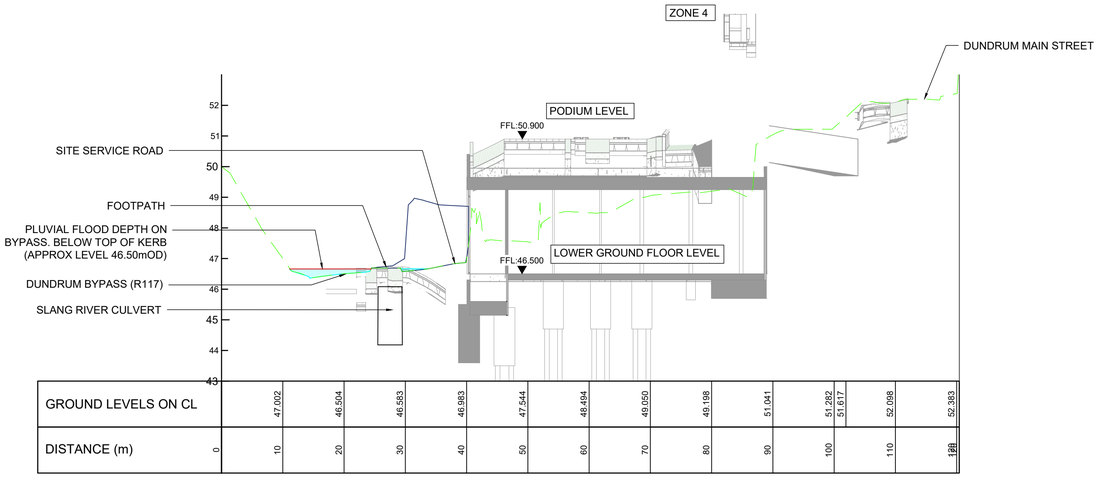
GROUND LEVELS ON CL	45.012	44.644	44.774	45.565	45.569	45.488	45.584	45.427	49.427	49.427	49.427	49.427	49.427	49.427	49.367	49.217	49.230	49.264	49.427	49.427	49.427	47.000	48.562	48.591	48.931	49.032	49.251	49.014	49.519	50.310	50.273	51.045	50.880 / 51.015	52.796	
DISTANCE (m)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	212	220	230	240	250	260	100	270	280	290	300	310	320	328

SECTION 8.
SCALE: Horizontal 1:500
Vertical 1:100



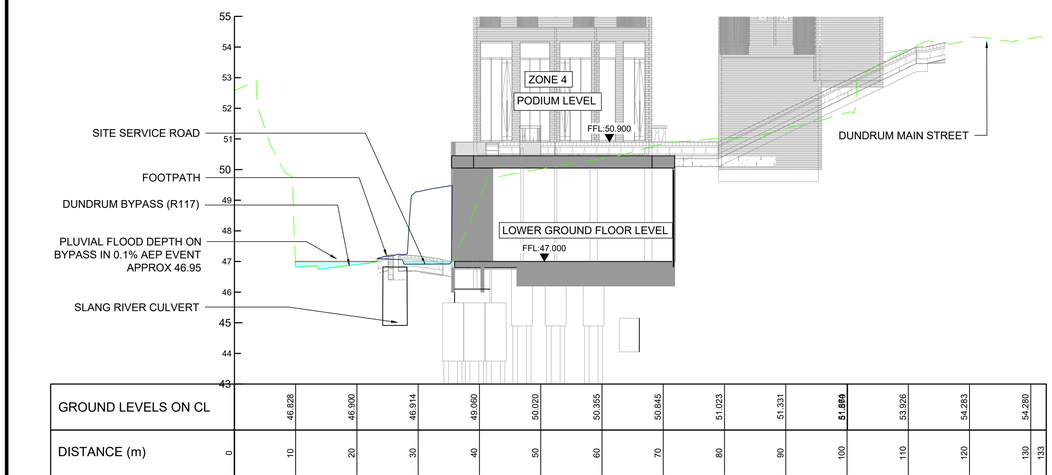
GROUND LEVELS ON CL	46.229	46.051	46.204	46.409	45.312	45.300	45.270	45.581	49.427	49.427	49.427	50.944	
DISTANCE (m)	0	10	20	30	40	50	60	70	80	90	100	110	119

SECTION 5.
SCALE: Horizontal 1:500
Vertical 1:100



GROUND LEVELS ON CL	47.002	46.504	46.583	46.983	47.544	48.494	49.050	49.198	51.041	51.282	51.617	52.098	52.383
DISTANCE (m)	0	10	20	30	40	50	60	70	80	90	100	110	120 / 122

SECTION 6.
SCALE: Horizontal 1:500
Vertical 1:100



GROUND LEVELS ON CL	46.828	46.900	46.914	49.060	50.020	50.355	50.845	51.023	51.331	51.884	53.926	54.263	54.280	
DISTANCE (m)	0	10	20	30	40	50	60	70	80	90	100	110	120	130 / 133

SECTION 7.
SCALE: Horizontal 1:500
Vertical 1:100

KEYPLAN
SCALE: 1:2000

NOTES:

1. TOPOGRAPHICAL SURVEY INFORMATION SHOWN WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD. IN MAY 2021.
2. ADDITIONAL SURVEY WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD DURING AUGUST 2021.
3. ALL LEVELS SHOWN RELATE TO ORDNANCE DATUM MALIN HEAD.
4. SITE SERVICE ROAD AND LANDSCAPED AREAS ALONGSIDE ZONE 1 CAN ACCOMMODATE 911 m³ FLOOD VOLUME IN 0.1% AEP FLOOD EVENT.
5. FLUVIAL FLOOD DEPTHS BASED ON RIVER SLANG FLOOD MAP NO. 122862-BVL-Z0-00-DR-R-00022 RIVER SLANG FLUVIAL FLOOD DEPTH MAP SHEET 5 OF 8.
6. FLOOD LEVELS WITHIN SECTIONS ARE INTERPOLATED BETWEEN THE NODES, AS PER ABOVE MAP NUMBER. (NODES SL15, SL16, SL20, SL21)
6. NODE POINTS AS PER ABOVE FLOOD MAP NO, AND CAN ALSO BE SEEN ON DRAWING 16031-TJOC-00-XX-DR-C-1051.

HATCH LEGEND	
INTERPOLATED FLOOD LEVEL (0.1% AEP)	
35% NO FINES AGGREGATE	
INTERPOLATED FLOOD LEVEL (1.0% AEP)	

REV	SUIT	DESCRIPTION	DATE
C03	AP	ISSUED FOR PLANNING WITH REVISED COMPENSATORY STORAGE AREA	30.03.2022
C02	AP	ISSUED FOR PLANNING	25.03.2022
C01	AP	ISSUED FOR PLANNING	30.09.2021

DRAWING STATUS: ISSUED FOR PLANNING

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HH	MV	DC

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT:
DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT:
DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE:
PROPOSED DEVELOPMENT WITH 0.1% FLUVIAL FLOOD EXTENTS - SHEET 2
SECTIONS 5 TO 8

SCALE: AS SHOWN (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1056

REV: C03

INSERT 1

KILMACUD ROAD UPPER

SANDYFORD ROAD

MAIN STREET

MAHER'S TERRACE

BALLINTEER ROAD

LOCATION OF DTC DEMOUNTABLE FLOOD BARRIER

PEMBROKE AVENUE

DUNDRUM TOWN VILLAGE

FLOW THROUGH HERE IS NOT POSSIBLE BEFORE FLOOD WATERS WILL SPILL THROUGH NEW GATE AND STAIRS TO CHURCH SQUARE

THIS FLOODING WILL NOT OCCUR IF THE MITIGATIONS ARE IMPLEMENTED

ZONE 4

NOTES:

1. TOPOGRAPHICAL SURVEY INFORMATION SHOWN WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD. IN MAY 2021.
2. ADDITIONAL SURVEY WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD DURING AUGUST 2021.
3. ALL LEVELS SHOWN RELATE TO ORDNANCE DATUM MALIN HEAD.
4. THE PLUVIAL FLOOD DRAWINGS ARE SHOWN AT DRAWINGS 16031-TJOC-00-XX-DR-C-1053 AND 16031-TJOC-00-XX-DR-C-1054.
5. SECTIONS THROUGH PROPOSED SITE ARE SHOWN AT DRAWINGS 16031-TJOC-00-XX-DR-C-1055 AND 16031-TJOC-00-XX-DR-C-1056.
6. FOR SURFACE WATER LAYOUT AT PODIUM LEVEL, SEE 16031-TJOC-00-XX-DR-C-1082.
7. FOR SURFACE WATER LAYOUT AT LOWER GROUND FLOOR LEVEL, SEE 16031-TJOC-00-XX-DR-C-1083.

N

INSERT 1

PROPOSED SWALE TO DIVERT PLUVIAL FLOOD FROM BALLINTEER ROAD TOWARDS THE SLANG CULVERT WITHIN THE BYPASS ROAD. FOR DETAIL LAYOUT AND SECTION - SEE DRAWING NO 16031-TJOC-00-XX-DR-C-1093 AND 16031-TJOC-00-XX-DR-C-1083

THIS FLOODING WILL NOT OCCUR IN THIS MANNER WHEN THE DEVELOPMENT IS COMPLETED

SWALE

SWALE

ZONE 4

PLUVIAL FLOOD FLOWS FROM LUAS LINE PREDICTED TO CROSS MAIN STREET

FALL IN THIS AREA IS TOWARDS MAIN STREET

ZONE 1

ZONE 2

ZONE 3

LOW POINT ON DUNDRUM BYPASS.

DUNDRUM BYPASS

MH 47, MH 48 AND MH51 FLOODING PREDICTED IN 1 IN 100 YEAR EVENT DETAILS SEE DRAWING NO 16031-TJOC-00-XX-DR-C-1084.

SWEETMOUNT AVENUE

DROP KERB AT PEDESTRAIN CROSSING TO DIRECT RUNOFF TO SWALE.

EXCESS RUNOFF FROM FOOTBRIDGE WILL SPILL TO EITHER END

ADJUST TO DIVERT FLOWS AROUND THE RAMP TO THE FOOTBRIDGE

LEGEND	
HATCH LEGEND	
10% AEP PLUVIAL EVENT	
1% AEP PLUVIAL EVENT	
0.1% AEP PLUVIAL EVENT	
ORIGINAL PREDICTED PLUVIAL FLOOD EXTENT WITHIN THE BUILDING FOOTPRINT WHICH WILL NO LONGER OCCUR	

OTHER	
SITE BOUNDARY (PLANNING BOUNDARY)	
PROPOSED FLUVIAL FLOOD EXTENTS	
COMPENSATORY STORAGE AREA	

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING WITH REVISED COMPENSATORY AREA	30.03.2022
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY: HH | REVIEWED BY: MV | APPROVED BY: DC

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

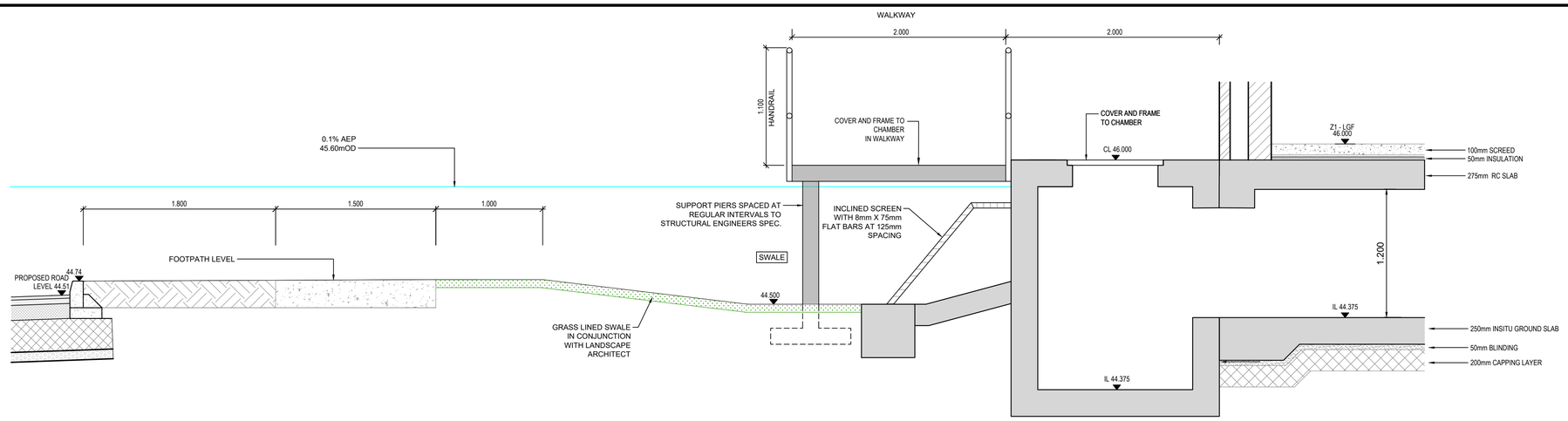
CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: OVERLAND FLOOD FLOW ROUTES PROPOSED DEVELOPMENT LAYOUT

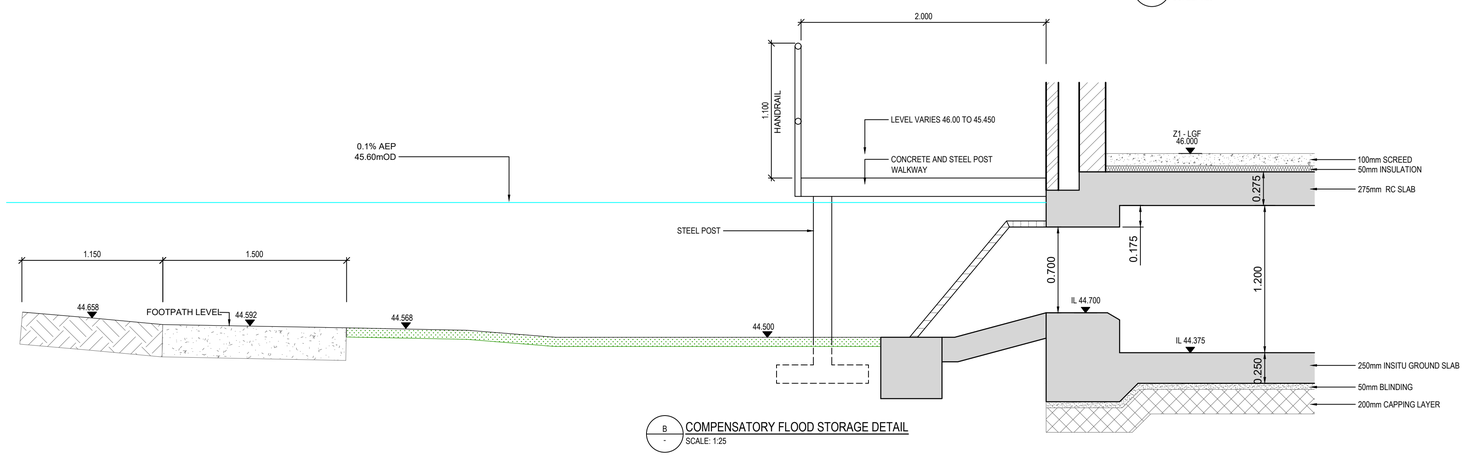
SCALE: 1:500 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1057

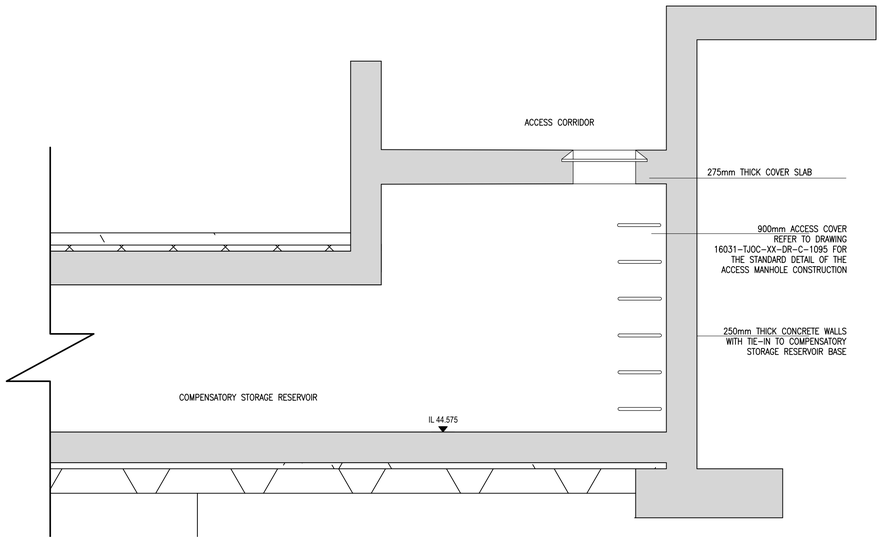
REV: C02

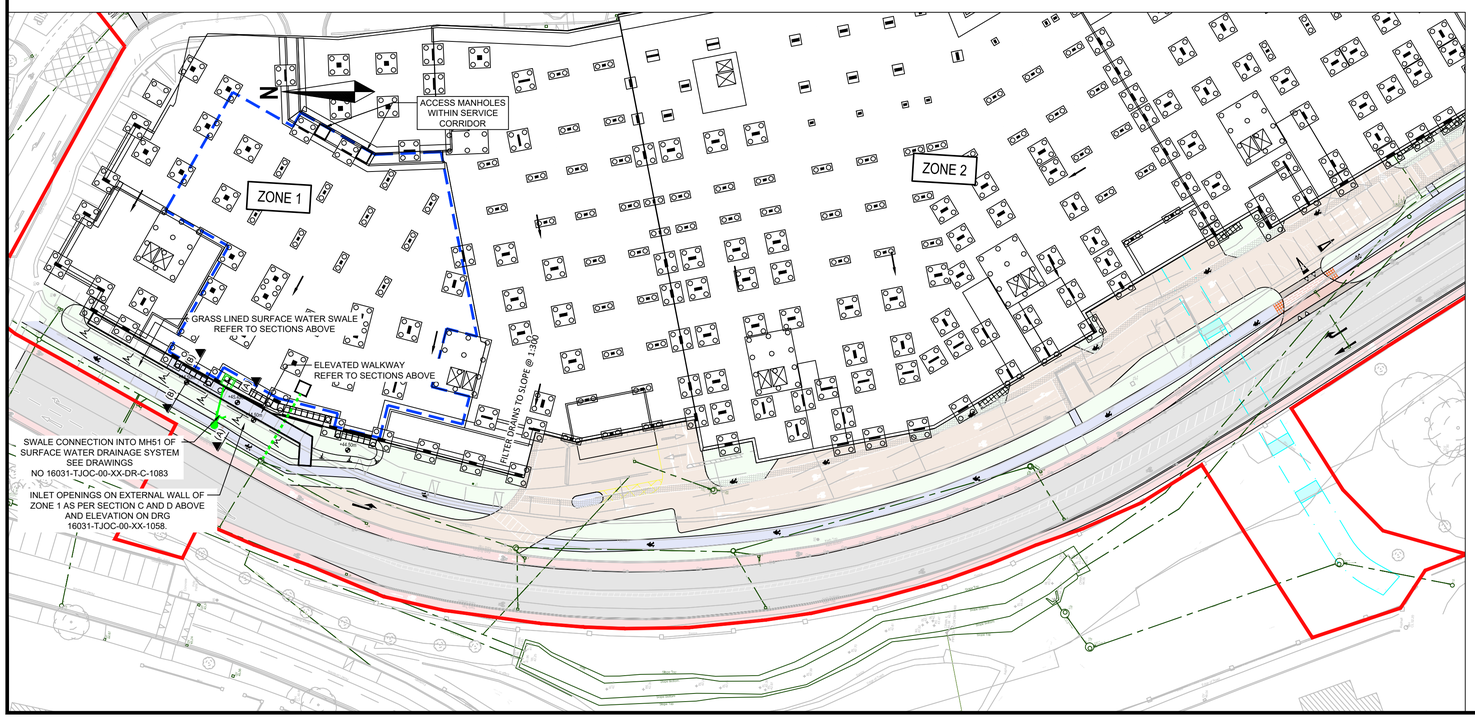


A
-
COMPENSATORY FLOOD STORAGE DETAIL
SCALE: 1:25



B
-
COMPENSATORY FLOOD STORAGE DETAIL
SCALE: 1:25





LEGEND	
OTHER	
0.1% AEP FLOODLINE LEVEL	
COMPENSATORY STORAGE	
PROPOSED SW MANHOLE	
PROPOSED SW PIPE	
PROPOSED HEADWALL	
SITE BOUNDARY (PLANNING BOUNDARY)	

NOTES:

1. TOPOGRAPHICAL SURVEY INFORMATION SHOWN WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD. IN MAY 2021.
2. ADDITIONAL SURVEY WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD DURING AUGUST 2021.
3. ALL LEVELS SHOWN RELATE TO ORDNANCE DATUM MALIN HEAD.
4. SECTIONS THROUGH PROPOSED SITE ARE SHOWN AT DRAWINGS 16031-TJOC-00-XX-DR-C-1055 AND 16031-TJOC-00-XX-DR-C-1056.
5. FOR DETAILS OF COMPENSATORY STORAGE TANK AND DRAIN DOWN MANHOLE, SEE DRAWING 16031-TJOC-00-XX-DR-C-1059.

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING WITH REVISED COMPENSATORY STORAGE AREA	30.03.2022
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT:
DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

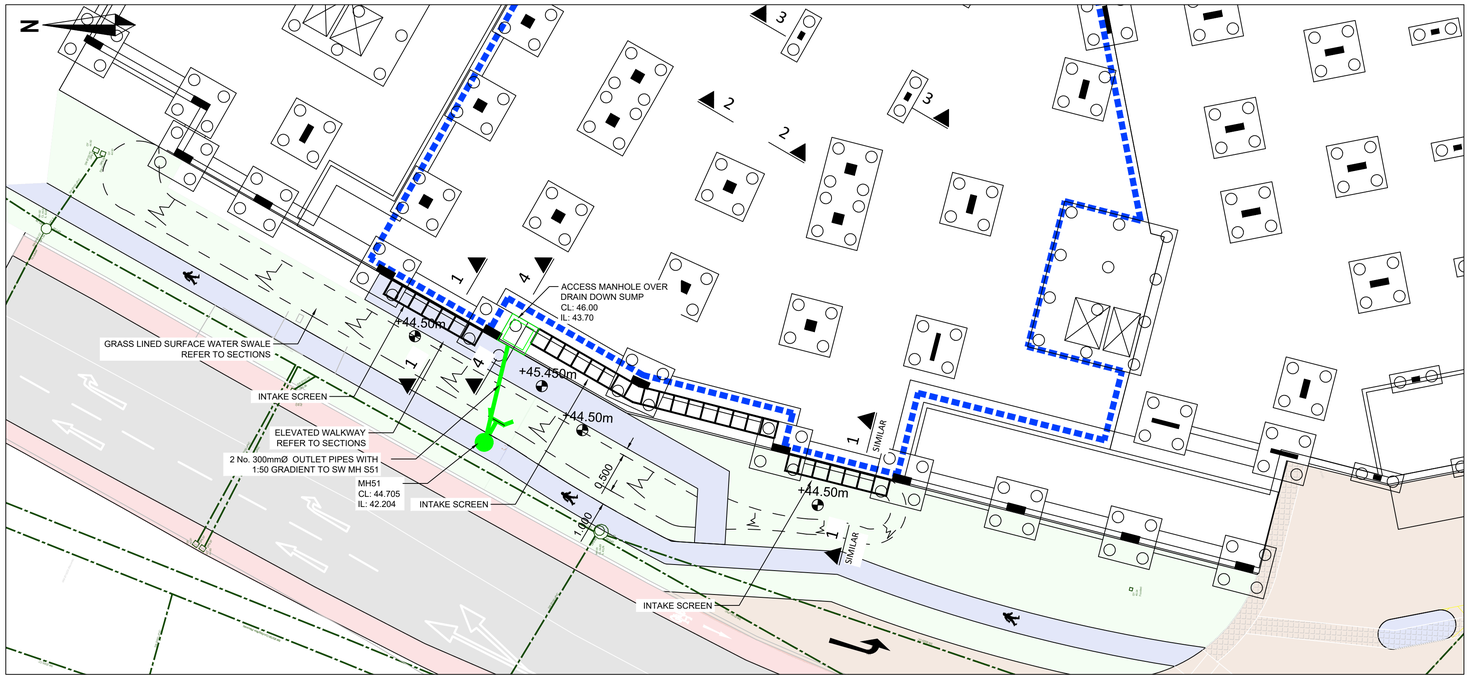
CLIENT:
DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE:
COMPENSATORY FLOOD STORAGE RESERVOIR
PROPOSED DEVELOPMENT LAYOUT - SHEET 1 OF 2

SCALE: 1:500 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1058

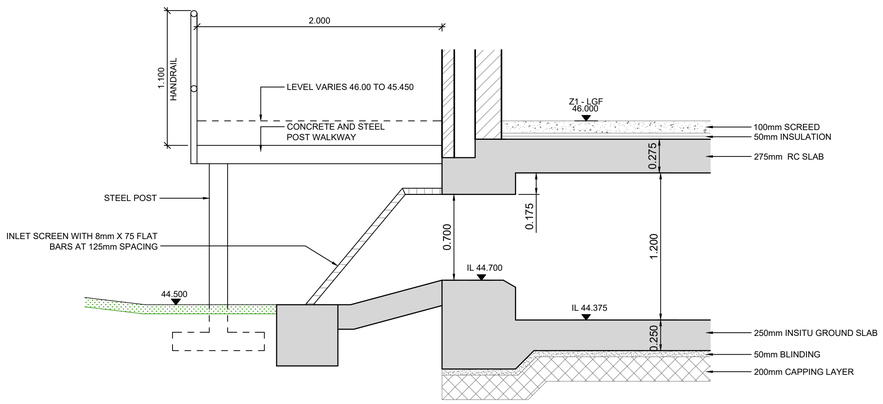
REV: C02



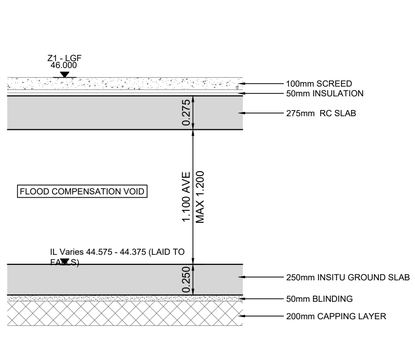
LEGEND	
OTHER	
0.1% AEP FLOODLINE LEVEL	
COMPENSATORY STORAGE	
PROPOSED SW MANHOLE	
PROPOSED SW PIPE	
PROPOSED HEADWALL	
SITE BOUNDARY (PLANNING BOUNDARY)	

NOTES:

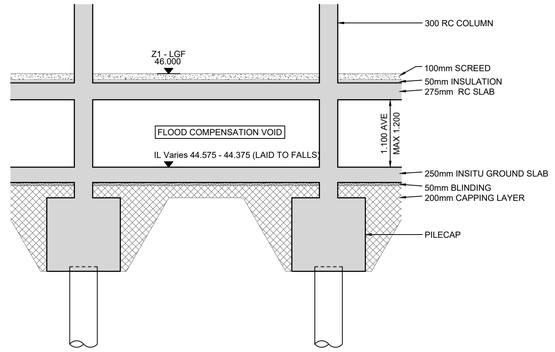
1. TOPOGRAPHICAL SURVEY INFORMATION SHOWN WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD. IN MAY 2021.
2. ADDITIONAL SURVEY WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD DURING AUGUST 2021.
3. ALL LEVELS SHOWN RELATE TO ORDNANCE DATUM MALIN HEAD.
4. SECTIONS THROUGH PROPOSED SITE ARE SHOWN AT DRAWINGS 16031-TJOC-00-XX-DR-C-1055 AND 16031-TJOC-00-XX-DR-C-1056.
5. SECTIONS A-A, B-B, C-C AND D-D THROUGH THE SWALE AND COMPENSATORY STORAGE ARE SHOWN AT DRG 16031-TJOC-00-XX-DR-C-1058.



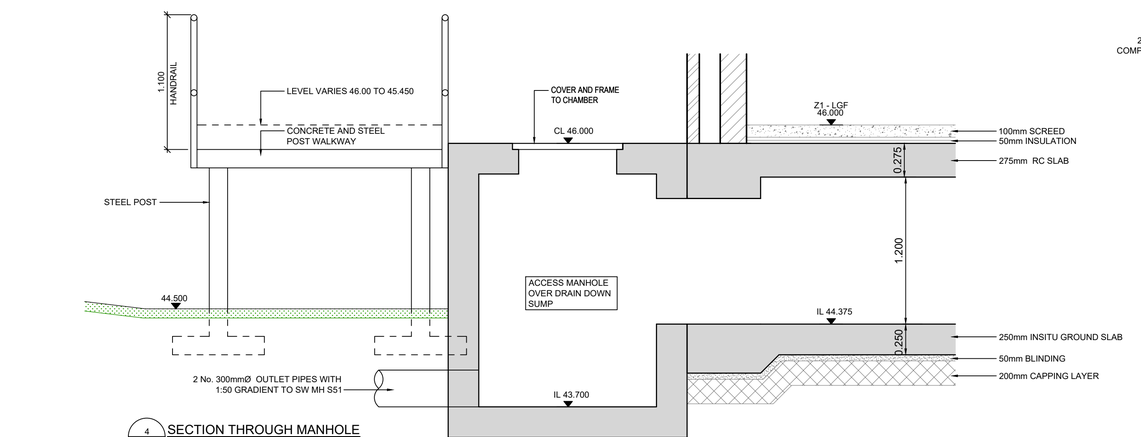
1 / 1059 INTAKE SCREEN SECTION DETAIL
SCALE: 1:25



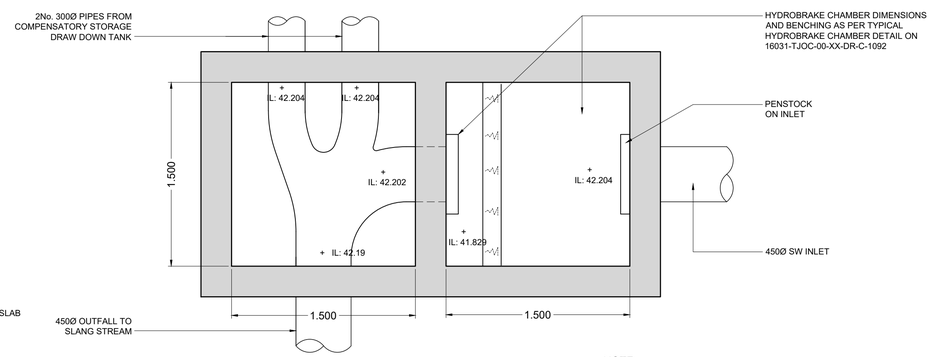
2 / 1059 VOID CONSTRUCTION DETAIL
SCALE: 1:25



3 / 1059 CROSS SECTION THROUGH VOID / COLUMN / PILECAP
SCALE: 1:50



4 / 1059 SECTION THROUGH MANHOLE
SCALE: 1:25



5 / 1059 MANHOLE S51 - PLAN LAYOUT
SCALE: 1:25

NOTE:
FOR LOCATION OF MANHOLE S51 SEE DRAWINGS 16031-TJOC-00-XX-DR-C-1058 AND 16031-TJOC-00-XX-DR-C-1084.

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING	30.03.2022
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

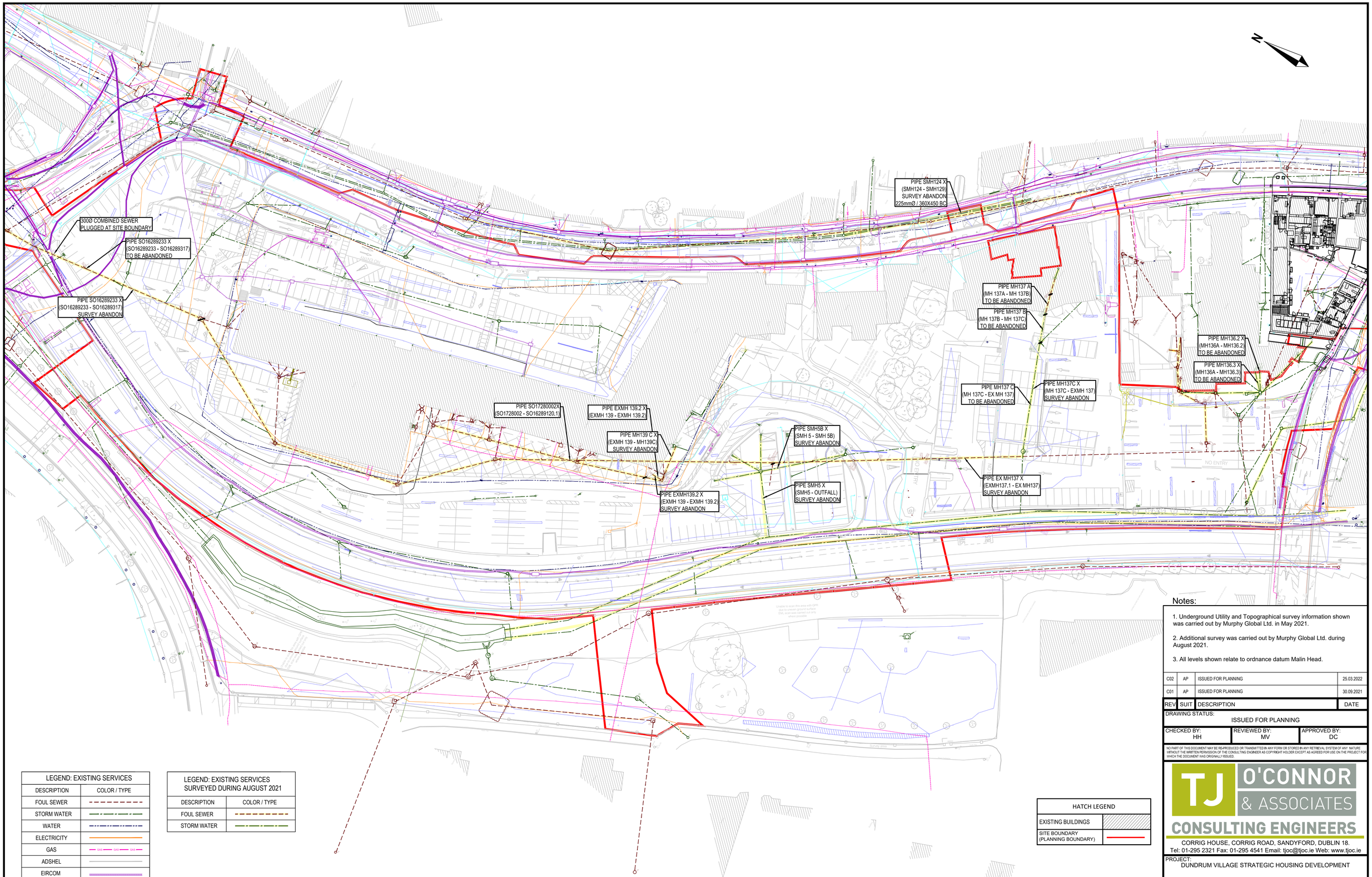
CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: COMPENSATORY FLOOD STORAGE RESERVOIR PROPOSED DEVELOPMENT LAYOUT - SHEET 2 OF 2

SCALE: 1:200 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1059

REV: C02



LEGEND: EXISTING SERVICES	
DESCRIPTION	COLOR / TYPE
FOUL SEWER	
STORM WATER	
WATER	
ELECTRICITY	
GAS	
ADSHEL	
EIRCOM	
TRAFFIC CABLES	
PUBLIC LIGHTING	
OIL	
ANOMALIES	
UNIDENTIFIED	

LEGEND: EXISTING SERVICES SURVEYED DURING AUGUST 2021	
DESCRIPTION	COLOR / TYPE
FOUL SEWER	
STORM WATER	

HATCH LEGEND	
EXISTING BUILDINGS	
SITE BOUNDARY (PLANNING BOUNDARY)	

Notes:

1. Underground Utility and Topographical survey information shown was carried out by Murphy Global Ltd. in May 2021.

2. Additional survey was carried out by Murphy Global Ltd. during August 2021.

3. All levels shown relate to ordnance datum Malin Head.

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING	25.03.2022
C01	AP	ISSUED FOR PLANNING	30.09.2021

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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TJ O'CONNOR & ASSOCIATES
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CORRIG HOUSE, CORRIG ROAD, SANDYFORD, DUBLIN 18.
Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: EXISTING SERVICES DRAWING COMBINED LAYOUT

SCALE: 1:500 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1060

REV: C02

LEGEND	
SURFACE WATER SEWER	
PROPOSED PIPE	
EXISTING PIPE	
PROPOSED MANHOLE	
PROPOSED GULLY	
PROPOSED INTERNAL NETWORK (INDICATIVE)	
PROPOSED GRID CHANNEL COMMERCIAL TYPE (HD)	
SILT TRAP BOX OUTLET	ST
PROPOSED GRID CHANNEL PIPEWORK	
WATERMAIN	
PROPOSED PIPE	
EXISTING PIPE	
PROPOSED HYDRANT	
PROPOSED SLUICE VALVE	
PROPOSED METER	ME
FOUL DRAINAGE	
PROPOSED PIPE	
PROPOSED RISING MAIN	
EXISTING PIPE	
PROPOSED MANHOLE	
PROPOSED INTERNAL NETWORK (INDICATIVE)	

HATCH LEGEND	
EXISTING BUILDINGS	
NEW BUILDING EXTENSION	
ROADWAY	
ACCESS	
SIDEWALKS	
LANDSCAPING	
CYCLE LANE	
SITE BOUNDARY (PLANNING BOUNDARY)	
LOWER GROUND RETAINING WALL	

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING	25.03.2022
C01	AP	ISSUED FOR PLANNING	30.09.2021

DRAWING STATUS: ISSUED FOR PLANNING

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT:
DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT:
DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE:
PROPOSED COMBINED SERVICES LAYOUT - PODIUM LEVEL

SCALE: 1:500 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1061

REV: C02

LEGEND	
SURFACE WATER SEWER	
PROPOSED PIPE	
EXISTING PIPE	
PROPOSED MANHOLE	
PROPOSED GULLY	
PROPOSED INTERNAL NETWORK (INDICATIVE)	
COMPENSATORY STORAGE	
PROPOSED GRID CHANNEL COMMERCIAL TYPE (HD)	
SILT TRAP BOX OUTLET	ST
PROPOSED GRID CHANNEL PIPEWORK	
WATERMAIN	
PROPOSED PIPE	
EXISTING PIPE	
PROPOSED HYDRANT	
PROPOSED SLUICE VALVE	
PROPOSED METER	ME

FOUL DRAINAGE	
PROPOSED PIPE	
PROPOSED RISING MAIN	
EXISTING PIPE	
PROPOSED MANHOLE	
PROPOSED INTERNAL NETWORK (INDICATIVE)	
HATCH LEGEND	
EXISTING BUILDINGS	
NEW BUILDING EXTENSION	
ROADWAY	
ACCESS	
SIDEWALKS	
LANDSCAPING	
CYCLE LANE	
SITE BOUNDARY (PLANNING BOUNDARY)	
LOWER GROUND RETAINING WALL	

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING WITH REVISED COMPENSATORY STORAGE AREA	30.03.2022
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

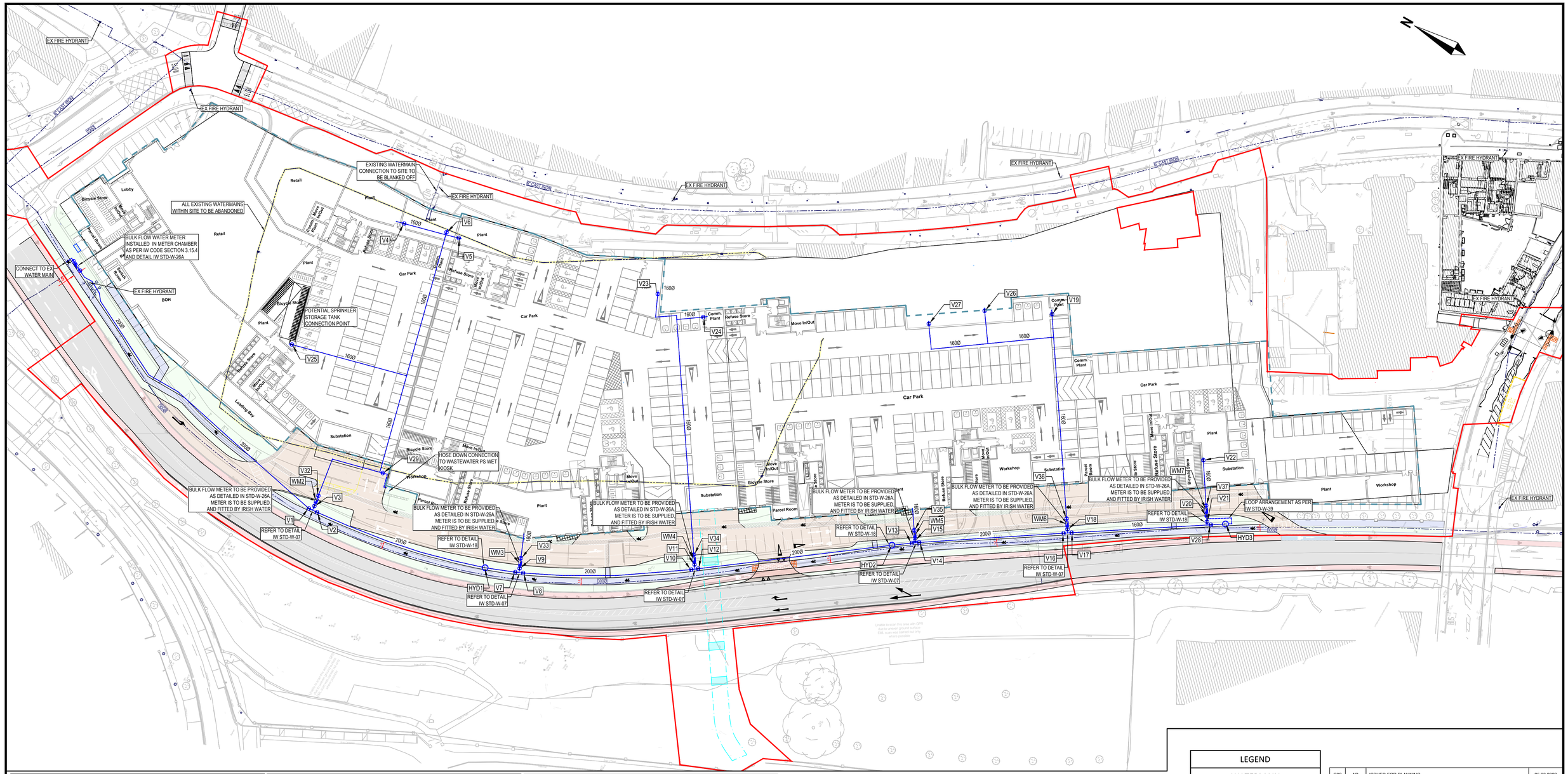
CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED COMBINED SERVICES LAYOUT (SHEET 2)

SCALE: 1:250 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1062

REV: C02



WATER SETTING OUT TABLE (Irish Transverse Mercator 1995 with ETRS89 Datum; Ireland)			
NAME	Y CO-ORDINATES	X CO-ORDINATES	DESCRIPTION
HYD1	716878.354	728168.620	Fire Hydrant
HYD2	716935.679	728080.942	Fire Hydrant
HYD3	716983.276	728009.395	Fire Hydrant
MH106	716883.687	728200.021	Endcap
V1	716868.884	728215.495	Inline Sluice Valve
V2	716869.112	728213.196	Inline Sluice Valve
V3	716870.115	728214.598	Inline Sluice Valve
V4	716944.551	728230.886	Inline Sluice Valve
V5	716948.353	728216.882	Inline Sluice Valve
V6	716948.044	728220.339	Inline Sluice Valve
V7	716881.254	728161.345	Inline Sluice Valve
V8	716882.070	728159.493	Inline Sluice Valve
V9	716882.635	728160.884	Inline Sluice Valve
V10	716904.453	728122.480	Inline Sluice Valve
V11	716905.980	728122.418	Inline Sluice Valve
V12	716905.521	728121.082	Inline Sluice Valve
V13	716938.702	728076.791	Inline Sluice Valve
V14	716939.779	728075.239	Inline Sluice Valve
V15	716939.740	728076.423	Inline Sluice Valve
V16	716960.417	728044.266	Inline Sluice Valve
V17	716961.548	728042.550	Inline Sluice Valve
V18	716961.789	728043.927	Inline Sluice Valve

WATER SETTING OUT TABLE (Irish Transverse Mercator 1995 with ETRS89 Datum; Ireland)			
NAME	Y CO-ORDINATES	X CO-ORDINATES	DESCRIPTION
V19	717007.680	728075.000	Inline Sluice Valve
V20	716982.627	728014.611	Inline Sluice Valve
V21	716981.385	728013.819	Inline Sluice Valve
V22	716994.622	728022.514	Inline Sluice Valve
V23	716961.481	728165.372	Scour Valve
V24	716962.187	728152.274	Inline Sluice Valve
V25	716903.181	728240.353	Inline Sluice Valve
V26	716999.761	728090.424	Inline Sluice Valve
V27	716989.697	728101.190	Inline Sluice Valve
V28	716981.218	728012.550	Inline Sluice Valve
V29	716886.269	728203.601	Inline Sluice Valve
V30	716893.673	728299.629	Inline Sluice Valve
V31	716892.397	728297.036	Inline Sluice Valve
V32	716872.936	728215.039	Inline Sluice Valve
V33	716885.078	728161.902	Inline Sluice Valve
V34	716908.101	728123.856	Inline Sluice Valve
V35	716941.890	728077.918	Inline Sluice Valve
V36	716964.054	728045.461	Inline Sluice Valve
V37	716984.889	728016.093	Inline Sluice Valve
WM1	716893.101	728298.451	Meter
WM2	716871.503	728214.815	Meter
WM3	716883.843	728161.387	Meter

WATER SETTING OUT TABLE (Irish Transverse Mercator 1995 with ETRS89 Datum; Ireland)			
NAME	Y CO-ORDINATES	X CO-ORDINATES	DESCRIPTION
WM4	716907.001	728123.110	Meter
WM5	716940.831	728077.175	Meter
WM6	716962.880	728044.666	Meter
WM7	716983.760	728015.364	Meter

NOTES:
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND SPECIFICATIONS
2. ALL LEVELS ARE IN METRES O.D. MALIN HEAD.
3. THE SURVEY INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM A TOPOGRAPHICAL SURVEY UNDERTAKEN BY MURPHY SURVEYS IN MAY 2021. DRAWING REFERENCE MGL#1150-T-ITM-REV2.
4. THE POSITION AND LEVELS OF EXISTING SERVICES INSOFAR AS THEY ARE KNOWN AND AS SHOWN ON THE DRAWINGS MAY NOT BE ACCURATE AND MERELY INDICATE THEIR PRESENCE IN THE WORKING AREA.
5. THE CONTRACTOR SHALL INSTALL THE WATERMAINS IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES 'CODE OF PRACTICE FOR WATER INFRASTRUCTURE' AND 'WATER INFRASTRUCTURE STANDARD DETAILS' DOCUMENT REFERENCES IW-CDS-5020-03 AND IW-CDS-5020-01 RESPECTIVELY. THE CONTRACTOR SHALL ALSO COMPLY WITH ANY DETAILS OR RECOMMENDATIONS SET OUT BY IRISH WATER IN THE CONNECTION AGREEMENT.
6. WATERMAIN PIPE MATERIAL SHALL BE MDPE OF HDPE TYPE PE-80 AND HAVE AN SDR-11 OR SDR-17 RATING UNLESS AN ALTERNATIVE PIPE MATERIAL IS APPROVED BY IRISH WATER. ALL PLASTIC WATER PIPES SHALL BE BLUE IN COLOUR AND THE PIPEWORK SHALL CONFORM WITH SECTION 3.9 OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE. THE CONTRACTOR SHALL SUBMIT WRITTEN CONFIRMATION FROM THEIR SELECTED PIPE MANUFACTURER THAT THEIR PIPEWORK COMPLIES IN FULL WITH IRISH WATERS CODE OF PRACTICE FOR WATER INFRASTRUCTURE PRIOR TO ORDERING PIPEWORK AND COMMENCEMENT OF WORKS.
7. PRIOR TO COMMENCEMENT OF PIPE LAYING WORKS, PIPE TESTING SHALL BE CARRIED OUT BY THE CONTRACTOR IN ACCORDANCE WITH CL.3.10 OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE.
8. WATERMAIN CONNECTION DETAILS, SEPARATION DISTANCES, TRENCH BACKFILL AND BEDDING, VALVE DETAILS, HYDRANT DETAILS, AIR VALVE DETAILS, METER CHAMBER, THRUST BLOCK AND SUPPORT BLOCK DETAILS, SCOUR CHAMBER AND MARKER POSTS TO BE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATERS CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE STANDARD DETAILS AND CODE OF PRACTICE, WHICH ARE INCLUDED WITH THE TENDER AND CONSTRUCTION ISSUED DOCUMENTS FOR THE PROJECT.
9. MINIMUM COVER TO WATERMAINS TO BE 900mm.
10. A QUALITY ASSURANCE FOLDER SHALL BE PREPARED BY THE CONTRACTOR DURING THE CONSTRUCTION WORKS AS SET OUT IN IRISH WATERS CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE. THIS DOCUMENT SHALL BE UPDATED AS THE CONSTRUCTION WORKS PROGRESS AND SHALL BE MADE AVAILABLE TO IRISH WATER'S REPRESENTATIVE FOR INSPECTION. AS-BUILT RECORDS OF THE WATERMAIN INSTALLATION INCLUDING GA LOCATIONS OF EACH JOINT SHALL BE PREPARED BY THE CONTRACTOR DURING THE A FINAL AS-BUILT DRAWING IN THE FORMAT SET OUT IN IRISH WATER'S CODE OF PRACTICE SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO IRISH WATER ON COMPLETION OF THE WORKS (CL.1.7). SITE TESTING OF THE INSTALLED WATERMAINS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF IRISH WATER'S CODE OF PRACTICE AND ALL RESULTS SHALL BE COLLATED BY THE CONTRACTOR FOR SUBMISSION TO IRISH WATER AS PART OF THE CONFORMANCE CERTIFICATE APPLICATION PROCESS.
11. BUILDINGS IN THESE DEVELOPMENTS SHOULD BE EQUIPPED WITH BALANCING TANKS AND BOOSTER PUMPS ON THE RISING MAIN TO THE TOP STOREY UNITS TO ENSURE ADEQUATE PRESSURE TO THE PREMISES. INDIRECT PRESSURE BOOSTING WILL ONLY BE PERMITTED AS THIS MAY IMPACT THE SERVICE PROVISION WITHIN THE IRISH WATER SUPPLY NETWORK FOR OTHER USERS. I.e., PUMPING FROM A BREAK PRESSURE CISTERN, SUPPLIED FROM IRISH WATER'S NETWORK. IN LINE BOOSTING MAY BE ACCEPTABLE WHERE THE REQUIRED DEMAND DOES NOT EXCEED 10 LITERS PER MINUTE, BUT THIS WILL ONLY BE ALLOWED WITH THE WRITTEN APPROVAL OF IRISH WATER. ALL BOOSTER PUMPS WITH A CAPACITY IN EXCESS OF 10 LITERS PER MINUTE SHALL BE FED FROM A BREAK TANK/CISTERN. THE EFFECTIVE CAPACITY OF THE BREAK PRESSURE TANK/CISTERN TO BE DECIDED AFTER CONSIDERATION OF THE TOTAL WATER STORAGE REQUIREMENTS AND ITS LOCATION WITHIN THE BUILDING, BUT SHOULD NOT BE LESS THAN 30 MINUTE PUMP-OUT CAPACITY. SEPARATE BREAK PRESSURE TANK COMPARTMENTS MAY BE REQUIRED FOR MULTI-BLOCK UNITS AND FOR MAINTAINING SUPPLY DURING CLEANING AND SERVICING. AN ACCEPTABLE SOLATION DEVICE SHALL BE PROVIDED USING A CONNECTION VIA AN UNRESTRICTED AIR-GAP DIVE (AA TYPE DEVICE, IS EN 1717) TO PREVENT BACKFLOW FROM THE INTERNAL WATER DISTRIBUTION SYSTEM TO IRISH WATER'S NETWORK TO PREVENT THE RISK OF BACKFLOW CONTAMINATION.

WATER SETTING OUT TABLE (Irish Transverse Mercator 1995 with ETRS89 Datum; Ireland)			
NAME	Y CO-ORDINATES	X CO-ORDINATES	DESCRIPTION
HYD1	716878.354	728168.620	Fire Hydrant
HYD2	716935.679	728080.942	Fire Hydrant
HYD3	716983.276	728009.395	Fire Hydrant

LEGEND

WATERMAIN

PROPOSED PIPE	
EXISTING PIPE	
PROPOSED HYDRANT	H
PROPOSED SLUICE VALVE	SV
PROPOSED METER	ME
EXISTING PIPE TO BE ABANDONED	

HATCH LEGEND

EXISTING BUILDINGS	
NEW BUILDING EXTENSION	
ROADWAY	
ACCESS	
SIDEWALKS	
LANDSCAPING	
CYCLE LANE	
SITE BOUNDARY (PLANNING BOUNDARY)	
LOWER GROUND RETAINING WALL	

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING	25.03.2022
C01	AP	ISSUED FOR PLANNING	30.09.2021

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

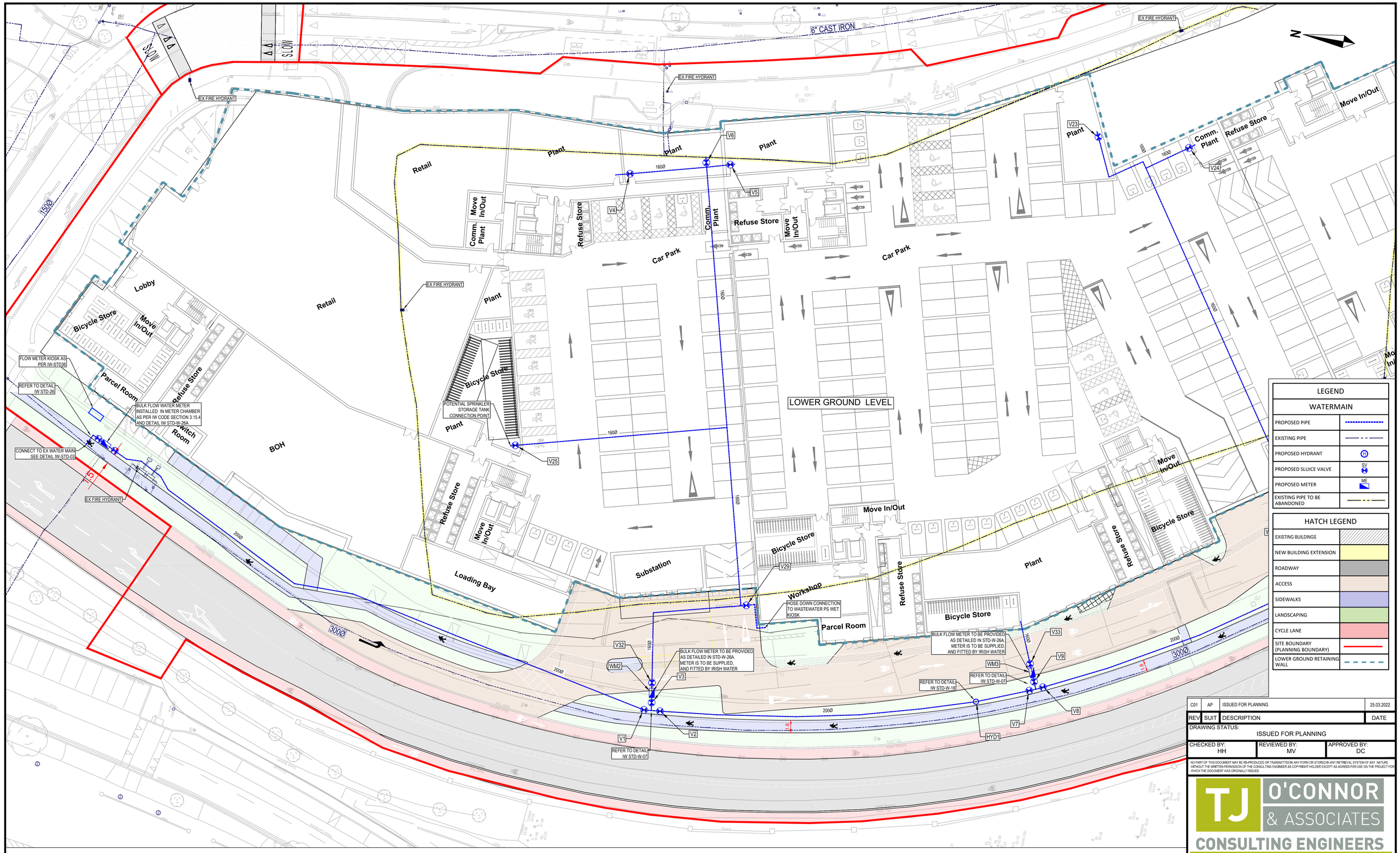
CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED WATER LAYOUT

SCALE: 1:500 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1063

REV: C02



LEGEND	
WATERMAIN	
PROPOSED PIPE	
EXISTING PIPE	
PROPOSED HYDRANT	H
PROPOSED SLUICE VALVE	SV
PROPOSED METER	ME
EXISTING PIPE TO BE ABANDONED	

HATCH LEGEND	
EXISTING BUILDINGS	
NEW BUILDING EXTENSION	
ROADWAY	
ACCESS	
SIDEWALKS	
LANDSCAPING	
CYCLE LANE	
SITE BOUNDARY (PLANNING BOUNDARY)	
LOWER GROUND RETAINING WALL	

NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND SPECIFICATIONS
2. ALL LEVELS ARE IN METRES O.D. MALIN HEAD.
3. THE SURVEY INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM A TOPOGRAPHICAL SURVEY UNDERTAKEN BY MURPHY SURVEYS IN MAY 2021. DRAWING REFERENCE MG141159-T-ITM-REV2.
4. THE POSITION AND LEVELS OF EXISTING SERVICES INSOFAR AS THEY ARE KNOWN AND AS SHOWN ON THE DRAWINGS MAY NOT BE ACCURATE AND MERELY INDICATE THEIR PRESENCE IN THE WORKING AREA.
5. THE CONTRACTOR SHALL INSTALL THE WATERMAINS IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES "CODE OF PRACTICE FOR WATER INFRASTRUCTURE" AND "WATER INFRASTRUCTURE STANDARD DETAILS" DOCUMENT REFERENCES IW-CDS-6000-03 AND IW-CDS-6020-01 RESPECTIVELY. THE CONTRACTOR SHALL ALSO COMPLY WITH ANY DETAILS OR RECOMMENDATIONS SET OUT BY IRISH WATER IN THE CONNECTION AGREEMENT.
6. WATERMAIN PIPE MATERIAL SHALL BE MDPE OF HDPE TYPE PE-80 AND HAVE AN SDR-11 OR SDR-17 RATING UNLESS AN ALTERNATIVE PIPE MATERIAL IS APPROVED BY IRISH WATER. ALL PLASTIC WATER PIPES SHALL BE BLUE IN COLOUR AND THE PIPEWORK SHALL CONFORM WITH SECTION 3.9 OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE. THE CONTRACTOR SHALL SUBMIT WRITTEN CONFIRMATION FROM THEIR SELECTED PIPE MANUFACTURER THAT THEIR PIPEWORK COMPLIES IN FULL WITH IRISH WATERS CODE OF PRACTICE FOR WATER INFRASTRUCTURE PRIOR TO ORDERING PIPEWORK AND COMMENCEMENT OF WORKS.
7. PRIOR TO COMMENCEMENT OF PIPE LAYING WORKS, PIPE TESTING SHALL BE CARRIED OUT BY THE CONTRACTOR IN ACCORDANCE WITH CC.3.10 OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE.
8. WATERMAIN CONNECTION DETAILS, SEPARATION DISTANCES, TRENCH BACKFILL AND BEDDING, VALVE DETAILS, HYDRANT DETAILS, AIR VALVE DETAILS, METER CHAMBER, THRUST BLOCK AND SUPPORT BLOCK DETAILS, SCOUR CHAMBER AND MARKER POSTS TO BE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE STANDARD DETAILS AND CODE OF PRACTICE, WHICH ARE INCLUDED WITH THE TENDER AND CONSTRUCTION ISSUED DOCUMENTS FOR THE PROJECT.
9. MINIMUM COVER TO WATERMAINS TO BE 900mm
10. A QUALITY ASSURANCE FOLDER SHALL BE PREPARED BY THE CONTRACTOR DURING THE CONSTRUCTION WORKS AS SET OUT IN IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE. THIS DOCUMENT SHALL BE UPDATED AS THE CONSTRUCTION WORKS PROGRESS AND SHALL BE MADE AVAILABLE TO IRISH WATER'S REPRESENTATIVE FOR INSPECTION. AS-BUILT RECORDS OF THE WATERMAIN INSTALLATION INCLUDING GA LOCATIONS OF EACH JOINT SHALL BE PREPARED BY THE CONTRACTOR DURING THE A FINAL AS-BUILT DRAWING IN THE FORMAT SET OUT IN IRISH WATER'S CODE OF PRACTICE SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO IRISH WATER ON COMPLETION OF THE WORKS (CL.1.1). SITE TESTING OF THE INSTALLED WATERMAINS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF IRISH WATER'S CODE OF PRACTICE AND ALL RESULTS SHALL BE COLLATED BY THE CONTRACTOR FOR SUBMISSION TO IRISH WATER AS PART OF THE CONFORMANCE CERTIFICATE APPLICATION PROCESS.
11. BUILDINGS IN THESE DEVELOPMENTS SHOULD BE EQUIPPED WITH BALANCING TANKS AND BOOSTER PUMPS ON THE RISING MAIN TO THE TOP STOREY UNITS TO ENSURE ADEQUATE PRESSURE TO THE PREMISES. INDIRECT PRESSURE BOOSTING WILL ONLY BE PERMITTED AS THIS MAY IMPACT THE SERVICE PROVISION WITHIN THE IRISH WATER SUPPLY NETWORK FOR OTHER USERS, i.e., PUMPING FROM A BREAK PRESSURE CISTERN, SUPPLIED FROM IRISH WATER'S NETWORK. IN LINE BOOSTING MAY BE ACCEPTABLE WHERE THE REQUIRED DEMAND DOES NOT EXCEED 10 LITERS PER MINUTE, BUT THIS WILL ONLY BE ALLOWED WITH THE WRITTEN APPROVAL OF IRISH WATER. ALL BOOSTER PUMPS WITH A CAPACITY IN EXCESS OF 10 LITERS PER MINUTE SHALL BE FED FROM A BREAK TANK/CISTERN. THE EFFECTIVE CAPACITY OF THE BREAK PRESSURE TANK/CISTERN TO BE DECIDED AFTER CONSIDERATION OF THE TOTAL WATER STORAGE REQUIREMENTS AND ITS LOCATION WITHIN THE BUILDING, BUT SHOULD NOT BE LESS THAN 30 MINUTE PUMP-OUT CAPACITY. SEPARATE BREAK PRESSURE TANK COMPARTMENTS MAY BE REQUIRED FOR MULTI-BLOCK UNITS AND FOR MAINTAINING SUPPLY DURING CLEANING AND SERVICING. AN ACCEPTABLE ISOLATION DEVICE SHALL BE PROVIDED USING A CONNECTION VIA AN UNRESTRICTED AIR-GAP DIVE (AA TYPE DEVICE, IS EN 1717) TO PREVENT BACKFLOW FROM THE INTERNAL WATER DISTRIBUTION SYSTEM TO IRISH WATER'S NETWORK TO PREVENT THE RISK OF BACKFLOW CONTAMINATION.

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

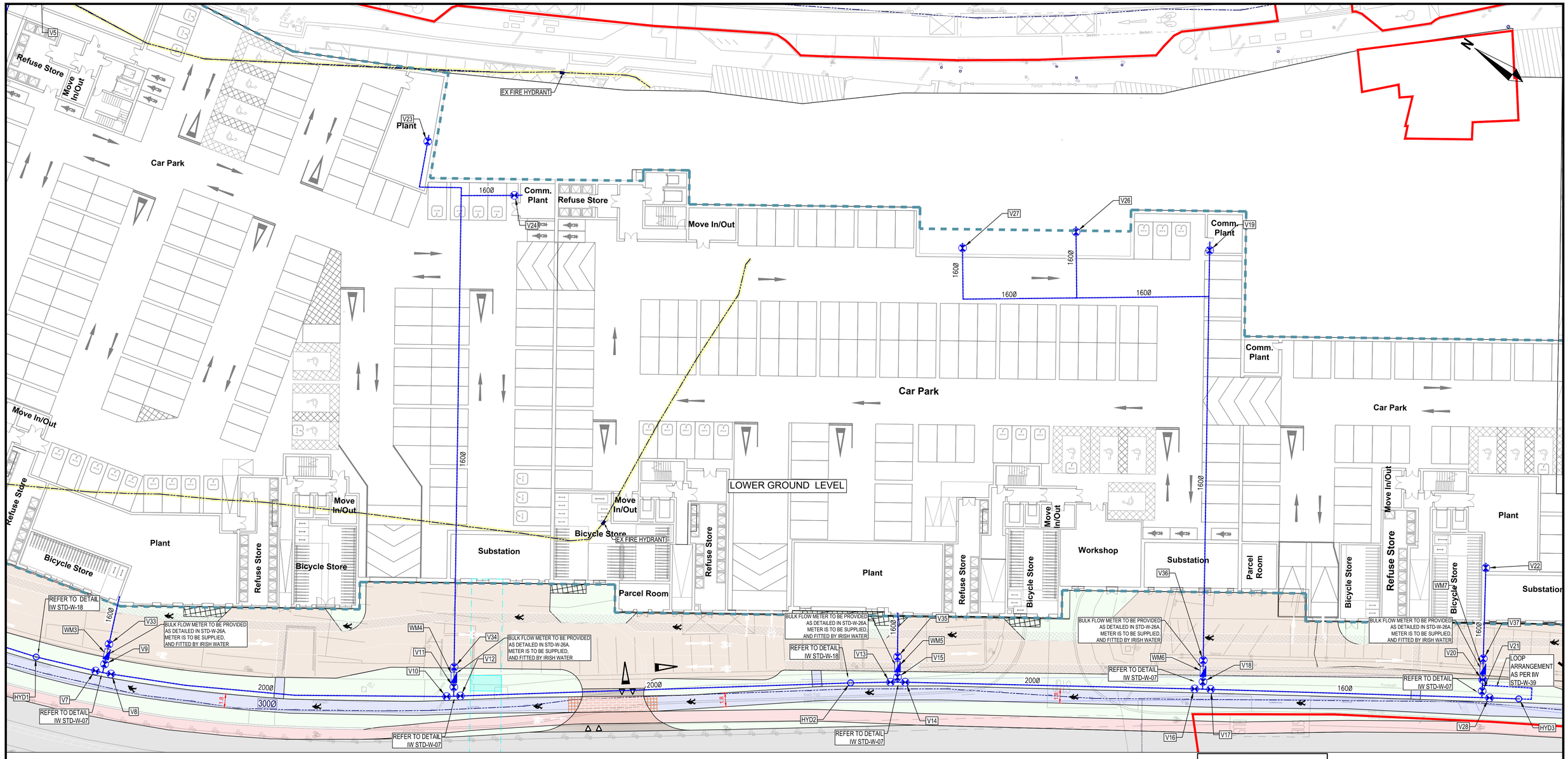
CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED WATER LAYOUT (SHEET 1)

SCALE: 1:250 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1064

REV: C01



NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND SPECIFICATIONS
2. ALL LEVELS ARE IN METRES O.D. MALIN HEAD.
3. THE SURVEY INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM A TOPOGRAPHICAL SURVEY UNDERTAKEN BY MURPHY SURVEYS IN MAY 2021, DRAWING REFERENCE MQL41159-T-ITM-REV2.
4. THE POSITION AND LEVELS OF EXISTING SERVICES INSOFAR AS THEY ARE KNOWN AND AS SHOWN ON THE DRAWINGS MAY NOT BE ACCURATE AND MERELY INDICATE THEIR PRESENCE IN THE WORKING AREA.
5. THE CONTRACTOR SHALL INSTALL THE WATERMAINS IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES "CODE OF PRACTICE FOR WATER INFRASTRUCTURE" AND "WATER INFRASTRUCTURE STANDARD DETAILS" DOCUMENT REFERENCES IW-CDS-5020-03 AND IW-CDS-5020-01 RESPECTIVELY. THE CONTRACTOR SHALL ALSO COMPLY WITH ANY DETAILS OR RECOMMENDATIONS SET OUT BY IRISH WATER IN THE CONNECTION AGREEMENT.
6. WATERMAIN PIPE MATERIAL SHALL BE MDPE OF HDPE TYPE PE-80 AND HAVE AN SDR-11 OR SDR-17 RATING UNLESS AN ALTERNATIVE PIPE MATERIAL IS APPROVED BY IRISH WATER. ALL PLASTIC WATER PIPES SHALL BE BLUE IN COLOUR AND THE PIPEWORK SHALL CONFORM WITH SECTION 3.9 OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE. THE CONTRACTOR SHALL SUBMIT WRITTEN CONFIRMATION FROM THEIR SELECTED PIPE MANUFACTURER THAT THEIR PIPEWORK COMPLIES IN FULL WITH IRISH WATER'S CODE OF PRACTICE FOR WATER INFRASTRUCTURE PRIOR TO ORDERING PIPEWORK AND COMMENCEMENT OF WORKS.
7. PRIOR TO COMMENCEMENT OF PIPE LAYING WORKS, PIPE TESTING SHALL BE CARRIED OUT BY THE CONTRACTOR IN ACCORDANCE WITH CL.3.10.0F IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE.
8. WATERMAIN CONNECTION DETAILS, SEPARATION DISTANCES, TRENCH BACKFILL AND BEDDING, VALVE DETAILS, HYDRANT DETAILS, AIR VALVE DETAILS, METER CHAMBER, THRUST BLOCK AND SUPPORT BLOCK DETAILS, SCOUR CHAMBER AND MARKER POSTS TO BE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE STANDARD DETAILS AND CODE OF PRACTICE, WHICH ARE INCLUDED WITH THE TENDER AND CONSTRUCTION ISSUED DOCUMENTS FOR THE PROJECT.
9. MINIMUM COVER TO WATERMAINS TO BE 900mm.
10. A QUALITY ASSURANCE FOLDER SHALL BE PREPARED BY THE CONTRACTOR DURING THE CONSTRUCTION WORKS AS SET OUT IN IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE. THIS DOCUMENT SHALL BE UPDATED AS THE CONSTRUCTION WORKS PROGRESS AND SHALL BE MADE AVAILABLE TO IRISH WATERS REPRESENTATIVE FOR INSPECTION. AS-BUILT RECORDS OF THE WATERMAIN INSTALLATION INCLUDING GA LOCATIONS OF EACH JOINT SHALL BE PREPARED BY THE CONTRACTOR DURING THE A FINAL AS-BUILT DRAWING IN THE FORMAT SET OUT IN IRISH WATER'S CODE OF PRACTICE SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO IRISH WATER ON COMPLETION OF THE WORKS (CL.1.7). SITE TESTING OF THE INSTALLED WATERMAINS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF IRISH WATER'S CODE OF PRACTICE AND ALL RESULTS SHALL BE COLLATED BY THE CONTRACTOR FOR SUBMISSION TO IRISH WATER AS PART OF THE CONFORMANCE CERTIFICATE APPLICATION PROCESS.
11. BUILDINGS IN THESE DEVELOPMENTS SHOULD BE EQUIPPED WITH BALANCING TANKS AND BOOSTER PUMPS ON THE RISING MAIN TO THE TOP STOREY UNITS TO ENSURE ADEQUATE PRESSURE TO THE PREMISES. INDIRECT PRESSURE BOOSTING WILL ONLY BE PERMITTED AS THIS MAY IMPACT THE SERVICE PROVISION WITHIN THE IRISH WATER SUPPLY NETWORK FOR OTHER USERS, i.e., PUMPING FROM A BREAK PRESSURE CISTERN, SUPPLIED FROM IRISH WATER'S NETWORK. IN LINE BOOSTING MAY BE ACCEPTABLE WHERE THE REQUIRED DEMAND DOES NOT EXCEED 10 LITERS PER MINUTE, BUT THIS WILL ONLY BE ALLOWED WITH THE WRITTEN APPROVAL OF IRISH WATER. ALL BOOSTER PUMPS WITH A CAPACITY IN EXCESS OF 10 LITERS PER MINUTE SHALL BE FED FROM A BREAK TANK/CISTERN. THE EFFECTIVE CAPACITY OF THE BREAK PRESSURE TANK/CISTERN TO BE DECIDED AFTER CONSIDERATION OF THE TOTAL WATER STORAGE REQUIREMENTS AND ITS LOCATION WITHIN THE BUILDING, BUT SHOULD NOT BE LESS THAN 30 MINUTE PUMP-OUT CAPACITY. SEPARATE BREAK PRESSURE TANK COMPARTMENTS MAY BE REQUIRED FOR MULTI-BLOCK UNITS AND FOR MAINTAINING SUPPLY DURING CLEANING AND SERVICING.AN ACCEPTABLE ISOLATION DEVICE SHALL BE PROVIDED USING A CONNECTION VIA AN UNRESTRICTED AIR-GAP DIVE (AA TYPE DEVICE, IS EN 1717) TO PREVENT BACKFLOW FROM THE INTERNAL WATER DISTRIBUTION SYSTEM TO IRISH WATER'S NETWORK TO PREVENT THE RISK OF BACKFLOW CONTAMINATION.

LEGEND

WATERMAIN

PROPOSED PIPE	
EXISTING PIPE	
PROPOSED HYDRANT	H
PROPOSED SLUICE VALVE	SV
PROPOSED METER	ME
EXISTING PIPE TO BE ABANDONED	

HATCH LEGEND

EXISTING BUILDINGS	
NEW BUILDING EXTENSION	
ROADWAY	
ACCESS	
SIDEWALKS	
LANDSCAPING	
CYCLE LANE	
SITE BOUNDARY (PLANNING BOUNDARY)	
LOWER GROUND RETAINING WALL	

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED WATER LAYOUT (SHEET 2)

SCALE: 1:250 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1065

REV: C01

MANHOLE SCHEDULE

NO.	COVER LEVEL	INVERT LEVEL	TYPE	EASTING	NORTHING
EX-MH-1D	50.900	49.092	A1	717029.594	728003.779
FS41	46.913	45.487	A4	716992.633	728007.368
FS42	47.035	45.539	A3	716988.610	728004.627
FS43	47.851	45.850	A4	717011.792	727964.053
FS44	50.900	46.049	B2	717036.665	727980.413
FS45	50.900	48.732	A1	717036.216	727988.934
FS46	50.900	49.055	A3	717028.003	728002.825

Pipe Table

PIPE NAME	SIZE (mm)	LENGTH (m)	SLOPE	START IL	END IL
P1	150	1.855	1:50	49.092	49.055
P2	150	16.137	1:50	49.055	48.732
P3	150	8.532	1:10	48.732	47.879
P4	150	29.771	1:150	46.049	45.850
P5	150	46.729	1:150	45.850	45.539
P6	150	4.868	1:150	45.539	45.506

COVER LEVEL	50.900	50.900	50.900	50.900	47.851	47.035
INVERT LEVEL	49.092	49.055 49.055	48.732 48.732	47.879 46.049	45.850 45.850	45.539 45.539
CHAINAGE	0.000	1.855	17.992	26.525	56.295	103.024
PIPE DIAMETER AND GRADIENT	P1 150Ø @ 1:50	P2 150Ø @ 1:50	P3 150Ø @ 1:10	P4 150Ø @ 1:150	P5 150Ø @ 1:150	P6 150Ø @
PIPE MATERIAL	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC
MANHOLE TYPE:	A1	A3	A1	B2	A4	A3
BEDDING AND SURROUND	CLASS E					

FOUL DRAINAGE - DIVERSION
SCALE: 1:250 H,1:50 V

NOTES:
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND SPECIFICATIONS.
2. ALL LEVELS ARE IN METRES O.D. MALIN HEAD.
3. THE POSITION AND LEVELS OF EXISTING SERVICES IN SO FAR AS THEY ARE KNOWN AND AS SHOWN ON THE DRAWINGS MAY NOT BE ACCURATE AND MERELY INDICATE THEIR PRESENCE IN THE WORKING AREA. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING SERVICES ON SITE.
4. THE SURVEY INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM A TOPOGRAPHICAL SURVEY UNDERTAKEN BY MUPHY SURVEYS IN MAY 2021, DRAWING REFERENCE MGL41159-T-ITM_REV2.
5. THE CONTRACTOR SHALL INSTALL THE WASTEWATER INFRASTRUCTURE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES "CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE" AND "WASTEWATER INFRASTRUCTURE STANDARD DETAILS" - DOCUMENT REFERENCES IW-CDS-5030-03 AND IW-CDS-5030-01 RESPECTIVELY.
THE CONTRACTOR SHALL ALSO COMPLY WITH ANY DETAILS OR RECOMMENDATIONS SET OUT BY IRISH WATER IN THE CONNECTION AGREEMENT.
6. FOR DETAILS OF MANHOLES REFER TO DRG. NO. 16031-TJOC-00-XX-DR-C-1075
7. FOR DETAILS OF BEDDING REFER TO DRG. 16031-TJOC-00-XX-DR-C-1077.
8. FOR DETAILS OF BUILDING DRAINAGE REFER TO ARCHITECTS AND M+E DRAWINGS.
9. ALL SERVICES CONNECTION PIPEWORK TO BE 100Ø uPVC UNLESS NOTED OTHERWISE.
10. FOUL SEWERS WITH A DIAMETER OF 150mm SHALL BE uPVC. uPVC PIPES SHALL BE IN ACCORDANCE WITH CL.3.13 OF IRISH WATERS CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE. FOUL SEWERS WITH A DIAMETER OF 225mm AND 300mm SHALL BE THERMOPLASTIC STRUCTURED WALL PIPE COMPLYING WITH THE PROVISIONS OF IS EN 13476 WIS 4-35-01 AND IRISH WATER'S CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE. ALL FOUL SEWERS WITH A DIAMETER OF 375mm AND GREATER SHALL BE CONCRETE PIPES.
11. WHERE EXCAVATIONS FOR DRAINAGE ENCROACH ON THE BEARING FOR FOUNDATIONS (I.E. PIPE IS BELOW FOUNDATION OR BELOW 45° LINE EXTENDING OUT AND DOWN FROM THE BOTTOM OF THE FOUNDATION), SUCH EXCAVATIONS SHALL BE BACKFILLED IN LEAN MIX CONCRETE TO FORMATION LEVEL OF FOUNDATIONS.
12. PIPE BEDDING AND BACKFILL SHALL BE AS PER DRAWING 16031-TJOC-FS-00-DR-C-XX WITH CLASS E BEDDING FOR FLEXIBLE PIPES. BACKFILLING OF TRENCHES ABOVE PIPE BED AND SURROUND SHALL BE HARDCORE IN ACCORDANCE WITH CL.1.2.29 OF OUR SPECIFICATION. WHERE TRENCHES ARE BENEATH SLAB OR PAVED AREA, THE UNLESS SITUATION IS AS PER NOTE 12 ABOVE.
13. WHERE AN UNDERGROUND PIPE IS BUILT INTO A STRUCTURE THERE SHALL BE TWO FLEXIBLE JOINTS ADJACENT TO THE STRUCTURE. THE FIRST SHALL BE NOT MORE THAN ONE PIPE DIAMETER FROM THE OUTSIDE FACE OF THE STRUCTURE. THE LENGTH OF THE NEXT PIPE (ROCKER PIPE) SHALL NOT EXCEED 750mm FOR PIPES UP TO 450Ø.
14. SETTING OUT OF ALL SVP's AND RWP's TO ARCHITECTS DETAILS.
15. ALL MANHOLES TO BE SET OUT ON SITE AND CO-ORDINATED WITH PROPOSED AND EXISTING SERVICES PRIOR TO CONSTRUCTION.
16. COVER LEVEL TO BE CO-ORDINATED WITH PROPOSED LANDSCAPING LEVELS.
17. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CARRY OUT SURVEYS AS NECESSARY TO CONFIRM THE EXACT LOCATION AND DEPTH OF EXISTING SERVICES IN ADVANCE OF COMMENCING WORKS TO THEM.
18. IN ADVANCE OF COMMENCEMENT OF HIS WORKS THE CONTRACTOR WILL BE RESPONSIBLE FOR CARRYING OUT A CCTV CONDITION SURVEY OF EXISTING SEWERS IN THE VICINITY OF THE WORKS. A COPY OF THIS SURVEY SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW. THE EXACT EXTENT OF THE SURVEY SHALL BE AGREED WITH THE ENGINEER IN ADVANCE OF COMMENCEMENT AND WILL BE DETERMINED IN PART BY THE CONTRACTORS PROPOSED METHOD OF WORKS.
19. AFTER COMPLETION OF THE WORKS, THE CONTRACTOR WILL BE RESPONSIBLE FOR CARRYING OUT A CCTV CONDITION SURVEY OF EXISTING SEWERS IN THE VICINITY OF THE WORKS TO DEMONSTRATE THAT THE EXISTING SEWERS WERE NOT DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES BY THE CONTRACTOR. ALL NEW SEWERS AND MANHOLES TO BE CCTV SURVEYED AND INSPECTED STRICTLY IN ACCORDANCE WITH CLAUSES 1.8 AND 1.9 OF IRISH WATER'S CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE.
20. ALL MANHOLE COVERS IN TRAFFICKED AREAS TO BE A MINIMUM OF CLASS D400 SOLID TOP COVERS. RECESSED COVERS TO BE PROVIDED IN PAVED LANDSCAPED AREAS. 150mm DEEP E600 MANHOLE COVERS SHALL BE INSTALLED ON HEAVILY TRAFFICKED ROADS IN ACCORDANCE WITH THE REQUIREMENTS SET OUT IN IRISH WATER'S CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE.
21. A QUALITY ASSURANCE FOLDER SHALL BE PREPARED BY THE CONTRACTOR DURING THE CONSTRUCTION WORKS AS SET OUT IN IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE. THIS DOCUMENT SHALL BE UPDATED AS THE CONSTRUCTION WORKS PROGRESS AND SHALL BE MADE AVAILABLE TO IRISH WATER'S REPRESENTATIVE FOR INSPECTION. AS-BUILT RECORDS OF THE WASTEWATER INFRASTRUCTURE INSTALLATION INCLUDING GA LOCATIONS OF EACH JOINT SHALL BE PREPARED BY THE CONTRACTOR DURING THE WORKS. A FINAL AS-BUILT DRAWING IN THE FORMAT SET OUT IN IRISH ATER'S CODE OF PRACTICE SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO IRISH WATER ON COMPLETION OF THE WORKS (CL.1.8). SITE TESTING OF THE INSTALLED WASTEWATER INFRASTRUCTURE SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF IRISH WATER'S CODE OF PRACTICE AND ALL RESULTS SHALL BE COLLATED BY THE CONTRACTOR FOR SUBMISSION TO IRISH WATER AS PART OF THE CONFORMANCE CERTIFICATE APPLICATION PROCESS.

SITE SPECIFIC NOTES:
1. ALL FOUL DRAINAGE RUNS WILL BE COORDINATED WITH COLUMNS AND FOOTINGS FOR STAGE 3 DESIGN.

LEGEND	
FOUL DRAINAGE	
PROPOSED PIPE	
PROPOSED RISING MAIN	
EXISTING PIPE	
EXISTING PIPE DEMOLISH	
EXISTING MANHOLE	
PROPOSED MANHOLE	
PROPOSED INTERNAL NETWORK (INDICATIVE)	
EXISTING MANHOLE	

HATCH LEGEND	
EXISTING BUILDINGS	
NEW BUILDING EXTENSION	
ROADWAY	
ACCESS	
SIDEWALKS	
LANDSCAPING	
CYCLE LANE	
SITE BOUNDARY (PLANNING BOUNDARY)	
LOWER GROUND RETAINING WALL	

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY: HH | REVIEWED BY: MV | APPROVED BY: DC

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: HOLY CROSS CHURCH SEWER DIVERSION

SCALE: 1:500 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1066

REV: C01

NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND SPECIFICATIONS.
2. ALL LEVELS ARE IN METRES O.D. MALIN HEAD.
3. THE POSITION AND LEVELS OF EXISTING SERVICES IN SO FAR AS THEY ARE KNOWN AND AS SHOWN ON THE DRAWINGS MAY NOT BE ACCURATE AND MERELY INDICATE THEIR PRESENCE IN THE WORKING AREA. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING SERVICES ON SITE.
4. THE SURVEY INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM A TOPOGRAPHICAL SURVEY UNDERTAKEN BY MUPHY SURVEYS IN MAY 2021, DRAWING REFERENCE MGL41159-T-ITM_REV2.
5. THE CONTRACTOR SHALL INSTALL THE WASTEWATER INFRASTRUCTURE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES "CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE" AND "WASTEWATER INFRASTRUCTURE STANDARD DETAILS" – DOCUMENT REFERENCES IW-CDS-5030-03 AND IW-CDS-5030-01 RESPECTIVELY.
THE CONTRACTOR SHALL ALSO COMPLY WITH ANY DETAILS OR RECOMMENDATIONS SET OUT BY IRISH WATER IN THE CONNECTION AGREEMENT.
6. FOR DETAILS OF MANHOLES REFER TO DRG. NO. 16031-TJOC-ZZ-00-DR-C-1075 & 16031-TJOC-ZZ-00-DR-C-1076.
7. FOR DETAILS OF BEDDING REFER TO DRG. 16031-TJOC-ZZ-00-DR-C-1077.
8. FOR DETAILS OF BUILDING DRAINAGE REFER TO ARCHITECTS AND M+E DRAWINGS.
9. ALL SERVICES CONNECTION PIPEWORK TO BE 100Ø uPVC UNLESS NOTED OTHERWISE.
10. FOUL SEWERS WITH A DIAMETER OF 150mm SHALL BE uPVC. uPVC PIPES SHALL BE IN ACCORDANCE WITH CL.3.13 OF IRISH WATERS CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE. FOUL SEWERS WITH A DIAMETER OF 225mm AND 300mm SHALL BE THERMOPLASTIC STRUCTURED WALL PIPE COMPLYING WITH THE PROVISIONS OF IS EN 13476 WIS 4-35-01 AND IRISH WATER'S CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE. ALL FOUL SEWERS WITH A DIAMETER OF 375mm AND GREATER SHALL BE CONCRETE PIPES.
11. WHERE EXCAVATIONS FOR DRAINAGE ENCROACH ON THE BEARING FOR FOUNDATIONS (I.E. PIPE IS BELOW FOUNDATION OR BELOW 45° LINE EXTENDING OUT AND DOWN FROM THE BOTTOM OF THE FOUNDATION), SUCH EXCAVATIONS SHALL BE BACKFILLED IN LEAN MIX CONCRETE TO FORMATION LEVEL OF FOUNDATIONS.
12. PIPE BEDDING AND BACKFILL SHALL BE AS PER DRAWING 16031-TJOC-FS-00-DR-C-1076 WITH CLASS E BEDDING FOR FLEXIBLE PIPES. BACKFILLING OF TRENCHES ABOVE PIPE BED AND SURROUND SHALL BE HARDCORE IN ACCORDANCE WITH CL.1.2.29 OF OUR SPECIFICATION. WHERE TRENCHES ARE BENEATH SLAB OR PAVED AREA, THE UNLESS SITUATION IS AS PER NOTE 12 ABOVE.
13. WHERE AN UNDERGROUND PIPE IS BUILT INTO A STRUCTURE THERE SHALL BE TWO FLEXIBLE JOINTS ADJACENT TO THE STRUCTURE. THE FIRST SHALL BE NOT MORE THAN ONE PIPE DIAMETER FROM THE OUTSIDE FACE OF THE STRUCTURE. THE LENGTH OF THE NEXT PIPE (ROCKER PIPE) SHALL NOT EXCEED 750mm FOR PIPES UP TO 450Ø.
14. SETTING OUT OF ALL SVP's AND RWP's TO ARCHITECTS DETAILS.
15. ALL MANHOLES TO BE SET OUT ON SITE AND CO-ORDINATED WITH PROPOSED AND EXISTING SERVICES PRIOR TO CONSTRUCTION.
16. COVER LEVEL TO BE CO-ORDINATED WITH PROPOSED LANDSCAPING LEVELS.
17. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CARRY OUT SURVEYS AS NECESSARY TO CONFIRM THE EXACT LOCATION AND DEPTH OF EXISTING SERVICES IN ADVANCE OF COMMENCING WORKS TO THEM.
18. IN ADVANCE OF COMMENCEMENT OF HIS WORKS THE CONTRACTOR WILL BE RESPONSIBLE FOR CARRYING OUT A CCTV CONDITION SURVEY OF EXISTING SEWERS IN THE VICINITY OF THE WORKS. A COPY OF THIS SURVEY SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW. THE EXACT EXTENT OF THE SURVEY SHALL BE AGREED WITH THE ENGINEER IN ADVANCE OF COMMENCEMENT AND WILL BE DETERMINED IN PART BY THE CONTRACTORS PROPOSED METHOD OF WORKS.
19. AFTER COMPLETION OF THE WORKS, THE CONTRACTOR WILL BE RESPONSIBLE FOR CARRYING OUT A CCTV CONDITION SURVEY OF EXISTING SEWERS IN THE VICINITY OF THE WORKS TO DEMONSTRATE THAT THE EXISTING SEWERS WERE NOT DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES BY THE CONTRACTOR. ALL NEW SEWERS AND MANHOLES TO BE CCTV SURVEYED AND INSPECTED STRICTLY IN ACCORDANCE WITH CLAUSES 1.8 AND 1.9 OF IRISH WATER'S CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE.
20. ALL MANHOLE COVERS IN TRAFFICKED AREAS TO BE A MINIMUM OF CLASS D400 SOLID TOP COVERS. RECESSED COVERS TO BE PROVIDED IN PAVED LANDSCAPED AREAS. 150mm DEEP E600 MANHOLE COVERS SHALL BE INSTALLED ON HEAVILY TRAFFICKED ROADS IN ACCORDANCE WITH THE REQUIREMENTS SET OUT IN IRISH WATER'S CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE.
21. A QUALITY ASSURANCE FOLDER SHALL BE PREPARED BY THE CONTRACTOR DURING THE CONSTRUCTION WORKS AS SET OUT IN IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE. THIS DOCUMENT SHALL BE UPDATED AS THE CONSTRUCTION WORKS PROGRESS AND SHALL BE MADE AVAILABLE TO IRISH WATER'S REPRESENTATIVE FOR INSPECTION. AS-BUILT RECORDS OF THE WASTEWATER INFRASTRUCTURE INSTALLATION INCLUDING GA LOCATIONS OF EACH JOINT SHALL BE PREPARED BY THE CONTRACTOR DURING THE WORKS. A FINAL AS-BUILT DRAWING IN THE FORMAT SET OUT IN IRISH ATER'S CODE OF PRACTICE SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO IRISH WATER ON COMPLETION OF THE WORKS (CL.1.8). SITE TESTING OF THE INSTALLED WASTEWATER INFRASTRUCTURE SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF IRISH WATER'S CODE OF PRACTICE AND ALL RESULTS SHALL BE COLLATED BY THE CONTRACTOR FOR SUBMISSION TO IRISH WATER AS PART OF THE CONFORMANCE CERTIFICATE APPLICATION PROCESS.

SITE SPECIFIC NOTES:

1. REFER TO DRAWING 16031-TJOC-00-XX-DR-C-1070 FOR COMPLETE FOUL PUMPING STATION LAYOUT AND ASSOCIATED DETAILS.
2. ALL RISING MAIN BENDS TO BE LONG RADIUS BENDS, IN ACCORDANCE WITH IW WASTERWATER CODE OF PRACTICE CLAUSE 3.5.23

APPLICABLE IW STANDARD DETAILS

STD-WW-15 SCOUR VALVE CHAMBER
STD-WW-18 AIR VALVE CHAMBER
STD-WW-29 STAND OFF MANHOLE
STD-WW-34 VENT STACK

LEGEND	
FOUL DRAINAGE	
PROPOSED PIPE	
PROPOSED RISING MAIN	
EXISTING PIPE	
EXISTING PIPE DEMOLISH	
EXISTING MANHOLE	
PROPOSED MANHOLE	
PROPOSED INTERNAL NETWORK (INDICATIVE)	
EXISTING MANHOLE	

HATCH LEGEND	
EXISTING BUILDINGS	
NEW BUILDING EXTENSION	
ROADWAY	
ACCESS	
SIDEWALKS	
LANDSCAPING	
CYCLE LANE	
SITE BOUNDARY (PLANNING BOUNDARY)	
LOWER GROUND RETAINING WALL	

COVER LEVEL	45.961	45.994	45.538	45.330	45.042	44.513	43.675	44.702	44.092	44.834	46.168	45.392
INVERT LEVEL	44.550	44.545 / 44.545	44.461 / 44.461	44.183 / 44.183	43.912 / 43.912	43.300 / 43.300	43.440 / 43.440	43.510 / 43.510	43.857 / 43.857	43.857 / 43.857	43.857 / 42.595	42.575
CHAINAGE	0.000	1.698	7.730	27.569	46.907	93.592	98.376	100.786				123.465
MANHOLE TYPE:	PS-OUT	BEND	BEND	BEND	BEND	BEND	BEN	WW-15	BEN	WW-18	WW-	TIE-IN

PIPE	PIPE DIAMETER AND GRADIENT	PIPE MATERIAL
P46	125Ø @ 1:362	HDPE
P46 (1)	125Ø @ 1:71	HDPE
P47	125Ø @ 1:71	HDPE
P48	125Ø @ 1:71	HDPE
P49	125Ø @ 1:76	HDPE
P50	125Ø @ -1:34	HDPE
P51	125Ø @ -1:34	HDPE
P51 (3)	125Ø @ -1:43	HDPE
P51 (2) (1)	125Ø @ Horizontal	HDPE
P51 (2) (1) (1)	125Ø @ Horizontal	HDPE
P51 (1)	225Ø @ 1:100	HDPE

BEDDING AND SURROUND: CLASS E; CONCRETE SORROUND; CLASS E

PR-FS-RISING-MAIN - LONGSECTION
SCALE: 1:250 H,1:50 V

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING	30.03.2022
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY: HH | REVIEWED BY: MV | APPROVED BY: DC

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED FOUL PUMPING STATION RISING MAIN LAYOUT AND LONGSECTION

SCALE: AS SHOWN (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1067

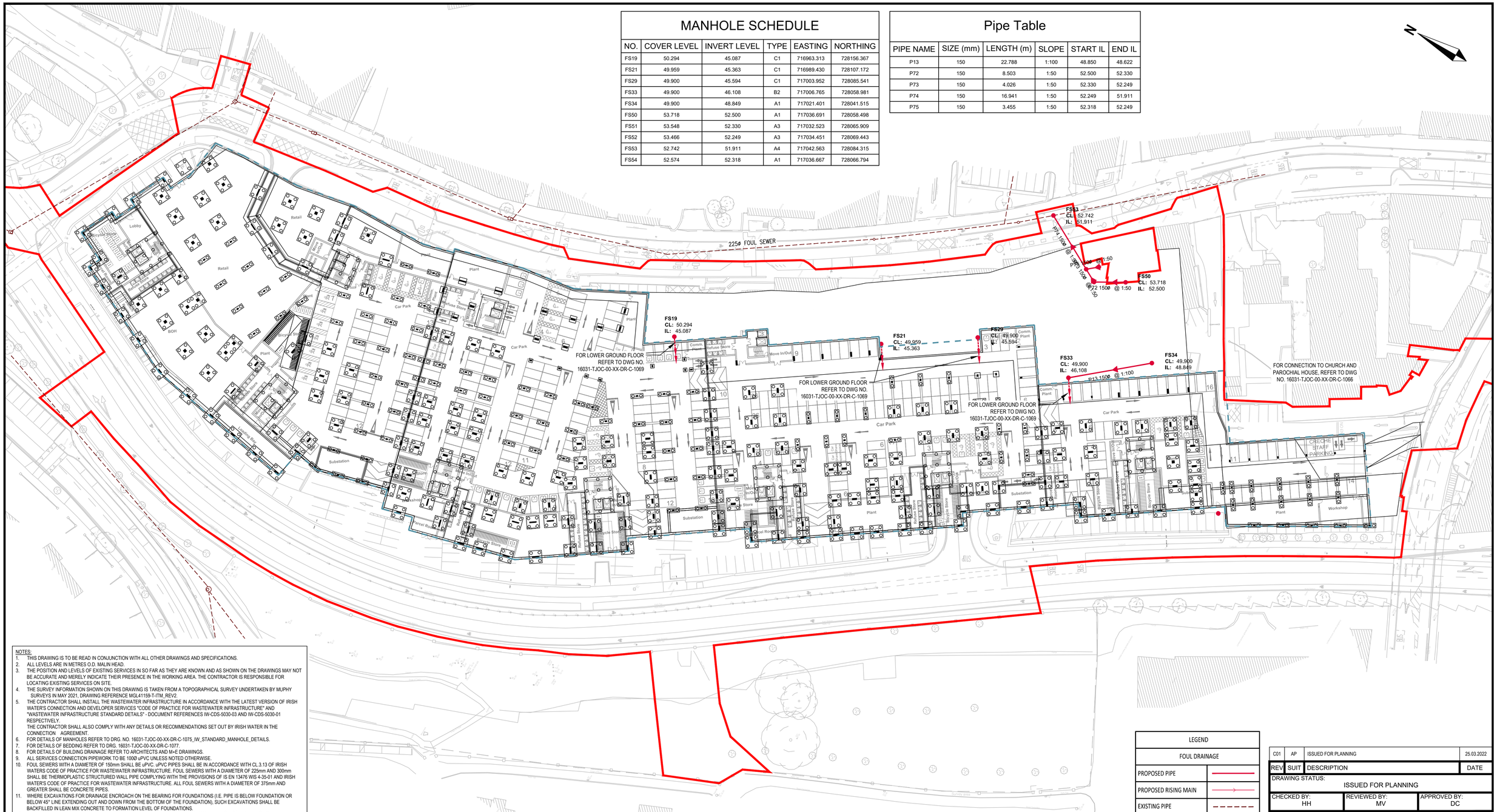
REV: C02

MANHOLE SCHEDULE

NO.	COVER LEVEL	INVERT LEVEL	TYPE	EASTING	NORTHING
FS19	50.294	45.087	C1	716963.313	728156.367
FS21	49.959	45.363	C1	716989.430	728107.172
FS29	49.900	45.594	C1	717003.952	728085.541
FS33	49.900	46.108	B2	717006.765	728058.981
FS34	49.900	48.849	A1	717021.401	728041.515
FS50	53.718	52.500	A1	717036.691	728058.498
FS51	53.548	52.330	A3	717032.523	728065.909
FS52	53.466	52.249	A3	717034.451	728069.443
FS53	52.742	51.911	A4	717042.563	728084.315
FS54	52.574	52.318	A1	717036.667	728066.794

Pipe Table

PIPE NAME	SIZE (mm)	LENGTH (m)	SLOPE	START IL	END IL
P13	150	22.788	1:100	48.850	48.622
P72	150	8.503	1:50	52.500	52.330
P73	150	4.026	1:50	52.330	52.249
P74	150	16.941	1:50	52.249	51.911
P75	150	3.455	1:50	52.318	52.249



NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND SPECIFICATIONS.
2. ALL LEVELS ARE IN METRES O.D. MALIN HEAD.
3. THE POSITION AND LEVELS OF EXISTING SERVICES IN SO FAR AS THEY ARE KNOWN AND AS SHOWN ON THE DRAWINGS MAY NOT BE ACCURATE AND MERELY INDICATE THEIR PRESENCE IN THE WORKING AREA. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING SERVICES ON SITE.
4. THE SURVEY INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM A TOPOGRAPHICAL SURVEY UNDERTAKEN BY MUPHY SURVEYS IN MAY 2021, DRAWING REFERENCE MGL4115b-T-ITM, REV2.
5. THE CONTRACTOR SHALL INSTALL THE WASTEWATER INFRASTRUCTURE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES "CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE" AND "WASTEWATER INFRASTRUCTURE STANDARD DETAILS" - DOCUMENT REFERENCES IW-CDS-5030-03 AND IW-CDS-5030-01 RESPECTIVELY.
   THE CONTRACTOR SHALL ALSO COMPLY WITH ANY DETAILS OR RECOMMENDATIONS SET OUT BY IRISH WATER IN THE CONNECTION AGREEMENT.
6. FOR DETAILS OF MANHOLES REFER TO DRG. NO. 16031-TJOC-00-XX-DR-C-1075_IW_STANDARD_MANHOLE_DETAILS.
7. FOR DETAILS OF BEDDING REFER TO DRG. 16031-TJOC-00-XX-DR-C-1077.
8. FOR DETAILS OF BUILDING DRAINAGE REFER TO ARCHITECTS AND M+E DRAWINGS.
9. ALL SERVICES CONNECTION PIPEWORK TO BE 100Ø uPVC UNLESS NOTED OTHERWISE.
10. FOUL SEWERS WITH A DIAMETER OF 150mm SHALL BE uPVC. uPVC PIPES SHALL BE IN ACCORDANCE WITH CL.3.13 OF IRISH WATERS CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE. FOUL SEWERS WITH A DIAMETER OF 225mm AND 300mm SHALL BE THERMOPLASTIC STRUCTURED WALL PIPE COMPLYING WITH THE PROVISIONS OF IS EN 13476 WIS 4-35-01 AND IRISH WATER'S CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE. ALL FOUL SEWERS WITH A DIAMETER OF 375mm AND GREATER SHALL BE CONCRETE PIPES.
11. WHERE EXCAVATIONS FOR DRAINAGE ENCROACH ON THE BEARING FOR FOUNDATIONS (I.E. PIPE IS BELOW FOUNDATION OR BELOW 45° LINE EXTENDING OUT AND DOWN FROM THE BOTTOM OF THE FOUNDATION), SUCH EXCAVATIONS SHALL BE BACKFILLED IN LEAN MIX CONCRETE TO FORMATION LEVEL OF FOUNDATIONS.
12. PIPE BEDDING AND BACKFILL SHALL BE AS PER DRAWING 16031-TJOC-00-XX-DR-C-1077 WITH CLASS E BEDDING FOR FLEXIBLE PIPES. BACKFILLING OF TRENCHES ABOVE PIPE BED AND SURROUND SHALL BE HARDCORE IN ACCORDANCE WITH CL.1.2.29 OF OUR SPECIFICATION. WHERE TRENCHES ARE BENEATH SLAB OR PAVED AREA, THE UNLESS SITUATION IS AS PER NOTE 12 ABOVE.
13. WHERE AN UNDERGROUND PIPE IS BUILT INTO A STRUCTURE THERE SHALL BE TWO FLEXIBLE JOINTS ADJACENT TO THE STRUCTURE. THE FIRST SHALL BE NOT MORE THAN ONE PIPE DIAMETER FROM THE OUTSIDE FACE OF THE STRUCTURE. THE LENGTH OF THE NEXT PIPE (ROCKER PIPE) SHALL NOT EXCEED 750mm FOR PIPES UP TO 450Ø.
14. SETTING OUT OF ALL SVP's AND RWP's TO ARCHITECTS DETAILS.
15. ALL MANHOLES TO BE SET OUT ON SITE AND CO-ORDINATED WITH PROPOSED AND EXISTING SERVICES PRIOR TO CONSTRUCTION.
16. COVER LEVEL TO BE CO-ORDINATED WITH PROPOSED LANDSCAPING LEVELS.
17. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CARRY OUT SURVEYS AS NECESSARY TO CONFIRM THE EXACT LOCATION AND DEPTH OF EXISTING SERVICES IN ADVANCE OF COMMENCING WORKS TO THEM.
18. IN ADVANCE OF COMMENCEMENT OF HIS WORKS THE CONTRACTOR WILL BE RESPONSIBLE FOR CARRYING OUT A CCTV CONDITION SURVEY OF EXISTING SEWERS IN THE VICINITY OF THE WORKS. A COPY OF THIS SURVEY SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW. THE EXACT EXTENT OF THE SURVEY SHALL BE AGREED WITH THE ENGINEER IN ADVANCE OF COMMENCEMENT AND WILL BE DETERMINED IN PART BY THE CONTRACTORS PROPOSED METHOD OF WORKS.
19. AFTER COMPLETION OF THE WORKS, THE CONTRACTOR WILL BE RESPONSIBLE FOR CARRYING OUT A CCTV CONDITION SURVEY OF EXISTING SEWERS IN THE VICINITY OF THE WORKS TO DEMONSTRATE THAT THE EXISTING SEWERS WERE NOT DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES BY THE CONTRACTOR. ALL NEW SEWERS AND MANHOLES TO BE CCTV SURVEYED AND INSPECTED STRICTLY IN ACCORDANCE WITH CLAUSES 1.8 AND 1.9 OF IRISH WATER'S CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE.
20. ALL MANHOLE COVERS IN TRAFFICKED AREAS TO BE A MINIMUM OF CLASS D400 SOLID TOP COVERS. RECESSED COVERS TO BE PROVIDED IN PAVED LANDSCAPED AREAS. 150mm DEEP E600 MANHOLE COVERS SHALL BE INSTALLED ON HEAVILY TRAFFICKED ROADS IN ACCORDANCE WITH THE REQUIREMENTS SET OUT IN IRISH WATER'S CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE.
21. A QUALITY ASSURANCE FOLDER SHALL BE PREPARED BY THE CONTRACTOR DURING THE CONSTRUCTION WORKS AS SET OUT IN IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE. THIS DOCUMENT SHALL BE UPDATED AS THE CONSTRUCTION WORKS PROGRESS AND SHALL BE MADE AVAILABLE TO IRISH WATER'S REPRESENTATIVE FOR INSPECTION. AS-BUILT RECORDS OF THE WASTEWATER INFRASTRUCTURE INSTALLATION INCLUDING GA LOCATIONS OF EACH JOINT SHALL BE PREPARED BY THE CONTRACTOR DURING THE WORKS. A FINAL AS-BUILT DRAWING IN THE FORMAT SET OUT IN IRISH ATER'S CODE OF PRACTICE SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO IRISH WATER ON COMPLETION OF THE WORKS (CL.1.8). SITE TESTING OF THE INSTALLED WASTEWATER INFRASTRUCTURE SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF IRISH WATER'S CODE OF PRACTICE AND ALL RESULTS SHALL BE COLLATED BY THE CONTRACTOR FOR SUBMISSION TO IRISH WATER AS PART OF THE CONFORMANCE CERTIFICATE APPLICATION PROCESS.

SITE SPECIFIC NOTES:

1. FOR CONTINUATION OF FOUL SEWER RUNS AT LOWER GROUND FLOOR LEVEL, SEE DRG 16031-TJOC-00-XX-DR-C-1069.
2. FOR DETAILS OF FOUL SEWER CONNECTIONS FROM PAROCHIAL HOUSE AND HOLY CROSS CHURCH, SEE DRG 16031-TJOC-00-XX-DR-C-1066.
3. FOR LONGITUDINAL SECTIONS OF PROPOSED SEWERS, SEE DRGS 16031-TJOC-00-XX-DR-C-1071 to 16031-TJOC-00-XX-DR-C-1074

LEGEND	
FOUL DRAINAGE	
PROPOSED PIPE	
PROPOSED RISING MAIN	
EXISTING PIPE	
PROPOSED MANHOLE	
PROPOSED INTERNAL NETWORK (INDICATIVE)	
EXISTING MANHOLE	

HATCH LEGEND	
EXISTING BUILDINGS	
NEW BUILDING EXTENSION	
ROADWAY	
ACCESS	
SIDEWALKS	
LANDSCAPING	
CYCLE LANE	
SITE BOUNDARY (PLANNING BOUNDARY)	
LOWER GROUND RETAINING WALL	

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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TJ O'CONNOR & ASSOCIATES
CONSULTING ENGINEERS
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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT:
DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

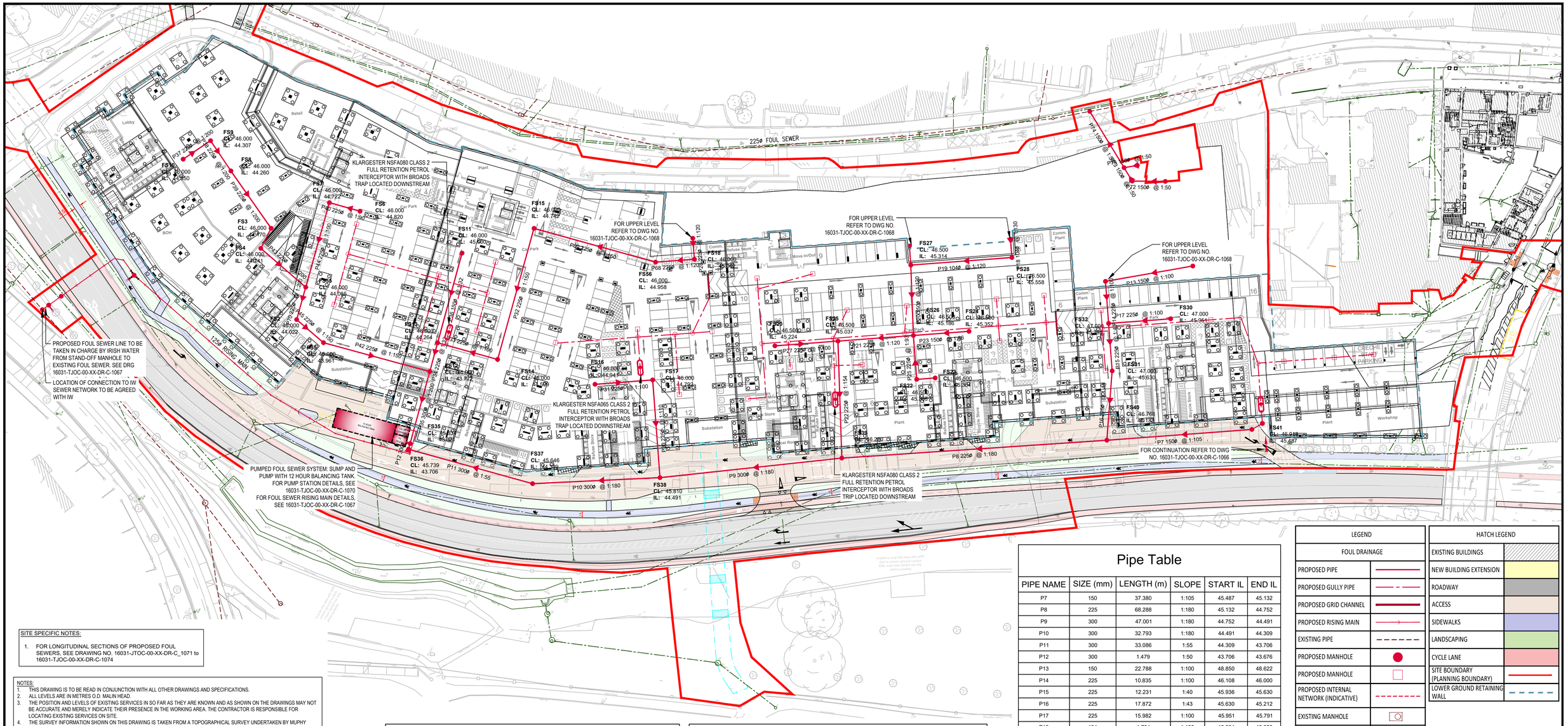
CLIENT:
DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE:
PROPOSED FOUL DRAINAGE LAYOUT-PODIUM

SCALE: 1:500 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1068

REV: C01



SITE SPECIFIC NOTES:

1. FOR LONGITUDINAL SECTIONS OF PROPOSED FOUL SEWERS, SEE DRAWING NO. 16031-JTOC-00-XX-DR-C_1071 to 16031-TJOC-00-XX-DR-C-1074

NOTES:

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4. THE SURVEY INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM A TOPOGRAPHICAL SURVEY UNDERTAKEN BY MUPHY SURVEYS IN MAY 2021, DRAWING REFERENCE MGL41159-T-ITM_REV2.
5. THE CONTRACTOR SHALL INSTALL THE WASTEWATER INFRASTRUCTURE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES "CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE" AND "WASTEWATER INFRASTRUCTURE STANDARD DETAILS" - DOCUMENT REFERENCES IW-CDS-5030-03 AND IW-CDS-5030-01 RESPECTIVELY.
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MANHOLE SCHEDULE

NO.	COVER LEVEL	INVERT LEVEL	TYPE	EASTING	NORTHING
FS-PUMP-OUT	45.961	44.548	PS-OUT	716884.356	728194.797
FS1	45.803	43.671	PS	716881.025	728193.911
FS2	46.000	44.022	A4	716894.318	728234.118
FS3	46.000	44.170	A3	716911.342	728251.536
FS4	46.000	44.141	A3	716905.558	728251.239
FS5	46.000	43.961	A2	716892.623	728225.182
FS6	46.000	44.820	A1	716926.569	728233.922
FS7	46.000	44.722	A3	716924.538	728241.855
FS8	46.000	44.260	A1	716918.942	728267.842
FS9	46.000	44.307	A3	716923.053	728276.254
FS10	46.000	44.350	A1	716915.412	728279.988
FS11	46.000	45.000	A1	716930.369	728205.838
FS12	46.000	43.772	A4	716899.828	728197.801
FS13	46.000	44.264	A4	716907.264	728199.757
FS14	46.000	44.509	A3	716911.260	728184.264
FS15	46.000	44.742	A3	716945.115	728192.996
FS16	46.000	44.941	A1	716918.259	728159.394
FS17	46.000	44.792	A3	716926.633	728147.103
FS18	46.000	45.042	A3	716958.853	728153.328
FS19	50.294	45.087	C1	716963.313	728156.367
FS20	46.500	45.224	A1	716949.945	728124.280
FS21	49.959	45.363	C1	716989.430	728107.172
FS22	46.500	45.308	A3	716960.701	728088.418
FS23	46.500	45.364	A1	716963.379	728084.486
FS24	46.500	45.352	A1	716978.105	728082.944
FS25	46.500	45.037	A3	716959.093	728110.852
FS26	46.500	45.186	A3	716970.041	728094.781

MANHOLE SCHEDULE

NO.	COVER LEVEL	INVERT LEVEL	TYPE	EASTING	NORTHING
FS27	46.500	45.314	A3	716985.372	728104.407
FS28	46.500	45.558	A3	717000.040	728082.876
FS29	49.900	45.594	C1	717003.952	728085.541
FS30	47.000	45.951	A1	717006.807	728039.672
FS31	47.000	45.630	A1	716987.703	728045.994
FS32	47.000	45.791	A3	716997.811	728052.881
FS33	49.900	46.108	B2	717006.765	728058.981
FS34	49.900	48.849	A1	717021.401	728041.515
FS35	45.834	43.671	WW-10B	716881.284	728192.935
FS36	45.739	43.706	A3	716879.853	728192.566
FS37	45.646	44.309	A3	716888.117	728160.528
FS38	45.810	44.491	A3	716905.835	728132.934
FS39	46.250	44.752	A3	716933.553	728094.976
FS40	46.768	45.132	A4	716971.590	728038.262
FS41	46.913	45.487	A4	716992.633	728007.368
FS55	46.000	44.065	A3	716902.680	728236.259
FS56	46.000	44.958	A1	716953.213	728161.605
JUNC-1	45.994	44.525	BEND	716884.792	728193.156
JUNC-2	45.538	44.440	BEND	716878.951	728191.649
JUNC-3	45.330	44.162	BEND	716873.942	728210.845
JUNC-4	45.042	43.912	BEND	716874.199	728230.181
JUNC-5	43.675	43.440	BEND	716885.307	728280.310
MH-AIR	44.834	43.836	WW-18	716869.246	728289.515
SCOUR	44.513	43.300	BEND	716883.289	728275.973
STAND-OFF MH	46.168	42.595	WW-29	716865.650	728291.157
TIE-IN-FS	45.392	42.120	TIE-IN	716863.831	728291.988

Pipe Table

PIPE NAME	SIZE (mm)	LENGTH (m)	SLOPE	START IL	END IL
P7	150	37.380	1:105	45.487	45.132
P8	225	68.288	1:180	45.132	44.752
P9	300	47.001	1:180	44.752	44.491
P10	300	32.793	1:180	44.491	44.309
P11	300	33.086	1:55	44.309	43.706
P12	300	1.479	1:50	43.706	43.676
P13	150	22.788	1:100	48.850	48.622
P14	225	10.835	1:100	46.108	46.000
P15	225	12.231	1:40	45.936	45.630
P16	225	17.872	1:43	45.630	45.212
P17	225	15.982	1:100	45.951	45.791
P18	104	4.734	1:130	45.594	45.558
P19	104	26.052	1:120	45.567	45.350
P20	150	18.102	1:120	45.350	45.199
P21	225	19.445	1:120	45.199	45.037
P22	225	30.072	1:154	45.037	44.842
P23	150	14.324	1:86	45.352	45.186
P24	225	4.758	1:85	45.364	45.308
P25	225	11.302	1:93	45.308	45.186
P26	150	4.910	1:100	45.363	45.314
P27	225	16.248	1:100	45.224	45.061
P28	225	5.396	1:120	45.087	45.042
P30	225	25.166	1:110	44.792	44.563
P31	225	14.872	1:100	44.941	44.792
P32	225	34.963	1:150	44.742	44.509
P33	225	16.001	1:100	44.509	44.349
P34	225	7.689	1:32	44.264	44.026
P35	300	19.171	1:200	43.772	43.676
P36	150	23.892	1:32	45.000	44.264
P37	225	8.505	1:200	44.350	44.307
P38	225	9.363	1:200	44.307	44.260
P39	225	17.990	1:200	44.260	44.170
P40	225	8.189	1:90	44.820	44.729
P42	225	28.313	1:150	43.961	43.772
P43	225	15.254	1:200	44.141	44.065
P44	225	22.563	1:100	44.722	44.496
P45	225	9.096	1:150	44.022	43.961
P65	300	1.010	1:200	43.676	43.671
P68	225	10.016	1:120	45.042	44.958
P69	225	32.419	1:150	44.958	44.742
P70	225	8.632	1:200	44.065	44.022
P71	225	5.792	1:200	44.170	44.141

LEGEND	
FOUL DRAINAGE	
PROPOSED PIPE	
PROPOSED GULLY PIPE	
PROPOSED GRID CHANNEL	
PROPOSED RISING MAIN	
EXISTING PIPE	
PROPOSED MANHOLE	
PROPOSED MANHOLE	
PROPOSED INTERNAL NETWORK (INDICATIVE)	
EXISTING MANHOLE	
FOUL SEWER TO BE TAKEN IN CHARGE BY IRISH WATER	

HATCH LEGEND	
EXISTING BUILDINGS	
NEW BUILDING EXTENSION	
ROADWAY	
ACCESS	
SIDEWALKS	
LANDSCAPING	
CYCLE LANE	
SITE BOUNDARY (PLANNING BOUNDARY)	
LOWER GROUND RETAINING WALL	

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING	30.03.2022
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

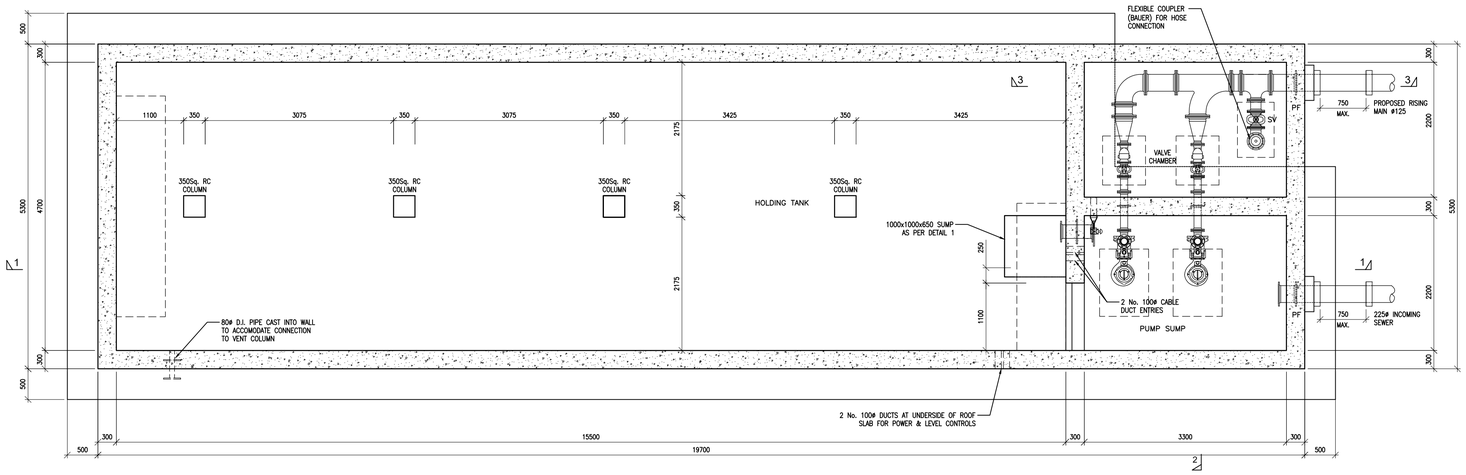
CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED FOUL DRAINAGE LAYOUT-LOWER GROUND FLOOR

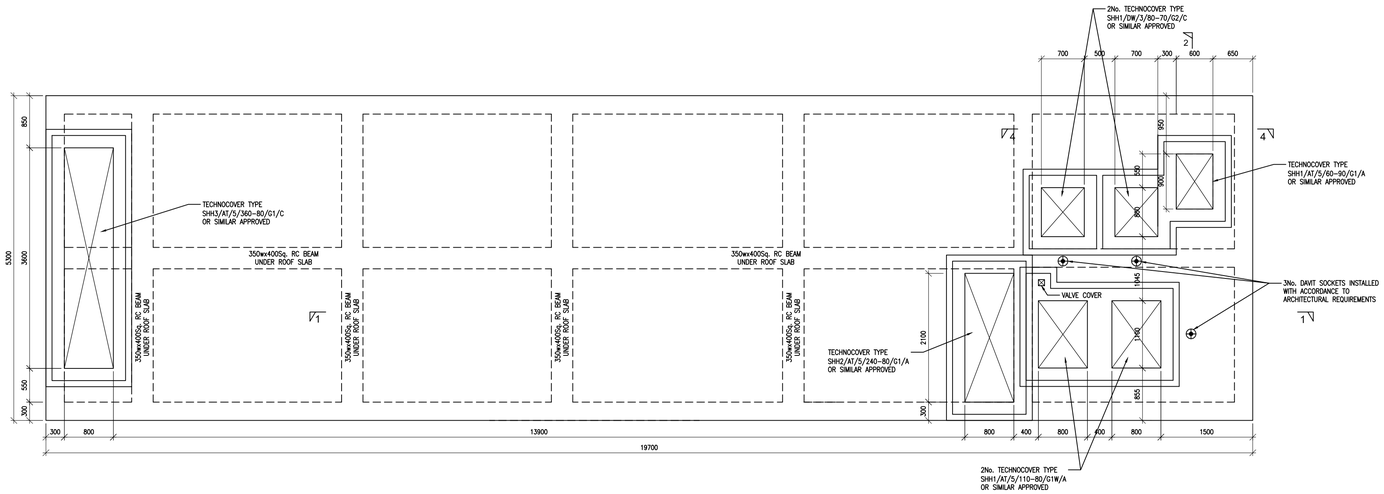
SCALE: 1:500 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1069

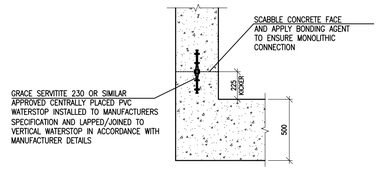
REV: C02



PLAN ON PROPOSED PUMPING STATION AND HOLDING TANK

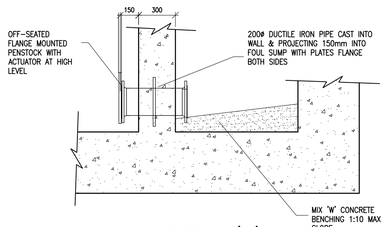


ROOF PLAN



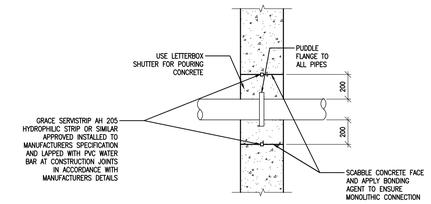
TYPICAL WATERSTOP DETAIL AT CONSTRUCTION JOINT

(SCALE 1:25)



DETAIL '1'

SCALE 1:25



TYPICAL CONCRETE INFILL DETAIL AT SERVICE PENETRATION

(SCALE 1:25)

NOTES:

1.) THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND SPECIFICATIONS.

2.) ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

3.) ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM (mA.O.D.) MALIN HEAD DATUM.

4.) FOR SITE LAYOUT PLAN REFER TO DRG. No. 16031-TJOC-00-XX-DR-C-1069

5.) FOUL PUMPS SHALL BE 2No. WITH GUIDE RAIL, BRACKETS CABLING, CUT IN CUT OUT AND HIGH LEVEL CONTROLS AS PER SPECIFICATION. PUMP SPECIFICATION TO BE CONFIRMED

6.) PASSIVE VENT STACK PER IW STANDARD DETAIL DRG STD-WW-34

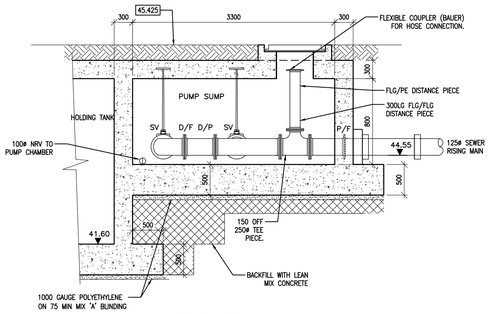
7.) PENSTOCK SHALL BE FLANGE MOUNTED SUITABLE FOR OFF-SEATING HEAD AS PER HAM BAKER SERIES 60 OR SIMILAR WITH OPEN TOP FRAME AND 225mm DIA CPE COMPLETE WITH SPINDLE, FASTENERS, FIXING BOLTS AND NON RISING STEM. INLET PENSTOCK SHALL BE MANUAL TYPE. HOLDING TANK LOW LEVEL RETURN PENSTOCK SHALL HAVE AN ACTUATOR LINKED TO PROBES

8.) DAVIT SOCKETS SHALL BE CAST IN AND SHALL BE AS PER PUMP MANUFACTURERS RECOMMENDATIONS IN RESPECT OF SWL FOR TYPICAL DETAILS DRAWING No. 2581-C107. ALL LIFTING DAVITS SHALL BE LOAD TESTED PRIOR TO HANDOVER.

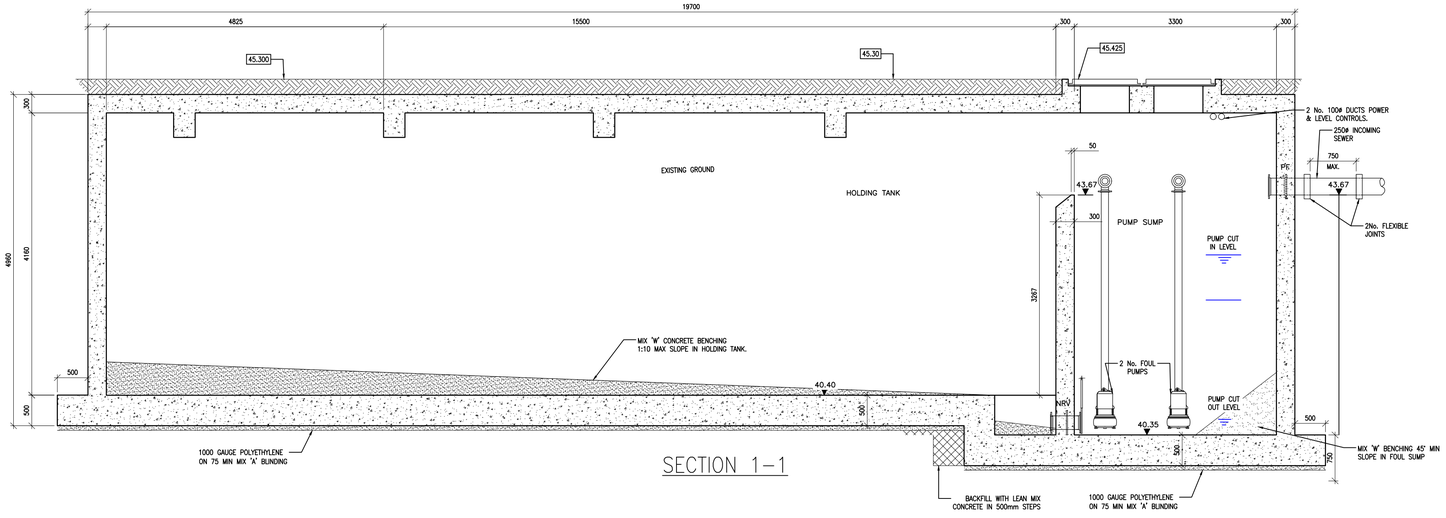
9). ALL MANHOLE COVERS SHALL BE GALVANISED MILD STEEL AS MANUFACTURED BY TECHNOCOVER OR SIMILAR APPROVED WITH RAISED COVERS IN GRASS AREAS AND C230 COVERS IN TRAFFIC AREAS AS PER TYPICAL DETAILS ON DRG No. 2581-C106

10). FOR DETAILS OF CONTROL KIOSK FOR PUMP CONTROLS SEE IW STANDARD DETAIL DRGS STD-WW-30A AND STD-WW-31.

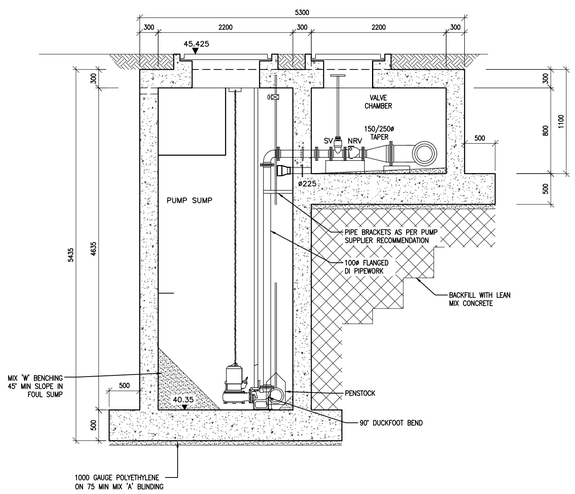
11.) PUMP SUMP TO BE VENTED TO VENT STACK AS PER IW-STD-WW-34. AIR FROM SUMP AND OVERFLOW HOLDING TANK WILL BE MECHANICALLY VENTILATED TO EXTERNAL ODOR CONTROL UNIT WHEN ACCESS COVERS ARE OPEN



SECTION 3-3



SECTION 1-1



SECTION 2-2

LEGEND:

ABBREVIATIONS:

SV	SLUICE VALVE
NRV	NON RETURN VALVE
P/F	PUDDLE FLANGE PIPE
D/P	DISTANCE PIECE
D/F D/P	DOUBLE FLANGED DISTANCE PIECE
F/PE D/P	FLANGED/PLAIN ENDED DISTANCE PIECE

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING	30.03.2022
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: FOUL PUMPING STATION LAYOUT

SCALE: 1:50 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1070

REV: C02

	FS41		FS40		FS39		FS38		
COVER LEVEL	46.913		46.768		46.250		45.810		
INVERT LEVEL	45.487		45.132 / 45.132		44.752 / 44.752		44.491 / 44.491		44.309
CHAINAGE	0.000		37.380		105.668		152.669		
PIPE DIAMETER AND GRADIENT		P7 150Ø @ 1:105		P8 225Ø @ 1:180		P9 300Ø @ 1:180		P10 300Ø @ 1:180	
PIPE MATERIAL		uPVC		uPVC		uPVC		uPVC	
MANHOLE TYPE:	A4		A4		A3		A3		
BEDDING AND SURROUND	CLASS E								

FOUL DRAINAGE - FS41 - FS35

SCALE: 1:250 H,1:50 V

			FS37		FS36				FS35
COVER LEVEL			45.646		45.739		45.834		45.803
INVERT LEVEL	44.491		44.309 / 44.309		43.706		43.706 / 43.676		
CHAINAGE			185.463		218.549		220.028		221.037
PIPE DIAMETER AND GRADIENT		P10 300Ø @ 1:180		P11 300Ø @ 1:55		P12 300Ø @ 1:50			
PIPE MATERIAL		uPVC		uPVC		uPVC			
MANHOLE TYPE:			A3		WW-		PS		
BEDDING AND SURROUND	CLASS E								

FOUL DRAINAGE -FS39 - FS35

SCALE: 1:250 H,1:50 V

	FS50		FS51		FS52		FS53
COVER LEVEL	53.718		53.548		53.466		52.742
INVERT LEVEL	52.500		52.330 / 52.330		52.249 / 52.249		51.911
CHAINAGE	0.000		8.503				29.470
PIPE DIAMETER AND GRADIENT		P72 150Ø @ 1:50		P73 150Ø @ 1:50		P74 150Ø @ 1:50	
PIPE MATERIAL		uPVC		uPVC		uPVC	
MANHOLE TYPE:	A1		A3		A3		A4
BEDDING AND SURROUND	CLASS E						

FOUL DRAINAGE - FS50 - FS53

SCALE: 1:250 H,1:50 V

NOTES:

1. FOR PLAN OF PROPOSED FOUL DRAINAGE LAYOUT, SEE DRAWINGS 16031-TJOC-00-XX-DR-C-1068 AND 16031-TJOC-00-XX-DR-C-1069
2. FOR REMAINING LONGITUDINAL SECTIONS THROUGH PROPOSED FOUL DRAINAGE, SEE DRAWINGS 16031-TJOC-00-XX-DR-C-1072 TO 16031-TJOC-00-XX-DR-C-1074
3. FOR GENERAL NOTES IN RESPECT OF PROPOSED FOUL DRAINAGE LAYOUT, SEE DRAWING 16031-TJOC-00-XX-DR-C-1069

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING	30.03.2022
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

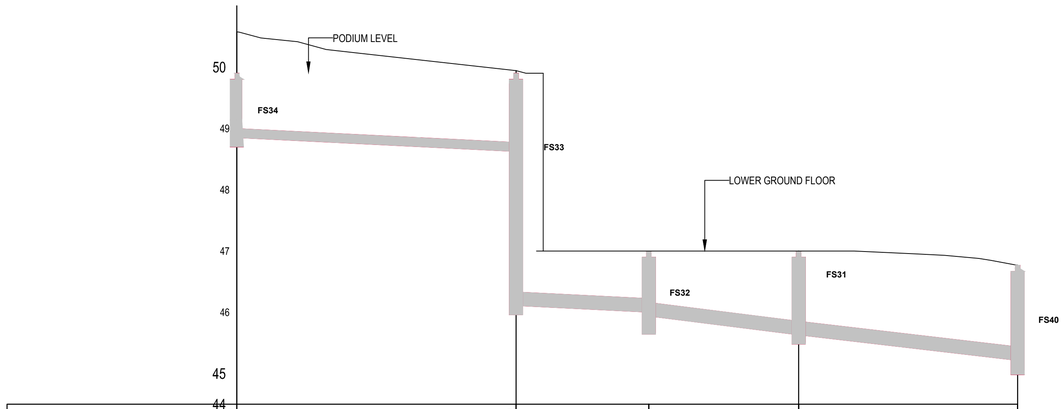
DRAWING TITLE: PROPOSED SEWER LONGITUDINAL SECTIONS (1 of 4)

SCALE: AS SHOWN (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER

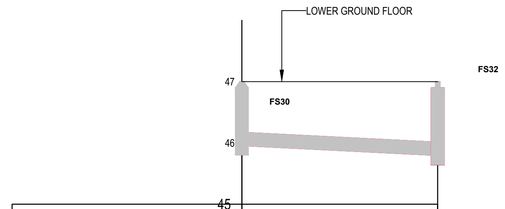
16031-TJOC-00-XX-DR-C-1071

REV: C02



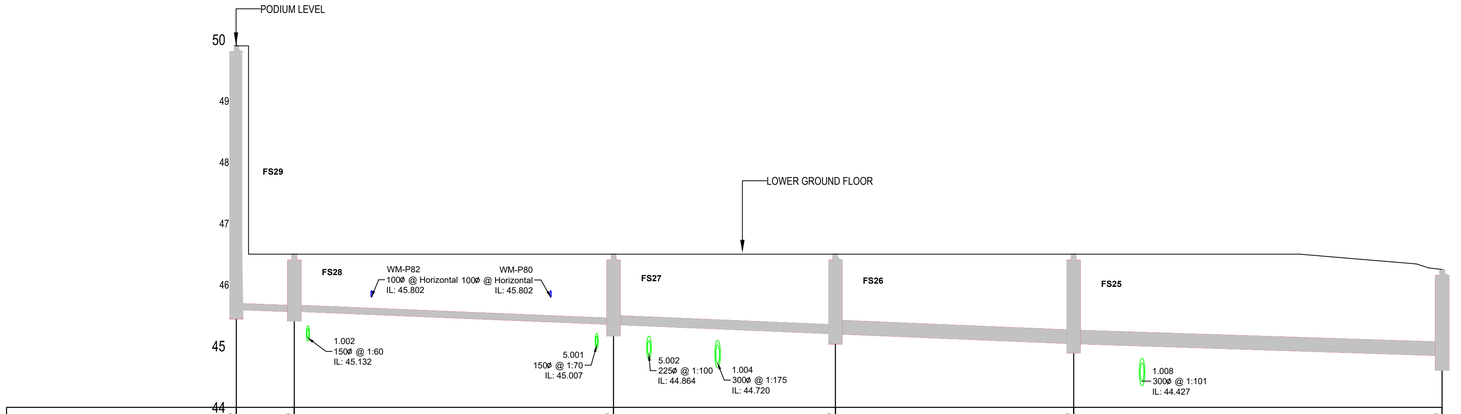
COVER LEVEL	49.900	49.900	47.000	47.000	46.768
INVERT LEVEL	48.850	48.622 46.108	46.000 45.938	45.630 45.630	45.212
CHAINAGE	0.000	22.788		45.854	63.726
PIPE DIAMETER AND GRADIENT	P13 150Ø @ 1:100	P14 225Ø @ 1:100	P15 225Ø @ 1:40	P16 225Ø @ 1:43	
PIPE MATERIAL	uPVC	uPVC	uPVC	uPVC	
MANHOLE TYPE:	A1	B2	A3	A1	A4
BEDDING AND SURROUND	CLASS E				

FOUL DRAINAGE - FS34 - FS40
SCALE: 1:250 H,1:50 V



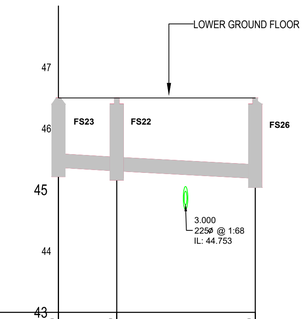
COVER LEVEL	47.000	47.000	47.000
INVERT LEVEL	45.961	45.791	
CHAINAGE	0.000	15.982	
PIPE DIAMETER AND GRADIENT	P17 225Ø @ 1:100		
PIPE MATERIAL	uPVC		
MANHOLE TYPE:	A1	A3	
BEDDING AND SURROUND	CLASS E		

FOUL DRAINAGE - FS30 - FS32
SCALE: 1:250 H,1:50 V



COVER LEVEL	49.900	49.500	46.500	46.500	46.500	46.250
INVERT LEVEL	45.584	45.565 45.567	45.350 45.350	45.189 45.189	45.007 45.007	44.842
CHAINAGE	0.000	4.734	30.786	46.889	68.334	98.405
PIPE DIAMETER AND GRADIENT	P18 104Ø @ 1:130	P19 104Ø @ 1:120	P20 150Ø @ 1:120	P21 225Ø @ 1:120	P22 225Ø @ 1:154	
PIPE MATERIAL	uuPVC	uuPVC	uPVC	uPVC	uPVC	
MANHOLE TYPE:	C1	A3	A3	A3	A3	A3
BEDDING AND SURROUND	CLASS E					

FOUL DRAINAGE - FS29 - FS39
SCALE: 1:250 H,1:50 V



COVER LEVEL	46.500	46.500	46.500	46.500
INVERT LEVEL	45.364	45.309 45.309	45.186	
CHAINAGE	0.000	4.758	16.059	
PIPE DIAMETER AND GRADIENT	P24 225Ø @ 1:85	P25 225Ø @ 1:93		
PIPE MATERIAL	uPVC	uPVC		
MANHOLE TYPE:	A1	A3	A3	
BEDDING AND SURROUND	CLASS E			

FOUL DRAINAGE - FS23 - FS26
SCALE: 1:250 H,1:50 V

NOTES:

1. FOR PLAN OF PROPOSED FOUL DRAINAGE LAYOUT, SEE DRAWINGS 16031-TJOC-00-XX-DR-C-1068 AND 16031-TJOC-00-XX-DR-C-1069
2. FOR REMAINING LONGITUDINAL SECTIONS THROUGH PROPOSED FOUL DRAINAGE, SEE DRAWINGS 16031-TJOC-00-XX-DR-C-1071, 16031-TJOC-00-XX-DR-C-1073 & 16031-TJOC-00-XX-DR-C-1074
3. FOR GENERAL NOTES IN RESPECT OF PROPOSED FOUL DRAINAGE LAYOUT, SEE DRAWING 16031-TJOC-00-XX-DR-C-1069

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

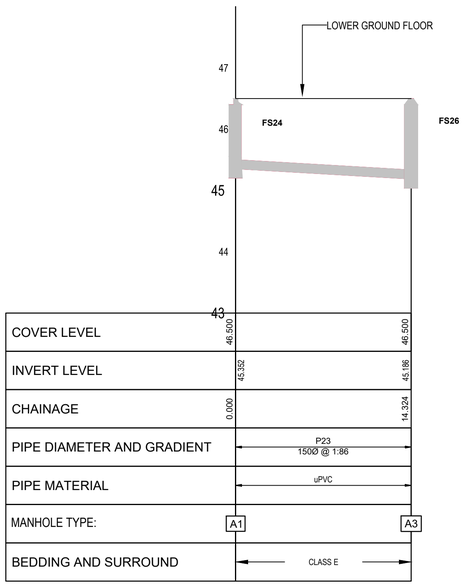
PROJECT:
DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT:
DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE:
PROPOSED SEWER LONGITUDINAL SECTIONS (2 of 4)

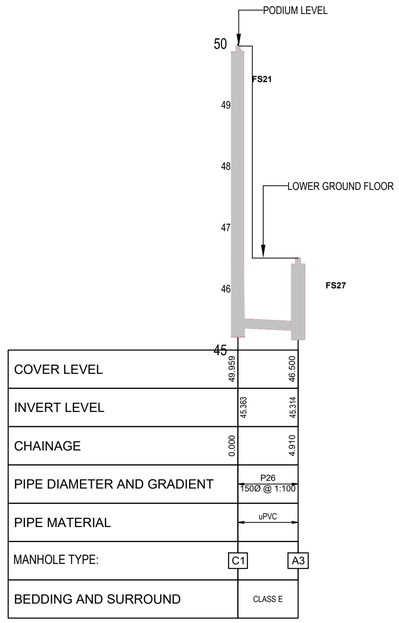
SCALE: AS SHOWN (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER	REV:
16031-TJOC-00-XX-DR-C-1072	C01



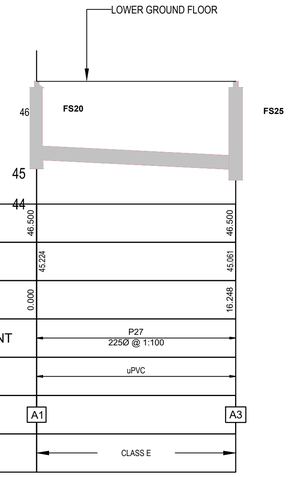
COVER LEVEL	46.500	46.500
INVERT LEVEL	45.352	45.186
CHAINAGE	0.000	14.324
PIPE DIAMETER AND GRADIENT	P23 150Ø @ 1:86	
PIPE MATERIAL	uPVC	
MANHOLE TYPE:	A1	A3
BEDDING AND SURROUND	CLASS E	

FOUL DRAINAGE - FS24 - FS26
SCALE: 1:250 H,1:50 V



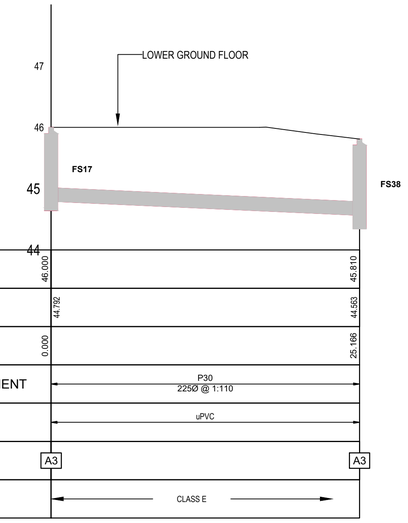
COVER LEVEL	49.969	46.500
INVERT LEVEL	45.583	45.314
CHAINAGE	0.000	4.910
PIPE DIAMETER AND GRADIENT	P26 150Ø @ 1:100	
PIPE MATERIAL	uPVC	
MANHOLE TYPE:	C1	A3
BEDDING AND SURROUND	CLASS E	

FOUL DRAINAGE - FS21 - FS27
SCALE: 1:250 H,1:50 V



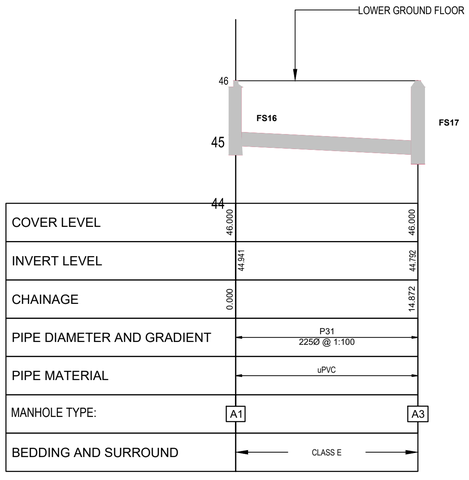
COVER LEVEL	46.500	46.500
INVERT LEVEL	45.224	45.061
CHAINAGE	0.000	16.248
PIPE DIAMETER AND GRADIENT	P27 225Ø @ 1:100	
PIPE MATERIAL	uPVC	
MANHOLE TYPE:	A1	A3
BEDDING AND SURROUND	CLASS E	

FOUL DRAINAGE - FS20 - FS25
SCALE: 1:250 H,1:50 V



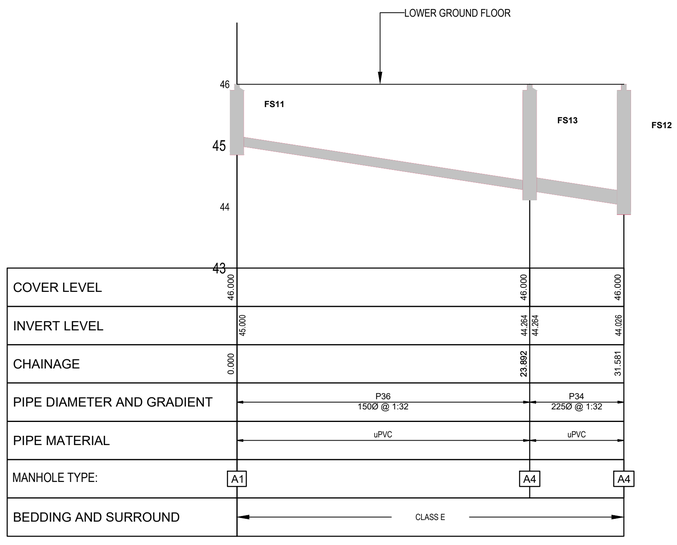
COVER LEVEL	46.000	45.810
INVERT LEVEL	44.792	44.583
CHAINAGE	0.000	25.166
PIPE DIAMETER AND GRADIENT	P30 225Ø @ 1:110	
PIPE MATERIAL	uPVC	
MANHOLE TYPE:	A3	A3
BEDDING AND SURROUND	CLASS E	

FOUL DRAINAGE - FS17 - FS38
SCALE: 1:250 H,1:50 V



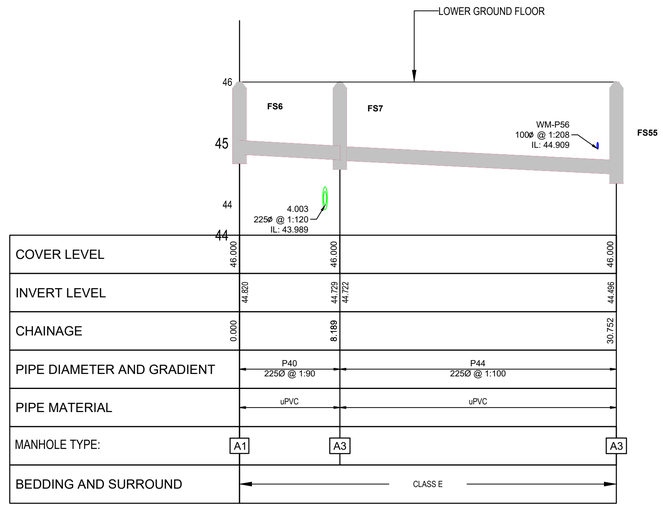
COVER LEVEL	46.000	46.000
INVERT LEVEL	44.941	44.792
CHAINAGE	0.000	14.872
PIPE DIAMETER AND GRADIENT	P31 225Ø @ 1:100	
PIPE MATERIAL	uPVC	
MANHOLE TYPE:	A1	A3
BEDDING AND SURROUND	CLASS E	

FOUL DRAINAGE - FS16 - FS17
SCALE: 1:250 H,1:50 V



COVER LEVEL	46.000	46.000	46.000
INVERT LEVEL	45.000	44.264	44.026
CHAINAGE	0.000	23.882	31.581
PIPE DIAMETER AND GRADIENT	P36 150Ø @ 1:32	P34 225Ø @ 1:32	
PIPE MATERIAL	uPVC	uPVC	
MANHOLE TYPE:	A1	A4	A4
BEDDING AND SURROUND	CLASS E		

FOUL DRAINAGE - FS11 - FS12
SCALE: 1:250 H,1:50 V



COVER LEVEL	46.000	46.000	46.000
INVERT LEVEL	44.620	44.720 44.722	44.486
CHAINAGE	0.000	8.189	30.752
PIPE DIAMETER AND GRADIENT	P40 225Ø @ 1:90	P44 225Ø @ 1:100	
PIPE MATERIAL	uPVC	uPVC	
MANHOLE TYPE:	A1	A3	A3
BEDDING AND SURROUND	CLASS E		

FOUL DRAINAGE - FS6 - MH76
SCALE: 1:250 H,1:50 V

NOTES:

1. FOR PLAN OF PROPOSED FOUL DRAINAGE LAYOUT, SEE DRAWINGS 16031-TJOC-00-XX-DR-C-1068 AND 16031-TJOC-00-XX-DR-C-1069
2. FOR REMAINING LONGITUDINAL SECTIONS THROUGH PROPOSED FOUL DRAINAGE, SEE DRAWINGS 16031-TJOC-00-XX-DR-C-1071, 16031-TJOC-00-XX-DR-C-1072 & 16031-TJOC-00-XX-DR-C-1074
3. FOR GENERAL NOTES IN RESPECT OF PROPOSED FOUL DRAINAGE LAYOUT, SEE DRAWING 16031-TJOC-00-XX-DR-C-1069

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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PROJECT:
DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

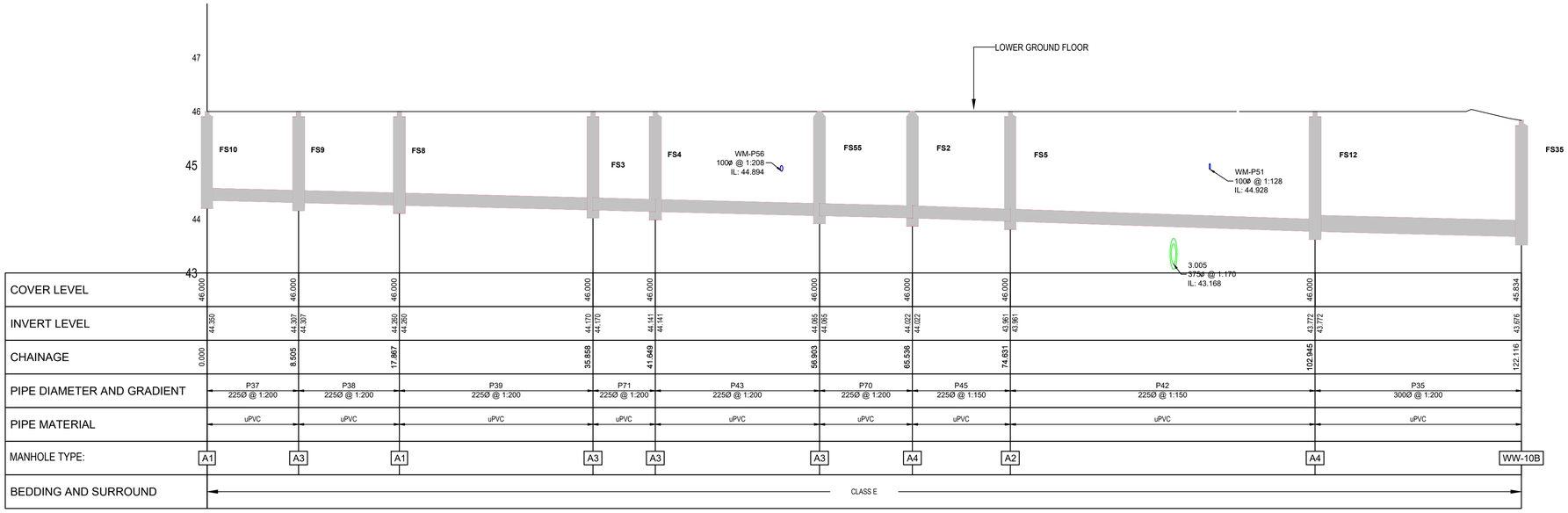
CLIENT:
DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE:
PROPOSED SEWER LONGITUDINAL SECTIONS (3 of 4)

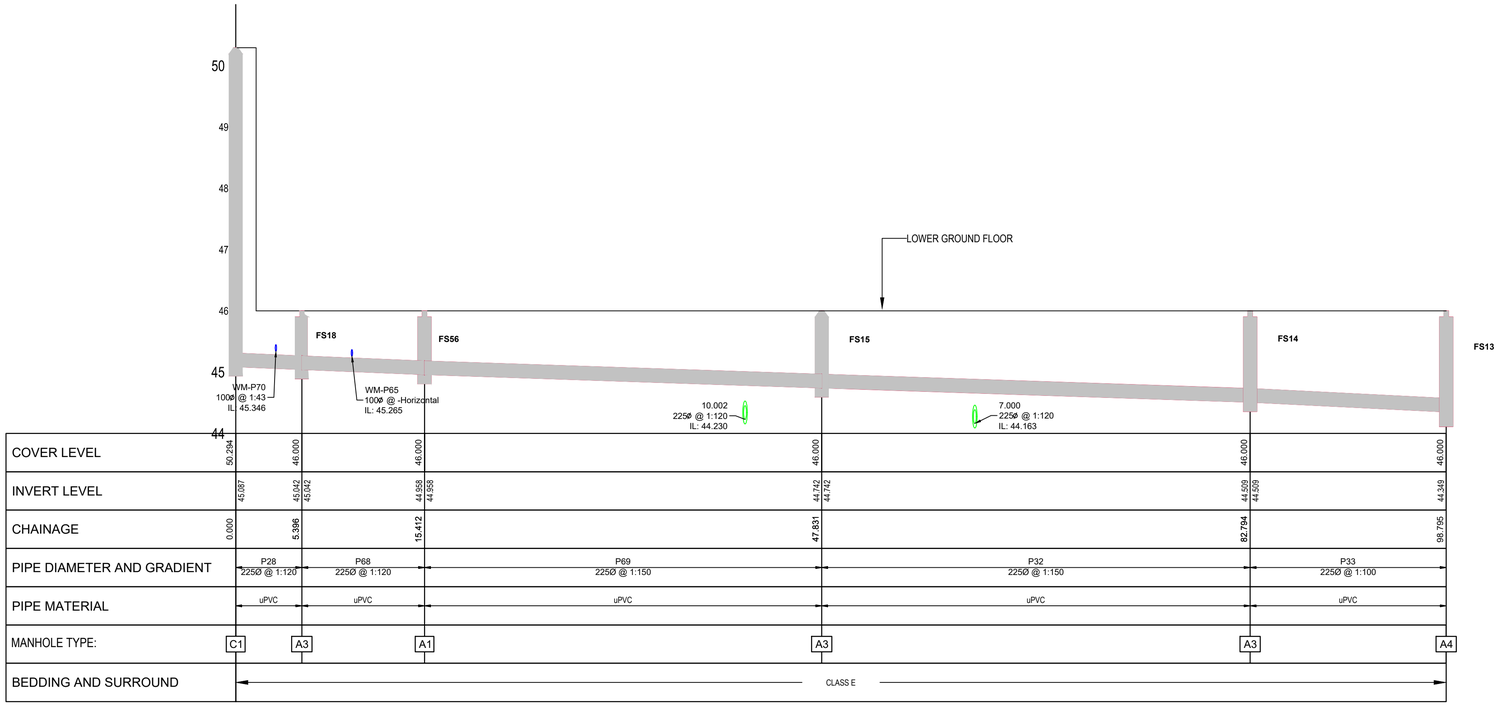
SCALE: AS SHOWN (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1073

REV: C01



FOUL DRAINAGE - FS10 - FS35
SCALE: 1:250 H,1:50 V



FOUL DRAINAGE - FS19 - FS13
SCALE: 1:250 H,1:50 V

NOTES:

1. FOR PLAN OF PROPOSED FOUL DRAINAGE LAYOUT, SEE DRAWINGS 16031-TJOC-00-XX-DR-C-1068 AND 16031-TJOC-00-XX-DR-C-1069
2. FOR REMAINING LONGITUDINAL SECTIONS THROUGH PROPOSED FOUL DRAINAGE, SEE DRAWINGS 16031-TJOC-00-XX-DR-C-1071 TO 16031-TJOC-00-XX-DR-C-1073
3. FOR GENERAL NOTES IN RESPECT OF PROPOSED FOUL DRAINAGE LAYOUT, SEE DRAWING 16031-TJOC-00-XX-DR-C-1069

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING	30.03.2022
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

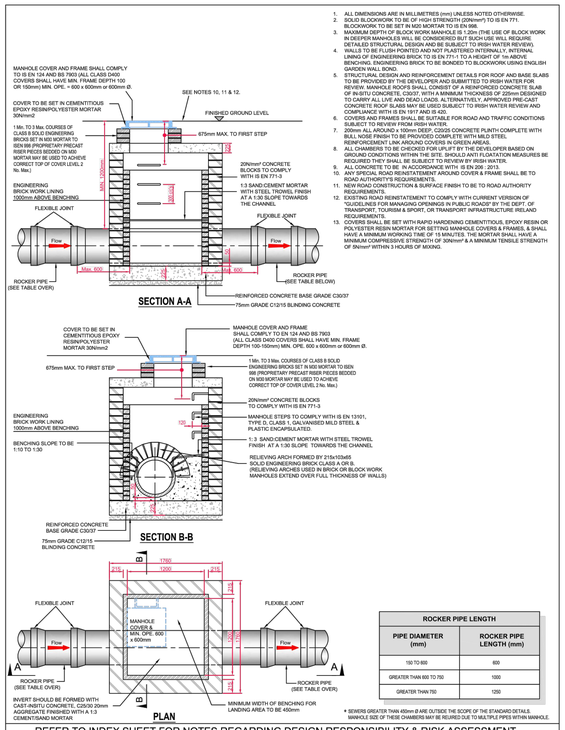
CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED SEWER LONGITUDINAL SECTIONS (4 of 4)

SCALE: AS SHOWN (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1074

REV: C02



1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. SOLID BLOCKWORK TO BE OF IRISH STRENGTH (20N/mm²) TO IS EN 771 BLOCKWORK TO BE SET IN M20 MORTAR TO IS EN 998.
3. MAXIMUM DEPTH OF BLOCKWORK 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 IS EN 1316 AND IS 420.
6. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY IRISH WATER.
7. 200mm ALL AROUND x 150mm DEEP, C25/25 CONCRETE PLINTH COMPLETE WITH BULL NOSE FINISH SHALL BE PROVIDED COMPLETE WITH MILD STEEL REINFORCEMENT LINK 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 COVERS & 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.
13. COVERS SHALL BE SET WITH RAPID HARDENING CEMENTITIOUS, EPOXY RESIN OR POLYESTER RESIN MORTAR FOR SETTING MANHOLE COVERS & FRAMES, & SHALL HAVE A MINIMUM WORKING TIME OF 15 MINUTES. THE MORTAR SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 30N/mm² & A MINIMUM TENSILE STRENGTH OF 5N/mm² WITHIN 3 HOURS OF MIXING.

ROCKER PIPE LENGTH	
PIPE DIAMETER (mm)	ROCKER PIPE LENGTH (mm)
150 TO 600	600
GREATER THAN 600 TO 750	1000
GREATER THAN 750	1250

* SEWERS GREATER THAN 400mm Ø ARE OUTSIDE THE SCOPE OF THE STANDARD DETAILS. MANHOLE SIZE OF THESE CHAMBERS MAY BE REQUIRED DUE TO MULTIPLE PIPES WITHIN MANHOLE.

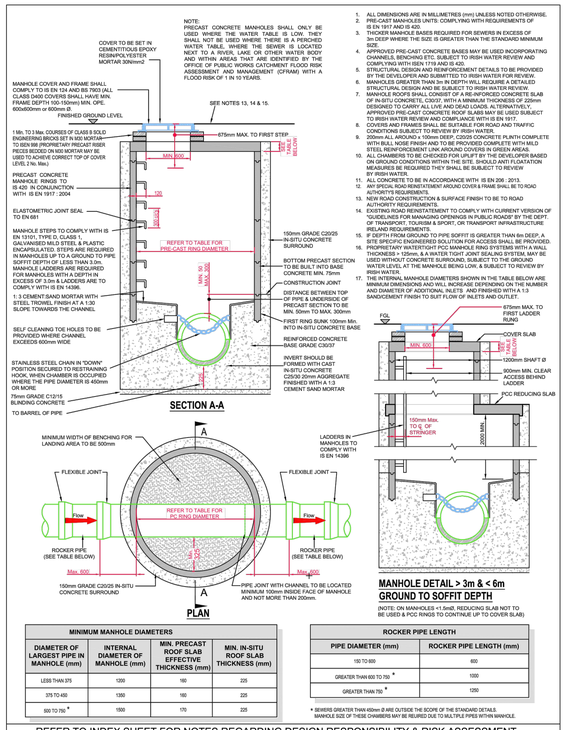
REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE EIREANN : IRISH WATER	3	07/20	RH	TOC	Bedding Mortar notes revised & notes updated	WD	
	2	11/17	JMC	TOC	Added rocker pipe table, added & updated notes	WD	
	1	08/16	JMC	TOC	Added steps & revised access ope & cover notes	WD	
	0	09/15	JMC	TOC	Initial Issue	SL	
	No.	Date	Drn	Chk	Description	App.	

STANDARD DETAILS - WASTEWATER

TITLE: BLOCKWORK MANHOLE (< 450mm DIA.)

SCALE: NOT TO SCALE | DATE: SEPT. 2015 | DRAWING No.: STD-WW-09 | REV: 3



MINIMUM MANHOLE DIAMETERS			
DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIAMETER OF MANHOLE (mm)	MIN. PRECAST ROOF SLAB EFFECTIVE THICKNESS (mm)	MIN. IN-SITU ROOF SLAB THICKNESS (mm)
LESS THAN 375	1200	160	225
375 TO 450	1350	160	225
600 TO 750 *	1500	170	225

ROCKER PIPE LENGTH	
PIPE DIAMETER (mm)	ROCKER PIPE LENGTH (mm)
150 TO 600	600
GREATER THAN 600 TO 750 *	1000
GREATER THAN 750 *	1250

* SEWERS GREATER THAN 400mm Ø ARE OUTSIDE THE SCOPE OF THE STANDARD DETAILS. MANHOLE SIZE OF THESE CHAMBERS MAY BE REQUIRED DUE TO MULTIPLE PIPES WITHIN MANHOLE.

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

(NOTE: ON MANHOLES > 1.5m SHAFT DIMENSION, REDUCING SLAB NOT TO BE USED & SHAFT TO CONTINUE UP TO COVER SLAB)

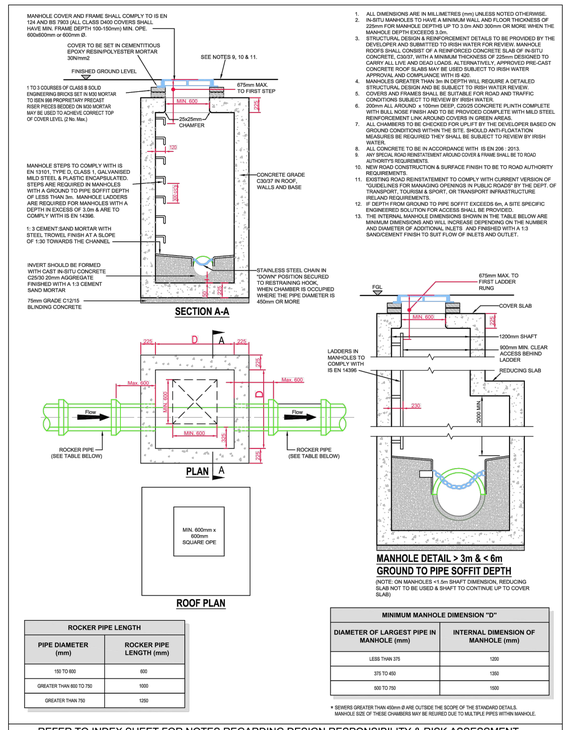
REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE EIREANN : IRISH WATER	3	07/20	RH	TOC	Notes Updated	WD	
	2	11/17	JMC	TOC	Added rocker pipe table, deep manhole detail, added & updated notes	WD	
	1	08/16	JMC	TOC	Added steps & revised access ope & cover notes	WD	
	0	09/15	JMC	TOC	Initial Issue	SL	
	No.	Date	Drn	Chk	Description	App.	

STANDARD DETAILS - WASTEWATER

TITLE: PRE-CAST CONCRETE MANHOLE WITH CAST IN-SITU BASE

SCALE: NOT TO SCALE | DATE: SEPT. 2015 | DRAWING No.: STD-WW-10 | REV: 3



ROCKER PIPE LENGTH	
PIPE DIAMETER (mm)	ROCKER PIPE LENGTH (mm)
150 TO 600	600
GREATER THAN 600 TO 750	1000
GREATER THAN 750	1250

MINIMUM MANHOLE DIMENSION "D"	
DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIMENSION OF MANHOLE (mm)
LESS THAN 375	1200
375 TO 450	1350
500 TO 750	1500

* SEWERS GREATER THAN 400mm Ø ARE OUTSIDE THE SCOPE OF THE STANDARD DETAILS. MANHOLE SIZE OF THESE CHAMBERS MAY BE REQUIRED DUE TO MULTIPLE PIPES WITHIN MANHOLE.

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)

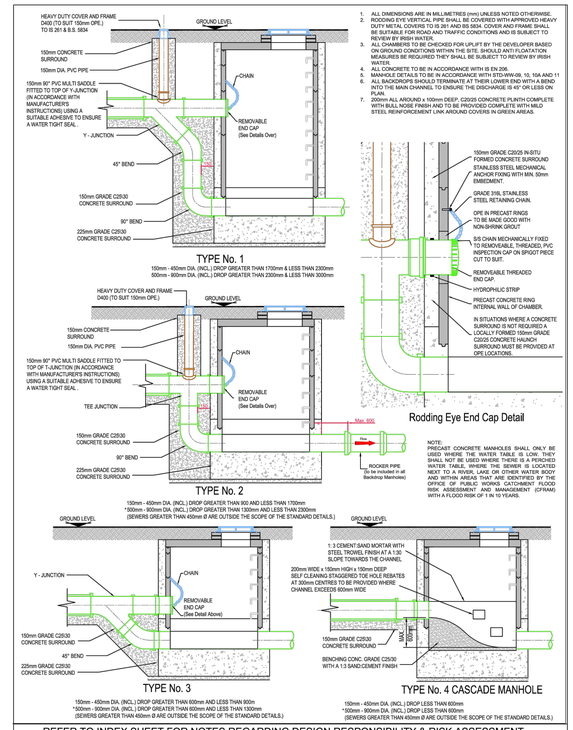
REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE EIREANN : IRISH WATER	3	07/20	RH	TOC	Notes Updated	WD	
	2	11/17	JMC	TOC	Added rocker pipe table, deep manhole detail, added & updated notes	WD	
	1	08/16	JMC	TOC	Added steps & revised access ope & cover notes	WD	
	0	09/15	JMC	TOC	Initial Issue	SL	
	No.	Date	Drn	Chk	Description	App.	

STANDARD DETAILS - WASTEWATER

TITLE: IN-SITU CONCRETE MANHOLE

SCALE: NOT TO SCALE | DATE: SEPT. 2015 | DRAWING No.: STD-WW-11 | REV: 3



REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

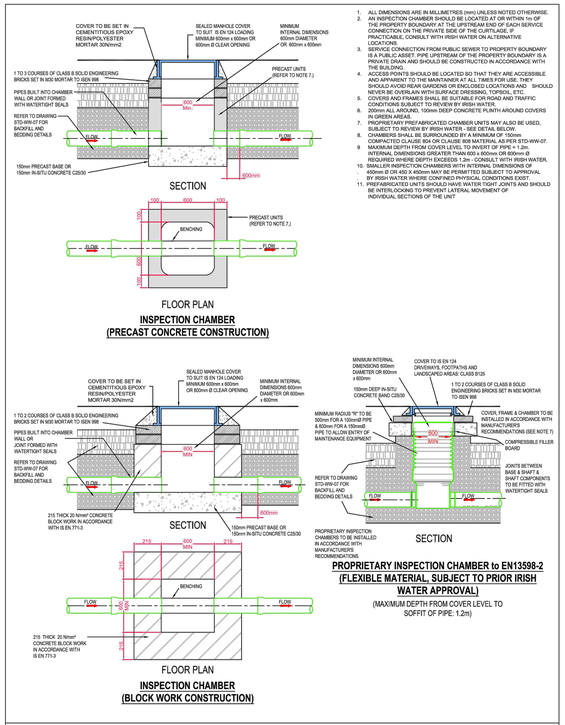
UISCE EIREANN : IRISH WATER	3	07/20	RH	TOC	Cascade manhole Type 4 added, end cap detail added, notes updated, title updated	WD	
	2	11/17	JMC	TOC	Updated notes	WD	
	1	08/16	JMC	TOC	Added steps	WD	
	0	09/15	JMC	TOC	Initial Issue	SL	
	No.	Date	Drn	Chk	Description	App.	

STANDARD DETAILS - WASTEWATER

TITLE: BACKDROP AND CASCADE MANHOLES

SCALE: NOT TO SCALE | DATE: SEPT. 2015 | DRAWING No.: STD-WW-12 | REV: 3

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. SERVICE CONNECTION FROM PUBLIC SEWER TO PROPERTY BOUNDARY IS A PUBLIC ASSET. PIPE UPSTREAM OF THE PROPERTY BOUNDARY IS A PRIVATE DRAIN AND SHOULD BE CONSTRUCTED IN ACCORDANCE WITH THE BUILDING.
4. ACCESS POINTS SHOULD BE LOCATED SO THAT THEY ARE ACCESSIBLE AND APPARENT TO THE MAINTAINER AT ALL TIMES FOR USE. THEY SHOULD NOT BE LOCATED IN GARAGES OR RECESSED LOCATIONS AND 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 - SEE NOTE BELOW.
8. BENCHING TO BE FORMED IN SURROUNDING CONCRETE OR IN COMPACTED CLASE 804 OR CLAUSE 808 MATERIAL AS PER STD-WW-07.
9. MAXIMUM DEPTH FROM COVER LEVEL TO INVERT OF PIPE = 1.2m. INTERNAL DIMENSIONS GREATER THAN 600 x 600mm OR 600mm Ø REQUIRED WHERE DEPTH EXCEEDS 1.2m - CONSULT WITH IRISH WATER.
10. SMALLER INSPECTION CHAMBERS WITH INTERNAL DIMENSIONS OF 450mm Ø OR 450 X 450mm MAY BE PERMITTED SUBJECT TO APPROVAL BY IRISH WATER WHERE CONFINED PHYSICAL CONDITIONS EXIST.
11. PREFABRICATED UNITS SHOULD HAVE WATER TIGHT JOINTS AND SHOULD BE INTERLOCKING TO PREVENT LATERAL MOVEMENT OF INDIVIDUAL SECTIONS OF THE UNIT



NOTE:
STANDARD DETAILS TAKEN FROM IRISH WATER DOCUMENT IW-CDS-5030-01 REV 02.
REFER TO LATEST REVISION OF THIS DOCUMENT FOR CONSTRUCTION DETAILS.

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE EIREANN : IRISH WATER	3	07/20	RH	TOC	Added Flexible Material I.C.D. Detail, Updated Notes	WD	
	2	11/17	JMC	TOC	Updated notes	WD	
	1	08/16	JMC	TOC	Added Cl. 808 to note 8	WD	
	0	09/15	JMC	TOC	Initial Issue	SL	
	No.	Date	Drn	Chk	Description	App.	

STANDARD DETAILS - WASTEWATER

TITLE: PRIVATE SIDE INSPECTION CHAMBER

SCALE: NOT TO SCALE | DATE: SEPT. 2015 | DRAWING No.: STD-WW-13 | REV: 3

C01	AP	ISSUED FOR PLANNING	25.03.2022
REV	SUIT	DESCRIPTION	DATE

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
GD	DC	DC

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PROJECT: Dundrum Village – Strategic Housing Development

CLIENT: Dundrum Retail GP DAC (acting for and on behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: WATER INFRASTRUCTURE STANDARD DETAILS
STANDARD MANHOLE DETAILS

SCALE: NTS (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-XX-XX-DR-C-1075

REV: C01

NEW PE - EXISTING AC / CI / uPVC (SAME SIZE AS NEW)

NEW PE - EXISTING AC / CI / uPVC (DIFFERENT SIZE TO NEW)

NEW PE - EXISTING DI

NEW DI - EXISTING AC / CI / uPVC

NEW DI - EXISTING DI

NEW PE - EXISTING PE

NEW DI - EXISTING PE

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. ALL BENDS, TEES, DEAD ENDS, ETC. OF PIPELINES TO BE ADEQUATELY RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-W-28. THRUST BLOCKS NOT SHOWN FOR CLARITY.
3. BUTT FUSION WELDING AND ELECTRO FUSION JOINTING OF PIPES SHALL ONLY BE CARRIED OUT BY TRAINED OPERATIVES IN POSSESSION OF A CURRENT TRAINING CERTIFICATE, USING FULLY AUTOMATIC APPROVED JOINTING MACHINE/RIGS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. THE IDENTITY OF THE PE PIPELINE MANUFACTURER SHALL BE MADE KNOWN TO IRISH WATER PRIOR TO COMMENCEMENT OF THE INSTALLATION. CERTIFICATION AND TESTING (INCLUDING INDEPENDENT THIRD PARTY CERTIFICATION) SHALL BE PROVIDED TO CONFIRM QUALITY ASSURANCE COMPLIANCE. EACH JOINT SHALL BE CLEARLY MARKED WITH THE JOINT LOGGED AUTOMATICALLY ON THE JOINTING MACHINE. A PRINTOUT OF THE JOINT DETAILS, WITH A GPS LOCATION OF EACH JOINT, SHALL BE PROVIDED AND RETAINED FOR QUALITY ASSURANCE PURPOSES.
4. CONNECTING TO EXISTING MAINS IS TO BE CARRIED OUT BY IRISH WATER OR AN APPROVED IRISH WATER AGENT.
5. WHEN EXISTING AC WATERMAINS ARE PRESENT A SPECIFIC METHOD STATEMENT SHALL BE SUBMITTED TO IRISH WATER PRIOR TO WORKS TAKING PLACE AND SUBJECT TO WRITTEN APPROVAL, DETAILING THE PROTECTION TO BE PUT IN PLACE TO EXISTING MAINS, METHOD OF REMOVAL OF EXISTING AC, METHOD OF DISPOSAL OF EXISTING AC AND METHOD OF CONNECTION TO EXISTING AC.
6. PIPE MATERIAL REFERENCES AS FOLLOWS:
   AC - ASBESTOS CEMENT
   DI - DUCTILE IRON
   CI - CAST IRON
   PE - POLYETHYLENE
   uPVC - UNPLASTICISED POLY VINYL CHLORIDE
   ST - STEEL
   OTHER - REFERS TO ALL EXISTING PIPE MATERIALS OTHER THAN PE (TYPICALL AC, DI, CI, uPVC & ST).
7. SLUICE VALVE CHAMBERS TO BE IN ACCORDANCE WITH STD-W-14 (DI) AND STD-W-15 (PE). CHAMBERS NOT SHOWN FOR CLARITY.
8. ALL THRUST FLANGES TO BE ADEQUATELY RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-W-28. THRUST BLOCKS NOT SHOWN FOR CLARITY.
9. A HIGH LEVEL OF HEALTH & SAFETY PROCEDURES IS REQUIRED WHEN WORKING ON AC MAINS, & THE OPERATION OF DISMANTLING/ REMOVAL OF AC PIPES & JOINTS.
10. VALVES SHALL BE ARRANGED IN SUCH A MANNER TO ALLOW FOR THE NETWORK TO BE MANAGED TO ENSURE THAT NO MORE THAN 40 PROPERTIES LOSE WATER FROM A BURST ON THE SYSTEM AT ANY ONE TIME.

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER

No.	Date	Drn	Chk	Description	App
4	07/'20	RH	TOC	Dismantling joints relocated	MOD
3	11/'17	JMC	TOC	Added 2 No. Extg. PE Details, updated details & added notes	MOD
2	08/'16	JMC	TOC	Added Note 9	MOD
1	04/'16	JMC	TOC	Added couplings (2 details)	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WATER | SCALE: NOT TO SCALE | DATE: SEPT. 2015

TITLE: GENERAL PIPE CONNECTIONS (Sheet 1 of 7) | DRAWING No.: STD-W- 04 | REV: 4

NEW PE / DI - EXISTING AC / CI / uPVC

NEW PE / DI - EXISTING DI

TEMPORARY "DEAD-END" DETAIL (FOR FUTURE EXTENSION) - PE

TEMPORARY "DEAD-END" DETAIL (FOR FUTURE EXTENSION) - DI

NEW PE - EXISTING PE

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. ALL BENDS, TEES, DEAD ENDS, ETC. OF PIPELINES TO BE ADEQUATELY RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-W-28. THRUST BLOCKS NOT SHOWN FOR CLARITY.
3. BUTT FUSION WELDING AND ELECTRO FUSION JOINTING OF PIPES SHALL ONLY BE CARRIED OUT BY TRAINED OPERATIVES IN POSSESSION OF A CURRENT TRAINING CERTIFICATE, USING FULLY AUTOMATIC APPROVED JOINTING MACHINE/RIGS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. THE IDENTITY OF THE PE PIPELINE MANUFACTURER SHALL BE MADE KNOWN TO IRISH WATER PRIOR TO COMMENCEMENT OF THE INSTALLATION. CERTIFICATION AND TESTING (INCLUDING INDEPENDENT THIRD PARTY CERTIFICATION) SHALL BE PROVIDED TO CONFIRM QUALITY ASSURANCE COMPLIANCE. EACH JOINT SHALL BE CLEARLY MARKED WITH THE JOINT LOGGED AUTOMATICALLY ON THE JOINTING MACHINE. A PRINTOUT OF THE JOINT DETAILS, WITH A GPS LOCATION OF EACH JOINT, SHALL BE PROVIDED AND RETAINED FOR QUALITY ASSURANCE PURPOSES.
4. CONNECTING TO EXISTING MAINS IS TO BE CARRIED OUT BY IRISH WATER OR AN APPROVED IRISH WATER AGENT.
5. WHEN EXISTING AC WATERMAINS ARE PRESENT A SPECIFIC METHOD STATEMENT SHALL BE SUBMITTED TO IRISH WATER PRIOR TO WORKS TAKING PLACE AND SUBJECT TO WRITTEN APPROVAL, DETAILING THE PROTECTION TO BE PUT IN PLACE TO EXISTING MAINS, METHOD OF REMOVAL OF EXISTING AC, METHOD OF DISPOSAL OF EXISTING AC AND METHOD OF CONNECTION TO EXISTING AC.
6. PIPE MATERIAL REFERENCES AS FOLLOWS:
   AC - ASBESTOS CEMENT
   DI - DUCTILE IRON
   CI - CAST IRON
   PE - POLYETHYLENE
   uPVC - UNPLASTICISED POLY VINYL CHLORIDE
   ST - STEEL
   OTHER - REFERS TO ALL EXISTING PIPE MATERIALS OTHER THAN PE (TYPICALL AC, DI, CI, uPVC & ST).
7. VALVE CHAMBER TO BE IN ACCORDANCE WITH STD-W-14 (DI) AND STD-W-15 (PE). CHAMBER NOT SHOWN FOR CLARITY.
8. ALL THRUST FLANGES TO BE ADEQUATELY RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-W-28. THRUST BLOCKS NOT SHOWN FOR CLARITY.
9. DOUBLE FLANGED SEPARATION PIPE, UP TO 5m IN LENGTH, MAY BE REQUIRED TO ALLOW SEPARATION DISTANCE BETWEEN VALVE CHAMBERS.
10. A HIGH LEVEL OF HEALTH & SAFETY PROCEDURES IS REQUIRED WHEN WORKING ON AC MAINS, & THE OPERATION OF DISMANTLING/ REMOVAL OF AC PIPES & JOINTS.
11. VALVES SHALL BE ARRANGED IN SUCH A MANNER TO ALLOW FOR THE NETWORK TO BE MANAGED TO ENSURE THAT NO MORE THAN 40 PROPERTIES LOSE WATER FROM A BURST ON THE SYSTEM AT ANY ONE TIME.
12. UNEQUAL TEES MAY BE USED INSTEAD OF CONCENTRIC TAPERS (WHERE APPLICABLE).

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER

No.	Date	Drn	Chk	Description	App
3	07/'20	RH	TOC	Added Note 12, separation pipe material added, dismantling joints relocated	MOD
2	11/'17	JMC	TOC	Added new D.I. pipe to details, added 3 No. details & updated notes	MOD
1	08/'16	JMC	TOC	Added Note 10	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WATER | SCALE: NOT TO SCALE | DATE: SEPT. 2015

TITLE: GENERAL PIPE CONNECTIONS (Sheet 2 of 7) | DRAWING No.: STD-W- 05 | REV: 3

NEW PE - EXISTING AC / CI / uPVC / DI / PE

NEW DI - EXISTING AC / CI / uPVC / DI / PE

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. ALL BENDS, TEES, DEAD ENDS, ETC. OF PIPELINES TO BE ADEQUATELY RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-W-28. THRUST BLOCKS NOT SHOWN FOR CLARITY.
3. BUTT FUSION WELDING AND ELECTRO FUSION JOINTING OF PIPES SHALL ONLY BE CARRIED OUT BY TRAINED OPERATIVES IN POSSESSION OF A CURRENT TRAINING CERTIFICATE, USING FULLY AUTOMATIC APPROVED JOINTING MACHINE/RIGS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. THE IDENTITY OF THE PE PIPELINE MANUFACTURER SHALL BE MADE KNOWN TO IRISH WATER PRIOR TO COMMENCEMENT OF THE INSTALLATION. CERTIFICATION AND TESTING (INCLUDING INDEPENDENT THIRD PARTY CERTIFICATION) SHALL BE PROVIDED TO CONFIRM QUALITY ASSURANCE COMPLIANCE. EACH JOINT SHALL BE CLEARLY MARKED WITH THE JOINT LOGGED AUTOMATICALLY ON THE JOINTING MACHINE. A PRINTOUT OF THE JOINT DETAILS, WITH A GPS LOCATION OF EACH JOINT, SHALL BE PROVIDED AND RETAINED FOR QUALITY ASSURANCE PURPOSES.
4. CONNECTING TO EXISTING MAINS IS TO BE CARRIED OUT BY IRISH WATER OR AN APPROVED IRISH WATER AGENT.
5. WHEN EXISTING AC WATERMAINS ARE PRESENT A SPECIFIC METHOD STATEMENT SHALL BE SUBMITTED TO IRISH WATER PRIOR TO WORKS TAKING PLACE AND SUBJECT TO WRITTEN APPROVAL, DETAILING THE PROTECTION TO BE PUT IN PLACE TO EXISTING MAINS, METHOD OF REMOVAL OF EXISTING AC, METHOD OF DISPOSAL OF EXISTING AC AND METHOD OF CONNECTION TO EXISTING AC.
6. PIPE MATERIAL REFERENCES AS FOLLOWS:
   AC - ASBESTOS CEMENT
   DI - DUCTILE IRON
   CI - CAST IRON
   PE - POLYETHYLENE
   uPVC - UNPLASTICISED POLY VINYL CHLORIDE
   ST - STEEL
   OTHER - REFERS TO ALL EXISTING PIPE MATERIALS OTHER THAN PE (TYPICALLY AC, DI, CI, uPVC & ST)
7. SLUICE VALVE CHAMBERS TO BE IN ACCORDANCE WITH STD-W-14 (DI) AND STD-W-15 (PE). CHAMBERS NOT SHOWN FOR CLARITY.
8. ALL THRUST FLANGES TO BE ADEQUATELY RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-W-28. THRUST BLOCKS NOT SHOWN FOR CLARITY.
9. DOUBLE FLANGED SEPARATION PIPE, UP TO 5m IN LENGTH, MAY BE REQUIRED TO ALLOW SEPARATION DISTANCE BETWEEN VALVE CHAMBERS.
10. A HIGH LEVEL OF HEALTH & SAFETY PROCEDURES IS REQUIRED WHEN WORKING ON AC MAINS, & THE OPERATION OF DISMANTLING/ REMOVAL OF AC PIPES & JOINTS.
11. VALVES SHALL BE ARRANGED IN SUCH A MANNER TO ALLOW FOR THE NETWORK TO BE MANAGED TO ENSURE THAT NO MORE THAN 40 PROPERTIES LOSE WATER FROM A BURST ON THE SYSTEM AT ANY ONE TIME.
12. UNEQUAL TEES MAY BE USED INSTEAD OF CONCENTRIC TAPERS (WHERE APPLICABLE).

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER

No.	Date	Drn	Chk	Description	App
3	07/'20	RH	TOC	Added Note 12, separation pipe material added, dismantling joints relocated	MOD
2	11/'17	JMC	TOC	Added extg. PE pipe to details & updated notes	MOD
1	08/'16	JMC	TOC	Added Note 10	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WATER | SCALE: NOT TO SCALE | DATE: SEPT. 2015

TITLE: GENERAL PIPE CONNECTIONS (Sheet 3 of 7) | DRAWING No.: STD-W- 06 | REV: 3

NEW PE - NEW PE

NEW DI - NEW DI

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. ALL BENDS, TEES, DEAD ENDS, ETC. OF PIPELINES TO BE ADEQUATELY RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-W-28. THRUST BLOCKS NOT SHOWN FOR CLARITY.
3. BUTT FUSION WELDING AND ELECTRO FUSION JOINTING OF PIPES SHALL ONLY BE CARRIED OUT BY TRAINED OPERATIVES IN POSSESSION OF A CURRENT TRAINING CERTIFICATE, USING FULLY AUTOMATIC APPROVED JOINTING MACHINE/RIGS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. THE IDENTITY OF THE PE PIPELINE MANUFACTURER SHALL BE MADE KNOWN TO IRISH WATER PRIOR TO COMMENCEMENT OF THE INSTALLATION. CERTIFICATION AND TESTING (INCLUDING INDEPENDENT THIRD PARTY CERTIFICATION) SHALL BE PROVIDED TO CONFIRM QUALITY ASSURANCE COMPLIANCE. EACH JOINT SHALL BE CLEARLY MARKED WITH THE JOINT LOGGED AUTOMATICALLY ON THE JOINTING MACHINE. A PRINTOUT OF THE JOINT DETAILS, WITH A GPS LOCATION OF EACH JOINT, SHALL BE PROVIDED AND RETAINED FOR QUALITY ASSURANCE PURPOSES.
4. CONNECTING TO EXISTING MAINS IS TO BE CARRIED OUT BY IRISH WATER OR AN APPROVED IRISH WATER AGENT.
5. WHEN EXISTING AC WATERMAINS ARE PRESENT A SPECIFIC METHOD STATEMENT SHALL BE SUBMITTED TO IRISH WATER PRIOR TO WORKS TAKING PLACE AND SUBJECT TO WRITTEN APPROVAL, DETAILING THE PROTECTION TO BE PUT IN PLACE TO EXISTING MAINS, METHOD OF REMOVAL OF EXISTING AC, METHOD OF DISPOSAL OF EXISTING AC AND METHOD OF CONNECTION TO EXISTING AC.
6. PIPE MATERIAL REFERENCES AS FOLLOWS:
   AC - ASBESTOS CEMENT
   DI - DUCTILE IRON
   CI - CAST IRON
   PE - POLYETHYLENE
   uPVC - UNPLASTICISED POLY VINYL CHLORIDE
   ST - STEEL
   OTHER - REFERS TO ALL EXISTING PIPE MATERIALS OTHER THAN PE (TYPICALLY AC, DI, CI, uPVC & ST)
7. SLUICE VALVE CHAMBERS TO BE IN ACCORDANCE WITH STD-W-14 (DI) AND STD-W-15 (PE). CHAMBERS NOT SHOWN FOR CLARITY.
8. ALL THRUST FLANGES TO BE ADEQUATELY RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-W-28. THRUST BLOCKS NOT SHOWN FOR CLARITY.
9. DOUBLE FLANGED SEPARATION PIPE, UP TO 5m IN LENGTH, MAY BE REQUIRED TO ALLOW SEPARATION DISTANCE BETWEEN VALVE CHAMBERS.
10. VALVES SHALL BE ARRANGED IN SUCH A MANNER TO ALLOW FOR NETWORK TO BE MANAGED TO ENSURE THAT NO MORE THAN 40 PROPERTIES LOSE WATER FROM A BURST ON THE SYSTEM AT ANY ONE TIME.
11. UNEQUAL TEES MAY BE USED INSTEAD OF CONCENTRIC TAPERS (WHERE APPLICABLE).

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER

No.	Date	Drn	Chk	Description	App
2	07/'20	RH	TOC	Added Note 11, separation pipe material added, dismantling joints relocated	MOD
1	11/'17	JMC	TOC	Notes added & updated.	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WATER | SCALE: NOT TO SCALE | DATE: SEPT. 2015

TITLE: GENERAL PIPE CONNECTIONS (Sheet 4 of 7) | DRAWING No.: STD-W- 07 | REV: 2

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. ALL BENDS, TEES, DEAD ENDS, ETC. OF PIPELINES TO BE ADEQUATELY RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-W-28. THRUST BLOCKS NOT SHOWN FOR CLARITY.
3. BUTT FUSION WELDING AND ELECTRO FUSION JOINTING OF PIPES SHALL ONLY BE CARRIED OUT BY TRAINED OPERATIVES IN POSSESSION OF A CURRENT TRAINING CERTIFICATE, USING FULLY AUTOMATIC APPROVED JOINTING MACHINE/RIGS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. THE IDENTITY OF THE PE PIPELINE MANUFACTURER SHALL BE MADE KNOWN TO IRISH WATER PRIOR TO COMMENCEMENT OF THE INSTALLATION. CERTIFICATION AND TESTING (INCLUDING INDEPENDENT THIRD PARTY CERTIFICATION) SHALL BE PROVIDED TO CONFIRM QUALITY ASSURANCE COMPLIANCE. EACH JOINT SHALL BE CLEARLY MARKED WITH THE JOINT LOGGED AUTOMATICALLY ON THE JOINTING MACHINE. A PRINTOUT OF THE JOINT DETAILS, WITH A GPS LOCATION OF EACH JOINT, SHALL BE PROVIDED AND RETAINED FOR QUALITY ASSURANCE PURPOSES.
4. CONNECTING TO EXISTING MAINS IS TO BE CARRIED OUT BY IRISH WATER OR AN APPROVED IRISH WATER AGENT.
5. WHEN EXISTING AC WATERMAINS ARE PRESENT A SPECIFIC METHOD STATEMENT SHALL BE SUBMITTED TO IRISH WATER PRIOR TO WORKS TAKING PLACE AND SUBJECT TO WRITTEN APPROVAL, DETAILING THE PROTECTION TO BE PUT IN PLACE TO EXISTING MAINS, METHOD OF REMOVAL OF EXISTING AC, METHOD OF DISPOSAL OF EXISTING AC AND METHOD OF CONNECTION TO EXISTING AC.
6. PIPE MATERIAL REFERENCES AS FOLLOWS:
   AC - ASBESTOS CEMENT
   DI - DUCTILE IRON
   CI - CAST IRON
   PE - POLYETHYLENE
   uPVC - UNPLASTICISED POLY VINYL CHLORIDE
   ST - STEEL
   OTHER - REFERS TO ALL EXISTING PIPE MATERIALS OTHER THAN PE (TYPICALLY AC, DI, CI, uPVC & ST)
7. SLUICE VALVE CHAMBERS TO BE IN ACCORDANCE WITH STD-W-14 (DI) AND STD-W-15 (PE). CHAMBERS NOT SHOWN FOR CLARITY
8. ALL THRUST FLANGES TO BE ADEQUATELY RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-W-28. THRUST BLOCKS NOT SHOWN FOR CLARITY
9. DOUBLE FLANGED SEPARATION PIPE, UP TO 5m IN LENGTH, MAY BE REQUIRED TO ALLOW SEPARATION DISTANCE BETWEEN VALVE CHAMBERS
10. UNEQUAL TEES MAY BE USED INSTEAD OF CONCENTRIC TAPERS (WHERE APPLICABLE).

NEW PE - EXISTING PE

NEW PE - EXISTING OTHER MATERIAL

NEW DI - EXISTING PE

NEW DI - EXISTING OTHER MATERIAL

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER

No.	Date	Drn	Chk	Description	App
2	07/'20	RH	TOC	Added Note 10, separation pipe material added, dismantling joints relocated	MOD
1	11/'17	JMC	TOC	Notes added & updated.	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WATER | SCALE: NOT TO SCALE | DATE: SEPT. 2015

TITLE: GENERAL PIPE CONNECTIONS (Sheet 5 of 7) | DRAWING No.: STD-W- 08 | REV: 2

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. ALL BENDS, TEES, DEAD ENDS, ETC. OF PIPELINES TO BE ADEQUATELY RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-W-28. THRUST BLOCKS NOT SHOWN FOR CLARITY.
3. BUTT FUSION WELDING AND ELECTRO FUSION JOINTING OF PIPES SHALL ONLY BE CARRIED OUT BY TRAINED OPERATIVES IN POSSESSION OF A CURRENT TRAINING CERTIFICATE, USING FULLY AUTOMATIC APPROVED JOINTING MACHINE/RIGS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. THE IDENTITY OF THE PE PIPELINE MANUFACTURER SHALL BE MADE KNOWN TO IRISH WATER PRIOR TO COMMENCEMENT OF THE INSTALLATION. CERTIFICATION AND TESTING (INCLUDING INDEPENDENT THIRD PARTY CERTIFICATION) SHALL BE PROVIDED TO CONFIRM QUALITY ASSURANCE COMPLIANCE. EACH JOINT SHALL BE CLEARLY MARKED WITH THE JOINT LOGGED AUTOMATICALLY ON THE JOINTING MACHINE. A PRINTOUT OF THE JOINT DETAILS, WITH A GPS LOCATION OF EACH JOINT, SHALL BE PROVIDED AND RETAINED FOR QUALITY ASSURANCE PURPOSES.
4. CONNECTING TO EXISTING MAINS IS TO BE CARRIED OUT BY IRISH WATER OR AN APPROVED IRISH WATER AGENT.
5. WHEN EXISTING AC WATERMAINS ARE PRESENT A SPECIFIC METHOD STATEMENT SHALL BE SUBMITTED TO IRISH WATER PRIOR TO WORKS TAKING PLACE AND SUBJECT TO WRITTEN APPROVAL, DETAILING THE PROTECTION TO BE PUT IN PLACE TO EXISTING MAINS, METHOD OF REMOVAL OF EXISTING AC, METHOD OF DISPOSAL OF EXISTING AC AND METHOD OF CONNECTION TO EXISTING AC.
6. PIPE MATERIAL REFERENCES AS FOLLOWS:
   AC - ASBESTOS CEMENT
   DI - DUCTILE IRON
   CI - CAST IRON
   PE - POLYETHYLENE
   uPVC - UNPLASTICISED POLY VINYL CHLORIDE
   ST - STEEL
   OTHER - REFERS TO ALL EXISTING PIPE MATERIALS OTHER THAN PE (TYPICALLY AC, DI, CI, uPVC & ST)
7. SLUICE VALVE CHAMBERS TO BE IN ACCORDANCE WITH STD-W-14 (DI) AND STD-W-15 (PE). CHAMBERS NOT SHOWN FOR CLARITY.
8. ALL THRUST FLANGES TO BE ADEQUATELY RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-W-28. THRUST BLOCKS NOT SHOWN FOR CLARITY.
9. DOUBLE FLANGED SEPARATION PIPE, UP TO 5m IN LENGTH, MAY BE REQUIRED TO ALLOW SEPARATION DISTANCE BETWEEN VALVE CHAMBERS.
10. UNEQUAL TEES MAY BE USED INSTEAD OF CONCENTRIC TAPERS (WHERE APPLICABLE).

NEW PE - EXISTING PE

NEW PE - EXISTING OTHER MATERIAL

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER

No.	Date	Drn	Chk	Description	App
2	07/'20	RH	TOC	Added Note 10, separation pipe material added, dismantling joints relocated	MOD
1	11/'17	JMC	TOC	Notes added & updated	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WATER | SCALE: NOT TO SCALE | DATE: SEPT. 2015

TITLE: GENERAL PIPE CONNECTIONS (Sheet 6 of 7) | DRAWING No.: STD-W- 09 | REV: 2

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. ALL BENDS, TEES, DEAD ENDS, ETC. OF PIPELINES TO BE ADEQUATELY RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-W-28. THRUST BLOCKS NOT SHOWN FOR CLARITY.
3. BUTT FUSION WELDING AND ELECTRO FUSION JOINTING OF PIPES SHALL ONLY BE CARRIED OUT BY TRAINED OPERATIVES IN POSSESSION OF A CURRENT TRAINING CERTIFICATE, USING FULLY AUTOMATIC APPROVED JOINTING MACHINE/RIGS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. THE IDENTITY OF THE PE PIPELINE MANUFACTURER SHALL BE MADE KNOWN TO IRISH WATER PRIOR TO COMMENCEMENT OF THE INSTALLATION. CERTIFICATION AND TESTING (INCLUDING INDEPENDENT THIRD PARTY CERTIFICATION) SHALL BE PROVIDED TO CONFIRM QUALITY ASSURANCE COMPLIANCE. EACH JOINT SHALL BE CLEARLY MARKED WITH THE JOINT LOGGED AUTOMATICALLY ON THE JOINTING MACHINE. A PRINTOUT OF THE JOINT DETAILS, WITH A GPS LOCATION OF EACH JOINT, SHALL BE PROVIDED AND RETAINED FOR QUALITY ASSURANCE PURPOSES.
4. CONNECTING TO EXISTING MAINS IS TO BE CARRIED OUT BY IRISH WATER OR AN APPROVED IRISH WATER AGENT.
5. WHEN EXISTING AC WATERMAINS ARE PRESENT A SPECIFIC METHOD STATEMENT SHALL BE SUBMITTED TO IRISH WATER PRIOR TO WORKS TAKING PLACE AND SUBJECT TO WRITTEN APPROVAL, DETAILING THE PROTECTION TO BE PUT IN PLACE TO EXISTING MAINS, METHOD OF REMOVAL OF EXISTING AC, METHOD OF DISPOSAL OF EXISTING AC AND METHOD OF CONNECTION TO EXISTING AC.
6. PIPE MATERIAL REFERENCES AS FOLLOWS:
   AC - ASBESTOS CEMENT
   DI - DUCTILE IRON
   CI - CAST IRON
   PE - POLYETHYLENE
   uPVC - UNPLASTICISED POLY VINYL CHLORIDE
   ST - STEEL
   OTHER - REFERS TO ALL EXISTING PIPE MATERIALS OTHER THAN PE (TYPICALLY AC, DI, CI, uPVC & ST)
7. SLUICE VALVE CHAMBERS TO BE IN ACCORDANCE WITH STD-W-14 (DI) AND STD-W-15 (PE). CHAMBERS NOT SHOWN FOR CLARITY.
8. ALL THRUST FLANGES TO BE ADEQUATELY RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-W-28. THRUST BLOCKS NOT SHOWN FOR CLARITY.
9. DOUBLE FLANGED SEPARATION PIPE, UP TO 5m IN LENGTH, MAY BE REQUIRED TO ALLOW SEPARATION DISTANCE BETWEEN VALVE CHAMBERS.
10. UNEQUAL TEES MAY BE USED INSTEAD OF CONCENTRIC TAPERS (WHERE APPLICABLE).

NEW DI - EXISTING PE

NEW DI - EXISTING OTHER MATERIAL

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER

No.	Date	Drn	Chk	Description	App
2	07/'20	RH	TOC	Added Note 10, separation pipe material added, dismantling joints relocated	MOD
1	11/'17	JMC	TOC	Notes added & updated	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WATER | SCALE: NOT TO SCALE | DATE: SEPT. 2015

TITLE: GENERAL PIPE CONNECTIONS (Sheet 7 of 7) | DRAWING No.: STD-W- 10 | REV: 2

NOTE:
STANDARD DETAILS TAKEN FROM IRISH WATER DOCUMENT IW-CDS-5020-01 REV 03.
REFER TO LATEST REVISION OF THIS DOCUMENT FOR CONSTRUCTION DETAILS.

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
GD	DC	DC

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PROJECT: Dundrum Village – Strategic Housing Development

CLIENT: Dundrum Retail GP DAC (acting for and on behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: WATER INFRASTRUCTURE STANDARD DETAILS
STANDARD PIPE CONNECTIONS

SCALE: NTS (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-XX-XX-DR-C-1076

REV: C01

1. SEPARATION DISTANCES BETWEEN WATERMAINS ASSOCIATED WITH THE WORKS FROM OTHER UTILITY PIPES AND ACCESSORIES SHALL BE IN ACCORDANCE WITH SECTION 3.6 OF THE CODE OF PRACTICE. SEPARATION DISTANCES FOR ALL NEW INSTALLATIONS FROM EXISTING IRISH WATER PIPES SHALL BE AS OUTLINED IN SECTION 3.27 OF THE CODE OF PRACTICE. THE SEPARATION DISTANCES SPECIFIED ARE MINIMUM DISTANCES.
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
IN THE CASE OF INSTALLATIONS IN CLOSE PROXIMITY TO EXISTING WATER MAINS AND SEWERS, THE FOLLOWING MINIMUM HORIZONTAL DISTANCES SHALL BE MAINTAINED BETWEEN PIPES/DUCTS, CABINETS, POLES, MANHOLES, JUNCTION BOXES, CHAMBERS, ETC. WHERE THE DEPTH OF THE EXISTING INFRASTRUCTURE DOES NOT EXCEED 1.5m
600mm AT EITHER SIDE OF MAINS UP TO AND INCLUDING 150mm DIAMETER;
1m AT EITHER SIDE OF MAINS OF 200mm TO 250Mmm DIAMETER;
2m AT EITHER SIDE OF MAINS OF 300mm AND 375mm DIAMETER;
5m AT EITHER SIDE OF MAINS OF 400mm AND 450mm DIAMETER;
SPECIFIC IRISH WATER ADVISED DISTANCES FOR MAINS IN EXCESS OF 450mm;
600mm AT EITHER SIDE OF GRAVITY SEWER UP TO AND INCLUDING 225mm DIAMETER;
1m AT EITHER SIDE OF GRAVITY SEWER OF 300mm AND UP TO 450mm DIAMETER;
1.5m AT EITHER SIDE OF GRAVITY SEWERS OF 600mm DIAMETER AND GREATER ;
5. NOTIFICATION IN WRITING IS REQUIRED SHOULD WORKS BE WITHIN THE FOLLOWING DISTANCES FROM AN EXISTING WATER MAIN OR WASTEWATER RISING MAIN WHERE THE DEPTH OF THE EXISTING INFRASTRUCTURE DOES NOT EXCEED 1.5m:-
HORIZONTAL
1m AT EITHER SIDE OF EXISTING PIPES LESS THAN 200mm DIAMETER;
2m AT EITHER SIDE OF EXISTING PIPES OF 200mm TO 350mm DIAMETER;
5m AT EITHER SIDE OF EXISTING PIPES OF 350mm OR GREATER;
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. THIS ALSO APPLIES WHERE THE DEPTH OF THE IRISH WATER WATERMAIN OR SEWER EXCEEDS 1.5m. IN ALL OF THESE INSTANCES, SPECIFIC WRITTEN APPROVAL WILL BE REQUIRED FROM IRISH WATER BEFORE PROCEEDING WITH 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 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.
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.
12. WHERE A GRASS VERGE IS NOT AVAILABLE AND A FOOTPATH IS LESS THAN 1.5m WIDE, THE WATERMAIN IS PERMITTED ON THE ROADWAY.

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

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

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER

No.	Date	Drn	Chk	Description	App
2	07/'20	RH	TOC	Notes added & updated	MOD
1	11/'17	JMC	TOC	Notes added & updated	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WATER
SCALE: NOT TO SCALE — DATE: SEPT. 2015
TITLE: TYPICAL SERVICE LAYOUT INDICATING SEPARATION DISTANCES
DRAWING No.: STD-W- 11 — REV: 2

METHOD STATEMENTS:
ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BS 5837 AND INFORMED BY NJUG VOLUME 4

PRECAUTION AREA:

EXCAVATIONS FOR PIPEWORK SHOULD NOT BE UNDERTAKEN WITHIN THIS AREA, UNLESS AGREED WITH IRISH WATER.

WORKS WITHIN THE PRECAUTION ZONE MUST BE SUPERVISED BY A QUALIFIED ARBORIST. WORKS SHALL BE SUBJECT OF A CLEAR METHOD STATEMENT OUTLINING ALL WORKS ADJACENT TO THE TREES/SHRUBS WHICH IS TO BE PREPARED & AGREED IN ADVANCE OF THE WORKS.

MATERIAL, PLANT & SPOIL SHALL NOT BE STORED WITHIN THIS ZONE.

EXCLUSION AREA:

WORKS IN THIS AREA ARE TO BE AVOIDED, UNLESS ABSOLUTELY NECESSARY & AGREED WITH IRISH WATER.

EXCAVATIONS FOR PIPEWORK SHOULD NOT BE UNDERTAKEN WITHIN THIS AREA, UNLESS NECESSARY AND NO OTHER OPTIONS AVAILABLE. WORKS WITHIN THE EXCLUSION ZONE MUST BE SUPERVISED BY A QUALIFIED ARBORIST AND AGREED WITH IRISH WATER. WORKS SHALL BE SUBJECT OF AN ARBORICULTURAL IMPACT ASSESSMENT AS PER BS 5837 & A CLEAR METHOD STATEMENT OUTLINING ALL WORKS ADJACENT TO THE TREES/SHRUBS IS TO BE PREPARED AND AGREED IN ADVANCE OF THE WORKS.
MATERIAL, PLANT & SPOIL SHALL NOT BE STORED WITHIN THIS ZONE.

EXISTING PLANTING:

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER

No.	Date	Drn	Chk	Description	App
2	11/'17	JMC	TOC	Revised to suit ILI recommendations & changed drawing title	MOD
1	08/'16	JMC	TOC	Added new section & notes	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WATER
SCALE: NOT TO SCALE — DATE: SEPT. 2015
TITLE: RESTRICTIONS ON WATER INFRASTRUCTURE WORKS ADJACENT TO EXISTING TREES
DRAWING No.: STD-W- 12 — REV: 2

DIAGRAM 1: DECISION FLOW CHART

THE DISTANCES GIVEN IN TABLE A.1. OF BS 5837 MUST BE FURTHER INFORMED BY THE SPECIES & DIAGRAM 2 BELOW. DIAGRAM 1 ABOVE PROVIDES A FLOW CHART TO THE DECISION PROCESS WHILST DIAGRAM 2 BELOW IS TO BE USED TO INFORM THE PLANTING REGIME.

PLEASE NOTE THAT TABLE A.1. OF BS 5837 (BELOW) IS TO BE USED TO CALCULATE THE ABSOLUTE MIMIMUM DISTANCE BETWEEN NEW TREE PLANTING FROM THE WATER INFRASTRUCTURE (THE SERVICES). THE DISTANCE IS REQUIRED TO AVOID DIRECT DAMAGE TO THE INFRASTRUCTURE FROM FUTURE GROWTH. THE DISTANCE IS A FUNCTION OF THE DEPTH OF THE SERVICES AND THE (FINAL EXPECTED) STEM DIAMETER OF THE TREE AT MATURITY (i.e. FINAL EXPECTED GROWTH).

TABLE A.1. BS 5837	Minimum distance between young trees or new planting & structures, in metres (m)		
	Final stem dia. < 300mm	Final stem dia. 300mm to 600mm	Final stem dia. > 600mm
Services			
< 1m deep	0.5	1.5	3.0
> 1m deep	--	1.0	2.0

THUS FOR EXAMPLE:
- FOR A SERVICE LESS THAN 1 METRE DEEP, THE MINIMUM DISTANCE IS TO BE 1.5m FOR A TREE BETWEEN 300 AND 600mm STEM DIAMETER AT MATURITY.
- FOR A SERVICE GREATER THAN 1 METRE DEEP, THE MINIMUM DISTANCE IS TO BE 1.0m FOR A TREE BETWEEN 300 AND 600mm STEM DIAMETER AT MATURITY.

NOTE: RESTRICTIONS RELATE TO INFRASTRUCTURE WITHOUT ROOT INTRUSION PROTECTION.

THE DESIGN OF LANDSCAPING SHALL BE UNDERTAKEN IN CONJUNCTION WITH THE DESIGN OF WATER INFRASTRUCTURE, ETC. THE TREE/BUSH/SHRUB SHALL NOT BE LOCATED CLOSER TO THE WATER INFRASTRUCTURE THAN INDICATED ABOVE, EXCEPT WHERE SPECIAL PROTECTION MEASURES ARE PROVIDED. WHERE THERE IS A RISK OF TREE/ROOT INTRUSION, THE WATER INFRASTRUCTURE SHALL BE RESISTANT TO TREE ROOT INGRESS (e.g. BY USE OF APPROPRIATE BARRIERS, HIGH PERFORMANCE JOINTS, OR BY USE OF POLYETHYLENE WITH WELDED JOINTS). THE LANDSCAPE DESIGN AND DETAILS OF THE SPECIAL PROTECTION MEASURES MUST BE AGREED WITH IRISH WATER

A TREE SHALL NOT BE PLANTED DIRECTLY OVER WATER INFRASTRUCTURE WHERE EXCAVATION OF THE INFRASTRUCTURE WOULD REQUIRE REMOVAL OF THE TREE UNLESS SUCH PLANTING IS AGREED WITH IRISH WATER AND IN GENERAL ONLY SHALLOW ROOTING SHRUBS SHALL BE PLANTED CLOSE TO WATER INFRASTRUCTURE.

PLEASE ENSURE THAT THESE DISTANCES ARE ADHERED TO IN ORDER TO PROTECT THE TREES FROM ANY FUTURE MAINTENANCE. REFERENCE SHOULD ALSO BE MADE TO BS 5837, BS 8545 AND THE NJUG GUIDELINES VOLUME 4 FOR FURTHER INFORMATION.

DIAGRAM 2: PLANTING DISTANCES FOR DIFFERENT SPECIES WITHOUT BARRIER PROTECTION

NOTE: OTHER SPECIES NOT NAMED TO BE PLANTED TO THE SAME SPACINGS DEPENDING ON ROOT FORMATION.

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER

No.	Date	Drn	Chk	Description	App
0	11/'17	JMC	TOC	Initial Issue	MOD

STANDARD DETAILS - WATER
SCALE: NOT TO SCALE — DATE: JUL. 2017
TITLE: RESTRICTIONS ON NEW TREES / SHRUBS PLANTING ADJACENT TO WATER MAINS
DRAWING No.: STD-W-12A — REV: 0

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.
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 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 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 WIS 4-08-02 AND IGN 4-08-01 GRANULAR MATERIAL SHALL BE 14mm TO 5mm (14/5) GRADED AGGREGATE OR 10mm (10/5) 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 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.
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 INCORPORATED 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.

CROSS SECTION IN ROADWAYS

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

PIPE DIAMETER 'A' (mm)	DEPTH OF BEDDING 'C' (mm)
≤ 200	150
≥ 250	200

CROSS SECTION IN GRASSED AREAS

REDUCED COVER PROTECTION SLAB DETAIL

SECTION A-A

13. FOR ANY SLABBING WORKS TO BE CARRIED OUT WITHIN THE VICINITY OF THE PIPELINE, A METHOD STATEMENT IS TO BE SUBMITTED FOR APPROVAL BY IRISH WATER.
14. MARKER TAPE TO BE PLACED ABOVE THE PROTECTION SLAB ALONG THE DIRECTION OF THE PIPELINE
15. CONCRETE TO BE GRADE C30/35
16. MINIMUM COVER TO STEEL REINFORCEMENT =40mm
17. SLABS TO BE DESIGNED FOR USE UNDER A HB25 LOAD IN ACCORDANCE WITH BS5400-2. DESIGN TO BE SUBMITTED TO IRISH WATER FOR ASSESSMENT PRIOR TO INSTALLATION
18. THE SOIL ON WHICH THE SLAB RESTS MUST HAVE A CBR OF 4% OR GREATER.WHERE THE CBR IS LESS THAN 4% THE MATERIAL SHALL BE REMOVED AND REPLACED WITH IMPORTED GRANULAR MATERIAL AS APPROVED BY IRISH WATER.
19. IF DIRECTION OF PIPELINE AND DIRECTION OF TRAFFIC FLOW ARE PARALLEL, THE DIRECTION OF LAY OF THE SLAB IS TO BE AGAINST THE DIRECTION OF TRAFFIC FLOW.

20. IF PIPELINE PROTECTION SLAB IS TO BE USED SOLELY FOR IMPACT PROTECTION & OVERALL DEPTH OF COVER IS GREATER THAN 1.2m, THE DISTANCE BETWEEN UNDERSIDE OF SLAB & TOP OF PIPE MAY BE INCREASED AFTER CONSULTATION WITH IRISH WATER.

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER

No.	Date	Drn	Chk	Description	App
2	07/'20	RH	TOC	Minor edit to note 5 Protection slab detail added Title amended.	MOD
1	11/'17	JMC	TOC	Added & updated notes	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WATER
SCALE: NOT TO SCALE — DATE: SEPT. 2015
TITLE: TRENCH BACKFILL / BEDDING & REDUCED COVER PROTECTION SLAB DETAIL
DRAWING No.: STD-W- 13 — REV: 2

NOTE:
STANDARD DETAILS TAKEN FROM IRISH WATER DOCUMENT IW-CDS-5020-01 REV 03.
REFER TO LATEST REVISION OF THIS DOCUMENT FOR CONSTRUCTION DETAILS.

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY: GD — REVIEWED BY: DC — APPROVED BY: DC

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PROJECT: Dundrum Village – Strategic Housing Development

CLIENT: Dundrum Retail GP DAC (acting for and on behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: WATER INFRASTRUCTURE STANDARD DETAILS
STANDARD MISCELLANEOUS DETAILS

SCALE: NTS (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-XX-XX-DR-C-1077 — REV: C01

1. ALL DIMENSIONS 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 IS EN 1917 & IS 420. PCC CHAMBER RISER UNITS SHOULD BE INTERLOCKING WHEN STACKED TO PREVENT LATERAL MOVEMENT OF INDIVIDUAL UNITS.
6. CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 808 MATERIAL AS PER STD-W-13.
7. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 545.
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 STD-W-28 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.
15. THE FIRE HYDRANT OUTLET TYPE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE FIRE OFFICER FOR THE AREA AND SHALL BE AGREED PRIOR TO THE COMMENCEMENT OF WORKS.
16. THE HYDRANT SHALL BE DOUBLE FLANGED DRILLED TO PN 16. THEY SHALL COMPLY WITH IS EN 14339, IS EN 1074 PART 6 AND BS 750: 2012. THE HYDRANT SHALL INCORPORATE A SCREW DOWN GATE VALVE, UNDERGROUND "GUIDE TO HEAD" TYPE WITH A FALSE SPINDLE CAP. THE OUTLET SHALL BE IN ACCORDANCE WITH ITEM 15 ABOVE.
17. 450 x 600mm INTERNAL DIMENSION CHAMBERS MAY BE PROVIDED SUBJECT TO REVIEW BY IW. SUCH CHAMBERS SHALL BE PROVIDED WITH GRADE "A" HEAVY DUTY COVER & FRAME & STAMPED "SV". BEARING SLABS TO BE 900 x 900mm IN ALL CASES.

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER — STANDARD DETAILS - WATER

No.	Date	Drn	Chk	Description	App
3	07/'20	RH	TOC	Added notes re. hydrant outlet & plan dimensions	MOD
2	11/'17	JMC	TOC	Revised & added notes	MOD
1	08/'16	JMC	TOC	Revised notes 2,3 & 6	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

SCALE: NOT TO SCALE — DATE: SEPT. 2015
TITLE: ON - LINE HYDRANT FOR DUCTILE IRON (D.I.) PIPE (Sheet 1 of 4)
DRAWING No.: STD-W- 16 — REV: 3

1. ALL DIMENSIONS 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 IS EN 1917 & IS 420. PCC CHAMBER RISER UNITS SHOULD BE INTERLOCKING WHEN STACKED TO PREVENT LATERAL MOVEMENT OF INDIVIDUAL UNITS
6. CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 808 MATERIAL AS PER STD-W-13.
7. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 545.
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 STD-W-28 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. TEE BRANCH: IF DEPTH OF TAKE-OFF PIPEWORK < 900mm, TAKE-OFF TEE MAY BE ROTATED TO ENSURE MIN. DEPTH OF COVER IS MAINTAINED, OR ALTERNATIVELY, PROVIDE PROTECTION TO TAKE-OFF PIPE.
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.
16. THE FIRE HYDRANT OUTLET TYPE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE FIRE OFFICER FOR THE AREA AND SHALL BE AGREED PRIOR TO THE COMMENCEMENT OF WORKS.
17. THE HYDRANT SHALL BE DOUBLE FLANGED DRILLED TO PN 16. THEY SHALL COMPLY WITH IS EN 14339, IS EN 1074 PART 6 AND BS 750: 2012. THE HYDRANT SHALL INCORPORATE A SCREW DOWN GATE VALVE, UNDERGROUND "GUIDE TO HEAD" TYPE WITH A FALSE SPINDLE CAP. THE OUTLET SHALL BE IN ACCORDANCE WITH ITEM 16 ABOVE.
18. 450 x 600mm INTERNAL DIMENSION CHAMBERS MAY BE PROVIDED SUBJECT TO REVIEW BY IW. SUCH CHAMBERS SHALL BE PROVIDED WITH GRADE "A" HEAVY DUTY COVER & FRAME & STAMPED "SV". BEARING SLABS TO BE 900 x 900mm IN ALL CASES.

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER — STANDARD DETAILS - WATER

No.	Date	Drn	Chk	Description	App
4	07/'20	RH	TOC	Added notes re. hydrant outlet & plan dimensions	MOD
3	11/'17	JMC	TOC	Revised & added notes, & revised pipework	MOD
2	08/'16	JMC	TOC	Revised notes 2,3 & 6	MOD
1	04/'16	JMC	TOC	Added thrust blocks	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

SCALE: NOT TO SCALE — DATE: SEPT. 2015
TITLE: OFF - LINE HYDRANT FOR DUCTILE IRON (D.I.) PIPE (Sheet 2 of 4)
DRAWING No.: STD-W- 17 — REV: 4

1. ALL DIMENSIONS 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 IS EN 1917 & IS 420. PCC CHAMBER RISER UNITS SHOULD BE INTERLOCKING WHEN STACKED TO PREVENT LATERAL MOVEMENT OF INDIVIDUAL UNITS
6. CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 808 MATERIAL AS PER STD-W-13.
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 STD-W-28 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.
15. THE FIRE HYDRANT OUTLET TYPE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE FIRE OFFICER FOR THE AREA AND SHALL BE AGREED PRIOR TO THE COMMENCEMENT OF WORKS.
16. THE HYDRANT SHALL BE DOUBLE FLANGED DRILLED TO PN 16. THEY SHALL COMPLY WITH IS EN 14339, IS EN 1074 PART 6 AND BS 750: 2012. THE HYDRANT SHALL INCORPORATE A SCREW DOWN GATE VALVE, UNDERGROUND "GUIDE TO HEAD" TYPE WITH A FALSE SPINDLE CAP. THE OUTLET SHALL BE IN ACCORDANCE WITH ITEM 15 ABOVE.
17. 450 x 600mm INTERNAL DIMENSION CHAMBERS MAY BE PROVIDED SUBJECT TO REVIEW BY IW. SUCH CHAMBERS SHALL BE PROVIDED WITH GRADE "A" HEAVY DUTY COVER & FRAME & STAMPED "SV".

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER — STANDARD DETAILS - WATER

No.	Date	Drn	Chk	Description	App
3	07/'20	RH	TOC	Added notes re. hydrant outlet & plan dimensions	MOD
2	11/'17	JMC	TOC	Revised & added notes	MOD
1	08/'16	JMC	TOC	Revised notes 2,3 & 6	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

SCALE: NOT TO SCALE — DATE: SEPT. 2015
TITLE: ON - LINE HYDRANT FOR POLYETHYLENE (P.E.) PIPE (Sheet 3 of 4)
DRAWING No.: STD-W- 18 — REV: 3

1. ALL DIMENSIONS 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 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 IS EN 1917 & IS 420. PCC CHAMBER RISER UNITS SHOULD BE INTERLOCKING WHEN STACKED TO PREVENT LATERAL MOVEMENT OF INDIVIDUAL UNITS.
6. CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 808 MATERIAL AS PER STD-W-13.
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 STD-W-28 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.
15. THE FIRE HYDRANT OUTLET TYPE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE FIRE OFFICER FOR THE AREA AND SHALL BE AGREED PRIOR TO THE COMMENCEMENT OF WORKS.
16. THE HYDRANT SHALL BE DOUBLE FLANGED DRILLED TO PN 16. THEY SHALL COMPLY WITH IS EN 14339, IS EN 1074 PART 6 AND BS 750: 2012. THE HYDRANT SHALL INCORPORATE A SCREW DOWN GATE VALVE, UNDERGROUND "GUIDE TO HEAD" TYPE WITH A FALSE SPINDLE CAP. THE OUTLET SHALL BE IN ACCORDANCE WITH ITEM 15 ABOVE
17. 450 x 600mm INTERNAL DIMENSION CHAMBERS MAY BE PROVIDED SUBJECT TO REVIEW BY IW. SUCH CHAMBERS SHALL BE PROVIDED WITH GRADE "A" HEAVY DUTY COVER & FRAME & STAMPED "SV".

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER — STANDARD DETAILS - WATER

No.	Date	Drn	Chk	Description	App
4	07/'20	RH	TOC	Added notes re. hyd. outlet & plan dims, & revised branch pipe to PE	MOD
3	11/'17	JMC	TOC	Revised & added notes, & revised pipework	MOD
2	08/'16	JMC	TOC	Revised notes 2, 3 & 6	MOD
1	04/'16	JMC	TOC	Added thrust blocks	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

SCALE: NOT TO SCALE — DATE: SEPT. 2015
TITLE: OFF - LINE HYDRANT FOR POLYETHYLENE (P.E.) PIPE (Sheet 4 of 4)
DRAWING No.: STD-W- 19 — REV: 4

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 RAL 0858080.
5. PIPE DIAMETER ON HYDRANT PLATE TO REFER TO WATERMAIN NOT BRANCH.
6. SLUICE VALVE, AIR VALVE, SCOUR VALVE, AND WASHOUT HYDRANT, ETC. SHOULD BE CAST ALUMINIUM. ALL CHARACTERS SHOULD BE BLACK ON WHITE PAINT BACKGROUND. ALTERNATIVE MATERIAL MAY BE USED SUBJECT TO ACCEPTANCE BY IRISH WATER.
7. CONCRETE MARKER POST TO BE GRADE C25 / 30 AND IN ACCORDANCE WITH IS EN 206/2013.
8. CONCRETE BASE TO BE GRADE C20/25
9. PLASTIC MARKER POSTS ARE NOT ACCEPTABLE.
10. PAINTING SPECIFICATION: 2 PACK EPOXY PRIMER 40 - 60 MICRONS FOLLOWED BY 2 PACK HIGH GLOSS POLYURETHANE TOP COAT APPLIED AT 40 - 60 MICRONS
11. REFERENCES TO PIPE DIAMETERS ON MARKER PLATES REFER SPECIFICALLY TO THE NOMINAL INTERNAL DIAMETER OF THE PIPE REGARDLESS OF PIPE MATERIAL

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER — STANDARD DETAILS - WATER

No.	Date	Drn	Chk	Description	App
3	07/'20	RH	TOC	Additional Marker Plates Included and Revised Notes	MOD
2	11/'17	JMC	TOC	Added BM plate & updated notes	MOD
1	04/'16	JMC	TOC	Added washout hydrant plate	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

SCALE: NOT TO SCALE — DATE: SEPT. 2015
TITLE: MARKER POSTS / PLATES
DRAWING No.: STD-W- 27 — REV: 3

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. STRUCTURAL REINFORCEMENT AND DESIGN DETAIL TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO IRISH WATER FOR REVIEW.
3. HYDRANT CHAMBERS 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.
4. HYDRANTS SHALL BE DOUBLE FLANGED DRILLED TO PN 16. THEY SHALL COMPLY WITH BS 750: 2012. THE HYDRANT SHALL INCORPORATE A SCREW DOWN GATE VALVE, UNDERGROUND "GUIDE TO HEAD" TYPE WITH SCREW DOWN CONNECTION OUTLET AND FALSE SPINDLE CAP AND IRON CHAIN IN ACCORDANCE WITH ITEM 15 BELOW.
5. ALL HYDRANTS SHALL BE CLOCKWISE CLOSING.
6. HYDRANT CHAMBER & SCOUR 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 FROM 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.
7. CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 808 MATERIAL AS PER STD-W-13.
8. 200mm ALL ROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GRASS AREAS.
9. THRUST BLOCKS (NOT SHOWN ON DRAWING), TO BE PROVIDED AS PER STANDARD DRAWING STD-W-28 AT ALL TEES, BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
10. ANTI CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
11. ALL PIPEWORK AND FITTINGS FOR WASHOUT HYDRANT CHAMBER CONNECTION SHALL BE DUCTILE IRON. PIPES AND FITTINGS ON MAIN LINE SHALL BE: PE PIPES & FITTINGS IN ACCORDANCE WITH IS EN 12201:2011, OR DUCTILE IRON PIPES AND FITTINGS IN ACCORDANCE WITH IS EN 545.
12. 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 AGREEMENT WITH IRISH WATER.
13. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
14. WHERE HYDRANTS ARE INSTALLED ON TRUNK MAINS OR PRINCIPAL MAINS, A SEPARATE SCOUR VALVE IS REQUIRED. THE PURPOSE OF THE SCOUR VALVE IS TO ISOLATE THE WASHOUT HYDRANT FOR MAINTENANCE PURPOSES & ALSO TO REDUCE THE VELOCITY OF THE DISCHARGE FLOW WHERE HIGH HEAD VALUES ARE CONCERNED. A "SANDWICH" OR "SPADE" VALVE MAY BE USED IN LIEU OF A SEPARATE SCOUR VALVE, SUBJECT TO PRIOR REVIEW BY IRISH WATER.
15. FIRE HYDRANT OUTLET TYPE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE FIRE OFFICER FOR THE AREA AND SHALL BE AGREED PRIOR TO THE COMMENCEMENT OF WORKS.

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER — STANDARD DETAILS - WATER

No.	Date	Drn	Chk	Description	App
3	07/'20	RH	TOC	Added notes re. PE branch pipe	MOD
2	11/'17	JMC	TOC	Revised Chamber Base Detail & updated & added notes	MOD
1	08/'16	JMC	TOC	Revised note 7	MOD
0	04/'16	JMC	TOC	Initial Issue	MOD

SCALE: NOT TO SCALE — DATE: APR. 2016
TITLE: WASHOUT HYDRANT
DRAWING No.: STD-W-30A — REV: 3

NOTE:
STANDARD DETAILS TAKEN FROM IRISH WATER DOCUMENT IW-CDS-5020-01 REV 03.
REFER TO LATEST REVISION OF THIS DOCUMENT FOR CONSTRUCTION DETAILS.

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
GD	DC	DC

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PROJECT: Dundrum Village – Strategic Housing Development

CLIENT: Dundrum Retail GP DAC (acting for and on behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: WATER INFRASTRUCTURE STANDARD DETAILS
STANDARD HYDRANT DETAILS

SCALE: NTS (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-XX-XX-DR-C-1078 — REV: C01

1. ALL DIMENSIONS 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 IS EN 1917 & IS 420. PCC CHAMBER RISER UNITS SHOULD BE INTERLOCKING WHEN STACKED TO PREVENT LATERAL MOVEMENT OF INDIVIDUAL UNITS.
6. CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 808 MATERIAL AS PER STD-W-13.
7. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 545.
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 STD-W-28 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. ALL THRUST FLANGES TO BE ADEQUATELY RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-W-28. THRUST BLOCKS NOT SHOWN FOR CLARITY.
13. 450 x 450mm INTERNAL DIMENSION CHAMBERS MAY BE PROVIDED SUBJECT TO REVIEW BY IW. SUCH CHAMBERS SHALL BE PROVIDED WITH GRADE "A" HEAVY DUTY COVER & FRAME & STAMPED "SV". BEARING SLABS TO BE 900 x 900mm IN ALL CASES.
14. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
15. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
16. 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.

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER — STANDARD DETAILS - WATER — SCALE: NOT TO SCALE — DATE: SEPT. 2015

No.	Date	Drn	Chk	Description	App
4	07/'20	RH	TOC	Updated anti-torque support note relocated thrust flange, added plan dimensions, updated notes	MOD
3	11/'17	JMC	TOC	Revised & Added Notes	MOD
2	08/'16	JMC	TOC	Revised Notes 2, 3 & 6	MOD
1	04/'16	JMC	TOC	Added 2 couplings (2 details)	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

TITLE: SLUICE VALVE FOR DUCTILE IRON (D.I.) PIPE (< 350mm DIA.) (Sheet 1 of 2) — DRAWING No.: STD-W- 14 — REV: 4

1. ALL DIMENSIONS 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 IS EN 1917 & IS 420. PCC CHAMBER RISER UNITS SHOULD BE INTERLOCKING WHEN STACKED TO PREVENT LATERAL MOVEMENT OF INDIVIDUAL UNITS.
6. CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 808 MATERIAL AS PER STD-W-13.
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 STD-W-28 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. 450 x 450mm INTERNAL DIMENSION CHAMBERS MAY BE PROVIDED SUBJECT TO REVIEW BY IW. SUCH CHAMBERS SHALL BE PROVIDED WITH GRADE "A" HEAVY DUTY COVER & FRAME & STAMPED "SV". BEARING SLABS TO BE 900 x 900mm IN ALL CASES.
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.

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER — STANDARD DETAILS - WATER — SCALE: NOT TO SCALE — DATE: SEPT. 2015

No.	Date	Drn	Chk	Description	App
3	07/'20	RH	TOC	Updated Anti-Torque Support Note & added plan dimensions note	MOD
2	11/'17	JMC	TOC	Revised & Added Notes	MOD
1	08/'16	JMC	TOC	Revised notes 2, 3 & 6	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

TITLE: SLUICE VALVE FOR POLYETHYLENE (P.E.) PIPE (< 350mm DIA.) (Sheet 2 of 2) — DRAWING No.: STD-W- 15 — REV: 3

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

1. ALL DIMENSIONS 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 STD-W-13.
7. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 545.
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 STD-W-28 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 .

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER — STANDARD DETAILS - WATER — SCALE: NOT TO SCALE — DATE: SEPT. 2015

No.	Date	Drn	Chk	Description	App
3	07/'20	RH	TOC	Updated & revised notes	MOD
2	11/'17	JMC	TOC	Updated & revised notes	MOD
1	08/'16	JMC	TOC	Revised notes 2,3,4 & 7	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

TITLE: ON - LINE AIR VALVE FOR DUCTILE IRON (D.I.) PIPE (Sheet 1 of 4) — DRAWING No.: STD-W- 20 — REV: 3

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

1. ALL DIMENSIONS 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 STD-W-13.
7. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 545.
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 STD-W-28 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.

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER — STANDARD DETAILS - WATER — SCALE: NOT TO SCALE — DATE: SEPT. 2015

No.	Date	Drn	Chk	Description	App
4	07/'20	RH	TOC	Updated brickwork bedding mortar spec.	MOD
3	11/'17	JMC	TOC	Added & updated Notes	MOD
2	08/'16	JMC	TOC	Revised notes 2,3,4 & 7	MOD
1	04/'16	JMC	TOC	Added thrust blocks	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

TITLE: OFF - LINE AIR VALVE FOR DUCTILE IRON (D.I.) PIPE (Sheet 2 of 4) — DRAWING No.: STD-W- 21 — REV: 4

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

1. ALL DIMENSIONS 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 STD-W-13.
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 STD-W-28 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.

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER — STANDARD DETAILS - WATER — SCALE: NOT TO SCALE — DATE: SEPT. 2015

No.	Date	Drn	Chk	Description	App
3	07/'20	RH	TOC	Updated brickwork bedding mortar spec.	MOD
2	11/'17	JMC	TOC	Added & updated notes	MOD
1	08/'16	JMC	TOC	Revised notes 2,3,4 & 7	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

TITLE: ON - LINE AIR VALVE FOR POLYETHYLENE (P.E.) PIPE (Sheet 3 of 4) — DRAWING No.: STD-W- 22 — REV: 3

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

1. ALL DIMENSIONS 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 STD-W-13.
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 STD-W-28 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.

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER — STANDARD DETAILS - WATER — SCALE: NOT TO SCALE — DATE: SEPT. 2015

No.	Date	Drn	Chk	Description	App
4	07/'20	RH	TOC	Updated brickwork bedding mortar spec.Added & updated notes	MOD
3	11/'17	JMC	TOC	Added & updated notes	MOD
2	08/'16	JMC	TOC	Revised notes 2,3,4 & 7	MOD
1	04/'16	JMC	TOC	Added thrust blocks	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

TITLE: OFF - LINE AIR VALVE FOR POLYETHYLENE (P.E.) PIPE (Sheet 4 of 4) — DRAWING No.: STD-W- 23 — REV: 4

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 IS EN 1917 & IS 420
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 IS 420, COMPLETE WITH 150mm CONCRETE SURROUND MAY BE USED AS AN ACCEPTABLE ALTERNATIVE. CONCRETE SURROUND TO BE GRADE C20/25 IN ACCORDANCE WITH IS EN 206 .
5. METER CHAMBER SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL 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.
6. 200mm ALL ROUND, 100mm DEEP CONCRETE PLINTH AROUND COVER 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 EN 545. 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.
15. DEVELOPER TO PROVIDE SPOOL PIECE, IRISH WATER TO PROVIDE METER. (SEE TABLE BELOW FOR SPOOL PIECE LENGTHS)

ELECTROMAGNETIC WATER METER SPOOL PIECE LENGTHS

Ø mm	DN50	DN80	DN100	DN125	DN150	DN200	DN250
Length mm	200		250		300	350	450

METER DIAMETER 'A' (mm)	INTERNAL CHAMBER DIMENSIONS	COVER DIMENSIONS	FLOOR SLAB DEPTH	WALL THICKNESS
50 - 100	1200 x 1200	750 x 750	200mm	200mm
101 - 250	1500 x 1500	900 x 900	250mm	250mm

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER — STANDARD DETAILS - WATER — SCALE: NOT TO SCALE — DATE: SEPT. 2015

No.	Date	Drn	Chk	Description	App
4	07/'20	RH	TOC	Notes Updated, spool lengths table included	MOD
3	11/'17	JMC	TOC	Revised notes & added table & hydrant	MOD
2	08/'16	JMC	TOC	Added steps & revised cover notes	MOD
1	04/'16	JMC	TOC	Added couplings to details	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

TITLE: ELECTROMAGNETIC METER CHAMBER (80 - 250mm DIA.) — DRAWING No.: STD-W- 26 — REV: 4

NOTE:
STANDARD DETAILS TAKEN FROM IRISH WATER DOCUMENT IW-CDS-5020-01 REV 03.
REFER TO LATEST REVISION OF THIS DOCUMENT FOR CONSTRUCTION DETAILS.

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY: GD — REVIEWED BY: DC — APPROVED BY: DC

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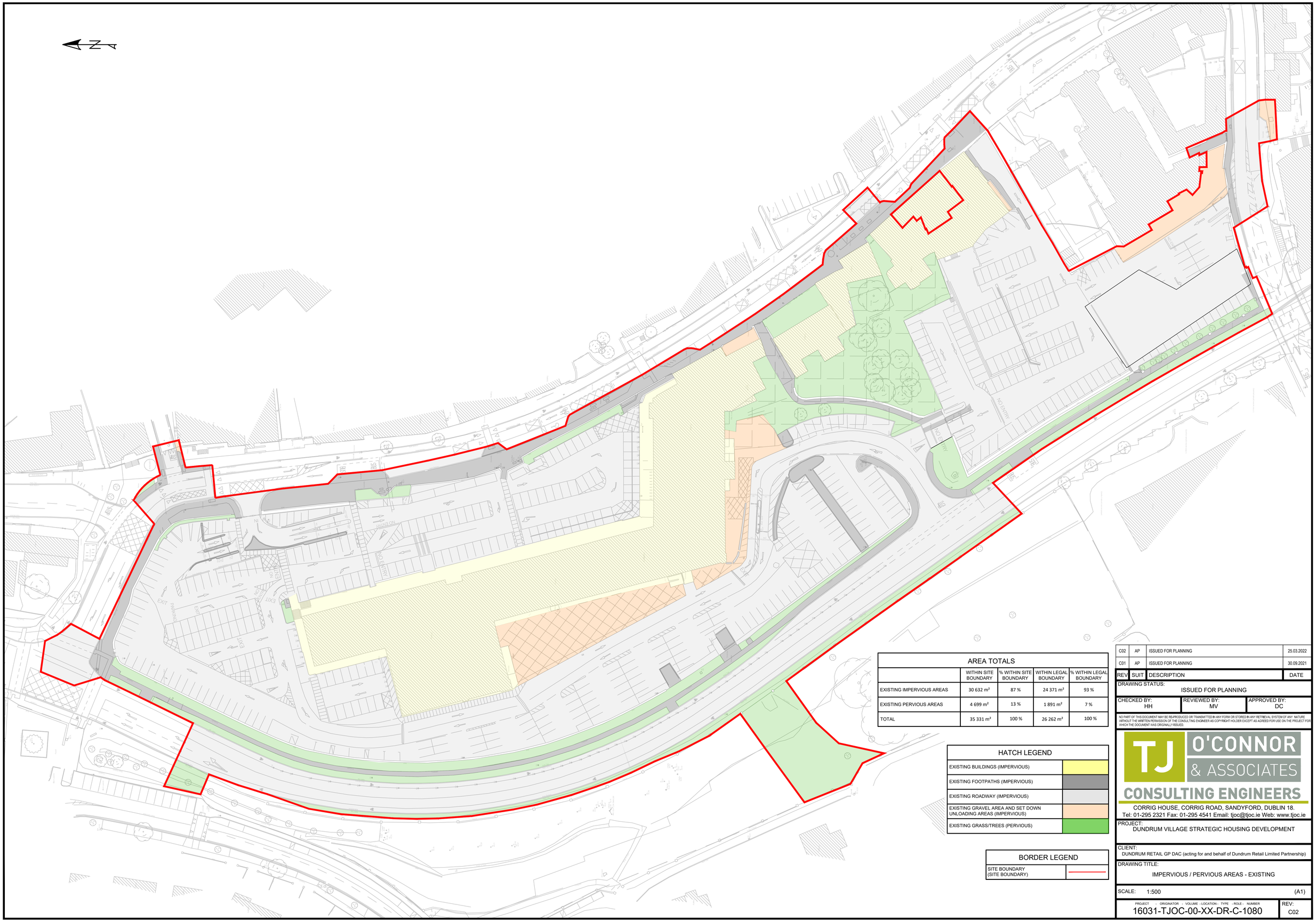
PROJECT: Dundrum Village – Strategic Housing Development

CLIENT: Dundrum Retail GP DAC (acting for and on behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: WATER INFRASTRUCTURE STANDARD DETAILS
STANDARD VALVE DETAILS

SCALE: NTS (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-XX-XX-DR-C-1079 — REV: C01



AREA TOTALS				
	WITHIN SITE BOUNDARY	% WITHIN SITE BOUNDARY	WITHIN LEGAL BOUNDARY	% WITHIN LEGAL BOUNDARY
EXISTING IMPERVIOUS AREAS	30 632 m²	87 %	24 371 m²	93 %
EXISTING PERVIOUS AREAS	4 699 m²	13 %	1 891 m²	7 %
TOTAL	35 331 m²	100 %	26 262 m²	100 %

HATCH LEGEND	
EXISTING BUILDINGS (IMPERVIOUS)	
EXISTING FOOTPATHS (IMPERVIOUS)	
EXISTING ROADWAY (IMPERVIOUS)	
EXISTING GRAVEL AREA AND SET DOWN UNLOADING AREAS (IMPERVIOUS)	
EXISTING GRASS/TREES (PERVIOUS)	

BORDER LEGEND	
SITE BOUNDARY (SITE BOUNDARY)	

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING	25.03.2022
C01	AP	ISSUED FOR PLANNING	30.09.2021

DRAWING STATUS: ISSUED FOR PLANNING

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: IMPERVIOUS / PERVIOUS AREAS - EXISTING

SCALE: 1:500 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1080

REV: C02

TOTAL ROOF AREAS		%
GREEN ROOFS	5 179 m²	51.5
TERRACE AND PRIVATE AMENITY	2 243 m²	22.3
LIFT OVERRUN / AOV	342 m²	3.4
IMPERMEABLE ROOF AREA	1 373 m²	13.6
BLUE ROOF AREA	918 m²	9.2
TOTAL COVERAGE	10 055 m²	100

**TREE AREAS ALSO INCLUDED WITHIN HERBACEOUS PLANTING, THEREFORE NOT CONTRIBUTING TO TOTAL AREAS

BORDER LEGEND	
MEASURED AS ROOF AREAS	
SITE BOUNDARY (PLANNING BOUNDARY)	
DRAINAGE CATCHMENT BOUNDARY	

HATCH LEGEND	
EXISTING BUILDINGS	
GREEN ROOFS	
COMMUNAL AMENITY	
BLUE ROOFS	
PRIVATE AMENITY	
IMPERMEABLE ROOF	
PLAY AREAS	
EXERCISE AREA	
TERRACE	
FOOTPATH	
HEDGES	
HERBACEOUS PLANT	
VEGETATION (TREES)	
LAWN	
GRIDS	

TOTAL LANDSCAPING AREAS		%
PLAY AREAS	193.09 m²	1.2
EXERCISE AREA	110.80 m²	0.7
TERRACE	466.75 m²	2.9
FOOTPATH	7270.33 m²	44.7
HEDGES	704.85 m²	4.3
HERBACEOUS PLANT	5 847.42 m²	35.9
VEGETATION(TREES)**	3 869.34 m²	-
LAWN	1 643.23 m²	10.1
GRIDS	33.50 m²	0.2
TOTAL COVERAGE WITHIN KERB LINE OF DEVELOPMENT	16 269.98 m²	100

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH 16031-TJOC-00-XX-DR-C-1106 PROPOSED DRAINAGE CATCHMENT AREA.
2. THE PROPOSED SURFACE WATER DRAINAGE LAYOUT IS SHOWN AT DRAWINGS 16031-TJOC-00-XX-DR-C-1082 PODIUM LEVEL AND 16031-TJOC-00-XX-DR-C-1083 LOWER GROUND FLOOR.

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING	25.03.2022
C01	AP	ISSUED FOR PLANNING	30.09.2021

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY: HH | REVIEWED BY: MV | APPROVED BY: DC

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

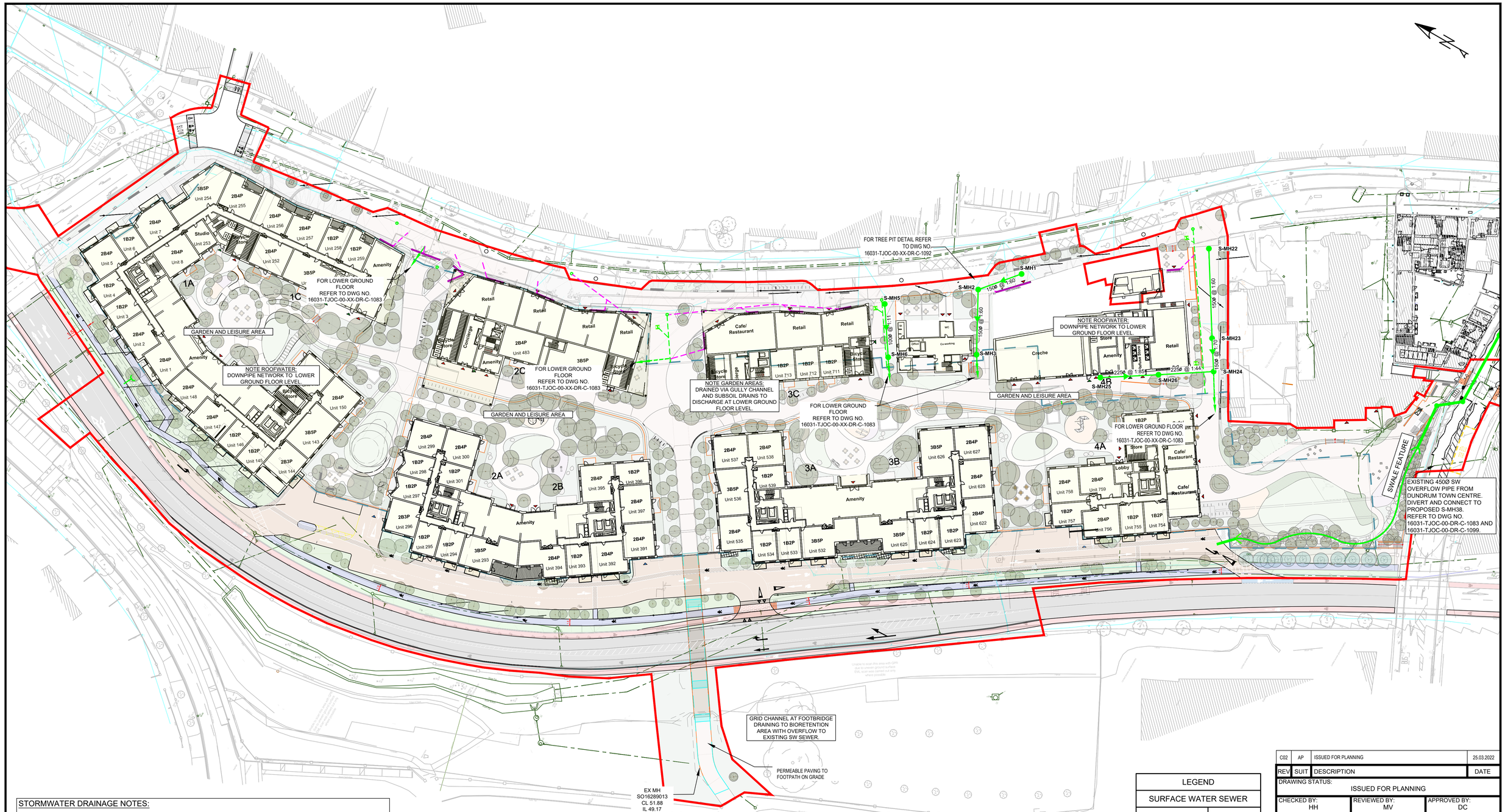
CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED ROOF SURFACE WATER DRAINAGE LAYOUT

SCALE: 1:500 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1081

REV: C02



STORMWATER DRAINAGE NOTES:

1. GENERAL:

1.1. DO NOT SCALE, USE FIGURED DIMENSIONS ONLY.
1.2. ALL LEVELS TO BE CHECKED PRIOR TO START OF CONSTRUCTION AND DISCREPANCIES REPORTED TO THE ENGINEER.
1.3. THE CONTRACTOR SHALL REPORT ANY DISCREPANCY TO THE ENGINEER WITH REGARDS TO STANDARDS AND SPECIFICATIONS BEFORE ORDERING MATERIAL.

2. EXISTING SERVICES:

2.1. TIE-IN INFRASTRUCTURE SHALL BE CHECKED FOR CORRECTNESS PRIOR TO CONSTRUCTION.
2.2. THE POSITION AND LEVEL OF ALL EXISTING SERVICES AFFECTED BY THE WORKS SHALL BE CONFIRMED PRIOR TO CONSTRUCTION.
2.3. THE CONTRACTOR SHALL AT ALL TIMES PROTECT THE EXISTING SERVICES FROM DAMAGE.

3. PIPES TO BE:

3.1. uPVC GRAVITY SEWERAGE CLASS.
3.2. MINIMUM DIAMETER OF 225mm.
3.3. PIPES TO BE LAID SOFFIT TO SOFFIT.

4. MANHOLES TO BE:

4.1. CONSTRUCTED TO STANDARD DETAILS 16031-TJOC-00-XX-DR-C-1095 AND 16031-TJOC-00-XX-DR-C-1096 .
4.2. STEP IRONS MUST BE INSTALLED WHERE MANHOLE DEPTHS EXCEEDS 1m.

5. BEDDING AND BACKFILL AT TRENCHES:

6.1 TO BE CLASS E TO CONSTRUCTED TO STANDARD DETAILS 16031-TJOC-00-XX-DR-C-1094.

SITE SPECIFIC NOTES:

1. ALL DRAINAGE RUNS WILL BE COORDINATED WITH COLUMNS AND FOOTINGS FOR STAGE 3 DESIGN.
2. PHASE 1A, 1B AND 1C STORMWATER DRAINAGE WILL BE LOCATED WITHIN THE SERVICE CORRIDOR - EXACT LOCATION TO BE CONFIRMED DURING DETAIL DESIGN FROM LOWER GROUND FLOOR DRAWING 16031-TJOC-00-XX-DR-C-0037.
3. ALL PODIUM DRAINAGE WILL BE ROUTED THROUGH THE LOWER GROUND FLOOR LEVEL TO THE ATTENUATION TANKS BEFORE DISCHARGING TO THE TRUNK SEWER IN THE SERVICE ROAD

LEGEND

SURFACE WATER SEWER	
PROPOSED PIPE	
EXISTING PIPE	
PROPOSED INTERNAL NETWORK (INDICATIVE)	
PROPOSED MANHOLE	
EXISTING CHAMBERS	
SITE BOUNDARY (PLANNING BOUNDARY)	
LOWER GROUND RETAINING WALL	
PETROL INTERCEPTOR	
PROPOSED GRID CHANNEL COMMERCIAL TYPE (HD)	
SILT TRAP BOX OUTLET	ST
PROPOSED GRID CHANNEL PIPEWORK	

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED SURFACE WATER DRAINAGE LAYOUT - PODIUM

SCALE: 1:500 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1082

REV: C02

FOR PODIUM LEVEL SW DRAINAGE REFER TO DRG 16031-TJOC-00-XX-DR-C-1082.

SWALE FEATURE WITHIN LANDSCAPE STRIP

OUTFALL TO EXISTING SLANG CULVERT

NOTE ROOFWATER: DOWNPIPE NETWORK TO LOWER GROUND FLOOR LEVEL.

PROPOSED OUTLET CHAMBER - ZONE 1

PROPOSED OUTLET CHAMBER - ZONE 2

PROPOSED OUTLET CHAMBER - ZONE 3

PROPOSED OUTLET CHAMBER - ZONE 4A

PROPOSED OUTLET CHAMBER - ZONE 4B

EXISTING MANHOLE TO BE EXTENDED TO FINISHED GROUND LEVEL

EXISTING 450Ø SW OVERFLOW PIPE FROM DUNDRUM TOWN CENTRE. DIVERT AND CONNECT TO PROPOSED S-MH38.

HYDROBRAKE TO BE LOCATED WITHIN MH51 IN ORDER TO CONTROL SURFACE WATER. FOR DETAIL OF THE HYDROBRAKE REFER TO DRG 16031-TJOC-00-XX-DR-C-1092 & 16031-TJOC-00-XX-DR-C-1059

NEW GULLEY TO BE CONSTRUCTED AT TIE-IN TO EXISTING NETWORK

NON-RETURN VALVE ON CONNECTION FROM GRID CHANNEL AT LOW POINT IN LOADING BAY

NEW GULLEY TO BE CONSTRUCTED AND TIE-IN TO EXISTING NETWORK

CONNECTION TO EXISTING SLANG STREAM CULVERT

HYDROBRAKE TO BE LOCATED WITHIN MH36 IN ORDER TO CONTROL SURFACE WATER. FOR DETAIL OF THE HYDROBRAKE REFER TO DRG 16031-TJOC-00-XX-DR-C-1092

STORMWATER DRAINAGE NOTES:

1. GENERAL:
1.1. DO NOT SCALE, USE FIGURED DIMENSIONS ONLY.
1.2. ALL LEVELS TO BE CHECKED PRIOR TO START OF CONSTRUCTION AND DISCREPANCIES REPORTED TO THE ENGINEER.
1.3. THE CONTRACTOR SHALL REPORT ANY DISCREPANCY TO THE ENGINEER WITH REGARDS TO STANDARDS AND SPECIFICATIONS BEFORE ORDERING MATERIAL.

2. EXISTING SERVICES:
2.1. TIE-IN INFRASTRUCTURE SHALL BE CHECKED FOR CORRECTNESS PRIOR TO CONSTRUCTION.
2.2. THE POSITION AND LEVEL OF ALL EXISTING SERVICES AFFECTED BY THE WORKS SHALL BE CONFIRMED PRIOR TO CONSTRUCTION.
2.3. THE CONTRACTOR SHALL AT ALL TIMES PROTECT THE EXISTING SERVICES FROM DAMAGE.
3. PIPES TO BE:
3.1. uPVC GRAVITY SEWERAGE CLASS.
3.2. MINIMUM DIAMETER OF 225mm.
3.3. PIPES TO BE LAID SOFFIT TO SOFFIT.

4. MANHOLES TO BE:
4.1. CONSTRUCTED TO STANDARD DETAILS 16031-TJOC-00-XX-DR-C-1095 AND 16031-TJOC-00-XX-DR-C-1096 .
4.2. STEP IRONS MUST BE INSTALLED WHERE MANHOLE DEPTHS EXCEEDS 1m.

5. BEDDING AND BACKFILL AT TRENCHES:
5.1 TO BE CLASS E TO CONSTRUCTED TO STANDARD DETAILS 16031-TJOC-00-XX-DR-C-1094.

SITE SPECIFIC NOTES:

1. ALL DRAINAGE RUNS ARE COORDINATED WITH COLUMNS AND FOOTINGS FOR STAGE 3 DESIGN.
2. ALL PODIUM DRAINAGE WILL BE ROUTED THROUGH THE LOWER GROUND FLOOR LEVEL TO THE ATTENUATION TANKS BEFORE DISCHARGING TO THE TRUNK SEWER IN THE SERVICE ROAD
3. REFER TO DRAWING 16031-TJOC-00-XX-DR-C-1101 & 16031-TJOC-00-XX-DR-C-1102 FOR THE ATTENUATION TANK LAYOUTS AND DESCRIPTIONS.
4. REFER TO DRAWING 16031-TJOC-00-XX-DR-C-1103 FOR THE MANHOLE SCHEDULE AND PIPE TABLES
5. SEE DRAWINGS 16031-TJOC-00-XX-DR-C-1084 AND 16031-TJOC-00-XX-DR-C-1085 FOR 1:250 SCALE DRAWINGS OF THE LOWER GROUND FLOOR SW DRAINAGE LAYOUTS.

LEGEND

SURFACE WATER SEWER

PROPOSED PIPE	
EXISTING PIPE	
PROPOSED MANHOLE	
EXISTING CHAMBERS	
PROPOSED GULLY	
SITE BOUNDARY (PLANNING BOUNDARY)	
LOWER GROUND RETAINING WALL	
PETROL INTERCEPTOR	
PROPOSED GRID CHANNEL COMMERCIAL TYPE (HD)	
SILT TRAP BOX OUTLET	ST
PROPOSED GRID CHANNEL PIPEWORK	

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING WITH REVISED COMPENSATORY STORAGE AREA	30.03.2022
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED SURFACE WATER DRAINAGE LAYOUT - LOWER GROUND FLOOR LAYOUT

SCALE: 1:500 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1083

REV: C02

N-MH46
CL: 46.111
IL: 43.928

N-MH47
CL: 44.702
IL: 43.350

N-MH48
CL: 44.557
IL: 43.043

N-MH39
CL: 46.000
IL: 43.466

N-MH40
CL: 46.000
IL: 43.384

N-MH41
CL: 46.000
IL: 43.231

N-MH42
CL: 46.000
IL: 43.103

N-MH43
CL: 46.000
IL: 42.970

N-MH44
CL: 46.000
IL: 42.866

N-MH49
CL: 45.231
IL: 42.861

N-MH51
CL: 44.705
IL: 42.204

N-MH52
CL: 44.845
IL: 42.159

N-MH50
CL: 45.541
IL: 42.[illegible]

N-MH45
CL: 45.579
IL: 42.330

N-MH22
CL: 45.147
IL: 42.482

N-MH21
CL: 45.372
IL: 42.636

N-MH20
CL: 45.515
IL: 42.747

N-MH19
CL: 45.610
IL: 42.841

N-MH38
CL: 45.509
IL: 42.630

N-MH37
CL: 45.6[illegible]
IL: 43.0[illegible]

N-MH36
CL: 46.0[illegible]
IL: 43.1[illegible]

N-MH35
CL: 46.000
IL: 43.176

N-MH31
CL: 46.000
IL: 44.650

N-MH32
CL: 46.000
IL: 44.496

N-MH33
CL: 46.000
IL: 44.348

N-MH34
CL: 46.000
IL: 44.137

N-MH30
CL: 46.000
IL: 43.977

N-MH27
CL: 46.000
IL: 43.829

N-MH29
CL: 46.000
IL: 44.133

N-MH28
CL: 46.000
IL: 44.2[illegible]

N-MH26
CL: 46.000
IL: 44.[illegible]

N-MH25
CL: 46.000
IL: 44.[illegible]

N-MH23
CL: 46.628
IL: 44.575

N-MH24
CL: 49.578
IL: 47.966

N-MH3
CL: 46.000
IL: 44.426

N-MH4
CL: 46.000
IL: 44.291

N-MH5
CL: 46.000
IL: 44.161

N-MH8
CL: 46.000
IL: 44.421

N-MH7
CL: 46.000
IL: 44.449

N-MH6
CL: 46.000
IL: 44.603

N-MH10
CL: 46.000
IL: 44.287

N-MH9
CL: 46.000
IL: 44.077

N-MH11
CL: 46.000
IL: 44.050

N-MH15
CL: 46.000
IL: 44.426

N-MH14
CL: 46.000
IL: 44.259

N-MH13
CL: 46.000
IL: 44.448

N-MH12
CL: 50.500
IL: 44.[illegible]

N-MH16
CL: 46.000
IL: 43.318

N-MH17
CL: 46.000
IL: 43.223

N-MH18
CL: 46.000
IL: 43.046

N-MH2
CL: 45.778
IL: 42.956

Zone 1 Stormtech Inlet
CL: 46.000
IL: 43.769

Zone 1 Stormtech Outlet
CL: 46.000
IL: 43.244

Zone 2 Stormtech Inlet
CL: 46.000
IL: 44.000

Zone 2 Stormtech Outlet
CL: 46.000
IL: 43.900

Retail
Retail
Plant
Plant
Plant
Plant
Plant
Plant
Comm. Plant
Comm. Plant
Move In/Out
Move In/Out
Refuse Store
Refuse Store
Refuse Store
Refuse Store
Bicycle Store
Bicycle Store
Bicycle Store
Lobby
Parcel Room
Parcel Room
Switch Room
BOH
Workshop
Substation
Car Park
Car Park
Loading Bay
GRID CHANNEL

FOR CONTINUATION AT PODIUM LEVEL SEE DRAWING 16031-TJOC-00-XX-DR-C-1082

SWALE FEATURE WITHIN LANDSCAPED STRIP

INLET FROM COMPENSATORY STORAGE DRAIN DOWN WITHIN ZONE 1, CONNECTION TO MH51. FOR DETAILS REFER TO DRG 16031-TJOC-00-XX-DR-C-1058.

HYDROBRAKE IN MH51 LIMITING DISCHARGE FROM NORTH CATCHMENT TO 6.08 l/s. FOR DETAILS REFER TO DRG'S 16031-TJOC-00-XX-DR-C-1092 AND 16031-TJOC-00-XX-DR-C-1093

NOTE ROOFWATER DOWNPIPE NETWORK TO LOWER GROUND FLOOR LEVEL.

OUTFALL TO EXISTING SLANG CULVERT

KLARGESTER NSBE030 CLASS 1 BYPASS PETROL INTERCEPTOR

PROPOSED OUTLET CHAMBER - ZONE 1

PROPOSED OUTLET CHAMBER - ZONE 2

FOR LONGITUDINAL SECTIONS OF SW SEWERS SEE DRAWINGS 16031-TJOC-00-XX-DR-C-1086 TO 16031-TJOC-00-XX-DR-C-1089 AND DRAWINGS 16031-TJOC-00-XX-DR-C-1099 TO 16031-TJOC-00-XX-DR-C-1100 AND DRAWING 16031-TJOC-00-XX-DR-C-1111.

INCIDENTAL SW RUNOFF FROM LOWER GROUND FLOOR CARPARK IS DIRECTED TO FOUL DRAINAGE SYSTEM AS SHOWN AT DRAWING 16031-TJOC-00-XX-DR-C-1069

STORMWATER DRAINAGE NOTES:

1. GENERAL:

1.1. DO NOT SCALE, USE FIGURED DIMENSIONS ONLY.
1.2. ALL LEVELS TO BE CHECKED PRIOR TO START OF CONSTRUCTION AND DISCREPANCIES REPORTED TO THE ENGINEER.
1.3. THE CONTRACTOR SHALL REPORT ANY DISCREPANCY TO THE ENGINEER WITH REGARDS TO STANDARDS AND SPECIFICATIONS BEFORE ORDERING MATERIAL.

2. EXISTING SERVICES:

2.1. TIE-IN INFRASTRUCTURE SHALL BE CHECKED FOR CORRECTNESS PRIOR TO CONSTRUCTION.
2.2. THE POSITION AND LEVEL OF ALL EXISTING SERVICES AFFECTED BY THE WORKS SHALL BE CONFIRMED PRIOR TO CONSTRUCTION.
2.3. THE CONTRACTOR SHALL AT ALL TIMES PROTECT THE EXISTING SERVICES FROM DAMAGE.

3. PIPES TO BE:

3.1. uPVC GRAVITY SEWERAGE CLASS.
3.2. MINIMUM DIAMETER OF 225mm.
3.3. PIPES TO BE LAID SOFFIT TO SOFFIT.

4. MANHOLES TO BE:

4.1. CONSTRUCTED TO STANDARD DETAILS 16031-TJOC-00-XX-DR-C-1095 AND 16031-TJOC-00-XX-DR-C-1096 .
4.2. STEP IRONS MUST BE INSTALLED WHERE MANHOLE DEPTHS EXCEEDS 1m.

5. BEDDING AND BACKFILL AT TRENCHES:

6.1 TO BE CLASS E TO CONSTRUCTED TO STANDARD DETAILS 16031-TJOC-00-XX-DR-C-1094.

SITE SPECIFIC NOTES:

1. ALL DRAINAGE RUNS ARE COORDINATED WITH COLUMNS AND FOOTINGS FOR STAGE 3 DESIGN.
2. ALL PODIUM DRAINAGE WILL BE ROUTED THROUGH THE LOWER GROUND FLOOR LEVEL TO THE ATTENUATION TANKS BEFORE DISCHARGING TO THE TRUNK SEWER IN THE SERVICE ROAD
3. REFER TO DRAWING 16031-TJOC-00-XX-DR-C-1101 & 16031-TJOC-00-XX-DR-C-1102 FOR THE ATTENUATION TANK LAYOUTS AND DESCRIPTIONS.
4. REFER TO DRAWING 16031-TJOC-00-XX-DR-C-1103 FOR THE STRUCTURE AND PIPE TABLES

LEGEND

SURFACE WATER SEWER	
PROPOSED SW SEWER	
EXISTING SW SEWER	
PROPOSED MANHOLE	
EXISTING CHAMBERS	
PROPOSED GULLY	
SITE BOUNDARY (PLANNING BOUNDARY)	
LOWER GROUND RETAINING WALL	
PETROL INTERCEPTOR	
PROPOSED GRID CHANNEL COMMERCIAL TYPE (HD)	
SILT TRAP BOX OUTLET	ST
PROPOSED GRID CHANNEL PIPEWORK	

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING WITH REVISED COMPENSATORY STORAGE	30.03.2022
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED SURFACE WATER DRAINAGE LAYOUT - SHEET 1

SCALE: 1:250 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1084

REV: C02

FOR CONTINUATION AT PODIUM LEVEL SEE DRAWING 16031-TJOC-00-XX-DR-C-1082

FOR CONTINUATION AT PODIUM LEVEL SEE DRAWING 16031-TJOC-00-XX-DR-C-1082

FOR CONTINUATION AT PODIUM LEVEL SEE DRAWING 16031-TJOC-00-XX-DR-C-1082

Plant

N-MH13
CL: 46.000
IL: 44.448

N-MH12
IL: 44.500

225ø @ 1:120

150ø @ 1:70

Comm. Plant

Refuse Store

Move In/Out

S-MH8
CL: 46.500
IL: 45.060

225ø @ 1:126

S-MH9
CL: 46.500
IL: 44.920

225ø @ 1:119

150ø @ 1:70

S-MH10

225ø @ 1:100

S-MH7
CL: 46.500
IL: 44.879

S-MH10
CL: 46.519
IL: 44.969

S-MH11
CL: 46.500
IL: 44.711

300ø @ 1:137

300ø @ 1:175

150ø @ 1:60

S-MH4
CL: 46.500
IL: 45.082

150ø @ 1:70

S-MH12
CL: 46.500
IL: 44.849

Comm. Plant

PROPOSED OUTLET CHAMBER - ZONE 4A

Zone 3 Stormtech Inlet (1)

Zone 3 Stormtech Outlet
CL: 46.500
IL: 44.700

S-MH14
CL: 46.500
IL: 44.630

Zone 3 Stormtech Inlet (1)
CL: 46.500
IL: 44.700

Car Park

Zone 2 Stormtech Outlet
Zone 2 Stormtech Outlet
IL: 43.900

300ø @ 1:171

N-MH16
CL: 46.000
IL: 43.318

300ø @ 1:160

S-MH15
CL: 46.500
IL: 44.610

300ø @ 1:101

S-MH16
CL: 46.500
IL: 44.412

225ø @ 1:68

S-MH17
S-MH17
IL: 45.075

300ø @ 1:196

S-MH16

S-MH19
S-MH19
IL: 45.150

150ø @ 1:70

S-MH18
CL: 46.500
IL: 44.316

450ø @ 1:188

N-MH6
CL: 46.000
N-MH6: 44.603

N-MH7
CL: 46.000
IL: 44.449

225ø @ 1:120

N-MH18
CL: 46.000
N-MH18IL: 43.046

N-MH17
CL: 46.000
IL: 43.223

300ø @ 1:130

N-MH17

Move In/Out

Bicycle Store

Substation

Bicycle Store

Move In/Out

S-MH18

Refuse Store

Refuse Store

375ø @ 1:250

GRID CHANNEL

Plant

Refuse Store

Bicycle Store

Move In/Out

Workshop

Substation

Parcel Room

GRID CHANNEL

S-MH31

Refuse Store

Bicycle Store

Substation

Plant

S-MH21
S-MH21
IL: 43.975

450ø @ 1:267

S-MH20
CL: 46.243
IL: 44.025

S-MH20

S-MH35
CL: 46.558
IL: 44.119

450ø @ 1:250

S-MH35

450ø @ 1:250

S-MH32
CL: 46.802
S-MH32 44.237

300ø @ 1:180

S-MH34
S-MH34 1.912
IL:

S-MH36
CL: 46.369
IL: 43.950

KLARGESTER NSBE030 CLASS 1 BYPASS PETROL INTERCEPTOR

CONNECTION TO EXISTING SLANG STREAM CULVERT

HYDROBRAKE IN MH 36 LIMITING DISCHARGE FROM SOUTH CATCHMENT TO 5.64 l/s.

N-MH1
N-MH1
IL: 43.681

150ø @ 1:68

N-MH2
N-MH2
CL: 45.778
IL: 42.956

375ø @ 1:250

S-MH27
S-MH27
CL: 47.000
IL: 44.787

225ø @ 1:110

S-MH28
S-MH28
CL: 47.000
IL: 44.739

225ø @ 1:132

Zone 4 Stormtech (1) Inlet

225ø @ 1:121

Zone 4 Stormtech (1) Outlet
Zone 4 Stormtech (1) Outlet
IL: 44.715

225ø @ 1:122

S-MH29

S-MH29
CL: 47.000
IL: 44.597

Zone 4 Stormtech (1) Inlet
CL: 47.000
IL: 44.715

PROPOSED OUTLET CHAMBER - ZONE 4B

S-MH33

225ø @ 1:230

Zone 4 Stormtech (2) Outlet (1)
Zone 4 Stormtech (2) Outlet (1)
CL: 47.000
IL: 44.715

S-MH33
CL: 47.000
IL: 44.708

300ø @ 1:160

225ø @ 1:160

S-MH30
CL: 47.000
IL: 44.496

300ø @ 1:140

S-MH31

300ø @ 1:188

Move In/Out

Refuse Store

Bicycle Store

Substation

Plant

Unable to scan this area with GPR due to uneven ground surface EML scan was carried out only where possible

INCIDENTAL SW RUNOFF FROM LOWER GROUND FLOOR CARPARK IS DIRECTED TO FOUL DRAINAGE SYSTEM AS SHOWN AT DRAWING 16031-TJOC-00-XX-DR-C-1069

SITE SPECIFIC NOTES:

1. ALL DRAINAGE RUNS ARE COORDINATED WITH COLUMNS AND FOOTINGS FOR STAGE 3 DESIGN.
2. ALL PODIUM DRAINAGE WILL BE ROUTED THROUGH THE LOWER GROUND FLOOR LEVEL TO THE ATTENUATION TANKS BEFORE DISCHARGING TO THE TRUNK SEWER IN THE SERVICE ROAD
3. REFER TO DRAWING 16031-TJOC-00-XX-DR-C-1101 & 16031-TJOC-00-XX-DR-C-1102 FOR THE ATTENUATION TANK LAYOUTS AND DESCRIPTIONS.
4. REFER TO DRAWING 16031-TJOC-00-XX-DR-C-1103 FOR THE STRUCTURE AND PIPE TABLES

STORMWATER DRAINAGE NOTES:

1. GENERAL:

1.1. DO NOT SCALE, USE FIGURED DIMENSIONS ONLY.
1.2. ALL LEVELS TO BE CHECKED PRIOR TO START OF CONSTRUCTION AND DISCREPANCIES REPORTED TO THE ENGINEER.
1.3. THE CONTRACTOR SHALL REPORT ANY DISCREPANCY TO THE ENGINEER WITH REGARDS TO STANDARDS AND SPECIFICATIONS BEFORE ORDERING MATERIAL.

2. EXISTING SERVICES:

2.1. TIE-IN INFRASTRUCTURE SHALL BE CHECKED FOR CORRECTNESS PRIOR TO CONSTRUCTION.
2.2. THE POSITION AND LEVEL OF ALL EXISTING SERVICES AFFECTED BY THE WORKS SHALL BE CONFIRMED PRIOR TO CONSTRUCTION.
2.3. THE CONTRACTOR SHALL AT ALL TIMES PROTECT THE EXISTING SERVICES FROM DAMAGE.

3. PIPES TO BE:

3.1. uPVC GRAVITY SEWERAGE CLASS.
3.2. MINIMUM DIAMETER OF 225mm.
3.3. PIPES TO BE LAID SOFFIT TO SOFFIT.
4. MANHOLES TO BE:

4.1. CONSTRUCTED TO STANDARD DETAILS 16031-TJOC-00-XX-DR-C-1095 AND 16031-TJOC-00-XX-DR-C-1096 .
4.2. STEP IRONS MUST BE INSTALLED WHERE MANHOLE DEPTHS EXCEEDS 1m.

5. BEDDING AND BACKFILL AT TRENCHES:

6.1 TO BE CLASS E TO CONSTRUCTED TO STANDARD DETAILS 16031-TJOC-00-XX-DR-C-1094.

LEGEND

SURFACE WATER SEWER

PROPOSED PIPE	
EXISTING PIPE	
PROPOSED MANHOLE	
EXISTING CHAMBERS	
PROPOSED GULLY	
SITE BOUNDARY (PLANNING BOUNDARY)	
LOWER GROUND RETAINING WALL	
PETROL INTERCEPTOR	
PROPOSED GRID CHANNEL COMMERCIAL TYPE (HD)	
SILT TRAP BOX OUTLET	ST
PROPOSED GRID CHANNEL PIPEWORK	

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED SURFACE WATER DRAINAGE LAYOUT - SHEET 2

SCALE: 1:250 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1085

REV: C01

COVER LEVEL	46.000	46.000	46.000	46.000	46.000	46.000	45.509	45.147	45.579	44.705	44.845
INVERT LEVEL	43.466	43.384 43.384	43.306 43.231	43.103 43.103	42.976 42.976	42.941 42.866	42.705 42.630	42.557 42.482	42.405 42.330	42.204 42.204	42.159
CHAINAGE	0.000	5.771	11.187	26.598	41.834	44.652	73.721	82.508		141.203	158.105
PIPE DIAMETER AND GRADIENT	2.000 150ø @ 1:70	2.001 150ø @ 1:70	2.002 225ø @ 1:120	2.003 225ø @ 1:120	2.004 225ø @ 1:81	2.005 300ø @ 1:180	6.008 375ø @ 1:120	1.005 450ø @ 1:160	1.006 450ø @ 1:370	1.007 450ø @ 1:370	
PIPE MATERIAL	uPVC	uPVC	uPVC TWIN WALL	uPVC TWIN WALL	uPVC TWIN WALL	uPVC TWIN WALL	uPVC TWIN WALL	uPVC TWIN WALL	uPVC TWIN WALL	uPVC TWIN WALL	
MANHOLE TYPE:	A2	A2	A2	A2	A4	A4	A4	A4	A4	A4	A2
TYPE OF GROUND											
BEDDING AND SURROUND	Class E										
BACKFILL AND REINSTATEMENT	Class E										

SW1 ZONE 1
SCALE: 1:250 H,1:50 V

COVER LEVEL	46.000	46.000	46.000	46.000	46.000
INVERT LEVEL	44.274	44.133 44.133	43.977 43.977	43.904 43.829	43.769
CHAINAGE	0.000	16.929	35.575	41.409	43.660
PIPE DIAMETER AND GRADIENT	3.000 225ø @ 1:120	3.001 225ø @ 1:120	3.002 225ø @ 1:80	3.003 300ø @ 1:37	
PIPE MATERIAL	uPVC TWIN WALL	uPVC TWIN WALL	uPVC TWIN WALL	uPVC TWIN WALL	
MANHOLE TYPE:	A2	A2	A4	A4	A1
TYPE OF GROUND					
BEDDING AND SURROUND	Class E				
BACKFILL AND REINSTATEMENT	Class E				

SW2 - Z1 INTO ST
SCALE: 1:250 H,1:50 V

COVER LEVEL	46.000	46.000	46.000	45.680	45.509
INVERT LEVEL	43.244	43.176 43.176	43.154 43.154	43.090 43.090	42.997
CHAINAGE	0.000	11.601	15.330	26.110	42.038
PIPE DIAMETER AND GRADIENT	3.004 375ø @ 1:170	3.005 375ø @ 1:170	3.006 375ø @ 1:170	3.007 375ø @ 1:170	
PIPE MATERIAL	uPVC TWIN WALL	uPVC TWIN WALL	uPVC TWIN WALL	uPVC TWIN WALL	
MANHOLE TYPE:	A4	A2	A2	A4	A4
TYPE OF GROUND					
BEDDING AND SURROUND	Class E				
BACKFILL AND REINSTATEMENT	Class E				

SW1.1 - Z1 FROM ST
SCALE: 1:250 H,1:50 V

NOTE:

THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH DRGS 16031-TJOC-00-XX-DR-C-1082 TO C-1085 FOR SW DRAINAGE LAYOUT PLANS AND DRGS 16031-TJOC-00-XX-DR-C-1087 TO C-1089 AND 16031-TJOC-00-XX-DR-C-1099 TO C-1100.

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING WITH REVISED COMPENSATORY STORAGE AREA	30.03.2022
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY: HH | REVIEWED BY: MV | APPROVED BY: DC

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

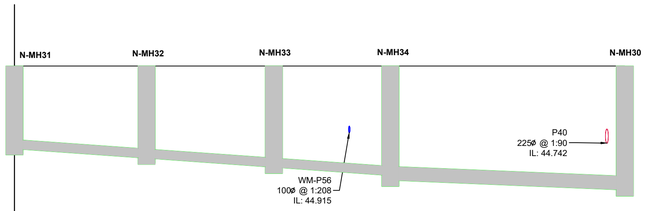
PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED SURFACE WATER SECTIONS - ZONE 1 SHEET 1

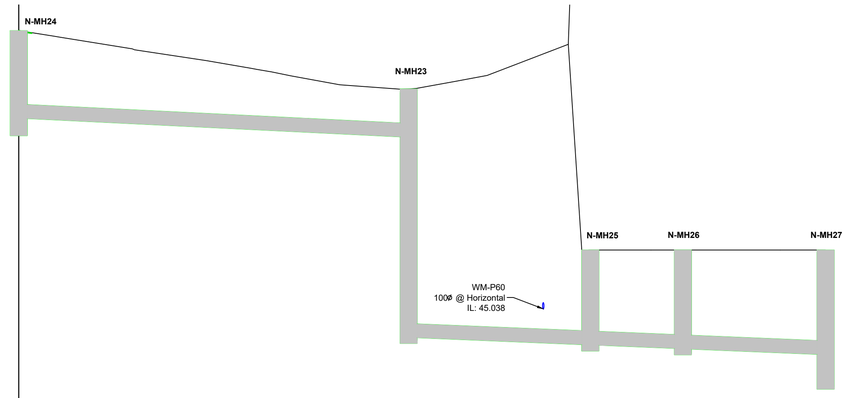
SCALE: AS SHOWN (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1086
REV: C02



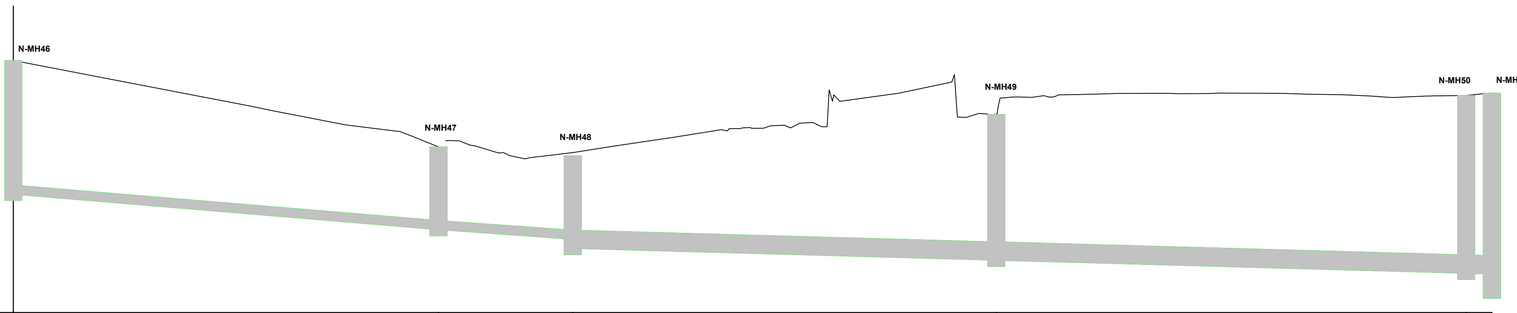
COVER LEVEL	46.000	46.000	46.000	46.000	46.000
INVERT LEVEL	44.650	44.496 / 44.466	44.348 / 44.348	44.212 / 44.137	43.977
CHAINAGE	0.000	10.788	21.173	30.683	49.814
PIPE DIAMETER AND GRADIENT	4.000 150ø @ 1: 70	4.001 150ø @ 1: 70	4.002 150ø @ 1: 70	4.003 225ø @ 1:120	
PIPE MATERIAL	uPVC	uPVC	uPVC	uPVC TWINWALL	
MANHOLE TYPE:	A1	A1	A4	A2	A4
TYPE OF GROUND					
BEDDING AND SURROUND	Class E				
BACKFILL AND REINSTATEMENT	Class E				

SW2.1 - Z1
SCALE: 1:250 H,1:50 V



COVER LEVEL	49.578	48.628	46.000	46.000	46.000
INVERT LEVEL	48.153	47.840 / 44.575	44.451 / 44.451	44.388 / 44.388	44.291
CHAINAGE	0.000	31.817	46.646	54.202	65.845
PIPE DIAMETER AND GRADIENT	6.001 225ø @ 1:102	Pipe 225ø @ 1:120	Pipe (1) 225ø @ 1:120	5.002 225ø @ 1:120	
PIPE MATERIAL	uPVC TWINWALL	uPVC TWINWALL	uPVC TWINWALL	Reinforced Concrete	
MANHOLE TYPE:	C1	B2	A2	A3	A4
TYPE OF GROUND					
BEDDING AND SURROUND	Class E				
BACKFILL AND REINSTATEMENT	Class E				

SW2.2 -Z1
SCALE: 1:250 H,1:50 V



COVER LEVEL	46.111	44.702	44.557	45.231	45.541	45.579	
INVERT LEVEL	43.928	43.350 / 43.350	43.193 / 43.043	42.851 / 42.851	42.638 / 42.638	42.687	
CHAINAGE	0.000	34.701	45.698	80.226	118.571	120.675	
PIPE DIAMETER AND GRADIENT	6.000 (1) 150ø @ 1: 60	6.001 (1) 150ø @ 1: 70	6.002 300ø @ 1: 180	6.003 300ø @ 1: 180	300ø @ 1: 180	6.004	
PIPE MATERIAL	uPVC	uPVC	uPVC TWINWALL	uPVC TWINWALL	uPVC TWINWALL		
MANHOLE TYPE:	A2	A3	A1	A2	A4	A4	
TYPE OF GROUND							
BEDDING AND SURROUND	Class E						
BACKFILL AND REINSTATEMENT	Class E						

SW1.2 - ZONE 1
SCALE: 1:250 H,1:50 V

NOTE:

THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH DRGS 16031-TJOC-00-XX-DR-C-1082 TO C-1085 FOR SW DRAINAGE LAYOUT PLANS AND DRGS 16031-TJOC-00-XX-DR-C-1086 TO C-1089 AND 16031-TJOC-00-XX-DR-C-1099 TO C-1100.

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED SURFACE WATER SECTIONS - ZONE 1 SHEET 2

SCALE: AS SHOWN (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1087

REV: C01

	Zone 2 Stormtech Outlet	N-MH16	N-MH17	N-MH18	N-MH2	N-MH19	N-MH20	N-MH21	N-MH22
COVER LEVEL	46.000	46.000	46.000	46.000	45.778	45.610	45.515	45.372	45.147
INVERT LEVEL	43.900	43.870 / 43.318	43.223 / 43.223	43.121 / 43.046	42.956 / 42.956	42.841 / 42.841	42.747 / 42.747	42.636 / 42.636	42.557
CHAINAGE	0.000	4.520	19.761	33.051	55.572	84.178	107.703	135.500	155.376
MANHOLE TYPE:	A4	A4	A4	A4	A4	A2	A2	A2	A4

	7.003	7.004	7.005	7.006	1.001	1.002	1.003	1.004
PIPE DIAMETER AND GRADIENT	300ø @ 1:151	300ø @ 1:160	300ø @ 1:130	375ø @ 1:250	375ø @ 1:250	375ø @ 1:250	375ø @ 1:250	375ø @ 1:250
PIPE MATERIAL	uPVC TWINWALL	uPVC TWINWALL	uPVC TWINWALL	uPVC TWINWALL	uPVC TWINWALL	uPVC TWINWALL	uPVC TWINWALL	uPVC TWINWALL

TYPE OF GROUND

BEDDING AND SURROUND: Class E

BACKFILL AND REINSTATEMENT: Class E

SW1.3 - Z2 FROM ST
SCALE: 1:250 H,1:50 V

	N-MH3	N-MH4	N-MH5
COVER LEVEL	46.000	46.000	46.000
INVERT LEVEL	44.426	44.291 / 44.291	44.266
CHAINAGE	0.000	16.155	19.213
MANHOLE TYPE:	A1	A1	A4

	8.000	8.001
PIPE DIAMETER AND GRADIENT	225ø @ 1:120	225ø @ 1:120
PIPE MATERIAL	uPVC TWINWALL	uPVC TWINWALL

TYPE OF GROUND

BEDDING AND SURROUND: Class E

BACKFILL AND REINSTATEMENT: Class E

SW2.1 - Z2
SCALE: 1:250 H,1:50 V

	N-MH1	N-MH2
COVER LEVEL	46.078	45.778
INVERT LEVEL	43.681	43.181
CHAINAGE	0.000	34.189
MANHOLE TYPE:	A2	A4

	1.000
PIPE DIAMETER AND GRADIENT	150ø @ 1:68
PIPE MATERIAL	uPVC

TYPE OF GROUND

BEDDING AND SURROUND: Class E

BACKFILL AND REINSTATEMENT: Class E

SW1.3.1 - Z1
SCALE: 1:250 H,1:50 V

	N-MH6	N-MH7	N-MH8	N-MH5	N-MH9	N-MH11	Zone 2 Stormtech Inlet
COVER LEVEL	46.000	46.000	46.000	46.000	46.000	46.000	46.000
INVERT LEVEL	44.603	44.449 / 44.449	44.421 / 44.421	44.266 / 44.191	44.077 / 44.077	44.050 / 44.050	44.000
CHAINAGE	0.000	18.492	21.915	40.539	60.939	65.833	70.875
MANHOLE TYPE:	A1	A1	A1	A4	A4	A4	A1

	9.000	9.001	9.002	8.002	7.001	7.002
PIPE DIAMETER AND GRADIENT	225ø @ 1:120	225ø @ 1:120	225ø @ 1:120	300ø @ 1:180	300ø @ 1:180	300ø @ 1:101
PIPE MATERIAL	uPVC TWINWALL	uPVC TWINWALL	uPVC TWINWALL	uPVC TWINWALL	uPVC TWINWALL	uPVC TWINWALL

TYPE OF GROUND

BEDDING AND SURROUND: Class E

BACKFILL AND REINSTATEMENT: Class E

SW 2 - Z2 INTO ST
SCALE: 1:250 H,1:50 V

NOTE:

THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH DRGS 16031-TJOC-00-XX-DR-C-1082 TO C-1085 FOR SW DRAINAGE LAYOUT PLANS AND DRGS 16031-TJOC-00-XX-DR-C-1087 TO C-1089 AND 16031-TJOC-00-XX-DR-C-1099 TO C-1100.

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY: HH | REVIEWED BY: MV | APPROVED BY: DC

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

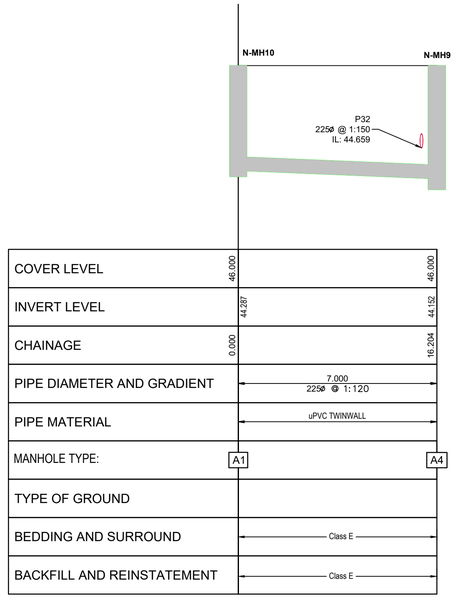
CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED SURFACE WATER SECTIONS - ZONE 2 SHEET 1

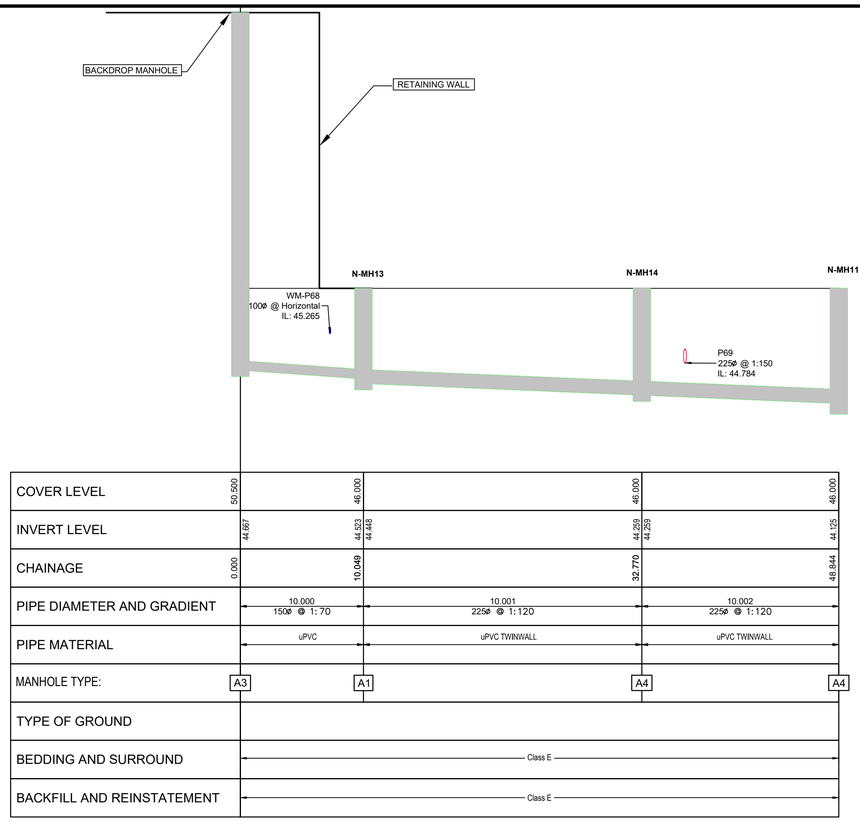
SCALE: AS SHOWN (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1088

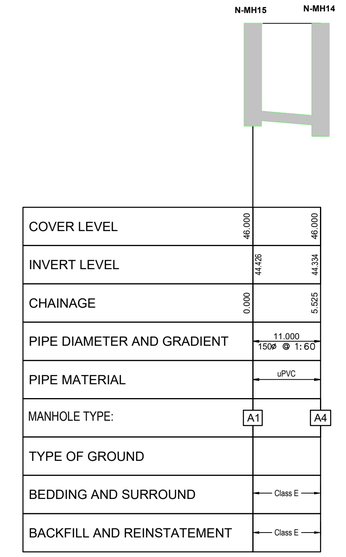
REV: C01



SW2.2 - Z2
SCALE: 1:250 H,1:50 V

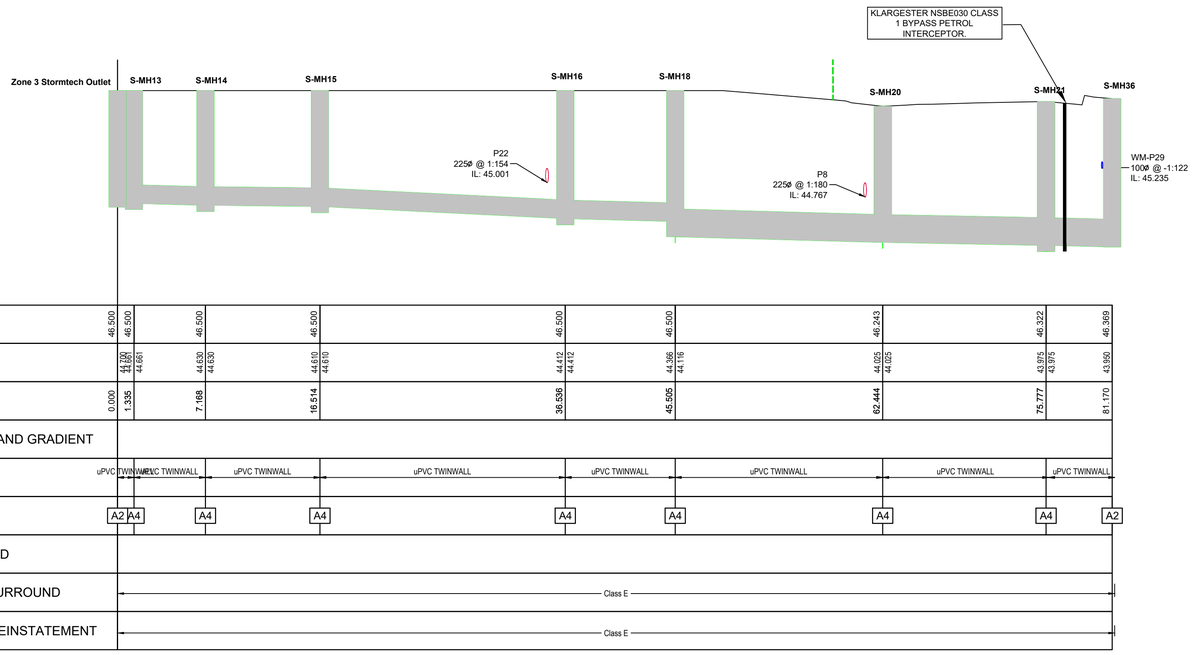


SW2.3 - Z2
SCALE: 1:250 H,1:50 V

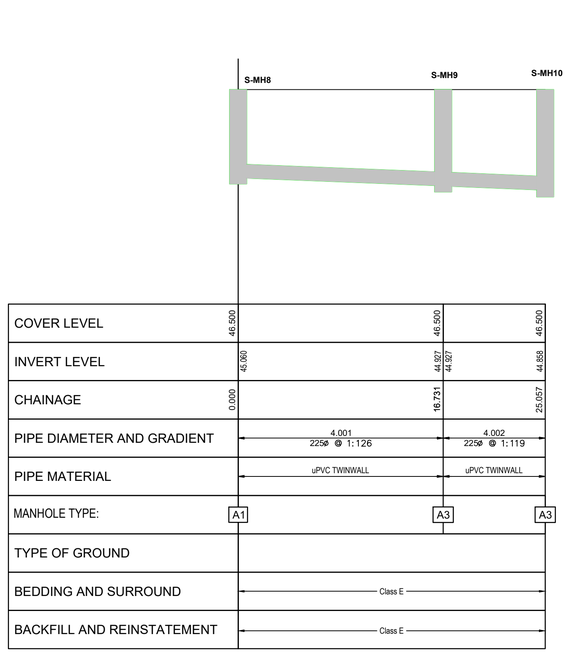


SW2.3.1 - Z2
SCALE: 1:250 H,1:50 V

SURFACE WATER - LONGITUDINAL SECTION ZONE 3 START



SW1 - Z3 FROM ST
SCALE: 1:250 H,1:50 V



SW2.1.1 - Z3
SCALE: 1:250 H,1:50 V

NOTE:

THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH DRGS 16031-TJOC-00-XX-DR-C-1082 TO C-1085 FOR SW DRAINAGE LAYOUT PLANS AND DRGS 16031-TJOC-00-XX-DR-C-1087 TO C-1089 AND 16031-TJOC-00-XX-DR-C-1099 TO C-1100.

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

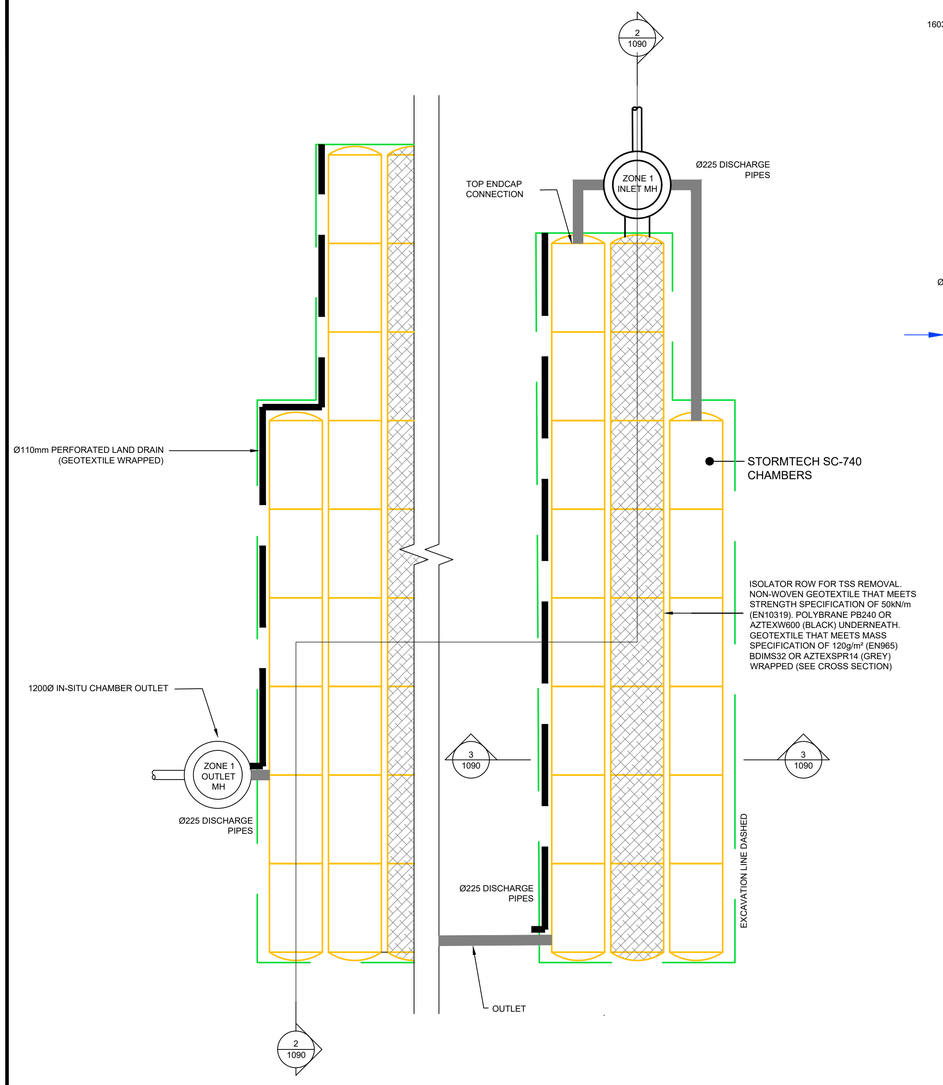
CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED SURFACE WATER SECTIONS - ZONE 2 / ZONE 3 SHEET 2

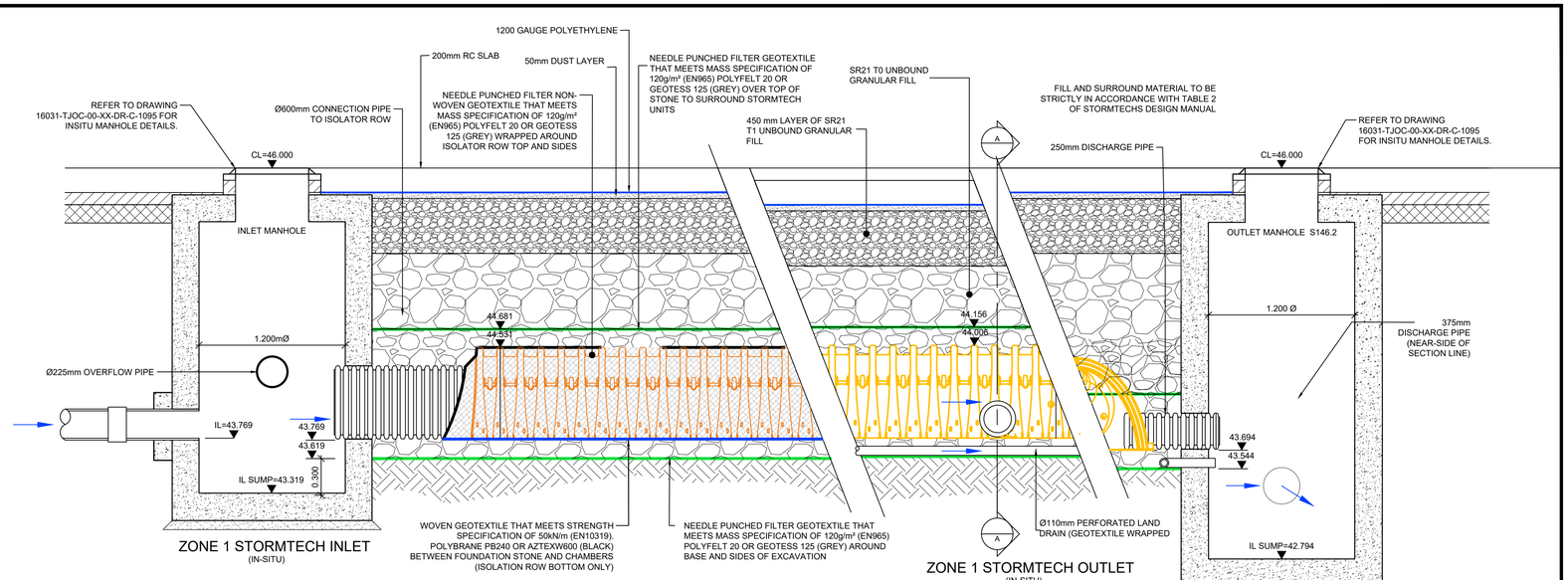
SCALE: AS SHOWN (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1089

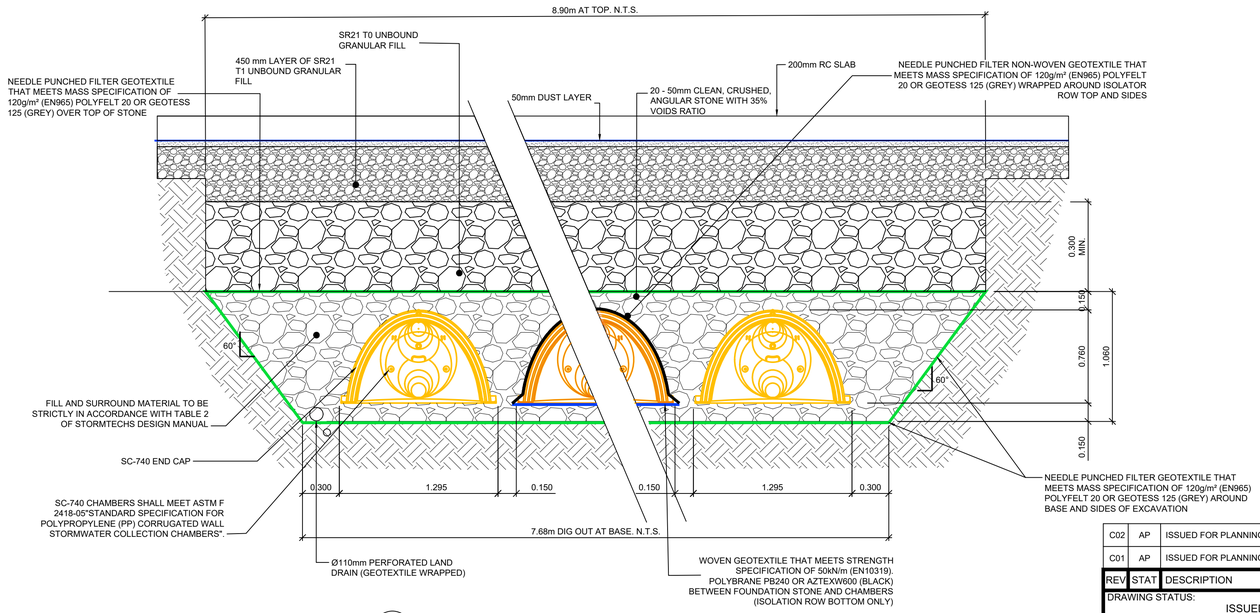
REV: C01



1 1090 TYPICAL CHAMBER LAYOUT PLAN
SCALE: 1:75



2 1090 STORMTECH ISOLATOR™ ROW CROSS SECTION
SCALE: 1:25



3 1090 STORMTECH CROSS SECTION
SCALE: 1:25

MODULAR STORMWATER CHAMBER SPECIFICATIONS:

1. CHAMBERS SHALL BE STORMTECH SC-740, OR APPROVED EQUAL.
2. CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418-05 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. CHAMBERS ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS.
4. CHAMBERS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.
5. ALL DESIGN SPECIFICATION FOR CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST DESIGN MANUAL.
6. THE INSTALLATION OF CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST INSTALLATION INSTRUCTIONS.

REV	STAT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING	30.03.2022
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

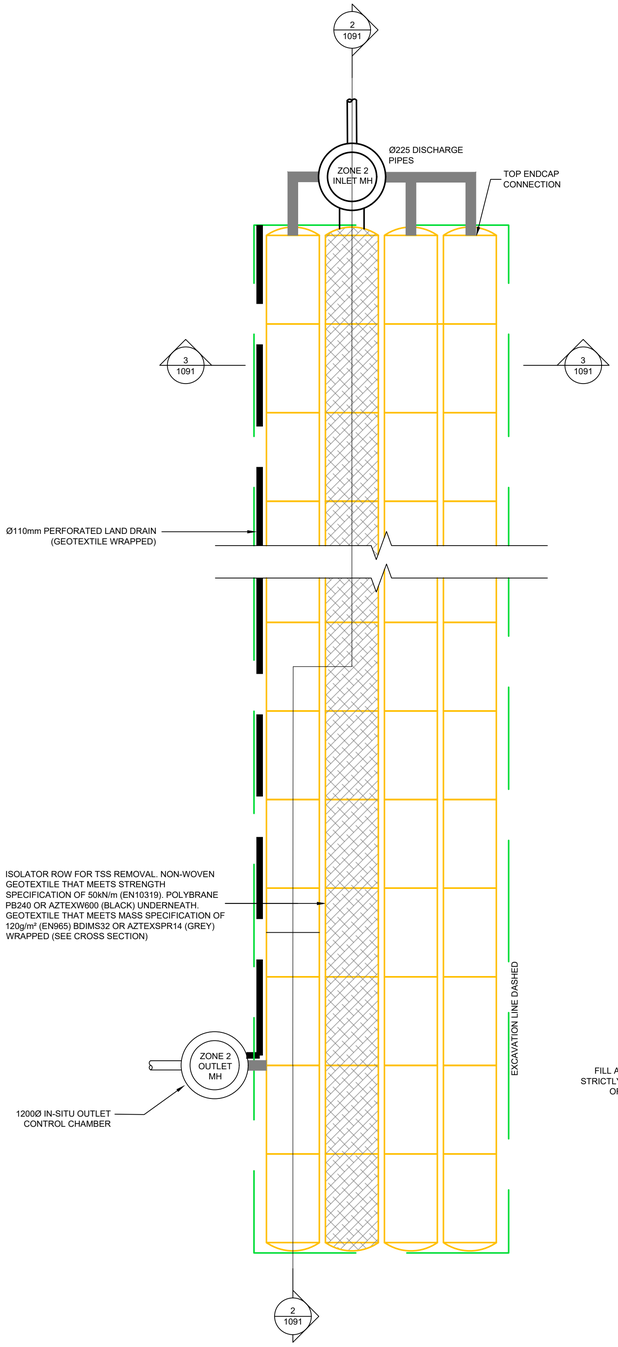
CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED STORMTECH ATTENUATION DETAILS ZONE 1 SHEET 1

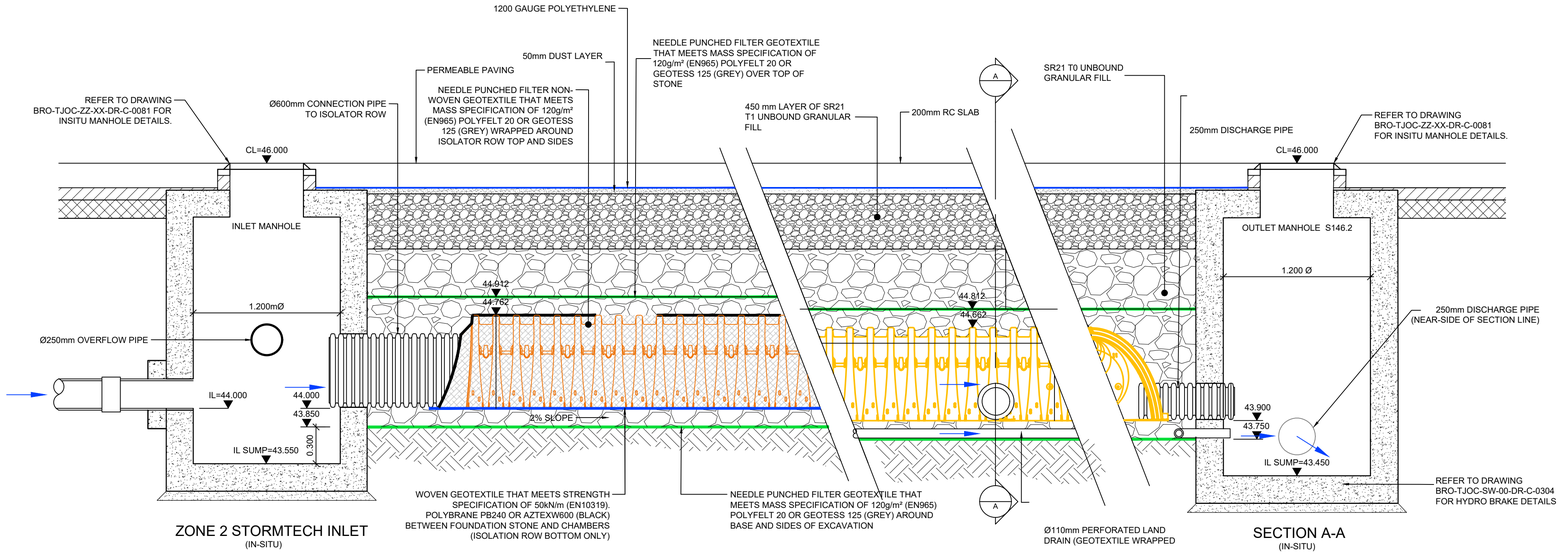
SCALE: AS INDICATED (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1090

REV: C02



1 / 1091 TYPICAL CHAMBER LAYOUT PLAN
SCALE: 1:75



2 / 1091 STORMTECH ISOLATOR™ ROW CROSS SECTION
SCALE: 1:25

3 / 1091 STORMTECH CROSS SECTION
SCALE: 1:25

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REV	STAT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING	30.03.2022
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

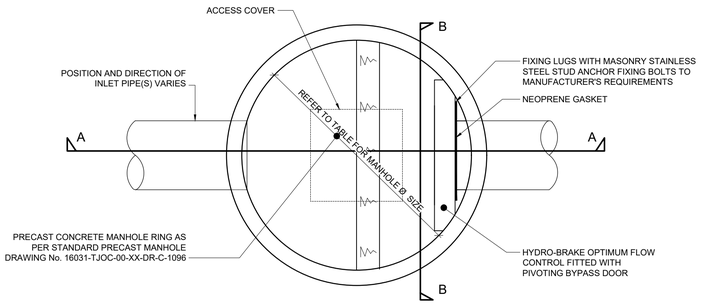
DRAWING TITLE: PROPOSED STORMTECH ATTENUATION DETAILS ZONE 2 SHEET 2

SCALE: AS INDICATED (A1)

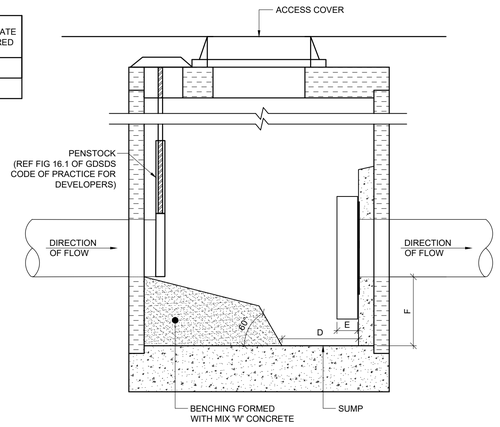
PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1091

REV: C02

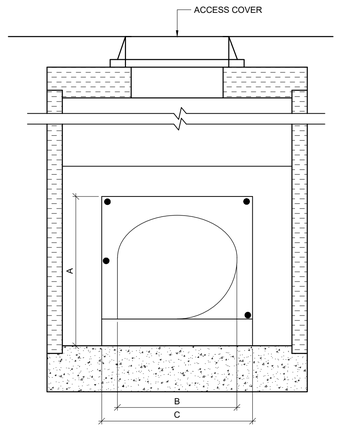
HYDROBRAKE LOCATIONS	UNIT REFERENCE	DIMENSIONS						MANHOLE Ø SIZE	BACKPLATE REQUIRED
		A	B	C	D	E	F		
MH52 (North Catch.)	SHE-0091-6080-3009-6080	900	555	760	200	100	360	1500	NO
MH36 (South Catch.)	SHE-0091-5640-2600-5640	905	555	760	200	100	365	1350	NO



PLAN



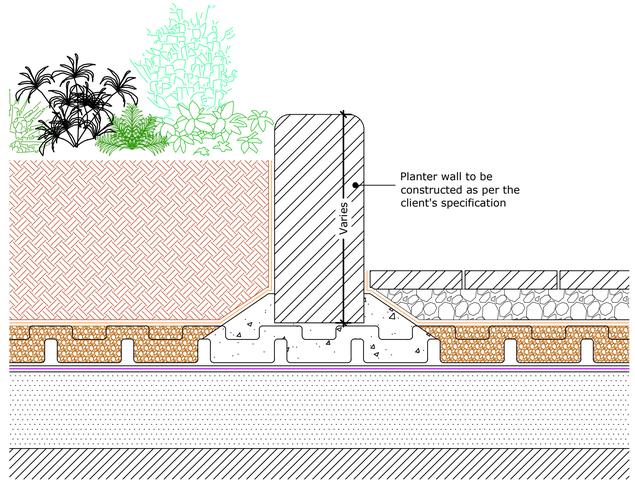
SECTION A-A



SECTION B-B

TYPICAL HYDROBRAKE CHAMBER DETAIL

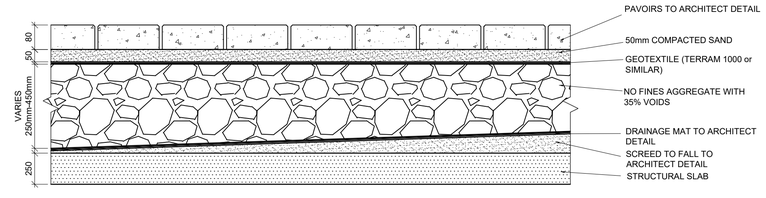
SCALE: 1:20



UPSTAND TO LOW PLANTER WALL AND PERMEABLE PAVING

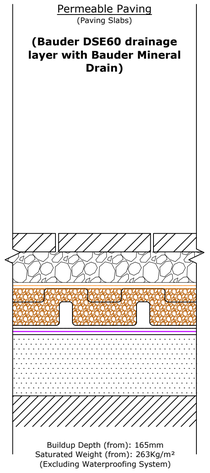
(Drg. No: D0901-00W_010-Int-PP-D6_005)

Typical Details (To be confirmed at Detailed Design by Architects)

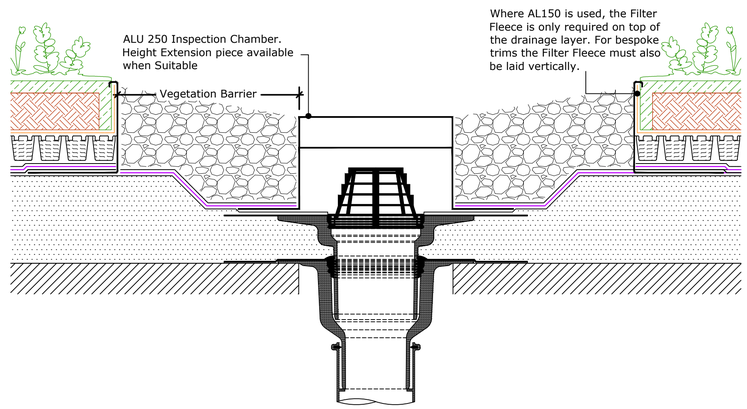


TYPICAL PERMEABLE PAVING BUILD-UP ON PODIUM SLAB

SCALE: 1:25



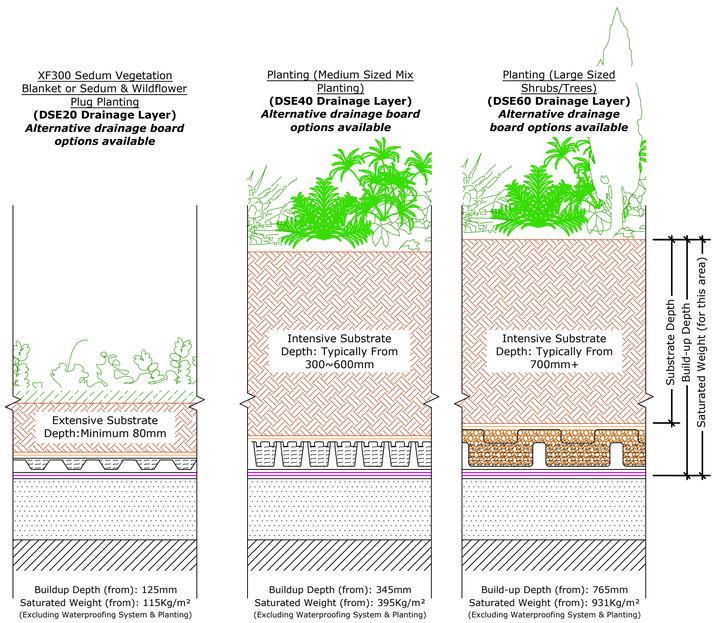
PERMEABLE PAVING



BAUDER OUTLET - COMPACT

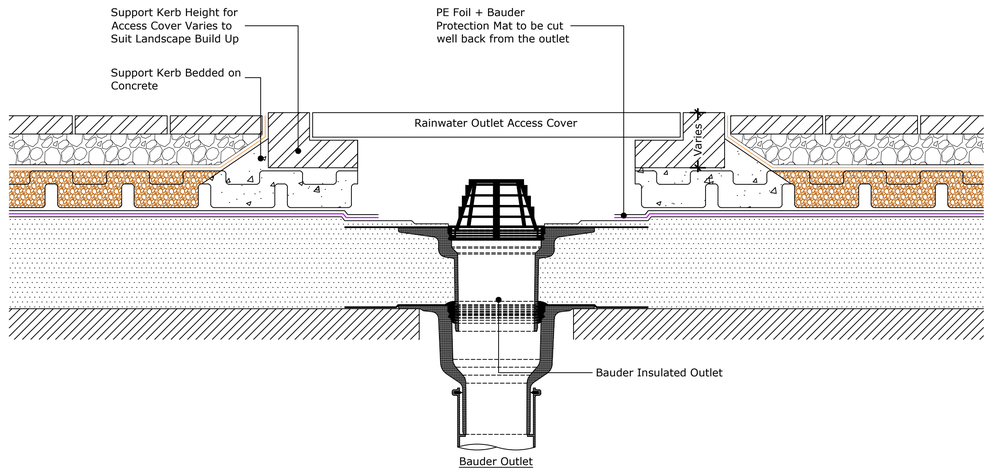
(Drg. No: D0901/03-00W_0-4Deg_006-ExtInt-S-DB_001)

Typical Details (To be confirmed at Detailed Design by Architects)



INTENSIVE SOFT LANDSCAPING

Typical Details (To be confirmed at Detailed Design by Architects)



PERMEABLE PAVING TO BAUDER OUTLET - COMPACT

(Drg. No: D090-00W_006-Int-PP-D6_001)

Typical Details (To be confirmed at Detailed Design by Architects)

REV	STAT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

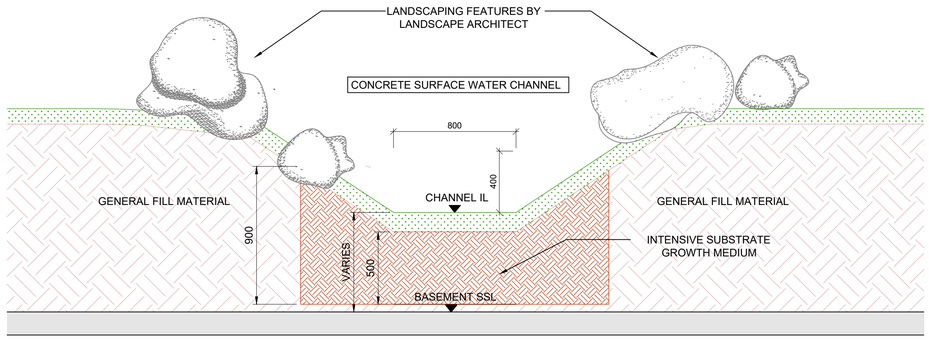
CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: STORMWATER DETAILS SHEET 1

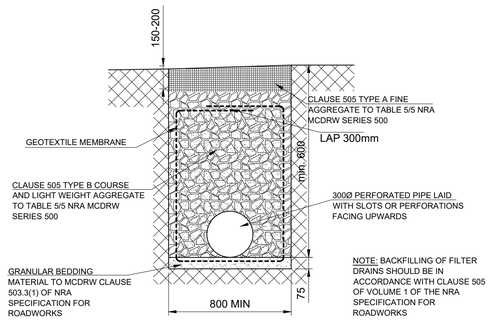
SCALE: AS INDICATED (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1092

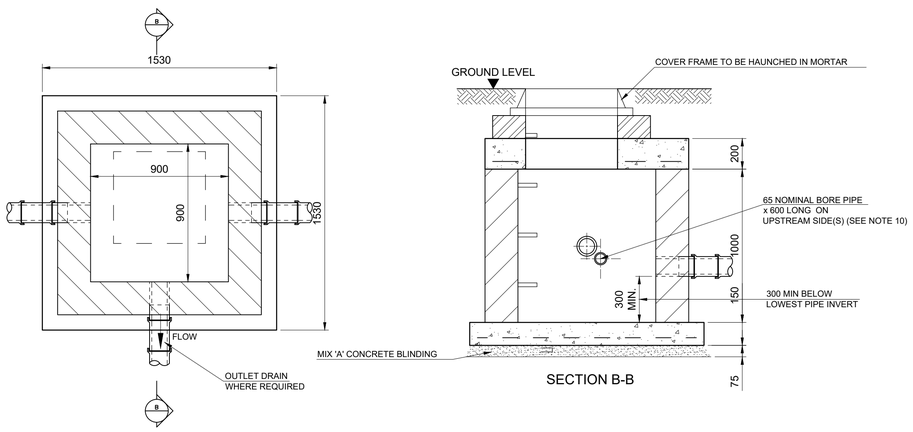
REV: C01



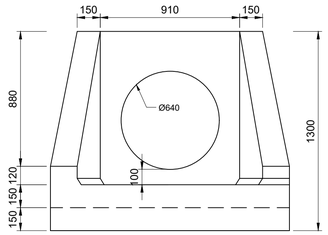
CROSS-SECTION OF SURFACE WATER CHANNEL - ZONE 4
SCALE: 1:20



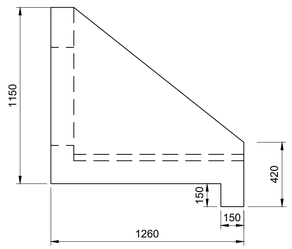
FILTER DRAIN DETAIL
SCALE 1:25



PROPOSED FILTER DRAIN CATCHPIT
SCALE: 1:25

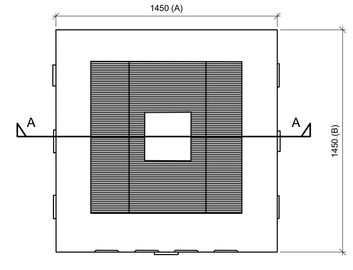


FRONT VIEW
SCALE: 1:25

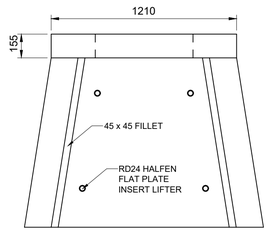


SIDE ELEVATION VIEW
SCALE: 1:25

DIMENSIONS AND WEIGHTS			
HYDRO BIOFILTER UNIT SIZE (INTERNAL DIMENSIONS) (mm)	A (mm)	B (mm)	TOTAL CHAMBER WEIGHT (KG) INCLUDES CHAMBER, INTERNAL PIPEWORK, STONE, MEDIA, MULCH, GRATES & SURFACE BOX
1200 x 1200	1450	1450	5500
1200 x 2400	2650	1450	9500
NOTE: CHAMBER WALL THICKNESS IS 125MM			



PLAN VIEW

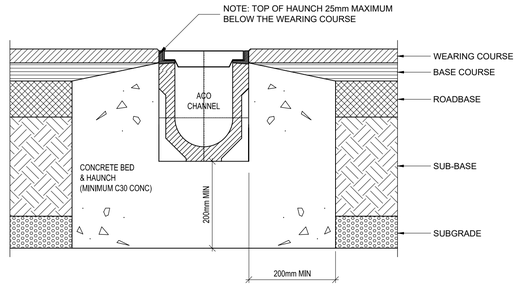


PLAN VIEW
SCALE: 1:25

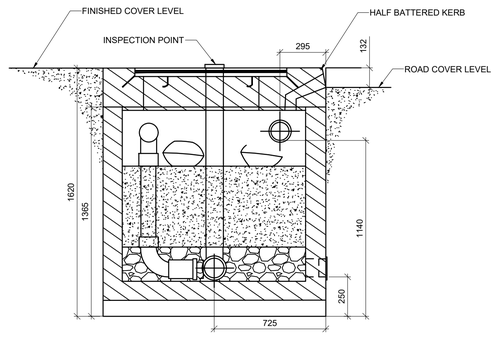
NOTES:

1. PRECAST CONCRETE HEADWALL MANUFACTURED BY TRACEY CONCRETE LTD AS PER DRG SMH_150_450 REV A.
2. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED.
3. CONCRETE:
   3.1. GRADE C40/50 w/c RATION 0.35 AND 430kg/m³ CEM1 UNO.
   3.2. SULPHATE RESISTING CEMENT CAPABLE OF RESISTING CLASS 3 SULPHATE ATTACK
   3.3. COVER: MIN 35mm, MAX 45mm ALL FACES
   3.4. MIX REF: WET CAST MIX
4. EXPOSURE CLASS: XF4 .
5. HANDLING: 4 NO. RD24 HALFEN CAPPED END LIFTINH INSERTS PER UNIT LOCATED IN BASE WHERE INDICATED. MAXIMUM ANGLE 30° TO THE VERTICAL. RECOMMENDED HALFEN RD24 LIFTINH LOOP (PX).
6. REINFORCEMENT: GRADE STRENGTH OF REINFORCING STEEL TO B500B, CONFORMING TO BS4449:2005 SCHEDULING, DIMENSIONING, BENDING AND CUTTING TO BS8666
7. CONCRETE DESIGN TO EC2: BS EN 1992-1-1:2004.

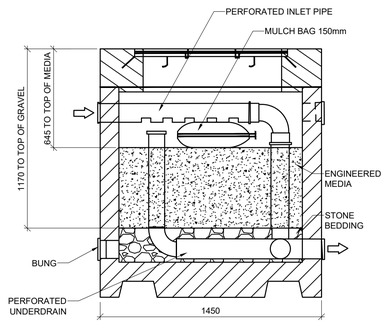
HEADWALL DETAIL
SCALE: 1:20



DETAIL OF ACO CHANNELS



SIDE VIEW



SECTION A-A

HYDRO BIOLFILTER (TREE PITS)
SCALE: 1:20

REV	STAT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

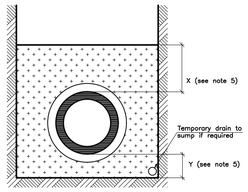
CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: STORMWATER DETAILS SHEET 2

SCALE: AS INDICATED (A1)

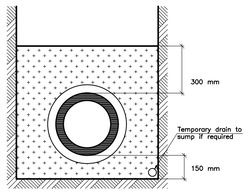
PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1093

REV: C01



CLASS S – For Rigid Pipes
(Conc., A.C., V.C)

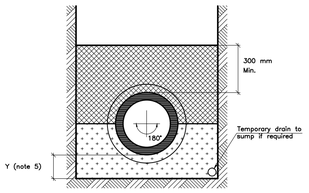
Detail 1



MACHINE CUT, TRENCH BOTTOM

CLASS E – For Flexible Pipes
(P.V.C., G.R.P., A.B.S., P.E., STEEL, DI)

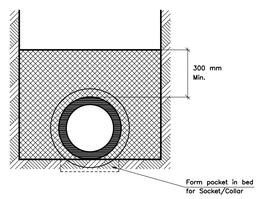
Detail 2



MACHINE CUT, TRENCH BOTTOM

CLASS B – For Rigid Pipes
(Conc., A.C., V.C)

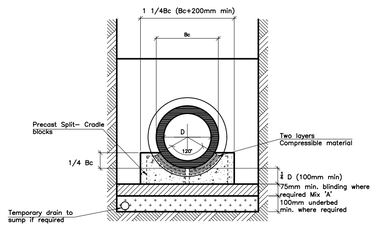
Detail 3



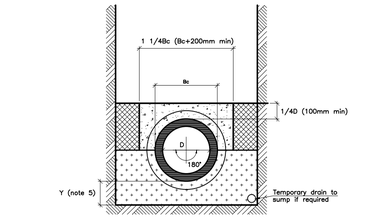
FLAT BOTTOM TRENCH, HAND TRIMMED

CLASS C – For Flexible Pipes
(D.I.)

Detail 4



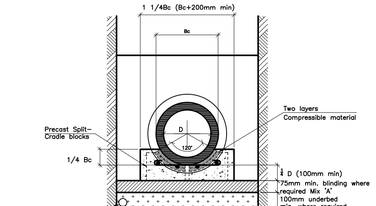
PLAIN CONCRETE CRADLE



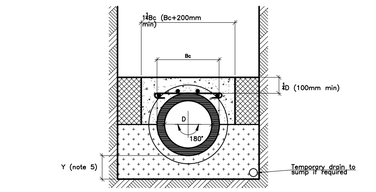
PLAIN CONCRETE ARCH

CLASS A – PLAIN CONCRETE – For Rigid Pipes

Detail 5



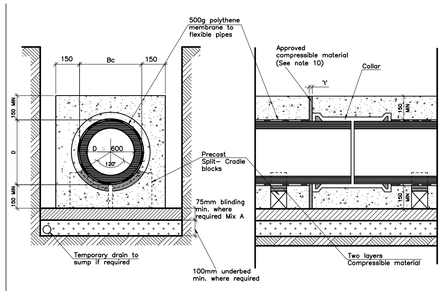
REINFORCED CONCRETE
CRADLE



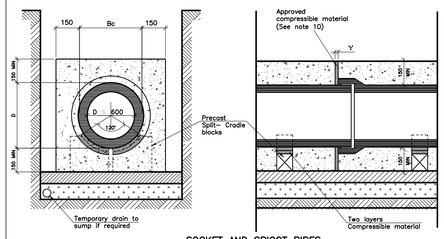
REINFORCED CONCRETE
ARCH

CLASS A – REINFORCED CONCRETE – For Rigid Pipes

Detail 6

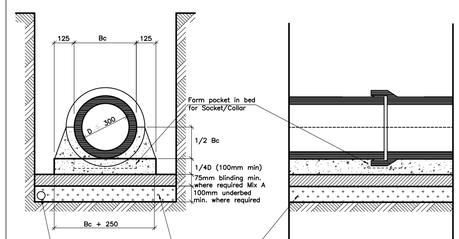


PIPES WITH COLLAR JOINTS

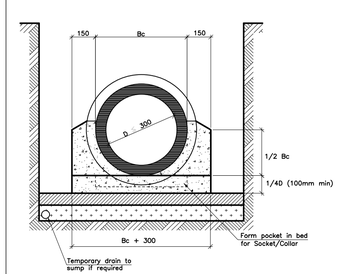


SOCKET AND SPIGOT PIPES
CONCRETE SURROUND

Detail 7

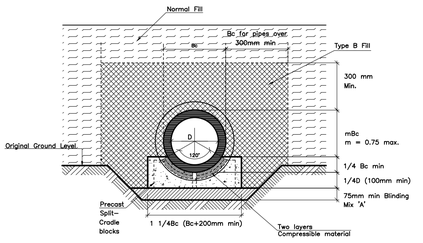


All flexible Pipes to be Wrapped with 500g Polythene before incasing

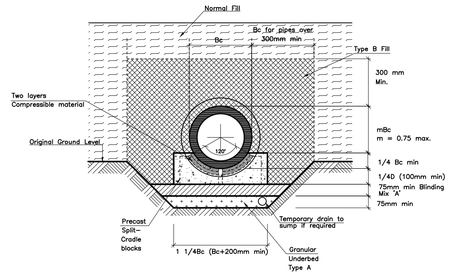


CONCRETE BED & HAUNCH

Detail 8

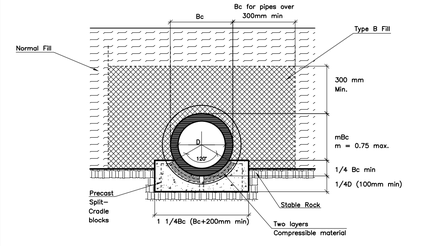


CLASS A_{120} – PLAIN CONCRETE
(In "Very Wide" Trench or Embankment Condition)

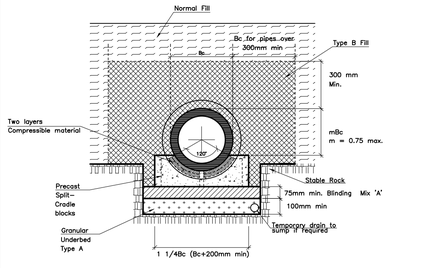


CLASS A_{120} – PLAIN CONCRETE
(In "Very Wide" Trench or Embankment Condition)

Detail 9

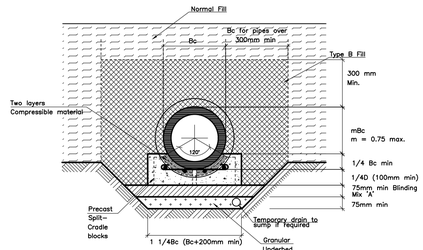


CLASS A_{120} – PLAIN CONCRETE (Rock)
(In "Very Wide" Trench or Embankment Condition)

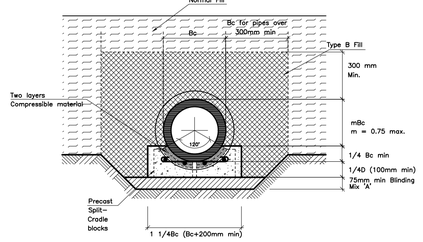


CLASS A_{120} – PLAIN CONCRETE (Rock)
(In "Very Wide" Trench or Embankment Condition)

Detail 11

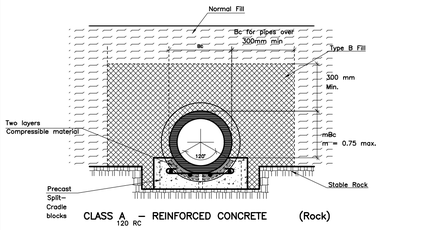


CLASS $A_{120\ RC}$ – REINFORCED CONCRETE
(In "Very Wide" Trench or Embankment Condition)



CLASS $A_{120\ RC}$ – REINFORCED CONCRETE
(In "Very Wide" Trench or Embankment Condition)

Detail 10



CLASS $A_{120\ RC}$ – REINFORCED CONCRETE (Rock)
(In "Very Wide" Trench or Embankment Condition)

Detail 12

1. CONCRETE ARCHES, CRADLES AND SURROUND.

1.1. Concrete shall be Mix 'B', 30 N/mm² concrete with 20mm aggregate as described in the Specification.

1.2. No backfill, other than the initial 300mm of cover, shall be placed over the pipe until the compressive strength of the concrete has reached 15 N/mm².

1.3. The concrete shall be monolithic having no vertical or horizontal construction joints other than one vertical joint perpendicular to the line of the pipe at each pipe joint.

1.4. In the case of reinforced concrete cradles and arches the minimum area of steel shall be as follows :–

Nominal bore of pipe	Tranverse [per metre run]	Size [mm]	Longitudinal	Size [mm]
Not exceeding 400mm	400mm²	10	200mm²	8
400 – 800mm	800mm²	12	310mm²	10
800 – 1200mm	1200mm²	16	470mm²	10
1200 – 1600mm	1600mm²	20	670mm²	12
1600 – 2000mm	2000mm²	20	790mm²	12

1.5. In the case of reinforced concrete surround the steel reinforcement shall typically be as for cradles and arches with twice the area of steel unless specifically detailed otherwise.

2. BLINDING

2.1. 75mm minimum of Mix 'A' concrete blinding shall be used in general under concrete beds, surrounds and cradles. In rock the blinding may be dispensed with on the Engineer's Instruction.

3. TYPE A GRANULAR BEDDING MATERIAL

3.1. Type A granular bedding material shall consist of rounded gravel which shall comply with the grading limits described in the Specification.

3.2. The compaction factor of Type A granular bedding material shall be determined in accordance with the Specification and extra care shall be take with the compaction of material having a compaction factor greater than 0.1.

4.1. Where trench conditions dictate, or where instructed by the Engineer, a Type A granular underbed 100mm (min) deep shall be placed on trench bottom.

5. DIMENSIONS

5.1. Dimension 'X' : Denotes the thickness of the granular surround used over both barrel and socket/collar (if any) of pipes and shall be 300mm or one–sixth of the outside diameter of the pipe whichever is greater.

5.2. Dimension 'Y' : Denotes the thickness of the granular surround used under both barrel and socket/collar (if any) of pipes and shall be 150mm or one–sixth of the outside diameter of the pipe whichever is greater.

5.3. D – Denotes the nominal diameter of a pipe

5.4. Bc – Denotes the external diameter of a pipe

6. TYPE B SELECTED FILL MATERIAL

6.1. Type B selected fill shall be a uniform non–cohesive readily compacted material free from tree roots, vegetable matter, building rubbish and frozen soil and excluding clay lumps retained on a 75mm sieve and stones retained on a 25mm sieve.

6.2. Type B selected fill shall, consist of selected material removed from the trench excavations, screened if necessary, or if the excavated material is unsuitable it shall consist of suitable imported material.

7. WATER STOPS IN PIPE TRENCHES

7.1. In granular bedding and/or backfill, clay dams 300mm long shall be provided across the full trench and for the complete depth of the bedding and/or fill at intervals not exceeding 50m as described in the Specification.

8. TEMPORARY DRAIN

8.1. Temporary open jointed drains (75mm diam.) shall be placed in granular bedding and/or underbed where required.

9. PRECAST SUPPORT BLOCKS

9.1. Precast concrete support blocks complete with compressible pads consisting of two layers of Bitumen Damp–Proof sheeting complying with BS 743 Type G, shall be used under pipes which require concrete Bed and Haunch, Cradle or Surround as set out in the Specification.

10. CONCRETE BEDDING JOINTS

10.1. Joints shall be formed in concrete Beds and Haunches, Cradles, Arches and Surrounds as described in the Specification and as detailed hereunder.

NOMINAL BORE OF PIPE (mm)	THICKNESS OF 2 LAYER COMPRESSIBLE FILLER 'Y' (mm)
LESS THAN 450	18
450 – 1200	36
EXCEEDING 1200	54

11. RIGID PIPES

11.1. For the purpose of this drawing rigid pipes shall include Concrete (Conc.) Asbestos Cement (A.C.), and Vitrified Clayware (V.C.) Pipes.

11.2. All types of bedding and surrounds may be used with rigid pipes.

12. FLEXIBLE PIPES

12.1. For the purpose of this drawing flexible pipes shall include Polyvinyl Chloride (PVC), Acrylonitrile Butadiene Styrene (ABS), Glass Reinforced Plastic (GRP), Polyethylene (P.E), Ductile Iron (D.I.) and Steel pipes.

12.2. Concrete bed, haunch and surrounds and Class E bedding are permissible for use with flexible pipes. Flexible pipes in excess of 150mm in diameter shall not be used, except where expressly specified, or permitted by the Engineer.

LEGEND

TYPE A GRANULAR BEDDING MATERIAL SHOWN THUS

TYPE B FILL SHOWN THUS

EXCAVATED MATERIAL LOOSELY FILLED SHOWN THUS

CONCRETE SHOWN THUS

CONCRETE BLINDING SHOWN THUS (75mm min. unless specified elsewhere)

THIS DRAWING MUST BE READ IN CONJUNCTION WITH THE PIPEWORK SECTIONS OF THE SPECIFICATION

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
GD	DC	DC

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: Dundrum Village – Strategic Housing Development

CLIENT: Dundrum Retail GP DAC (acting for and on behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: STANDARD BEDDING DETAILS FOR SURFACE WATER PIPES

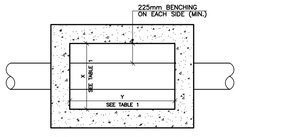
SCALE: AS INDICATED (A1)

PROJECT – ORIGINATOR – VOLUME – LOCATION – TYPE – ROLE – NUMBER
16031-TJOC-XX-XX-DR-C-1094

REV: C01

MANHOLE TYPE A1

DN 150ø – 900ø
UP TO 45° BEND
DEPTH FROM COVER TO SOFFIT OF PIPE <1.5m



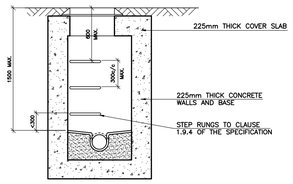
TYPICAL PLAN OF MANHOLE

DN OF LARGEST PIPE IN MANHOLE	MANHOLE DIMENSIONS X(mm)	MANHOLE DIMENSIONS Y(mm)	CLEAR OPE SIZES FOR COVER RECTANGULAR LENGTHxWIDTH	CLEAR OPE SIZES FOR COVER CIRCULAR
≤ 150	675	1200	750x675 (NOTE 3)	NOTE 4
225	675	1200	1200x675	NOTE 4
300	750	1200	1200x675	NOTE 4
375–450	900	1350	1200x675	NOTE 4
500–700	1150	1500	1200x675	NOTE 4
750–900	1350	1800	1200x675	NOTE 4
>900	DN+450	1800	1200x675	NOTE 4

TABLE 1

NOTES:

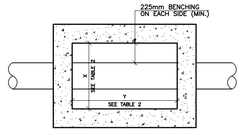
1. WHERE THERE ARE MORE THAN TWO BRANCHES ENTERING THE MAIN LINE 'Y' IS THE LARGER OF 'Y' IN THE TABLE ABOVE OR 300mm FOR EACH DN100 OR DN150 ENTRY ON THE SIDE HAVING MOST BRANCHES PLUS AN ALLOWANCE AT THE DOWNSTREAM END FOR ANGLE OF ENTRY.
2. PIPES MAY BE POSITIONED OFF CENTRE BUT A MINIMUM WIDTH OF 225mm BENCHING MUST BE PROVIDED ON EACH SIDE OF THE PIPE.
3. MAY BE REDUCED TO 600x600 WHERE
   (i) THE CONFIGURATION OF THE MANHOLE CHAMBER PERMITS A SAFE SYSTEM OF WORK
   (ii) REQUIRED BY HIGHWAY LOADING CONSIDERATIONS SUBJECT TO A SAFE SYSTEM OF WORK SPECIFIED.
4. CIRCULAR OPE NOT PERMITTED DUE TO WORKING SPACE REQUIRED.
5. MANHOLES ON SURFACE WATER SEWERS MAY BE CONSTRUCTED IN SOLID BLOCKWORK IN ACCORDANCE WITH CLAUSE 1.9.1 OF THE SPECIFICATION.



TYPICAL SECTION THROUGH MANHOLE

MANHOLE TYPE A2

DN 150ø – 900ø
UP TO 45° BEND
DEPTH FROM COVER TO SOFFIT OF PIPE 1.5m – 3.0m



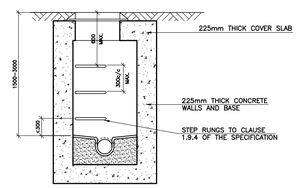
TYPICAL PLAN OF MANHOLE

DN OF LARGEST PIPE IN MANHOLE	MANHOLE DIMENSIONS X(mm)	MANHOLE DIMENSIONS Y(mm)	CLEAR OPE SIZES FOR COVER RECTANGULAR LENGTHxWIDTH	CLEAR OPE SIZES FOR COVER CIRCULAR
225	1000	1200	600x600	600ø
300	1075	1200	600x600	600ø
375–450	1225	1350	600x600	600ø
500–700	1475	1500	600x600	600ø
750–900	1675	1800	600x600	600ø
>900	DN+775	1800	600x600	600ø

TABLE 2

NOTES:

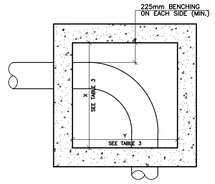
1. WHERE THERE ARE MORE THAN TWO BRANCHES ENTERING THE MAIN LINE 'Y' IS THE LARGER OF 'Y' IN THE TABLE ABOVE OR 300mm FOR EACH DN100 OR DN150 ENTRY ON THE SIDE HAVING MOST BRANCHES PLUS AN ALLOWANCE AT THE DOWNSTREAM END FOR ANGLE OF ENTRY.
2. PIPES MAY BE POSITIONED OFF CENTRE BUT A MINIMUM WIDTH OF 225mm BENCHING MUST BE PROVIDED ON EACH SIDE OF THE PIPE.
3. MANHOLES ON SURFACE WATER SEWERS MAY BE CONSTRUCTED IN SOLID BLOCKWORK IN ACCORDANCE WITH CLAUSE 1.9.1 OF THE SPECIFICATION.



TYPICAL SECTION THROUGH MANHOLE

MANHOLE TYPE A3

DN 150ø – 900ø
45° TO 90° BEND
DEPTH FROM COVER TO SOFFIT OF PIPE <1.5m



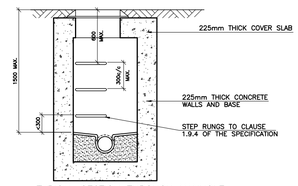
TYPICAL PLAN OF MANHOLE

DN OF LARGEST PIPE IN MANHOLE	MANHOLE DIMENSIONS X(mm)	MANHOLE DIMENSIONS Y(mm)	CLEAR OPE SIZES FOR COVER RECTANGULAR LENGTHxWIDTH	CLEAR OPE SIZES FOR COVER CIRCULAR
≤ 150	1200	1200	750x675 (NOTE 3)	NOTE 4
225	1200	1200	1200x675	NOTE 4
300	1200	1200	1200x675	NOTE 4
375–450	1350	1350	1200x675	NOTE 4
500–700	1500	1500	1200x675	NOTE 4
750–900	1800	1800	1200x675	NOTE 4
>900	DN+450	DN+450	1200x675	NOTE 4

TABLE 3

NOTES:

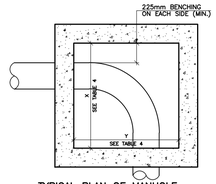
1. WHERE THERE ARE MORE THAN TWO BRANCHES ENTERING THE MAIN LINE 'Y' IS THE LARGER OF 'Y' IN THE TABLE ABOVE OR 300mm FOR EACH DN100 OR DN150 ENTRY ON THE SIDE HAVING MOST BRANCHES PLUS AN ALLOWANCE AT THE DOWNSTREAM END FOR ANGLE OF ENTRY.
2. PIPES MAY BE POSITIONED OFF CENTRE BUT A MINIMUM WIDTH OF 225mm BENCHING MUST BE PROVIDED ON EACH SIDE OF THE PIPE.
3. MAY BE REDUCED TO 600x600 WHERE
   (i) THE CONFIGURATION OF THE MANHOLE CHAMBER PERMITS A SAFE SYSTEM OF WORK
   (ii) REQUIRED BY HIGHWAY LOADING CONSIDERATIONS SUBJECT TO A SAFE SYSTEM OF WORK SPECIFIED.
4. CIRCULAR OPE NOT PERMITTED DUE TO WORKING SPACE NEEDED.
5. MANHOLES ON SURFACE WATER SEWERS MAY BE CONSTRUCTED IN SOLID BLOCKWORK IN ACCORDANCE WITH CLAUSE 1.9.1 OF THE SPECIFICATION.



TYPICAL SECTION THROUGH MANHOLE

MANHOLE TYPE A4

DN 150ø – 900ø
45° TO 90° BEND
DEPTH FROM COVER TO SOFFIT OF PIPE 1.5m – 3.0m



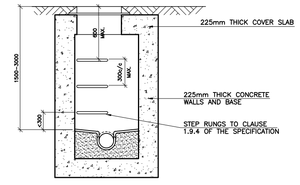
TYPICAL PLAN OF MANHOLE

DN OF LARGEST PIPE IN MANHOLE	MANHOLE DIMENSIONS X(mm)	MANHOLE DIMENSIONS Y(mm)	CLEAR OPE SIZES FOR COVER RECTANGULAR LENGTHxWIDTH	CLEAR OPE SIZES FOR COVER CIRCULAR
225	1200	1200	600x600	600ø
300	1200	1200	600x600	600ø
375–450	1350	1350	600x600	600ø
500–700	1500	1500	600x600	600ø
750–900	1800	1800	600x600	600ø
>900	DN+775	DN+775	600x600	600ø

TABLE 4

NOTES:

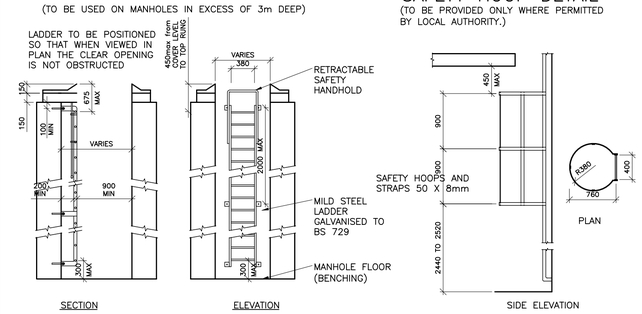
1. WHERE THERE ARE MORE THAN TWO BRANCHES ENTERING THE MAIN LINE 'Y' IS THE LARGER OF 'Y' IN THE TABLE ABOVE OR 300mm FOR EACH DN100 OR DN150 ENTRY ON THE SIDE HAVING MOST BRANCHES PLUS AN ALLOWANCE AT THE DOWNSTREAM END FOR ANGLE OF ENTRY.
2. PIPES MAY BE POSITIONED OFF CENTRE BUT A MINIMUM WIDTH OF 225mm BENCHING MUST BE PROVIDED ON EACH SIDE OF THE PIPE.
3. MANHOLES ON SURFACE WATER SEWERS MAY BE CONSTRUCTED IN SOLID BLOCKWORK IN ACCORDANCE WITH CLAUSE 1.9.1 OF THE SPECIFICATION.



TYPICAL SECTION THROUGH MANHOLE

SAFETY ACCESS LADDER

(TO BE USED ON MANHOLES IN EXCESS OF 3m DEEP)



SAFETY HOOP DETAIL

(TO BE PROVIDED ONLY WHERE PERMITTED BY LOCAL AUTHORITY.)

1. STRINGERS SHALL BE NOT LESS THAN 65mm X 12mm SECTION.
2. STRINGERS SHALL BE ADEQUATELY SUPPORTED AT THE MANHOLE WALLS AT INTERVALS OF NOT MORE THAN 3 METRES. STRINGER SUPPORTS SHALL NOT BE BUILT INTO THE MANHOLE WALL BUT BOLTED TO BUILT IN CLEATS TO FACILITATE REMOVAL.
3. RUNGS SHALL NOT BE LESS THAN 22mm DIAMETER AT 300mm MAX. CENTRES WITH 300mm MIN BETWEEN STRINGERS.
4. WHERE LADDERS ARE USED A MINIMUM WIDTH OF BENCHING OF 400mm SHALL BE PROVIDED BETWEEN THE LADDER RUNGS AND THE CHANNEL TO PROVIDE A SAFE WORKING AREA.

LADDER DETAIL

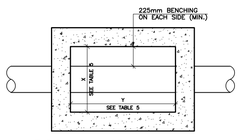
(SEE CLAUSE 1.9.4 OF SPEC.)

MANHOLE TYPE B1

DN 150ø – 900ø
UP TO 45° BEND
DEPTH FROM COVER TO SOFFIT OF PIPE 3.0m TO 4.0m
WALL AND COVER SLAB THICKNESS TO BE 225mm

MANHOLE TYPE C1

DN 150ø – 900ø
UP TO 45° BEND
DEPTH FROM COVER TO SOFFIT OF PIPE EXCEEDING 4.0m
WALL AND COVER SLAB THICKNESS TO BE 300mm



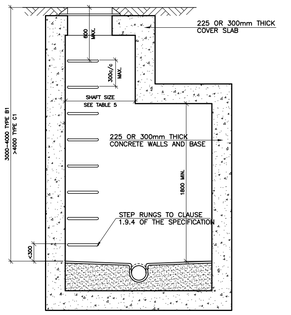
TYPICAL PLAN OF MANHOLE

DN OF LARGEST PIPE IN MANHOLE	MANHOLE DIMENSIONS X(mm)	MANHOLE DIMENSIONS Y(mm)	CLEAR OPE SIZES FOR COVER RECTANGULAR LENGTHxWIDTH	CLEAR OPE SIZES FOR COVER CIRCULAR	SHAFT SIZE
225	1000	1200	600x600	600ø	NO SHAFT
300	1075	1200	600x600	600ø	NO SHAFT
375–450	1225	1350	600x600	600ø	800x1350
500–700	1475	1500	600x600	600ø	800x1500
750–900	1675	1800	600x600	600ø	800x1800
>900	DN+775	1800	600x600	600ø	800x1800

TABLE 5

NOTES:

1. WHERE THERE ARE MORE THAN TWO BRANCHES ENTERING THE MAIN LINE 'Y' IS THE LARGER OF 'Y' IN THE TABLE ABOVE OR 300mm FOR EACH DN100 OR DN150 ENTRY ON THE SIDE HAVING MOST BRANCHES PLUS AN ALLOWANCE AT THE DOWNSTREAM END FOR ANGLE OF ENTRY.
2. PIPES MAY BE POSITIONED OFF CENTRE BUT A MINIMUM WIDTH OF 225mm BENCHING MUST BE PROVIDED ON EACH SIDE OF THE PIPE.



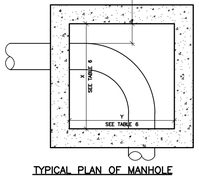
TYPICAL SECTION THROUGH MANHOLE

MANHOLE TYPE B2

DN 150ø – 900ø
45° TO 90° BEND
DEPTH FROM COVER TO SOFFIT OF PIPE 3.0m TO 4.0m
WALL AND COVER SLAB THICKNESS TO BE 225mm

MANHOLE TYPE C2

DN 150ø – 900ø
45° TO 90° BEND
DEPTH FROM COVER TO SOFFIT OF PIPE EXCEEDING 4.0m
WALL AND COVER SLAB THICKNESS TO BE 300mm



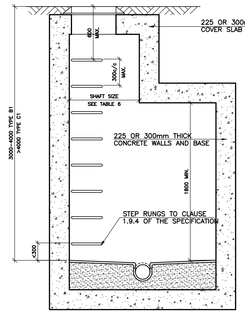
TYPICAL PLAN OF MANHOLE

DN OF LARGEST PIPE IN MANHOLE	MANHOLE DIMENSIONS X(mm)	MANHOLE DIMENSIONS Y(mm)	CLEAR OPE SIZES FOR COVER RECTANGULAR LENGTHxWIDTH	CLEAR OPE SIZES FOR COVER CIRCULAR	SHAFT SIZE
225	1200	1200	600x600	600ø	NO SHAFT
300	1200	1200	600x600	600ø	NO SHAFT
375–450	1350	1350	600x600	600ø	800x1350
500–700	1500	1500	600x600	600ø	800x1500
750–900	1800	1800	600x600	600ø	800x1800
>900	DN+775	DN+775	600x600	600ø	800xDN+775

TABLE 6

NOTES:

1. WHERE THERE ARE MORE THAN TWO BRANCHES ENTERING THE MAIN LINE 'Y' IS THE LARGER OF 'Y' IN THE TABLE ABOVE OR 300mm FOR EACH DN100 OR DN150 ENTRY ON THE SIDE HAVING MOST BRANCHES PLUS AN ALLOWANCE AT THE DOWNSTREAM END FOR ANGLE OF ENTRY.
2. PIPES MAY BE POSITIONED OFF CENTRE BUT A MINIMUM WIDTH OF 225mm BENCHING MUST BE PROVIDED ON EACH SIDE OF THE PIPE.

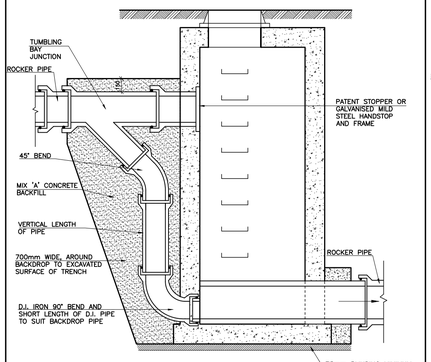


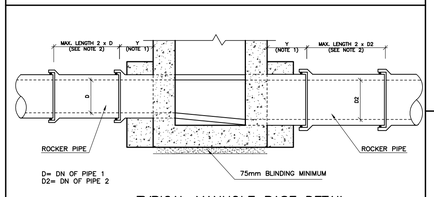
TYPICAL SECTION THROUGH MANHOLE

BACKDROP DETAIL UP TO 375mm DIA.

(To be read in conjunction with standard manhole types)

Diameter of incoming sewer	Diameter of vertical pipe
100mm	100mm
150	150
225	225
300	225
375	225





D= DN OF PIPE 1
D2= DN OF PIPE 2

TYPICAL MANHOLE BASE DETAIL

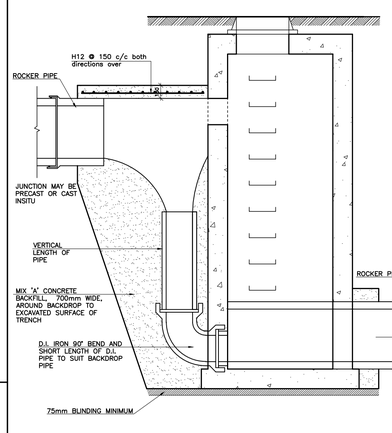
NOTES:–

1. 'Y' SHORT LENGTH OF PIPE PROJECTING NOT MORE THAN 450mm BEYOND THE EXTERNAL FACE OF THE MANHOLE, BUILT INTO THE MANHOLE WALLS AND SURROUNDED WITH 150mm THICKx300mm LONG MIX 'A' CONCRETE
2. ROCKER PIPES DIMENSION '2xD' MAY BE VARIED SO AS NOT TO EXCEED 750mm FOR PIPES UP TO 450ø AND 1m FOR PIPES UP TO 750ø.

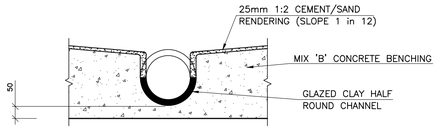
BACKDROP DETAIL GREATER THAN 375mm DIA.

(To be read in conjunction with standard manhole types)

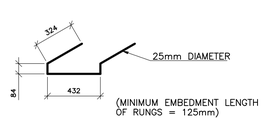
Diameter of incoming sewer	Diameter of vertical pipe
450mm	300mm
525	300
600	450
675	450
750	450



R.C. DETAILS OF ROOF SLAB



BENCHING DETAIL
(SEE CLAUSE 1.9.2 OF SPEC.)



STEP RUNG DETAIL
(SEE CLAUSE 1.9.4 OF SPEC.)

NOTES:

1. MANHOLE COVERS AND FRAMES SHALL HAVE MIN. CLEAR OPE AS DETAILED ON THIS DRAWING AND SHALL COMPLY WITH CLAUSE 1.9.7 AND SECTION 2 OF THE SPECIFICATION.
2. A THIRD PARTY TEST REPORT DETAILING COMPLIANCE WITH EN 124 SHALL BE PROVIDED BY THE CONTRACTOR FOR EACH TYPE OF MANHOLE COVER USED.
3. STEP RUNGS AND ACCESS LADDERS SHALL COMPLY WITH THE DETAILS ON THIS DRAWING AND WITH CLAUSE 1.9.4 OF THE SPECIFICATION.
4. ALL MANHOLE COVERS SHALL BE LOCKABLE.
5. WHERE DETAILED IN THE SPECIFICATION MANHOLE COVERS SHALL HAVE CUSTOMISED COVER MARKINGS DETAILING THE TYPE OF SEWERAGE SYSTEM AND COMPANY LOGO OR LOCAL AUTHORITY CREST.
6. POLYETHYLENE FRAME INSERTS OR EQUAL AND APPROVED DEVICES SHALL BE INCORPORATED INTO THE COVER MANUFACTURE TO PREVENT "ROCKING".
7. CHANNELS AND BENCHING TO COMPLY WITH CLAUSE 1.9.2 OF THE SPECIFICATION.
8. THE COVER FRAME SHALL BE BEDDED ON TWO TO FOUR COURSES AS NECESSARY OF ENGINEERING BRICKWORK AND HAUNCHED IN CLASS M1 MORTAR.
9. FOR MANHOLES DEEPER THAN 3m FIXED ACCESS LADDERS SHALL BE USED INSTEAD OF STEP RUNGS.
10. CONCRETE IN WALLS, ROOF, FLOOR AND BENCHING SHALL BE TO MIX 'C' (35N/mm²).
11. CONCRETE IN BLINDING TO BE MIX 'A' (10N/mm²) TO A MINIMUM DEPTH OF 75mm.
12. CONCRETE TO WALLS, ROOF, FLOOR AND BENCHING TO BE MIX 'W' IF MANHOLE INVERT LEVEL IS BELOW THE SURROUNDING WATER TABLE OR BELOW MEAN HIGH WATER SPRING TIDE LEVEL.
13. UNLESS OTHERWISE STATED WALLS OF MANHOLES A1–A4, B1 AND B2 TO BE REINFORCED WITH 1 LAYER OF A252 MESH TO EACH FACE. INTERLINKING H8 U–BARS (SHAPE CODE 21) TO BE PROVIDED AT EACH CORNER AT 200 CENTRES AND EACH LEG OF U–BAR TO PROVIDE 325mm LAP WITH MESH.
14. WALLS OF MANHOLE TYPES C1 AND C2 TO BE REINFORCED WITH 1 LAYER OF A393 MESH TO EACH FACE. INTERLINKING T10 U–BARS (SHAPE CODE 21) TO BE PROVIDED IN EACH CORNER AT 200 CENTRES AND EACH LEG OF U–BAR TO PROVIDE 400mm LAP WITH MESH.
15. UNLESS OTHERWISE STATED BASE SLAB OF ALL MANHOLES TO BE REINFORCED WITH 1 LAYER OF A393 (TOP AND BOTTOM). WHERE WALLS OF MANHOLE ARE TO BE REINFORCED WITH MESH T10 STARTER BARS (SHAPE CODE 11) TO BE PROVIDED FROM BASE AT 200mm CENTRES ON EACH FACE. EACH LEG OF STARTER BAR TO PROVIDE 400mm LAP WITH MESH IN WALL AND BASE.
16. REINFORCEMENT IN WALLS & ROOF SHALL HAVE A MINIMUM COVER OF 40mm. CORNERS OF OPES IN ROOF SLABS SHALL BE REINFORCED WITH 2No. H12 STRAIGHT BARS x 400 LONG PLACED 1No. TOP AND 1No. BOTTOM DIAGONALLY ACROSS EACH CORNER.
17. ACCESS LADDERS SHALL BE FITTED WITH SAFETY HOOPS WHERE NO ACCESS SHAFT IS PROVIDED OR ACCESS SHAFT DIMENSIONS EXCEED 1200mm x 800mm.
18. 'DN' DENOTES PIPE DIAMETER.
19. ALL BACKDROP MANHOLES TO BE CONSTRUCTED WITH INSITU CONCRETE

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
GD	DC	DC

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PROJECT: Dundrum Village – Strategic Housing Development

CLIENT: Dundrum Retail GP DAC (acting for and on behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: STANDARD MANHOLE DETAILS FOR INSITU MANHOLES

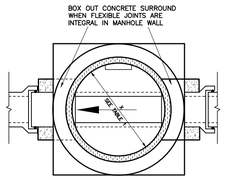
SCALE: NTS (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-XX-XX-DR-C-1095

REV: C01

MANHOLE TYPE P1

DN 150ø – 900ø
UP TO 45° BEND
DEPTH FROM COVER TO SOFFIT OF PIPE <1.5m



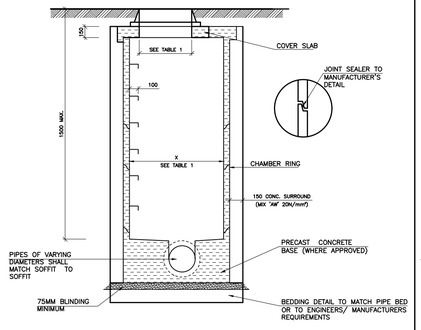
TYPICAL PLAN OF MANHOLE

DN OF LARGEST PIPE IN MANHOLE	MANHOLE DIAMETER X(mm)	CLEAR OPE SIZES FOR COVER RECTANGULAR LENGTHxWIDTH	CIRCULAR
≤ 150	1050	750x675 (NOTE 1)	NOTE 2
225	1350	1200x675	NOTE 2
300	1350	1200x675	NOTE 2
375–450	1350	1200x675	NOTE 2
500–700	1500	1200x675	NOTE 2
750–900	1800	1200x675	NOTE 2

TABLE 1

NOTES:

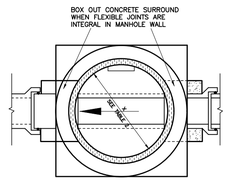
1. MAY BE REDUCED TO 600x600 WHERE
   (i) THE CONFIGURATION OF THE MANHOLE CHAMBER PERMITS A SAFE SYSTEM OF WORK
   (ii) REQUIRED BY HIGHWAY LOADING CONSIDERATIONS SUBJECT TO A SAFE SYSTEM OF WORK SPECIFIED.
2. CIRCULAR OPE NOT PERMITTED DUE TO WORKING SPACE NEEDED.
3. PIPES MAY BE POSITIONED OFF CENTRE BUT A MINIMUM WIDTH OF 225mm BENCHING MUST BE PROVIDED ON EACH SIDE OF THE PIPE.



TYPICAL SECTION THROUGH MANHOLE

MANHOLE TYPE P2

DN 150ø – 900ø
UP TO 45° BEND
DEPTH FROM COVER TO SOFFIT OF PIPE ≥1.5m <6m



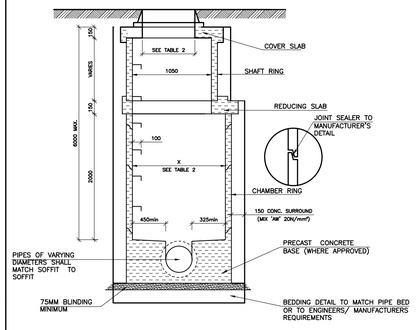
TYPICAL PLAN OF MANHOLE

DN OF LARGEST PIPE IN MANHOLE	MANHOLE DIAMETER X(mm)	CLEAR OPE SIZES FOR COVER RECTANGULAR LENGTHxWIDTH	CIRCULAR
≤ 150	1050	600x600	600ø
225	1200	600x600	600ø
300	1200	600x600	600ø
375–450	1350	600x600	600ø
500–700	1500	600x600	600ø
750–900	1800	600x600	600ø

TABLE 2

NOTES:

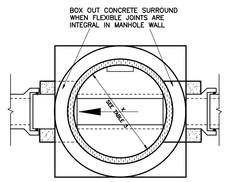
1. WHERE THERE ARE MORE THAN TWO BRANCHES ENTERING THE MAIN LINE 'Y' IS THE LARGER OF 'Y' IN THE TABLE ABOVE OR 300mm FOR EACH DN100 OR DN150 ENTRY ON THE SIDE HAVING MOST BRANCHES PLUS AN ALLOWANCE AT THE DOWNSTREAM END FOR ANGLE OF ENTRY.
2. PIPES MAY BE POSITIONED OFF CENTRE BUT A MINIMUM WIDTH OF 225mm BENCHING MUST BE PROVIDED ON EACH SIDE OF THE PIPE.



TYPICAL SECTION THROUGH MANHOLE

MANHOLE TYPE P3

DN 150ø – 900ø
45° TO 90° BEND
DEPTH FROM COVER TO SOFFIT OF PIPE <1.5m



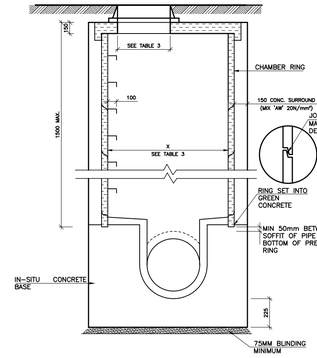
TYPICAL PLAN OF MANHOLE

DN OF LARGEST PIPE IN MANHOLE	MANHOLE DIAMETER X(mm)	CLEAR OPE SIZES FOR COVER RECTANGULAR LENGTHxWIDTH	CIRCULAR
≤ 150	1050	750x675 (NOTE 1)	NOTE 2
225	1350	1200x675	NOTE 2
300	1350	1200x675	NOTE 2
375–450	1350	1200x675	NOTE 2
500–700	1500	1200x675	NOTE 2
750–900	1800	1200x675	NOTE 2

TABLE 3

NOTES:

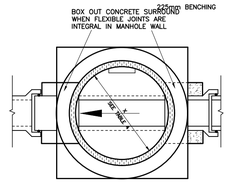
1. MAY BE REDUCED TO 600x600 WHERE
   (i) THE CONFIGURATION OF THE MANHOLE CHAMBER PERMITS A SAFE SYSTEM OF WORK
   (ii) REQUIRED BY HIGHWAY LOADING CONSIDERATIONS SUBJECT TO A SAFE SYSTEM OF WORK SPECIFIED.
2. CIRCULAR OPE NOT PERMITTED DUE TO WORKING SPACE NEEDED.
3. PIPES MAY BE POSITIONED OFF CENTRE BUT A MINIMUM WIDTH OF 225mm BENCHING MUST BE PROVIDED ON EACH SIDE OF THE PIPE.



TYPICAL SECTION THROUGH MANHOLE

MANHOLE TYPE P4

DN 150ø – 900ø
45° TO 90° BEND
DEPTH FROM COVER TO SOFFIT OF PIPE ≥1.5m <6m



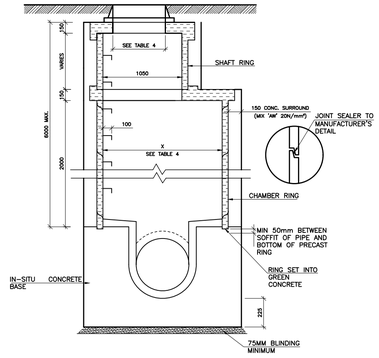
TYPICAL PLAN OF MANHOLE

DN OF LARGEST PIPE IN MANHOLE	MANHOLE DIAMETER X(mm)	CLEAR OPE SIZES FOR COVER RECTANGULAR LENGTHxWIDTH	CIRCULAR
≤ 150	1050	600x600	600ø
225	1200	600x600	600ø
300	1200	600x600	600ø
375–450	1350	600x600	600ø
500–700	1500	600x600	600ø
750–900	1800	600x600	600ø

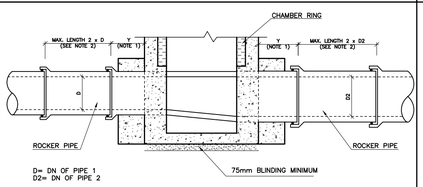
TABLE 4

NOTES:

1. WHERE THERE ARE MORE THAN TWO BRANCHES ENTERING THE MAIN LINE 'Y' IS THE LARGER OF 'Y' IN THE TABLE ABOVE OR 300mm FOR EACH DN100 OR DN150 ENTRY ON THE SIDE HAVING MOST BRANCHES PLUS AN ALLOWANCE AT THE DOWNSTREAM END FOR ANGLE OF ENTRY.
2. PIPES MAY BE POSITIONED OFF CENTRE BUT A MINIMUM WIDTH OF 225mm BENCHING MUST BE PROVIDED ON EACH SIDE OF THE PIPE.



TYPICAL SECTION THROUGH MANHOLE



D= DN OF PIPE 1
D2= DN OF PIPE 2

TYPICAL PIPE CONNECTION DETAIL TO BASE

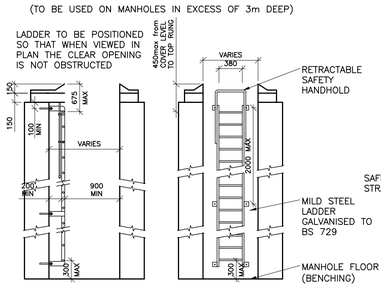
NOTES:–

1. 'Y' SHORT LENGTH OF PIPE PROJECTING NOT MORE THAN 450mm BEYOND THE EXTERNAL FACE OF THE MANHOLE, BUILT INTO THE MANHOLE WALLS AND SURROUNDED WITH 150mm THICKx300mm LONG MIX 'A' CONCRETE
2. DIMENSION '2xD' MAY BE VARIED SO AS NOT TO EXCEED 750mm FOR PIPES UP TO 450ø AND 1m FOR PIPES UP TO 750ø.

SAFETY ACCESS LADDER

(TO BE USED ON MANHOLES IN EXCESS OF 3m DEEP)

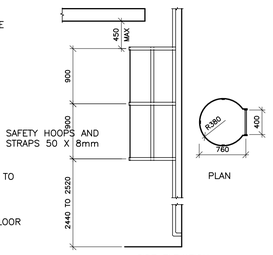
LADDER TO BE POSITIONED SO THAT WHEN VIEWED IN PLAN THE CLEAR OPENING IS NOT OBSTRUCTED



SECTION ELEVATION

SAFETY HOOP DETAIL

(TO BE PROVIDED ONLY WHERE PERMITTED BY LOCAL AUTHORITY.)



1. STRINGERS SHALL BE NOT LESS THAN 65mm X 12mm SECTION.
2. STRINGERS SHALL BE ADEQUATELY SUPPORTED AT THE MANHOLE WALLS AT INTERVALS OF NOT MORE THAN 3 METRES. STRINGER SUPPORTS SHALL NOT BE BUILT INTO THE MANHOLE WALL BUT BOLTED TO BUILT IN CLEATS TO FACILITATE REMOVAL.
3. RUNGS SHALL NOT BE LESS THAN 22mm DIAMETER AT 300mm MAX. CENTRES WITH 300mm MIN BETWEEN STRINGERS.
4. WHERE LADDERS ARE USED A MINIMUM WIDTH OF BENCHING OF 400mm SHALL BE PROVIDED BETWEEN THE LADDER RUNGS AND THE CHANNEL TO PROVIDE A SAFE WORKING AREA.

NOTES:

1. MANHOLE COVERS AND FRAMES SHALL HAVE 600mm MIN. CLEAR OPE AND SHALL COMPLY WITH CLAUSE 1.9.7 & SECTION 2 OF THE SPECIFICATION.
2. A THIRD PARTY TEST REPORT DETAILING COMPLIANCE WITH EN 124 SHALL BE PROVIDED BY THE CONTRACTOR FOR EACH MANHOLE COVER USED.
3. STEP RUNGS AND ACCESS LADDERS SHALL COMPLY WITH THE DETAILS ON THIS DRAWING AND WITH CLAUSE 1.9.4 OF THE SPECIFICATION.
4. ALL MANHOLE COVERS SHALL BE LOCKABLE.
5. WHERE DETAILED IN THE SPECIFICATION MANHOLE COVERS SHALL HAVE CUSTOMISED COVER MARKINGS DETAILING THE TYPE OF SEWERAGE SYSTEM AND COMPANY LOGO OR LOCAL AUTHORITY CREST.
6. POLYETHYLENE FRAME INSERTS OR EQUAL AND APPROVED DEVICES SHALL BE INCORPORATED INTO THE COVER MANUFACTURE TO PREVENT "ROCKING".
7. CHANNELS AND BENCHING TO COMPLY WITH CLAUSE 1.9.2 OF THE SPECIFICATION.
8. THE COVER FRAME SHALL BE BEDDED ON TWO TO FOUR COURSES AS NECESSARY OF ENGINEERING BRICKWORK AND HAUNCHED IN CLASS M1 MORTAR.
9. FOR MANHOLES DEEPER THAN 3m FIXED ACCESS LADDERS SHALL BE USED INSTEAD OF ACCESS RUNGS.
10. CONCRETE IN BLINDING TO BE MIX 'A' (10N/mm²) TO A MINIMUM DEPTH OF 75mm.
11. ACCESS LADDERS SHALL BE FITTED WITH SAFETY HOOPS WHERE NO ACCESS SHAFT IS PROVIDED OR ACCESS SHAFT DIMENSIONS EXCEED 1200mm X 800mm.
12. 'DN' DENOTES PIPE DIAMETER.
13. PRECAST CONCRETE MANHOLES SHALL COMPLY WITH CLAUSE 1.9.8 OF THE SPECIFICATION.

C01	AP	ISSUED FOR PLANNING	25.03.2022
REV	SUIT	DESCRIPTION	DATE

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
GD	DC	DC

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CORRIG HOUSE, CORRIG ROAD, SANDYFORD, DUBLIN 18.
Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: Dundrum Village – Strategic Housing Development

CLIENT: Dundrum Retail GP DAC (acting for and on behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: STANDARD MANHOLE DETAILS
PRECAST MANHOLES - SURFACE WATER

SCALE: NTS (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-XX-XX-DR-C-1096

REV: C01

N

OVERLAND FLOWS FROM PERMEABLE PAVING IN ZONE 3 WILL POND IN THE VEGETATED AREAS (LEVEL 50.40mOD) IN THE 100 YEAR FLOOD EVENTS. THESE AREAS ARE ALONGSIDE THE TERRACE AND THE FOOTPATH AREAS SURROUNDING THE TERRACE

FLOOD WATER WILL POND AT THE LOW POINT (50.00mOD) IN FRONT OF BLOCK 4B (OUTLINED IN GREEN) WHICH WILL BE CONVEYED TO THE COMPENSATORY STORAGE AREA AT LOWER GROUND FLOOR LEVEL VIA OVERFLOW GULLIES IN THE 100 YEAR EVENT

PERMEABLE PAVING AT PODIUM

PAVING ON GRADE 3

PAVING ON GRADE 2

PAVING ON GRADE 1

ZONE 4

PODIUM 2

PODIUM 4

PODIUM 3

PODIUM 1

OVERFLOW GULLIES FROM LOW POINT TO LOWER GROUND FLOOR CARPARK

ZONE 3

FALLS TO LOW POINT OF 50.00 IN FRONT OF BLOCK 4B

PODIUM

3C

3B

3A

SERVICE ROAD 3

SERVICE ROAD 2

PERMEABLE PAVING AT PODIUM

PODIUM 9

PODIUM 8

ZONE 2

2C

2B

2A

SERVICE ROAD 1

OVERFLOW GULLIES FROM LOW POINT TO LOWER GROUND FLOOR CARPARK

OVERLAND FLOWS FROM PERMEABLE PAVING AT PODIUM 8 AND 9 WILL POND AT THE LOW POINT OF 49.85mOD IN THE TERRACE AREA IN THE 100 YEAR FLOOD EVENT

1C

1A

ZONE 1

1B

OVERLAND FLOWS FROM PERMEABLE PAVING IN THE 100 YEAR EVENTS WILL FLOW NORTH ALONG THE SERVICE ROAD BY THE TOPOGRAPHY OF THE PROPOSED SERVICE ROAD AND WILL BE DIRECTED INTO THE SWALE LINKED TO THE COMPENSATORY STORAGE RESERVOIR ALONG THE DIRECTION OF THE ARROWS SHOWING THE CROSSFALL IN THE SERVICE ROAD AND THE OVERFLOW ROUTE TO THE SWALE

DUNDRUM BYPASS

PERMEABLE PAVING ON GRADE

SERVICE ROAD 4

SERVICE ROAD 3

SERVICE ROAD 2

SERVICE ROAD 1

FOR DETAILS OF COMPENSATORY STORAGE RESERVOIR CONSTRUCTION AND INLET AND RETURN DETAILS SEE DRAWING NO 16031-TJOC-00-XX-DR-C-1058.

OVERFLOW INTO SWALE

WOODLAND BOWL PROVIDES STORAGE FOR EXCEEDANCE FLOWS

SERVICE ROAD 1

SERVICE ROAD 2

PERMEABLE PAVING ON GRADE

AREA IN GREY ALSO FORMS PART OF SERVICE ROAD 1 AREA

SWEETMOUNT AVENUE

HATCH LEGEND	
PERMEABLE PAVING ON GRADE	
PERMEABLE PAVING AT PODIUM	

OTHER	
SITE BOUNDARY (PLANNING BOUNDARY)	
COMPENSATORY FLOOD STORAGE	

NOTES:

1. PERMEABLE AND PERVIOUS PAVING LOCATION REFERENCES ARE AS PER THE SURFACE WATER DRAINAGE CALCULATIONS AT APPENDIX G OF THE ENGINEERING SERVICES REPORT.

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING WITH REVISED COMPENSATORY STORAGE AREA	30.03.2022
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY: HH | REVIEWED BY: MV | APPROVED BY: DC

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

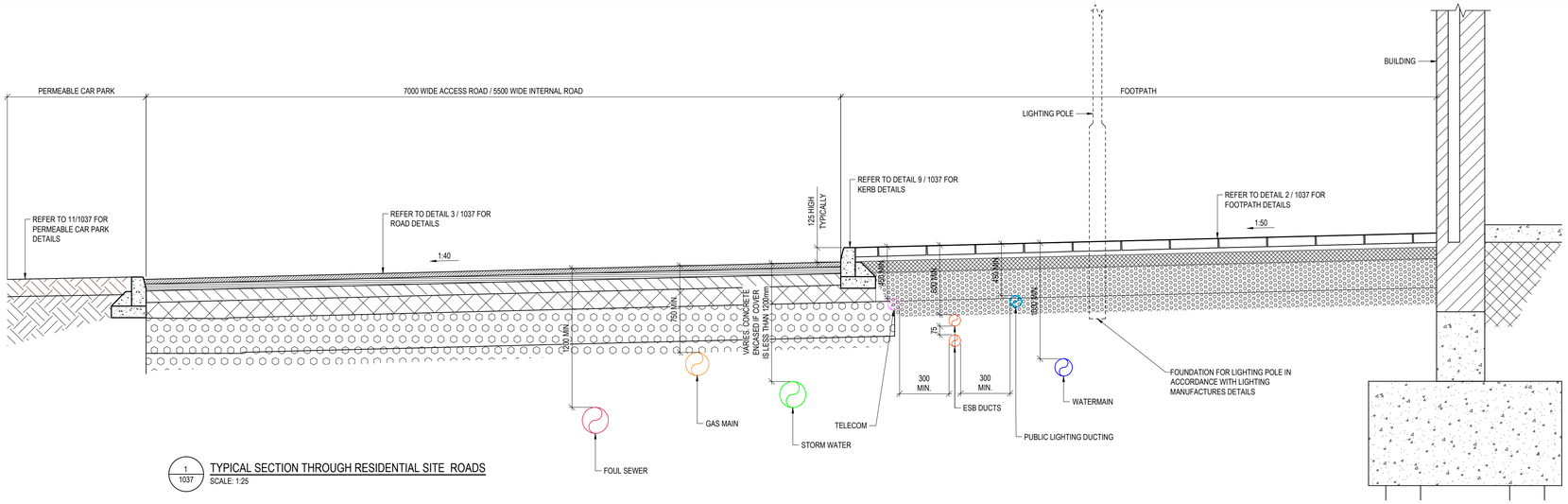
CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: OVERLAND FLOOD FLOW ROUTES FOR ON SITE STORMWATER FLOODING

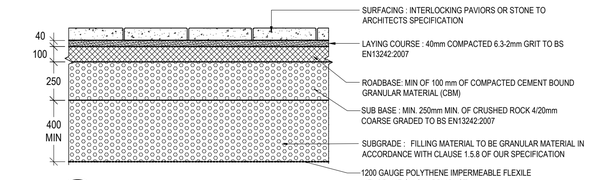
SCALE: 1:500 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1097

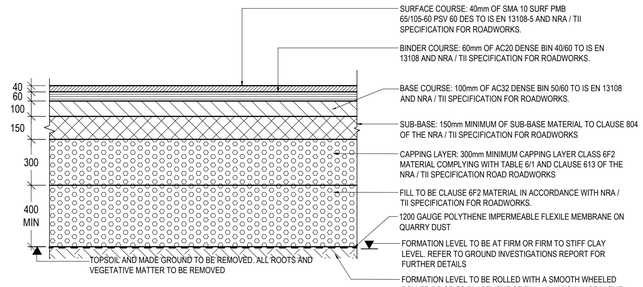
REV: C02



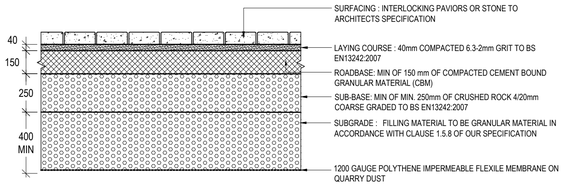
1/1037 TYPICAL SECTION THROUGH RESIDENTIAL SITE ROADS
SCALE: 1:25



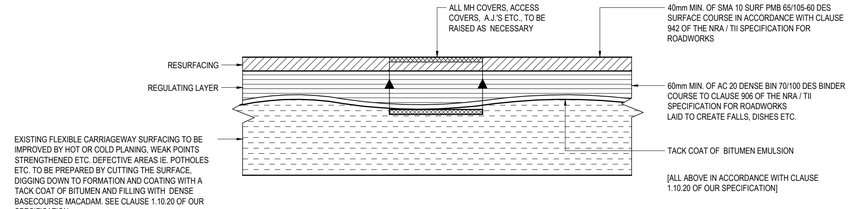
2/1037 FOOTPATH CONSTRUCTION DETAIL
SCALE: 1:20



3/1037 TYPICAL ACCESS ROAD CONSTRUCTION DETAIL
SCALE: 1:20

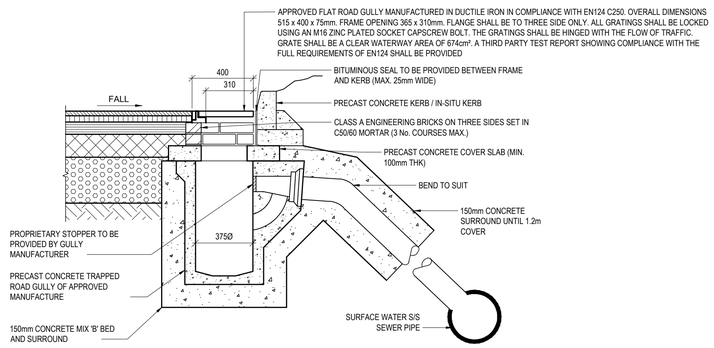


3A/1037 SHARED SURFACE AREAS CONSTRUCTION DETAIL
SCALE: 1:20

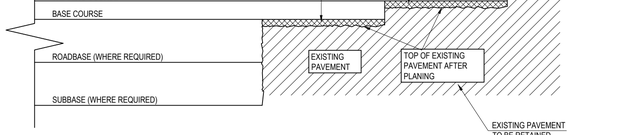


NOTE: ADDITIONAL GULLIES TO BE PROVIDED WHERE NECESSARY AT THE MIN RATE OVERALL OF 1 PER 200 SQ METRES OF PAVED AREA.

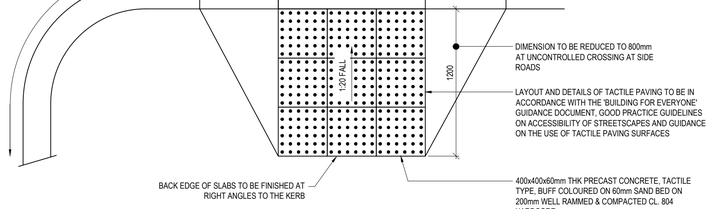
4/1037 TYPICAL DETAIL OF RESURFACING OF EXISTING FLEXIBLE CARRIAGEWAY



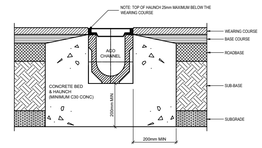
5/1037 TYPICAL PRECAST ROAD GULLY DETAIL
SCALE: 1:20



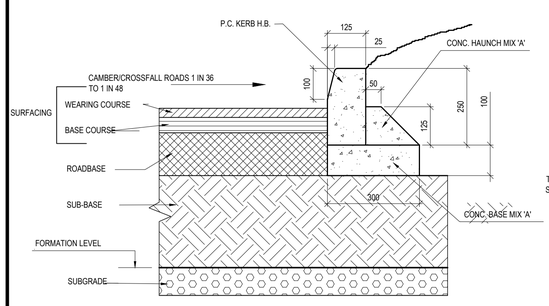
6/1037 TYPICAL JOINT BETWEEN EXISTING ROAD AND NEW ROAD
SCALE: 1:25



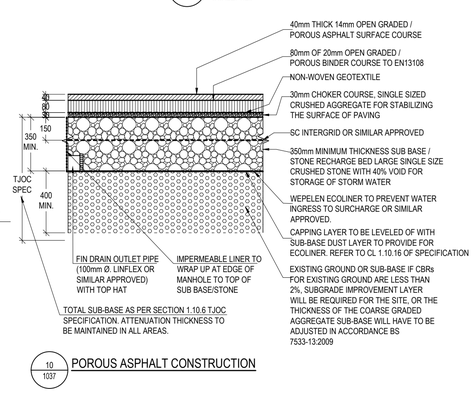
7/1037 TYPICAL PLAN OF DISHED KERB AT UNCONTROLLED CROSSING AT JUNCTION
SCALE: 1:25



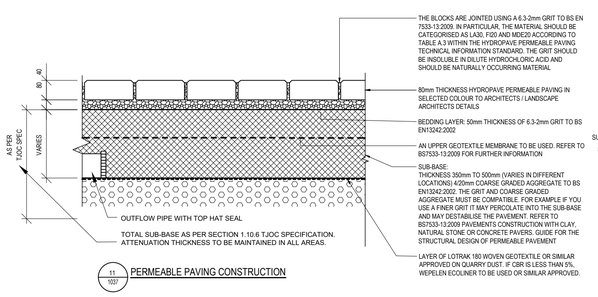
8/1037 DETAIL OF ACO CHANNELS



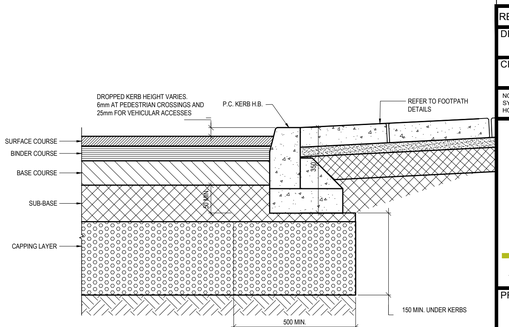
9/1037 TYPICAL PRECAST KERB
SCALE: 1:10



10/1037 POROUS ASPHALT CONSTRUCTION



11/1037 PERMEABLE PAVING CONSTRUCTION



12/1037 TYPICAL PRECAST CONCRETE DROP KERB
SCALE: 1:10

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
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PROJECT: Dundrum Village – Strategic Housing Development

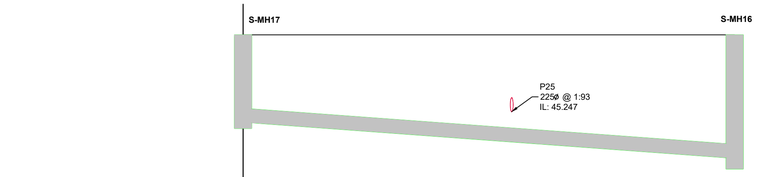
CLIENT: Dundrum Retail GP DAC (acting for and on behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: TYPICAL ROAD DETAILS

SCALE: NTS (A1)

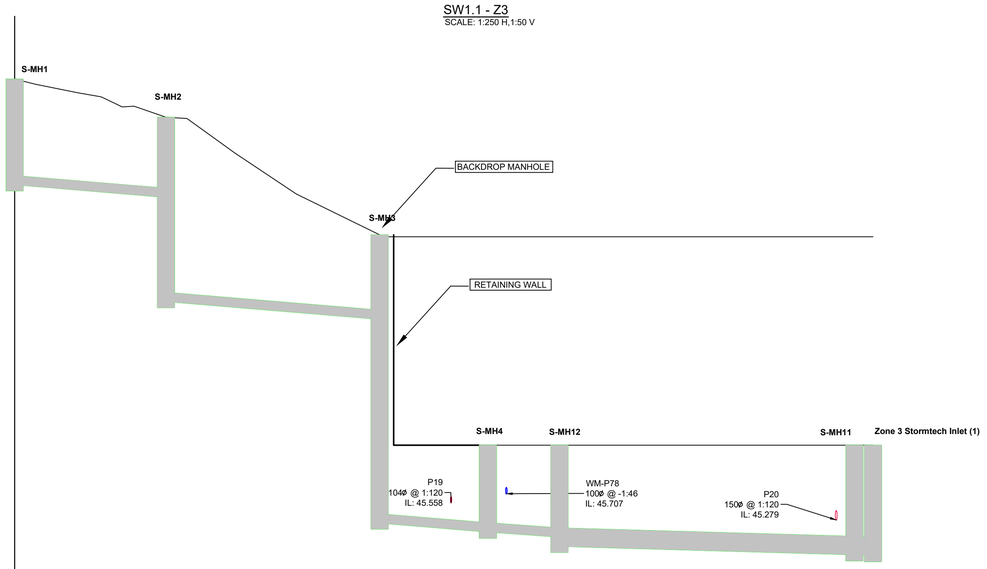
PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-XX-XX-DR-C-1098

REV: C01



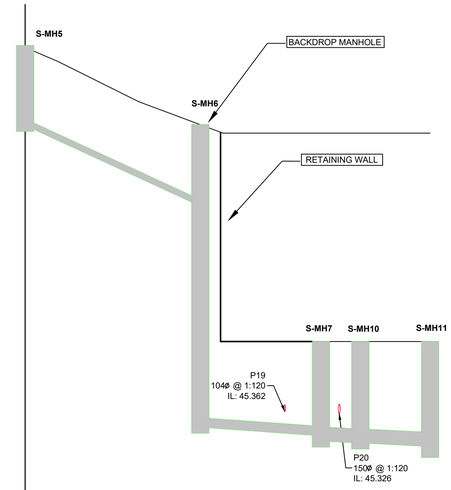
COVER LEVEL	46.500		46.500
INVERT LEVEL	45.075		44.487
CHAINAGE	0.000		40.114
PIPE DIAMETER AND GRADIENT		3.000 225ø @ 1: 68	
PIPE MATERIAL		uPVC TWINWALL	
MANHOLE TYPE:	A1		A4
TYPE OF GROUND			
BEDDING AND SURROUND		Class E	
BACKFILL AND REINSTATEMENT		Class E	

SW1.1 - Z3
SCALE: 1:250 H,1:50 V



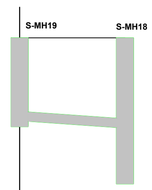
COVER LEVEL	52.474	51.853	49.932	46.500	46.500		46.500	46.500
INVERT LEVEL	50.750	50.544 49.844	48.553 45.230	45.082 45.082	44.959 44.849		44.711 44.711	44.711 44.709
CHAINAGE	0.000	12.351	29.784	38.617	44.459		68.541	70.053
PIPE DIAMETER AND GRADIENT		1.000 150ø @ 1: 60	1.001 150ø @ 1: 60	1.002 150ø @ 1: 60	1.003 150ø @ 1: 70	1.004 300ø @ 1: 175	1.005 300ø @ 1: 137	
PIPE MATERIAL		uPVC	uPVC	uPVC	uPVC	uPVC TWINWALL	uPVC TWINWALL	
MANHOLE TYPE:	A2	A4	C1	A1	A4		A1	A2
TYPE OF GROUND								
BEDDING AND SURROUND				Class E				
BACKFILL AND REINSTATEMENT				Class E				

SW2 -Z3
SCALE: 1:250 H,1:50 V



COVER LEVEL	51.330	50.039		46.500	46.500	46.500
INVERT LEVEL	50.030	48.712 45.106		44.965 44.875	44.847 44.847	44.790
CHAINAGE	0.000	14.297		24.135	27.353	33.044
PIPE DIAMETER AND GRADIENT		5.000 100ø @ 1: 11	5.001 150ø @ 1: 70		5.002 225ø @ 1: 100	4.003 225ø @ 1: 100
PIPE MATERIAL		uPVC	uPVC		uPVC TWINWALL	uPVC TWINWALL
MANHOLE TYPE:	A1	C1		A3	A3	A1
TYPE OF GROUND						
BEDDING AND SURROUND		Class E				
BACKFILL AND REINSTATEMENT		Class E				

SW2.1 - Z3
SCALE: 1:250 H,1:50 V



COVER LEVEL	46.500	46.500
INVERT LEVEL	45.150	45.027
CHAINAGE	0.000	8.597
PIPE DIAMETER AND GRADIENT		2.000 150ø @ 1: 70
PIPE MATERIAL		uPVC
MANHOLE TYPE:	A1	A4
TYPE OF GROUND		
BEDDING AND SURROUND		Class E
BACKFILL AND REINSTATEMENT		Class E

SW1.2 - Z3
SCALE: 1:250 H,1:50 V

NOTE:

1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH DRGS 16031-TJOC-00-XX-DR-C-1082 TO C-1085 FOR SW DRAINAGE LAYOUT PLANS AND DRGS 16031-TJOC-00-XX-DR-C-1087 TO C-1089 AND 16031-TJOC-00-XX-DR-C-1099 TO C-1100.
2. REFER TO DRG 16031-TJOC-00-XX-DR-C-1094 FOR PIPE BEDDING DETAILS.
3. REFER TO DRGS 16031-TJOC-00-XX-DR-C-1095 AND 16031-TJOC-00-XX-DR-C-1096 FOR MANHOLE DETAIL DRAWINGS.

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT:
DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

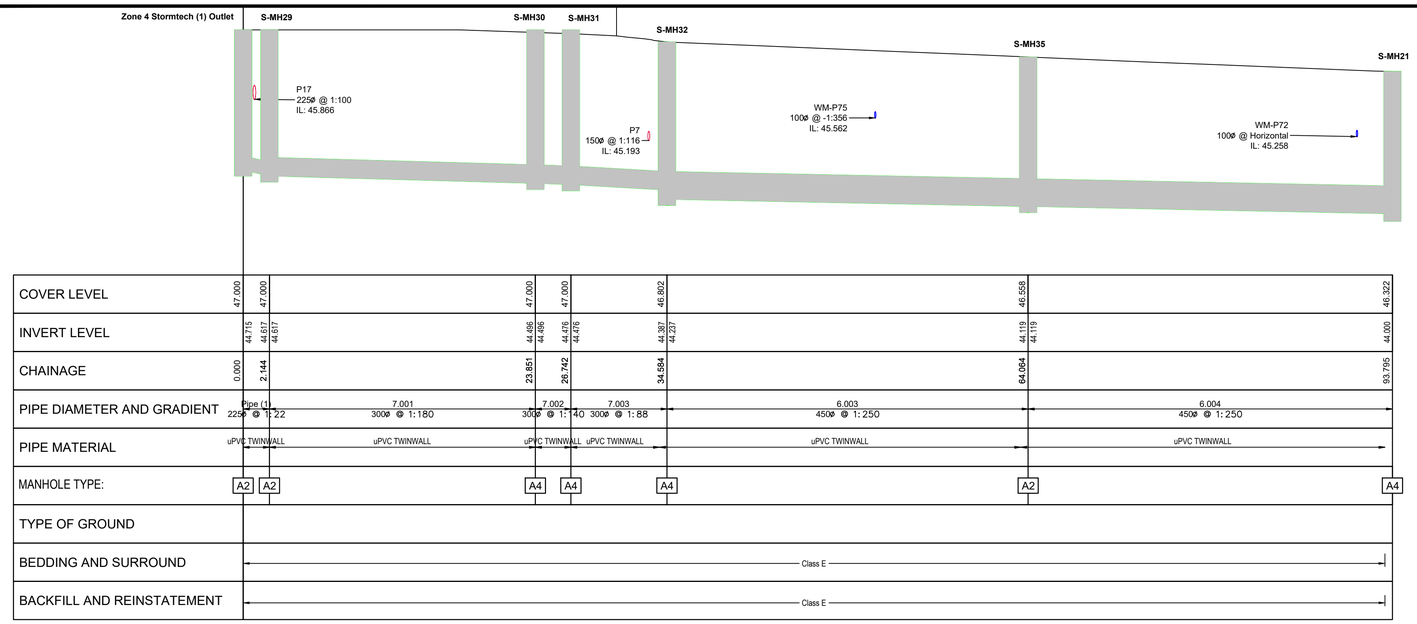
CLIENT:
DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE:
PROPOSED SURFACE WATER SECTIONS - ZONE 3
SHEET 2

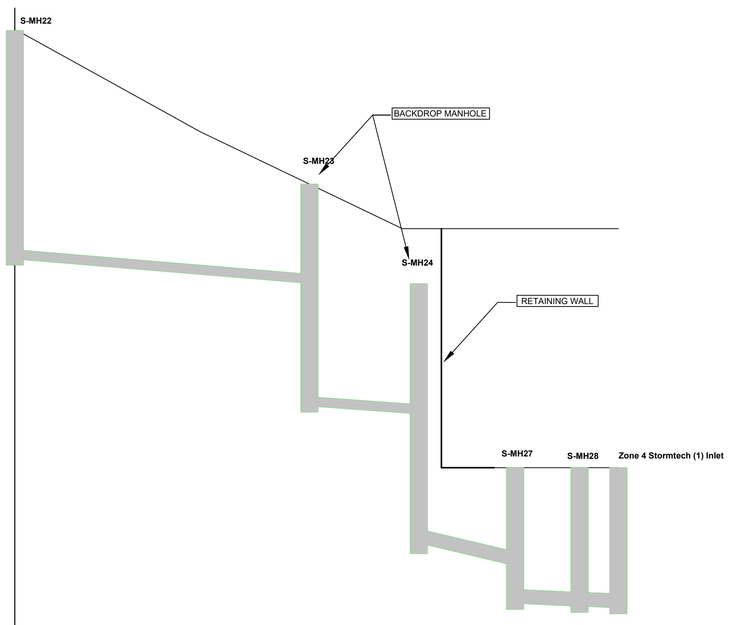
SCALE: AS SHOWN (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1099

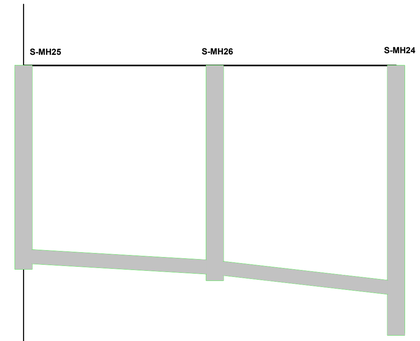
REV: C01



SW1.3 - Z4 FROM ST
SCALE: 1:250 H,1:50 V



SW2 -Z4
SCALE: 1:250 H,1:50 V



SW2.1 - Z4
SCALE: 1:250 H,1:50 V

NOTE:

1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH DRGS 16031-TJOC-00-XX-DR-C-1082 TO C-1085 FOR SW DRAINAGE LAYOUT PLANS AND DRGS 16031-TJOC-00-XX-DR-C-1087 TO C-1089 AND 16031-TJOC-00-XX-DR-C-1099 TO C-1100.
2. REFER TO DRG 16031-TJOC-00-XX-DR-C-1094 FOR PIPE BEDDING DETAILS.
3. REFER TO DRGS 16031-TJOC-00-XX-DR-C-1095 AND 16031-TJOC-00-XX-DR-C-1096 FOR MANHOLE SCHEDULE.

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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PROJECT:
DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT:
DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE:
PROPOSED SURFACE WATER SECTIONS - ZONE 4
SHEET 1

SCALE: AS SHOWN (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1100

REV: C01

KEYPLAN
SCALE 1:2000

ZONE 1 STORMTECH

- 5 NO. BAYS.
- 140 NO. SC740 CELLS.
- 401 m^3 STORAGE PROVIDED (EXCLUDES ANY ADDITIONAL STORAGE THAT MAY BE GAINED BY INFILLING BETWEEN PILE CAPS WITH NO FINES AGGREGATE).
- IL OF BASE (BOTTOM OF STONE) = 43.630 mOD
- 300mm NO FINES AGGREGATE WITH 35% VOIDS TO TOP, BOTTOM, SIDES AND ENDS.

ZONE 2 STORMTECH

- 4 NO. BAYS.
- 122 NO. SC740 CELLS.
- 351 m^3 STORAGE PROVIDED (EXCLUDES ANY ADDITIONAL STORAGE THAT MAY BE GAINED BY INFILLING BETWEEN PILE CAPS WITH NO FINES AGGREGATE).
- IL OF BASE (BOTTOM OF STONE) = 43.600 mOD
- 300mm NO FINES AGGREGATE WITH 35% VOIDS TO TOP, BOTTOM, SIDES AND ENDS.

NOTES:

1. TOPOGRAPHICAL SURVEY INFORMATION SHOWN WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD. IN MAY 2021.
2. ADDITIONAL SURVEY WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD DURING AUGUST 2021.
3. ALL LEVELS SHOWN RELATE TO ORDNANCE DATUM MALIN HEAD.
4. FOR SURFACE WATER DRAINAGE LAYOUTS REFER TO DRG 16031-TJOC-00-XX-DR-C-1083, 16031-TJOC-00-XX-DR-C-1084, 16031-TJOC-00-XX-DR-C-1085 AND 16031-TJOC-00-XX-DR-C-1086.
5. FOR STORMTECH ATTENUATION DETAILS REFER TO DRG 16031-TJOC-00-XX-DR-C-1090 AND 16031-TJOC-00-XX-DR-C-1091.
6. FOR HYDROBRAKE CHAMBER DETAIL REFER TO DRG 16031-TJOC-00-XX-DR-C-1092.
7. SECTIONS THROUGH PROPOSED SITE ARE SHOWN AT DRAWINGS 16031-TJOC-00-XX-DR-C-1055 AND 16031-TJOC-00-XX-DR-C-1056.

LEGEND

SITE BOUNDARY (PLANNING BOUNDARY)	
PROPOSED PIPE	
PROPOSED MANHOLE	
COMPENSATORY STORAGE	
LOWER GROUND RETAINING WALL	

REV	STAT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING WITH REVISED COMPENSATORY	30.03.2022
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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PROJECT: DUNDRUM VILLAGE - STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and on behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED STORMECH ATTENUATION LAYOUT ZONE 1 & 2

SCALE: 1:250 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1101

REV: C02

KEYPLAN
SCALE 1:2000

NOTES:

1. TOPOGRAPHICAL SURVEY INFORMATION SHOWN WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD. IN MAY 2021.
2. ADDITIONAL SURVEY WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD DURING AUGUST 2021.
3. ALL LEVELS SHOWN RELATE TO ORDNANCE DATUM MALIN HEAD.
4. FOR SURFACE WATER DRAINAGE LAYOUTS REFER TO DRG 16031-TJOC-00-XX-DR-C-1082, 16031-TJOC-00-XX-DR-C-1083, 16031-TJOC-00-XX-DR-C-1084 AND 16031-TJOC-00-XX-DR-C-1085.
5. FOR STORMTECH ATTENUATION DETAILS REFER TO DRG 16031-TJOC-00-XX-DR-C-1090 AND 16031-TJOC-00-XX-DR-C-1091.
6. FOR HYDROBRAKE CHAMBER DETAIL REFER TO DRG 16031-TJOC-00-XX-DR-C-1092.
7. SECTIONS THROUGH PROPOSED SITE ARE SHOWN AT DRAWINGS 16031-TJOC-00-XX-DR-C-1055 AND 16031-TJOC-00-XX-DR-C-1056.

ZONE 4A STORMTECH

- 47 NO. SC740 CELLS.
- 127 m^3 STORAGE PROVIDED (EXCLUDES ANY ADDITIONAL STORAGE THAT MAY BE GAINED BY INFILLING BETWEEN PILE CAPS WITH NO FINE AGGREGATE).
- IL OF BASE (BOTTOM OF STONE) = 44.715 mOD
- 250mm NO FINES AGGREGATE WITH 35% VOIDS TO TOP, BOTTOM, SIDES AND ENDS.

ZONE 3 STORMTECH

- 116 NO. SC740 CELLS.
- 299 m^3 STORAGE PROVIDED (EXCLUDES ANY ADDITIONAL STORAGE THAT MAY BE GAINED BY INFILLING BETWEEN PILE CAPS WITH NO FINES AGGREGATE).
- IL OF BASE (BOTTOM OF STONE) = 44.700 mOD
- 250mm NO FINES AGGREGATE WITH 35% VOIDS TO TOP, BOTTOM, SIDES AND ENDS.

ZONE 4B STORMTECH (SAME AS ZONE 4A)

- 44 NO. SC740 CELLS.
- 119 m^3 STORAGE PROVIDED (EXCLUDES ANY ADDITIONAL STORAGE THAT MAY BE GAINED BY INFILLING BETWEEN PILE CAPS WITH NO FINES AGGREGATE).
- IL OF BASE (BOTTOM OF STONE) = 44.715 mOD
- 250mm NO FINES AGGREGATE WITH 35% VOIDS TO TOP, BOTTOM, SIDES AND ENDS.

LEGEND

SITE BOUNDARY (PLANNING BOUNDARY)	
PROPOSED PIPE	
PROPOSED MANHOLE	

REV	STAT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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PROJECT: DUNDRUM VILLAGE - STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and on behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED STORMECH ATTENUATION LAYOUT ZONE 3 & 4

SCALE: 1:250 (A1)

PROJECT – ORIGINATOR – VOLUME – LOCATION – TYPE – ROLE – NUMBER
16031-TJOC-00-DR-C-1102

REV: C01

MANHOLE SCHEDULE

NO.	COVER LEVEL	INVERT LEVEL	TYPE	EASTING	NORTHING
N-MH1	46.078	43.681	A2	716924.611	728103.186
N-MH2	45.778	42.956	A4	716905.005	728131.194
N-MH3	46.000	44.426	A1	716906.396	728198.484
N-MH4	46.000	44.291	A1	716910.616	728182.890
N-MH5	46.000	44.191	A4	716913.580	728183.643
N-MH6	46.000	44.603	A1	716928.441	728147.043
N-MH7	46.000	44.449	A1	716917.897	728162.234
N-MH8	46.000	44.421	A1	716918.314	728165.631
N-MH9	46.000	44.077	A4	716933.350	728188.670
N-MH10	46.000	44.287	A1	716929.041	728204.290
N-MH11	46.000	44.050	A4	716934.492	728183.911
N-MH12	50.500	44.667	A3	716962.188	728157.827
N-MH13	46.000	44.448	A1	716956.194	728165.893
N-MH14	46.000	44.259	A4	716950.094	728187.779
N-MH15	46.000	44.426	A1	716950.168	728193.304
N-MH16	46.000	43.318	A4	716943.777	728141.233
N-MH17	46.000	43.223	A4	716931.132	728132.726
N-MH18	46.000	43.046	A4	716923.703	728143.746
N-MH19	45.610	42.841	A2	716888.609	728154.635
N-MH20	45.515	42.747	A2	716880.139	728176.582

MANHOLE SCHEDULE

NO.	COVER LEVEL	INVERT LEVEL	TYPE	EASTING	NORTHING
N-MH21	45.372	42.636	A2	716873.671	728203.617
N-MH22	45.147	42.482	A4	716871.652	728223.390
N-MH23	48.628	44.575	B2	716955.577	728229.461
N-MH24	49.578	47.966	C1	716963.226	728198.577
N-MH25	46.000	44.451	A2	716940.820	728230.922
N-MH26	46.000	44.388	A3	716938.984	728238.251
N-MH27	46.000	43.829	A4	716927.697	728235.393
N-MH28	46.000	44.274	A2	716930.632	728273.686
N-MH29	46.000	44.133	A2	716921.908	728259.178
N-MH30	46.000	43.977	A4	716926.254	728241.045
N-MH31	46.000	44.650	A1	716896.843	728214.117
N-MH32	46.000	44.496	A1	716894.085	728224.546
N-MH33	46.000	44.348	A4	716898.509	728233.942
N-MH34	46.000	44.137	A2	716907.717	728236.317
N-MH35	46.000	43.176	A2	716897.479	728211.389
N-MH36	46.000	43.154	A2	716894.678	728208.927
N-MH37	45.680	43.090	A4	716884.242	728206.225
N-MH38	45.509	42.630	A4	716880.264	728221.647
N-MH39	46.000	43.466	A2	716903.752	728287.757
N-MH40	46.000	43.384	A2	716901.212	728282.575

MANHOLE SCHEDULE

NO.	COVER LEVEL	INVERT LEVEL	TYPE	EASTING	NORTHING
N-MH41	46.000	43.231	A2	716896.605	728279.729
N-MH42	46.000	43.103	A2	716889.838	728265.882
N-MH43	46.000	42.976	A4	716888.449	728250.710
N-MH44	46.000	42.866	A4	716885.676	728250.208
N-MH45	45.579	42.330	A4	716874.081	728235.397
N-MH46	46.111	43.928	A2	716936.472	728297.232
N-MH47	44.702	43.350	A3	716905.273	728312.424
N-MH48	44.557	43.043	A1	716898.707	728303.653
N-MH49	45.231	42.851	A2	716883.489	728272.614
N-MH50	45.541	42.638	A4	716876.143	728234.979
N-MH51	44.705	42.204	A4	716883.290	728280.920
N-MH52	44.845	42.159	A2	716867.859	728287.816
Zone 1 Stormtech Inlet	46.000	43.769	A1	716928.232	728233.207
Zone 1 Stormtech Outlet	46.000	43.244	A4	716908.699	728214.338
Zone 2 Stormtech Inlet	46.000	44.000	A1	716935.750	728179.029
Zone 2 Stormtech Outlet	46.000	43.900	A4	716943.716	728145.753

HYDROBRAKE IN CHAMBER LIMITING DISCHARGE FROM NORTH CATCHMENT TO 6.08 l/s. CONNECTION DOWNSTREAM OF HYDROBRAKE FROM COMPENSATORY STORAGE DRAINAGE DOWN PIPEWORK.

NORTHERN CATCHMENT PIPE TABLE

Pipe Table

PIPE NAME	SIZE (mm)	LENGTH (m)	SLOPE	START IL	END IL
1.000	150	34.189	1:68	43.681	43.181
1.001	375	28.606	1:250	42.956	42.841
1.002	375	23.525	1:250	42.841	42.747
1.003	375	27.797	1:250	42.747	42.636
1.004	375	19.876	1:250	42.636	42.557
1.007	450	16.901	1:370	42.204	42.159
3.007	375	15.928	1:170	43.090	42.997
6.008	375	8.787	1:120	42.630	42.557
5.002	225	11.643	1:120	44.388	44.291
3.005	375	3.729	1:170	43.176	43.154
3.000	225	16.929	1:120	44.274	44.133
3.001	225	18.647	1:120	44.133	43.977
2.000	150	5.771	1:70	43.466	43.384
2.001	150	5.416	1:70	43.384	43.306
2.002	225	15.411	1:120	43.231	43.103
2.003	225	15.236	1:120	43.103	42.976
2.004	225	2.818	1:81	42.976	42.941
7.004	300	15.240	1:160	43.318	43.223
7.005	300	13.290	1:130	43.223	43.121
6.000 (1)	150	34.701	1:60	43.928	43.350

Pipe Table

PIPE NAME	SIZE (mm)	LENGTH (m)	SLOPE	START IL	END IL
3.006	375	10.780	1:170	43.154	43.090
6.001 (1)	150	10.957	1:70	43.350	43.193
1.005	450	12.251	1:160	42.482	42.405
1.006	450	46.444	1:370	42.330	42.204
6.004	300	2.104	1:180	42.638	42.627
6.003	300	38.345	1:180	42.851	42.638
2.005	300	29.069	1:180	42.866	42.705
6.002	300	34.568	1:180	43.043	42.851
6.000	225	8.584	1:5	49.650	48.040
5.000	150	9.482	1:2	49.650	44.575
7.006	375	22.521	1:250	43.046	42.956
3.002	225	5.834	1:80	43.977	43.904
4.000	150	10.788	1:70	44.650	44.496
4.001	150	10.385	1:70	44.496	44.348
4.002	150	9.510	1:70	44.348	44.212
4.003	225	19.131	1:120	44.137	43.977
6.001	225	31.817	1:102	48.153	47.840
3.003	300	2.251	1:37	43.829	43.769
3.004	375	11.601	1:170	43.244	43.176
Pipe	225	14.829	1:120	44.575	44.451

Pipe Table

PIPE NAME	SIZE (mm)	LENGTH (m)	SLOPE	START IL	END IL
Pipe (1)	225	7.556	1:120	44.451	44.388
7.001	300	4.895	1:180	44.077	44.050
10.000	150	10.049	1:70	44.667	44.523
10.001	225	22.721	1:120	44.448	44.259
10.002	225	16.074	1:120	44.259	44.125
8.000	225	16.155	1:120	44.426	44.291
8.001	225	3.058	1:120	44.291	44.266
8.002	300	20.400	1:180	44.191	44.077
9.000	225	18.492	1:120	44.603	44.449
9.001	225	3.422	1:120	44.449	44.421
9.002	225	18.624	1:120	44.421	44.266
7.000	225	16.204	1:120	44.287	44.152
7.002	300	5.041	1:101	44.050	44.000
7.003	300	4.520	1:151	43.900	43.870
11.000	150	5.525	1:60	44.426	44.334

SOUTHERN CATCHMENT PIPE TABLE

Pipe Table

PIPE NAME	SIZE (mm)	LENGTH (m)	SLOPE	START IL	END IL
1.002	150	8.833	1:60	45.230	45.082
1.009	300	8.969	1:196	44.412	44.366
1.010	450	16.939	1:186	44.116	44.025
3.000	225	40.114	1:68	45.075	44.487
1.008	300	20.022	1:101	44.610	44.412
5.001	150	9.838	1:70	45.106	44.965
2.000	150	8.597	1:70	45.150	45.027
7.001	300	21.707	1:180	44.617	44.496
7.002	300	2.891	1:140	44.496	44.476
7.003	300	7.842	1:88	44.476	44.387
6.001	225	12.818	1:190	44.708	44.641
5.000	100	14.297	1:11	50.030	48.712
1.000	150	12.351	1:60	50.750	50.544
1.001	150	17.433	1:60	48.844	48.553
8.000	150	24.041	1:60	50.407	50.007
8.001	150	8.932	1:70	48.007	47.879
6.002	300	32.121	1:180	44.566	44.387
1.011	450	13.334	1:267	44.025	43.975
1.012	450	5.393	1:216	43.975	43.950
9.001	225	14.789	1:44	46.591	46.252
6.003	450	29.480	1:250	44.237	44.119

Pipe Table

PIPE NAME	SIZE (mm)	LENGTH (m)	SLOPE	START IL	END IL
6.004	450	29.731	1:250	44.119	44.000
1.003	150	5.842	1:70	45.082	44.999
1.006	300	1.335	1:34	44.700	44.661
4.001	225	16.731	1:126	45.060	44.927
4.002	225	8.326	1:119	44.927	44.858
9.000	225	15.607	1:85	46.775	46.591
8.002	225	7.854	1:21	45.772	45.400
1.004	300	24.081	1:175	44.849	44.711
1.005	300	1.512	1:137	44.711	44.700
4.003	225	5.690	1:100	44.847	44.790
5.002	225	3.218	1:100	44.879	44.847
8.003	225	5.261	1:110	44.787	44.739
Pipe	225	1.643	1:235	44.715	44.708
8.004	225	3.167	1:132	44.739	44.715
Pipe (1)	225	2.144	1:22	44.715	44.617
1.007	300	5.832	1:189	44.661	44.630
1.007 (1)	300	9.346	1:471	44.630	44.610
Pipe5	450	9.288	1:20	46.867	46.403
Pipe6	450	20.357	1:14	48.335	46.867
Pipe6 (1)	450	7.053	1:10	49.040	48.335

MANHOLE SCHEDULE

NO.	COVER LEVEL	INVERT LEVEL	TYPE	EASTING	NORTHING
S-MH1	52.474	50.750	A2	717029.016	728087.378
S-MH2	51.853	48.844	A4	717019.585	728095.353
S-MH3	49.932	45.230	C1	717004.273	728087.020
S-MH4	46.500	45.082	A1	716996.918	728082.129
S-MH5	51.330	50.030	A1	717003.729	728115.092
S-MH6	50.039	45.106	C1	716991.831	728107.164
S-MH7	46.500	44.879	A3	716983.716	728101.603
S-MH8	46.500	45.060	A1	716979.469	728122.759
S-MH9	46.500	44.927	A3	716988.936	728108.964
S-MH10	46.500	44.847	A3	716982.016	728104.335
S-MH11	46.500	44.711	A1	716977.323	728101.117
S-MH12	46.500	44.849	A4	716991.124	728081.382
S-MH13	46.500	44.661	A4	716954.555	728133.879
S-MH14	46.500	44.630	A4	716949.743	728130.584
S-MH15	46.500	44.610	A4	716943.954	728123.246
S-MH16	46.500	44.412	A4	716955.185	728106.671
S-MH17	46.500	45.075	A1	716977.576	728073.388
S-MH18	46.500	44.216	A4	716947.773	728101.621
S-MH19	46.500	45.150	A1	716952.613	728094.516
S-MH20	46.243	44.025	A4	716933.797	728092.051

MANHOLE SCHEDULE

NO.	COVER LEVEL	INVERT LEVEL	TYPE	EASTING	NORTHING
S-MH21	46.322	43.975	A4	716941.278	728081.013
S-MH22	54.132	50.407	B1	717059.994	728047.319
S-MH23	51.628	48.007	B1	717039.610	728034.572
S-MH24	50.000	45.697	C2	717032.098	728029.739
S-MH25	50.000	46.775	B1	717015.528	728055.222
S-MH26	50.000	46.591	C1	717023.984	728042.105
S-MH27	47.000	44.787	A2	717025.490	728025.494
S-MH28	47.000	44.739	A4	717021.060	728022.656
S-MH29	47.000	44.617	A2	717001.007	728046.004
S-MH30	47.000	44.496	A4	716982.894	728034.041
S-MH31	47.000	44.476	A4	716981.181	728036.369
S-MH32	46.802	44.237	A4	716974.616	728032.079
S-MH33	47.000	44.708	A4	717003.307	728012.731
S-MH34	46.912	44.566	A4	716992.701	728005.534
S-MH35	46.558	44.119	A2	716958.018	728056.443
S-MH36	46.369	43.950	A2	716937.042	728077.675
S-MH37	47.690	46.403	A1	717009.547	727965.512
S-MH38	48.089	46.867	A1	717017.368	727970.523
S-MH39	49.408	48.335	C1	717034.192	727981.985
S-MH40	50.193	49.040	A1	717041.201	727982.776

HYDROBRAKE IN MH 36 LIMITING DISCHARGE FROM SOUTH CATCHMENT TO 5.64 l/s.

MANHOLE SCHEDULE

NO.	COVER LEVEL	INVERT LEVEL	TYPE	EASTING	NORTHING
Zone 3 Stormtech Inlet (1)	46.500	44.700	A2	716976.441	728102.345
Zone 3 Stormtech Outlet	46.500	44.700	A2	716955.296	728132.768
Zone 4 Stormtech (1) Inlet	47.000	44.715	A2	717019.277	728025.275
Zone 4 Stormtech (1) Outlet	47.000	44.715	A2	717002.796	728047.186
Zone 4 Stormtech (2) Outlet (1)	47.000	44.715	A2	717004.200	728011.353

NOTE:

1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH DRGS 16031-TJOC-00-XX-DR-C-1082 TO C-1085 FOR SW DRAINAGE LAYOUT PLANS AND DRGS 16031-TJOC-00-XX-DR-C-1087 TO C-1089 AND 16031-TJOC-00-XX-DR-C-1099 TO C-1100.
2. REFER TO DRGS 16031-TJOC-00-XX-DR-C-1095 AND 16031-TJOC-00-XX-DR-C-1096 FOR MANHOLE STANDARD DETAIL DRAWINGS.

REV	SUIT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING WITH REVISED COMPENSATORY STORAGE AREA	30.03.2022
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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CORRIG HOUSE, CORRIG ROAD, SANDYFORD, DUBLIN 18.
Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

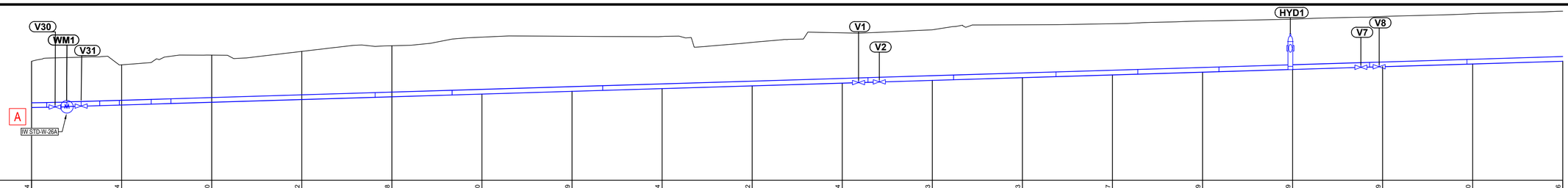
CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED SURFACE WATER STRUCTURE AND PIPE TABLES FOR ZONE 1 TO ZONE 4

SCALE: - (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1103

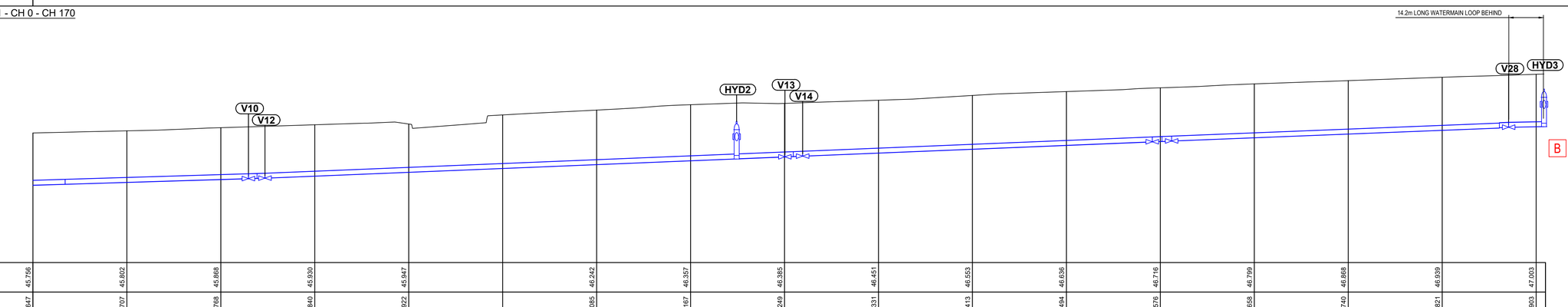
REV: C02



PROPOSED LEVELS	44.644	44.984	44.780	44.862	44.988	45.180	45.199	45.194	45.062	45.274	45.343	45.453	45.477	45.539	45.579	45.639	45.700	45.756				
INVERT LEVEL	43.613	43.674	43.735	43.796	43.857	43.917	43.978	44.039	44.100	44.160	44.221	44.282	44.343	44.404	44.464	44.525	44.586	44.647				
CHAINAGE	00.000	10.000	20.000	30.000	40.000	50.000	60.000	70.000	80.000	90.000	100.000	110.000	120.000	130.000	140.000	150.000	160.000	170.000				
PIPE DIAMETER	200Ø OD																					
PIPE MATERIAL	HDPE TYPE PE-80 SDR-17																					
TYPE OF GROUND	GROUND										ROADWAY						GROUND					
BEDDING AND SURROUND	TO BE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE STANDARD DETAILS AND CODE OF PRACTICE																					
BACKFILL AND REINSTATEMENT	TO BE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE STANDARD DETAILS AND CODE OF PRACTICE																					

WATERMAIN LONGSECTION 1 - CH 0 - CH 170

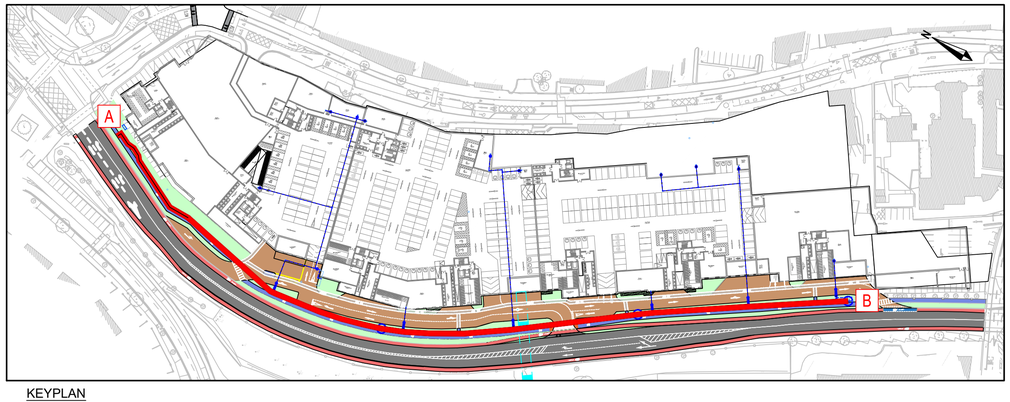
SCALE 1:250 H, 1:50 V



PROPOSED LEVELS	45.756	45.802	45.868	45.930	45.947		46.242	46.357	46.385	46.451	46.553	46.636	46.716	46.799	46.868	46.939	47.003					
INVERT LEVEL	44.647	44.707	44.768	44.840	44.922		45.085	45.167	45.249	45.331	45.413	45.494	45.576	45.658	45.740	45.821	45.903					
CHAINAGE	170.000	180.000	190.000	200.000	210.000		230.000	240.000	250.000	260.000	270.000	280.000	290.000	300.000	310.000	320.000	330.000	331.000				
PIPE DIAMETER	200Ø OD													160Ø OD								
PIPE MATERIAL	HDPE TYPE PE-80 SDR-17																					
TYPE OF GROUND	GROUND																					
BEDDING AND SURROUND	TO BE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE STANDARD DETAILS AND CODE OF PRACTICE																					
BACKFILL AND REINSTATEMENT	TO BE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE STANDARD DETAILS AND CODE OF PRACTICE																					

WATERMAIN LONGSECTION 1 - CH 170 - CH 331

SCALE 1:250 H, 1:50 V



KEYPLAN

NTS

NOTES:

1. FOR PLAN LAYOUTS SEE DWGS 16031-TJOC-00-XX-DR-C1063, 16031-TJOC-00-XX-DR-C1064, AND 16031-TJOC-00-XX-DR-C1065.
2. WATERMAINS PIPEWORK WITHIN LOWER GROUND FLOOR OF DEVELOPMENT WILL BE SUPPORTED FROM UNDERSIDE OF PODIUM LEVEL SLAB.

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

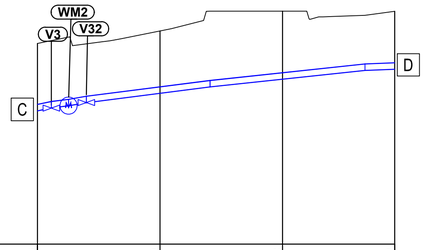
CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED WATER LONG-SECTION (SHEET 1)

SCALE: 1:250 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1104

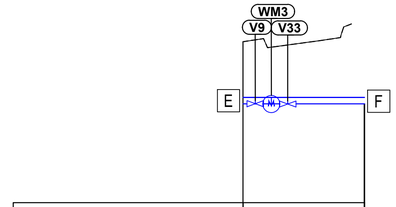
REV: C01



PROPOSED LEVELS	45.276	45.479	45.802	45.800
INVERT LEVEL	44.177	44.424	44.672	44.857
CHAINAGE	00.000	10.000	20.000	29.161
PIPE DIAMETER	160Ø OD			
PIPE MATERIAL	HDPE TYPE PE-80 SDR-17			
TYPE OF GROUND	ROADWAY			
BEDDING AND SURROUND				
BACKFILL AND REINSTATEMENT				

TO BE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE STANDARD DETAILS AND CODE OF PRACTICE
TO BE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE STANDARD DETAILS AND CODE OF PRACTICE

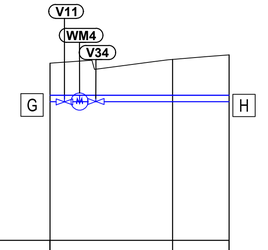
WATERMAIN LONGSECTION 2 - CH 0 - CH 29,161
SCALE 1:250 H, 1:50 V



PROPOSED LEVELS	45.628		
INVERT LEVEL	45.628		
CHAINAGE	00.100	10.000	
PIPE DIAMETER	160Ø OD		
PIPE MATERIAL	HDPE TYPE PE-80 SDR-17		
TYPE OF GROUND	ROADWAY		
BEDDING AND SURROUND			
BACKFILL AND REINSTATEMENT			

TO BE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE STANDARD DETAILS AND CODE OF PRACTICE
TO BE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE STANDARD DETAILS AND CODE OF PRACTICE

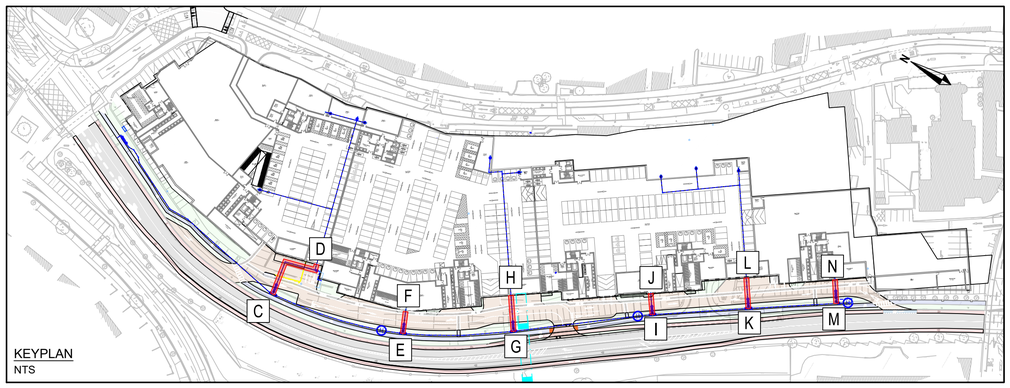
WATERMAIN LONGSECTION 3 - CH 0 - CH 8.91
SCALE 1:250 H, 1:50 V



PROPOSED LEVELS			
INVERT LEVEL	45.265	45.265	45.265
CHAINAGE	00.000	10.000	14.610
PIPE DIAMETER	160Ø OD		
PIPE MATERIAL	HDPE TYPE PE-80 SDR-17		
TYPE OF GROUND	ROADWAY		
BEDDING AND SURROUND			
BACKFILL AND REINSTATEMENT			

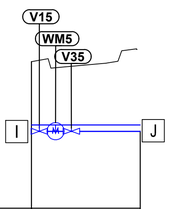
TO BE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE STANDARD DETAILS AND CODE OF PRACTICE
TO BE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE STANDARD DETAILS AND CODE OF PRACTICE

WATERMAIN LONGSECTION 4 - CH 0 - CH 14,61
SCALE 1:250 H, 1:50 V



KEYPLAN
NTS

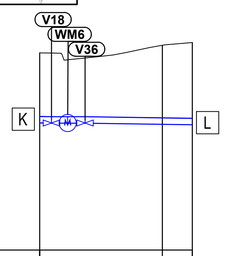
NOTES:
1. FOR PLAN LAYOUTS SEE DWGS 16031-TJOC-00-XX-DR-C1063, 16031-TJOC-00-XX-DR-C1064, AND 16031-TJOC-00-XX-DR-C1065.
2. FOR LONGITUDINAL-SECTION OF WATER MAIN IN SERVICE ROAD (POINTS A-B) SEE DRG 16031-TJOC-00-XX-DR-C-1104.
3. WATERMAINS PIPEWORK WITHIN LOWER GROUND FLOOR OF DEVELOPMENT WILL BE SUPPORTED FROM UNDERSIDE OF PODIUM LEVEL SLAB.



PROPOSED LEVELS		
INVERT LEVEL	45.258	45.258
CHAINAGE	00.000	08.879
PIPE DIAMETER	160Ø OD	
PIPE MATERIAL	HDPE TYPE PE-80 SDR-17	
TYPE OF GROUND	ROADWAY	
BEDDING AND SURROUND		
BACKFILL AND REINSTATEMENT		

TO BE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE STANDARD DETAILS AND CODE OF PRACTICE
TO BE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE STANDARD DETAILS AND CODE OF PRACTICE

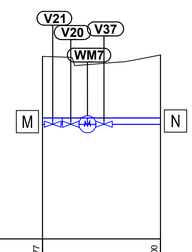
WATERMAIN LONGSECTION 5 - CH 0 - CH 12,450
SCALE 1:250 H, 1:50 V



PROPOSED LEVELS			
INVERT LEVEL	45.577	45.552	45.546
CHAINAGE	00.000	10.000	12.450
PIPE DIAMETER	160Ø OD		
PIPE MATERIAL	HDPE TYPE PE-80 SDR-17		
TYPE OF GROUND	ROADWAY		
BEDDING AND SURROUND			
BACKFILL AND REINSTATEMENT			

TO BE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE STANDARD DETAILS AND CODE OF PRACTICE
TO BE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE STANDARD DETAILS AND CODE OF PRACTICE

WATERMAIN LONGSECTION 6 - CH 0 - CH 09,630
SCALE 1:250 H, 1:50 V



PROPOSED LEVELS	46.977	47.000
INVERT LEVEL	45.871	45.871
CHAINAGE	00.000	09.630
PIPE DIAMETER	160Ø OD	
PIPE MATERIAL	HDPE TYPE PE-80 SDR-17	
TYPE OF GROUND	ROADWAY	
BEDDING AND SURROUND		
BACKFILL AND REINSTATEMENT		

TO BE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE STANDARD DETAILS AND CODE OF PRACTICE
TO BE IN ACCORDANCE WITH THE LATEST VERSION OF IRISH WATER'S CONNECTION AND DEVELOPER SERVICES CODE OF PRACTICE FOR WATER INFRASTRUCTURE STANDARD DETAILS AND CODE OF PRACTICE

WATERMAIN LONGSECTION 7 - CH 0 - CH 08,910
SCALE 1:250 H, 1:50 V

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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CORRIG HOUSE, CORRIG ROAD, SANDYFORD, DUBLIN 18.
Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT:
DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

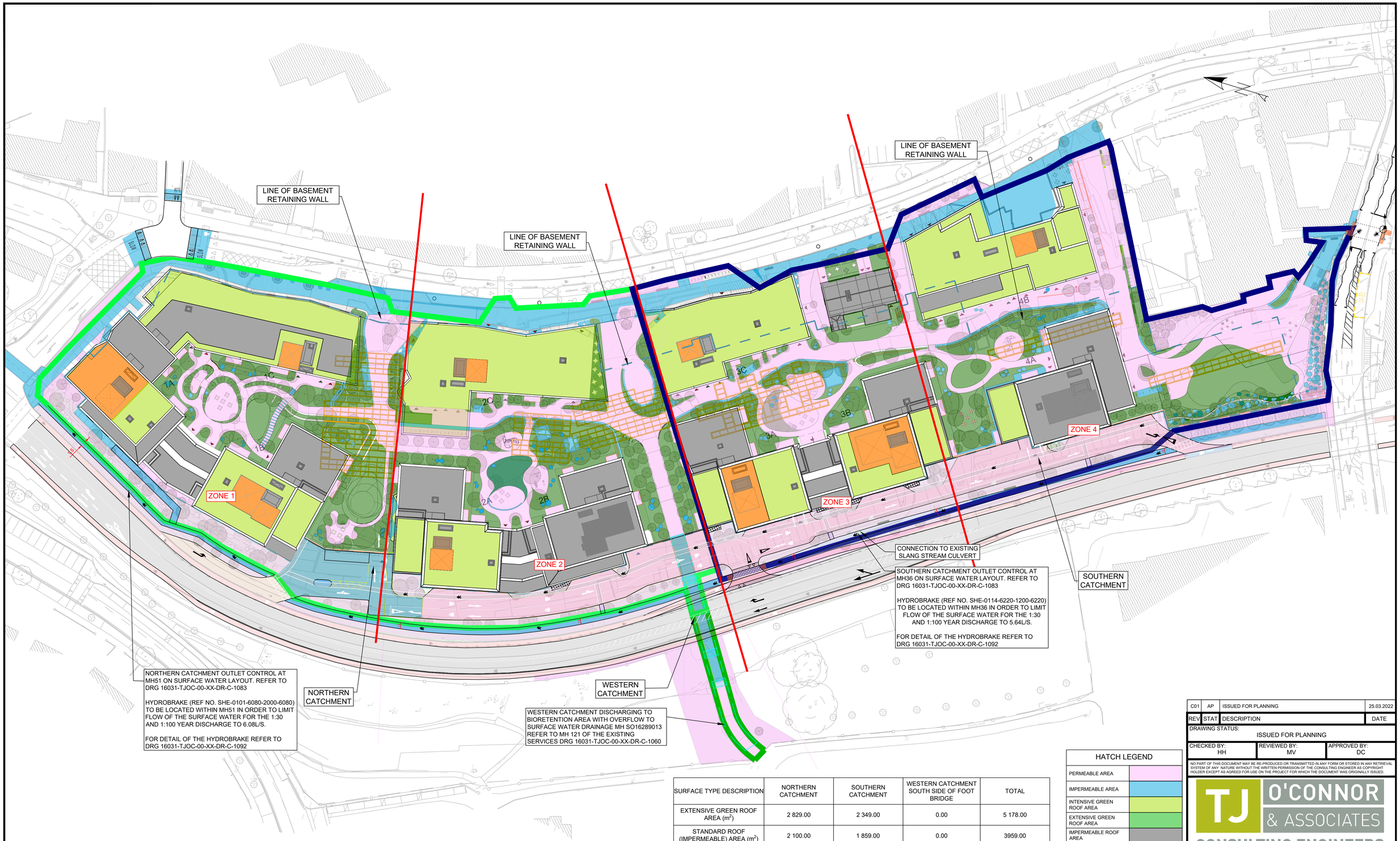
CLIENT:
DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE:
PROPOSED WATER LONG-SECTION (SHEET 2)

SCALE: 1:250 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1105

REV: C01



SURFACE TYPE DESCRIPTION	NORTHERN CATCHMENT	SOUTHERN CATCHMENT	WESTERN CATCHMENT SOUTH SIDE OF FOOT BRIDGE	TOTAL
EXTENSIVE GREEN ROOF AREA (m^2)	2 829.00	2 349.00	0.00	5 178.00
STANDARD ROOF (IMPERMEABLE) AREA (m^2)	2 100.00	1 859.00	0.00	3959.00
BLUE ROOF AREA (m^2)	483.00	435.00	0.00	918.00
INTENSIVE GREEN ROOF (PODIUM) AREA (m^2)	1 090.73	1 793.15	0.00	2 883.88
PERMEABLE PAVING AREA (m^2)	6 480.85	4 232.22	95.81	11 342.04
IMPERMEABLE PAVING AREA (m^2)	1 260.98	882.92	94.17	3 219.92
SOFT LANDSCAPING (ON GRADE) AREA (m^2)	68.34	773.797	0.00	842.14
TOTAL AREA (m^2)	14312.67	12 324.81	189.98	28 342.98

HATCH LEGEND

PERMEABLE AREA	
IMPERMEABLE AREA	
INTENSIVE GREEN ROOF AREA	
EXTENSIVE GREEN ROOF AREA	
IMPERMEABLE ROOF AREA	
BLUE ROOF AREA	

LEGEND

CATCHMENT AREAS

NORTHERN CATCHMENT	
SOUTHERN CATCHMENT	
WESTERN CATCHMENT	
LOWER GROUND FLOOR RETAINING WALL	

REV	STAT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

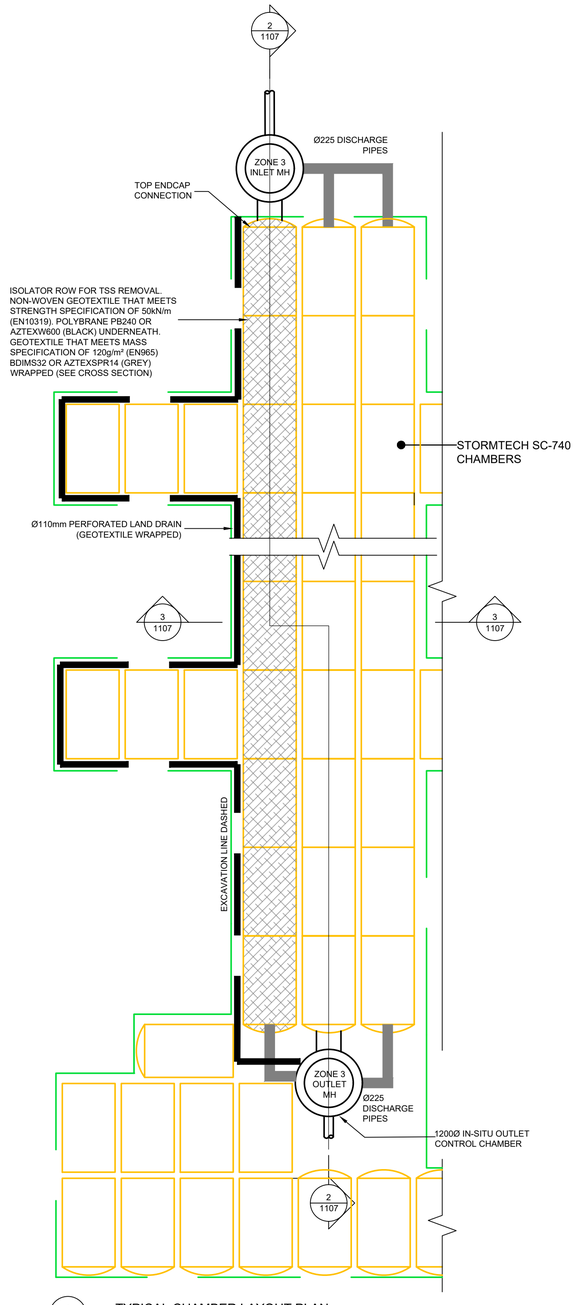
CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED DRAINAGE CATCHMENT AREAS

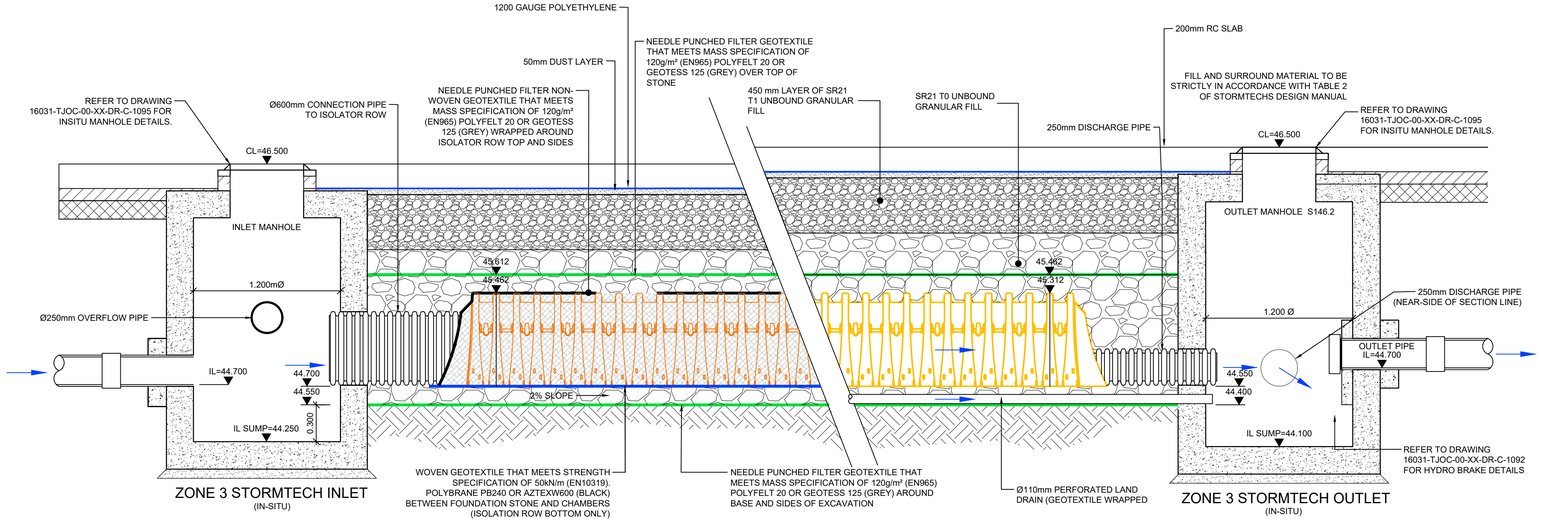
SCALE: 1:500 (A1)

PROJECT - ORGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1106

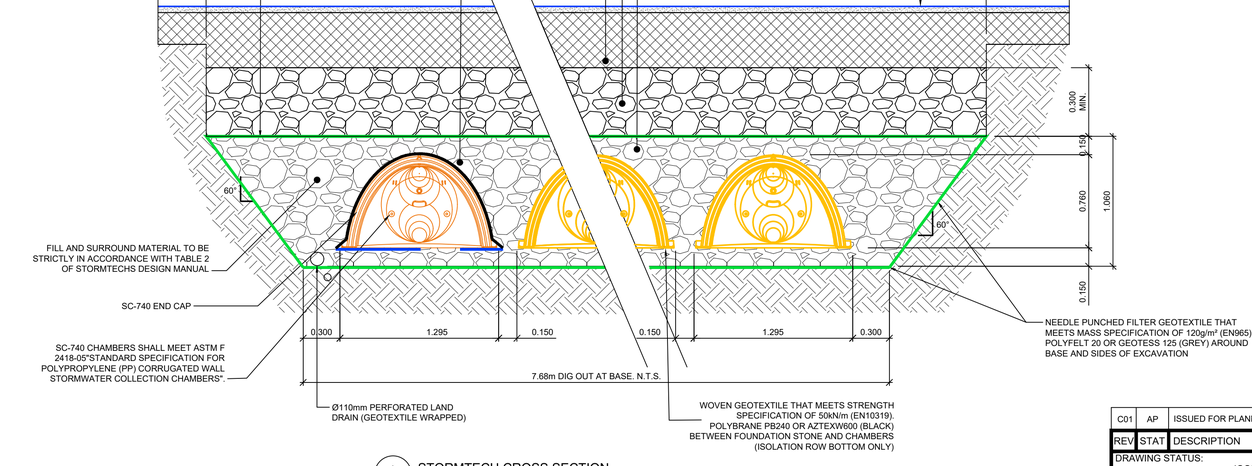
REV: C01



1 / 1107 TYPICAL CHAMBER LAYOUT PLAN
SCALE: 1:75



2 / 1107 STORMTECH ISOLATOR™ ROW CROSS SECTION
SCALE: 1:25



3 / 1107 STORMTECH CROSS SECTION
SCALE: 1:25

MODULAR STORMWATER CHAMBER SPECIFICATIONS:

1. CHAMBERS SHALL BE STORMTECH SC-740, OR APPROVED EQUAL.
2. CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418-05 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. CHAMBERS ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS.
4. CHAMBERS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.
5. ALL DESIGN SPECIFICATION FOR CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST DESIGN MANUAL.
6. THE INSTALLATION OF CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST INSTALLATION INSTRUCTIONS.

REV	STAT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

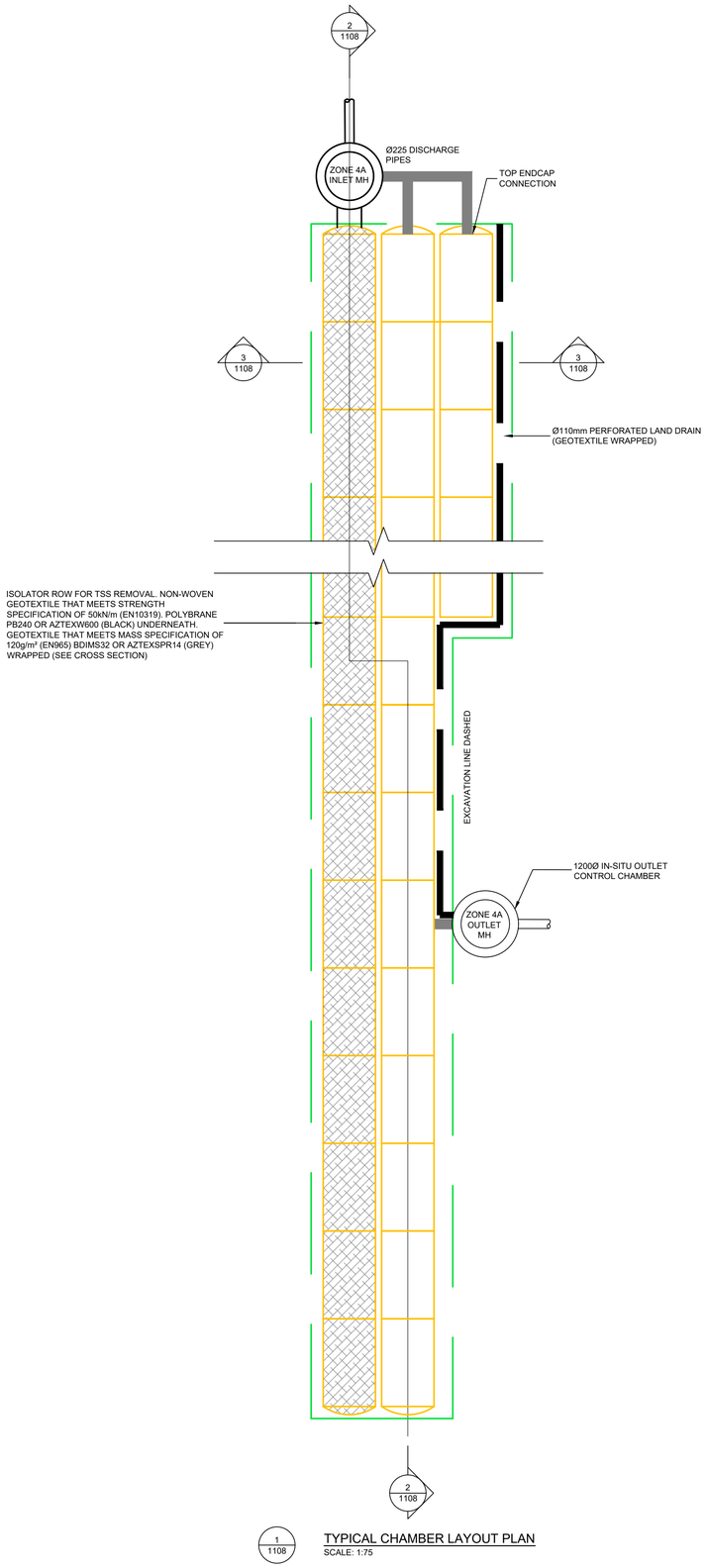
CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED STORMTECH ATTENUATION DETAILS
ZONE 3 SHEET 3

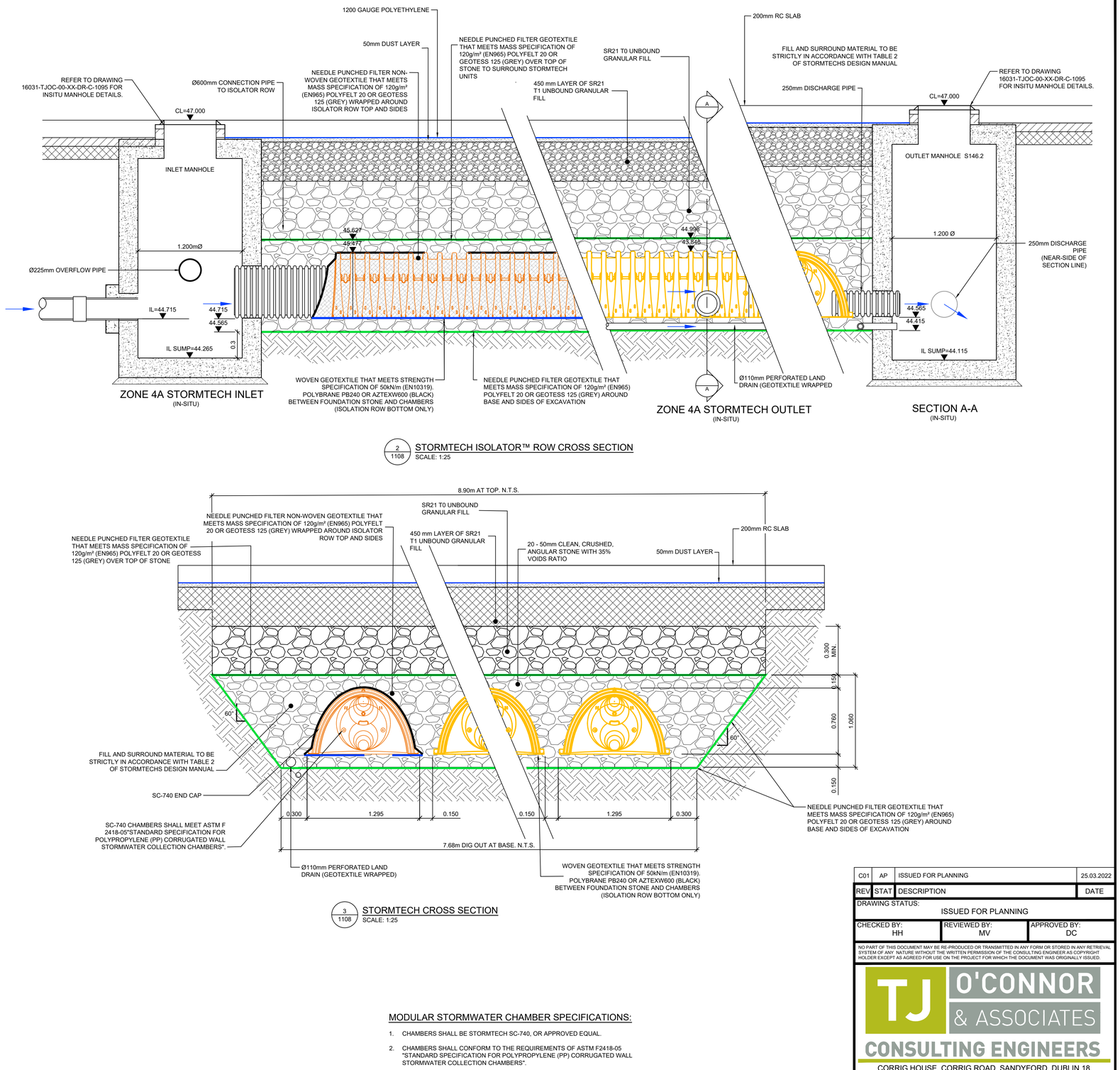
SCALE: AS INDICATED (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1107

REV: C01



1 / 1108 TYPICAL CHAMBER LAYOUT PLAN
SCALE: 1:75



2 / 1108 STORMTECH ISOLATOR™ ROW CROSS SECTION
SCALE: 1:25

3 / 1108 STORMTECH CROSS SECTION
SCALE: 1:25

MODULAR STORMWATER CHAMBER SPECIFICATIONS:

1. CHAMBERS SHALL BE STORMTECH SC-740, OR APPROVED EQUAL.
2. CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418-05 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. CHAMBERS ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS.
4. CHAMBERS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.
5. ALL DESIGN SPECIFICATION FOR CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST DESIGN MANUAL.
6. THE INSTALLATION OF CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST INSTALLATION INSTRUCTIONS.

REV	STAT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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Tel: 01-295 2321 Fax: 01-295 4541 Email: tjoc@tjoc.ie Web: www.tjoc.ie

PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED STORMTECH ATTENUATION DETAILS ZONE 4A SHEET 4

SCALE: AS INDICATED (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1108

REV: C01

NOTES:

1. TOPOGRAPHICAL SURVEY INFORMATION SHOWN WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD. IN MAY 2021.
2. ADDITIONAL SURVEY WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD DURING AUGUST 2021.
3. ALL LEVELS SHOWN RELATE TO ORDNANCE DATUM MALIN HEAD.
4. FOR SURFACE WATER DRAINAGE LAYOUTS REFER TO DRG 16031-TJOC-00-XX-DR-C-1083, 16031-TJOC-00-XX-DR-C-1084, 16031-TJOC-00-XX-DR-C-1085 AND 16031-TJOC-00-XX-DR-C-1086.
5. FOR STORMTECH ATTENUATION DETAILS REFER TO DRG 16031-TJOC-00-XX-DR-C-1090 AND 16031-TJOC-00-XX-DR-C-1091.
6. FOR HYDROBRAKE CHAMBER DETAIL REFER TO DRG 16031-TJOC-00-XX-DR-C-1092.
7. SECTIONS THROUGH PROPOSED SITE ARE SHOWN AT DRAWINGS 16031-TJOC-00-XX-DR-C-1055 AND 16031-TJOC-00-XX-DR-C-1056.

DRAINDOWN MANHOLE FROM COMPENSATORY STORAGE RESERVOIR CONSTRUCTION

LEGEND

SITE BOUNDARY (PLANNING BOUNDARY)	
PROPOSED PIPE	
PROPOSED MANHOLE	
COMPENSATORY STORAGE	
LOWER GROUND RETAINING WALL	

REV	STAT	DESCRIPTION	DATE
C02	AP	ISSUED FOR PLANNING WITH REVISED COMPENSATORY	30.03.2022
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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PROJECT: DUNDRUM VILLAGE - STRATEGIC HOUSING DEVELOPMENT

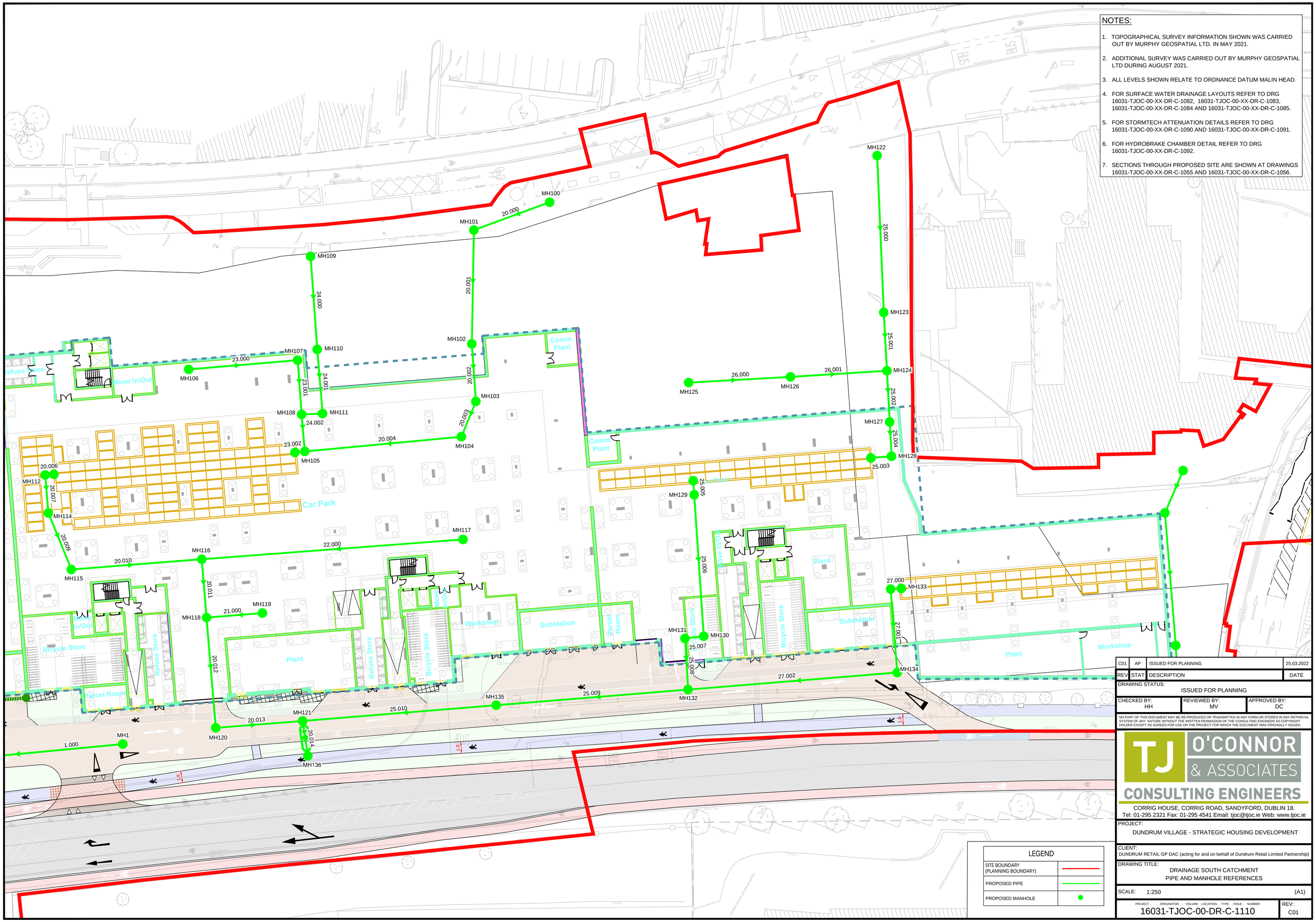
CLIENT: DUNDRUM RETAIL GP DAC (acting for and on behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: DRAINAGE NORTH CATCHMENT PIPE AND MANHOLE REFERENCES

SCALE: 1:250 (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1109

REV: C02



NOTES:

1. TOPOGRAPHICAL SURVEY INFORMATION SHOWN WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD. IN MAY 2021.
2. ADDITIONAL SURVEY WAS CARRIED OUT BY MURPHY GEOSPATIAL LTD DURING AUGUST 2021.
3. ALL LEVELS SHOWN RELATE TO ORDNANCE DATUM MALIN HEAD.
4. FOR SURFACE WATER DRAINAGE LAYOUTS REFER TO DRG 16031-TJOC-00-XX-DR-C-1082, 16031-TJOC-00-XX-DR-C-1083, 16031-TJOC-00-XX-DR-C-1084 AND 16031-TJOC-00-XX-DR-C-1085.
5. FOR STORMTECH ATTENUATION DETAILS REFER TO DRG 16031-TJOC-00-XX-DR-C-1090 AND 16031-TJOC-00-XX-DR-C-1091.
6. FOR HYDROBRAKE CHAMBER DETAIL REFER TO DRG 16031-TJOC-00-XX-DR-C-1092.
7. SECTIONS THROUGH PROPOSED SITE ARE SHOWN AT DRAWINGS 16031-TJOC-00-XX-DR-C-1055 AND 16031-TJOC-00-XX-DR-C-1056.

LEGEND

SITE BOUNDARY (PLANNING BOUNDARY)	
PROPOSED PIPE	
PROPOSED MANHOLE	

REV	STAT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY:	REVIEWED BY:	APPROVED BY:
HH	MV	DC

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PROJECT: DUNDRUM VILLAGE - STRATEGIC HOUSING DEVELOPMENT

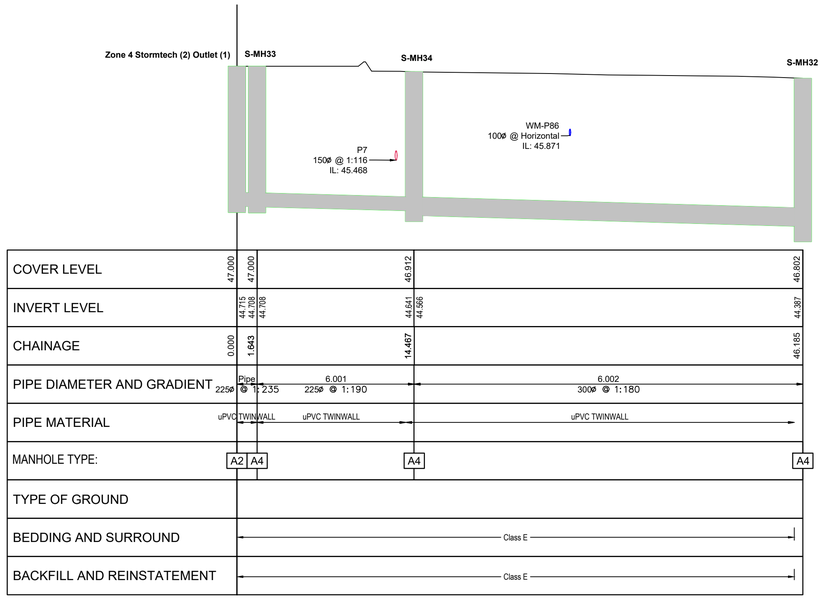
CLIENT: DUNDRUM RETAIL GP DAC (acting for and on behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: DRAINAGE SOUTH CATCHMENT PIPE AND MANHOLE REFERENCES

SCALE: 1:250 (A1)

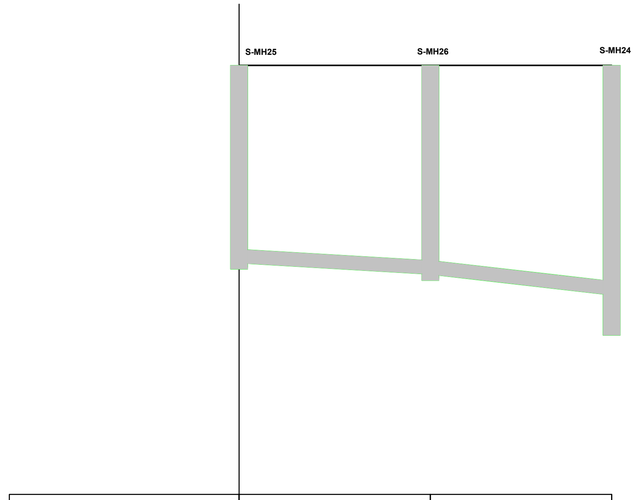
PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-DR-C-1110

REV: C01



COVER LEVEL	47.000	47.000	46.912	46.802
INVERT LEVEL	44.715 44.708	44.698	44.641 44.566	44.387
CHAINAGE	0.000	1.643	14.467	46.185
PIPE DIAMETER AND GRADIENT	Pipe 225ø @ 1: 235	6.001 225ø @ 1:190		6.002 300ø @ 1:180
PIPE MATERIAL	uPVC TWINWALL	uPVC TWINWALL		uPVC TWINWALL
MANHOLE TYPE:	A2	A4	A4	A4
TYPE OF GROUND				
BEDDING AND SURROUND	Class E			
BACKFILL AND REINSTATEMENT	Class E			

SW1.3.1 - Z4
SCALE: 1:250 H,1:50 V



COVER LEVEL	50.000	50.000	50.000
INVERT LEVEL	46.775	46.591 46.591	46.252
CHAINAGE	0.000	15.607	30.397
PIPE DIAMETER AND GRADIENT		9.000 225ø @ 1: 85	9.001 225ø @ 1: 44
PIPE MATERIAL		uPVC TWINWALL	uPVC TWINWALL
MANHOLE TYPE:	B1	C1	C2
TYPE OF GROUND			
BEDDING AND SURROUND		Class E	
BACKFILL AND REINSTATEMENT		Class E	

SW2.1 - Z4
SCALE: 1:250 H,1:50 V

NOTE:

1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH DRGS 16031-TJOC-00-XX-DR-C-1082 TO C-1085 FOR SW DRAINAGE LAYOUT PLANS AND DRGS 16031-TJOC-00-XX-DR-C-1087 TO C-1089 AND 16031-TJOC-00-XX-DR-C-1099 TO C-1100.
2. REFER TO DRG 16031-TJOC-00-XX-DR-C-1094 FOR PIPE BEDDING DETAILS.
3. REFER TO DRGS 16031-TJOC-00-XX-DR-C-1095 AND 16031-TJOC-00-XX-DR-C-1096 FOR MANHOLE SCHEDULE.

REV	SUIT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

DRAWING STATUS: ISSUED FOR PLANNING

CHECKED BY: HH | REVIEWED BY: MV | APPROVED BY: DC

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PROJECT:
DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

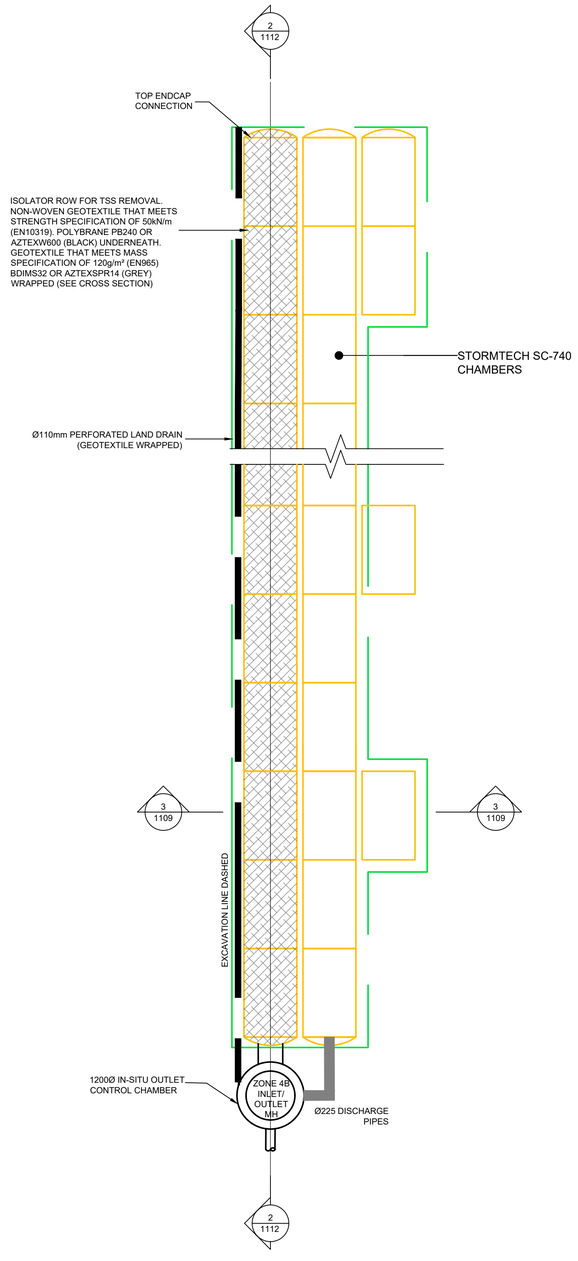
CLIENT:
DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE:
PROPOSED SURFACE WATER SECTIONS - ZONE 4
SHEET 2

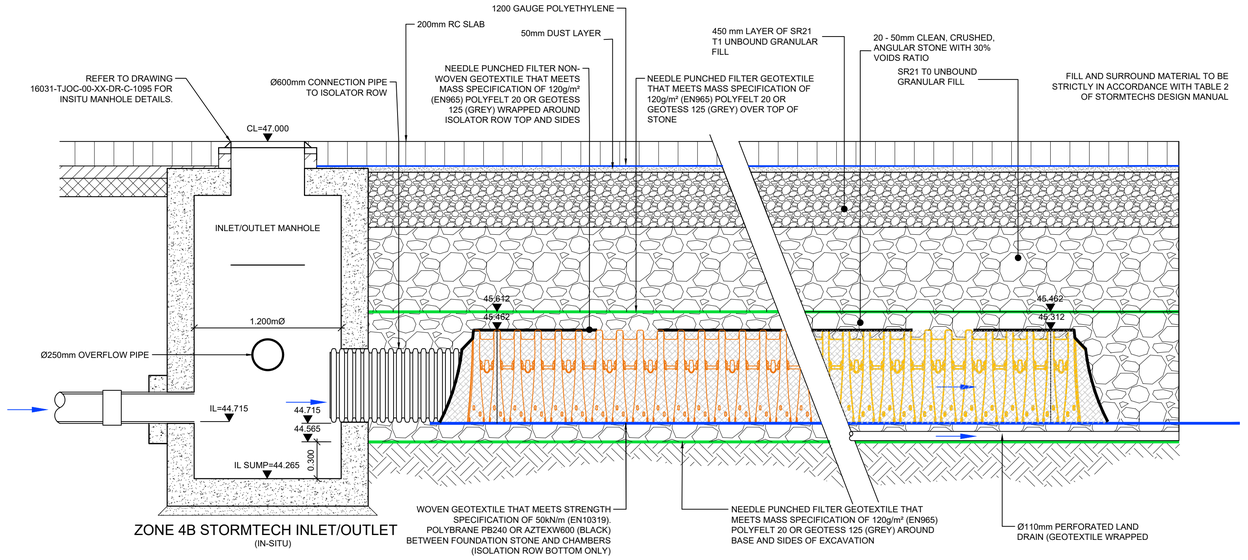
SCALE: AS SHOWN (A1)

PROJECT - ORIGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER
16031-TJOC-00-XX-DR-C-1111

REV: C01

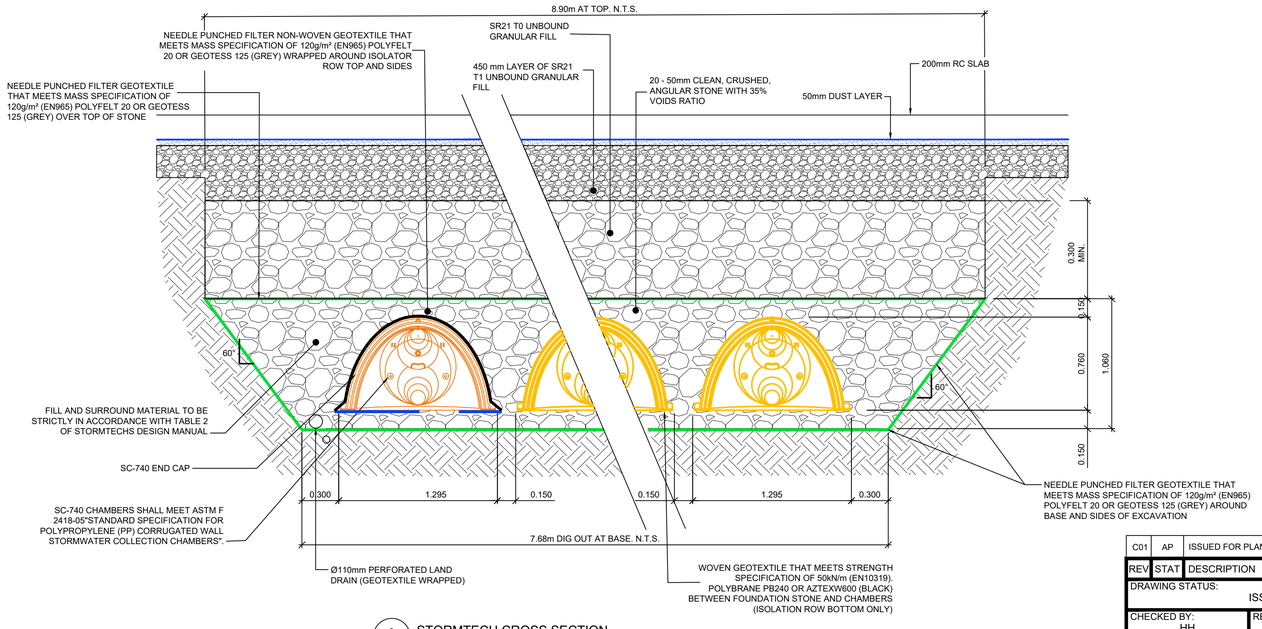


1 / 1112 TYPICAL CHAMBER LAYOUT PLAN
SCALE: 1:75



ZONE 4B STORMTECH INLET/OUTLET
(IN-SITU)

2 / 1112 STORMTECH ISOLATOR™ ROW CROSS SECTION
SCALE: 1:25



3 / 1112 STORMTECH CROSS SECTION
SCALE: 1:25

MODULAR STORMWATER CHAMBER SPECIFICATIONS:

1. CHAMBERS SHALL BE STORMTECH SC-740, OR APPROVED EQUAL.
2. CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418-05 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
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REV	STAT	DESCRIPTION	DATE
C01	AP	ISSUED FOR PLANNING	25.03.2022

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PROJECT: DUNDRUM VILLAGE STRATEGIC HOUSING DEVELOPMENT

CLIENT: DUNDRUM RETAIL GP DAC (acting for and behalf of Dundrum Retail Limited Partnership)

DRAWING TITLE: PROPOSED STORMTECH ATTENUATION DETAILS ZONE 4B SHEET 5

SCALE: AS INDICATED (A1)

PROJECT - ORGINATOR - VOLUME - LOCATION - TYPE - ROLE - NUMBER: 16031-TJOC-00-XX-DR-C-1112

REV: C01