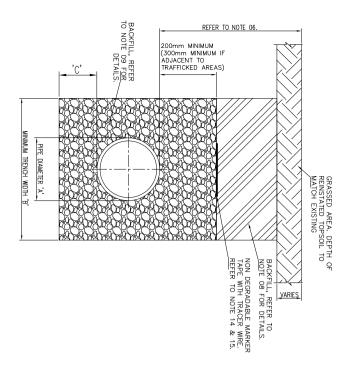
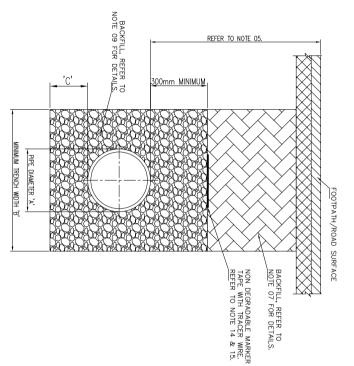


WATERMAIN CROSS SECTION IN ROADWAYS.



WATERMAIN CROSS SECTION IN GRASSED AREAS.

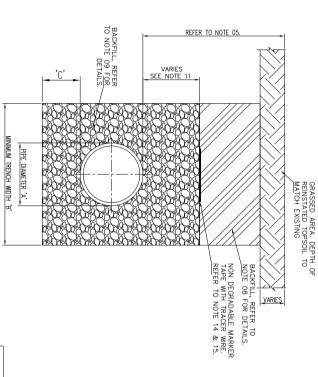


TRENCH FORMATION TO ENGINEER'S APPROVAL, (ALLOW FOR REMOVAL & BACKFILLING WITH LEAN MIX CONCRETE FOR SOFT SPOTS BELOW)

Δ4.

PIPE Ø

FOUL OR SURFACEWATER PIPES CROSS SECTION IN ROADWAYS.



FOUL OF SURFACE WATER PIPES CROSS SECTION IN GRASSED AREAS.

100	<100
DEPTH OF BEDDING 'C' (mm)	PIPE DIAMETER 'A' (mm)
900	450
900	400
750	350
750	300
750	250
600	200
600	150
500	100
SEE NOTE 16.	≤80 RISING MAIN
TRENCH WIDTH 'B' (mm)	PIPE DIAMETER 'A' (mm)
JRFACE	FOUL & SURFACE

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

PIPE DIAMET 'A' (mm)

F

<200

250

Description Issue For Planning

450	400	350	300	250	200	150	100	≤80	PIPE DIAMETER 'A' (mm)	WATERMAIN	
900	900	750	750	750	600	600	500	SEE NOTE 16.	TRENCH WIDTH 'B' (mm)	RMAIN	

TRENCH WIDTH	Į.																-		
SZ Issue For Planning		200	150	'C' (mm)	DEPTH OF REDDING	900	900	750	750	750	600	600	500	SEE NOTE 16.	'B' (mm)	TRENCH WIDTH	RMAIN		
2 Issue For Planning 2 Issue For Planning 3 ISSUE For Planning 4 ISSUE For Planning 5 ISSUE For Planning 6 ISSUE FOR	PRO	2,	DOC	SCAL	D.B.	T =		픎	2	مور	PRO	CONS		7				P01	
Issue For Planning MATSON: O'SULLIVA MATSON: O'SULLIVA MATSON: O'SULLIVA MATSON: STRUCTURE STRUCTURE IN CHECKED BY B.L. CHECKED BY TREFERENCE MMS-ZZ-ST-DF MMS-ZZ-ST-DF	ECT-OR	1168	MEN	ш	NN Βγ	<u>8</u>		ĕm	=) J		RPHY		>				S2	;
	IGINATOR-ZONE-LEVEL-TYPE-D	-MMS-ZZ-ST-DF	IT REFERENCE			Trench Details		la Star Ltd		Sisiand - Ond		CIVIL & STRUCTURAL ENGINEE	Z C				ç	Issue For Planning	

TRENCH BACKFILL & BEDDING NOTES:

EFERT TO RISH WATER CONNECTION & DEVELOPER SERVICES CODE OF PRACTICE FOR WATER TRASTRUCTURE DOCUMENT M-CDS-4020-93 FOR DESIGN & CONSTRUCTION GUIDANCE ON YING OF WATERMAIN.
REED TO IDIGUIVANTED CONFIDCTION & DEVELOPED SERVICES CODE OF DEVOTION FOR

600 MAX

(TYPICAL)

WASTEWATER INFASTRUCTURE DOCUMENT WINCOS-5030-03 FOR DESIGN & CONSTRUCTION GUIDANCE ON LAYING OF WASTEWATER SERVICES.

REFER TO IRISH WATER CONNECTION & DEVELOPER SERVICES, WATER INFRASTRUCTURE STANDARD DETAILS DOCUMENT IN-COS-5020-01 FOR FURTHER INFORMATION ON WATERMANN SERVICES.

REFER TO IRISH WATER CONNECTION & DEVELOPER SERVICES, WASTEWATER INFRASTRUCTURE STANDARD DEFAULS DOCUMENT INFCDS-5030-01 FOR FURTHER INFORMATION ON WASTE WATER SERVICES

FOUL & SURFACE LINES, THE MINIMUM DEPTH OF COVER FROM THE FINISHED SURFACE TO GROWN OF GRAVITY PIPES WITHOUT PROTECTION (CONCRETE SURROUND) SHOULD BE AS

ROAD OR GROUND FLOOR SLAB FORMATION

CL. 804 SUB-BASE

BACKFILL PIPEWORK TRENCH IN C8/10 LEAN MIX CONCRETE

VARIABLE (SEE NOTES OPPOSITE)

CONCRETE & SURROUND MIX 'C16/20'

MINS, PARKIO AREAS AND MARROW STREETS WITHOUT FOOTWAYS E.G. MENS NEWS IN, WITH LINITED ACCESS FOR WEITHERS WITH A GROSS WEITLES WITH A GROSS WEITLES WEITH OR MENSONS BEST AND A GROSS FOR WEITHER STATES SHAUL BE SIMILAR TO THAT OUTLINED ABOVE. ULTURAL LAND AND PUBLIC OPEN SPACE - DEPTH NOT LESS THAND 38 M. LICHAN, LAND AND PUBLIC OPEN SPACE - DEPTH NOT LESS THAND 12 M. CHICKES WITH A ENGLISH AND A GROSS FOR A GROSS FOR STATES WITH A ENGLISH WEIGHT IN EXCESS OF 7.5 TOWNERS - DEPTH NOT LESS THAN 1.2 m. SAME PARTHWAYS WITHOUT MAY POSSIBLITY OF KERICILARA ACCESS. CRETH NOT LESS (THIS WOULD NORMALY RELATE TO PANNIS IN PRAVIET PROPERTY, SHALLOW PRESS THER ARE UNDESIRABLE AND SHOULD BE NISTALLED IN ACCORDANCE WITH THE ULDING REGULATIONS. THE SHALLOW PROPERTY OF THE STREET ON STOP PREVENT BUTTEY BY XF, PARSING AREAS AND YARDS WITH HEIGHT RESTRICTIONS TO PREVENT BUTTEY BY XF, PARSING AREAS AND YARDS WITH HEIGHT RESTRICTIONS TO PREVENT BUTTEY BY XF, PARSING AREAS AND YARDS WITH HEIGHT RESTRICTIONS TO PREVENT BUTTEY BY XF, PARSING AREAS AND YARDS WITH HEIGHT RESTRICTIONS TO PREVENT BUTTEY.

FOR WATERWAN LINES, THE IMMINUM EIEPTH OF COVER FROM HEE FINSHED GROUND LEGET TO HE EXTERNAL COSMIN OF THE PIES SHALL BE \$70mm FOR SERVICE COMMENTEDINGS 90mm FOR WILTERHANIS GREATER DEPTHS OF COVER AND/OR PIES STREAMENT AND/OR A MIGHER CLASS OF BEDOING MATERIAL MAY BE REQUIRED WHERE HIGH TRAFFIC LOADING IS ANTICHATED. THE MAXIMUM COVER SHOULD FOR TEXTS TO JOINT WHERE THE PACILICALE.

COLAGES SESS MATERIAL IN ACCORDANCE WITH HER NATIONAL POLICES MATHEMATICS RECIPIORING FOR PROJUM POWERS TO BE USED AS SEASOFEL, MATERIAL MATERIAL PRESENT HANDORS SUPERIORISMOST MANIORISMOST MATERIAL PROJUMENTS OF MATHEMATICS FOR THE MATERIAL PROJUMENTS OF THE MATERIAL PROJUMENTS OF THE MATERIAL PROJUMENTS OF THE MATERIAL PROJUMENTS OF THE MATERIAL CALLAGE SUB IS TO SEE COMPACTED AS PER CALUSE SUB OF THE MATERIAL PROJUMENTS ASSESSMENT OF THE MATERIAL PROJUMENTS ASSESSMENTS OF THE MATERIAL PROJUMENTS.

SELECTED EXCAVATED MATERIAL MAY BE USED IN GREEN-FIELD AREAS ABOVE GRANULAR PIPE SURROUND MATERIAL SUBJECT TO THE APPROVAL OF IRISH WATER.

. PIPE BEDDING SHALL COMPLY WITH WIS 4-05-02 AND ION 4-05-01. GRANLLAR MATERIAL SHALL BE 'HARM TO SAM GRADED AGGREGATE OR HOME SINGLE SIZED AGGREGATE IS BY 13242. BEDDING & SURROUND SHALL BE IN LAYERS NOT EXCEEDING 100M, BE COMPACTED BY HAND TAMPING. CONCRETE BED, HAUNCH & SURROUND, WHERE REQUIRED, SHALL BE INN 150mm.

TYPICAL SECTION FOR CONCRETE SURROUND TO PIPEWORK UNDER BUILDINGS OR FOR PIPEWORK WITH LESS THAN MINIMUM COVER

IN ACCURRANCE WITH THE WASTE MANUSCREET ACT AND CLASS EQUIANTED AND DISPOSED OF WITH THE WASTE MANUSCREET ACT AND CLASSE EQUIANCE EARL IN ACCORDANCE WITH THE WASTE MANUSCREET ACT AND CLASSE EQUIANCE EARL IN ACCORDANCE DECLASSE AND ACCORDANCE OF THE WASTE WASTE OF ACCORDANCE AND ACCORDANCE OF THE CONTROL OF ACCORDANCE AND ACCORDANCE AN

IN GREEN FIELD AREAS, TYPE B BACKFILL (SILECTIED DECAMATED MATERIAL) WILL BE ALLOWED MADOW! THE SIDE HAMADE GRAWALIAR MATERIAL IN THE CASE OF RIGHD PERS, A GARMALIAR SHAROUND OF A MAMMAN DEPH OF HOmm ABOUT THE CROWN OF THE PER BE RECOURED FOR FLEXBELE PERS, AND TYPE B MATERIAL MAY BE USED AS BACKFILL ABOUT HIS, ALT RISHOLD MAY BE USED AS BACKFILL ABOUT HIS, ALT RISHOLD MATERIAL ABOUT HAVE A MINIMAL MATERIAL ABOUT OVER OF STORM OF GRAWALIAR MATERIAL ABOUT THE EXPERIANL CROWN OF THE PER.

FOR FOUL & SUFFACE LINES, PERS SAUL NOT BE SUPPORTED ON STONES, ROOKS OR ANY HARD DEBETORS AT ANY POWER LONG THE TRENCH WITH THE COLD FILLED WITH A DEPTH OF 150mm FEBOORY WIFE ACTUAL DEPTH OF THE REPORT WITH THE COLD FILLED WITH A DEALER SEW MATERIAL FOR FOUL & SUFFACE LINES.

IN COLOR SEW MATERIAL FOR WATERWARD HARDES ANTHORNY SECRETICATION FOR ROAD WORKS. THE GRANULAR MATERIAL, SHALL SE LAID ABOVE THIS YOUR BUCKFILL MATERIAL.

SHOULD MINIMAIN PIPE COVER NOT BE ACHEVABLE. CONCRETE GRADE GIVIO SHALL BE USED AS SHOULD MATERIAL, PIPES SHALL HAVE MINIMAIN STAMFOLD ON CONCRETE SHREADING. DEPARISHM, LOWIN'S IN "HE CONCRETE SHALL BE PROVIDED. AN ALL PIPE A MINISTO ALLOW FOR PIPET ELZBELLITY (USET SHAMF COMPRESSIBLE PIBER BOARD IN ADITIST) FOLYETHYLE PIPES SHALL BE WRAPPED IN PLASTIC SHEETING BEFORE BEBRIOLOSKI WITO CONCRETALE PIPES.

TOPE WATERMAN LINES, MARKET TAPE TO BE 400m WIDE BLIE POLYETPICHEN MATERIAL IN ACCORDANCE WITH EN 12163, PLASTIC PIPES SHALL HAVE WARNING TAPE INCORPOBATED A REINFORCED BAND TAPECANGE WITH. SERVICE PIPES SHALL HAVE ZOOMM WIDE MESH TAPE. MARKET TAPE TO BE LAID AT TOP OF PIPE BEDDING LAYER. TOR FOUL & SURFACE LINES, NON DEGRADABLE MARKER TAPE SHOULD BE NISTALED AT TOP OF PIPE BEDDING LAYER, IN THE CASE OF NON METAL PIPE MATERIAL, THE MARKER TAPE SHOULD NCOPEPORATE A TRACE WARE WITHOUTS UNKEDT OF TITIONS AND TERMINATED AT THE WASTE WATER PUMPING STATION AND THE DISCHARGE MANHOLE.

. TRENCH WIDTHS FOR PIPE SIZES -50 MAY BE 50/mm, SUBJECT TO CONSIDERATION BEING GIVEN TO THE TRENCH DEPTH, HEATH & SAFETY & CONSTRUCTION ACCESS REQUIREMENTS.

WATERMANS SUITABLE FOR WORK SHALL BE EITHER DUCTILE IRON (DI) POLYETHYLENE (PE), WITH PE80 OR PE100 RATING. (MDPE. HDPE. OR HPPE.)

ALL NEW WATERMAN PER ENTWORKS SHALL LUNDERGO TESTING & COMMISSIONING, IN ACCORDANCE MITH THE REQUIREMENTS OF RIEST WATER DOE. MCCUDING ACCORDANCE MITH THE REQUIREMENTS OF RIEST WATER DOE. THE RIEST WATER NETWORK OLD THE RIEST WATER NETWORK

B) THERMOPLASTIC STRUCTURED WALL PIPES, COMPLYING WITH THE PROVISIONS OF IS EN 13476 (2007 / 2009) & WITH WIS 4-35-01 (2000) A) CONCRETE SEWER PIPES WITH SPIGOT & SOCKET JOINTS & RUBBER RING FITTINGS, COMPLYING WITH IS EN 1916 (2002), BS5911 & IS 6 (2004) OR EQUIVALENT STANDARD.

N. BS. EN H01-PART 01. Description Lesie For Planning	S 4860 S	NS OF B	E PROVISK
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Jacobs Island - SHD	- 2	MURPHY MATSON O'SULLIVAN CONSULTING CIVIL® STRUCTURAL ENGINEERS	V V V					Issue For Planning	Rev Sts Description	
		Tel: 353 21 431760	Blackrock House, Blackrock Road	The Chapel,				15.06.2	Date	

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DRAWN BY D.B.	Typical Trench Details	Hibernia Star Ltd.
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