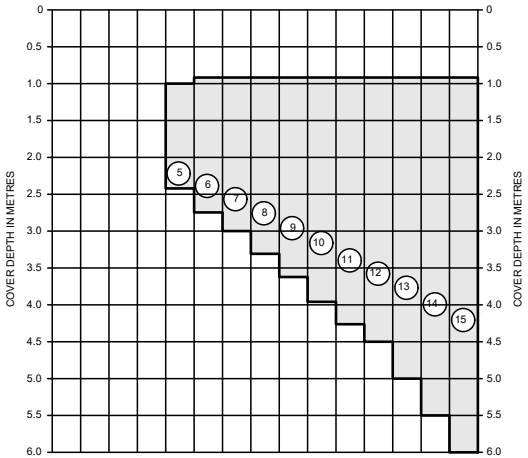


FIG A CARRIER DRAINS - MAIN ROAD LOADING

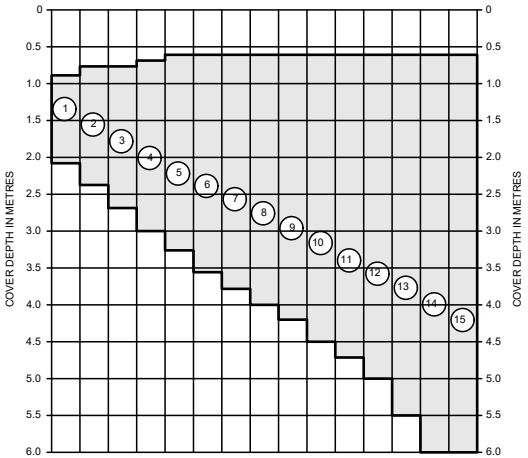


FIG B CARRIER DRAINS - FIELD LOADING

Carrier drains - group numbers for determining allowable pipe / bed combinations

PIPE MATERIAL	VITRIFIED CLAY															PRECAST CONCRETE														ASBESTOS CEMENT														UNPLASTICISED PVC				
PIPE CLASS	S					ES					SS					L					M					H				L					M					H										
BED TYPE	A	S	B	F	N	A	S	B	F	N	A	S	B	F	N	A	S	B	F	N	A	S	B	F	N	A	S	B	F	N	A	S	B	F	N	A	S	B	F	N	A	S	B	F	N	S	T+	NOMINAL SIZE mm	NOMINAL SIZE INCH
100	15	15	15	14	9	15	15	15	15	11	15	15	15	15	15																															15	4	110	4
150	15	15	13	9	3	15	15	14	10	4	15	15	15	14	9	15	15	15	11	4	15	15	15	13	8																					15	4	160	6
200	14	12	9	4		15	15	13	8	3																																				14	3	200*	8
225	13	9	6	2		15	13	11	5	1	15	14	13	7	2	14	12	9	4		15	14	12	7	2																					14	3		9
250	12	9	6	3		15	14	12	7	2																																				14	3	250*	10
300	9	6	4			14	11	8	4		15	14	12	6	2	11	8	5	1		13	11	8	3																						14	3	315	12
375	13	10	7	3		14	12	9	4							6	4	2			14	12	9	4		15	14	12	6	1																			
400	14	11	9	4		15	13	11	5	1	15	15	13	9	3																															13	3	400*	16
450	10	7	4	1		15	11	9	4							3	2				14	10	7	3		15	14	11	5	1																14	3		18
500	11	7	5	2		15	12	8	4		15	15	14	7	2																															14	3	500*	20
525																2					13	9	6	2		15	14	10	4																	14	3		22
600	7	4	2			15	11	8	4		15	15	13	7	2						15	11	8	4		15	15	12	5	1																14	3	630	24
675																					14	11	7	3		15	15	12	5	1																			
700	4	2	1			15	12	8	4		15	15	14	7	2																																		
750																6	4	2			14	9	7	3		15	15	12	5	1																			
800	3	1				15	12	7	3		15	15	13	6	1																																		
825																6	4	2			14	9	6	2		15	14	11	5	1																			
900																6	4	2			13	11	8	3		15	14	12	7	2																			

NOMINAL INTERNAL DIAMETER (mm)

NOT USED

SDR = 41

+ Bed Type T may only be used under field loading and cover depth 1.0m or greater

* Hydraulic flow capacity less than 95% of concrete pipe of same normal diameter

TYPES OF PIPE TO WHICH CHARTS ARE APPLICABLE

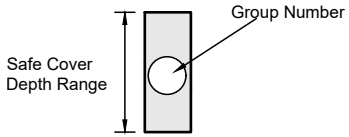
The charts are applicable to the following types of pipe:

1. Vitrified Clay pipes to BS 65: 1988 to Classes S Standard Strength;
   ES Extra Strength and SS Super Strength.
2. Precast Concrete pipes Classes L, M and H to the following Standards:

   BS 5911: Part 1: 2002; AMD 4035
3. Asbestos Cement pipes Series L, M and H to BS EN 588-1.
4. Unplasticised PVC pipes with an SDR of 41 (or less for the smallest sizes) to the following standards:

   BS 4660: (size 110mm & 160mm diameter)
   BS EN 1401-1
   BS EN 1452-1, BS EN 1452-2 & BS EN 1452-3
5. The types of pipe bedding that are covered are those shown in the Highway Construction Details drawing F1 and F2.

KEY



Rev:	Date:	Description:	Approved by:
AMENDMENT DETAILS			

Lincolnshire COUNTY COUNCIL
Working for a better future

Checked by:	GP	Approved by:	SB
ISSUED		12/05/17	

Carrier Drains - Permitted Pipe Types & Bedding / Backfill Details

Drainage and Service Ducts

SD/5/17

This is a typical detail and may require conversion to a full scheme specific drawing.

NOT TO SCALE
(all units in millimetres)

Disclaimer : Before making use of this detail, any designer or third party must ensure that it satisfies all requirements of the scheme to which it is being applied. Lincolnshire County Council accept no responsibility for third party use of this Standard Detail.

SD/5/17
Standard Detail Number

Revision Number

Revision