NOTES

- 1. All dimensions in millimetres 2. Generally the angle between the receiving watercourse ar be 45°
- 3. All reinforced concrete edge x 25 fillet
- 4. Min cover to reinforcement in slab to be 40
- 5. The bed and opposite bank certain circumstances need 300 thick uncoursed rubble p thick bed of FND2 concrete Class M1 Mortar. The stone of large smooth faced stones and shall be of a hard durabl Bunter sandstone, Keuper w Carboniferous shales and m used
- 6. An Outlet Grille as shown on provided on all outfalls where 450mm. Where pipe diameter dia. stainless steel bars are t outlet at max. 120mm c/c lea opening
- Where outlets have a flap va 7. grille must be provided on all and above
- 8. Secure handrailing shall be s may fall 2 metres or more or 2 metres carries an increase landing surface
- 9. FND2 to be used for soil con only. Designated mix referen FND4B to be used in soil cor classes 3,4A and 4B respect specification clause 4.3.1)



Outlet Grille

(as required)

Fall 1 in 40

PLAN

SECTION A-A

m

Wall slope to

match existing

ß

FND2 concrete 75 thick

blinding concrete (Note 8)

bank profile

Top water level

- 4) and pointed in Class M1 more shall consist of large smooth fac square and shall be of a hard du . Bunter sandstones, Keuper wate shales and mudstones are not to 2. Maximum diameter 225mm

NOTES



TYPICAL DETAIL F TYPICAL OUTFALL DETAIL TYPE 3 (MAXIMUM PIPE SIZE 225mm)

1.75D 900 Min

ELEVATION

1000

8

Pile grade

bed level of the watercourse.

be used.

TYPICAL DETAIL E

TYPICAL OUTFALL DETAIL TYPE 2

as shown on Typical detail D must

to be specified

Local conditions may dictate the use of sheet

piles driven to a suitable designed depth below

Alternatively a concrete toe beam together with

stone pitching to the bank of the watercourse

150 min concrete

surround cast

integrally with

headwall

Reinforced concrete

Max. length of

cut pipe 1250

Rocker pipe

150mm FND2 concrete surround

(Note 8)



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1	NC	TES					_	_
	1. 2.	All dimensions in millimetres Generally the angle between the direction of flow of the receiving watercourse and the outfall pipe should be 45°						
;	3.	All reinforced concrete edges to be finished with a 25 x 25 fillet						
	4.	Min cover to reinforcement in the top face of the base slab to be 40						
ł	5.	The bed and opposite bank of the watercourse may,in certain circumstances need to be protected by 225 to 300 thick uncoursed rubble pitching laid on a 100 thick bed of FND2 concrete (Note 8)and pointed in Class M1 Mortar. The stone for pitching shall consist of large smooth faced stones roughly dressed square and shall be of a hard durable and inert material. Bunter sandstone, Keuper waterstones and Carboniferous shales and mudstones are not to be used						
l	6.	An Outlet Grille as shown on Typical Detail G must be provided on all outfalls where the pipe size exceeds 450mm. Where pipe diameters are 375 to 450, 20 dia. stainless steel bars are to be provided across outlet at max. 120mm c/c leaving 100mm max. clear opening						
Ī	7.	Where outlets have a flap valve, a special detailed grille must be provided on all outlets 375mm diameter and above						
ł	8.	Secure handrailing shall be supplied where a person may fall 2 metres or more or where a fall of less than 2 metres carries an increased risk of injury due to the landing surface						
9	9.	FND2 to be used for soil conditions Sulphate class 1 only. Designated mix references FND3, FND4A & FND4B to be used in soil conditions with sulphate classes 3,4A and 4B respectively (refer to specification clause 4.3.1)						
NC All d		ES ensions in millimetres						
1.	ce thi FN 4) sh sq	e bed and opposite bank of the watercourse may in rtain circumstances, need to be protected by 225 to 300 ck uncoursed rubble pitching laid on 100 thick bed of ID2 concrete (Note 4) and bed of FND2 concrete (Note and pointed in Class M1 mortar. The stone for pitching all consist of large smooth faced stones roughly dressed uare and shall be of a hard durable and inert material. Inter sandstones, Keuper waterstones and carboniferous	CURRENT	ISSUE	INF	ORMATION		
		ales and mudstones are not to be used	A sc	DH SI	D	FOR INFORMATION		15.04.16
2.	Ma	aximum diameter 225mm	VERSION DRWN	CHKD REV	VD			DATE
3.	De us	ID2 to be used for soil conditions sulphate class 1 only. asignated mix references FND3, FND4A & FND4B to be ed in soil conditions with sulphate classes 3,4A and 4B spectively (refer to specification clause 4.3.1)				Unit	e0 ies	
					ι	UNITED UTILITIES LTD		
			DEVELOPER SERVICES					
				DETAIL				
					ΤY	PICAL OUTFALL DETAIL TYPE 2 & TYPE 3		
								EET SIZE
			STND/19/012					А