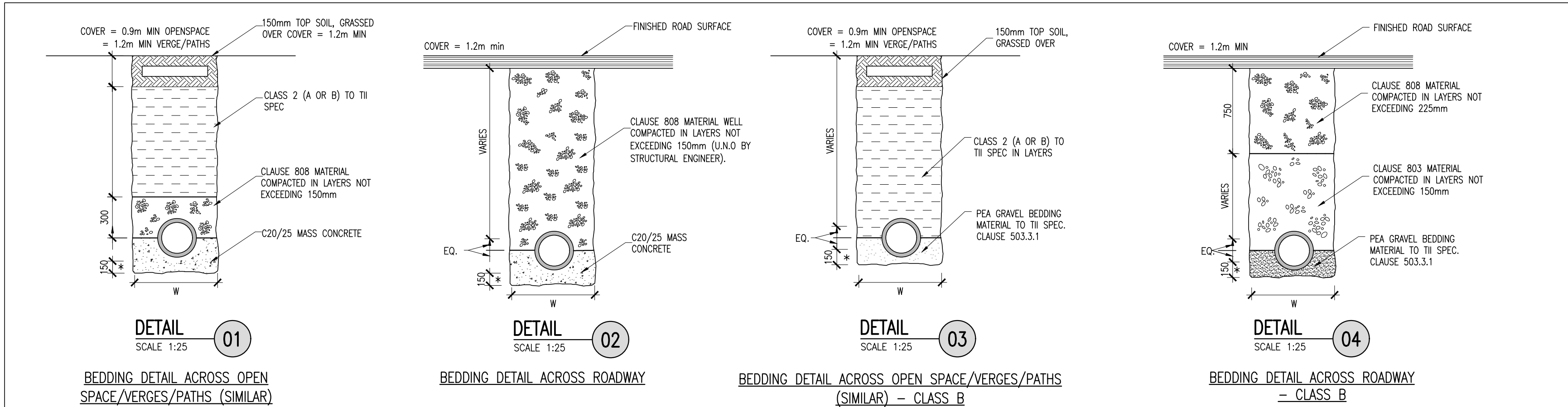
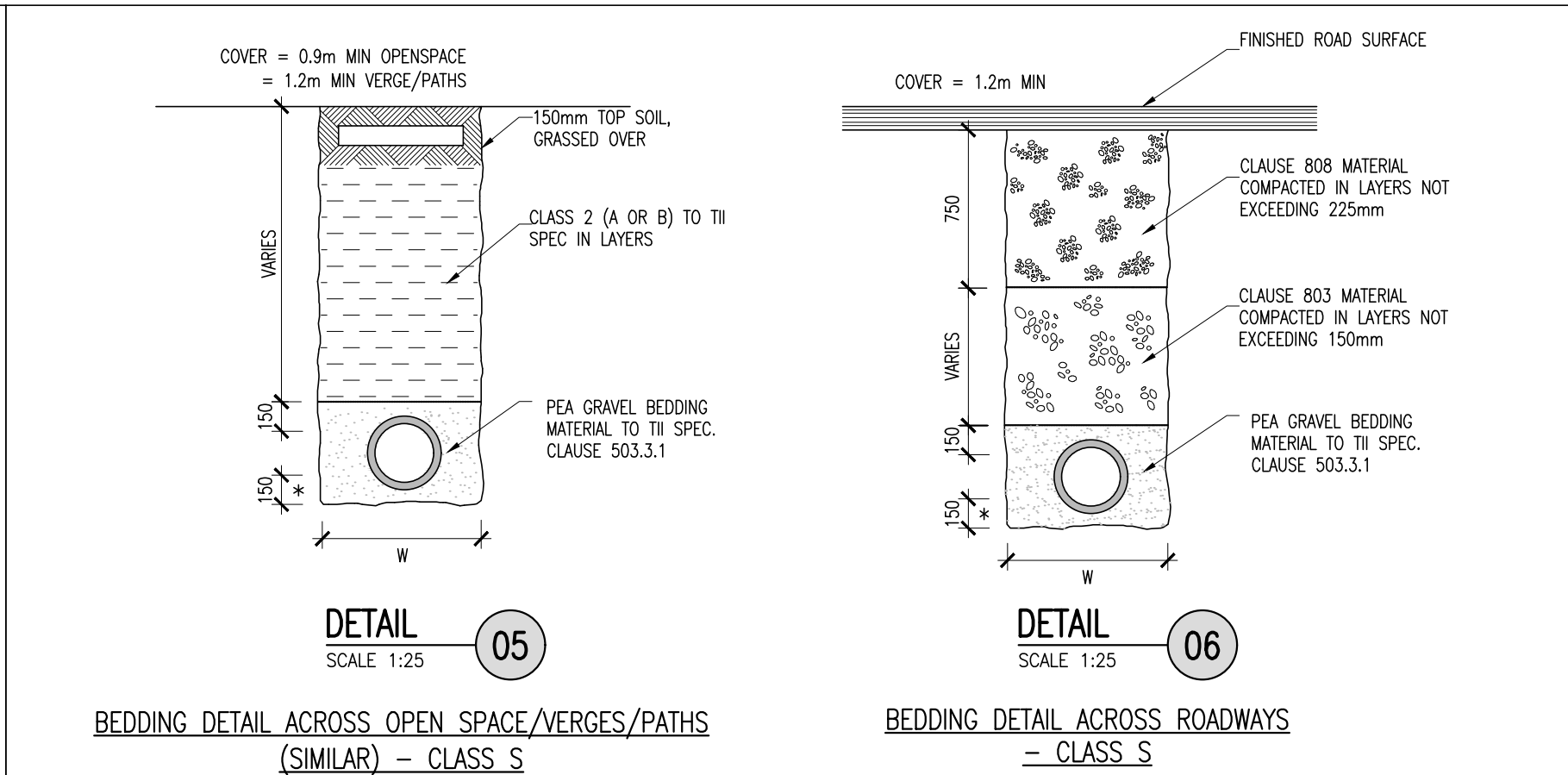


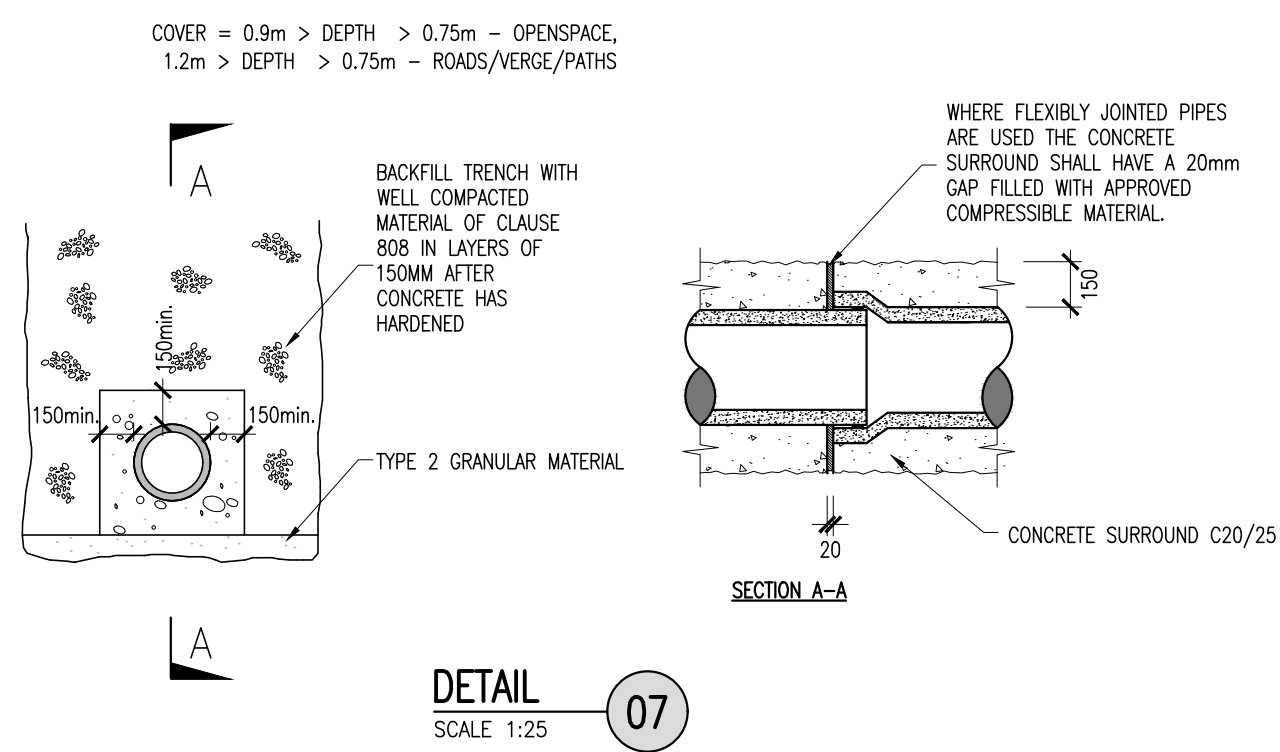


BEDDING FOR RIGID PIPES

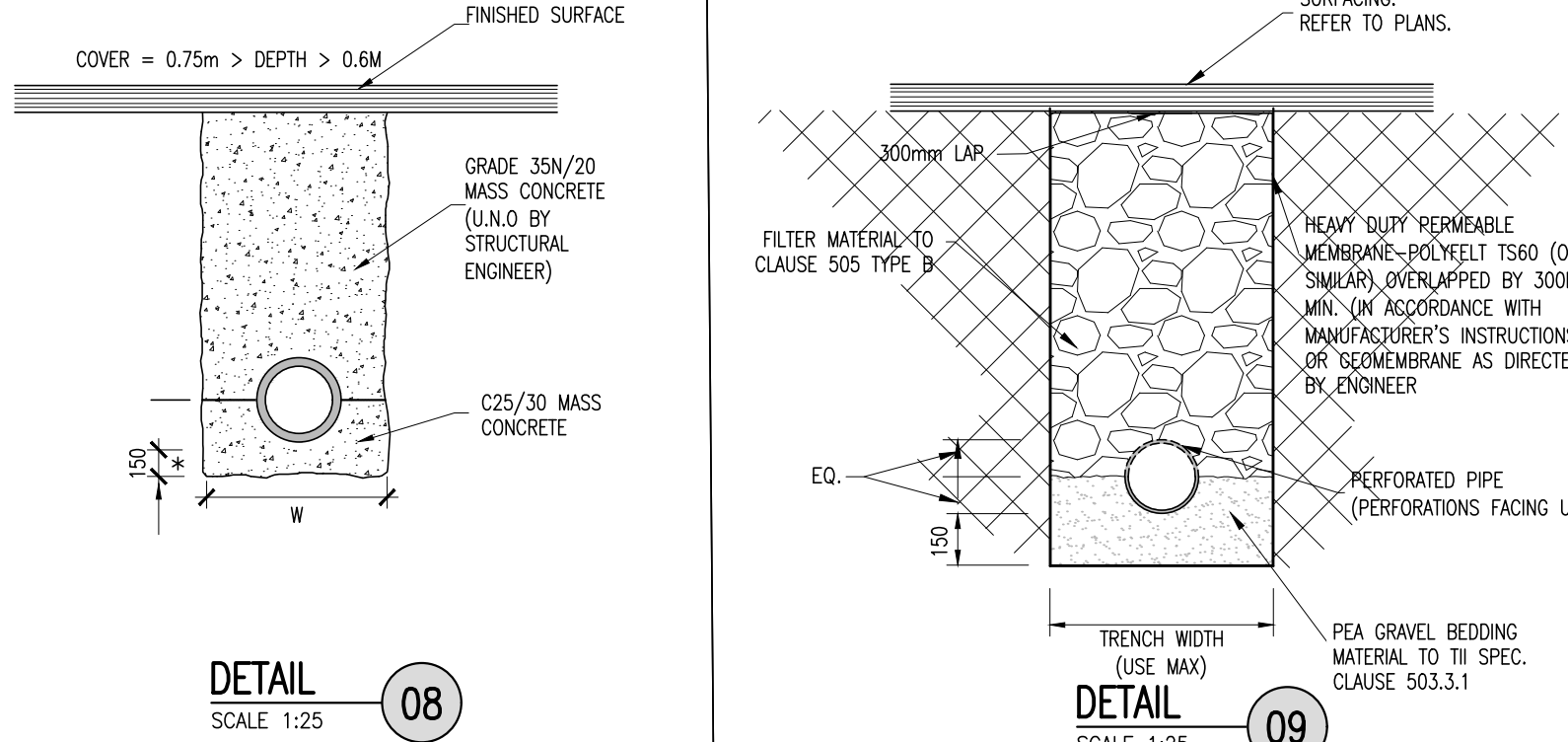


BEDDING FOR FLEXIBLE PIPES

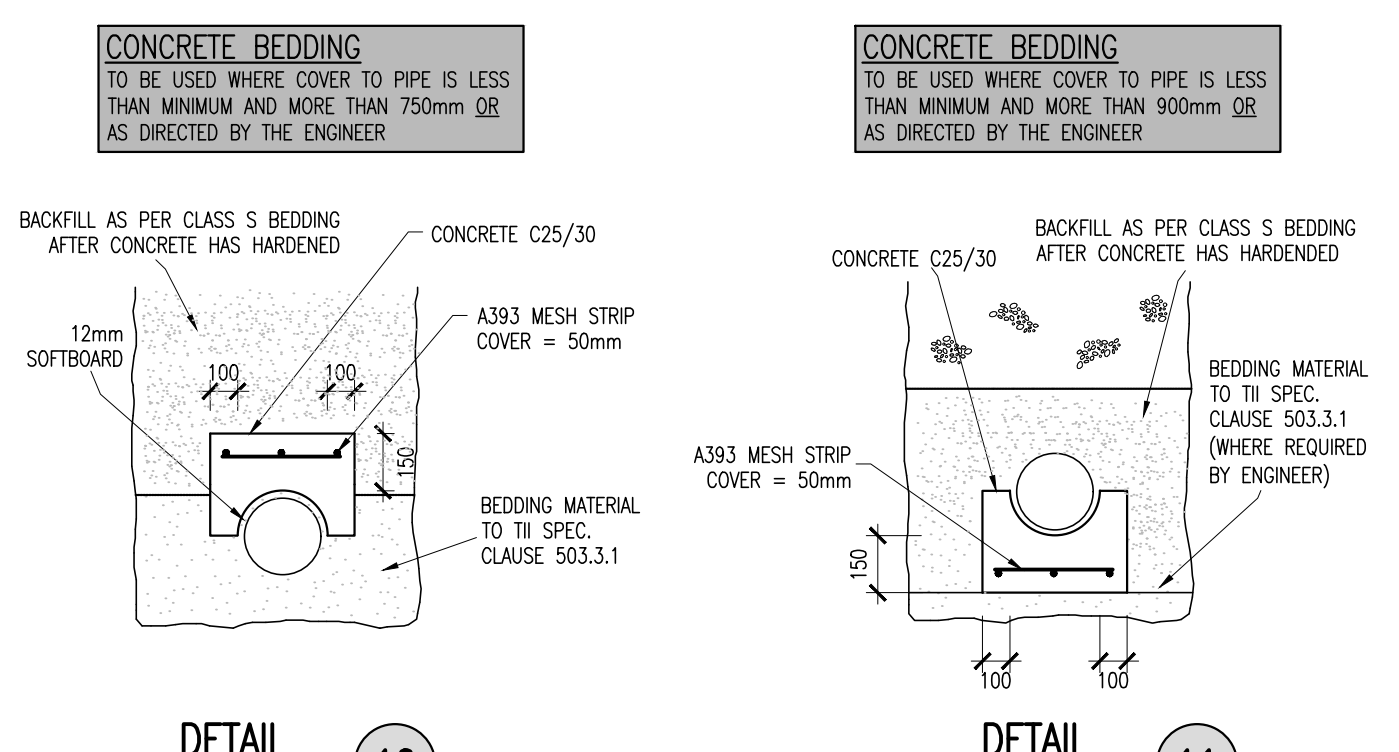
TABLE 1: TRENCH WIDTH LIMITS (W)		
NOMINAL INTERNAL Ø (mm)	MINIMUM TRENCH WIDTH mm	MAXIMUM TRENCH WIDTH mm
100	450	650
150	500	700
225	600	800
300	700	900
375	950	1150
450	1050	1250
525	1150	1350
600	1250	1450
675	1350	1550
750	1400	1600
825	1500	1700
900	1950	2150
1050	2100	2300
1200	2300	2500
ABOVE 1200	OUTSIDE Ø OF PIPE PLUS 800mm	OUTSIDE Ø OF PIPE PLUS 1000mm



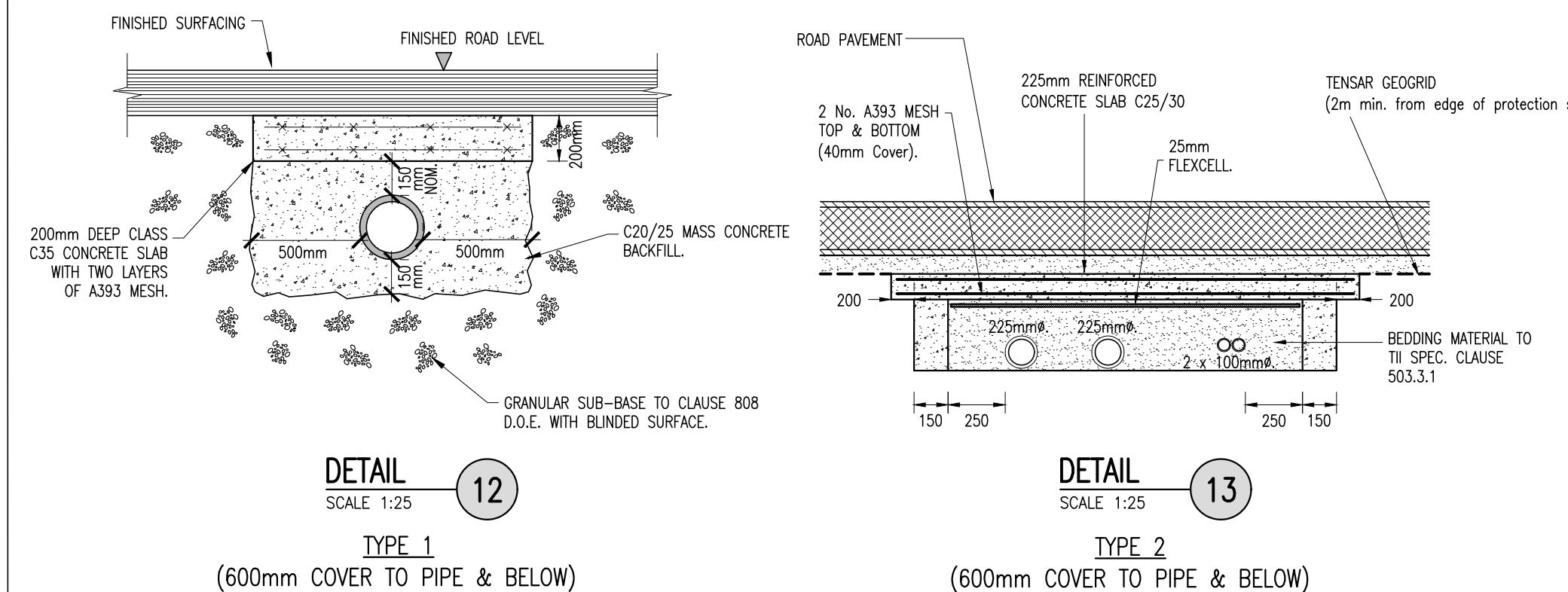
BEDDING FOR RIGID AND FLEXIBLE PIPES WITH LIMITED COVER



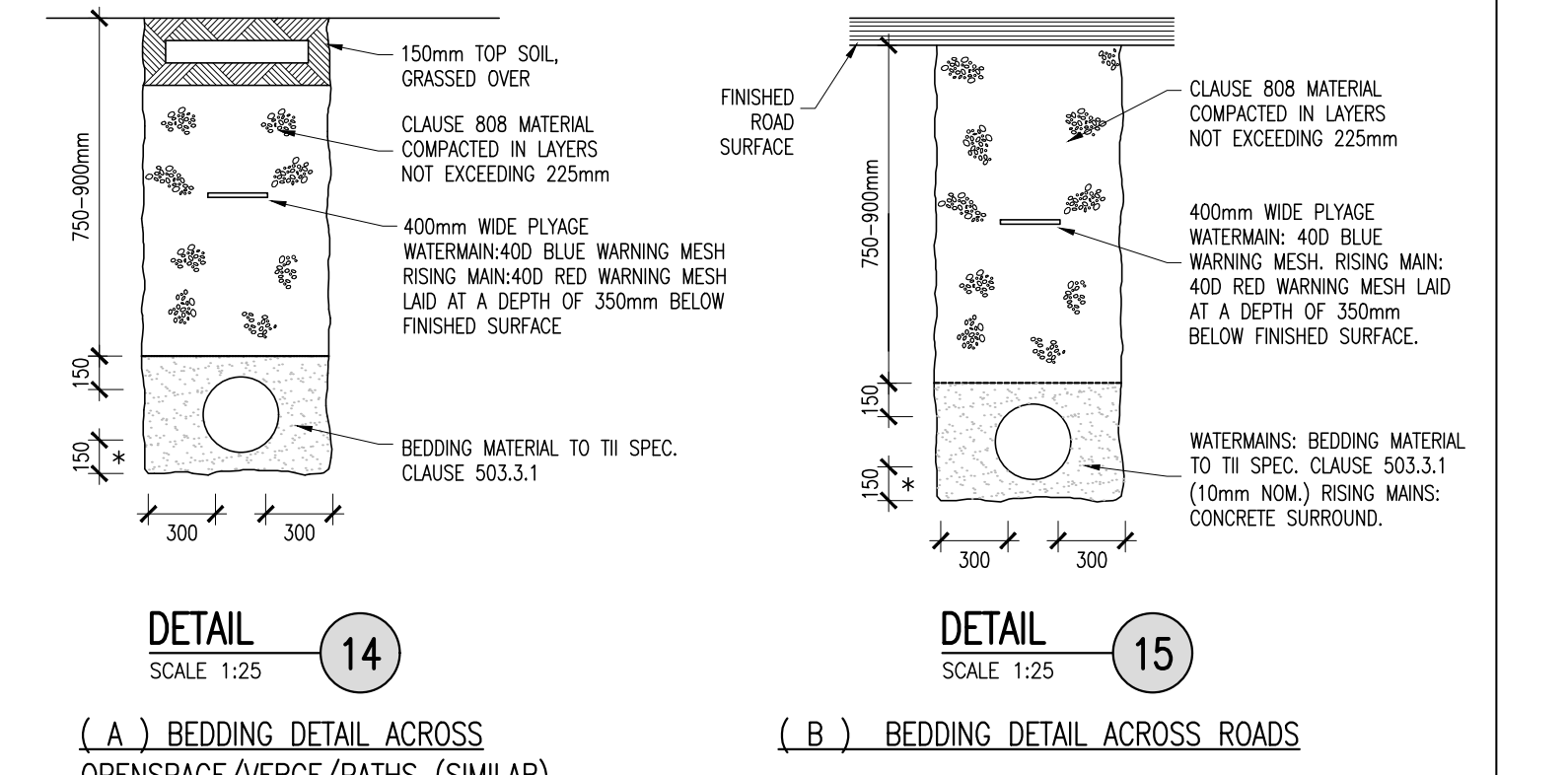
TYPICAL FILTER DRAIN DETAIL



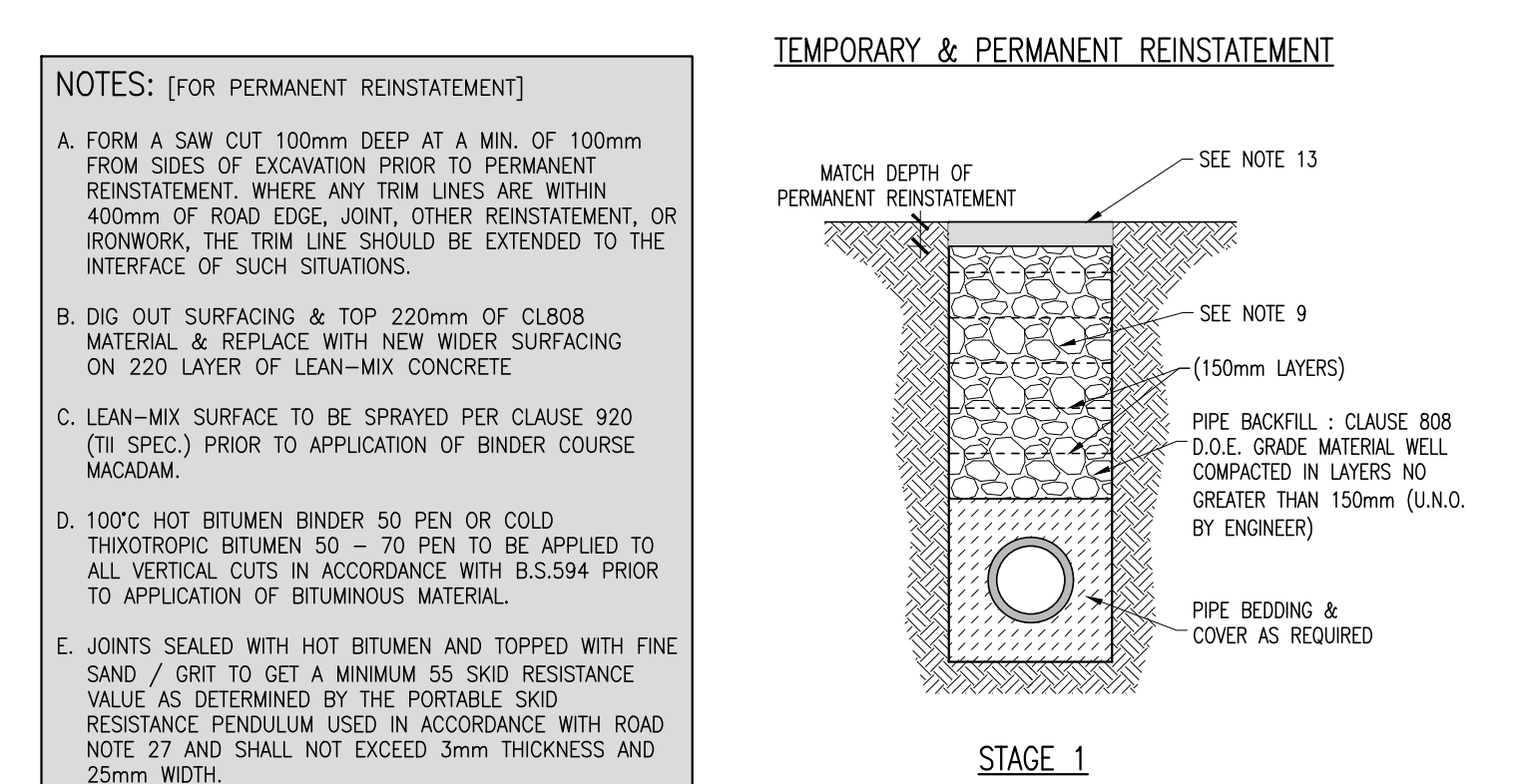
ALTERNATIVE BEDDING



TYPICAL SERVICES PROTECTION DETAIL



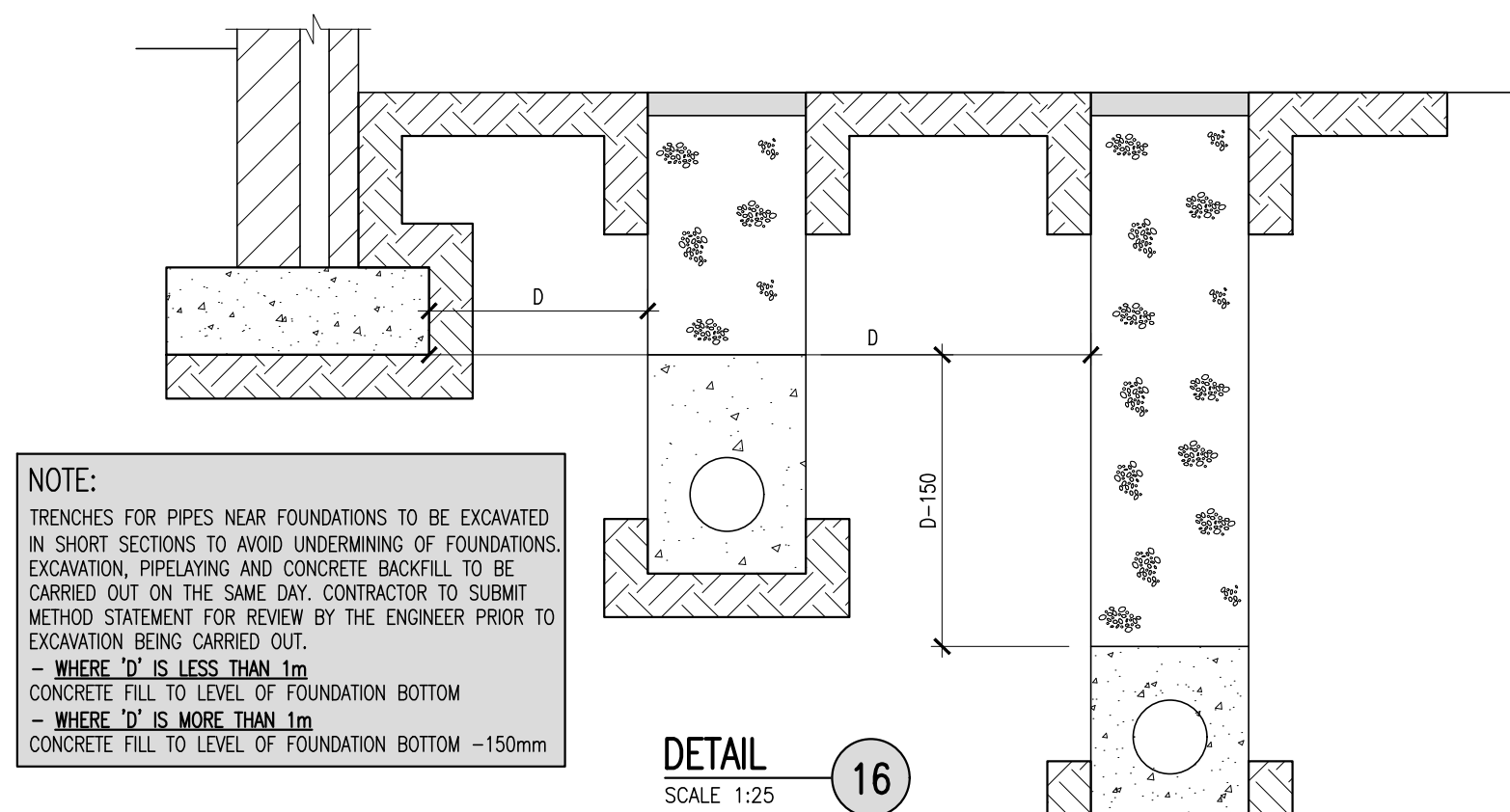
WATERMAIN/RISING MAIN BEDDING



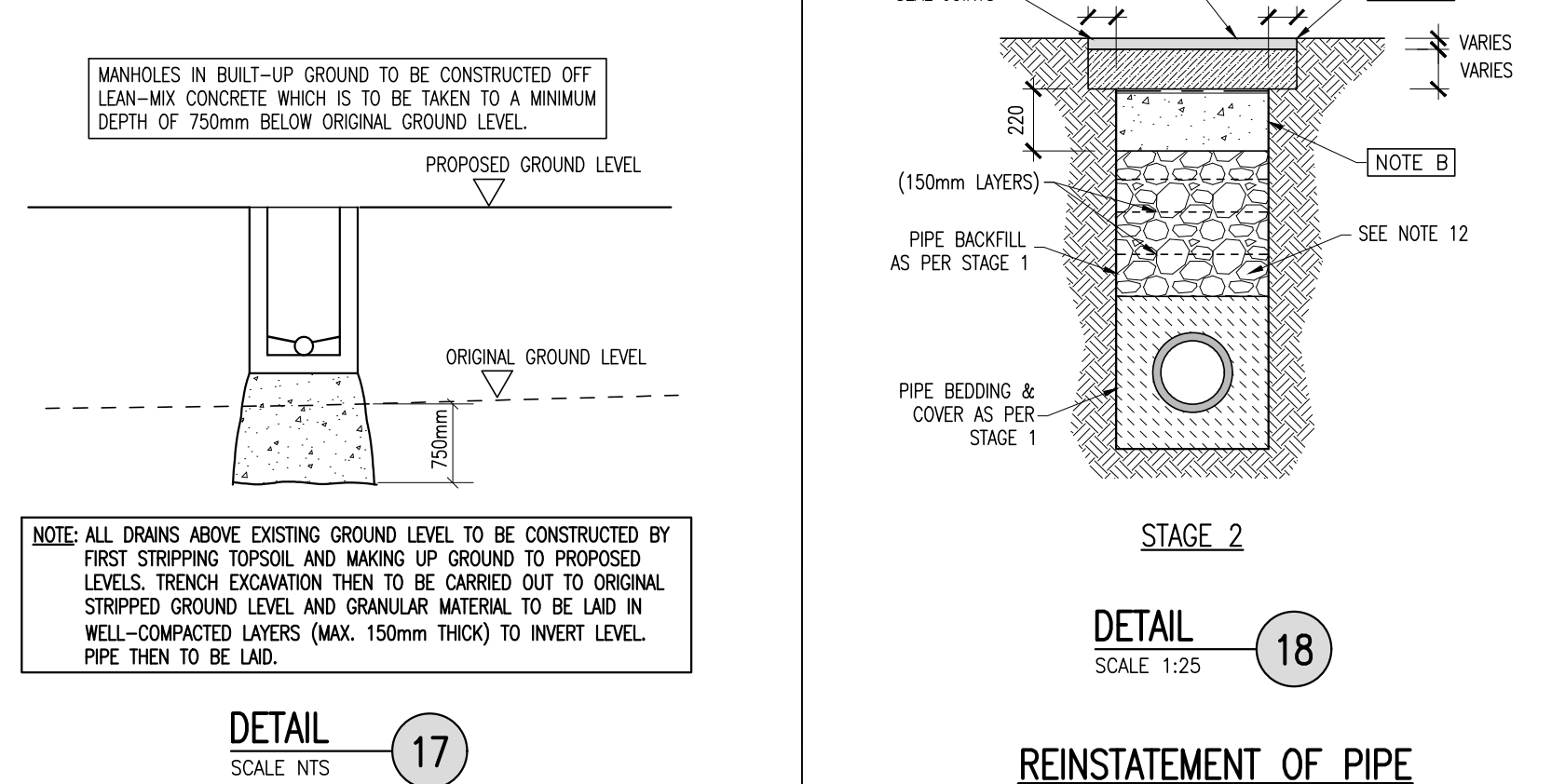
TEMPORARY & PERMANENT REINSTATEMENT

TABLE 2	LANDSCAPED AREAS	ROADWAYS/ FOOTPATHS	NOTES
CONCRETE PIPE (>1.2m COVER)	1,3	2,4	A, DETAIL 4 NOT ACCEPTABLE IN DCC AREA
CONCRETE PIPE (1.2m > D > 0.9m)	1,3	7	A
CONCRETE PIPE (0.9m > D > 0.75m)	7	7	A
CONCRETE PIPE (0.75m > D > 0.60m)	8	8	A
CONCRETE PIPE (0.6m > D > 0.45m)	12,13	12,13	C
FLEXIBLE PIPE (>1.2m COVER)	5	6	B
FLEXIBLE PIPE (1.2m > D > 0.9m)	5	7	B
FLEXIBLE PIPE (0.9m > D > 0.75m)	7	7	B
FLEXIBLE PIPE (0.75m > D > 0.6m)	8	8	B
FLEXIBLE PIPE (0.6m > D > 0.45m)	12,13	12,13	B, C
WATERMANS (D > 0.75m)	14	15	A
RISING MAIN (D > 0.75m)	14	15	A
REINSTATEMENT OF PIPES IN EXISTING ROADS	N/A	18	A

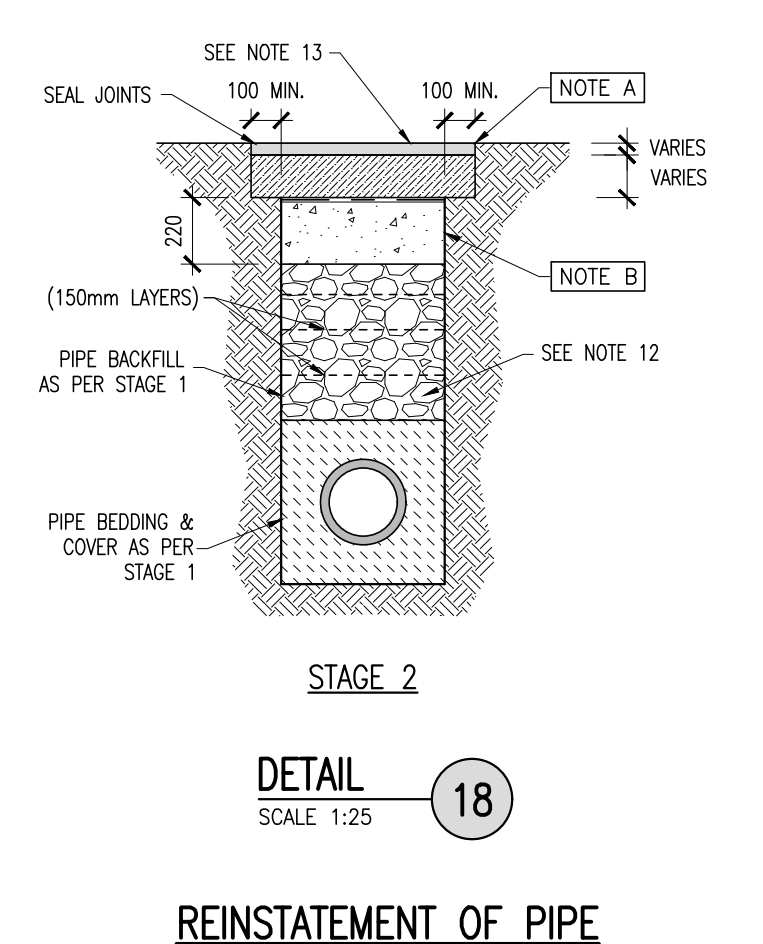
NOTES: A. APPLIES THROUGHOUT GOSDS AUTHORITY REGIONS
B. APPLIES THROUGHOUT GOSDS AUTHORITY REGIONS EXCEPT DCC
C. AGREEMENT FROM AUTHORITY REQUIRED



CONCRETE PIPE LAID NEAR FOUNDATIONS



DRAINS IN BUILT-UP GROUND



REINSTATEMENT OF PIPE TRENCH IN EXISTING ROAD

ON ORIGINAL

0 5 10 15 20 25 30 40 50mm

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NO CHANGES OF WHATSOEVER NATURE ARE TO BE MADE TO ANY DETAILS SET OUT OR CONTAINED IN ANY DBFL SPECIFICATIONS OR DRAWINGS UNLESS THE EXPRESS CONSENT HAS BEEN OBTAINED IN ADVANCE, IN WRITING, FROM DBFL.

NOTES:

- RIGID PIPES SHALL MEAN CAST OR SPUN IRON, CONCRETE OR CLAY.
- FLEXIBLE PIPES SHALL MEAN PIPES OF STEEL, PVC, OTHER PLASTIC OR DUCTILE IRON.
- CONCRETE C20/25 TO HAVE COVER = 50mm MIN. WITH A MINIMUM CEMENT CONTENT OF 260 kg/m³, MAXIMUM W/C RATIO OF 0.65 AND SLUMP CLASS S2.
- C25/30 CONCRETE TO HAVE A MINIMUM CEMENT CONTENT OF 280kg/m³, MAXIMUM WATER/CEMENT RATIO OF 0.65 AND SLUMP CLASS S2.
- FOR DETAILS OF TRENCH REINSTATEMENT TO PIPES IN THE VICINITY OF BUILDINGS, WALLS & FOUNDATION, REFER TO STRUCTURAL DRAWINGS.
- ALL PIPES WITH LESS THAN 1.2m COVER UNDER GRASSED AREAS AND FOOTPATHS TO BE SURROUNDED IN 150mm MINIMUM OF C20/25 CONCRETE.
- LEAN-MIX BACKFILL TO TRENCHES IN EXISTING ROADS, WHERE REQUIRED BY THE LOCAL AUTHORITY TO BE GRADE C20/25 CONCRETE.
- TRENCH DETAILS ARE REFERENCED FROM:
• GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS.
• TII ROAD CONSTRUCTION DETAILS
• DOE RECOMMENDATIONS FOR SITE DEVELOPMENT WORKS
• BUILDING REGULATIONS
- WHERE ROCKS OR OTHER HARD TRENCH BOTTOM IS ENCOUNTERED, THE FIGURE DENOTED BY * IS TO BE DOUBLED.
- GRANULAR BACKFILL MATERIAL SHALL BE IN COMPLIANCE WITH CLAUSE 808 (GRANULAR MATERIAL TYPE B) OF THE TII SPECIFICATION FOR ROAD WORKS. GRANULAR BACKFILL SHOULD BE PLACED UNIFORMLY ON EITHER SIDE OF THE PIPE IN LAYERS NOT EXCEEDING 100mm, EACH LAYER BEING COMPACTED BY HAND TAMPING UNTIL THE PIPE HAS MINIMUM OF 300mm COMPACTED COVER. CARE SHOULD BE TAKEN THAT THE PROCESS OF COMPACTATION DOES NOT DISPLACE THE PIPE FROM ITS CORRECT LINE AND LEVEL. SUBSEQUENT LAYERS OF GRANULAR FILL TO BE WELL COMPACTED IN 150mm THICK LAYERS TO THE LOCAL AUTHORITY ROAD DIVISION SPECIFICATION. MECHANICAL COMPACTATION EQUIPMENT SHOULD NOT BE USED UNTIL THERE IS A MINIMUM OF 450mm COMPACTED COVER OVER THE CROWN OF THE PIPE.
- SELECTED FILL SHOULD BE FREE FROM STONES LARGER THAN 37mm, LUMPS OF CLAY OVER 75mm, TIMBER, FROZEN MATERIAL AND VEGETABLE OR FOREIGN MATTER. SELECTED FILL SHOULD BE PLACED UNIFORMLY ON EITHER SIDE OF THE PIPE IN LAYERS NOT EXCEEDING 100mm, EACH LAYER BEING COMPACTED BY HAND TAMPING UNTIL THE PIPE HAS A MINIMUM OF 150mm COMPACTED COVER. CARE SHOULD BE TAKEN THAT THE PROCESS OF COMPACTATION DOES NOT DISPLACE THE PIPE FROM ITS CORRECT LINE AND LEVEL. SUBSEQUENT SELECTED FILL CAN BE PLACED AND COMPACTED IN 150mm THICK LAYERS.
- GENERAL BACKFILL MATERIAL SUITABLE FOR BACKFILL ABOVE SELECTED FILL MATERIAL SHOULD BE FREE FROM BOULDERS, LUMPS OF CONCRETE, TIMBER AND VEGETABLE OR FOREIGN / CONTAMINATED MATTER. GENERAL BACKFILL SHOULD BE PLACED IN LAYERS NOT EXCEEDING 300mm, EACH LAYER BEING WELL COMPACTED. MECHANICAL COMPACTATION EQUIPMENT SHOULD NOT BE USED UNTIL THERE IS A MINIMUM OF 450mm COMPACTED COVER OVER THE CROWN OF THE PIPE.
- TRENCH ABOVE PIPES WITH LESS THAN 750mm COVER TO BE BACKFILLED WITH C20/25 CONCRETE TO FORMATION LEVEL.
- SURFACING TO BE IN ACCORDANCE WITH THE ROAD SPECIFICATION AND, IF APPROPRIATE, LOCAL AUTHORITY REQUIREMENTS.
- WHERE CLASS 6F1 / 6F2 CAPPING MATERIAL IS PROPOSED WITHIN 500mm OF CONCRETE OR STEEL, CLASS BN IS TO BE USED INSTEAD.

NOTE:
ALL WORKS & SPECIFICATIONS TO BE UNDERTAKEN IN ACCORDANCE WITH
• TII SPECIFICATION FOR ROADWORKS
• RECOMMENDATIONS FOR SITE DEVELOPMENT WORKS

NOTE:
FOR WATERMAIN DETAILS REFER TO IRISH WATER CONNECTION AGREEMENT & IRISH WATER INFRASTRUCTURE STANDARD DETAILS' & CODE OF PRACTICE

NOTE:
FOR DETAILS OF FOUL SEWER MANHOLES REFER TO IRISH WATER CONNECTION AGREEMENT & IRISH WATER INFRASTRUCTURE STANDARD DETAILS' & CODE OF PRACTICE

P01	05/04/22	PLANNING SUBMISSION	MWM	VGE
rev	date	description	by	chkd.
		A - Approved		
		B - Approved with comments		
		C - Do not use		
client approval		issue purpose		
suitability		PLANNING		

DBFL Consulting Engineers
Civil, Structural & Transportation Engineering
www.dbfl.ie

DUBLIN OFFICE: Ormond House, Upper Ormond Quay, Dublin 7, D07 WY04
PHONE: +353 1 400 4000

CORK OFFICE: 14 South Mall, Cork, T12 CT91
PHONE: +353 21 204538

WATERFORD OFFICE: Suite 8b The Atrium, Maritime Gate, Canal Street, Waterford, X91 W028
PHONE: +353 51 306 500

project ref:

HEADFORD ROAD HOUSING, GALWAY

drawing title

SURFACE WATER STANDARD DETAILS-SHEET 2

client

GALWAY CITY COUNCIL

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drawing no.		revision	
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