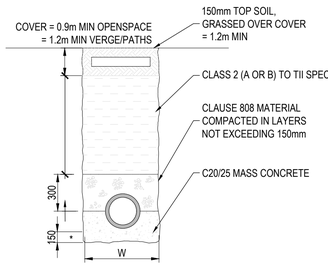
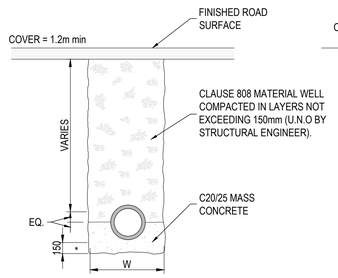


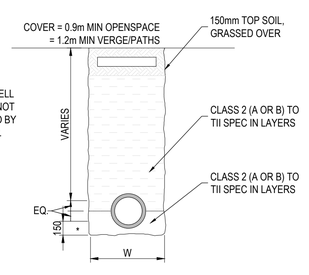
DETAIL 01 SCALE 1:25

BEDDING DETAIL ACROSS OPEN SPACE/VERGES/PATHS (SIMILAR)



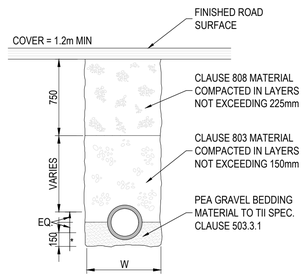
DETAIL 02 SCALE 1:25

BEDDING DETAIL ACROSS ROADWAY



DETAIL 03 SCALE 1:25

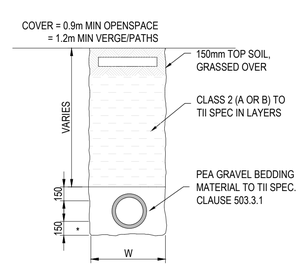
BEDDING DETAIL ACROSS OPEN SPACE/VERGES/PATHS (SIMILAR) - CLASS B



DETAIL 04 SCALE 1:25

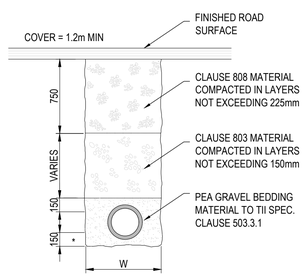
BEDDING DETAIL ACROSS ROADWAY - CLASS B

BEDDING FOR RIGID PIPES



DETAIL 05 SCALE 1:25

BEDDING DETAIL ACROSS OPEN SPACE/VERGES/PATHS (SIMILAR) - CLASS S

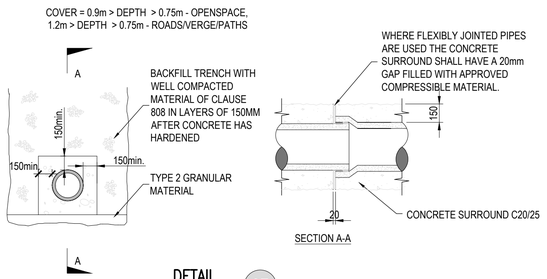


DETAIL 06 SCALE 1:25

BEDDING DETAIL ACROSS ROADWAYS - CLASS S

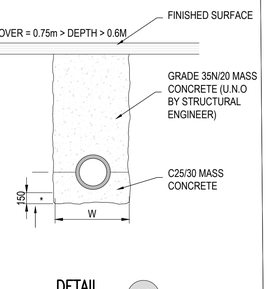
BEDDING FOR FLEXIBLE PIPES

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



DETAIL 07 SCALE 1:25

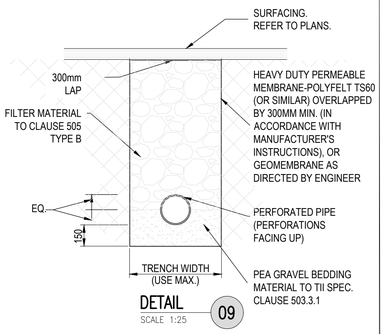
TRENCH DETAIL WITH LESS THAN 900mm COVER



DETAIL 08 SCALE 1:25

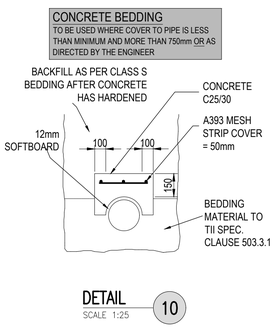
TRENCH DETAIL WITH LESS THAN 750mm COVER

BEDDING FOR RIGID AND FLEXIBLE PIPES WITH LIMITED COVER



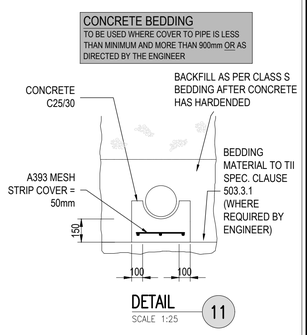
DETAIL 09 SCALE 1:25

TYPICAL FILTER DRAIN DETAIL



DETAIL 10 SCALE 1:25

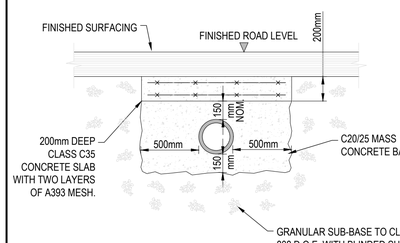
FLEXIBLE PIPES : ARCH



DETAIL 11 SCALE 1:25

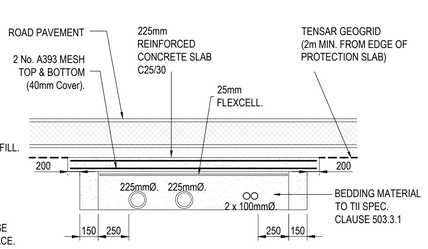
FLEXIBLE PIPES : CRADLE

ALTERNATIVE BEDDING



DETAIL 12 SCALE 1:25

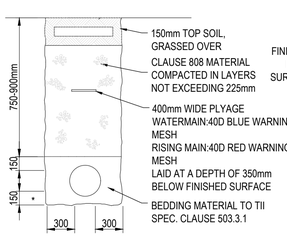
TYPE 1
(600mm COVER TO PIPE & BELOW)



DETAIL 13 SCALE 1:25

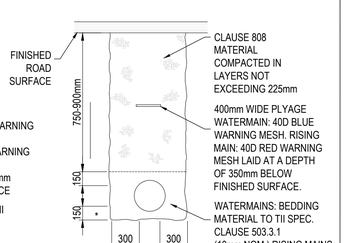
TYPE 2
(600mm COVER TO PIPE & BELOW)

TYPICAL SERVICES PROTECTION DETAIL



DETAIL 14 SCALE 1:25

(A) BEDDING DETAIL ACROSS OPENSPACE/VERGE/PATHS (SIMILAR)



DETAIL 15 SCALE 1:25

(B) BEDDING DETAIL ACROSS ROADS

WATERMAIN/RISING MAIN BEDDING

NOTES: [FOR PERMANENT REINSTATEMENT]

A. FORM A SAW CUT 100mm DEEP AT A MIN. OF 100mm FROM SIDES OF EXCAVATION PRIOR TO PERMANENT REINSTATEMENT. WHERE ANY TRIM LINES ARE WITHIN 400mm OF ROAD EDGE, JOINT, OTHER REINSTATEMENT, OR IRONWORK, THE TRIM LINE SHOULD BE EXTENDED TO THE INTERFACE OF SUCH SITUATIONS.

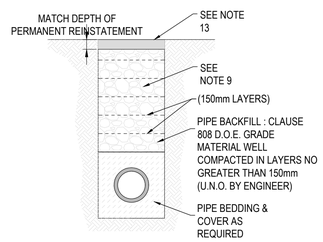
B. DIG OUT SURFACING & TOP 220mm OF CL808 MATERIAL & REPLACE WITH NEW WIDER SURFACING ON 220 LAYER OF LEAN-MIX CONCRETE

C. LEAN-MIX SURFACE TO BE SPRAYED PER CLAUSE 920 (TII SPEC.) PRIOR TO APPLICATION OF BINDER COURSE MACADAM.

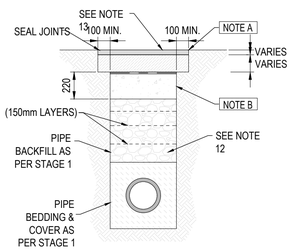
D. 100°C HOT BITUMEN BINDER 50 PEN OR COLD THIXOTROPIC BITUMEN 50 - 70 PEN TO BE APPLIED TO ALL VERTICAL CUTS IN ACCORDANCE WITH B.S.594 PRIOR TO APPLICATION OF BITUMINOUS MATERIAL.

E. JOINTS SEALED WITH HOT BITUMEN AND TOPPED WITH FINE SAND / GRIT TO GET A MINIMUM 55 SKID RESISTANCE VALUE AS DETERMINED BY THE PORTABLE SKID RESISTANCE PENDULUM USED IN ACCORDANCE WITH ROAD NOTE 27 AND SHALL NOT EXCEED 3mm THICKNESS AND 25mm WIDTH.

TEMPORARY & PERMANENT REINSTATEMENT



STAGE 1
(LEAVE FOR 6 MONTHS TO CONSOLIDATE)



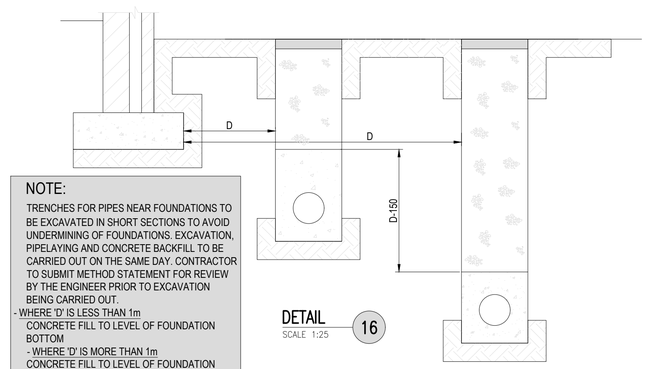
STAGE 2

DETAIL 18 SCALE 1:25

REINSTATEMENT OF PIPE TRENCH IN EXISTING ROAD

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
WATERMAINS (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 GDSDS AUTHORITY REGIONS
B. APPLIES THROUGHOUT GDSDS AUTHORITY REGIONS EXCEPT DCC
C. AGREEMENT FROM AUTHORITY REQUIRED

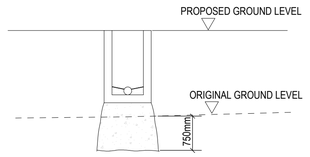


NOTE:
TRENCHES FOR PIPES NEAR FOUNDATIONS TO BE EXCAVATED IN SHORT SECTIONS TO AVOID UNDERMINING OF FOUNDATIONS. EXCAVATION, PIPELAYING AND CONCRETE BACKFILL TO BE CARRIED OUT ON THE SAME DAY. CONTRACTOR TO SUBMIT METHOD STATEMENT FOR REVIEW BY THE ENGINEER PRIOR TO EXCAVATION BEING CARRIED OUT.
- WHERE 'D' IS LESS THAN 1m
CONCRETE FILL TO LEVEL OF FOUNDATION BOTTOM
- WHERE 'D' IS MORE THAN 1m
CONCRETE FILL TO LEVEL OF FOUNDATION BOTTOM -150mm

DETAIL 16 SCALE 1:25

CONCRETE PIPE LAID NEAR FOUNDATIONS

MANHOLES IN BUILT-UP GROUND TO BE CONSTRUCTED OFF LEAN-MIX CONCRETE WHICH IS TO BE TAKEN TO A MINIMUM DEPTH OF 750mm BELOW ORIGINAL GROUND LEVEL.



NOTE: ALL DRAINS ABOVE EXISTING GROUND LEVEL TO BE CONSTRUCTED BY FIRST STRIPPING TOPSOIL AND MAKING UP GROUND TO PROPOSED LEVELS. TRENCH EXCAVATION THEN TO BE CARRIED OUT TO ORIGINAL STRIPPED GROUND LEVEL AND GRANULAR MATERIAL TO BE LAID IN WELL-COMPACTED LAYERS (MAX. 150mm THICK) TO INVERT LEVEL. PIPE THEN TO BE LAID.

DETAIL 17 SCALE NTS

DRAINS IN BUILT-UP GROUND

FOR PLANNING

REV	DESCRIPTION	BY	DATE
P01	FOR COSTING	MM	08/03/26
P02	PART 8 PLANNING	ED	19.06.26

needs to be p03

previous p02 was 27.05.26

1. RIGID PIPES SHALL MEAN CAST OR SPUN IRON, CONCRETE OR CLAY.
2. FLEXIBLE PIPES SHALL MEAN PIPES OF STEEL, PVC, OTHER PLASTIC OR DUCTILE IRON.
3. 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.
4. C25/30 CONCRETE TO HAVE A MINIMUM CEMENT CONTENT OF 280Kg/m³, MAXIMUM WATER/CEMENT RATIO OF 0.65 AND SLUMP CLASS S2.
5. FOR DETAILS OF TRENCH REINSTATEMENT TO PIPES IN THE VICINITY OF BUILDINGS, WALLS & FOUNDATION. REFER TO STRUCTURAL DRAWINGS.
6. ALL PIPES WITH LESS THAN 1.2m COVER UNDER GRASSED AREAS AND FOOTPATHS TO BE SURROUNDED IN 150mm MINIMUM OF C20/25 CONCRETE.
7. LEAN-MIX BACKFILL TO TRENCHES IN EXISTING ROADS, WHERE REQUIRED BY THE LOCAL AUTHORITY TO BE GRADE C20/25 CONCRETE.
8. 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
9. WHERE ROCKS OR OTHER HARD TRENCH BOTTOM IS ENCOUNTERED, THE FIGURE DENOTED BY * IS TO BE DOUBLED.
10. 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 COMPACTION 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 COMPACTION EQUIPMENT SHOULD NOT BE USED UNTIL THERE IS A MINIMUM OF 450mm COMPACTED COVER OVER THE CROWN OF THE PIPE.
11. 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 COMPACTION DOES NOT DISPLACE THE PIPE FROM ITS CORRECT LINE AND LEVEL. SUBSEQUENT SELECTED FILL CAN BE PLACED AND COMPACTED IN 150mm THICK LAYERS.
12. 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 COMPACTION EQUIPMENT SHOULD NOT BE USED UNTIL THERE IS A MINIMUM OF 450mm COMPACTED COVER OVER THE CROWN OF THE PIPE.
9. TRENCH ABOVE PIPES WITH LESS THAN 750mm COVER TO BE BACKFILLED WITH C20/25 CONCRETE TO FORMATION LEVEL.
10. SURFACING TO BE IN ACCORDANCE WITH THE ROAD SPECIFICATION AND, IF APPROPRIATE, LOCAL AUTHORITY REQUIREMENTS.
11. WHERE CLASS 6F1 / 6F2 CAPPING MATERIAL IS PROPOSED WITHIN 500mm OF CONCRETE OR STEEL, CLASS 6N IS TO BE USED INSTEAD.

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PROJECT
NEW RESIDENTIAL DEVELOPMENT
HARBOUR ROAD
MULLINGAR, Co. WESTMEATH

CLIENT
WESTMEATH COUNTY COUNCIL

TITLE
CIVIL STANDARD DETAILS
SHEET 2
p03

DISCIPLINE			SCALE
CIVIL			NTS
DRAWN	DESIGNED	CHECKED	APPROVED
MM	AM	AL	AL
DRAWING No			ISSUE
26019-MHT-XX-ZZ-DR-C-0701			P02

27/05/2026