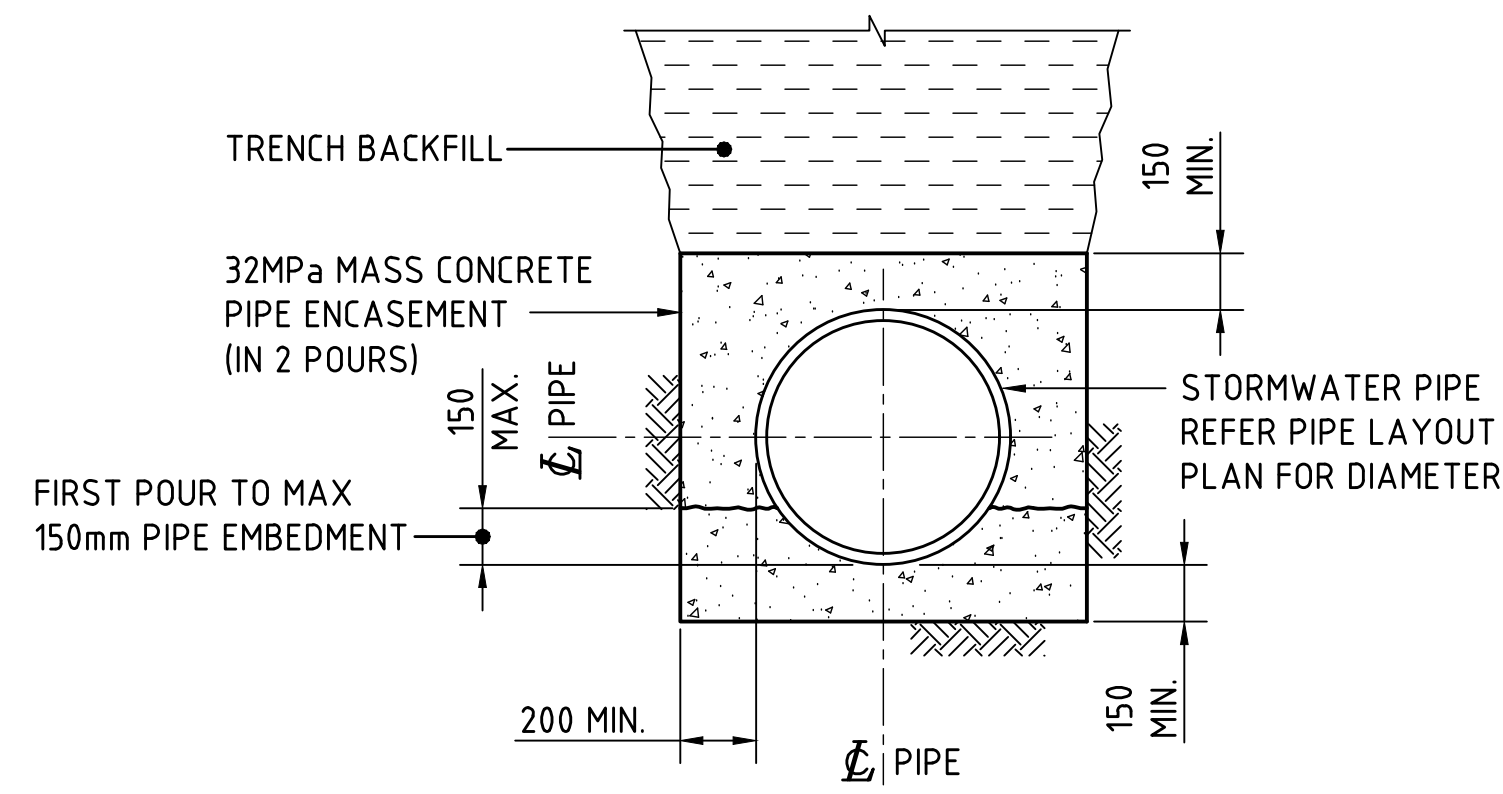
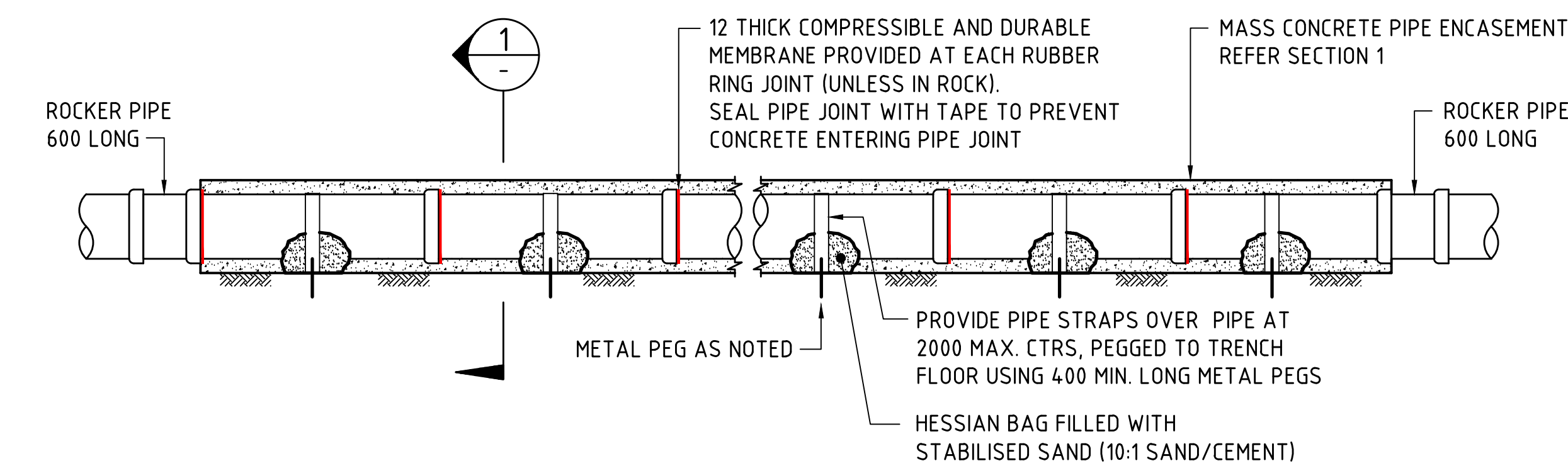




SECTION 120 : TYPICAL ACROSS PIPE

NOTE :
DURING THE ENCASEMENT PROCESS THE CONTRACTOR IS TO PROVIDE SUPPORT TO THE PIPE TO PREVENT PIPE MOVEMENT AND/OR FLOAT. CONCRETE ENCASEMENT TO BE INSTALLED IN 2 POURS.



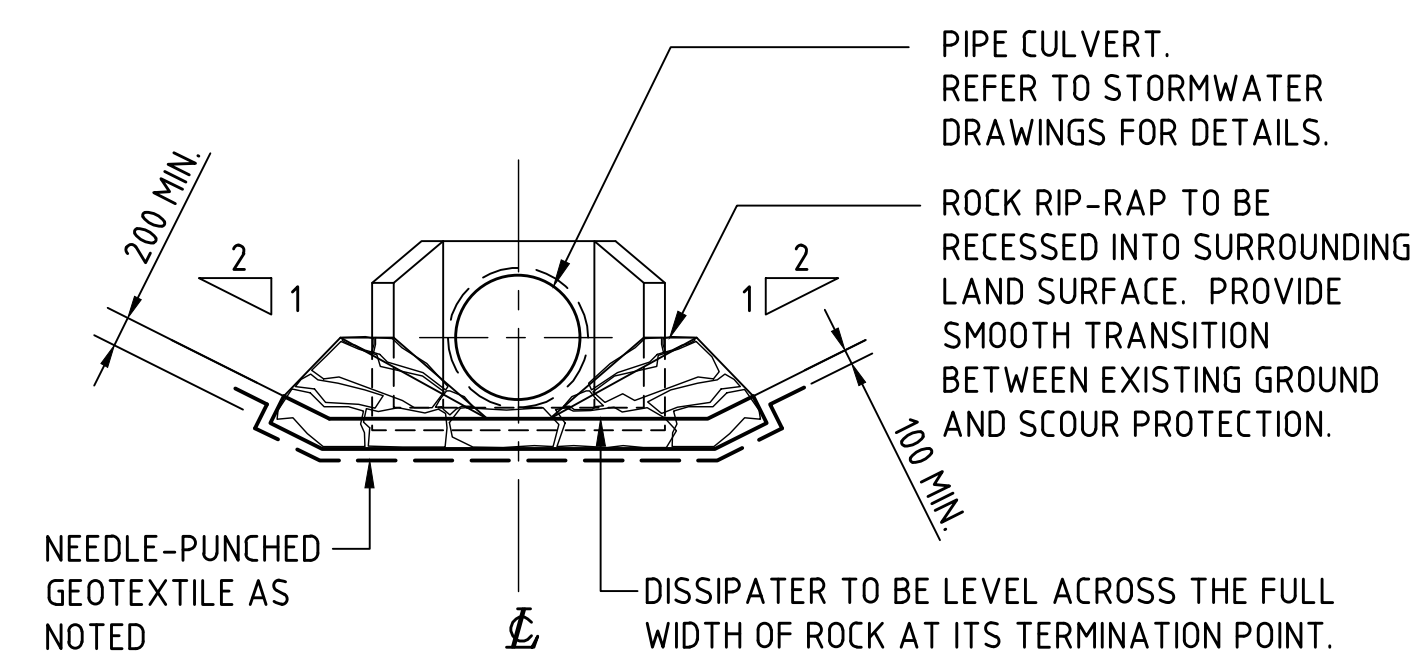
STORMWATER PIPE CONCRETE ENCASEMENT TYPICAL DETAIL
SCALE 1:50

DISSIPATER NOTES :

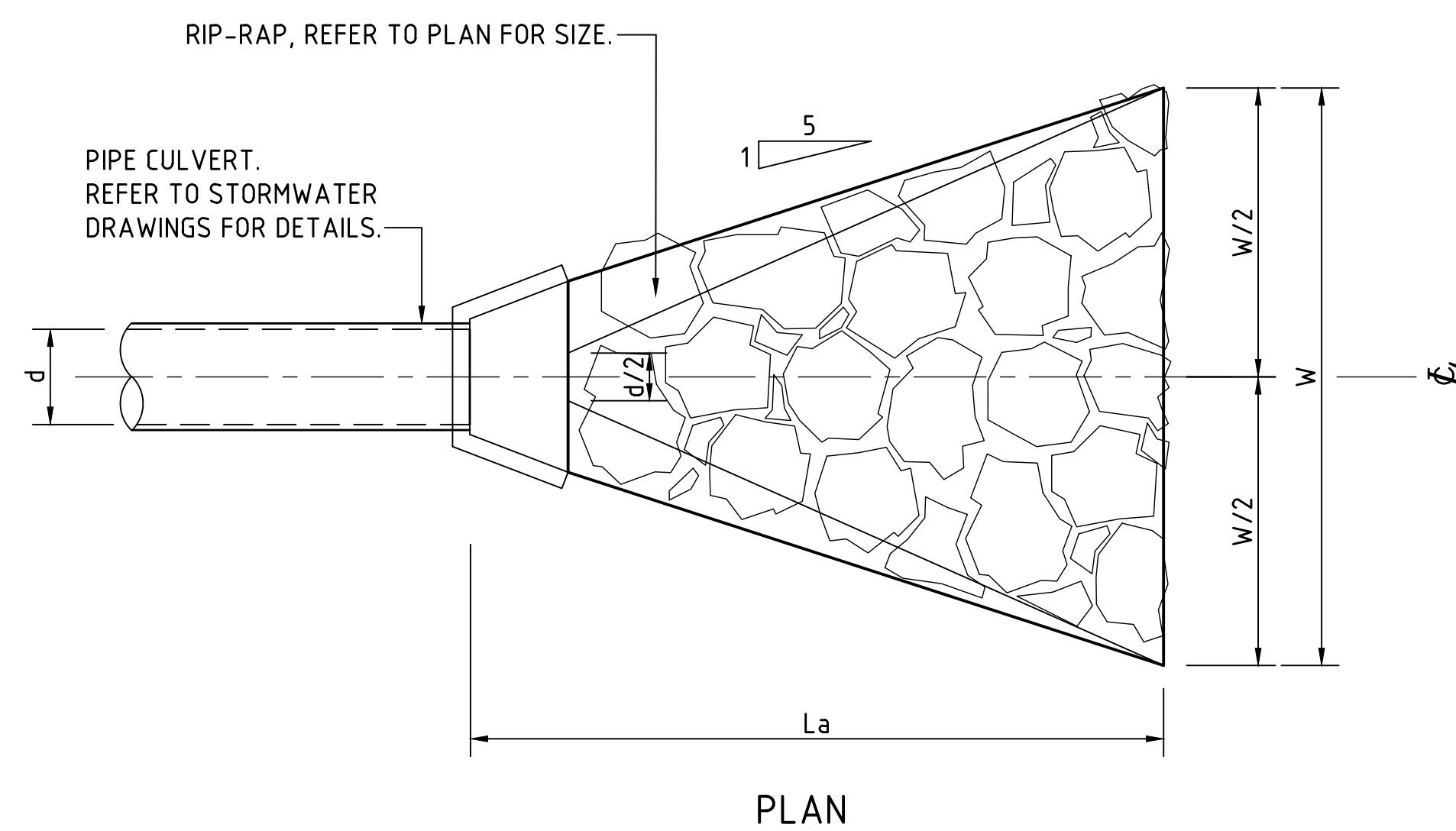
1. ALIGN STRUCTURE EVENLY WITH BANK.
2. LOCATE STRUCTURE AT INVERT LEVEL OF STREAM AND POINT IN A DOWNSTREAM DIRECTION.
3. PIPE TO REST ON, AND BE PACKED IN, BY RIP-RAP (SIZE AS NOTED).
4. DISCHARGE INTO STREAM WHERE BEDROCK IS PRESENT, OTHERWISE SCOUR PROTECT AS REQUIRED.
5. SCOUR PROTECT THE OPPOSITE BANK AS REQUIRED. SCOUR PROTECTION TO BE PROVIDED WHERE OPPOSITE BANK IS WITHIN 12-14 TIMES THE PIPE DIAMETER.
6. RIP-RAP TO CONSIST OF ANGULAR RUN-OF-QUARRY ROCK (d50=150mm MINIMUM) AS NOTED ON THE PLAN. RIP-RAP TO BE MINIMUM THICKNESS OF RIP-RAP LAYER TO BE 16x AVERAGE ROCK SIZE (d50).
7. RIP-RAP IS TO BE PLACED OVER A 200mm LAYER OF 140mm COBBLES OVER NEEDLE-PUNCHED GEOFAB A44.
8. PLACE ROCK SO THAT IT FORMS A DENSE, WELL-GRADED MASS OF ROCK WITH A MINIMUM OF VOIDS. THE FINISHED RIP-RAP SURFACE SHOULD BE FREE OF POCKETS OF SMALL ROCK OR CLUSTERS OF LARGE ROCKS.
9. GAPS IN RIP-RAP TO BE HAND PACKED WITH TOPSOIL & PLANTED WITH NATIVE SEDGES & RUSHES TO PROVIDE. THE INTENT IS FOR THERE TO BE NO VOIDS BETWEEN RIP-RAP BOULDERS.
10. ENSURE THE FINISHED ROCK SURFACE BLENDS WITH THE SURROUNDING GROUND LEVELS. NO OVERFALL OR PROTRUSION OF ROCK SHOULD BE APPARENT.
11. ENSURE THAT STORMWATER FROM SURROUNDING GROUND IS FREE TO ENTER THE STRUCTURE WITHOUT CAUSING UNDESIRABLE PONDING OR SCOUR.

DISSIPATER SCHEDULE

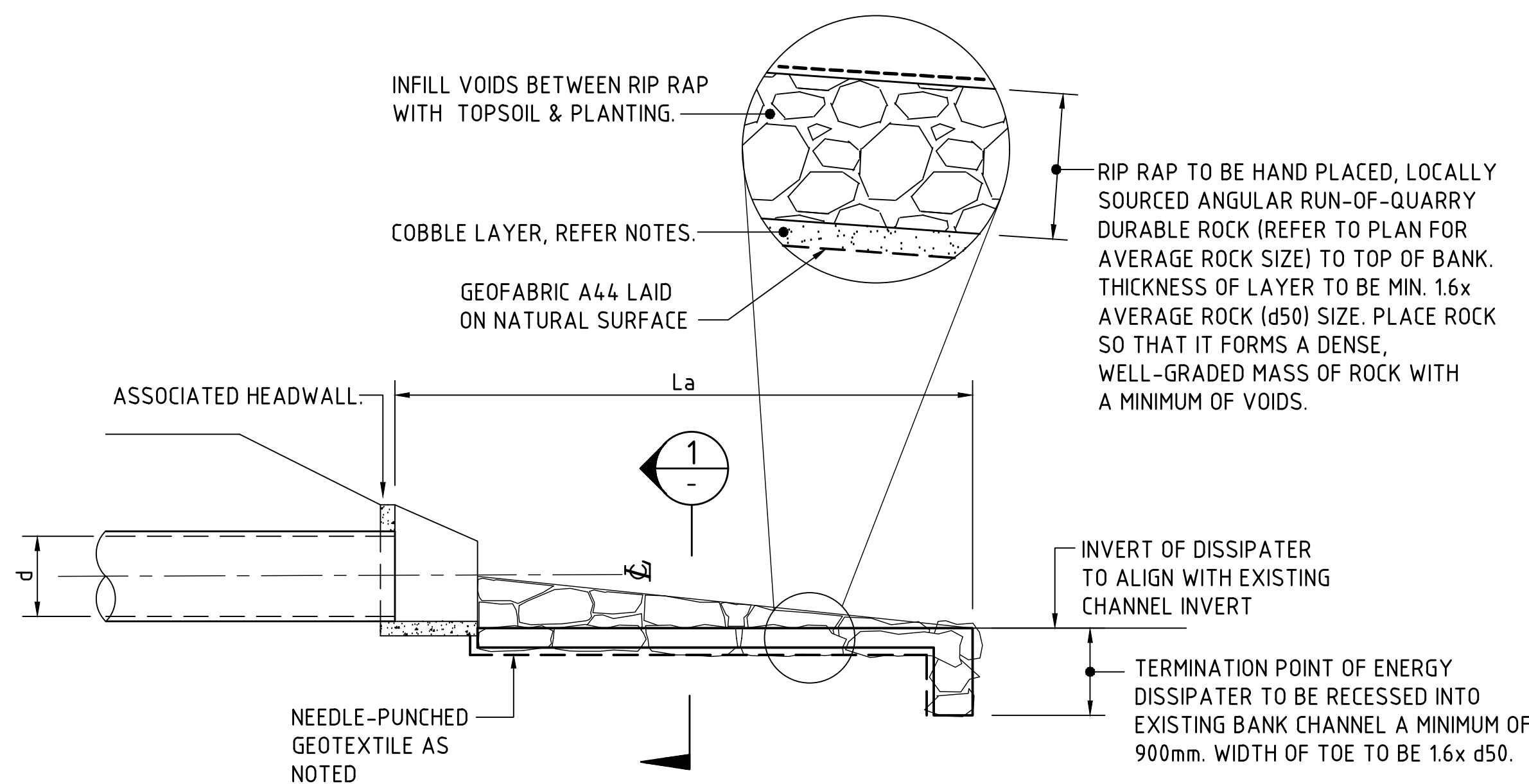
DISCHARGE POINT	d	La	W	RIP-RAP (d50)
OUTLET 1	x	x	x	x
OUTLET 2	x	x	x	x



SECTION 150 : 1



PLAN



SECTIONAL ELEVATION

STORMWATER OUTLET DISSIPATER WITH HEADWALL
SCALE 1:50

CONCRETE QUALITY					
ELEMENT	SUMP	AGGREGATE (MAX. SIZE)	CEMENT (TYPE)	ADMIXTURE	F/C (MPa)
PIT	80	20	GP	NIL	32

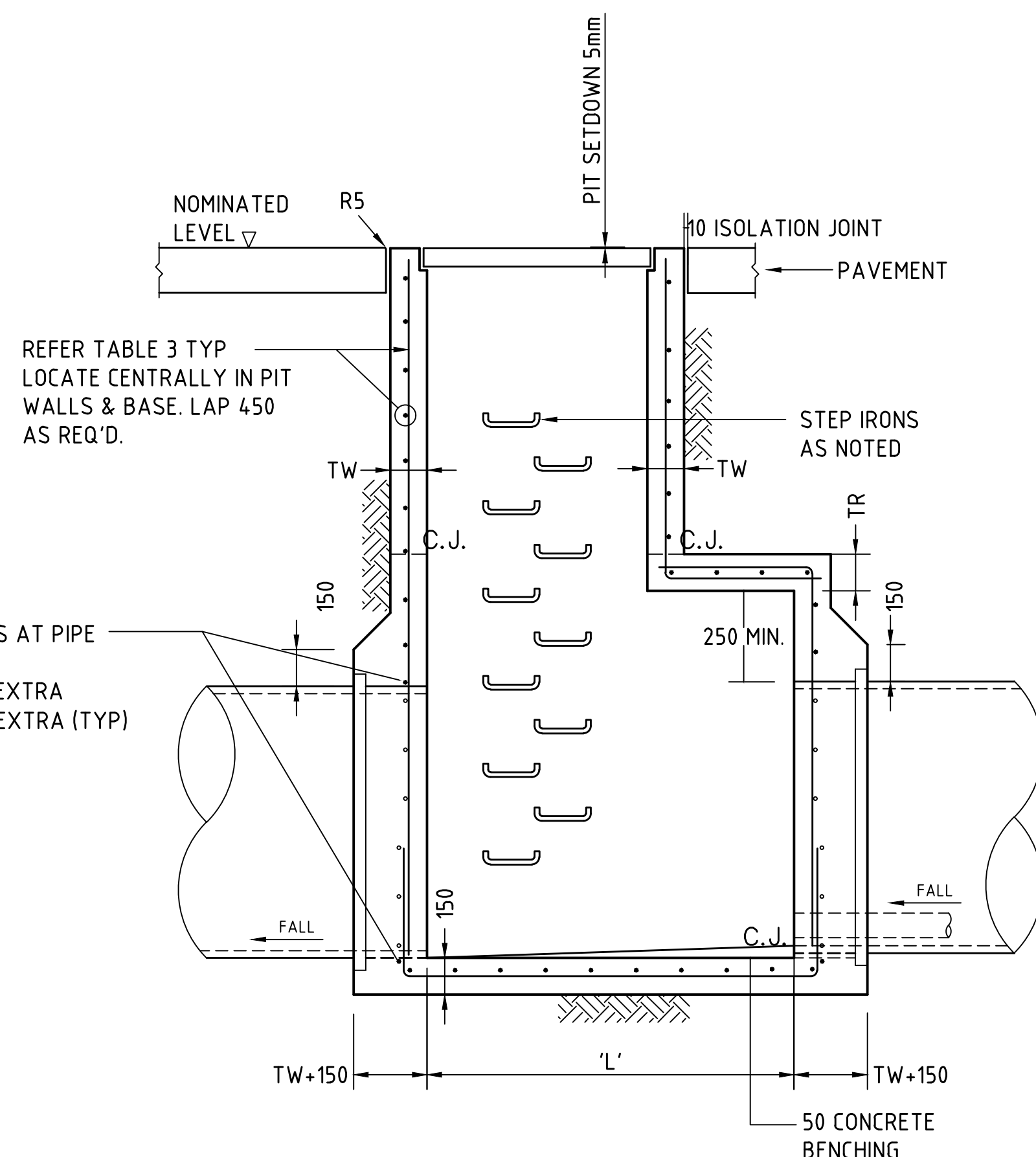
NOTES:

1. WHERE GULLY PIT IS LOCATED ON KERB RETURNS OR BULB OF CUL-DE-SACS PROVIDE CURVED PRECAST CONCRETE LINTELS.
2. SAG PITS SHALL HAVE LINTEL PLACED CENTRALLY ABOUT THE GRATE.
3. ALL REINFORCING TO HAVE 30 MIN. CLEAR CONCRETE COVER.
4. FOR PITS DEEPER THAN 1200mm STEP IRONS SHALL BE PROVIDED.
5. FOR ALL PITS IN ITV PAVEMENT AREAS, PIT WALLS ARE TO BE INCREASED IN THICKNESS BY 50mm AND REINFORCEMENT TO BE N16 BARS IN LIEU OF N12

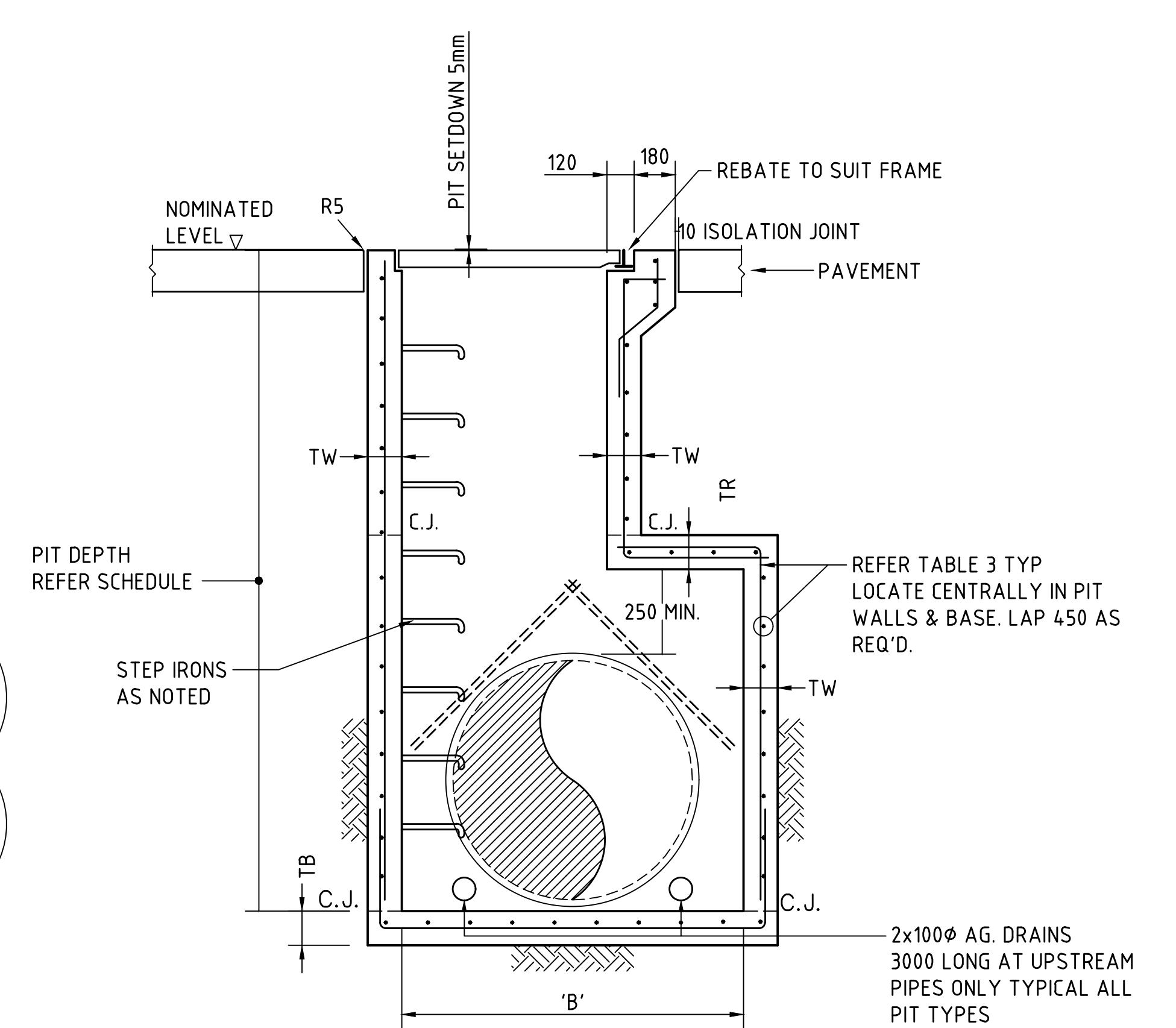
TABLE 1 - TAPERED CLASS D PIT REINFORCEMENT & WALL THICKNESS - MAXIMUM SHORT SPAN 1500mm					
DEPTH 'H'	WALL THICKNESS 'TW'	WALL REINFORCEMENT	ROOF THICKNESS 'TR'	ROOF REINFORCEMENT	BASE THICKNESS 'TB'
<1.5m	150mm	N12-200 EACH WAY	150mm	N12-200 EACH WAY	150mm
1.5m-3.0m	200mm	N12-200 EACH WAY	200mm	N12-200 EACH WAY	200mm
3.0m-4.5m	200mm	N16-200 EACH WAY	200mm	N16-200 EACH WAY	200mm
4.5-6.0	250mm	N16-200 EACH WAY	250mm	N16-200 EACH WAY	250mm

TABLE 2 - TAPERED CLASS D PIT REINFORCEMENT & WALL THICKNESS - MAXIMUM SHORT SPAN 1500mm-2100mm					
DEPTH 'H'	WALL THICKNESS 'TW'	WALL REINFORCEMENT	ROOF THICKNESS 'TR'	ROOF REINFORCEMENT	BASE THICKNESS 'TB'
<1.5m	200mm	N16-200 EACH WAY	250mm	N16-200 EACH WAY TOP & BTM	200mm
>1.5m	250mm	N16-200 EACH WAY INNER & OUTER FACE	250mm	N16-200 EACH WAY TOP & BTM	N16-200 EACH WAY

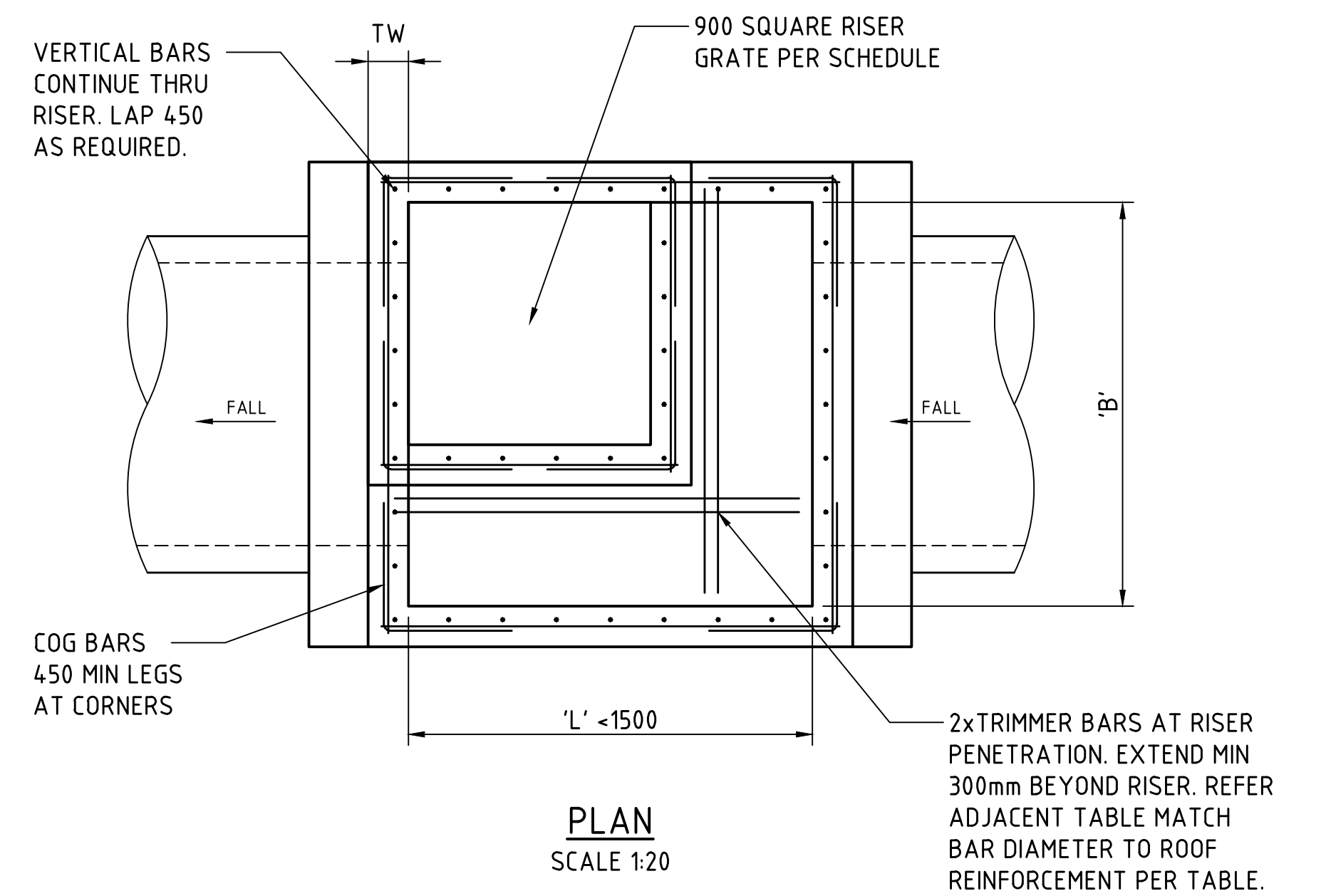
PROVIDE EXTRA TRIMMERS AT PIPE PENETRATIONS
FOR D= 0-3000 2N12 EXTRA
FOR D= 3000-6000 4N16 EXTRA (TYP)



SECTION SCALE 1:20



SECTION SCALE 1:20



PLAN SCALE 1:20

TAPERED SINGLE GRATED GULLY PIT - SGGP
SUBSOIL NOT SHOWN FOR CLARITY.

500mm 0 1 2 3 4 5m
SCALE 1:50 AT A0 SIZE SHEET

200mm 0 500 1000 1500 2000mm
SCALE 1:20 AT A0 SIZE SHEET

FOR CONSTRUCTION