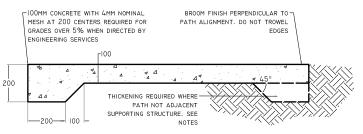


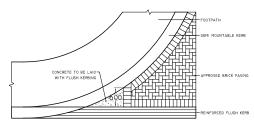
CONSTRUCTION JOINT DETAIL

ALTERNATIVE EXPANSION JOINT DETAIL

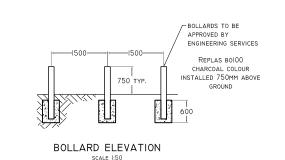


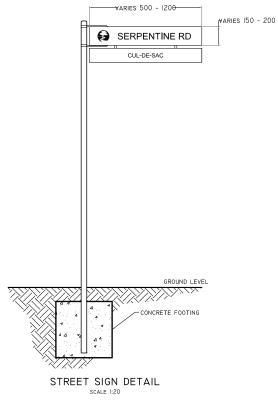


-ROAD RESERVE



STANDARD SEMI MOUNTABLE KERB FOR BRICK PAVING WITH FOOTPATH SCALE 1:50





- FOOTPATH

 1. ALL JOINTS TO MATCH ADJACENT KERB JOINTS WHERE POSSIBLE
 2. CONCRETE TO BE 32MPA
 3. FOOTPATH THICKNESS TO INCREASE AS SHOWN WHERE PATH IS NOT ADJACENT TO BACK OF KERB, DOES NOT TIE INTO AN INTERSECTING PATH OR PRAM RAMP,
 AND/OR WHERE NOT SUPPORTED BY RETAINING WALL
 4. 2 METRE MINIMUM CLEARANCE FROM FINISHED PATH LEVEL TO OBJECT

- PRAM RAMP

 5. CONCRETE TO BE 32MPA

 6. EDGE OF PRAM RAMP TO BE FLUSH WITH ROAD'S FINISHED PAVEMENT LEVEL

 7. WHERE ASPHALT IS NOT TO BE APPLIED IN CURRENT STAGE, RAMP PAVEMENT DOWN TO ENSURE MINIMUM CONCRETE THICKNESS
- ALL CONCRETE SHALL BE BROOM FINISHED ACROSS THE DIRECTION OF PEDESTRIAN TRAFFIC TO PROVIDE A NON-SLIP SURFACE.

 9. FULL FOOTPATH WIDTH TO BE PROVIDED BEHIND AND AROUND RAMP WHERE RAMP
- JOINS PATH
 A MINIMUM OF 500MM OF KERB SHALL BE PROVIDED BETWEEN ADJACENT RAMPS.
 WHERE THE MINIMUM CANNOT BE ACHIEVED, A SINGLE WIDE RAMP SHALL BE PROVIDED

 PATHS PARALLEL TO KERB SHALL BE REALIGNED OR WIDENED TO PROVIDE A LEVEL
- SECTION I500MM MINIMUM
- 12. THE PROVISION OF DIRECTIONAL AND TACTILE PAVING SHALL BE IN ACCORDANCE
- 13. PRAM RAMPS TO BE SKEWED TO MATCH THE DIRECTION OF ROAD CROSSING

RAMP TO MATCH KERB

BOLLARDS

14. CONCRETE TO HAVE MINIMUM COMPRESSIVE STRENGTH OF 20MPA

- STREET SIGNS

 15. CUL-DE-SAC / NO THROUGH ROAD SIGN CLIP BOLTED TO NAME PLATE AS SHOWN

 16. PRIMARY, DISTRICT A & B DISTRIBUTOR ROADS TO HAVE 150MM BLACK REFLECTIVE

 LETTERING ON 200MM DEEP PLATE. ALL OTHER ROADS TO HAVE 100MM BLACK

 REFLECTIVE LETTERING ON 150MM DEEP PLATE. BACKGROUND COLOUR FOR ALL PLATES TO BE WHITE (CLASS 2)
 STANDARD ALUMINUM BRACKETS SECURELY FASTENED TO TOP AND BOTTOM OF

- 17. STANDARD ALUMINUM BRACKETS SECURELY FASTENED TO TOP AND BOTTOM OF SIGN, 50MM FROM TOP OF POST

 18. POST TO BE 60MM GALVANISED IRON CIRCULAR HOLLOW SECTION

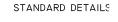
 19. SHIRE LOGO TO BE AFFIXED AT MOUNTING END OF SIGN FOR EACH SIDE

 20. STREET NAME SIGNS SHALL HAVE 3000MM CLEARANCE TO GROUND SURFACE

 21. THE POLE IS TO BE ERECTED WITH A 600 X 600MM CONCRETE FOOTING WHICH IS TO BE 750MM DEEP

 22. THE POST SHALL BE INSTALLED ON THE 2700 ALIGNMENT UNLESS OTHERWISE SPECIFIED. WHERE VERGE WIDTHS AND/OR FOOTPATH CONSTRAINT REQUIRE THE ALIGNMENT TO BE ALTERED, THE PROPOSED ALIGNMENT SHALL BE CLEARLY STATED ON THE SUBMITTED DRAWINGS STATED ON THE SUBMITTED DRAWINGS





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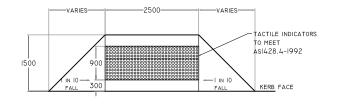
INFORMATION

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DATE	21.12.16
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APPROVED	AR

PATHS, RAMPS, BOLLARDS & SIGNS DRAWING NUMBER

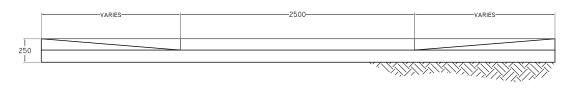
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PRAM RAMP SECTION SCALE 1:10



ROAD RESERVE

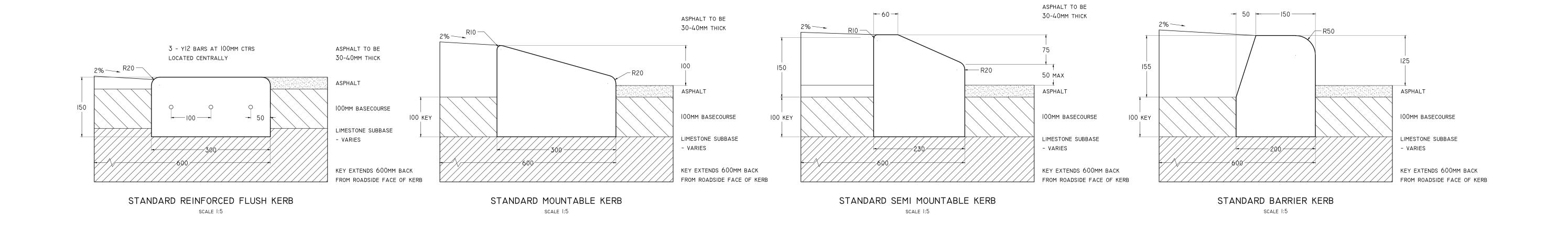
BOLLARD PLAN

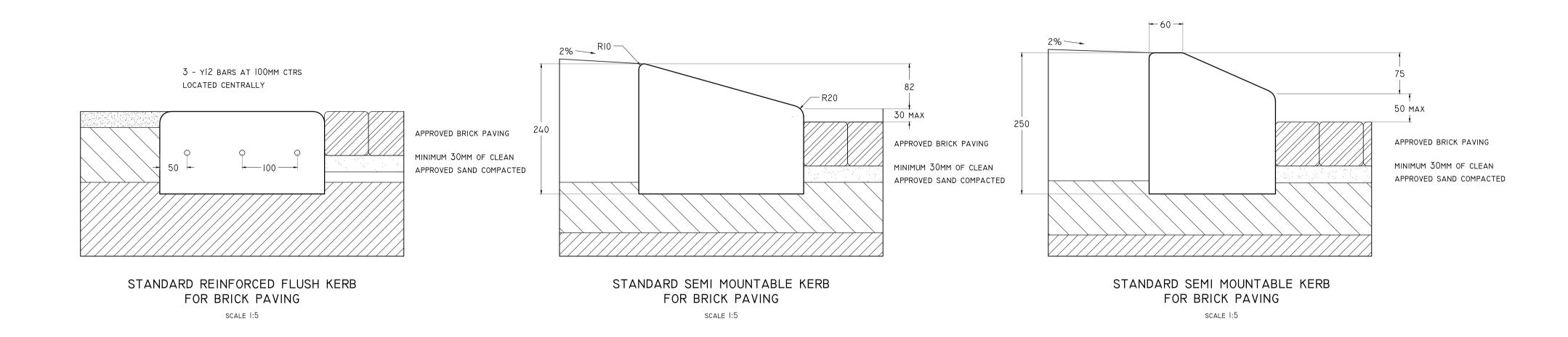


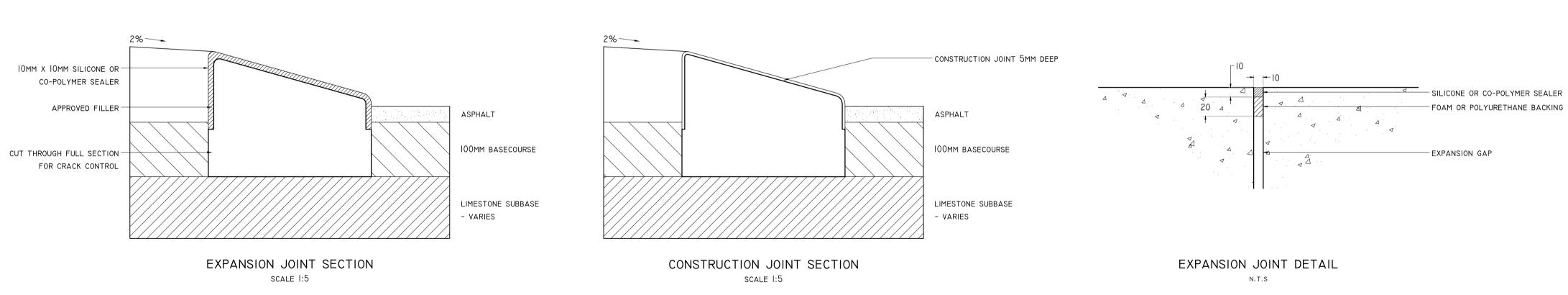
PRAM RAMP DETAIL PRAM RAMP ELEVATION SCALE 1:20 SCALE 1:50

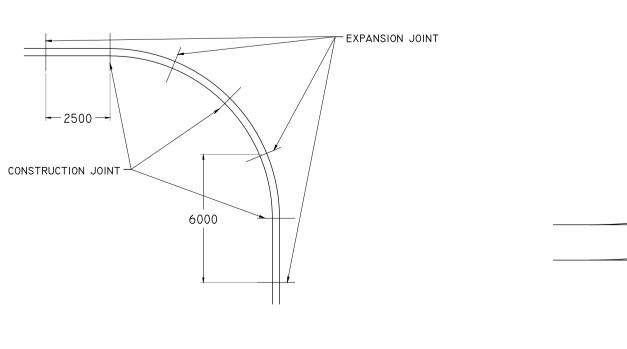
EXPANSION JOINT IF PRAM

RAMP JOINS EXISTING CONCRETE PATH AND VICE



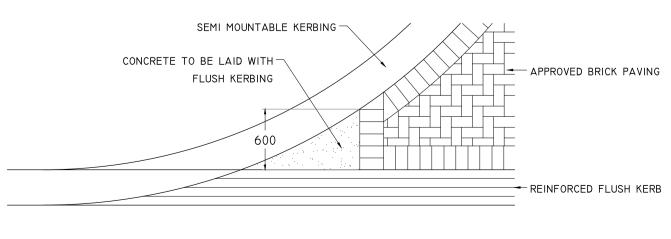






CONSTRUCTION AND EXPANSION JOINT LAYOUT DETAIL

N.T.S





- I. ALL KERBS ARE TO BE FULLY KEYED
- 2. ASPHALT THICKNESS 30 TO 40MM, ADJUST KERB HEIGHT ACCORDINGLY 3. FOOTPATH JOINTS TO COINCIDE WITH KERB JOINTS
- 4. CONCRETE KERBING SHALL CONTAIN FIBRE MESH (0.9kg/m3) AND SHALL BE 32MPA
- 5. BACKFILL BEHIND KERB COMPACTED TO 92% MMDD
- 6. KERBING AND JOINTING TO BE INSTALLED PRIOR TO LAYING BRICK PAVING
- 7. CONSTRUCTION JOINTS TO BE 5MM WIDE, CUT EVERY 2.5M AND FINISHED WITH A
- GROOVE TOOL
- 8. EXPANSION JOINTS TO BE 10MM WIDE, CUT THROUGH FULL DEPTH OF KERB EVERY 5M, AT TANGENT POINTS AND ROAD GULLIES 24 HOURS AFTER PLACEMENT



STANDARD DETAILS

NO. ISSUE & REVISION DATE I INFORMATION 21.12.16

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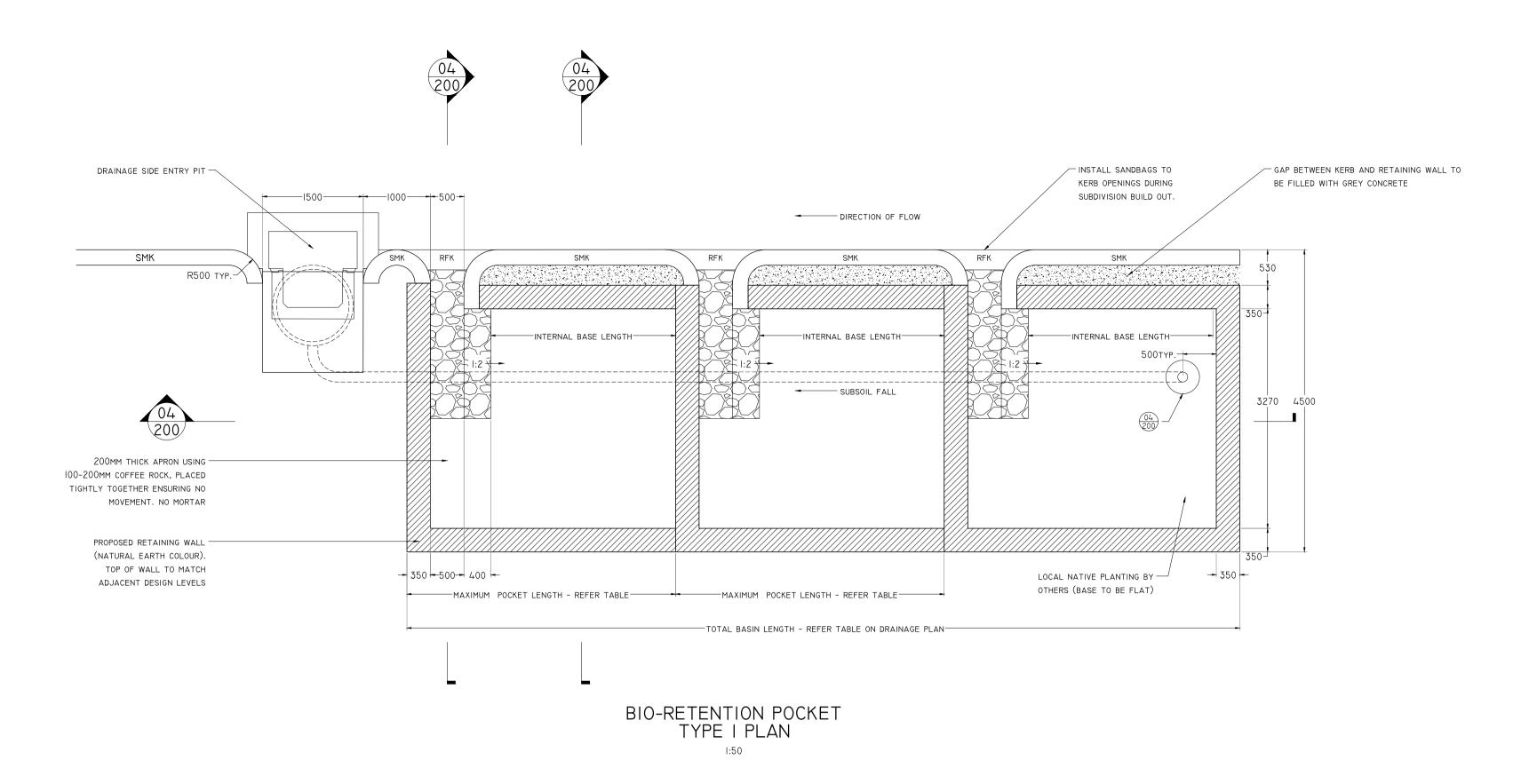
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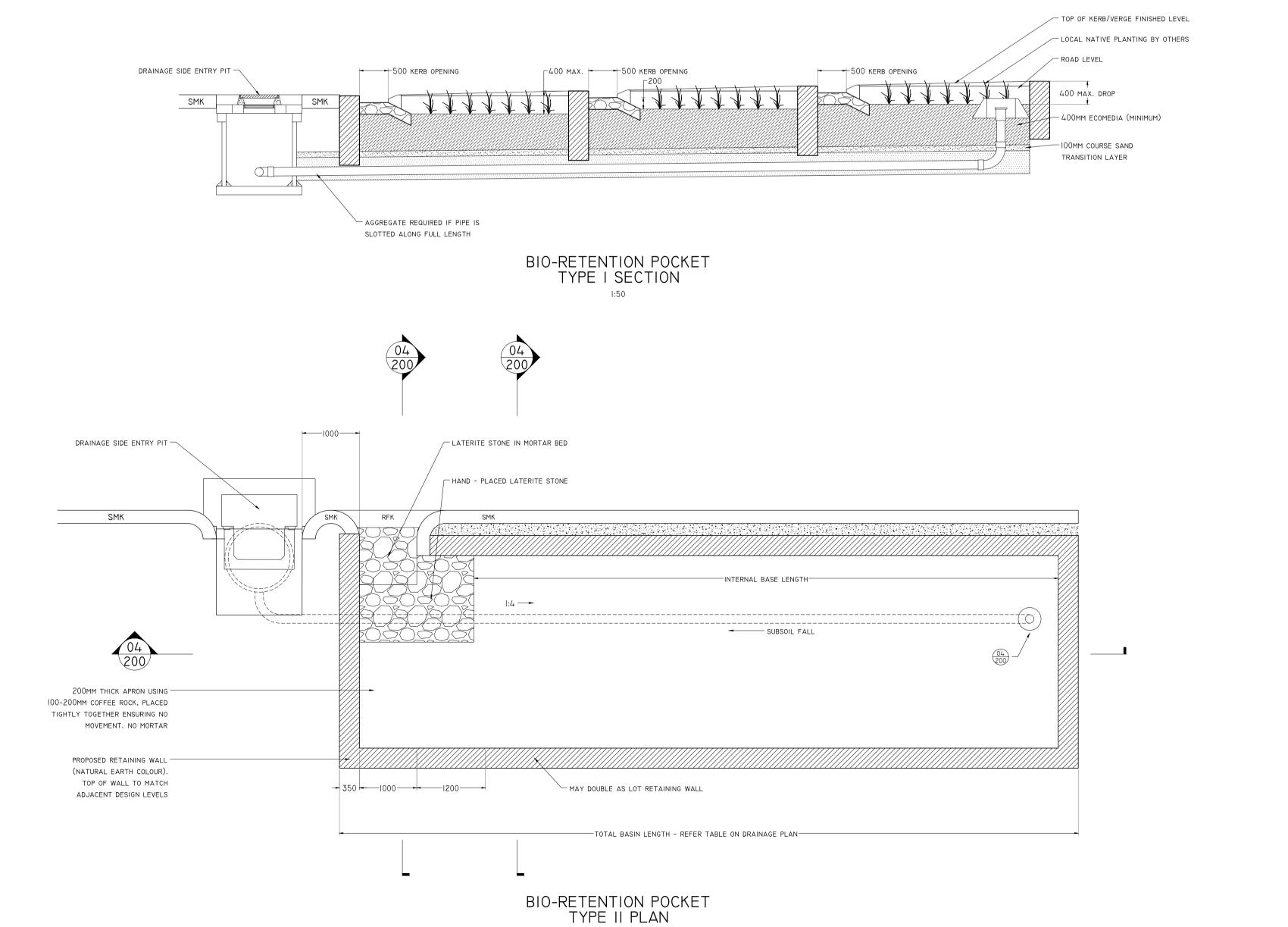
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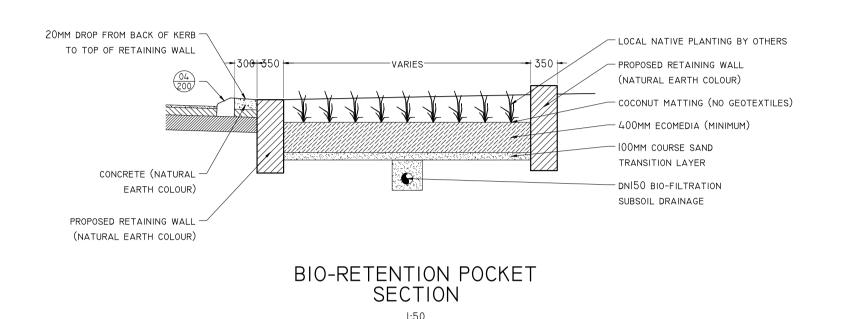
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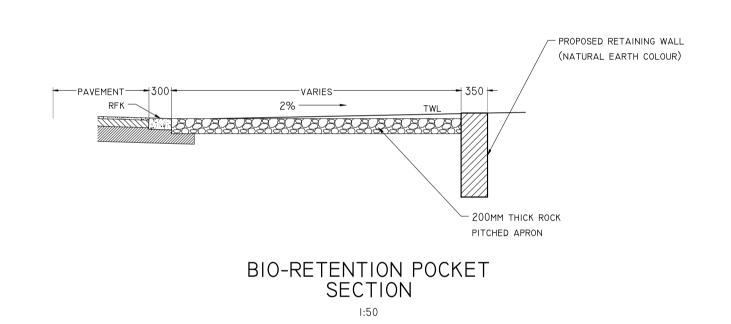
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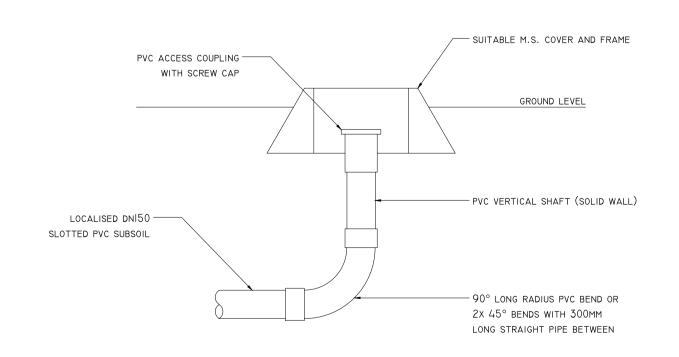
KERBING











SUBSOIL PIPE UP-SHAFT ACCESS DETAIL SCALE 1:20



STANDARD DETAILS

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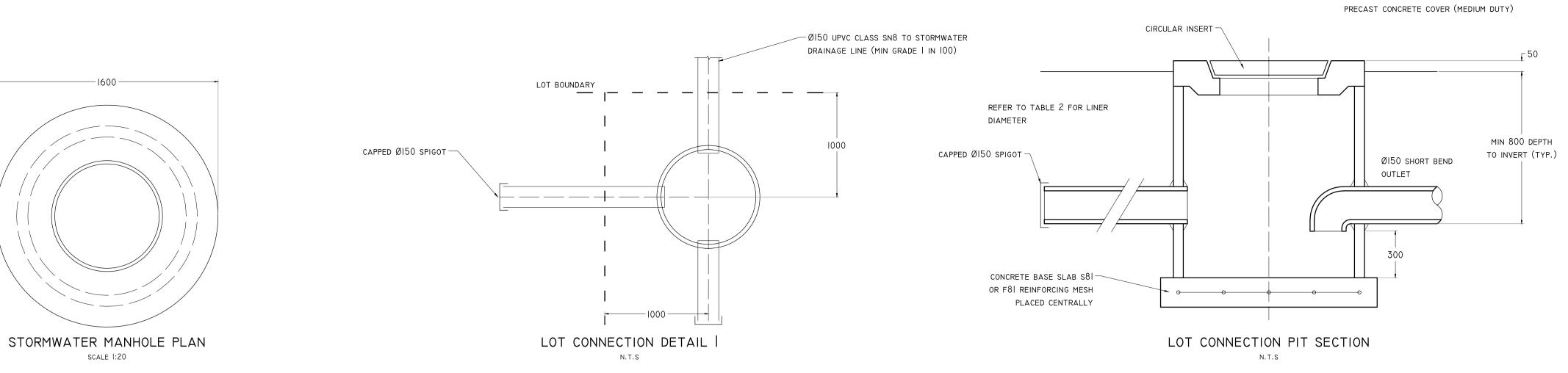
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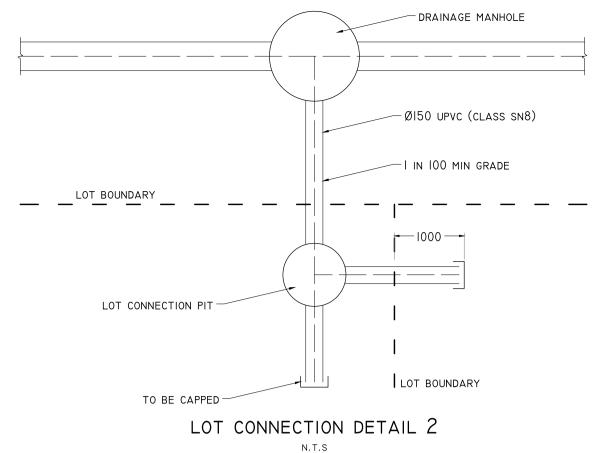
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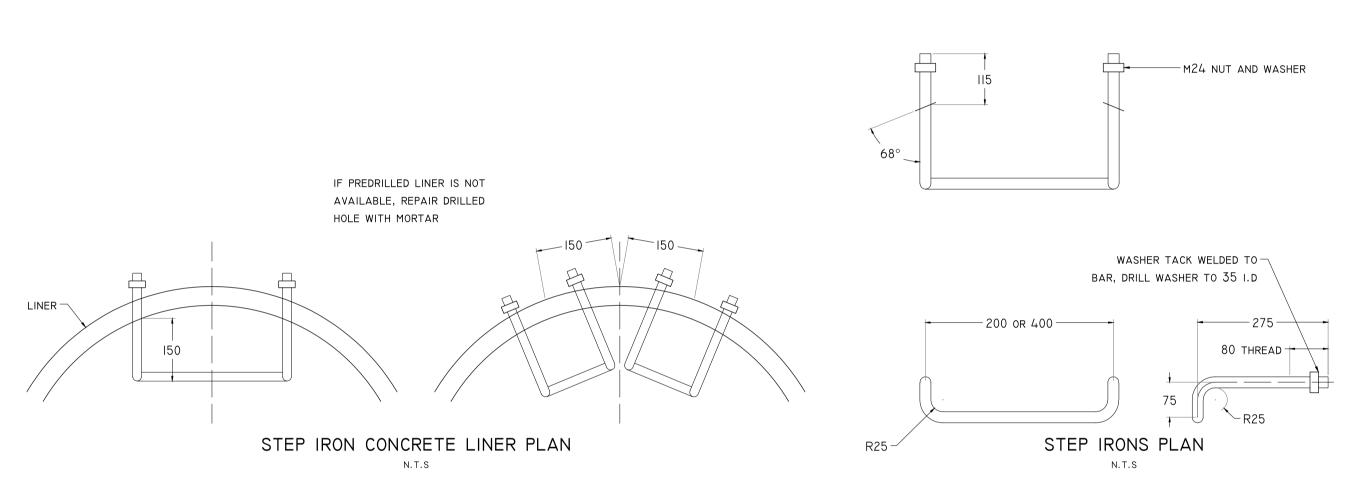
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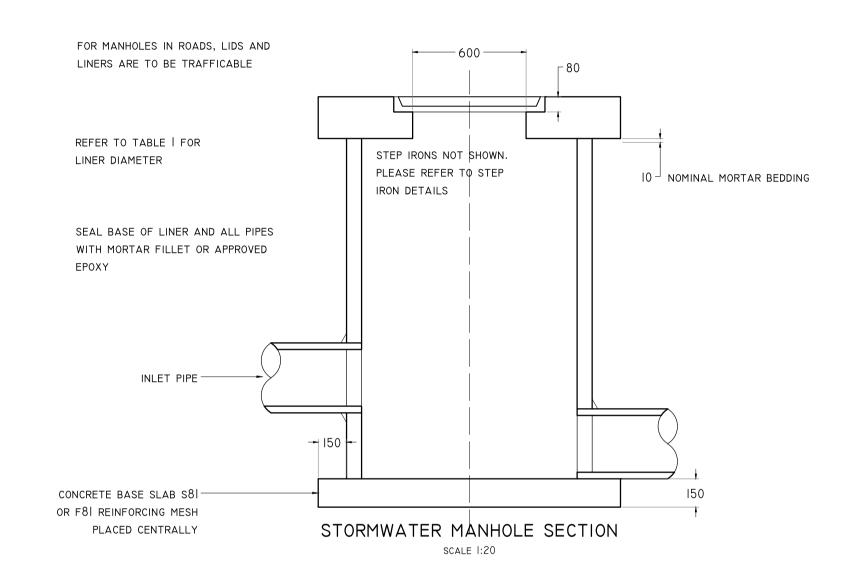
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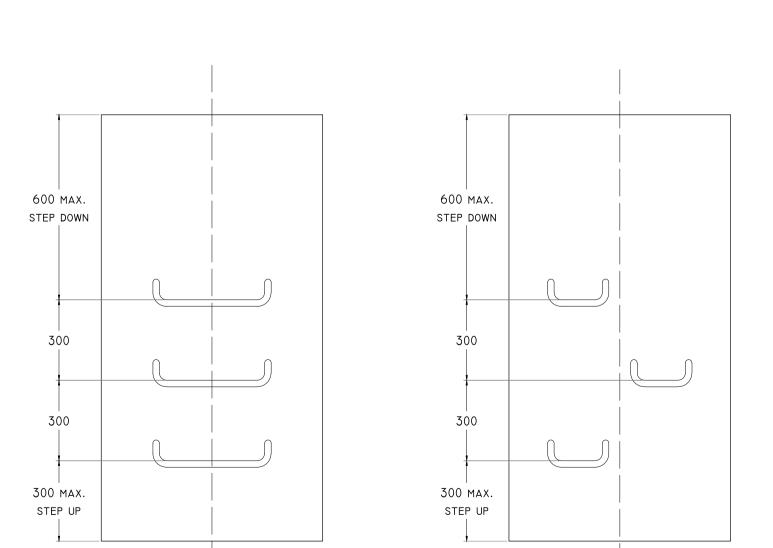
POCKETS











STEP IRON CONCRETE LINER SECTION

PIT DEPTH LINER DIAMETER MAX CONNECTING PIPE DIAMETER 600 - 1800 1050 450 1200 675 1800 - 3600

TABLE |

TABLE 2

LINER

Ø900

Ø1050

PIT DEPTH

600 - 1200

> 1200

- INVERT LEVELS AND REFERENCE POINT DATA ARE SPECIFIED IN THE DESIGN DRAWINGS
- 2. INLET/OUTLET PIPES MAY JOIN STRUCTURE AT SKEW ANGLES

CONCRETE AND REINFORCEMENT

- 3. ALL INSITU CONCRETE SHALL BE CLASS N32 IN ACCORDANCE WITH ASI379
- 4. ALL INSITU CONCRETE CORNERS SHALL HAVE A 20MM CHAMFER UNLESS OTHERWISE NOTED
- 5. CEMENT MORTAR SHALL CONSIST OF ONE PART PORTLAND CEMENT (OR SIMILAR) AND THREE PARTS SAND
- 6. SL81 REINFORCEMENT SHALL CONFORM WITH HARD DRAWN FABRIC TO AS4671
- 7. MINIMUM CLEAR COVER TO REINFORCEMENT SHALL BE 50MM

- 8. THE LINER SHALL BE REINFORCED CONCRETE SPUN TO
 - 9. THE MAXIMUM INLET/OUTLET PIPE INTERNAL DIAMETER MUST
 - BE LESS THAN 60% OF THE LINER INTERNAL DIAMETER
 - 10. MINIMUM SPACE OF 200MM BETWEEN HOLES IN LINER II. MINIMUM 40% OF LINER SHALL REMAIN IN ANY HORIZONTAL

 - 12. HOLES TO BE PUNCHED/CUT IN ACCORDANCE WITH MANUFACTURER'S SPACIFICATION
 - 13. THE LINER SHALL HAVE RELEVANT PROPERTIES AND REINFORCEMENT OF CLASS 2 RCP EXCEPT THAT
 - REINFORCEMENT SHALL BE CIRCULAR
 - 14. BRICK MANHOLES ARE TO BE IN ACCORDANCE WITH MRWA STANDARD DRAWING 200231-086 AND 200231-089

STEP IRONS

- 15. DRAINAGE STRUCTURES DEEPER THAN 1200MM SHALL BE
- FITTED WITH STEP IRONS IN ACCORDANCE WITH ASI657 16. STEP IRONS SHALL BE LOCATED:
- 16.1. DIRECTLY BELOW THE OPENING IN THE COVER 16.2. DESIRABLY ON A WALL WITHOUT PIPE OPENINGS
- 17. ORIENTATE STEP IRONS OR LADDER TO ENABLE EASY ACCESS AND TO FACE ONCOMING TRAFFIC
- 18. MATERIAL FOR STEP IRONS SHALL BE N24 DEFORMED BAR
- (MICRO ALLOY DEFORMED BAR SHALL NOT BE USED) 19. APPROVED PREFABRICATED GALVANISED STEEL LADDER MAY
- BE USED IN DEEP DRAINAGE STRUCTURES IN ACCORDANCE WITH ASI657 AND FIXED WITH STAINLESS MASONRY ANCHORS
- 20. ALL THREADED PORTION OF BAR AND NUTS SHALL BE DRILLED AND TAPPED OVERSIZE IN ACCORDANCE WITH ASI214 TO SUIT
- GALVANISING
- 21. STEP IRONS SHALL BE HOT DIP GALVANISED IN ACCORDANCE WITH AS4680



STANDARD DETAILS

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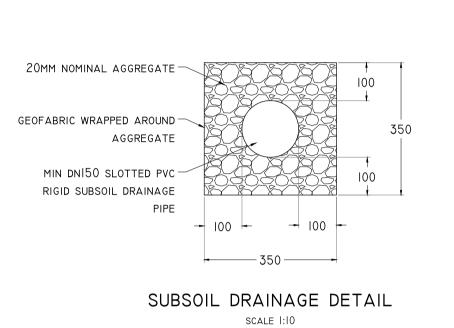
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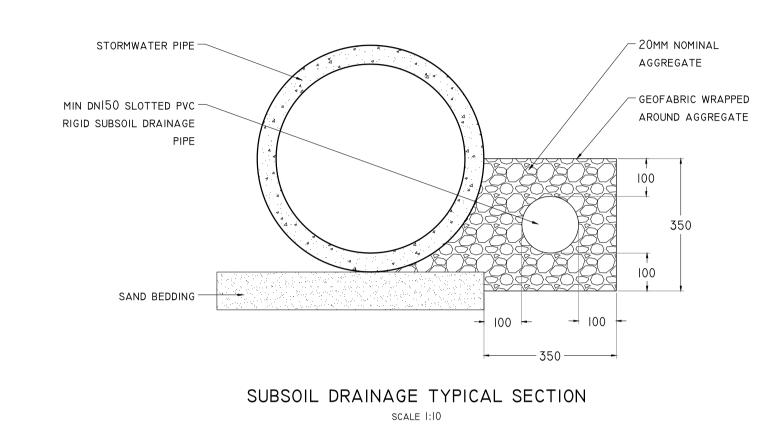
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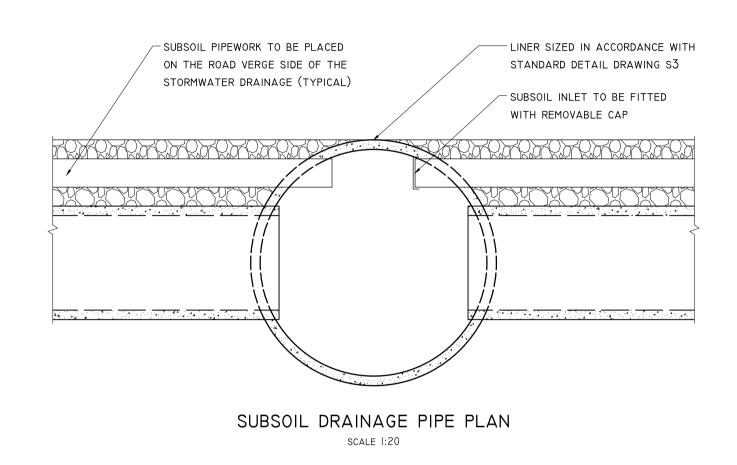
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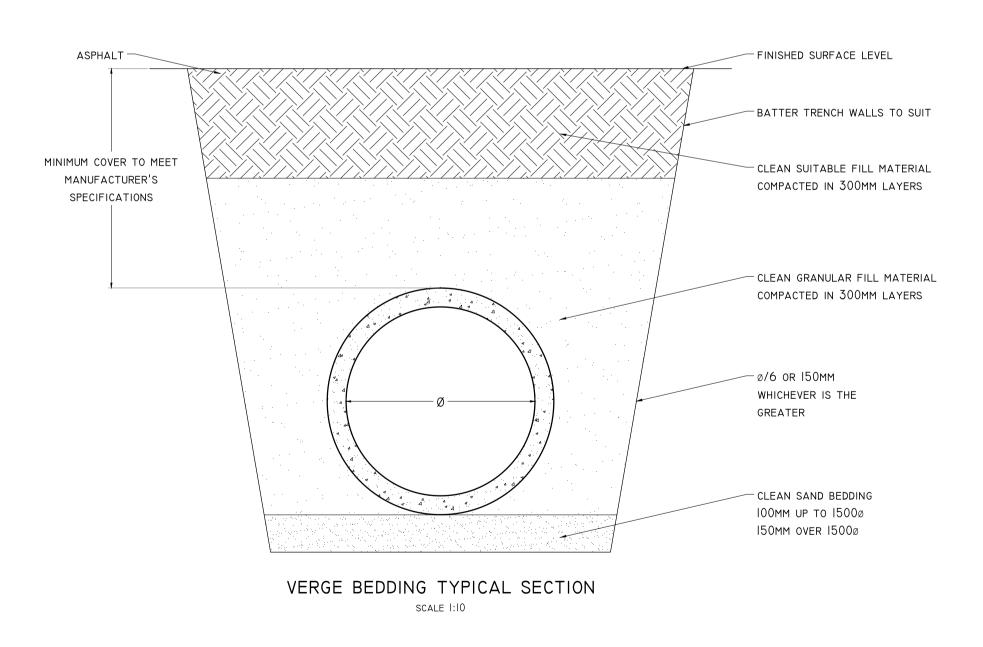
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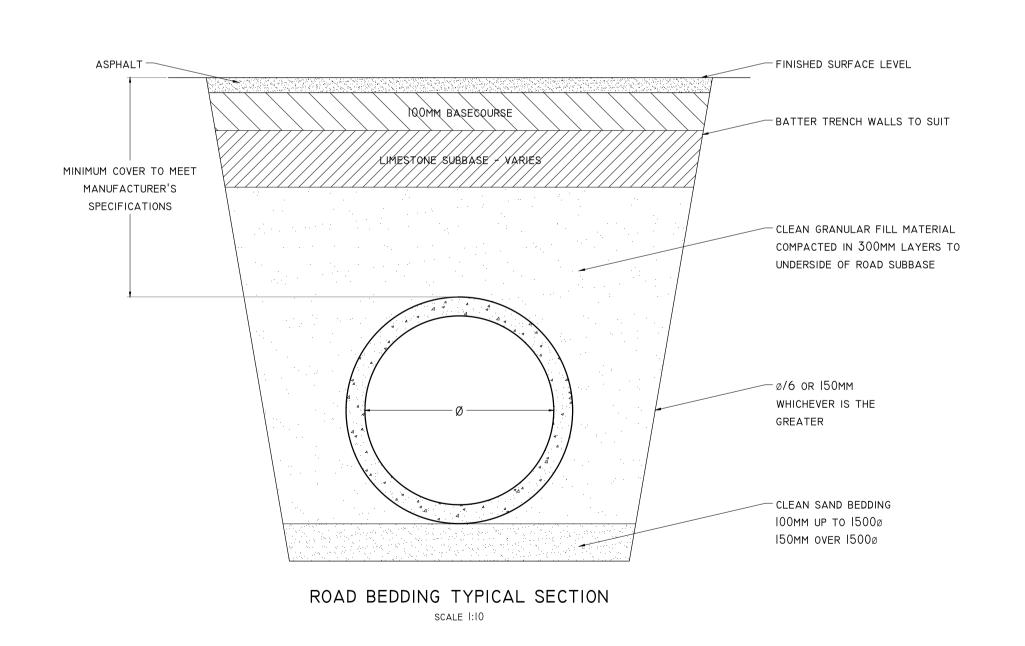
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STANDARD DETAILS

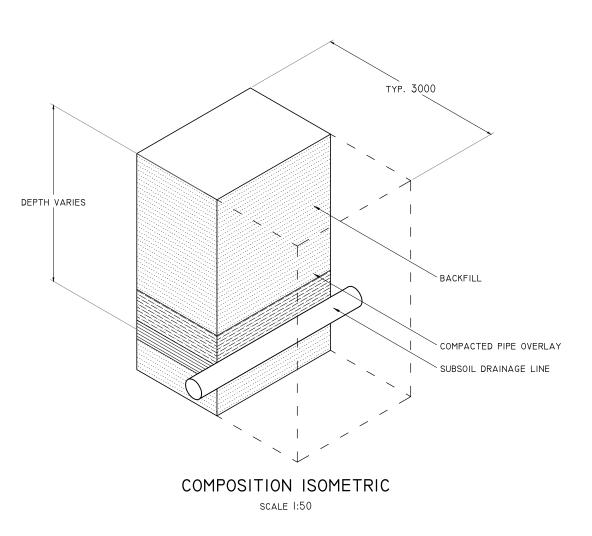
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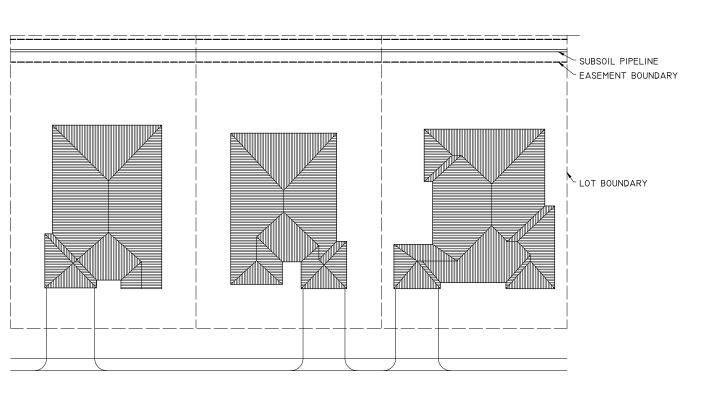
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PIPE BEDDING &
SUBSOIL DRAINAGE

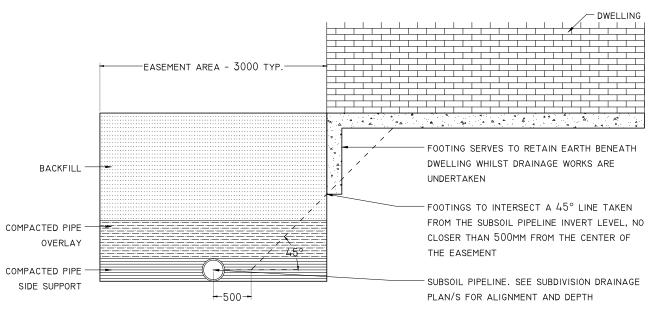
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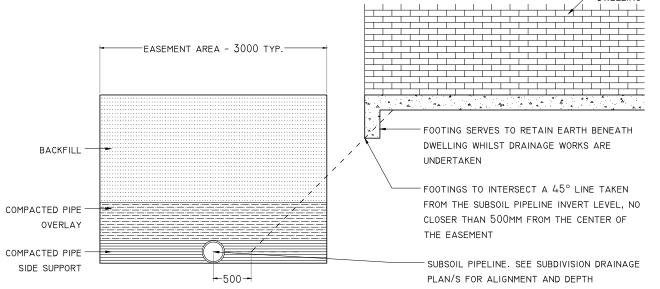


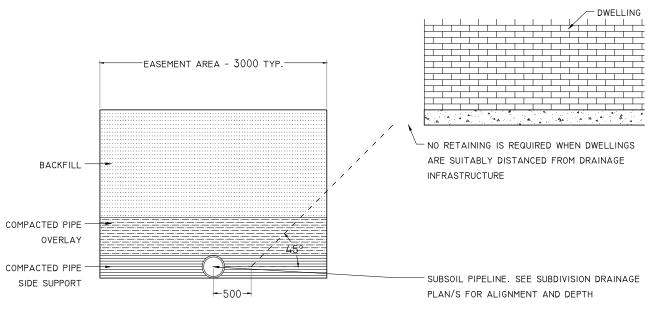


INDICATIVE LAYOUT PLAN

SCALE 1:500







FOOTING REQUIREMENTS

SCALE 1:50



STANDARD DETAILS

NOTES

STRUCTURAL INTEGRITY AND CERTIFICATION REMAIN THE RESPONSIBILITY OF THE PROPERTY HOLDER.

NO.	ISSUE & REVISION	DATE
1	INFORMATION	21.12.16

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INFORMATION

PROJECT CODE	001	
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CONSTRUCTION NEAR DRAINAGE

DRAWING NUMBER