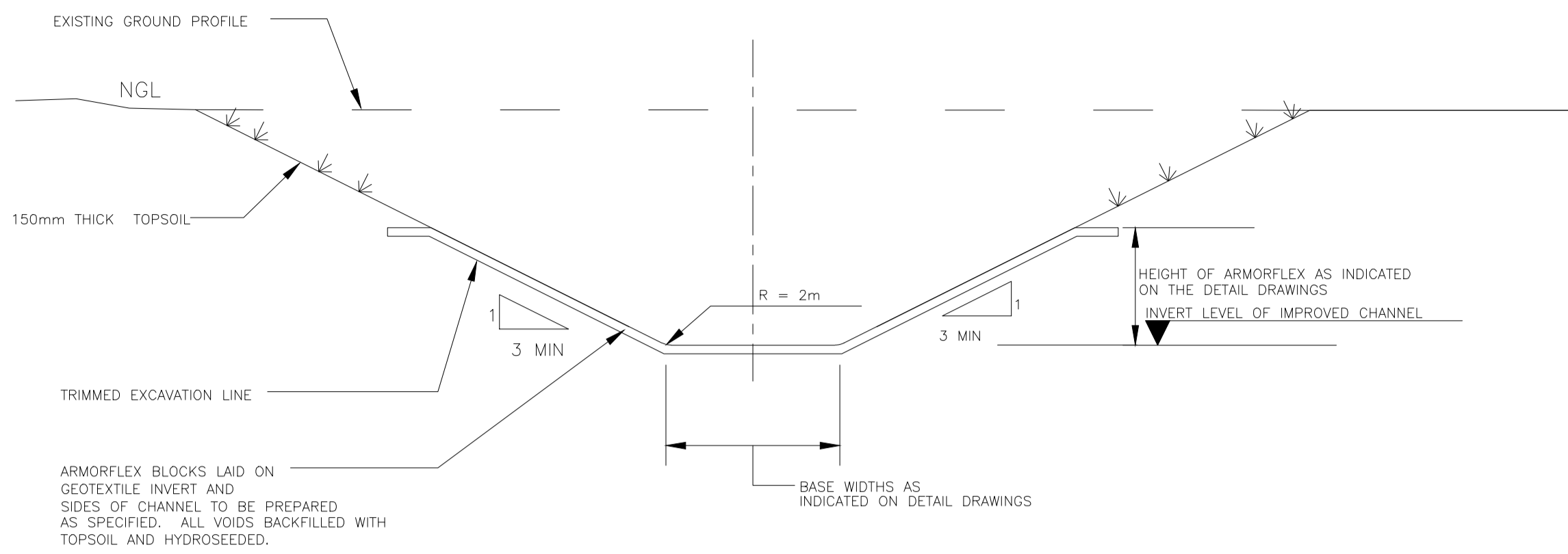


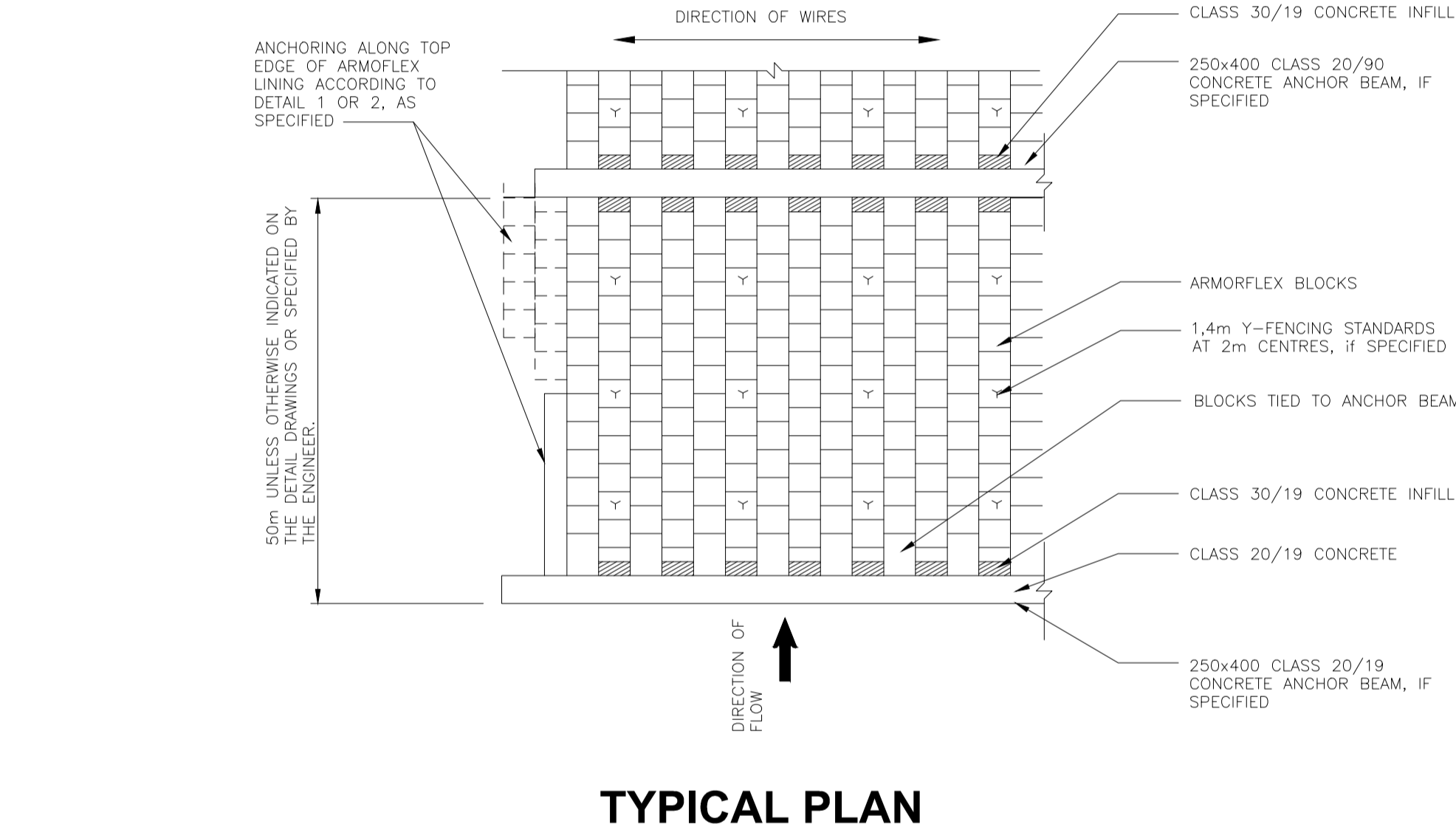
NOTES AND SPECIFICATIONS

NOTES FOR THE INSTALLATION OF ARMORFLEX BLOCKS

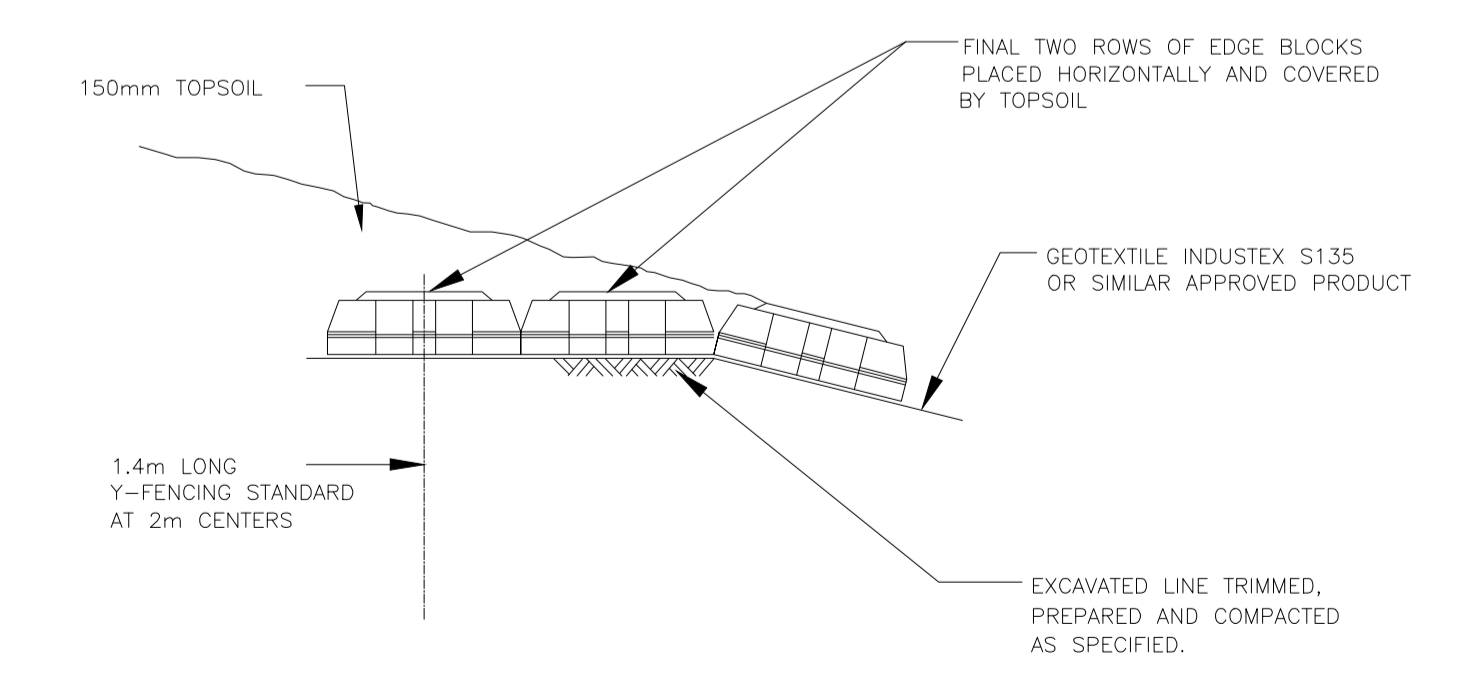
- 1. INTRODUCTION**
 1.1 ARMORFLEX BLOCKS (80 OR 90MM) WILL BE Laid IN ACCORDANCE WITH THIS SPECIFICATION. EACH BLOCK SHALL BE FACTORY PRODUCED, FROM COMPRESSED CONCRETE WITH VERTICAL, HORIZONTAL, AND 700 HORIZONTAL, CABLE DUCTS. CONCRETE USED IN THE MANUFACTURE OF THE BLOCKS SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF NOT LESS THAN 30MPa. EXACT DIMENSIONS IN MILLIMETERS SHALL BE 300 x 300 x 100. EACH BLOCK SHALL HAVE A MASS OF APPROXIMATELY 17.1KG. THE INTERLOCKED BLOCKS SHALL HAVE A LIMIT MASS OF 16kg.
 1.2 ARMORFLEX BLOCKS TO BE Laid BY HAND UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
 1.3 3.1mm GALVANISED WIRE SHALL BE USED. THE WIRES ARE TO RUN AT RIGHT ANGLES TO THE DIRECTION OF FLOW OF CANAL.
- 2. PREPARATION OF EXPOSED SURFACES**
 2.1 THE BASE OF THE CANAL WILL BE PREPARED IN ACCORDANCE WITH THE LINES INDICATED ON THE DETAIL DRAWINGS. THE FINISHED LEVEL SHALL NOT DEVIATE MORE THAN 20mm ON A 3m STRAIGHT EDGE. IN CUT THE TRIMMED EXCAVATION MUST BE TO LINE AND LEVEL. ALL SURFACES MUST BE COMPACTED TO 98% PROCTOR DENSITY BEFORE BEING FINISHED TO LINE AND LEVEL. THE SURFACE SHOULD BE LIKE A GRADED TYPE FRESH FREE FROM PROTRUDING ROOTS, TREE STUMPS, ROCKS, ETC.
- 3. GEOTEXTILE**
 3.1 A GEOTEXTILE SIMILAR TO INDUSTEX S135 SHALL BE PLACED ON THE PREPARED SURFACE TO THE LINES SHOWN ON THE DRAWINGS. OVERLAPS MUST AT LEAST BE 200mm.
- 4. LAYING OF INTERLOCKING BLOCKS**
 4.1 AFTER THE GEOTEXTILE HAS BEEN APPROVED AND Laid, THE ARMORFLEX BLOCKS SHALL BE Laid BY A HALF BOND INTERLOCKING PATTERN. THE CABLE DUCTS WILL BE AT RIGHT ANGLES TO THE DIRECTION OF WATER FLOW OF THE CANAL AND THE SPACING BETWEEN THE BLOCKS SHALL BE IN THE DIRECTION OF FLOW. THE MINIMUM AMOUNT OF BLOCKS SHOULD BE CUT ALONG CONCRETE AND BENDS. LAYING SHALL ALWAYS COMMENCE ON THE DOWN-SLOPE OF THE CANAL. ONCE A STRAIGHT SECTION OF THE CANAL HAS BEEN Laid, THE LENGTH OF THE WIRES SHALL BE 3.1mm DIAMETER HOT DIPPED GALVANISED FENCING WIRE. THE WIRES MUST BE JOINTED BY TWISTING THE ENDS NEATLY FOR A TWISTED STRETCH OF MINIMUM 500mm. THE FINISHED LEVEL OF THE ARMORFLEX BLOCKS MUST NOT DEVIATE MORE THAN 20mm ON A 3m STRAIGHT EDGE. NO INDIVIDUAL BLOCK MAY PROTRUDE MORE THAN 10mm FROM ANY ADJACENT BLOCKS.
- 5. ANCHORING**
 5.1 ANCHORING BY MEANS OF Y-FENCING STANDARDS
 THE BLOCKS WILL BE ANCHORED IN 200 DEEP x 150 LONG Y-FENCING STANDARDS DRIVEN INTO THE GROUND IF SO INDICATED ON THE DETAIL DRAWINGS OR SPECIFIED BY THE ENGINEER.
 5.2 ANCHORING WITH ANCHOR BEAM
 SPECIFIED BY THE ENGINEER ALONG A STRAIGHT SECTION OF THE CANAL, THE CONCRETE SHALL 400mm DEEP AND THE BEAM SHALL BE AT LEAST 400mm DEEP AND 200mm WIDE. THE CONCRETE SHALL HAVE A 28 DAY STRENGTH OF AT LEAST 20MPa. R8 BARS AT 340 CENTRES SHALL BE CAST INTO THE BEAM.
 5.3 ANCHORING ALONG THE SIDES OF THE CANAL
 ANCHORS ALONG THE TOP EDGE OF THE ARMORFLEX LINING SHALL BE ACCORDING TO DETAIL 1 OR 2, AS SPECIFIED.
 DETAIL 1: THE UPPER TWO ROWS OF EDGE BLOCKS SHALL BE PLACED HORIZONTALLY AND COVERED BY TOPSOIL AS SHOWN ON THE DRAWINGS. THE LAST LINE OF BLOCKS SHALL BE ANCHORED BY MEANS OF Y-FENCING STANDARDS DRIVEN INTO THE GROUND EVERY 2m ALONG THE EDGE OF THE CANAL.
 DETAIL 2: A 200 DEEP x 150 WIDE CLASS 30/19 INSITU CONCRETE BEAM SHALL BE CAST INTO THE BEAM.
 5.4 CONSTRUCTION JOINTS SHALL BE PROVIDED AT 9m CENTRES ALONG ANCHOR AND OTHER CONCRETE BEAMS.
- 6. BACKFILLING AND GRASSING**
 6.1 AS SOON AS THE BLOCKS HAVE BEEN Laid, WIRED UP AND THE ANCHORS PROVIDED TO THE SATISFACTION OF THE ENGINEER, THE OPEN CELLS AND JOINT AREAS SHALL BE FILLED WITH TOPSOIL AND THE AREA HYDROSEEDED ACCORDING TO THE SPECIFICATION. FERTILIZER AS APPROVED BY THE ENGINEER SHALL BE MIXED INTO THE SOIL BEFORE BACKFILLING. IMMEDIATELY AFTER HYDROSEEDING THE HYDROSEEDED AREA SHALL BE WATERED.
 6.2 THE GRASS SHALL BE MAINTAINED DURING THE DURATION OF THE CONTRACT BY WATERING. DAMAGED AREAS SHALL BE REPAIRED.
- 7. MAINTENANCE**



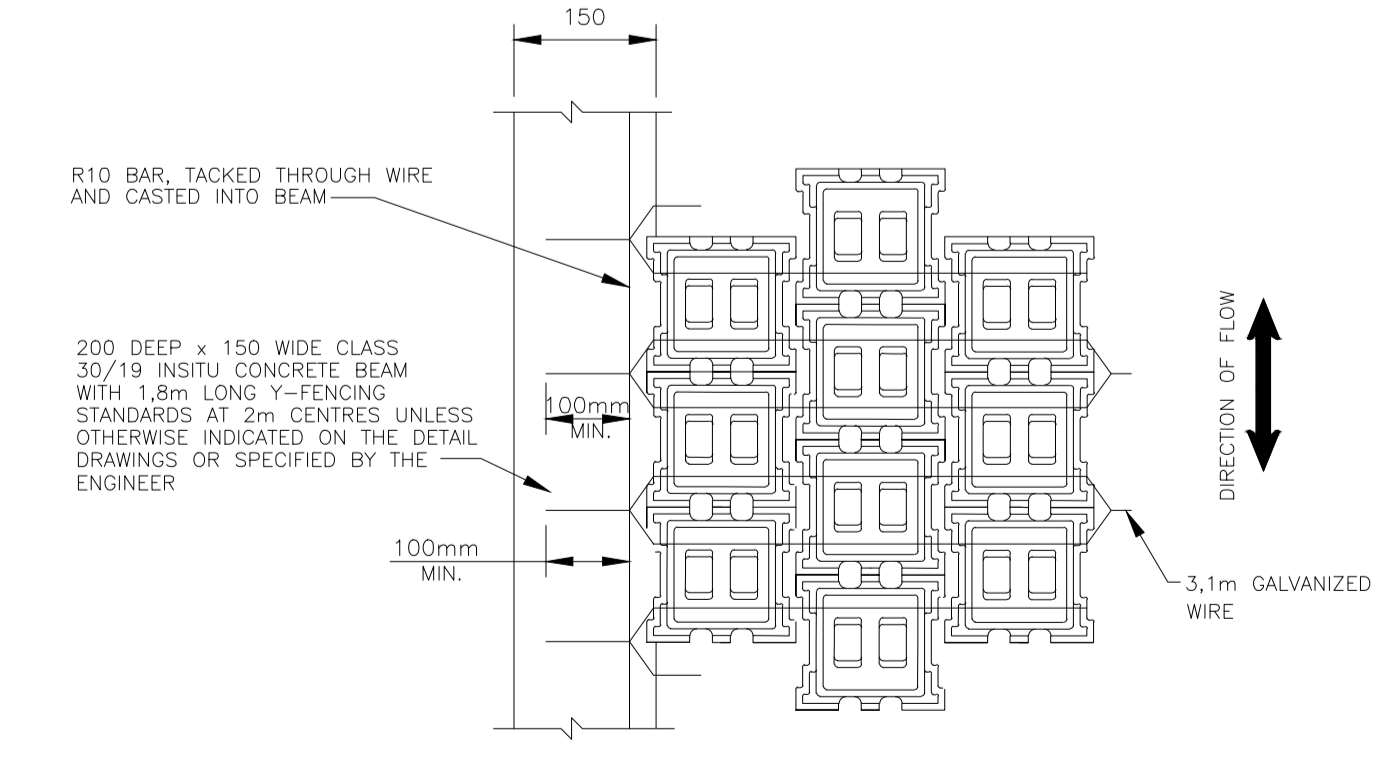
CHANNEL WITH ARMORFLEX LINING



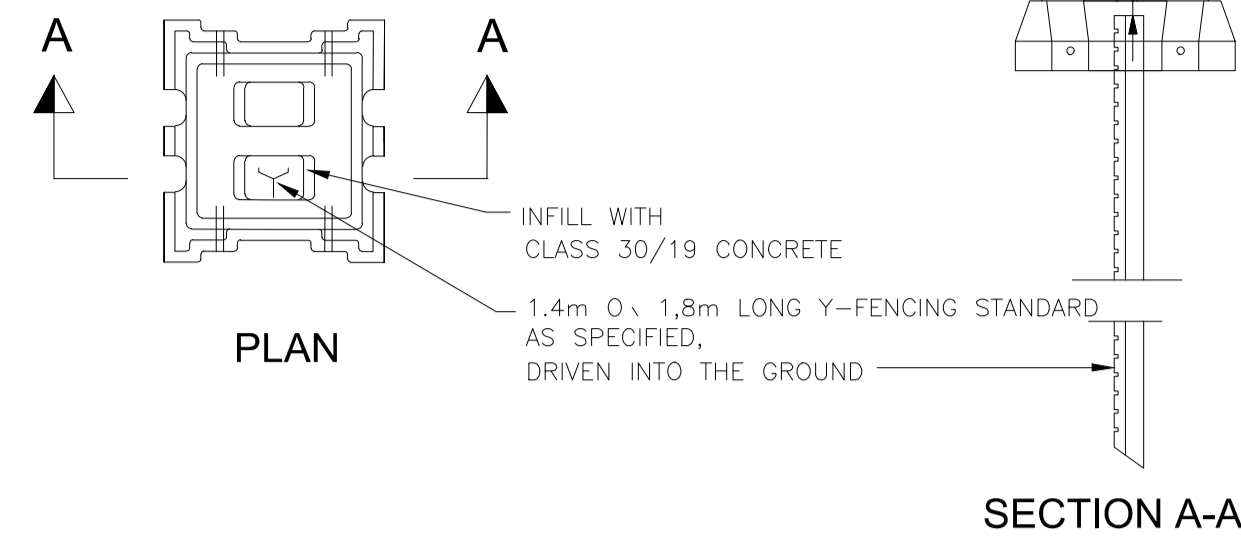
TYPICAL PLAN



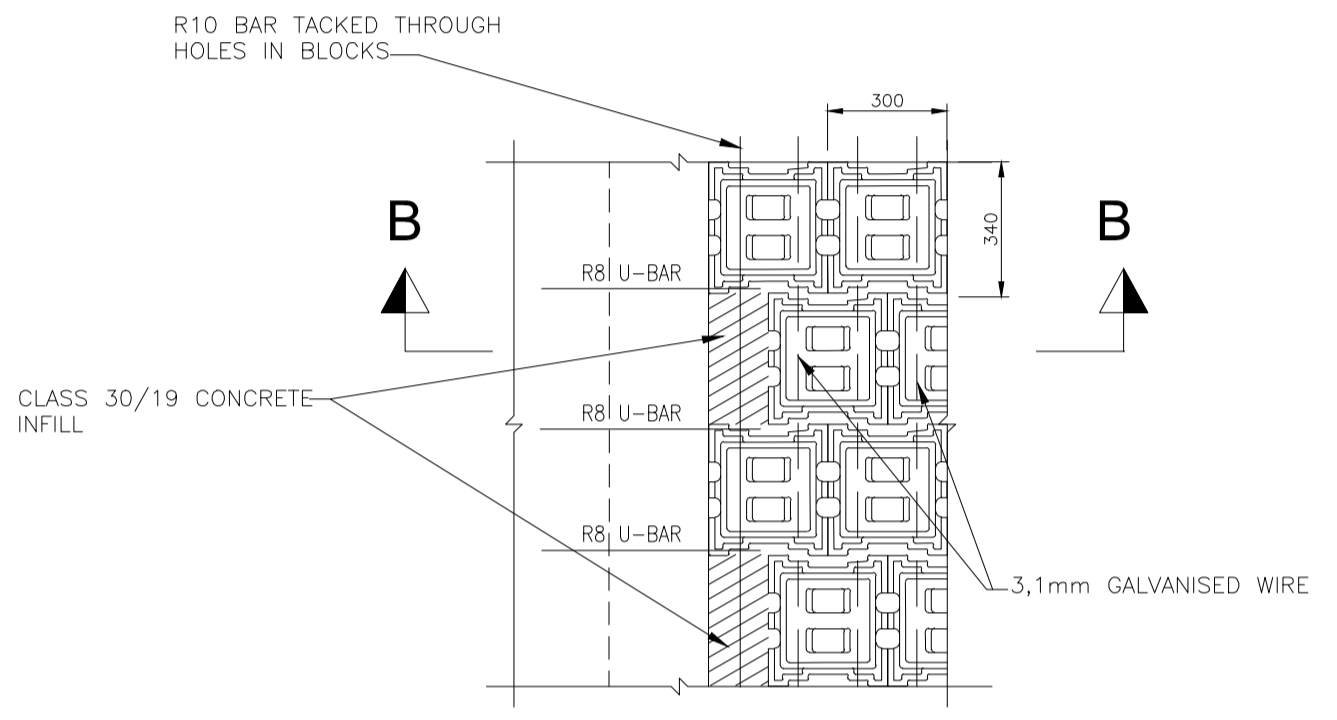
DETAIL 1 FOR ANCHORING ALONG TOP EDGE OF ARMORFLEX LINING: Y-FENCING STANDARDS



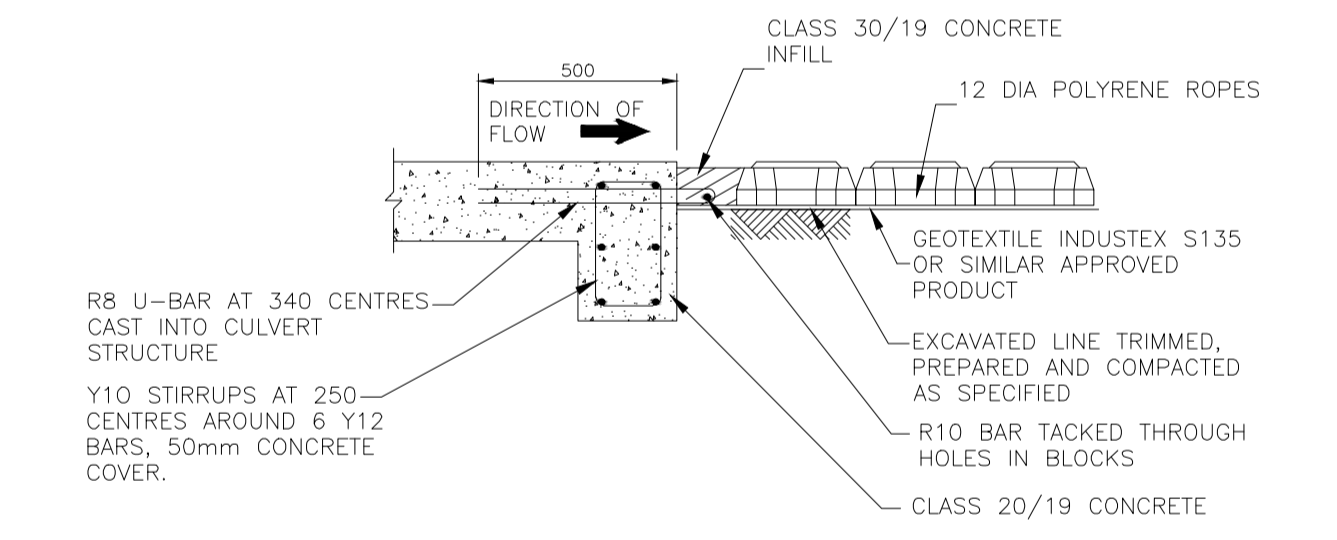
DETAIL 2 FOR ANCHORING ALONG TOP EDGE OF ARMORFLEX LINING: CONCRETE BEAM AND Y-FENCING STANDARDS



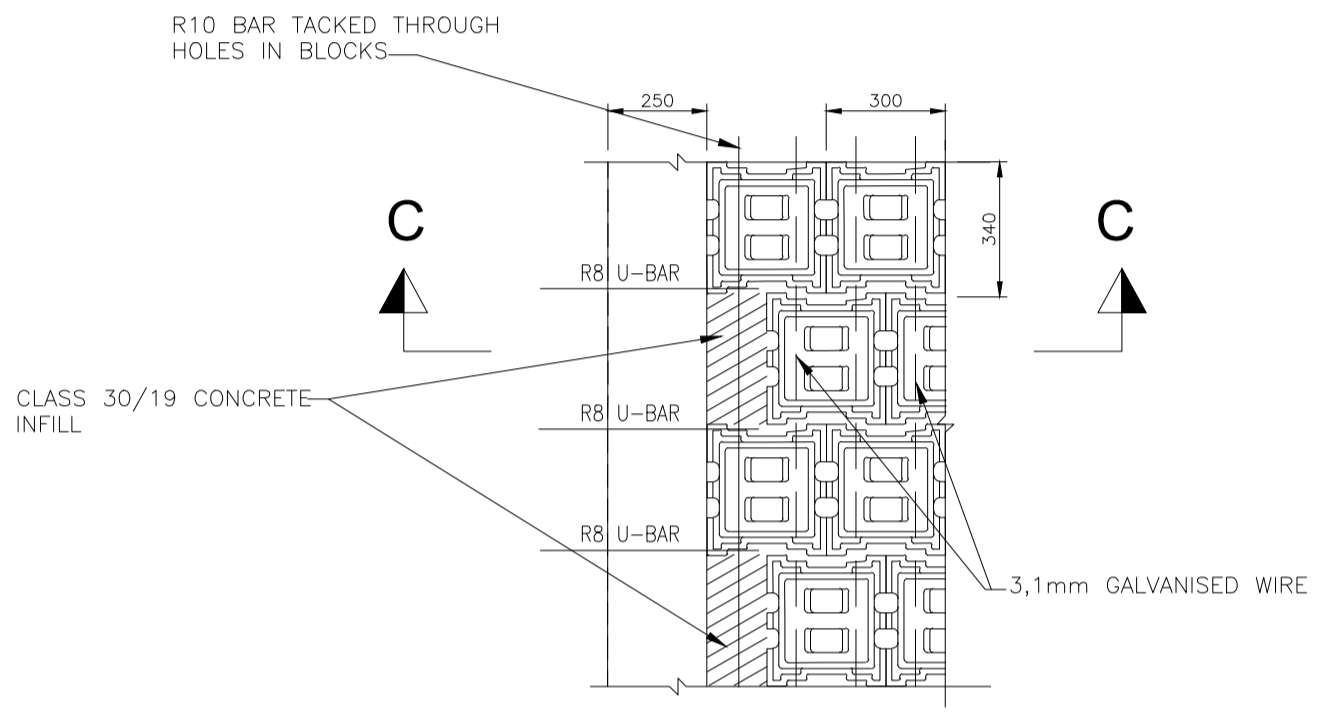
INTERMEDIATE ANCHORS



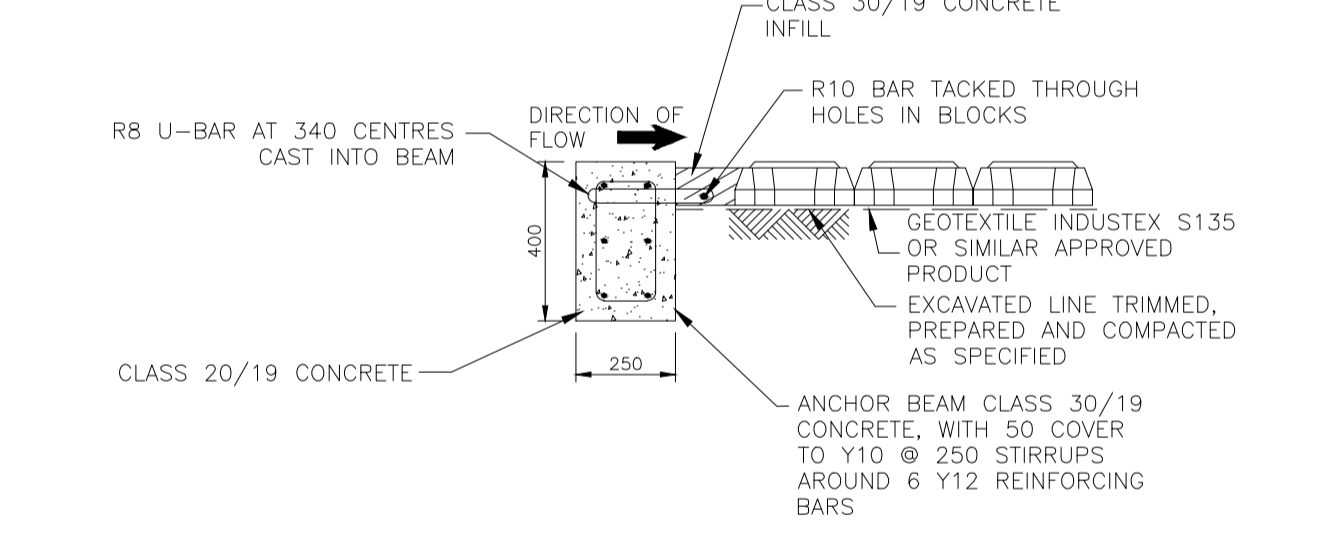
DETAIL FOR CONNECTION TO CULVERT OUTLET STRUCTURE



SECTION B-B



DETAIL FOR CONNECTION TO ANCHOR BEAM



SECTION C-C

| REVISION | | | | |
|----------|----------|------------------------|-----|-----|
| No. | Date | Description | By | App |
| A | 18/10/19 | ISSUED FOR INFORMATION | JTA | ZG |

| Designed | Drawn | Checked | Approved | Date | Scale |
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| JTA | JTA | ZG | ZG | OCT. 2019 | 1:3000 |

Client

ROLES FOR TOWNSHIP ROOSBOOM EXTENSION 1 SITUATED ON PORTION 437 & PORTION 502 OF THE FARM ROOSBOOM No. 1102-GS

Architect

+ RONO ARCHITECTS +
 + creating habitat, creating life +

Project

ROLES FOR TOWNSHIP ROOSBOOM EXTENSION 1 SITUATED ON PORTION 437 & PORTION 502 OF THE FARM ROOSBOOM No. 1102-GS

Drawing Title

TYPICAL ARMORFLEX LINED STORMWATER CHANNEL DETAILS

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