
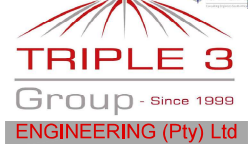


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|--|-----------|--------------------------|-------------------|
| APPROVED | | | |
| TOWN ENGINEER | | TRIPLE THREE ENGINEERING | |
| BENCH MARKS | | | |
| BM | Y | X | Z |
| | | | |
| GENERAL NOTES | | | |
| 1. THE CONTRACTOR IS TO CONFIRM ALL DIMENSIONS ON SITE AND TO REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY. | | | |
| 2. ALL WORK IS TO BE EXECUTED IN ACCORDANCE WITH THE PROVISIONS OF SANS 1200. | | | |
| 3. NOTE THAT NO OTHER BURIED SERVICES ARE INDICATED ON THIS DRG. | | | |
| 4. DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING. | | | |
| 5. THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION UNLESS SPECIFICALLY DIRECTED OR INDICATED. | | | |
| 6. THE CONTRACTOR IS REQUIRED TO MINIMISE DUST AND NOISE NUISANCE TO ALL SURROUNDING PROPERTIES. | | | |
| 7. A MINIMUM NOTICE PERIOD OF 24 HOURS IS REQUIRED FOR ANY INSPECTION. | | | |
| 8. CONTRACTOR IS TO PROVIDE A DETAILED SCHEDULE OF INFORMATION REQUIRED INDICATING ALL SUCH DATES. | | | |
| LEGEND | | | |
| | | | |
| REVISIONS | | | |
| | | | |
| | | | |
| A | RA | 2021-04-14 | ISSUED FOR TENDER |
| NO. | DRAWN | DATE | REVISION |
| CLIENT INFORMATION | | | |
| | | | |
| CONSULTING ENGINEERS | | | |
| Western Cape Office - Block A8 Pylon Village Office Estate, 561 06 Vln, Paarl, 7646 / P.O. Box 227, Paarl, 7620 | | | |
| Eastern Office - 36 Kollensia Road, Unit 33 Eagles View, Rondebosch, / P.O. Box 643, Welchreden Park, 7725 | | | |
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|   TRIPLE 3 Group - Since 1999 ENGINEERING (Pty) Ltd | | | |
| PROJECT | | | |
| RESIDENTIAL DEVELOPMENT KENGIES EXT. 35 | | | |
| DESCRIPTION | | | |
| ASSEMBLY & ERECTION OF GABION MATTRESSES | | | |
| DESIGNED | GLR | SCALE | N.T.S. |
| PR TECH (ENG) | 200070106 | | A1 |
| DRAWN | RA | DATE | 2021-04-14 |
| APPROVED | GLR | CONTRACT NO | 355 |
| PR TECH (ENG) | 200070106 | | |
| DRAWING NO. | 355-03-12 | SHEET | 1 OF 1 |
| PROJECT STATUS | | | |
| <input checked="" type="radio"/> Complete <input type="radio"/> Approved <input type="radio"/> Issued <input type="radio"/> Under Review <input type="radio"/> On Hold <input type="radio"/> Cancelled | | | |
| REVISION | | | |
| A | | | |

ASSEMBLY :

- UNFOLD EACH GABION (THE MATTRESS UNIT AND THE LID PANEL) ON A HARD FLAT SURFACE, STRETCH IT OUT AND STAMP OUT ANY UNNECESSARY CREASES (FIGURE 1).
- FOLD THE SIDE AND END PANELS AS WELL AS THE INTERNAL DIAPHRAGMS INTO THE UPRIGHT POSITION, CHECK THAT BOTH SIDE PANELS MATCH THE DIAPHRAGM HEIGHT (FIGURE 2), ATTACH THE PANELS FIRST TO THE SIDE PANELS BY LACING THE THICK SELVEDGE WIRE PROTRUDING FROM THE DIAPHRAGM CORNERS, FIRMLY OVER AND AROUND THE TOPS OF THE SIDE PANELS (FIGURE 3a), THEN PULL OUT THE ENDS OF THE HELICAL WIRE CONNECTING EACH DIAPHRAGM TO THE BOTTOM OF THE MATTRESS, AND USE THEM TO WIRE THE DIAPHRAGM ENDS TO THE SIDES (FIGURE 3b), ALL WIRING MUST BE DONE AS A CONTINUOUS LACING OPERATION, NOT WITH INDIVIDUAL TWISTS AT INTERVALS, TIGHTNESS OF THE MESH AND WIRING IS ESSENTIAL AT ALL TIMES.
- AT THE FOUR CORNERS, BEND THE PROJECTING LENGTHS OF THE END PANELS TO OVERLAP THE SIDE PANELS, ATTACH THE END PANELS FIRST TO THE SIDE PANELS BY LACING THE THICK SELVEDGE WIRE PROTRUDING FROM THE END PANEL CORNERS, FIRMLY AROUND THE TOPS OF THE SIDE PANELS, THEN LACE UP THE REST OF THE OVERLAP WITH BINDING WIRE (FIGURE 4), POKE ALL PROJECTING WIRE ENDS INWARDS IN ORDER TO PREVENT PUNCTURING AND TEARING OF THE FILTER CLOTH.

FORMING THE STRUCTURE :

- THE SURFACE ON WHICH THE GABION MATTRESSES ARE TO BE CONSTRUCTED SHALL BE PREPARED TO THE SPECIFIED SLOPE AND LEVEL AS TO PRESENT AN EVEN SURFACE, AVOID DISTURBING THE PREPARED GROUND AND SAVE TIME BY ASSEMBLING THE MATTRESS UNITS NEAR TO, BUT NOT AT THE FINAL POSITION.
- PRIOR TO FILLING, SEVERAL ASSEMBLED UNITS SHOULD BE PLACED IN POSITION AND WIRED TOGETHER BY CONTINUOUS LACING AROUND ADJACENT TOP EDGE SELVEDGES WITH SINGLE LOOPS AND DOUBLE LOOPS IN TURN AT 100mm INTERVALS, THE STRONG INTER-CONNECTION OF ALL UNITS IN A GABION STRUCTURE IS AN IMPORTANT FEATURE OF THE TECHNIQUE AND IT IS THEREFORE ESSENTIAL THAT THE WIRING IS SECURE.
- ON SLOPES, THE MATTRESS SHOULD BE LAID WITH THE 2.0m DIMENSION ALONG THE SLOPE, NOT UP AND DOWN IT, WHEN THE MATTRESS IS LAID ON A SLOPE STEEPER THEN 1 : 1.5, IT SHOULD BE SECURED BY HARDWOOD PEGS DRIVEN INTO THE GROUND JUST BELOW THE UPPER END PANEL, AT 2.0m CENTRES (FIGURE 5).
- WHERE GABION STRUCTURES WITH NON-RECTANGULAR SHAPES ARE SPECIFIED, MODIFICATION TO THE MATTRESSES ARE REQUIRED, OTHER DIMENSIONS, SHAPES, BEVELS AND MITRES SHOULD BE FORMED BY CUTTING AND FOLDING THE PANELS TO THE REQUIRED ANGLES AND SIZES.
 - MATTRESSES CAN BE SHORTENED BY CUTTING OFF A NUMBER OF COMPARTMENTS, THE OFF-CUT, WHICH HAS AN OPEN END, CAN BE USED IN TWO WAYS : BY WIRING IT DIRECTLY TO A WHOLE MATTRESS TO LENGTHEN IT, OR SEPARATELY AS A SHORT LENGTH TO FIT A PARTICULAR WIDTH NEEDED, IN THE LATTER CASE, THE OPEN END IS FINISHED AFTER FILLING, BY FOLDING THE SHORT SIDES AND THE TOP DOWN TO FORM A WEDGE SHAPE AND WIRING DOWN, ON SLOPES, THIS END SHOULD BE AT THE TOP (FIGURE 6).
 - MATTRESSES CAN BE CUT IN TWO WAYS TO FIT CURVES : BY DIVIDING IT DIAGONALLY TO FORM TRIANGULAR SECTIONS AND THE OPEN SIDE OF ONE SECTION BUTT-JOINED TO THE INTACT SIDE OF THE NEXT SECTION; OR WHOLE UNASSEMBLED FLAT UNITS ARE PLACED IN SEQUENCE AND OVERLAPPED TO SUIT THE CURVE, IN THE CASE OF THE LATTER, THE SIDES OF THE UNITS LAYING ON TOP ARE RAISED AND THE DIAPHRAGMS ARE CUT ALONG THE LINES OF THESE SIDES AND OULLED UPRIGHT, ASSEMBLY THEN PROCEEDS AS NORMALLY (FIGURE 7).

ROCK FILLING :

- FILLING CAN BE DONE UNIT BY UNIT, BUT SEVERAL UNITS SHOULD BE READY FOR FILLING AT ANY ONE TIME, PLACE THE FILL MATERIAL, BY HAND OR MECHANICALLY, IN THE COMPARTMENT, STARTING AT THE BOTTOM IF ON A SLOPE.
- FILLING MATERIAL SHOULD BE HARD DURABLE STONE, IN SIZE BETWEEN 75mm AND TWO THIRDS THE THICKNESS OF THE MATTRESS, TO ACHIEVE HIGHER FLEXIBILITY OF THE MATTRESS, THE TOE PART CAN BE FILLED WITH SMALLER FILLING MATERIAL THAN THE TOP PART.
- LEVEL OFF THE FILL 25mm TO 50mm ABOVE THE TOP OF THE MESH TO ALLOW FOR SETTLEMENT, SMALL MATERIAL IS BEST FOR THIS.
- ATTACH THE LIDS TO THE CORNERS OF THE MATTRESS BY MEANS OF THE THICK SELVEDGE WIRE PROTRUDING FROM THE LID CORNERS TO ENSURE THAT THERE IS ENOUGH MESH TO COVER THE WHOLE AREA, THEN SECURELY WIRE IT TO THE TOPS OF THE SIDES, AND AND DIAPHRAGMS, USING THE ALTERNATE SINGLE AND DOUBLE LOOPS, THE LONG SIDES SHOULD BE WIRED FIRST, FOLLOWED BY THE BOTTOM END, THE DIAPHRAGM PANELS AND FINALLY THE TOP END, WITH MORE THAN ONE MATTRESS FILLED, THE EDGES OF ADJACENT LIDS CAN BE WIRED DOWN IN THE SAME OPERATION.

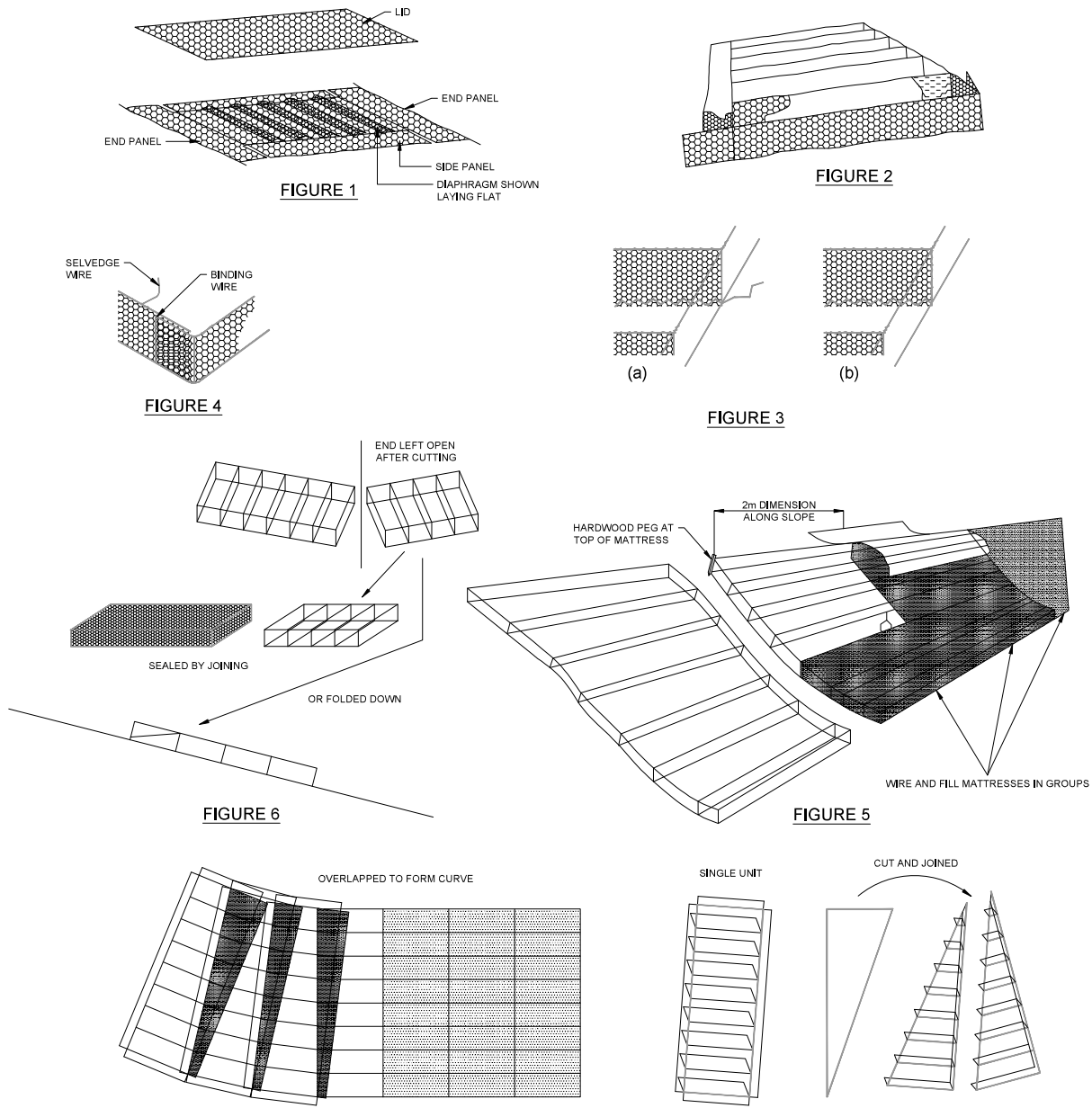


FIGURE 7