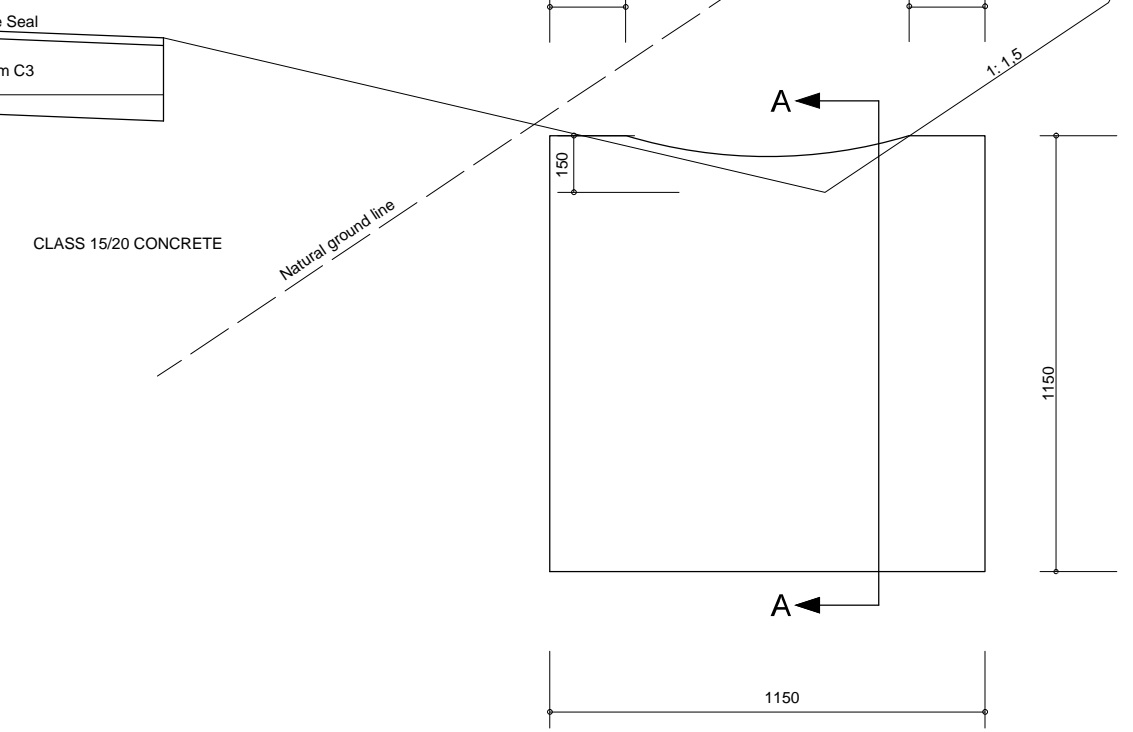


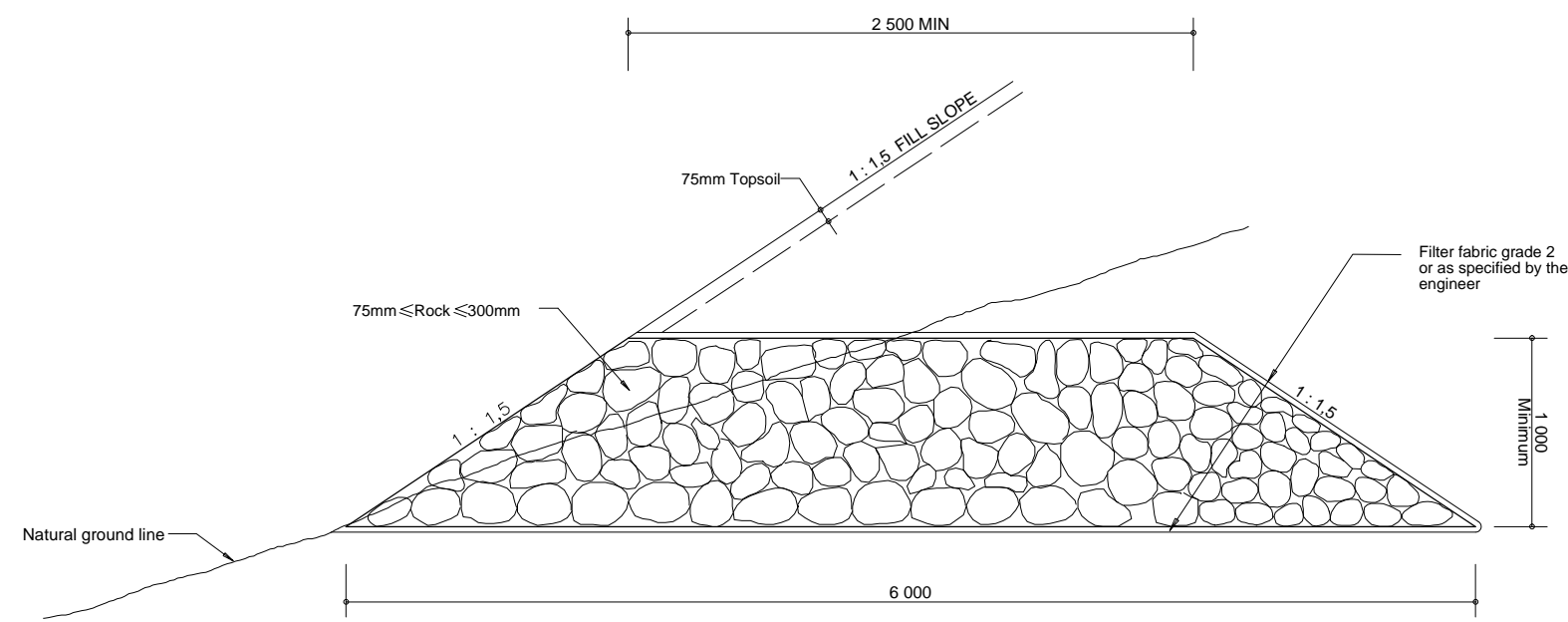
- NOTES:**
- To ensure stability of embankments constructed on cross falls steeper than 25%, the engineer may order the surface of the side slope to be successively benched to form a stable platform on which to construct the embankment.
 - Benching shall be done in accordance with clause 3307 (d) of colta standard specification.
 - 300mm Horizontal sand blanket to be provided in fills as directed by the Engineer.
 - Actual drainage layout for fills requiring benching shall be provided by the Engineer prior to the commencement of benching.
 - All benching work to be approved by the Engineer prior to the commencement of construction work.
 - Rock toe filters only to be constructed where directed by the Engineer.
 - Maximum width of bench platform to be 2.5m unless otherwise specified by the Engineer.
 - For details of subsol drains refer to SD0501/A.
 - The filter fabric for sand blankets shall be grade e unless otherwise specified by the Engineer.
 - The sand for sand blankets shall be natural permeable material as specified in clause 2104 of colta standard specifications.

TYPICAL CROSS SECTION FOR STEEP TERRAIN WITH BENCHING DETAIL
SCALE 1 : 50

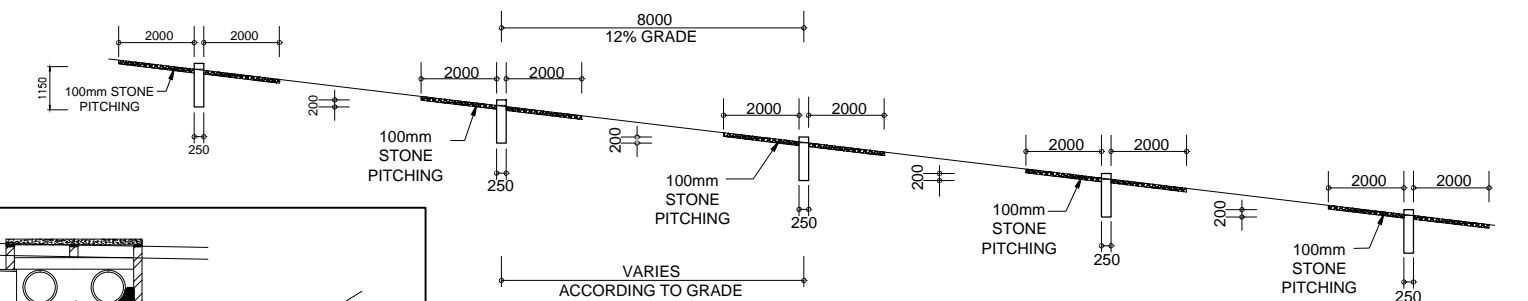
SECTION A - A
SCALE 1:100



SIDE DRAIN WEIR FOR MAIN ROAD AND ACCESS ROAD
SCALE 1:10

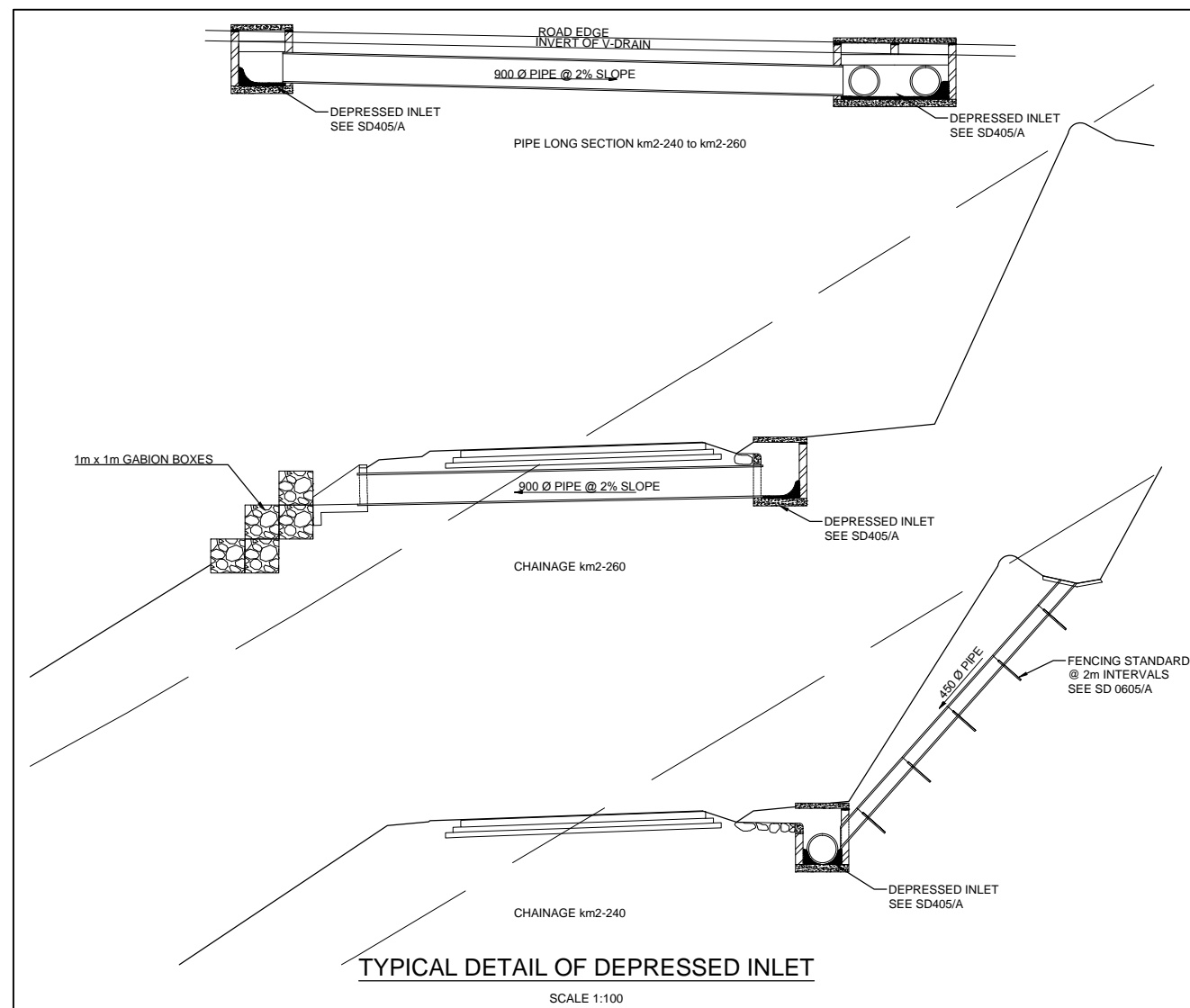


TYPICAL ROCK TOE FILTER
SCALE 1 : 20



POSITIONING OF SIDE DRAIN WEIRS
SCALE 1:100

NOTE: Position of Weirs as directed by the Engineer.

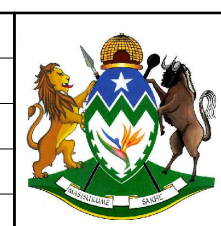


TYPICAL DETAIL OF DEPRESSED INLET
SCALE 1:100

| Symbol | Date | Description | Checked | Signed |
|--------|---------|---|---------|--------|
| A | 11/2016 | Issued For Construction | UD | |
| 1 | 11/2012 | TYPICAL DETAIL OF DEPRESSED INLET ADDED | P.F. | |

| AS BUILT | |
|-----------------------|------|
| Supervising Engineer | Date |
| Supervising Authority | |

| | | | |
|---------------------------|---|--------------------|----------------|
| Continued from:- | - | Designed by:- | K.MAFU |
| Continued on:- | - | Checked by:- | P.L. FORREST |
| Cross Section No:- | - | Drawn by:- | W.SURJOOPERSAD |
| Longitudinal Section No:- | - | Checked by:- | P.L. FORREST |
| Design Plan No:- | - | Date of approval:- | |



PROVINCE OF KWAZULU - NATAL - ISIFUNDAZWE SAKAZULU - NATALI
DEPARTMENT OF TRANSPORT
UMNYANGO WEZOKUTHUTHA

Designed by:
Royal HaskoningDHV
Enhancing Society Together
Signature:
Date

TRANSPORTATION ENGINEERING
CHIEF ENGINEER
HEAD : TRANSPORT

MAIN ROAD
P752 : NKAMBA TO QUDENI
PORTION
QUDENI LINK ROAD
TYPICAL BENCHING DETAILS

Staked km distance
km0.000 TO km13.000
Scale
AS SHOWN

Sheet :- 1
of :- 1
Plan No. :-
C34114/A

Plan No. C34114