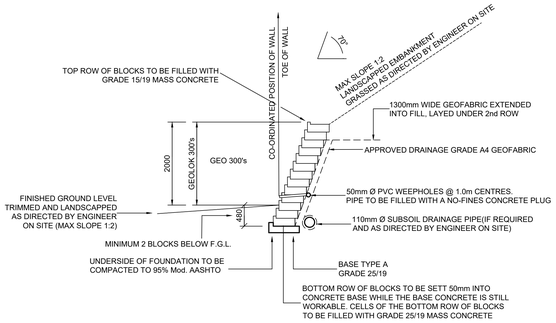
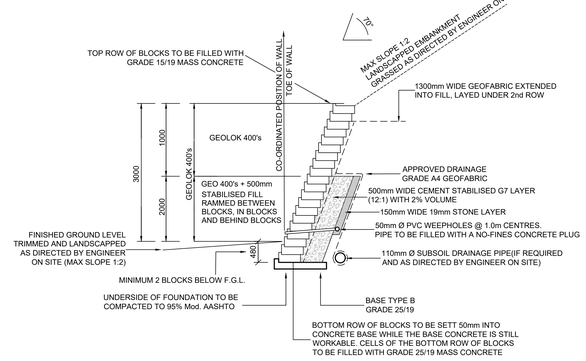
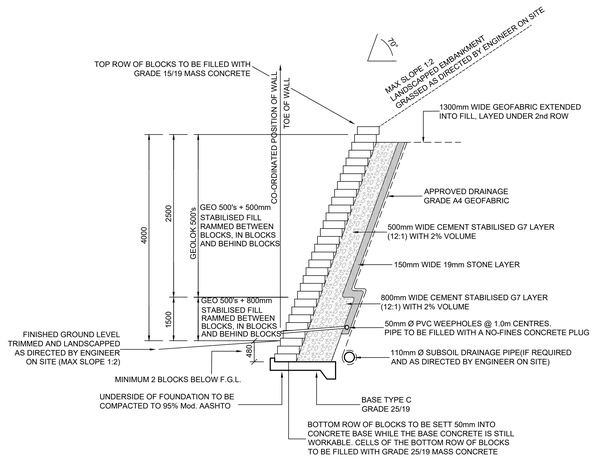


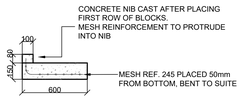
TYPICAL RETAINING WALL DETAIL
(0m to 2m EXPOSED HEIGHT)
SCALE 1:50



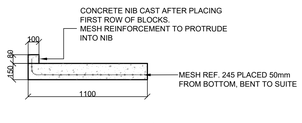
TYPICAL RETAINING WALL DETAIL
(2m to 3m EXPOSED HEIGHT)
SCALE 1:50



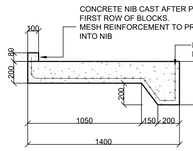
TYPICAL RETAINING WALL DETAIL
(3m to 4m EXPOSED HEIGHT)
SCALE 1:50



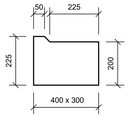
BASE TYPE A
SCALE 1:20



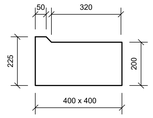
BASE TYPE B
SCALE 1:20



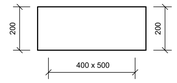
BASE TYPE C
SCALE 1:20



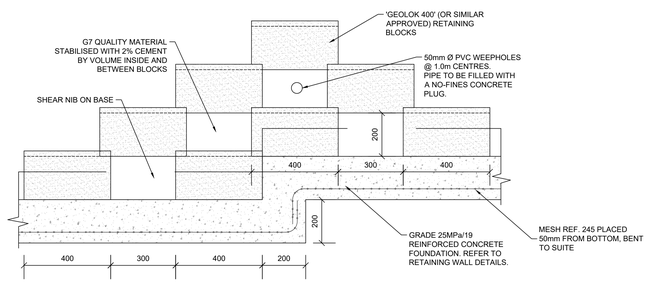
TYPICAL RETAINING BLOCK DETAIL
(GEOLOK 300)
SCALE 1 : 10



TYPICAL RETAINING BLOCK DETAIL
(GEOLOK 400)
SCALE 1 : 10



TYPICAL RETAINING BLOCK DETAIL
(GEOLOK 500)
SCALE 1 : 10



TYPICAL DRY-STACK RETAINING WALL STEPPED FOUNDATION DETAIL
SCALE 1 : 10

RETAINING WALL NOTES :

1. BLOCK TYPE - GEOLOK BLOCKS OR SIMILAR APPROVED BLOCKS TO BE SANS:508:2012 CERTIFIED.
2. ALL FOUNDATION TRENCHES TO BE APPROVED BY THE ENGINEER ON SITE PRIOR TO CASTING OF CONCRETE
3. BOTTOM ROW OF BLOCKS TO BE PLACED WHILE THE BASE CONCRETE IS STILL WORKABLE.
4. FILL BEHIND WALL TO BE COMPACTED TO 95% Mod. AASHTO AND AS PER PART DD OF eTHEKWINI'S STANDARD ENGINEERING SPECIFICATIONS (YELLOW PAGES). BENCHING OF EXISTING AND/OR CUT SLOPES MAY BE REQUIRED WHERE NECESSARY. COMPULSORY BENCHING OF IMPORTED FILL MATERIAL BEHIND WALL INTO COMPETENT GROUND.
5. CONCRETE IN WALL BASE - GR. 25/19 @ 28 DAYS OR AS SPECIFIED.
6. CEMENT STABILISED FILL- 12:1 CLEAN COARSE SAND : CEMENT , WELL RAMMED BETWEEN BLOCKS, IN BLOCKS AND 500mm BEHIND BLOCKS AS DETAILED.
7. MINIMUM OF 8 BLOCKS TO BE LAID PER SQ.M.(APPROXIMATELY) (OR AS PER THE MANUFACTURES SPECIFICATION).
8. CONTRACTOR TO MAKE ALLOWANCE FOR +/- 73mm "STEP BACK" WITH EACH 200mm STEP UP WHEN SETTING OUT THE BASE. (OR AS PER THE MANUFACTURES SPECIFICATION).
9. CONTRACTOR TO REFER TO DETAILED SURVEY DRAWINGS FOR THE LOCATION OF SERVICES, PROPERTY BOUNDARIES ETC.
10. LEVELS AND DIMENSIONS INDICATED ON THIS DRAWING ARE ONLY A GUIDE AND THESE NEED TO BE CONFIRMED BY THE ENGINEER ON SITE.
11. POSITION OF RETAINING WALLS TO BE CONFIRMED BY ENGINEER ON SITE.
12. ALL RETAINING WALLS AS PER STRUCTURAL ENGINEER DETAILS (ISSUED SEPARATELY IF REQUIRED).

FOR TENDER

GENERAL NOTES

NOTES :

1. PROVE ALL SERVICES PRIOR TO CONSTRUCTION.
2. ALL LEVELS, DIMENSIONS AND SETTING OUT TO BE VERIFIED ON SITE.
3. ALL SETTING OUT TO BE UNDERTAKEN BY A REGISTERED PROFESSIONAL LAND SURVEYOR.
4. ALL SURVEY AND SETTING OUT DATA PROVIDED IS BASED ON (WGS 84).
5. ALL WORK AREAS TO BE REINSTATED (PREMIX, CONCRETE, ETC.)
6. MUNICIPALITY TO EXECUTE ALL CONNECTIONS INTO MUNICIPAL LINES.
7. UNLESS OTHERWISE AGREED WITH ENGINEER, CONTRACTOR TO SUPPLY ENGINEER WITH RESULTS OF COMPACTION TESTS, AND WHEN APPLICABLE, PERCENTAGE STABILIZATION TESTS ON BACKFILL.
8. ALL WORKS IN ACCORDANCE WITH UMNGENI LOCAL MUNICIPALITY SPECIFICATIONS,SANS 1200 AND COTO 2020.
9. THE ENGINEER REQUIRES 24 HOURS NOTICE FOR ALL INSPECTIONS.
10. THIS DRAWING IS FOR INFORMATION PURPOSES IN ORDER TO ASSIST THE CONTRACTOR FOR THE SETTING OUT AND CONSTRUCTION OF THE WORKS. IT MUST BE NOTED THAT SITE CONDITIONS MAY CHANGE ON SITE AND CONSTRUCTION OF WORKS MAY BE AFFECTED. THE CONTRACTOR IS TO TIMEOUSLY INFORM THE ENGINEER OF ANY CHANGES ENCOUNTERED ON SITE PRIOR TO UNDERTAKING ANY WORK.

MATERIAL COMPLIANCE TESTING :

1. RESULTS OF COMPACTION AND CBR TESTS ON INSITU SUB-BASE MATERIAL AND FILLED SUB-BASE MATERIAL MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE THE UPPER LAYER WORKS ARE IMPORTED TO THE SITE AND PLACED.
2. CONCRETE CUBE TEST RESULTS FOR 7 AND 28 DAYS FOR EACH SEPERATE CONCRETE ITEM TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
3. PRIOR TO IMPORTING ANY MATERIAL ONTO SITE, MATERIALS CLASSIFICATIONS AND OR ASPHALT MIS DESIGNS AND OR CONCRETE FOR THE ALL REQUIRED MATERIALS ARE TO BE FIRST SUBMITTED TO THE ENGINEER FOR APPROVAL.
4. ALL MATERIALS TESTING ARE TO BE UNDERTAKEN BY AN ACCREDITED SANAS ACREDITED LABORATORY.

FREQUENCY OF TESTS :

1. CBR TESTS 1 PER 50m².
2. COMPACTION TESTS 1 PER 50m² NOTE : COMPACTION TESTS WILL BE REQUIRED FOR EACH OF THE VARYING LAYER THAT IS INSITU OR IMPORTED AND COMPACTED IN PLACE.

RETAINING WALL :

1. ALL LEVELS AND DIMENSIONS TO BE CHECKED ON SITE.
2. ALL CONCRETE WORK IS TO COMPLY WITH SANS 1200G.
3. CONCRETE GRADE - FOUNDATION 25 / 19
4. ALL FOUNDATION EXCAVATIONS ARE TO BE INSPECTED BY THE ENGINEER PRIOR TO CASTING OF CONCRETE.
5. ALL REINFORCING FIXING IS TO BE INSPECTED BY THE ENGINEER PRIOR TO CASTING OF CONCRETE.
6. SIX CONCRETE CUBES TO BE TAKEN PER BATCH. THREE CUBES TO BE TESTED AT SEVEN DAYS, THE REMAINDER AT TWENTY EIGHT DAYS. THE RESULTS ARE TO BE FORWARDED TO THE ENGINEER FOR REVIEW AND APPROVAL.
7. SET BOTTOM ROW OF BLOCKS IN WET CONCRETE.
8. ALL BACKFILL TO BE COMPACTED TO 93% MOD AASHTO DENSITY
9. STORM WATER BEHIND THE TOP OF THE WALL TO BE MANAGED IN SUCH A MANNER AS TO OBVIATE SCOUR BEHIND OR OVER - TOPPING OF THE WALL.

SIDEWALKS :

1. ALL LEVELS, DIMENSIONS AND SETTING OUT DETAILS TO BE VERIFIED BY CONSULTANT AND CONTRACTORS ON SITE PRIOR TO CONSTRUCTION.
2. THE POSITIONS OF DRIVEWAY ACCESSES ARE TO BE DETERMINED IN CONSULTATION WITH THE LOCAL COMMUNITY / RESIDENTS AS EXACT POSITIONS MAY VARY ONSITE.
3. CONCRETE WEDGES ACCORDING TO CIVIL ENGINEERS DETAILS AND SPECIFICATIONS MAY BE USED IN PLACE OF SURFACED BELL-MOUTHS FOR ACCESSES SERVING SINGLE RESIDENTIAL PROPERTIES.
4. EXISTING ROAD SIGNS, SERVICES AND FENCING AFFECTED BY CONSTRUCTION ARE TO BE REMOVED/RELOCATED ON INSTRUCTION BY THE CIVIL ENGINEER.
5. NEW FILLS AND EXPOSED CUTS ARE TO BE TOP-SOILED AND VEGETATED IMMEDIATELY AFTER CONSTRUCTION TO PREVENT EROSION.

KERBS :

1. ALL CAST IN SITU CONCRETE IS TO BE GRADE 20 / 19.
2. THE SURFACES OF THE CAST IN SITU CHANNEL / FILLET ARE TO HAVE A STEEL FLOAT FINISH.
3. EXPANSION JOINTS TO BE FORMED THROUGH THE KERBING, CHANNEL / FILLET AND FOUNDATIONS AT INTERVALS NOT EXCEEDING 18.0m.
4. CONTRACTION JOINTS TO BE FORMED THROUGH THE CHANNEL / FILLET AT 20m INTERVALS.
5. WHERE KERB RADIUS IS LESS THAN 25m THE KERB LENGTH SHALL BE 300mm. WHERE THE KERB RADIUS IS LESS THAN 2m THE KERBING SHALL BE CAST IN SITU.
6. PRECAST KERBS ARE TO BE LAID WITH A 13mm GAP BETWEEN KERBS, WHICH SHALL THEN BE FILLED WITH A CEMENT MORTAR.
7. EXTRUDED KERBS.
   a) ASPHALT KERB:
   1. ASPHALT TO COMPLY WITH THE REQUIREMENTS OF SANS.
   b) CONCRETE KERB.
   1. THE CONCRETE IS TO HAVE A CUBE STRENGTH OF 20MPa AT 28 DAYS.
   2. THE CONCRETE MIX DESIGN IS TO BE APPROVED BY THE ENGINEER.
   3. CONTRACTION JOINTS TO BE FORMED AT 2.0m INTERVALS.
   4. EXPANSION JOINTS ARE TO FORMED AT 6.0m INTERVALS ON STRAIGHTS AND 2.0m INTERVALS WHERE THE KERB RADIUS IS LESS THAN 50m.

SCALE (mm)

No.	REFERENCE DRAWINGS
631/SHEMBE/904	TYPICAL DRY STACK RETAINING WALL DETAILS
631/SHEMBE/903-2	TYPICAL DETAILS SHEET 2
631/SHEMBE/903-1	TYPICAL DETAILS SHEET 1
631/SHEMBE/902-3	ROAD 1 CROSS SECTIONS
631/SHEMBE/902-2	FOOTPATH 4 & 5 CROSS SECTIONS
631/SHEMBE/902-1	FOOTPATH 1,2 & 3 CROSS SECTIONS
631/SHEMBE/901-3	ROAD 1 LONGITUDINAL SECTION
631/SHEMBE/901-2	FOOTPATH 3,4 & 5 LONGITUDINAL SECTION
631/SHEMBE/901-1	FOOTPATH 1 & 2 LONGITUDINAL SECTION
631/SHEMBE/900	FOOTPATHS AND ROAD LAYOUT AND SETTING OUT COORDINATES

REV	DESCRIPTION	BY	DATE
T1	ISSUED FOR TENDER	A.D	11/02/2026

Professional person : L. SINGH PrTech Eng — Registration : 201370301

CLIENT

eTHEKWINI MUNICIPALITY

PROJECT

PROVISION OF INCREMENTAL SERVICES WITHIN THE NORTHERN REGION: SHEMBE EKUPHAKAMENI WARD 55

DETAILS

TYPICAL DRY STACK RETAINING WALL DETAILS

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DRAWN	A.D		
APPROVED	L.S	PL	DATE 11/02/2026

CONTRACT No. 4V-36930

DRAWING No. 631/SHEMBE/904 REV T1