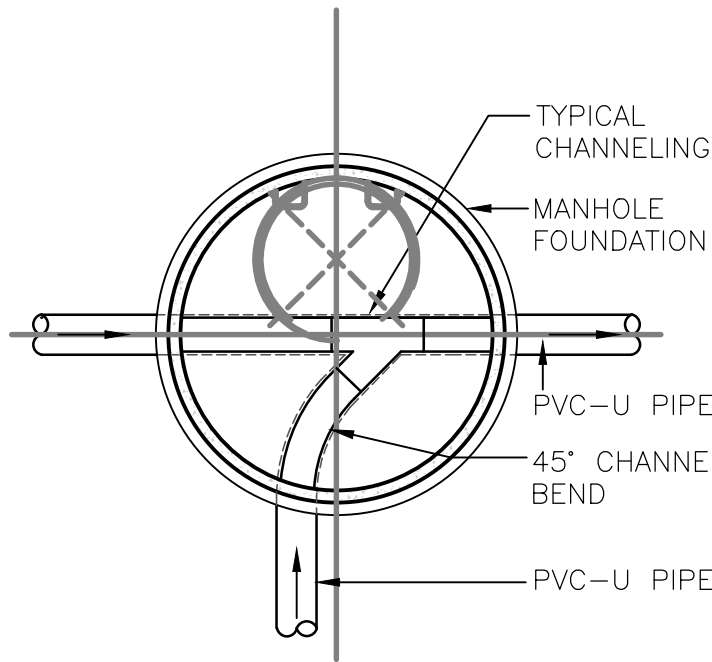


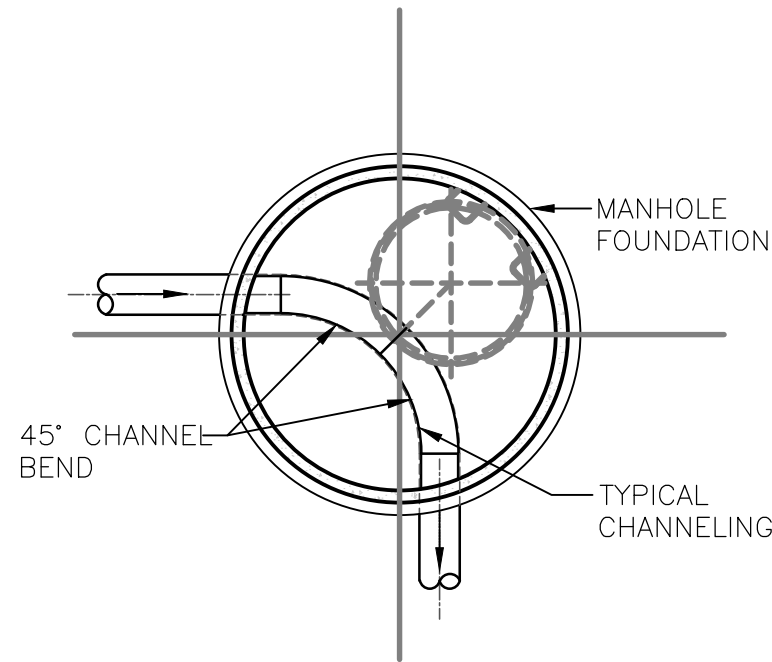
PLAN

(TYPICAL EXAMPLE OF THROUGH CONNECTION IN MANHOLE)



PLAN

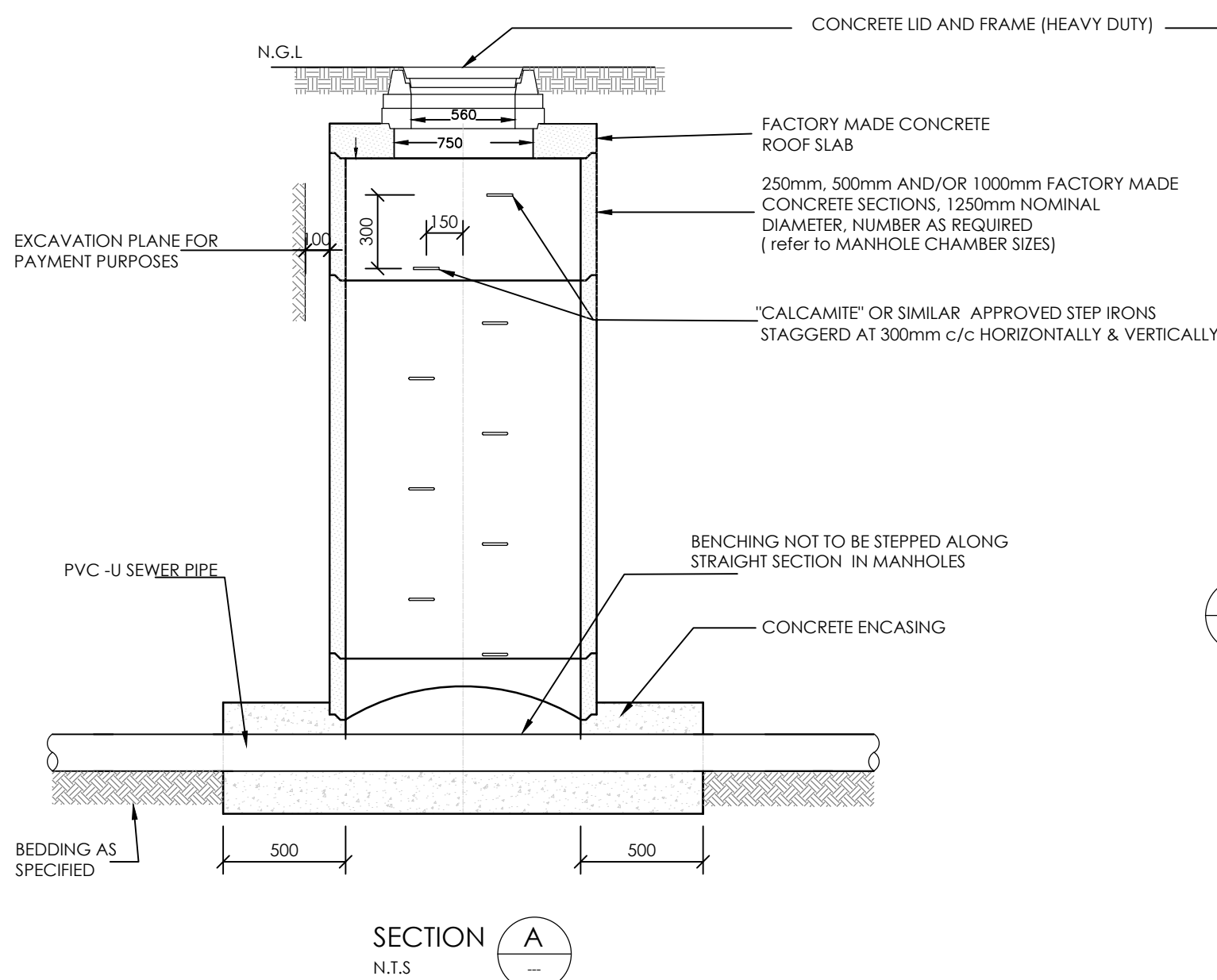
(TYPICAL EXAMPLE OF 90° CONNECTION IN MANHOLE)



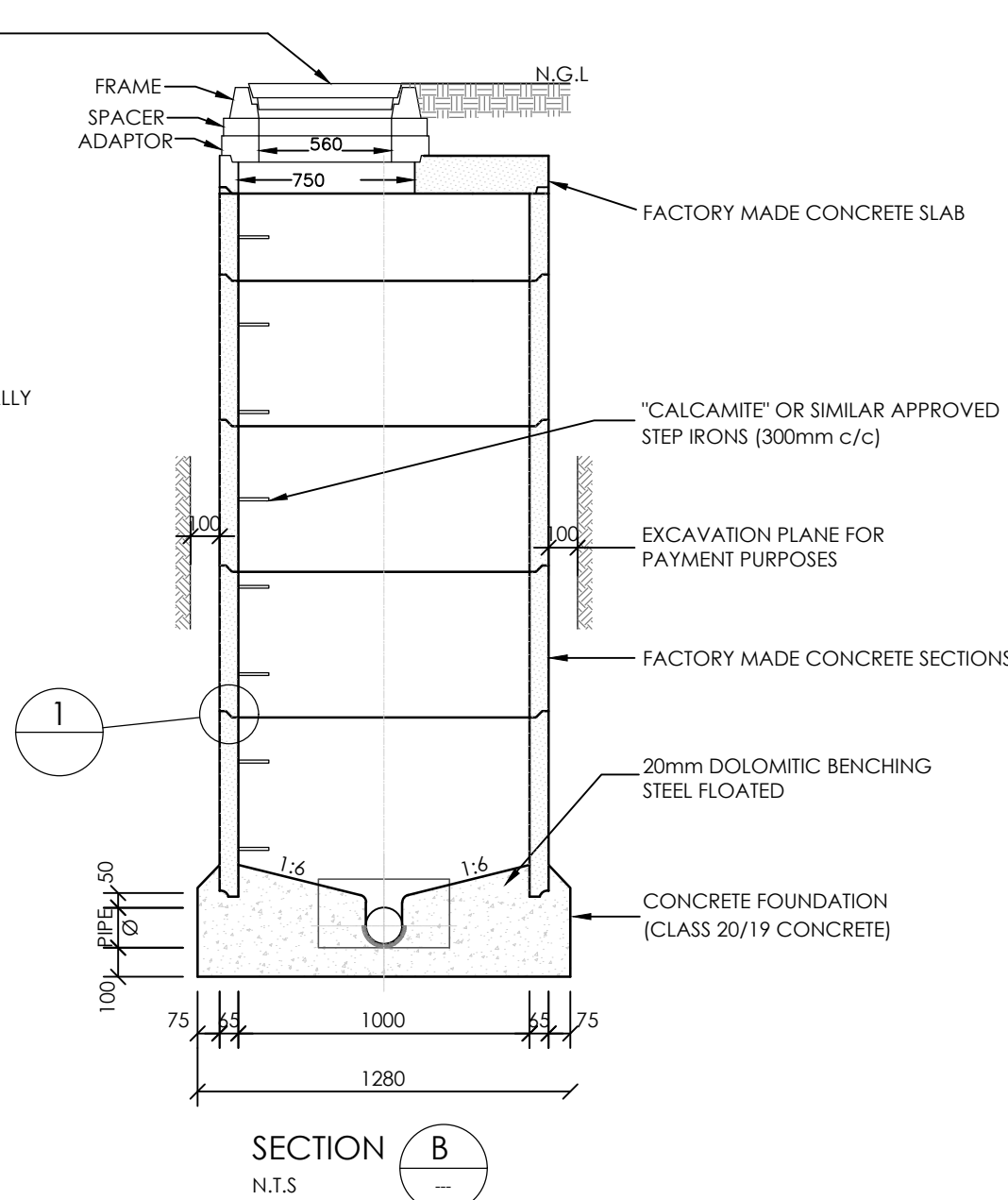
PLAN

(TYPICAL EXAMPLE OF 90° BEND IN MANHOLE)

## TYPICAL MANHOLE LAYOUTS

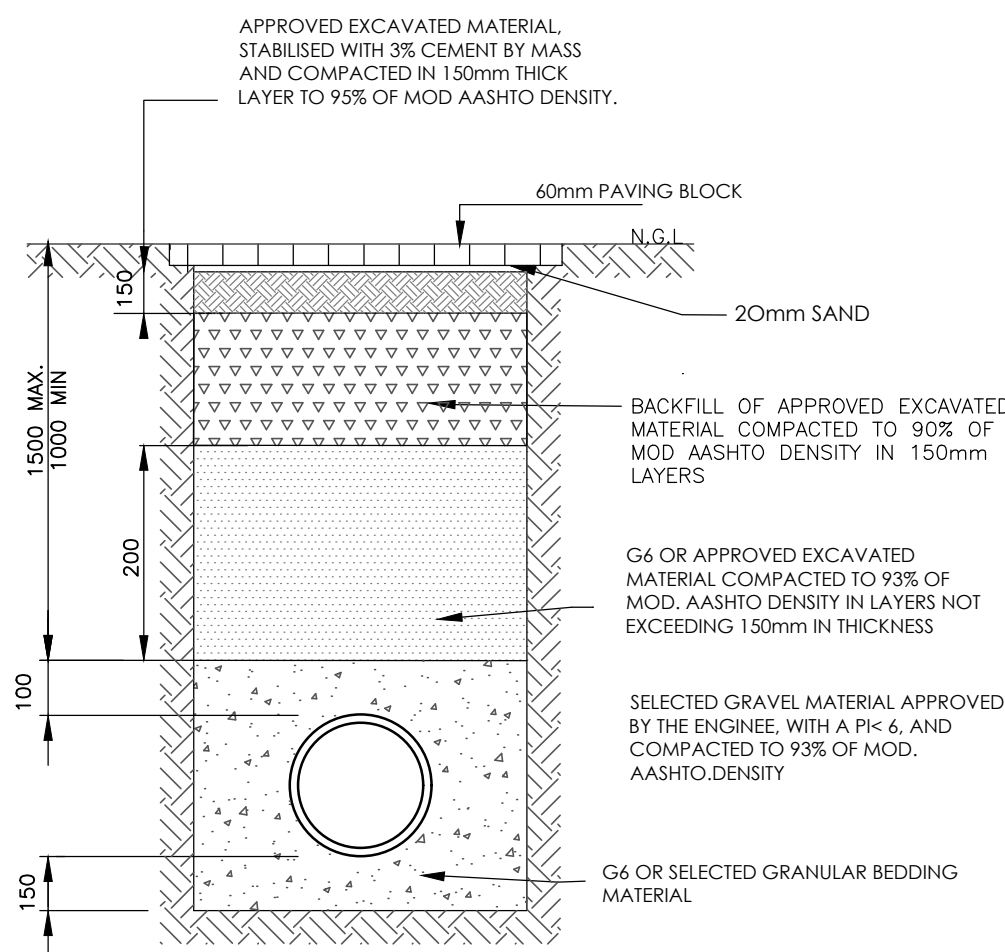


SECTION A  
N.T.S.

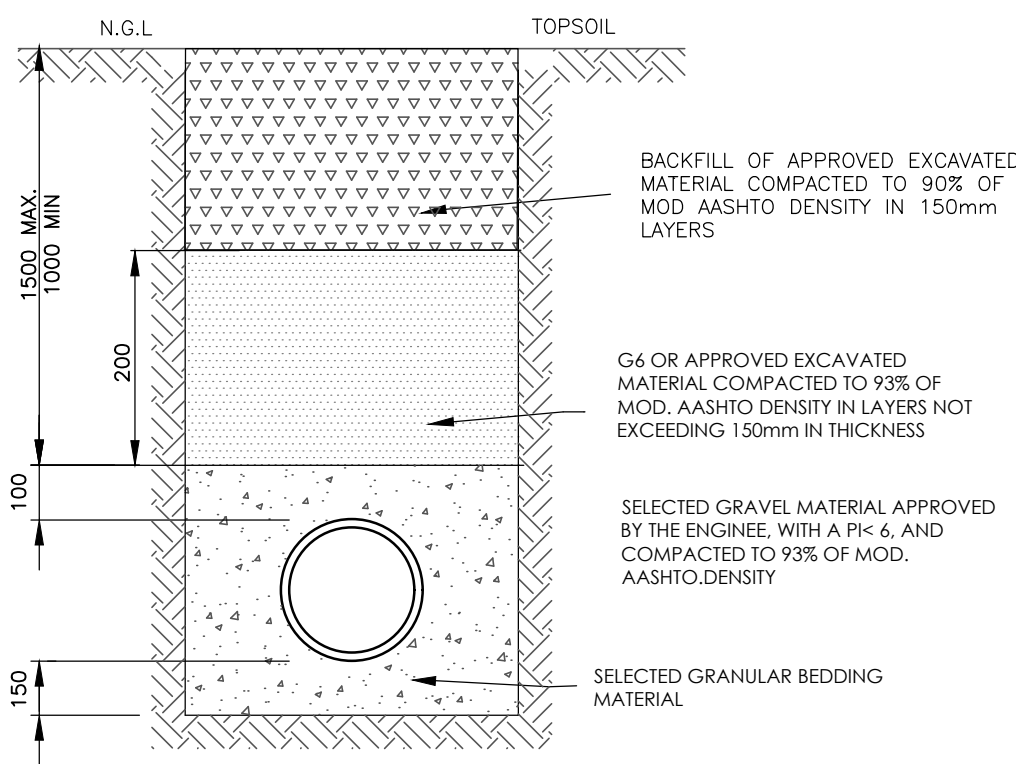


SECTION B  
N.T.S.

## TYPICAL CHAMBER DETAILS



TYPICAL CROSS SECTION OF PIPE  
TRENCH THROUGH PAVEMENT



TYPICAL CROSS SECTION OF PIPE  
TRENCH THROUGH WALKWAYS

## PIPE BEDDING DETAILS

### NOTES AND SPECIFICATIONS

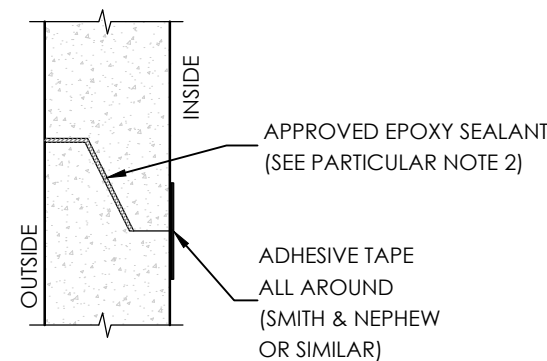
#### GENERAL

- ALL MATERIAL AND WORKMANSHIP MUST COMPLY WITH THE REQUIREMENTS OF THE LATEST RELEVANT SABS REQUIREMENTS.
- ALL DIMENSIONS ARE IN MILLIMETRES. (UNLESS OTHERWISE SPECIFIED)
- DO NOT SCALE FROM THESE DRAWINGS.
- ALL DIMENSIONS MUST BE CHECKED AND APPROVED ON SITE.
- ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR MUNICIPAL CIVIL ENGINEERING WORKS, THIRD EDITION 2005 AND THE STANDARD CTWW DETAIL DRAWINGS.
- THESE DRAWINGS MUST BE READ IN CONJUNCTION WITH THE STANDARD SPECIFICATIONS FOR MUNICIPAL CIVIL ENGINEERING WORKS, SERIES 4.
- THE SIGNATURE OR INITIALS ON THIS DRAWING, OF ANY MANAGER OF WATER AND SANITATION AND INFRASTRUCTURE DEVELOPMENT DEPARTMENT, IN NO WAY REMOVES ANY RESPONSIBILITY WHATSOEVER FROM THE CONSULTANT.
- THE CONSULTANT REMAINS RESPONSIBLE TO ENSURE THAT ALL THE GUIDELINES, STANDARD DRAWINGS, STANDARDS AND SPECIFICATIONS OF WATER AND SANITATION AND INFRASTRUCTURE DEVELOPMENT DEPARTMENT HAVE BEEN MET AND COMPLIED WITH.
- FINAL POSITION OF SERVICES TO BE DETERMINED ON SITE.

#### PARTICULAR

- STEP IRONS TO BE COPOLYMER POLYPROPYLENE ENCAPSULED 12mm HIGH TENSILE STEEL BAR, CALCAMITE OR SIMILAR.
- CONCRETE SECTIONS MUST BE FIXED WITH AN APPROVED EPOXY SEALER SUCH AS EPIDERMIX 344 OR PROSTRUCT 687.

MANHOLE COVERS (S.A.B.S. 558/1965)	
POSITION OF MANHOLE	TYPE OF COVER
STREET RESERVE	CONCRETE FRAME AND COVER(HEAVY DUTY)
NOTE : CONCRETE COVERS ARE USED ONLY WITH WRITTEN INSTRUCTION FROM THE ENGINEER.	
MANHOLE CHAMBER SIZES	
NOMINAL Ø (mm)	USAGE
1000	160 Ømm PIPES WITH STRAIGHT THROUGH MANHOLES UP TO 1.25 m DEEP
1250	BENDS IN MANHOLES, LARGER PIPES & MANHOLES BETWEEN 1.25m & 3m DEEP



DETAIL 1  
N.T.S.

### NOTES AND SPECIFICATIONS

#### GENERAL ENGINEERING NOTES

- ALL MATERIAL AND WORKMANSHIP MUST COMPLY WITH THE REQUIREMENTS OF THE LATEST RELEVANT SABS REQUIREMENTS.
- ALL DIMENSIONS ARE IN MILLIMETRES. (UNLESS OTHERWISE SPECIFIED)
- DO NOT SCALE FROM THESE DRAWINGS.
- ALL DIMENSIONS MUST BE CHECK AND APPROVED ON SITE.
- THE CONSTRUCTION TO BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR MUNICIPAL CIVIL ENGINEERING WORKS, THIRD EDITION 2005 AND THE STANDARD CTWW DETAIL DRAWINGS.
- THESE DRAWINGS MUST BE READ IN CONJUNCTION WITH THE STANDARD DRAWINGS (IF APPLICABLE).
- THESE DRAWINGS MUST BE READ IN CONJUNCTION WITH THE STANDARD SPECIFICATIONS FOR MUNICIPAL CIVIL ENGINEERING WORKS, SERIES 4.
- THE SIGNATURE OR INITIALS ON THIS DRAWING, OF ANY MANAGER OF WATER AND SANITATION AND INFRASTRUCTURE DEVELOPMENT DEPARTMENT, IN NO WAY REMOVES ANY RESPONSIBILITY WHATSOEVER FROM THE CONSULTANT.
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- FINAL POSITION OF SERVICES TO BE DETERMINED ON SITE.

### REVISION INFORMATION

No:	DATE	DESCRIPTION:	BY
F1	23/09/21	ISSUE FOR TENDER	N.M

#### CLIENT



#### CONSULTANT



AMCE  
7 Pierre Street  
Bendor,  
Polokwane,  
Tel No. (015) 295 9914

#### PROJECT DESCRIPTION

PROFESSIONAL ENGINEERING SERVICES  
FOR BURGERSFORT OUTFALL SEWER.

#### DISCIPLINE

CIVIL ENGINEERING

#### DRAWING DESCRIPTION

SEWER DETAILS

DRAWN BY: <b>S Hlongwana</b> C.Tech: 2021703701	SIGNATURE AND DATE:  21 SEPTEMBER 2023
CHECKED BY: <b>M. TSOAI</b> Pr Eng.:20160198	SIGNATURE AND DATE:  21 SEPTEMBER 2023
APPROVED BY: <b>N. TSOTETSI</b> Pr Tech Eng.:201470388	SIGNATURE AND DATE:  21 SEPTEMBER 2023
PROJECT NO.: <b>1121</b>	DATE: 2023-09-21

#### DRAWING NO.:

**NT06/22/1121/101/003**

SCALE	SHEET SIZE	REVISION
AS SHOWN	A1	F1