

GENERAL:

- THE VARIOUS DOCUMENTS SHALL HAVE THE FOLLOWING DESCENDING ORDER OF PRECEDENCE:
 - DRAWINGS
 - PROJECT SPECIFICATIONS
 - STANDARD SPECIFICATIONS
 - SCHEDULE OF QUANTITIES
- ALL MATERIALS, WORKMANSHIP AND TESTING MUST COMPLY WITH REQUIREMENTS OF THE LATEST PROJECT SPECIFICATIONS AND SANS SPECIFICATIONS.
- THE LATEST EDITION OF ANY STANDARD SPECIFICATION SHALL APPLY.
- A COMPETENT, QUALIFIED SURVEYOR TO SET OUT ALL EXISTING SERVICES ACCORDING TO CO-ORDINATES ON PLANS.
- ALL SETTING OUT MUST BE APPROVED BY THE ENGINEER OR THE ENGINEER'S SITE REPRESENTATIVE.
- CONTRACTOR SHALL EXPOSE ALL EXISTING SERVICES WHICH MUST BE CONNECTED TO PRIOR TO ANY WORK BEING DONE. WORK MAY ONLY COMMENCE ONCE THE ENGINEER HAS CHECKED THAT THE CONNECTIONS ARE POSSIBLE AND WRITTEN APPROVAL GIVEN FOR COMMENCEMENT OF WORK.
- ALL EARTHWORKS AND SERVICES TO BE SET OUT BY A COMPETENT AND QUALIFIED SURVEYOR ACCORDING TO CO-ORDINATES ON PLANS.
- ALL BENCHMARKS TO BE CHECKED BY A COMPETENT LAND SURVEYOR AND AGREED UPON IN WRITING PRIOR TO ANY CONSTRUCTION WORK COMMENCES.
- CONTRACTOR TO OBTAIN APPROVAL TO CONNECT UP WITH EXISTING INFRASTRUCTURE AND TO COMPLY WITH LOCAL AUTHORITY REGULATIONS.

WORK TO COMPLY WITH THE FOLLOWING STANDARD SPECIFICATIONS:

1. STANDARDIZED SPECIFICATION FOR CIVIL ENGINEERING CONSTRUCTION (SANS 1200):

- SANS 1200 DM EARTHWORKS (ROADS SUB-GRADE)
- SANS 1200 M ROADS (GENERAL)
- SANS 1200 ME SUB-BASE
- SANS 1200 MF BASE
- SANS 1200 MH ASPHALT BASE AND SURFACING
- SANS 1200 MJ SEGMENTED PAVING
- SANS 1200 MK KERBING AND CHANNELLING
- SANS 1200 MM ANCILLARY ROAD WORKS

2. CONSTRUCTION WORKS (SANS 2001)

- SANS 2001-BE1 EARTHWORKS (GENERAL)
- SANS 2001-BE1 SITE CLEARANCE
- SANS 2001-CC1 CONCRETE WORKS (STRUCTURAL)
- SANS 2001-DP1 EARTHWORKS FOR BURIED PIPELINES AND PREFABRICATED CULVERTS
- SANS 2001-DP2 MEDIUM PRESSURE PIPES
- SANS 2001-DP3 CABLE DUCTS
- SANS 2001-DP4 SEWERS
- SANS 2001-DP5 STORM WATER DRAINAGE
- SANS 2001-DP6 BELOW GROUND WATER INSTALLATIONS

NOTES FOR EARTHWORKS:

- THE INFORMATION PROVIDED IS PER THE TOPOGRAPHICAL SURVEY RECEIVED. ALL INFORMATION REGARDING THE SURVEY SHOULD BE VERIFIED PRIOR TO ANY WORKS COMMENCING.
- CLEAR AND REMOVE ALL DEBRIS, UNMARKED TREES, GRASS AND RUBBLE FROM PLATFORM AREA.
- EXCAVATE TO SPOIL ALL TOPSOIL EXCEPT THAT WHICH IS REQUIRED FOR LANDSCAPING, WHICH MUST BE STOCKPILED AS DIRECTED BY THE ARCHITECT.
- EXCAVATED MATERIAL TO BE USED AS DIRECTED BY THE ENGINEER.
- ALL EXCAVATION AND/OR FILL BATTERS TO BE AS INDICATED ON THE APPROPRIATE DRAWINGS.
- ALL BULK FILL WITH APPROVED MATERIAL (G7) AS APPROPRIATE COMPACTED IN 150mm MAX THICK LAYERS TO 93% MODIFIED AASHTO DENSITY.
- CARE TO BE TAKEN WHEN CUTTING OR EXCAVATING SO AS NOT TO DAMAGE SERVICE ELEMENTS SUCH AS WATER PIPES, SEWERS, GRID LINES, ELECTRICAL CABLES, ETC. REMOVAL OF SUCH ITEMS TO BE TO THE APPROVAL OF THE RELEVANT AUTHORITIES AND ARCHITECT.
- IF THE EMBANKMENT SLOPES SHOWN ON THE DRAWING CANNOT BE SAFELY CONSTRUCTED, THE REVISED SLOPES MUST BE AGREED ON BY THE ENGINEER ON SITE AT COMMENCEMENT OF CONSTRUCTION.
- SETTING OUT OF BULK EARTHWORKS GIVEN TO THE NEAREST mm TO CONCREDE WITH ARCHITECT DIMENSIONS. THE CONTRACTOR MAY IN SETTING OUT, ROUND OFF TO THE NEAREST 10mm. PERMISSIBLE DEVIATION OF LEVEL IS PER SANS 2001-BE, DEGREE OF ACCURACY II.
- ALL EARTHWORKS TO BE IN ACCORDANCE WITH SANS 2001-BE. AMENDMENTS THERE TO AND ZUTARI STANDARD SPECIFICATIONS.
- ALL FLOOR LEVELS SHOWN ON THE DRAWINGS ARE FINAL FLOOR LEVELS WITHIN BUILDINGS.
- ALL FINISHED LEVELS SHALL ENSURE THAT NO WATER WILL POND.
- ALL PAVING LEVELS SHOWN ON THE DRAWINGS ARE FINAL PAVING LEVELS WITHIN THE SITE BOUNDARY.
- THE CONTOURS AND NATURAL GROUND LEVELS REFLECTED ON THIS DRAWING ARE PER SURVEY DATA SUPPLIED TO US. THE CONTRACTOR IS TO CHECK THE ACCURACY OF THIS INFORMATION AND REPORT ANY DISCREPANCY IMMEDIATELY TO THE ENGINEER. PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL FIND AN APPROPRIATE SITE TO SPOIL EXCESS MATERIAL.
- MINIMUM NUMBER OF INDEPENDENT PROCESS CONTROL TESTS REQUIRED: FOR EACH TYPE OF MATERIAL
 - RELATIVE COMPACTION = 4 TESTS/2000 m³/300mm THICKNESS
 - INDICATOR TEST = 1 EACH PER 2000 m³ AND/OR EACH TYPE OF MATERIAL
 - CBR UCS = 1 EACH PER 2000 m³ AND/OR EACH TYPE OF MATERIAL
 - REIMBURSEMENT FOR PROCESS CONTROL TESTS SHALL BE INCLUDED IN RATES SUBMITTED.
- AS A BULK SURVEY OF THE COMPLETED BULK EARTHWORKS PLATFORMS IS TO BE PROVIDED TO THE ENGINEER ON COMPLETION.
- REFER TO OTHER INFRASTRUCTURE DRAWINGS FOR SERVICES TO BE INSTALLED.

NOTES FOR ROADS:

- ALL SIGNS AND MARKINGS SHALL COMPLY WITH THE SOUTH AFRICAN ROAD TRAFFIC SIGNS MANUAL (LATEST VERSION).
- SIGN BOARDS TO BE SHEET METAL 1.6 mm THICK CHROMADEK OR SIMILAR APPROVED. ENGINEERING GRADE CLASS 1 RETRO-REFLECTIVE MATERIAL SHALL BE USED FOR SIGN BOARDS.
- ROAD MARKINGS TO BE DONE WITH WHITE (UNLESS SPECIFIED OTHERWISE) NON-REFLECTORIZED PAINT.
- ROAD MARKING LINES TO BE 100 mm WIDE (UNLESS SPECIFIED OTHERWISE).
- SIZES OF ROAD SIGNS AND MARKINGS ARE FOR A DESIGN SPEED OF 40 km/h FOR INTERNAL ROADS AND 60 km/h FOR EXTERNAL ROADS.
- EXCESS EXCAVATED MATERIAL SHALL BE SPOILED TO AN APPROVED SITE LOCATED BY THE CONTRACTOR OR INDICATED BY THE ENGINEER.
- MINIMUM NUMBER OF PROCESS CONTROL TESTS REQUIRED FOR FILL AND LAYER WORKS:
 - RELATIVE COMPACTION = 1 EVERY 20 m ON ROADS SEPARATELY FOR EACH LAYER.
 - INDICATOR TEST = 1 EACH FOR EACH LAYER AND TYPE OF MATERIAL
 - CBR UCS = 1 EACH LAYER AND TYPE OF MATERIAL
 - REIMBURSEMENT FOR PROCESS CONTROL TESTS SHALL BE INCLUDED IN RATES SUBMITTED. CONSTRUCTION UCS TEST TO BE SUPPLIED ACCORDING TO THE WORK DONE PER DAY (CONTRACTOR TO PRICE ACCORDINGLY).
- FINISHED LEVELS SHALL ENSURE THAT NO WATER WILL POND.
- MIX DESIGN FOR ASPHALT PREMIX FOR ROAD SURFACING TO BE SUBMITTED FOR APPROVAL TO ENGINEER.

NOTES FOR STORM WATER:

- ALL PIPELINES ARE ACCORDING TO CONTOUR DATA. PRIOR TO CONSTRUCTION ALL LEVELS TO BE CONFIRMED BY THE CONTRACTOR.
- THE CONTRACTOR MUST LOCATE ALL EXISTING STORM WATER LINES, RECORD POSITIONS AND INVERT LEVELS BEFORE CONSTRUCTION COMMENCES. THIS INFORMATION MUST BE MADE AVAILABLE TO THE ENGINEER AS SOON AS POSSIBLE.
- ALL STORM WATER PIPES TO BE LAID SOFFIT TO SOFFIT.
- ALL STORM WATER PIPES TO BE "LOGGE" INTERLOCKING WITH A RUBBER COLLAR OVER AND LAID ON A CLASS 'B' BEDDING.
- PIPES SHALL BE 450mm DIAMETER MINIMUM UNLESS OTHERWISE SPECIFIED BY ENGINEER.
- PIPES UNDERNEATH SURFACE BEDS OF BUILDING TO BE CLASS 1000 CONCRETE PIPES ACCORDING TO SANS 677 WITH SPIGOT AND SOCKET AND RUBBER RINGS. PIPES TO BE CAST IN CLASS 20/19 CONCRETE WITH FLEXIBLE JOINTS (12mm SOFT BOARD) AND WITH 150mm MINIMUM COVERS.
- CONCRETE STRUCTURES SHALL BE READ IN CONJUNCTION WITH STRUCTURAL ENGINEERS DETAILS, WHERE REQUIRED.
- GRIDS TO BE PROVIDED AT THE UPSTREAM END OF ALL LARGE CHANNELS AND BOX CULVERTS FOR SECURITY PURPOSES AND TO ALLOW FOR EASY ACCESS FOR MAINTENANCE PURPOSE.
- DRAINAGE PORTS TO BE PROVIDED AT BOUNDARY WALLS TO PREVENT PONDING.
- JOINT SEALS IN CONCRETE CHANNELS, BOX CULVERTS AND MANHOLES ARE TO BE CLEANED AND RE-SEALED WATERTIGHT WITH POLY-SULPHIDE.
- ALL EXISTING STORM WATER SYSTEMS, INCLUDING GRID INLETS AND OUTLET STRUCTURES MUST BE CLEANED OUT. DEBRIS, RUBBISH, SALT AND VEGETATION MUST BE REMOVED AND DISPOSED OF.
- MECHANICAL CLEANING OF STORM WATER DRAINAGE STRUCTURES WITH HIGH PRESSURE WATER JET.
- NO EXISTING SERVICES TO BE DAMAGED.
- FOR DETAILS ON MANHOLES, GRID INLETS, KERB INLETS, JUNCTION BOXES, CUT-OFF DRAINS, ETC. REFER TO STANDARD DETAILS DRAWING.

MINIMUM COVER TO PIPES

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| MINIMUM COVER: | ROADWAYS: | 600mm |
| | OTHER AREAS: | 1200mm |

GRADES

- MINIMUM GRADES FOR THE STORM WATER RETICULATION:
- STORM WATERS LAID AT GRADIENTS STEEPER THAN 1:12 SHALL BE ANCHORED AT THE JOINTS WITH ANCHOR BLOCKS CONCRETE OF STRENGTH 15MPa (15.8) SHALL BE USED FOR ANCHOR BLOCKS.

MATERIAL SPECIFICATION

- ALL PIPES USED MUST CONFORM TO SANS2001-DP5 AND ALL OTHER STANDARDS REFERRED TO IN SANS 2001-DP5.

BEDDING AND BACKFILL

- SPECIFICATIONS SET OUT IN SANS2001-DP1 MUST BE FOLLOWED FOR THE BEDDING AND BACKFILL OF WATER PIPES. BEDDING, BACKFILL AND PIPE STRENGTH SHALL BE SUFFICIENT TO ENSURE THAT PIPELINES ARE NOT OVERSTRESSED FROM ALL SUPERIMPOSED LOADING.
- ALL BEDDING MATERIAL MUST BE OF SELECTED GRANULAR MATERIAL WITH A Pk% AND FREE FROM ORGANIC MATTER, CLAY OR STONES LARGER THAN 20mm.
- SUBSOIL DRAINS ARE TO BE PROVIDED WHERE GROUND WATER IS A PROBLEM. THE DESIGNER SHALL ENSURE THAT THE DESIGN IS SUFFICIENT TO MEET THE REQUIREMENTS.
- BACKFILL MATERIAL MUST BE HOMOGENOUS AND MUST BE COMPACTED IN 150mm LAYERS TO 93% MODIFIED AASHTO DENSITY. INDEPENDENT DENSITY TESTS MUST BE CARRIED OUT IN 150mm LAYERS.
- TESTS AND SPECIFICATIONS
- INSPECTION ON COMPLETION OF THE EXCAVATION PRIOR TO LAYING THE PIPE.
- INSPECTION OF PRESCRIBED BEDDING AND THE COMPACTION OF SURROUNDING MATERIAL UP TO THE CENTERLINE OF THE PIPE.
- AIR OR WATER TESTS, AS PRESCRIBED IN THE STANDARD SPECIFICATION SANS 2001, ARE TO BE CONDUCTED AFTER THE PLACING AND COMPACTION OF THE BACKFILLING. CONTRACTORS MUST PRESSURE TEST THE PIPELINE PRIOR TO BACKFILLING, AT THEIR OWN EXPENSE, TO AVOID EXCAVATION OF THE FINAL BACKFILL.
- DENSITY TESTS MUST BE CONDUCTED ON BEDDING AND BACKFILL MATERIAL. CORRELATED DCP TESTS WILL BE ACCEPTABLE UNLESS OTHERWISE SPECIFIED.
- INSPECTION OF THE CONSTRUCTION OF THE CHAMBERS AND COMPLETION OF THE BACKFILL.

NOTES FOR SERVICE DUCTS AND SLEEVES:

- SLEEVES TO KABLEFLEX OR SIMILAR APPROVED WITH DIAMETERS AS SPECIFIED ON THE DRAWINGS IN ACCORDANCE WITH SANS 2001-DP3.
- SLEEVES TO BE SUPPLIED WITH A DRAW WIRE AND MARKER BLOCKS.
- SLEEVES SHALL HAVE A MINIMUM COVER OF 1000 mm. ALL SLEEVES TO BE INSTALLED BEFORE ROAD LAYER WORKS COMMENCE.
- SLEEVES TO BE LAID IN A CLASS B BEDDING ACCORDING TO SANS 2001-DP1.
- ALL SLEEVES TO BE CLEANED AND PROVIDED WITH APPLICABLE SIZE MANDREL ACCORDING TO SANS 2001-DP3
- ALL COMPACTION TESTS (DENSITY / TROXLER) ON PIPE TRENCHES TO BE DONE AND SUPPLIED EVERY 300mm LAYERS @20M INTERVALS

GENERAL NOTES:

- ALL WORK MUST BE DONE IN ACCORDANCE WITH THE STANDARD SANS 1200 SPECIFICATION AND THIS PROJECT'S APPLICABLE CONTRACT DOCUMENTATION.
- ALL MODIFICATIONS TO EXISTING SERVICES AND DEVIATIONS FROM THE DESIGN TO BE AS PER INSTRUCTION FROM THE ENGINEER ONLY.
- THE CONTRACTOR SHALL CHECK ALL SETTING OUT INFORMATION ON SITE AND NOTIFY THE ENGINEER OF ANY IRREGULARITIES PRIOR TO CONSTRUCTION.
- THE ENGINEER'S DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS' CONSULTANTS AND SPECIALISTS' DRAWINGS - ANY DISCREPANCIES SHALL BE REFERRED TO THE ENGINEER PRIOR TO CONSTRUCTION.
- THE POSITION OF EXISTING SERVICES/ BOUNDARIES SHOWN ON THIS DRAWING IS GIVEN IN GOOD FAITH AND NO GUARANTEE CAN BE GIVEN THAT THEY ARE CORRECT.
- THE CONTRACTOR SHALL LIAISE WITH THE RELEVANT LOCAL AUTHORITIES FOR POINTING OUT UNKNOWN EXISTING SERVICES AND OBTAIN THE NECESSARY APPROVALS IN WRITING.
- THE CONTRACTOR IS TO LOCATE AND IDENTIFY EXISTING SERVICES ON THE SITE AND PROTECT THESE FROM DAMAGE THROUGHOUT THE DURATION OF THE CONTRACT.
- THE CONTRACTOR SHALL FAMILIARISE HIMSELF WITH THE GEOTECHNICAL REPORT INCLUDED IN THE TENDER DOCUMENTATION, INCLUDING SECTION 5.2 TO SECTION 5.7 DESCRIBING SITE GEOLOGY AND DRAINAGE, MATERIALS UTILISATION POTENTIAL AND SUBGRADE, EXCAVATION AND FOUNDDING CONDITIONS RESPECTIVELY.

FOR INFORMATION

DISCLAIMER

IF CONSTRUCTION DRAWINGS ARE ISSUED UNSIGNED, THE MASTER WITH THE ORIGINAL SIGNATURE OF APPROVAL WILL BE HELD AT THE ZUTARI OFFICE OF THE APPROVER

REVISIONS			
NO.	DATE	DESCRIPTION	APPROVED
A	2010/05/04	FOR INFORMATION	Final

Engineer: Herman vd Merwe (P. TechEng 2012/0085)

Signature: Date:



Client: Government Printing Works

Signature: Date:



PROJECT:
CONSTRUCTION OF TEMPORARY PARKING FACILITIES FOR GOVERNMENT PRINTING WORKS HEAD QUARTERS
ADDRESS:
ERF 3500, Mmvaar St, Pretoria Central, 0002, RSA.

DRAWING TITLE:
SITE GENERAL NOTES

Building Classification: J4 PARKING	Climate Zone: Zone 2:
Paper Size: A0	Scale: N.T.S
Drawn: J.K	Checked: KB
Date: 24/10/2024	REVISION
PROJECT No: GPW/TP/2017/02 Drawing No: DRG-CC-200301	A