


Turbine Hall 85 Ntshini Mile Newtown P.O. Box 61542 Johannesburg 21 Tel: (011) 888-		 Johannesburg Water		PAGE NO.			
				CLOSING DATE AND TIME			
				10-Dec-25 16:00			
				Date of Issue			
				03 December 2025			
INITIATING DEPARTMENT		INITIATOR		QUOTATION DATE		VALIDITY	
Infrastructure Planning & Asset Management - IPAM		Khensani Malabe		60 DAYS		7 DAYS	
QUOTATION REFERENCE		COLLECTIVE NO.					
RFQJW091SC25 - Topographical Survey Services – LENASIA EXT.10 TOPOGRAPHICAL SURVEY							
QUOTATION REQUESTED FROM							
		QUOTATIONS WILL BE EVALUATED ON THE 80/20 POINT SCORING SYSTEM. 80 POINTS WILL BE ALLOCATED TO PRICE AND THE REMAINING 20 POINTS WILL BE ALLOCATED FOR SPECIFIC GOALS AS PER PPPFA 2022.					
		ALL SUPPLIERS RESPONDING TO QUOTATIONS SHOULD BE REGISTERED ON CENTRAL SUPPLIER DATABASE (CSB)					
		JW Contact Person :					
		Telephone Number :					
ITEM NO.	DESCRIPTION	DESCRIPTION OF ITEM OFFERED	UOM	QTY REQUIRED	PRICE QUOTED EXCL. OF V.A.T.	DISCOUNT	PRICE QUOTED INCL. OF V.A.T.
	RFQJW091SC25 - Topographical Survey Services – LENASIA EXT.10 TOPOGRAPHICAL SURVEY						
1	SECTION 1						
1.1	Preliminary & General		Sum	1			
TOTAL SECTION 1 CARRIED FORWARD TO SUMMARY							
2	SECTION 2						
2.1.1	TOPOSURVEY AND SERVICE DETECTION SERVICES COLLATION OF CADASTRAL DATA		Sum	1			
2.2	Collation of cadastral data per project						
2.2.1	Survey of X, Y, Z co-ordinates of all above and below ground key points picked for the survey. Strip width 30 metres wide. Rate to include opening and picking of all invert levels and indicating direction of flow for existing, sewer and storm water services within the project boundary intersecting the line to be surveyed.		m	± 1400			
2.2.2	EXTRA OVER ABOVE ITEMS, for excavation, exposing and picking invert levels for all other underground services at positions prescribed by the Engineer.		m³	30			
2.3	SURVEY BEACONS						
2.3.1	Identification of existing beacons for use in survey reference		Sum	1			
2.3.2	Establishment of new benchmarks within survey area for survey purposes where existing beacons are insufficient or do not exist		No. of Points	25			
2.4	DIGITAL TERRAIN MODEL AND MAPPING						
2.4.1	Processing and preparation of the survey points (of area and description given in 1.2 and 1.3 above into ASCII format, together with the DTM, DWG and DXF of the master drawing, and all the explanatory notes. (900 m at Vaal Street and 500 m at scorpion street)		m	± 1400			
2.4.2	Submit all the required information processed in 3.1 on a 16GB USB flash drive		No. of	1			
2.4.3	Security for duration of survey		Sum	1			
3	SECTION 3						
SUMMARY OF SCHEDULE OF QUANTITIES							
3.1	SECTION 1: PRELIMINARY & SCHEDULE						
3.2	SECTION 2: TOPOSURVEY AND SERVICE DETECTION SERVICES						
3.3	TOTAL						
3.4	15 % VAT						
3.5	GRAND TOTAL						
	SPECIFIC GOALS	POINTS					
	Business owned by 51% or more-Women	20					
QUOTATION REF AS ABOVE: RFQJW ...& COMPANY NAME ON THE EMAIL SUBJECT LINE NB: All suppliers responding to RFQs should use their own company letter head not JW RFQ Template AND MAKE SURE THEIR EMAIL ADDRESS IS VISIBLE ON THEIR QUOTATION. NB: A copy of valid lease agreement and municipal account(not older than 3 months)should be submitted with a quote NB: MBD forms attached should be completed and submitted with the quote NB: All Quotes should be on PDF (MS WORD, MS EXCEL, PICTURES ARE NOT ALLOWED) NB: Copy of valid BBBEE CERTIFICATE or SWORN AFFIDAVIT to be submitted with the quote SUBMISSIONS MUST BE MADE ON THE E-TENDER PORTAL(https://www.etenders.gov.za/) NO EMAIL SUBMISSIONS.							
OFFICIAL STAMP		AU/HLKIDEU BT:	1. QUOTATIONS RECEIVED AFTER CLOSE OF BUSINESS ON THE CLOSING DATE WILL NOT BE ACCEPTED. 2. QUOTATIONS WITHOUT BRAND NAMES WHERE REQUIRED WILL NOT BE ACCEPTED 3. PRICES QUOTED MUST BE AS PER THE UNIT INDICATED AND BE EXCLUDED OF VAT 4. QUOTATIONS WITHOUT THE SUPPLIER'S AUTHORISED SIGNATURE WILL NOT BE ACCEPTED. (ONLY IF QUOTED ON THE JW RFQ TEMPLATE) 5. ACCEPTANCE OF A QUOTATION WILL BE SUBJECT TO JOHANNESBURG WATER'S SUPPLY CHAIN POLICY 6. TOTAL QUOTATION VALUE TO INCLUDE V.A.T WHERE APPLICABLE				
		SIGNATURE:					
		DATE:					

Volume	1	2		
Part	C1	C2	C3	A

Topographical Survey Page (1)

Scope of Work

Professional Topographic Survey Services

JOHANNESBURG WATER
LENASIA EXT.10 TOPOGRAPHICAL SURVEY
QUOTATION REQUEST

SCHEDULE OF QUANTITIES / BILLS OF QUANTITY AND SPECIFICATIONS



Registration No: 2000/029271/30

Volume	1	2		
Part	C1	C2	C3	A

Stretford 5.9 & 10 - TOPOGRAPHICAL SURVEY

ITEM No.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	SECTION 1				
1.1	Preliminary & General	Sum	1		
TOTAL SECTION 1 CARRIED FORWARD TO SUMMARY					
2	SECTION 2				
2.1	COLLATION OF CADASTRAL DATA				
2.1.1	Collation of cadastral data per project	Sum	1		
2.2	FIELD WORK: SURVEY POINTS				
2.2.1	Survey of X, Y, Z co- ordinates of all above and below ground key points picked for the survey. Strip width 20 metres wide. Rate to include opening and picking of all invert levels and indicating direction of flow for existing, sewer and storm water services within the project boundary intersecting the line to be surveyed.	m	1400.00		
2.2.2	EXTRA OVER ABOVE ITEMS, for excavation, exposing and picking invert levels for all other underground services at positions prescribed by the Engineer.	m ³	25		
2.3	SURVEY BEACONS				
2.3.1	Identification of existing beacons for use in survey reference	Sum	1		
2.3.2	Establishment of new benchmarks within survey area for survey purposes where existing beacons are insufficient or do not exist	No. of points	25		
2.4	DIGITAL TERRAIN MODEL AND MAPPING				
2.4.1	Processing and preparation of the survey points (of area and description given in 1.2 and 1.3 above into ASCII format, together with the DTM, DWG and DXF of the master drawing; and all the explanatory notes.	m	1400		
2.4.2	Submit all the required information processed in 3.1 on a 16GB USB flash drive	No. of USB flash drives	1		
2.4.3	Security for duration of survey	Sum	1		
TOTAL SECTION 2 CARRIED FORWARD TO SUMMARY					

Volume	1	2		
Part	C1	C2	C3	A

Lenasia Ext.10 Scorpio Drive & Vaal Street
TOPOGRAPHICAL SURVEY

ITEM No.	<u>SECTION 3: SUMMARY OF SCHEDULE OF QUANTITIES</u>	
3.1	SECTION 1 – PRELIMINARY & GENERAL	
3.2	SECTION 2 - TOPOSURVEY SERVICES	
TOTAL		
15% VAT		
GRAND TOTAL		

PROJECT NAME		Lenasia Ext 10 Scorpio & Vaal Street
CoJ REGION		Region G
LONGITUDE	27°52'39.56"E	
LATITUDE	26°20'8.53"S	Scorpio Drive
LONGITUDE	27°51'35.59"E	
LATITUDE	26°20'27.92"S	Vaal Street

***The Service Provider Will Commence with work five (5) days after issuing of the Works Order, if the Service Provider fails to Commence with the Works within this given duration the Works Order will be cancelled.2**

The duration for the Work will be indicated on the Works Order.

Please ensure that you attached your Professional Indemnity (PI) of not less than R1 000 000.

Name and Surname of Service Providers Representative:

Signature of Service Provider:

Date:

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****PLEASE NOTE:**

1. Due to access challenges in certain suburbs, the Service Provider may be requested to work during the weekends.
 2. Payment will be made upon completion of the works.
 3. As per clause C.15 please indicate resources to be allocated on this project.
 - 3.1 Professional land surveyor attaches qualification (BSC Degree in Engineering Survey), professional registration certificate and CV with minimum of 4 Years experience as a Professional Land Surveyor.
 - 3.2 Surveyors attach qualification (Diploma in Engineering Survey), and CV with minimum 3 years' experience as a Land Surveyor.
-

SCOPE OF WORK

1. Employer's Objectives

The project shall cover the following suburbs.

PROJECT SURBUB	REGION	LENGTH (M)
Lenasia Ext 10 Scorpio & Vaal Street	CoJ Region G	900 & 500
GRAND TOTAL		± 1400

The project is located on the following approximate coordinate Latitude: 26°29'26.37"S, Longitude: 27°50'15.64"E

2. Description of the Services

The Service Provider shall be required to carry out the services as governed by the South African Geomatics Council (SAGC) code of conduct and SAGC Act 10 of 2013 and thus ensure that all design and construction projects the Employer executes during Contract Period of Performance are properly designed and the as-built drawings are updated accurately.

3. Extent of the Services

The Service Provider's shall be required to provide the summarised services, among others:

- a) Collection and Collation of cadastral information for each project area.
- b) Identification of survey beacons
- c) Establishment of Survey Benchmarks
- d) Field work - surveying
- e) Production of digital terrain models (DTMs)
- f) Mapping and Production of detailed survey drawings

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g) Servitude Registration

4. Brief

4.1 Scope

This Specification describes in general terms the requirements for the cadastral work, basic survey, ground control and drafting of contour plans, and for the preparation of a digital terrain model in ASCII format.

Generally, the scope of the Works is as follows.

- a) The obtaining of all relevant cadastral information for the site, the drafting of the cadastral information on the survey key plan, any field survey that may be required in this regard and supplying copies of all relevant Surveyor General diagrams and compilation of plans upon completion.
- b) The drafting of topographical and other detail covering the site as specified hereinafter and of contours and the storage thereof in drawing files at the mapping scale and with the contour interval specified.
- c) The preparation of a digital terrain model for the site, or for portions thereof, at the point spacing and to the accuracy specified hereinafter.

4.2 Collation of cadastral data

- a) The Surveyor is required to collect all data describing the cadastral boundaries and servitudes registered over all properties covering the site and in respect of which deeds of tenure have been registered in the Deeds Registry for the Province/Region in question.
- b) The cadastral information supplied by the GIS department of local authority shall be taken as a guide, but the primary source of cadastral information shall be the offices of the Surveyor-General for the Region/Province in question. The Surveyor shall obtain photostatic or similar copies of these diagrams, as well as copies of all existing cadastral compilation sheets.
- c) Cadastral boundaries shall be plotted by means of co-ordinates and not by means of angles and distances.

4.3 Field work

- a) The survey shall be based on the Lo-system WGS84 of the national triangulation.
- b) All points shall be in the X, Y and Z directions according to land-survey methods generally accepted in the Republic of South Africa to ensure that the required degree of accuracy is achieved. All points that are fixed shall be checked and confirmed in the field.
- c) The elevations of the permanent survey stations shall be determined by a total station (or any other approved survey equipment) from the appropriate national geodetic benchmark.
- d) The Surveyor shall identify and list the trig beacons that he used as traverse terminals, or for the fixing of survey stations by trigonometrical survey methods.

4.4 Survey Beacons and benchmarks

- a) The Surveyor shall note that the value of the basic survey depends largely on the permanence of its reference points.
- b) Permanent survey benchmarks shall be set in concrete and clearly marked. Alternatively, existing permanent structures can be used as permanent survey benchmarks
- c) The survey benchmarks shall be numbered sequentially starting at BM01, and continuing BM02, BM03 etc. by means of a punched strip of aluminium at least 1,3mm thick firmly set into the concrete.
- d) The Survey stations shall be established on the site at a spacing not exceeding 300m (horizontal).

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- e) Permanent survey station beacons must be placed such that potential influence from unstable surrounding material is avoided.
- f) Identified survey beacons must be labelled and shown on the survey diagram

4.5 Digital Terrain Model

- a) The digital terrain model shall consist of ASCII files stored on disc and supplied to the Engineer.
- b) The design files of the package used when the DTM was generated shall also be provided. (E.g. Model Maker .tot files, Civil Designer .blk files etc).
- c) Separate files shall be provided for spot heights and for detail points or it must be clearly separated when contained in one file.
- d) Each point shall be recorded on disc in the following order:
 - ◆ Point description (code or short name)
 - ◆ Y co-ordinate
 - ◆ X co-ordinate
 - ◆ Z co-ordinate
 - ◆ Connecting line reference (where applicable)
 - e) The Surveyor shall supply a list explaining the point description codes to the Engineer together with the DTM.
 - f) The accuracy of any point in the digital terrain model, whether a spot height or a detail point height, shall be such that the mean square error of the elevation of such points as determined from the digital terrain model when compared with the elevations as determined in the field, shall not exceed 100mm, unless otherwise agreed.
 - g) The general point spacing shall be 5m. This average grid shall be supplemented in areas of sharply varying topography with detail terrain points (that is along break lines).

4.6 Mapping

- a) One master drawing (incorporating all survey layout plans) shall be supplied to the Engineer on disc in DWG and DXF formats.
- b) The contour interval shall be:
 - ◆ 0,5m for ground slopes less than 10 percent; and
 - ◆ 1,0m for ground slopes more than 10 per cent.
- c) The accuracy of the contours shall be such that the mean square error of the elevations of the checkpoints as determined by interpolation between contours when compared with the elevations as determined in the field shall not exceed half the contour interval unless otherwise specified. The mean square error shall be computed from the formula:

$$MSA = (\text{Sum } (dh^2)/n)^{0.5}$$
 Where "dh" is the vertical error of each checkpoint and "n" is the total number of checkpoints.
 - c) The grid spacing shall be 100m.

4.7 Details on drawings

This (drawing) plan shall show the following detail:

- a) All farm, district, and regional boundaries and all portions and subdivisions thereof. In urban areas individual ervens and stand numbers should be shown.
- b) All original farm names and farm portions/subdivision numbers, including the full description of each portion of subdivision. In urban areas the appropriate township description shall be indicated.
- c) All property owners including their registered addresses and contact numbers. This requirement shall not apply for erven in proclaimed townships.
- d) The centreline of any major roads, railway lines or other prominent features.
- e) Contours at the interval and to the accuracy specified.

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- f) Contour values at frequent intervals.
 - g) All permanent survey stations at the spacing specified, including a co-ordinate list for all such survey stations. The co-ordinate list shall indicate the Lo-system and survey datum used.
 - h) All natural topographical features, such as rivers, streams, eroded areas, gullies, etc. The names (if any) of such features and the directions of flow where applicable, should be indicated on the layout plans.
 - i) All man-made topographical features, such as excavations, quarries, cuts, embankments and fills, including all break point, toe- and pick-point lines.
 - j) Bush, scrub and plantations, cultivated and wooded lands, rock outcrops, individual trees which are landmarks and so forth; the outline of such areas should be properly shown wherever it is clear cut.
 - k) Roadways (showing tarred width), road shoulders, footpaths and associated structures (bridges, culverts, etc) with the destination of all main roads leaving the sheet being shown. Bridge openings and culvert sizes, road numbers or street names and kilometre boards should also be shown.
 - l) Power and telephone lines (showing individual poles/pylons of power lines and telephone carrier routes).
 - m) All underground pipelines, or cables and associated structures (manholes, valve chambers, reservoirs etc), the position of which can be ascertained from surface indications. Detail regarding the diameter and purpose of such pipelines should be added where such detail is readily available.
 - n) Gates and fences (differentiating between ordinary, stock-proof, jackal-proof and security fences) etc. All access points to main roads should also be indicated.
 - o) Wells, boreholes and windmills.
 - p) All existing buildings, ruins, existing servitude and such like.
 - q) Existing survey and trig beacons that can be identified with the mapping area (for example those alongside provincial and/or national roads), with directions to all adjoining beacons, the stations number and the reduced level. In addition a co-ordinate list indicating the Lo-system, the co-ordinates of the individual points and/or beacons the survey date should be included.
 - r) 1: 50 000 topographic maps showing the trig beacons used must be supplied as well.
 - s) All place names, where these have been officially assigned.

5. Co-operation with other Service Providers and Contractors

The Service Provider shall be required, for the successful execution of his service provision, to interact with other service providers and principal contractors appointed by the Employer.

6. Reference Data

The Employer shall provide the Service Provider with all reference data and locality maps of the areas to be surveyed at the issue of each Work order.

7. Applicable National and International Standards

The following National and International standards shall be applicable to the service provision under this Contract:

- a) SAGC Act 19 of 2013
- b) Any other standards as may be deemed necessary depending on the type of activity.

8. Access to land / buildings / sites

The Service Provider shall report to the principal contractor before entering the construction works site.

9. Software Application for Programming

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Only Windows Microsoft Project programming software package will be accepted.

10. Key Personnel

The Service Provider shall be required to allocate sufficiently experienced personnel, about SAGC Act 19 of 2013 as amended) requirements and the actual implementation thereof, to execute the Contract successfully. The following shall be the minimum key personnel required for each project executed:

- a) 1 x Professional Land Surveyor – BSc In Engineering Survey, 4-5 Years experience as a Professional Land Surveyor (limited to 3 active projects)
- b) 1 x Surveyor – National Diploma in Engineering Survey, 3-4 years' experience as a Land Surveyor (limited to 1 active project)

11. Management Meetings

The Service Provider:

- a) shall be required to attend monthly progress meetings with the Employer, at dates and venues to be agreed where technical and performance issues shall be discussed.

12. Electronic Payments

The Service Provider shall provide all necessary information to facilitate effective electronic payment, as require by the Financial Department of the Employer.

13. Professional Indemnity Insurances

The Service Provider shall provide two hard copies of the details of existing insurances with the returnable documents that form part of the Tender data. In the event of a Joint Venture or Consortium, the Lead Consultant shall be responsible to provide the Professional Indemnity Insurance for the entire Contract or Contracts tendered on.

14. Daily Records

Where the Employer requires the Service Provider's to perform work on a time-and-cost basis, such work shall be remunerated on actual time and cost incurred by the Service Provider, who will be required to submit proof.

15. Payment Certificates

The Service Provider shall be required to complete progress report before he will be allowed to complete the standard payment certificate required to be submitted with his tax invoice. If required by the Employer, the Service Provider shall make himself available for a progress reporting training session to be facilitated by the Employer.

16. Use of Documents by the Employer

All information (communications, documents or reports, including specialists reports) compiled by the Service Provider in the course of performing the service required for this Contract are the property of the Employer and may not be used by the Service Provider for any other duties other than those relating to this Contract without prior approval by the Employer.

17. Property provided for the Service Provider's use

The Service Provider shall provide all physical resources, including properties, for the successful execution of the Contract.

18. Establishment Costs (P&Gs)

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All establishment costs and overheads are deemed to have been included in the quotation amounts. There are no separate costs for Establishment. The above costs must include the Preliminary and General Costs for mobilization of resources; opening and closing of existing manholes, scope verification, gathering of desktop information, documents and maps each time survey is required. The costs for disbursements shall be covered under this item.

C1.1 Technical Evaluation for Topo Survey RFQ

CRI T ERI	CRITERIA	EVIDENCE	SUB-CRITERIA/CLAUSE		MAX SCO RE	SCORE
1	Tenderers' Experience with Respect to Topographical Survey	Provide at least three (3) references from previous clients with similar projects. Note: <i>This reference letter must be completed by the referee/previous client of the tenderer and included in the tender submission. Alternatively, the Clients letterhead may be used provided it complies with the functional requirements. A separate form must be completed for each reference as a requirement in the evaluation criteria.</i> <i>verified and if found to be false or misrepresented, punitive measures will be instituted against the respective party including blacklisting in participating in any future government tenders.</i>	NUMBER OF COMPLETED TOPOGRAPHICAL SURVEYS	1 Completed	65	0
				2 Completed		20
				3 Completed		40
				4 or More Completed Projects		65
2	Personnel: 1. Qualified Professional land surveyor with Bachelors' Degree or Bachelor of Technology (Land Surveying) or higher, with at least 6 years of experience. 2. Land Surveyor with National Diploma in Engineering Survey or higher, with 3 years experience	Certified proof of qualifications, Valid professional certifications from the South African Geomatics Council as a Professional Land Surveyor and CVs	RELEVANT EXPERIENCE AND QUALIFICATIONS AND PROFESSIONAL REGISTRATION	Relevant Experience And Qualifications And Professional Registration Land Surveyor with National Diploma in Engineering Survey or higher, with 3 years experience	35	35
Minimum Acceptable Score						75
Maximum Possible Score						100

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Tenderers who FAIL to meet the technical criteria or requirements of the tender will be disqualified. Please note that seven (7) days will be afforded to bidders who have provided copies of qualifications that are not certified. Only certified copies of the information originally submitted will be accepted.

NB: All work and reports to be submitted are to be monitored and approved by Professional Land Surveyor as per evaluation criteria

Specific Goals will be allocated as follows:

SPECIFIC GOALS	POINTS
51 % Ownership by black people	20

--- END OF PART ---

JW 14088 T

Topographical Survey Page (11)

Annexure

Professional Topographic Survey Services

JW 14088 T

Topographical Survey Page (12)

Annexure

Professional Topographic Survey Services



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SEWER:

- ALL PIPES TO BE LAID IN ACCORDANCE WITH SANS 1200, LATEST REVISION AND THE REQUIREMENTS OF JOHANNESBURG WATER SEC. CO. LTD.
- ALL WORKS TO BE DONE UNDER THE CONDITIONS LAIN THEREIN OTHERWISE SHOWN.
- ALL CONSTRUCTION WORK TO BE CARRIED OUT IN STRICT ACCORDANCE WITH REQUIREMENTS OF JOHANNESBURG WATER.
- SEVERS GENERALLY 1.5m FROM BOUNDARIES UNLESS OTHERWISE SPECIFIED.
- DO NOT SCALE FROM THESE DRAWINGS.
- THIS DRAWING MUST BE READ IN CONJUNCTION WITH THE STANDARD SPECIFICATIONS FOR MUNICIPAL CIVIL ENGINEERING WORKS.
- THE FINAL PIPE ROUTE TO BE DETERMINED ON SITE AFTER OBSERVING EXISTING ROUTES.
- THE CONTRACTOR MUST APPROVED BY EMPLOYEE AGENT REPRESENTATIVE BEFORE CONSTRUCTION.
- CONTRACTOR TO CONFIRM LEVELS OF EXISTING PIPES BEFORE CONSTRUCTION.
- POSITIONS OF ALL EXISTING SERVICES ARE APPROXIMATED AND MUST BE VERIFIED ON SPOT.
- ALL EXISTING SERVICES TO BE MARKED AND MUST COMPLY WITH THE RELEVANT SABS SPECIFICATION AND WITH THE MINIMUM REQUIREMENTS OF JOHANNESBURG WATER (SEC. CO. LTD.)
- THE MINIMUM COVER DEPTH OF ALL EXISTING SERVICES ON THE SITE AND OFF THE SITE WHERE AFFECTED BY THE WORKS SHALL BE CONFIRMED PRIOR TO ANY CONSTRUCTION.
- CONTRACTOR TO ADVISE ON THE RELATION OF WATER OR SEWER MAINS BEING COMPROMISED.
- THE CONTRACTOR SHALL CARRY OUT WORKS TO MEET ALL SPECIFICATIONS AND STANDARDS AND TO MAINTAIN ALL EXISTING SERVICES MARKED AND LAIN.
- POSITIONS OF ALL EXISTING SERVICES ARE APPROXIMATED AND MUST BE VERIFIED ON SPOT BY ENGINEER REPRESENTATIVE AND CONTRACTOR.

PIPE ANCHOR
1. GRADE: BETWEEN 1:10 AND 1:6: ANCHOR BLOCKS SHALL BE
INSTALLED AT INTERVALS NOT EXCEEDING 12 METERS.

SEWER MANHOLES
1. SEWER MANHOLES ARE TO BE SPACED AT A MAXIMUM OF 80 METERS.

LEGEND

-

DRAWING REFERENCE:

JW....SCO-X10-LAY-S01:	LAYOUT PLAN
JW100-DET02-W01:	BEDDING DETAIL
JW100-DET01-S01:	MANHOLE DETAILS FOR SEWER
JW100-DET02-S01:	SEWER ERF CONNECTIONS
JW100-DET01.1-W01:	NAMEBOARD

LOCALITY PLAN:



ISSUE FOR INFORMATION

CONSULTING ENGINEERS
CAPEX - ENGINEERING SERVICE UNIT
TURBINE HALL - 3RD FLOOR
65 NTEMI PILISO STREET
NEWTOWN
JOHANNESBURG
2113

DESIGNED		
	SIGNATURE:	
DRAWN		
	SIGNATURE:	
CHECKED		
	SIGNATURE:	
APPROVED BY:		
	SIGNATURE:	ECSA REG. No:



JOHANNESBURG WATER SOC Ltd
TURBINE HALL
65 NTEMI PILISO STREET
NEWTOWN
JOHANNESBURG
2113
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FAX: +27(0)11 688-1528

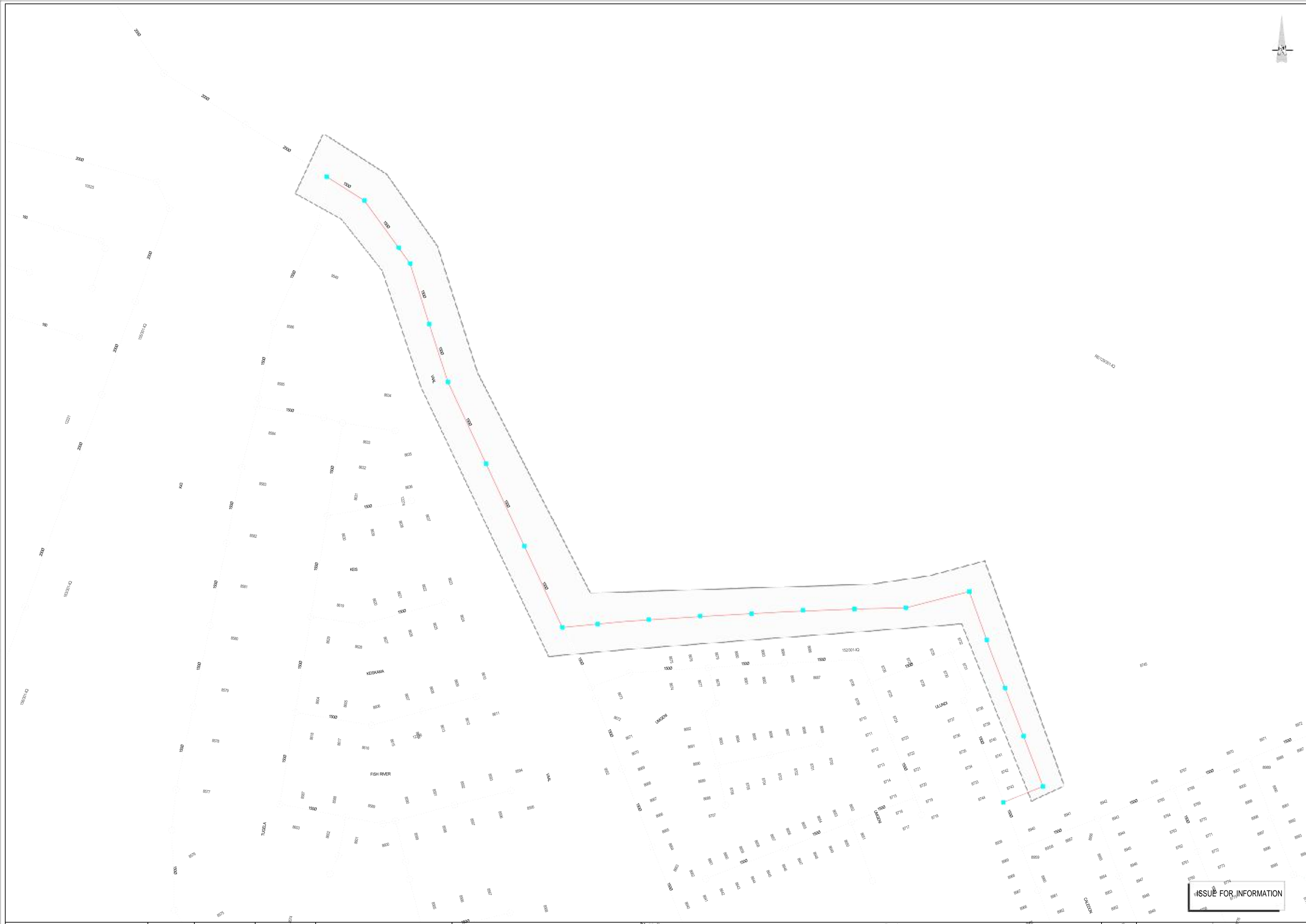
Municipality:



LENASIA EXT.10: SCORPIO DRIVE
SEWER PIPE REPLACEMENT PROJECT
LAYOUT PLAN

Project description:	
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SCALE	AMENDMENTS					DRAWING No: JW....SCO-X10-LAY-S01												
1:1000	REV	DESCRIPTION	DATE	BY	APPV													
	A.	ISSUED FOR INFORMATION	2025/06/06															
						<div><div>.....</div><div>PROJECT No:</div><div>A0</div><div>ORIGINAL PAGE SIZE</div><div>FILE No:</div><div>SEWER = A</div><div>DISCIPLINARY REV.</div><div>SHEET 1 OF 1</div></div>												



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- SEWER:**
1. ALL PIPES TO BE LAID IN ACCORDANCE WITH SANS 1200, LATEST REVISION AND THE REQUIREMENTS OF JOHANNESBURG WATER SOC LTD.
 2. ALL PIPES TO LAID UNDER TRENCH CONDITIONS UNLESS OTHERWISE SHOWN.
 3. ALL CONSTRUCTION WORK TO BE CARRIED OUT IN STRICT ACCORDANCE WITH REQUIREMENTS OF JOHANNESBURG WATER.
 4. SEWERS GENERALLY 1.5m FROM BOUNDARIES UNLESS OTHERWISE SHOWN.
 5. DO NOT SCALE FROM THESE DRAWINGS.
 6. THIS DRAWING MUST BE READ IN CONJUNCTION WITH THE STANDARD SPECIFICATIONS FOR MUNICIPAL CIVIL ENGINEERING WORKS.
 7. THE FINAL PIPE ROUTE TO BE DETERMINED ON SITE AFTER EXPOSING OF EXISTING SERVICES.
 8. ALL WORKS TO BE APPROVED BY EMPLOYEE AGENT REPRESENTATIVE BEFORE CONSTRUCTION.
 9. CONTRACTOR TO CONFIRM LEVELS OF EXISTING PIPES BEFORE COMMENCING CONSTRUCTION.
 10. POSITIONS OF ALL EXISTING SERVICES ARE APPROXIMATED AND MUST BE VERIFIED ON SITE.
 11. ALL MATERIALS USED IN INSTALLING SEWER MAINS SHALL COMPLY WITH THE RELEVANT SABS SPECIFICATION AND WITH THE MINIMUM REQUIREMENTS OF JOHANNESBURG WATER (SOC) LTD.
 12. THE POSITION AND DEPTH OF ALL EXISTING SERVICES ON THE SITE AND OFF THE SITE WHERE AFFECTED BY THE WORKS SHALL BE CONFIRMED PRIOR TO ANY CONSTRUCTION WORK ON THE INSTALLATION OF WATER OR SEWER MAINS BEING COMMENCED.
 13. THE CONTRACTOR SHALL CARRY OUT WORKS TO TIE-IN CONNECTIONS TO EXISTING SEWER MANHOLES AND MAINS.
 14. POSITIONS OF ALL EXISTING SERVICES ARE APPROXIMATED AND MUST BE VERIFIED ON SITE BY ENGINEER REPRESENTATIVE AND CONTRACTOR.
- PIPE ANCHOR:**
1. GRADE BETWEEN 1:10 AND 1:6. ANCHOR BLOCKS SHALL BE INSTALLED AT INTERVALS NOT EXCEEDING 12 METERS.
- SEWER MANHOLES:**
1. SEWER MANHOLES ARE TO BE SPACED AT A MAXIMUM OF 80 METERS.

- LEGEND**
- NEW SEWER PIPE
 - NEW SEWER MANHOLE
 - DIRECTION OF FLOW
 - EXISTING SEWER PIPE
 - EXISTING SEWER MANHOLE
 - CONTOURS
 - AREA TO BE SURVEYED
 - PHASE BOUNDARY

DRAWING REFERENCE:	
JW....-LVS-X10-LAY-S01:	LAYOUT PLAN
JW100-DET02-W01:	BEDDING DETAIL
JW100-DET01-S01:	MANHOLE DETAILS FOR SEWER
JW100-DET02-S01:	SEWER ERF CONNECTIONS
JW100-DET01.1-W01:	NAMEBOARD



CONSULTING ENGINEERS CAPEX - ENGINEERING SERVICE UNIT TURBINE HALL - 3RD FLOOR 65 NTEMI PILISO STREET NEWTOWN JOHANNESBURG 2113	DESIGNED				JOHANNESBURG WATER SOC Ltd TURBINE HALL 65 NTEMI PILISO STREET NEWTOWN JOHANNESBURG 2113 TEL: +27 (0)11 688 1400 FAX: +27(0)11 688-1528	Municipality:  Project description: LENASIA EXT.10: VAAL STREET SEWER PIPE REPLACEMENT PROJECT LAYOUT PLAN	SCALE 1:1000	AMENDMENTS					DRAWING No: JW....-LVS-X10-LAY-S01
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