



UMHLABUYALINGANA MUNICIPALITY

CONSTRUCTION OF MATHE ACCESS ROAD (WARD 09) TENDER No. UMHL02/2026/2027 CIDB CATEGORY 6CE OR HIGHER

TENDER SUM	
NAME OF TENDERER	
ADDRESS OF TENDERER	
TELEPHONE	
FAX	
CONSTRUCTION DURATION	6 Months

TENDER CLOSING DATE: 09 JULY 2026 AT 12H00. LATE SUBMISSIONS WILL NOT BE CONSIDERED.

Issued by:

Umhlabuyalingana Municipality
Main Road R22
Private Bag X901
KwaNgwanase
3973

Telephone No: 035 592 9628

Prepared by:

Izinga Holdings cc
5 Charter Street
Izinga Office Park
Empangeni
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**EXPANDED PUBLIC WORKS PROGRAMME
CONTRIBUTING TO A NATION AT WORK**

UMHLABUYALINGANA MUNICIPALITY
TENDER NO: UMHL02/2026/2027
CONSTRUCTION OF MATHE ACCESS ROAD (WARD 09)

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Part T1: Tendering Procedures

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T1.1 TENDER NOTICE AND INVITATION TO TENDER**UMHLABUYALINGANA MUNICIPALITY****TENDER ADVERT**

TENDER No	PROJECT NAME AND DESCRIPTION	CIDB GRADING	TENDER BRIEFING	TENDER CLOSING	CONSULTANT
UMHL02/2026/2027	Mathe Access Road in Ward 9	6CE or Higher	17 June 2026, Wednesday @ 10h00	09 July 2026, Thursday @ 12h00	Bheka Mtshali @ bheka@izingaholdings.co.za Tel: (035) 772 1211

Umhlabuyalingana Municipality invites bids from suitably qualified and experienced Civil Engineering Contractors for the construction of the above stated projects.

There will be a COMPULSORY TENDER BRIEFING at Umhlabuyalingana Local Municipality. Tender Documents will be available from the 11th of June 2026, Thursday.

Tender documents are downloadable free of charge from National Treasury's eTender Portal: (<http://www.etenders.gov.za/content/advertised-tenders>) or from Umhlabuyalingana Municipality Website; (www.umhlabuyalingana.gov.za/)

Bidders should have a CIDB registration stated in the table above or higher. Joint Ventures or potentially emerging enterprises that satisfy the criteria stated in the tender data are eligible to tender.

Queries relating to SCM may be addressed in writing to Mr MN Mthembu (BafanaM@mhlbuyalingana.gov.za), responsible for issuing of tender documents and technical enquiries related to scope of works and pricing instructions may be addressed to Consultants OR Mr D.I Tembe (DumsanT@mhlbuyalingana.gov.za).

Umhlabuyalingana Municipality Supply Chain Policy will apply and bids will be evaluated in terms of the 80/20 points system as set out in the PPPFA and Functionality will be used to determine the best tenderer where bidders will be required to score minimum of 60% to proceed to Price. The Municipality shall adjudicate and award tenders in accordance with the Preferential Procurement Policy Framework Act 5 of 2000 as amended. Tenders will remain valid for 90 (ninety) days. The municipality's decision is final.

Duly completed tender documents sealed in an envelope marked with the tender number and the closing date are to be deposited into the tender box at Umhlabuyalingana Municipality, Main Road R22, KwaNgwanase, 3973. Telegraphic, telefaxed or posted tenders will not be accepted.

Requirements for sealing, addressing, delivering, opening and assessment of Tenders are stated in the Tender Data.

The Bid committee of Umhlabuyalingana Municipality does not bind itself to accept the lowest or any tender, or to furnish any reason for the acceptance or rejection of a tender. The municipality reserves the right to appoint or not to appoint to lowest bidder in an event the bidder is below the market related rates.

This tender is drawn up in line with the Municipality's Supply Chain Management Policy.

Mr NPE Myeni
Municipal Manager

The scope of works consists of construction of 4.87km long x 5m wide road of Mathe Access Road. The works will include the following:

The scope of works includes but not limited to the following:

- ✓ Clearing and grubbing
- ✓ Removal of topsoil
- ✓ Rip and re-compacting in-situ, import of G7 & G5 material from a commercial source;
- ✓ 4.87km long x 5m wide Gravel Access Road, with 200mm thick G7 gravel base and 150mm thick wearing course;
- ✓ Laying of 22.5m long x 600mm diameter (3 crossings) of concrete stormwater pipes at every low point;
- ✓ Construction of 4 headwalls for 600mm diameter pipes and 2 catchpits for 600 diameter pipes;
- ✓ The roads will be constructed to a 4% camber with minimum longitudinal grade of 0.5% and 16% maximum;
- ✓ Construction of 4.87km side stormwater drains; Where required the earth side drains will have a minimum depth of 300mm and a base width of at least 1500mm and the side's slope into the drain shall be 1:3; and
- ✓ Installation of road sign and testing of material and workmanship.
- ✓ Finishing the road and road reserve.

Description of Site and Access

Limits	Co-ordinates
Start: Mathe Access Road at km 0.000	27° 0' 1.10" S 31° 19' 17.91" E

LIC: Labor Intensive Construction

The contractor will make use of local labour to promote labour-intensive construction as the items listed where adequately costed, the labour-intensive works to be done will be as stated below:

- Working within the road reserve and road edge.
- Traffic accommodation.
- Site Clearance.
- Excavation
- Cleaning and tidying up of the Site.

LIC NQF REQUIREMENTS

[NQF LEVEL 5 AND 7 CERTIFICATES FOR LABOR INTENSIVE CONSTRUCTION FOR SUPERVISORY AND MANAGERIAL STAFF TO BE EMPLOYED ON SITE ARE TO BE PROVIDED WITH THE TENDER SUBMISSION]

KEY PERSONNEL	TRAINING INSTITUTION	NQF REQUIREMENTS	YEAR OBTAINED
Contracts Manager		NQF 7	
Site Agent		NQF 5	
General Foreman		NQF 4	

LIC NQF attachments should be of key personnel that will be attached on the document. Attach NQF requirements.

TENDERER'S PARTICIPATION IN JOB CREATION USING LOCAL LABOUR

The Contractor shall be required to participate in job creation (employment of local labour) by executing various portions of the Works using local labour (unskilled or semi-skilled), recruited from the local community, who are South African Citizens or foreigners in possession of a work visa issued by the Department of Home Affairs (only one such foreigner may be employed on any project). Proof of citizenship or work visa may be audited during the contract period.

The creation of one job shall mean the employment, for any period of time, of one such unskilled or semi-skilled labourer from the local community.

The Tenderer shall note the requirements for Job Creation Reporting for EPWP as set out in Part F: Requirements of the Expanded Public Works Programme (EPWP) of the project specifications.

The number of jobs to be created using such local labour is inclusive of the local labour employed to execute various portions of the Works by both the main Contractor and any subcontractors, including the small development subcontractors in terms of Part G: Small Contractor Development of the project specifications.

The number of jobs to be created using such local labour shall include for a minimum percentage allocation to the following individual targeted groups:

- 55% Women;
- 55% Youth; and
- 2% Disabled.

The minimum required content of such local labour for this project shall be calculated as follows:
Minimum required content of such local labour (%)

$$= \frac{(100 \times \text{amount spent on wages for such local labour (excluding VAT)})}{(\text{Total value of the project (excluding VAT)})}$$

The minimum requirement for local labour for this project shall be **10%**.

For purposes of completing the table on the next page containing the Tenderer's declaration with respect to participation in job creation using local labour, the total value of the project shall be the amount of the Tender Offer.

B1. LIST OF RETURNABLES

- Record of Addenda to Tender Documents
- CIDB GRADING 6CE or Higher
- Certificate of Authority
- Company Registration Certificate
- Proof of Ownership of Plant and Equipment/Lease Agreement
- Experience of Tenderer
- Present Commitments
- Curriculum Vitae of Key Personnel and Certified Copies of Qualifications
- Contractors Health and Safety Declaration
- Joint Venture Agreement if Applicable and Power of attorney in case of Joint Ventures
- Contractors Health and Safety Plan
- Valid Tax Pin
- Bank Rating
- Form of Intent to Provide a Performance Guarantee
- MBD Forms
 - Proof of Municipal Rates
 - One of the following must be submitted:
 - a) A municipal rates account in the name of the bidder showing no arrears older than 3 months; OR
 - b) A valid exemption letter from the municipality; OR
 - c) If the bidder is a tenant and not a property owner:
 - A valid signed lease agreement AND
 - (d) A recent municipal account in the landlord's name, not in arrears by more than 3 months.

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- Material testing certificate (G7 & G5)
- Quotation from reputable Supplier for G7 & G5 material
- Certified Identity document of Directors
- Workmen’s Compensation Certificate
- Unemployment Insurance Fund (UIF) Registration Certificate
- CSD proof of registration with banking details
- LIC NQF LEVEL 7, 5 or 4

B2. ELIMINATION CRITERIA

- CIDB GRADING 6CE or Higher
- Certificate of Authority
- Company Registration Certificate
- SARS Tax Pin
- MBD Forms
- Proof of Municipal Rates
One of the following must be submitted:
 - a) A municipal rates account in the name of the bidder showing no arrears older than 3 months; OR
 - b) A valid exemption letter from the municipality; OR
 - c) If the bidder is a tenant and not a property owner:
 - A valid signed lease agreement AND
 - (d) A recent municipal account in the landlord’s name, not in arrears by more than 3 months.

- Material testing certificate (G7 & G5)
- Quotation from reputable Supplier for G7 & G5 material
- Certified Identity document copies of Directors
- Workmen’s Compensation Certificate
- Unemployment Insurance Fund (UIF) Registration Certificate
- CSD proof of registration with banking details
- LIC NQF LEVEL 7, 5 or 4

**EVALUATION CRITERIA:
FUNCTIONALITY**

Key aspect of criterion	Basis for points allocation	Score	Sub-minimum	Max. Points	Verification Method
Experience of the Bidder (Name of traceable reference with contact details to be included for verification)	At least Five (5 or more) completed (roads/causeway construction and rehabilitation in the past 5 years. Bidders are to submit a letter of appointment, reference letters and completion certificates	Excellent	50%	15	Appointment letter, completion certificates and References to be attached
	At least Three-Four (3-4) completed roads/causeway construction and rehabilitation in the past 5 years. Bidders are to submit reference letters and completion certificates	Good		10	Appointment letter, completion certificates and References to be attached
	At least Three/less (3 or less) completed (roads/causeway construction and rehabilitation in the past 5 years. Bidders are to submit a reference letters and completion certificates	Fair		5	

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Qualifications and experience of a site agent	NQF Level 7 or Higher in Civil Engineering with SACPCMP for Professional Construction Project Manager OR ECSA registration with more than eight (8) years' traceable experience in roads/causeway construction and rehabilitation	Excellent		15	CV with Certified Copy Of Qualifications To be attached
	NQF Level 6 in Civil Engineering with SACPCMP for Professional Construction Project Manager OR ECSA registration with more than five (5) years' traceable experience in roads/causeway construction and rehabilitation.	Good		10	CV with Certified Copy Of Qualifications to be attached
	NQF Level 6 in Civil Engineering with SACPCMP for Professional Construction Project Manager OR ECSA registration with less than five (5) years' traceable experience in roads/causeway construction and rehabilitation.	Fair		5	CV with Certified Copy of Qualifications to be attached
Experience of foreman	8 or more years' experience in construction and rehabilitation of Roads/causeway	Good		10	Curriculum Vitae to be attached
	5 to 7 years' experience in construction and rehabilitation of roads/causeway.	Fair		5	Curriculum Vitae to be attached
	4 or Less years' experience in construction and rehabilitation of roads/causeway.	Poor		3	Curriculum Vitae to be attached
	No submission	Very poor		0	None
Plant and Equipment (relevant to the tendered project). Relevant ownership document copies are to be included in this tender verification purposes	Tenderer Own All Plant required for All roads construction two major teams, ie Hauling team (Excavator and Tipper Trucks) and Processing team (Grader, Grid or Padfoot Roller and Water Truck)	Excellent		15	Certified Copies of Plant Ownership documents to be attached
	Tenderer Own Plant required for road construction with one major teams, Hauling team (Excavator and Tipper Trucks) OR Processing team (Grader, Grid or Padfoot Roller and Water Truck)	Good		10	Copies of Plant Ownership documents to be attached
	Tenderer leasing All Plant required for road construction two major teams, i.e. Hauling team (Excavator and Tipper	Good		10	Letter of intent/agreement with certified copies of Plant ownership to be attached.

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	Trucks) and Processing team (Grader, Grid or Padfoot Roller and Water Truck)				
	Tenderer with no plant required	Poor		0	None
Construction Method Statement on LIC (relevant to the tendered project- maximum 3 pages) The method statement must include the following sub-headings: Approach. Method, Time Frames, Activities (in construction sequence), Construction Administration, Quality Management, Health and Safety and have knowledge with MIG.	Method statement met all the requirements.	Excellent		10	Brief (Maximum 3 pages)
	Acceptable method statement. Only provided limited information	Good		5	Brief (Maximum 2 pages)
	No Submission	Poor		0	None

The minimum number of evaluation points for Functionality is **60%**. Only those tenderers who achieve the minimum number of Functionality evaluation points (or greater) will be eligible to have their tenders further evaluated.

B1. PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT (PPPFA)

POINTS WILL BE AWARDED AS FOLLOWS:

- Maximum points on price - **80 points**
- Maximum points for Specified Goals (Preference points) - **20 points**
- TOTAL - 100 points**

BIDDERS SHALL TAKE NOTE OF THE FOLLOWING BID CONDITIONS: The minimum specifications, bid evaluation criteria, bid rules and special conditions of tender are detailed in the bid document.

9.2 FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

POINTS AWARDED FOR PRICE

THE 80/20 PREFERENCE POINT SYSTEMS

A maximum of 80 points is allocated for price on the following basis:

80/20

$$Ps = 80 \left(1 - \frac{Pt - Pmin}{Pmin} \right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

POINTS AWARDED FOR SPECIFIC GOALS

In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

TABLE 1: SPECIFIC GOALS FOR THE TENDER AND POINTS CLAIMED ARE INDICATED PER THE TABLE BELOW.

(80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Evidence Required	Number of points allocated (80/20 system) (To be completed by the Bidder)
Locality (Within uMhlabuyalingana)	5	Municipal account – must be in the name of the Enterprise/ Bidder NB: Municipal account must not be older than 3 months Physical address on Company Registration document will be considered	
Director/ owner with disability	5	Certificate from Medical practitioner	
Director/ owner black women	5	CSD Full report/ Certified ID Copy	
Director/ owner black youth	5	CSD Full report/ Certified ID Copy	
Non-compliant contributor	0		

T1.1.1 LOCALITY PLAN: CLARIFICATION MEETING VENUE

Compulsory site briefing session: will be held at the Municipal Offices, Main Road R22, Manguzi, 3973 where prospective bidders will proceed for sites inspection.



T1.2: TENDER DATA

T1.2 TENDER DATA

Tender data is covered in two sections. T1.2.1 refers to the Standard Conditions of Tender while T1.2.3 sets out Additional Conditions of Tender.

T1.2.1 Standard Conditions of Tender

The conditions of tender are the Standard Conditions of Tender as contained in Standard Conditions Of Tender of Board Notice 86 of 2010 in Government Gazette No 33239 of 28 May 2010, Construction Industry Development Board (CIDB) Standard for Uniformity in Construction Procurement. (see www.cidb.org.za). Annexure F and Table G1 of that notice are reproduced without amendment or alteration for the convenience of tenderers. (See pages 11 - 22)

(As per Board Notice 136 of 2015, Government Gazette No. 38960 of 10 July 2015)

Standard Conditions of Tender

Note:

1 These Standard Conditions of Tender are identical to that contained in Annex F of SANS 294: 2004, Construction Procurement Processes, Procedures and Methods.

2. Annex E of SANS 294, Construction Procurement Processes, Procedures and Methods, and SAICE's Practice Manual #1, The use of South African National Standards in Construction Procurement, provides guidance on referencing these Standard Conditions of Tender in procurement documents.

F.1 GENERAL**F.1.1 Actions**

F.1.1.1. The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in F.2 and F.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.

F.1.1.2. The employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

Note:

1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.

2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.

F.1.1.3. The employer shall not seek, and a tenderer shall not submit a tender without having a firm intention and the capacity to proceed with the contract.

- F.1.2. Tender Documents**
The documents issued by the employer for the purpose of a tender offer are listed in the tender data.
- F.1.3. Interpretation**
- F.1.3.1.** The tender data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender.
- F.1.3.2.** These conditions of tender, the tender data and tender schedules which are only required for tender evaluation purposes, shall not form part of any contract arising from the invitation to tender.
- F.1.3.3.** For the purposes of these conditions of tender, the following definitions apply:
- a) **conflict of interest** means any situation in which:
 - i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially.
 - ii) an individual or organisation can exploit a professional or official capacity in some way for their personal or corporate benefit; or
 - iii) incompatibility or contradictory interests exist between an employee and the organisation which employs that employee.
 - b) **comparative offer** means the tenderer's financial offer after all tendered parameters that will affect the value of the financial offer have been taken into consideration in order to enable comparisons to be made between offers on a comparative basis
 - c) **corrupt practice** means the offering, giving, receiving, or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process; and
 - d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels
 - e) **organization** means a company, firm, enterprise, association, or other legal entity, whether incorporated or not, or a public body
 - f) **quality (functionality)** means the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.
- F.1.4. Communication and Employer's Agent**
Each communication between the employer and a tenderer shall be to or from the employer's agent only, and in a form that can be readily read, copied, and recorded. Communications shall be in the English language. The employer shall not take any responsibility for non-receipt of communications from or by a tenderer. The name and contact details of the employer's agent are stated in the tender data.
- F.1.5. The Employer's Right to Accept or Reject Any Tender Offer**
- F.1.5.1.** The employer may accept or reject any variation, deviation, tender offer, or alternative tender offer, and may cancel the tender process and reject all tender offers at any time before the formation of a contract. The employer shall not accept or incur any liability to a tenderer for such cancellation and rejection but will give written reasons for such action upon written request to do so.
- F.1.5.2.** The employer may not be subsequent to the cancellation or abandonment of a tender process or the rejection of all responsive tender offers re-issue a tender covering substantially the same scope of work within a period of six months unless only one tender was received and such tender was returned unopened to the tenderer.

F.1.6. Procurement Procedures**F.1.6.1. General**

Unless otherwise stated in the tender data, a contract will, subject to F.3.13, be concluded with the tenderer who in terms of F.3.11 is the highest ranked or the tenderer scoring the highest number of tender evaluation points, as relevant, based on the tender submissions that are received at the closing time for tenders.

F.1.6.2. Competitive Negotiation Procedure

F.1.6.2.1. Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of F.3.4, the employer shall announce only the names of the tenderers who make a submission. The requirements of F.3.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.

F.1.6.2.2. All responsive tenderers, or not less than three responsive tenderers that are highest ranked in terms of the evaluation method and evaluation criteria stated in the tender data, shall be invited in each round to enter competitive negotiations, based on the principle of equal treatment and keeping confidential the proposed solutions and associated information. Notwithstanding the provisions of F.2.17, the employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

F.1.6.2.3. At the conclusion of each round of negotiations, tenderers shall be invited by the employer to make a fresh tender offer, based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they are to submit their best and final offer.

F.1.6.2.4. The contract shall be awarded in accordance with the provisions of F.3.11 and F.3.13 after tenderers have been requested to submit their best and final offer.

F.1.6.3. Proposal Procedure Using the Two-Stage System**F.1.6.3.1. Option 1**

Tenderers shall in the first stage submit technical proposals and, if required, cost parameters around which a contract may be negotiated. The employer shall evaluate each responsive submission in terms of the method of evaluation stated in the tender data, and in the second stage negotiate a contract with the tenderer scoring the highest number of evaluation points and award the contract in terms of these conditions of tender.

F.1.6.3.2. Option 2

F.1.6.3.2.1. Tenderers shall submit in the first stage only technical proposals. The employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents.

F.1.6.3.2.2. The employer shall evaluate tenders received during the second stage in terms of the method of evaluation stated in the tender data and award the contract in terms of these conditions of tender.

F.2 TENDERER'S OBLIGATIONS**F.2.1. Eligibility**

F.2.1.1. Submit a tender offer only if the tenderer satisfies the criteria stated in the tender data and the tenderer, or any of his principals, is not under any restriction to do business with the employer.

F.2.1.2. Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.

- F.2.2. Cost of Tendering**
Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer comply with requirements.
- F.2.3. Check Documents**
Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.
- F.2.4. Confidentiality and Copyright of Documents**
Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.
- F.2.5. Reference Documents**
Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.
- F.2.6. Acknowledge Addenda**
Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary, apply for an extension to the closing time stated in the tender data, in order to take the addenda into account.
- F.2.7. Clarification Meeting**
Attend, where required, a clarification meeting at which tenderers may familiarise themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the tender data.
- F.2.8. Seek Clarification**
Request clarification of the tender documents, if necessary, by notifying the employer at least five working days before the closing time stated in the tender data.
- F.2.9. Insurance**
Be aware that the extent of insurance to be provided by the employer (if any) might not be for the full cover required in terms of the conditions of contract identified in the Contract Data. The tenderer is advised to seek qualified advice regarding insurance.
- F.2.10. Pricing the Tender Offer**
- F.2.10.1.** Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes (except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable 14 days before the closing time stated in the tender data.
- F.2.10.2.** Show VAT payable by the employer separately as an addition to the tendered total of the prices.
- F.2.10.3.** Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the Contract Data.
- F.2.10.4.** State the rates and prices in Rand unless instructed otherwise in the tender data. The conditions of contract identified in the Contract Data may provide for part payment in other currencies.
- F.2.11. Alterations to Documents**
Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations. Erasures and the use of masking fluid are prohibited.
- F.2.12. Alternative Tender Offers**
- F.2.12.1.** Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.

- F.2.12.2. Accept that an alternative tender offer may be based only on the criteria stated in the tender data or criteria otherwise acceptable to the employer.
- F.2.13. Submitting a Tender Offer**
- F.2.13.1. Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works, services or supply identified in the Contract Data and described in the Scope of Works, unless stated otherwise in the tender data.
- F.2.13.2. Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.
- F.2.13.3. Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.
- F.2.13.4. Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.
- F.2.13.5. Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.
- F.2.13.6. Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.
- F.2.13.7. Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the tender data.
- F.2.13.8. Accept that the employer shall not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.
- F.2.13.9. Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the tender data.
- F.2.14. Information and Data to be completed in all Respects**
Accept that tender offers, which do not provide all the data or information requested completely and, in the form, required, may be regarded by the employer as non-responsive.
- F.2.15. Closing Time**
- F.2.15.1. Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Accept that proof of posting shall not be accepted as proof of delivery.
- F.2.15.2. Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.
- F.2.16. Tender Offer Validity**
- F.2.16.1. Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data.
- F.2.16.2. If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period, with or without any conditions attached to such extension.

F.2.16.3. Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted.

F.2.16.4. Where a tender submission is to be substituted, submit a substitute tender in accordance with the requirements of F.2.13 with the packages clearly marked as "SUBSTITUTE".

F.2.17. Clarification of Tender Offer after Submission

Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

Note: Sub-clause F.2.17 does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the Employer elect to do so.

F.2.18. Provide other Material

F.2.18.1. Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarised joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

F.2.18.2. Dispose of samples of materials provided for evaluation by the employer, where required.

F.2.19. Inspections, Tests and Analysis

Provide access during working hours to premises for inspections, tests and analysis as provided for in the tender data.

F.2.20. Submit Securities, Bonds, Policies, etc.

If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies, and certificates of insurance required in terms of the conditions of contract identified in the Contract Data.

F.2.21. Check Final Draft

Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.

F.2.22. Return of Other Tender Documents

If so, instructed by the employer, return all retained tender documents within 28 days after the expiry of the validity period stated in the tender data.

F.2.23. Certificates

Include in the tender submission or provide the employer with any certificates as stated in the tender data.

F.3 THE EMPLOYER'S UNDERTAKINGS

F.3.1. Respond to Requests from the Tenderer

F.3.1.1. Unless otherwise stated in the Tender Data, respond to a request for clarification received up to five working days before the tender closing time stated in the Tender Data and notify all tenderers who drew procurement documents.

F.3.1.2. Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to pre-

qualify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if consequently:

- a) an individual firm, or a joint venture, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements.
- b) the new partners to a joint venture were not pre-qualified in the first instance, either as individual firms or as another joint venture; or
- c) in the opinion of the Employer, acceptance or the material change would compromise the outcome of the prequalification process.

F.3.2. Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who drew documents.

F.3.3. Return Late Tender Offers

Return tender offers received after the closing time stated in the Tender Data, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.

F.3.4. Opening of Tender Submissions

F.3.4.1. Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

F.3.4.2. Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, preferences claimed and time for completion for the main tender offer only.

F.3.4.3. Make available the record outlined in F.3.4.2 to all interested persons upon request.

F.3.5. Two-envelope system

F.3.5.1. Where stated in the tender data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data and announce the name of each tenderer whose technical proposal is opened.

F.3.5.2. Evaluate the quality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the quality evaluation more than the minimum number of points for quality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any preferences claimed. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for quality.

F.3.6. Non-disclosure

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.

F.3.7. Grounds for Rejection and Disqualification

Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.

F.3.8. Test for Responsiveness

F.3.8.1. Determine, after opening and before detailed evaluation, whether each tender offer properly received:

- a) complies with the requirements of these Conditions of Tender,
- b) has been properly and fully completed and signed, and
- c) is responsive to the other requirements of the tender documents.

F.3.8.2. A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

- a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
- b) significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or
- c) affect the competitive position of other tenderers presenting responsive tenders if it were to be rectified.

Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.

F.3.9. Arithmetical Errors, Omissions and Discrepancies

F.3.9.1. Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.

F.3.9.2. Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with F.3.11 for:

- a) the gross misplacement of the decimal point in any unit rate.
- b) omissions made in completing the pricing schedule or bills of quantities; or
- c) arithmetic errors in:
 - i) line-item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
 - ii) the summation of the prices.

F.3.9.3. Notify the tenderer of all errors or omissions that are identified in the tender offer and either confirm the tender offer as tendered or accept the corrected total of prices.

F.3.9.4. Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:

- a) If bills of quantities or pricing schedules apply and there is an error in the line-item total resulting from the product of the unit rate and the quantity, the line-item total shall govern, and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line-item total as quoted shall govern, and the unit rate shall be corrected.
- b) Where there is an error in the total of the prices either because of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern, and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

F.3.10. Clarification of a Tender Offer

Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.

F.3.11. Evaluation of Tender Offers**F.3.11.1. General**

Appoint an evaluation panel of not less than three persons. Reduce each responsive tender offer to a comparative offer and evaluate them using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data.

F.3.11.2. Method 1: Financial Offer

In the case of a financial offer:

- a) Rank tender offers from the most favourable to the least favourable comparative offer.
- b) Recommend the highest ranked tenderer for the award of the contract unless there are compelling and justifiable reasons not to do so.
- c) Re-rank all tenderers should there be compelling and justifiable reasons not to recommend the highest ranked tenderer and recommend the highest ranked tenderer, unless there are compelling and justifiable reasons not to do so and the process set out in this sub clause is repeated.

F.3.11.3. Method 2: Financial Offer and Preference

In the case of a financial offer and preferences:

- a) Score each tender in respect of the financial offer made and preferences claimed, if any, in accordance with the provisions of F.3.11.7 and F.3.11.8.
- b) Calculate the total number of tender evaluation points (T_{EV}) in accordance with the following formula:

$$T_{EV} = N_{FO} + N_P$$

where:

- N_{FO} is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7
- N_P is the number of tender evaluation points awarded for preferences claimed in accordance with F.3.11.8

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluations points and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this sub clause is repeated.

F.3.11.4. Method 3: Financial Offer and Quality

In the case of a financial offer and quality:

- a) Score each tender in respect of the financial offer made and the quality offered in accordance with the provisions of F.3.11.7 and F.3.11.9 rejecting all tender offers that fail to score the minimum number of points for quality stated in the tender data, if any.
- b) Calculate the total number of tender evaluation points (T_{EV}) in accordance with the following formula:

$$T_{EV} = N_{FO} + N_Q$$

where:

- N_{FO} is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7
- N_Q is the number of tender evaluation points awarded for quality offered in accordance with F.3.11.9.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluations points and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so, and the process set out in this sub clause is repeated.

F.3.11.5. Method 4: Financial Offer, Quality and Preferences

In the case of a financial offer, quality, and preferences:

- a) Score each tender in respect of the financial offer made, preference claimed, if any, and the quality offered in accordance with the provisions of F.3.11.7 to F.3.11.9, rejecting all tender offers that fail to score the minimum number of points for quality stated in the tender data, if any.
- b) Calculate the total number of tender evaluation points (T_{EV}) in accordance with the following formula, unless otherwise stated in the Tender Data:

$$T_{EV} = N_{FO} + N_P + N_Q$$

where:

- N_{FO} is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7
- N_P is the number of tender evaluation points awarded for preferences claimed in accordance with F.3.11.8.
- N_Q is the number of tender evaluation points awarded for quality offered in accordance with F.3.11.9.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this sub clause is repeated.

F.3.11.6. Decimal Places

Score financial offers, preferences and quality, as relevant, to two decimal places.

F.3.11.7. Scoring Financial Offers

Score the financial offers of remaining responsive tender offers using the following formula:

$$N_{FO} = W_1 \times A$$

where:

- N_{FO} is the number of tender evaluation points awarded for the financial offer.
- W₁ is the maximum possible number of tender evaluation points awarded for the financial offer as stated in the Tender Data.
- A is a number calculated using the formula and option described in Table F.1 as stated in the Tender Data.

Table F.1: Formulae for calculating the value of A

Formula	Comparison aimed at achieving	Option 1 ^a	Option 2 ^a
1	Highest price or discount	$A = (1 + \frac{(P - P_m)}{P_m})$	$A = P/P_m$
2	Lowest price or percentage commission/fee	$A = (1 - \frac{(P - P_m)}{P_m})$	$A = P_m/P$

^a P_m is the comparative offer of the most favourable comparative offer
P is the comparative offer of the tender offer under consideration

F.3.11.8. Scoring Preferences

Confirm that tenderers are eligible for the preferences claimed in accordance with the provisions of the tender data and reject all claims for preferences where tenderers are not eligible for such preferences.

Calculate the total number of tender evaluation points for preferences claimed in accordance with the provisions of the tender data.

F.3.11.9. Scoring Quality

Score each of the criteria and sub-criteria for quality in accordance with the provisions of the Tender Data.

Calculate the total number of tender evaluation points for quality using the following formula:

$$NQ = W_2 \times S_o / M_s$$

where:

- S_o is the score for quality allocated to the submission under consideration.
- M_s is the maximum possible score for quality in respect of a submission; and
- W₂ is the maximum possible number of tender evaluation points awarded for the quality as stated in the tender data

F.3.12. Insurance Provided by the Employer

If requested by the proposed successful tenderer, submit for the tenderer's information the policies and / or certificates of insurance which the conditions of contract identified in the Contract Data, require the employer to provide.

F.3.13. Acceptance of Tender Offer

Accept the tender offer, if in the opinion of the employer, it does not present any unacceptable commercial risk and only if the tenderer:

- a) is not under restrictions, or has principals who are under restrictions, preventing participation in the employer's procurement,
- b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise, and the personnel, to perform the contract,
- c) has the legal capacity to enter the contract,
- d) is not insolvent, in receivership, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing,
- e) complies with the legal requirements, if any, stated in the tender data, and
- f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

F.3.14. Prepare Contract Documents

F.3.14.1. If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:

- a) addenda issued during the tender period,
- b) inclusion of some of the returnable documents, and
- c) other revisions agreed between the employer and the successful tenderer.

F.3.14.2. Complete the Schedule of Deviations attached to the Form of Offer and Acceptance, if any.

- F.3.15. Complete Adjudicator's Contract**
Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.
- F.3.16. Notice to Unsuccessful Tenderers**
- F.3.16.1.** Notify the successful tenderer of the employer's acceptance of his tender offer by completing and returning one copy of the Form of Offer and Acceptance before the expiry of the validity period stated in the Tender Data or agreed additional period.
- F.3.16.2.** After the successful tenderer has been notified of the employer's acceptance of the tender, notify other tenderers that their tender offers have not been accepted.
- F.3.17. Provide Copies of the Contracts**
Provide to the successful tenderer the number of copies stated in the Tender Data of the signed copy of the contract as soon as possible after completion and signing of the Form of Offer and Acceptance.
- F.3.18. Provide Written Reasons for Actions Taken**
Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.

Alpha-numeric associated with the Contractor Grading Designations

TABLE F2: CONTRACTOR GRADING DESIGNATIONS AND ASSOCIATED PARAMETERS

Contractor Grading Designation	Tender Value Range designation	Maximum Value of Contract that a Contractor is considered capable of performing (R)
1 (class of construction works)	1	500 000
2 (class of construction works)	2	1 000 000
3 (class of construction works)	3	3 000 000
4 (class of construction works)	4	6 000 000
5 (class of construction works)	5	10 000 000
6 (class of construction works)	6	20 000 000
7 (class of construction works)	7	60 000 000
8 (class of construction works)	8	200 000 000
9 (class of construction works)	9	N/A

CONSTRUCTION OF MATHE ACCESS ROAD (WARD 09)

TABLE F3: CLASSES OF CONSTRUCTION WORK, sets out detailed description of the various Designations (types) of construction work.

CIDB Class of Construction	
CE	Civil Engineering
EB	Electrical Engineering Work - Building
EP	Electrical Engineering Work - Infrastructure
ME	Mechanical Engineering
GB	General Building
SB	Asphalt Works (Supply and Lay)
SC	Building Excavations, Shaft Sinking and Lateral Earth Support
SD	Corrosion Protection (Cathodic, Anodic and Electrolytic)
SE	Demolition and Blasting
SF	Fire Preventions and Protection Systems
SG	Glazing, Curtain Walls and Shop Fronts
SH	Landscaping and Horticulture Works
SI	Lifts, Escalators and Travellators (installation, commissioning and maintenance)
SJ	Piling and specialized foundations for buildings and structures
SK	Road Marking and Signage
SL	Structural Steel Fabrication and Erection
SM	Timber Buildings and Structures
SN	Waterproofing of basements, roofs and walls using specialist equipment
SO	Water Supply and Drainage for buildings (wet services, plumbing)
SQ	The development, extension, installation, repair, removal, alteration, dismantling or demolition of precast concrete or steel security fencing.

T1.2.2 Variations to the Standard Conditions of Tender

The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall take precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of tender. Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.

The following variations, amendments and additions to the Standard Conditions of Tender shall apply to this tender.

Clause No. Variation, Amendment or Addition

F.1 GENERAL

F.1.1 Actions

Add the following:

The Employer is UMhlabuyalingana Municipality represented by Mr. D.I. Tembe

F.1.2 Tender Documents

Add the following:

The following documents form part of this tender:

VOLUME 1: The General Conditions of Contract for Construction Work (Third Edition) 2015 as published by the South African Institution of Civil Engineering. This publication is available, and tenderers must obtain copies at their own cost from the South African Institution of Civil Engineering (SAICE), Private Bag X200, Halfway House 1685, Tel (011) 805 5947, Fax: (011) 805 5971, email: civilinfo@saice.org.za OR FIDIC, NEC and JBCC.

VOLUME 2: Standard specifications, SANS.

Volumes 1 and 2 may also be inspected, by appointment, at the offices of Izinga Holdings during normal office hours.

The tender documents issued by the Employer comprise:

VOLUME 3: The Tender Document (this document), in which is bound:

The Tender

Part T1: Tendering Procedures

T1.1 Tender Notice And Invitation To Tender

TENDER DATA

T2.1 List Of Returnable Documents

T2.2 Returnable Schedules

The Contract

Part C2: Pricing Data and Contract Data

C1.1 Form of Offer and Acceptance

C1.2 Contract Data

C1.3 Performance Guarantee

C1.4 Adjudication

C1.5 Occupational Health And Safety Agreement

Part C2: Pricing Data

C2.1 Pricing Instructions

C2.2 Bill Of Quantities

Part C3: Scope Of Work

C3.1 Description Of The Works

C3.2 Procurement

C3.3 Construction

0 Annexes

Part C4: Site Information

C4.1 Geotechnical Investigation

VOLUME 4: Drawings

Volume 3 is deemed the "Returnable Documents" which must be returned to the Employer in terms of submitting a tender offer.

F.1.4 Communication and Employer's Agent

Add the following:

Attention is drawn to the fact that verbal information, given by the Employer's Agent during site visits/clarification meetings or at any other time prior to the award of the Contract, will not be regarded as binding on the Employer. Only information issued formally by the Employer in writing to tenderers will be regarded as amending the Tender Documents.

The Employer's Agent is: Izinga Holdings,
Address: Izinga Office Park
5 Charter Street
Empangeni
3880

Telephone No.: 035 772 1211
Email: bheka@izingaholdings.co.za

F.2 TENDERER'S OBLIGATIONS**F.2.1 Eligibility**

Add the following after F.2.1.2:

Only those tenderers who satisfy the following criteria are eligible to submit tenders:

A. Construction Industry Development Board (CIDB) Registration

Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations, for a 6CE or Higher class of construction work, are eligible to have their tenders evaluated.

B. Joint ventures are eligible to submit tenders provided that:

1. every member of the joint venture is registered with the CIDB.
2. the lead partner has a contractor grading designation in the 6CE or Higher or Higher class of construction work.
3. the combined contractor grading designation calculated in accordance with the Construction Industry Development Board Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 6CE or Higher or Higher class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations; and
4. Page 22 reflects the alpha-numeric associated with the contractor Grading Designations.

F.2.7 Clarification Meeting

Add the following:

The arrangement for a compulsory clarification meeting is as stated in the Tender Notice and Invitation to Tender.

Tenderers should be represented at the clarification meeting by a person who is suitably qualified and experienced to comprehend the implications of the work involved.

F2.10.3 This tender is subject to contract price adjustments.

F.2.12 Alternative Tender Offers

No alternative offers will be accepted.

F.2.13 Submitting a Tender Offer

A. Add the following at the end of F.2.13.3:

Parts of each tender offer communicated on paper shall be submitted as an original, plus 0 (nought) copies.

B. Add the following after the first sentence of F.2.13.4:

The tender shall be signed by a person duly authorised to do so. Tenders submitted by joint ventures of two or more firms shall be accompanied by the document of formation of the joint venture, authenticated by a notary public or other official deputed to witness sworn statements, in which is defined precisely the conditions under which the joint venture will function, its period of duration, the persons authorised to represent and obligate it, the participation of the several firms forming the joint venture, and any other information necessary to permit a full appraisal of its functioning.

CONSTRUCTION OF MATHE ACCESS ROAD (WARD 09)

C. Add the following after the first sentence of F.2.13.5:

The employer's address for delivery of tender offers and identification details to be shown on each tender offer package are:

Location of tender box : Tender Box in the reception area of UMhlabuyalingana Municipality

Physical address : Main Road R22, Manguzi, 3973

Identification details : Tender number: **UMHL02/2026/2027- CONSTRUCTION OF MATHE ACCESS ROAD (WARD 09)**

Sealed tenders with the Tenderer's name and address and the endorsement '**TENDER NO: UMHL02/2026/2027- CONSTRUCTION OF MATHE ACCESS ROAD (WARD 09)**' on the envelope must be placed in the appropriate official tender box at the abovementioned address.

D. Add the following after F.2.13.6:

A two-envelope procedure as described in F.3.5 will **not** be followed.

F.2.15 Closing Time

F.2.15.1 Add the following:

The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender. Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.

F.2.16 Tender Offer Validity

F.2.16.1 Add the following:

The tender offer validity period is 90 days.

F.2.17 Clarification of Tender Offer after Submission

Add the following:

A tender may be rejected as non-responsive if the tenderer fails to provide any clarification requested by the employer, or confirmation of registration with CIDB within the time for submission stated in the employer's written request for such clarification or confirmation. A tender may be rejected if the unit rates or lump sums for some of the items in the bills/schedules of quantities are, in the opinion of the Employer, unreasonable or out of proportion, and the tenderer fails, within the time stated in writing by the Employer to justify any specific rates or lump sums (i.e. to provide a financial breakdown of how such rates or sums were obtained) or to adjust the unit rates or lump sums for such items while retaining the total of the prices unchanged.

F.2.23 Certificates

Add the following:

The tenderer is required to submit the following certificates with the tender:

A. Certificate of Contractor Registration (CIDB)

Certificate of Contractor Registration issued by the Construction Industry Development Board. Where a tenderer satisfies CIDB contractor grading designation requirements through joint venture formation, such tenderers must submit the Certificates of Contractor Registration in respect of each partner. (Document B1 in Part T2, page 79).

B. Tax Clearance Certificate

Tenderers shall be registered and in good standing with the South African Revenue Services (SARS) and shall submit/append documentary evidence/proof in the form of an original or certified copy of valid Tax Clearance Certificate issued by SARS. Failure to provide a valid Tax Clearance Certificate will result in the tender being rejected. (Document B2 in Part T2, page 80).

Each party to a Consortium/Joint Venture shall submit a separate Tax Clearance Certificate.

C. Bargaining Council Certificates

Where applicable, a certificate of compliance issued by the relevant Bargaining Council.

Each party to a Consortium/Joint Venture shall submit separate certificates in the above regard.

D. Tenders exceeding R10 million

Where the tendered amount inclusive of VAT exceeds R10 million:

- i) audited annual financial statement for 3 years, or for the period since establishment if established during the last 3 years, if required by law to prepare annual financial statements for auditing;
- ii) a certificate certifying that the tenderer has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days;
- iii) particulars of any contracts awarded to the tenderer by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract;
- iv) a statement indicating whether any portion of the goods or services are expected to be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality or municipal entity is expected to be transferred out of the Republic.

Each party to a Consortium/Joint Venture shall submit separate certificates/statements in the above regard. (Document B2 in Part T2, page 80).

F.3 THE EMPLOYER'S UNDERTAKINGS

F.3.1 Respond to Requests from the Tenderer

- F.3.1.1 Respond to a request for clarification received up to five working days before the tender closing time stated in the Tender Data and notify all tenderers who drew procurement documents.

F.3.4 Opening of Tender Submissions

F.3.4.1 Add the following:

The time and location for opening of the tender offers is:

Time : 12:00pm on 09 of July 2026
Location : Main Road R22, Manguzi, 3973

Tenders will be opened immediately after the closing time for tenders at the UMhlabuyalingana Local Municipality.

F.3.8 Test for Responsiveness

Add the following after F.3.8.2:

Tenders will be considered non-responsive if:

- the tenderer has not completed and/or signed the Offer portion of C1.1 Form of Offer and Acceptance.
- the tenderer does not comply with the Contractor's CIDB grading designation specified in F.2.1.1 above.
- The tenderer has failed to clarify or submit any supporting documentation within the time for submission stated in the employer's written request.
- The tenderer has failed to tender a Contract Participation Goal in respect of Targeted Labour (CPG₂) of at least the minimum percentage specified (if so specified).
- The tenderer fails to meet the minimum quality score of 60%.

F.3.11 Evaluation of Tender Offers

F.3.11.1 General

Add the following:

The procedure for the evaluation of responsive tenders is Method 4, where the total number of adjudication points achieved, $T_{EV} = N_{FO} + N_P + N_Q$

where:

- N_{FO} is the number of tender evaluation points awarded for the financial offer.
- N_P is the number of tender evaluation points awarded for preferences.
- N_Q is the number of tender evaluation points awarded for quality.

QUALITY SCORING CRITERIA

Tenderers are to submit information in respect of the following criteria upon which they will be scored for Quality. Failure to submit the relevant information will result in zero scores.

Tenderers are required to meet a minimum Quality Score of **60%** based on the criteria listed below. A score of less than **60%** for Quality will render the tender non-responsive. The onus rests with the Tenderer to supply sufficient information to allow for evaluation and award of points detailed overleaf.

F.3.13 Acceptance of Tender Offer

A. Add the following:

Tender offers will only be accepted if:

- a) the tenderer has in his or her possession an original valid Tax Clearance Certificate issued by the South African Revenue Services or has decided to meet outstanding tax obligations.
- b) the tenderer is registered with the CIDB with an appropriate category of registration.
- c) the tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector.
- d) the tenderer has not:
 - i) abused the Employer's Supply Chain Management System; or
 - ii) failed to pay municipal rates and taxes or service charges and such rates, taxes and charges are in arrears for more than three months.
 - iii) failed to perform on any previous contract and has been given a written notice to this effect.
- e) the tenderer has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process.

Notification of Decision and Appeal Period

If the Supply Chain Management Tender Adjudication Committee has resolved that a tender be accepted, the successful and unsuccessful tenderers shall be notified on the municipal website.

Section 62 of the Local Government Municipal Systems Act 2000 (No. 32 of 2000) gives any person whose rights have been affected by such a decision, the right to appeal such decision within 14 days of notification of the decision.

Any tenderer wishing to exercise this right, must submit their appeal in writing to Municipal Manager, marked for the attention of Mr. N. P. E. Myeni, Main Road R22, Manguzi, 3973. The format of the appeal must:

- set out the reasons for the appeal.
- state in which way the appellant's rights have been affected by the decision.
- state the remedy sought, and
- be accompanied by a copy of the notification advising the tenderer of the decision of the Supply Chain Management Tender Adjudication Committee.

Tenderers are hereby informed also of their right to request reasons for the decision in terms of the Promotion of Administrative Justice Act (No. 3 of 2000).

The notification of the decision sent to the successful tenderer is **not** acceptance of the tender and no rights shall accrue to the successful tenderer in terms of this notification. The successful tenderer will be notified in writing after 14 days of the notification of any final decision (i.e. Acceptance) or of any developments with respect to the appeal process, and if applicable, procedures for the commencement of the work.

The consideration of appeals and if necessary, the invalidation of any decision made, shall be dealt with in terms of the [Client's] appeals process.

F.3.17 Provide Copies of the Contracts

Add the following:

The number of paper copies of the signed contract to be provided by the employer is one.

T1.2.3 Additional Conditions of Tender

The additional conditions of tender are:

T.1.2.3.1 Compliance with Occupational Health and Safety Act 1993

Tenderers are to note the requirements of the Occupational Health and Safety Act No. 85 of 1993 and the Construction Regulations 2014 issued in terms of Section 43 of the Act. The tenderer shall be deemed to have read and fully understood the requirements of the above Act and Regulations and to have allowed for all costs in compliance therewith.

Tenderers are to note that the Contractor is required to ensure that all sub-contractors or others engaged in the performance of the contract also comply with the above requirements.

The Contractor shall prepare and maintain a Health and Safety File in respect of the project, which shall always be available for inspection on Site and handed over to the Employer on Final Completion of the project.

The Contractor is required to submit to the Employer the Occupational Health and Safety Agreement (included in C1.5 of the Contract Document) and a letter of good standing from the Compensation Commissioner, or a licensed compensation insurer, within 14 days after the Commencement Date of the contract.

T.1.2.3.2 Eligibility with Respect to Expanded Public Works Programme

This Contract does not qualify for consideration as an Expanded Public Works Programme project.

T.1.2.3.3 Claims Arising after Submission of Tender

No claim for any extras arising out of any doubt or obscurity as to the true intent and meaning of anything shown on the Contract Drawings or contained in the Conditions of Contract, Scope of Work and Pricing Data, will be admitted by the Employer/Employer's Agent after the submission of any tender and the Tenderer shall be deemed to have:

- 1) inspected the Contract Drawings and read and fully understood the Conditions of Contract.
- 2) read and fully understood the whole text of the Scope of Work and Pricing Data and thoroughly acquainted himself with the nature of the works proposed and generally of all matters which may influence the Contract.
- 3) visited the site of the proposed works, carefully examined existing conditions, the means of access to the site, the conditions under which the work is to be done, and acquainted himself with any limitations or restrictions that may be imposed by the Municipal or other Authorities in regard to access and transport of materials and plant to and from the site and made the necessary provisions for any additional costs involved thereby.
- 4) requested the Employer or his duly authorised agent to make clear the actual requirements of anything shown on the Contract Drawings or anything contained in the Scope of Work and Pricing Data, the exact meaning or interpretation of which is not clearly intelligible to the Tenderer.

Before submission of any tender, the Tenderer should check the number of pages, and if any are found to be missing or duplicated, or the figures or writing indistinct, or if the Pricing Data contain any obvious errors, the tenderer must apply to the Employer/Employer's Agent at once to have the same rectified, as no liability will be admitted by the Employer/Employer's Agent in respect of errors in any tender due to the foregoing.

T.1.2.3.4 Imbalance in Tendered Rates

In the event of tendered rates or lump sums being declared by the Employer to be unacceptable to it because they are either excessively low or high or not in proper balance with other rates or lump sums, the Tenderer may be required to produce evidence and advance arguments in support of the tendered rates or lump sums objected to. If, after submission of such evidence and any further evidence requested, the Employer is still not satisfied with the tendered rates or lump sums objected to, it may request the tenderer to amend these rates and lump sums along the lines indicated by it.

The Tenderer will then have the option to alter and/or amend the rates and lump sums objected to and such other related amounts as are agreed on by the Employer, but this shall be done without altering the Contract Price.

Should the Tenderer fail to amend the Tender in a manner acceptable to the Employer, the Employer may reject the Tender.

T.1.2.3.5 Community Liaison Officer (CLO)

Democratically elected village members form part of the Project Steering Committee (PSC) and represent the residents being benefiting from the project. The Contractor will be required to liaise through the CLO for any matters to do with the community. The CLO shall be paid an amount of **R6500** per month throughout the contract.

T.1.2.3.6 Labour Intensive Construction/Use of Local Labour

The contractor is encouraged to make use of local labour where possible to help the local community that is generally underdeveloped and underemployed. The labour rate to be used is a minimum of **R225** per day.

The items listed where adequately costed, the labour-intensive works to be done will be as stated below:

- Working within the road reserve and road edge.
- Traffic accommodation.
- Site Clearance.
- Excavation
- Cleaning and tidying up of the Site.

T.1.2.3.7 Invalid Tenders

Tenders shall be considered invalid and shall be endorsed and recorded as such in the tender opening record by the responsible official who opened the tender, in the following circumstances:

- a) if the tender offer is not submitted on the Form of Offer and Acceptance bound into this tender document (form C1.1 Form of Offer and Acceptance);
- b) if the tender is not completed in non-erasable ink.
- c) if the offer has not been signed.
- d) if the offer is signed, but the name of the tenderer is not stated or is indecipherable.

T.1.2.3.8 Negotiations with Preferred Tenderers

The Employer may negotiate the final terms of a contract with tenderers identified through a competitive tendering process as preferred tenderers, provided that such negotiation:

- a) does not allow any preferred tenderer a second or unfair opportunity.
- b) is not to the detriment of any other tenderer; and
- c) does not lead to a higher price than the tender as submitted.

Minutes of any such negotiations shall be kept for record purposes.

T.1.2.3.9 UIF Payments

The Tenderer shall submit to the Employer a letter from the Department of Labour indicating his/her good standing regarding UIF payments upon being requested to do so.

T.1.2.3.10 Registration with Bargaining Council

Tenderers must be registered with a relevant Bargaining Council (if such be in place) and provide the applicable Certificate of Compliance in terms of the relevant Government Gazette.

T.1.2.3.11 Price Variations

Refer to Clause **6.8.2** of Contract Data to ascertain whether Contract Price adjustment will apply to this contract.

Part T2: Returnable Documents

	<u>Page</u>
T2.1 List Of Returnable Documents	34
T2.2 Returnable Schedules	31- 84

T2.1 LIST OF RETURNABLE DOCUMENTS

The tenderer must complete and return documents A1 to A30; B1 to B5; C1.1 and C2 as listed below as part of his/her tender submission:

SCHEDULE	DESCRIPTION	PAGE	ATTACHED
	Returnable documents required for tender evaluation purposes		YES/NO
Schedule A	Documents incorporated in this tender document that must be completed and signed by all tenderers		
A1	Authority To Sign Documents	37	
A2	Letter Of Good Standing with Workmen's Compensation Commissioner	38	
A3	Clarification Meeting Certificate	39	
A4	Certificate Of Authority for Joint Ventures (only if Tenderer is a JV)	40	
A5	Schedule Of Work Experience of Tenderer	41	
A6	Current And Recent Projects For uMhlabuyalingana Municipality	43	
A7	Schedule Of Construction Plant	44	
A8	Schedule Of Estimated Monthly Expenditure	41	
A9	Schedule Of Subcontractors	43	
A10	Details Of Experience of Site Agent and General Foreman	44	
A11	Compulsory Enterprise Questionnaire	45	
A12	Alterations / Amendments by Tenderer	52	
A13	Schedule Of Daywork Rates	53	
A14	Record of Plant	51	
A15	Record Of Addenda to Tender Documents	52	
A16	Size Of Enterprise and Current Workload	56	
A17	Staffing Profile	57	
A18	Invitation to Bid Part A and Condition for Bidding Part B (Mbd 1)	58	
A19	Declaration of Interest (Mbd 4)	57	
A20	Declaration Of Tenderer's Past Supply Chain Management Practices (Mbd 8)	63	
A21	Certificate Of Independent Tender Determination (Mbd 9)	65	
A22	Form Concerning Fulfilment of The Construction Regulations 2014	65	
A23	General Information (Procurement)	67	
A24	Details of proprietor, partner, close corporation, member or company directors	69	
A25	Preference Points Claim Form in Terms of preferential Procurement Regulations (Mbd 6.1)	70	
A26	Tenderer's Financial Standing	75	
Schedule B	Additional Documents to be provided by the Tenderer and attached to his/her tender		
B1	Cidb Contractor Registration Certificate	76	
B2	Tax Clearance Certificate And Financial Statements	77	
B3	Preliminary Programme	79	
B4	Health and Safety Plan	80	
B5	Additional Functionality Documents	81	
Schedule C	Other Documents that will form part of The Contract		
C1.1	Form Of Offer And Acceptance	83	
C1.2	Contract Data	89	

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SCHEDULE	DESCRIPTION	PAGE	ATTACHED
	Returnable documents required for tender evaluation purposes		YES/NO
C1.3	Performance Guarantee	96	
C1.4	Adjudication	100	
C1.5	Occupational Health And Safety Agreement	101	
C2	Pricing Data and Bill of Quantities	103	
C3	Scope of Work	130	
C4	Site Information	188	

NB: TENDERERS MUST COMPLETE THESE DOCUMENTS / DATA SHEETS / FORMS IN BLACK INK

T2.2 RETURNABLE SCHEDULES

A1. AUTHORITY TO SIGN DOCUMENTS

I/We*, the undersigned, am/are* duly authorised to sign the form of tender on behalf of

.....

by virtue of the Articles of Association/Resolution of the Board of Directors*, of which a certified copy is attached, or

.....

.....

*Delete whichever is inapplicable.

1.

_____	_____	_____
NAME	SIGNATURE	DATE

2.

_____	_____	_____
NAME	SIGNATURE	DATE

WITNESSES:

1.

_____	_____	_____
NAME	SIGNATURE	DATE

2.

_____	_____	_____
NAME	SIGNATURE	DATE

A2. LETTER OF GOOD STANDING WITH WORKMEN'S COMPENSATION COMMISSIONER

A3. CLARIFICATION MEETING CERTIFICATE

This is to certify that I/We*
of (Tenderer)
.....
of (address)
.....
.....
Telephone number
Fax number
Email
on (Date)

have examined the Site of the Works and its surroundings for which I/we* am/are* submitting this Tender and have, so far as is practicable, familiarised myself/ourselves* with all information, risks, contingencies and other circumstances which may influence or affect my/our* tender.

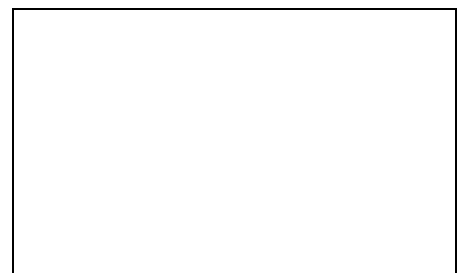
*Delete whichever is inapplicable.

SIGNED BY/ON BEHALF OF THE TENDERER:

_____	_____	_____
NAME	SIGNATURE	DATE

SIGNED BY/ON BEHALF OF UMHLABUYALINGANA MUNICIPALITY:

_____	_____	_____
NAME	SIGNATURE	DATE



MUNICIPAL STAMP

A4. CERTIFICATE OF AUTHORITY FOR JOINT VENTURES

This Returnable Schedule is to be completed only if the Tenderer is a joint venture.

We, the undersigned, are submitting this tender offer in joint venture and hereby authorise

Mr/Ms....., authorised signatory of the company, close corporation or partnership..... acting in the capacity of lead partner, to sign all documents in connection with the tender offer and any contract resulting from it on our behalf.

NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
Lead partner		Signature :..... Name :..... Designation :.....
		Signature :..... Name :..... Designation :.....
		Signature :..... Name :..... Designation :.....
		Signature :..... Name :..... Designation :.....

Note:

A copy of the Joint Venture Agreement clearly showing the percentage contribution of each partner to the Joint Venture shall be appended to this Schedule.

A5. SCHEDULE OF WORK EXPERIENCE OF TENDERER

Tenderers shall insert in the Schedule hereunder details of work successfully carried out by them of a similar nature to that for which their tender is submitted. Failure to complete this Schedule will be taken to indicate that the Tenderer has no experience in this class of work. Tenderers should attach Letters of Appointment and Completion Certificates for completed projects hereto.

COMPLETED CONTRACTS				
Employer (Name, Tel, Fax, Email)	Consulting Engineer (Name, Tel, Fax, Email)	Nature of Work	Value of Work R(M)	Date Complete d
Name :				
Tel :				
Fax :				
Email :				
Name :				
Tel :				
Fax :				
Email :				
Name :				
Tel :				
Fax :				
Email :				
Name :				
Tel :				
Fax :				
Email :				
Name :				
Tel :				
Fax :				
Email :				

SIGNED BY/ON BEHALF OF TENDERER:

NAME **SIGNATURE** **DATE**

CURRENT CONTRACTS				
Employer (Name, Tel, Fax, Email)	Consulting Engineer (Name, Tel, Fax, Email)	Nature of Work	Value of Work R(M)	Anticipated Completion Date
Name :				
Tel :				
Fax :				
Email :				
Name :				
Tel :				
Fax :				
Email :				
Name :				
Tel :				
Fax :				
Email :				
Name :				
Tel :				
Fax :				
Email :				
Name :				
Tel :				
Fax :				
Email :				

If there is insufficient space above, the tenderer may append additional sheets.

Number of additional sheets appended by the tenderer to this Schedule (If nil, enter NIL)

SIGNED BY/ON BEHALF OF TENDERER:

NAME

SIGNATURE

DATE

A6. CURRENT AND RECENT PROJECTS FOR UMHLABUYALINGANA MUNICIPALITY

Tenderers must furnish hereunder details of similar works/services, which they have satisfactorily completed in the past. The information shall include a description of the Works, the Contract value, and the name of the Employer.

CURRENT PROJECTS			
PROJECT NAME	AWARDED AMOUNT	CONTRACT DATE	START DATE / ANTICIPATED ACTUAL COMPLETION DATE
TOTAL AMOUNT OF PROJECTS CURRENTLY UNDERTAKEN FOR UMHLABUYALINGANA MUNICIPALITY			R

SIGNED BY/ON BEHALF OF TENDERER:

NAME

SIGNATURE

DATE

The tenderer shall state his estimated expenditure indicating the values of each monthly claim in terms of Clause 6.10 of the General Conditions of Contract, which he/she estimates will arise based on his/her preliminary programme and tendered rates, in the table below. **The total of the monthly amounts shall be equal to the tender sum.**

MONTH	VALUE
1	R
2	R
3	R
4	R
5	R
6	R
7	R
8	R
9	R
10	R
11	R
12	R
SUBTOTAL	R
CONTINGENCIES (10 %)	R
SUBTOTAL	R
VAT (15%)	R
TOTAL (INCLUDING VAT @ 15%)	R

SIGNED BY/ON BEHALF OF TENDERER:

NAME

SIGNATURE

DATE

A9. SCHEDULE OF SUBCONTRACTORS

We notify you that it is our intention to employ the following Subcontractors for work in this contract.

SUBCONTRACTORS			
Category/type	Subcontractor Name/Address/Contact Person/Phone/Fax/Details Organisation/Firm/ Experience	of	Items of work (pay items) to be undertaken by the Subcontractor
			Estimated Cost of Work (Rand)
TOTAL (Excluding VAT)			

If there is insufficient space above, the tenderer may append additional sheets.

Number of additional sheets appended by the tenderer to this Schedule (If nil, enter NIL)

Acceptance of this tender shall not be construed as approval of all or any of the listed subcontractors. Should any of the subcontractors not be approved subsequent to acceptance of the tender, this shall in no way invalidate this tender, and the tendered unit rates for the various items of work shall remain final and binding, even in the event of a subcontractor not listed above being approved by the Engineer.

SIGNED BY/ON BEHALF OF TENDERER:

NAME

SIGNATURE

DATE

A10. DETAILS OF EXPERIENCE OF SITE AGENT AND GENERAL FOREMAN

Tenderers shall set out in the Schedule hereunder details of the experience of the Site Agent and General Foreman in work of a similar nature to that for which this Tender is submitted.

Failure to complete this Schedule may result in the Tender not being considered. Tenderers are also required to attach CV copies as well as certified copies of Academic Certificates of the Site Agent and General Foreman.

SITE AGENT				
NAME				NQF LEVEL
Contract and Client	Nature of Work	Position Held	Value of Work	Year Completed

GENERAL FOREMAN				
NAME				NQF LEVEL
Contract and Client	Nature of Work	Position Held	Value of Work	Year Completed

If there is insufficient space above, the tenderer may append additional sheets.

Number of additional sheets appended by the tenderer to this Schedule (If nil, enter NIL)

SIGNED BY/ON BEHALF OF TENDERER:

NAME

SIGNATURE

DATE

A11. COMPULSORY ENTERPRISE QUESTIONNAIRE

The following particulars must be furnished. In the case of a joint venture, **separate** enterprise questionnaires in respect of each partner must be completed and submitted.

Section 1: Name of enterprise

Address of enterprise

Section 2: VAT registration number, if any

Section 3: CIDB registration number, if any

Section 4: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

* Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

Section 5: Particulars of companies and close corporations

Company registration number

Close corporation number

Tax reference number

Section 6: Record of service of the state

Indicate by marking the relevant boxes with a **X**, if any sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation participating in this tender is currently or has within the last 12 months, been in the service of any of the following:

- a member of any municipal council
- a member of any provincial legislature
- a member of the National Assembly or the National Council of Province
- a member of the board of directors of any municipal entity
- an official of any municipality or municipal entity

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- an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)
- a member of an accounting authority of any national or provincial public entity
- an employee of Parliament or a provincial legislature

If any of the above boxes are marked, disclose the following:

Name of sole proprietor, partner, director, manager, principal shareholder, or stakeholder	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		current	Within last 12 months

*insert separate page if necessary

Section 7: Record of spouses, children and parents in the service of the state

Indicate by marking the relevant boxes with a cross, if any spouse, child or parent of a sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has, within the last 12 months, been in the service of any of the following:

- a member of any municipal council
- a member of any provincial legislature
- a member of the National Assembly or the National Council of Province
- a member of the board of directors of any municipal entity
- an official of any municipality or municipal entity
- an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)
- a member of an accounting authority of any national or provincial public entity
- an employee of Parliament or a provincial legislature

If any of the above boxes are marked, disclose the following:

Name of spouse, child or parent	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		current	Within last 12 months

*insert separate page if necessary

The undersigned, who warrants that he/she is duly authorised to do so on behalf of the enterprise:

- i) authorises the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;
- ii) confirms that neither the name of the enterprise nor the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears

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- on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise, has within the last five years been convicted of fraud or corruption;
 - iv) confirms that I/we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
 - v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

SIGNED:

NAME	SIGNATURE	DATE
------	-----------	------

A13. SCHEDULE OF DAYWORK RATES

This Daywork Schedule will be used at the discretion of the Engineer for valuation of extra work which cannot conveniently be valued at rates submitted in the Bill of Quantities. All price rates shall be exclusive of VAT.

The rates entered for labour and materials shall be exclusive of overhead charges and profit, site supervision of staff, insurance, holidays with pay and use and maintenance of small hand tools and non-mechanical plant, travelling allowances, other emoluments and allowances. Provision will be made for the insertion of percentages to cover all these items which are henceforth termed "on-costs", consumable stores, maintenance, etc.

In the case of plant no "on-costs" item is provided. The rate entered shall include any of the above "on-costs" which are pertinent and shall include profit, operator's costs, consumable stores, maintenance, depreciation, etc.

Failure to complete this Schedule may result in the Tender not being considered.

A. LABOUR

Normal Working Time:

1	Labourers	R.....	per hour plus	.....%	"On-Cost"
2	Gangers	R.....	per hour plus	.....%	"On-Cost"
3	Tradesmen	R.....	per hour plus	.....%	"On-Cost"
4	Other				
	(a)	R.....	per hour plus	.....%	"On-Cost"
	(b)	R.....	per hour plus	.....%	"On-Cost"
				

Overtime

1	Labourers	R.....	per hour plus	.....%	"On-Cost"
2	Gangers	R.....	per hour plus	.....%	"On-Cost"
3	Tradesmen	R.....	per hour plus	.....%	"On-Cost"
4	Other				
	(a)	R.....	per hour plus	.....%	"On-Cost"
	(b)	R.....	per hour plus	.....%	"On-Cost"
				

A14. RECORD OF PLANT

DESCRIPTION	TYPE	ESTABLISHMENT AND DISESTABLISHMENT COST	RATE PER HOUR	
			WORKING	STANDING
Trucks and ADTs				
Excavators				
Loaders				
Graders				
Other				

B. MATERIAL

The Tenderer shall state here the percentage "On-costs" that should be added to the nett cost of materials:

.....%

SIGNED BY/ON BEHALF OF TENDERER:

NAME

SIGNATURE

DATE

A15. RECORD OF ADDENDA TO TENDER DOCUMENTS

We confirm that the following communications received from the Employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:

No.	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		

If there is insufficient space above, the tenderer may append additional sheets.

Number of additional sheets appended by the tenderer to this Schedule (If nil, enter NIL)

SIGNED BY/ON BEHALF OF TENDERER:

NAME	SIGNATURE	DATE

A16. SIZE OF ENTERPRISE AND CURRENT WORKLOAD

What was your turnover in the previous financial year? R.....

What is the estimated turnover for your current financial year? R

Physical facilities:

Provide information on offices, factories, yards and warehouses occupied by your enterprise (attach details if the space provided is not enough)

Description	Address	Area (m ²)

List your current contracts and obligations:

Description	Value (R)	Start date	Duration	Expected completed date

Do you have the capacity to supply the goods and services described in this tender, should the contract be awarded to you?

Yes No

SIGNED BY/ON BEHALF OF TENDERER:

NAME

SIGNATURE

DATE

A17. STAFFING PROFILE

Provide information on the staff that you have available to execute this contract (attach a separate list if the space provided is insufficient)

Own staff: gender and race	Number of staff

Staff to be employed for the project: gender and race	Number of staff

SIGNED BY/ON BEHALF OF TENDERER:

NAME **SIGNATURE** **DATE**

A18. INVITATION TO BID PART A (MBD 1)

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE UMHLABUYALINGANA MUNICIPALITY					
BID NUMBER:	UMHL02/2026/2027	CLOSING DATE:	09 July 2026	CLOSING TIME:	12:00
DESCRIPTION	CONSTRUCTION OF MATHE ACCESS ROAD (WARD 09)				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).					
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT (STREET ADDRESS					
Manguzi Main Road R22, KwaNgwanase, 3973					
SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
TAX COMPLIANCE STATUS	TCS PIN:		OR	CSD No:	
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	<input type="checkbox"/> Yes <input type="checkbox"/> No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT	<input type="checkbox"/> Yes <input type="checkbox"/> No	
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]					
SCHEDULE 1: ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]		SCHEDULE 2: ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER PART B:3]	
SCHEDULE 3: TOTAL NUMBER OF ITEMS OFFERED			SCHEDULE 4: TOTAL BID PRICE	R	
SCHEDULE 5: SIGNATURE OF BIDDER	.....		SCHEDULE 6: DATE		
SCHEDULE 7: CAPACITY UNDER WHICH THIS BID IS SIGNED					
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:			TECHNICAL INFORMATION MAY BE DIRECTED TO:		
DEPARTMENT	UMhlabuyalingana Municipality		CONTACT PERSON	Mr DI Tembe	
CONTACT PERSON	Mr NM Mthembu		TELEPHONE NUMBER	(035) 592 0665/0680	
TELEPHONE NUMBER	(035) 592 0665/0680		E-MAIL ADDRESS	DumsanT@uMhlabuyalingana.gov.za	
E-MAIL ADDRESS	BafanaM@mhlabuyalingana.gov.za				

TERMS AND CONDITIONS FOR BIDDING PART B (MBD 1)

1. BID SUBMISSION:	
1.1.	BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
1.2.	ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED– (NOT TO BE RE-TYPED)
1.3.	THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
2. TAX COMPLIANCE REQUIREMENTS	
2.1	BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
2.2	BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER’S PROFILE AND TAX STATUS.
2.3	APPLICATION FOR THE TAX COMPLIANCE STATUS (TCS) CERTIFICATE OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA.
2.4	FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3.
2.5	BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
2.6	IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED; EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
2.7	WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS	
3.1.	IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? <input type="checkbox"/> YES <input type="checkbox"/> NO
3.2.	DOES THE ENTITY HAVE A BRANCH IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO
3.3.	DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO
3.4.	DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO
3.5.	IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? <input type="checkbox"/> YES <input type="checkbox"/> NO
IF THE ANSWER IS “NO” TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.	

NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID. NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE.

SIGNATURE OF BIDDER:.....

CAPACITY UNDER WHICH THIS BID IS SIGNED:.....

DATE:.....

A19. DECLARATION OF INTEREST (MBD 4)

MBD 4

DECLARATION OF INTEREST

1. No bid will be accepted from persons in the service of the state¹.
2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority.

3 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

3.1 Full Name of bidder or his or her representative.....

3.2 Identity Number:

3.3 Position occupied in the Company (director, trustee, hareholder²)

3.4 Company Registration Number:

3.5 Tax Reference Number.....

3.6 VAT Registration Number:

3.7 The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.

3.8 Are you presently in the service of the state? **YES / NO**

3.8.1 If yes, furnish particulars.....

.....

¹MSCM Regulations: "in the service of the state" means to be –

- (a) a member of –
 - (i) any municipal council;
 - (ii) any provincial legislature; or
 - (iii) the national Assembly or the national Council of provinces;
- (b) a member of the board of directors of any municipal entity;
- (c) an official of any municipality or municipal entity;
- (d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);
- (e) a member of the accounting authority of any national or provincial public entity; or
- (f) an employee of Parliament or a provincial legislature.

² Shareholder" means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.

CONSTRUCTION OF MATHE ACCESS ROAD (WARD 09)

3.9 Have you been in the service of the state for the past twelve months? **YES / NO**

3.9.1 If yes, furnish particulars.....

.....

3.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid..... **YES / NO**

3.10.1 If yes, furnish particulars.

.....
.....

3.11 Are you, aware of any relationship (family, friend, other) between any other bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid? **YES / NO**

3.11.1 If yes, furnish particulars

.....
.....

3.12 Are any of the company’s directors, trustees, managers, Principle shareholders or stakeholders in service of the state? **YES / NO**

3.12.1 If yes, furnish particulars.

.....

3.13 Are any spouse, child or parent of the company’s directors trustees, managers, principal shareholders or stakeholders in service of the state? **YES / NO**

3.13.1 If yes, furnish particulars.

.....
.....

3.14 Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract. **YES / NO**

3.14.1 If yes, furnish particulars:

.....
.....
.....

4. Full details of directors / trustees / members / shareholders.

Full Name	Identity Number	State Employee Number

.....
Signature

.....
Date

.....
Capacity Name of Bidder

.....

A20. DECLARATION OF TENDERER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES (MBD 8)

- 1 This Standard Tendering Document must form part of all tenders invited.
- 2 It serves as a declaration to be used by institutions in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3 The Tender of any Tenderer may be rejected if that Tenderer, or any of its directors have:
 - a. abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system;
 - b. been convicted for fraud or corruption during the past five years;
 - c. willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
 - d. been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).
- 4 In order to give effect to the above, the following questionnaire must be completed and submitted with the tender.

Item	Question	Yes	No
4.1	Is the Tenderer or any of its directors listed on the National Treasury's database as a company or person prohibited from doing business with the public sector? (Companies or persons who are listed on this database were informed in writing of this restriction by the National Treasury after the audi alteram partem rule was applied).	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.1.1	If so, furnish particulars:		
4.2	Is the Tenderer or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? (To access this Register, enter the National Treasury's website, www.treasury.gov.za, click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012) 3265445).	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.2.1	If so, furnish particulars:		
4.3	Was the Tenderer or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
Item	Question	Yes	No
4.4	Does the Tenderer or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish particulars:		

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4.5	Was any contract between the Tenderer and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.7.1	If so, furnish particulars:		

CERTIFICATION

I,..... THE UNDERSIGNED (FULL NAME)
CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM TRUE AND CORRECT.

I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

SIGNED BY/ON BEHALF OF TENDERER:

NAME	SIGNATURE	DATE

A21. CERTIFICATE OF INDEPENDENT TENDER DETERMINATION (MBD 9)

1. This Standard Tender Document must form part of all tenders¹ invited.
2. Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms if it is between parties in a horizontal relationship and if it involves collusive tendering (or tender rigging).² Collusive tendering is a pe se prohibition meaning that it cannot be justified under any grounds.
3. Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:
 - a. disregards the tender of any tenderer if that tenderer, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
 - b. cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the tendering process or the execution of that contract.
4. This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when tenders are considered, reasonable steps are taken to prevent any form of tender-rigging.
5. In order to give effect to the above, the attached Certificate of Tender Determination (MBD 9) must be completed and submitted with the tender:

¹ Includes price quotations, advertised competitive tenders, limited tenders, and proposals.

² Tender rigging (or collusive tendering) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices, or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a tendering process. Tender rigging is, therefore, an agreement between competitors not to compete.

MBD 9 CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

I, the undersigned, in submitting the accompanying tender:

(Tender Number and Description)

in response to the invitation for the tender made by:

(Name of Institution)

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of that:
(Name of Tenderer)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying tender will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the Tenderer to sign this Certificate, and to submit the accompanying tender, on behalf of the Tenderer;
4. Each person whose signature appears on the accompanying tender has been authorized by the Tenderer to determine the terms of, and to sign the tender, on behalf of the Tenderer;
5. For the purposes of this Certificate and the accompanying tender, I understand that the word "competitor" shall include any individual or organization, other than the Tenderer, whether or not affiliated with the Tenderer, who:
 - (a) has been requested to submit a tender in response to this tender invitation;
 - (b) could potentially submit a tender in response to this tender invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the Tenderer and/or is in the same line of business as the Tenderer
6. The Tenderer has arrived at the accompanying tender independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium³ will not be construed as collusive tendering.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a tender;
 - (e) the submission of a tender which does not meet the specifications and conditions of the tender; or
 - (f) tendering with the intention not to win the tender.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this tender invitation relates.

CONSTRUCTION OF MATHE ACCESS ROAD (WARD 09)

9. The terms of the accompanying tender have not been, and will not be, disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening or of the awarding of the contract.

³ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill, and knowledge in an activity for the execution of a contract.

10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to tenders and contracts, tenders that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

_____	_____
NAME	CAPACITY
_____	_____
SIGNATURE	DATE

A22. FORM CONCERNING FULFILMENT OF THE CONSTRUCTION REGULATIONS 2014

In terms of regulation 3(3) of the Construction Regulations, 2014 (hereinafter referred to as the Regulations), promulgated on 07 February 2014 in terms of Section 43 of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993) the Employer shall not appoint a contractor to perform construction work unless the Contractor can satisfy the Employer that his/her firm has the necessary competencies and resources to carry out the work safely and has allowed adequately in his/her tender for the due fulfilment of all the applicable requirements of the Act and the Regulations.

1. I confirm that I am fully conversant with the Regulations and that my company has (or will acquire/procure) the necessary competencies and resources to timeously, safely and successfully comply with all of the requirements of the Regulations. (Tick)

YES	<input type="checkbox"/>
NO	<input type="checkbox"/>

2. Proposed approach to achieve compliance with the Regulations (Tick)

Own resources, competent in terms of the Regulations (refer to 3 below)	<input type="checkbox"/>
Own resources, still to be hired and/or trained (until competency is achieved)	<input type="checkbox"/>
Specialist subcontract resources (competent) - specify:	<input type="checkbox"/>

3. Provide details of proposed key persons, competent in terms of the Regulations, who will form part of the Contract team as specified in the Regulations (CVs to be attached):

.....

4. Provide details of proposed training (if any) that will be undergone:

.....

5. Potential key risks identified and measures for addressing risks:

.....

CONSTRUCTION OF MATHE ACCESS ROAD (WARD 09)

6. I have fully included in my tendered rates and prices (in the appropriate payment items provided in the Schedule of Quantities) for all resources, actions, training and any other costs required for the due fulfilment of the Regulations for the duration of the construction and defects repair period.(Tick)

YES	<input type="checkbox"/>
NO	<input type="checkbox"/>

SIGNED BY/ON BEHALF OF TENDERER:

NAME

SIGNATURE

DATE

A23. GENERAL INFORMATION (PROCUREMENT)

1. Name of tendering entity:.....
2. Contact details:
 Contact name and number:
 Address of tendering entity:
 Postal code:
 Tel no: ()..... Fax no: ().....
 E-mail address:

3. Legal entity: Mark with an X.

Sole proprietor	
Partnership	
Close corporation	
Company (Pty) Ltd	
Joint venture	

In the case of a Joint venture, provide details on joint venture members:

Joint Venture Member	Type of entity (as defined above)

4. Income tax reference number: **(COMPULSORY)**
 (In the case of a joint venture, provide for all joint venture members)

.....

5. VAT registration number **(COMPULSORY)**:
 (In the case of a joint venture, provide for all joint venture members)

.....

6. Company or closed corporation registration number **(COMPULSORY)**:
(In the case of a joint venture, provide for all joint venture members)

.....
.....

7. Construction Industry Development Board (CIDB) registration number **(COMPULSORY)**
(In the case of a joint venture, provide for all joint venture members)

.....
.....

8. Municipal rates and taxes or service charges accounts of tendering entities and its directors / members **(COMPULSORY)**

(In the case of a joint venture, provide for all joint venture members)

ATTACH COPIES OF ALL LATEST MUNICIPAL ACCOUNTS (SEE “NOTICE TO TENDERERS: VERY IMPORTANT NOTICE ON DISQUALIFICATIONS” PARAGRAPH No. 13)

9. Details of proprietor, partners, closed corporation members, or company directors, indicating technical qualifications where applicable (Form on the next page).

10. For joint ventures the following must be attached:

- Written authority of each JV partner, for authorized signatory.
- The joint venture agreement.

SIGNED BY/ON BEHALF OF TENDERER:

NAME	SIGNATURE	DATE
------	-----------	------

A24. DETAILS OF PROPRIETOR, PARTNERS, CLOSED CORPORATION MEMBERS OR COMPANY DIRECTORS

(In the event of a joint venture, to be completed by all joint venture partners)

Name and Surname	Identity Number	Relevant qualifications and experience	Years of relevant experience

A25. MBD 6.1**MBD 6.1****PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022**

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

- () **NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022**

() 1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 To be completed by the municipal entity.

- a) The applicable preference point system for this tender is the 80/20 preference point system.
- b) The 80/20 preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

- (a) Price; and
- (b) Specific Goals.

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
MAXIMUM POINTS ON PRICE	80
MAXIMUM POINTS FOR SPECIFIC GOALS (Preference points)	20
Total points for Price and SPECIFIC GOALS	100

- 1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.
- 1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim regarding preferences, in any manner required by the organ of state.

(i) 2. DEFINITIONS

- (a) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation.
- (b) **“price”** means an amount of money tendered for goods or services and includes all applicable taxes less all unconditional discounts.
- (c) **“Rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes.
- (d) **“tender for income-generating contracts”** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) **“The Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES**POINTS AWARDED FOR PRICE****THE 80/20 PREFERENCE POINT SYSTEMS**

A maximum of 80 points is allocated for price on the following basis:

80/20

$$P_s = 80 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right)$$

Where

P_s = Points scored for price of tender under consideration

P_t = Price of tender under consideration

P_{min} = Price of lowest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

- (a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system: or

(b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

TABLE 1: SPECIFIC GOALS FOR THE TENDER AND POINTS CLAIMED ARE INDICATED PER THE TABLE BELOW.

(80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Evidence Required	Number of points allocated (80/20 system) (To be completed by the Bidder)
Locality (Within uMhlabuyalingana)	5	Municipal account – must be in the name of the Enterprise/ Bidder NB: Municipal account must not be older than 3 months Physical address on Company Registration document will be considered	
Director/ owner with disability	5	Certificate from Medical practitioner	
Director/ owner black women	5	CSD Full report/ Certified ID Copy	
Director/ owner black youth	5	CSD Full report/ Certified ID Copy	
Non-compliant contributor	0		

CONTRACT FORM - RENDERING OF SERVICES

THIS FORM MUST BE FILLED IN DUPLICATE BY BOTH THE SERVICE PROVIDER (PART 1) AND THE PURCHASER (PART 2). BOTH FORMS MUST BE SIGNED IN THE ORIGINAL SO THAT THE SERVICE PROVIDER AND THE PURCHASER WOULD BE IN POSSESSION OF ORIGINALLY SIGNED CONTRACTS FOR THEIR RESPECTIVE RECORDS.

PART 1 (TO BE FILLED IN BY THE SERVICE PROVIDER)

1. I hereby undertake to render services described in the attached bidding documents to **UMHLABUYALINGANA MUNICIPALITY** in accordance with the requirements and task directives / proposals specifications stipulated in Bid Number **UMHL02/2026/2027** at the price/s quoted. My offer/s remain binding upon me and open for acceptance by the Purchaser during the validity period indicated and calculated from the closing date of the bid.
2. The following documents shall be deemed to form and be read and construed as part of this agreement:
 - (i) Bidding documents, viz
 - Invitation to bid;
 - Tax clearance certificate;
 - Pricing schedule(s);
 - Filled in task directive/proposal;
 - Preference claims for Broad Based Black Economic Empowerment Status Level of Contribution in terms of the Preferential Procurement Regulations 2011;
 - Declaration of interest;
 - Declaration of Bidder's past SCM practices;
 - Certificate of Independent Bid Determination;
 - Special Conditions of Contract;
 - (ii) General Conditions of Contract; and
 - (iii) Other (specify)
3. I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the services specified in the bidding documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.
4. I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfilment of this contract.
5. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.
6. I confirm that I am duly authorised to sign this contract.

NAME (PRINT)

CAPACITY

SIGNATURE

NAME OF FIRM

DATE

WITNESSES	
1	.....
2	.....
DATE:	.....

CONTRACT FORM - RENDERING OF SERVICES

PART 2 (TO BE FILLED IN BY THE PURCHASER)

1. **I N.P.E. Myeni** in my capacity as **MUNICIPAL MANAGER** accept your bid under reference number **UMHL02/2026/2027** for the rendering of services indicated hereunder and/or further specified in the annexure(s).
2. An official order indicating service delivery instructions is forthcoming.
3. I undertake to make payment for the services rendered in accordance with the terms and conditions of the contract, within 30 (thirty) days after receipt of an invoice.

DESCRIPTION OF SERVICE	PRICE (ALL APPLICABLE TAXES INCLUDED)	COMPLETION DATE

4. I confirm that I am duly authorised to sign this contract.

SIGNED AT ON

NAME (PRINT)

SIGNATURE

OFFICIAL STAMP

WITNESSES

1

2

DATE:

A26. TENDERER'S FINANCIAL STANDING

In terms of Clause F2.1 of the Tender Data the Employer may make inquiries to obtain a bank rating from the Tenderer's bank.

To that end the Tenderer must provide with his Tender a bank rating, certified by his banker, to the effect that he will be able to successfully complete the contract at the tendered amount, within the specified time for completion.

Name of account holder:

Name of Bank: Branch:

Account number: Type of account:

Telephone number: Facsimile number:

Name of contact person (at bank):

Failure to provide a certified bank rating with his Tender, will lead to the conclusion that the Tenderer does not have the necessary financial resources at his disposal to complete the contract successfully within the specified time for completion. As such, his Tender will be ruled as "invalid".

The Employer reserves the right to confirm with the Tenderer's bank that the supplied bank rating has not changed since the submission of the Tender.

The Employer undertakes to treat the information thus obtained as confidential, strictly for the use of evaluation of the tender submitted by the Tenderer.

SIGNED BY/ON BEHALF OF TENDERER:

NAME

SIGNATURE

DATE

B1. CIDB CONTRACTOR REGISTRATION CERTIFICATE

A Certificate of Contractor's Registration issued by the Construction Industry Development Board (CIDB) shall be attached to this page.

Where a tenderer satisfies CIDB Contractor grading designation requirements through joint venture formation, such tenderers must submit the Certificates of Contractor Registration in respect of each partner.

SIGNED BY/ON BEHALF OF TENDERER:

_____	_____	_____
NAME	SIGNATURE	DATE

B2. TAX CLEARANCE CERTIFICATE AND FINANCIAL STATEMENTS

TAX COMPLIANCE STATUS (TSC)

[The Tenderer shall provide hereto his or her unique SARS compliance clearance pin. Failure to submit the compliance status pin shall invalidate the tender]

TAX COMPLIANCE STATUS VERIFICATION PIN NUMBER
--	-------

SIGNED BY/ON BEHALF OF TENDERER:

_____	_____	_____
NAME	SIGNATURE	DATE

FINANCIAL STATEMENTS FOR CONTRACTS OVER R10 MILLION

Tenderers are referred to Clause F.2.23 A to D, page 26 and shall attach all the required documentation to this Schedule where a tender price exceeds R10 million.

Each party to a Consortium/Joint Venture shall submit a separate set of documents.

SIGNED BY/ON BEHALF OF TENDERER:

NAME	SIGNATURE	DATE
------	-----------	------

B3. PRELIMINARY PROGRAMME

The tenderer shall attach a preliminary programme, to this page. Tenderers should refer to the stipulated quality criteria for the requirements in respect of the programme.

Details of the preliminary programme shall be appended to this Schedule.

Number of sheets appended by the tenderer to this Schedule (If nil, enter NIL)

SIGNED BY/ON BEHALF OF TENDERER:

NAME	SIGNATURE	DATE
------	-----------	------

B4. HEALTH AND SAFETY PLAN

Tenderers are to note the requirements of the Occupational Health and Safety Act No. 85 of 1993 and the Construction Regulations 2014 issued in terms of Section 43 of the Act. The tenderer shall be deemed to have read and fully understood the requirements of the above Act and Regulations and to have allowed for all costs in compliance therewith.

In this regard the tenderer shall prepare and attach a Health and Safety Plan in respect of the Works in order to demonstrate the necessary competencies and resources to perform the construction work all in accordance with the Act and Regulations. Such Health and Safety Plan shall cover inter-alia the following details:

- 1) Management Structure, Site Supervision and Responsible Persons including a succession plan.
- 2) Contractor’s induction training programme for employees, sub-contractors and visitors to the Site.
- 3) Health and safety precautions and procedures to be adhered to in order to ensure compliance with the Act, Regulations and Safety Specifications.
- 4) Regular monitoring procedures to be performed.
- 5) Regular liaison, consultation and review meetings with all parties.
- 6) Site security, welfare facilities and first aid.
- 7) Site rules and fire and emergency procedures.

Tenderers are to note that the Contractor is required to ensure that all sub-contractors or others engaged in the performance of the contract also comply with the above requirements.

The tenderer shall also take into account the additional requirements stated in the Scope of Work when drawing up the Health and Safety Plan for the contract.

Details of the Health and Safety Plan shall be appended to this Schedule.

Number of sheets appended by the tenderer to this Schedule (If nil, enter NIL)

SIGNED BY/ON BEHALF OF TENDERER:

NAME	SIGNATURE	DATE

B5. ADDITIONAL FUNCTIONALITY DOCUMENTS

- Bank Rating Certificate from a Registered Financial Institution. Append to Schedule 0.
- Tenderer's Occupational Health & Safety Policy
- Joint Venture agreement (if applicable) - append to Schedule A4
- A Certificate of Contractor Registration issued by the Construction Industry Development Board - append to Schedule B1.

Where the contract is expected to exceed R10 million including VAT, further documents are required – append to Schedule B2.

Part C1: Agreements and Contract Data

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C1.1. Form of Offer and Acceptance Offer

The Employer, identified in the Acceptance signature block, has solicited offers to enter a contract in respect of the following works:

TENDER NO: UMHL02/2026/2027 CONSTRUCTION OF MATHE ACCESS ROAD (WARD 09)

The tenderer, identified in the offer signature block below, has examined the documents listed in the tender data and addenda thereto as listed in the Returnable Schedules, and by submitting this offer has accepted the conditions of tender.

By the representative of the tenderer, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance, the tenderer offers to perform all the obligations and liabilities of the contractor under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the Conditions of Contract identified in the Contract Data.

THE OFFERED TOTAL OF THE PRICES INCLUSIVE OF VALUE ADDED TAX IS:

.....
.....RAND (in words);
R(in figures)

This offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document to the tenderer before the end of the period of validity stated in the Tender Data, whereupon the Tenderer becomes the party named as the Contractor in the Conditions of Contract identified in the Contract Data.

SIGNED ON BEHALF OF/BY THE TENDERER:

_____	_____
NAME	CAPACITY
_____	_____
SIGNATURE	DATE

Name and address of Organisation:

SIGNED BY WITNESS:

_____	_____	_____
NAME	SIGNATURE	DATE

Acceptance

By signing this part of this Form of Offer and Acceptance, the Employer identified below accepts the Tenderer's offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the Conditions of Contract identified in the Contract Data. Acceptance of the tenderer's offer shall form an Agreement between the Employer and the Tenderer upon the terms and conditions contained in this Agreement and in the Contract that is the subject of this Agreement.

The terms of the contract are contained in:

- Part C1: Agreement and Contract Data (which includes this Agreement)
- Part C2: Pricing Data
- Part C3: Scope Of Work
- Part C4: Site Information

and drawings and documents or parts thereof, which may be incorporated by reference into Parts C1 to C4 above.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto as listed in the Returnable Documents as well as any changes to the terms of the Offer agreed by the Tenderer and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Agreement. No amendments to or deviations from said documents are valid unless contained in this schedule which must be duly signed by the authorised representative(s) of both parties.

The tenderer shall within two weeks of receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), or when or just after this Agreement comes into effect, contact the employer's agent (whose details are given in the Contract Data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the tenderer (now Contractor) within five days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding contract between the parties.

SIGNED ON BEHALF OF/BY THE EMPLOYER:

_____	_____
NAME	CAPACITY
_____	_____
SIGNATURE	DATE

UMHLABUYALINGANA MUNICIPALITY - address of Organisation

SIGNED BY WITNESS:

_____	_____	_____
NAME	SIGNATURE	DATE

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the Tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this Agreement.

SIGNED ON BEHALF OF/BY THE TENDERER:

_____	_____
NAME	CAPACITY
_____	_____
SIGNATURE	DATE

SIGNED BY WITNESS:

_____	_____	_____
NAME	SIGNATURE	DATE

SIGNED ON BEHALF OF/BY UMHLABUYALINGANA MUNICIPALITY :

_____	_____
NAME	CAPACITY
_____	_____
SIGNATURE	DATE

SIGNED BY WITNESS:

_____	_____	_____
NAME	SIGNATURE	DATE

CONFIRMATION OF RECEIPT

The Tenderer, (now Contractor), identified in the Offer part of this Agreement hereby confirms receipt from the Employer, identified in the Acceptance part of this Agreement, of one fully completed original copy of this Agreement, including the Schedule of Deviations (if any) today:

the(day) of (month) (year)

at (place)

SIGNED ON BEHALF OF/BY THE CONTRACTOR:

_____	_____	_____
NAME	SIGNATURE	DATE

SIGNED BY WITNESS:

_____	_____	_____
NAME	SIGNATURE	DATE

C1.2. Contract Data

Part 1: Contract Data Provided by the Employer

GENERAL CONDITIONS OF CONTRACT

The following standardised General Conditions of Contract:

General Conditions of Contract for Construction Works (Third Edition, 2015)

Prepared by the South African Institution of Civil Engineering (SAICE) shall apply to and form the General Conditions of Contract for this contract. Copies of these Conditions of Contract are obtainable from the South African Institution of Civil Engineering (SAICE), Private Bag X200, Halfway House 1685, Tel: (011) 805 5947, Fax: (011) 805 5971, email:civilinfo@saice.org.za.

Copies of the General Conditions of Contract are available for inspection and scrutiny at the offices of the Engineer.

The General Conditions of Contract Third Edition 2015 makes references to the Contract Data for specific data, which, together with these conditions, collectively describe the risks, liabilities and obligations of the contracting parties and the procedures for the administration of the Contract. The Contract Specific Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the General Conditions of Contract.

The General Conditions of Contract shall be read in conjunction with the variations, amendments and additions set out in the Contract Specific Data below. Each item of data given is cross-referenced to the Clause in the General Conditions of Contract to which it mainly applies.

CONTRACT SPECIFIC DATA

The following Contract specific data are applicable to this Contract:

Clause 1.1.1.13: Defects Liability Period

The defects liability period is a period of 6 months, measured from the date of the Certificate of Completion.

Clause 1.1.1.14: Due Completion Date

The date for achieving Practical Completion is a date 6 months after the Commencement Date.

Clause 1.1.1.15: Employer

The **Employer** is UMhlabuyalingana Municipality, represented by Mr. D. Tembe and/or such person or persons duly authorised thereto by the Employer in writing, and the legal successors in title of this person and is referred to in this Contract Document as "Employer".

Clause 1.1.1.16: Engineer

The **Engineer**, referred to in the documents, is the firm of Consulting Engineers, acting through a Director, an Associate or an official authorised thereto in writing.

The name of the Engineer is: Izinga Holdings or their successors duly appointed by the Employer.

Clause 1.1.1.26: Pricing Strategy

The Pricing Strategy is Re-measurement Contract.

Clause 1.1.1.28: Scope of Work

Replace with the following:

“**Scope of Work**” means the document(s) containing the Standard Specifications, the Project Particular Specifications and the Drawings, that specify and describe the Works which are to be provided, and any other requirements and constraint relating to the manner in which the work is to be carried out.

Clause 1.1.1.34: Writing

Add the following Clause after Clause 1.1.1.34

1.1.1.35 “Drawings” means all drawings, calculations and technical information forming part of the Tender Documents (other than information contained in the Specifications) and any modifications thereof or additions thereto from time to time approved in writing by the Engineer or delivered to the Contractor by the Engineer.

Clause 1.2.1.2: Notices

The name of the Employer is : UMhlabuyalingana Municipality

The address of the Employer is : Main Road R22, Manguzi, 3973

The name of the Engineer is : Izinga Holdings

The address of the Engineer is : 5 Charter Street, Empangeni 3880

Clause 1.3.5: Contractor’s Copyright

Add the following to Clause 1.3.5:

No part of any document or drawings issued with this enquiry may be copied, photographed or repeated in any manner or by any process without the written consent of the Engineer. Copyright is reserved on all designs, specifications, patents and patentable designs, systems and processes contained in the documents and drawings.

The person, firm, or body to whom these documents are issued or made available shall be held jointly and severally responsible in their personal and corporate capacities for any contravention of the requirements of Clause 1.3.5. The recipients of these documents shall treat the documents as well as the details contained herein as private and confidential.

Clause 3.1.3: Employer’s Approval Required

The Engineer is required to obtain the specific approval of the Employer before executing any of the following functions or duties:

1. Nominating the Engineer’s Representative in terms of Clause 3.2.1.
2. Delegation of Engineer’s authority in terms of Clause 3.2.4.
3. Providing consent for subcontracting part of the contract in terms of Clause 4.4.
4. The issuing of instructions for dealing with fossils and the like in terms of Clause 4.7.
5. The issuing of an instruction to accelerate progress in terms of Clause 5.7.
6. Granting permission to work during non-working times in terms of Clause 5.8.1.
7. The issuing of further drawings or instructions in terms of Clause 5.9
8. Suspend the progress of the works in terms of Clause 5.11.1.
9. The approval of any extension of time for completion in terms of Clause 5.12.
10. The reduction of a penalty for delay in terms of Clause 5.13.2.
11. The issuing of a variation order in terms of Clause 6.3.2.
12. Issuing of instructions to carry out work on a daywork basis in terms of Clause 6.4.1.4.
13. The determination of additional or reduced costs arising from changes in legislation in terms of Clause 6.8.4.
14. The agreeing of the adjustment of the sums for general items in terms of Clause 6.11.
15. Authorizing the Contractor to repair and make good, excepted risks in terms of Clause 8.2.2.2.

-
16. The giving of a ruling on a contractor's claim in terms of Clause 10.1.5.
 17. The agreeing of an extension to the 28-day period in terms of Clause 10.1.5.1.
 18. The inclusion of credits in the next payment certificate in terms of Clause 10.1.5.2.

Clause 4.3: Legal Provisions

Add the following Clauses after Clause 4.3.2:

- 4.3.3 The Employer and the Contractor shall enter into an agreement to complete the work required for the construction of the works in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act (No. 85 of 1993) and the Construction Regulations promulgated thereunder, as well as any further requirements stipulated in this contract document.
- 4.3.4 The Contractor shall provide proof to the Employer, within 14 days of the Commencement Date, that he/she has paid all contributions required in terms of the Compensation for Occupational Injuries and Diseases Act (Act No. 130 of 1993).

Clause 5.3: Commencement of Works

The Contractor shall commence executing the Works within 28 days from the Commencement Date.

Notwithstanding the above, the Contractor will not be permitted to commence executing the Works before the Form of Guarantee and required insurances and other specified items have been submitted and approved.

Clause 5.4: Access to the Site

Add the following clause after Clause 5.4.3:

- 5.4.4 The Contractor shall bear all costs and charges for special and temporary rights of way required by him in connection with access to the Site. The Contractor shall also provide at his/her own cost any additional facilities outside the Site required by him/her for the purposes of the Works.

Clause 5.6.1: Programme of Works

The Contractor shall deliver the programme of work within 14 days of the Commencement Date. The programme shall clearly show the order in which the Contractor proposes to carry out the work, including the critical path, the proposed rate of progress and a linked cash flow forecast. The programme shall be updated monthly.

Clause 5.8: Non-Working Times

The non-working days is Saturday, Sunday, the days falling in the year-end break and all gazetted public holidays falling outside the year end break.

The year-end break commences on 20 December 2026 and ends on 06 January 2027.

Clause 5.9: Instructions

Add the following Clauses after Clause 5.9.7:

- 5.9.8 Tender Drawings shall be used for tender purposes only and shall not be used for construction.

The Engineer shall have full power and authority to supply to the Contractor from time to time during the progress of the Works copies of such further drawings and such instructions as shall be necessary for the purpose of the proper and adequate execution and maintenance of the Works, which the Contractor shall carry out and be bound by.

Clause 5.12.2.2: Extension of Time

Regardless of the cause of any delay an extension of time will only be considered if it can be shown that the activity delayed is on the critical path indicated on the Programme of Works (Clause 5.6.1).

No extension of time will be granted in respect of any delays attributed to normal climatic conditions. Normal Climatic Conditions shall be deemed to include normal rainfall and associated wet conditions and materials, strong winds and extremes of temperature. However, in the event that delays to critical activities exceed the number of working days listed below for each month, then abnormal climatic conditions shall be deemed to exist, and an extension of time shall be granted in accordance with the provisions of that Clause.

The number of days quoted below shall be regarded as a fair estimate of the delays to be anticipated and allowed for under normal climatic conditions where inclement weather prevents or disrupts work on the critical path.

January	7 days	May	2 days	September	3 days
February	6 days	June	1 days	October	6 days
March	6 days	July	2 days	November	7 days
April	3 days	August	3 days	December	7 days

Claims for delays for abnormal climatic conditions shall be accompanied by substantiating facts and evidence, which shall be submitted timeously as each day or half-day delay is experienced. Should an extension of time be granted by the Engineer such extension of time will be added to the Time for Completion or set against any over-provision that may have occurred in the abovementioned schedule?

It shall be further noted that where the critical path is not affected, no extension of time for abnormal climatic conditions or for any other reason will be entertained.

Clause 5.12.3: Adjustment to General Items

Add the following to Clause 5.12.3

The cost of time related general items will be calculated on the basis of the number of days in Clause 5.8.

Clause 5.13.1: Penalty for Delay

The penalty for failing to complete the Works on time is R 1 000.00 per calendar day.

Clause 6.2: Security

The Deed of Guarantee is to be delivered to the Employer within 14 days of the Commencement Date. The Performance Guarantee shall be worded as set out in the document included in C1.3. The liability of the guarantee shall be for 10% of the Contract Price.

Clause 6.8.2: Contract Price Adjustment

Add the following to Clause 6.8.2:

The Contract Price shall not be subject to contract price adjustment.

Clause 6.10.1.5: Interim Payments – Materials on Site

The percentage advance on materials on site but not yet built into the Permanent Works is 80% (eighty percent).

Clause 6.10.3: Retention Money

The percentage retention on the amounts due to the Contractor is 10% (ten percent). The limit of retention is 5% of the Contract Price, including allowances for contingencies and Contract Price Adjustment.

Clause 6.10.5: Payment of Retention Money

In the second line, delete the words “ .. one half of the retention money shall become due and paid to the Contractor when the Engineer shall have issued a Certificate of Practical Completion in terms of Clause 5.14.4 and the other half when the Engineer ..” and replace with the words “.. the full limit of retention money shall be held until the Engineer ..”

Clause 6.10.5.1

In the sixth line, delete the words “ .. of the second half ..”

Clause 6.10.6: Set-Off and Delayed Payments

A guarantee in lieu of retention is not permitted.

Clause 8.6.1: Insurances**Clause 8.6.1.1.2**

The value of the materials supplied by the Employer to be included in the insurance sum is R0.00 -Nil.

Clause 8.6.1.1.3

The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is R0.00 -Nil.

Clause 8.6.1.3

The limit of indemnity for liability insurance is R 5 000 000.00 for any single claim – the number of claims to be unlimited during the construction.

Clause 8.6.1.5: Additional Insurance

Additional Insurance is required for the following:

- a) Insurance of Construction Plant and Equipment (including tools, offices and other temporary structures and contents) and all other items (except those intended for incorporation into the Works) brought onto the site for a sum sufficient to provide for their replacement.
- b) Insurance in terms of the provisions of the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993.
- c) Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger Liability Indemnity.
- d) Where the contract involves manufacturing and/or fabrication of the works or part thereof at premises other than the Site, the Contractor shall satisfy the Employer that all materials and equipment for incorporation in the works are adequately insured during manufacture and/or fabrication. In the event of the Employer having an insurable interest in such works during manufacture or fabrication then such interest shall be noted by endorsement to the Contractor's Policies of Insurance.
- e) The insurance policy held by the Contractor shall cover “wet risks” because a portion of the works will be in the confines of an existing river and stormwater channel.

- f) Professional Indemnity Insurance providing cover in an amount of not less than R 10 000 000.00 in respect of each and every claim. This insurance shall remain in force after completion of this contract for a period of not less than 1 (one) year.

Clause 8.6.6: Proof of Payment

Add the following:

The contractor shall within 14 days of the Commencement Date provide the Employer/Engineer the relevant policy or policies of insurance.

Clause 9.2.1: Termination by the Employer

Add the following Clauses after Clause 9.2.1.3.7:

9.2.1.3.8 The Contractor fails to provide the required Guarantee and insurances within the prescribed time.

9.2.1.3.9 The Contractor committed a corrupt or fraudulent act during the procurement process or the execution of the contract.

9.2.1.3.10 An official or other role player committed any corrupt or fraudulent act during the procurement process or in the execution of the contract that benefited the Contractor.

Clause 10.5 and 10.6: Dispute Resolution

Dispute resolution shall be by standing adjudication panel or ad-hoc adjudication.

ADDITIONAL CONDITIONS OF CONTRACT

The additional Conditions of Contract are:

Clause 11: Contractor to Provide Everything Necessary

The Contractor is to provide all labour, material, workmanship, machinery, and everything which is or may be necessary in and for the execution and entire completion of the Contract in accordance with the Conditions of Contract, Drawings and Scope of Work.

Clause 12: Details to be Confidential

The Contractor shall treat the details of the Works comprised in this Contract as private and confidential (save in so far as may be necessary for the purposes hereof) and shall not publish or disclose the same or any particulars thereof in any trade or technical paper elsewhere without prior written consent of the Engineer.

Part 2: Data Provided by the Contractor

Clause 1.2.1: Delivery of Notices

The name of the Contractor is

The address of the Contractor is

Physical Address

Postal Address

.....

.....

.....

.....

.....

.....

.....

.....

Telephone:.....

Fax:.....

Email:.....

SIGNED ON BEHALF OF/BY THE TENDERER:

NAME

CAPACITY

SIGNATURE

DATE

C1.3. Performance Guarantee

GUARANTOR DETAILS AND DEFINITIONS

“Guarantor”: means:

Physical Address:

“Employer” means: UMHLABUYALINGANA MUNICIPALITY

“Contractor”: means:

“Engineer” means: Izinga Holdings

“Works” means:

“Site” means:

“Contract: means: The Agreement made in terms of the Form of Offer and Acceptance and such amendments or additions to the Contract as may be agreed in writing between the parties.

“Contract Sum” means: The accepted amount inclusive of tax of

R.....

.....

Amount in words:

.....

“Guaranteed Sum” means: The maximum aggregate amount of

R.....

Amount in words:

.....

“Expiry Date” means:

CONTRACT DETAILS

Engineer issues: Interim Payment Certificates, Final Payment Certificate and the Certificate Completion of the Works as defined in the Contract.

PERFORMANCE GUARANTEE

1. The Guarantor's liability shall be limited to the amount of the Guaranteed Sum.
2. The Guarantor's period of liability shall be from and including the date of issue of this Performance Guarantee and up to and including the Expiry Date or the date of issue by the Engineer of the Certificate of Completion of the Works or the date of payment in full of the Guaranteed Sum, whichever occurs first. The Engineer and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.
3. The Guarantor hereby acknowledges that:
 - 3.1. any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship.
 - 3.2. its obligation under this Performance Guarantee is restricted to the payment of money.
4. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 4.1 to 4.3:
 - 4.1. A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Engineer in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 4.2;
 - 4.2. A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 4.1 and the sum certified has still not been paid;
 - 4.3. A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 4.
5. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:
 - 5.1. the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 5; or
 - 5.2. a provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 5; and
 - 5.3. the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
6. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.
7. Where the Guarantor has made payment in terms of 5, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall

CONSTRUCTION OF MATHE ACCESS ROAD (WARD 09)

- bear interest at the prime overdraft rate of the Employer’s bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.
8. Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
 9. Payment by the Guarantor in terms of 5 will only be made against the return of the original Performance Guarantee by the Employer.
 10. The Employer shall have the absolute right to arrange his/her affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his/her release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
 11. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
 12. This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
 13. This Performance Guarantee, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.
 14. Where this Performance Guarantee is issued in the Republic of South Africa, the Guarantor hereby consents in terms of Section 45 of the Magistrate’s Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate’s Court of any district having jurisdiction in terms of Section 28 of the said Act notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate’s Court.

SIGNED AT:

GUARANTOR 1	CAPACITY
SIGNATURE	DATE
GUARANTOR 2	CAPACITY
SIGNATURE	DATE

WITNESSES

1.

_____	_____	_____
NAME	SIGNATURE	DATE

2.

_____	_____	_____
NAME	SIGNATURE	DATE

C1.4. Adjudication

Adjudication shall be carried out in terms of Clauses 10.5, 10.6 and 10.7 of the General Conditions of Contract.

The Disclosure Statement and the Adjudication Board Member Agreement to be used in this Contract are contained Appendices 4 and 5 of the General Conditions of Contract Third Edition 2015.

C1.5. Occupational Health and Safety Agreement

AGREEMENT MADE AND ENTERED INTO BETWEEN UMHLABUYALINGANA MUNICIPALITY (HEREINAFTER CALLED THE "EMPLOYER") AND

(Contractor/Mandatory/Company/CC Name)

IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, ACT No. 85 OF 1993 AS AMENDED.

I,
representing

....., as an employer in its own right, do hereby undertake to ensure, as far as is reasonably practicable, that all work will be performed, and all equipment, machinery or plant used in such a manner as to comply with the provisions of the Occupational Health and Safety Act (OHSA) and the Regulations promulgated thereunder.

I furthermore confirm that I am/we are registered with the Compensation Commissioner and that all registration and assessment monies due to the Compensation Commissioner have been fully paid or that I/We are insured with an approved licensed compensation insurer.

COID ACT Registration Number:

OR Compensation Insurer: Policy No.:.....

I undertake to appoint, where required, suitable competent persons, in writing, in terms of the requirements of OHSA and the Regulations and to charge him/them with the duty of ensuring that the provisions of OHSA and Regulations as well as the Council's Special Conditions of Contract, Way Leave, Lock-Out and Work Permit Procedures are adhered to as far as reasonably practicable.

I further undertake to ensure that any subcontractors employed by me will enter into an Occupational Health and Safety Agreement separately, and that such subcontractors comply with the conditions set.

I hereby declare that I have read and understand the appended Occupational Health and Safety Conditions and undertake to comply therewith at all times.

I hereby also undertake to comply with the Occupational Health and Safety Specification and Plan.

Signed at on the day of 20

SIGNED BY/ON BEHALF OF CONTRACTOR - MANDATORY

_____	_____	_____
NAME	SIGNATURE	DATE

SIGNED BY WITNESS:

_____	_____	_____
NAME	SIGNATURE	DATE

Signed at on the day of 20

SIGNED BY/ON BEHALF OF UMHLABUYALINGANA MUNICIPALITY

NAME	SIGNATURE	DATE
------	-----------	------

SIGNED BY WITNESS:

NAME	SIGNATURE	DATE
------	-----------	------

Occupational Health and Safety Conditions

1. The Chief Executive Officer of the Contractor shall assume the responsibility in terms of Section 16(1) of the Occupational Health and Safety Act (as amended). Should the Contractor assign any duty in terms of Section 16(2), a copy of such assignment shall immediately be provided to the representative of the Employer as defined in the Contract.
2. All work performed on the Employer's premises shall be performed under the supervision of the construction supervisor who understand the hazards associated with any work that the Contractor performs on the site in terms of Construction Regulations 2014.
3. The Contractor shall appoint a Competent Person who shall be trained on any occupational health and safety aspect pertaining to them or to the work that is to be performed.
4. The Contractor shall ensure that he familiarises himself with the requirements of the Occupational Health and Safety Act and that he/she, his/her employees, and any sub-contractors, comply with them.
5. Discipline in the interests of occupational health and safety shall be strictly enforced.
6. Personal protective equipment shall be issued by the Contractor as required and shall be worn at all times where necessary.
7. Written safe work procedures and appropriate precautionary measures shall be available and enforced, and all employees shall be made conversant with the contents of these practices.
8. No substandard equipment/machinery/articles or substances shall be used on the site.
9. All incidents referred to in terms of Section 24 of the Occupational Health and Safety Act shall be reported by the Contractor to the Department of Labour and the Employer.
10. The Employer hereby obtains an interest in the issue of any formal inquiry conducted in terms of Section 32 of the Occupational Health and Safety Act and into any incident involving a Contractor and/or his/her employees and/or his/her sub-contractor/s.
11. No use shall be made of any of the Employer's machinery/plant/equipment/substance/personal protective equipment or any other article without prior arrangement and written approval.
12. No alcohol or any other intoxicating substance shall be allowed on the site. Any person suspected of being under the influence of alcohol or any other intoxicating substance shall not be permitted access to, or allowed to remain on the site.
13. Prior to commencement of any work, verified copies of all documents mentioned in the agreement, must be presented to the Employer.

Part C2: Pricing Data and Bill of Quantities

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C2.1 Pricing Instructions	105
C2.2 Bill Of Quantities	107- 124

C2.1. Pricing Instructions

1. Measurement and payment shall be in accordance with the relevant provisions of the COTO Standard Specifications (2020 edition).
2. The units of measurement described in the Bill of Quantities are metric units. Abbreviations used in the Bill of Quantities are as follows:

%	=	per cent	m ² .pass	=	square metre-pass
h	=	hour	m ³	=	cubic metre
ha	=	hectare	m ³ .km	=	cubic metre-kilometre
kg	=	kilogram	MN	=	meganewton
kℓ	=	kilolitre	MN.m	=	meganewton-metre
km	=	kilometre	MPa	=	megapascal
km-pass	=	kilometre-pass	No.	=	number
kPa	=	kilopascal	Prov sum	=	Provisional sum
kW	=	kilowatt	P C sum	=	Prime Cost sum
ℓ	=	litre	sum	=	lump sum
m	=	metre	t	=	ton (1 000 kg)
mm	=	millimetre	W/day	=	Workday
m ²	=	square metre			

3. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.
4. The prices and rates to be inserted in the Bill of Quantities are to be the full inclusive prices for the work described under the items. Such prices and rates shall cover all costs and expenses that may be required in accordance with the provisions of the Scope of Work, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. These prices shall be used as a basis for assessment of payment for additional work that may have to be carried out.
5. It will be assumed that prices included in the Bill of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders. (Refer to www.sabs.co.za or www.iso.org for information on standards).
6. Where the Scope of Work requires detailed drawings and designs or other information to be provided, all costs associated therewith are deemed to have been provided for and included in the unit rates and sum amount tendered for such items.
7. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bill of Quantities. A single lump sum will apply should a number of items be grouped together for pricing purposes.
8. The quantities set out in the Bill of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in the Bills of Quantities.
9. Reasonable compensation will be received where no pay item appears in respect of work required in the Bills of Quantities in terms of the Contract and which is not covered in any other pay item.
10. The short descriptions of the items of payment given in the Bill of Quantities are only for the purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the Scope of Work.
11. Descriptions in the Bill of Quantities are abbreviated and comply generally with those in the SANS 1200 Standardised Specifications.
12. Item 13.01 (a), (b) and (c) may not exceed 15% of total tender offer excluding VAT and contingencies.

C2.2. Bill of Quantities

CONSTRUCTION OF MATHE ACCESS ROAD IN WARD 09**SECTION 1300: CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS**

ITEM	DESCRIPTION	UNIT	LIC	QTY	RATE R	AMOUNT R
1300	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS					
13.01	Contractor's general obligations:					
	(a) Fixed obligations	Lump Sum		1		
	(b) Value-related obligations	Lump Sum		1		
	(c) Time-related obligations	Month		6		
1.2	Compensation for Community Liaison Officer:					
1.2.1	(a) Allowance for provision of Community Liaison Officer	Prov. Sum		1	R 39 000,00	R 39 000,00
1.2.2	(b) Allowance for provision of Project Steering Committee (PSC):	Prov. Sum		1	R 3 600,00	R 3 600,00
1.2.3	(b) Mark up for item 1.2.1 to 1.2.2 above	%		42 600,00		
1.3	Health and Safety:					
1.3.1	(a) Fixed obligations for completing and checking the Project H&S File and handing over to the Client on completion of the Works	Lump Sum		1		
1.3.2	(b) Time-related obligations for updating and amending the project H&S File and for full compliance with all H&S matters during construction of the Works under the Contract	Month		6		
1.4	Compensation for Environmental Control:					
1.4.1	(a) Compliance with the Project Environmental Specification	Lump Sum		1		
1.4.2	(b) Provision for the Environmental Site Audit	Prov. Sum		1	R 120 000,00	R 120 000,00
1.4.3	(c) Mark up for item 1.4.2 above	%		120 000,00		
1.5	Construction of new survey beacons and protection of existing survey beacons:					
1.5.1	(a) Provisional sum for new survey beacons to be constructed, or for existing survey beacons to be protected during construction	Prov. Sum		1	R 120 000,00	R 120 000,00
1.5.2	(b) Handling costs and profit in respect of item 1.5.1 above	%		120 000,00		
TOTAL CARRIED FORWARD						

CONSTRUCTION OF MATHE ACCESS ROAD (WARD 09)

ITEM	DESCRIPTION	UNIT		QTY	RATE R	AMOUNT R
TOTAL BROUGHT FORWARD						
1.6	(a) Provisional sum for existing services to be relocated and/or protected during construction:					
1.6.1	(i) Water Services	Prov. Sum		1	R 30 000,00	R 30 000,00
1.6.2	(ii) Electrical Services	Prov. Sum		1	R 30 000,00	R 30 000,00
1.6.3	(b) Handling cost and profit in respect of item 1.6.1 and 1.6.2 above	%		60 000,00		
1.7	Contract Signboards	No.		2		
1.8	Training					
1.8.1	Allowance for the provision of a Student Training	Prov. Sum		1	R 39 000,00	R 39 000,00
1.8.2	Mark up for item 1.8.1 above	%		39000		
TOTAL CARRIED FORWARD TO SUMMARY						

CONSTRUCTION OF MATHE ACCESS ROAD IN WARD 09

SECTION 1400: HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL

ITEM	DESCRIPTION	UNIT	LIC	QTY	RATE R	AMOUNT R
1400	HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL					
14.01	Office and laboratory accommodation:					
	(a) Offices (interior floor space only)	m ²		15		
	(b) Ablutions Units (interior floor space)	m ²		15		
	(c) Stores	m ²		15		
14.02	Office and laboratory furniture:					
	(a) Chairs	No.		10		
	(b) Desks, complete with drawers and locks	No.		2		
	(c) Conference tables	No.		1		
14.03	Office and laboratory fittings Installations and equipment:					
	(a) Items measured by number:					
	(i) White notice boards as specified	No.		1		
	(ii) Steel filling cabinets with drawers	No.		1		
	(iii) Drawing rack	No.		1		
	(iv) Rain gauge	No.		1		
	(b) Prime-cost items and Items paid for in a lump sum:					
	(i) Provision of office equipment	Prov.Sum		1	R 50 000,00	R 50 000,00
	(ii) Mark up for item 14.03 (b) (i) above	%		50000,00		
	(iii) Provision of stationery	Prov.Sum		1	R 30 000,00	R 30 000,00
	(iv) Mark up for item 14.03 (b) (iii) above	%		30000,00		
14.08	Services:					
	The provision of water, electricity, low-pressure gas, sewerage, septic tanks, sewage and rubbish removal, cleaning services, maintenance and repairs, all as specified in clause 1404, including the construction and maintenance of the access roads, footpaths, etc.:					
	(a) Services at offices and laboratories:					
	(i) Fixed costs	LumpSum		1		
	(ii) Running costs	Month		6		
TOTAL CARRIED FORWARD TO SUMMARY						

CONSTRUCTION OF MATHE ACCESS ROAD IN WARD 09**SECTION 1500: ACCOMMODATION OF TRAFFIC**

ITEM	DESCRIPTION	UNIT	LIC	QTY	RATE R	AMOUNT R
1500	ACCOMMODATION OF TRAFFIC					
15.01	Accommodating traffic and maintaining temporary deviations	Km		4,87		
15.02	Earthworks for temporary deviations:					
	(a) Shaping of temporary deviations	Km		4,87		
15.03	Temporary traffic-control facilities:					
	(a) Flagmen	Man-Day		264		
	(b) Portable STOP and GO-RY signs	No.		6		
	(e) Road signs, R and TR-series, (900mm diameter)	No.		5		
	(f) Road signs, TW-series, (1200 mm sides)	No.		5		
	(h) Delineators (TW 401 / TW 402) (800 mm x 200mm):					
	(i) Single sided	No.		20		
	(ii) Mounted back to back	No.		10		
15.04	Relocation of traffic-control facilities	Lump Sum		1		
15.10	Accommodation of traffic where the road is constructed in half-widths	Km		4,87		
TOTAL CARRIED FORWARD TO SUMMARY						

CONSTRUCTION OF MATHE ACCESS ROAD IN WARD 09

SECTION 1600: OVERHAUL

ITEM	DESCRIPTION	UNIT	LIC	QTY	RATE R	AMOUNT R
1600 16.02	OVERHAUL Overhaul on material hauled in excess of 1,0 km (ordinary overhaul)	m ³ -km		255 675		
TOTAL CARRIED FORWARD TO SUMMARY						

CONSTRUCTION OF MATHE ACCESS ROAD IN WARD 09

SECTION 1700: CLEAR AND GRUBBING

ITEM	DESCRIPTION	UNIT	LIC	QTY	RATE R	AMOUNT R
1700	CLEARING AND GRUBBING					
17.01	Clearing and grubbing	Ha		4,9		
17.02	Removal and grubbing of large trees and tree stumps:					
	(a) Girth exceeding 1m up to and including 2m	No.		20		
	(b) Girth larger than 2m up to and including 3m	No.		10		
TOTAL CARRIED FORWARD TO SUMMARY						

CONSTRUCTION OF MATHE ACCESS ROAD IN WARD 09**SECTION 2100: DRAINS**

ITEM	DESCRIPTION	UNIT	LIC	QTY	RATE R	AMOUNT R
2100	DRAINS					
21.01	Excavation for open drains: (a) Excavating soft material situated within the following depth ranges below the surface level: (i) 0 m up to 1,5 m	m ³		1808		
	(b) Extra over subitem 21.01(a) for excavation in hard material, irrespective of depth	m ³		180,80		
21.03	Excavation for subsoil drainage systems: (a) Excavating soft material situated within the following depth ranges below the surface level: (i) 0 m up to 1,5 m	m ³		292		
	(ii) Exceeding 1,5 m and up to 3,0 m	m ³		29		
	(b) Extra over subitem 21.03(a) for excavation in hard material irrespective of depth	m ³		3		
21.04	Impermeable backfilling to subsoil drainage systems	m ³		49		
21.06	Natural permeable material in subsoil drainage systems (crushed stone): (b) Crushed stone obtained from commercial sources (19mm Nominal Size)	m ³		73		
21.07	Natural permeable material in subsoil drainage systems (sand): (b) Sand from commercial sources (Coarse Grade Nom. 4.75mm)	m ³		24		
21.08	Pipes in subsoil drainage systems: (b) Unplasticized PVC pipes and fittings, normal duty, complete with couplings (100 mm internal dia. slotted not perforated)	m		1000		
21.10	Synthetic-fibre filter fabric (Grade A2)	m ²		2150		
21.12	Concrete outlet structures, manhole boxes, junction boxes and cleaning eyes for subsoil drainage systems: (a) Outlet structures (As per SD 0501)	No.		14		
	(d) Cleaning eyes (As per SD 0501)	No.		14		
21.13	Concrete caps for subsoil drain pipes	No.		14		
21.17	Test flushing of pipe subsoil drains	m		1000		
TOTAL CARRIED FORWARD TO SUMMARY						

CONSTRUCTION OF MATHE ACCESS ROAD IN WARD 09**SECTION 2200: PREFABRICATED CULVERTS**

ITEM	DESCRIPTION	UNIT	LIC	QTY	RATE R	AMOUNT R
2200	PREFABRICATED CULVERTS					
22.01	Excavation: (a) Excavating soft material situated within the following depth ranges below the surface level: (i) 0 m up to 1,5 m (ii) Exceeding 1,5 m and up to 3,0 m (b) Extra over subitem 22.01(a) for excavation in hard material, irrespective of depth	m ³		40,5		
		m ³		8,1		
		m ³		6,1		
B22.02	Backfilling: (a) Using the excavated material (b) Using imported selected material	m ³		16,9		
		m ³		27,4		
22.03	Concrete pipe culverts: (c) On class C bedding (ii) 600mm dia. Spigot and Socket Class 100D	m		22,5		
B22.17	Manholes, catchpits, precast inlet and outlet structures complete: (f) Headwalls (as per Dwg No SD 0406): (ii) for a 600mm diameter pipe skew	No.		6		
TOTAL CARRIED FORWARD TO SUMMARY						

CONSTRUCTION OF MATHE ACCESS ROAD IN WARD 09**SECTION 3300: MASS EARTHWORKS**

ITEM	DESCRIPTION	UNIT	LIC	QTY	RATE R	AMOUNT R
3300	MASS EARTHWORKS					
B33.01	Cut and borrow to fill, including free-haul up to 1,0 km:					
	(b) Material in compacted layer thicknesses exceeding 200mm:					
	(i) Compacted to 90% of modified AASHTO density	m ³		4090,80		
33.03	Extra over item B33.01 for excavating and breaking down material in:					
	(a) Intermediate excavation	m ³		409,08		
	(b) Hard excavation	m ³		204,54		
B33.04	Cut to spoil, including free-haul up to 1,0 km. Material obtained from:					
	(a) Soft excavation	m ³		204,54		
	(b) Intermediate excavation	m ³		20,45		
B33.07	Removal of unsuitable material (including free-haul of 1,0 km):					
	(a) In layer thicknesses of 200 mm and less:					
	(i) Stable material	m ³		545		
	(ii) Unstable material	m ³		545		
33.10	Roadbed preparation and the compaction of material:					
	(a) Compaction to 90% of modified AASHTO density	m ³		4 090,8		
33.13	Finishing-off cut and fill slopes, medians and interchange areas:					
	(a) Cut slopes	m ²		2 435,0		
	(b) Fill slopes	m ²		2 435,0		
TOTAL CARRIED FORWARD TO SUMMARY						

CONSTRUCTION OF MATHE ACCESS ROAD IN WARD 09**SECTION 3400: PAVEMENT LAYERS OF GRAVEL MATERIAL**

ITEM	DESCRIPTION	UNIT	LIC	QTY	RATE R	AMOUNT R
3400	PAVEMENT LAYERS OF GRAVEL MATERIAL					
34.01	Pavement layers constructed from gravel taken from a commercial source, including free haul up to 1,0 km:					
	(a) Gravel wearing course compacted to:					
	(i) 93% of modified AASHTO density (200mm Layer thickness) G7 quality	m ³		5 357		
	(h) Gravel wearing course compacted to:					
	(ii) 95% of modified AASHTO density (150mm Layer thickness) G5 quality	m ³		3 653		
TOTAL CARRIED FORWARD TO SUMMARY						

CONSTRUCTION OF MATHE ACCESS ROAD IN WARD 09**SECTION 5100: PITCHING, STONEMWORK AND PROTECTION AGAINST EROSION**

ITEM	DESCRIPTION	UNIT	LIC	QTY	RATE R	AMOUNT R
5100	PITCHING, STONEMWORK AND PROTECTION AGAINST EROSION					
51,01	Stone pitching:					
	b) Grouted stone pitching	m ²		365,25		
TOTAL CARRIED FORWARD TO SUMMARY						

CONSTRUCTION OF MATHE ACCESS ROAD IN WARD 09**SECTION 5600: ROAD SIGNS**

ITEM	DESCRIPTION	UNIT	LIC	QTY	RATE R	AMOUNT R
5600	ROAD SIGNS					
56.01	Road sign boards with painted or coloured semi-matt background. Symbols, lettering and borders in semi-matt black or in Class 1 retro-reflective material, where the sign board is constructed from: (c) Prepainted galvanised steel plate (1.2mm chromadek or approved): (1) 900mm diameter Round or Stop signs: (i) R 1 (ii) R 201 (40) (3) 150mmx600mm Hazard Marker Signs: (i) W401/W402	No.		1		
		No.		4		
56.03	Road sign supports: (a) Timber (150mm dia Tar treated wooden - 1.2m long): (i) 75mm diameter (ii) 100mm diameter	No.		6		
		No.		16		
56.05	Excavation and backfilling for road sign supports	m ³		25		
56.06	Extra over item 56.05 for cement-treated soil backfill	m ³		3		
TOTAL CARRIED FORWARD TO SUMMARY						

CONSTRUCTION OF MATHE ACCESS ROAD IN WARD 09**SECTION 5800: LANDSCAPING AND PLANTING PLANTS**

ITEM	DESCRIPTION	UNIT	LIC	QTY	RATE R	AMOUNT R
58.00	LANDSCAPING AND PLANTING PLANTS					
58.03	Preparing the areas for grassing: (c) Topsoiling within the road reserve, where the following materials are used: (i) Topsoil obtained from within the road reserve or borrow areas (free haul 1,0 km)	m ³		730,50		
58.04	Grassing: (c) Hydroseeding: (iii) Hydroseeding	Ha		0,49		
TOTAL CARRIED FORWARD TO SUMMARY						

CONSTRUCTION OF MATHE ACCESS ROAD IN WARD 09**SECTION 5900: FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS**

ITEM	DESCRIPTION	UNIT	LIC	QTY	RATE R	AMOUNT R
59.00	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS					
59.01	Finishing the road and road reserve: (b) Single carriageway road	Km		4,9		
59.02	Treatment of old roads and temporary deviations	Km		2,4		
TOTAL CARRIED FORWARD TO SUMMARY						

CONSTRUCTION OF MATHE ACCESS ROAD IN WARD 09**SECTION 6400: CONCRETE FOR STRUCTURES**

ITEM	DESCRIPTION	UNIT	LIC	QTY	RATE R	AMOUNT R
8100	TESTING MATERIALS AND WORKMANSHIP					
81.02	Other special tests requested by the engineer:					
	(a) Cost of testing	Prov. Sum		1	R 200 000,00	R 200 000,00
	(b) Mark up for item 81.02 (a) above	%		200000,00		
TOTAL CARRIED FORWARD TO SUMMARY						

CONSTRUCTION OF MATHE ACCESS ROAD IN WARD 09

SUMMARY

SECTIONS	DESCRIPTION	AMOUNT (RAND)
1300	CONTRACTORS ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS	
1400	HOUSING, OFFICES AND LABORATORY FOR THE ENGINEER'S SITE PERSONNEL	
1500	ACCOMODATION OF TRAFFIC	
1600	OVERHAUL	
1700	CLEARING AND GRUBBING	
2100	DRAINS	
2200	PREFABRICATED CULVERTS	
3300	EARTHWORKS AND PAVEMENT LAYERS OF GRAVEL OR CRUSHED STONE	
3400	PAVEMENT LAYERS OF GRAVEL MATERIAL	
5100	PITCHING, STONWORK AND PROTECTION AGAINST EROSION	
5600	ROAD SIGNS	
5800	LANDSCAPING AND PLANTING PLANTS	
5900	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS	
8100	TESTING MATERIALS AND WORKMANSHIP	
SUB-TOTAL A =		
Add: Contingencies (10% of SUB-TOTAL A) =		
SUB-TOTAL B =		
Add: VAT (15% of SUBTOTAL B) =		
TOTAL AMOUNT =		

Declaration

(In respect of completeness of Tender)

UMhlabuyalingana Municipality
Private Bag X901
KwaNgwanase
3973

I/we, the undersigned, do hereby declare that these are the properly priced Bill of Quantities forming Part C2.2 of this Contract Document and the Bill of Quantities comprising 18 pages in consecutive order upon which my/our tender for the **TENDER NO: UMHL02/2026/2027 CONSTRUCTION OF MATHE ACCESS ROAD (WARD 09)** has been based.

SIGNED BY/ON BEHALF OF TENDERER

_____	_____	_____
NAME	SIGNATURE	DATE

Part C3: Scope of Work

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C3.2 Procurement	132
C3.3 Construction	133
C3.4 Annexes	136

C3.1. Description of the Works

C3.1.1 Employer's Objectives

The employer's objective is to deliver public infrastructure using labour intensive methods as much as possible. The contractor shall make use of local resources as is reasonable. These resources include local labour, local suppliers, builders, sub-contractors and plant hire. The contractor is to agree on the number and nature of skilled personnel that he wishes to bring onto the project and have these confirmed by the Engineer and PSC. Any changes to this agreed number must be registered with the Engineer.

C3.1.2 Overview of the Works

The project entails construction of a 4.87 km new gravel access road.

C3.1.3 Extent of the Works

The scope of works includes but not limited to the following:

- i. Rip and re-compacting in-situ, import of G7 & G5 material from a commercial source;
- ii. 4.87km long x 5m wide Gravel Access Road, with 200mm thick G7 gravel base and 150mm thick wearing course;
- iii. Laying of 22.5m long x 600mm diameter (3 crossings) of concrete stormwater pipes at every low point;
- iv. Construction of 4 headwalls for 600mm diameter pipes and 2 catchpits for 600 diameter pipes;
- v. The roads will be constructed to a 4% camber with minimum longitudinal grade of 0.5% and 16% maximum;
- vi. Construction of 4.87km side stormwater drains; Where required the earth side drains will have a minimum depth of 300mm and a base width of at least 1500mm and the side's slope into the drain shall be 1:3; and
- vii. Installation of road sign and testing of material and workmanship.

C3.1.4 Location of the Works

The project is located at the UMhlabuyalingana Local Municipality in the KwaZulu-Natal region, located approximately 51 km from UMhlabuyalingana Municipality (27° 0' 1.10" S 31° 19' 17.91" E).

C3.1.5 Description of Site and Access

At present, the roadway forms 4.87 km road of narrow dirt track with no stormwater infrastructure which travels through the KwaNdaba area.

The road is on a level terrain with no major steep gradients.

C3.1.6 Temporary Works

All design and the construction of any temporary works must be approved by the Engineer.

C3.2. Procurement

C3.2.1 Preferential Procurement Procedures

C3.2.1.1 Requirements

State requirements appropriate to the methodology and procedures which are to be followed. (See Annex A of SANS 10396. Make reference to Preference Schedules, if any.

C3.2.1.2 Resource Standard Pertaining to Targeted Procurement

State the number, title, part and edition of SANS 1914 Targeted Procurement applicable to the contract and all data, variations and definitions required - e.g. definitions of targeted groups, weighting factors etc. (Refer to SANS 10396 for specific guidance)

SANS 1914-1:2002 Targeted Construction Procurement Part 1 – Participation of Targeted Enterprises

SANS 1914-2:2002 Targeted Construction Procurement Part 1 – Participation of Targeted Partners in Joint Ventures

SANS 1914-3:2002 Targeted Construction Procurement Part 1 – Participation of Targeted Enterprises and Targeted Partners in Joint Ventures

SANS 1914-4:2002 Targeted Construction Procurement Part 1 – Participation of Targeted Enterprises and Targeted Labour (local resources)

SANS 1914-5:2002 Targeted Construction Procurement Part 1 – Participation of Targeted Labour

SANS 1914-6:2002 Targeted Construction Procurement Part 1 – Participation of Targeted Enterprises in Concession Contracts

..

C3.2.2 Subcontracting

C3.2.2.1 Scope of Mandatory Subcontract Works

There is mandatory subcontract work in this contract. An allowance of up to 30% of the contract must be made for local subcontractors to be nominated by the Municipality. Prefabricated culverts section has been identified for subcontract work.

C3.2.2.2 Preferred Subcontractors / Suppliers

Contractors are encouraged to use subcontractors and suppliers that are registered on UMhlabuyalingana Municipality database.

C3.2.2.3 Subcontracting Procedures

Any work to be subcontracted must be indicated in the returnable schedules. Should such work only be identified on site, request to subcontract must be sent to the Engineer for approval.

C3.3. Construction

C3.3.1 Works Specifications

C3.3.1.1 Applicable SANS 2001 Standards

COLTO Standard Specification for Road and Bridge Works for State Authorities 1998 (Green Book) for Civil Engineering Construction.

C3.3.1.1.1 Applicable Technical Recommendations for Highways (TRH)

- TRH 14 Guidelines for Road Construction Materials
- TRH 20 The Structural Design, Construction and Maintenance of Unpaved Roads

C3.3.1.1.2 Applicable Technical Methods for Highways (TMH)

- TMH 1 Standard Methods for Road Construction Materials
- TMH 5 Sampling Methods for Road Construction Materials
- TMH 6 Special Methods for Testing Roads
- TMH 10 Manual for the Completion of As-Built Materials Data Sheets
- TMH 11 Standard Survey Methods

C3.3.1.2 Particular Specifications

Refer to Annex C3.4.

C3.3.1.3 Certification by Recognised Bodies

Certified by the CIDB

C3.3.2 Plant and Materials

C3.3.2.1 Plant and Materials Supplied by the Employer

None

C3.3.2.2 Materials, Samples and Shop Drawings

All materials are to be tested by a commercial laboratory as directed by the Engineer. Construction needs to be carried out according to the Construction Drawings.

C3.3.3 Construction Equipment

C3.3.3.1 Requirements for Equipment

The Contractor is required to use plant and equipment that is sufficient for the construction of roads and the ancillary works.

C3.3.3.2 Equipment Provided by the Employer

None

C3.3.4 Existing Services**C3.3.4.1 Known Services**

All known services are shown on the Construction Drawings. The onus still lies with the main contractor to ensure that no services are damaged during the construction phase.

C3.3.4.2 Treatment of Existing Services

It is not envisaged that any of the existing services requires temporary or permanent relocation. Special care should be taken working underneath overhead lines.

C3.3.4.3 Use of Detection Equipment for the Location of Underground Services

None

C3.3.4.4 Damage to Services

It is the responsibility of the contractor to ensure that no services are damaged during the construction process. In case the known services indicated on the drawings are damaged, the main contractor shall be responsible for the repair off the services to the original state before it was damaged, as well as all cost associated with the damaged service.

C3.3.5 Site Establishment**C3.3.5.1 Services and Facilities Provided by the Employer**

None

C3.3.5.2 Facilities Provided by the Contractor

The onus lies with the main contractor to find a suitable camp site, approved by the Engineer. The main contractor is also responsible for the rehabilitation of the area to its original state on completion of the works.

C3.3.5.3 Storage and Laboratory Facilities

No requirements are specified. A commercial laboratory will be utilised.

C3.3.5.4 Other Facilities and Services

No requirements are specified.

C3.3.5.5 Vehicles and Equipment

No requirements are specified.

C3.3.5.6 Advertising Rights

It is the main contractor's responsibility that no suppliers advertise on site. Any advertisement from suppliers shall be removed at the cost of the main contractor.

C3.3.5.7 Notice Boards

The main contractor is allowed to place a Notice board on site. The maximum allowed size of this board should be 3 x 2,5m

C3.3.6 Site Usage

The contractors are not allowed to work outside the allowed working hours, as agreed with the Engineer. The disturbance to the residence should be kept at a minimum.

C3.3.7 Permits and Way Leaves

No requirements are specified.

C3.3.8 Water for Construction Purposes

The onus lies with the main contractor to source and pay for construction water. The quality of the construction water should be as specified is COTO.

C3.3.9 Survey Control and Setting Out of the Works

The setting out bench marks is provided by the Employer. It is the contractor's responsibility to ensure that the setting out bench marks is correct and to use these bench marks for setting out.

C3.4. Annexes

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C3.4.1 Variations and Additions to Requirements of Standardised COTO

Notes to tenderer:

1. In certain clauses the Standard Specifications allow a choice to be specified in the project specifications between alternative materials or methods of construction and for additional requirements to be specified to suit a particular contract. Details of such alternatives or additional requirements applicable to this contract are contained in this part of the project specifications. It also contains some additional specifications required for this particular contract.
2. The number of each clause and each payment item in this part of the project specifications consists of the prefix B followed by a number corresponding to the number of the relevant clause or payment item in the standard specifications. The number of a new clause or a new payment item which does not form part of a clause or a payment item in the standard specifications and which is included here, is also prefixed by B followed by a new number. The new numbers follow on the last clause or item number used in the relevant section of the standard specifications.
3. The tenderer shall note that the standard COTO specification is based on the COTO General Conditions of Contract. References to specific COTO General Conditions of Contract clauses will need to be exchanged for the equivalent clause in the FIDIC Conditions of Contract as amended by the Particular Conditions of Contract to be found in Part C1 of this document. The employer assumes no responsibility for the contractor's interpretation of which are the correct relevant clauses.

COTO SERIES 1000: GENERAL B1100: DEFINITIONS AND TERMS**B1155 WORK IN RESTRICTED AREAS**

Add the following:

“Any omission of pay items from the pricing schedule with regard to additional or extra over payment for work in restricted areas should be regarded as deliberate and any additional cost incurred shall be included in the bulk rate. (Refer also to clause B1209(g))”

SECTION B1200: GENERAL REQUIREMENTS AND PROVISIONS B1202 SERVICES

Add the following first paragraph:

“All reference to services in this clause shall mean utility services.”

In the final paragraph delete the second and third sentences starting with ‘Should’ and replace with the following:

“Table B1202/1 lists all known services on the site. Those requiring removal, realignment or temporary replacement are indicated with an asterisk. However, before any work can commence the contractor shall verify the actual position of each station and bring to the attention of the Engineer any service that is not recorded. As the contractor is not authorised to remove or replace these facilities he shall:

i) Give preliminary notice, in writing to the relevant service provider, that the services on the site will require removal or protection prior to works being carried out in the vicinity of each station. The contractor shall advise the service provider of

a) The number of services, their locations and station ID numbers and

b) The proposed dates when work will commence in the vicinity of each service.

ii) In addition to the above preliminary notice, give the service provider 14 days written notice of the intention to commence work in the vicinity of each facility.

iii) Upon completion of the work in the vicinity of each facility, the contractor shall notify the service provider, in writing, that work is complete and the service may be reinstated.

Any delay resulting from the removal/replacement of a service shall not be the subject of a potential claim, unless the contractor can demonstrate that every effort has been made to timeously request and/or apply for the removal/replacement of the said service. In addition, the contractor shall be deemed to have employed the services of the service provider as a subcontractor for purposes of removing and/or replacing the relevant service.

TABLE B1202/1: LIST OF KNOWN SERVICES

SV	SERVICE TYPE	IDENTITY	Service Level from Survey (m)	Final Road Level (m)	Height Above Final Road Level (m)	ACTION REQUIRED
	No known services					

Any cost of repairs, replacement and/or installation of the stations and equipment resulting from the contractor’s negligence or unauthorised action shall be to the contractor’s account.”

B1204 PROGRAMME OF WORK

a) General requirements

Add the following as a continuation of the first paragraph

“In drawing up the programme the contractor shall make allowance for the following:

i) All special non-working days defined in C1.2.1 and C1.2.2 in the Contract Data.

ii) The expected delays defined in B1215: Extension of time resulting from inclement weather.

iii) The following embargo hours and days: The Contractor shall be required to programme the works such that the entire length of this section of the road shall be open to two way traffic without a step in level during the annual December / January shutdown period. The aforementioned embargo will also apply the Thursday immediately preceding Good Friday.

This initial indicative programme shall realistically account for the forecast cash flow within the defined contract period, and as provided on Form 7: Schedule of Estimated Monthly Expenditure. If an alternative contract period is offered, the contractor shall submit a separate programme with the alternative tender.

b) Programme of work for construction work

Insert the following after the first sentence of the second paragraph:

“The programme shall include the following details:

i) A work breakdown structure that identifies all major activities.

ii) Scheduled start and end dates for each activity.

iii) Linkages between activities that clearly identify sequence, floats and critical path.

iv) Intended working hours and resource allocations (plant and labour).

v) Monthly cash flow projections.

vi) Key dates in respect of information required or due delivery.”

Add the following sub-clause: “c) Programme revisions

The programme will be reviewed at the monthly site meetings at which the contractor shall provide sufficient detail that will allow the comparison of completed work per activity against the original approved programme. The contractor shall indicate what resources and programme changes he intends to implement in order to remedy any activity that has fallen behind. The Engineer may demand from the contractor a major revision of the programme. Such a revision shall be submitted for approval within fourteen days of the demand.”

B1205 WORKMANSHIP AND QUALITY CONTROL

Add the following after the title:

“The contractor shall implement a quality assurance system in accordance with ISO 9002 and appoint a quality manager who shall ensure that members of the contractor’s staff comply with the requirements of the quality system. The quality system and the methods used to implement it shall be described in a quality plan produced by the contractor.

The quality manager shall be resident on site full time. No construction activities shall take place on site before the Engineer approves the quality plan”.

Delete the second, third, fourth and fifth paragraphs and replace with the following:

“The contractor shall submit the quality assurance system he proposes using to the Engineer, for his approval, within two weeks of the site handover. Once accepted by the Engineer the contractor **shall not deviate from it** unless written notification of proposed changes have similarly been submitted and approved. The system shall record the lines and levels of responsibility and indicate the method by which testing procedures will be conducted.”

As the Contractor’s process control will be used for acceptance purposes, the minimum intensity and type of the control testing shall be as stipulated in Section 8200 (scheme 1), Table 8206/3 as amended herein. In addition to the sampling and testing specified in Section 8200, the following minimum sampling and testing shall be carried out:

Table B1205 – MINIMUM SAMPLING AND TESTING FREQUENCIES

COMPONENT	PROPERTY	MINIMUM SAMPLES AND TESTS PER LOT
Road bed preparation and Fill layers	Grading & Indicator	4
	Mod AASHTO maximum density determination ¹	4
	CBR	4
Selected Layers	Grading & Indicator	4
	Relative Compaction (Nuclear density)* ²	6
	Mod AASHTO maximum density determination* ¹	4
Sub-base Layer	Grading & Indicator	4
	Relative Compaction (Nuclear density)* ²	6
	Mod AASHTO maximum density determination* ¹	4
Gravel wearing course	Grading & Indicator	4
	Relative Compaction (Nuclear density)* ²	6
	Mod AASHTO maximum density determination* ¹	4
Concrete for structures	CBR	4
	Cement content	1
	Slump test	1
	Cube strength	1

***1 The determination of Mod AASHTO maximum density can be relaxed to 1 determination per 4 density tests if, in the opinion of the Engineer, the material is found to be acceptably uniform in terms of MDD and OMC.**

***2 The minimum frequency is six tests in total, not six tests in addition to the four tests as Specified in Table 8206/3.”**

B1206 THE SETTING OUT OF WORK AND PROTECTION OF BEACONS

Replace “clause 14” in the first paragraph with “clause 4.7”

Add the following at the end of the fourth paragraph:

“Road markings are also elements of the road that require proper setting out. The contractor shall prove to the Engineer that critical reference points have been satisfactorily recorded for later reinstallation before any work commences that will obliterate the existing markings.”

Delete “and of clause 14 of the general conditions of contract” in the sixth paragraph. Add the following paragraph:

“The contractor shall take care that property beacons, trigonometrical survey beacons or setting-out beacons are not displaced or destroyed without the consent of the Engineer. Property beacons and trigonometrical survey beacons that have been displaced or destroyed shall be replaced by a registered land surveyor, who shall certify such replacement.

The cost of replacing all beacons displaced or destroyed during the course of the contract without the consent of the Engineer shall be the contractor’s responsibility and included in the tender rates.”

Add the following paragraphs:

“Prior to starting construction activities, the Contractor shall satisfy himself as to the accuracy of the Benchmarks placed by the Engineer. If he finds the Benchmarks to be correct he shall submit a signed certificate to the Engineer confirming this. Any suspected fault or discrepancy shall be immediately communicated to the Engineer in writing. Five (5) working days shall then be allowed for the Engineer to investigate and correct the matter and no claim for delays or any other costs will be permitted provided that the Engineer responds with a written solution within the said period of five working days.

Before any construction work commences the Contractor shall undertake his own digital terrain model (DTM) tachometric survey of the site for comparison with the Engineer’s survey. The survey must be undertaken on existing ground lines i.e. prior to undertaking any clearing and grubbing or top soil removal.

The survey data is to be submitted to the Engineer and the resulting final ground model, culminating from the comparison of both surveys, shall then be agreed in writing between the Contractor and the Engineer within seven (7) days of the submission date. This final ground model shall be used for the purposes of construction and the computation of quantities.

Should the Contractor fail to undertake the DTM survey as described above, the Engineer's shall be entitled to base all measurement on his own ground model for the computation of quantities."

B1207 NOTICES, SIGNS AND ADVERTISEMENTS

Remove this part of the sentence from the first paragraph

"... or as approved advertisements for the contractor's establishment."

Delete the third paragraph and replace with the following:

"All signboards erected in accordance with the drawings shall be removed at the same time as the disestablishment of the contractor's camp. Payment under subitem 13.01 for the final instalment of 15% of the tendered lump sum shall not be made unless all the advertisements, notices and temporary signs have been removed. A typical signboard layout is shown in the Tender Drawings"

B1209 PAYMENT

(b) Rates to be inclusive

Add the following to the first paragraph:

"VAT shall be excluded from the rates." "(g) Work in confined areas

Except where provided for in the specification and the Pricing Schedule no extra payment shall be made nor shall any claim for additional payment be considered for construction in confined areas. The omission of standard pay items from the schedule of quantities shall be taken to be deliberate and any additional costs incurred shall be included in the bulk rate."

B1210 CERTIFICATE OF PRACTICAL COMPLETION OF THE WORKS

Add the following paragraphs after item (h):

"Notwithstanding that there might be natural or programmed sections of the works that will result in them being completed in their entirety before other sections, no consideration shall be given to the issuing of practical completion certificates for portions of the works. The use of any completed roadway or portions of the work, whether for unhindered use by the public or for accommodation of traffic while other portions are being constructed, shall not constitute use or occupation by the Employer.

In addition to the listed specified items of work and regardless of the degree of beneficial occupation by the Employer, the works shall be considered for practical completion only if the following criteria also have been met:

(i) The estimated cost to complete the outstanding work is less than 2% of the tendered value of work plus the cost of any variation or extra work orders, but excluding VAT.

(ii) The written list of outstanding items of work can be completed within 28 days of the list having been accepted in writing by the contractor.

(iii) Any information in the contractor's possession, which is required by the Engineer and has been requested in writing, has been supplied."

The contents of this clause 1210 of the COLTO Standard Specifications, together with the above amendment, shall apply equally to the issue of a Certificate of Completion.

B1214 CONTRACTOR'S ACTIVITIES IN RESPECT OF PROPERTY OUTSIDE THE ROAD RESERVE AND OF SERVICES MOVED, DAMAGED OR ALTERED

Under sub-clause (e) replace the opening paragraph with:

"Should the contractor use land not provided by the Employer for the purpose of his own establishment, Engineer's offices or storing of equipment or materials required for construction or disposal, it shall be subject to the following:

and add the following sub-sub-clauses:

"(vi) That lease agreements are concluded with the owner or owners of such land for the full period that such areas are required. The leases shall provide for possible extensions to match the duration of the contract. The lease agreements shall also provide for the contract being terminated by contractor's default or liquidation and the resulting possibility for them to be taken over by a succeeding contractor.

(vii) That copies of lease agreements shall be submitted to the Engineer prior to signature by the signing parties, and copies lodged with the Engineer after signing. Notwithstanding the Engineer's approval of the conditions of a lease the contractor shall be solely responsible for adherence to the terms of the agreements.

(viii) Adherence to the principles of the environmental management plan and legal obligations".

B1215 EXTENSION OF TIME RESULTING FROM INCLEMENT WEATHER

Change the existing heading of clause 1215 to read as above and wherever the expression 'abnormal rainfall'

or 'rainy weather' is encountered replace it with 'inclement weather'.

In the 1st line of the 1st paragraph change 'clause 45' to read 'sub-clause 8.4'

Make the following changes to Method (ii) (Critical-path method):

In line six of the second paragraph delete 'five-day working week' and replace with '23-day working month',

and:

Add the following final paragraphs:

"Extension of time resulting from rainfall or other forms of inclement weather shall be calculated according to the requirements of Method (ii) (Critical-path method). The 'n' value of working days, as specified in this clause as being expected delays for which the contractor must make allowance in his programme, have been indicated in Clause 5.12.22 of the Contract Data.

The number of rain-related delays is the average number of days on which (10mm) of rain or more has been measured by the weather station at Richards Bay over the last four (4) years.

Other inclement weather delays for which the contractor must make allowance in his programme have been derived from previous experience of wind and temperature influence on similar construction in the area of the site. Actual extensions of time due to inclement weather shall be agreed between the Engineer's and contractor's representatives on the site. The agreed whole days or parts thereof shall be recorded at the monthly site meetings. Adjustment to the contract period shall only be made at the end of the contract when the contractor may submit its

CONSTRUCTION OF MATHE ACCESS ROAD (WARD 09)

claim for the agreed extension due as well as any additional payment resulting from the delay. Extension caused by inclement weather delays will only accrue once the agreed cumulative delays exceed 58 days.

If approved extensions of time extend the completion date beyond the start of the contractor’s holiday in December, the holiday period shall not be considered as working days. Any remaining extension of time at this date shall be calculated from the first statutory working day in January the following year, provided that the contractor has shown in his programme that he intends to close during the traditional Christmas/New Year break.”

B1219 WATER

Add the following:

“Water for use on site other than municipal, shall be subject to the required permit from DWAF. This shall include such extraction points as rivers, dams, streams, and boreholes”.

TABLE B1219: WATER CLASSIFICATION FOR CONSTRUCTION TESTING

		Water Quality Classification Code						
		H0	H1	H2	H3	H4	H5	
Property	Unit	Pure water (AR)	Clean water (Rain)	Treated water (Municipal)	Silty (muddy) water with low salt content	Highly mineralised chloride sulphate water (brackish)	Waste brack, sewage, marsh, sea, etc water	Method
PH*	-	7.0	5.7 – 7.9	4.5 – 6.5	4.5 – 8.5	9.0	-	SABS M113 SM 11 - 1990
Dissolved solids*	ppm	0	1000	1500	3000	-	-	SABS 213 SM213 - 1990
Total hardness*	-	None	None	Temporary	Temporary	Permanent	-	SABS 215 SM 215 – 1971
Suspended matter	ppm	0	2000	2000	5000	-	-	SABS 1049 SM 1049 – 1990
Electrical conductivity	mS/m	0	200	200	500	-	-	SABS 1057 SM 1057 – 1982
Sulphates (SO4)	ppm	0	200	300	500	1000	-	SABS 212 SM 212 –

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		Water Quality Classification Code						
		H0	H1	H2	H3	H4	H5	
								1971
Chlorides (Cl)	ppm	0	500	1000	3000	5000	-	SABS 202 SM 202 – 1983
Alkali Carbonates (CO ₃) & Bicarbonates (HCO ₃)	ppm	0	500	1000	1000	2000	-	SABS 241 – 1999
Sugar	-	Negative	Negative	Negative	Negative	Negative	-	SABS 833
Quality of water required	Untreated layer works		✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	Investigate the effect on the quality of the material	
	Chemically treated layer works		✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	Investigate the effect on the quality of the material		
	Concrete mass		✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	Investigate the effect on the quality of the material		
	Concrete prestressed		✓ <input type="checkbox"/>	✓ <input type="checkbox"/>	References: 1. Concrete Technology – Dr S Fulton (1989) 2. Materials Manual (PAWC)			
	Slurry & emulsion		✓ <input type="checkbox"/>	✓ <input type="checkbox"/>				
	Soil/gravel tests		✓ <input type="checkbox"/>	✓ <input type="checkbox"/>				
	Chemical or control tests		✓ <input type="checkbox"/>	✓ <input type="checkbox"/>				

- A primary property. The quality of the water is that quality where all three of the primary properties are within the limits.
- The tabulated single values are maximum value except in the case of the pH value for pure water, which must be 7.0

B1229 SANS CEMENT SPECIFICATIONS

Add the following to this clause:

“Where reference is made in this specification or the standard specifications to the cement specifications, e.g. SANS 471: Portland cement and rapid hardening Portland cement, it shall be replaced with the new specification: SANS 50197-1: 2000: Cement compositions, specifications and conformity criteria Part 1: Common cements.

B1230 MATERIALS

The contractor, when using materials that are required to comply with any standard specification, shall, if so ordered, furnish the Engineer with certificates showing that the materials do so comply.

Where so specified, materials shall bear the official mark of the appropriate authority. Samples ordered or specified shall be delivered to the Engineer's office on the site free of charge.

Where materials are specified under trade names tenders must be based on these materials. Alternative materials may be submitted as alternative tenders and the Engineer may, after receipt of tenders, approve the use of equivalent materials. The tender must be clearly marked as an alternative tender, failing which the tender may be rejected.

Unless otherwise specified, all proprietary materials shall be used and placed in strict accordance with the relevant manufacturer's current published instructions.

Unless anything to the contrary is specified, all manufactured articles or materials supplied by the contractor for the permanent works shall be unused.

Earth, stone, gravel, sand, and all other materials excavated or present on the site or within the road reserve, or in borrow areas shall not become the property of the contractor, but will be at his disposal only in so far as they are approved for use on the contract.

Existing structures on the site shall remain the property of the employer and except as and to the extent required elsewhere in the contract, shall not be interfered with by the contractor in any way.

Materials to be included in the works shall not be damaged in any way and, should they be damaged on delivery or by the contractor during handling, transportation, storage, installation or testing they shall be replaced by the contractor at his own expense.

All places where materials are being manufactured or obtained for use in the works, and all the processes in their entirety connected therewith shall be open to inspection by the Engineer (or other persons authorised by the Engineer) at all reasonable times, and the Engineer shall be at liberty to suspend any portion of work which is not being executed in conformity with these specifications.

The contractor shall satisfy himself that any quarry selected for use provides the necessary mined material in accordance with the specification.

B1231 MEASUREMENT AND PAYMENT

Add the following new payment items

Item	Unit
------	------

B12.01 Protection, removal, realignment and replacement of services

Utility services

(a) The removal, protection and replacement of utility services	prime cost (PC) sum
---	---------------------

(b) Handling cost and profit in respect of subitem B12.01(a)	percentage (%)
--	----------------

The prime cost item shall be paid in accordance with the provisions of the General Conditions of Contract.

The tendered percentage is a percentage of the amount actually spent under the prime-cost item, which shall include full compensation for the profit in connection with providing the specified service.

Item	Unit
------	------

B12.02 Main Contractor providing supervision and Guidance to the SMME contractor	Month
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The unit rate shall include full compensation for providing supervision, assistance, training and guidance to the SMME contractor to ensure that the SMME contractor execute the work to the satisfactory of this contract.

Item	Unit
------	------

B12.03 Allowance for additional costs related to the employment of SMME subcontractor, over and above the rates as tendered by the contractor	provisional sum(PS)
---	---------------------

The expenditure under this item shall be made in accordance with the general conditions of contract.

Item	Unit
------	------

B12.04 Handling costs and profit in respect of payment of employing the SMME subcontractor under pay item B12.03	percentage (%)
--	----------------

The tendered percentage is a percentage of the amount actually to employ a SMME contractor. The percentage shall allow for full compensation for handling cost of the main contractor, and the profit in connection with the providing of this service.

Item	Unit
------	------

B12.05 Handling costs and profit in respect of payment of SMME subcontractor for work undertaken under section 1500, 1700, 2200, 2300 and 3300	percentage (%)
--	----------------

The tendered percentage is a percentage of the amount actually spent under section 1500/1700/2200/2300/3300 for the payment to the SMME contractor for work executed under the supervision and guidance of the main contractor. The percentage shall allow for full compensation for handling cost of the main contractor, and the profit in connection with the providing of this service.

Item	Unit
------	------

B12.06 Handling costs and profit in respect of payment of SMME subcontractors for work undertaken under section 3400	percentage (%)
--	----------------

The tendered percentage is a percentage of the amount actually spent under section 3400 for the payment to the SMME contractor for work executed under the supervision and guidance of the main contractor. The percentage shall allow for full compensation for handling cost of the main contractor, and the profit in connection with the providing of this service.

B1300: CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS

B1302 GENERAL REQUIREMENTS

(c) Legal and Contractual Requirements and responsibilities to the public

Add the following as a second paragraph:

"There has been recent legislation promulgated by Government that improve mutual obligations on the Employer and contractor in the performance of their duties to society and to the built and natural environment. To assist the contractor in understanding and assessing his obligations, and thus to make allowances for the cost of compliance with this legislation, the following additional specifications are included in the project specifications.

Section C of the Scope of Works contains the Environmental Management Plan for this project. Its provisions regulate the contractor's construction methods to ensure responsible conduct and treatment of the environment relevant to the project. No separate payment mechanism has been made available for the contractor to allow for his compliance with relevant environmental legislation. The contractor shall include such costs in the existing payment items under section B1303: Payment. However, non-compliance with the provisions of this section may lead to the imposition of penalties.

Section D of the Scope of Works contains provisions that regulate the contractor's construction methods for compliance with Government's initiatives towards black economic empowerment. It also contains information on criteria used in the procurement process. No separate payment mechanism has been made available for the contractor to allow for his compliance with relevant black economic empowerment legislation. The contractor shall include such costs in the existing payment items under section B1303: Payment. However, non-compliance with the provisions of this section may lead to the imposition of penalties

Section E of the Scope of Works contains the specification that regulate the contractor's construction methods so far as to ensure health and safety of his employees and of the public. New pay item has been made available under this section to allow the contractor to make separate provision for the cost of health and safety measures during the construction process."

B1303 PAYMENT

Item Unit

B13.01 The contractor's general obligations

Add the following pay subitem:

"(d) Health and safety obligations Month

Add the following sub-sub-clause defining 'the contractor's general obligations':

"(iv) Complying with the requirements and conditions of the additional specifications relating to the Government's Broad Based Black Economic Empowerment and the Environmental Management Plan."

Delete the third paragraph commencing "Should the final value of the work".

In the 11th paragraph, the following amendments apply:

• Start the paragraph to read "The tendered rate per month for all time related pay items represent full compensation ..."; and

Add the following at the end of sub-clause (b) of the 11th paragraph:

". Such limitations to payments shall occur whenever the ratio of time to expenditure varies by more than 10%. For example, if payment for completed scheduled work is 30% of total scheduled work but more than 40% of time has expired, this pay item shall cease to be active until the difference between the relevant ratios is less than 10%."

Add the following new paragraphs:

"Payment of the rate per month for subitem 13.01(d) shall include full compensation for all the contractor's obligations relevant to health and safety legislation including, but not limited to, initial start-up costs, submission and maintenance of OHS file, statutory medical checks, induction, PPE etc . Payment will only be made approval on the contractor's OHS plan.

Should the combined total tendered for subitems (a), (b), and (c) exceed 20% of the tender sum (excluding CPA, contingencies and VAT), the tenderer shall state his reasons in writing for tendering in this manner.

Payment for time related costs arising from extensions of time granted by the employer, where the contractor is fairly entitled to such compensation which will be calculated by taking account only of pay items for which the unit of measurement is "month". All pay items for which the unit of measurement is "month" are deemed to be based on 23 working days per month."

Insert the following paragraphs:

"The tendered rate shall apply in the same manner as pay subitem B13.01(c) but shall not form part of the calculation of the restrictions imposed by Condition of Tender F3.8(c) and Form to tender B1: Contractor's Establishment on Site. A contractor who tenders zero for this pay item shall not be relieved of his statutory obligations. A nil rate offered shall be deemed not as an omission but as deliberate notice that costs have been included in the tendered rates for individual items of work or in the other preliminary and general pay items."

B1500: ACCOMMODATION OF TRAFFIC B1501 SCOPE

Add the following:

"It is a condition of this contract that traffic is accommodated taking into account the provisions of the latest edition of the South African Road Traffic Signs Manual (SARTSM). The latest version for use in the accommodation of traffic is volume 2, chapter 13 of the June 1999 edition. Copies of this publication are available from Government Printers –Tel: (012) 334 4508/9 or (012) 3344510 Fax: (012) 323 0009.

This section also covers the provision of additional information signs for motorists and the release of any notices to the media and public."

B1502 GENERAL REQUIREMENTS

(a) Safety

Add the following:

"The contractor shall be responsible for maintaining the existing road surface both within the works area and the advance warning and termination areas in a safe and trafficable condition for the duration of the contract."

(f) Approval of temporary deviations

Add the following:

"If, after any temporary deviation has been constructed, any changes are considered necessary or desirable, the proposal shall be submitted to the Engineer for his approval."

(i) Traffic Safety Officer

Add the following to the end of the second paragraph:

"The contractor shall submit a CV of the candidate to the Engineer for approval before the candidate is appointed as the traffic safety officer."

"

Insert the following as the opening phrase to sub-sub-clause (i):

"make himself available to discuss road safety and traffic accommodation matters whenever required by the Engineer and shall be responsible..."

Delete sub-sub-clauses (ii) and (iii) and replace with the following:

"(ii) Record on neat and dimensioned sketches and submit to the Engineer the position and sign reference number, where applicable, of each sign, barricade, delineator, cone, guardrail and permanent or temporary painted road marking feature (Only the relevant measurements). The position of each shall be adequately referenced from the marker boards or other surveyed points on the site of the works.

These records shall also show the date and time at which the recorded traffic accommodation features are certified correct by the traffic safety officer, and shall be signed by the traffic safety officer before being submitted to the Engineer.

The records shall similarly account for whatever changes are made in the field. Such changes shall record the position of flagmen and stop/go control men and their associated traffic accommodation equipment wherever they are used.

(iii) Personally inspect the position and condition of each traffic accommodation feature on the whole site of works twice each day by 9h30 and by 16h30, to record all irregularities discovered and the remedial action taken, and to sign off as correct and submit to the Engineer such record sheets by midday of the next working day. The traffic safety officer shall keep a duplicate book for this specific purpose.

The traffic safety officer shall also submit with this report the daily labour returns of flagmen, stop/go and traffic signal control men employed."

Add the following sub-sub-clauses:

"(ix) The traffic safety officer shall be equipped with a cellular telephone and shall have a vehicle and sufficient labour at his disposal 24 hours a day, including all prescribed non-working days, and shall not be utilised for other duties. He shall be directly answerable to the contractor's site agent. The traffic safety vehicle shall be a truck with a capacity of 3 tons.

The vehicle shall also be equipped with an amber-coloured flashing light of the rotating parabolic reflector type with a minimum intensity of 100. The warning light shall be switched on at all times and the sign shall be displayed when the vehicle is used on site.

The traffic safety officer shall have a direct line of communication at all times with the police and traffic officers responsible for the area within limits of the contract. The provision of the road safety vehicle, driver, labourers and the cost of the cellular telephone shall be deemed to be included in the rates tendered for the contractor's establishment on site.

(x) Ensure that all obstructions related to the contractor's activities be removed before nightfall where applicable as instructed by the Engineer and that the roads are safe for night traffic.

(xi) The traffic safety officer shall, in addition to the duties listed in paragraph 1502(i), also be responsible for the removal of broken down vehicles off the roadway and implementing actions requested by the traffic authorities with regard to the work to be carried out, be responsible for the erection and maintenance of all traffic signs necessary for the accommodation of traffic.

(xii) In the advent of an accident the traffic officer shall record in a written report the details of the accident, record the position of all temporary road signs, barricades, delineators, flagmen and any other devices used for traffic accommodation. In addition the report shall include a neat dimensional sketch, photographs, identifiable permanent features, and any other relevant information."

Add the following sub-clauses:

(j) "U" turns

No vehicle or item of equipment shall be allowed to make "U" turns under any circumstances

(k) Site personnel

The contractor shall ensure that all his personnel, excluding those who are permanently office bound, are equipped with reflective safety jackets and that these are worn at all times when working on or near to the travelled way. Any person found not wearing a reflective jacket under these circumstances shall be removed from the site until such time as he is in possession of and wearing a reflective jacket. Reflective safety jackets shall be kept in good condition and any jackets that are, in the opinion of the Engineer, ineffective shall be immediately replaced by the contractor.

(l) Failure to comply with provisions

Failure or refusal on the part of the contractor to take the necessary steps to ensure the safety and convenience of the travelling public, accommodation of traffic, plant and personnel in accordance with these specifications or as required by statutory authorities or ordered by the Engineer, shall be sufficient cause for the Engineer to apply penalties as follows:

A fixed penalty of R1000.00 per occurrence shall be deducted for each and every occurrence of non-compliance with any of the requirements of section 1500 of the standard specifications and section B1500 of the project specifications.

In addition a time-related penalty of R500,00 per hour over and above the fixed penalty shall be deducted for non-compliance to rectify any defects in the accommodation of traffic within the allowable time after the Engineer has given an instruction to this effect. The Engineer's instruction shall state the allowable time, which shall be the time in hours for reinstatement of the defects. Should the contractor fail to adhere to this instruction, the time-related penalty shall be applied from the time the instruction was given."

B1503 TEMPORARY TRAFFIC-CONTROL FACILITIES

Replace the first sentence of the first paragraph with the following:

"The contractor shall provide, erect and maintain the necessary traffic-control devices, road signs, canalisation devices, barricades, warning devices and road markings (hereinafter referred to as traffic-control devices) in accordance with these special provisions and as shown on

CONSTRUCTION OF MATHE ACCESS ROAD (WARD 09)

the drawings and in the SARTSM and remove them when no longer required. It shall be incumbent upon the contractor to see to it that the abovementioned traffic-control devices are present where required at all times and are functioning properly.”

Replace the third paragraph with the following:

“The type of construction, spacing and placement of traffic-control devices shall be in accordance with the SARTSM. The recommended arrangements of the traffic control devices illustrated and/or drawings issued by the Engineer shall not be departed from without prior approval of the Engineer. The arrangements expected to be most commonly used in the contract are given on the tender drawings.

The details shown for spacing and placement of traffic-control facilities may however, be revised at the discretion of the Engineer where deemed necessary to accommodate local site geometry and traffic conditions.”

(b) Road signs and barricades

Add the following:

“The contractor shall be responsible for the protection and maintenance of all signs, and shall at his own cost replace any that have been damaged, lost, or stolen.

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(b) Road signs and barricades

Add the following:

“The contractor shall be responsible for the protection and maintenance of all signs, and shall at his own cost replace any that have been damaged, lost, or stolen.

All temporary road signs required to remain in position for some time shall be pole mounted as shown on the drawings. All temporary road signs required to be moved more often shall be mounted on portable supports for the easy moving of signs to temporary positions. The only permitted method of ballasting the sign supports shall consist of durable sandbags filled with sand of adequate mass to prevent signs from being blown over by wind. The cost of the sandbags shall be included in the tendered rates for the various types of temporary road signs.”

(e) Warning devices

Add the following:

“All construction vehicles and plant used on the works shall be equipped with rotating amber flashing lights and warning boards as specified. All vehicles and plant before being allowed onto the site shall obtain a clearance permit from the Engineer.

(i) Vehicle mounted flashing light

Rotating lights shall have an amber lens of minimum height of 200mm and shall be mounted in such a way as to be highly visible from all directions. The lights on construction vehicles shall not be switched on while vehicles are being operated on unrestricted sections of a public road, but shall be switched on while construction vehicles are operating within the accommodation of traffic area, as the vehicles decelerate to enter a construction area, and as the vehicles accelerate to the general speed when entering the road from a construction area. Lights on plant shall operate continuously while the plant is working alongside sections of road open to public traffic

All LDV's and cars operating on site shall also be equipped with rotating amber flashing lights which shall be placed so as to be highly visible and operated continuously while the vehicles are manoeuvring in or out of traffic or are travelling or parked alongside roads open to public traffic.

Rotating lights and the "construction vehicle" signs on the contractor's vehicles and plant shall not be paid for separately but shall be included in the rates covering the use of the vehicles.

The contractor shall apply and maintain lights together with temporary mounting brackets, to the approval of the Engineer. Vehicles and plant that do not comply with these requirements shall be removed from the site.

Add the following sub-clauses:

“(g) Other traffic control measures ordered by the Engineer

The Engineer may instruct the contractor to provide any other road sign, reflective tape, etc. not measured in standard pay items. Such road signs shall conform to the requirements of the SARTSM, or specification provided by the Engineer. Similarly, in order to ensure that the travelling public is kept fully informed and warned on matters relating to the accommodation of traffic, construction sign posting and the effect of the construction on the free flow of traffic through the site, the Engineer may arrange for advertising in the press and/or for other forms of publicity.

(h) Flagmen

Flagmen shall be provided where shown on the drawings or required by the specification. During the daytime, at least two flagmen shall be provided at each traffic control point. At night time only one roving flagman equipped with a Stromberg Lightman xenon strobe, or similar approved, and a torch is required at each traffic control point as well as the traffic light operator. Where the shoulder of the road is closed to traffic, a flagman shall be provided at the leading end of the closure during daytime. No flagman shall be on duty for a period of more than 10 hours per day.

Flagmen shall be adequately trained in the standard flagging techniques as described in the SARTSM (refer to figure 13.23 of detail 13.23.1) and be provided with conspicuous clothing such as safety jackets utilizing retro-reflective and/or fluorescent panels in red, yellow and/or white.

Flagmen shall have in their possession, at all times, certification that they have attended and passed an accredited course in flagging techniques before being allowed onto the construction site.

Flags shall be made from bright red or red-orange material and shall be square with a minimum side length of 600mm. The flag shall be attached to a staff at least 1,0m in length.

In terms of lateral clearance and safety, flagmen shall stand on the shoulder of the lane of traffic that is being controlled and under no circumstances shall flagmen be permitted to stand within the traffic lane. In order to obtain maximum visual impact for the travelling public, flagmen shall stand-alone."

B1600: OVERHAUL

B1602 DEFINITIONS

(b) Overhaul

Replace the sub-clause with

"Payment shall only be made for material hauled in excess of 1 kilometre. Overhaul shall be measured as the product of the volume of material hauled and the overhauled distance.

(d) Free-haul distance

Replace the last sentence with:

"This distance shall be 1 kilometer in the case of all overhaul materials

B1700: CLEARING AND GRUBBING

B1702 DESCRIPTION OF WORK

(c) Conservation of topsoil

Add to the end of the 1st paragraph:

"The contractor will not be required to remove topsoil to more than an average depth of 400mm, from any particular area. The depth of topsoil removed shall be reliant on the terrain, suitability of material and topsoil requirements of the work."

Replace the second paragraph of this clause with the following:

"After clearing and grubbing, all topsoil shall be removed to either windrows alongside the construction area or to stockpile. Where ordered by the Engineer, any topsoil that shall be required for the top soiling of new banks and cuts, but which cannot be accommodated within the construction site, shall be loaded and hauled to the designated stockpile area where it shall be placed in temporary stockpiles for later use in the rehabilitation of the site affected by construction activities. Where new borrow pits are to be opened up the topsoil shall first be removed (independently of the overburden) and placed in temporary stockpiles at the edge of the borrow pit. The moving of topsoil from windrow or the loading of topsoil from temporary stockpiles and the placing and spreading of thereof on cut or fill slopes or on borrow pit spoil sites, is covered in Section 5800.

Refer also to clause B5802 (g) of this project specification.

B1704 MEASUREMENT AND PAYMENT

Amend the following payment item:

Item Unit

B17.01 Clearing and grubbing hectare (ha)

Add the following to the measurement and payment paragraphs:

"Clearing and grubbing of the construction site camp / office shall not be measured separately and shall be deemed to be included in the rates tendered for item B13.01"

Add the following new payment item:

"Item Unit

B17.07 Removal of topsoil to temporary stockpiling thereof:

(a) Topsoil from within the limits of the road prism

(including 1 km free haul) cubic metre (m³)

The unit of measurement for items (a) shall be the cubic metre of topsoil removed to temporary stockpile. The volume of topsoil removed shall be measured in cut, calculated from the difference in cross-sections of the natural ground level before the commencement of clearing to cross-sections taken after the removal of the topsoil.

The contractor shall constantly liaise and agree with the engineer as to the depth of topsoil to be removed. Where, in the opinion of the engineer, material that would not normally be classed as topsoil to be removed. Where, in the opinion of the engineer, material that would normally be classed as topsoil has also been excavated, the excavation shall be backfilled and compacted with selected material at the contractor' expense. Should material that is deemed by the engineer not to be topsoil, be removed and stockpiled together with material classed as topsoil, the contractor shall be responsible for the removal of this unsuitable soil from the stockpile and the replacement of the quantity of topsoil contaminated by the unsuitable material at his cost. The quantity of topsoil to be replaced shall be determined by the engineer.

The rates tendered shall include for the excavation of the topsoil and where required, the loading and hauling thereof to temporary stockpile as well as the maintenance of the stockpile until re-use of the material. The rates tendered shall also include for all supervision required to ensure that only topsoil is removed."

COLTO CHAPTER: DRAINAGE C3.1: DRAINS**B2101 SCOPE**

Amend the first paragraph to read:

"This section covers all new work in connection with the excavation and construction of open drains, subsoil drainage and banks and dykes at the locations and to the sizes, shapes, grades and dimensions as shown on the drawings or as directed by the Engineers, and the test flushing of subsoil drains."

B2200: PREFABRICATED CULVERTS B2218 MEASUREMENT AND PAYMENT

Add the following pay items:

Item	Unit
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B22.07 Cast in situ concrete and formwork	
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(f) Inlet and outlet structures, skewed ends, catchpits, manholes, thrust and anchor blocks, including formwork and class U2 surface finish Crushed, washed stone obtained from commercial source for:	
--	--

cubic metre (m3)	
------------------	--

(i) Inlet and outlet structures concrete class 30/19 as per Contract Drawing	cubic metre (m3)
--	------------------

(ii) Dish drain crossing as per Contract Drawing Concrete class 30/19	
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Payment for formwork and cast in situ concrete shall be included in the contractor's rate for these items and shall include full compensation thereof.

B3300: MASS EARTHWORKS**B3312 MEASUREMENT AND PAYMENT**

General Directions

Amend the following sub-clause to read:

"(3) Work in restricted areas

No additional payment will be made for work in restricted areas"

Add the following sub-clause:

"(4) The free haul distance for all items unlimited"

Add the following new payment item

Item	Unit
------	------

B33.11 Extra over item 33.10 for adding G7 material from a commercial source as specified in

subsubclause 3207(b)(iii)	cubic metre (m3)
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The unit of measurement for the above items shall be the cubic metre of the compacted pavement layer, and the quantity shall be calculated from the authorised dimensions of the completed layer.

B3400: PAVEMENT LAYERS OF GRAVEL MATERIAL B3407 MEASUREMENT AND PAYMENT

Add to the following payment item:

Item	Unit
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B34.01 Pavement layers constructed from gravel taken from commercial sources

(h) Gravel wearing course compacted to:	
---	--

(iii) 95% of modified AASHTO density 150mm thick G7,	
--	--

as per material specification of TRH20	cubic
--	-------

metre.(m3)	
------------	--

The unit of measurement for the above items shall be the cubic metre of the compacted pavement layer, and the quantity shall be calculated from the authorised dimensions of the completed layer.

The wearing course shall be as per the material specification of TRH20 for a wearing course and as directed by the engineer."

COLTO SERIES 5000: ANCILLARY ROADWORKS

B5100: PITCHING, STONEMWORK AND PROTECTION AGAINST EROSION

B5102: MATERIALS

(a) Stone	
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Replace the 2nd paragraph with the following:

"Unless suitable stone can be located on site, the stone for pitching shall come from commercial sources but, from whatever source, its use shall be subject to the prior approval of the Engineer." Commercial laboratory testing

B5600: ROAD SIGNS**B5601 SCOPE**

Replace "South African Road Traffic Signs Manual" in the second paragraph with: "SADC Road Traffic Signs Manual"

B5603 MANUFACTURING OF ROAD SIGN BOARDS AND SUPPORTS

(a) Road signboards	
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Add the following:

"The contractor shall make every effort to ensure that signboards are correct in all respect and before dispatching the boards from the manufacturer's factory shall provide the Engineer with a 100mm x 150mm colour photograph of each sign face for approval of the correctness of the legend. Such approval will not imply final acceptance of the board. If the contractor is in any doubt as to the correctness of the sign detail, the sign designer shall be contacted for verification."

(ii) Steel profile road signboards	
------------------------------------	--

Add the following:

"Chromadek section shall be assembled in accordance with the details of Standard Plans SP-B-12-Sheets 4 and 5 and SP-B-4-Sheets 33E and 34E.

Where the letter or legends cross the horizontal joints of the sign panels, the letter shall be cut on the joint and both ends folded around the radius.

Retro-reflective material to adjoining Chromadek panels on a sign shall be practical visual match of the specified colour.”

B5604 ROAD SIGN FACES AND PAINTING

Add the following sub-clause:

“(e) Application of retro-reflective material

All sign faces shall be faced with retro-reflective material. Painted front sign faces shall not be used.

Where applied to Chromadek sections, retro-reflective material shall be applied as specified for aluminium section in Clause 5603(d) of the Standard Specification, and of Clause B5603(a)(ii) of this project Specification.”

B5605 STORAGE AND HANDLING

Add the following

“The following shall not be allowed on the sign face

- Drilling of holes, except for the fastening of overlays
- Application of any form of adhesive
- Cleaning with any chemicals that are not specifically approved by the manufacturer of the retro-reflective material.
- Covering the sign face with an impermeable material that does not allow free circulation of air.”

B5606 ERECTING ROAD SIGN

(c) Erection

Add the following:

“After erection the signboard shall be thoroughly cleaned with a cleaning agent approved by the retro-reflective material's manufacturer.

All vegetation obstructing the new or replaced sign board shall be removed and disposed of as instructed by the Engineer.”

B5609 MEASUREMENT AND PAYMENT

Item Unit

B56.01 Road sign boards with painted or coloured semi-matt background. Symbols, lettering, and borders in semi-matt black or in Class I retroreflective material, where the sign board is constructed from

Amend the last two lines of the second paragraph to read:

“completion, delivery, installation of the road sign board complete as specified, and the removal and disposal of all vegetation obstructing the motorists' view of the new or replaced sign board.”

B5900: FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS B5901 SCOPE

In the first line of the second paragraph, insert the following after ‘this section’

“...distinguishes between new construction and renewal construction. When construction is new, as in the case of new alignments for example, then this section”

B5902 FINISHING THE ROAD AND ROAD RESERVE

Retain the existing paragraphs as new sub-clause

“(a) New construction”

Replace the sixth paragraph with:

“All materials resulting from the finishing operations shall be disposed of at approved spoil sites.”

Add the following:

“(b) Renewal construction

After completing construction work within the site, the contractor shall ensure that all construction generated or related material that may have been swept, windrowed, stockpiled, stored or spread beyond the road surface is removed. This shall be done before any other rehabilitation work is undertaken, including shaping, topsoiling and grassing. Should, during the removal of construction generated or related material, existing vegetation or topsoil be disturbed or destroyed, the contractor shall, at his own cost, re-instate the road reserve to its original state. This shall include ripping, should the construction material have compacted the existing surface.

Culvert inlets and outlets, culvert barrels, and open drains shall be cleared of debris, soil, silt and other material generated from the construction activities.

The surfacing shall be cleared of all dirt, mud and foreign objects. Dragging, pushing or scraping material across the finished surfacing shall not be permitted.

All junctions, intersections, islands, kerbing and other elements making up the completed works shall be neatly finished off.

The contractor shall ensure that all undesirable plants have been removed from the road reserve and borrow pit areas.

All materials resulting from the finishing operations shall be disposed of at approved spoil sites.”

PS1

B6100: FOUNDATIONS FOR STRUCTURES B6103 GENERAL

(a) Subsurface Data

PS2

Add the following:

“It is expressly understood that, while all subsurface information is given in good faith, the correctness of the information furnished is not guaranteed. Where the actual foundation conditions encountered are considerably at variance with conditions visualised and described in the Contract documents and those terms for which the rate or price provided for in the Contract is rendered unreasonable or inapplicable, such other rate or price consistent with the rates set out in the Contract shall be fixed as set out in Clause 13 – Variations and Adjustments of the General Conditions of Contract subject always to a founding depth variation not exceeding 2.5m in any foundation component of the permanent structure not, by itself, being held to constitute cause for variation for the Contract rates or prices.”

B6104 ACCESS AND DRAINAGE(a) General
PS3

Add the following:

"Tenderers shall submit with their tender concept details of their intended method of accommodating the flow of the river while constructing the abutments, piers and the bridge deck."

B6105 EXCAVATION

(g) The safety of excavations

Add the following:

"Where in the opinion of the Engineer local conditions dictate, excavations shall be temporarily shored by means of an approved lateral support system to safeguard the stability of the excavated faces, this being particularly imperative adjacent to road, rail or pedestrian traffic. The Contractor shall submit to the Engineer for his approval, prior to the commencement of the work, the design calculations to be undertaken in compliance with recognised current applicable design codes and good practice making due allowance for the effects of all loadings including that of traffic, as well as the detailed drawings and installation procedures for all shoring.

The design for shoring, signing of the drawings and inspection prior to construction of the permanent works of excavations to ensure it is safe shall be carried out by the Contractor's competent person who shall be a professional Engineer with the relevant experience.

The Contractor shall ensure that he installation of the shoring together with excavation and subsequent backfilling and progressive removal of the shoring is undertaken strictly in accordance with the approved drawings and procedures and in compliance with the relevant sections of the Occupational Health and Safety Act and the Construction Regulations. Notwithstanding the Engineer's acceptance, the Contractor takes sole

responsibility for the safety and adequacy of the lateral support work. Approval and/or acceptance given by the Engineer for the designs, drawings and installation will be subject to the provisions of clause 1221 of the 'Standard Specifications.

The excavations shall be adequately protected by a barrier fence marked with reflective tape and of height at least 1,0m erected as close to the excavation as practical. In addition red warning lights shall be provided at night. The Contractor shall employ watchmen to ensure that the barricades and lights are effective at all times.

Any ground anchorage that may be used in the shoring system shall be proof loaded to at least 125% of the working load of the anchorage and accepted by the Engineer prior to undertaking any further excavation stages. Such authority and acceptance shall not relieve the Contractor of his responsibility for the adequacy of the shoring and excavation.

No separate payment will be made for any cost incurred in complying with the above requirements, the cost thereof being deemed included in the relevant rates for excavation."

B6106 FOUNDING

Add the following clause at the end of the last paragraph:

"Where foundation slabs or pile caps are cast directly against the face of the excavations, the volume of concrete measured for payment shall be the total volume of concrete placed or the volume based on the plan dimensions detailed on the drawings plus a 100mm allowance for overbreak on each applicable side whichever is the lesser. No formwork to the footing shall be measured when the concrete is cast against the face of the excavations".

B6109 FOUNDATION FILL

In the 5th paragraph, 7th line delete "60" substitute "45". Add the following after the 6th paragraph:

"Concrete blinding shall extend 100mm all around beyond the horizontal dimensions of all formed footings to facilitate placing of the formwork, unless otherwise directed by the Engineer.

In the case of structures where excessive ground water is encountered, the blinding layer may extend over the full plan area of the base of the excavation and beyond the edge of the foundation where required. Payment shall be made for the quantity of concrete calculated as the product of the specified thickness of blinding layer and the actual area of blinding placed subject to a maximum distance of 500mm beyond the edge of the foundation."

B6200: FALSEWORK, FORMWORK AND CONCRETE FINISH

PS4

B6204 DESIGN

(a) General

Add the following:

"The Contractor shall submit to the Engineer at least 4 weeks before the structure is scheduled for construction a detailed analysis showing the effect of the stresses that will be induced by the Contractor's chosen method of construction. The cost of any additional prestressing, reinforcing steel, concrete, etc, required as a result of the Contractor's chosen method of construction shall be to the Contractor's account. No construction shall commence until the Engineer has given his written approval.

(b) Falsework

Add the following:

"In the view of the possibility of flooding of the river during bridge construction, the Contractor shall not be permitted to adopt a method for supporting the formwork which is vulnerable to damage during flooding. Although the Contractor is free to select suitable arrangements for the support work, the arrangements shall be subject to acceptance by the Engineer. Should the Engineer consider the proposed arrangement unsuitable, the Contractor shall be required to amend and resubmit alternative arrangements acceptable to the Engineer. The Contractor shall not be entitled to additional payment or extension of time arising from the Engineer's rejection of his proposals.

Unless instructed otherwise by the Engineer, the Contractor shall submit his design criteria and detailed drawings of the support work to the formwork for the Engineer's consideration and acceptance. The design, signing of the drawings and inspection of the support work prior to construction of the permanent works shall be undertaken by the Contractor's competent person, who shall be a professional Engineer with the relevant experience.

Notwithstanding anything to the contrary contained or implied in the Conditions of Contract, the Contractor takes sole responsibility for the safety and adequacy of the falsework and formwork in accordance with clause 6203 of the Standard Specifications. Approval and/or acceptance given by the Engineer for such designs and drawings will be subject to the provisions of clause 1221 of the Standard Specifications.”

PS5

B6205 CONSTRUCTION

- (b) Formwork
- (ii) Formwork to exposed surfaces

Add the following:

“The formwork at construction joints shall have moulding strips 25mm x 25mm neatly butted and set at the position of the construction joint. The arrangement of formwork and boards is required to present a neat and regular appearance. The Contractor is required to submit his proposed arrangement to the Engineer for approval.”

- (vi) Permanent formwork

Add the following paragraph:

“Anchor ties shall be designed to resist full buoyancy forces and details of such shall be submitted to the Engineer for approval. Void formers shall be held in position in order that no movement exceeding 1% of the deck thickness or 10mm whichever is the lesser takes place during concreting.”

PS6

B6207 FORMED SURFACES: CLASSES OF FINISH

Add the following:

“Steel forms for Class F3 surface finish shall only be used with the written approval of the Engineer and then only if:

- (i) the forms are in good condition, free of rust, dust and any other foreign material which would result in staining of the formed surface
- (ii) any resulting depressions and projections which occur in the formed surface do not exceed 3mm when measured with a straight edge placed between joint lines created by the forms
- (iii) the edges of forms are straight and flat to ensure that forms butt without forming gaps along the joints and that steps and hollows at the joint lines do not occur.

PS7

B6210 MEASUREMENT AND PAYMENT

B62.05 Permanent formwork:

Add the following to the second paragraph:

“The tendered rates shall include for the installation of permanent drainage holes within the void formers at the low points of each void.”

B6300: STEEL REINFORCEMENT FOR STRUCTURES

PS8

B6302 MATERIALS

- (a) Steel Bars

Add the following before the first paragraph:

“Unless specified or directed otherwise by the Engineer, all steel reinforcing bars shall be either high yield stress hot-rolled deformed bars (Y-bars) or mild steel hot-rolled plain round bars (R-bars) as indicated on the drawings. Cold-worked reinforcing bars will not be permitted.”

PS9

Add the following paragraph:

“Substitution of mild steel reinforcement as indicated on the drawings by an equivalent area of high yield stress reinforcement or vice versa will not be permitted.”

B6306 PLACING AND FIXING

Replace the second and third paragraphs with the following:

“The concrete cover for all structural concrete shall be as specified on the drawings within a tolerance of - 5/+10mm. Prior to fixing the steel, samples of the proposed spacers shall be submitted to the Engineer along with a written statement for in-situ manufacture, if applicable, for approval.

Overlap of steel reinforcement bars shall be such that the cover to the lapped bars remains constant at the specified cover.”

Add the following:

“Steel bars shall be spaced accurately in accordance with the drawings to comply with the following tolerances:

Specified spacing 200mm and less: $\pm 10\text{mm}$

Specified spacing greater than 200mm: $\pm 15\text{mm}$

PS10

B6307 COVER AND SUPPORT

In the second paragraph replace the second sentence, commencing with

“Where no cover is indicated...shown in Table 6306/1” with the sentence “Where no cover is indicated, the Contractor shall inform the Engineer who shall after consultation with the design engineer indicate the required cover in writing and the as-built drawings shall indicate such cover”.

Add the following to the end of the fifth paragraph:

“Concrete cover and spacer blocks shall be made using the same cement and aggregate type as the main concrete with the same water/cement ratio so that differences in shrinkage, thermal movements and strain are minimised. Cover blocks shall be water cured by submersion for a minimum of 7 days and thereafter

kept submerged in water until immediately before fixing onto reinforcing steel. Where concrete cover blocks, subsequent to fixing, have visually dried out they shall be remoistened by an appropriate method so that they are damp before the placing of concrete. Only semi-spherical concrete cover blocks shall be used. Where fixing wire is inserted into cover blocks, it shall be galvanised. Cover and spacer blocks manufactured from other materials e.g. plastic or wood shall not be permitted. All cover blocks regardless of the type of material manufactured from, shall not be visible on exposed concrete surfaces.”

B6400: CONCRETE FOR STRUCTURES

PS11

B6402 MATERIALS

(a) Cement

Replace the colon at the end of the first paragraph with a comma and add the following:

“taking into account the adoption of the new SANS 50197-1:2000 code for cements: (refer to C&CI website www.cnci.org.za)”.

Add the following paragraphs:

“The type of cement to be used in any concrete element shall take into account the environmental conditions and durability requirements at the location of the site of the works, and shall be as approved by the Engineer.

With the exception of the standard SANS approved cement blends supplied by the primary cement producers, the blending of cement and extenders shall not be permitted unless specifically approved by the Engineer on the basis of an acceptable quality assurance procedure.

The source of supply for each type of cementitious material shall not be changed during the contract period.

The Contractor shall submit certificates from the supplier indicating compliance with the requirements of SANS 1491 for any cement extenders used in blending the cement.

Test certificates from an approved laboratory shall be furnished by the Contractor for all cements and prior to their use in the works, indicating the alkalinity of the cement expressed as the percentage sodium oxide equivalent (%Na₂O + 0,658(%K₂O)). Cement with such an alkalinity content in excess of 0,60% shall only be used with the written authority of the Engineer regardless of whether or not the aggregates are considered to be potentially alkali reactive.”

(b) Aggregates

Replace the 2nd last paragraph of sub-clause (i) with the following:

“The aggregates used in all structural concrete for this contract shall be from approved sources known to produce aggregates with low shrinkage and low water demand characteristics. Test certificates from an approved laboratory shall be furnished by the Contractor for all aggregates and prior to their use in the works indicating compliance with the above limiting shrinkage values.”

Add the following new sub-sub-clauses:

“(vi) The maximum chloride ion content of fine aggregate shall be 0,03% by mass of aggregate as measured by SANS 1083:2002. Where concrete is situated in a chloride environment as determined by the Engineer, the value shall be reduced from 0,03% to 0,01%.

(vii) Test certificates from an approved testing authority shall be furnished by the Contractor for all aggregates and prior to their use in the works, indicating the potential alkali-silica reactivity. Where, in the opinion of the Engineer, any aggregate shows potential reactivity, then the use of such an aggregate in the works shall only be permitted if the total alkali content of the concrete as determined from all its constituents does not exceed between 2,1 kg/m³ to 2,8 kg/m³ depending on the assessed severity of the potential reactivity of the aggregate, and then only with the written authority of the Engineer.

(viii) The grading of the fine aggregate shall in addition to the requirements in SABS 1083 also comply with the grading limits in the following table:

GRADING OF THE FINE AGGREGATE

Sieve size (mm)	Cumulative percentage passing sieve
4,75	90 – 100
2,36	75 – 100
0,18	60 – 90
0,60	40 – 60
0,30	20 – 40
0,15	10 – 20
0,075	Natural sand 5 – 10 Crusher sand 5 – 20

Blending of fine and coarse sands will be permitted where necessary to achieve the above grading limits for fine aggregate.”

(d) Water

Add the following:

“Water for concrete, other than for pre-stressed concrete, shall not contain chlorides calculated as sodium chloride in excess of three thousand parts per million (3000ppm) nor sulphates calculated as sodium sulphate in excess of two thousand parts per million (2000ppm).

Water for curing concrete shall not contain impurities in sufficient amount to cause discolouration of the concrete or produce etching of the surface. No sea-water or water containing salts shall be used.”

(e) Admixtures

Add the following sub-sub clauses:

“(v) Only admixtures of the type that do not increase the water demand of the mix will be considered by the Engineer.

(vi) Admixtures, which have a retarding effect on the rate of hydration of the cement, may not be used when the concrete temperature is below 20°C.

(vii) A retarding admixture shall be used if temperatures of concrete mixes using cements of strength class 42.5 or higher is between 20 to 30°C or where the ambient temperature is between 20 and 30°C.”

PS12

(f) Curing agents

Add the following:

“Full technical specifications and product data sheets as well as samples of not less than 1 litre of the proposed curing agents shall be submitted to the Engineer for approval, and no curing agent shall be used until approved by the Engineer.”

B6404 CONCRETE QUALITY

(a) General

Replace the first paragraph with the following:

“All concrete in the Works shall comply with the requirements for strength concrete as specified in sub-clause 6404(b). When structural concrete prefixed ‘W’ is shown on the drawings, it shall, in addition to the strength requirement, comply with the durability requirements specified in sub-clause 6404(h).”

(b) Strength Concrete

Add the following:

“The maximum water : cement ratio for concrete shall be limited as follows:

Class W30/19 0,48

Class W40/19 & W40/13 0,45

The cementitious material content shall fall within the following ranges:

Class W30/19 340-380 kg/m³

Class W40/19 & W40/13 360-420 kg/m³

Concrete mix designs complying with the specifications shall be submitted to the Engineer for approval at least two weeks prior to casting the concrete and shall for each mix include the following:

- Target strength and slump
- 7 and 28 day compressive strength results with measured slumps
- Cement source, type and composition
- Test results for mixing water, see COLTO clause 8116
- Brand and dosage of any admixtures
- Proportions of all constituents in the mix
- Cement quality certificates including Na₂O equivalent
- Certificates of compliance iro any cement extenders used (SANS1491)
- Data sheets for admixtures
- Aggregate source and test results to confirm compliance with SANS 1083, including grading, flakiness and FM
- Shrinkage characteristics and potential alkali reactivity of fine and coarse aggregate
- Results of the concrete drying shrinkage (COLTO clause 6402(b)(i)(3)).

No concrete mix designs will be considered for approval until all the above-mentioned data has been submitted and no concrete may be placed until such time that the concrete mix has been approved by the Engineer.

The Contractor’s attention is drawn to the 6th paragraph relating to the requirements regards the 28-day characteristic cube compressive strength applicable to “W” concrete.”

(d) Consistence and workability

Add the following:

“On-site slump cone test measurements for all structural concrete used in the works and taken at the time of actual placing shall fall within the range 75±25mm. Concrete which has a slump outside of this range shall not be placed in the structure and removed immediately from the site.”

B6406 MIXING

(f) Ready-mixed concrete

Add the following:

“Delivery tickets for all ready-mixed concrete delivered to site shall be checked prior to discharge to ensure the correct mix has been delivered and the time of arrival recorded and compared to the time of batching to ensure consistency with the expected travel time and that no undue delay has occurred between dispatch and delivery.

The temperature limits at the point of delivery shall be as specified in SANS 878:2004 unless the Engineer has specified other limits due to specific design requirements.

No water shall be added on site prior to placing the concrete to improve workability. Prior to placing all concrete delivered to site shall be checked for workability using the slump cone test and slump measured outside of the limits set for the design mix shall be rejected and removed from the site.

The rate of change in concrete properties shall be closely monitored. When, in the opinion of the Engineer, the workability drops to the extent that the concrete cannot be satisfactorily placed and compacted with the available equipment and manpower it shall be deemed unsuitable for use and removed from the site of the works. Under no circumstances shall water be added to maintain or reinstate workability.

No admixtures shall be added on site before or during placing the concrete to improve or maintain workability.”

B6407 PLACING AND COMPACTION

(b) Placing

Add the following:

"Casting of the in-situ parapets or placing of precast parapets shall only commence after removal of the deck support work, and in addition, in the case of pre-stressed decks, the stressing must be complete. Where specified on the drawings the top of the parapets after placing shall follow the pre-camber levels specified on the drawings to allow for future creep effects. The levels of the top rail of each panel of the balustrades/parapets shall be confirmed in writing by the Engineer".

PS13

B6408 CONSTRUCTION JOINTS

(a) General

Add the following:

"No construction joints other than those indicated on the drawings will be permitted without the written approval of the Engineer. In all cases the proposed method of forming the joint shall be discussed and agreed with the Engineer."

PS14

B6409 CURING AND PROTECTION

Add the following to the end of sub-clause 6409(f):

"Where a curing compound is used, it shall consist of an approved water based low viscosity clear wax emulsion applied in accordance with the manufacturer's instructions."

Add the following paragraphs to the end of this sub-clause:

"Where curing by retention of formwork is used as the only method of curing the concrete, it must be left in place for the minimum period specified in Table 6206/1 but in no instance shall it be less than 7 days.

The materials used for formwork shall take into account properties such as thermal insulation and moisture absorption when assessing the suitability of the material, to the approval of the Engineer.

If impermeable curing membranes are to be used as a curing method, they shall be installed at the same time as formwork is removed and no portion of a concrete surface may be left unprotected for a period in excess of 2 hours. If the surface is an unformed finish e.g. top of deck slab, then the surface must be protected immediately by appropriate methods approved by the Engineer after it is finished, without damage to that surface, since it is vulnerable to plastic shrinkage and plastic settlement cracking due to high rates of evaporation while the concrete is still in a plastic state. Plastic shrinkage and settlement shall not be permitted on any of the structural elements since it compromises the durability of the concrete. In order to prevent early settlement and shrinkage of the concrete, the concrete placed shall be re-vibrated after initial compaction while the concrete is still in a plastic state. Any remedial measures shall be as approved in writing by the Engineer.

On bridge decks, the top surface shall be cured using either the method described in clause 6409(d) i.e. 'Constantly spraying the entire area of exposed surfaces with water' or application of an approved curing compound and covering with a 75mm thick layer of sand continuously kept moist for the duration of the specified curing period."

PS15

B6410 ADVERSE WEATHER

Add the following at the end of this clause:

"Placing of concrete during dry and windy conditions irrespective of ambient temperature will not be allowed unless fully motivated in exceptional circumstances and expressly permitted under the special precautionary measures approved by the Engineer."

PS16

Add the following sub-clause:

(d) Temperature and hydration of concrete

"The temperature of concrete when placed shall be within the range 10°C to 30°C. Concrete which has a temperature outside of this range shall not be placed in the structure. Care shall also be taken not to cast concrete onto hot steel shutters as this might induce cracking.

The rate of hydration of the cement in the concrete shall be such that the concrete can be placed and properly compacted within 2 hours after the addition of water to the mix ingredients. The initial set of the concrete shall not be unduly delayed due to inappropriateness of admixtures or cement type, which could promote bleeding."

B6414 QUALITY OF MATERIALS AND WORKMANSHIP

(a) Criteria for compliance with the requirements

Add the following:

"Routine inspection and quality control will be done by the Engineer as specified in Section 8300. All reference in clause 6414 to Section 8200 and its clauses or sub clauses shall be deleted."

B6600: NO-FINES CONCRETE, JOINTS, BEARINGS, PARAPETS AND DRAINAGE FOR STRUCTURE

PS17

B6603 JOINTS IN STRUCTURES

(d) Plug type expansion joint systems

Add the following:

"Roadway expansion joints at piers and abutments shall be Silicone Highway Grade Sealant "Dow Corning 888" or other and approved equal subject to the manufacturer having obtained valid Agreement certification. The joints shall be installed in saw-cut recesses complete with joint terminations at the inside face of the parapets."

(g) Installing the expansion joints

Delete the first paragraph and replace with the following:

"All deck expansion joints shall be installed by approved specialist subcontractors only. Installed deck expansion joints shall have the following guarantees which shall be submitted to the Engineer on final acceptance:

Proprietary joints- 15 years

Asphalt plug type joints- 10 years
 Concrete nosings (replacement)- 10 years
 Joint sealant 5 years

Add the following after the third paragraph:

"All deck expansion joints shall, as part of the installation procedure, be checked for water-tightness over the entire length of the joint installed and particularly at the joint terminations by ponding with water to a depth of not less than 100mm for a period of at least four hours. Any water leaks shall be repaired with the same material as used in the expansion joints. Further tests and repairs shall be repeated until all water leaks have been stopped to the satisfaction of the Engineer."

PS18

B6604 BEARINGS FOR STRUCTURES

(a) Materials

Replace the entire sub-sub-clause with the following:

PS19

"Structural bearings and elastomeric bearing pads shall be seated on proprietary epoxy resin mortar beddings complying with clause B8118. Use of such materials shall be strictly in accordance with the manufacturer's instructions. The cured compressive cube strength of the mortar shall be not less than 2,0 times the average contact stress under the bearing, or 20MPa, whichever is the greater."

B6606 DRAINAGE FOR STRUCTURES

(c) Synthetic-fibre filter fabric

Replace the last paragraph with the following:

"Synthetic-fibre filter fabric shall be manufactured from polymeric material processed into a continuous, permeable, homogeneous, non-woven sheet which shall be mechanically, heat or chemically bonded. It shall be made from polyester, polypropylene or polyethylene and show no detectable reduction of the specified properties when subjected to chemical and biochemical conditions found in soils or in saline solution, specifically:

- soil and ground water with a pH in the range 4 to 12 (pH to be determined by Method A20, TMH1)
- soil (as paste) and ground water containing salts with a conductance of up to 1,0 Siemens per metre (S/m) (conductivity to be determined by Method A20T, TMH1);

In addition the filter fabric shall not be attractive to rodents or termites nor support the growth of algae; it shall be rot-proof and shall maintain at least 80% of the original tensile strength after direct exposure of 1500 hours to sunlight.

Synthetic-fibre fabric shall be classified according to the following:

Grade	Penetration load (kN)	Elongation at rupture (%)		Permeability (litres/sq.m/s)
	Min	Min	Max	Min
A	4,5	10	50	20
B	3,0	20	50	20
C	2,5	20	-	20
D	2,0	20	-	20
E	1,5	20	-	20

The above properties shall be measured in accordance with the test methods of SABS 0221-1988."

Add the following new sub-clause:

"(e) Synthetic-fibre filter fabric backing with Netlon pipes and strips

The drainage system shall consist of M65 Netlon drainage pipes and/or DN1 Netlon drainage strips and Grade B filter fabric placed against the rear faces of the abutments and walls and wrapped around the Netlon pipe as detailed on the drawings.

The filter fabric shall be suitably hung or fixed by approved means to the wall to prevent displacement during backfilling. The drainage pipe or strip shall be placed on a 300mm x 100mm concrete bedding strip, or other impervious material, and the bottom of the pipe shall line up with the inverts of the weep holes."

PS20

B6609 SERVICE DUCTS

Add the following clause:

Service ducts shall be 110mm and 160mm nominal diameter normal-duty uPVC pipes as specified on the drawings complying with SABS 791 installed in the parapets and sidewalks as shown on the drawings.

All ducts shall be joined with watertight couplings made from the same material as the pipe. The ends of the uPVC ducts shall be provided with suitable conical wooden stoppers to prevent dirt from entering the ducts. Two galvanised steel wire strands of 2,5mm diameter shall be threaded through each uPVC duct and shall extend 2m beyond each end and be firmly wedged into position with the wooden stoppers.

Provision for free movement across the deck expansion joints shall be made by terminating the service ducts either side of the joint and sleeving across the joint with a 400mm long pipe of slightly larger diameter, de-bonded on one side of the joint by wrapping water resistant adhesive tape at least three times around the circumference of the pipe.

PS21

Inspection eyes with 6mm thick hot-dip galvanised "Vastrap" recessed cover plates shall be placed at intervals not exceeding 40m. Cover plates shall be fixed with 4No. M10 50mm long stainless steel "drop-in- anchors grade 304, complete with stainless steel button cap set screws and stainless steel washers, grade 316.

B6608 MEASUREMENT AND PAYMENT

Item

B66.05 Expansion joints

Add the following:

“Roadway expansion joints will be measured per linear metre along the length of the joint between the inside faces of the sidewalks or concrete parapets in the case where there are no sidewalks. Sidewalk expansion joints will be measured per number complete with cover plates.

The tendered rate shall include for the joint terminations, forming the recesses, cover plates and fixings and also for the water test required to prove the joint. The water shall be ponded and maintained to a minimum depth of 150mm above the top of the joint for a period of one hour each. Testing should follow the installation of the various sections of joints to take advantage of the existing traffic accommodation and each test shall cover the length of each joint installed (generally half width of bridge.) The tendered rate shall also include for any necessary repair and retesting until the joint is watertight to the satisfaction of the Engineer and for clearing away the ponding materials on completion of the test.”

B66.15 Concrete parapets

Add the following to this clause

“The tendered rate shall include for sealing of joints between parapet units as shown on the drawings.”

Add the following payment items:

Item	Unit
------	------

B66.27 Drainage strips (description given) metre (m)

The unit of measurement shall be the linear metre of drainage strips placed behind the earth faces of abutments as shown on the drawings.

The tendered rate shall include full compensation for all material, labour, and equipment to supply and install the drainage strips as shown including the 300mm wide by 100mm thick concrete bed under the drainage strip.

Item	Unit
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B66.28 Perforated drainage pipes (description given) metre (m)

The unit of measurement shall be the linear metre of perforated drainage pipes placed behind the earth faces as shown on the drawing.

The tendered rate shall include full compensation for all material, labour, and equipment to supply and install the perforated pipes as shown including the 300mm wide by 100mm thick concrete bed under the core.

Item	Unit
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B66.29 Joint protection plates metre (m)

The unit of measurement shall be the linear metre of specified width installed. The tendered rate shall include full compensation for supplying all materials, including fastening or adhesives, for galvanizing and installation, including all labour and equipment, and for any wasted material.

Item	Unit
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B66.30 Additional water tests for joints ordered

by the Engineer number (No)

The unit of measurement shall be the number of additional water tests for proving the expansion joints, as ordered by the Engineer. The test shall be executed by ponding water to a minimum depth of 150mm deep above the top of the joint for a period of one hour each. Testing should follow the installation of the various sections of joints to take advantage of the existing traffic accommodation and each test shall cover the length of each joint installed (generally half width of bridge).

The tendered rate shall include full compensation for providing the pond of water and maintaining its minimum depth of 150mm for the full one hour period and clearing away the ponding materials on completion.

Item	Unit
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B66.31 Service ducts:

(a)	110mm nominal diameter uPVC pipes	metre (m)
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(b)	160mm nominal diameter uPVC pipes	metre (m)
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The unit of measurement shall be the linear metre of service duct installed.

The tendered rate shall include full compensation for all material, labour, and equipment to supply and install the service ducts complete with couplings, joints, draw wire and end stoppers as shown on the drawings. All service ducts to be provided in concrete parapets and end blocks as shown on the drawings shall be included in pay items 66.15 and 66.17 respectively and shall not be separately measured and paid for under item B66.31.”

COLTO SERIES 8000: SUNDRIES

PS22

B8100: TESTING MATERIALS AND WORKMANSHIP

Add the following clause:

“B8118 PROPRIETARY RESINS, GROUTS AND MORTAR

All proprietary cementitious and epoxy resin, grouts and mortars shall comply with the manufacturer’s specifications. The manufacturers or suppliers shall provide recent test reports from an approved laboratory to prove such compliance and shall also provide test certificates of recent tests on the materials.

Cementitious grouts and mortars shall not contain expansive cements or metallic powders such as aluminium or iron filings. The plastic volume change shall fall in the range between zero shrinkage and 4% expansion from the time of placement until final set when tested according to ASTM C 827. Further, the grout shall show no shrinkage and a maximum of 0,2% expansion in the hardened state when tested according to ASTM C 1090.

Epoxy resin grouts and mortars shall show no shrinkage and a maximum 2,0% expansion from the time of placement when tested according to ASTM C 827 (modified). The coefficient of thermal expansion shall not exceed 0,000055/°C when tested according to ASTM C 531.

The manufacturer shall submit to the Engineer samples of the proposed materials together with complete technical details including mixing ratios and times, pot life, setting and curing times, strength, volume change, thermal expansion, creep characteristics etc.

As part of the Contractor's process control in terms of sub-clause 8103(a), testing shall be undertaken on the materials delivered to site to monitor compliance with the manufacturer's specifications. All new batches of materials shall be tested by the Contractor and approved by the Engineer prior to incorporation into the works

PS23

Strength testing shall be undertaken, using 75mm or 100mm cubes, on samples taken from the mixed material actually being used in the work at the time of its use."

B8200: QUALITY CONTROL**B8203 DEFINITIONS**

(a) Lot

Replace the above Clause with:

"A Lot is a portion of work or quantity of material which has been produced in one operation using the same continuous processing and methodology, using essentially the same materials and is assessed as a unit for the purposes of quality control."

B8204 GENERAL REQUIREMENTS

(a) Determining the Lot size

(i) Road construction layers

In the second (2nd) sentence of the first (1st) paragraph remove the word "normally" and the words "and not exceed the product of two full days' work"

(b) Random sampling

Replace the contents of this subclause with:

"In the case of the sampling of road earthworks, Layerworks and surfacing the random sampling methodology as prescribed in TMH 5 shall be adhered to"

SECTION 8300: QUALITY CONTROL (SCHEME2) B8301 SCOPE

Add the following:

"Quality Control (Scheme 2), as described in Section 8300 will be applicable for the testing and control of properties of materials and workmanship."

PS24**SECTION 8400: PAINTING****B8404 APPLYING THE PAINT**

Add the following:

"Protective coating to concrete surfaces:

Unless it can be proven by suitable laboratory tests that the soil is not aggressive or where indicated on the drawings or directed by the Engineer all concrete surfaces in contact with the ground shall be waterproofed by the application of a minimum of two coats of bituminous waterproofing compound complying with SABS 1153. Surface preparation, mixing and application shall be carried out strictly in accordance with the manufacturer's specification to a total dry film thickness of not less than 500 microns."

B8412 MEASUREMENT AND PAYMENT

Add the following payment items:

"Item

Unit

B84.02 Protective coating to concrete surfaces (full description of system and part of structure indicated) square metre (m2)

The unit of measurement shall be the square metre of surface area prepared and coated as specified and accepted by the Engineer.

The tendered rate shall include full compensation for the supply and storage of materials on site and for all labour, plant and tools and for all work and incidentals required to complete the surface preparation of the coating and application as specified. The cost for testing the soil for aggressiveness shall be paid for under item 81.02."

Item Unit

B84.03 Waterproofing of bridge bearing seats using cementitious waterproofing slurry, "Prostruct 526" or approved equivalent, 3,0mm thick, in two coats, including surface preparation to manufacturers specifications square metre (m2)

The unit of measurement shall be the square metre of the bearing seating area on the top surface of the piers and abutments.

The tendered rate shall include for all labour, plant and material required for the preparation of the bearing surface and the application the waterproofing material, all as per manufactures specifications.

C3.4.2 Health and Safety Specifications

OCCUPATIONAL HEALTH AND SAFETY SPECIFICATIONS (OHS)

LIST OF ABBREVIATIONS

UM	UMhlabuyalingana Municipality
CR	Construction Regulations
GAR	General Administration Regulations
GSR	General Safety Regulations
HCSR	Hazardous Chemical Regulations
OHS Act	Occupational Health and Safety Act 85 of 1993
OHS Spec	Occupational Health and Safety Specification
SABS	South African Bureau of Standards

1 INTRODUCTION

1.1 Purpose of the Occupational Health and Safety Specification

The purpose of the OHSS is to assist contractors to achieve compliance with the Occupational Health and Safety law, in order to reduce incidents, injuries and occupational illnesses. The OHSS will be implemented during the construction of this project or any construction activity that the Client has control over.

The OHSS is a performance specification to ensure that the Client and any bodies that enter into formal agreements with the Client viz. Agents, Consultants, Principal Contractors and Contractors achieve an acceptable level of OHS performance. No advice, approval of any document required by the OHSS such as hazard identification and risk assessment action plan or any other form of communication from the Client shall be construed as an acceptance by the Client of any obligation that absolves the Principal Contractor from achieving the required level of performance and compliance with legal requirements. Further, there is no acceptance of liability by the Client which may result from the Principal Contractor failing to comply with the OHSS, i.e. the Principal Contractor remains responsible for achieving the required performance levels.

1.2 Implementation of the Occupational Health and Safety Specification

This OHSS forms an integral part of the Contract, and Principal Contractors are required to make it an integral part of their Contracts with Contractors and Suppliers. It will be disseminated by the Client to persons responsible for the design of the infrastructure works, who will ensure that it is included in the Tender Document(s) issued to prospective Contractors. The prospective Contractors shall incorporate the requirements of the OHSS in their submission of Tenders to the Client. Some of the requirements of the OHSS are detailed in Annexure A.

This specification must be read in conjunction with the OHS Act No 85 of 1993 (as amended)(The Act), the Regulations as published in Government Gazette No 37305 of 07 February 2014 as well as the General Safety Regulations published in Government notice No. R 1031 of 30 May 1986, as amended, the General Administrative Regulations, GAR 929 of 25 June 2003, as amended and any other regulations falling under the Act (collectively known as the Regulations).

The OHS Act Agreement in Section 9 of the Tender Document (Contract Forms) must be fully completed by the Contractor. These documents shall be deemed to form part of the Contract Documents. They must be obtained by the Principal Contractor and copies held on site.

2. SCOPE

This OHSS covers the requirements for eliminating and mitigating incidents and injuries in all Client controlled projects.

The scope also addresses legal compliance, hazard identification and risk control, promoting a health and safety culture amongst those working on MM projects and those affected by the activities taking place in and around them.

2.1 Interpretations

2.2. Application

The OHSS contains clauses that are generally applicable to building / construction and that impose pro-active controls associated with activities that impact on human health and safety as they relate to plant and machinery.

Compliance to the requirements of the OHSWA, Construction Regulations and General Safety Regulations is in addition to the requirements of the OHSS and is part of the Principal Contractor's responsibility. The Client will through the Agents, as appointed, monitor that the Principal Contractor complies with the requirements of the OHSWA and will not prescribe to the Principal Contractor how such compliance is achieved.

2.2.1 Definitions

The definitions used will be those set out in the Regulation Gazette No 37305 of 07 February 2014 with the following additions:

Client: UMhlabuyalingana Municipality

Engineer: Means a competent person appointed by the Client to design, supervise and monitor construction on their behalf.

Hazard: Source of exposure to danger

Hazard Identification and Risk Assessment and Risk Control:

Means a documented plan, which identifies hazards, assesses the risks and details the control measures and safe working procedures which are to be used to mitigate and control the occurrence of hazards and risks during construction or operation phases.

Health and Safety Management Plan:

Means a documented plan which addresses the hazards identified and includes safe working procedures to mitigate, reduce or control the hazards identified.

Induction Training:

Means once off introductory training on general health and safety issues given to all employees and visitors to the site before commencement of work on site.

Risk:

Means the probability or likelihood that a hazard can result in injury or damage.

Regulations: Shall mean the relevant regulations promulgated in terms of the Occupational Health and Safety Act, 1993 (ACT NO. 85 of 1993)

Site:

Means the area in the possession of the Principal Contractor for the construction of the works. Where there is no demarcated boundary it will include all adjacent areas and haul roads, which are reasonably required for the activities for the Principal Contractor and approved for such use by the Engineer.

The Act:

Means, unless the context indicates otherwise, the Occupational Health and Safety Act, 1993 (ACT NO. 85 of 1993) and Regulations promulgated thereunder.

3. REQUIREMENTS AT TENDER STAGE

The Principal Contractor shall make available the following with his completed Tender:

- (a) A Preliminary Health and Safety Plan as described in Regulation 5 of the Construction Regulations. The Safety Plan must be based on the Construction Regulations February 2014 and this specification and will be subject to approval by the Client or his agent. This will include a Hazard Identification and Risk Assessment Analysis appropriate to the project. Material Safety Data Sheets (MSDSs) and chemical risks must be included in the HIRA
- (b) A declaration to the effect that he has the competence and necessary resources to carry out the work safely in compliance with the Construction Regulations 2014.

Failure to submit the foregoing with his Tender or during Tender evaluation, may lead to the conclusion that the Principal Contractor is not be able to carry out the work under the contract safely in accordance with the Construction Regulations and may result in the Tender being disqualified.

4. NOTIFICATION OF COMMENCEMENT OF CONSTRUCTION WORK

After award of the contract, but before commencement of construction work, the Principal Contractor shall, in terms of Regulation 3, notify the Provincial Director of the Department of Labour in writing if the following work is involved:

- (a) the demolition of structures and dismantling of fixed plant of height of 3,0 m or more;
- (b) the use of explosives;
- (c) construction work that will exceed 30 days or 300 person-days;
- (d) excavation work deeper than 1,0 m; or
- (e) working at a height greater than 3,0 m above ground or landings.

The notification must be done in the form of the pro forma given in Annexure A to the Construction Regulations.

A copy of the notification form must be kept on site, available for inspection by inspectors, Client, Engineer, employees and persons on site. Proof of submission must also be provided.

5. GUIDELINES FOR THE DEVELOPMENT OF A HEALTH AND SAFETY PLAN

5.01 Background

In terms of the Construction Regulations [Regulation 4 (1) (a)] of the Occupational Health and Safety Act, No 85 of 1993, the Client is required to compile an Occupational Health and Safety Specification for each of its projects and the Principal Contractor, appointed by the Client in terms of Regulation 4 (1) (c), is required to prepare an Occupational Health and Safety Plan. This plan has to be prepared in terms of Regulation 5 (1) as well as the Client's Occupational Health & Safety Specification. In terms of Regulation 4 (2), the Client and the Principal Contractor are required to agree on the Occupational Health and Safety Plan before any work may commence.

5.02 Framework for an Occupational Health and Safety Plan

5.02.1 Introduction

The Principal Contractor has to demonstrate to the Client that he has a suitable and sufficiently documented Occupational Health and Safety Plan as well as the necessary competencies, experience and resources to perform the construction work safely. The Principal Contractor is required to submit at, or before, the site handover meeting, the following documentation for perusal and verification by the Client:

-
- Management Structure including an organogram
 - Quality Plan
 - Human Resources Plan
 - Registered Workplace Skills Plan
 - "Letter of good standing" issued by the Compensation Commissioner or licensed compensation insurer.
 - Proof of induction and other training of employees
 - Example: copies of minutes of previous Occupational Health and Safety Committee meetings and copies of Incident Investigation Reports for other projects undertaken by the Tenderer.

5.02.2 Contents of an Occupational Health and Safety Plan

The Occupational Health and Safety Plan shall include the following:

- **An Occupational Health and Safety Management Programme**
- **A Statement Regarding the Communication and Management of the Work**
- A suitable list of contents for the Occupational Health and Safety Plan is given in Annexure E

6. APPOINTMENT OF HEALTH AND SAFETY (H&S) PERSONNEL

6.01 Construction Supervisor

In terms of Section 16 of the Act, the Chief Executive Officer of the Principal Contractor may delegate, in writing, part or all of his powers to a suitable person on the site.

The Principal Contractor shall appoint a full-time **Construction Supervisor**, in writing, in terms of Section 6.1 of the Regulations with the duty of supervising the performance of the construction work.

He may also have to appoint one or more competent employees to assist the construction supervisor where justified by the scope and complexity of the works.

6.02 Construction Health and Safety officer

In terms of Section 6 (6) of the Regulations the Principal Contractor shall appoint in writing a full-time **Construction Safety Officer**.

Should the Principal Contractor wish to appoint a part time Construction Safety Officer, this shall only be done after consultation with the Client.

The Construction Safety Officer shall have the necessary competence and resources to perform his duties diligently.

Provision will be made in the schedule of quantities to cover the cost of a dedicated construction safety officer appointed after award of the contract.

A CV, and training records, of the proposed Construction Safety Officer must be submitted at the Contract Handover Meeting.

The Construction Safety Officer shall not be the same person as the Traffic Safety Officer unless with the written permission of the Client.

6.03 Health and safety representatives

In terms of **Sections 17 and 18 of the Act (OHSA 1993)** the Principal Contractor shall appoint, in writing, a **health and safety representative** whenever he has more than 20 employees in his employ on the works. The health and safety representative must be selected from employees who are employed in a full-time capacity at a specific workplace and at least half must be elected according to the wishes of the workforce.

Representatives from local labour can be appointed to represent such labour for the duration of the contract. The functions of the H&S Representatives are as outlined in the OH&S Act.

6.04 Health and safety committee

In terms of **Sections 17, 18 and 19 of the Act (OHSA 1993)** the Principal Contractor (as employer), shall establish one or more **health and safety committee(s)** where there are two or more health and safety representatives at a workplace. The persons selected by the Principal Contractor to serve on the committee shall be designated in writing.

The function of the health and safety committee shall be to hold meetings at monthly intervals, to review the health and safety measures on the contract, to discuss incidents related to health and safety with the Principal Contractor's representative and any Department of Labour inspector, and to make recommendations regarding health and safety to the Principal Contractor and to keep record of meetings, recommendations and reports made by the committee.

6.05 Competent persons

In accordance with the Construction Regulations the Principal Contractor shall appoint, in writing, **competent persons** responsible for supervising construction work for the following work situations that may be expected on the site of the works, as applicable to the project. A CV of the person/s concerned should form part of the Health and Safety File

- (a) Risk assessment (Regulation 7);
- (b) Fall protection (Regulation 8);
- (c) Structures (Regulation 9);
- (d) Formwork and support work (Regulation 10);
- (e) Excavation work (Regulation 11);
- (f) Demolition work (Regulation 12);
- (g) Tunnelling (Regulation 13);
- (h) Scaffolding work (Regulation 14);
- (i) Suspended platform operations (Regulation 15);
- (j) Boatswain chairs (Regulation 16);
- (k) Material Hoists (Regulation 17);
- (l) Batch plant operations (Regulation 18);
- (m) Explosive powered tools (Regulation 19)
- (n) Cranes (Regulation 20);
- (o) Construction vehicle and mobile plant (Regulation 21(1));
- (p) Electrical installation and machinery on construction site (Regulation 22);
- (q) Use of temporary storage of flammable liquids on construction site (Regulation 23);
- (r) Water environments (Regulation 24);
- (s) Housekeeping on construction sites (Regulation 25)
- (t) Stacking and storage on construction sites (Regulation 26);
- (u) Fire precautions on construction sites (Regulation 27); and
- (v) Construction welfare facilities
- (w) Incident Investigator
- (x) Construction Supervisor and Assistants (Regulation 6)
- (y) Construction Safety Officer (Regulation 6) and Traffic Safety Officer

A competent person may be appointed for more than one part of the construction work with the understanding that the person must be suitably qualified and able to supervise at the same time the construction work on all the work situations for which he has been appointed.

The appointment of competent persons to supervise parts of the construction work does not relieve the Principal Contractor from any of his responsibilities to comply with **all** requirements of the Construction Regulations.

6.06 Use of Crushers

Where a crusher is established on site, and where quarries are worked, this facet of the project falls within the requirements of the Mines Health and Safety Act (Act No 29 Of 1996) and the regulations in respect of Health and safety will apply. The District Mining Engineer will carry out audits on this aspect of the project.

7. PROJECT / SITE SPECIFIC REQUIREMENTS

A description of the works to be constructed can be found in the Project Specifications, Part A, in the Tender Document.

A list of activities and considerations that have been identified for the project and the construction site and for which Risk Assessments, Standard Working Procedures (SWP), management and control measures and Method Statements (where necessary) have to be developed by the Principal Contractor is given in Annexure D. This list is not to be considered as inclusive and other items must be added as required

In addition, the following health risks should be taken into account. It may become necessary to include others according to the requirements of the project.

Health risks

- Health risks arising from neighbouring as well as own activities and from the environment e.g. threats by dogs, bees, snakes, lightning etc.
- Exposure to noise
- Exposure to vibration
- Working at heights
- Working over water
- Protection against dehydration and heat exhaustion
- Exposure to dust resulting in pneumoconiosis and potential silicosis
- Unprotected exposure to wet and cold conditions
- Exposure to hazardous substances, including the use of radioactive materials in testing equipment, and chemicals used on site.
- HIV / Aids

Noise Risks

The Principal Contractor or Contractor or owner of the construction plant shall take noise level readings for each type of construction plant to be used on the project and establish a noise zone for each type in terms of Section 9 of the Noise-Induced Hearing Loss Regulations where required in terms of the Regulations, suitable hearing protective equipment shall be issued and worn. Where several items of construction plant are in operation at or near to each other, the noise zone for the combined plant should be established and suitable hearing protective equipment used within this zone.

Based on the results of this monitoring, the contractor may have to make budgetary provision for the medical screening of all employees working in an area where the OEL is exceeded.

Construction traffic

The Principal Contractor must state at what maximum speed traffic, especially haulers, shall be allowed to travel at on site and on haul roads. This limit must be strictly adhered to by all construction traffic. Unreasonable limits may be revised by the Engineer or OHS agent.

Emergency Procedures

The Principal Contractor shall submit a detailed Emergency Procedure for approval by the Client prior to commencement on site. The procedure shall detail the response plan including the following key elements:

- List of key competent personnel;
- Details of emergency services;
- Actions or steps to be taken in the event of the specific types of emergencies;
- Information on hazardous material/situations.

Emergency procedure(s) shall include, but shall not be limited to, fire, spills, accidents to employees, use of hazardous substances, bomb threats, major incidents/accidents, etc. The Principal Contractor shall advise the Client, Agent, Engineer and all relevant authorities forthwith, of any emergencies, together with a record of action taken. This shall be confirmed in writing as soon as possible after the incident. A contact list of all service providers (Fire Department, Ambulance, Police, Medical and Hospital, etc) must be maintained and available to site personnel. These procedures shall form part of the Health and Safety Plan.

First Aid Boxes and First Aid Equipment

The Principal Contractor and all Contractors shall appoint in writing First Aider(s). If not already accredited, the appointed First Aider(s) are to be sent for accredited first aid training. Unless agreed with the Client, at least one first aider shall be certified as Level 3. Valid certificates are to be kept on site. The Principal Contractor shall provide an on-site First Aid Station with first aid facilities, including first aid boxes containing, at least the requirements of the Annexure to Section 3 of the General Safety Regulations. All Principal Contractors with more than 5 employees shall supply their own first aid box. Principal Contractors with more than 10 employees shall have a trained and certified First Aider on site at all times.

It is suggested that all supervisors carry a first aid kit in their vehicles at all times.

Personal Protective Equipment (PPE) and Clothing

The Principal Contractor shall ensure that all workers, temporary or permanent, are issued with and shall wear hard hats, protective footwear, reflective bibs or vests and overalls as well as any other necessary PPE as set out in Section 2.3 of the General Safety Regulations. Principal Contractors are must provide reflective vests for all their staff. The Principal Contractor and all Contractors shall make provision and keep adequate quantities of SABS approved PPE on site at all times. This shall include necessary safety gear for visitors. The Principal Contractor shall clearly outline procedures to be taken when PPE or Clothing is:

- Lost or stolen;
- Worn out or damaged.
- Issued to temporary labour or staff.

The above procedure applies to Principal Contractors and their Contractors, as they are all Employers in their own right.

PPE must also be issued to the Consultant's staff, as set out in the Specifications or as requested by the Engineer.

Medical Certificates and Medical Surveillance

Medical certificates provided by a registered Health and Safety Practitioner must be obtained for all persons involved in:

- Exposure to Hazardous chemicals (HCSR Reg 7)
- Working at Heights (CR Reg 8 (2))
- Operation of Construction Vehicles (CR Reg 21 (d))

-
- “Listed” activities in terms of Section 12(c) of the Act.

In the case of permanent employees of the Principal, Contractor or sub-contractor no payment will be made for these certificates as they are deemed to be already issued. In the case of temporary employees, payment will be made in terms of payment item.

Exposure to hazardous materials

The Principal Contractor shall, in his Health and Safety Plan, state what methods will be used to determine the exposure of workers to any hazardous materials used on site. Particular attention must be given to those who are exposed for long periods of time. This is particularly important in the cases of workers exposed to bituminous materials. Regular medical surveillance must form part of the Principle Contractor’s Health and Safety Plan.

Environmental monitoring results and risk assessments are to be made available to the occupational health professionals doing the medical surveillance, as well as Job specifications per job category.

Occupational Health and Safety Signage

The Principal Contractor shall provide adequate on-site OHS signage. This should include but is not limited to: ‘no unauthorised entry’, ‘report to site office’, ‘site office’, ‘beware of overhead work’, ‘hard hat area’ in the appropriate positions. Signage shall be posted up at all entrances to site as well as on site in strategic locations e.g. access routes, stairways, entrances to structures and buildings, scaffolding, and other potential risk areas/operations. These signs shall be in accordance with the requirements of the General Safety Regulations as amended.

Signs shall be posted at all entrances to the site indicating that a construction site is being entered and that persons should take note of safety requirements.

Induction of employees and visitors

In terms of section 7(7); (8) and (9) inductions must be carried out for employees and visitors to the site. The Contractor’s Health and Safety Plan must set out how this will be done as well as how the entrance of visitors to the site will be regulated. The type of proof of induction contemplated in Section 7 (9) shall also be stated.

8. HEALTH AND SAFETY FILE

The Principal Contractor shall in terms of Construction Regulation 5(7) maintain a Health and Safety File on site at all times. The Health and Safety File is a file or other permanent record containing information on aspects of the construction project - which will be necessary to ensure the health and safety of any person who may be affected by the construction work.

The Principal Contractor shall appoint a suitably qualified person to prepare the Health and Safety File and to keep it up to date for the duration of the contract. The Health and Safety file shall include at least the following information:

- All Documents as required by the Act and Regulations
- Notification of construction work
- Proof of registration with the Compensation Commissioner or FEMA
- All reports of inspections and audits
- All non-conformity reports
- A record of all working drawings, calculations and design where applicable
- Detailed list of Contractors with contact details
- List of all hazardous materials used and stored on site with Data Sheets and Materials Hazard Data sheets
- All Hazard Identification and Risk Assessments carried out for the project.
- All Health and Safety Plans for the project.

-
- All method statements
 - Minutes of all relevant meetings
 - Incident records, including investigations and results
 - Record of all appointments under the Regulations
 - Medical certificates of fitness.
 - Record of Competencies
 - Training Records

Annexure B is a list of the records to be kept on site. The inclusion of other, relevant documents is encouraged.

The Health & Safety File shall be handed over to the Client on completion of the contract. It must contain all the documentation as set out above, or as instructed, as well as any handed to the Principal Contractor by any subcontractors.

9. RISK ASSESSMENT

Before commencement of any construction work during the construction period, the Principal Contractor shall have a risk assessment performed and recorded in writing by a competent person. (Refer Regulation 7 of the Construction Regulations 2014).

Risk is a measure of the likelihood that the harm from a particular hazard will be realised, taking into account the possible severity of the harm. Harm to people includes death, injury (permanent or temporary), physical or mental health or any combination thereof. Risk management in health and safety includes the identification of hazards, assessing risks, taking action to eliminate or reduce the risk, monitoring the effectiveness and performing regular reviews of the entire process. The Principal Contractor shall compile method statements to address or handle the following:

- Hazards particulars to the contract
- Identify what could go wrong and how
- Identify the likelihood of this happening
- Identify the persons at risk
- Identify the extent of possible harm
- Eliminating or reducing this risk
- A monitoring plan
- A review plan

Principal Contractors must ensure that all subcontractors conduct risk assessments for their scope of work as well.

The risk assessment shall identify and evaluate the risks and hazards that may be expected during the execution of the work under the contract, and it shall include a documented plan of safe work procedures to mitigate, reduce or control the risks and hazards identified.

The risk assessment shall be available on site for inspection by inspectors, Client, Engineer, subcontractors, employees, trade unions and health and safety committee members, and must be monitored and reviewed periodically by the Principal Contractor.

10. ARRANGEMENTS FOR MONITORING AND REVIEW

The Client, or his agent, will conduct a Monthly Audit to audit compliance with Construction Regulation 4 (1) (d) to ensure that the Principal Contractor has implemented and is maintaining the agreed and approved OH&S Plan. Annexure C can be used as a format when conducting the audit.

The Client reserves the right to conduct other ad hoc audits and inspections as deemed necessary.

A representative of the Principal Contractor must accompany the Client, or his agent, on all audits and inspections and may conduct his own audit/inspection at the same time. Each party will, however, take responsibility for the results of his own audit/inspection results.

11. NONCONFORMITIES

Should, at any time, the works, or part of the works, be stopped in terms of Section 4 subsection (e) the Principal Contractor shall have no claim for extension of time or any other compensation.

12. REPORTING

All accidents and incidents as defined in Regulation 8 of the General Administrative Regulations must be recorded on the form as set out in Annexure 1 to the Regulations and investigated in terms of Regulation 9. Records must be retained as required by section 9 of the GAR.

The Site Safety Officer must compile a safety report on a monthly basis, setting out all incidents and accidents and any other information relating to safety on the site. This is to be presented to the most convenient site meeting and a copy held on the Health and Safety file.

13. MEASUREMENT AND PAYMENT

Payment items to cover the contractor's cost related to OCCUPATIONAL HEALTH AND SAFETY SPECIFICATIONS are included in the bill of quantities. These items are described under Section 1300 in Section B: Matters Relating to the Standard Specifications of the Works Specification.

ANNEXURE A

RECORDS TO BE KEPT ON SITE

ITEM	CR	RECORD TO BE KEPT	RESPONSIBLE PERSON
1.	3(3)	Notification to Provincial Director – Annexure A Available on site	Principal Contractor
2.	4(3)	Copy of Principal Contractor's Health & Safety Plan Available on request	Client (Consultant)
3.	5(6)	Copy of Principal Contractor's Health & Safety Plan As well as each Contractor's Health & Safety Plan Available on request	Principal Contractor
4.	5(7)	Health & Safety File opened and kept on site (including all documentation-required in respect of the OHSA & Regulations Available on request	Principal Contractor
5.	5(8)	Consolidated Health & Safety File handed to Client on completion of Construction work. To include all documentation required by the OHSA & Regulations.	Principal Contractor
6.	5(9)	Comprehensive and Updated List of all Contractors on site, the agreements between the parties and the work being done Included in Health & Safety file and available on request	Principal Contractor
7.	6(7)	Keep record on the Health & Safety File of the input by Construction Safety Officer [CR 6 (6)] at design stage or on the Health & Safety Plan	Principal Contractor
8.	7(2)	Risk Assessments, kept up to date and available on site for inspection	Principal Contractor
9.	7(9)	Proof of Health & Safety Induction Training	Every Employee on site
10.	8(3)	Construction Supervisor [CR 6 (1)] has latest updated version of Fall Protection Plan [CR 8 (1)]	Principal Contractor
11.	9(2)(b)	Inform Principal Contractor in writing of dangers and hazards relating to construction work	Designer of Structure
12.	9(3)	All drawings pertaining to the design of structure On site available for inspection	Principal Contractor
13.	9(4)	Record of inspection of the structure [First 2 years – once every 6 months, thereafter yearly]	Owner of Structure
14.	9(5)	Maintenance records – safety of structure Available on request	Owner of Structure
15.	10(1)(d)	Drawings pertaining to the design of formwork/support work structure Kept on site, available on request	Principal Contractor
16.	11(3)(h)	Record of excavation inspection On site available on request	Principal Contractor
17.	15(11)	Suspended Platform inspection and performance test records Kept on site available on request	Principal Contractor
18.	17(8)(c)	Material Hoist daily inspection entered and signed in record book kept on the premises	Principal Contractor
19.	17(8)(d)	Maintenance records for Material Hoist Available on site	Principal Contractor
20.	18(9)	Records of Batch Plant maintenance and repairs On site available for inspection	Principal Contractor
21.	19(2)(g)(i)	Issuing and collection of cartridges and nails or studs (Explosive Powered Tools) recorded in register – recipient signed for receipt as well as return	Principal Contractor
22.	21(1)(d)	Findings of daily inspections (prior to use) of Construction Vehicles and Mobile Plant	Principal Contractor

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23.	22(d)	Record of temporary electrical installation inspections [once a week] and electrical machinery [daily before use] in a register and kept on site	Principal Contractor
24		Copies of all appointments made in regard to safety supervisors and inspectors	Principal Contractor
25		Record of safety inspections on equipment using radioactive materials.	Principal Contractor

ANNEXURE B**OCCUPATIONAL HEALTH AND SAFETY AUDIT SYSTEM****ADMINISTRATIVE & LEGAL REQUIREMENTS**

Subject	Requirements	Yes/No	COMMENTS
Notice of carrying out Construction work	Department of Labour notified Copy of Notice available on Site		
Copy of OH&S Act (Act 85 of 1993)	Updated copy of Act & Regulations on site Readily available for perusal by employees		
Registration with Compens. Insurer	Written proof of registration / Letter of good standing available on Site		
OH&S Specification & Plan	OH&S Specification received from Client OH&S plan developed Updated regularly		
Hazard Identification & Risk Assessment	Hazard Identification carried out/Recorded Risk Assessment and Plan drawn up/Updated Risk Assessment Plan available on Site Employees/Subcontractors informed/trained		
Assigned duties (Managers)	Responsibility of complying with the OH&S Act assigned to other person/s by CEO.		
Designation of Person Responsible on Site	Competent person appointed in writing as Construction Supervisor		
Designation of Subordinate Person	Competent person appointed in writing as Sub-ordinate Construction Supervisor		

Subject	Requirements	Yes/No	COMMENTS
Designation of Occupational Health & Safety Representatives	More than 20 employees - one OH&S Representative, one additional OH&S Rep. for each 50 employees or part thereof. Designation in writing, period and area of responsibility specified. Meaningful OH&S Rep. reports. Reports actioned by Management.		
Occupational Health & Safety Committee/s	OH&S Committee/s established. Members appointed in writing. Meetings held monthly. Minutes kept. Actioned by Management.		
Agreement with Mandataries (Subcontractors)	Written agreement with Subcontractors. List of Subcontractors displayed. Proof of Registration with Compensation Insurer/Letter of Good Standing Construction Work Supervisor designated Written arrangements concerning OH&S Reps & OH&S Committee Written arrangements regarding First Aid		
Fall Prevention & Protection	Competent person appointed to draw up and supervise the Fall Protection Plan Proof of appointees competence available on Site Risk Assessment carried out for work at heights Fall Protection Plan drawn up/updated Available on Site		

Subject	Requirements	Yes/No	COMMENTS
Structures	Information re. The structure being erected received from the Designer including: Geo-science technical report where relevant The design loading of the structure The methods & sequence of construction -Anticipated dangers / hazards / special Measures to construct safely Risk Assessment carried out Method statement drawn up All above available on Site Structures inspected before each shift. Inspections register kept		
Formwork & Support work	Competent person appointed in writing to supervise erection, maintenance, use and dismantling of Support & Formwork Design drawings available on site Risk Assessment carried out Support & Formwork inspected before use/inspection Before pouring of concrete Weekly whilst in place - Before stripping/dismantling. Inspection register kept		
Scaffolding	Competent persons appointed in writing to: Erect scaffolding (Scaffold Erector/s) Act as Scaffold Team Leaders Inspect Scaffolding weekly and after inclement weather (Scaffold Inspector/s) Written Proof of Competence of above appointees available on Site Copy of SABS 085 available on Site Risk Assessment carried out Inspected weekly/after bad weather. Inspection register/s kept		
Suspended Scaffolding	Competent persons appointed in writing to: Erect Susp. Scaffolding (Scaffold Erector/s) Act as Susp. Scaffold Team Leaders		

Subject	Requirements	Yes/No	COMMENTS
	<p>Inspect Susp. Scaffolding weekly and after inclement weather (Scaffold Inspector/s) Risk Assessment conducted Certificate of Authorization issued by a registered professional Engineer available on Site/copy forwarded to the Department of Labour The following inspections of the whole installation carried out by a competent person After erection and before use Daily prior to use. Inspection register kept The following tests to be conducted by a competent person: Load test of whole installation and working parts every 12 months - Hoisting ropes/hooks/load-attaching devices quarterly. Tests log book kept Employees working on Susp. Scaffold medically examined for physical & psychological fitness. Written proof available</p>		
Excavations	<p>Competent person/s appointed in writing to supervise and inspect excavation work Written Proof of Competence of above appointee/s available on Site Risk Assessment carried out Inspected: Before every shift After any blasting After an unexpected fall of ground After any substantial damage to the shoring After rain. Inspections register kept Method statement developed where explosives will be/ are used</p>		
Demolition Work	<p>Competent person/s appointed in writing to supervise and control Demolition work Written Proof of Competence of above appointee/s available on Site Risk Assessment carried out Engineering survey and Method Statement available on Site Inspections to prevent premature collapse carried out by competent person before each shift. Inspection register kept</p>		

Subject	Requirements	Yes/No	COMMENTS
Materials Hoist	Competent person appointed in writing to inspect the Material Hoist Written Proof of Competence of above appointee available on Site. Materials Hoist to be inspected weekly by a competent person. Inspections register kept.		
Explosive Powered Tools	Competent person appointed to control the issue of the Explosive Powered Tools & cartridges and the service, maintenance and cleaning. Register kept of above Empty cartridge cases/nails/fixing bolts returns recorded Cleaned daily after use		
Batch Plants	Competent person appointed to control the operation of the Batch Plant and the service, maintenance and cleaning. Register kept of above Risk Assessment carried out Batch Plant to be inspected weekly by a competent person. Inspections register kept		
Cranes & Lifting Machines Equipment	Competent person appointed in writing to inspect Cranes, Lifting Machines & Equipment Written Proof of Competence of above appointee available on Site. Cranes & Lifting tackle identified/numbered Register kept for Lifting Tackle Log Book kept for each individual Crane Inspection: All cranes - daily by operator -Tower Crane/s - after erection/6monthly Other cranes - annually by comp. Person Lifting tackle (slings/ropes/chain slings Etc.) - 3 monthly Risk Assessment carried out		
Inspection & Maintenance of Electrical Installation & Equipment (including portable electrical tools)	Competent person appointed in writing to inspect/test the installation and equipment. Written Proof of Competence of above appointee available on Site. Inspections:		

Subject	Requirements	Yes/No	COMMENTS
	Electrical Installation & equipment inspected after installation, after alterations and quarterly. Inspection Registers kept Portable electric tools and - lights and extension leads identified/numbered. Monthly visual inspection by User/Issuer/Storeman. Register kept.		
Designation of Stacking & Storage Supervisor.	Competent Person/s with specific knowledge and experience designated to supervise all Stacking & Storage Written Proof of Competence of above appointee available on Site		
Designation of a Person to Co-ordinate Emergency Planning And Fire Protection	Person/s with specific knowledge and experience designated to co-ordinate emergency contingency planning and execution and fire prevention measures Emergency Evacuation Plan developed: Drilled/Practiced Plan & Records of Drills/Practices available on Site Fire Risk Assessment carried out All Fire Extinguishing Equipment identified and on register. Inspected weekly. Inspection Register kept Serviced annually		
First Aid	Every workplace provided with sufficient number of First Aid boxes. (Required where 5 persons or more are employed) First Aid freely available Equipment as per the list in the OH&S Act. One qualified First Aider appointed for every 50 employees. (Required where more than 10 persons are employed) List of First Aiders and Certificates Name of person/s in charge of First Aid box/es displayed. Location of F/Aid box/es clearly indicated. Signs instructing employees to report all Injuries/illness including first aid injuries		
Personal Safety Equipment (PSE)	PSE Risk Assessment carried out Items of PSE prescribed/use enforced Records of Issue kept Undertaking by Employee to use/wear PSE		

Subject	Requirements	Yes/No	COMMENTS
*Inspection & Use of Welding/Flame Cutting Equipment	Competent Person/s with specific knowledge and experience designated to Inspect Electric Arc, Gas Welding and Flame Cutting Equipment Written Proof of Competence of above appointee available on Site Equipment identified/numbered and entered into a register Equipment inspected monthly. Inspection Register kept		
*Control of Storage & Usage of HCS	Competent Person/s with specific knowledge and experience designated to Control the Storage & Usage of HCS Written Proof of Competence of above appointee available on Site Risk Assessment carried out Register of HCS kept/used on Site		
Vessels under Pressure (VUP)	Competent Person/s with specific knowledge and experience designated to supervise the use, storage, maintenance, statutory inspections & testing of VUP's Written Proof of Competence of above appointee available on Site Risk Assessment carried out Certificates of Manufacture available on Site Register of VUP's on Site Inspections & Testing by Approved Inspection Authority (AIA): After installation/re-erection or repairs Every 36 months. Register/Log kept of inspections, tests. Modifications & repair		

Subject	Requirements	Yes/ No	COMMENTS
Construction Vehicles & Earth Moving Equipment	Operators/Drivers appointed to: Carry out a daily inspection prior to use Drive the vehicle/plant that he/she is competent to operate/drive Written Proof of Competence of above appointee available on Site Record of Daily inspections kept		
Inspection of Ladders	Competent person appointed in writing to inspect Ladders Ladders inspected at arrival on site and monthly there after. Inspections register kept		
Ramps	Competent person appointed in writing to Supervise the erection & inspection of Ramps. Inspection register kept.		
OTHER	Any items which are not covered in the audit but require attention by the PC (e.g. updated method statements, safe work procedures etc.).		

ANNEXURE C

HAZARDOUS TASK IDENTIFICATION

(The list given is not inclusive and other hazardous tasks may be identified as the construction progresses)

CONSTRUCTION OF MATHE ACCESS ROAD (WARD 09)

MAIN TASK	SUB TASK
ACCOMMODATION OF TRAFFIC	Manning of stop/go signs
	Dust
	Traffic speed
	Provision of safety equipment
	Working next to traffic
	Erection of signage
CONCRETE WORK	Operation of small mixers
	Placing concrete with ready mix trucks/dumpers
	Placing concrete manually
	Finishing of concrete surfaces
	Operations in pre-cast yard
DEMOLITION	Using hand breakers
	Using manual labour
	Removal of spoil
EARTHMOVING AND LAYERWORKS	Use of earthmoving plant, e.g. bulldozers, graders and excavators
	Use of rollers
	Use of tip trucks and other transportation
EXCAVATING	By manual labour
	By excavating equipment e.g. TLB
	Operations inside excavations
	In narrow trench
FIRE	Use and placement of fire extinguishers
	Fire fighting
SHUTTERING AND FORMWORK	Off-loading and handling
	Storage
	Erection and removal
MISCELLANEOUS	Site Establishment
	Housekeeping
	General storage
	Movement of equipment
	Use of personal transport
SURFACING	Use, storage and handling of bituminous products
	Distributors
	Spraying by hand
	Use of paving machines (Chip spreader)
	Use of rollers
	Use of heating apparatus
CULVERTS AND STORM WATER Other than noted in previous sections	Moving and placing of pipes
	Bedding
	Placing and compacting fill
WORKSHOPS	Use of small electrical tools
	Gas and Flame Cutting
	Welding
	Explosive powered tools
	Use of general workshop equipment
	Tyre repair
	Use of jacking and lifting apparatus
HAZADOUS MATERIALS	Petrol
	To be added to as required
	Materials safety date sheets as required
	Cement and cement bags

CONSTRUCTION OF MATHE ACCESS ROAD (WARD 09)

	Road lime and lime bags
	Flammable materials
	Gas bottles

ANNEXURE D**CONTENTS OF THE PRINCIPAL CONTRACTOR'S OCCUPATIONAL HEALTH AND SAFETY PLAN**

CONTENTS

- 1.0 INTRODUCTION
- 2.0 SCOPE
- 3.0 LEGAL REQUIREMENTS
- 4.0 STRUCTURE & RESPONSIBILITY FOR OCCUPATION HEALTH & SAFETY
- 5.0 GENERAL OH&S PROVISIONS

How the following will be managed:

- 5.1. Risk Assessment
 - 5.2. Administrative Controls & OH&S File
 - 5.3. OH&S Goals & Objectives
 - 5.4. Training, Awareness & Competence (including the induction of workers, staff and visitors)
 - 5.5. Consultation & Communication: with the Client, Consultant and Workforce.
 - 5.6. Checking, Reporting & Corrective Action
 - 5.7. Incident Reporting
 - 5.8. Accident/ Incident Investigation
 - 5.9. Occupational Health and Safety issues
- 6.0. OPERATIONAL CONTROL
 - 6.1. Notification of Construction Work
 - 6.2. Emergency Preparedness, Contingency Planning & Response
 - 6.3. First Aid
 - 6.4. Security
 - 6.5. Excavation Work
 - 6.6. Fall Protection
 - 6.7. Cranes & Lifting Equipment
 - 6.8. Construction Vehicles & Mobile Plant
 - 6.9. Electrical Installations
 - 6.10. Electrical & Mechanical Lock-out
 - 6.11. Use & Storage of Flammables
 - 6.12. Housekeeping
 - 6.13. Stacking & Storage
 - 6.14. Storage of Hazardous Chemical Substances (including flammables)
 - 6.15. Fire Prevention & Protection
 - 6.16. Eating, Changing, Washing and Toilet Facilities
 - 6.17. Personal Protective Equipment
 - 6.18. Portable Electrical Tools & Equipment
 - 6.19. Public Health & Safety
 - 6.20. Protection of Overhead & Underground Services
 - 6.21. Protecting the Environment
 - 6.22. Welding & Flame Cutting
 - 6.23. Contractors
 - 6.24. Method statements and Safe Work procedures
 - 7.0. SITE SPECIFIC REQUIREMENTS
 - 8.0. ANNEXURES
 - Annexure 1: Legal Compliance Audit
 - Annexure 2: Measuring Injury Experience
 - Annexure 3: OHS Risk Management Report
 - Annexure 4: Guide to Risk Assessment
 - Annexure 5: Guideline to the Development of a Health & Safety Plan
 - Annexure 6: List of Risk Assessments

C3.4.3 Construction Environmental Management Plan**WORKS SPECIFICATIONS****PART C: ENVIRONMENTAL MANAGEMENT PLAN****PES1 GENERAL**

The Contract shall be conducted in accordance with the principles of Integrated Environmental Management (IEM) "in an environmentally and socially responsible manner" (DEAT 1992). This section details the controls and procedures necessary to achieve this goal.

The Contractor will be required to comply with the Project Environmental Specifications contained in this section. Should any conflict arise between the specifications contained in this section, and any other specification, the Project Environmental Specifications shall prevail.

The specifications detailed in this section relate to those construction activities which could have an adverse impact on the environment and which therefore require mitigation measures.

Items have been included in the Preliminary and General section of the Bill of Quantities to reflect compliance with the Project Environmental Specifications. Where no item is provided in the Bill of Quantities, the Contractors rates will be deemed to be inclusive of any costs incurred for compliance with the Project Environmental Specification.

PES2 WORKING AREA

An area of the site will be defined by the Engineer for use by the contractor. This area will include the designated areas listed below and the contractor will not be permitted access beyond this defined area, except for the security personnel will be required to patrol a wider area to prevent informal settlements.

Within the defined working area mentioned above, certain areas will be specifically designated by the Engineer for the following activities:

- site camp
- stockpiling and storage of construction materials

In order to minimise the potential for erosion, vehicle access between the above-mentioned areas will be restricted to corridors defined by the Engineer, and multiple access tracks across the veld will not be permitted. Should excessive vehicle tracks be made, the Contractor shall be required to rehabilitate the extra tracks at his own cost. Rehabilitation shall involve ripping of the compacted earth to a depth of 150mm to loosen the earth, and grass seeding according to specification.

PES3 SITE CAMPS

Where site camps are to be established the topsoil is to be removed to the base of the A-horizon or to a depth of 150mm, whichever is the greater, and stockpiled according to the SANS specifications.

The site shall be located more than 20m from watercourses. Runoff from the site must be prevented from entering the watercourse or wetland.

Site camps and surrounds are to be maintained in a clean orderly and presentable condition at all times.

Waste water from kitchen and ablution facilities shall be led to soak pits and shall not be discharged to rivers or streams.

Tanks for fuels oils etc. shall be bounded with earth berms adequate to contain any possible spills.

After completion of the Works the contractor shall restore the area used by him to its former condition, including removal of rubble and foundations, and to the satisfaction of the Engineer.

PES4 SANITATION

Adequate toilet facilities are to be provided within 200m of the Works. All toilets shall be maintained by the Contractor in a clean sanitary condition to the satisfaction of the Engineer. Toilets shall not be located on flood plains where the possibility of flooding exists.

Contractors shall instruct their staff and sub-contractors that they must use the toilets provided and not the veld, bush or streams.

PES5 REFUSE

The site is to be kept clean, neat and tidy to the Engineer's satisfaction. The Contractor shall provide bins at the Work sites and shall be responsible for disposal of refuse and waste generated by his staff daily. Domestic litter or construction waste may not be left lying about on site.

Refuse and construction waste shall be disposed of at an approved dump site.

No burning of refuse is permitted.

PES6 DUST

Dust is regarded as a nuisance when it reduces visibility, soils private property or is aesthetically displeasing. Dust also reduces the value of grazing grasses and retards plant growth.

Dust generated by construction related activities must therefore be minimised.

The Contractor shall control dust over the site of the Works, on access roads/tracks, on stockpiles and spoil sites or borrow pits.

Control of dust shall involve spraying with water. The quantities of water used should not be large enough or applied with sufficient force to generate run off which could result in soil erosion. A water cart shall be provided by the Contractor to control dust levels.

PES7 NOISE

Noise levels are to be kept within reasonable norms as determined by the Engineer, taking into account the context of the rural setting.

Silencers shall be fitted to all machinery and vehicles shall be well maintained.

The Contractor shall inform residents of any excessive noise that is anticipated due to construction activities, for example blasting for excavation. This notice shall be given at least 2 days before the event generating higher noise levels.

Any complaints received by the Engineer regarding noise will be recorded and communicated to the Environmental Control Officer.

PES8 SOCIAL DISRUPTION

The Contractor's staff shall in no way be a nuisance to residents in the vicinity of construction activities. Any complaints received by the Engineer will be addressed and the relevant persons will face suspension from the project.

No access to private property will be allowed.

PES9 INFORMAL SETTLEMENTS

The Contractor shall require his security personnel to patrol the entire site (not just the site of current operations as defined in PES3) and report any sign of informal shack development within three hours of commencement of such activity.

PES10 TRAFFIC

Traffic, especially heavy vehicle traffic, has the potential to draw complaints from other road users and neighbours. The Contractor will be expected to address any complaints received.

The Contractor shall instruct his drivers, suppliers, plant operators and any other vehicle operators travelling to and from the site as a result of the construction contract, that vehicles will be expected to comply with all roads ordinances, particularly with regard to.

- Speed limits
- Preventing Overloading
- Roadworthiness
- Securing of loads
- Covering of any loads that could generate dust
- Avoiding spillage of liquids, sand, soil or other material

General consideration and courtesy to other road users will also be expected of drivers.

PES11 OVERHEAD POWER LINES

Where work is being carried out in the vicinity of overhead power lines, the Contractor is responsible for ensuring that all persons working in such areas are aware of the relatively large distance that high voltage electricity can 'short' to earth when large masses of steel such as steel pipes or machinery are close to power lines. The Contractor's attention is drawn to OHSA (1993) which gives safe clearances for various voltages.

PES12 REMOVAL OF PROTECTED PLANTS FROM SITE

Certain species of indigenous plants that occur on the site are protected by law. A horticulturist has been designated the responsibility for relocating these plants from the "Working Area" prior to the Contractor moving on site.

No removal of any plants from beyond the Working Area will be permitted. The Contractor shall be responsible to ensure that no unauthorized removal of plants is allowed. In the event of removal of legally protected species, the persons responsible shall be liable for prosecution under the relevant provincial ordinance. Security Staff will report any infringements related to this.

The Contractor shall confirm with the ECO that the horticulturist has removed the said plants from the Working Area before the Contractor moves on site.

PES13 FIRE PREVENTION AND CONTROL

The Contractor and his staff are expected to be very conscious of fire risks. The Contractor shall hold fire prevention talks with staff to create an awareness of the risks of fire. Regular reminders to staff on this issue are required.

The Contractor shall at all times ensure that fires do not start or spread within the site or the environs thereof as a result of the Works or the actions of employees. In the event of such fire the Contractor shall immediately employ such plant and labour as is at his disposal and shall take all other necessary action to bring any such fire under control, all at his own cost.

A fire extinguisher must be on hand whenever welding or any other spark generating activity is conducted.

In addition, rubber beaters are to be on hand at all workstations at all times as these represent the quickest form of response to fire.

No fires may be made other than for the purpose of cooking. Cooking fires must be contained in a fire drum and be in a designated area approved by the Engineer. All fires are to be extinguished with water once they have served their purpose.

No fire is to be left unattended at any time.

No burning of grassland to clear is permitted.

No cutting of timber for firewood will be allowed.

No fires are to be allowed when the Fire Danger Index is high (46 and above) i.e. fire alert stage yellow.

The Contractor shall be liable for all costs and damages resulting from fire and firefighting.

PES14 ENVIRONMENTAL TRAINING

The Contractor shall be responsible for conducting Environmental Training amongst his employees to ensure that they have the necessary knowledge to comply with the Environmental Specifications. Employees should be made aware of the Environmental Specifications and the reasons for them.

PES15 WORK STOPPAGE

The Engineer shall have the right to order work to be stopped in the event of significant infringements of the Environmental Specifications until the situation is rectified in compliance with the specifications. In this event the Contractor shall not be entitled to claim for delays.

This clause shall apply in the case of infringements of a nature whereby full remediation of circumstances arising from the infringement will not be possible at a later date. For example mixing topsoil with subsoil; activities that are polluting or may cause pollution of water.

PES16 ENVIRONMENTAL MONITORING

The Engineer will monitor the Contractor's performance in relation to the Environmental Specifications on a daily basis. He will be assisted in this regard by the Environmental Control Officer.

The ECO shall inspect the site on a regular basis. After each ECO site visit a report will be submitted to the Engineer and UMhlabuyalingana Local Municipality. The content of these reports will be made known to the Contractor by the Engineer. Any infringement of the Environmental Specification will be indicated in the report. These reports will also aim to anticipate problems which may arise so that the Contractor can be alerted to potential environmental risks and take appropriate action.

PES17 MEASUREMENT AND PAYMENT

The Tendered rates shall be deemed to cover all costs associated with the compliance with the Environmental Specification.

C3.4.4 Drawings

1. Bound into this Document

<u>Drawing Number</u>	<u>Description</u>
IZH-0426-MATH-LAY-200	KEY PLAN
IZH-0526-MATH-LAY-201	GENERAL LAYOUT & SETTING DATA OUT DETAILS
IZH-0526-MATH-LAY-202	GENERAL LAYOUT & SETTING DATA OUT DETAILS
IZH-0526-MATH-LS-203	PLAN AND LONGITUDINAL SECTION: CHAINAGE 0.00-1000m
IZH-0526-MATH-LS-204	PLAN AND LONGITUDINAL SECTION: CHAINAGE 1000-2000m
IZH-0526-MATH-LS-205	PLAN AND LONGITUDINAL SECTION: CHAINAGE 2000-2520m
IZH-0526-MATH-LS-206	PLAN AND LONGITUDINAL SECTION: CHAINAGE 1000-2000m
IZH-0526-MATH-LS-207	PLAN AND LONGITUDINAL SECTION: CHAINAGE 2000-2520m
IZH-0526-MATH-XS-208	ROAD CROSS SECTION: CHAINAGE 0.00-540m
IZH-0526-MATH-XS-209	ROAD CROSS SECTION: CHAINAGE 0.00-540m
IZH-0526-MATH-XS-210	ROAD CROSS SECTION: CHAINAGE 0.00-540m
IZH-0526-MATH-XS-211	ROAD CROSS SECTION: CHAINAGE 0.00-540m
IZH-0526-MATH-XS-212	ROAD CROSS SECTION: CHAINAGE 0.00-540m
IZH-0526-MATH-XS-213	ROAD CROSS SECTION: CHAINAGE 0.00-540m
IZH-0526-MATH-STD-214	TYPICAL CROSS SECTIONS: TYPE 7A LOCAL GRAVEL ROAD
IZH-0526-MATH-STD-215	SETTING OUT DETAILS TYPE B1/B3 ACCESS
IZH-0526-MATH-STD-216	CLASS C PIPE BEDDING
IZH-0526-MATH-STD-217	DEPRESSED INLET
IZH-0526-MATH-STD-218	PIPE CULVRT HEADWALL (MESONRY)

NOTE:

Originals of reduced drawings are available for inspection at the offices of the Engineer, or copies may be purchased by arrangement with the Engineer. No claims for misunderstanding reduced drawings will be considered.

Part C4: Site Information

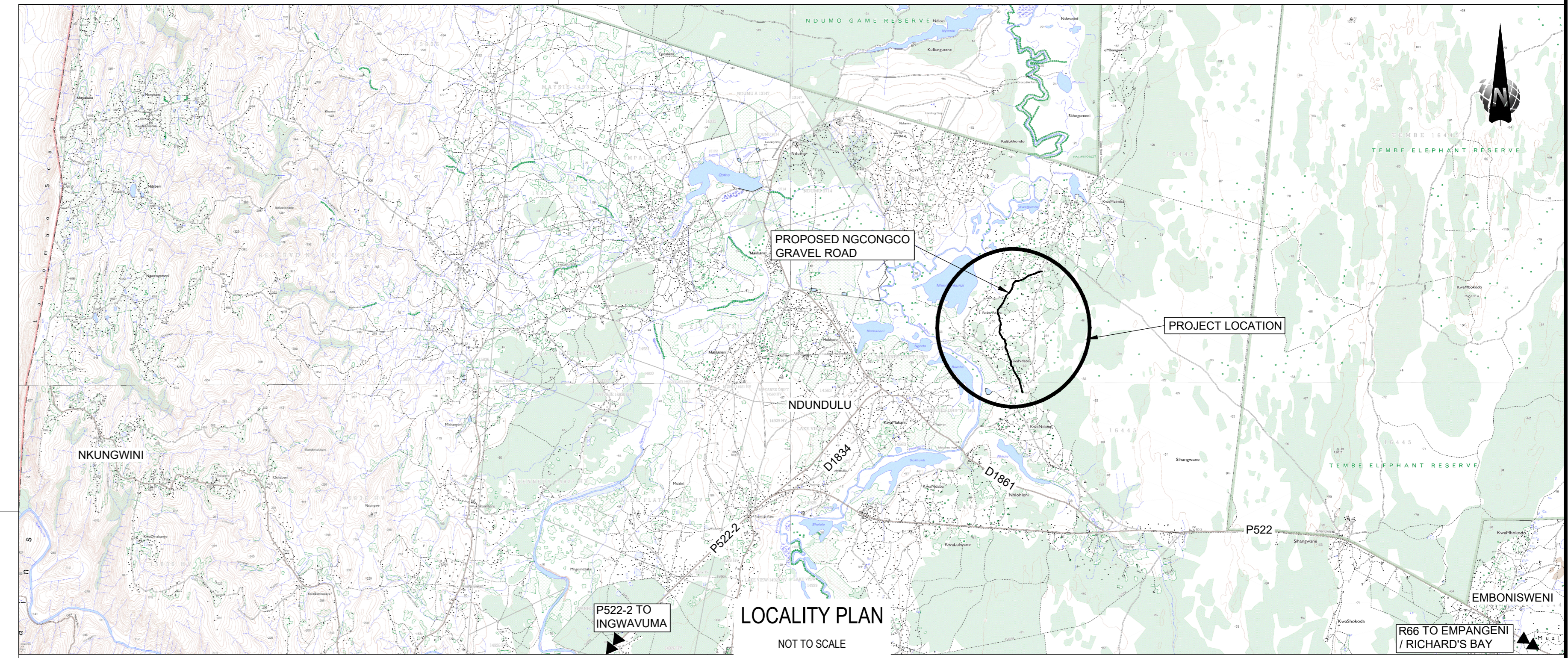
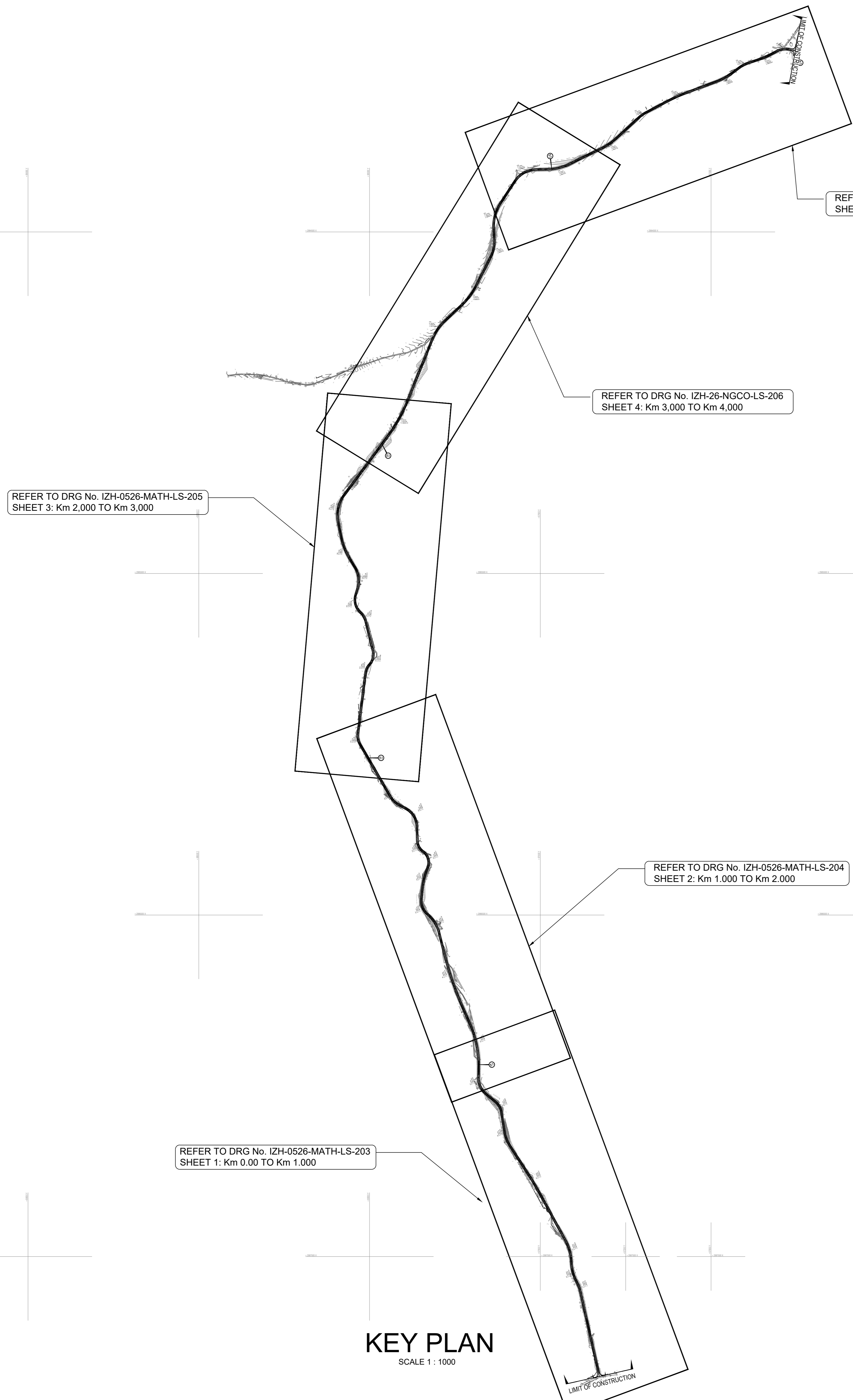
	<u>Page</u>
C4.1 Geotechnical Investigation	189

C4.1. Geotechnical Investigation

Geotechnical Investigation Report to be made available to the successful Tenderer.

LEGEND	
⊕	POWER POLE
⊕	MANHOLE
∇	VALVE
⊕	BENCHMARK
⊕	TOILET
—	FENCE
⊕	SIGN POST
⊕	BORHOLE
⊕	WATER TANK
⊕	TREE
⊕	PALM TREE
⊕	LIGHT POLE
⊕	SIGN POST
⊕	FLOWER
—	POWERLINE
—	ELECTRIC POLE & STAY WIRES
⊕	BENCHMARKS
⊕	ELECTRIC LIGHT POLE
—	FENCE LINE
—	GRAVEL ROAD

BENCHMARKS INFORMATION : WGS 84 Lo 31° SYSTEM				
NAME	Y	X	LEVEL	PEG
BM01	66766.625	2 983 945.770	51.989	
BM02	67682.141	2 984 663.656	49.586	
BM03	68026.145	2 985 531.801	57.007	
BM04	67487.745	2 987 357.684	61.140	
BM05	67347.687	2 987 850.864	49.764	



INDEX TO DRAWINGS

ROADWORKS DRAWINGS				STANDARD DETAILS	
DESCRIPTION	DISTANCE	SHEET	DWG No.	DESCRIPTION	DWG No.
KEY PLAN AND INDEX TO DRAWINGS				TYPICAL CROSS SECTIONS: TYPE 7A LOCAL GRAVEL ROAD	IZH-0526-MATH-STD-214
GENERAL LAYOUT & SETTING DATA OUT DETAILS	km 0.00 to km 2.000	1 of 2	IZH-0526-MATH-LAY-200	SETTING OUT DETAILS TYPE B1/B3 ACCESS	IZH-0526-MATH-STD-215
GENERAL LAYOUT & SETTING DATA OUT DETAILS	km 2.00 to km 4.807	2 of 2	IZH-0526-MATH-LAY-201 IZH-0526-MATH-LAY-202	CLASS C PIPE BEDDING	IZH-0526-MATH-STD-216
PLAN AND LONGITUDINAL SECTION: CHAINAGE 0.00m - 1000m	km 0.000 to km 1.000	1 of 5	IZH-0526-MATH-LS-203	DEPRESSED INLET	IZH-0526-MATH-STD-217
PLAN AND LONGITUDINAL SECTION: CHAINAGE 1000m - 2000m	km 1.000 to km 2.000	2 of 5	IZH-0526-MATH-LS-204	PIPE CULVERT HEADWALL (MASONRY)	IZH-0526-MATH-STD-218
PLAN AND LONGITUDINAL SECTION: CHAINAGE 2000m - 2520.00m	km 2.000 to km 3.000	3 of 5	IZH-0526-MATH-LS-205		
PLAN AND LONGITUDINAL SECTION: CHAINAGE 1000m - 2000m	km 3.000 to km 4.000	4 of 5	IZH-0526-MATH-LS-206		
PLAN AND LONGITUDINAL SECTION: CHAINAGE 2000m - 2520.00m	km 4.000 to km 4.807	5 of 5	IZH-0526-MATH-LS-207		
ROAD CROSS SECTION: CHAINAGE 0.00m - 540m	km 0.00 to km 0.540	1 of 6	IZH-0526-MATH-XS-208		
ROAD CROSS SECTION: CHAINAGE 560m - 1100m	km 0.560 to km 1.100	2 of 6	IZH-0526-MATH-XS-209		
ROAD CROSS SECTION: CHAINAGE 1120m - 1660m	km 1.120 to km 1.660	3 of 6	IZH-0526-MATH-XS-210		
ROAD CROSS SECTION: CHAINAGE 1680m - 2220m	km 1.680 to km 2.220	4 of 6	IZH-0526-MATH-XS-211		
ROAD CROSS SECTION: CHAINAGE 2240m - 2593m	km 2.240 to km 2.593	5 of 6	IZH-0526-MATH-XS-212		
ROAD CROSS SECTION: CHAINAGE 2240m - 2593m	km 2.240 to km 2.593	6 of 6	IZH-0526-MATH-XS-213		

ISSUED FOR TENDER

D:\2025\2025\WORK\ACCESS ROADS\WATER ACCESS ROAD IN WARD 09.dwg | BHEU:STHOLE | 2025/04/20 16:16

DRAWING NUMBER	DESCRIPTION	DRAWING NUMBER	DESCRIPTION	No	DATE	DETAILS	CHECKED	APPROVED

DESIGNED	N. BUTHLEZI	APRIL 2026
DRAWN	B. SITHOLE	APRIL 2026
REVIEW	N. BUTHLEZI	APRIL 2026
APPROVED	APRIL 2026	
NAME	N. BUTHLEZI	
SIGNATURE:	202301158	

CONSULTANT

5 CHARTER STREET
EMPANGENI
3880

TEL: 035 907 5000
FAX: 086 459 4537
E-MAIL: info@izingaholdings.co.za

CLIENT

UMHLABUYALINGANA MUNICIPALITY
MAIN ROAD R22, KWANGWANASE
PRIVATE BAG X901
KWA MBONAMBI, 3915

TEL: 035 592 0672
E: info@mlabuyalingana.gov.za

PROJECT/DRAWING TITLE

CONSTRUCTION OF MATHE GRAVEL ROAD
IN WARD 09

KEY PLAN AND INDEX TO DRAWINGS

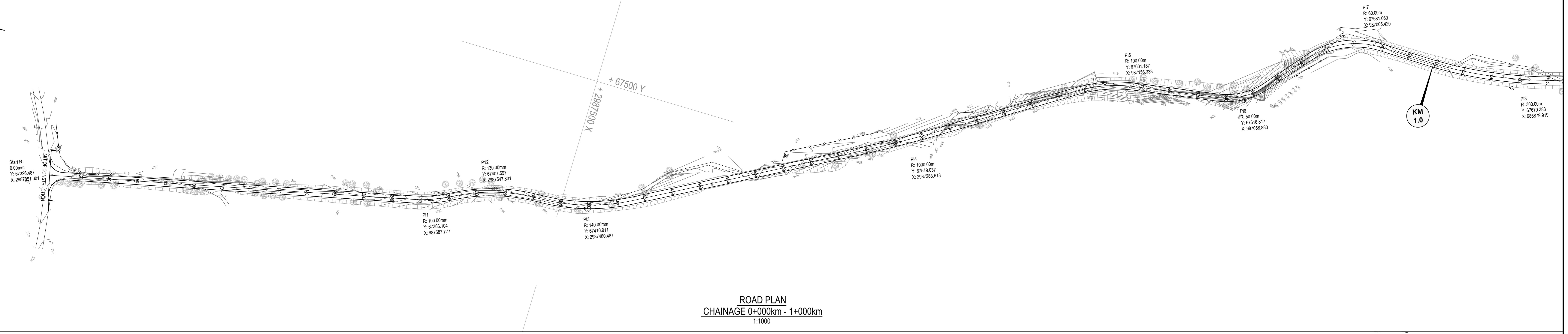
SCALE 1:1000	SHEET SHEET 1 OF 1
CONTRACT No.	PROJECT No.
DRAWING No. IZH-0526-MATH-LAY-201	REV A

CURVE LIST						
No	Radius	TR In	TR Out	TAN In	TAN Out	Deflection
18	45.00	0.00	0.00	13.73	13.73	33.56.30
19	45.00	0.00	0.00	23.38	23.38	54.54.30
20	50.00	0.00	0.00	13.69	13.69	30.38.00
21	50.00	0.00	0.00	29.37	29.37	60.51.51
22	75.00	0.00	0.00	33.01	33.01	47.30.22
23	200.00	0.00	0.00	34.47	34.47	19.33.35
24	100.00	0.00	0.00	44.74	44.74	46.12.40
25	500.00	0.00	0.00	44.26	44.26	14.38.47
26	150.00	0.00	0.00	32.85	32.85	24.42.31
27	200.00	0.00	0.00	34.79	34.79	19.44.00
28	100.00	0.00	0.00	26.72	26.72	29.55.07
29	125.00	0.00	0.00	40.92	40.92	36.14.57
30	75.00	0.00	0.00	39.24	39.24	55.14.06
31	150.00	0.00	0.00	32.47	32.47	24.25.45
32	200.00	0.00	0.00	29.49	29.49	16.46.32
33	100.00	0.00	0.00	13.07	13.07	14.53.21
34	500.00	0.00	0.00	32.72	32.72	7.29.19
35	200.00	0.00	0.00	29.43	29.43	16.44.24
36	100.00	0.00	0.00	16.54	16.54	18.46.59
37	200.00	0.00	0.00	15.92	15.92	9.06.00
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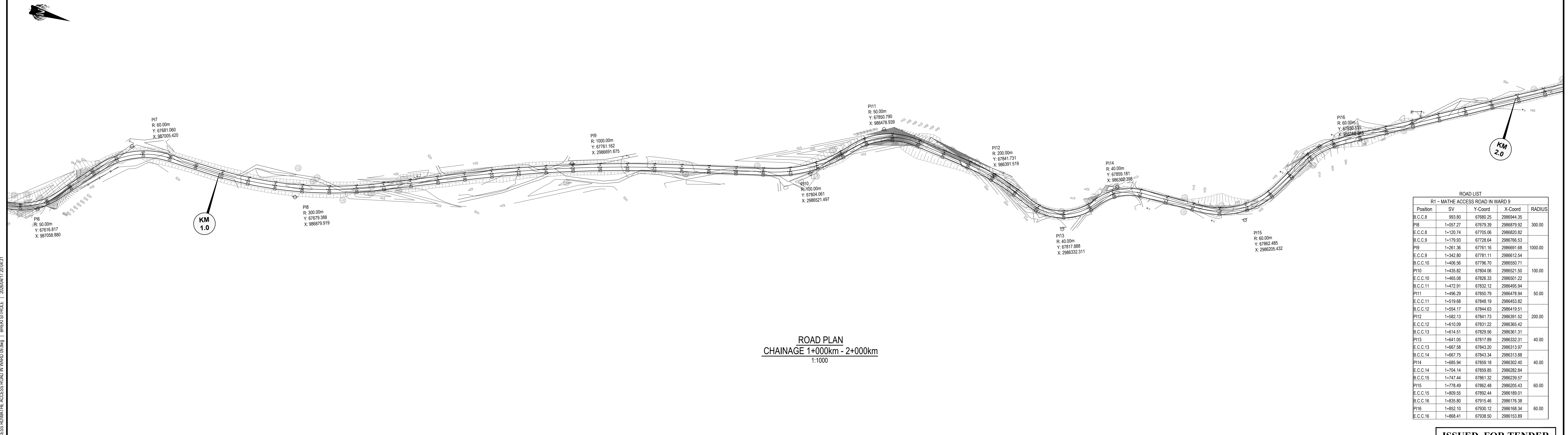
ROAD LIST				
Position	SV	Y-Coord	X-Coord	RADIUS
Start	0	67206.49	2987651.00	0.00
B.C.C.1	256.26	67363.09	2987601.07	
PI1	269.81	67366.10	2987587.78	100.00
E.C.C.1	283.35	67392.56	2987575.78	
B.C.C.2	285.71	67393.68	2987573.70	
PI2	314.60	67407.60	2987547.83	130.00
E.C.C.2	343.49	67409.04	2987518.49	
B.C.C.3	349.27	67409.32	2987512.72	
PI3	380.99	67410.91	2987480.49	140.00
E.C.C.3	412.70	67426.44	2987452.20	
B.C.C.4	569.57	67501.96	2987314.71	
PI4	606.03	67519.04	2987283.61	1000.00
E.C.C.4	640.49	67538.27	2987253.81	
B.C.C.5	735.50	67589.80	2987173.98	
PI5	756.20	67601.19	2987156.33	100.00
E.C.C.5	776.91	67604.51	2987135.59	
B.C.C.6	835.85	67615.85	2987077.40	
PI6	853.79	67616.82	2987058.85	50.00
E.C.C.6	871.73	67631.23	2987046.58	
B.C.C.7	907.94	67656.06	2987023.72	
PI7	934.64	67681.06	2987005.42	60.00
E.C.C.7	961.34	67686.68	2986976.81	

BENCHMARKS INFORMATION : WGS 84 Lo 31° SYSTEM				
NAME	Y	X	LEVEL	PEG
BM01	66766.625	2 983 945.770	51.989	
BM02	67682.141	2 984 663.656	49.586	
BM03	68202.145	2 985 531.801	57.007	
BM04	67487.345	2 987 357.684	61.140	
BM05	67347.687	2 987 850.864	49.764	

LEGEND	
	POWER POLE
	MANHOLE
	VALVE
	BENCHMARK
	TOILET
	FENCE
	SIGN POST
	BOREHOLE
	WATER TANK
	TREE
	PALM TREE
	LIGHT POLE
	SIGN POST
	FLOWER
	POWERLINE
	ELECTRIC POLE & STAY WIRES
	BENCHMARK
	ELECTRIC LIGHT POLE
	FENCE LINE
	GRAVEL ROAD



ROAD PLAN
CHAINAGE 0+000km - 1+000km
1:1000



ROAD PLAN
CHAINAGE 1+000km - 2+000km
1:1000

ROAD LIST				
Position	SV	Y-Coord	X-Coord	RADIUS
B.C.C.8	993.80	67680.25	2986944.35	
PI8	1-057.27	67679.39	2986879.92	300.00
E.C.C.8	1-120.74	67705.06	2986820.82	
B.C.C.9	1-179.93	67728.64	2986766.53	
PI9	1-261.36	67761.16	2986691.68	1000.00
E.C.C.9	1-342.80	67781.11	2986612.54	
B.C.C.10	1-406.56	67796.70	2986550.71	
PI10	1-435.82	67804.06	2986521.50	100.00
E.C.C.10	1-465.08	67826.33	2986501.22	
B.C.C.11	1-472.91	67832.12	2986466.94	
PI11	1-436.29	67850.79	2986478.94	50.00
E.C.C.11	1-519.68	67848.19	2986453.82	
B.C.C.12	1-554.17	67844.63	2986419.51	
PI12	1-582.13	67841.73	2986391.52	200.00
E.C.C.12	1-610.09	67831.22	2986365.42	
B.C.C.13	1-614.51	67829.56	2986361.31	
PI13	1-641.06	67817.89	2986332.31	40.00
E.C.C.13	1-667.58	67843.20	2986319.97	
B.C.C.14	1-667.75	67843.34	2986313.86	
PI14	1-685.94	67859.18	2986302.40	40.00
E.C.C.14	1-704.14	67859.85	2986282.84	
B.C.C.15	1-747.44	67861.32	2986239.57	
PI15	1-778.49	67862.48	2986205.43	60.00
E.C.C.15	1-807.55	67862.44	2986189.01	
B.C.C.16	1-835.80	67915.46	2986176.38	
PI16	1-852.10	67936.12	2986168.34	60.00
E.C.C.16	1-868.41	67938.50	2986163.89	

ISSUED FOR TENDER

DRAWING NUMBER	DESCRIPTION	DRAWING REFERENCES

No	DATE	DETAILS	CHECKED	APPROVED

DESIGNED	N. BUTHELEZI	APRIL 2026
DRAWN	B. SITHOLE	APRIL 2026
REVIEW	N. BUTHELEZI	APRIL 2026
APPROVED	APRIL 2026	
NAME	N. BUTHELEZI	
SIGNATURE:	202201158	

CONSULTANT

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CLIENT

UMHLABUYALINGANA MUNICIPALITY

UMHLABUYALINGANA MUNICIPALITY
MAIN ROAD R22, KWANGWANASE
PRIVATE BAG X901
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PROJECT/DRAWING TITLE

CONSTRUCTION OF MATHE GRAVEL ROAD
IN WARD 09
GENERAL LAYOUT & SETTING DATA OUT DETAILS
km 0,00 to km 2,000

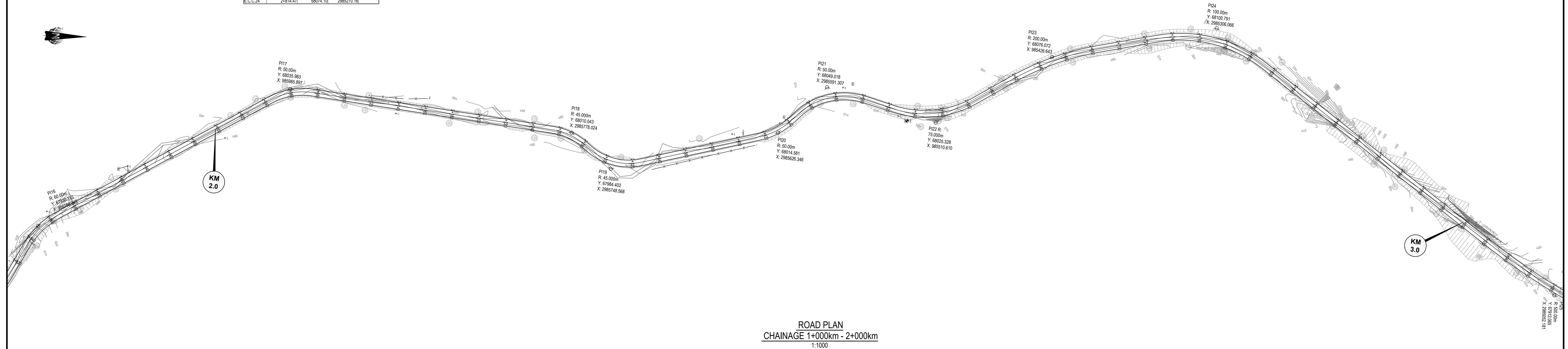
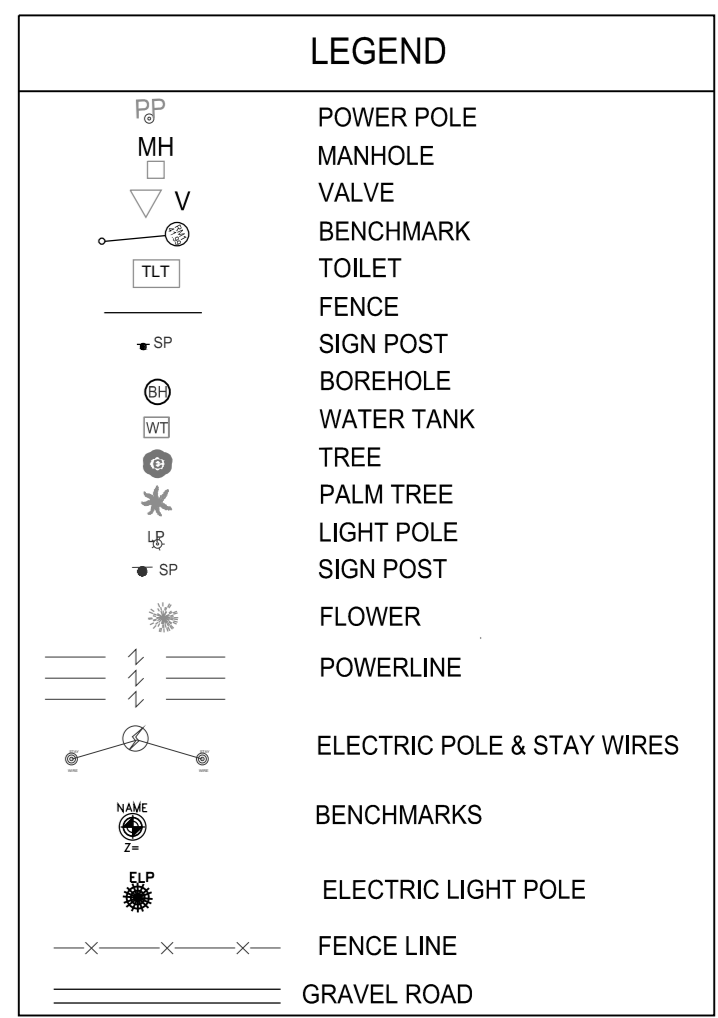
SCALE	SHEET
AS SHOWN	SHEET 1 OF 2
CONTRACT No.	PROJECT No.
DRAWING No.	REV
IZH-0526-MATH-LAY-201	

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CURVE LIST					
R1 - MATHE ACCESS ROAD IN WARD 9					
No	Radius	TR In	TR Out	TAN In	TAN Out
18	45.00	0.00	0.00	13.73	13.73
19	45.00	0.00	0.00	23.38	23.38
20	50.00	0.00	0.00	13.69	30.28
21	50.00	0.00	0.00	29.37	30.28
22	75.00	0.00	0.00	33.01	33.01
23	200.00	0.00	0.00	34.47	19.33
24	100.00	0.00	0.00	44.74	44.74
25	500.00	0.00	0.00	64.26	14.38
26	150.00	0.00	0.00	32.85	32.85
27	200.00	0.00	0.00	34.79	34.79
28	100.00	0.00	0.00	26.72	26.72
29	125.00	0.00	0.00	40.92	36.14
30	75.00	0.00	0.00	39.24	39.24
31	150.00	0.00	0.00	32.47	32.47
32	200.00	0.00	0.00	29.49	29.49
33	100.00	0.00	0.00	13.07	13.07
34	500.00	0.00	0.00	32.72	7.29
35	200.00	0.00	0.00	29.43	29.43
36	100.00	0.00	0.00	16.54	16.54
37	200.00	0.00	0.00	15.92	9.06
38	50.00	0.00	0.00	17.11	17.11
39	0.00	0.00	0.00	0.00	0.00

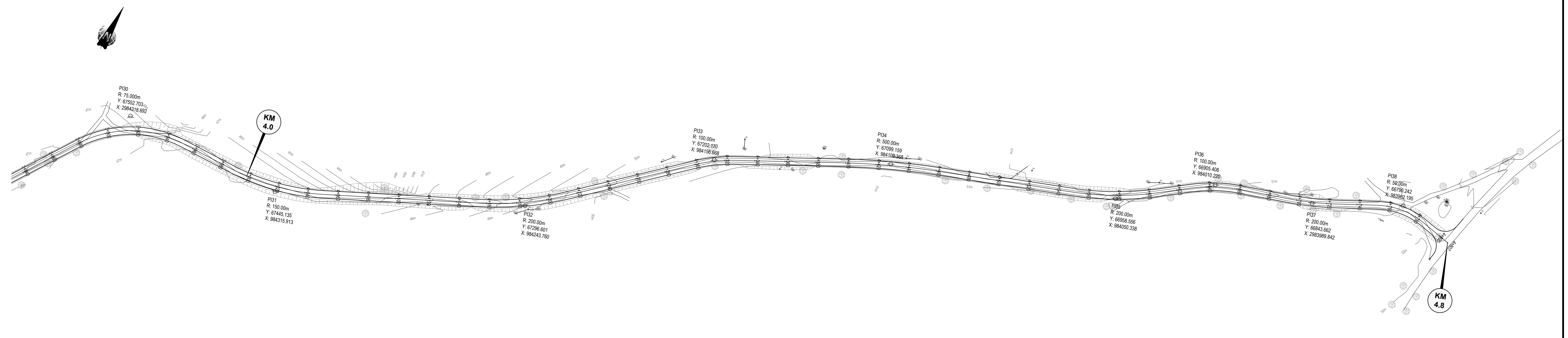
ROAD LIST				
R1 - MATHE ACCESS ROAD IN WARD 9				
Position	SV	Y-Coord	X-Coord	RADIUS
B.C.C.17	2-045.78	68027.53	298800.47	
PI17	2-062.03	68035.98	298595.90	50.00
E.C.C.17	2-078.28	68033.90	298599.18	
B.C.C.18	2-257.19	68011.74	298579.64	
PI18	2-270.52	68010.04	298578.02	45.00
E.C.C.18	2-283.84	68010.03	298576.67	
B.C.C.19	2-285.79	67999.75	298576.20	
PI19	2-307.35	67984.40	298574.57	45.00
E.C.C.19	2-328.91	67990.01	298575.87	
B.C.C.20	2-417.73	68011.30	298569.64	
PI20	2-431.10	68014.58	298566.35	50.00
E.C.C.20	2-444.46	68024.18	298561.58	
B.C.C.21	2-450.53	68026.43	298562.29	
PI21	2-471.08	68048.02	298559.31	50.00
E.C.C.21	2-503.64	68040.74	298553.12	
B.C.C.22	2-525.36	68034.63	298554.28	
PI22	2-556.46	68025.33	298550.61	75.00
E.C.C.22	2-587.55	68042.40	298542.36	
B.C.C.23	2-618.18	68058.24	298546.15	
PI23	2-662.32	68076.07	298542.64	200.00
E.C.C.23	2-686.45	68083.00	298532.87	
B.C.C.24	2-730.32	68091.81	298539.90	
PI24	2-772.29	68100.79	298536.07	100.00
E.C.C.24	2-814.47	68074.10	298520.16	

BENCHMARKS INFORMATION : WGS 84 Lo 31° SYSTEM				
NAME	Y	X	LEVEL	PEG
BM01	66766.625	2 983 945.770	51.989	
BM02	67682.141	2 984 663.656	49.586	
BM03	68026.145	2 985 531.801	57.007	
BM04	67487.745	2 987 357.584	61.140	
BM05	67347.687	2 987 850.864	49.764	



ROAD PLAN
CHAINAGE 1+000km - 2+000km
1:1000

ROAD LIST				
R1 - MATHE ACCESS ROAD IN WARD 9				
Position	SV	Y-Coord	X-Coord	RADIUS
B.C.C.25	3-021.81	67950.40	2985103.75	
PI25	3-085.72	67912.06	2985052.18	500.00
E.C.C.25	3-149.63	67888.02	2984992.59	
B.C.C.26	3-342.46	67815.84	2984813.77	
PI26	3-374.81	67803.55	2984783.31	150.00
E.C.C.26	3-407.15	67779.64	2984760.77	
B.C.C.27	3-475.86	67729.59	2984713.88	
PI27	3-510.24	67704.36	2984689.82	200.00
E.C.C.27	3-544.68	67688.61	2984658.81	
B.C.C.28	3-639.72	67645.53	2984574.09	
PI28	3-665.83	67633.42	2984550.28	100.00
E.C.C.28	3-691.94	67634.80	2984523.59	
B.C.C.29	3-725.14	67636.52	2984490.44	
PI29	3-764.68	67638.63	2984449.58	125.00
E.C.C.29	3-804.22	67616.18	2984415.38	
B.C.C.30	3-880.04	67574.24	2984361.49	
PI30	3-916.79	67552.70	2984318.69	75.00
E.C.C.30	3-952.94	67513.48	2984317.68	
B.C.C.31	3-988.84	67477.60	2984316.75	
PI31	4-020.81	67445.14	2984315.91	150.00
E.C.C.31	4-052.79	67415.93	2984301.73	
B.C.C.32	4-155.96	67323.13	2984256.65	
PI32	4-185.24	67296.60	2984243.76	200.00
E.C.C.32	4-214.52	67274.52	2984223.77	
B.C.C.33	4-300.43	67211.77	2984165.53	
PI33	4-313.42	67202.17	2984156.67	100.00
E.C.C.33	4-326.41	67190.61	2984150.58	
B.C.C.34	4-397.07	67128.10	2984117.83	
PI34	4-429.74	67099.16	2984102.37	500.00
E.C.C.34	4-462.42	67068.47	2984091.01	
B.C.C.35	4-550.19	66986.15	2984060.55	
PI35	4-579.41	66958.56	2984050.34	200.00
E.C.C.35	4-608.63	66935.97	2984030.91	
B.C.C.36	4-629.25	66918.61	2984020.18	
PI36	4-645.64	66905.41	2984010.22	100.00
E.C.C.36	4-662.03	66889.70	2984005.04	
B.C.C.37	4-694.60	66858.78	2983994.83	
PI37	4-710.48	66843.66	2983989.84	200.00
E.C.C.37	4-726.36	66829.53	2983982.53	
B.C.C.38	4-753.49	66805.44	2983970.06	
PI38	4-769.97	66790.24	2983962.19	50.00
E.C.C.38	4-786.46	66773.41	2983955.29	
End	4-807.26	66752.96	2983949.05	



ROAD PLAN
CHAINAGE 3+000km - 4+800km
1:1000

ISSUED FOR TENDER

DRAWING NUMBER	DESCRIPTION	DRAWING NUMBER	DESCRIPTION	No	DATE	DETAILS	CHECKED	APPROVED

DESIGNED	N. BUTHELEZI	APRIL 2026
DRAWN	B. SITHOLE	APRIL 2026
REVIEW	N. BUTHELEZI	APRIL 2026
APPROVED		APRIL 2026
NAME	N. BUTHELEZI	
SIGNATURE:		202201158

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CLIENT

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PRIVATE BAG X901
KWA MBONAMBI, 3915

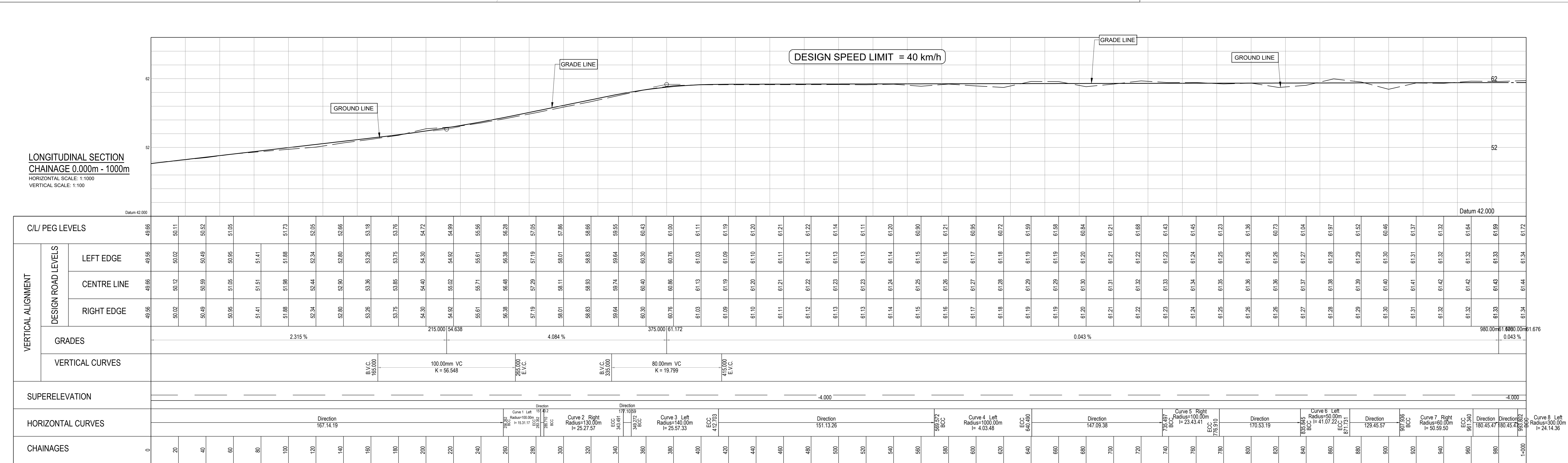
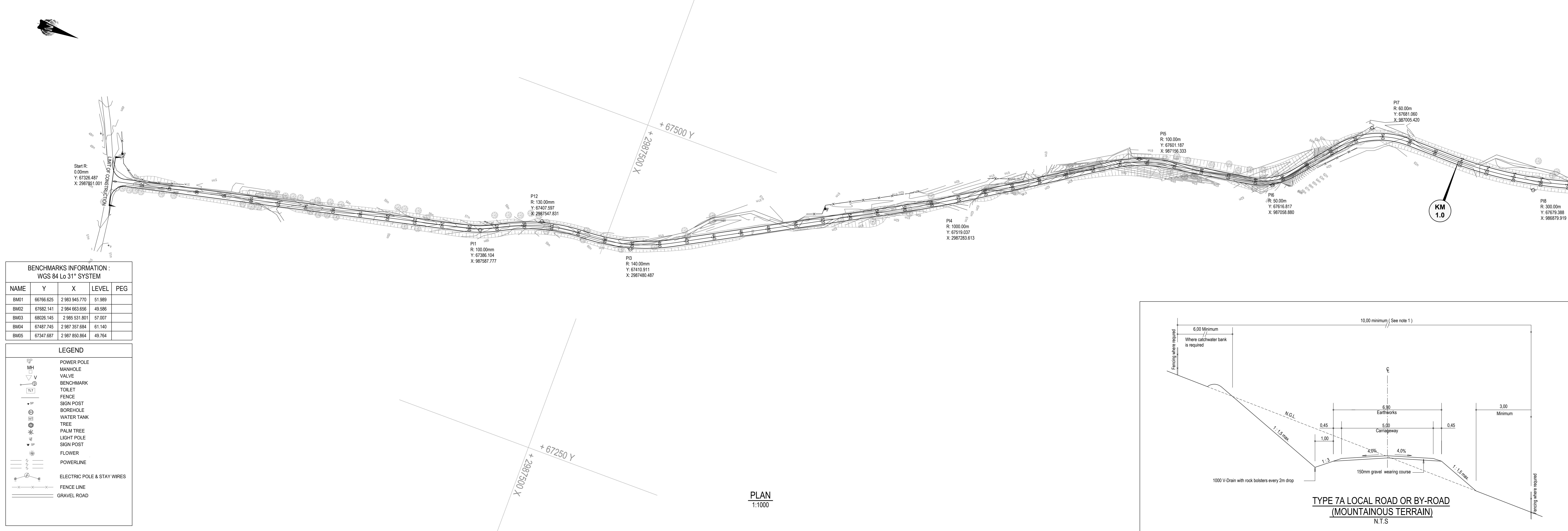
TEL: 035 592 0672
E: info@mlabuyalingana.gov.za

PROJECT/DRAWING TITLE

CONSTRUCTION OF MATHE GRAVEL ROAD
IN WARD 09
GENERAL LAYOUT & SETTING DATA OUT DETAILS
km 2,000 to km 4,807

SCALE	SHEET
AS SHOWN	SHEET 2 OF 2
CONTRACT No.	PROJECT No.
DRAWING No.	REV
IZH-0526-MATH-LAY-202	

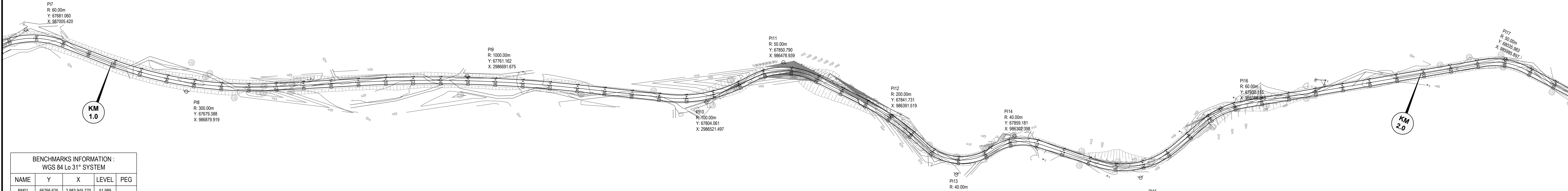
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ISSUED FOR TENDER

DESIGNED: N. BUTHELEZI DRAWN: B. SITHOLE REVIEW: N. BUTHELEZI	APRIL 2026 APRIL 2026 APRIL 2026	IZINGA CONSULTANT 5 CHARTER STREET EMPANGENI 3880 TEL: 035 907 5000 FAX: 086 459 4537 E-MAIL: info@izingaholdings.co.za	CLIENT UMHLABUYALINGANA MUNICIPALITY MAIN ROAD R22, KWANGWANASE PRIVATE BAG X901 KWA MBONAMBI, 3915 TEL: 035 592 0672 E: info@uhlabyalingana.gov.za
APPROVED: APRIL 2026 NAME: N. BUTHELEZI SIGNATURE: _____ 2023/01/158		PROJECT/DRAWING TITLE CONSTRUCTION OF MATHE GRAVEL ROAD IN WARD 09 PLAN AND LONGITUDINAL SECTION CHAINAGE 0.000m - 1000m	
SCALE: AS SHOWN SHEET: SHEET 1 OF 5		CONTRACT No.: _____ PROJECT No.: _____	
DRAWING No.: IZH-0526-MATH-LS-203		REV:	

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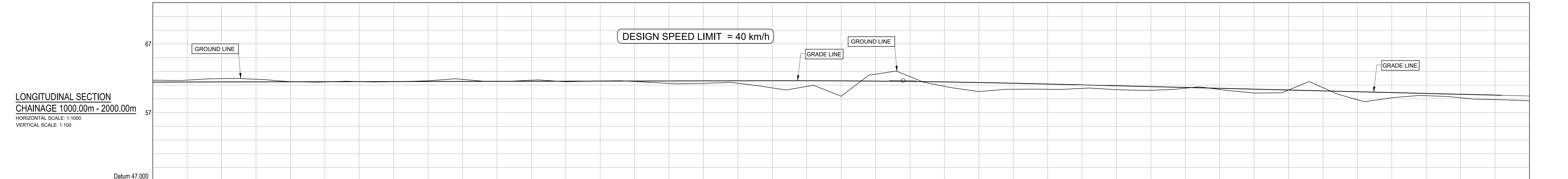
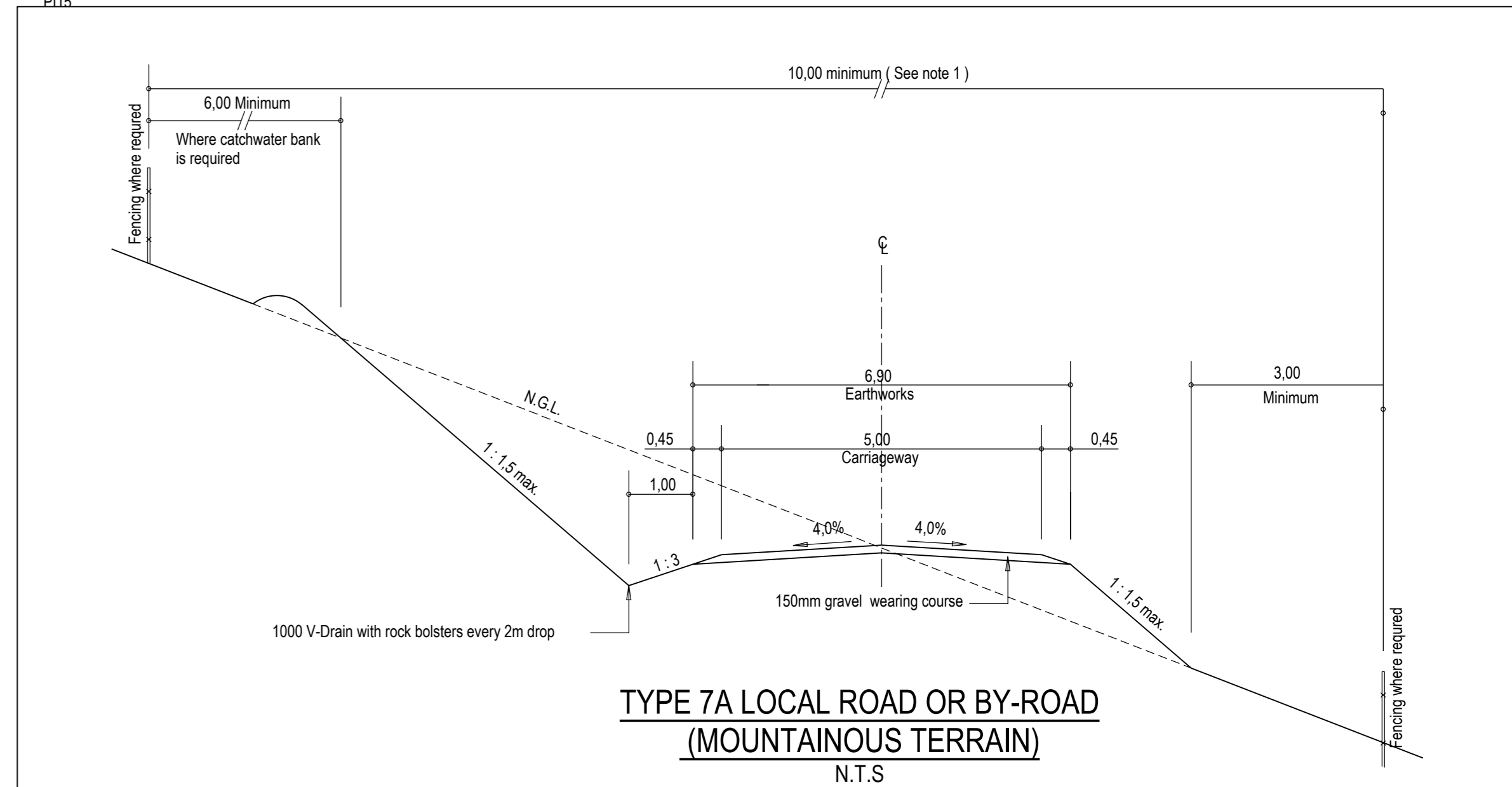


BENCHMARKS INFORMATION : WGS 84 Lo 31° SYSTEM

NAME	Y	X	LEVEL	PEG
BM01	66766.625	2 983 945.770	51.989	
BM02	67892.141	2 994 663.656	48.586	
BM03	68026.145	2 985 531.801	57.007	
BM04	67487.745	2 987 357.684	61.140	
BM05	67347.687	2 987 650.864	49.764	

LEGEND

- POWER POLE
- MANHOLE
- VALVE
- BENCHMARK
- TOILET
- FENCE
- SIGN POST
- BOREHOLE
- WATER TANK
- TREE
- PALM TREE
- LIGHT POLE
- SIGN POST
- FLOWER
- POWERLINE
- ELECTRIC POLE & STAY WIRES
- FENCE LINE
- GRAVEL ROAD



C/I/ PEG LEVELS		61.72	61.67	61.57	61.51	61.37	61.38	61.41	61.44	61.57	61.45	61.50	61.63	61.92	61.57	61.56	61.76	61.48	61.59	61.63	61.42	61.19	61.25	61.40	60.90	60.29	60.98	59.37	62.44	60.06	60.39	60.42	60.37	60.58	60.33	60.23	60.35	60.75	60.24	59.84	59.88	61.53	59.73	59.58	59.16	59.49	59.36	59.96	59.87	58.72		
VERTICAL ALIGNMENT	DESIGN ROAD LEVELS	LEFT EDGE	61.34	61.35	61.36	61.37	61.38	61.41	61.44	61.57	61.45	61.50	61.63	61.92	61.57	61.56	61.46	61.47	61.48	61.49	61.42	61.19	61.25	61.40	60.90	60.29	60.98	59.37	62.44	60.06	60.39	60.42	60.37	60.58	60.33	60.23	60.35	60.75	60.24	59.84	59.88	61.53	59.73	59.58	59.16	59.49	59.36	59.96	59.87	58.72		
		CENTRE LINE	61.44	61.45	61.46	61.47	61.48	61.49	61.51	61.54	61.57	61.50	61.63	61.92	61.57	61.56	61.46	61.47	61.48	61.49	61.42	61.19	61.25	61.40	60.90	60.29	60.98	59.37	62.44	60.06	60.39	60.42	60.37	60.58	60.33	60.23	60.35	60.75	60.24	59.84	59.88	61.53	59.73	59.58	59.16	59.49	59.36	59.96	59.87	58.72		
		RIGHT EDGE	61.34	61.35	61.36	61.37	61.38	61.39	61.41	61.44	61.57	61.45	61.50	61.63	61.92	61.57	61.56	61.46	61.47	61.48	61.49	61.42	61.19	61.25	61.40	60.90	60.29	60.98	59.37	62.44	60.06	60.39	60.42	60.37	60.58	60.33	60.23	60.35	60.75	60.24	59.84	59.88	61.53	59.73	59.58	59.16	59.49	59.36	59.96	59.87	58.72	
	GRADES	0.043 %																				1545.000 61.676										-0.496 %																				
	VERTICAL CURVES																					B.V.C. 1445.000										200.00mm VC K = 370.773																				
SUPERELEVATION		-4.000																																																		
HORIZONTAL CURVES		Curve 8 Left Radius=100.00m H=24.14.36 Curve 9 Right Radius=100.00m H=9.19.54 Curve 10 Left Radius=100.00m H=33.31.35 Curve 11 Right Radius=100.00m H=53.35.29 Curve 12 Right Radius=200.00m H=16.01.7 Curve 13 Left Radius=100.00m H=19.00.54 Curve 14 Right Radius=40.00m H=32.07.43 Curve 15 Left Radius=40.00m H=28.18.32																																																		
CHAINAGES		1+000	1+020	1+040	1+060	1+080	1+100	1+120	1+140	1+160	1+180	1+200	1+220	1+240	1+260	1+280	1+300	1+320	1+340	1+360	1+380	1+400	1+420	1+440	1+460	1+480	1+500	1+520	1+540	1+560	1+580	1+600	1+620	1+640	1+660	1+680	1+700	1+720	1+740	1+760	1+780	1+800	1+820	1+840	1+860	1+880	1+900	1+920	1+940	1+960	1+980	2+000

ISSUED FOR TENDER

DRAWING NUMBER	DESCRIPTION	DRAWING NUMBER	DESCRIPTION

DESIGNED	N. BUTHELEZI	APRIL 2026
DRAWN	B. SITHOLE	APRIL 2026
REVIEW	N. BUTHELEZI	APRIL 2026
APPROVED	APRIL 2026	
NAME	N. BUTHELEZI	
SIGNATURE:	202201158	

CONSULTANT

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PROJECT/DRAWING TITLE

CONSTRUCTION OF MATHE GRAVEL ROAD
IN WARD 09
PLAN AND LONGITUDINAL SECTION
CHAINAGE 1000m - 2000m

SCALE	AS SHOWN	SHEET	SHEET 2 OF 5
CONTRACT No.		PROJECT No.	
DRAWING No.	IZH-0526-MATH-LS-204		REV

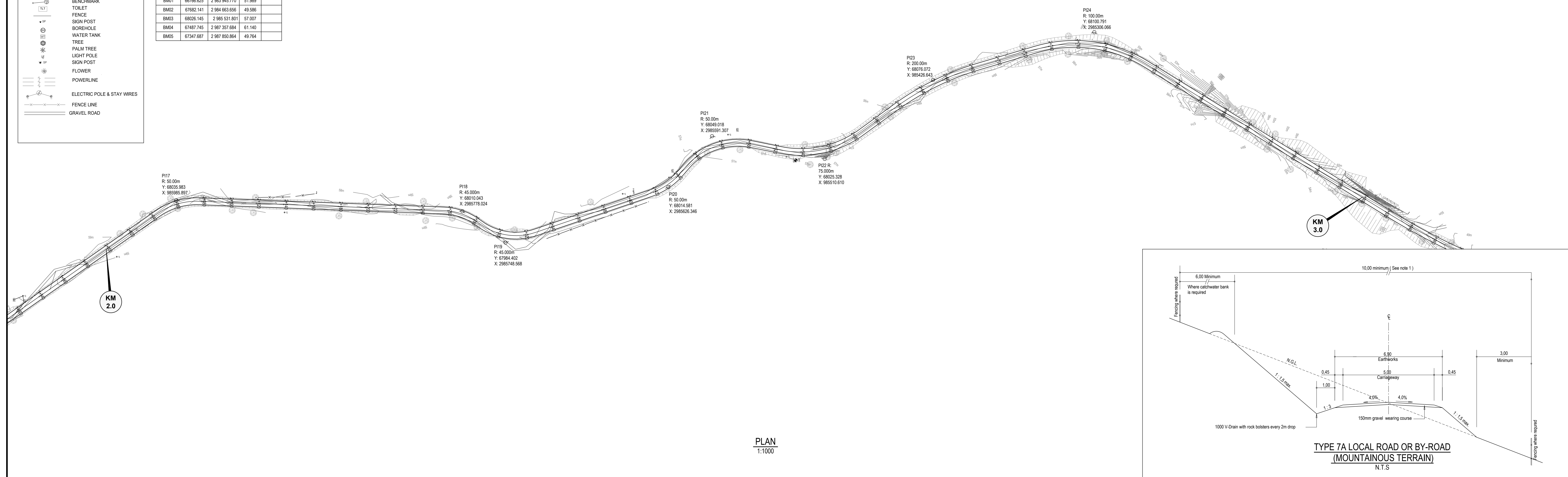
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LEGEND

- POWER POLE
- MANHOLE
- VALVE
- BENCHMARK
- TOILET
- FENCE
- SIGN POST
- BOREHOLE
- WATER TANK
- TREE
- PALM TREE
- LIGHT POLE
- SIGN POST
- FLOWER
- POWERLINE
- ELECTRIC POLE & STAY WIRES
- FENCE LINE
- GRAVEL ROAD

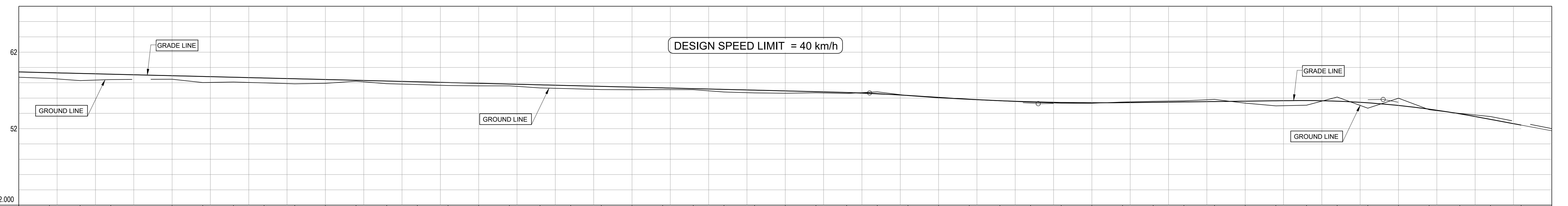
**BENCHMARKS INFORMATION :
WGS 84 Lo 31° SYSTEM**

NAME	Y	X	LEVEL	PEG
BM01	66766.625	2 983 945.770	51.989	
BM02	67682.141	2 984 663.656	49.586	
BM03	68028.145	2 985 531.801	57.007	
BM04	67487.745	2 987 357.684	61.140	
BM05	67347.687	2 987 850.864	49.764	



PLAN
1:1000

LONGITUDINAL SECTION
CHAINAGE 2000m - 3000m
HORIZONTAL SCALE: 1:1000
VERTICAL SCALE: 1:100



C/L/ PEG LEVELS		56.72	56.57	56.28	56.42	56.46	58.03	58.10	57.99	57.96	57.93	58.21	57.88	57.76	57.64	57.60	57.60	56.67	56.63	56.69	56.81	56.82	55.92	55.92	55.94	54.98	55.07	55.13	54.67	55.98	54.45	53.99	53.99	52.80	53.14																								
VERTICAL ALIGNMENT	DESIGN ROAD LEVELS	LEFT EDGE	56.32	56.22	56.12	56.02	56.92	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82																							
		CENTRE LINE	56.42	56.32	56.22	56.12	56.02	56.92	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82																						
		RIGHT EDGE	56.52	56.42	56.32	56.22	56.12	56.02	56.92	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82	56.82																						
	GRADES	-0.496 %																		-1.276 %										0.248 %										-3.720 %																			
	VERTICAL CURVES																			B.V.C. 2355.000 60.00mm VC K = 76.920										E.V.C. 2665.000 120.00mm VC K = 78.721										B.V.C. 2890.000 120.00mm VC K = 30.242										E.V.C. 3000.000									
	SUPERELEVATION	-4.000																																																									
	HORIZONTAL CURVES	Direction 145.52.30		Curve 17 Right Radius=50.00m I=37.14.17		Direction 187.06.47		Curve 18 Right Radius=50.00m I=37.14.17		Curve 19 Left Radius=45.000m I=54.54.30		Direction 166.07.48		Curve 20 Left Radius=50.00m I=30.35.16		Curve 21 Right Radius=75.000m I=47.30.22		Direction 148.51.16		Curve 22 Left Radius=75.000m I=47.30.22		Direction 168.24.51		Curve 23 Right Radius=200.00m I=48.12.41		Direction 216.37.32		Direction 216.37.32																															
	CHAINAGES	2+000	2+020	2+040	2+060	2+080	2+100	2+120	2+140	2+160	2+180	2+200	2+220	2+240	2+260	2+280	2+300	2+320	2+340	2+360	2+380	2+400	2+420	2+440	2+460	2+480	2+500	2+520	2+540	2+560	2+580	2+600	2+620	2+640	2+660	2+680	2+700	2+720	2+740	2+760	2+780	2+800	2+820	2+840	2+860	2+880	2+900	2+920	2+940	2+960	2+980	3+000							

ISSUED FOR TENDER

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DRAWING NUMBER	DESCRIPTION	DRAWING NUMBER	DESCRIPTION	No	DATE	DETAILS	CHECKED	APPROVED

DESIGNED	N. BUTHELEZI	APRIL 2026
DRAWN	B. SITHOLE	APRIL 2026
REVIEW	N. BUTHELEZI	APRIL 2026
APPROVED	APRIL 2026	
NAME	N. BUTHELEZI	
SIGNATURE:	2023/01/158	

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PROJECT/DRAWING TITLE
**CONSTRUCTION OF MATHE GRAVEL ROAD
IN WARD 09
PLAN AND LONGITUDINAL SECTION
CHAINAGE 2000m - 3000m**

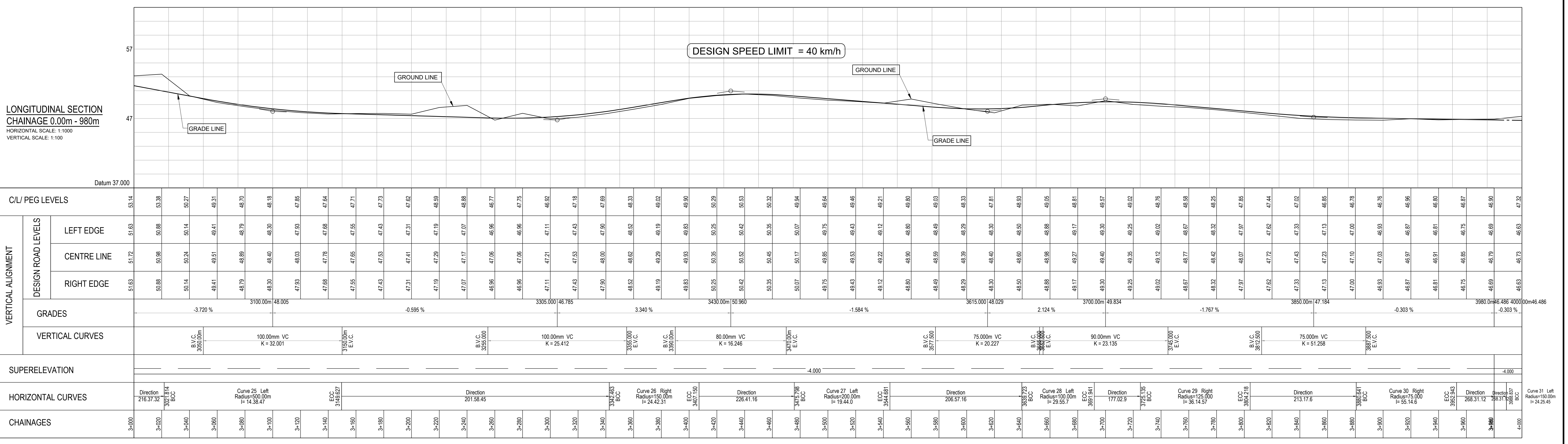
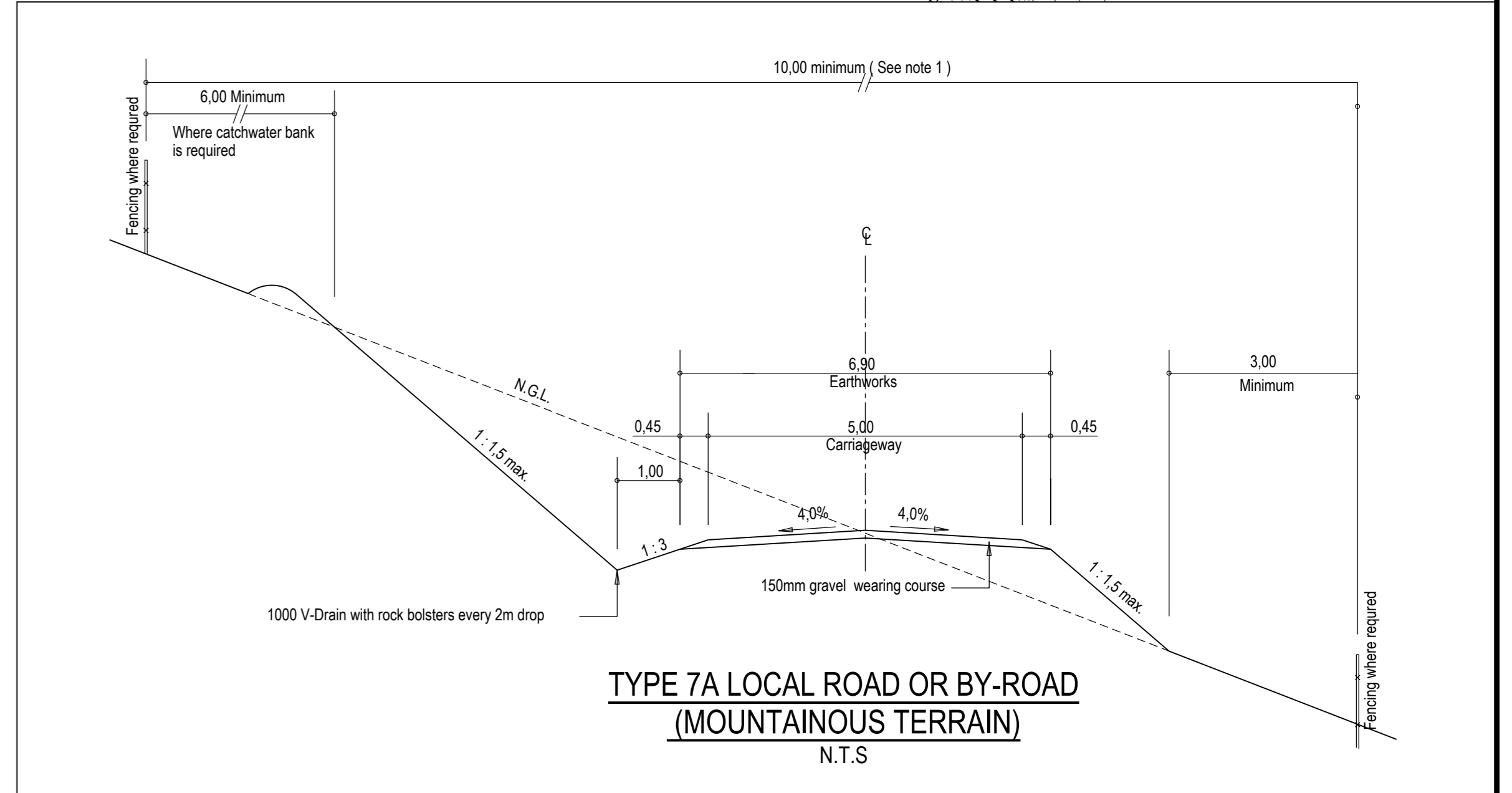
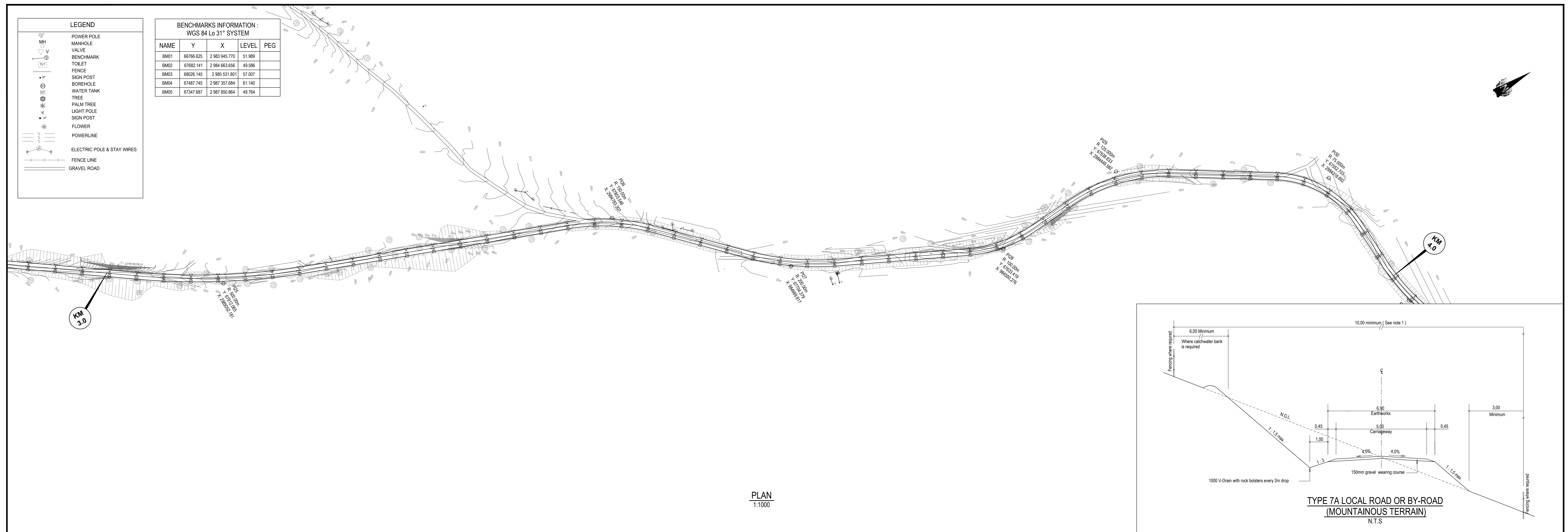
SCALE AS SHOWN	SHEET SHEET 3 OF 5
CONTRACT No.	PROJECT No.
DRAWING No. IZH-0526-MATH-LS-205	REV

LEGEND

- POWER POLE
- MANHOLE
- VALVE
- BENCHMARK
- TOILET
- FENCE
- SIGN POST
- BORHOLE
- WATER TANK
- TREE
- PALM TREE
- LIGHT POLE
- SIGN POST
- FLOWER
- POWERLINE
- ELECTRIC POLE & STAY WIRES
- FENCE LINE
- GRAVEL ROAD

BENCHMARKS INFORMATION : WGS 84 Lo 31° SYSTEM

NAME	Y	X	LEVEL	PEG
BM01	66766.625	2 983 945.770	51.989	
BM02	67682.141	2 984 663.656	49.586	
BM03	68026.145	2 985 531.801	57.007	
BM04	67487.745	2 987 357.684	61.140	
BM05	67347.887	2 987 850.864	49.764	



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ISSUED FOR TENDER

DRAWING NUMBER	DESCRIPTION	DRAWING REFERENCES

No	DATE	DETAILS	CHECKED	APPROVED

DESIGNED	N. BUTHELEZI	APRIL 2026
DRAWN	B. SITHOLE	APRIL 2026
REVIEW	N. BUTHELEZI	APRIL 2026
APPROVED	APRIL 2026	
NAME	N. BUTHELEZI	
SIGNATURE:	2022301158	

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PROJECT/DRAWING TITLE

**CONSTRUCTION OF MATHE GRAVEL ROAD
IN WARD 09
PLAN AND LONGITUDINAL SECTION
CHAINAGE 3000m - 4000m**

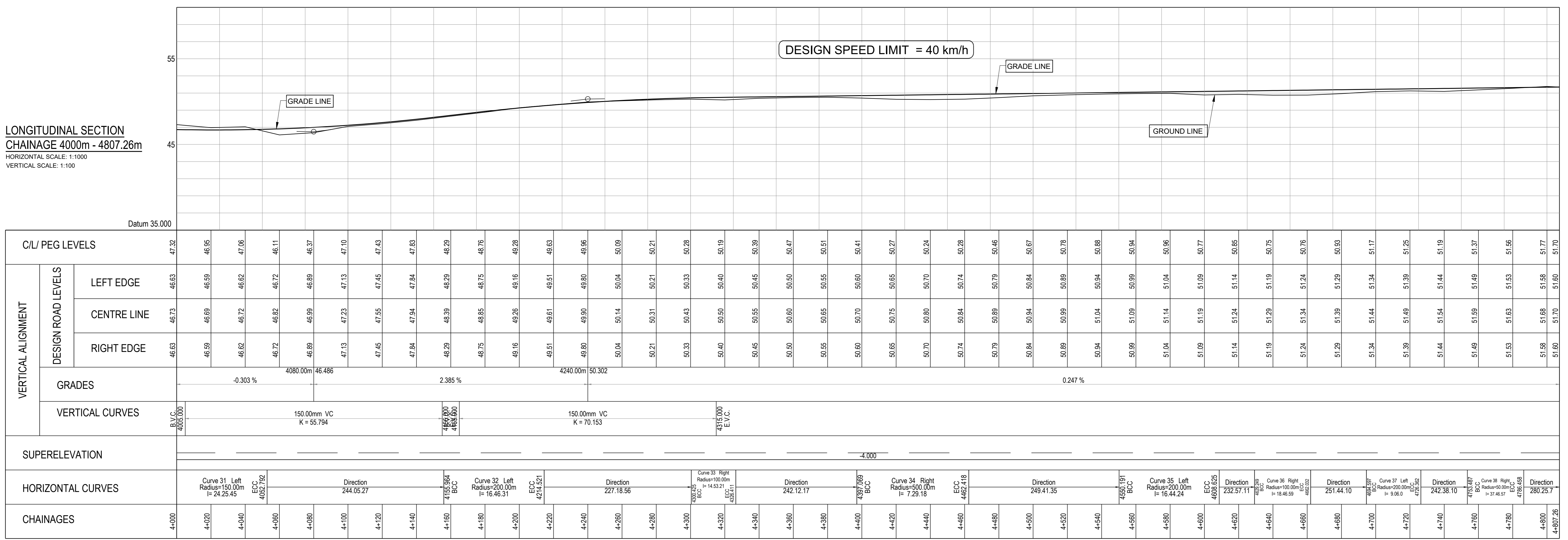
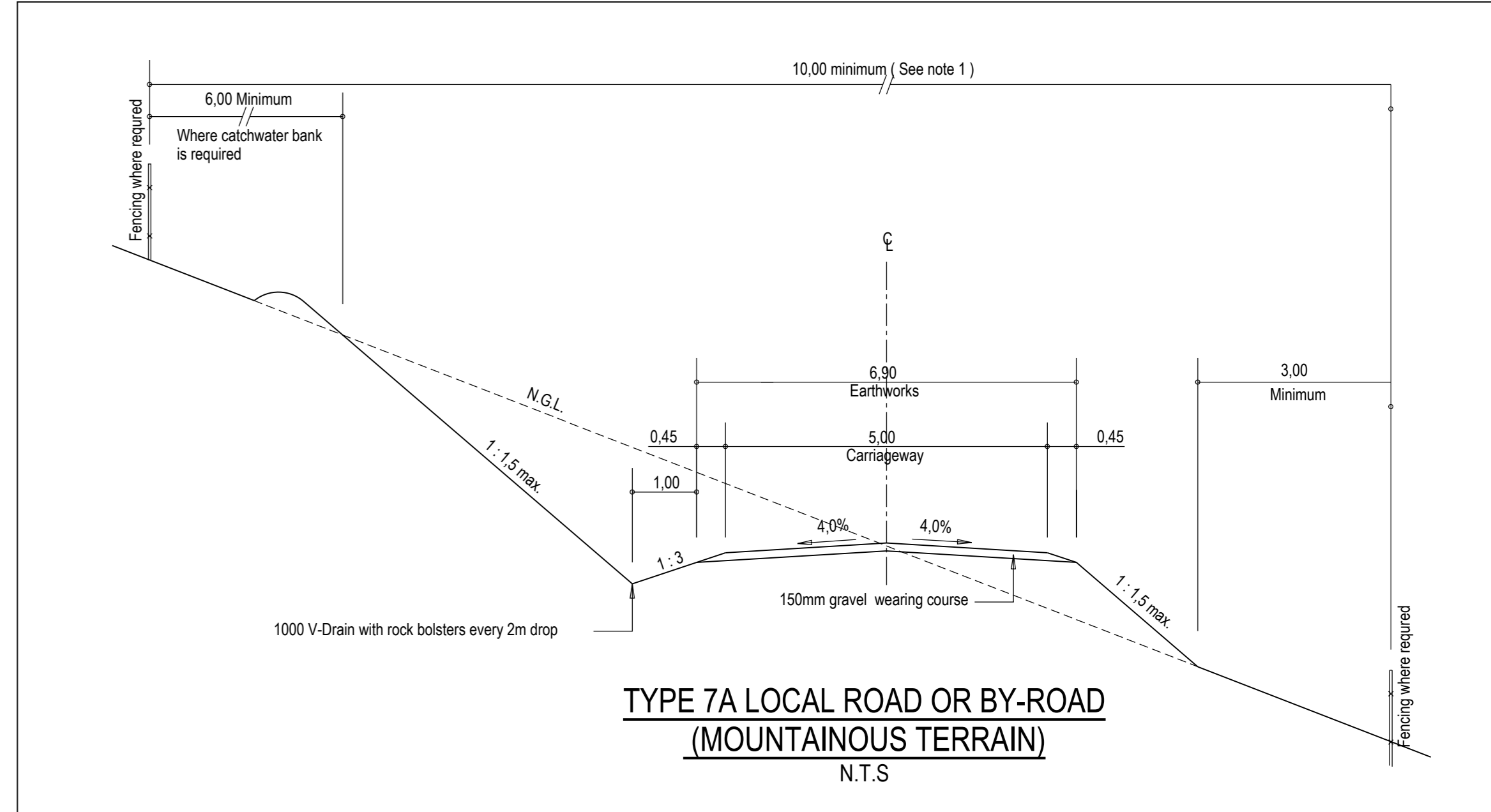
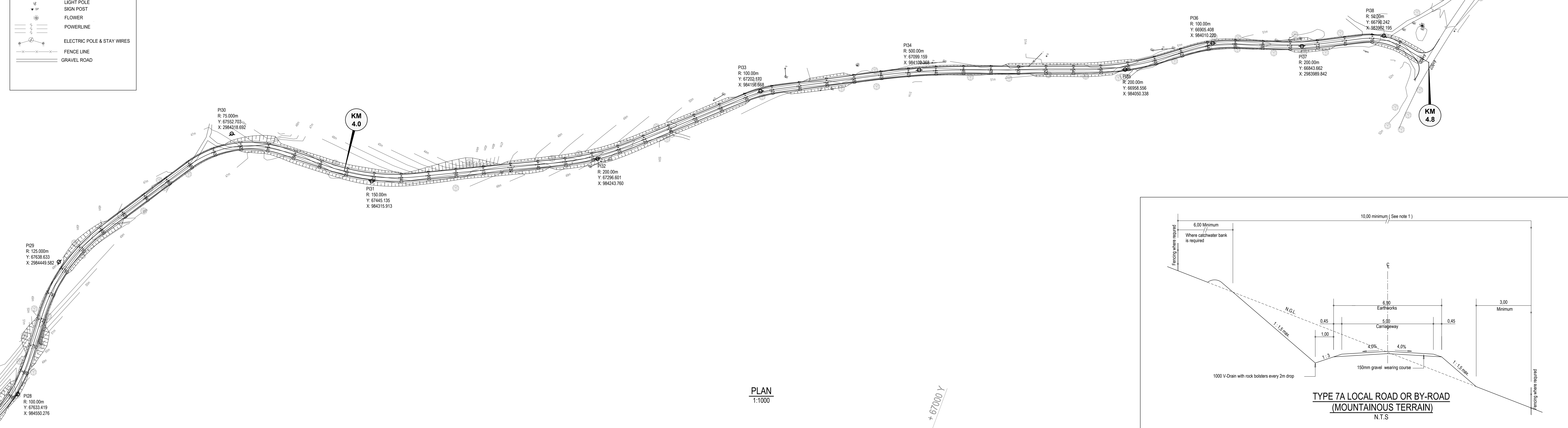
SCALE	AS SHOWN	SHEET	SHEET 4 OF 5
CONTRACT No.		PROJECT No.	
DRAWING No.	IZH-0526-MATH-LS-206	REV	

LEGEND

- POWER POLE
- MANHOLE
- VALVE
- BENCHMARK
- TOILET
- FENCE
- SIGN POST
- BOREHOLE
- WATER TANK
- TREE
- PALM TREE
- LIGHT POLE
- SIGN POST
- FLOWER
- POWERLINE
- ELECTRIC POLE & STAY WIRES
- FENCE LINE
- GRAVEL ROAD

BENCHMARKS INFORMATION : WGS 84 Lo 31° SYSTEM

NAME	Y	X	LEVEL	PEG
BM01	66766.625	2 983 945.770	51.989	
BM02	67682.141	2 984 663.656	49.586	
BM03	68026.145	2 985 531.801	57.007	
BM04	67487.745	2 987 357.684	61.140	
BM05	67347.887	2 987 850.864	49.764	



VERTICAL ALIGNMENT	C/L/ PEG LEVELS	
	DESIGN ROAD LEVELS	GROUND LINE
	LEFT EDGE	46.93, 46.99, 46.82, 46.72, 46.89, 47.13, 47.45, 47.94, 48.29, 48.75, 49.16, 49.51, 49.80, 50.04, 50.21, 50.33, 50.40, 50.45, 50.50, 50.55, 50.60, 50.65, 50.70, 50.74, 50.79, 50.84, 50.89, 50.94, 50.99, 51.04, 51.09, 51.14, 51.19, 51.24, 51.29, 51.34, 51.39, 51.44, 51.49, 51.53, 51.59, 51.60
	CENTRE LINE	46.93, 46.99, 46.82, 46.72, 46.89, 47.13, 47.45, 47.94, 48.29, 48.75, 49.16, 49.51, 49.80, 50.04, 50.21, 50.33, 50.40, 50.45, 50.50, 50.55, 50.60, 50.65, 50.70, 50.74, 50.79, 50.84, 50.89, 50.94, 50.99, 51.04, 51.09, 51.14, 51.19, 51.24, 51.29, 51.34, 51.39, 51.44, 51.49, 51.53, 51.59, 51.60
	RIGHT EDGE	46.93, 46.99, 46.82, 46.72, 46.89, 47.13, 47.45, 47.94, 48.29, 48.75, 49.16, 49.51, 49.80, 50.04, 50.21, 50.33, 50.40, 50.45, 50.50, 50.55, 50.60, 50.65, 50.70, 50.74, 50.79, 50.84, 50.89, 50.94, 50.99, 51.04, 51.09, 51.14, 51.19, 51.24, 51.29, 51.34, 51.39, 51.44, 51.49, 51.53, 51.59, 51.60
	GRADES	-0.303 % (4000-4080), 4.486 % (4080-4240), 2.385 % (4240-4400), 0.247 % (4400-4807.26)
	VERTICAL CURVES	150.00m VC, K=55.794 (4080-4240); 150.00m VC, K=70.153 (4240-4400)
	SUPERELEVATION	-4.000
	HORIZONTAL CURVES	Curve 31 Left, R=150.00m, I=24.25.45; Curve 32 Left, R=200.00m, I=16.46.31; Curve 33 Right, R=100.00m, I=14.53.21; Curve 34 Right, R=500.00m, I=7.29.18; Curve 35 Left, R=200.00m, I=16.44.24; Curve 36 Right, R=100.00m, I=18.46.59; Curve 37 Left, R=200.00m, I=9.06.01; Curve 38 Right, R=50.00m, I=37.46.57
	CHAINAGES	4000, 4020, 4040, 4060, 4080, 4100, 4120, 4140, 4160, 4180, 4200, 4220, 4240, 4260, 4280, 4300, 4320, 4340, 4360, 4380, 4400, 4420, 4440, 4460, 4480, 4500, 4520, 4540, 4560, 4580, 4600, 4620, 4640, 4660, 4680, 4700, 4720, 4740, 4760, 4780, 4800, 4807.26

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REVIEW	N. BUTHLEZI	APRIL 2026
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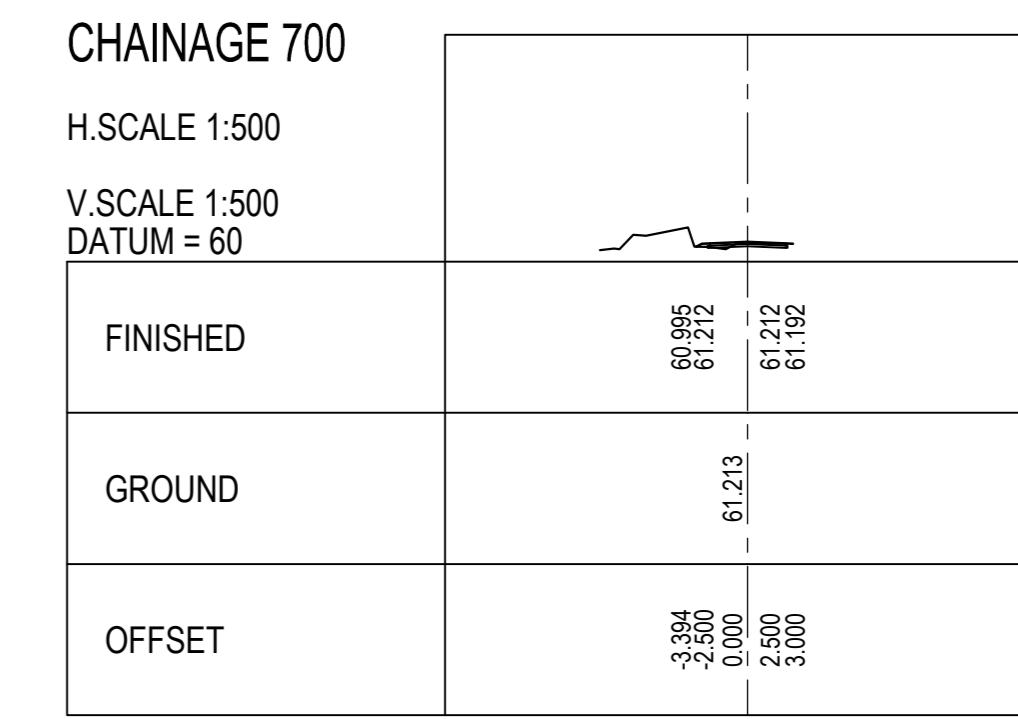
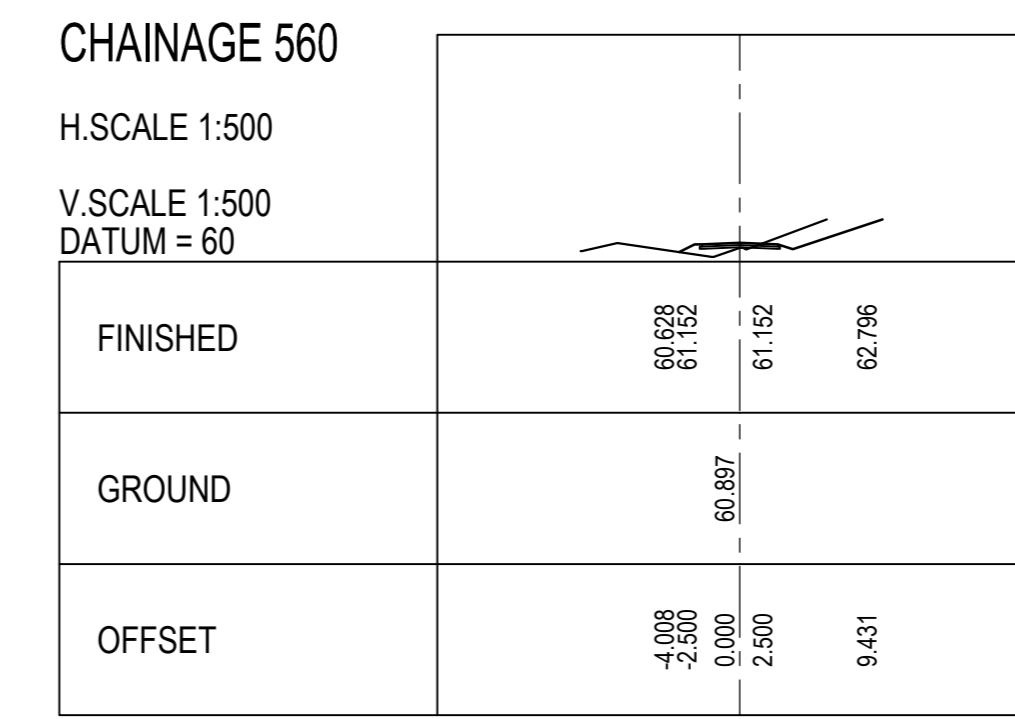
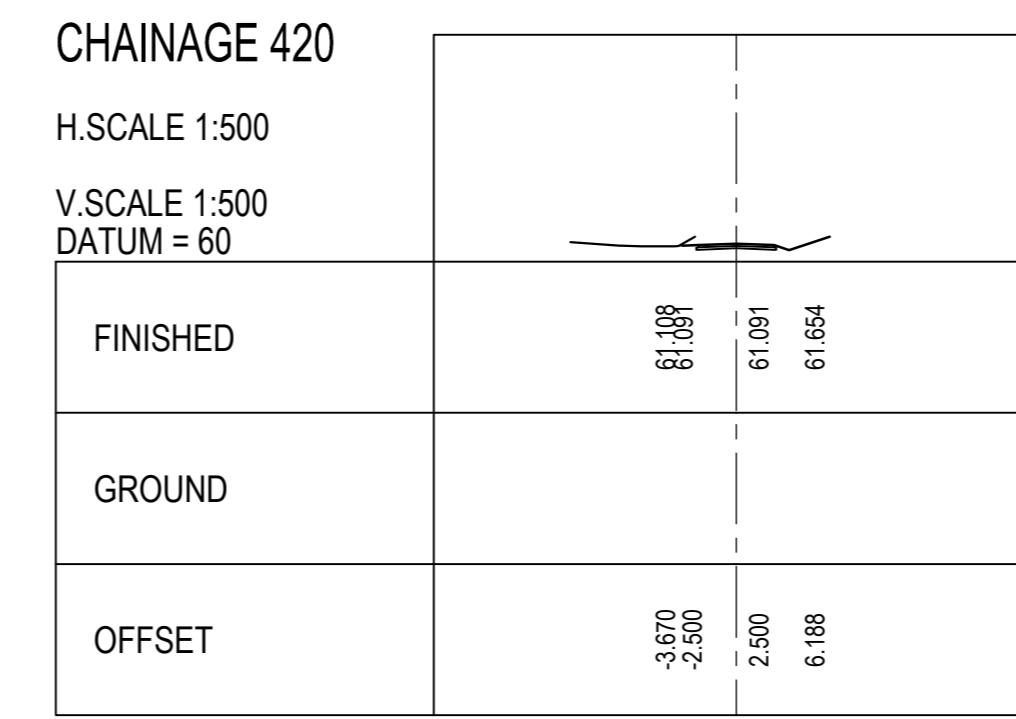
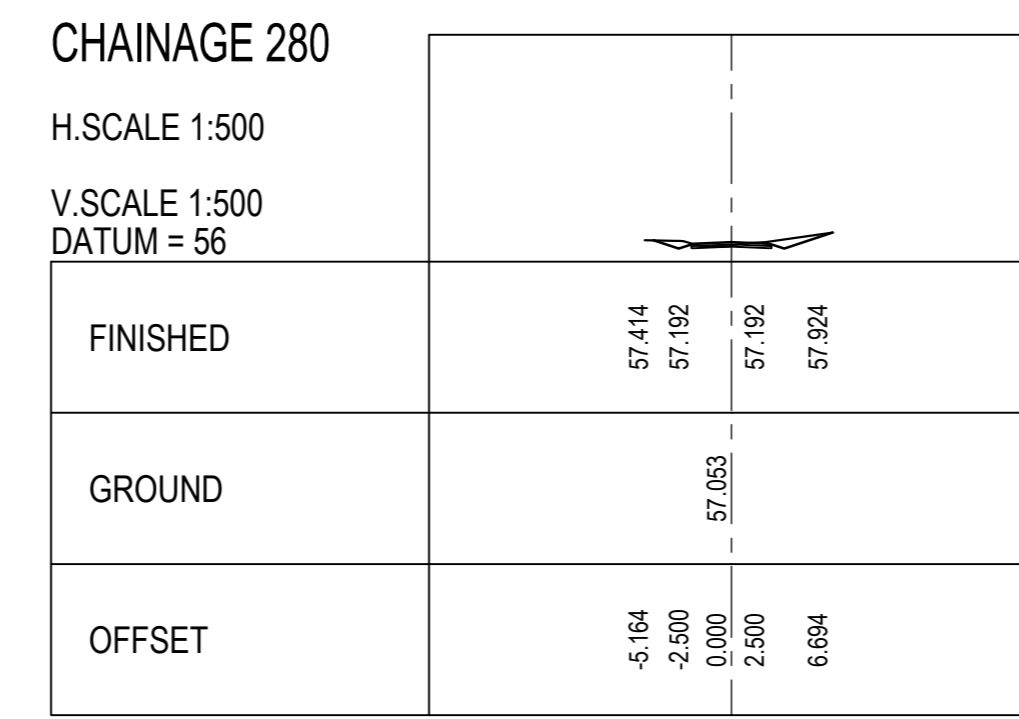
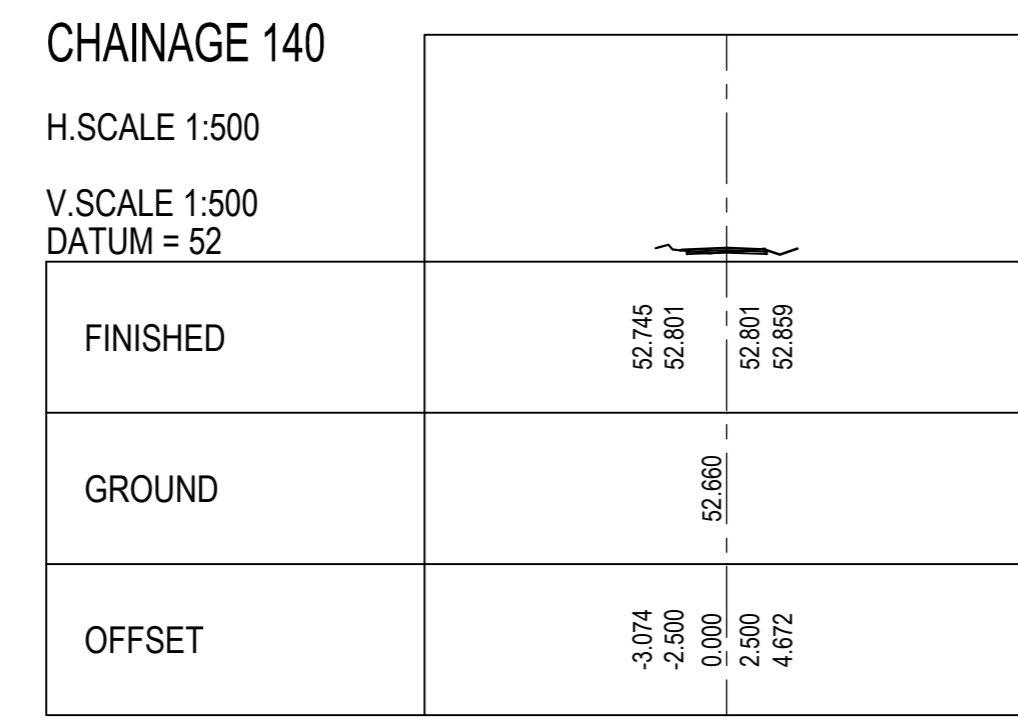
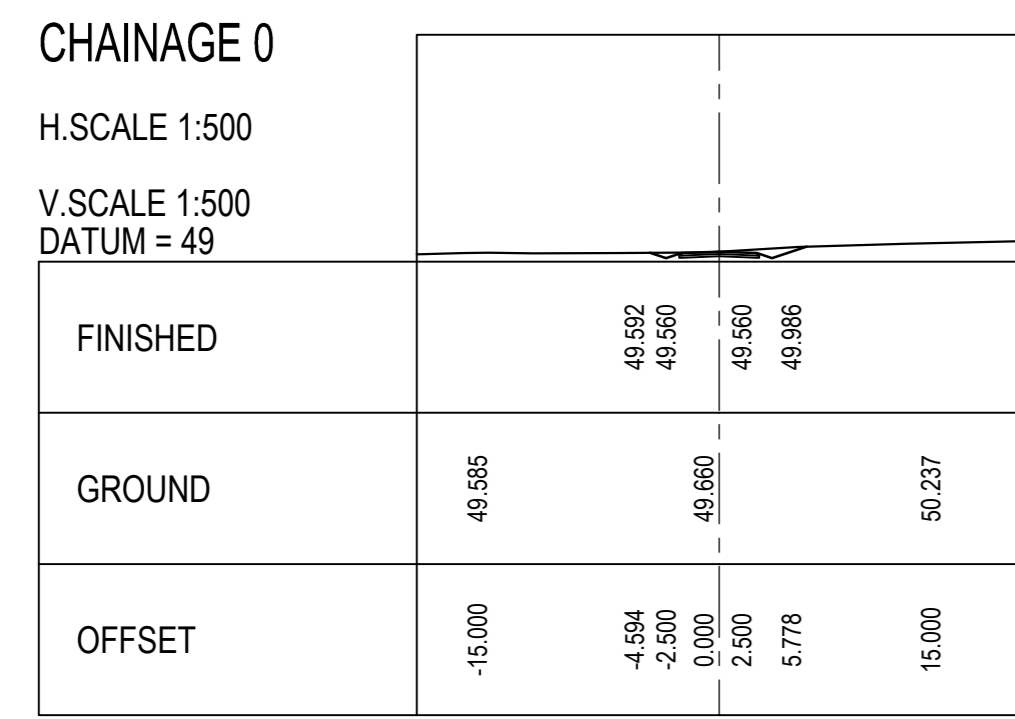
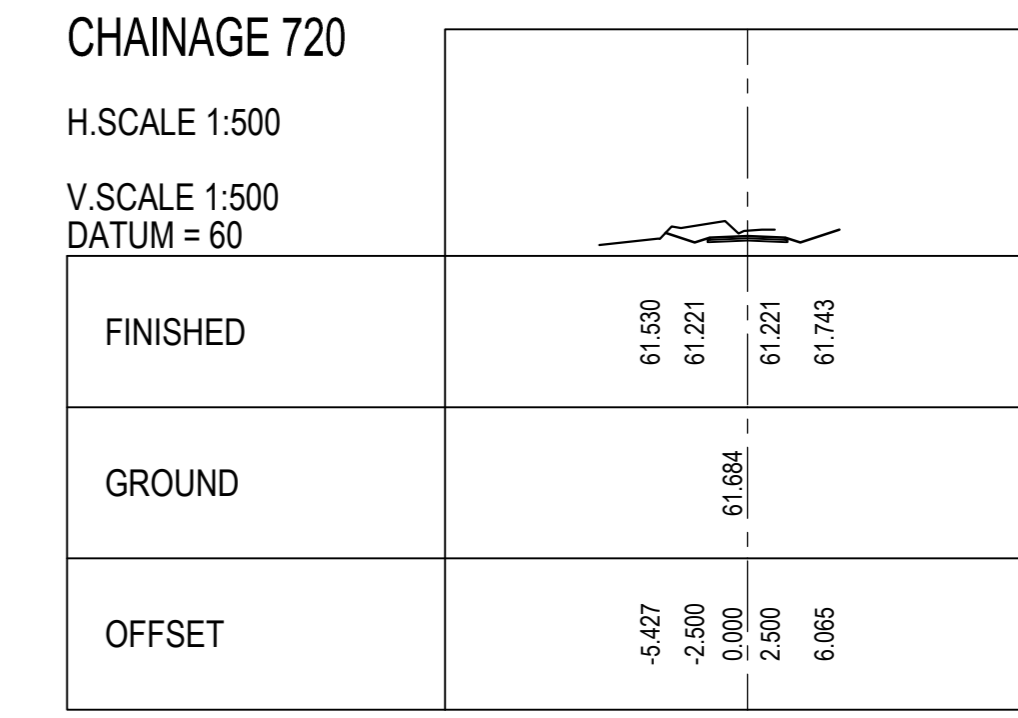
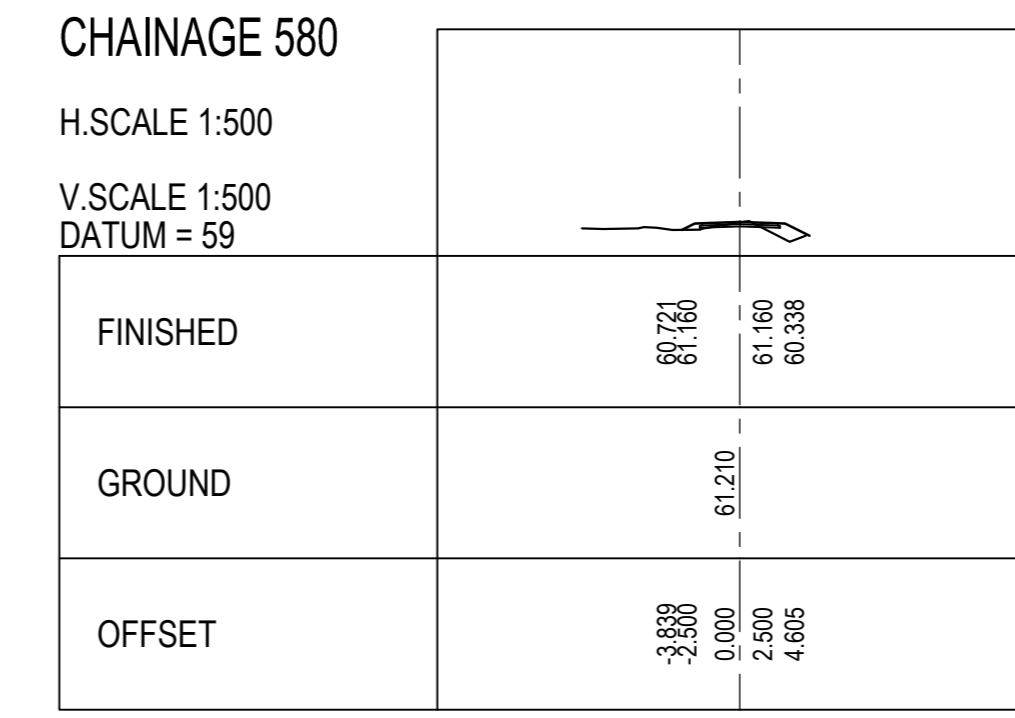
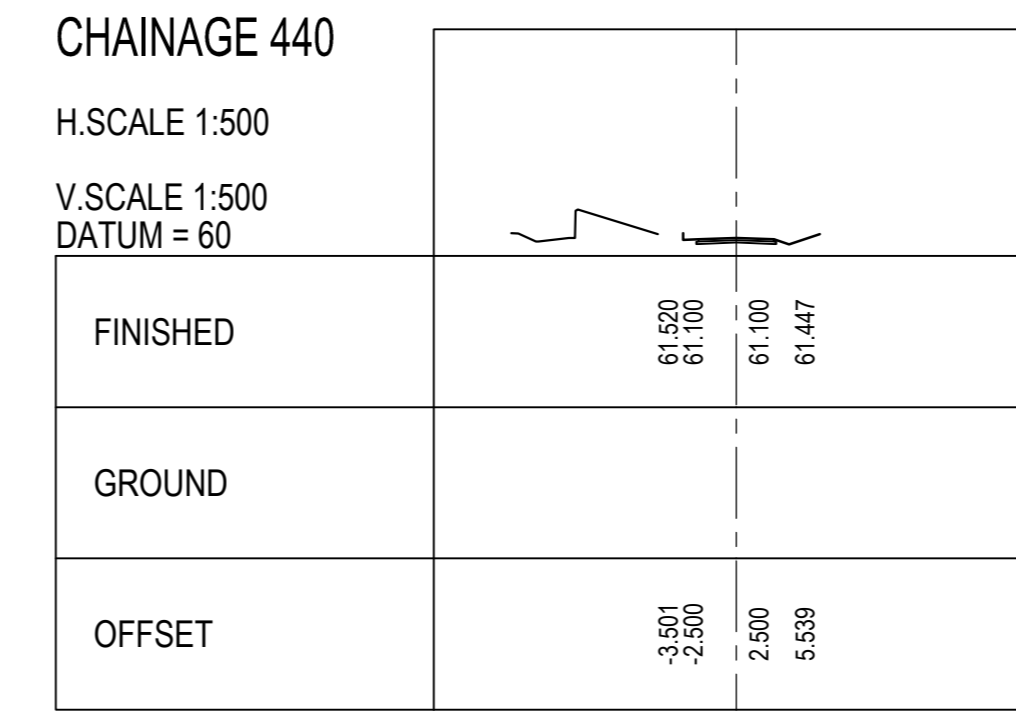
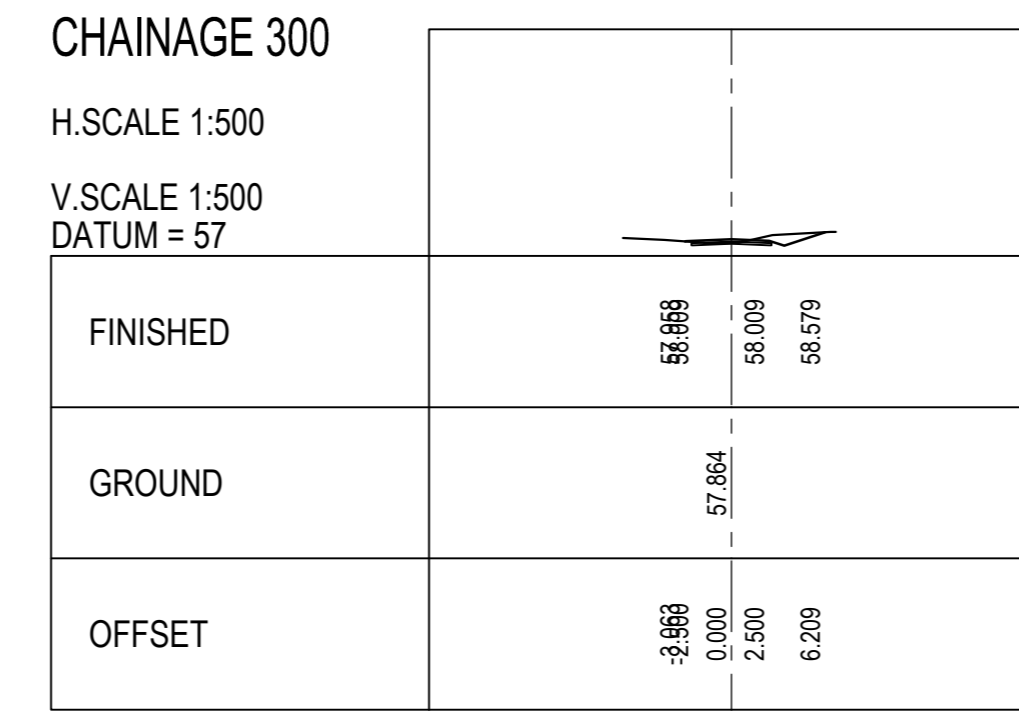
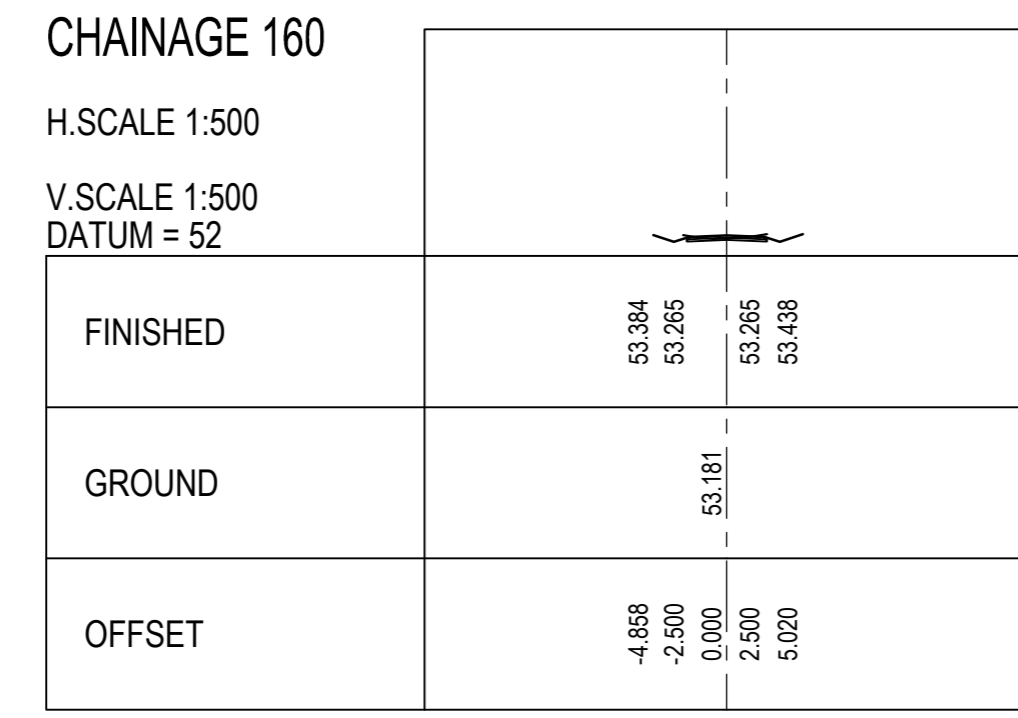
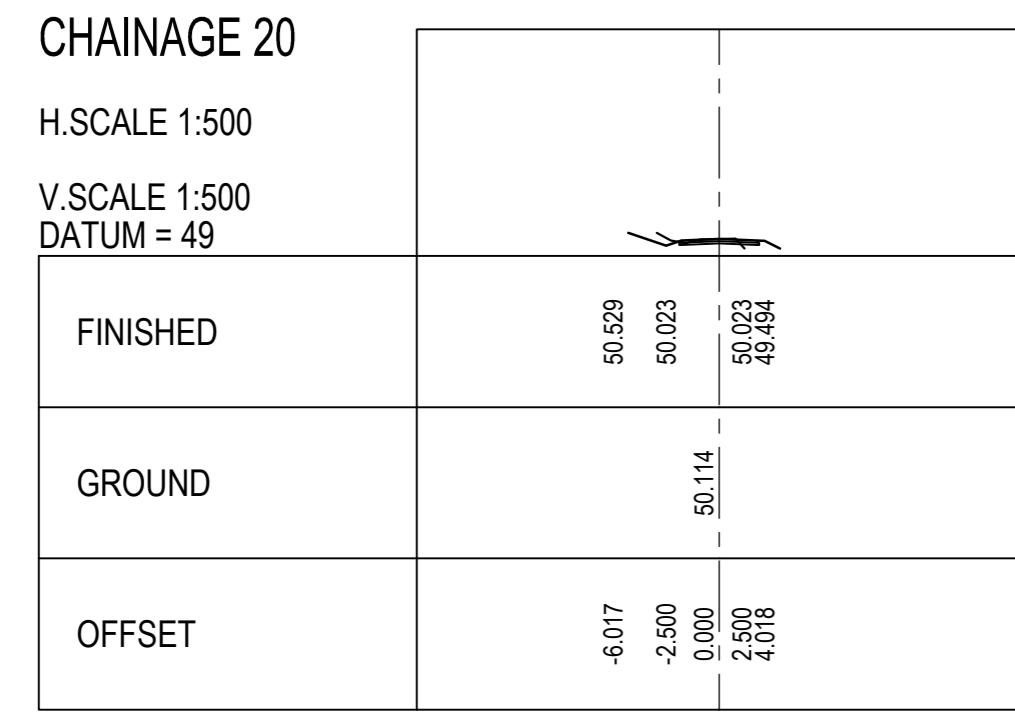
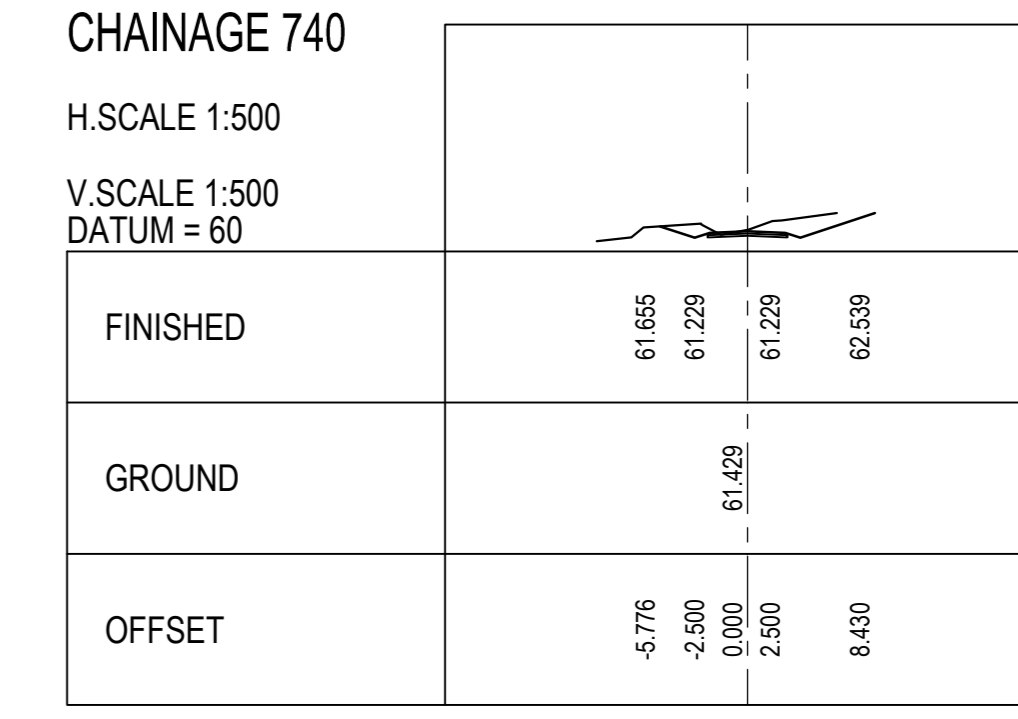
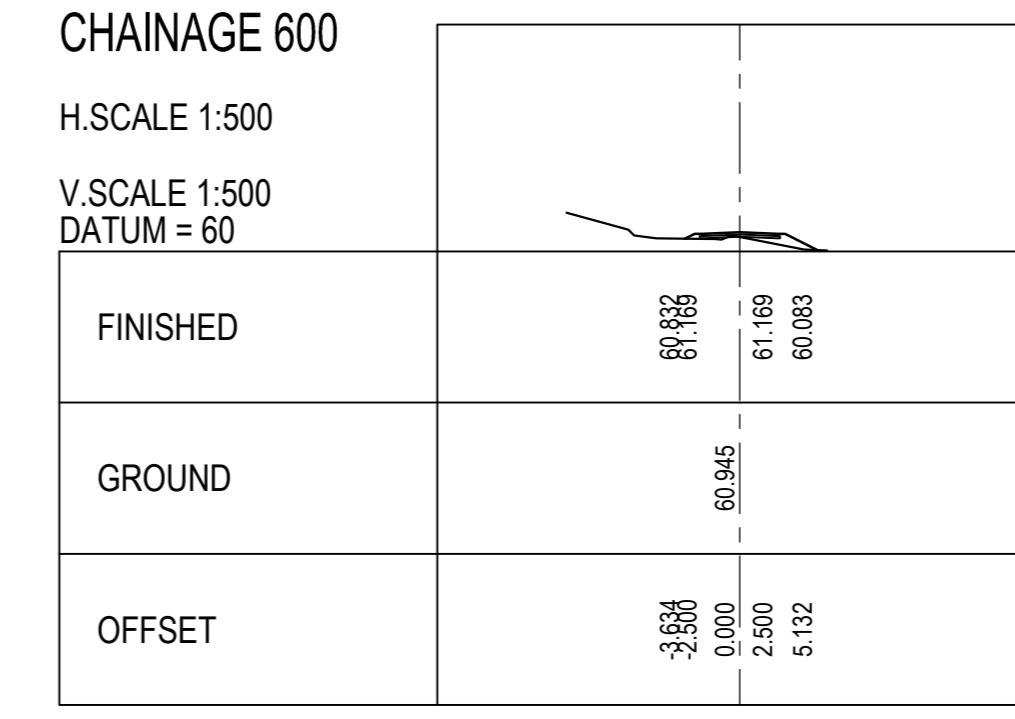
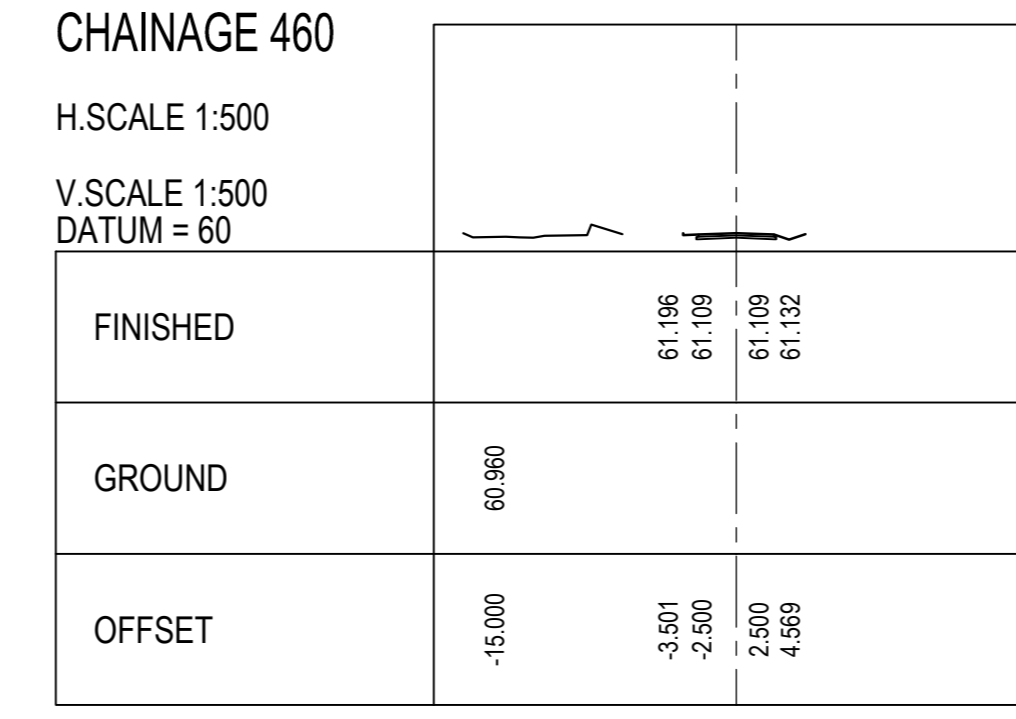
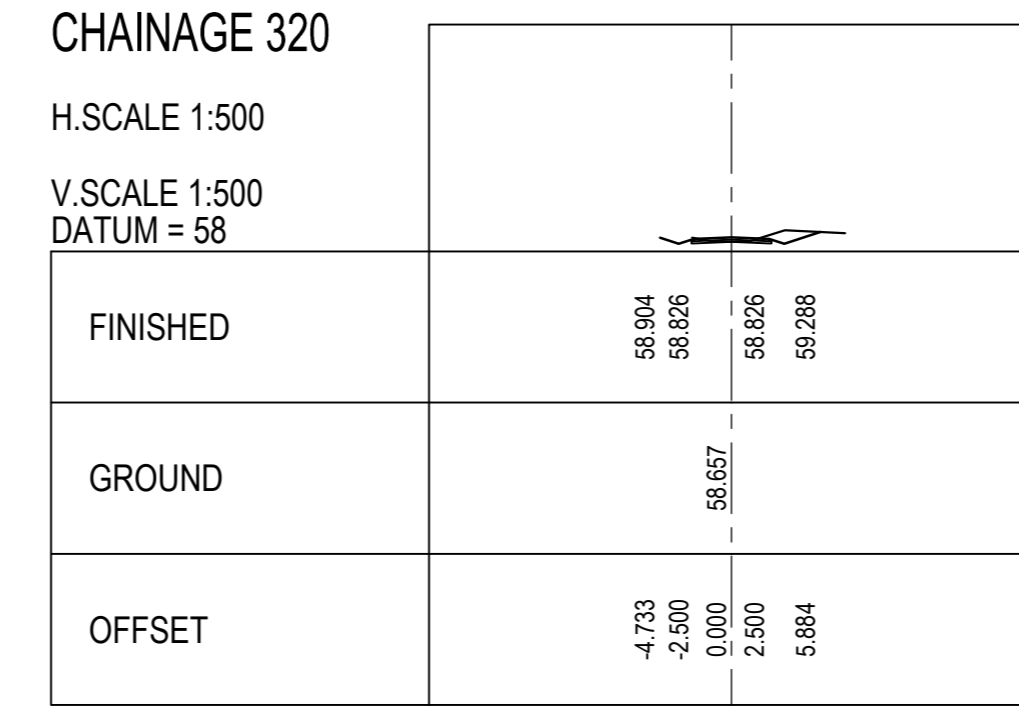
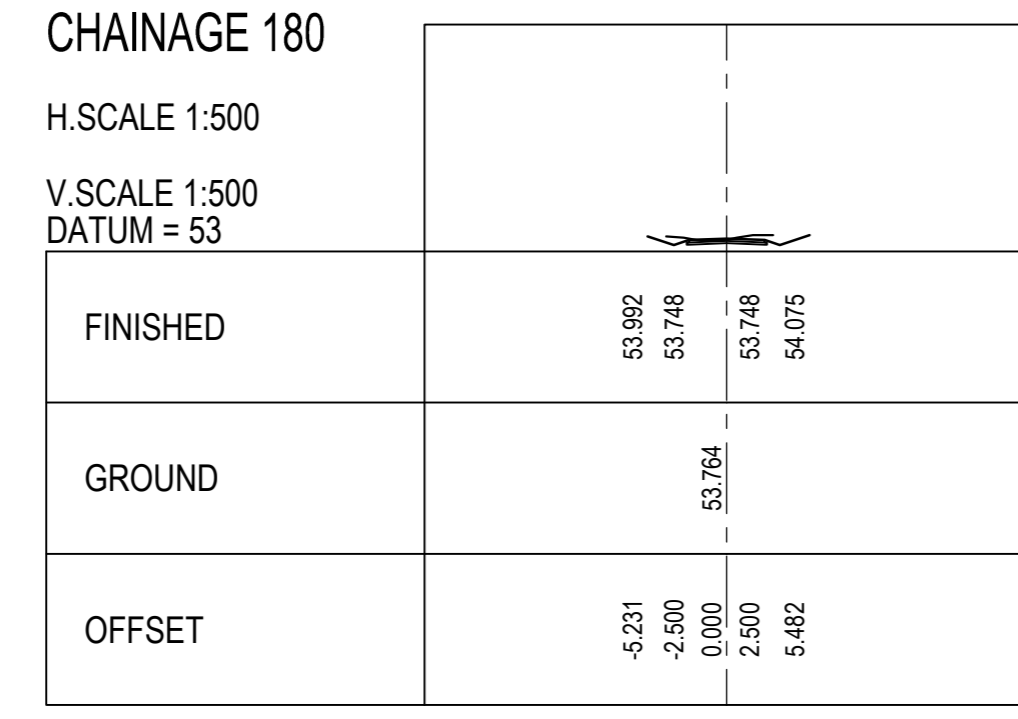
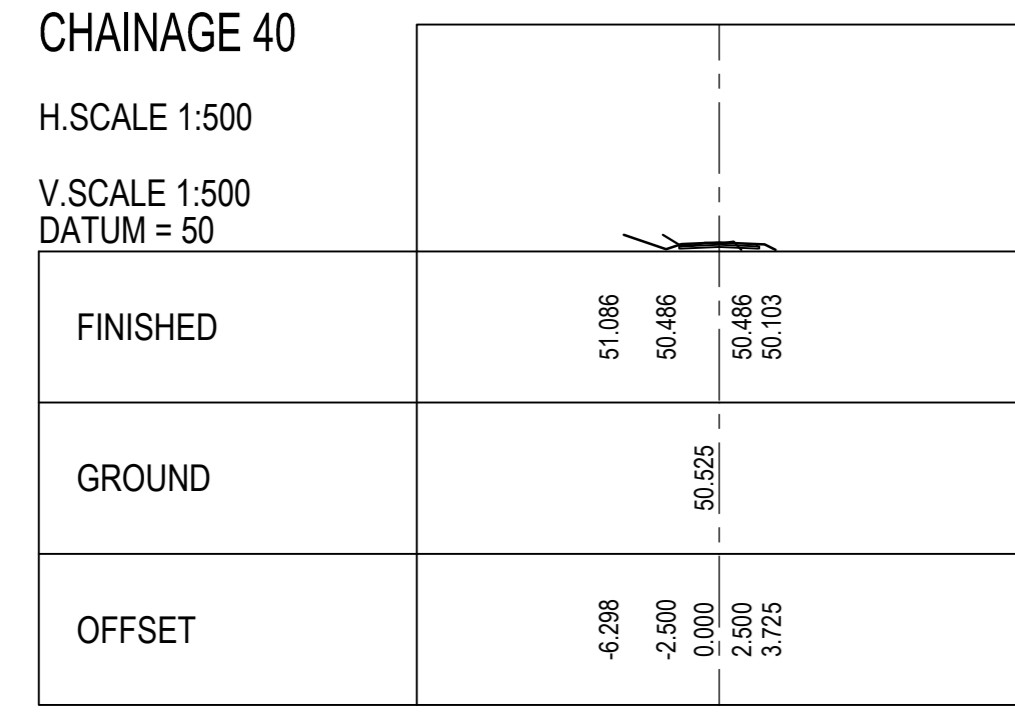
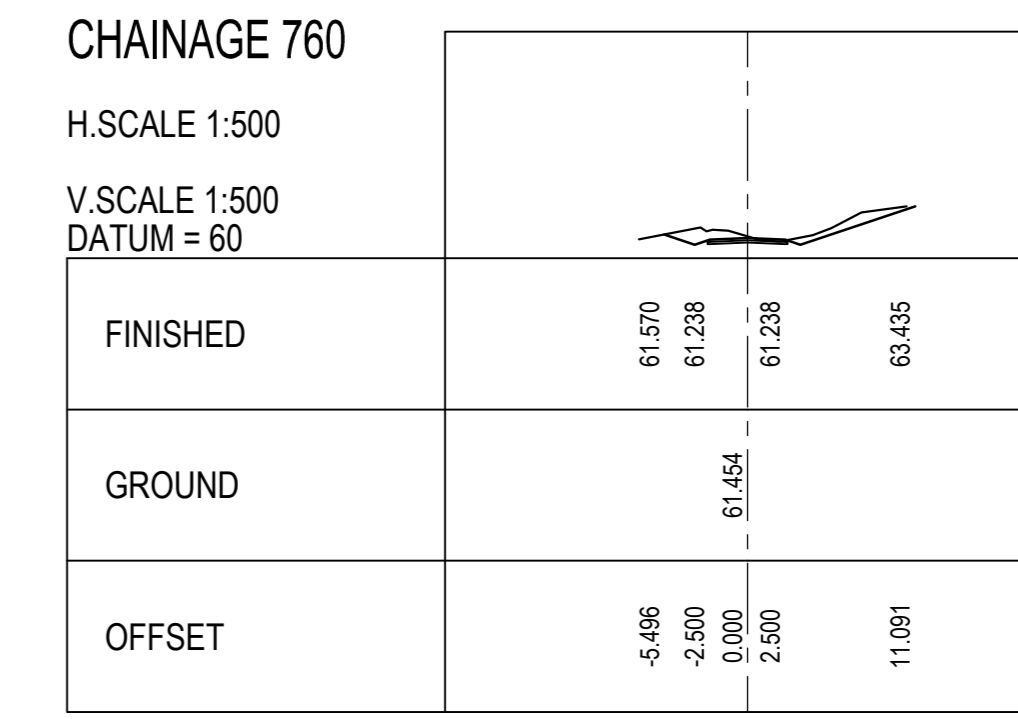
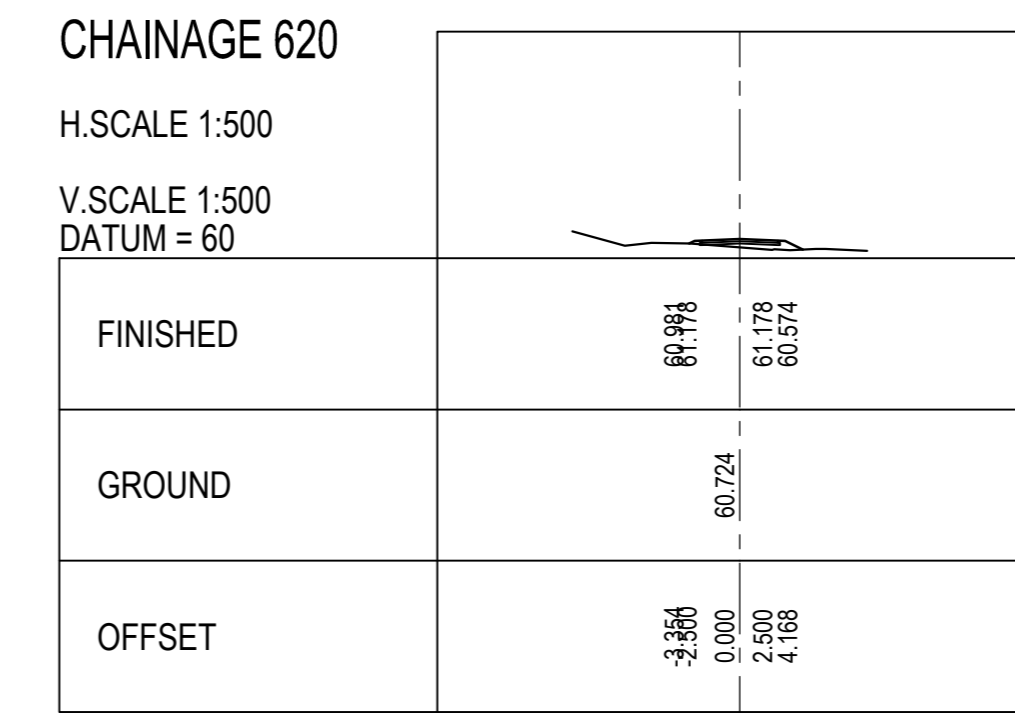
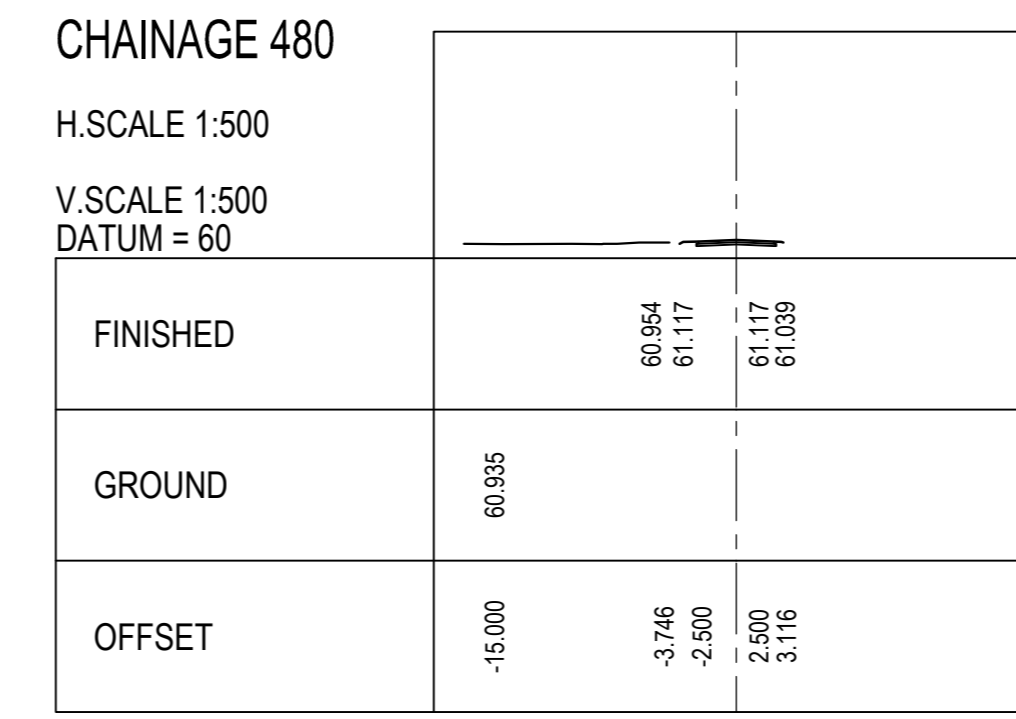
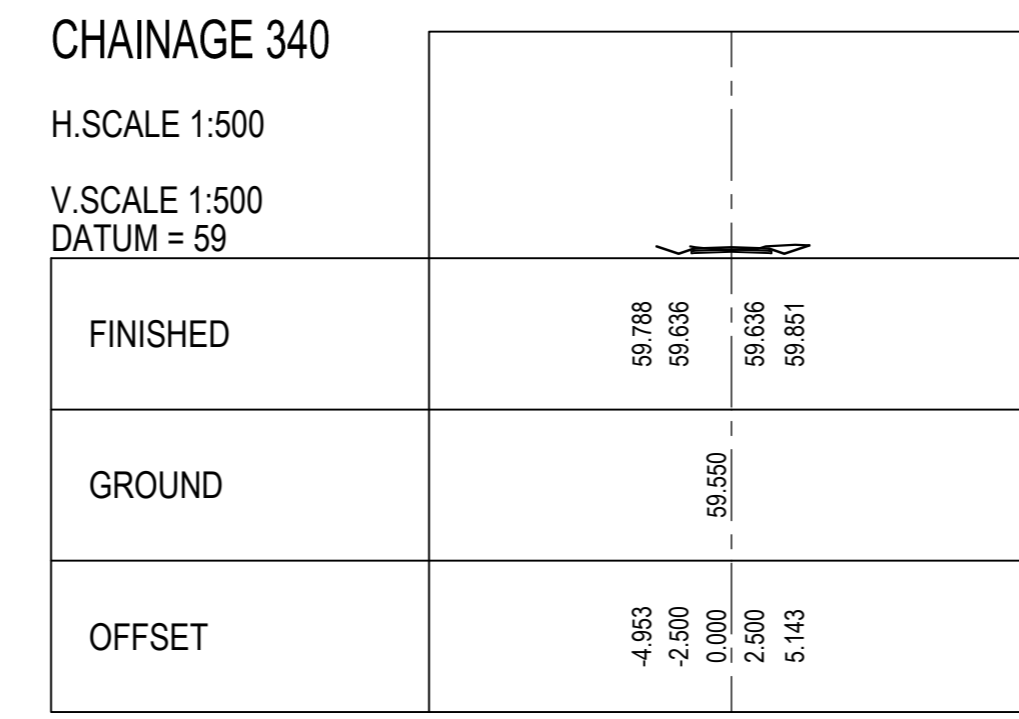
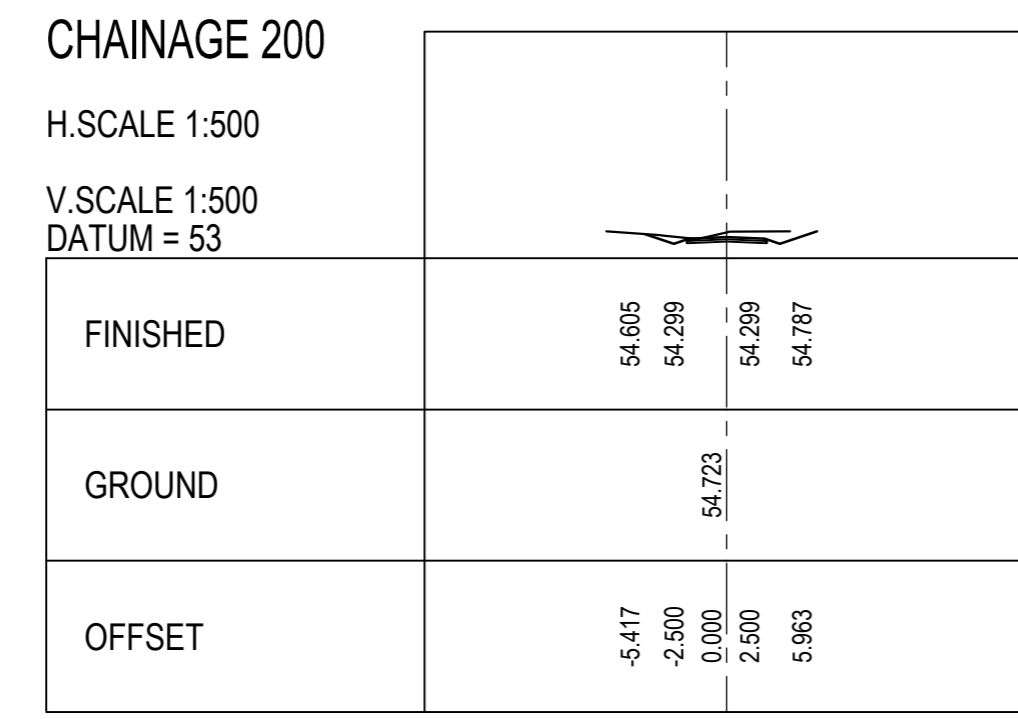
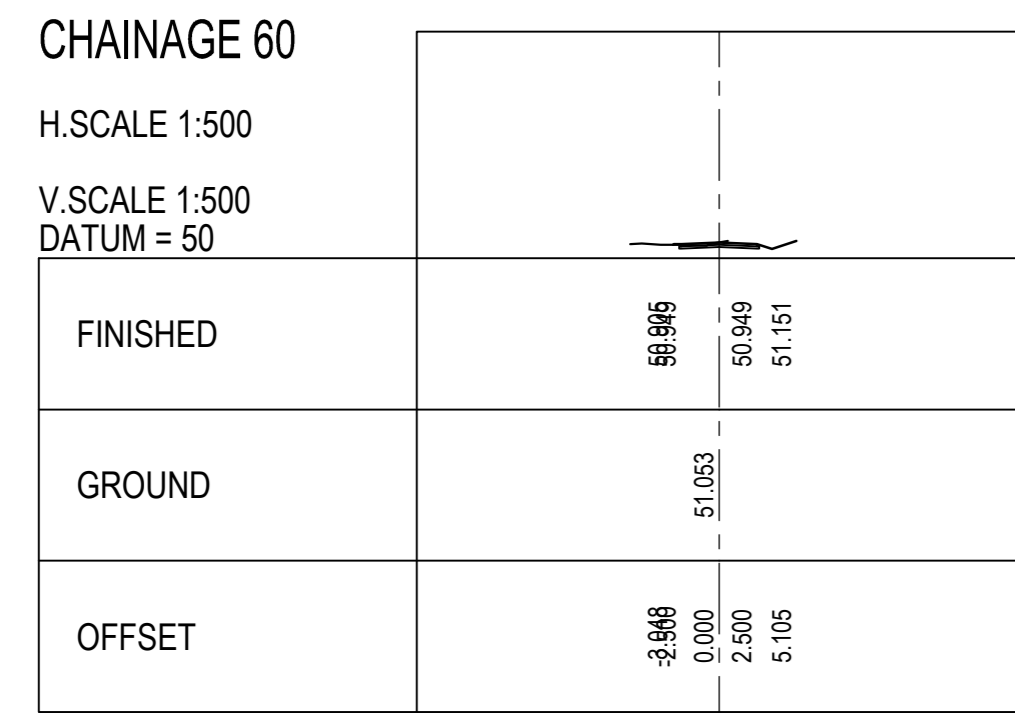
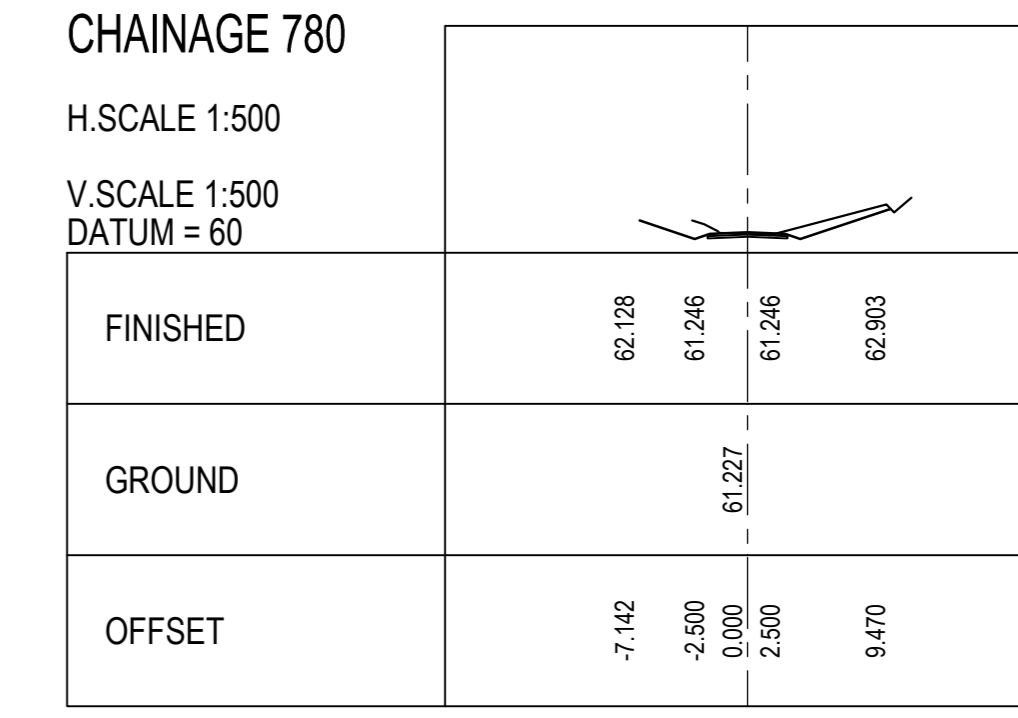
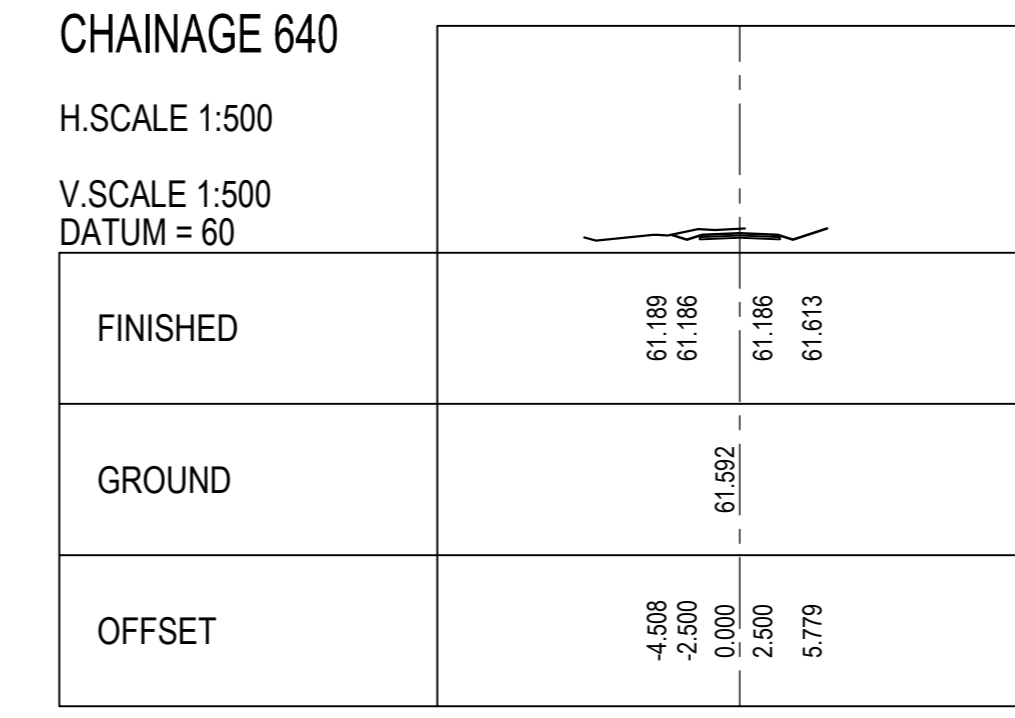
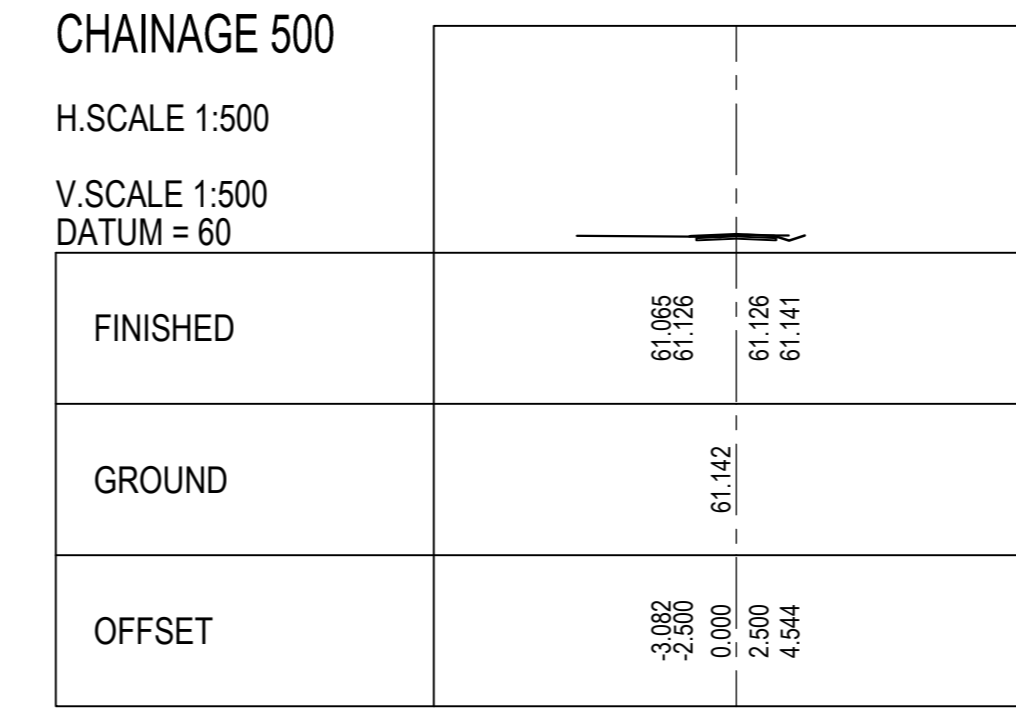
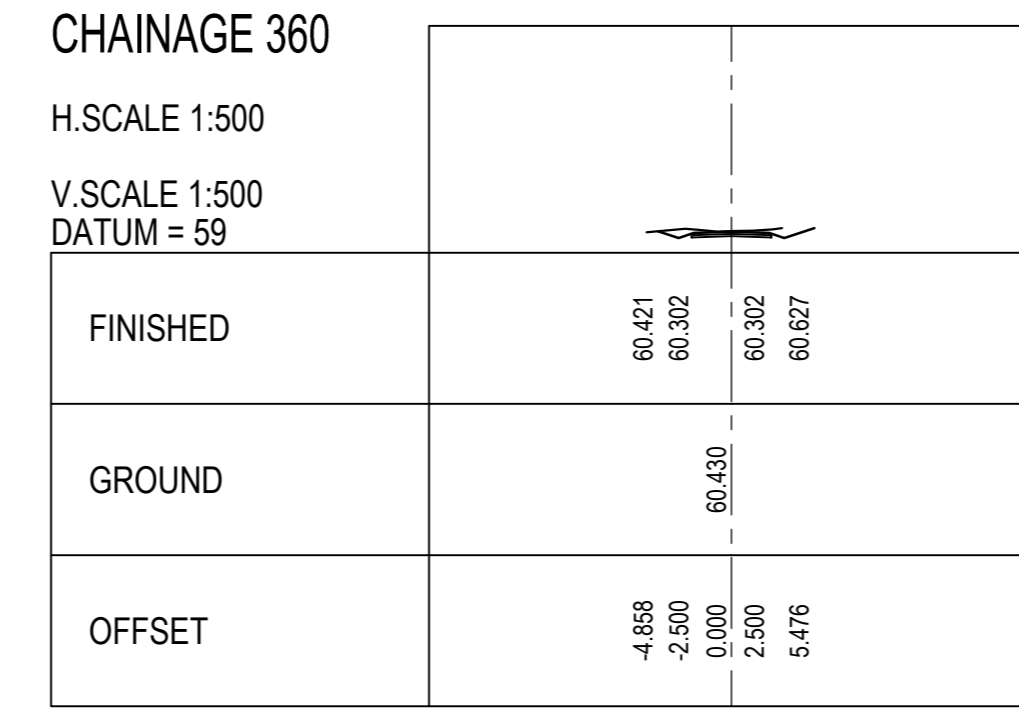
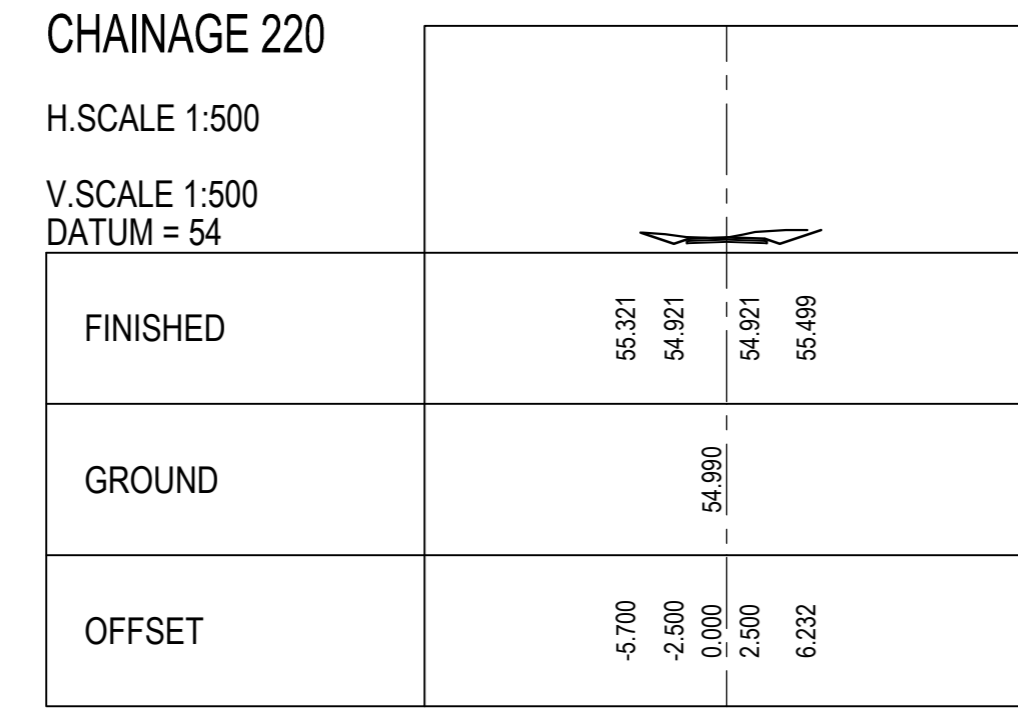
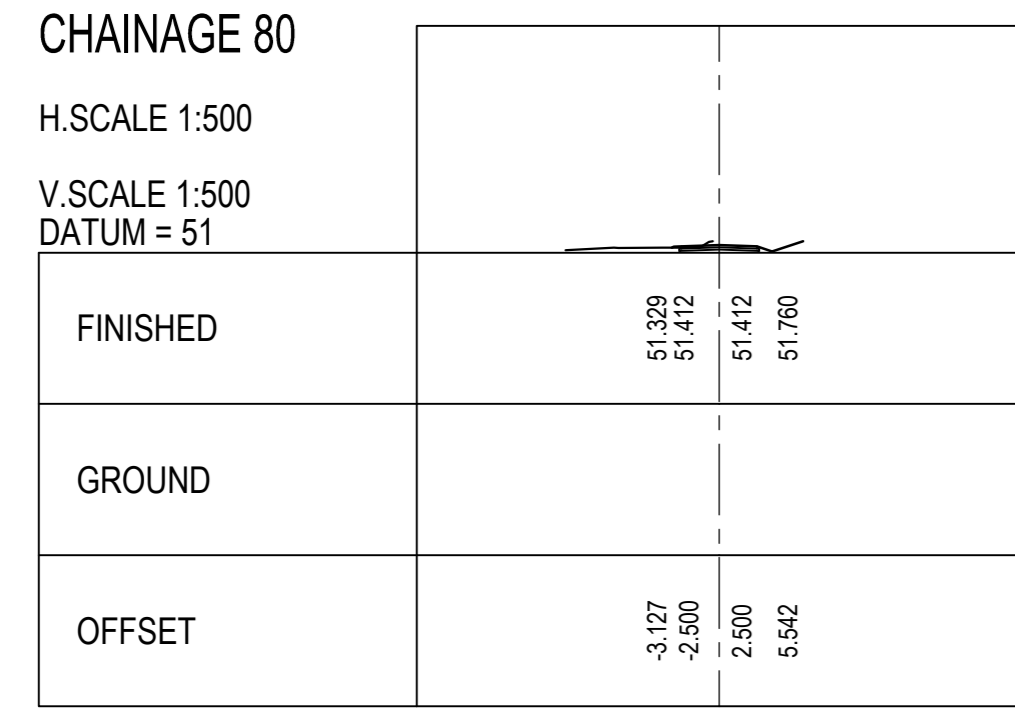
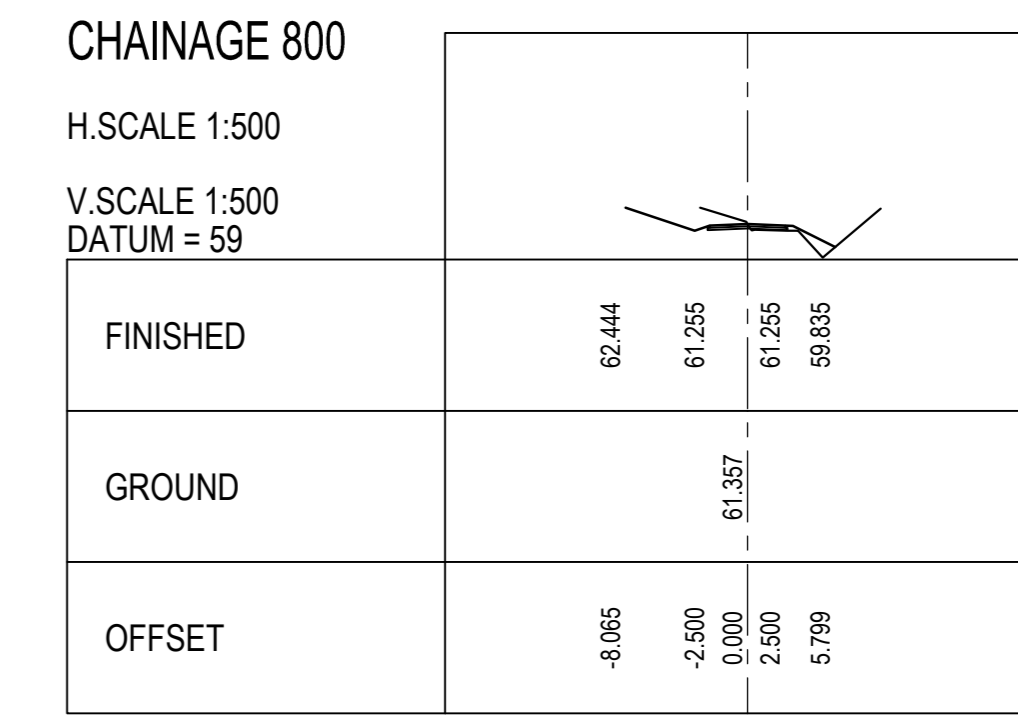
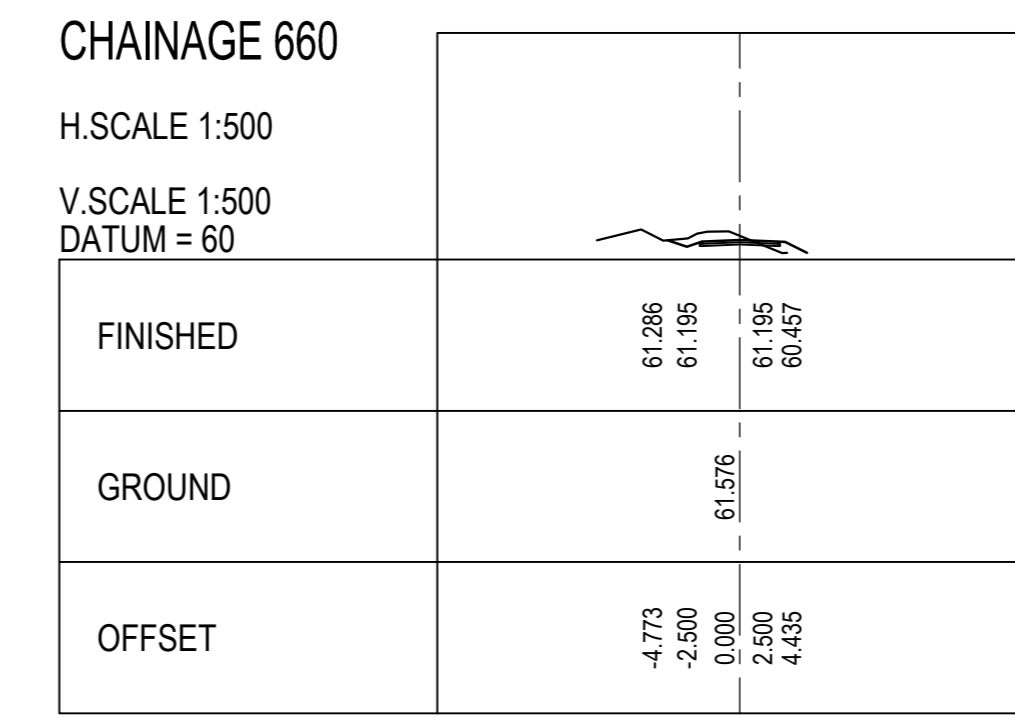
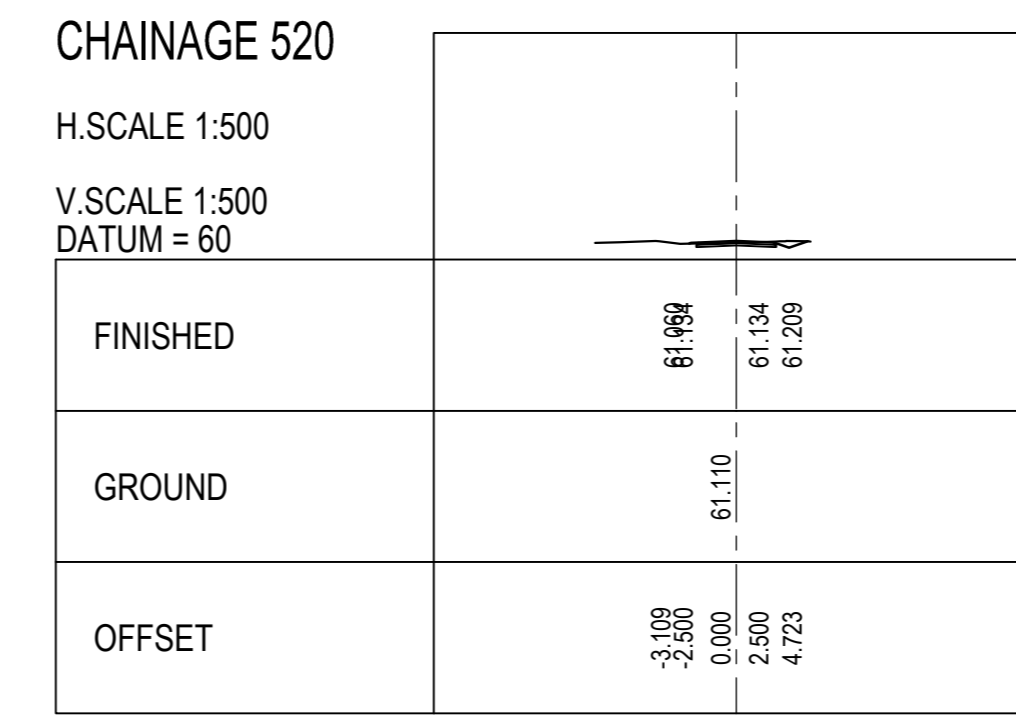
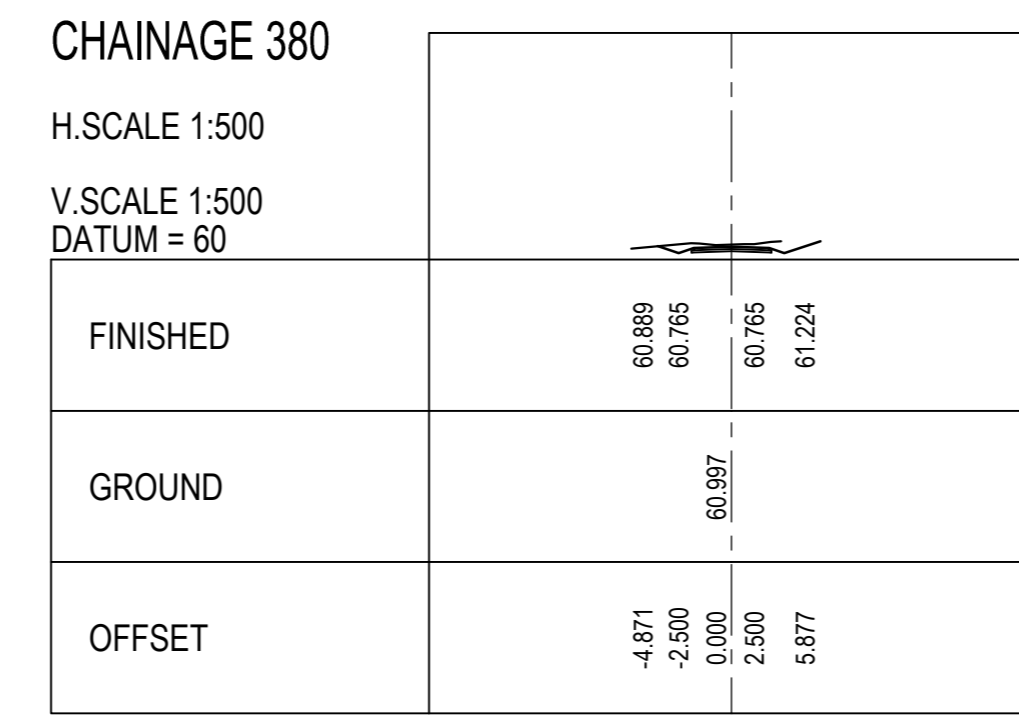
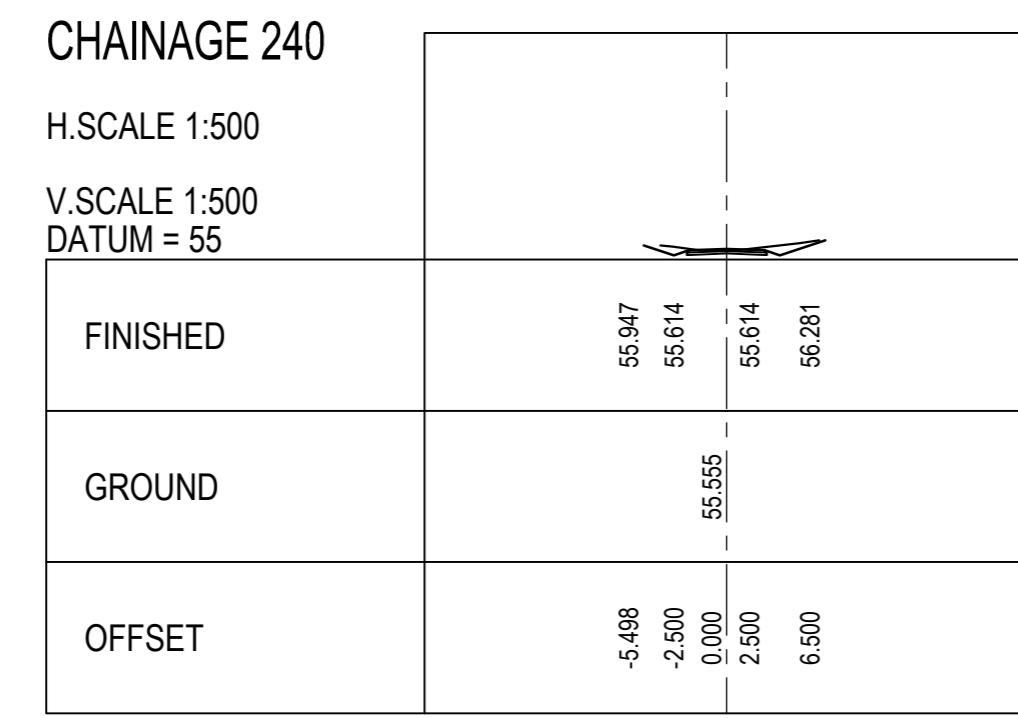
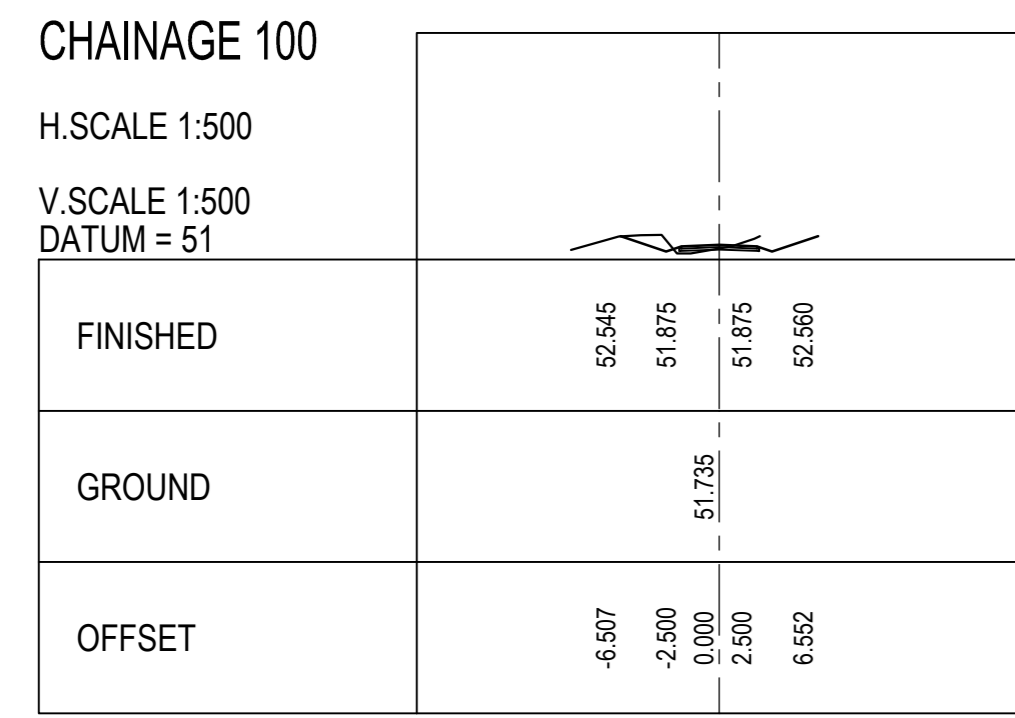
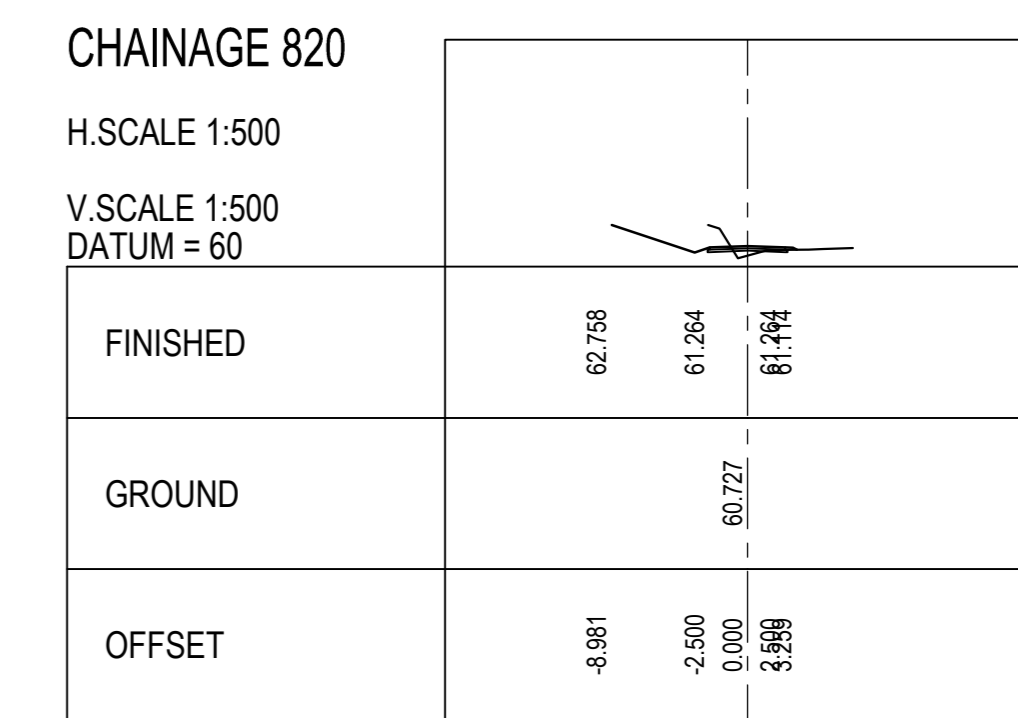
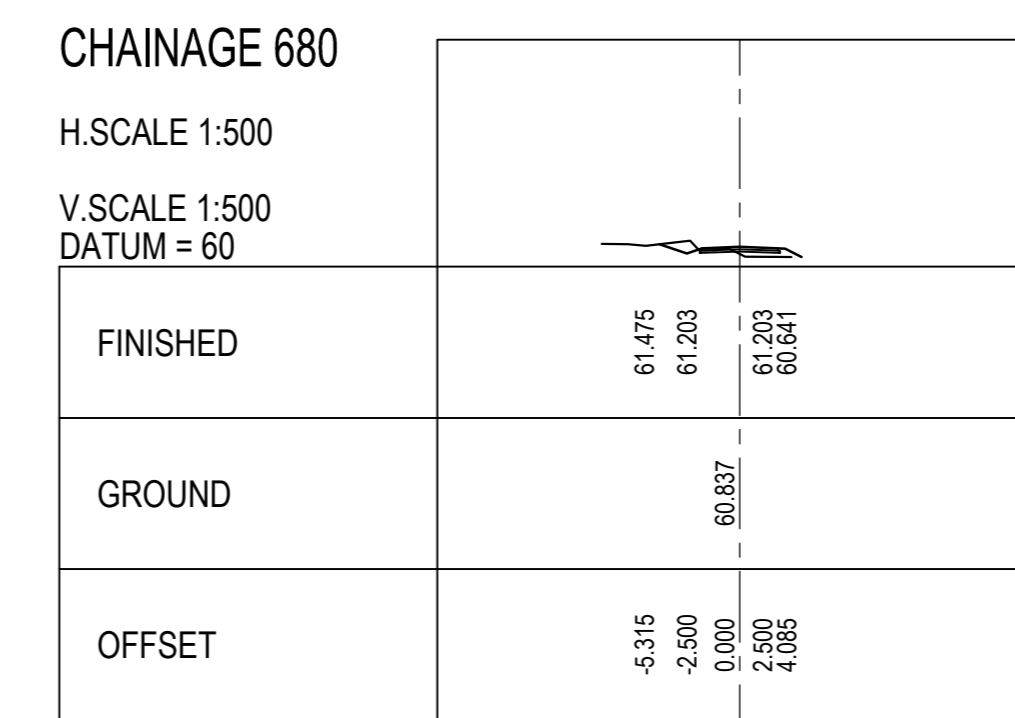
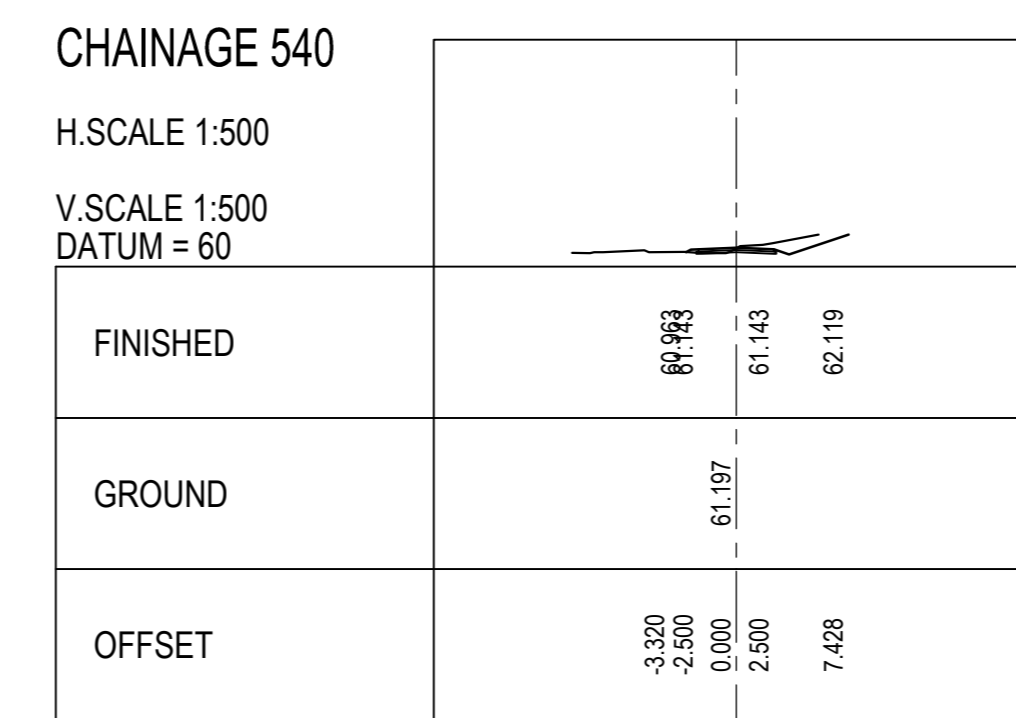
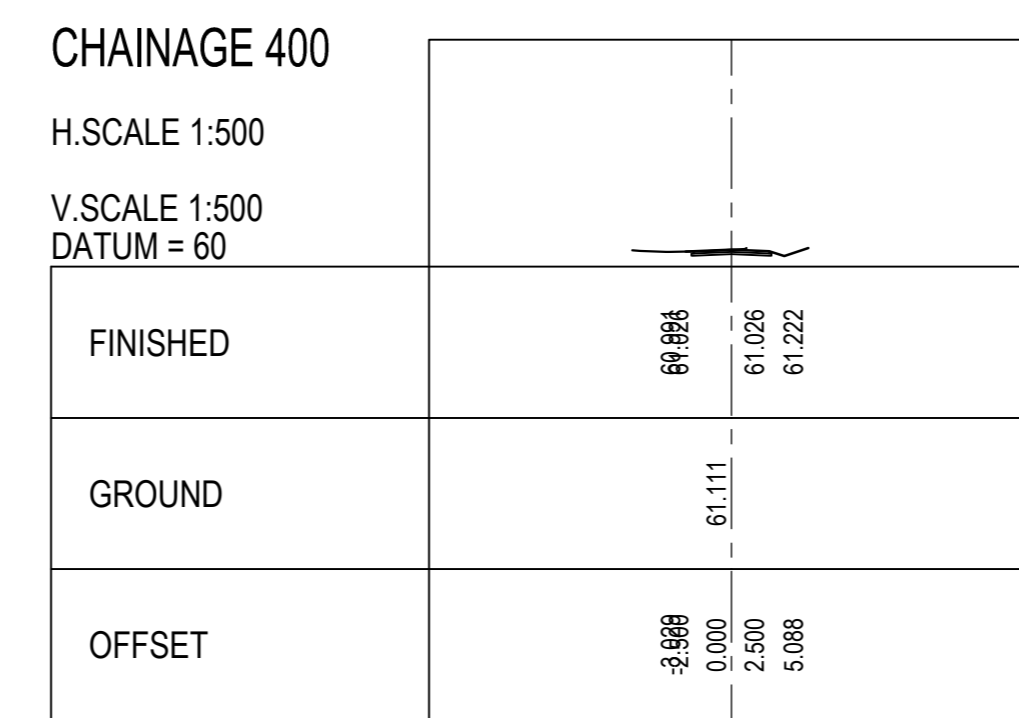
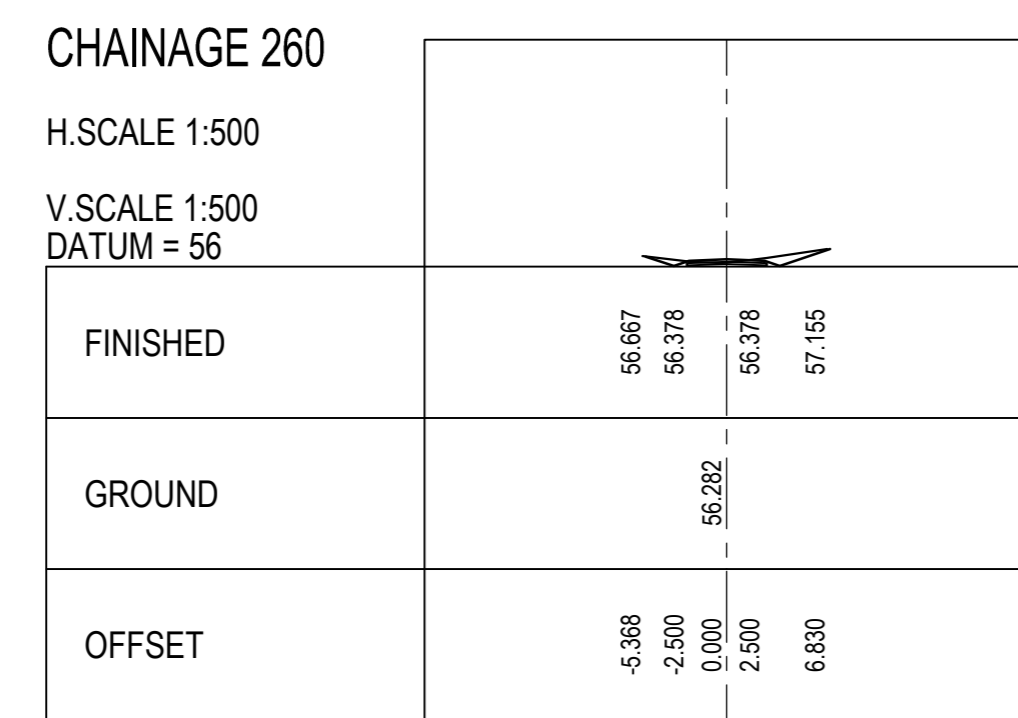
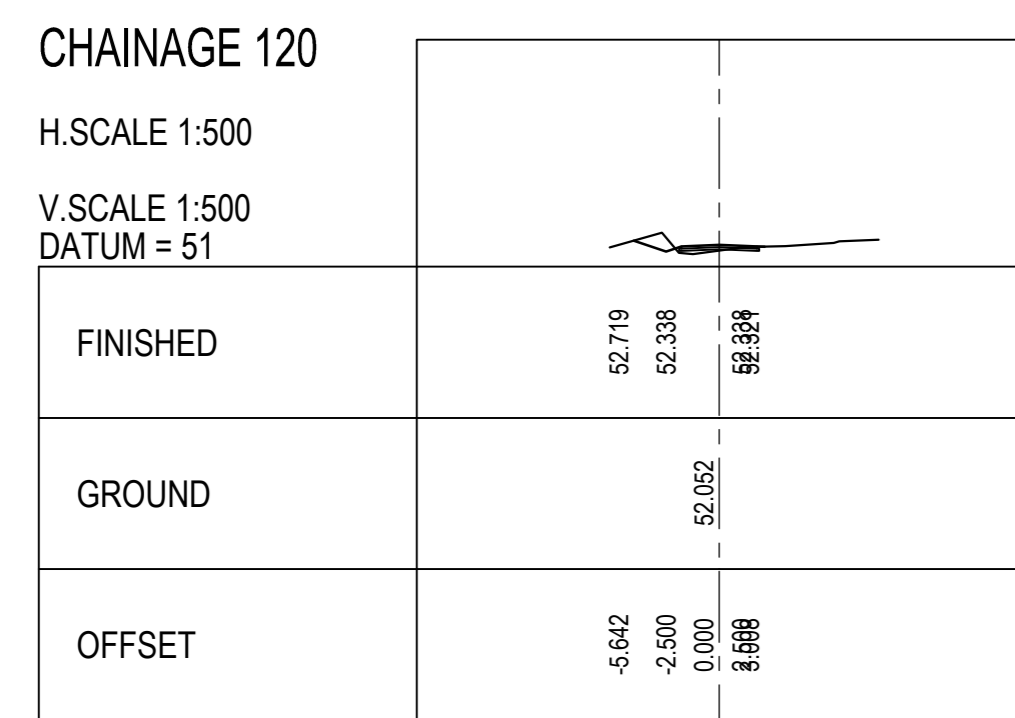
TEL: 035 592 0672
E: info@mhlabyalingana.gov.za

PROJECT/DRAWING TITLE

**CONSTRUCTION OF MATHE GRAVEL ROAD
IN WARD 09
PLAN AND LONGITUDINAL SECTION
CHAINAGE 4000m - 4807.26m**

SCALE	AS SHOWN	SHEET	SHEET 5 OF 5
CONTRACT No.		PROJECT No.	
DRAWING No.	IZH-0526-MATH-LS-207	REV	

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ISSUED FOR TENDER

DRAWING NUMBER	DESCRIPTION	DRAWING REFERENCES

No	DATE	DETAILS	CHECKED	APPROVED

DESIGNED	N. BUTHLEZI	APRIL 2026
DRAWN	B. SITHOLE	APRIL 2026
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APPROVED	APRIL 2026	
NAME	N. BUTHLEZI	
SIGNATURE:	2023/01/158	

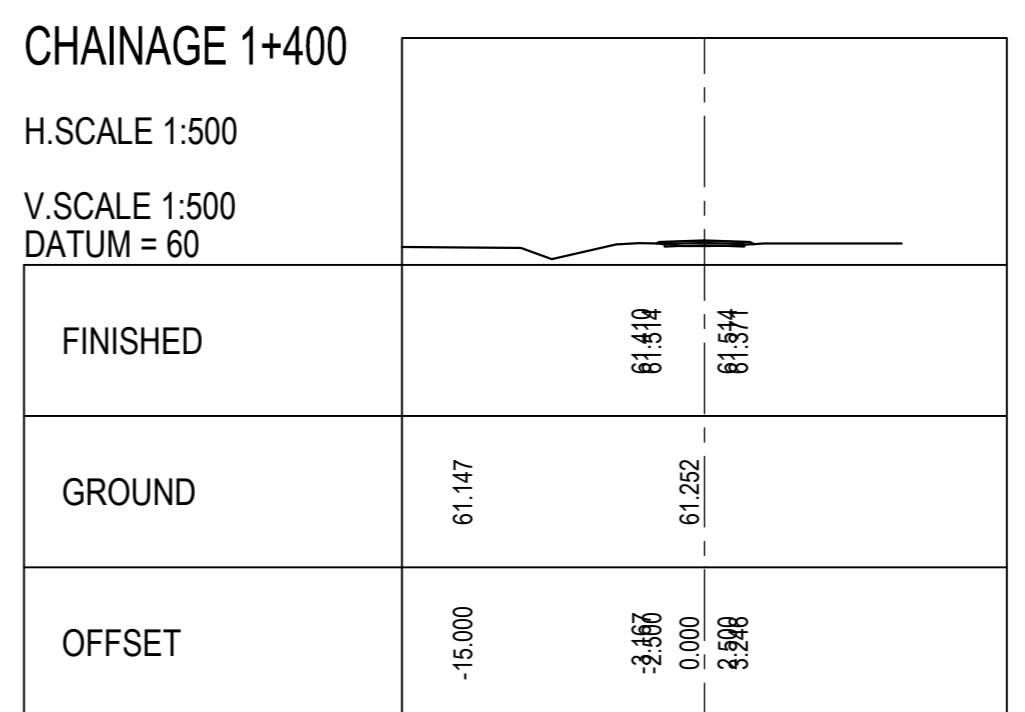
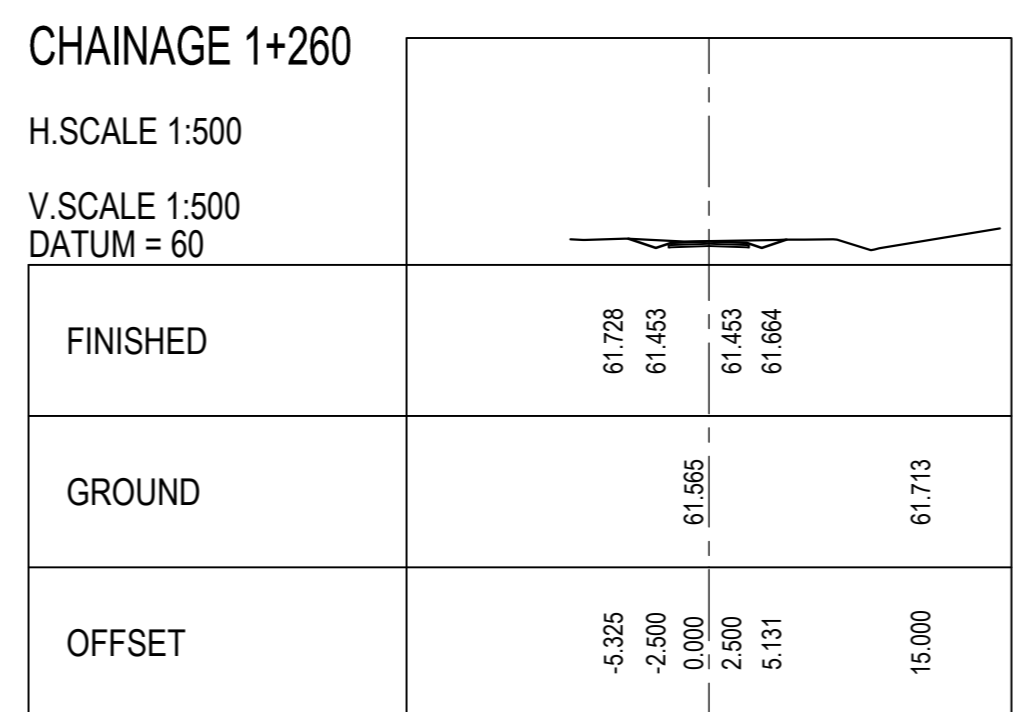
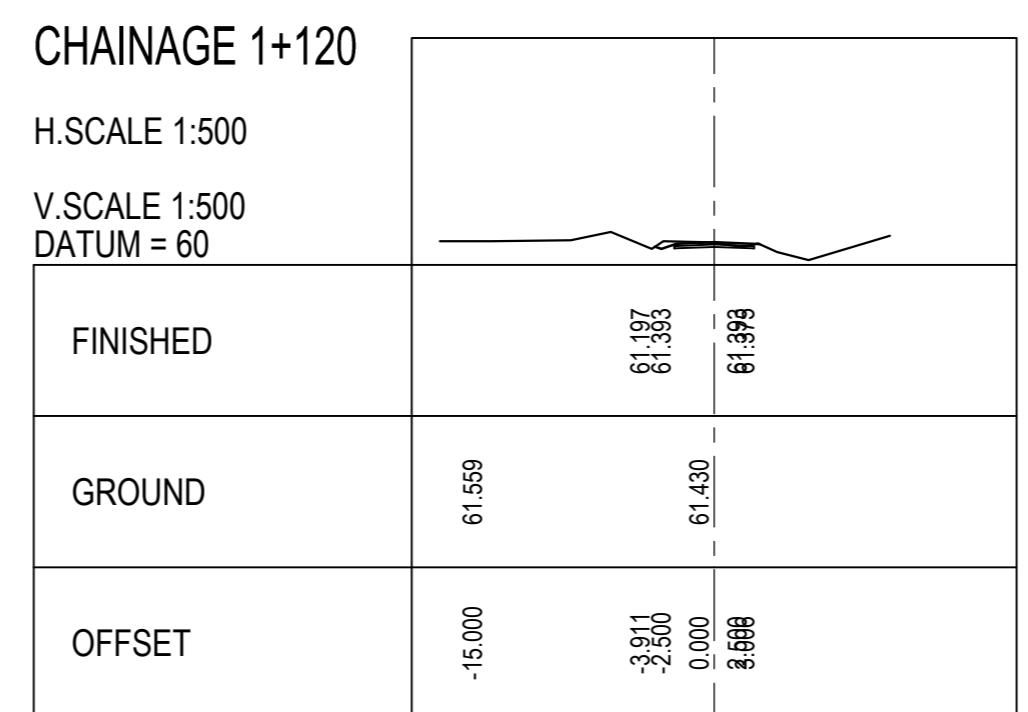
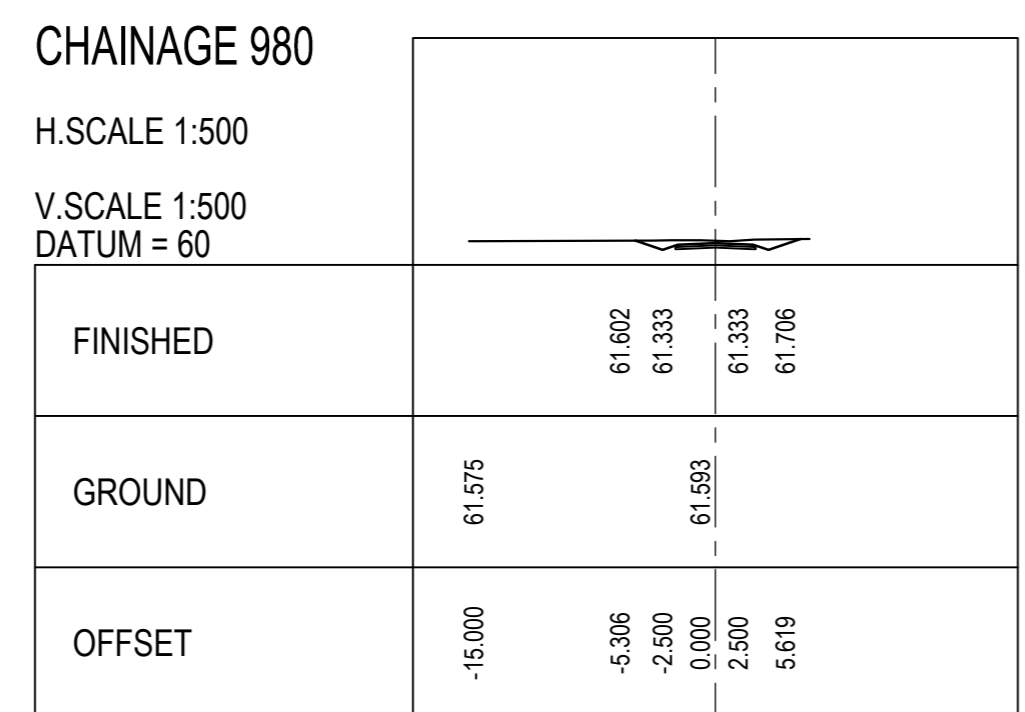
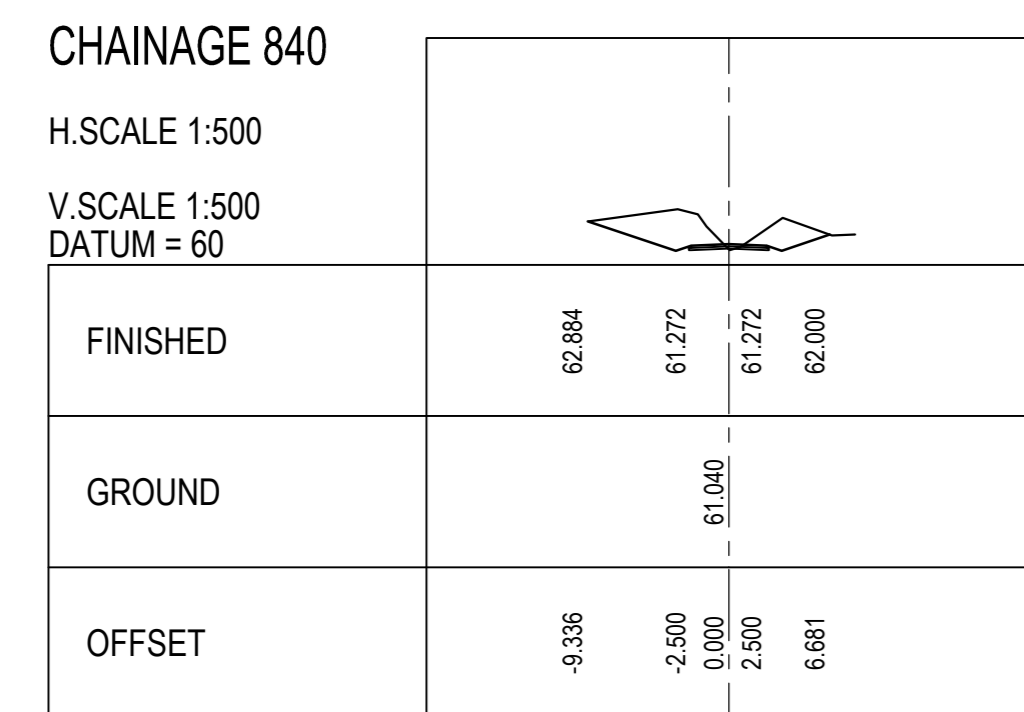
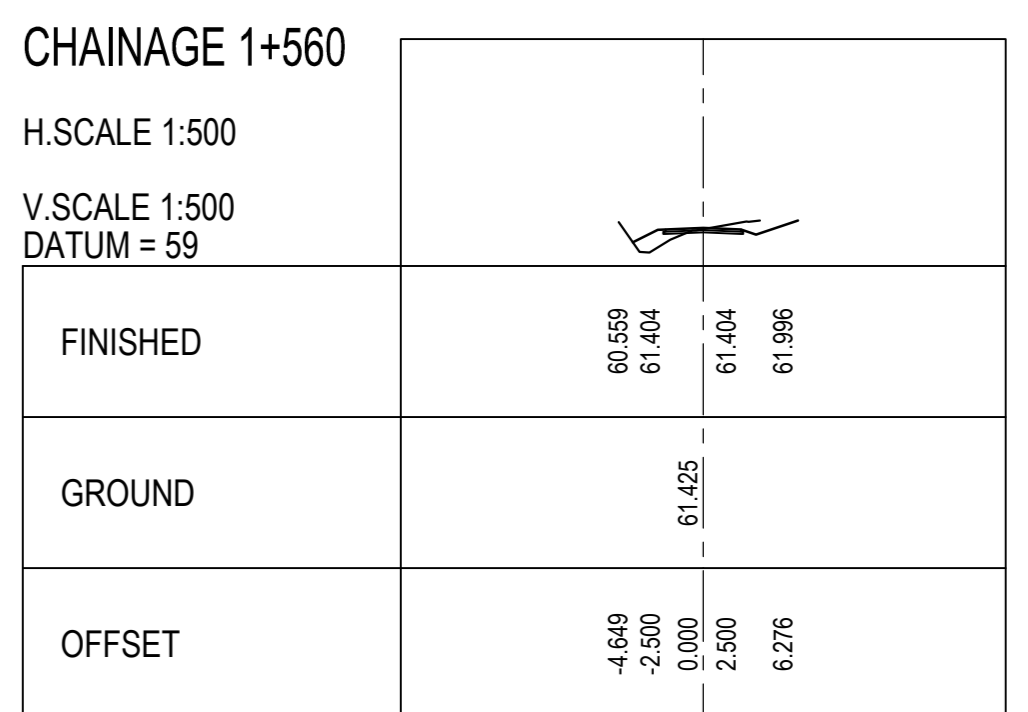
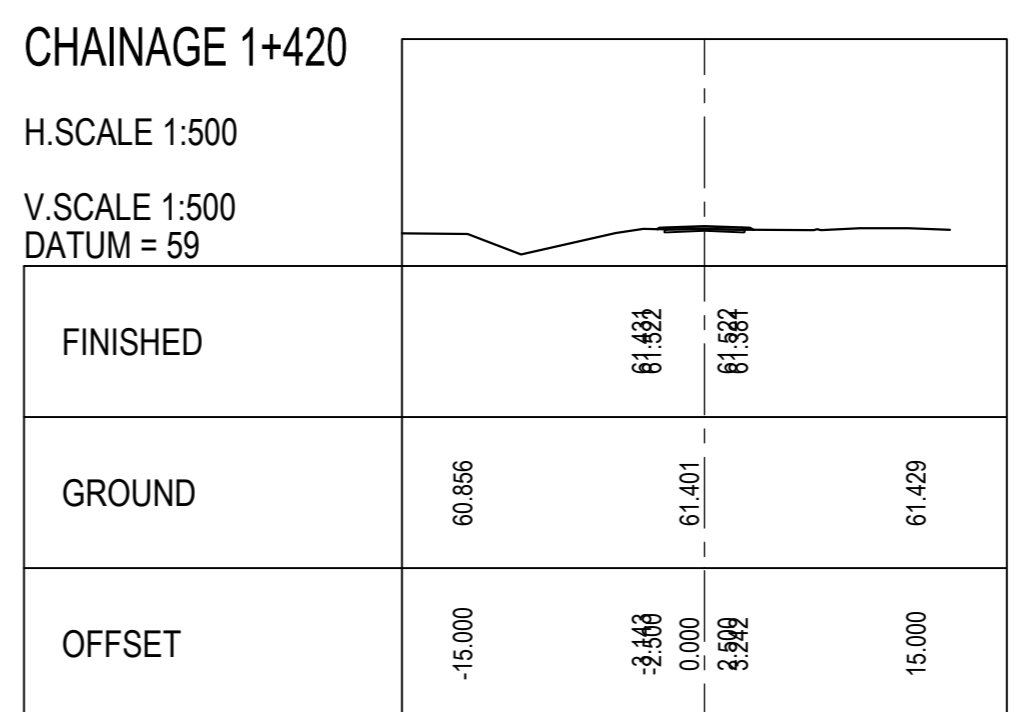
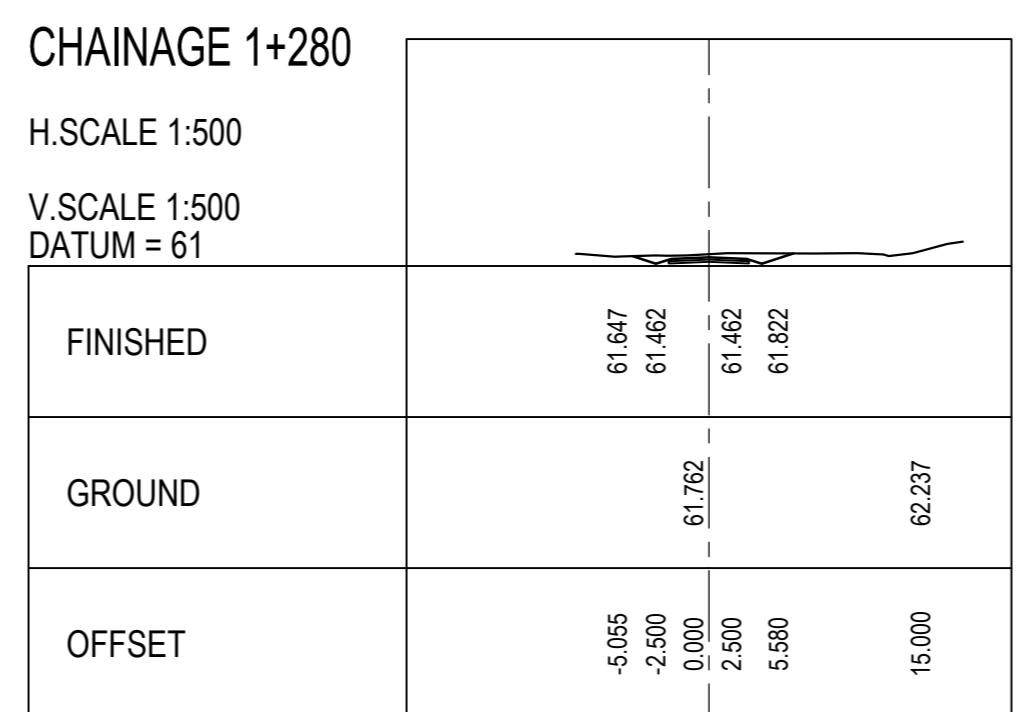
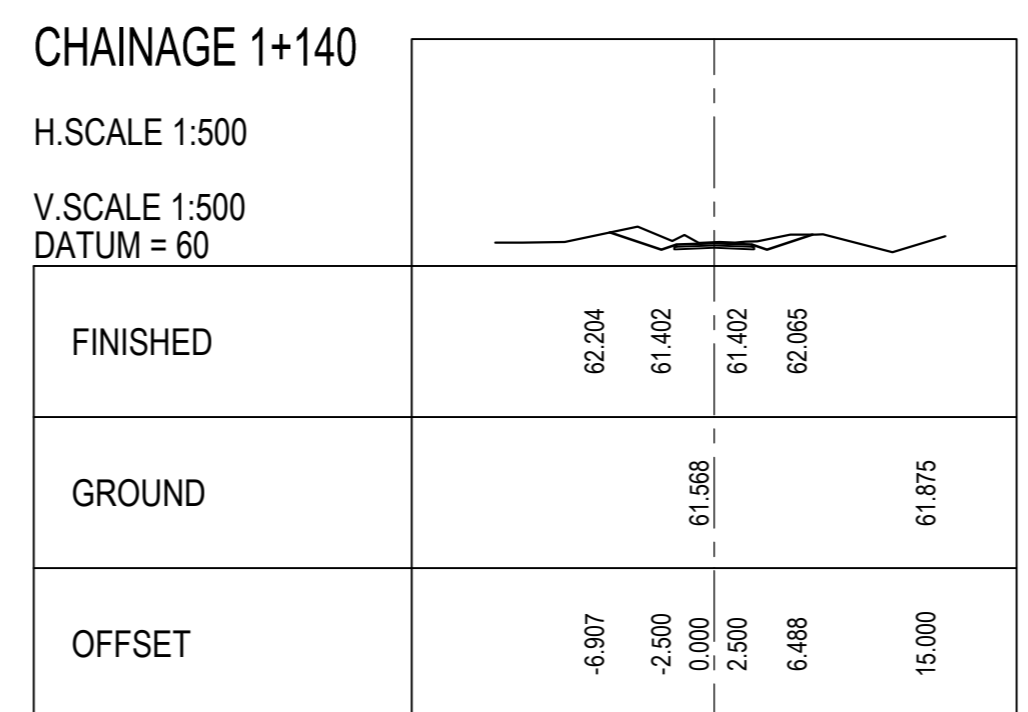
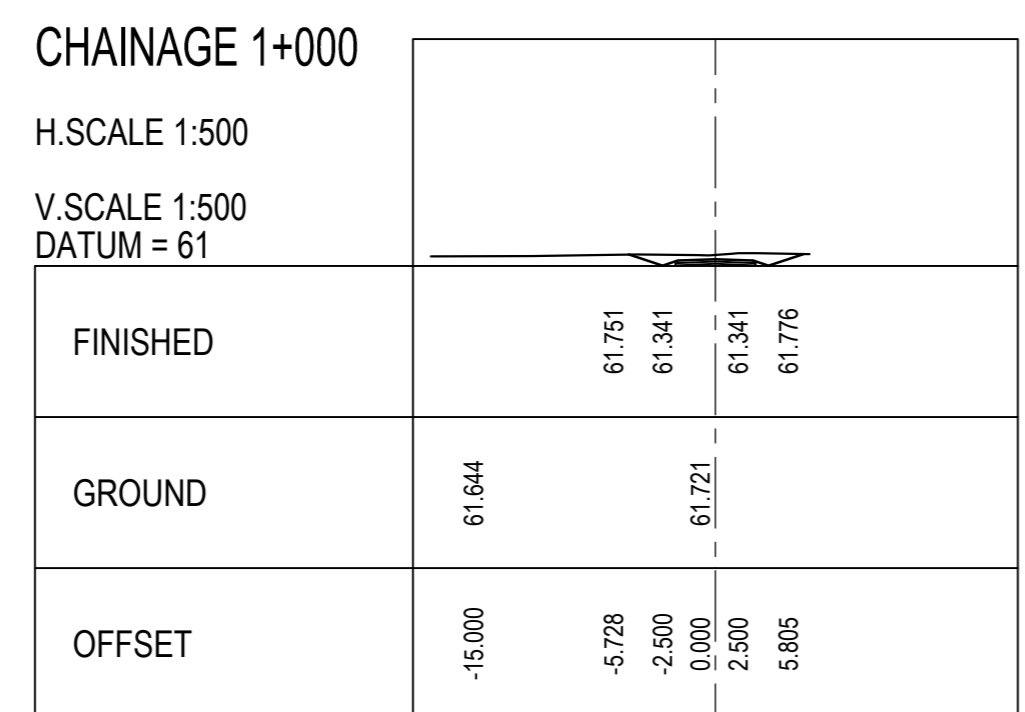
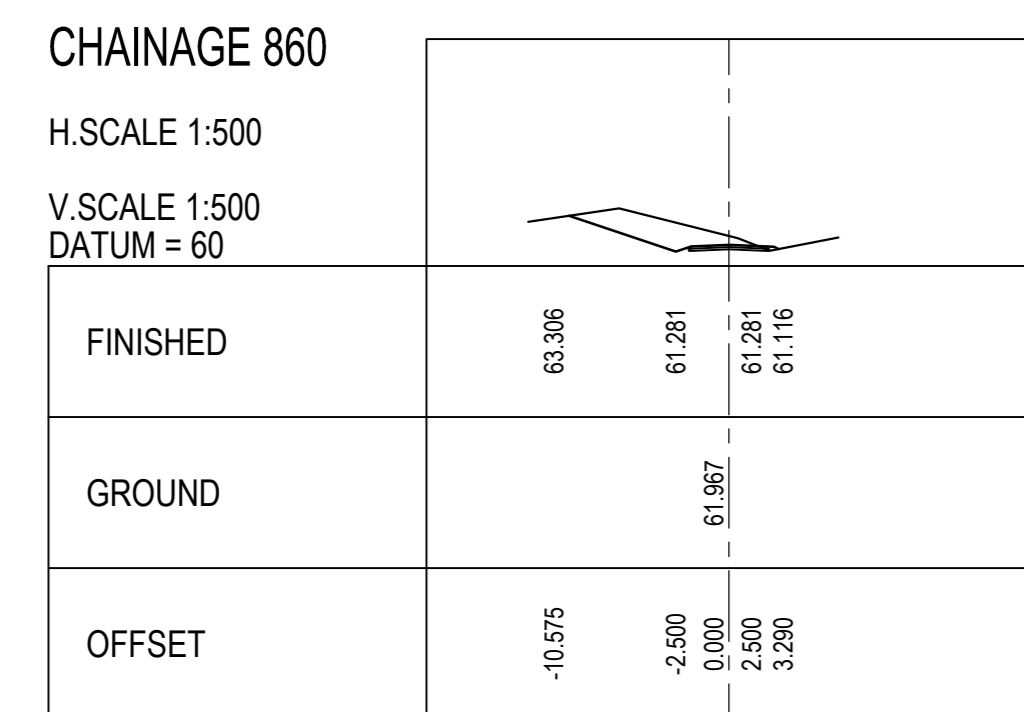
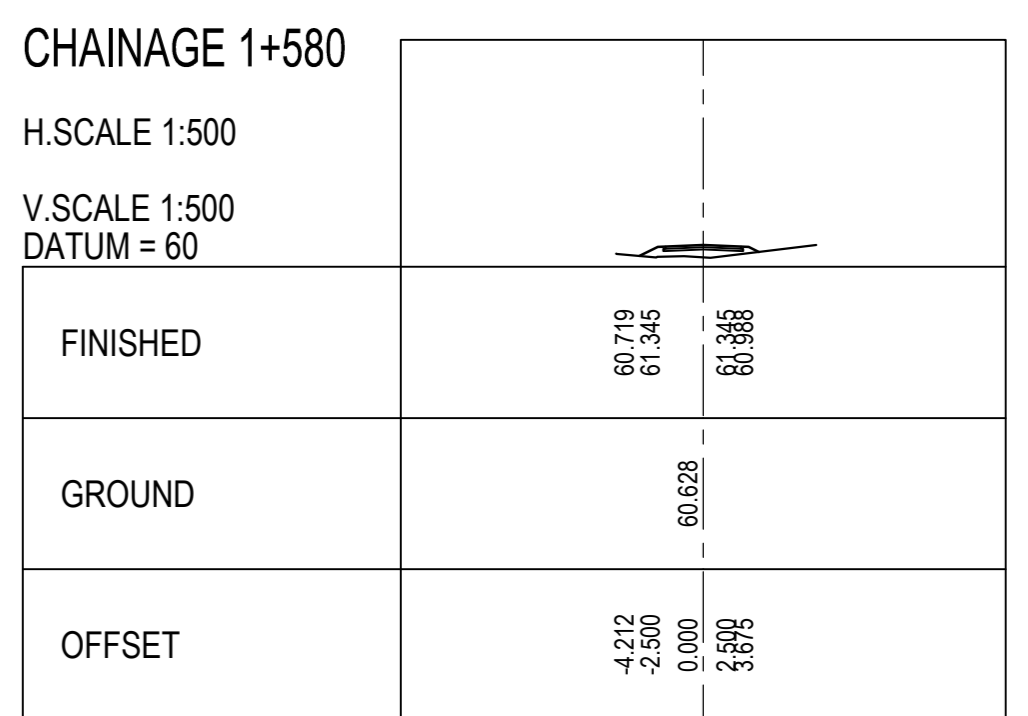
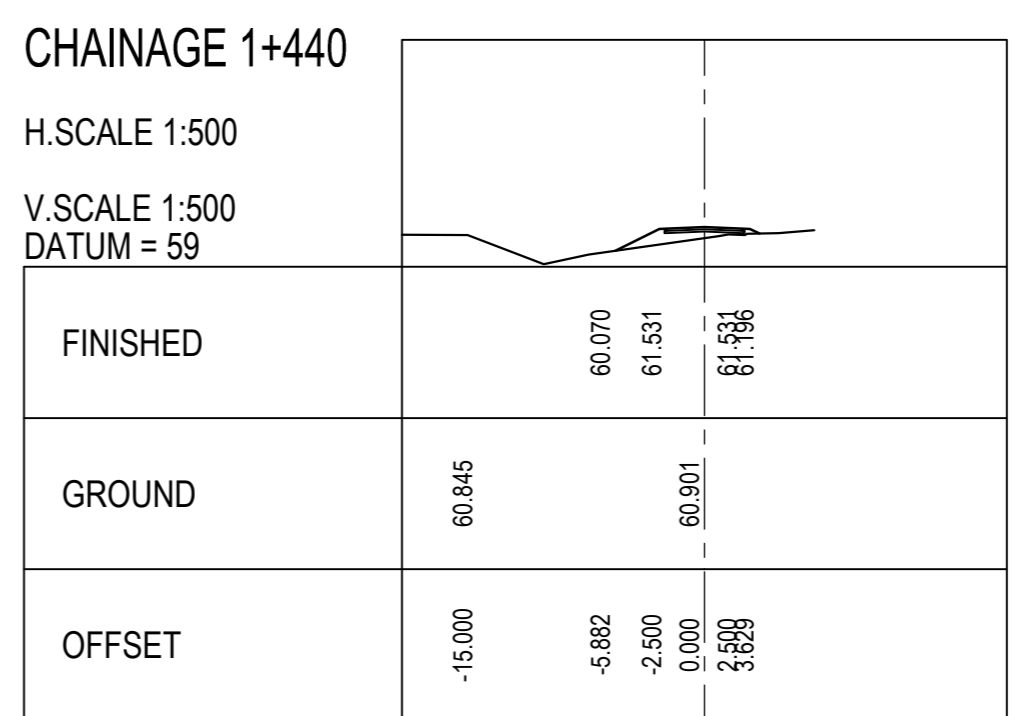
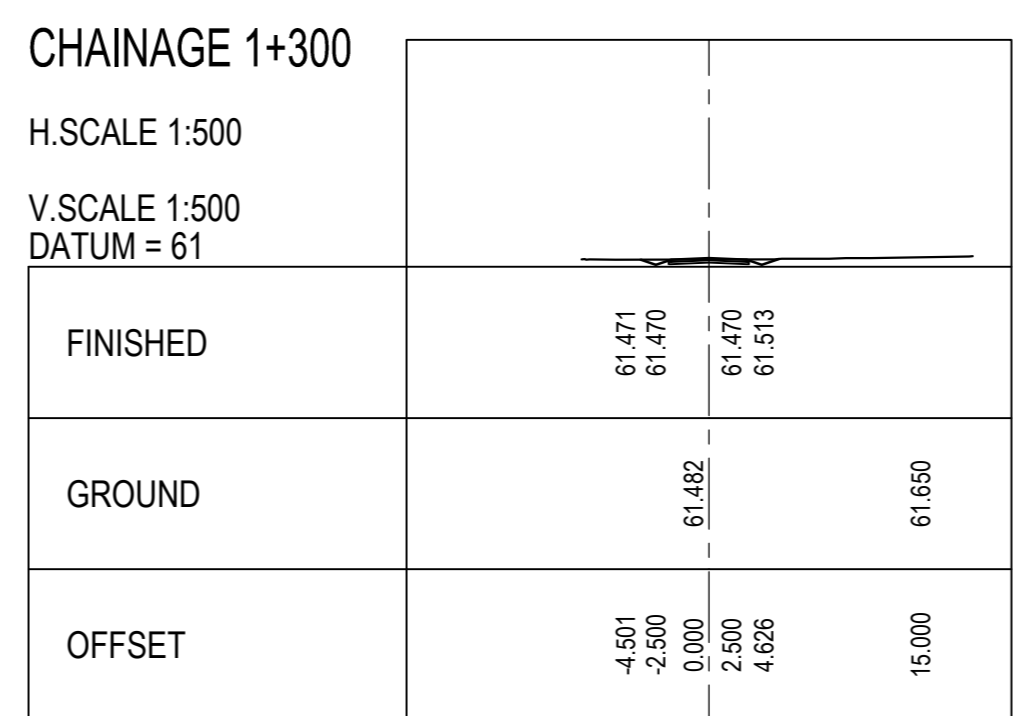
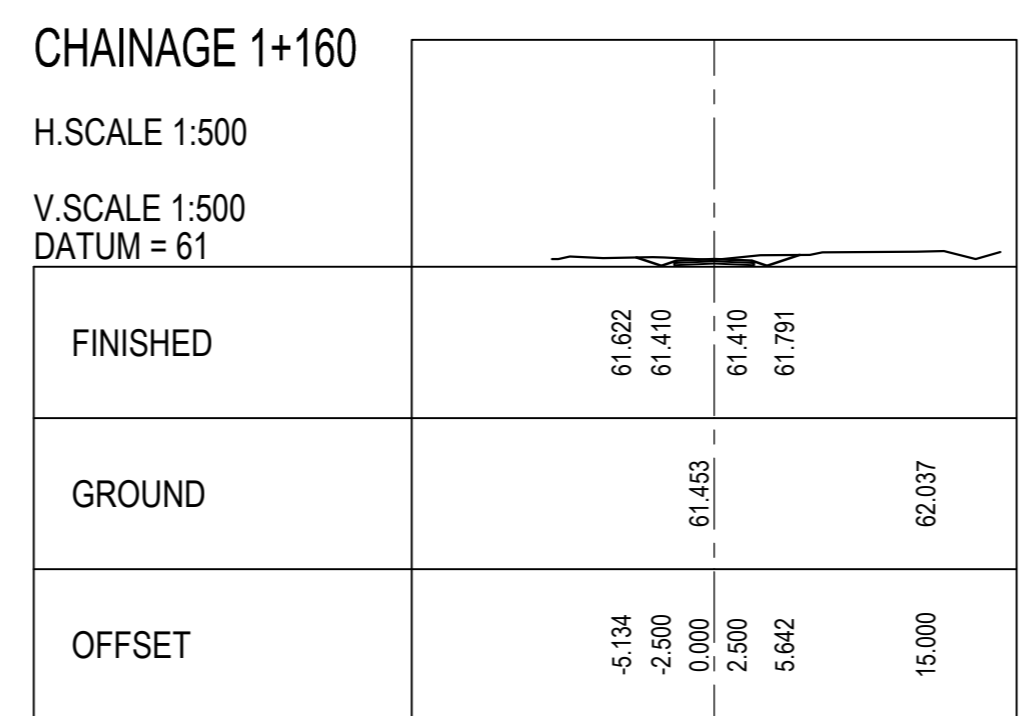
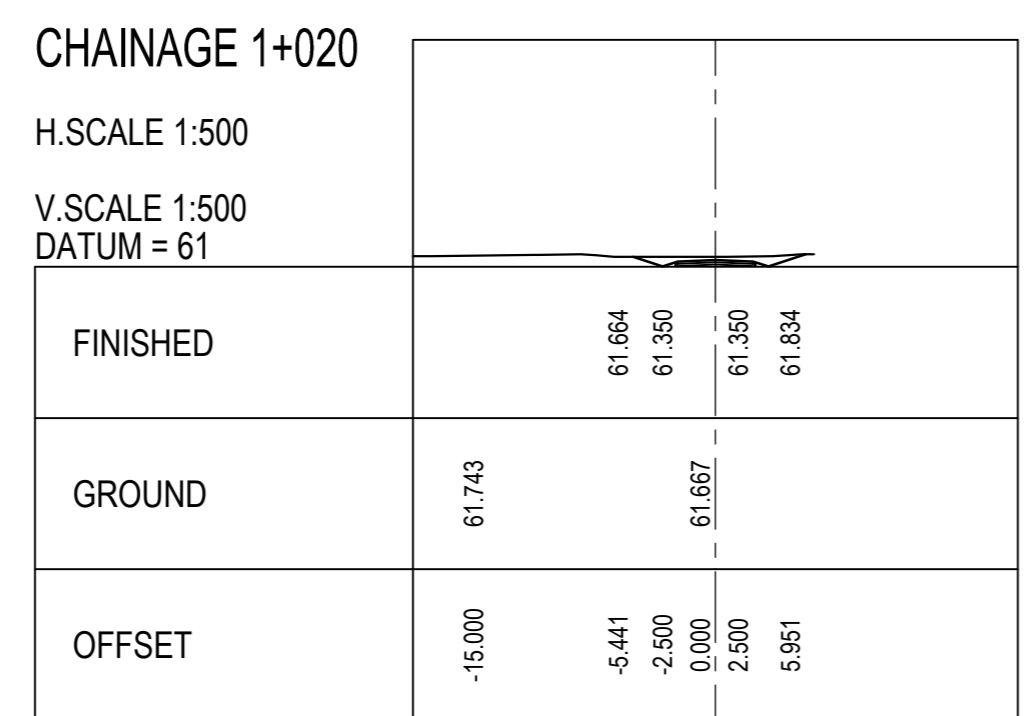
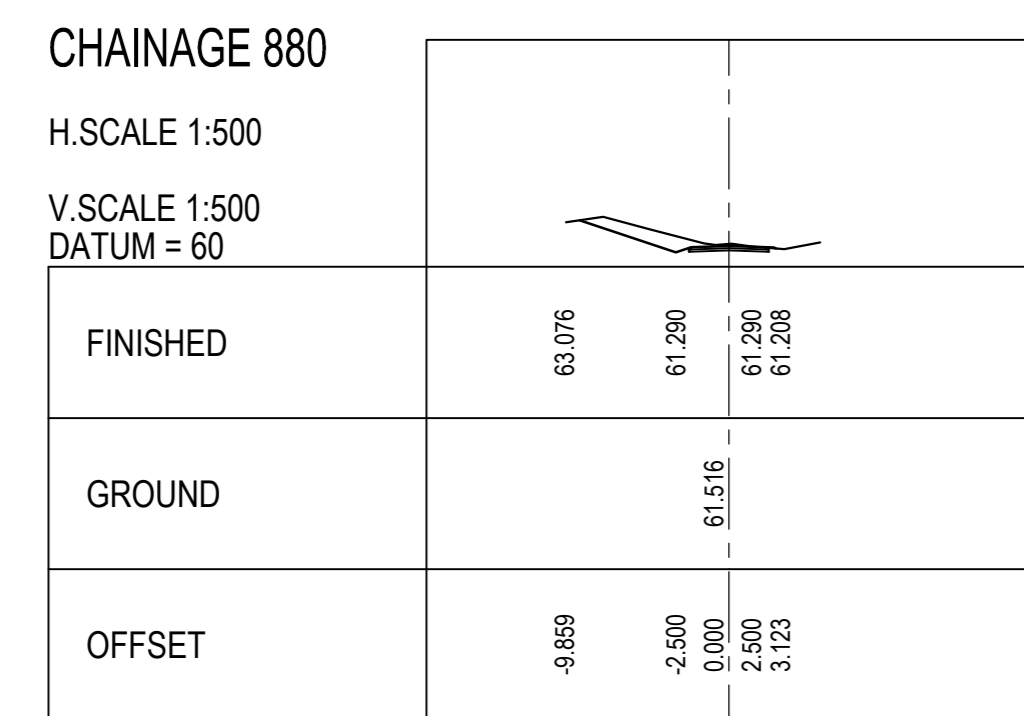
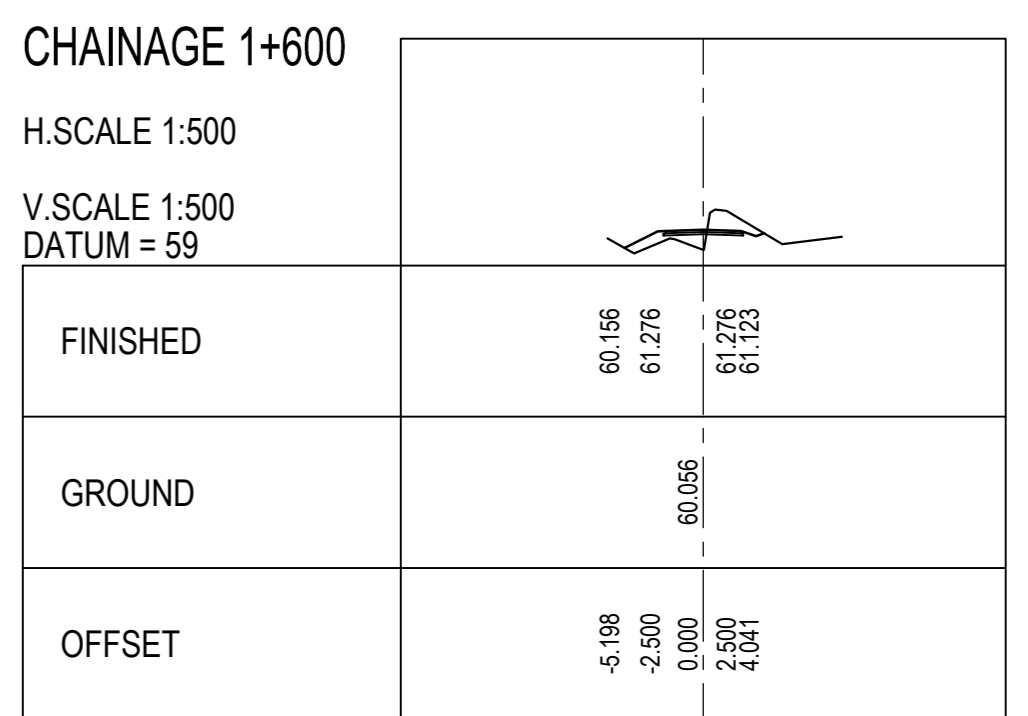
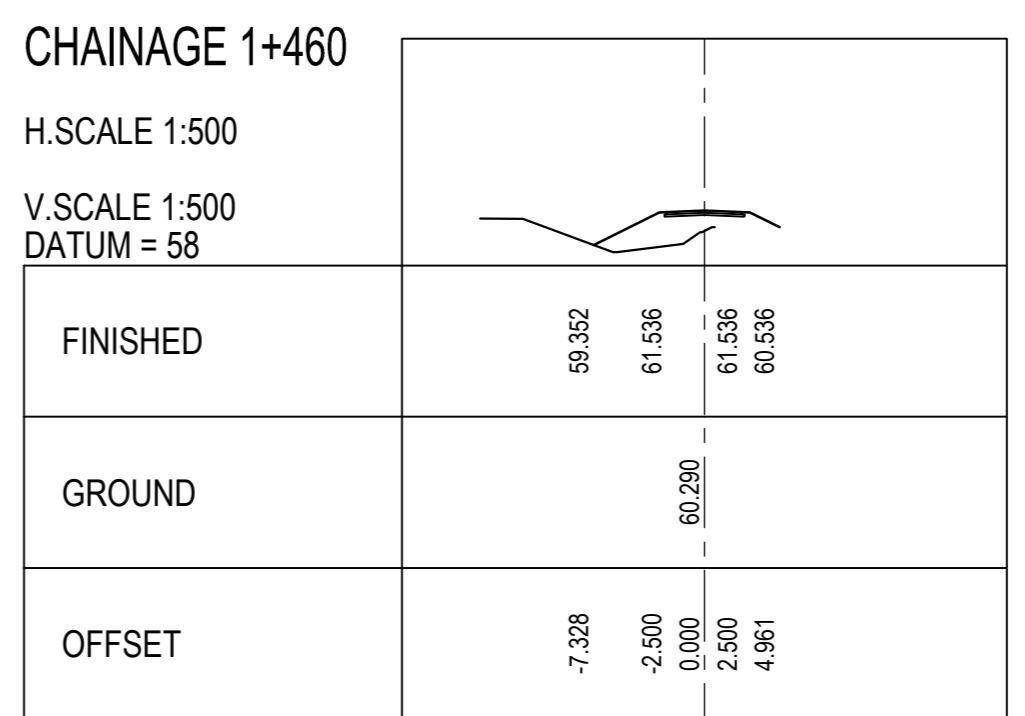
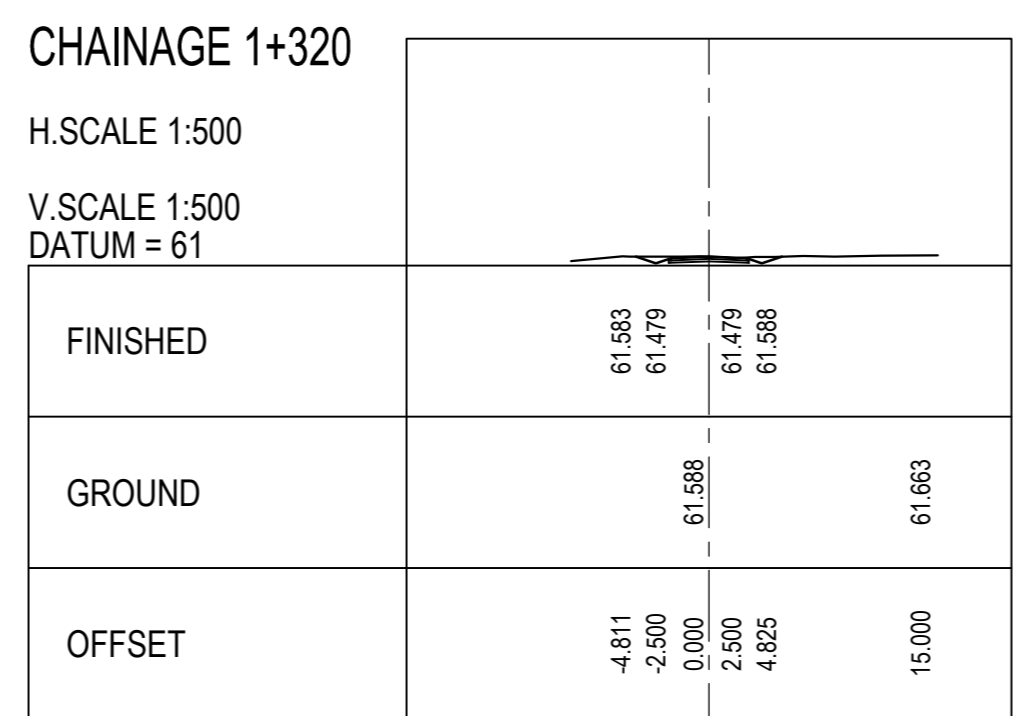
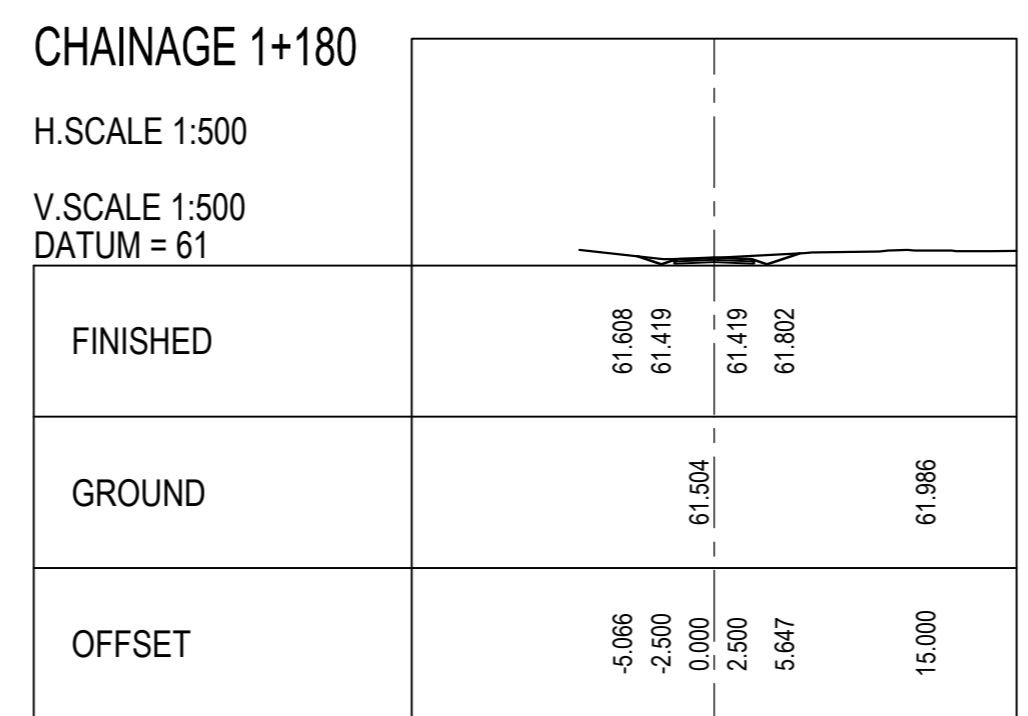
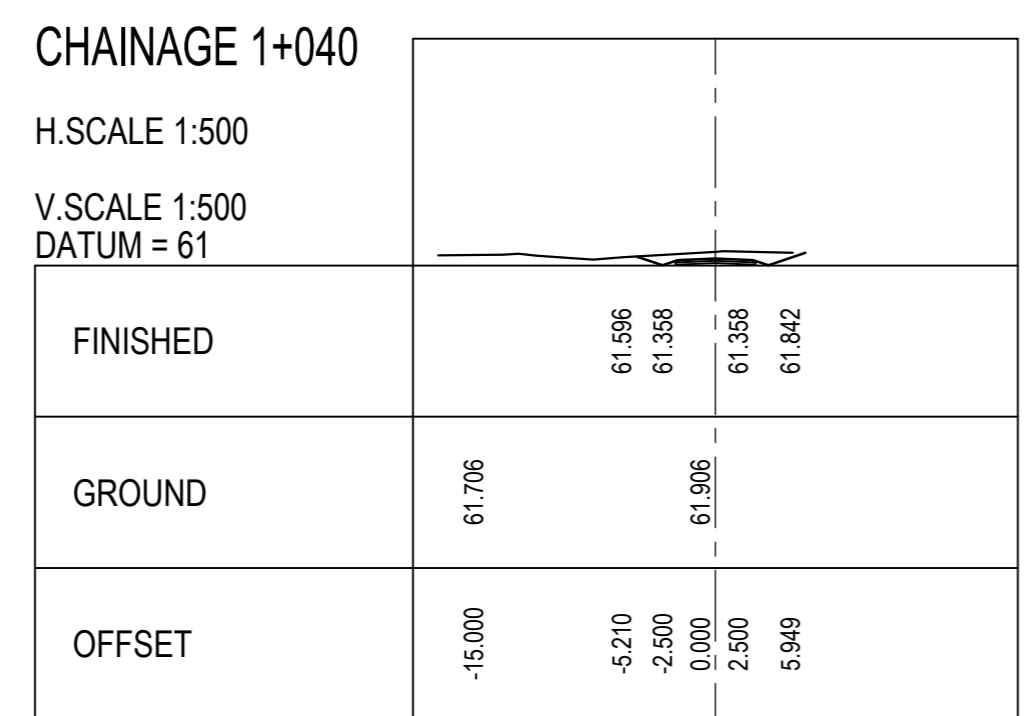
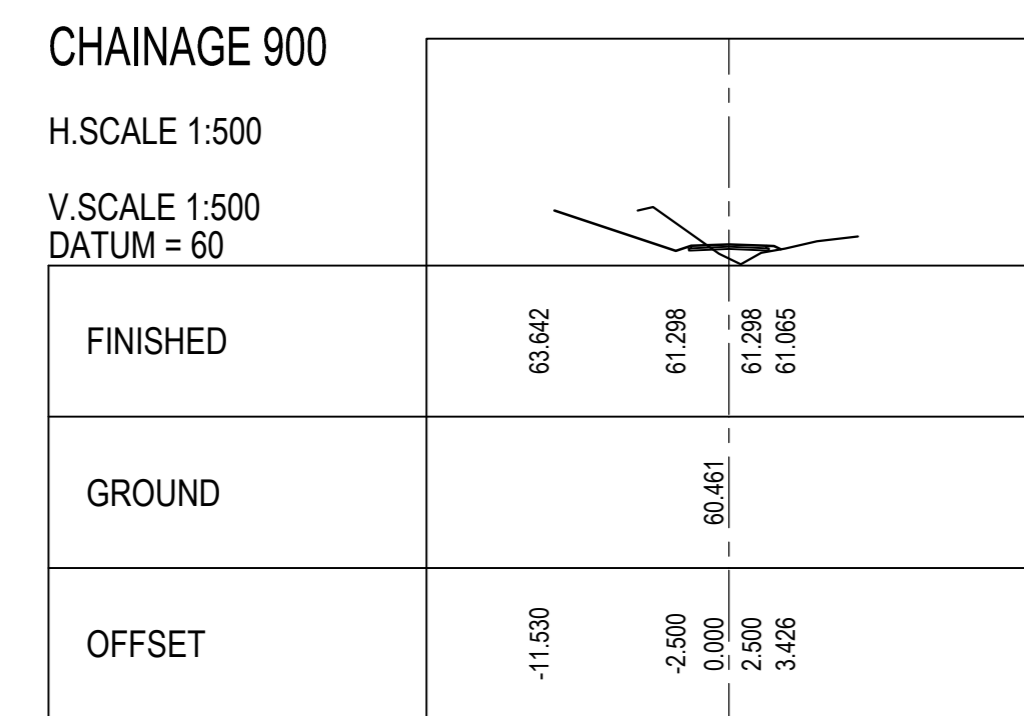
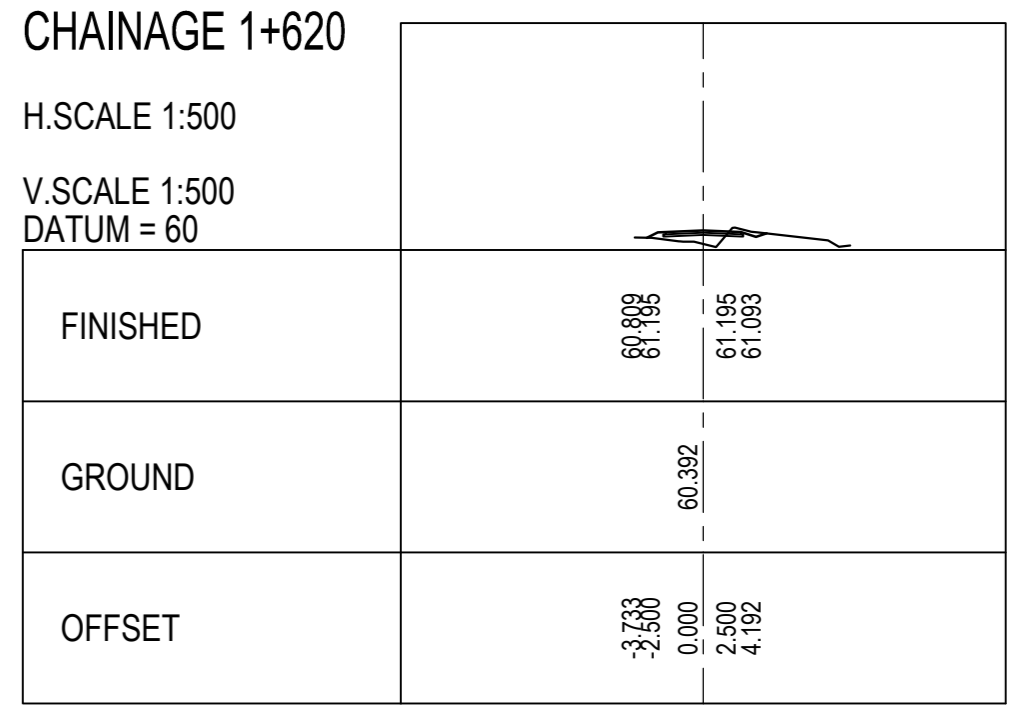
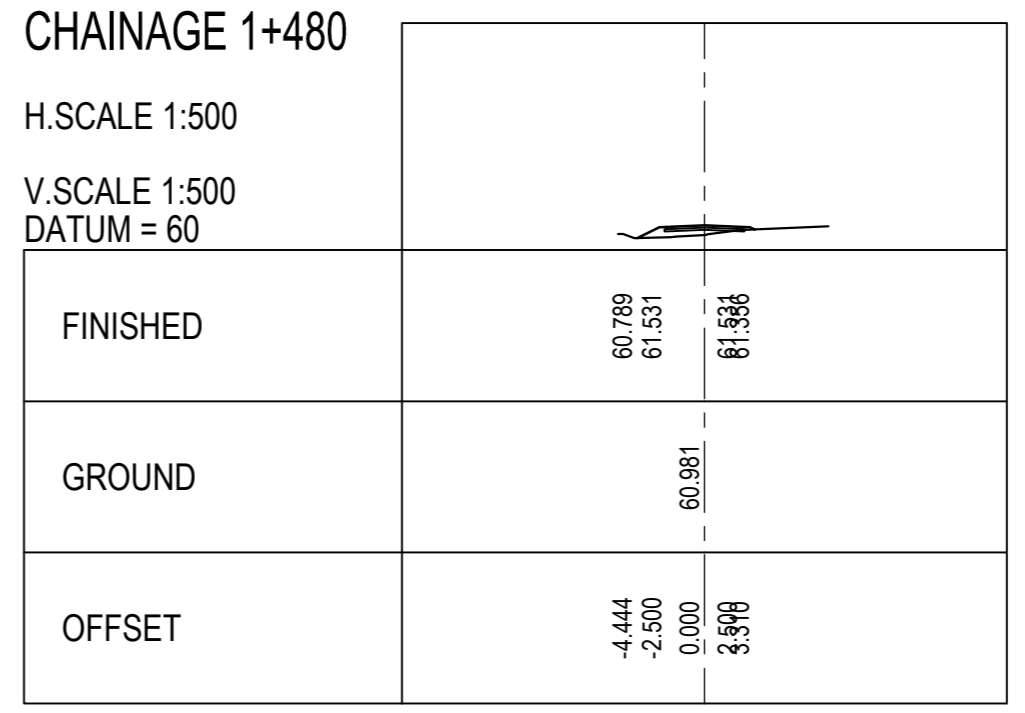
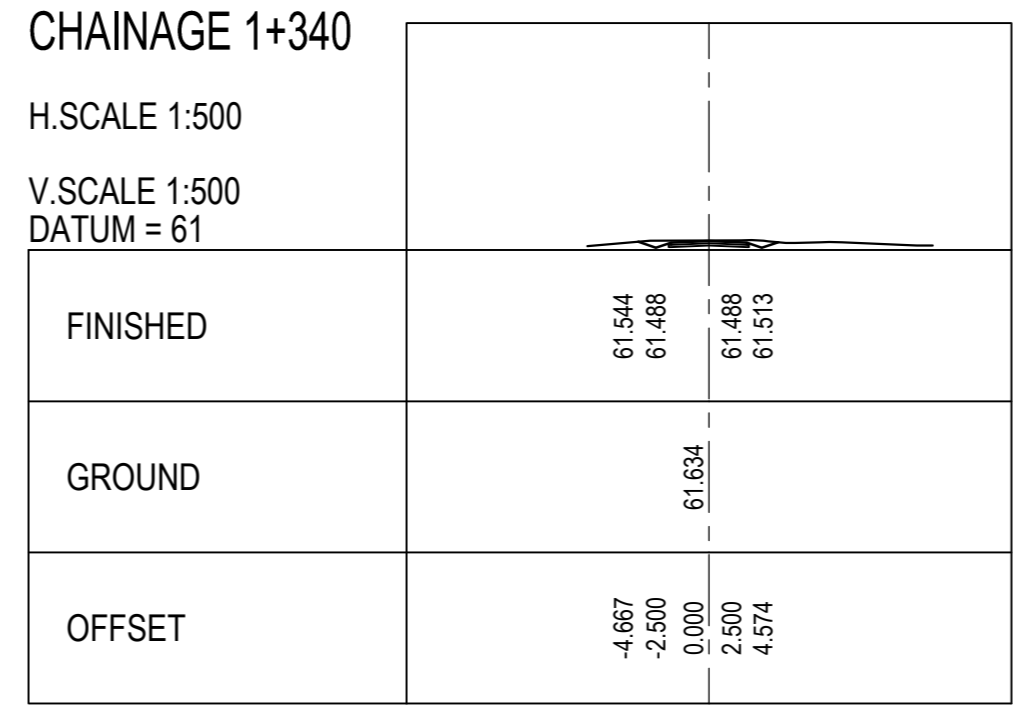
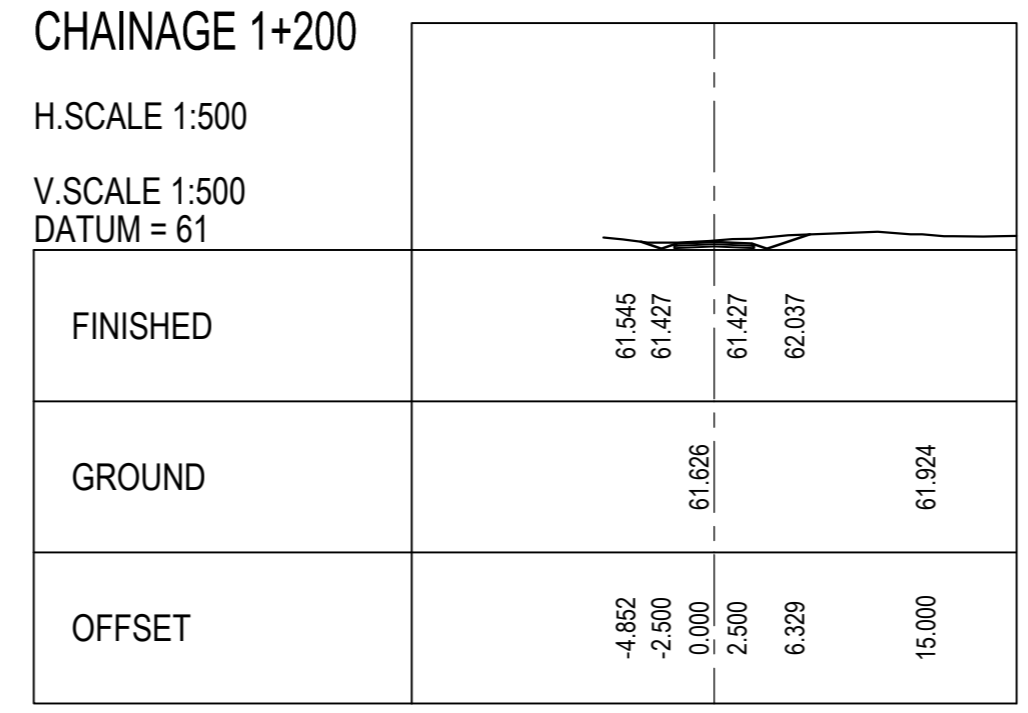
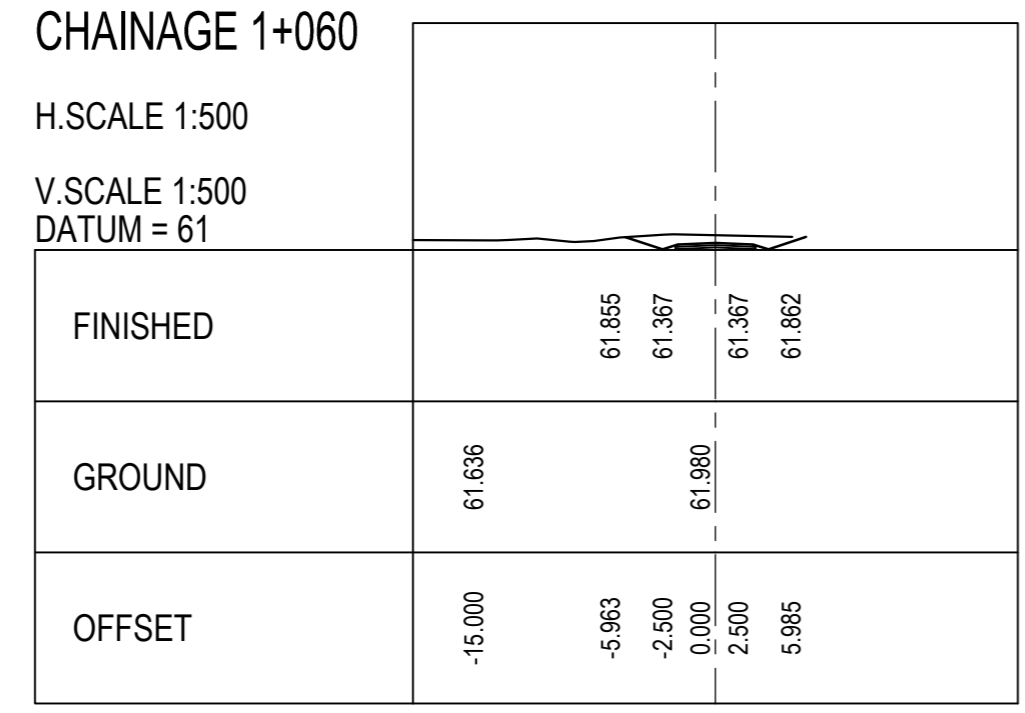
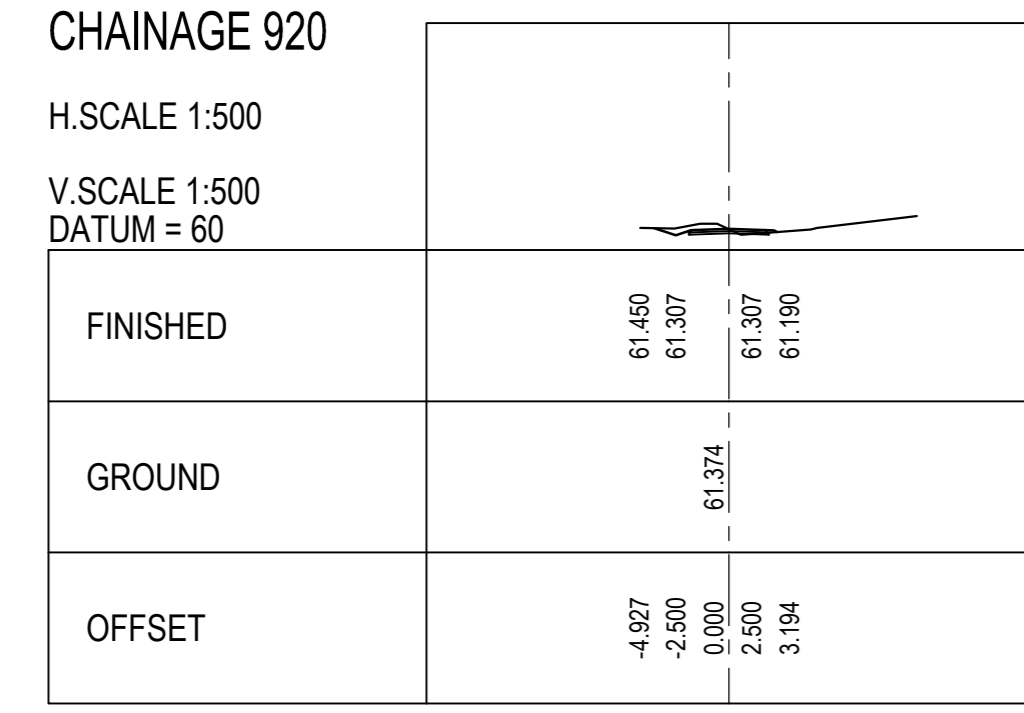
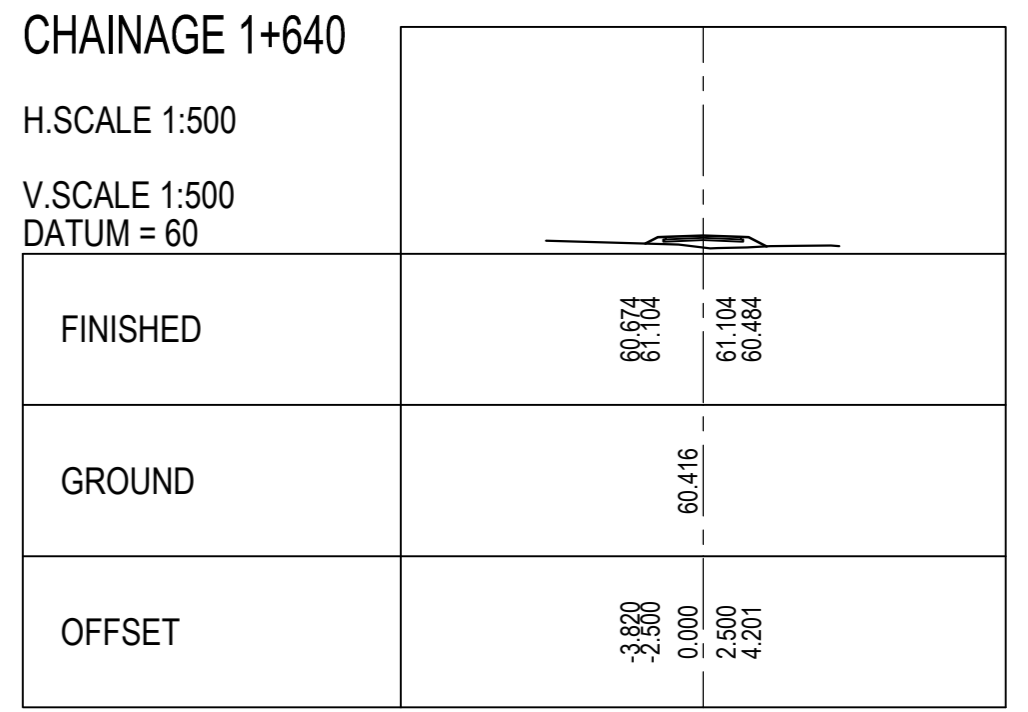
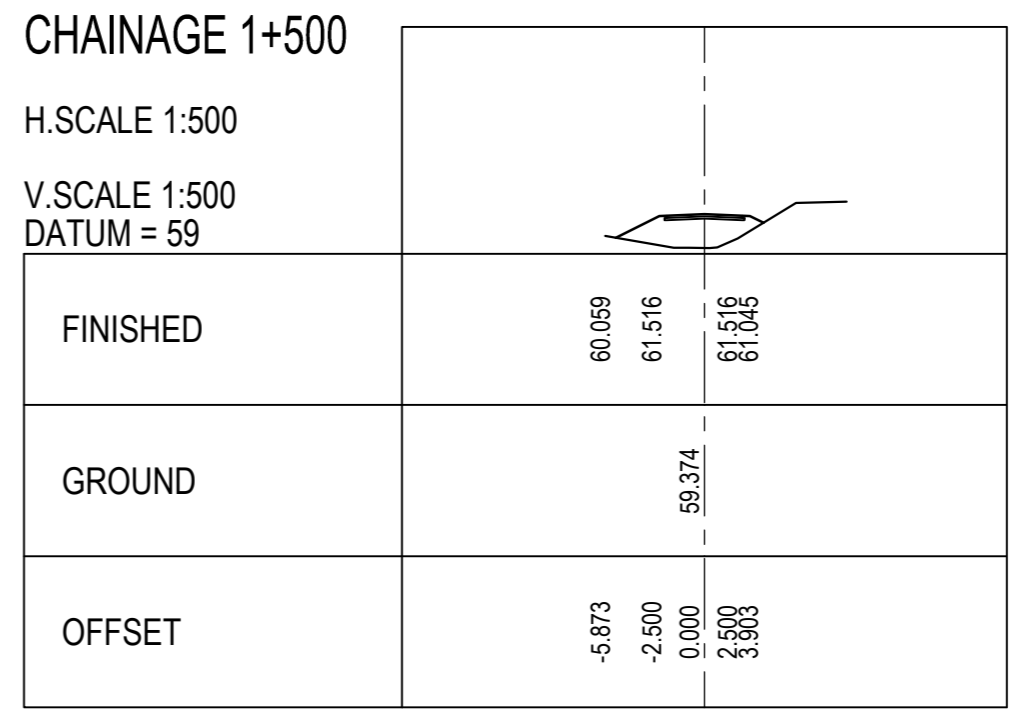
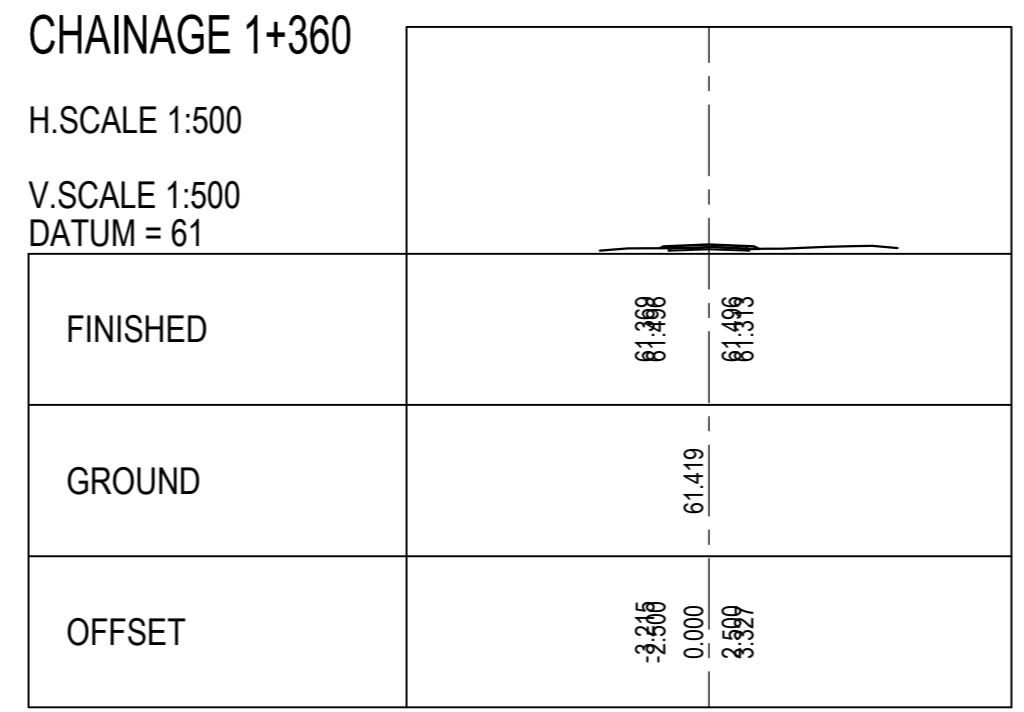
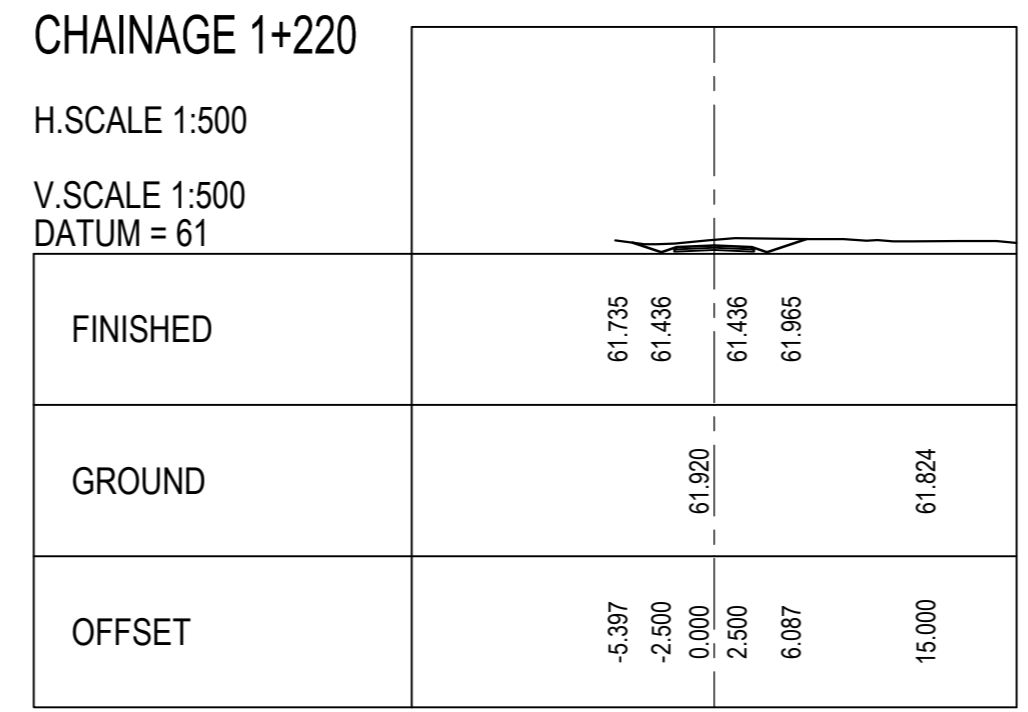
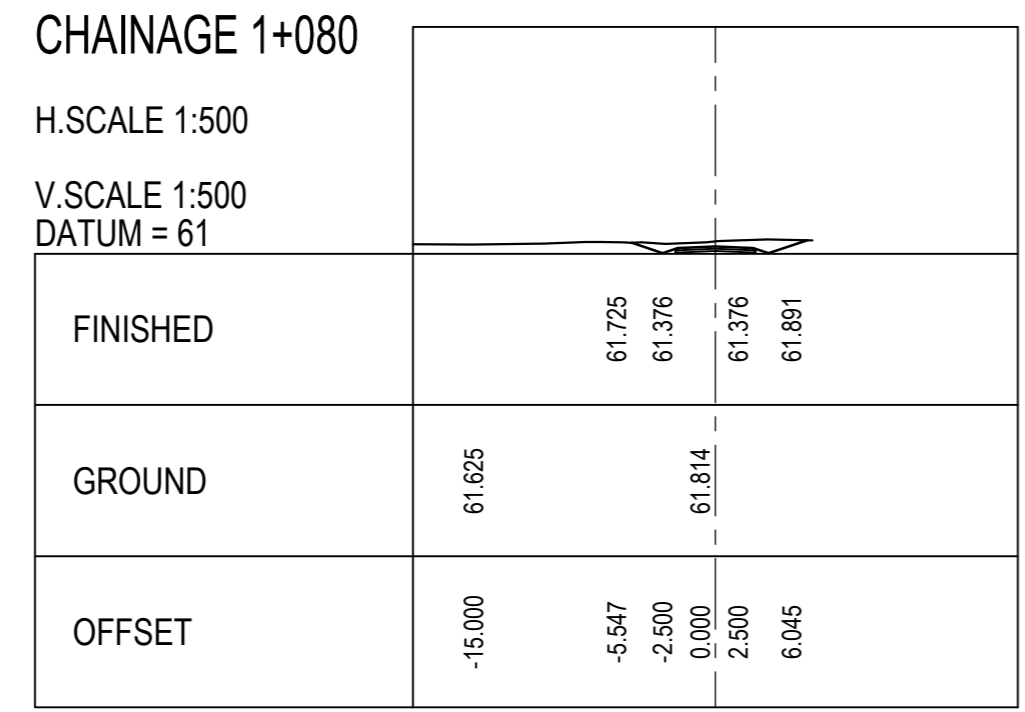
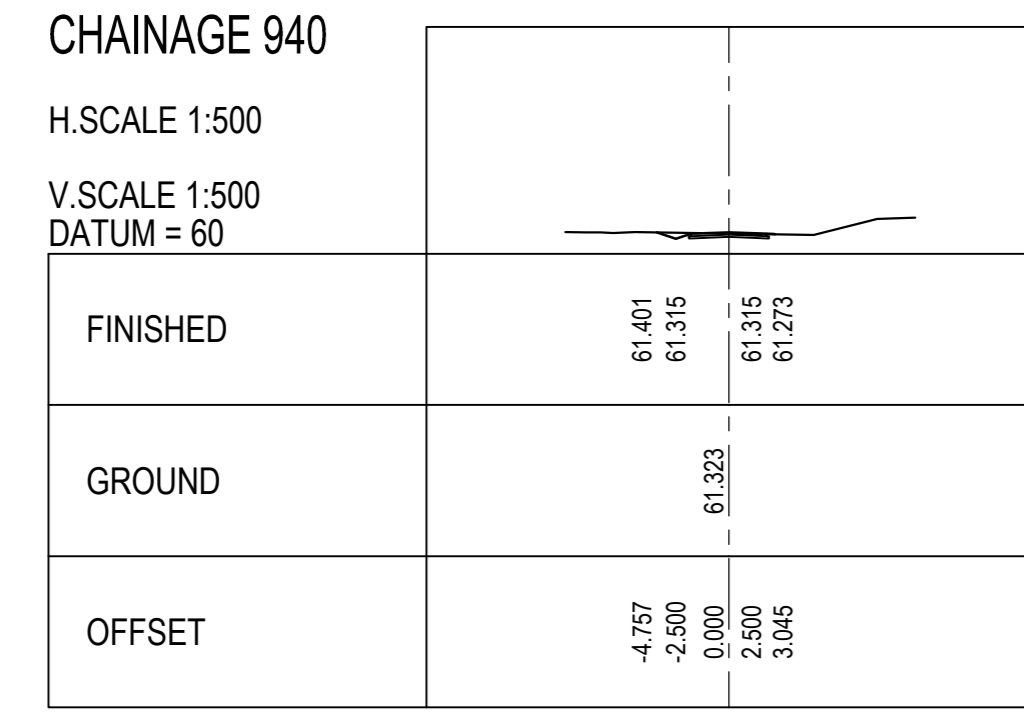
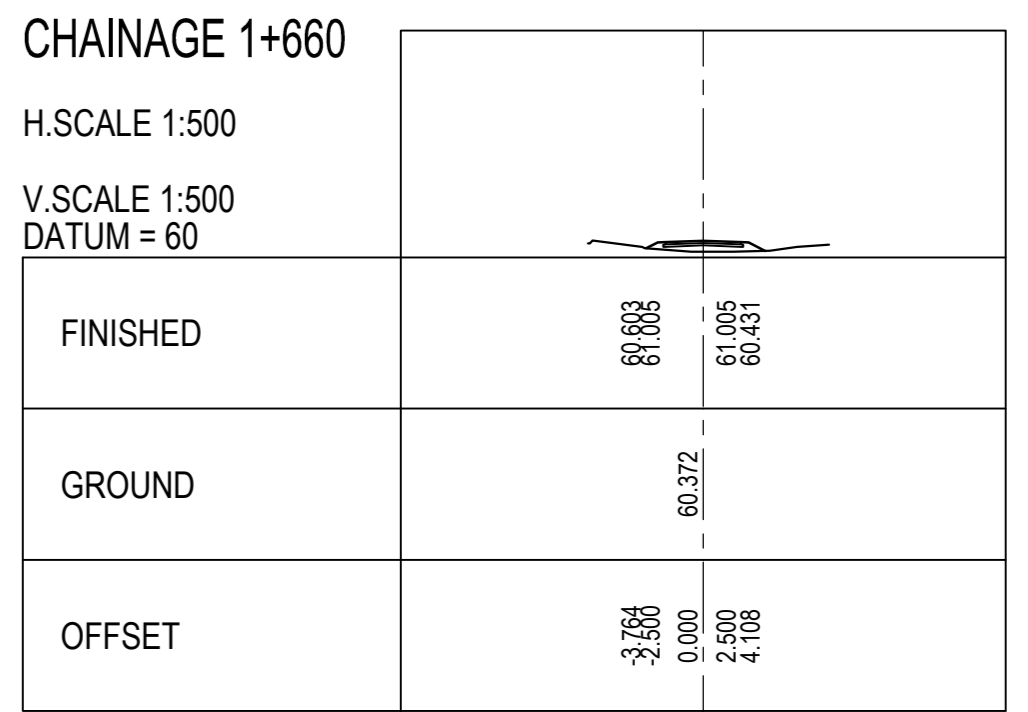
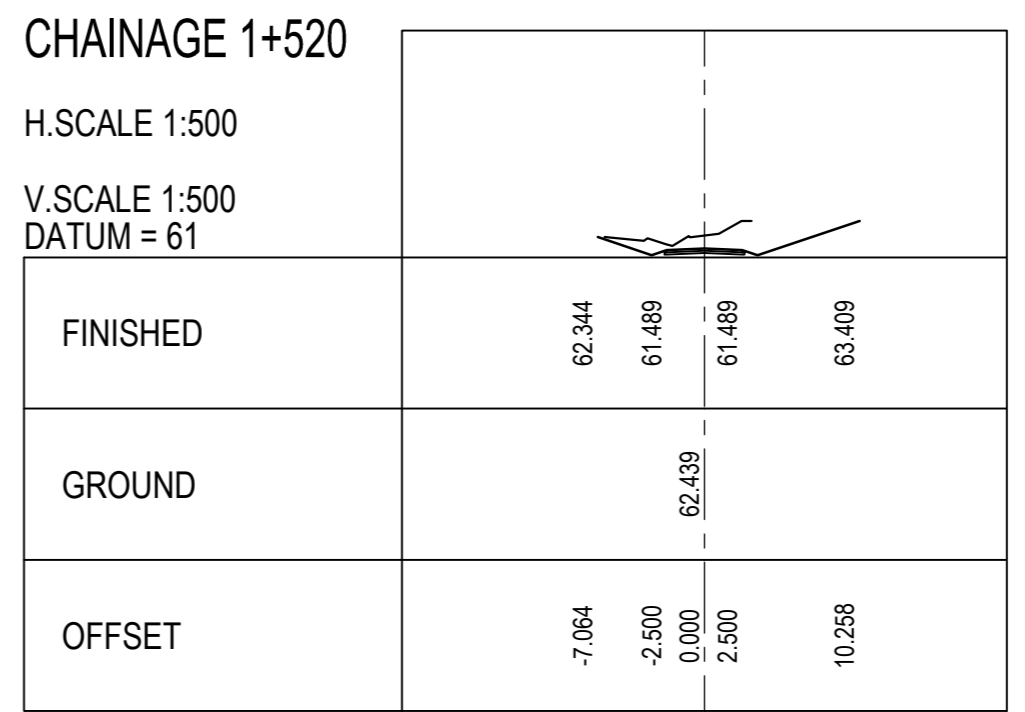
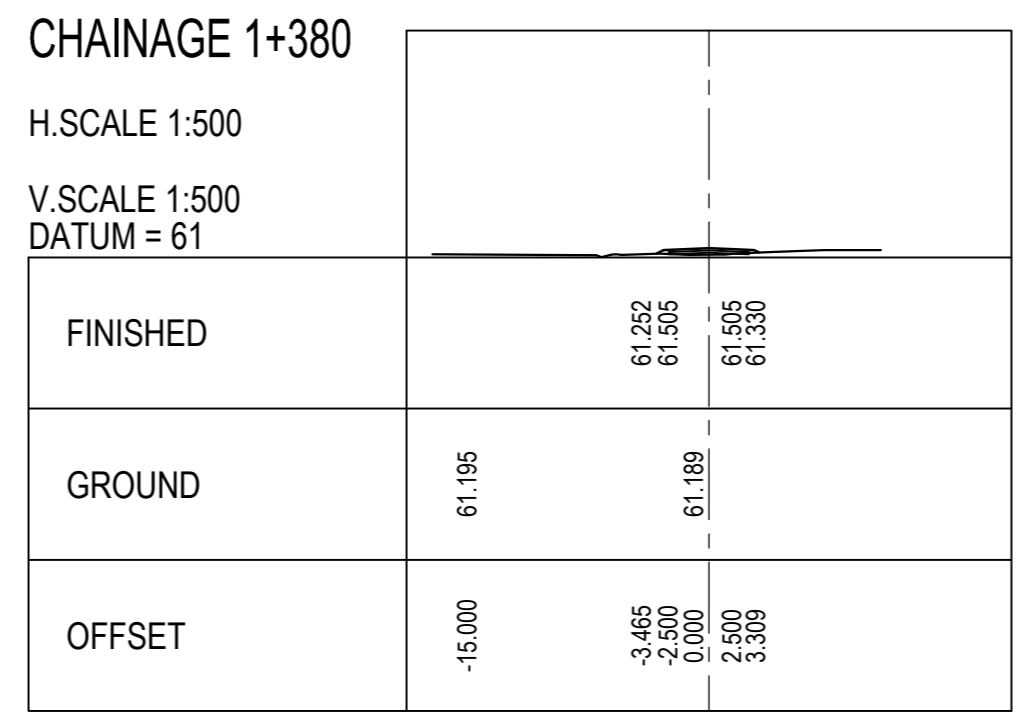
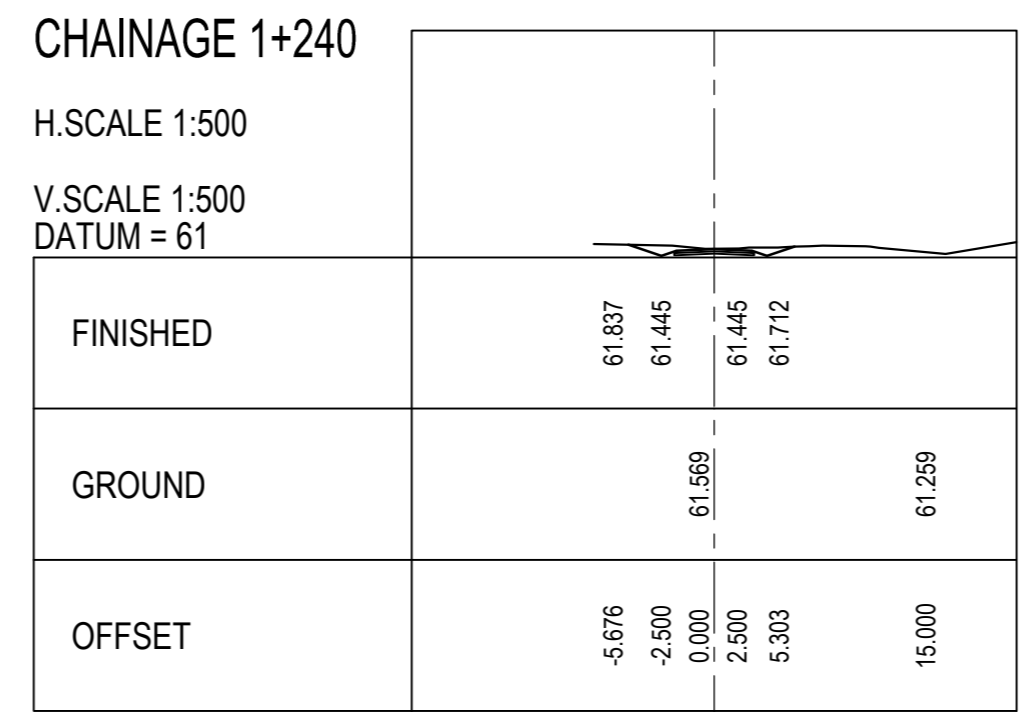
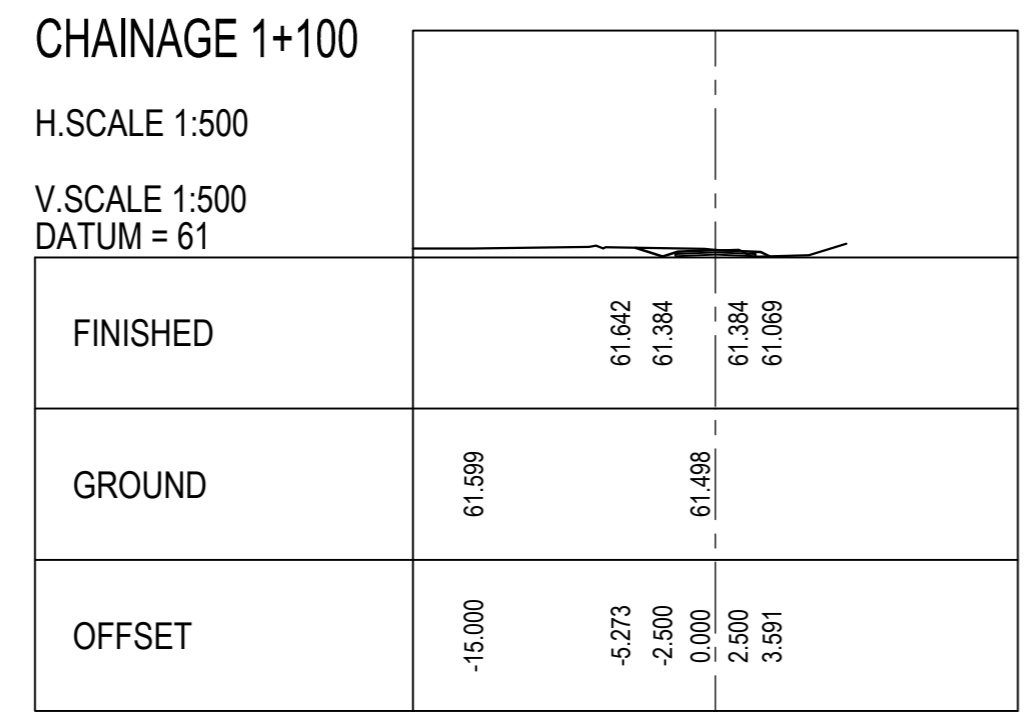
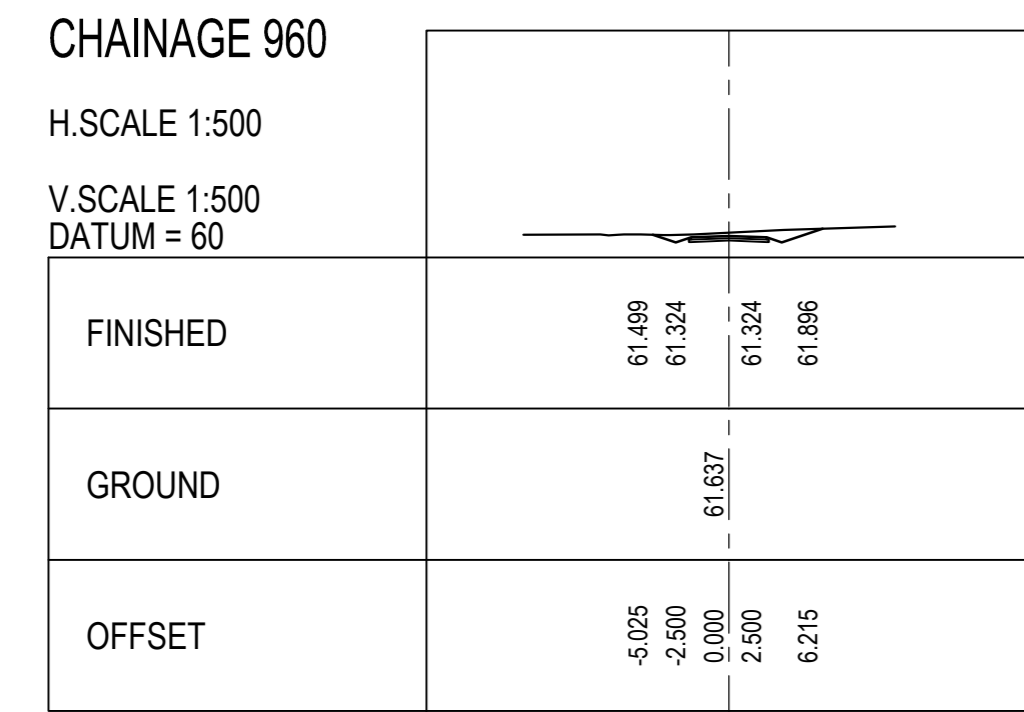
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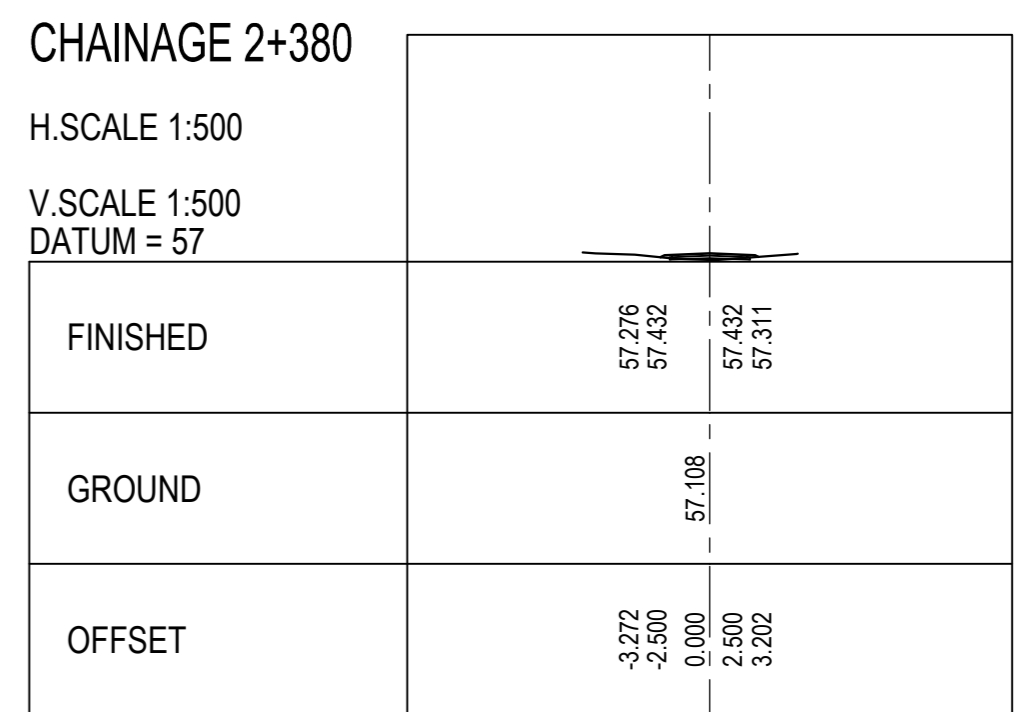
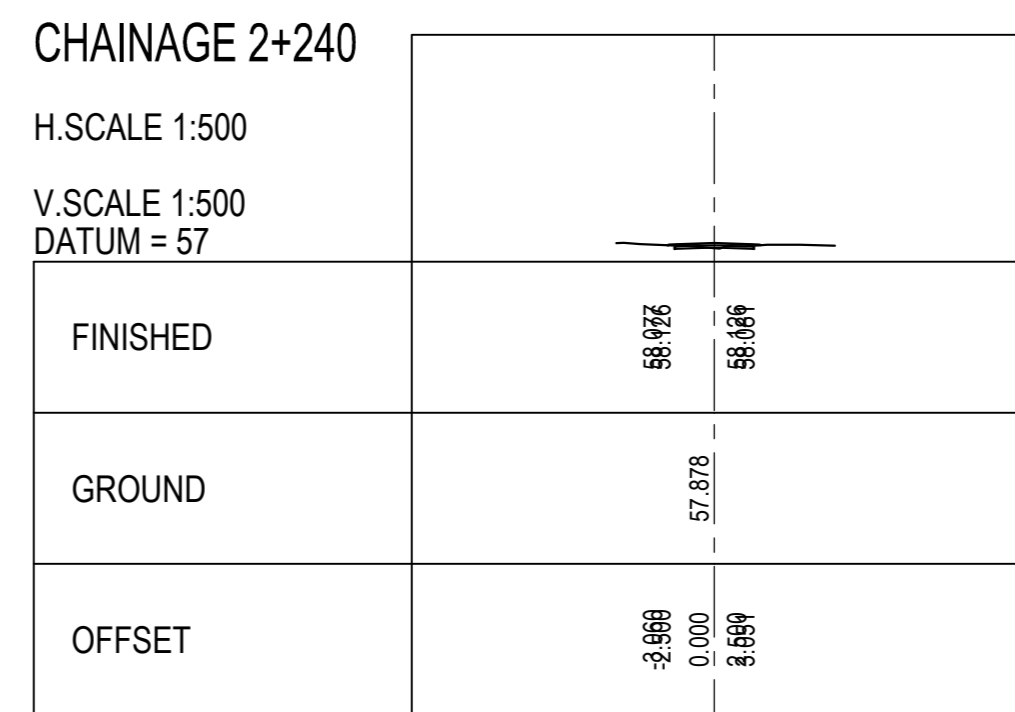
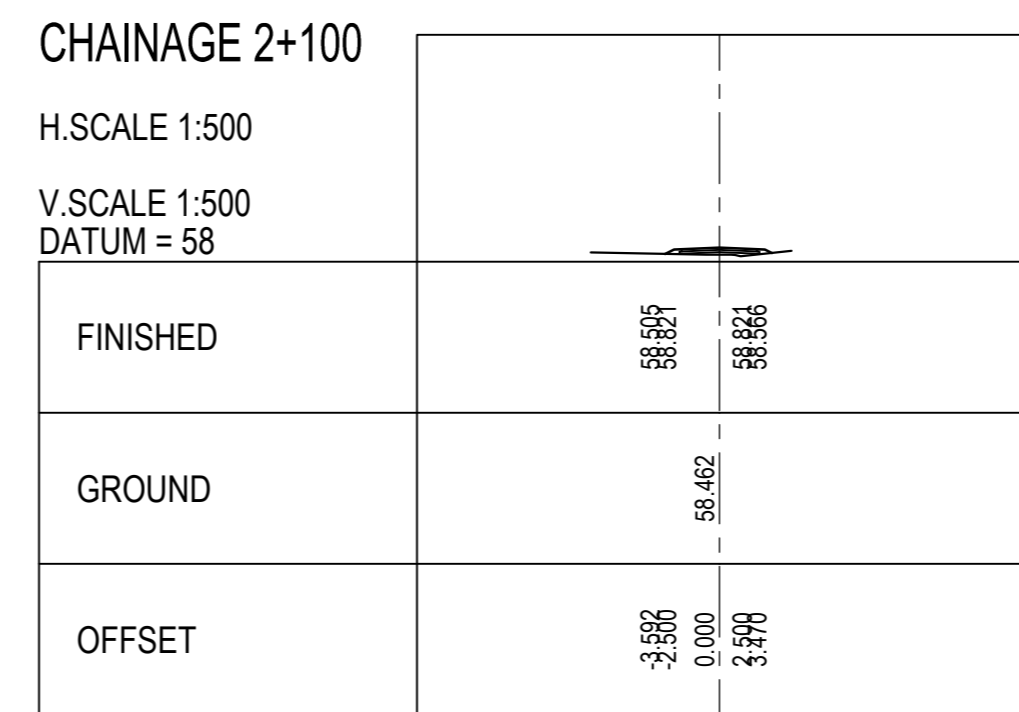
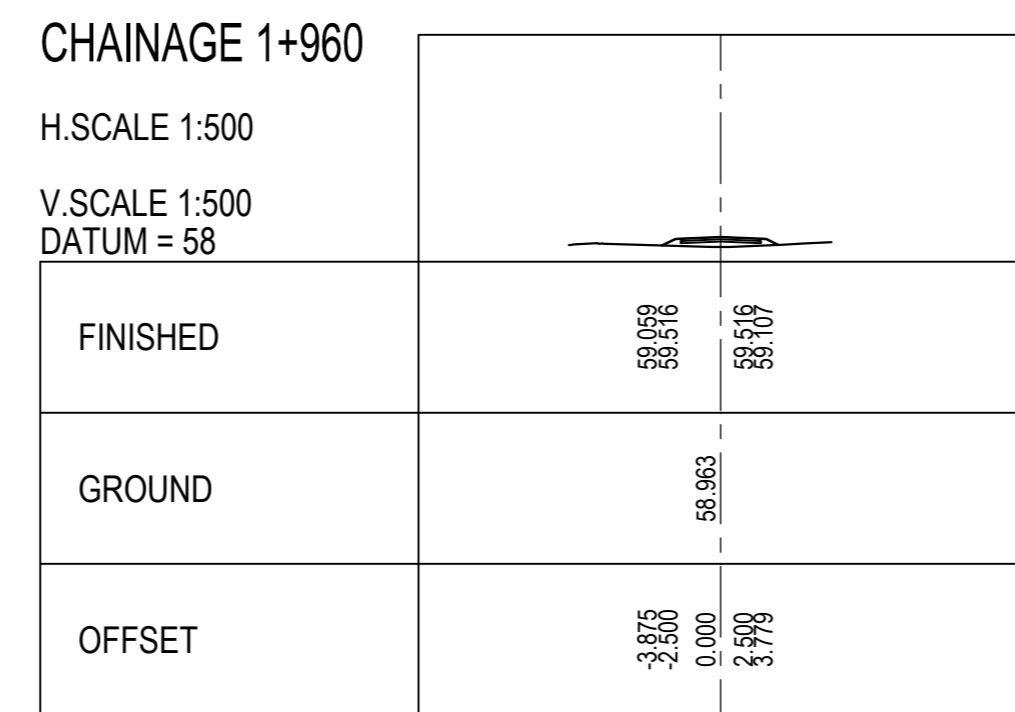
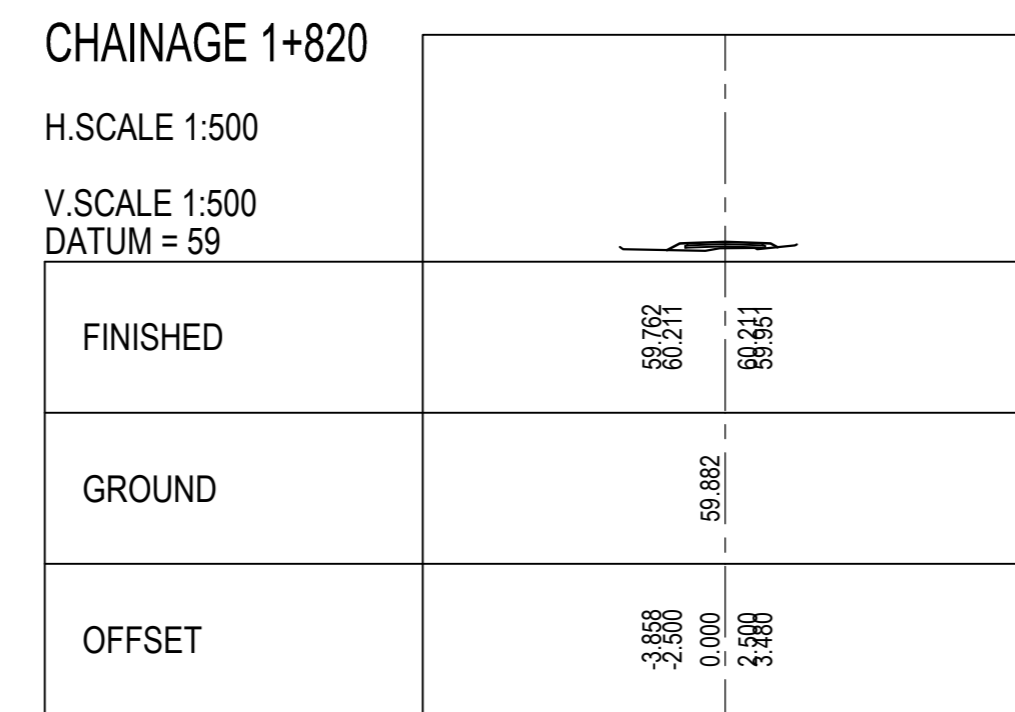
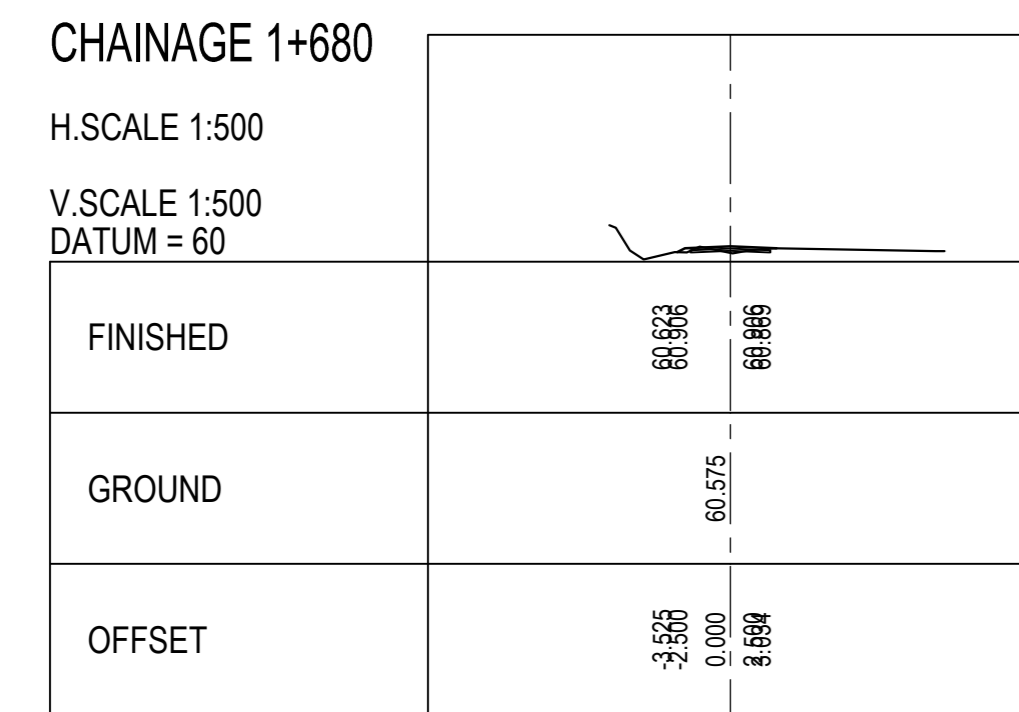
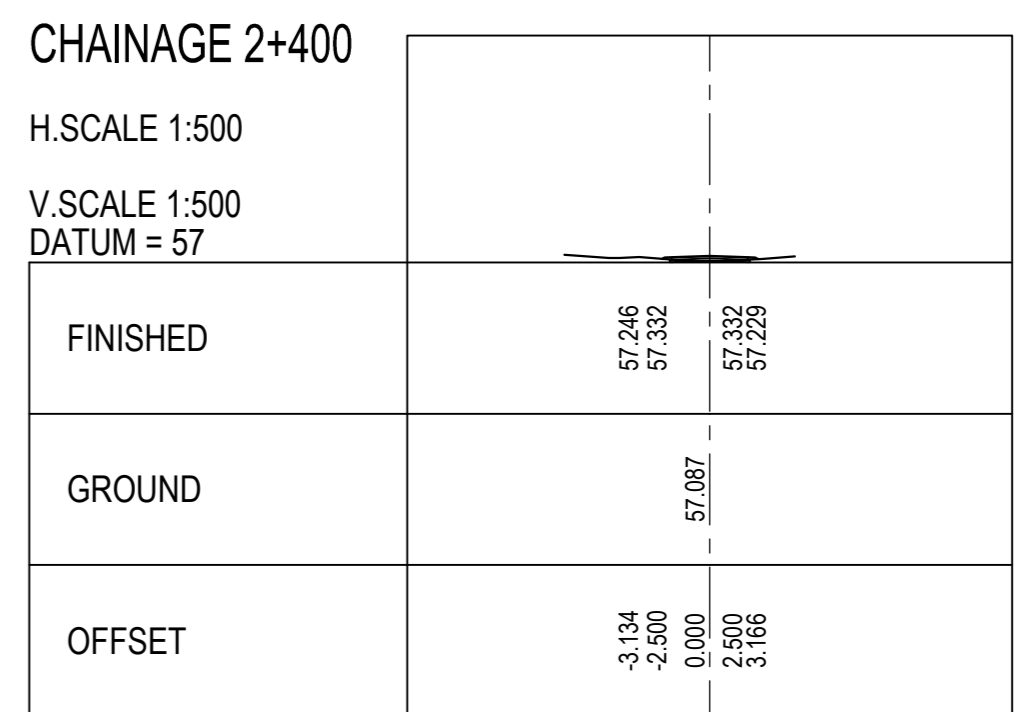
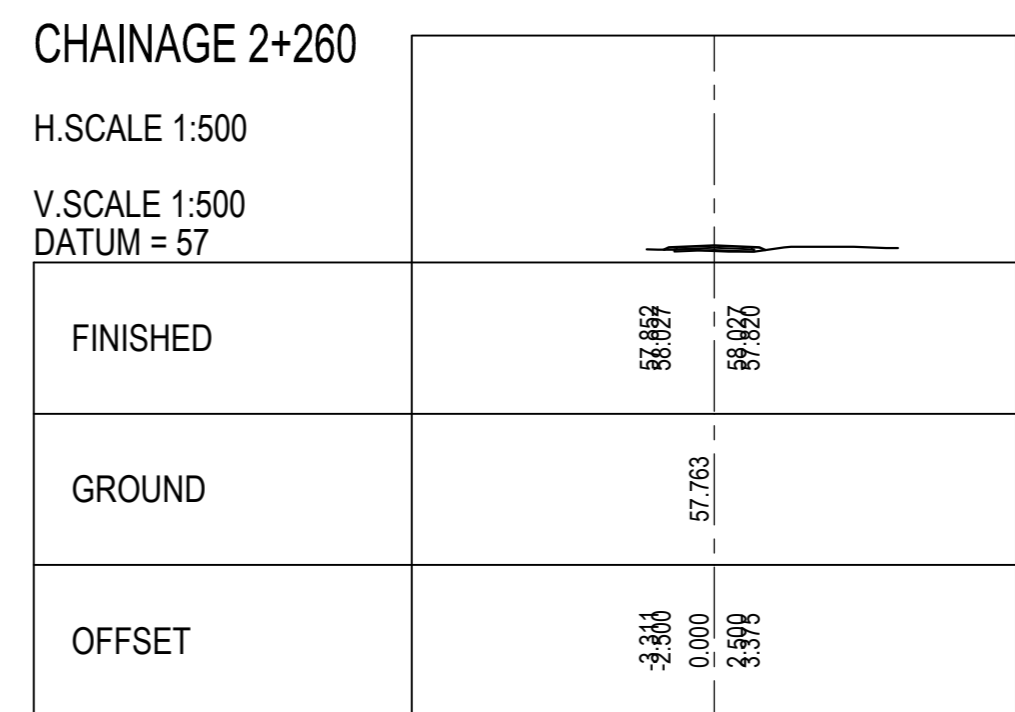
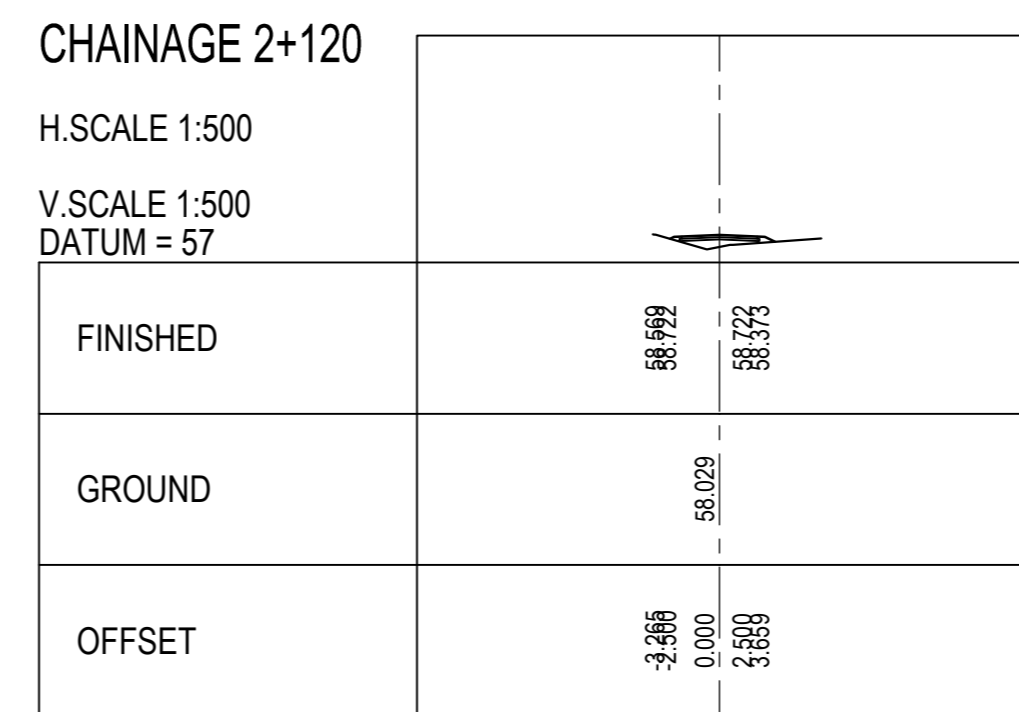
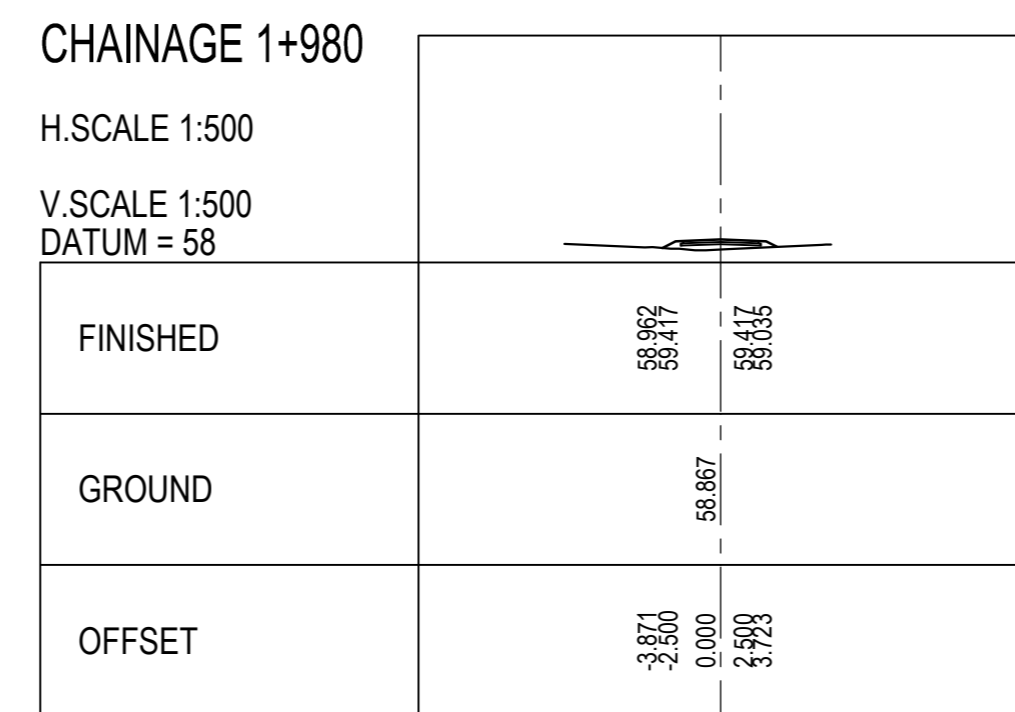
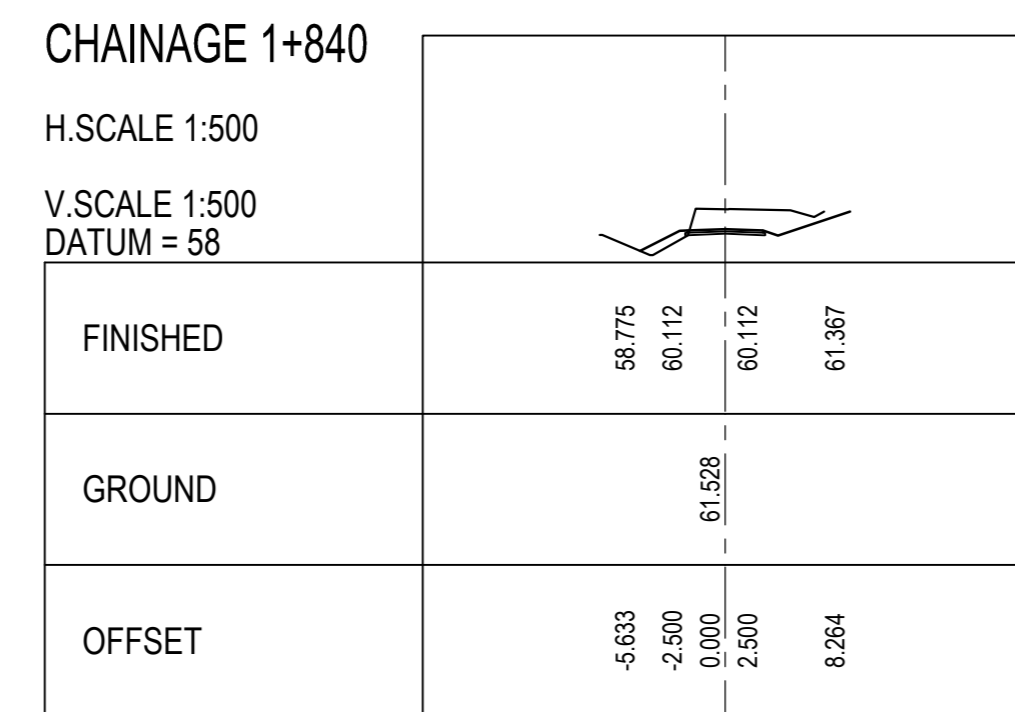
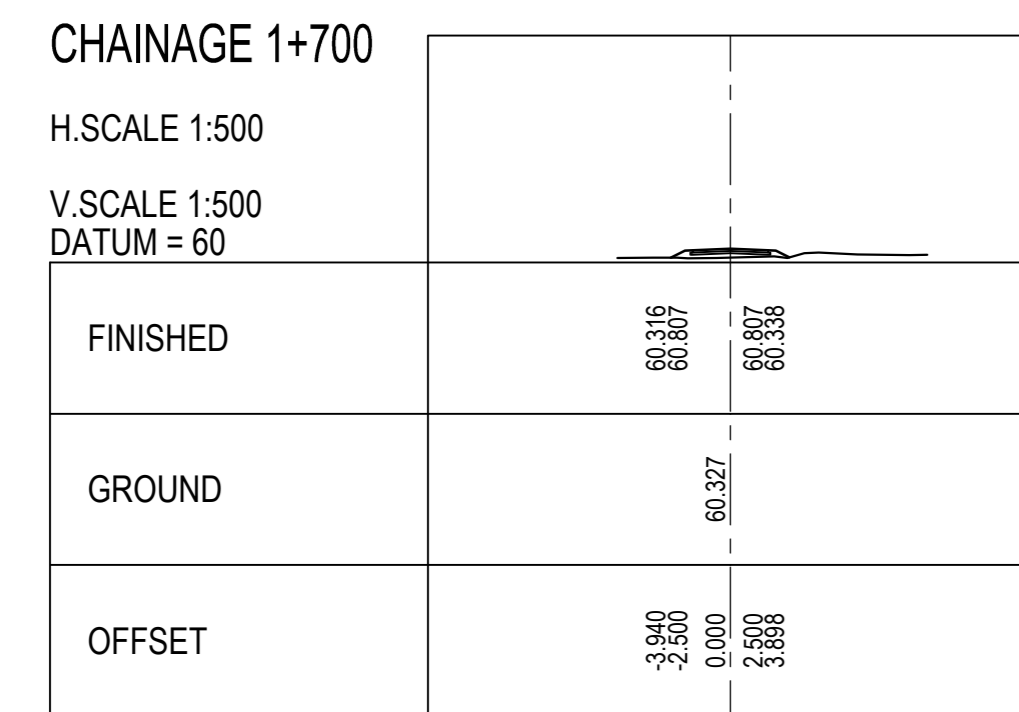
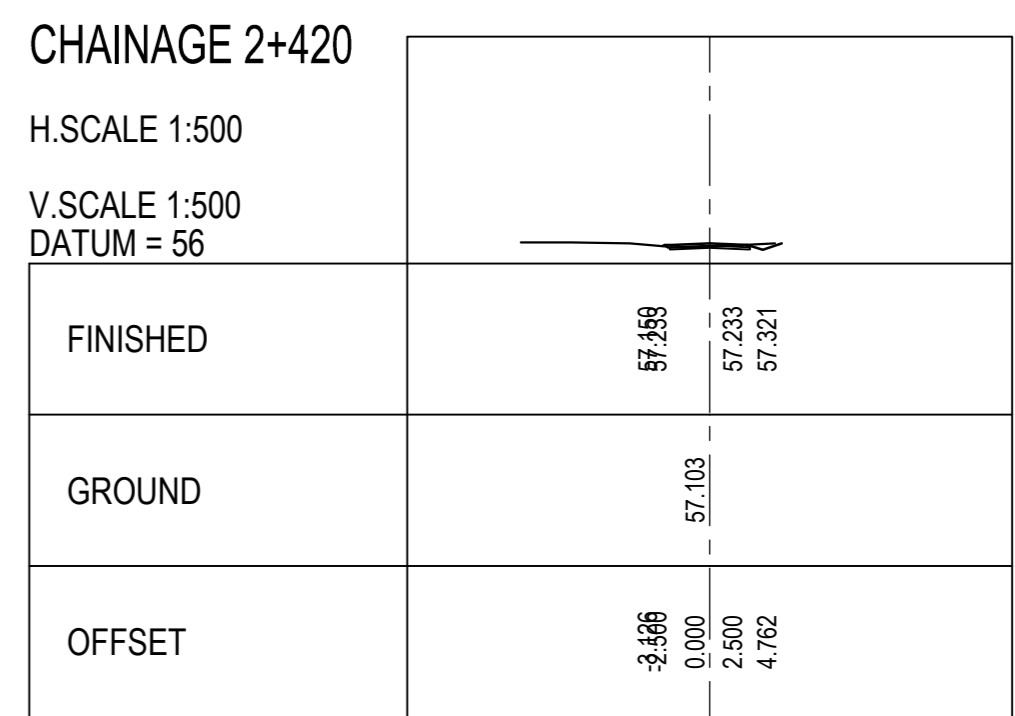
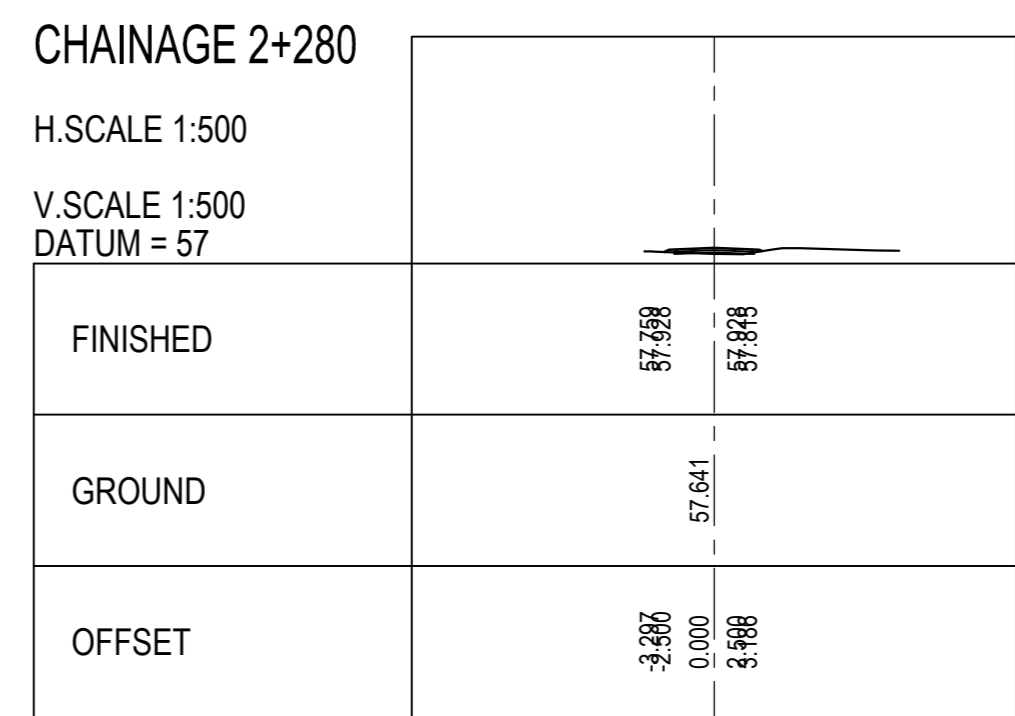
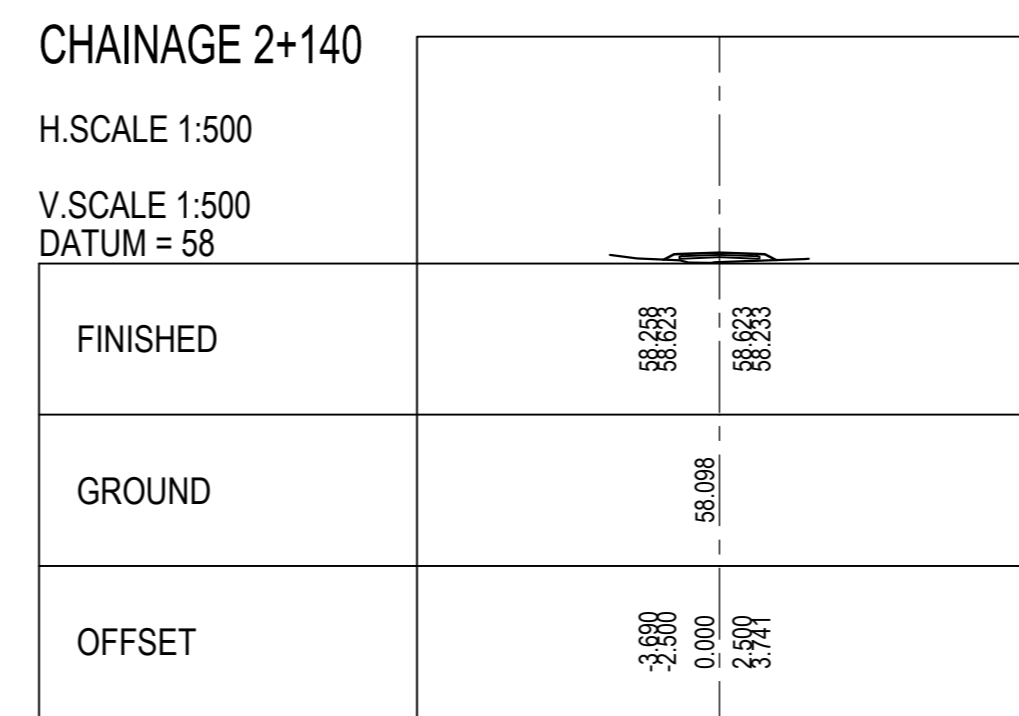
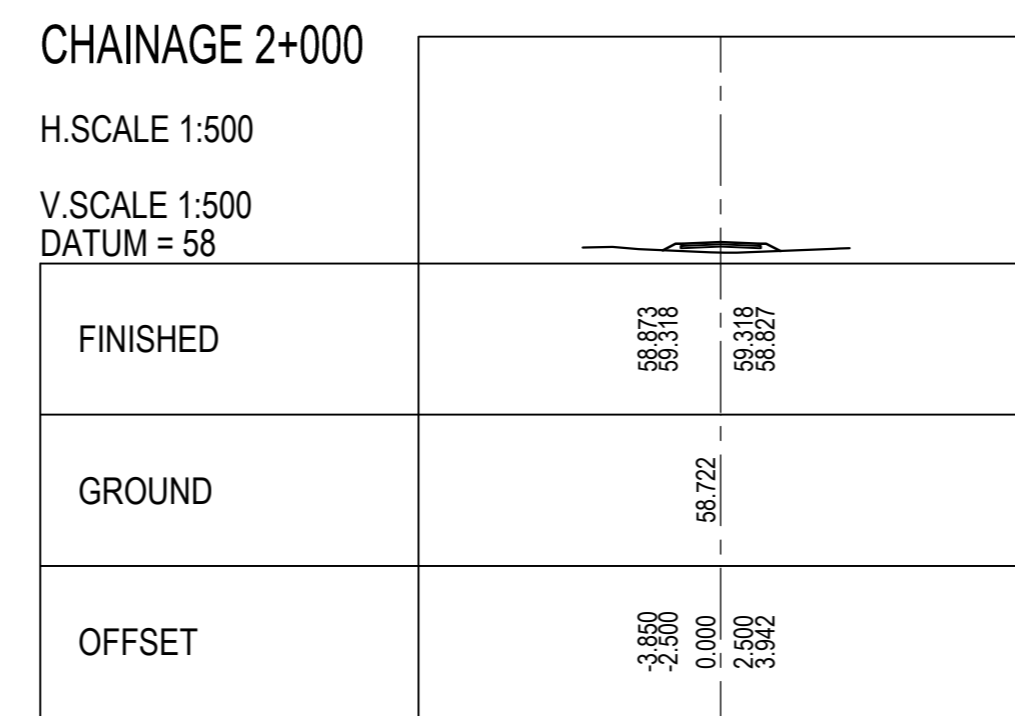
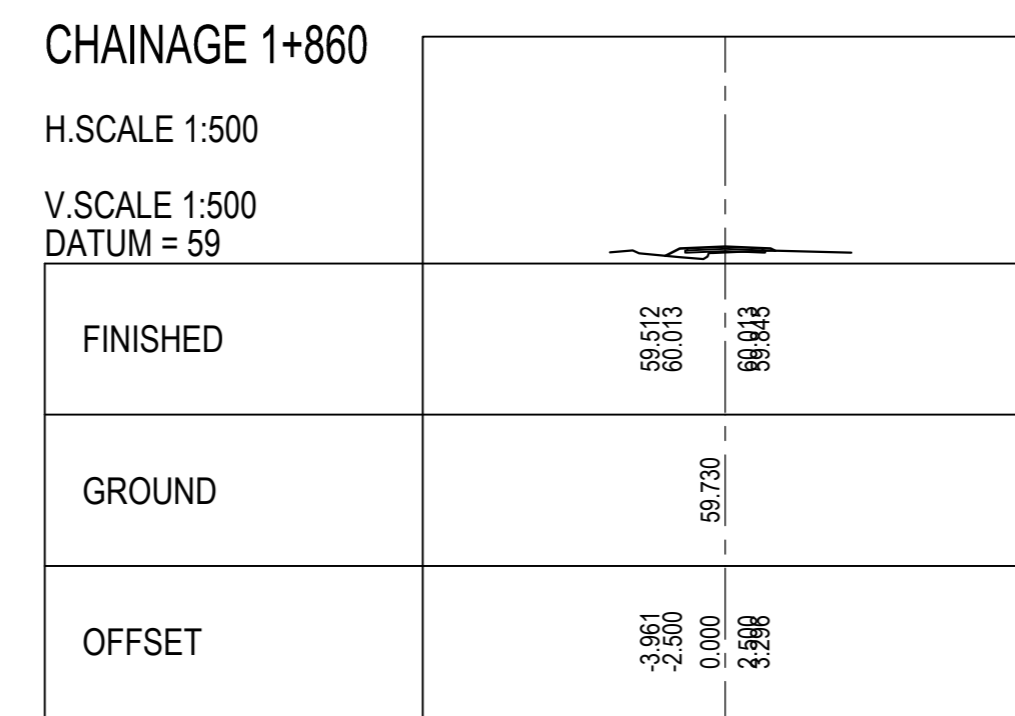
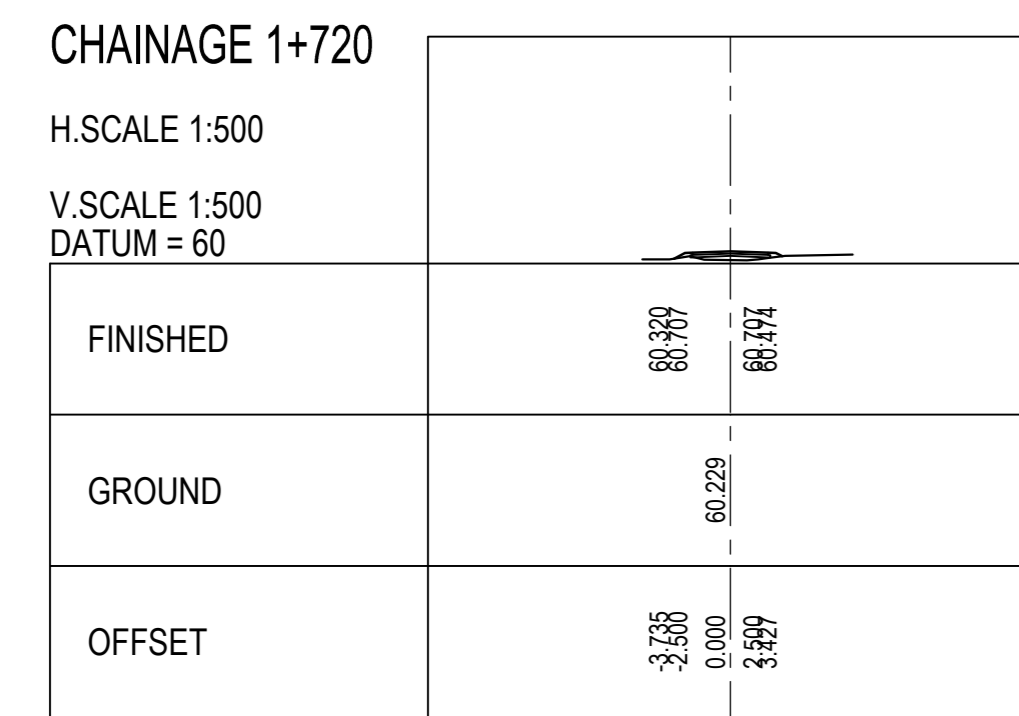
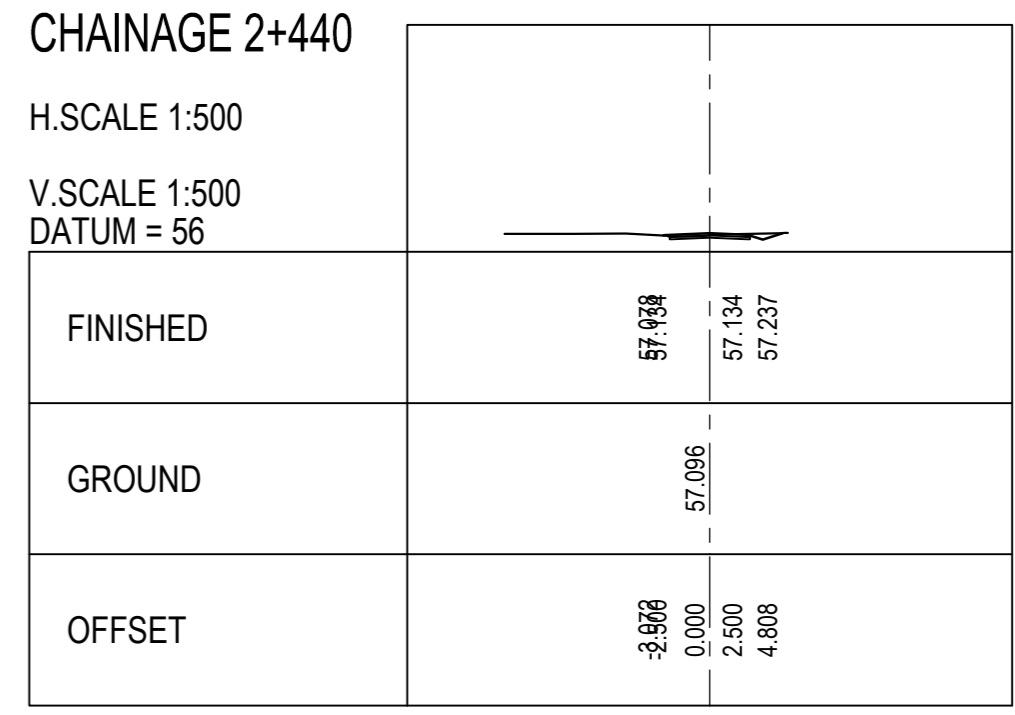
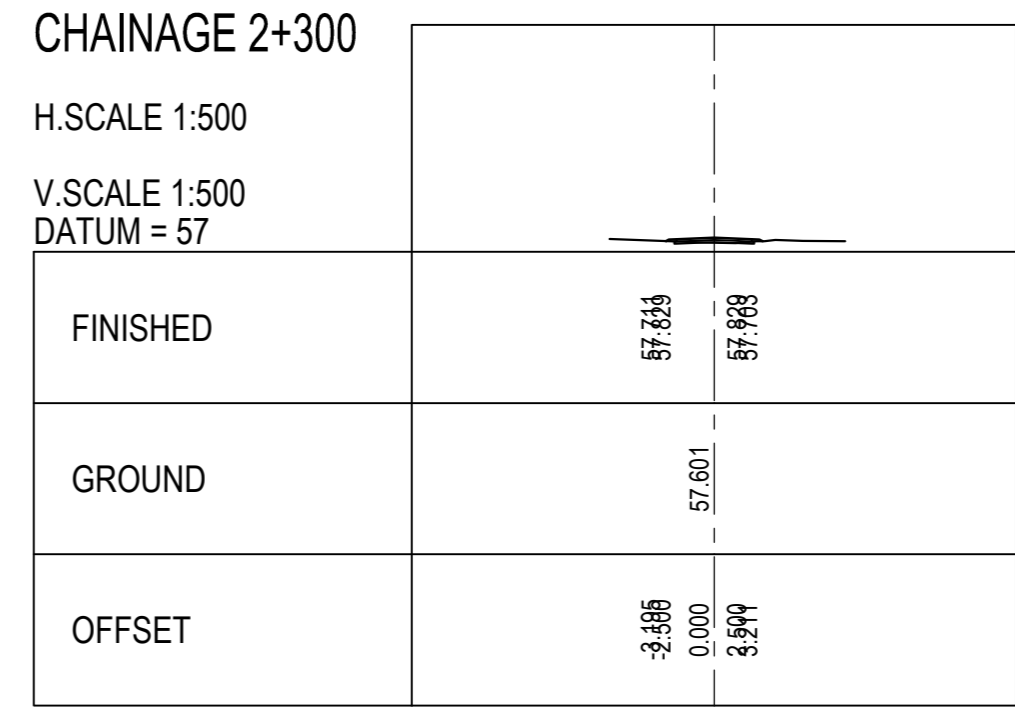
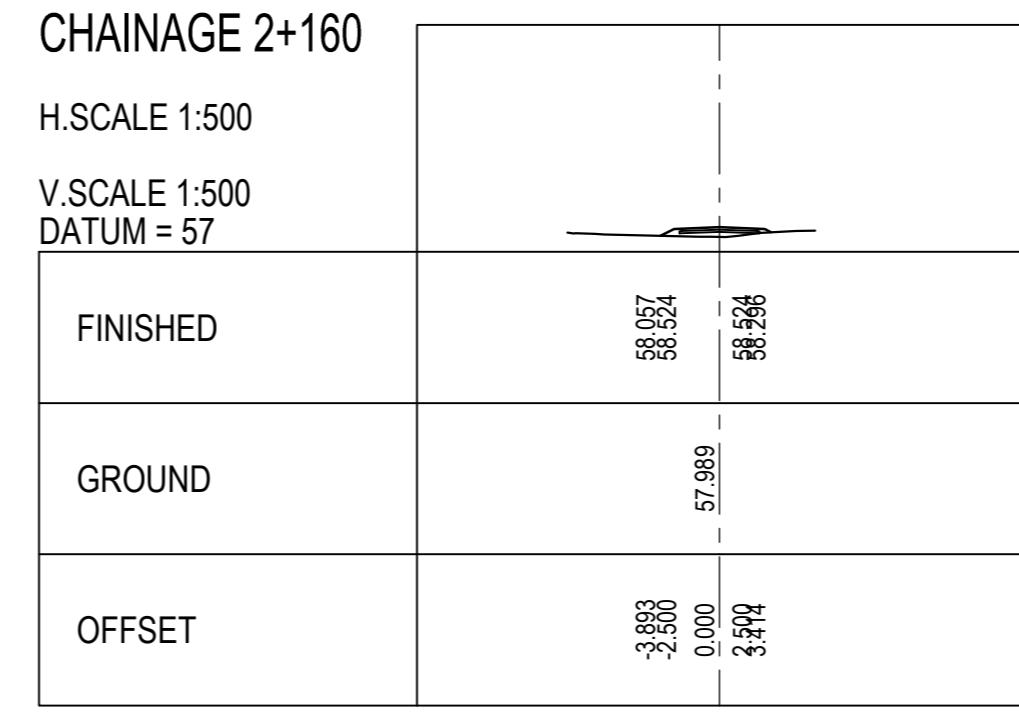
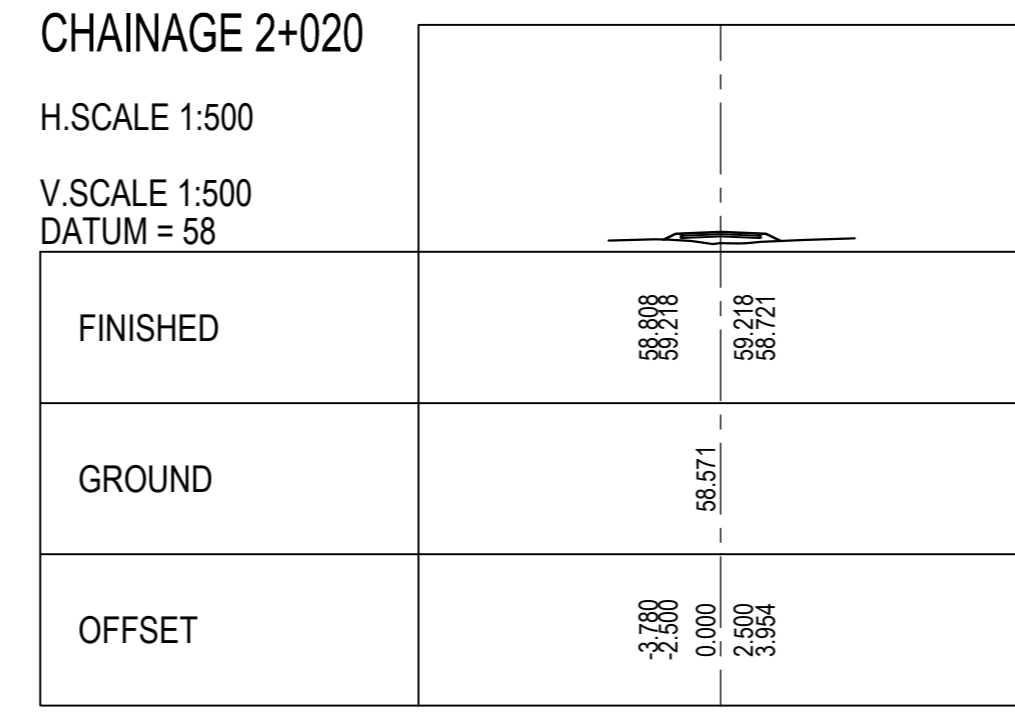
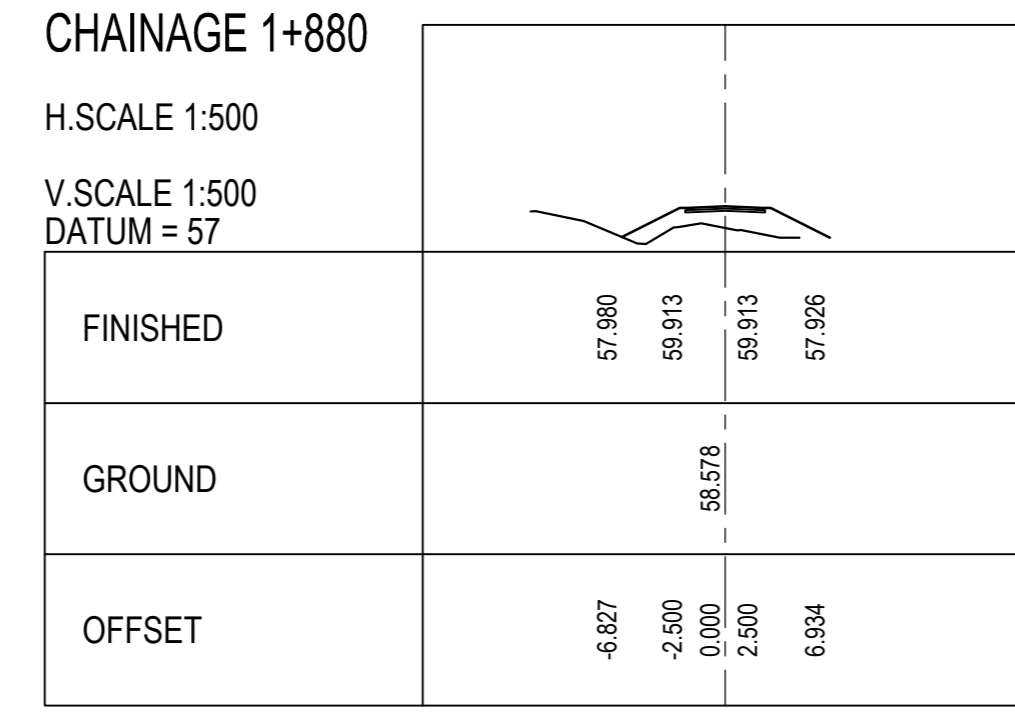
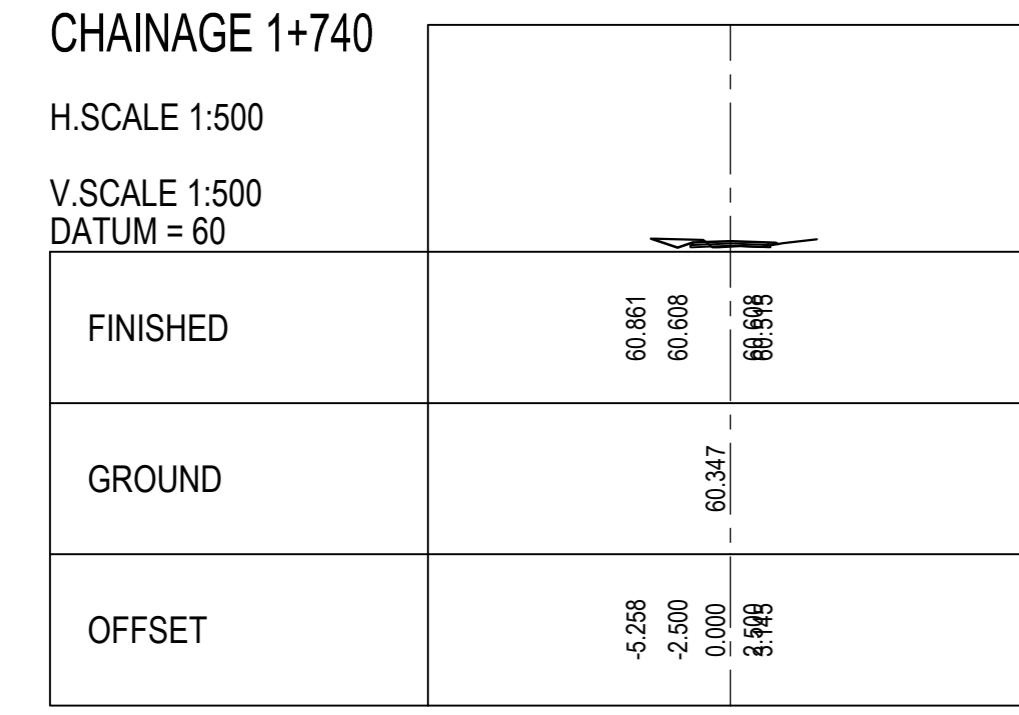
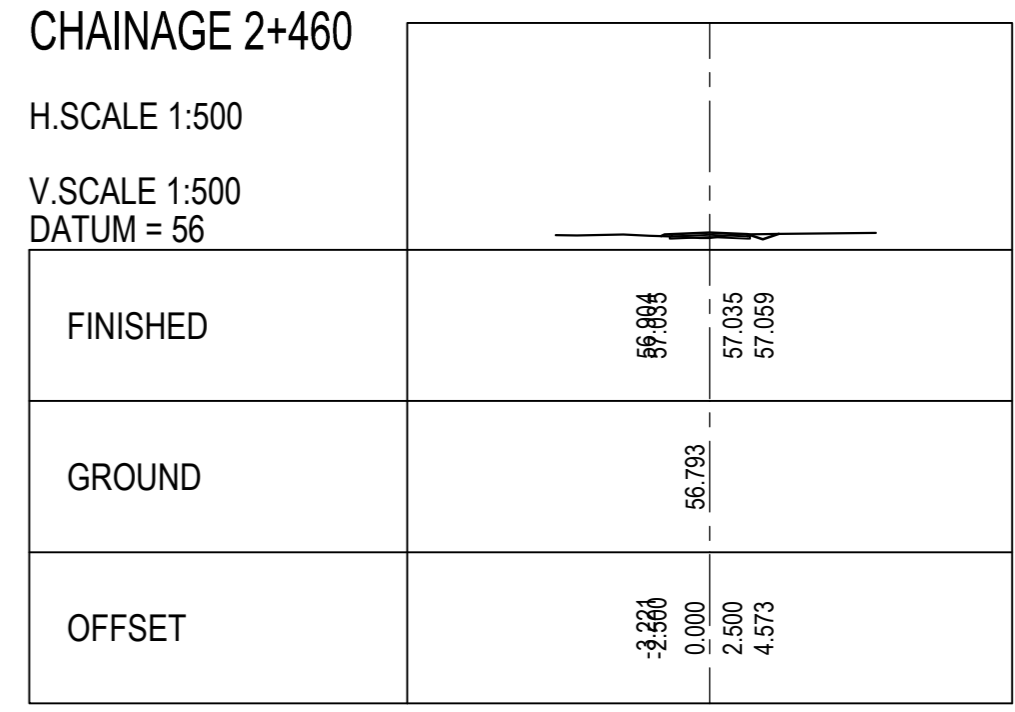
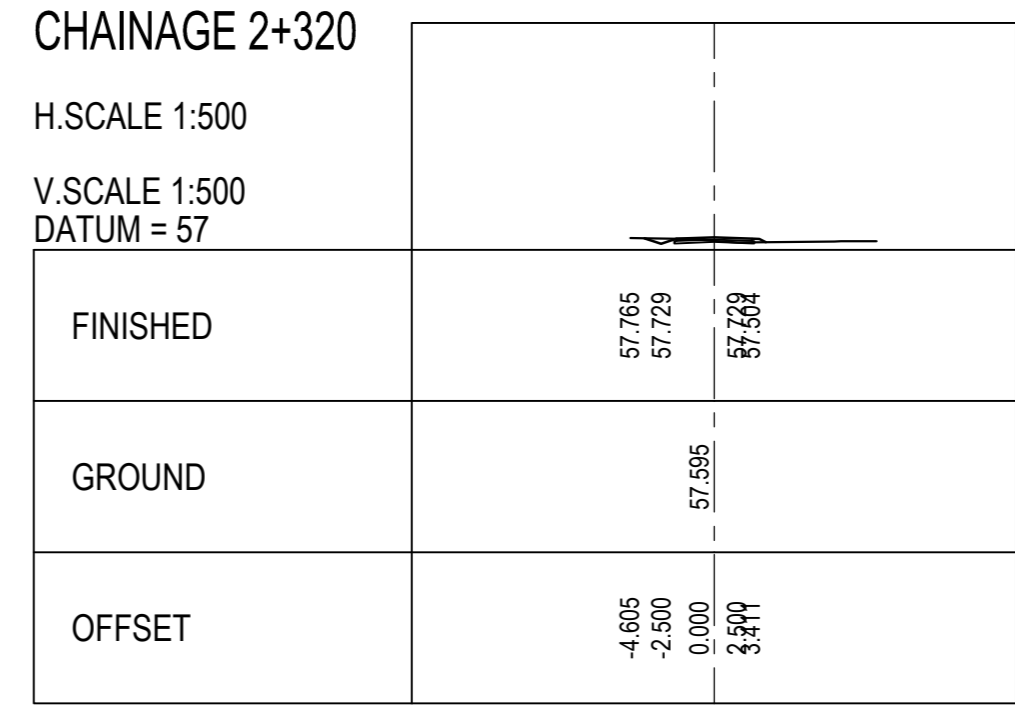
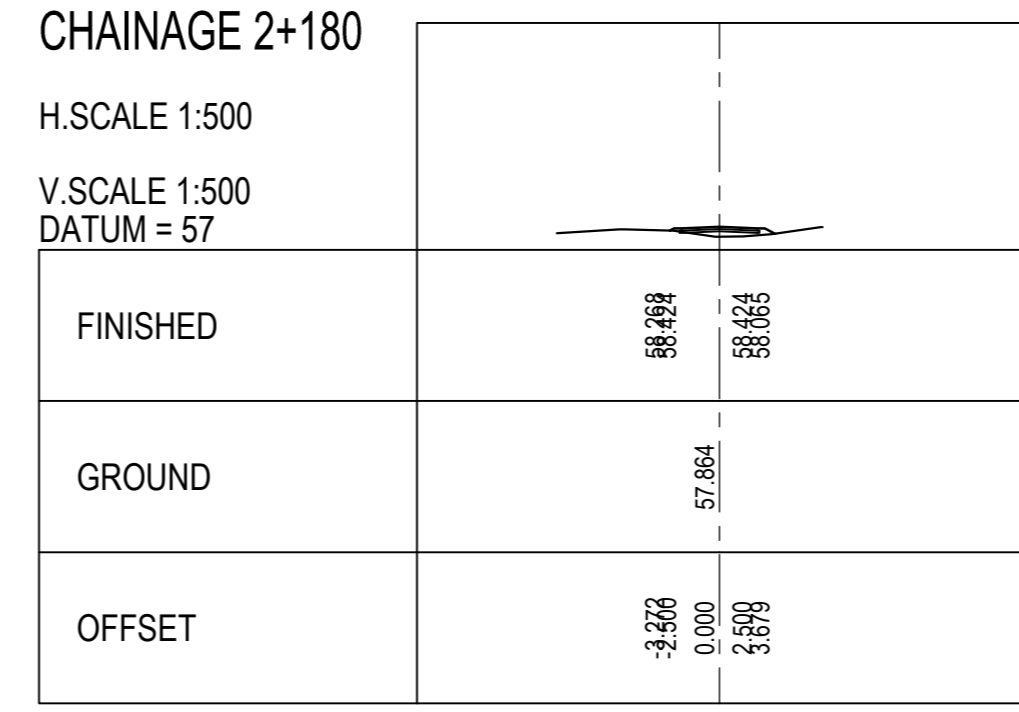
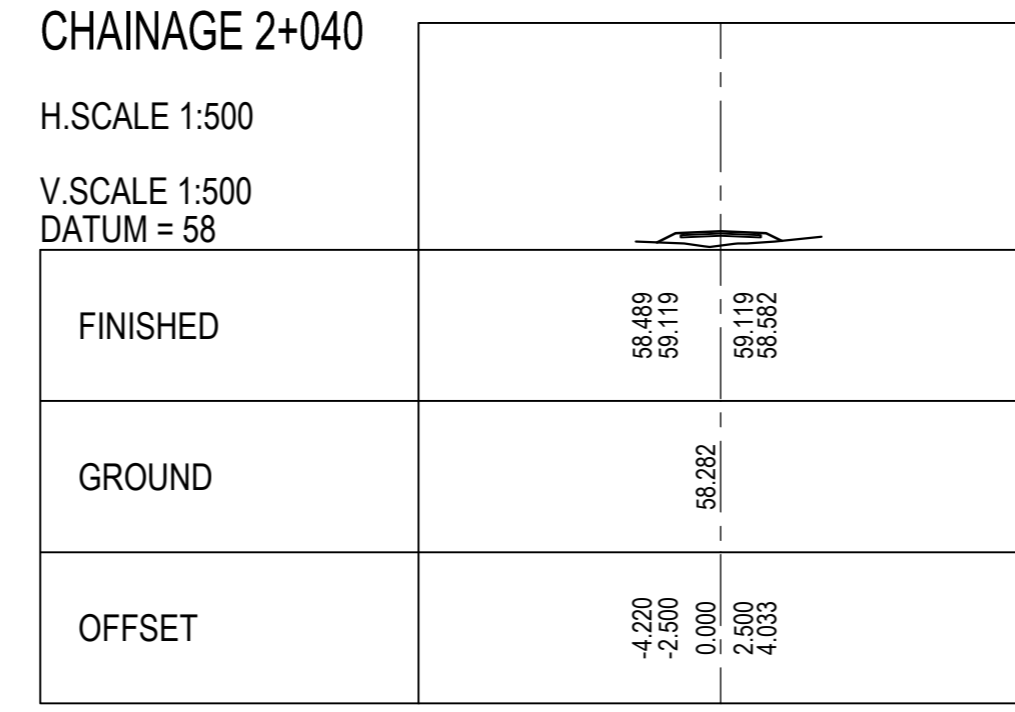
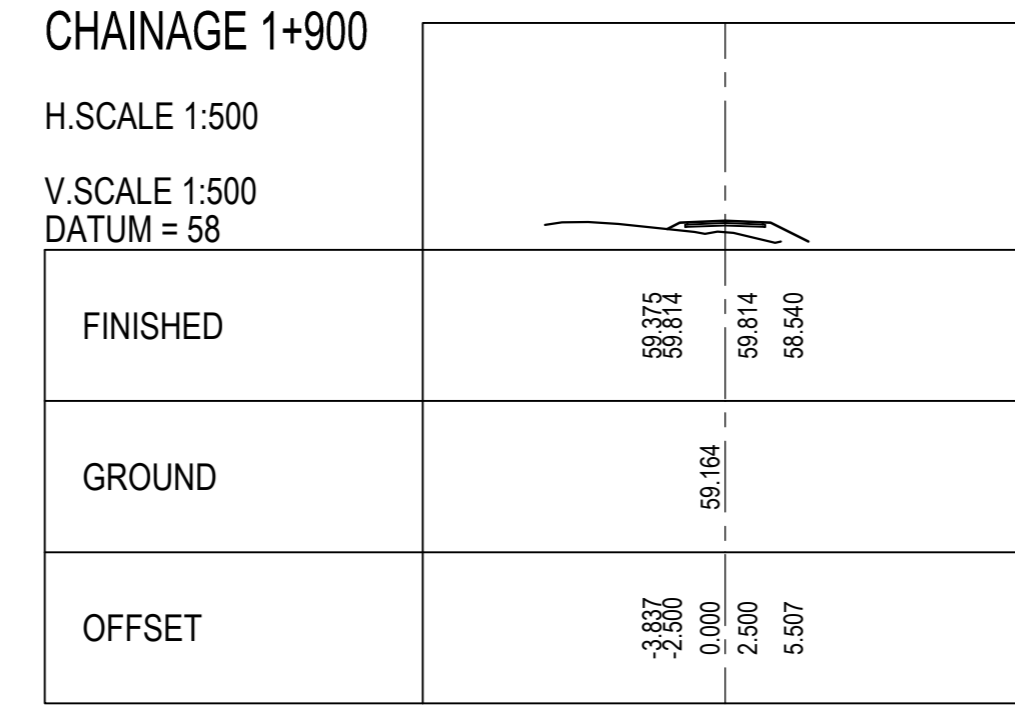
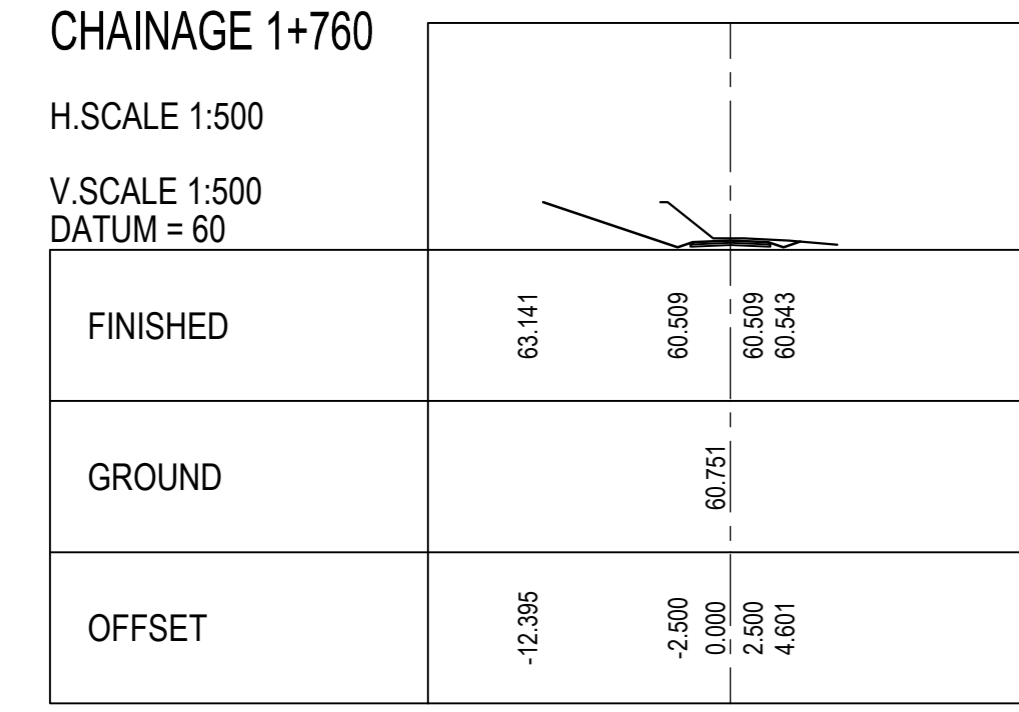
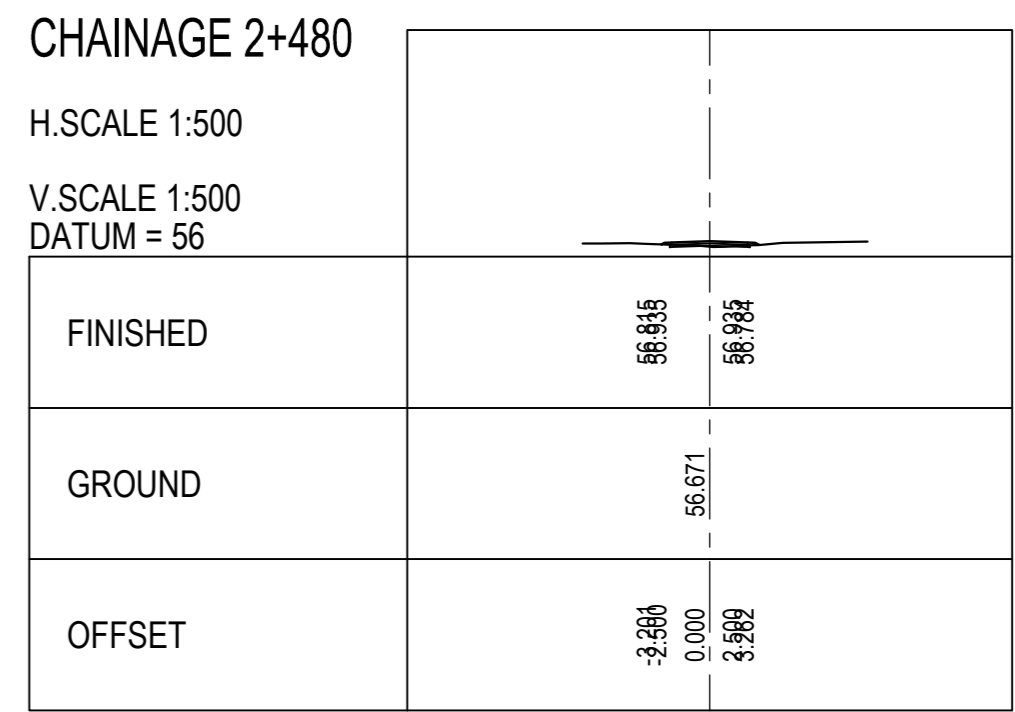
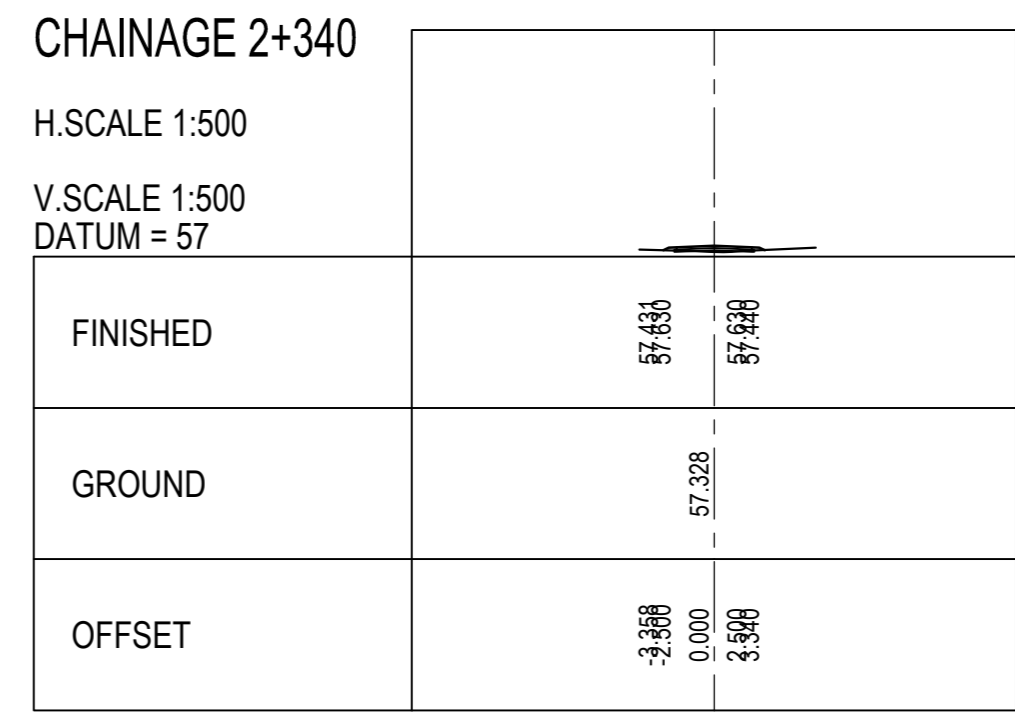
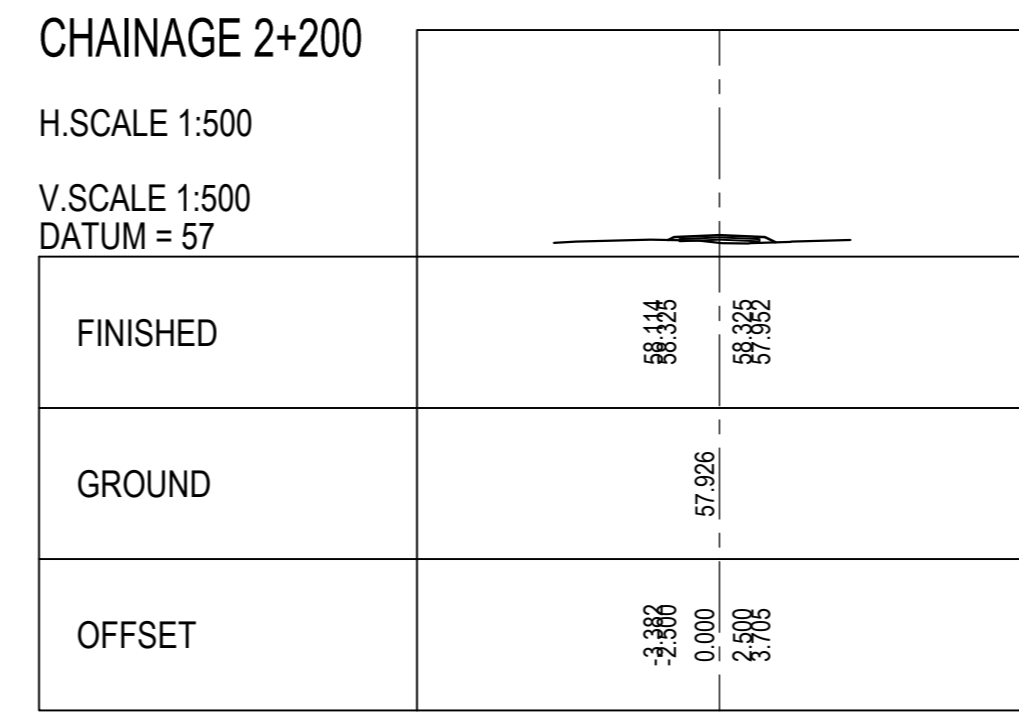
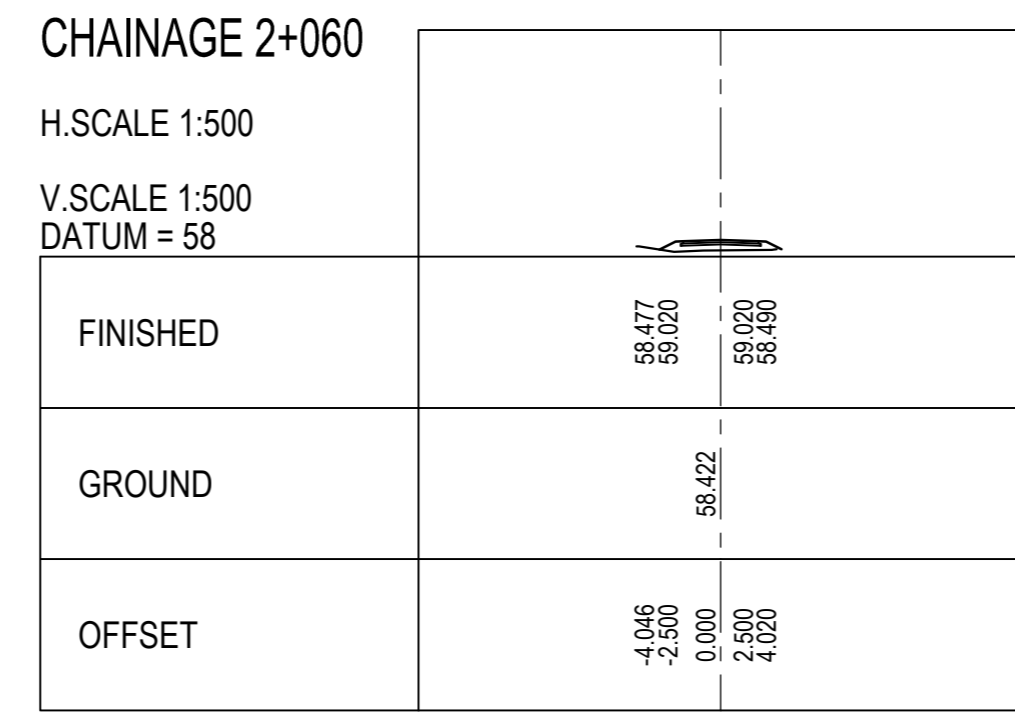
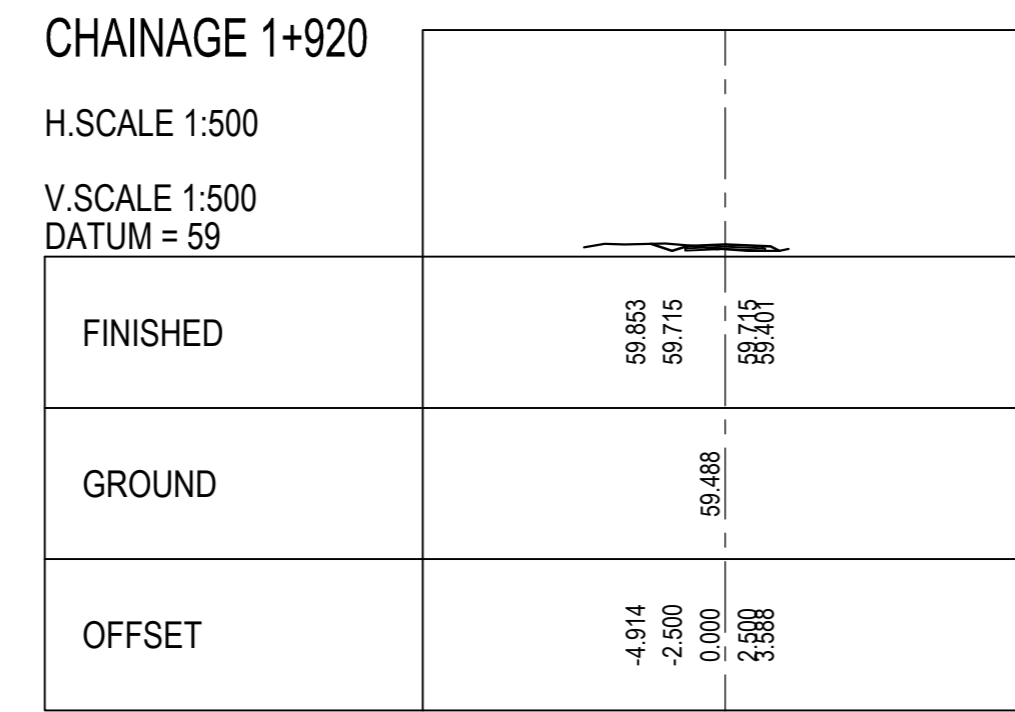
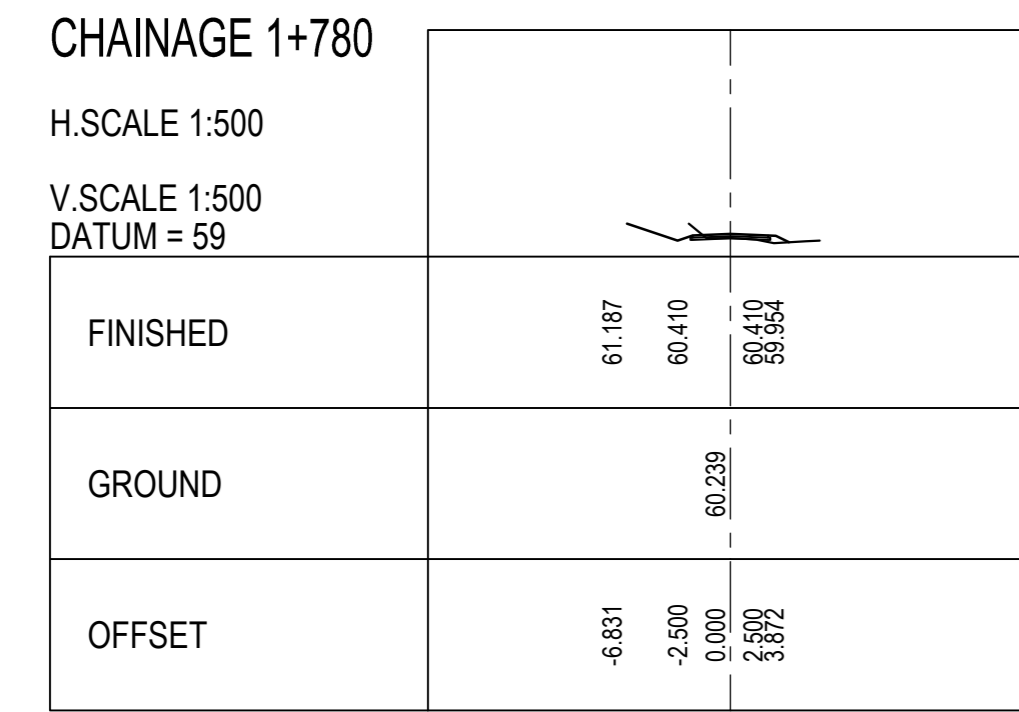
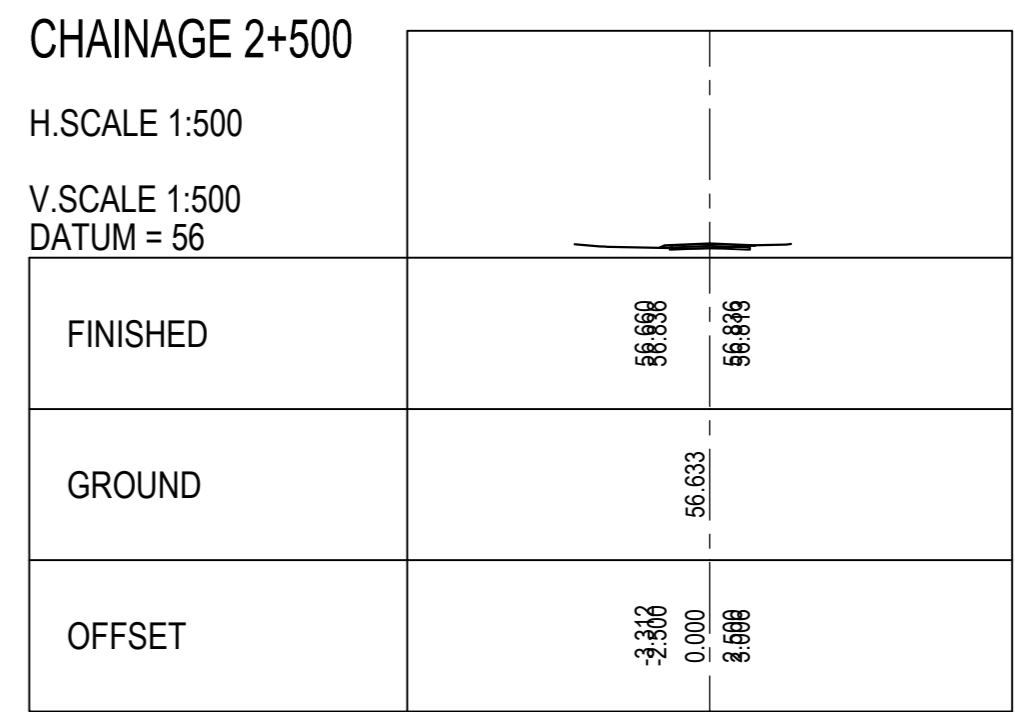
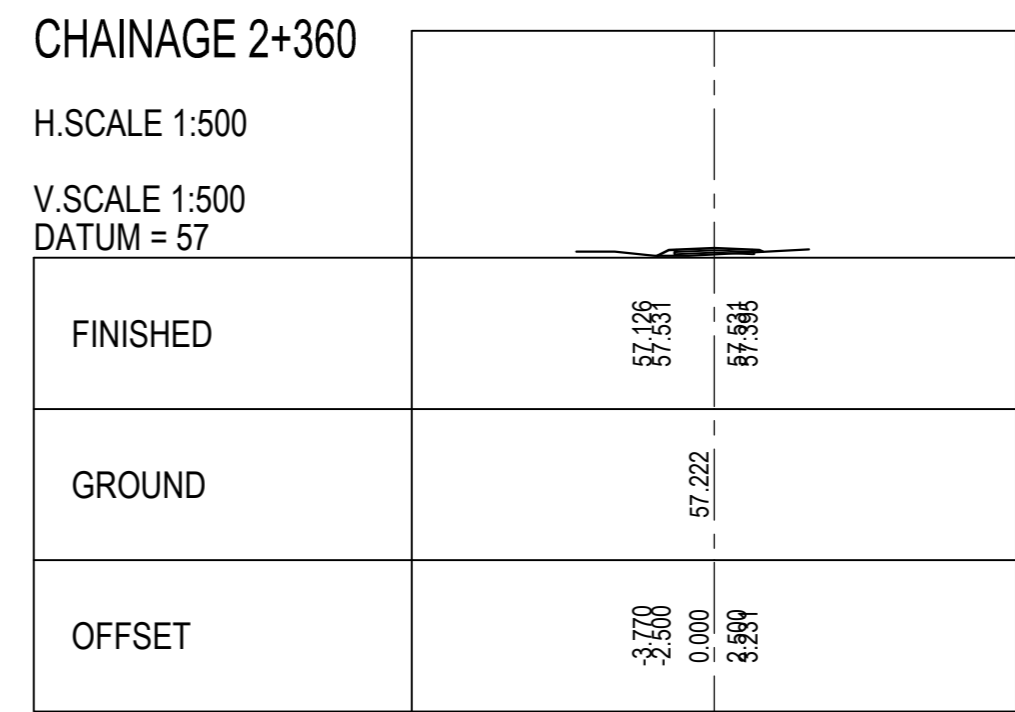
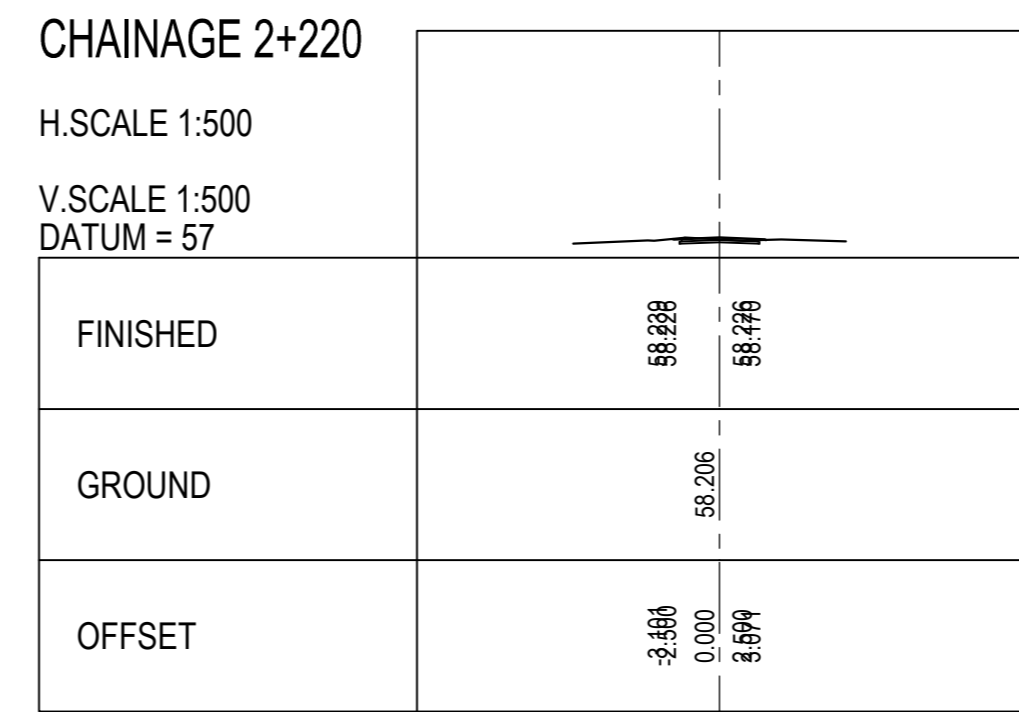
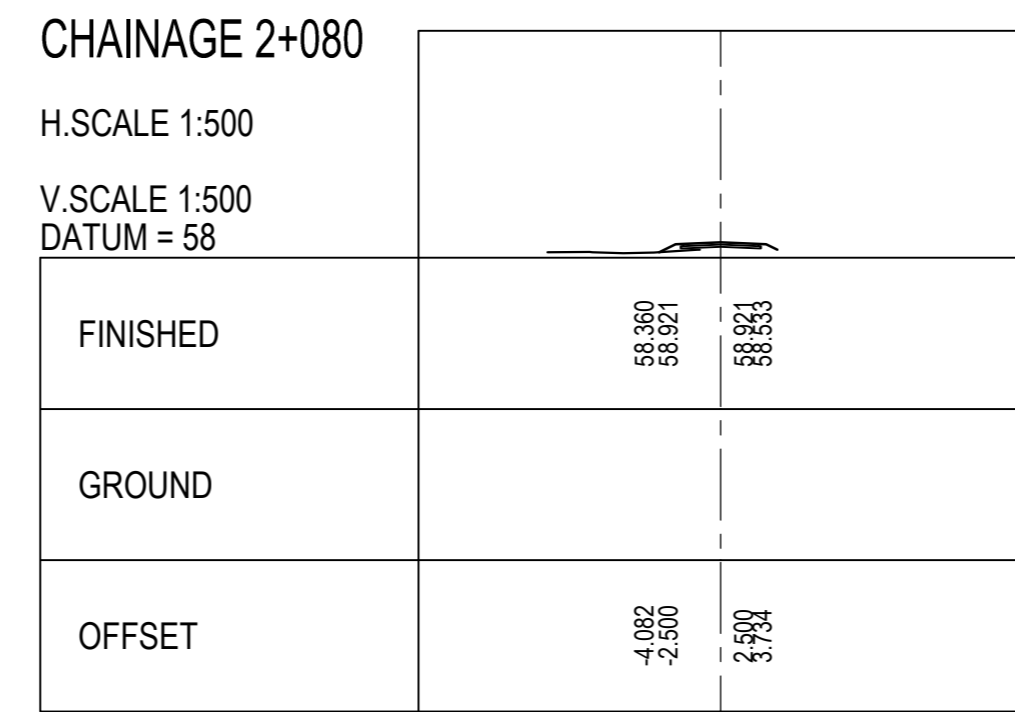
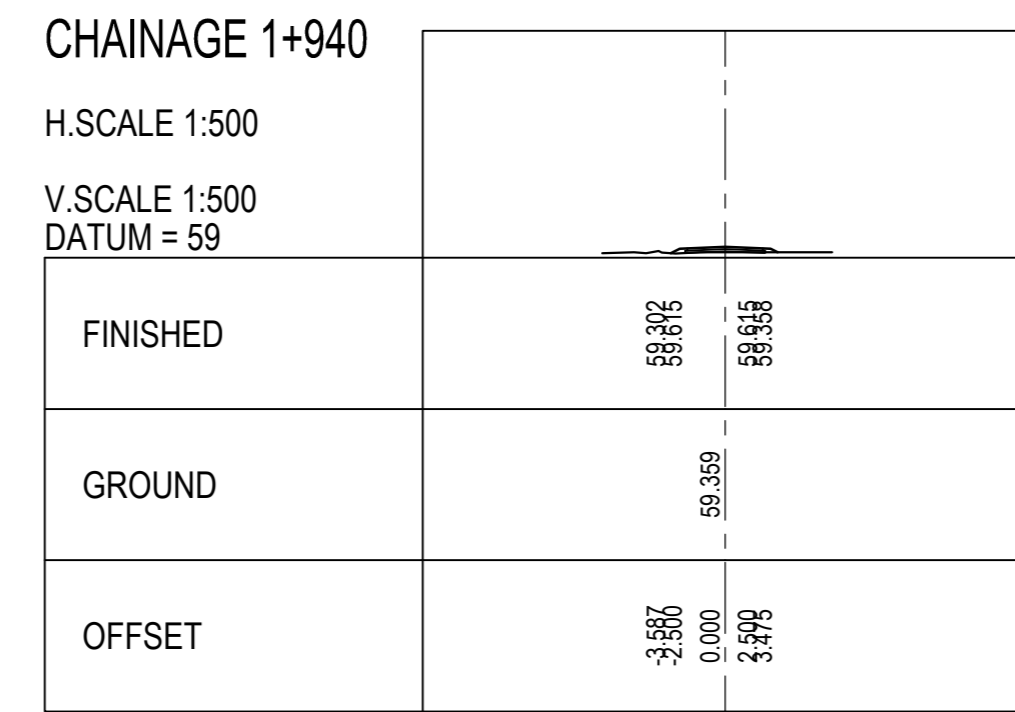
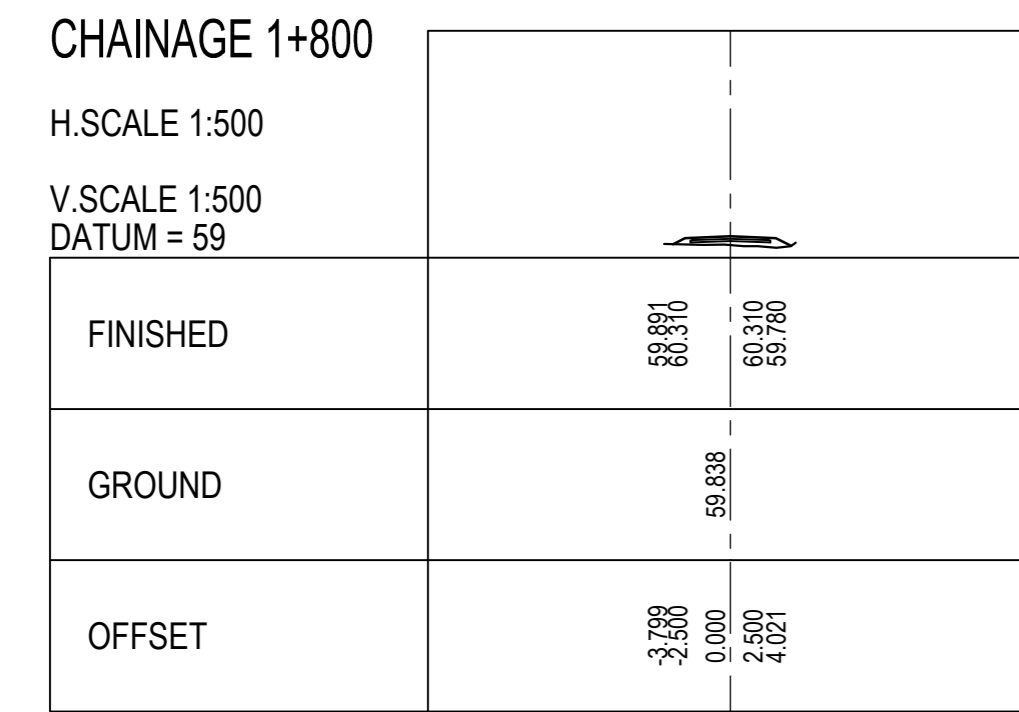
PROJECT/DRAWING TITLE
**CONSTRUCTION OF MATHE GRAVEL ROAD
IN WARD 09
ROAD CROSS SECTIONS
CHAINAGE 0.000m - 820m**

SCALE AS SHOWN	SHEET SHEET 1 OF 6
CONTRACT No.	PROJECT No.
DRAWING No. IZH-0526-MATH-XS-208	REV A

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ISSUED FOR TENDER

DRAWING NUMBER	DESCRIPTION	DRAWING NUMBER	DESCRIPTION

No	DATE	DETAILS	CHECKED	APPROVED

DESIGNED	N. BUTHLEZI	APRIL 2026
DRAWN	B. SITHOLE	APRIL 2026
REVIEW	N. BUTHLEZI	APRIL 2026
APPROVED: APRIL 2026		
NAME	N. BUTHLEZI	
SIGNATURE:	2023/01/18	

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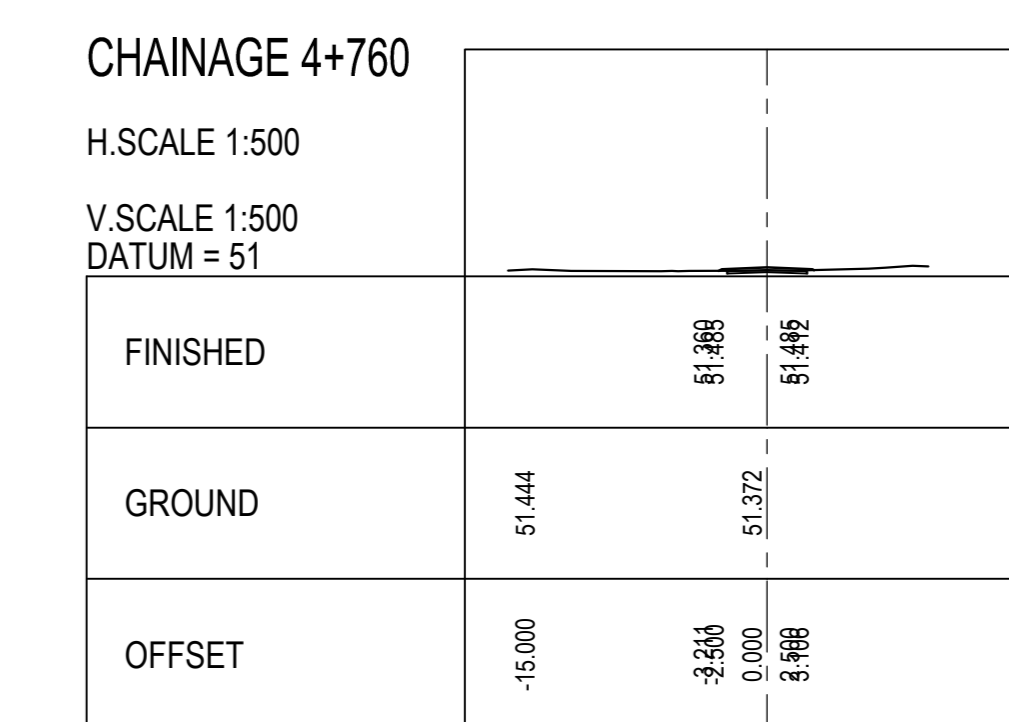
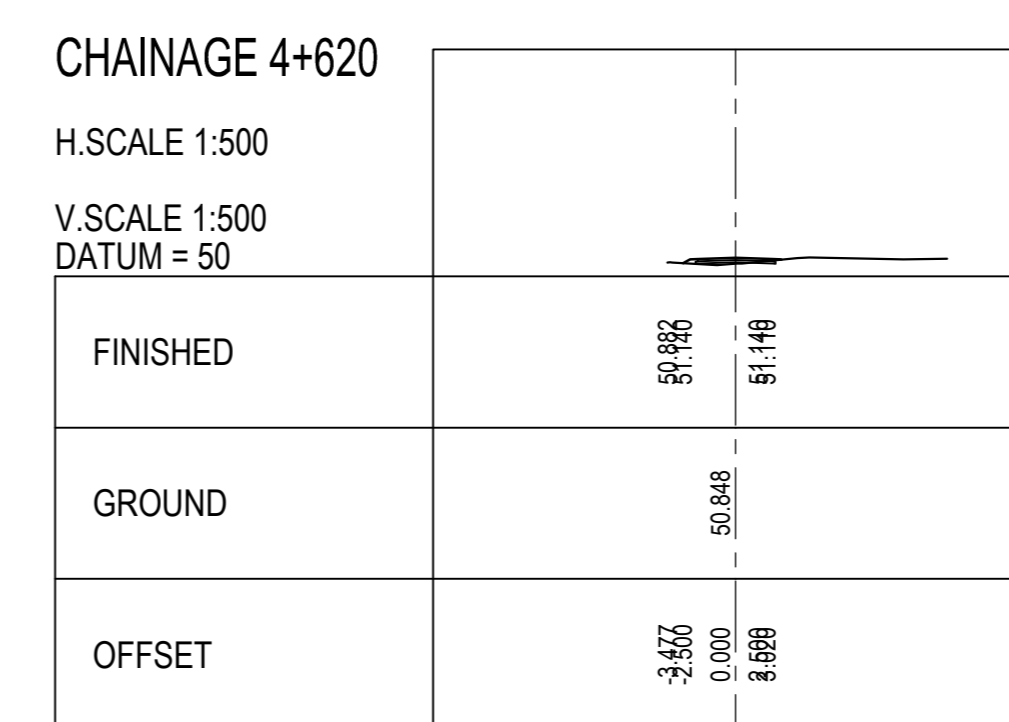
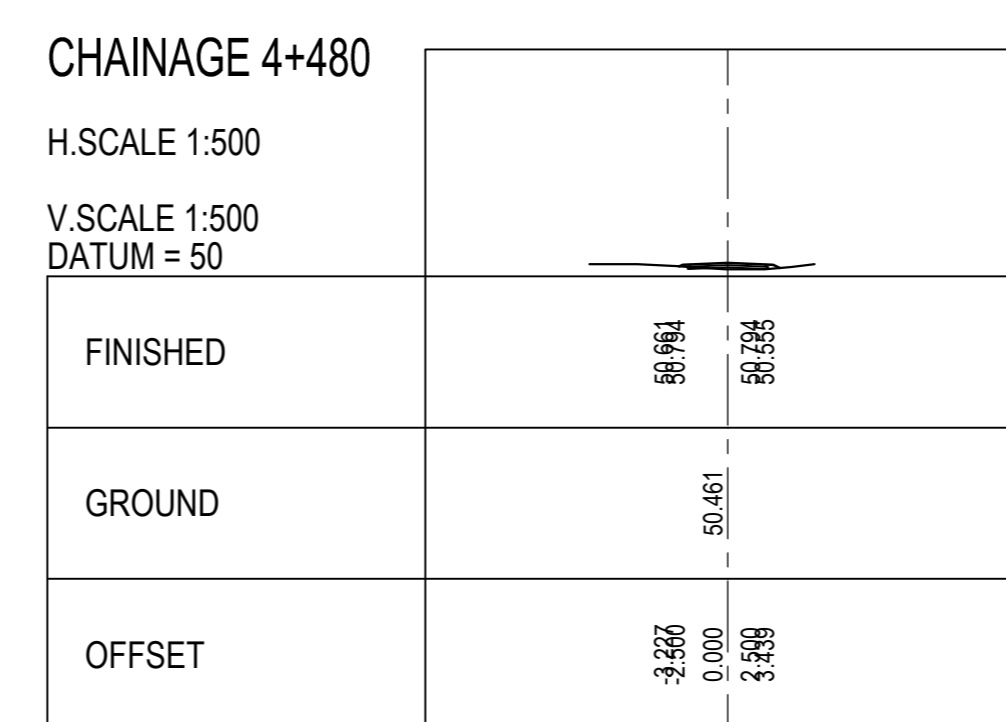
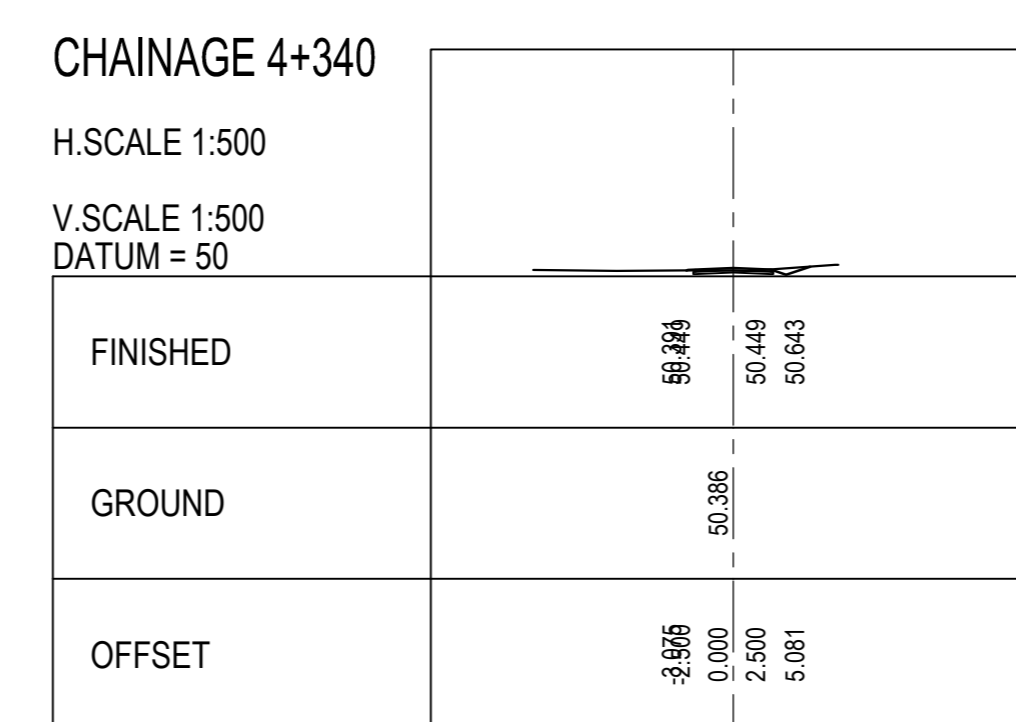
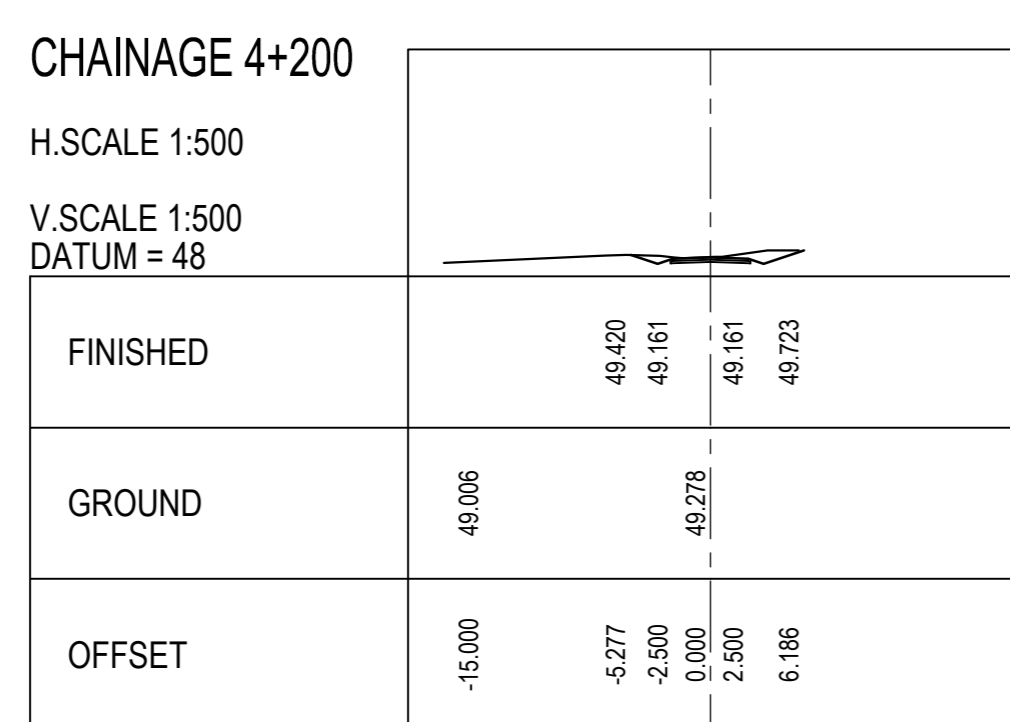
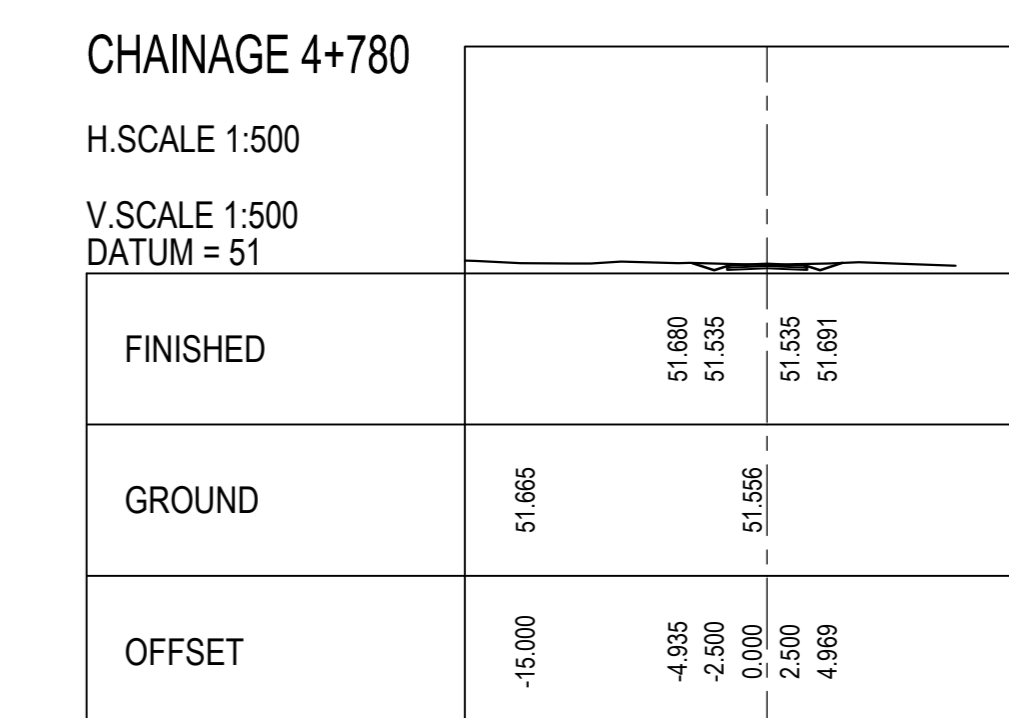
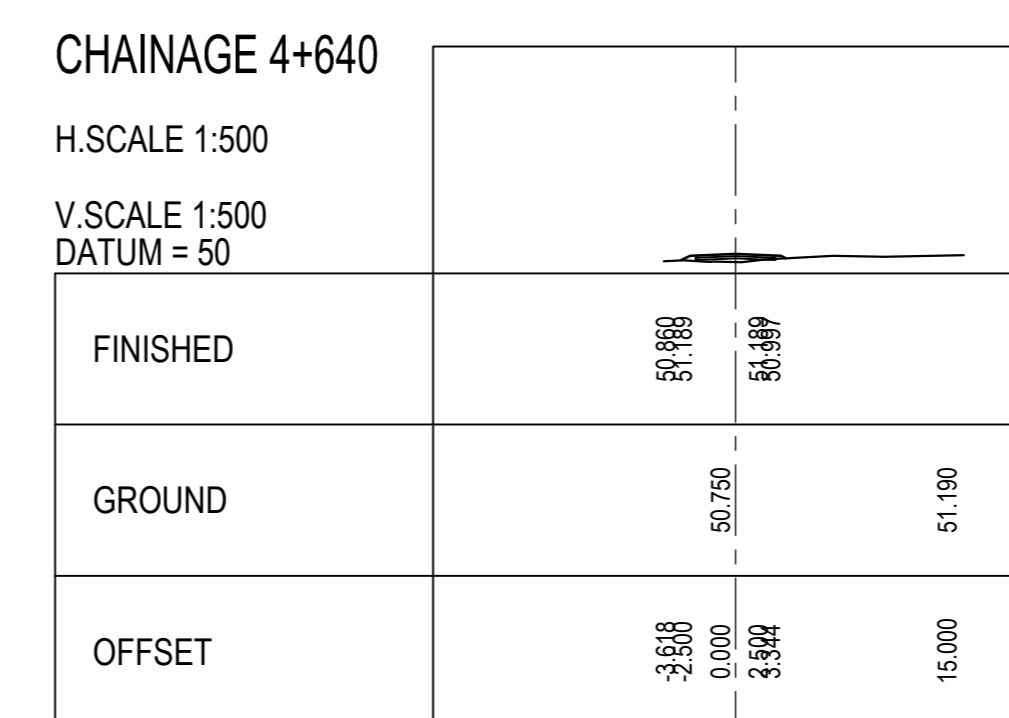
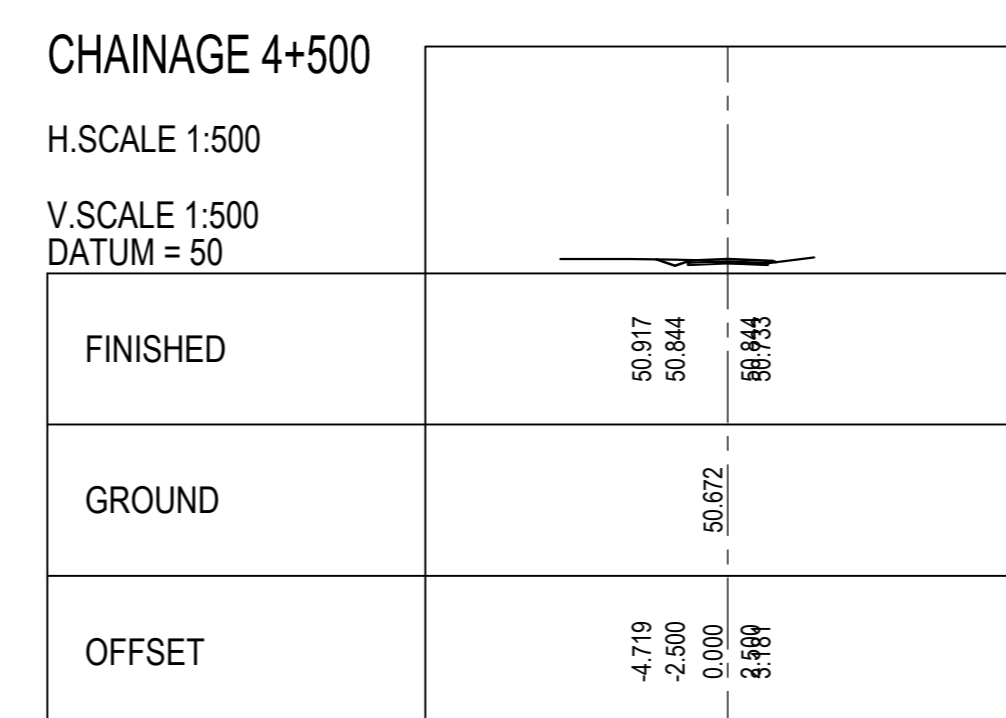
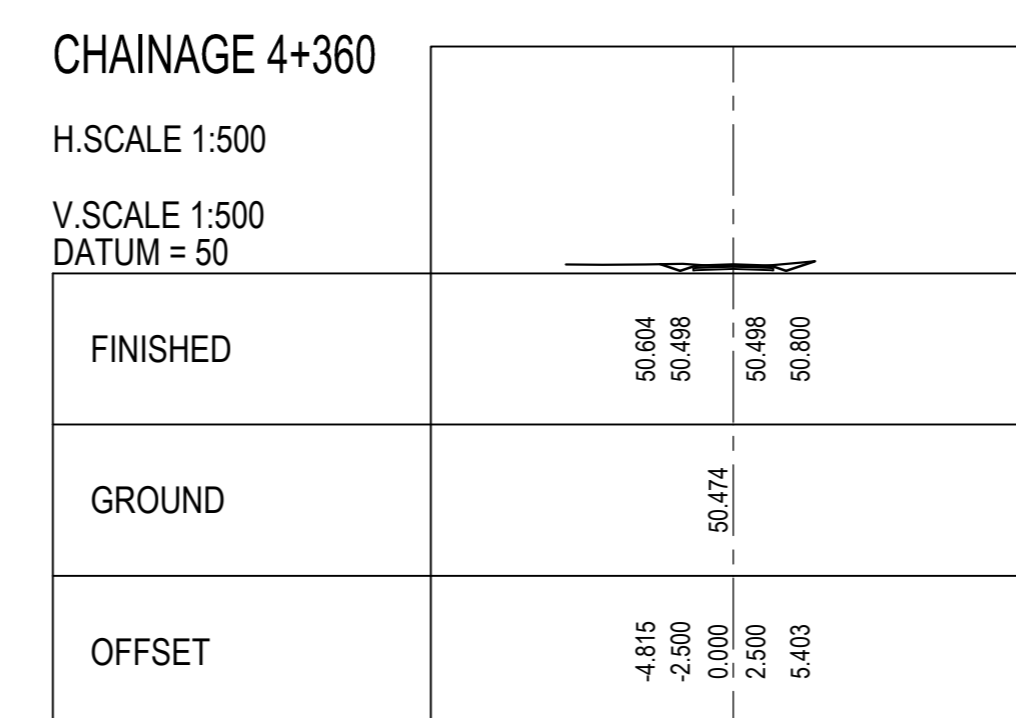
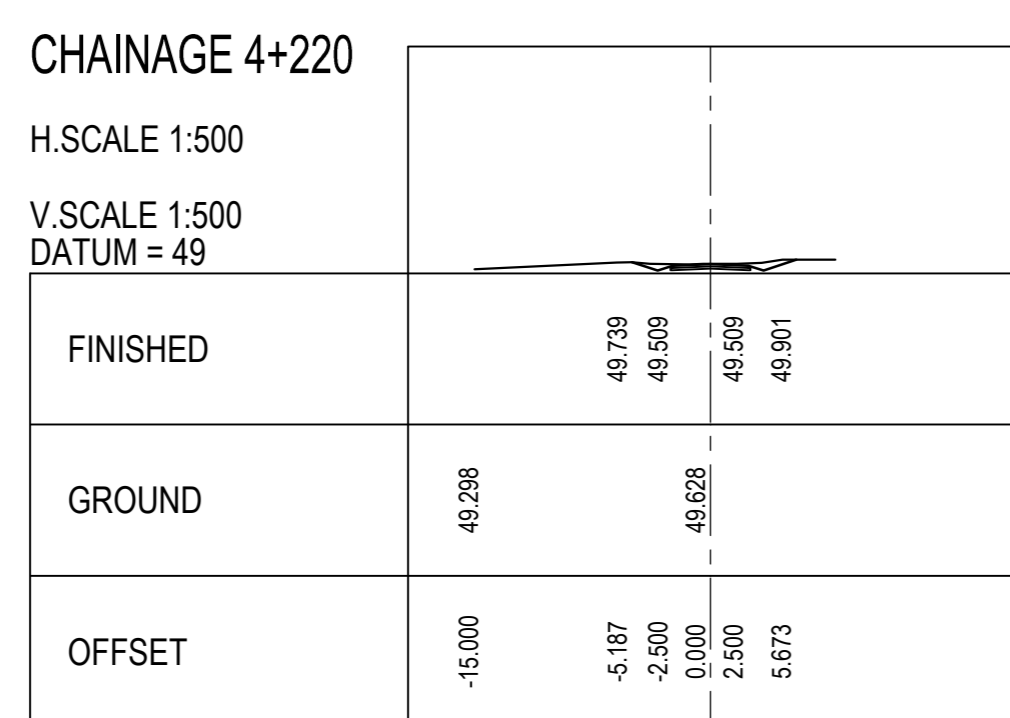
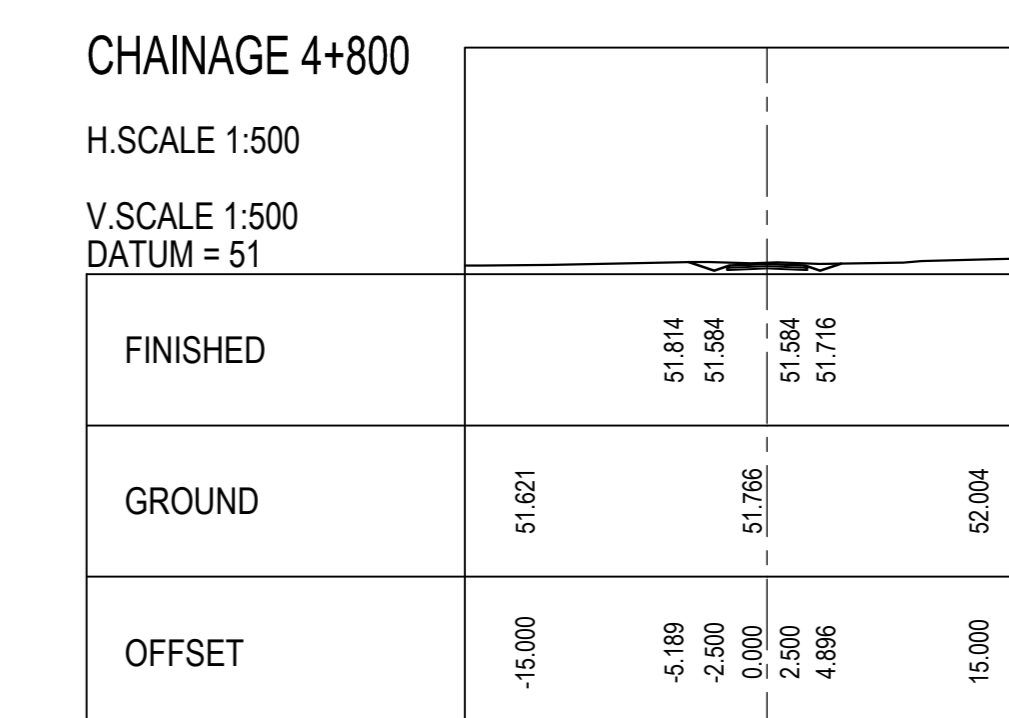
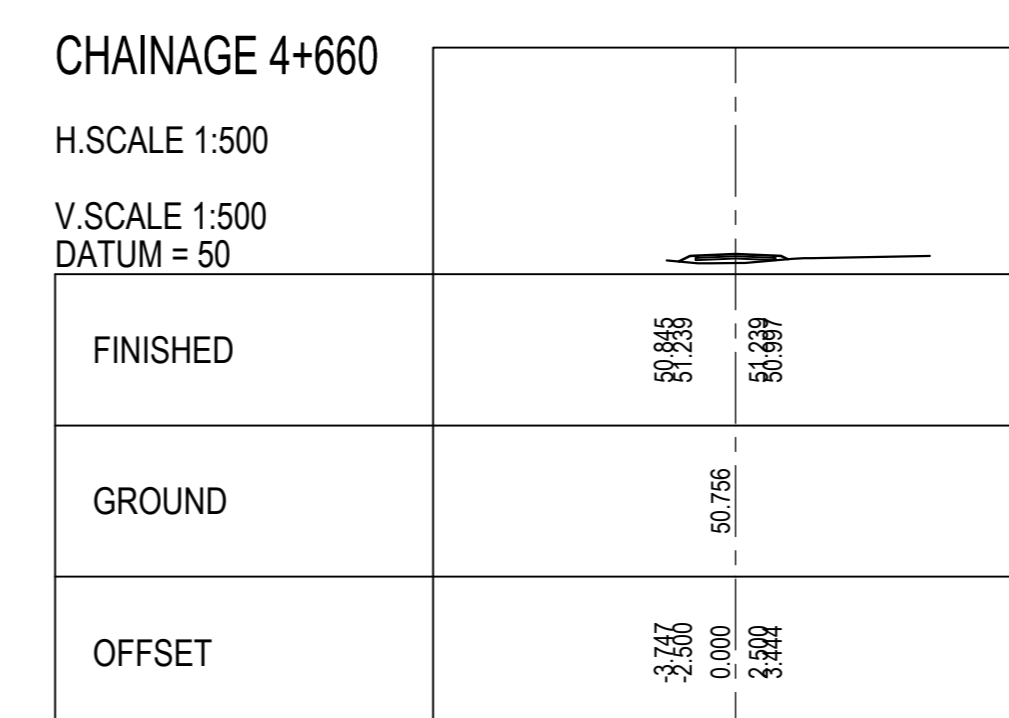
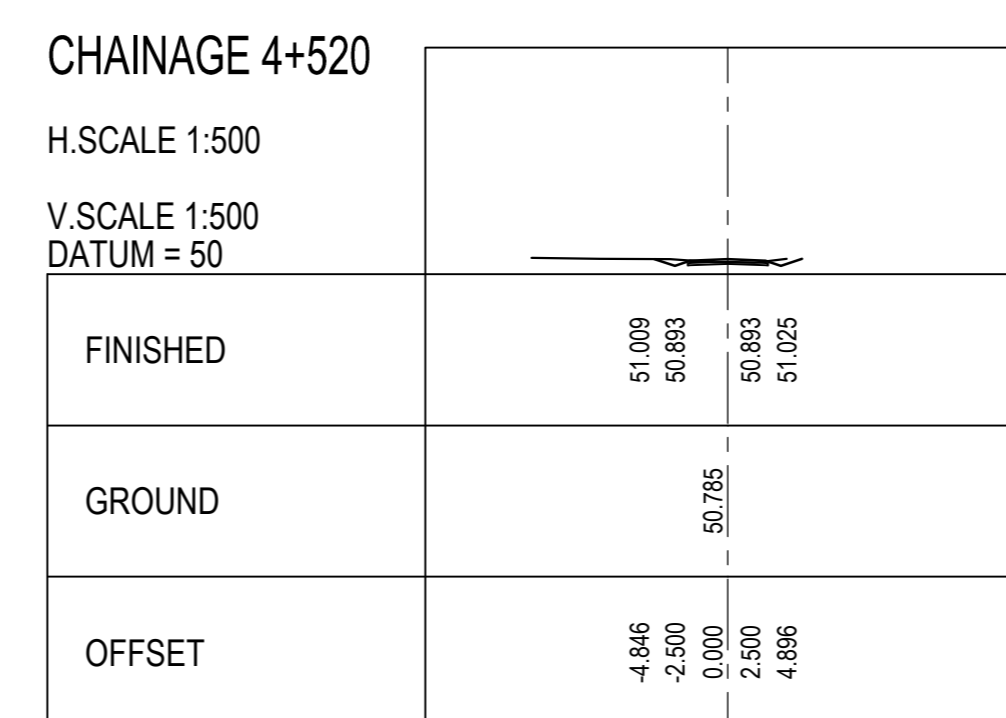
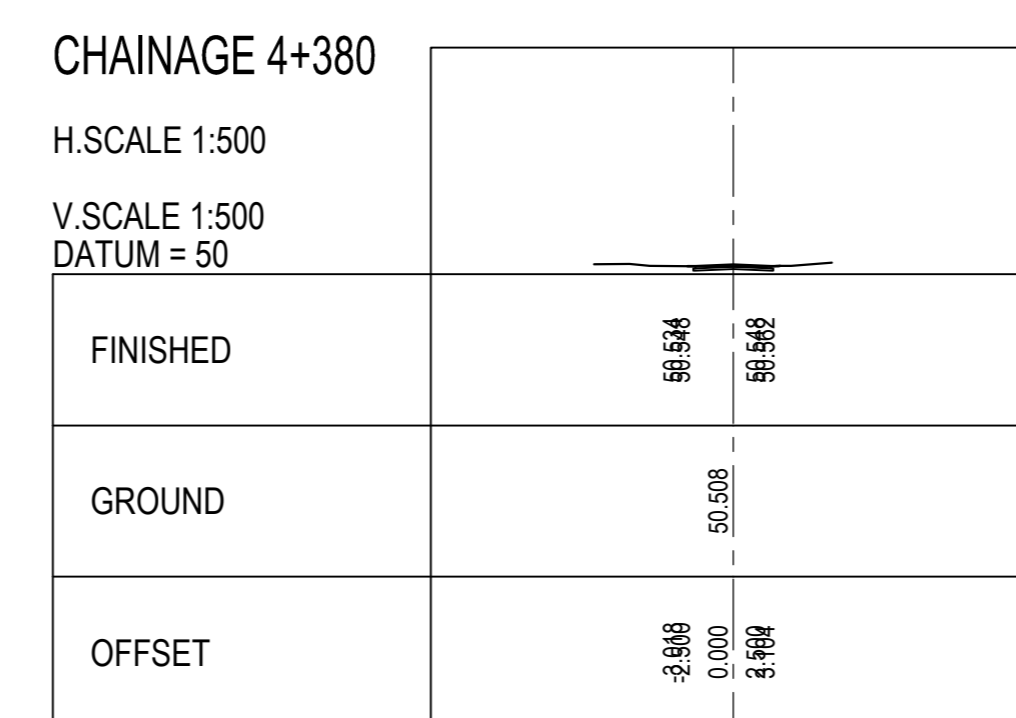
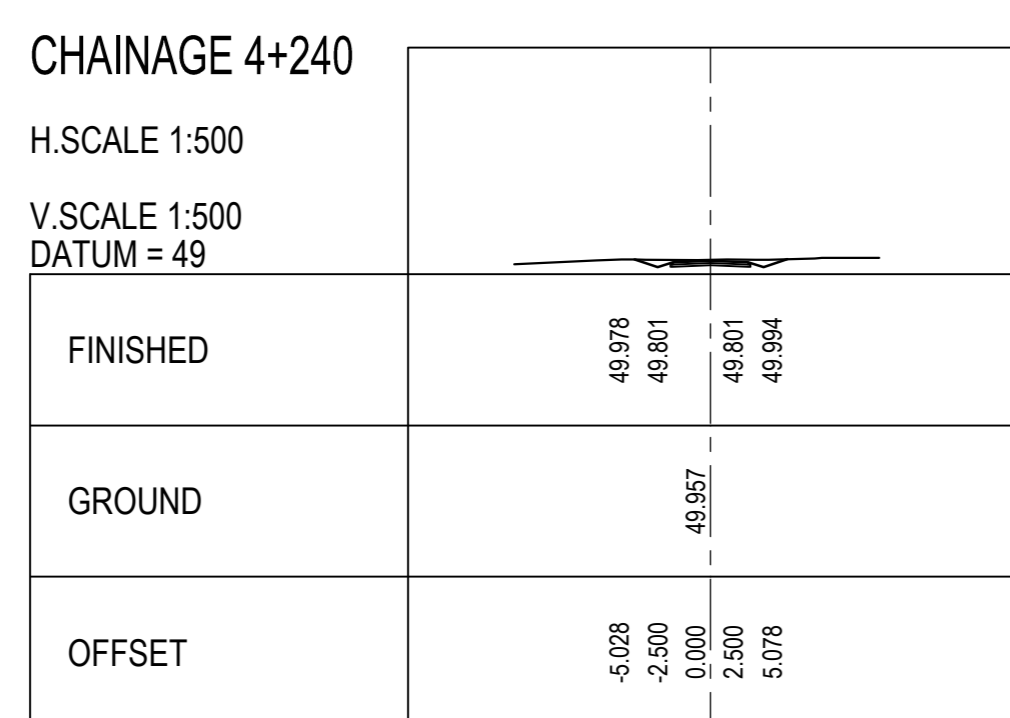
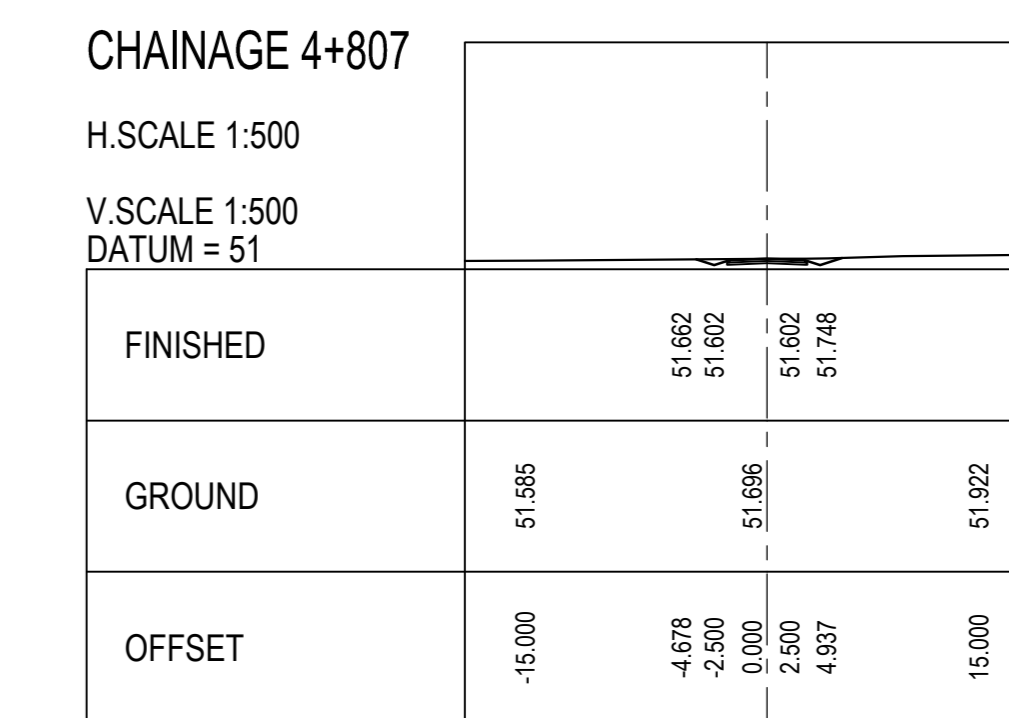
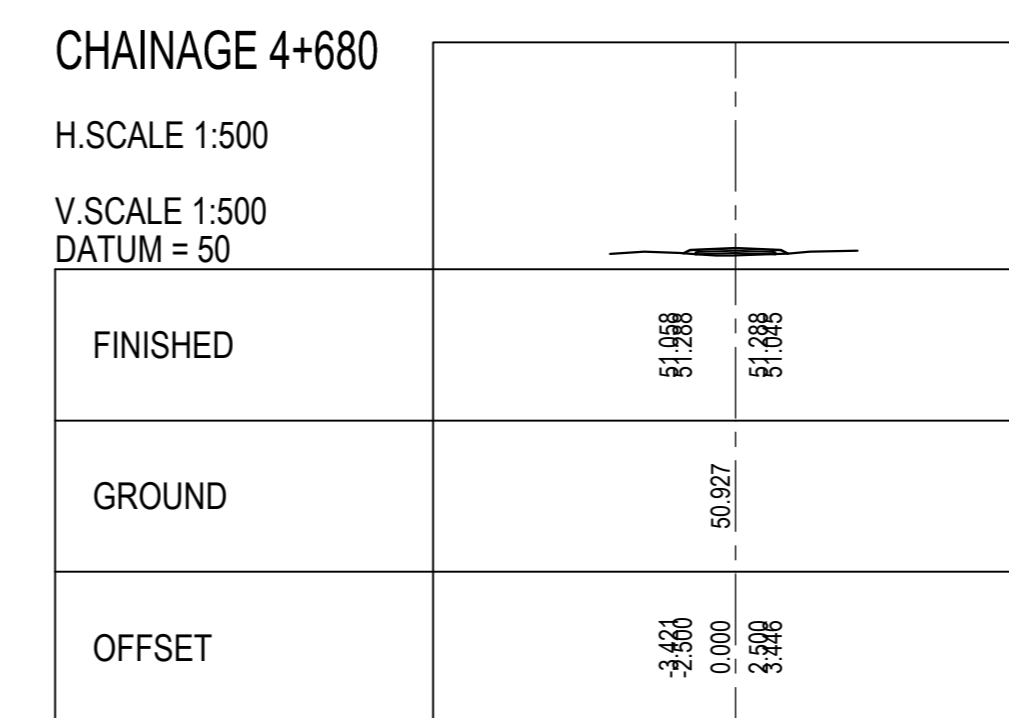
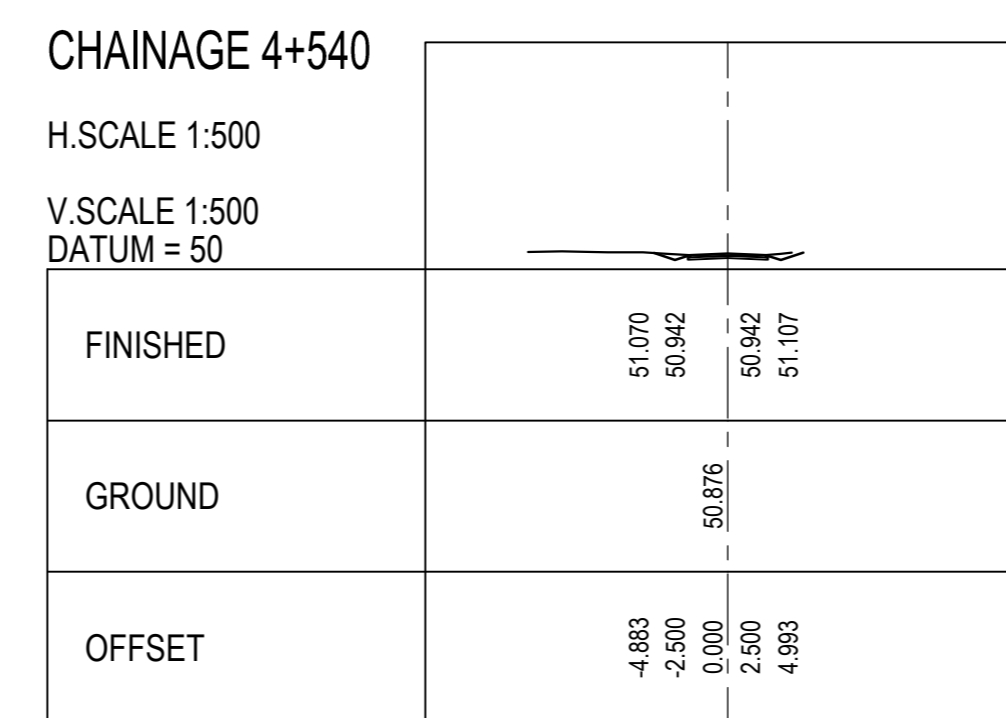
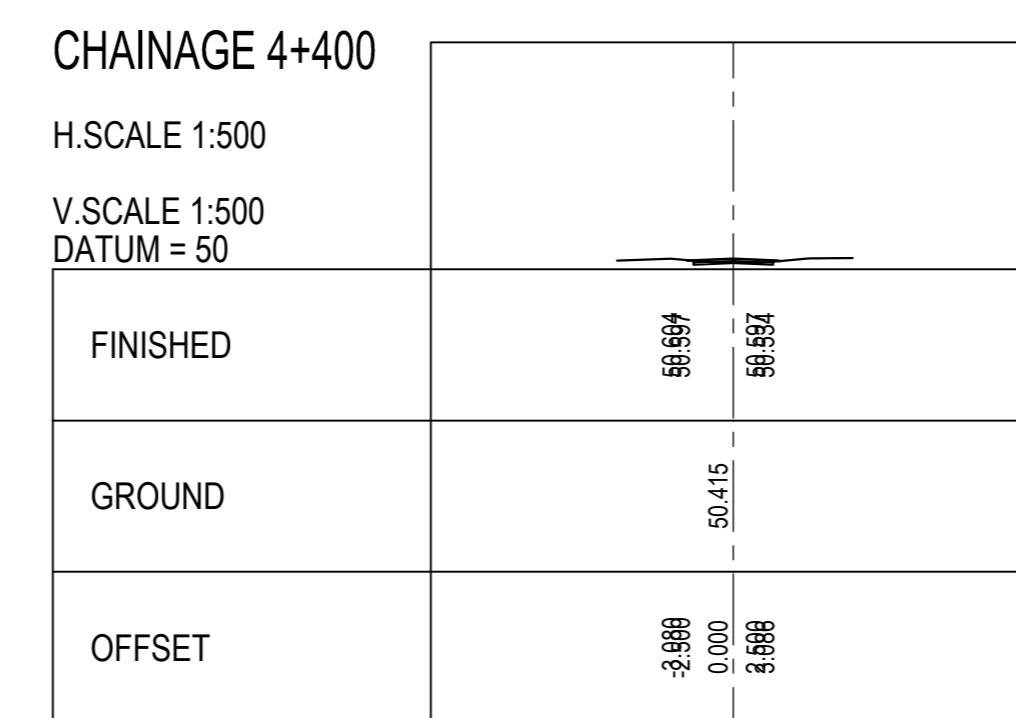
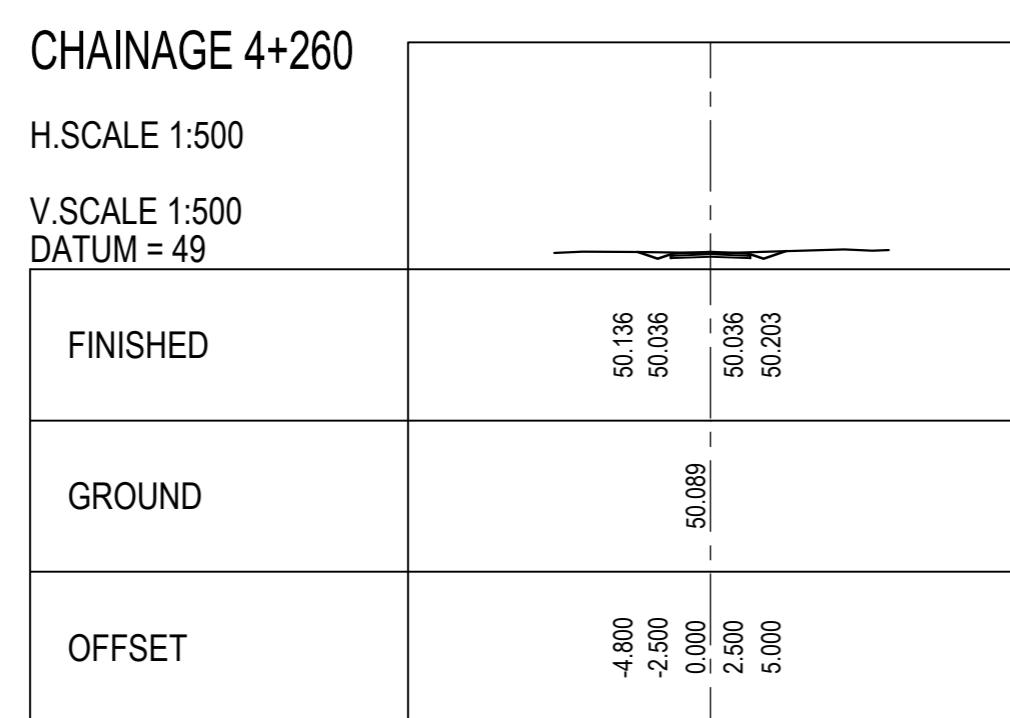
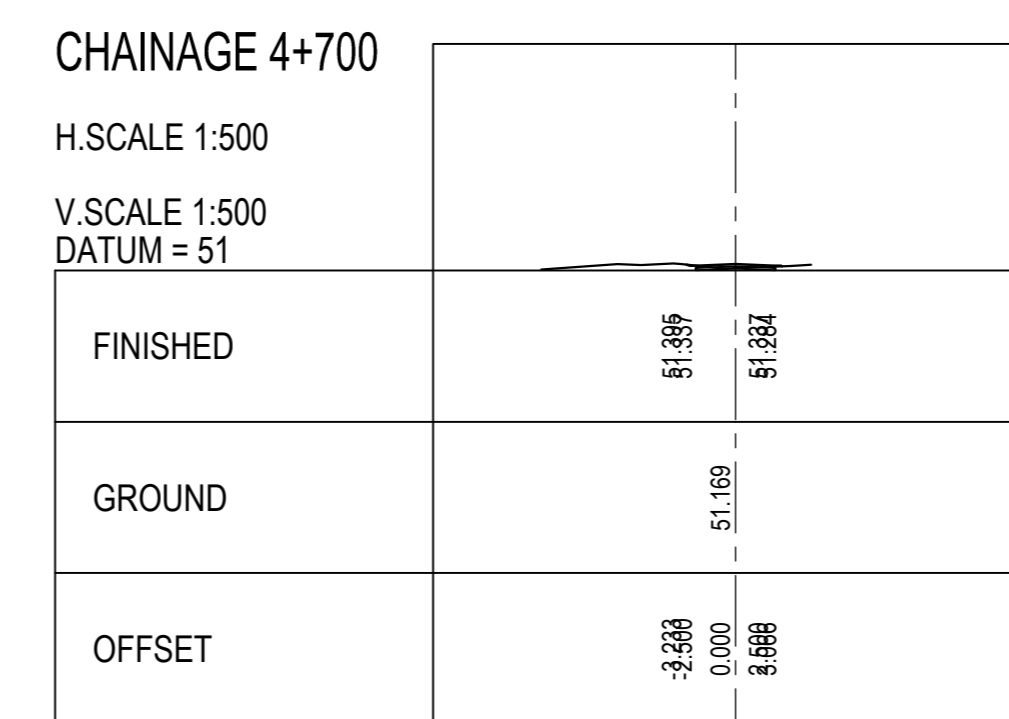
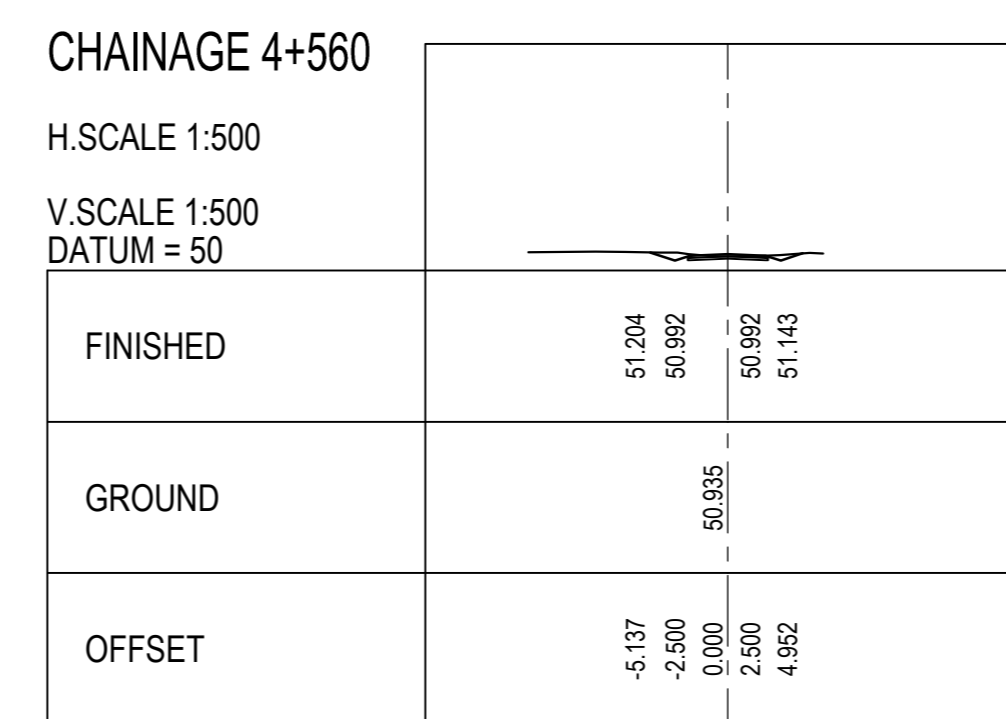
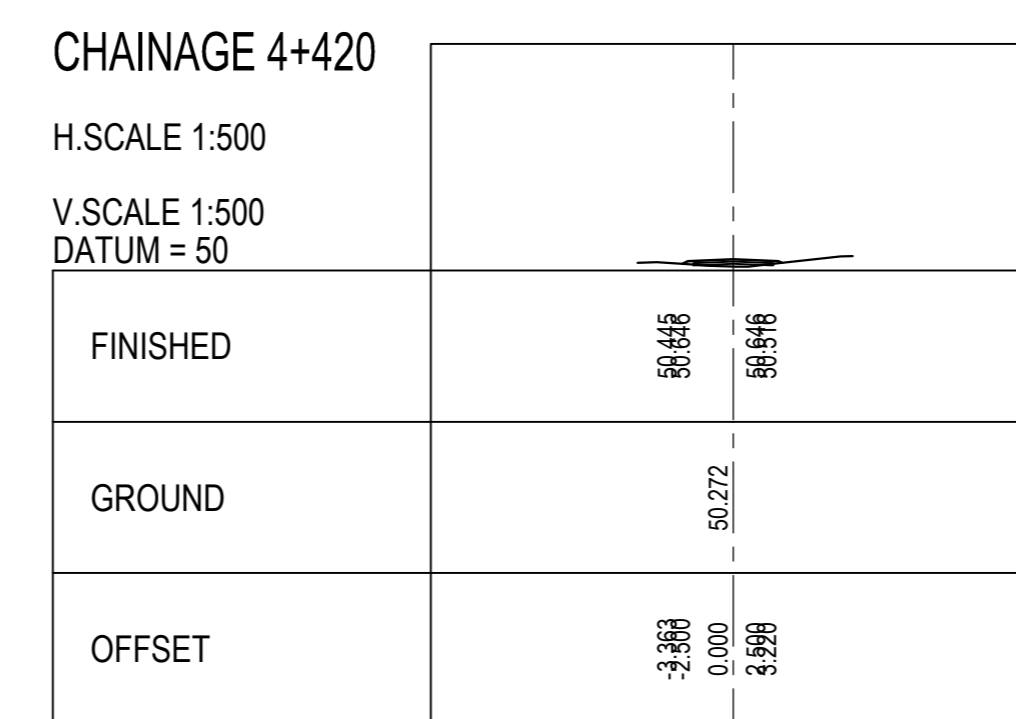
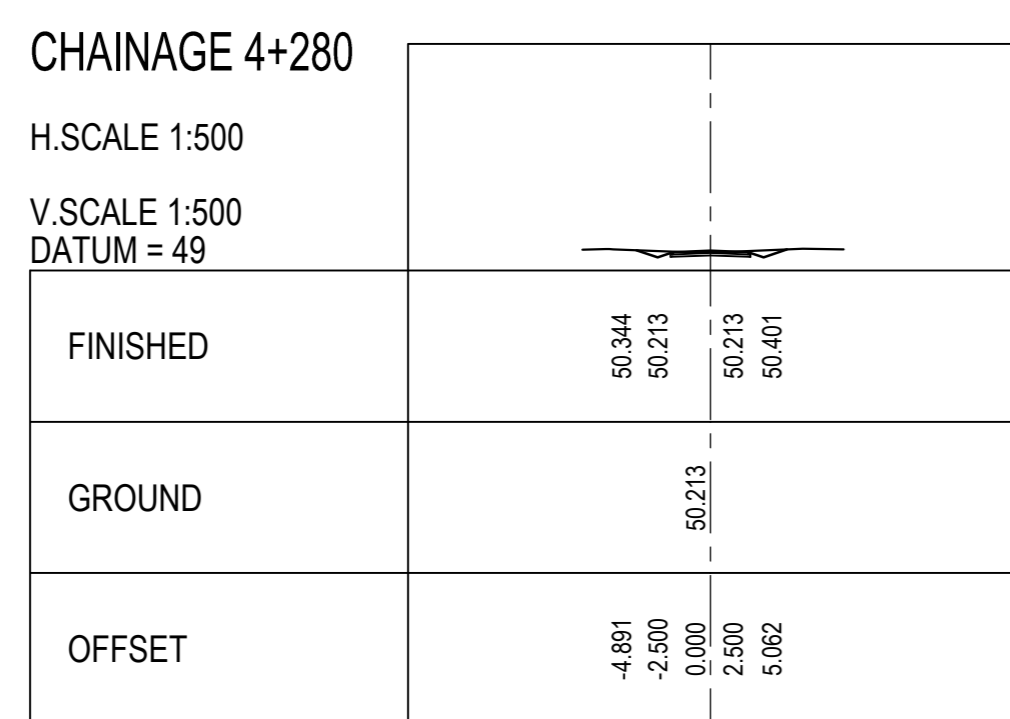
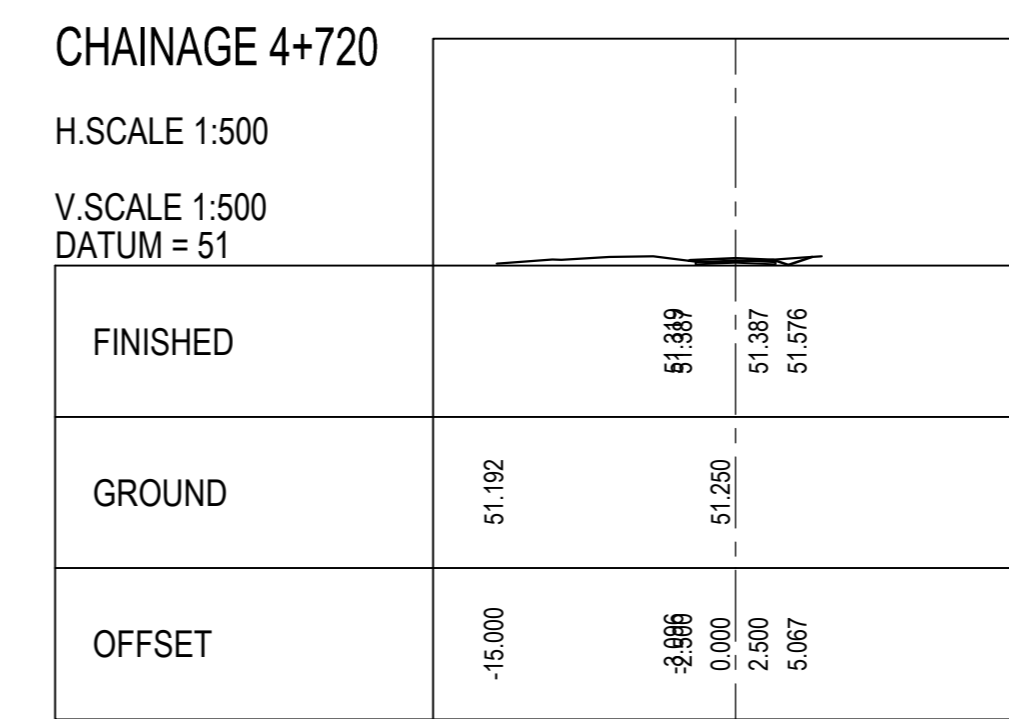
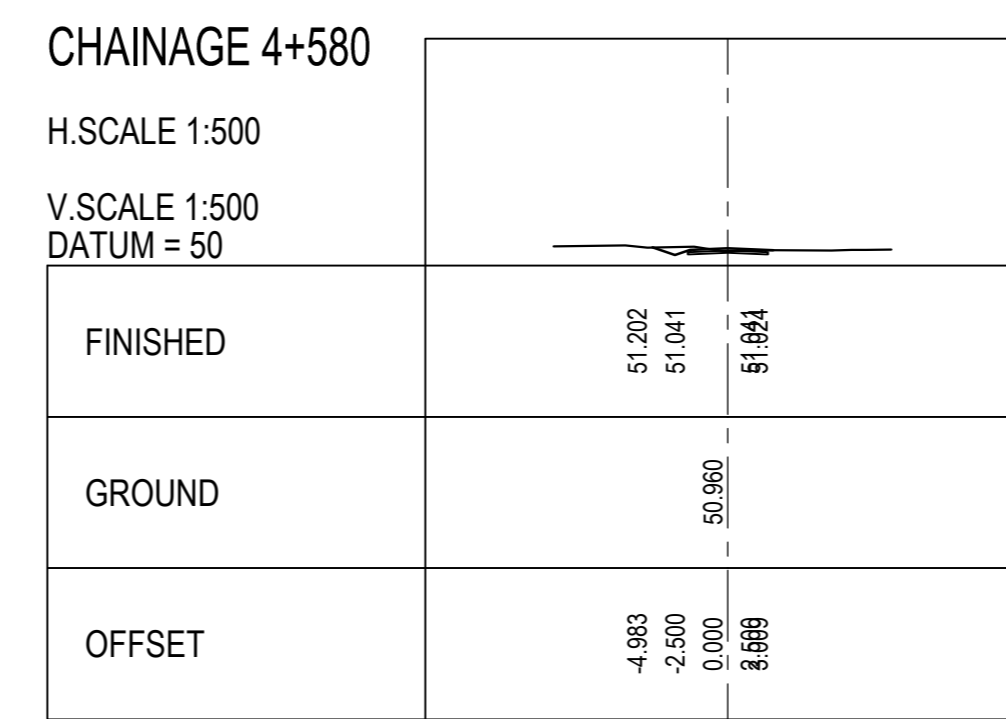
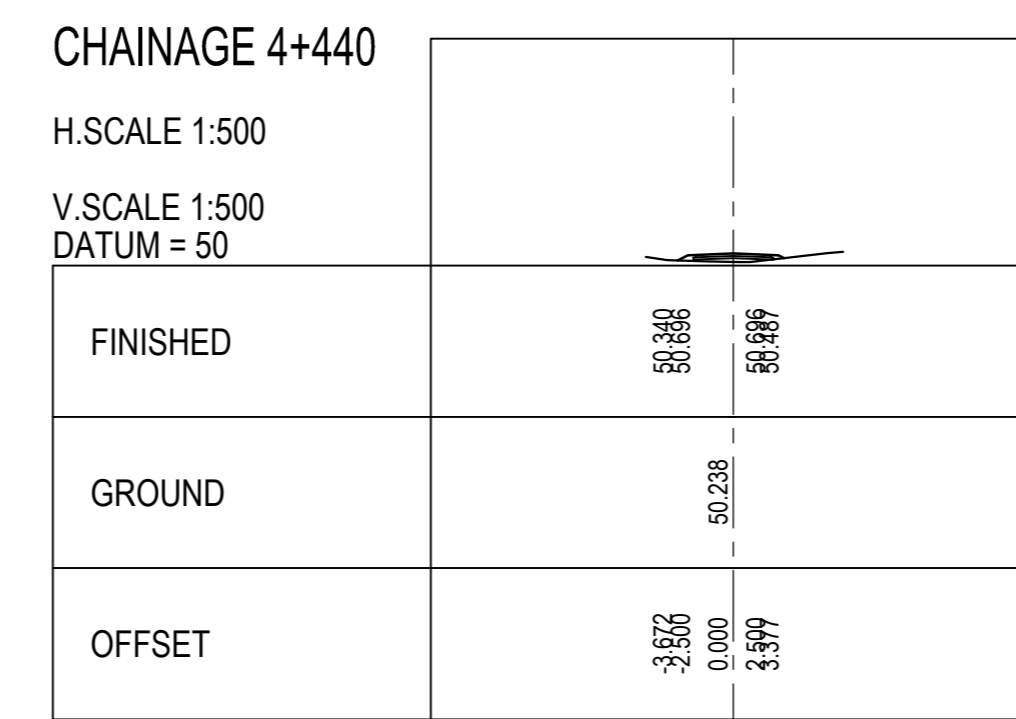
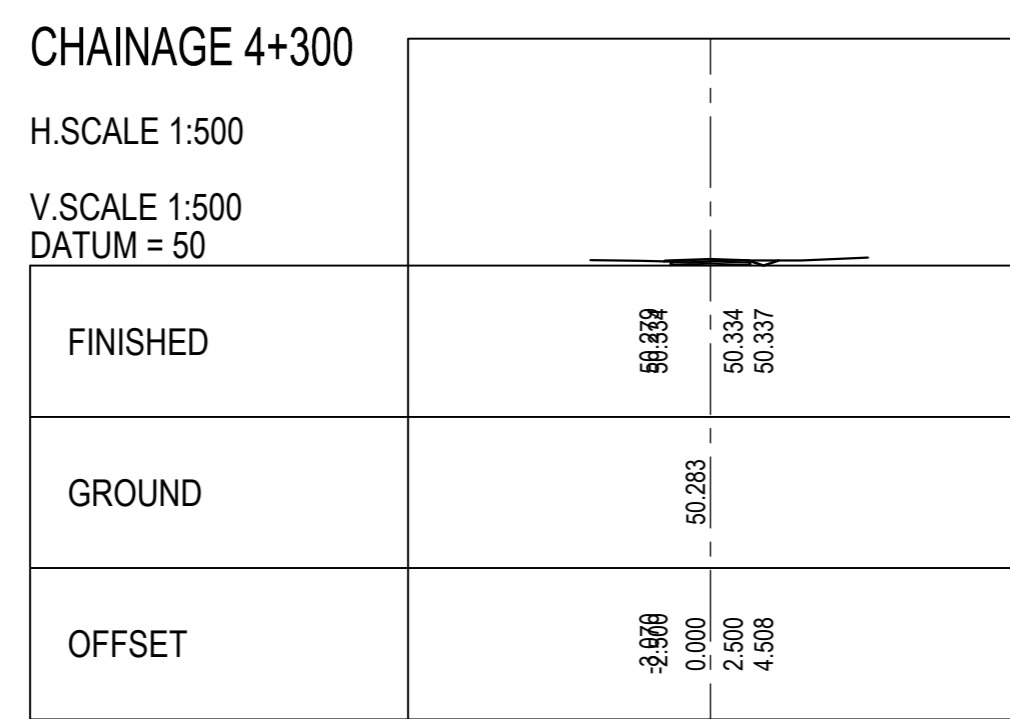
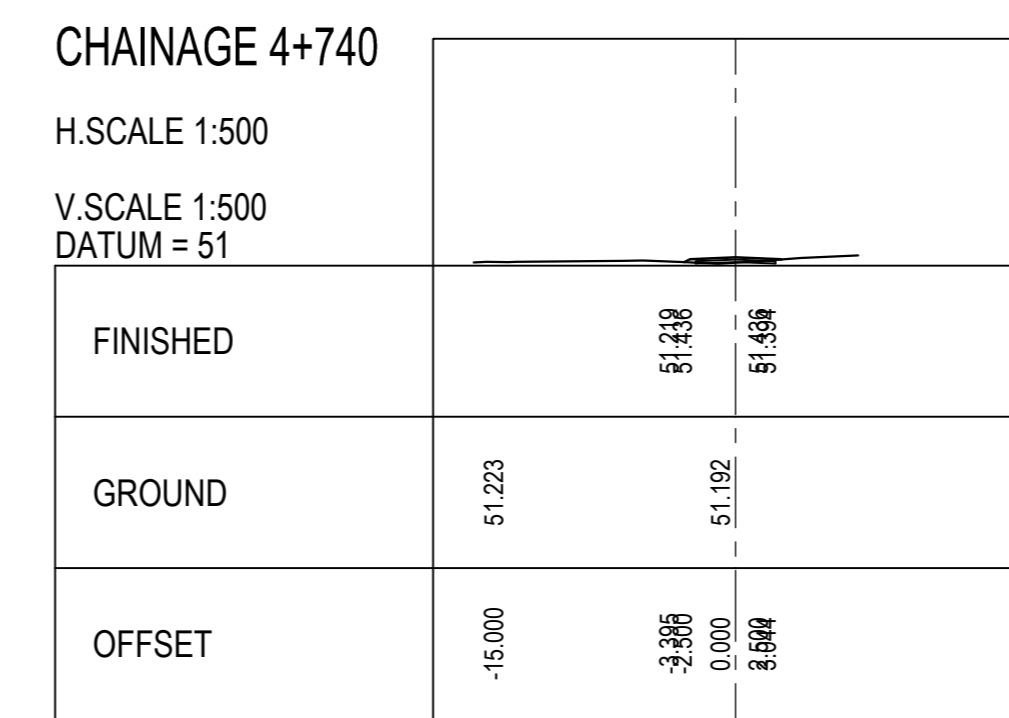
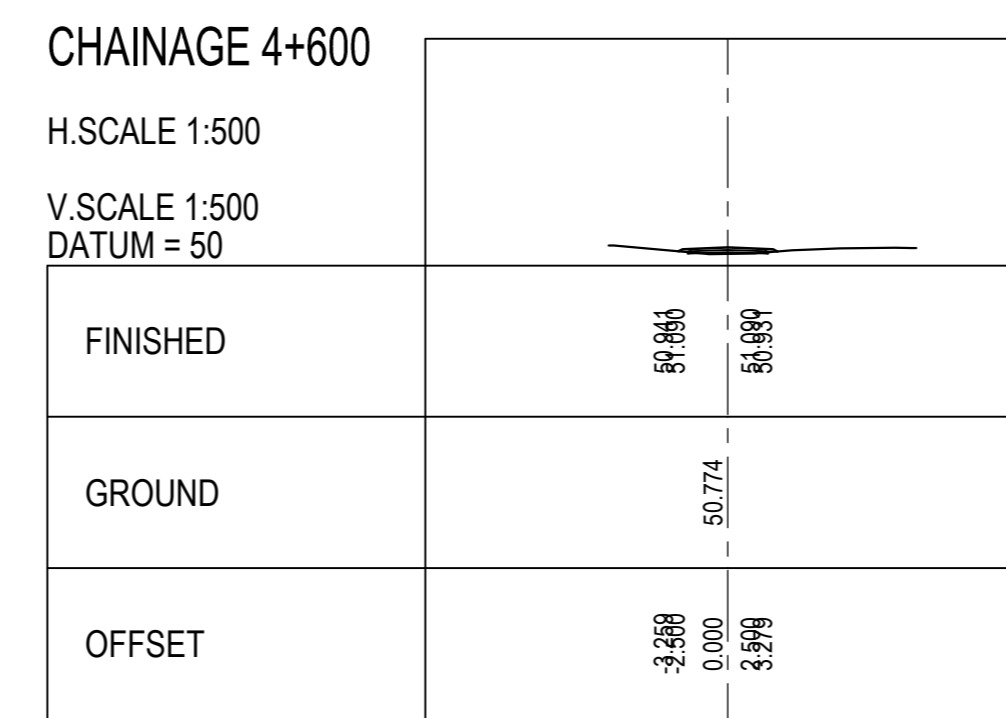
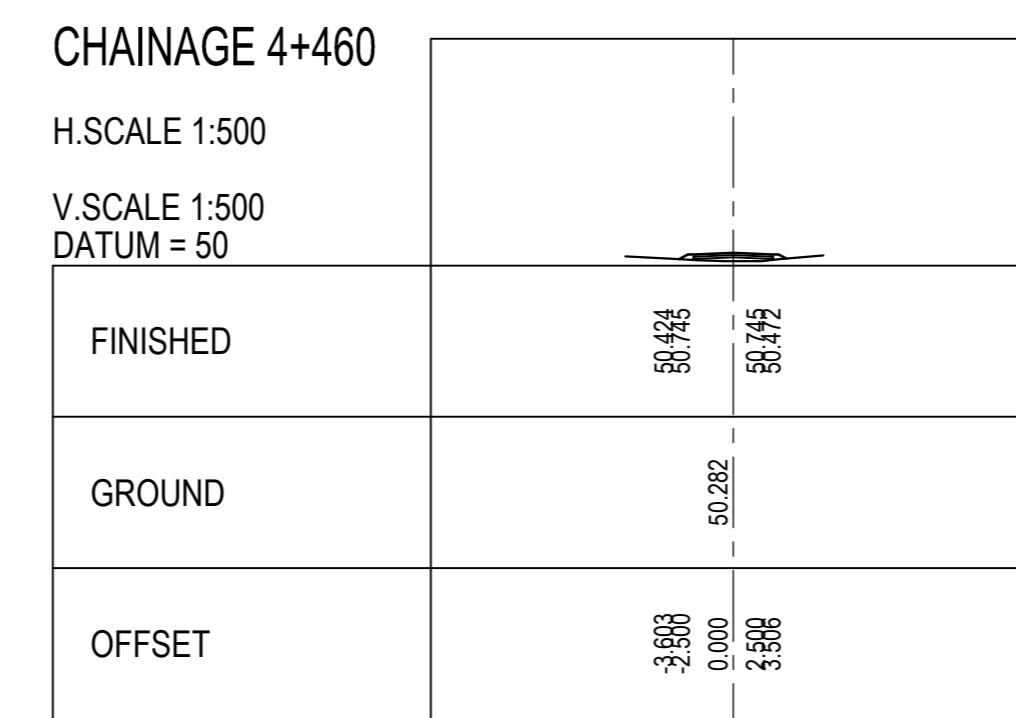
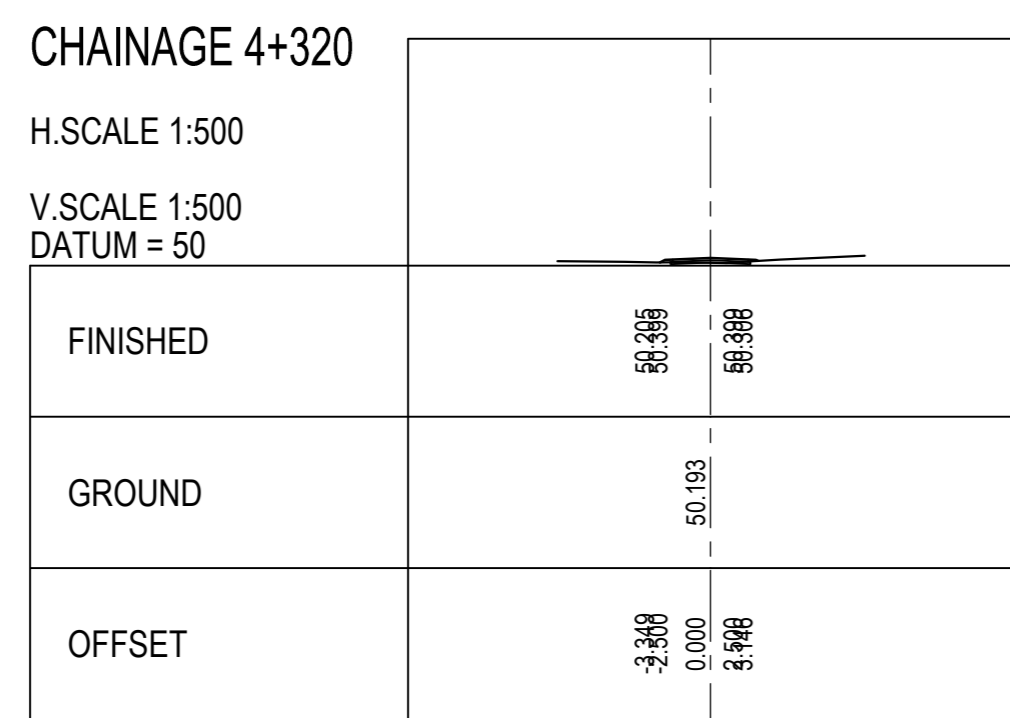
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PROJECT/DRAWING TITLE

CONSTRUCTION OF MATHE GRAVEL ROAD
IN WARD 09
ROAD CROSS SECTIONS
CHAINAGE 1680m - 2500m

SCALE AS SHOWN	SHEET SHEET 3 OF 6
CONTRACT No.	PROJECT No.
DRAWING No. IZH-0526-MATH-XS-210	REV



ISSUED FOR TENDER

D:\2023\2023\WORK\ACCESS ROADS\MATHE ACCESS ROAD IN WARD 09.dwg | BHEKO SITHOLE | 2023/04/17 09:32:25

DRAWING NUMBER	DESCRIPTION	DRAWING NUMBER	DESCRIPTION

No	DATE	DETAILS	CHECKED	APPROVED

DESIGNED	N. BUTHELEZI	APRIL 2026
DRAWN	B. SITHOLE	APRIL 2026
REVIEW	N. BUTHELEZI	APRIL 2026
APPROVED		
APRIL 2026		
NAME	N. BUTHELEZI	
SIGNATURE:	2023/01/158	

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PROJECT/DRAWING TITLE

**CONSTRUCTION OF MATHE GRAVEL ROAD
IN WARD 09
ROAD CROSS SECTIONS
CHAINAGE 4200m - 4807m**

SCALE	AS SHOWN	SHEET	SHEET 6 OF 6
CONTRACT No.		PROJECT No.	
DRAWING No.	IZH-0526-MATH-XS-213		REV

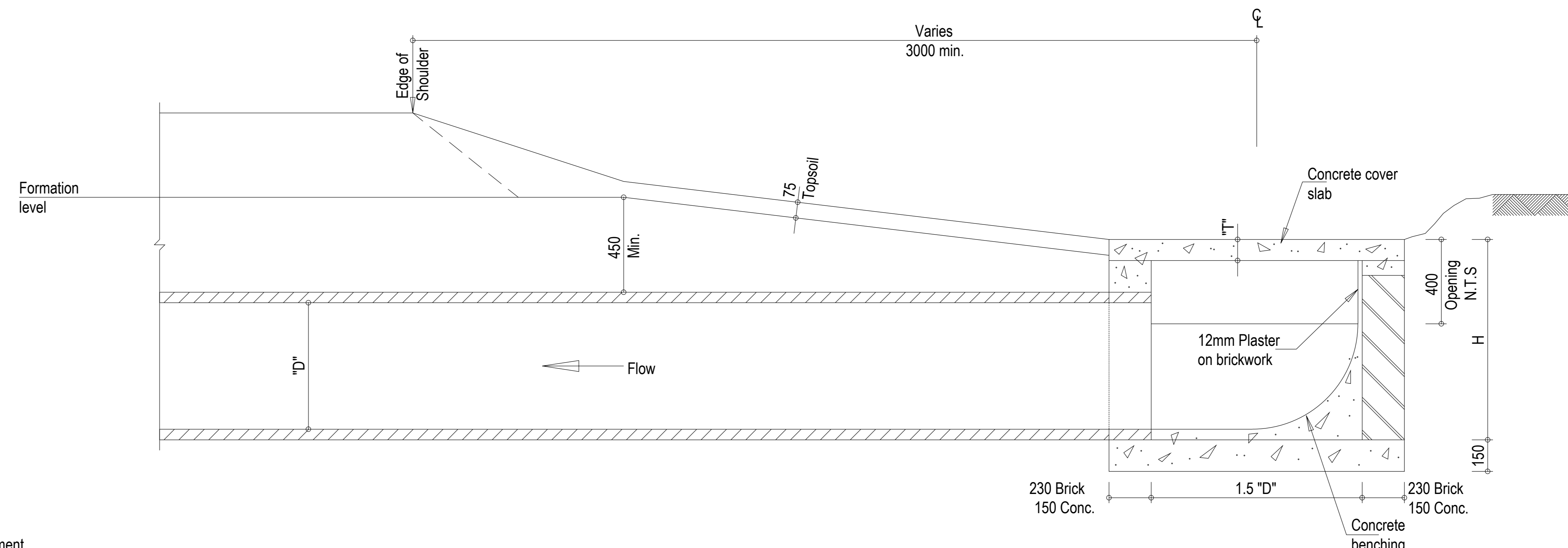
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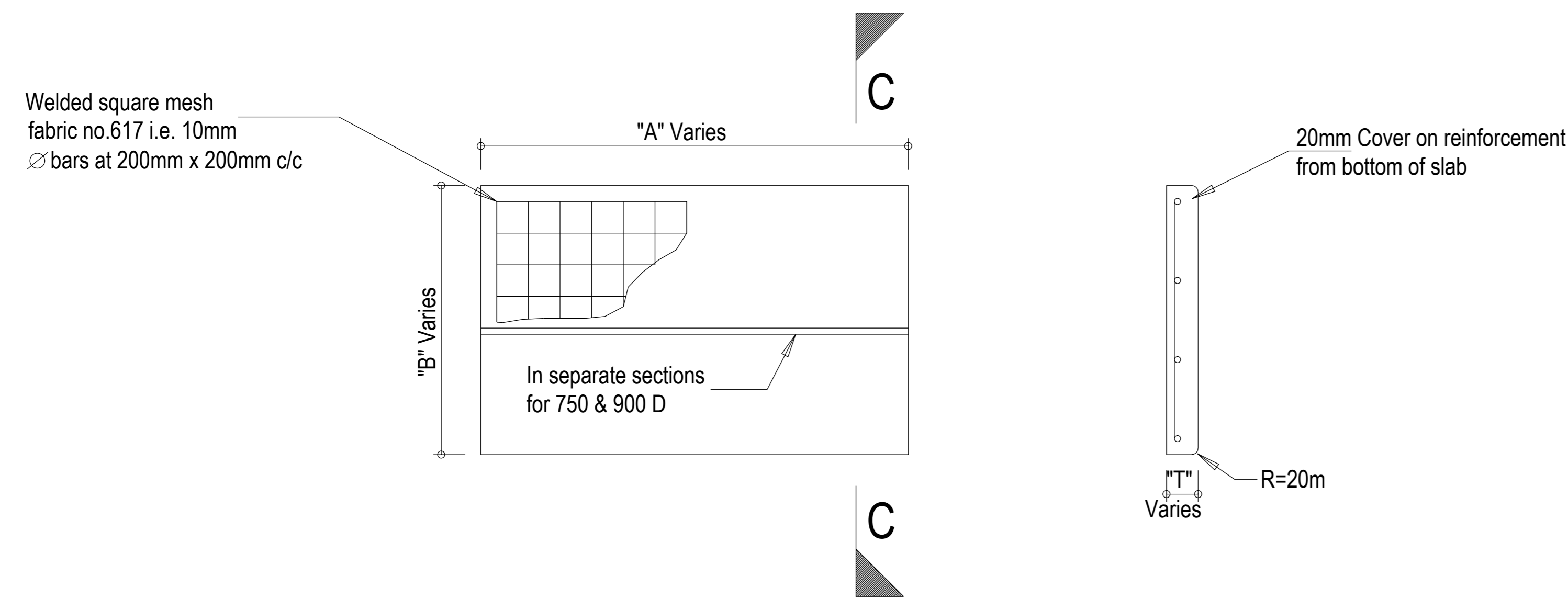
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GENERAL NOTES

PIPE Ø "D" (mm)	DIMENSIONS				COVER SLAB IN SECTIONS NO
	"A"	"B"	"T"	H	
600	1350	1100	100	950	1
750	1575	1250	125	1150	2
900	1800	1400	150	1325	3



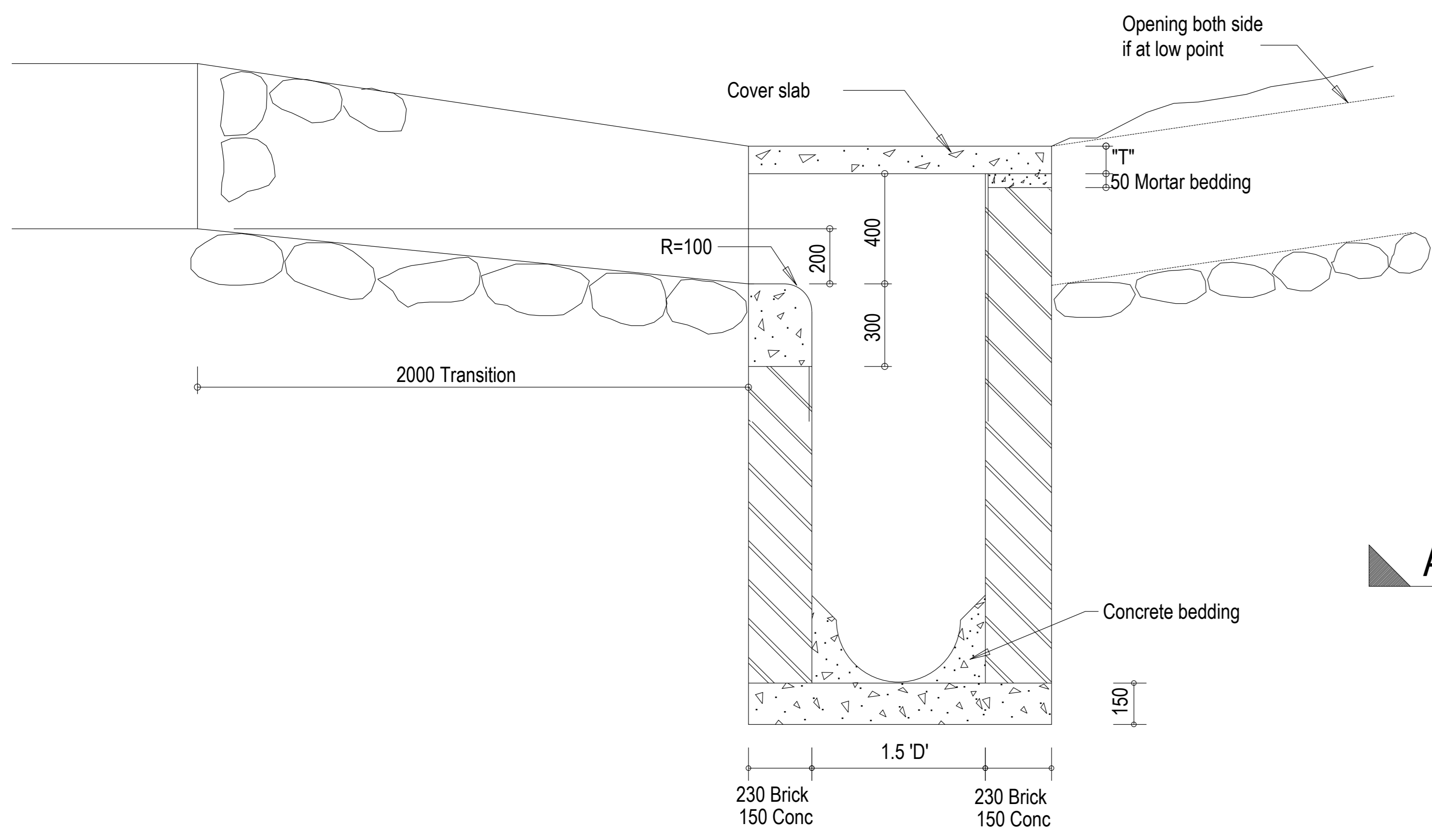
SECTION A-A



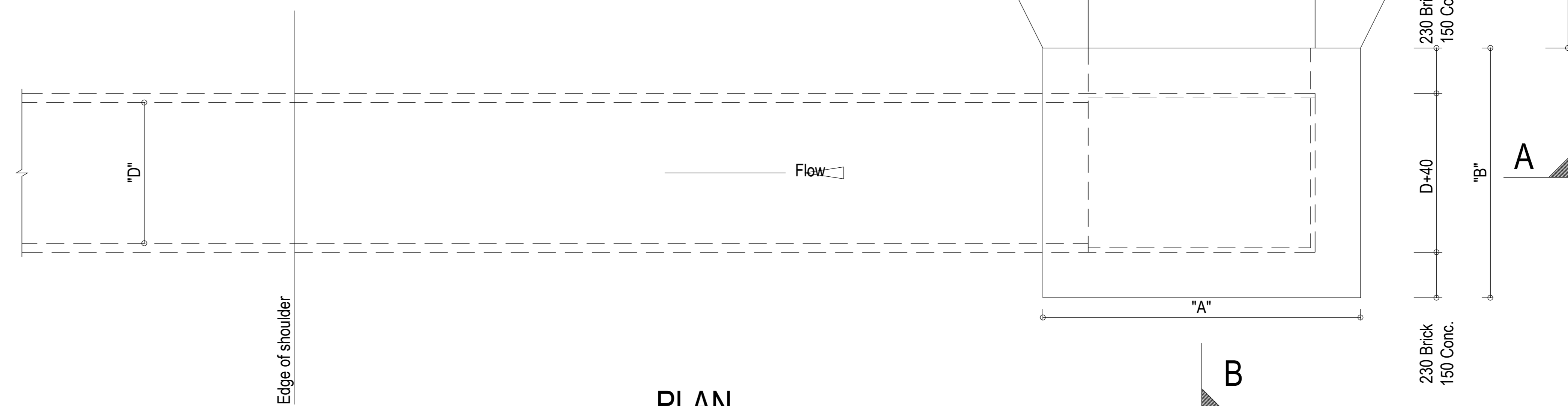
COVER SLAB DETAILS

SECTION C - C

NOTE :
1. Minimum concrete strength 20Mpa.



SECTION B-B



PLAN

DRAWING NUMBER	DESCRIPTION

REFERENCE DRAWINGS				
No	DATE	DETAILS	CHKD	APPD

REVISION				
No	DATE	DETAILS	CHKD	APPD

TENDERS

CLIENT / IMPLEMENTING AGENT

NAME: _____ DATE: _____
SIGNATURE: _____
CONSULTANT
NAME: _____
PROF REG No.: _____ SIGNATURE: _____

Client / Implementing



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Project
CONSTRUCTION OF MATHE GRAVEL ROAD IN WARD 09

Description
**STANDARD DETAILS:
DEPRESSED INLET**

Drawn By N/A	Date 01 APRIL 2026
Reviewed By N. BUTHLEZI	Date 01 APRIL 2026
Approved By N. BUTHLEZI	Date 01 APRIL 2026

Drawing No: IZH-0526-MATH-STD-217	Rev A	Size A0	Scale N.T.S
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ISSUED FOR: TENDER

DISCIPLINE: ROADS
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