



Kenya Airports Authority

Head Office, Airport North Road
P.O. Box 19001 - 00501 Nairobi, Kenya
Tel: +254 - 020 - 822111 / 6611000 / 6612000
Fax: +254 - 020 - 822078, 827304
Email: info@kaa.go.ke
www.kaa.go.ke

KAA/OT/NAROK/0105/2024-2025

11th March, 2025

To: All Bidders

RE: PROPOSED RUNWAY CONSTRUCTION WORKS AT NAROK AIRSTRIP

TENDER NO. KAA/OT/NAROK/0105/2024-2025

ADDENDUM NO. 1

The following are tender clarifications/addendum issued regarding the above tender in accordance to instructions to tenderers of the bidding document.

No.	Clarification	Response
1.	<p>Having gone through the tender document for the above mentioned tender, we firmly believe the works could be manageable to completion by a NCA 2 Civil Works registered company.</p> <p>We would like to request the procuring entity to include NCA 2 Civil Works registered companies for tendering eligibility for the above mentioned tender.</p>	<p>Bidders are hereby informed that NCA 2 and above registration for Civil and Road works shall be applicable.</p>
2.	<p>Under technical evaluation criteria No. 2 Equipment and Machinery Must demonstrate availability of the following key minimum equipment necessary to undertake the work. The equipment must be serviceable and in good working condition.</p> <p>2 No. Motor Grader - (CAT 140H or equivalent) 2 No. Water Bowser - (≥8,000 Lts) 15 No. Tipper trucks – ≥15 Tonnes 2 No. Pneumatic Tyred Roller – ≥8 Tonnes (for AC works) 2 No. Vibrating Drum Roller – ≥8 Tonnes 1 No. Pressure bitumen distributor – ≥ 8,000 Litres 1 No. AC Paver. 1No. Asphalt Plant (production 30-120 Tonnes/hr) 1No. Self-propelled pulvimixer 1 No sheep foot roller</p>	<p>Equipment and Machinery Must demonstrate availability of the following key minimum equipment necessary to undertake the work. The equipment must be serviceable and in good working condition.</p> <p>a) 2 No. Motor Grader - (CAT 140H or equivalent) b) 3 No. Water Bowser - (≥8,000 Lts) c) 10 No. Tipper trucks – ≥15 Tonnes d) 1 No. Pneumatic Tyred Roller – ≥15 Tonnes (for AC works) e) 2 No. Vibrating Drum Roller – ≥16 Tonnes f) 1 No. Pressure bitumen distributor – ≥ 4,500 Litres g) 1 No. AC Paver with automatic level sensors. h) 1No. Self-propelled pulvimixer i) 1 No sheep foot roller</p>

	<p>1 No. Wheel Loader – CAT 950G or equivalent</p> <p>2 No. Excavator</p> <p>Notes</p> <p>The equipment must be owned, must provide CLEAR copies of log book or proof of ownership;</p>	<p>j) 1 No. Wheel Loader – CAT 950G or equivalent</p> <p>k) 2 No. Excavator – ≥ 25 Tonnes</p> <p>l) 1 No. Excavator with rock breaker attachment</p> <p>m) 1 No. Bulldozer-(D6 or equivalent)</p> <p>n) 1 No. Concrete cutter</p> <p>o) 1 No. High precision pavement marking machine</p> <p>p) 1 No. Fuel Dumping (Bowser) truck</p> <p>q) 1. No. Double Cabin Pickup</p> <p>r) 1. Standby Diesel-Powered Generator for powering the Resident Engineers site office and security lighting on site during nighttime.</p> <p>Notes</p> <ul style="list-style-type: none"> • If the equipment is owned, must provide CLEAR copies of log book or proof of ownership; • If equipment is hired or leased Provide a commitment letter from the lessor of the equipment addressed to the Managing Director/CEO Kenya Airports Authority indicating that the lessor shall avail the equipment upon award of the tender and submit a copy of a written agreement to lease between lessee and lessor indicating list of equipment and their corresponding copies of log books or proof of ownership by lessor; • The equipment listed shall be available on site when required.
3.	Pursuant to Clause 14.2.1 of the Special Conditions of Contract, the bidder is required to submit an Advance Payment Guarantee while according to Clause 14.2 of the Special Conditions of Contract, the Advance Payment is not applicable. Please clarify.	Bidders are hereby informed that Advance payment is not applicable.
4.	In the Appendix to Tender, it is stated that the time for completion is Twelve (15) Months. Please clarify the correct position.	Bidders are hereby notified that the correct Time for completion is Twelve (12) months
5.	Drawings have not been appended to the tender document as contemplated under Section VII. We are requesting to know when these drawings shall be availed.	Bidders are hereby notified that the Drawings are herewith uploaded as appendix

6.	We write to enquire of the prospected borrow areas, quarries and water points as we appreciate that gravels, rocks and water form key components of the project scope	Bidders are hereby informed that it is the responsibility of the bidder/contractor to search and identify sources of all construction materials and construction water
7.	Change of BoQ	Bidders are hereby informed that the original BoQ which was sent out with the tender document is hereby expunged and replaced in its entirety with annexed BoQ

The closing/opening date is remains on **13th March, 2025 at 11.00 a.m.**

Kindly ensure your tender is valid for a period of **186 days** and your tender security is valid for a period of **216 days** from **New closing/opening date of 13th March, 2025 at 11.00. a. m.**

This addendum forms part of the bidding document and is binding on all bidders. All other conditions remain the same.



Vincent Korir
GM (PROCUREMENT AND LOGISTICS)
For: MANAGING DIRECTOR/CEO
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BILLS OF QUANTITIES

PROPOSED RUNWAY CONSTRUCTION WORKS AT NAROK AIRSTRIP		
TENDER NO. KAA/OT/NAROK/0105/2024-2025		
BILL NO	DESCRIPTION	AMOUNT KSHS.
1	GENERAL	
4	SITE CLEARANCE AND TOPSOIL STRIPPING	
5	EARTHWORKS	
7	EXCAVATION AND FILLING OF STRUCTURES	
8	CULVERTS AND DRAINAGE WORKS	
10	GRADING AND GRAVELLING WORK	
12	NATURAL MATERIAL SUBBASE AND BASE	
14	CEMENT AND LIME TREATED SUBGRADE,SUBBASE& BASE.	
15	BITUMINOUS SURFACE TREATMENTS AND SURFACE DRESSING	
16	BITUMINOUS MIXES	
20	RUNWAY FURNITURE	
21	BOUNDARY PERIMETER FENCING	
22	DAY WORKS	
A	SUB TOTAL I	
(a)	Add 5% of Sub-Total I of Bills as Provisional Sums for Contingencies to be expended in the whole or part or deleted as directed by the Engineer	
B	SUB TOTAL 2 (A+a)	
C	ADD 16% OF SUB-TOTAL B FOR VALUE ADDED TAX (VAT)	
D	TOTAL COST CARRIED FORWARD TO FORM OF BID (B+C)	

PROJECT: PROPOSED RUNWAY CONSTRUCTION WORKS AT NAROK AIRSTRIP					
TENDER NO. KAA/OT/NAROK/0105/2024-2025					
BILL NO. I : GENERAL					
	DESCRIPTION	UNIT	QUANTITY	RATE (KSH)	AMOUNT (KSH)
	Note: the following items for housing, offices and laboratory for the Engineer shall include all costs involved in providing and maintaining such buildings, including the Contractor's overheads and profit				
	Office for the Engineer				
I.01	Provide and maintain Engineer's Representative's main office including furnishing the office as per the attached Appendix to Bill no. I.01 (All furniture to revert to the Contractor at the end of the Contract)	Lumpsum	I		
	Provide and Maintain Laboratory for the Engineer				
I.02	Provide and maintain laboratory for use by the Resident Engineer and his staff for the entire duration of the contract.	Lumpsum	I		
I.03	Provide Laboratory equipment and reagents use by the Engineer's Representative for the duration of the contract as per the attached Appendix, Bill no I.03 (All Laboratory equipment to revert to the Employer at the end of the Contract)	Lumpsum	I		
	Quality Control and Material Testing				
I.04	Allow a Prime Cost (PC Sum) of KShs;1,200,000/=for the cost of performing Geotechnical Investigation as required	PC	I		
I.05	Include percentage of P.C Sum in item I.04 for contractor's overheads and profit.	%	I		
I.06	Allow a Prime Cost (PC Sum) of KShs :3,000,000/= for Quality Control material testing including provision for training materials Engineers, technicians/Technologists and support staff services by MTRD of the Ministry of Roads and Transport.	PC	I		
I.07	Include percentage of P.C Sum in item I.06 for contractor's overheads and profit.	%	I		
	Provide and maintain Survey Equipment				
I.08	Provide and maintain survey equipment for use by the Engineer's representative for the entire duration of the contract as per the attached Appendix, Bill I.08 (All Survey equipment to revert to the Contractor at the end of the Contract)	Lumpsum	I		
	Vehicle for the Engineer				
I.09	Provide driver, fuel, service, maintain and insure I No.clean 4VVD double Cab pick-up vehicle, diesel engine capacity 2500-3000cc with not more than 30,000Km odometer reading, registered in Kenya not earlier than January 2025 for exclusive use of the Engineer inclusive of the first 5,000 km per vehicle month to Engineer's approval. Vehicle to revert back to the contractor.	V.mth	18		
I.10	E.O item I.09 for total aggregated mileage in excess of 5,000 km per vehicle month.	Km	50,000		
	Miscellaneous Account for Engineer				
I.11	Allow Prime Cost Sum (P.C. Sum) of Kshs. 3,000,000 for the Resident Engineer's Miscellaneous account to be spent in whole or part as directed by the Resident Engineer against receipts	P.C. Sum	I		
I.12	E.O. item I.11 for the contractor's overheads and profit	%			

PROJECT: PROPOSED RUNWAY CONSTRUCTION WORKS AT NAROK AIRSTRIP					
TENDER NO. KAA/OT/NAROK/0105/2024-2025					
BILL NO. I : GENERAL					
	DESCRIPTION	UNIT	QUANTITY	RATE (KSH)	AMOUNT (KSH)
	Daily Substance Allowance for the Project Implementation Team (PIT)				
I.13	Allow Provisional sum amounting to Kshs.4,915,800/= as Daily Substance Allowance (DSA), fuel and miscellaneous to be expended in whole or part whose rates are to be determined by the Employer.	P.C. Sum	I		
I.14	E.O. item I.13 for the contractor's overheads and profit	%			
	Attendance to the Engineer				
I.15	Allow Provisional sum amounting to Kshs.16,940,000 for wages and allowances of a site supervisor and Engineers Site staff including overtime whose employment shall be determined by the Employer.	P.C. Sum	I		
I.16	E.O. item I.15 for the contractor's overheads and profit	%			
	Training				
I.17	Allow a Prime Cost Sum (P.C. Sum) of KShs.3,500,000 for training of KAA staff on site for professional registration, attachees, interns and general training	P.C. Sum	I		
I.18	E.O. item I.17 for Contractor's overheads and profits.	%			
	VIP Latrine				
I.19	Allow a Prime cost sum of Kshs .1,500,000/= for the construction of I No. Twin-door Ventilated Improved Pit (VIP) latrine block with urinal as per the Architectural drawings to the satisfaction of the Engineer.	PC Sum	I		
I.20	E.O item I.19 for the contractor overheads and profits	%			
	Relocation of Services				
I.21	Allow Prime Cost Sum (P.C. Sum) of KShs... 1,500,000/= for removal and alteration of services inclusive of liaison with the appropriate bodies in accordance with Specifications. Such services include water, power lines, telecommunication cables, etc.	PC Sum	I		
I.22	E.O item I.21 for the contractor overheads and profits	%			
	TOTAL OF BILL No. I CARRIED FORWARD TO SUMMARY				

PROJECT: PROPOSED RUNWAY CONSTRUCTION WORKS AT NAROK AIRSTRIP					
TENDER NO. KAA/OT/NAROK/0105/2024-2025					
BILL NO. 4: SITE CLEARANCE AND TOPSOIL STRIPPING					
	DESCRIPTION	UNIT	QUANTITY	RATE (KSH)	AMOUNT (KSH)
	Site clearance				
4.01	Clear site including removal of hedges, bushes, trees including uprooting of trees stumps (except those designated to remain by the engineer) and other vegetation and objectionable materials in accordance with the specifications and backfill to 95 % MDD (AASHTO T99) with approved material of holes left by removal of stumps and roots as directed by the Engineer.	Ha	27		
	Removal of topsoil				
4.02	Removal of unsuitable material / topsoil to a maximum depth of 200 mm deep or as directed by the Engineer and dispose-off to a site approved by NEMA and County Government.	m ³	53,602		
	Removal/ Cutting of trees				
4.03	Removal/ cutting of tall trees in the runway approaches including uprooting of tree stumps diameter >450mm	No.	30		
TOTAL OF BILL No.4 CARRIED FORWARD TO SUMMARY					

PROJECT: PROPOSED RUNWAY CONSTRUCTION WORKS AT NAROK AIRSTRIP					
TENDER NO. KAA/OT/NAROK/0105/2024-2025					
BILL NO. 5: EARTHWORKS					
	DESCRIPTION	UNIT	QUANTITY	RATE (KSH)	AMOUNT (KSH)
	Note: No separate payment shall be made for the overhaul of material and the cost of such haulage shall be included in the rates and/or prices inserted				
	Excavation				
5.01	Cut to spoil expansive materials to a depth not exceeding 1.2m under the runway, taxiway, and apron areas and cart away and dispose- off to a site approved by NEMA and County Government.	m ³	91,614		
5.02	Cut to spoil expansive material not exceeding 1.5m to achieve the recommended side slope of 2.5% to drain stormwater from the runway edge to the side drain as directed by the Engineer.	m ³	225,000		
5.03	Extra over item 5.01&5.02 for hard material.	m ³	22,904		
	Rock Fill				
5.04	Provide, lay and compact in 200mm layers rockfill including filling of voids with stone dust (or equivalent) for areas under the runway, apron, and taxiway as directed by Engineer.	m ³	36,646		
	Earthwork Fill				
5.05	Compact bottom of cut to 150mm to 95% MDD (AASHTO T99)	m ³	9,161		
5.06	Provide and place improved subgrade material CBR>20 Compacted to 100% MDD(AASHTO T99) in layers of 150mm to the satisfaction of the Engineer.	m ³	22,262		
	Pest Control				
5.07	Destroy termite colonies and treat existing ground with METRO 200SC (or equivalent approved termicide), after dilution (1:800) at the rate of 5 liters per square metre or any other equal and approved insecticide treatment. application to be undertaken by a person registered with Pest Control Products Board (PCBP) and approved by the Engineer. and subject to a Ten (10) Year Guarantee Certificate endorsed by the manufacturer.	m ²	64,283		
TOTAL OF BILL No. 5 CARRIED FORWARD TO SUMMARY					

PROJECT: PROPOSED RUNWAY CONSTRUCTION WORKS AT NAROK AIRSTRIP					
TENDER NO. KAA/OT/NAROK/0105/2024-2025					
BILL NO. 7: EXCAVATION AND FILLING OF STRUCTURES					
	DESCRIPTION	UNIT	QUANTITY	RATE (KSH)	AMOUNT (KSH)
	Note: No separate payment shall be made for the overhaul of material and the cost of such haulage shall be included in the rates and/or prices inserted				
7.01	Excavation in soft material for major structures i.e. culverts and gabions.	m ³	250		
7.02	Extra over item 7.01 but in hard material.	m ³	50		
7.03	Provide and place macaferri or equivalent gabion boxes and mattresses as specified.	m ²	165		
7.04	Provide and place rock fill to gabions.	m ³	30		
7.05	Provide stone pitching including cement grouting as directed by the Engineer.	m ²	1,200		
	TOTAL OF BILL No.7 CARRIED FORWARD TO SUMMARY				

PROJECT: PROPOSED RUNWAY CONSTRUCTION WORKS AT NAROK AIRSTRIP					
TENDER NO. KAA/OT/NAROK/0105/2024-2025					
BILL NO. 8: CULVERTS AND DRAINAGE WORKS					
	DESCRIPTION	UNIT	QUANTITY	RATE (KSH)	AMOUNT (KSH)
	Note: No separate payments shall be made for gravel for blinding or hauling to spoil unsuitable excavation materials and the cost of such shall be included in the rates and prices				
8.01	Excavate for V-shaped in section stormwater open drain n.e 1.5m deep and average 2500mm wide inclusive of trimming embankments to slope and cart away	m ³	8,925		
8.02	Excavate for inlet, outfall, mitre and catch water drains in soft material.	m ³	450		
8.03	Extra over items 8.01 & 8.02 for excavation in hard material.	m ³	180		
8.04	Approved crushed rock fill in subsoil drains and rockfill under culverts	m ³	100		
8.05	Provide, lay and joint single 900 mm inner diameter (ID) precast concrete pipes including bed, surround and haunches.	LM	40		
8.06	As item 8.05 but 600mm inner diameter (ID) precast concrete pipes	LM	80		
8.07	Provide and place class 20/20 reinforced concrete to headwalls, wing walls, aprons, to pipe culverts including formwork and reinforcement.	m ³	85		
8.08	Provide and fix steel fabric reinforcement to BS 4483 size A142 where directed by the Engineer.	m ²	220		
TOTAL OF BILL No.8 CARRIED FORWARD TO SUMMARY					

PROJECT: PROPOSED RUNWAY CONSTRUCTION WORKS AT NAROK AIRSTRIP					
TENDER NO. KAA/OT/NAROK/0105/2024-2025					
BILL NO. 10: GRADING AND GRAVELLING WORK					
	DESCRIPTION	UNIT	QUANTITY	RATE (KSH)	AMOUNT (KSH)
	Note: No separate payments shall be made for gravel for blinding or hauling to spoil unsuitable excavation materials and the cost of such shall be included in the rates and prices				
	Rehabilitation of existing gravel access road to the airstrip: Rates to include cost of reinstatement of the same.				
	Grading and Graveling Works				
10.01	Heavy grading, spot graveling with watering of the 7.0m access roads to the satisfaction of the Engineer and as per the specifications.	m ²	3,000		
	TOTAL OF BILL No.10 CARRIED FORWARD TO SUMMARY				

PROJECT: PROPOSED RUNWAY CONSTRUCTION WORKS AT NAROK AIRSTRIP					
TENDER NO. KAA/OT/NAROK/0105/2024-2025					
BILL NO. 12: NATURAL MATERIAL BASE AND SUB-BASE					
	DESCRIPTION	UNIT	QUANTITY	RATE (KSH)	AMOUNT (KSH)
	No overhaul will be paid for separately under this item and the cost of hauling will be deemed to have been included in the rates. The rates inserted shall include all items as listed in method-A of measurement in the standard specifications. After treatment the material shall have a CBR of at least 160% measured after 7-day cure and 7-day soak on the site mix compacted to at least 95% MDD (AASHTO T180) and the treated material shall have a Plasticity Index less than 6% and a Plasticity Modulus less than 250.(As specified in Clause 12.03 of the Standard Specification for Road and Bridge Construction 1986)				
	Material for selected base and subbase				
12.01	Provide, place, spread and compact natural gravel minimum soak 4 days CBR >30% at 95% MDD (AASHTO T180) compaction for Subbase.	M ³	9,211		
12.02	Provide, place, spread and compact natural gravel minimum soak 4 days CBR >80% at 95% MDD (AASHTO T180) compaction for Base	M ³	9,211		
	TOTAL OF BILL No.12 CARRIED FORWARD TO SUMMARY				

PROJECT: PROPOSED RUNWAY CONSTRUCTION WORKS AT NAROK AIRSTRIP					
TENDER NO. KAA/OT/NAROK/0105/2024-2025					
BILL NO.14: CEMENT AND LIME TREATED SUBGRADE, SUBBASE& BASE.					
SNo.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
14.01	Provide, transport to site, store and spread Ordinary Portland Cement to gravel material for Base or as specified and as instructed by the Engineer at 30- 60 kg/m3 at the point of works including all handlings. (Mixing to be done using a Pulve mixer)	Tonne	520		
14.02	Allow for mixing in cement and/or lime into natural gravel.	m ³	8,663		
14.03	Allow for curing and protection of treated layers as specified	m ²	56,584		
TOTAL OF BILL No.14 CARRIED FORWARD TO SUMMARY SHEET					

PROJECT: PROPOSED RUNWAY CONSTRUCTION WORKS AT NAROK AIRSTRIP					
TENDER NO. KAA/OT/NAROK/0105/2024-2025					
BILL NO. 15: BITUMINOUS SURFACE TREATMENTS AND SURFACE DRESSING					
	DESCRIPTION	UNIT	QUANTITY	RATE (KSH)	AMOUNT (KSH)
	Prime Coat MC-30				
15.01	Prepare surface, provide, heat and spray MC-30 cutback bitumen as prime coat to Runway, Taxiways, Apron and Accesses; all in accordance with the specifications and as directed by the Engineer. (0.8 - 1.2 l/m ²)	Litre	56,584	200	
	Tack Coat KI - 60				
15.02	Provide & spray cationic emulsion KI-60 as tack coat on runway, taxiway and apron surfaces at a rate of 0.3-0.8 l/m ²	Litre	45,267	180	
	TOTAL OF BILL No.15 CARRIED FORWARD TO SUMMARY				

PROJECT: PROPOSED RUNWAY CONSTRUCTION WORKS AT NAROK AIRSTRIP					
TENDER NO. KAA/OT/NAROK/0105/2024-2025					
BILL NO. 16: BITUMINOUS MIXES					
Item No.	Description	Units	Quantity	Unit Bid Rate(Ksh)	Amount KSh
16.01	Provide, place and compact 30mm asphalt concrete Type I (0-14mm) with 5.0-6.5% nominal bitumen content by weight to total mix as Base Course on Runway, Taxiways & Apron as directed by Engineer.	m ³	1,733		
16.02	Provide, place and compact 30mm asphalt concrete Type I (0-14mm) with 5.5-7.0% nominal bitumen content by weight to total mix as Wearing Course on Runway, Taxiways & Apron as directed by Engineer.	m ³	1,733		
TOTAL OF BILL No.16-TOTAL CARRIED FORWARD TO SUMMARY SHEET					

PROJECT: PROPOSED RUNWAY CONSTRUCTION WORKS AT NAROK AIRSTRIP					
TENDER NO. KAA/OT/NAROK/0105/2024-2025					
BILL NO. 20: RUNWAY FURNITURE					
	DESCRIPTION	UNIT	QUANTITY	RATE (KSH)	AMOUNT (KSH)
	Runway Marking and Runway Signs				
	Runway Marking				
20.01	Prepare surface and paint with approved reflectorized white and yellow road marking paints for pavement marking as directed by the Engineer	No	4,250		
	Project Signboard				
20.02	Provide project signboard being 1200mm x 600mm Gauge 14 (1.99mm thick) mild steel plate welded onto 50mm x 50mm x 3mm square hollow sections frame, 2.5m frame with 0.5m fixed below ground, and painted KAA colours for the duration of the project including the defects liability period	No	1		
	Airport Directional Signs				
20.03	Provide and install Airport directional signs according to the provided details as directed by the Engineer	No	2		
	Windsock				
20.04	Provide and erect Windsock complete with Mast fixed to the ground	No	2		
	Road Kerbs				
20.05	Excavate for, provide & place 250 x 125mm precast concrete raised or ramped kerbs haunched in 100mm thick class 15/20 concrete base bedding and mortar joined in support to carriageway, carpark and junctions as directed by the Engineer.				
	a) Straight kerbs	LM	480		
	b) Kerbs radius 12m - 6m	LM	50		
	c) Ditto but radius 5m - 1m	LM	50		
20.06	As 20.05 but for flush kerbs 100 x 125mm	LM	480		
	TOTAL OF BILL No.20 CARRIED FORWARD TO SUMMARY				

PROJECT: PROPOSED RUNWAY CONSTRUCTION WORKS AT NAROK AIRSTRIP					
TENDER NO. KAA/OT/NAROK/0105/2024-2025					
BILL NO. 21: BOUNDARY PERIMETER FENCING					
	DESCRIPTION	UNIT	QUANTITY	RATE (KSH)	AMOUNT (KSH)
21.01	Excavate holes of 450mm diameter and up to 1000mm deep, and cart away waste material to spoil dumps.	CM	365		
21.02	As item 21.01, but in hard material.	CM	91		
21.03	Provide and install 3.0m minimum overall length and maximum width of 125mm x 125mm reinforced concrete grade B (1:1.5:3 mix) intermediate posts (cranked at the top) at 3.0-meter centre to centre with 7 No. holes for straining wires/barbed wire hook bolts, with Y10 reinforcement, including concreting of the posts holes up to the ground level.	No	1,835		
21.04	As in item 21.03 above but for strainer posts up to 3.0m overall length and maximum width of 200mm, and Y10 reinforcement.	No	85		
21.05	As in item 21.03 but for strainer post struts up to 3.0m overall length and maximum width of 100mm to be placed on either side of strainer posts at 45 degrees to the ground, and Y10 reinforcement.	No	170		
21.06	Provide and fix 3.0 m wide heavy-duty galvanized chain-link; Gauge 10 (3.0 mm diameter) ; 50x50mm mesh onto precast concrete posts (m/s); fastening with 5 No. lines of galvanized wire (m/s); threaded through and including mesh and hook bolts; secured by binding wire; all as per detail drawings.	M	5,500		
21.07	Provide and fix 3 lines of galvanized barbed wire 12^{1/2} gauge (2.5mm diameter) onto the cranked sections of the concrete posts threaded through the holes on the posts.	M	16,500		
21.08	Supply and Install Hot hot-dipped galvanized Ripper Steel Spiral razor wire (CONCERTINA COIL) 2.5 mm dia. High Tensile, blade/strip 0.55mm, clips 2.0mm, diameter 10mm with hot dipped galvanized surface treatment along the inner face of the fence in 3 layers to Engineer's instructions, in concertina coil of loops 250mm long, 300mm diameter. Length to be measured for each coil separately. (COIL TO BE PLACED AT TOP & BOTTOM TO FENCE).	M	16,500		
21.09	Supply, fabricate and install galvanized heavy-duty metal gate overall size 6000 x 2400mm high; in two equal leaves; with and including 100 x 100 x 6mm SHS fixed firmly to the ground in approved concrete base; 8 gauge welded wire mesh covering fixed to 50 x 50 x 4mm SHS and tower locking heavy gauge bolt (including VIRO Cylinder 104); 3 lines of 12.5 gauge barbed wire at the top of each leaf; all as per attached drawings and approval of Project Manager. Gate to be painted in three coats of approved protective paint.	No	3		
21.10	Supply materials, fabricate and install galvanized heavy-duty metal gate overall size 1000 x 2400mm high pedestrian gate with and including 75 x 75 x 4mm SHS fixed firmly to the ground in approved concrete base; 8 gauge welded wire mesh covering fixed to 50 x 50 x 4mm SHS and tower locking heavy gauge bolt (including VIRO Cylinder 104); 3 lines of 12.5 gauge barbed wire at the top; all as per attached drawings and approval of Project Manager. Gate to be painted in three coats of approved protective paint. Rate inclusive of casting of beam.	No	1		

PROJECT: PROPOSED RUNWAY CONSTRUCTION WORKS AT NAROK AIRSTRIP					
TENDER NO. KAA/OT/NAROK/0105/2024-2025					
BILL NO. 21: BOUNDARY PERIMETER FENCING					
	DESCRIPTION	UNIT	QUANTITY	RATE (KSH)	AMOUNT (KSH)
21.11	Provide well compacted/vibrated concrete class 20/20mm – (1:2:4) as described in:				
	a)Ground beams	CM	430		
	b)Regulating concrete at steep areas up to 100mm	CM	108		
	c)Regulating concrete at steep areas up to 200mm	CM	143		
TOTAL OF BILL No.21. CARRIED FORWARD TO SUMMARY					

PROJECT: PROPOSED RUNWAY CONSTRUCTION WORKS AT NAROK AIRSTRIP					
TENDER NO. KAA/OT/NAROK/0105/2024-2025					
BILL NO.22: DAYWORKS (RATES ONLY)					
LABOUR					
All items for labour must be priced. Only the actual time engaged upon the work will be paid for. NOTE: The rate inserted herein shall include all costs of labour as well as overtime, travelling, time and cost of accommodation, social security, contributions, use and maintenance of small tools of trade, supervision, insurance, overheads, profits and any other cost allowance.					
22.01	Unskilled Labour	Hrs	120		
22.02	Carpenter/ stone mason	Hrs	120		
22.03	Blaster (or certified explosives handler)	Hrs	120		
22.04	Artisan	Hrs	120		
22.05	Watchman (all round surveillance)	Hrs	120		
22.06	Senior Foreman having Higher National Diploma (HND) and at least 10 years experience	Hrs	120		
22.07	Foreman having Ordinary Diploma (OD) and at least 5 years experience	Hrs	120		
22.08	Senior Surveyor having Higher National Diploma (HND) and at least 10 years experience	Hrs	120		
22.09	Surveyor having Ordinary Diploma (OD) and at least 5 years experience	Hrs	120		
22.10	Graduate Engineer	Hrs	120		
22.11	Registered Engineer	Hrs	120		
MATERIALS					
All materials should comply with the specifications. The rates inserted herein are to include for delivery to site, storage, handling, overheads and profit					
22.12	Ordinary Portland Cement	Tonne	10		
22.13	Hydrated Lime	Tonne	1		
22.14	Aggregates for Concrete				
	a) Sand	m ³	1		
	b) Coarse aggregate (12mm)	m ³	1		
	c) Coarse aggregate (20mm)	m ³	1		
22.15	Shuttering Timber				
	Class F1 finish	m ²	1		
	Class F3 finish	m ²	1		
22.16	Mild Steel				
	a) Up to and including 16mm diameter	Tonne	1		
	b) Over 16mm diameter size	Tonne	1		
22.17	High Yield Steel				

PROJECT: PROPOSED RUNWAY CONSTRUCTION WORKS AT NAROK AIRSTRIP					
TENDER NO. KAA/OT/NAROK/0105/2024-2025					
BILL NO.22: DAYWORKS (RATES ONLY)					
	a) Up to and including 16mm diameter	Tonne	1		
22.18	Bitumen				
	a) 80/100 Penetration Grade Bitumen	Litre	1		
	b) MC 30 Cutback Bitumen	Litre	1		
	c) MC 3000 Cutback Bitumen	Litre	1		
	d) K 1-70 Bitumen Emulsion	Litre	1		
	e) Kerosine	Litre	1		
22.19	Asphalt Concrete Type 1				
	a) 0/14mm grading	m ³	1		
	b) 0/20mm grading	m ³	1		
22.20	Class 2-3 Chippings for Bituminous Surface Dressing				
	a) 0/6 mm (quarry dust)	m ³	1		
	b) 6/10mm	m ³	1		
	c) 10/14mm	m ³	1		
	d) 14/20mm	m ³	1		
22.21	Approved quarry waste	Tonne	1		
22.22	Hard-core	Tonne	1		
22.23	Building Stone	Tonne	1		
22.24	Gravel				
	a) Natural Base Standard Gravel (Minimum CBR- 80%)	m ³	1		
	b) Natural Sub-Base Standard Gravel (Minimum CBR- 30%)	m ³	1		
	c) Natural Gravel for shoulders (Minimum CBR- 20%)	m ³	1		
22.26	Gabion Mesh (2.0x1.0x1.0)m	m ²	1		
22.27	Rock fill to Gabions	m ³	1		
22.28	Barbed Wire heavy gauze	Roll	1		
22.29	Nails (All sizes)	Kg	1		
22.30	Cedar post 100mm diameter by 1000mm long	No.	1		
22.31	Provide, lay and joint 300x150mm half-battered kerbs to raised footpaths	m	1		

PROJECT: PROPOSED RUNWAY CONSTRUCTION WORKS AT NAROK AIRSTRIP					
TENDER NO. KAA/OT/NAROK/0105/2024-2025					
BILL NO.22: DAYWORKS (RATES ONLY)					
22.32	Provide, lay and joint 125x100mm channel blocks to raised footpaths	m	1		
PLANT & EQUIPMENT					
Where items of major plant listed in the schedule of Day works are specified by type (e.g. Cat D7, Cat 120H) the power rating of such plant is that manufactured within the two years prior to the date of tender. Any plant employed upon day works which have power rating lower than that stated above shall be paid for at rates lower than those schedule of day works. The deduction in the payable rates shall be in proportion to the power rating below the specified above plant.					
22.33	Cat D6 bull dozer or equivalent with Dozer/ Ripper attachment.	Hr	1		
22.34	Cat 140H motor grader or equivalent complete with scarifier.	Hr	1		
22.35	Vibrating roller (10 tonnes).	Hr	1		
22.36	Hand propelled vibrating roller.	Hr	1		
22.37	Hand held Lawn mower	Hr	1		
22.38	Cat 950G wheel loader or equivalent.	Hr	1		
22.39	15 tonne tipper lorry.	Hr	1		
22.40	10 tonne tipper lorry.	Hr	1		
22.41	50 mm Delivery water pump and motor.	Hr	1		
22.42	Concrete mixer 0.3 - 0.7 m ³ /min.	Hr	1		
22.43	15 tonne pneumatic self-propelled roller.	Hrs	1		
22.44	As item 22.43 but 10 tonnes.	Hrs	1		
22.45	16-18 tonnes smooth wheel roller.	Hrs	1		
22.46	As item 22.45 but 12 tonne.	Hrs	1		
22.47	As item 22.45 but 10 tonne.	Hrs	1		
22.48	One ton hand-propelled vibrating roller.	Hrs	1		
22.49	Hand held rammer compactor or equivalent.	Hrs	1		
22.50	1.7m ³ excavator with loader attachments	Hrs	1		
22.51	As item 22.50 but 13m ³	Hrs	1		
22.52	As item 22.50 but 1.1m ³	Hrs	1		
22.53	As item 22.50 but 0.6m ³	Hrs	1		
22.54	A half to one & a half tonne capacity pick-up.	Hrs	1		
22.55	Compressor dia. (250 c.f.m.) complete with all tools, hoses, steels etc.	Hrs	1		

PROJECT: PROPOSED RUNWAY CONSTRUCTION WORKS AT NAROK AIRSTRIP					
TENDER NO. KAA/OT/NAROK/0105/2024-2025					
BILL NO.22: DAYWORKS (RATES ONLY)					
22.56	50-75mm delivery water pump and motor.	Hrs	1		
22.57	Concrete vibrator (poker type).	Hrs	1		
22.58	Self-propelled water tanker 6,000-10,000 litre minimum capacity with pick-up pump.	Hrs	1		
22.59	Mechanical broom	Hrs	1		
22.60	Pressure bitumen distributor 4500-8000 litres capacity.	Hrs	1		
22.61	As item 22.60 but 3000 litres.	Hrs	1		
22.62	Mechanical chips spreader	Hrs	1		
TOTAL DAYWORKS					

APPENDIX TO BILL ITEM 1.01: PROVIDE, FURNISH AND MAINTAIN THE R.E.'S OFFICE					
ITEM	DESCRIPTION	UNIT	Quantity	Rate (Kshs)	Total Amount (Kshs.)
AI01/I.01	Construct and maintain the RE'S office for the entire contract period, rate includes the building, security, water, electricity, gas, cleaning, tea, coffee etc in accordance with the specifications. Measurement and payments to be done in accordance with clause 141 (b) of the standard Specs. The Layout drawing for the Site office is as per the standard drawing attached.	Item	1.00		
AI01/I.02	3 Drawer steel filing cabinet	No	2.00		
AI01/I.03	Executive desk 2.2 x 0.9 m with six lockup drawers	No	2.00		
AI01/I.04	Standard office desk with three lockup drawers	No	3.00		
AI01/I.05	Standard office chairs	No	6.00		
AI01/I.06	Bench 3 m long with cushioned backrest (located as directed)	No	1.00		
AI01/I.07	Typist's desk	No	1.00		
AI01/I.08	Typist's chair	No	1.00		
AI01/I.09	Lockable steel stationery cupboard, 1.2 m ³ , lockable	No	1.00		
AI01/I.10	Medium size steel filing cabinet, 4 drawers lockable	No	2.00		
AI01/I.11	Bookshelf, 1.5 m wide 3 shelves (for box files) sliding glass door	No	2.00		
AI01/I.12	Conference table with 12 chairs	No	1.00		
AI01/I.13	Curtains for office and laboratory - for all windows and doors	Set	2.00		
AI01/I.14	Ceiling fans	No	3.00		
AI01/I.15	Air conditioner unit, 12000 BTU/hr	No	1.00		
AI01/I.16	Pendant / Battery powered wall clock	No	2.00		
AI01/I.17	Dust bins	No	3.00		
AI01/I.18	Filing Tray	No	4.00		
AI01/I.19	Refrigerator minimum capacity 0.2 m ³	No	1.00		
AI01/I.20	Cupboard, 0.15 m ³ , lockable	No	1.00		
AI01/I.21	Cooker 4 plate electric cooker with oven and grill	No	1.00		
AI01/I.22	Intel Pentium i7 laptop computer	No.	2.00		
AI01/I.23	Intel Pentium i5 Desktop computer	No.	2.00		
AI01/I.24	Digital camera (Equal or greater than 15.2 megapixels)	No.	1.00		
AI01/I.25	Uninterruptable high-speed internet supply	Months	18.00		
AI01/I.26	Stapling machine Ofrex size 50 or similar with 5000 staples	No.	3.00		
AI01/I.27	Ordinary 2-hole paper punch	No.	2.00		

APPENDIX TO BILL ITEM 1.01: PROVIDE, FURNISH AND MAINTAIN THE R.E.'S OFFICE					
ITEM	DESCRIPTION	UNIT	Quantity	Rate (Kshs)	Total Amount (Kshs.)
AI01/I.28	Heavy duty 2 hole paper punch	No.	2.00		
AI01/I.29	Heavy duty punch and spiral binder, IBICO AG or similar approved	No	2.00		
AI01/I.30	Reams of A4 photocopying paper	No	100.00		
AI01/I.31	Reams of A3 photocopying paper	No	50.00		
AI01/I.32	First Aid kit	No.	2.00		
AI01/I.33	A3 & A4 Multifunction Colour Printer and Photocopier (approved make) with feeder sorting trays, accessories and supplies sufficient to complete the project	No.	1.00		
AI01/I.34	UPS 1KVA surge protector	No	3.00		
AI01/I.34	Fire Extinguisher	No	2.00		
AI01/I.36	2 No Civil 3D (Latest Version) & 1 No. Civil Cad (Latest Version).The quote to include buying of the software and training of the Client Engineer's as will be directed by the Engineer	No.	3.00		
Total carried Forward to Bill Item 1.01					

APPENDIX TO BILL ITEM 1.03: PROVIDE AND MAINTAIN FURNITURE AND EQUIPMENT FOR THE ENGINEER'S LABORATORY

ITEM	DESCRIPTION	UNIT	Quantity	Rate (Kshs)	Total Amount (Kshs.)
	1. FURNITURE				
AI03/I.01	Meeting table (3.0 x 1.2 m) with 6 chairs	No.	1.00		
AI03/I.02	Ceiling fans	No.	4.00		
AI03/I.03	Air conditioner unit, 12000 BTU/hr	No.	2.00		
AI03/I.04	Desk 2.2 x 0.9 m with 2 chest of drawers	No.	2.00		
AI03/I.05	Office chairs, standard	No.	6.00		
AI03/I.06	Chairs with arms	No.	8.00		
AI03/I.07	Table (1.5 x .75 m) with 2 drawers and 2 chairs	No.	1.00		
AI03/I.08	4-drawer Steel lockable filing cabinet	No.	2.00		
AI03/I.09	Electronic scientific calculator, 12 figures	No.	4.00		
AI03/I.10	Fire extinguisher, 10 litre capacity, CO2 type	No.	2.00		
AI03/I.11	Steel filing cabinet, 4 drawers, lockable	No.	1.00		
AI03/I.12	Steel filing cabinet, 2 drawers, lockable	No.	1.00		
AI03/I.13	Book shelf, 3 shelves 1.2 m long (to hold box files)	No.	2.00		
AI03/I.14	First aid kit	No.	1.00		
AI03/I.15	Snake bite kit	No.	1.00		
AI03/I.16	Water filters	No.	2.00		
	2. EQUIPMENT				
	i. General Equipment				
AI03/I.17	Compaction mould complete with base plate and extension collar. 101.6 mm dia x 116.43 mm high	No.	4.00		
AI03/I.18	2.5 kg Compaction rammer, drop regulated to 304.8 mm	No.	4.00		
AI03/I.19	4.535 kg compaction rammer, drop regulated to 457.2 mm	No.	4.00		

APPENDIX TO BILL ITEM I.03: PROVIDE AND MAINTAIN FURNITURE AND EQUIPMENT FOR THE ENGINEER'S LABORATORY

ITEM	DESCRIPTION	UNIT	Quantity	Rate (Kshs)	Total Amount (Kshs.)
AI03/I.20	Straight edge 300 mm long, with handles	No.	6.00		
AI03/I.21	Electric vibrating Kango Hammer fitted with steel tamper (BS I377) with support frame	No.	1.00		
AI03/I.22	Steel Tamper (BS I377) compatible with Kango hammer	No.	4.00		
AI03/I.23	Compaction mould complete with base plate and extension collar, 152.4 mm dia x 16.43 mm high	No.	4.00		
AI03/I.24	Galvanized sample tray 1 x 0.5 x 75 mm deep	No.	6.00		
AI03/I.25	75 mm brush	No.	10.00		
AI03/I.26	Semi-automatic Electronic balance , 25 kg capacity accurate to 10g, including weights	No.	1.00		
AI03/I.27	20 mm BS sieve, 300 mm diameter	No.	2.00		
AI03/I.28	Stop Clock	No.	2.00		
AI03/I.29	Thermostatically controlled electric oven 104 - 110 °C, capacity 0.225 m ³	No.	2.00		
AI03/I.30	As above but gas heated	No.	1.00		
AI03/I.31	Moisture tin, 90 mm dia x 20 mm deep, cadmium plated or aluminium alloy	No.	100.00		
AI03/I.32	Cone penetrometer with gauge and automatically controlled test cup	No.	1.00		
AI03/I.33	Test gauge	No.	1.00		
AI03/I.34	Penetration test cup	No.	2.00		
AI03/I.35	Penetration test cone	No.	3.00		
AI03/I.36	Glass comparator	No.	2.00		
AI03/I.37	Glass plate	No.	2.00		
AI03/I.38	Evaporating Dish 150mm dia x 45mm depth	No.	4.00		
	ii. Density (Sand replacement method BS I377)				

APPENDIX TO BILL ITEM 1.03: PROVIDE AND MAINTAIN FURNITURE AND EQUIPMENT FOR THE ENGINEER'S LABORATORY

ITEM	DESCRIPTION	UNIT	Quantity	Rate (Kshs)	Total Amount (Kshs.)
AI03/I.39	Metal container (450 mm dia.)	No.	4.00		
AI03/I.40	Stainless steel tray, 305 mm dia x 50 mm deep	No.	4.00		
AI03/I.41	Metal tray with 150 mm dia hole in centre, 300 x 300mm square or equivalent area, 400 mm deep	No.	3.00		
AI03/I.42	Metal tray with 200mm dia hole in centre, 500 x 500mm square 50 mm deep	No.	3.00		
AI03/I.43	Steel pegs for fixing tray in position	No.	20.00		
AI03/I.44	Sand pouring cylinder, 150 mm dia	No.	5.00		
AI03/I.45	Sand pouring cylinder, 215 mm dia	No.	5.00		
AI03/I.46	Cold steel chisel 20 x 300 mm long	No.	6.00		
AI03/I.47	Cold steel chisel 10 x 250 mm long	No.	6.00		
AI03/I.48	1.5 kg (2 off), 3.5 kg (2 off) mason hammers and 1 kg (2 off) rubber mallet	Set	3.00		
AI03/I.49	Scoop for removing excavated material from hole, 250 mm long handle	No.	10.00		
AI03/I.50	100 mm brush, soft	No.	4.00		
AI03/I.51	50 mm brush, soft	No.	6.00		
AI03/I.52	Primus gas stove	No.	3.00		
AI03/I.53	Calibration can 150 mm dia x 150 mm deep	No.	4.00		
AI03/I.54	Ditto item 54/I06 but 200 mm dia x 250 mm deep	No.	4.00		
vi. Sieve Analysis (BS 1377)					
AI03/I.55	Sieve 300 mm dia:75,63,50,37.5,28, 25,19,20,14,12.5,10,9.5,6.3,5,4.75 and 4 mm, plus lid and receiver	Set	3.00		
AI03/I.56	Sieve 200 mm dia: 2.36.,2,1.18,1,0.6,0.5,0.425,0.300,0.150 and 0.075mm plus lid and receiver	Set	3.00		
AI03/I.57	Electric Sieve shaker	No.	1.00		

APPENDIX TO BILL ITEM 1.03: PROVIDE AND MAINTAIN FURNITURE AND EQUIPMENT FOR THE ENGINEER'S LABORATORY

ITEM	DESCRIPTION	UNIT	Quantity	Rate (Kshs)	Total Amount (Kshs.)
AI03/I.58	1.2 x 1.2 m x 50 mm deep galvanized metal tray	No.	15.00		
AI03/I.59	Rifle box with 50 mm slots	No.	2.00		
	xi. Miscellaneous				
AI03/I.60	Gas cylinders 13 kg	No.	2.00		
AI03/I.61	Padlocks	No.	6.00		
AI03/I.62	Plastic jerry 20l capacity	No.	6.00		
AI03/I.63	Paper punch	No.	2.00		
AI03/I.64	Stapler with pins	Pkts	10.00		
AI03/I.65	Tray lifting callipers	No.	4.00		
AI03/I.66	Laboratory dust coats-Brown	No.	10.00		
AI03/I.67	Laboratory dust coats-White	No.	10.00		
Total carried Forward to Bill Item 1.03					

APPENDIX TO BILL ITEM 1.08: PROVIDE AND MAINTAIN SURVEY EQUIPMENT					
ITEM	DESCRIPTION	UNIT	Quantity	Rate (Kshs)	Total Amount (Kshs.)
A107/I.01	Engineer's Automatic/dumpy Level with accessories and tripod	No	2.00		
A107/I.02	Total station complete with a Field Data collector Leica, equivalent including accessories and supporting software (I") [plus tripod	No	1.00		
A107/I.03	Survey umbrella	No	3.00		
A107/I.04	Levelling staff 5m , 5 section with levelling bubble	No	6.00		
A107/I.05	3m, 3 section ranging rod	No	10.00		
A107/I.06	Laser distancer	No	2.00		
A107/I.07	Walkie Talkies	No	4.00		
A107/I.08	Prism pole	No	4.00		
A107/I.09	50m fireglass measuring tape	No	5.00		
A107/I.10	7m tape measure	No	5.00		
A107/I.11	Prism pole holder	No	4.00		
A107/I.12	Pangas (16")	No	4.00		
A107/I.13	Drawing office stools	No	4.00		
A107/I.14	Sledge hammer 2kg weight	No	4.00		
A107/I.15	Refrllective road safety vests	No	20.00		
A107/I.16	Rapid charger	No	1.00		
A107/I.17	Spare batteries	No	4.00		
A107/I.18	Optical squares	No	4.00		
A107/I.19	Spirit level for staves	No	4.00		
A107/I.20	Steel hammer (4kg)	No	2.00		
A107/I.21	Tripple prism mount with reflectors	No	3.00		
A107/I.22	Level books (Rise and Fall)	No	50.00		
A107/I.23	RTK GPS set consisting of base+ Rover and accessories (including external radio)	No	1.00		
Total carried Forward to Bill Item 1.08					



PROPOSED RUNWAY CONSTRUCTION AT NAROK AIRSTRIP
DRAWING LIST- FEBRUARY 2025
KAA/OT/NAROK/0105/2024-2025

SR.NO	DRG.NOS	DESCRIPTION	SCALE	SIZE	Comments
		Layouts			
1.	L[01]01	Airstrip Layout Plan	1:3500	A1	
2.	L[01]02	Apron Layout Plan	1:1,000	A1	
3.	L[01]03	Airstrip Map	As Shown	A1	
4.	L[01]04	Runway Alignment & Profile	1:2,000	A1	
5.	L[01]05	Runway Cross - Sections	1:2,000	A1	
6.	L[01]06	Taxiway Alignment & Profile	1:1,000, 1:500	A1	
7.	L[01]07	Standard Site Office	1:100	A1	
		Details			
8.	A[01]01	Project Signboard	As Shown	A3	
9.	A[01]02	Standard Culvert Details	1:75, 1:50, 1:20	A3	
10.	A[01]03	Windsock Details	1:20	A3	
11.	A[01]04	Latrine Layout	1:100	A3	
12.	A[01]05	Standard Fence Details	As Shown	A3	
13.	A[01]06	Security Gate Details	1:100	A3	
14.	A[01]07	Pedestrian Gate Details	1:100	A3	
15.	A[01]08	Road Kerb and Channel Detail	1:20	A3	

NOTES

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3. Contractors must verify all dimensions and levels before commencing work, any discrepancies should be reported to the Architect before work is put at hand.
4. P.V denotes a permanent ventilation and must be provided above all doors and windows where indicated.
5. D.P.C denotes (Damp Proof Course), one layer of bitumen felt to be provided under all walls 150mm above G.L.
6. All drainage crossing the Road to be encased in concrete to civil engineer's details.



P. O. Box 19001-00501 NAIROBI
Tel: 6611000/6612000
Fax: 822078
E.Mail: info@kaa.go.ke
Website: www.kaa.go.ke

Project:

PROPOSED REBILITATION AND EXPANSION OF NAROK AIRSTRIP

Drawing Title:

AIRSTRIPE LAYOUT PLAN

Project No:

KAA/OT/NAROK/0105/2024-2025

Designed by:

Eng. E. Wekesa

Drawn by:

A. Wako

Checked by:

Eng. S. Mochache

Manager (Projects)

Approved by:

Dr. Eng. M. Ochieng'

General Manager (P&ES).

Dwg No.

L[01]01

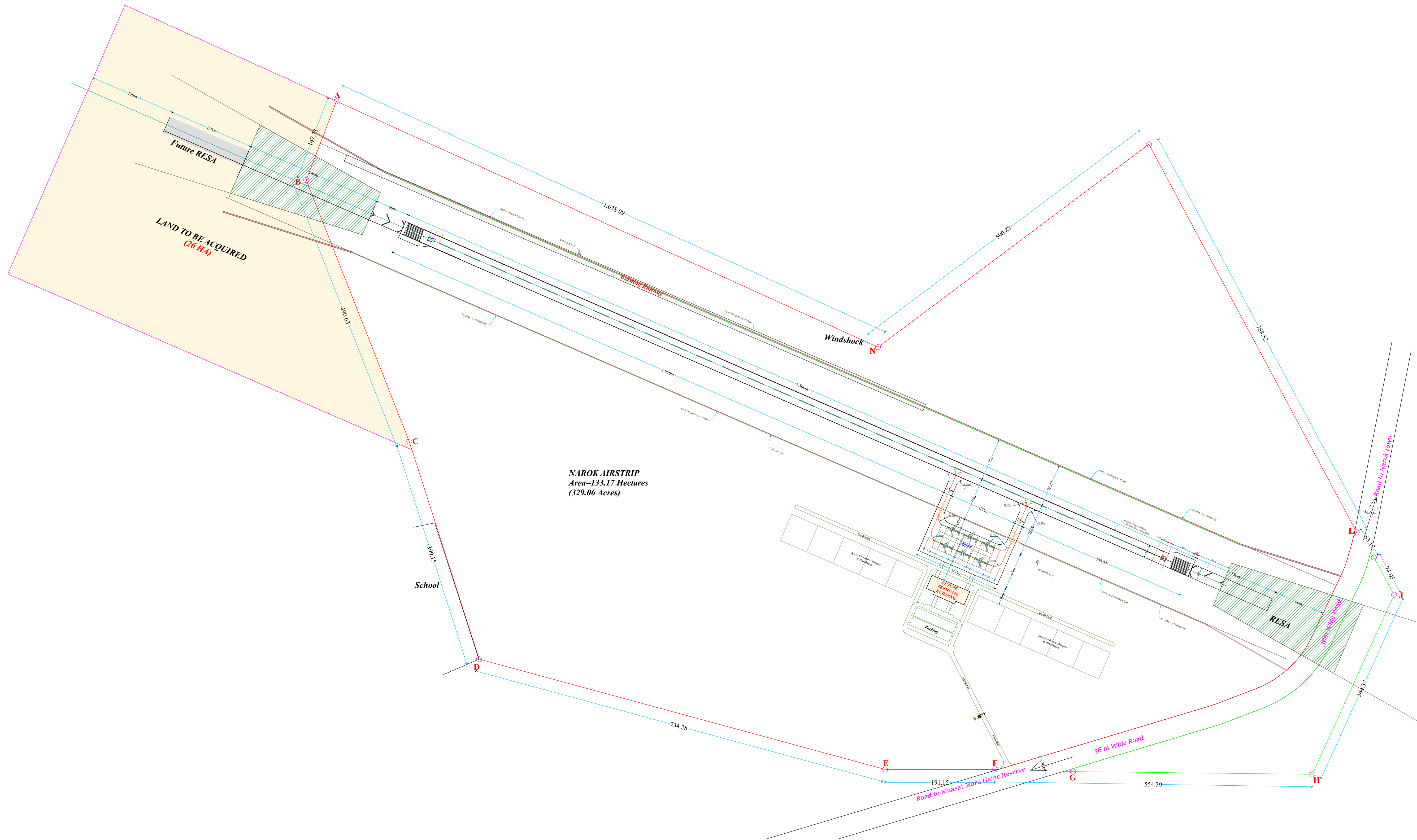
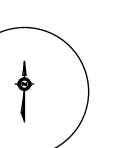
Scale:

1:3,500 on A1

Date:

Feb. 2025

North:



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P. O. Box 19001-00501 NAIROBI
Tel: 6611000/6612000
Fax: 822078
E.Mail: info@kaa.go.ke
Website: www.kaa.go.ke

Project:

PROPOSED REBILITATION AND
EXPANSION OF NAROK AIRSTRIP

Drawing Title:

APRON LAYOUT PLAN

Project No:
KAA/OT/NAROK/0105/2024-2025

Designed by: Eng. E. Wekesa	Drawn by: A. Wako
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Checked by:
Eng. S. Mochache

Manager (Projects)


Approved by:

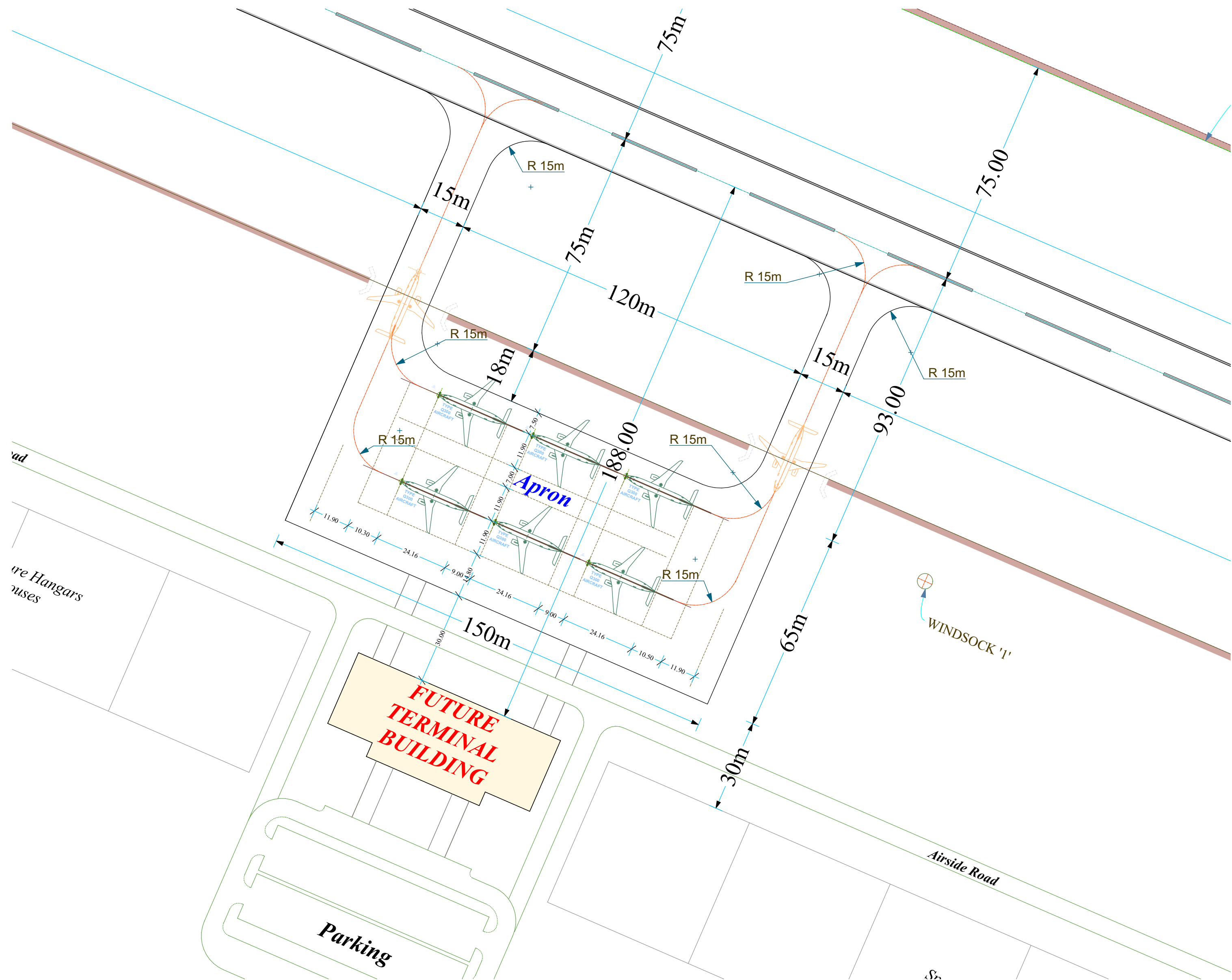
Dr. Eng. M. Ochieng'

General Manager (P&ES).

Dwg No. L[01]02	Scale: 1:1,000 on A2
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Date:
 Feb. 2025

North:
 





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3. Contractors must verify all dimensions and levels before commencing work,any discrepancies should be reported to the Architect before work is put at hand.
4. P.V denotes a permanent ventilation and must be provided above all doors and windows where indicated.
5. D.P.C denotes (Damp Proof Course), one layer of bitumen felt to be provided under all walls 150mm above G.L.
6. All drainage crossing the Road to be encased in concrete to civil engineer's details.



P. O. Box 19001-00501 NAIROBI
Tel: 6611000/6612000
Fax: 822078
E.Mail: info@kaa.go.ke
Website:www.kaa.go.ke

Project:

PROPOSED REBILITATION AND
EXPANSION OF NAROK AIRSTRIP

Drawing Title:

AIRSTRIP MAP

Project No:
KAA/OT/NAROK/0105/2024-2025

Designed by: Eng. E. Wekesa	Drawn by: A. Wako
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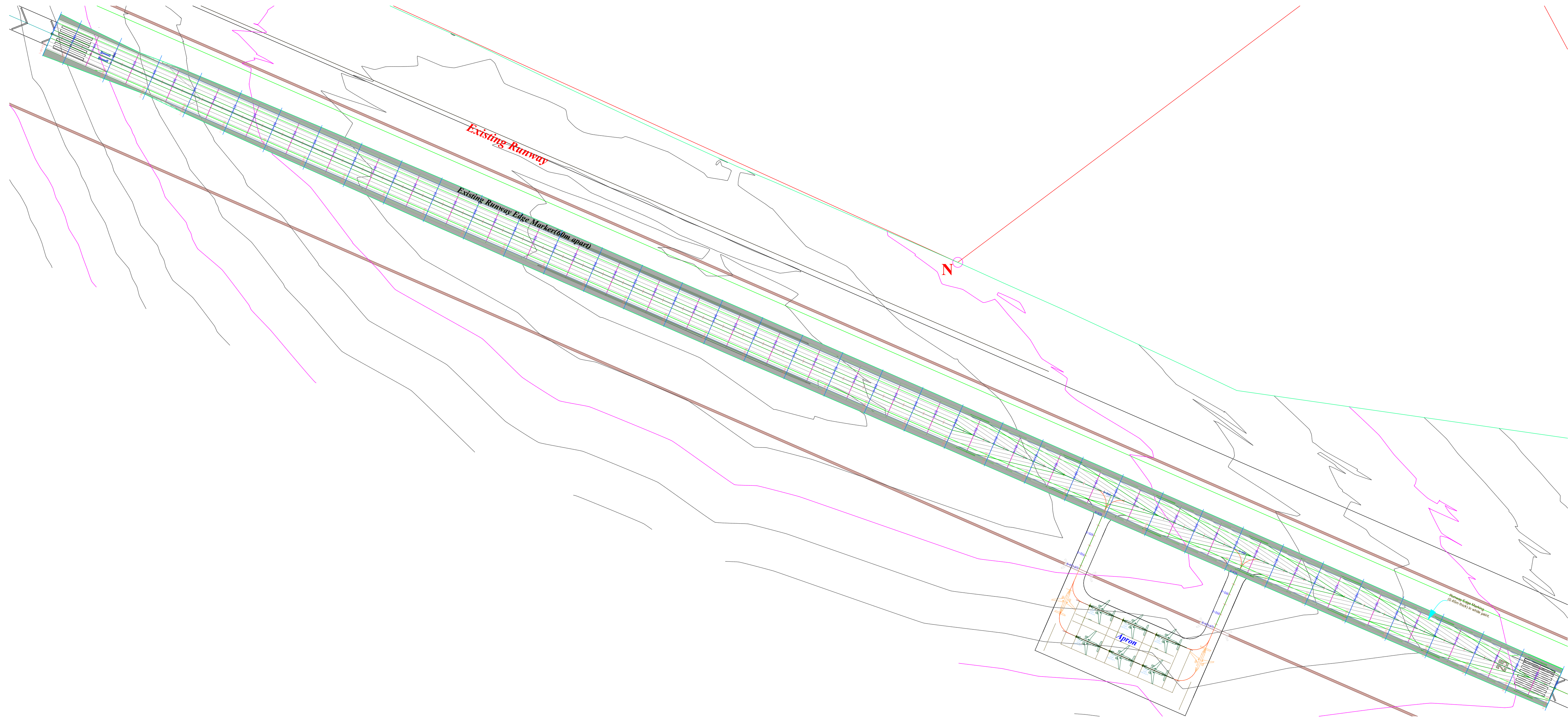
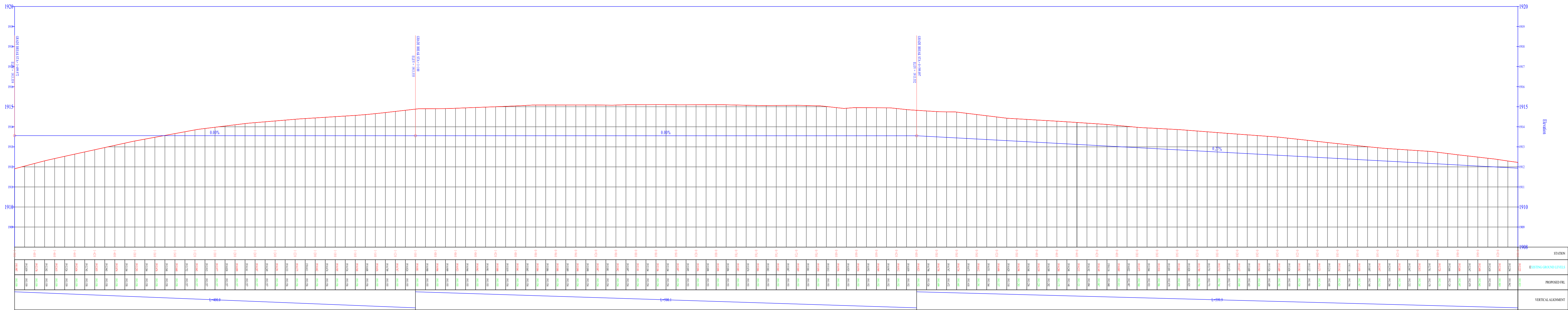
Checked by:
Eng. S. Mochache
Manager (Projects)

Approved by:

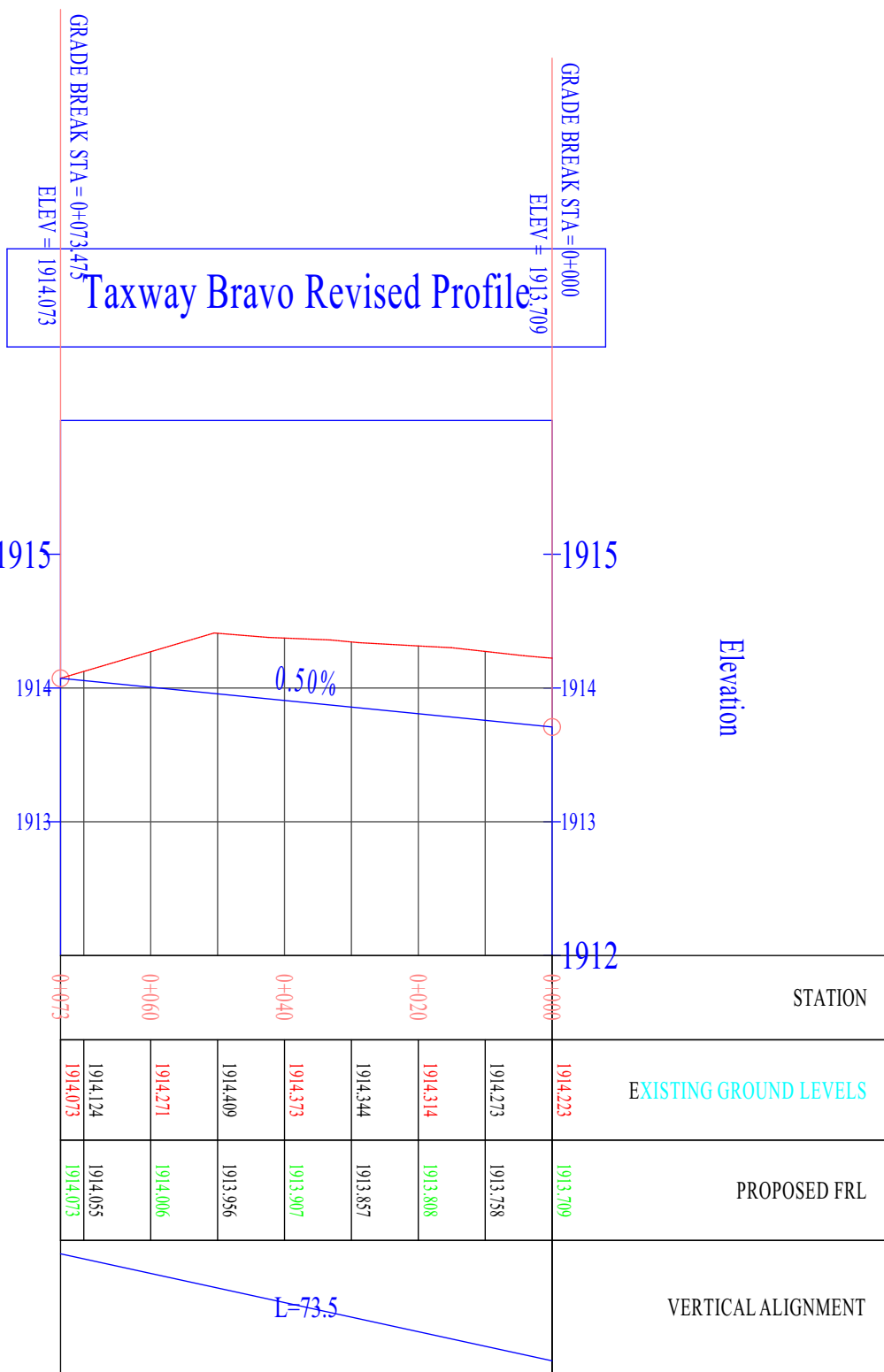
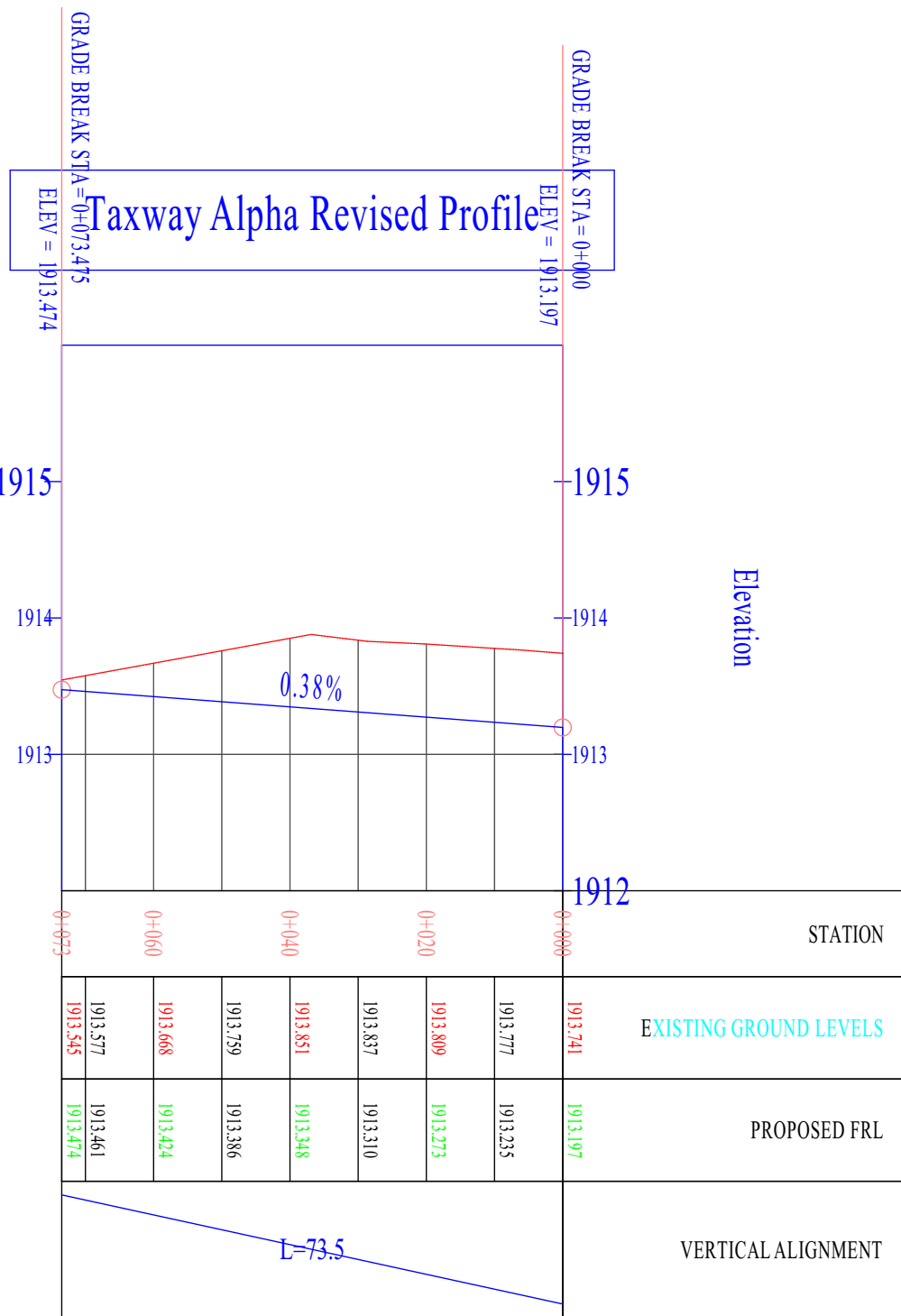
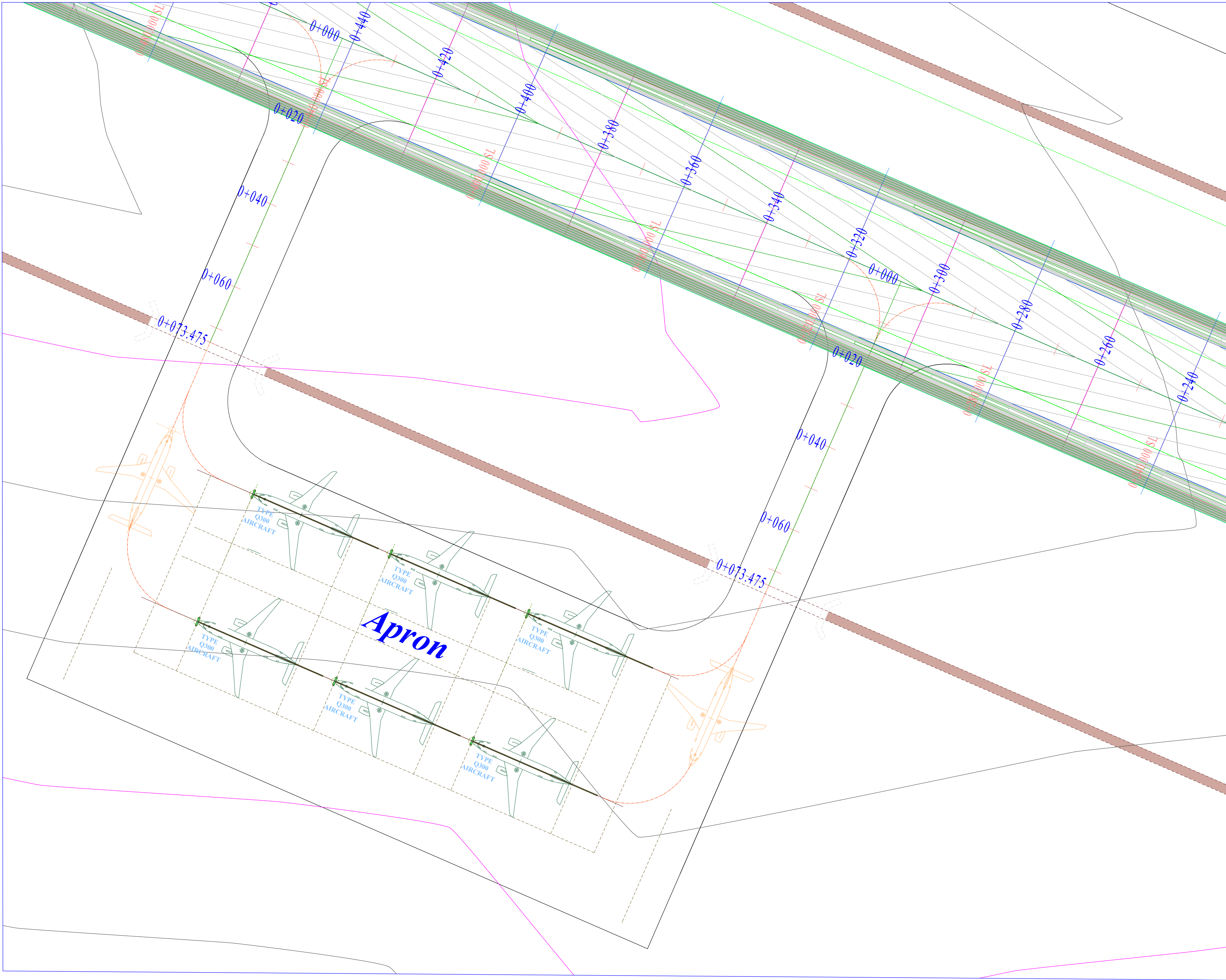
Dr. Eng. M. Ochieng'
General Manager (P&ES).

Dwg No. L[01]03	Scale: As Shown
Date: Feb. 2025	North:

Runway Revised Profile



Project: PROPOSED REBILITATION AND EXPANSION OF NAROK AIRSTRIP		Drawing Title: Runway Alignment and Profile		Checked by: Eng. S. Mochache Manager (Projects)		Dwg No. L[01]04		Scale: 1:2,000 on A1		NOTES 1. This drawing is protected by the Copyright Act and cannot be used or reproduced in part or in whole without author's consent. 2. All dimensions in meters unless stated, should be read and not measured. 3. Contractors must verify all dimensions and levels before commencing work, any discrepancies should be reported to the Project Engineer before work is put at hand. 4. P.V denotes a permanent ventilation and must be provided above all doors and windows where indicated. 5. D.P.C denotes (Damp Proof Course), one layer of bitumen felt to be provided under all walls 150mm above G.L. 6. All drainage crossing the Road to be encased in concrete to civil engineer's details.				North: 		 P. O. Box 19001-00501 NAIROBI Tel: 6611000/6612000 Fax: 822078 E-Mail: info@kaa.go.ke Website: www.kaa.go.ke	
Project No: KAA/OT/NAROK/0105/2024-2025		Designed by: Eng. E. Wekesa		Drawn by: A. Wako		Approved by: Dr. Eng. M. Ochieng' General Manager (P&ES).		Date: February 2025									



Project:
PROPOSED REBILITATION AND EXPANSION OF NAROK AIRSTRIP

Project No:
KAA/OT/NAROK/0105/2024-2025

Drawing Title:
Taxiway Alignment and Profile

Designed by:
Eng. E. Wekesa

Drawn by:
A. Wako

Checked by:
Eng. S. Mochache
Manager (Projects)

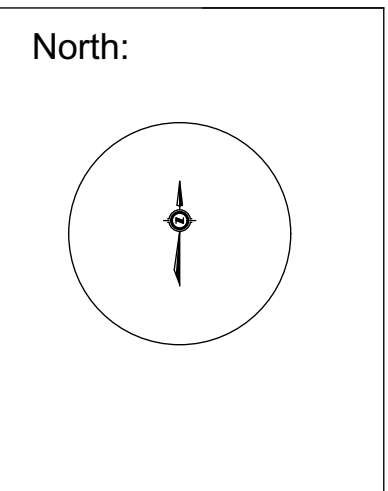
Approved by:
Dr. Eng. M. Ochieng'
General Manager (P&ES).

Dwg No.
L[01]06

Scale:
1:1,000, 1:500 on A1

Date:
February 2025

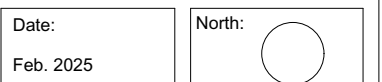
- NOTES**
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 3. Contractors must verify all dimensions and levels before commencing work, any discrepancies should be reported to the Project Engineer before work is put at hand.
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 5. D.P.C denotes (Damp Proof Course), one layer of bitumen felt to be provided under all walls 150mm above G.L.
 6. All drainage crossing the Road to be encased in concrete to civil engineer's details.



KAA Kenya Airports Authority

P. O. Box 19001-00501 NAIROBI
Tel: 6611000/6612000
Fax: 822078
E-Mail: info@kaa.go.ke
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[illegible]

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Tel: 6611000/6612000
Fax: 822078
E.Mail: info@kaa.go.ke
Website: www.kaa.go.ke

Project:

PROPOSED REBILITATION AND
EXPANSION OF NAROK AIRSTRIP

Drawing Title:

PROJECT SIGNBOARD

Project No.:
KAA/OT/NAROK/...../2024-2025

Designed by: Eng. E. Wekesa	Drawn by: A. Wako
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Checked by:

Eng. S. Mochache

____ _


Manager (Projects)

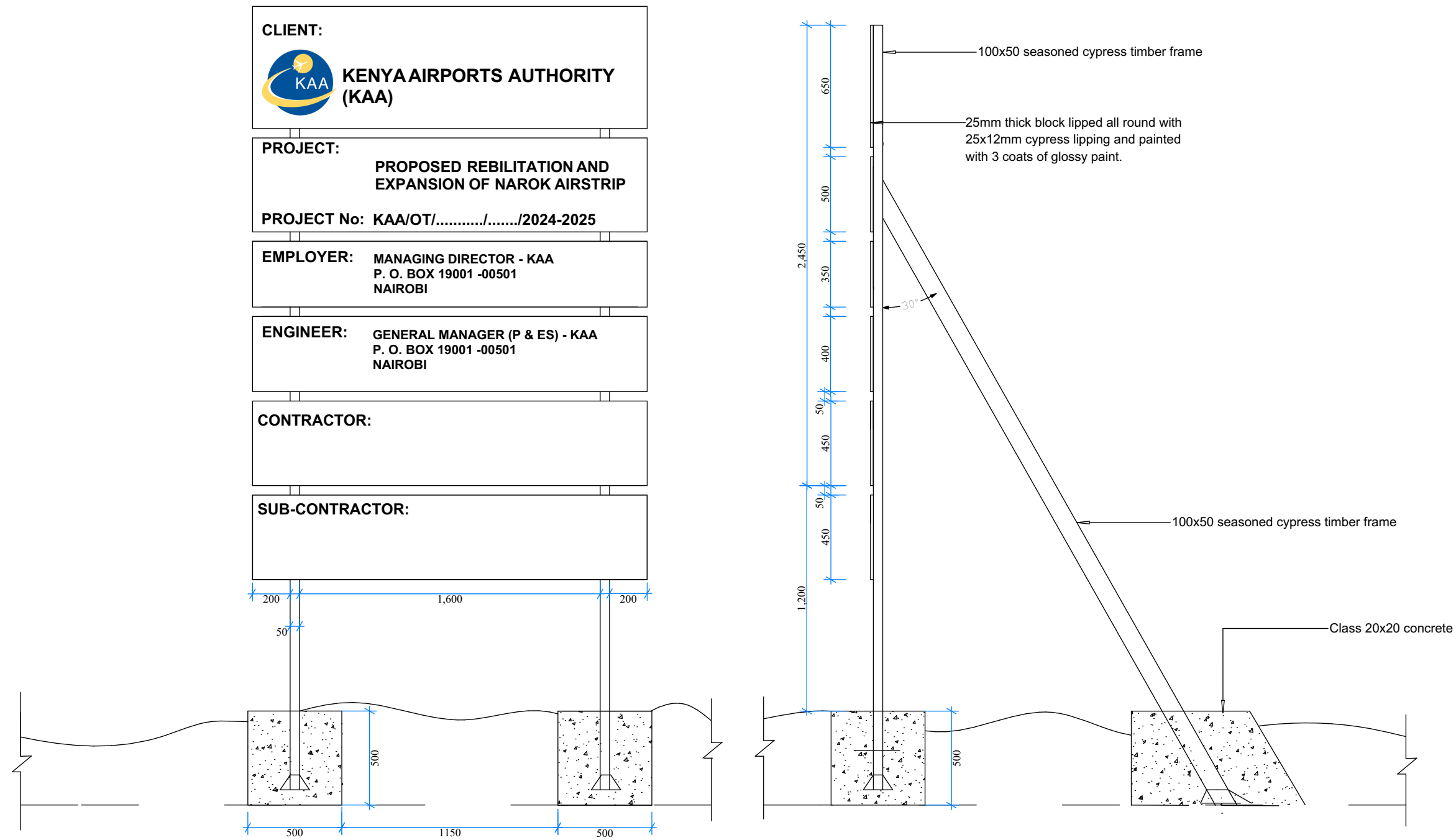
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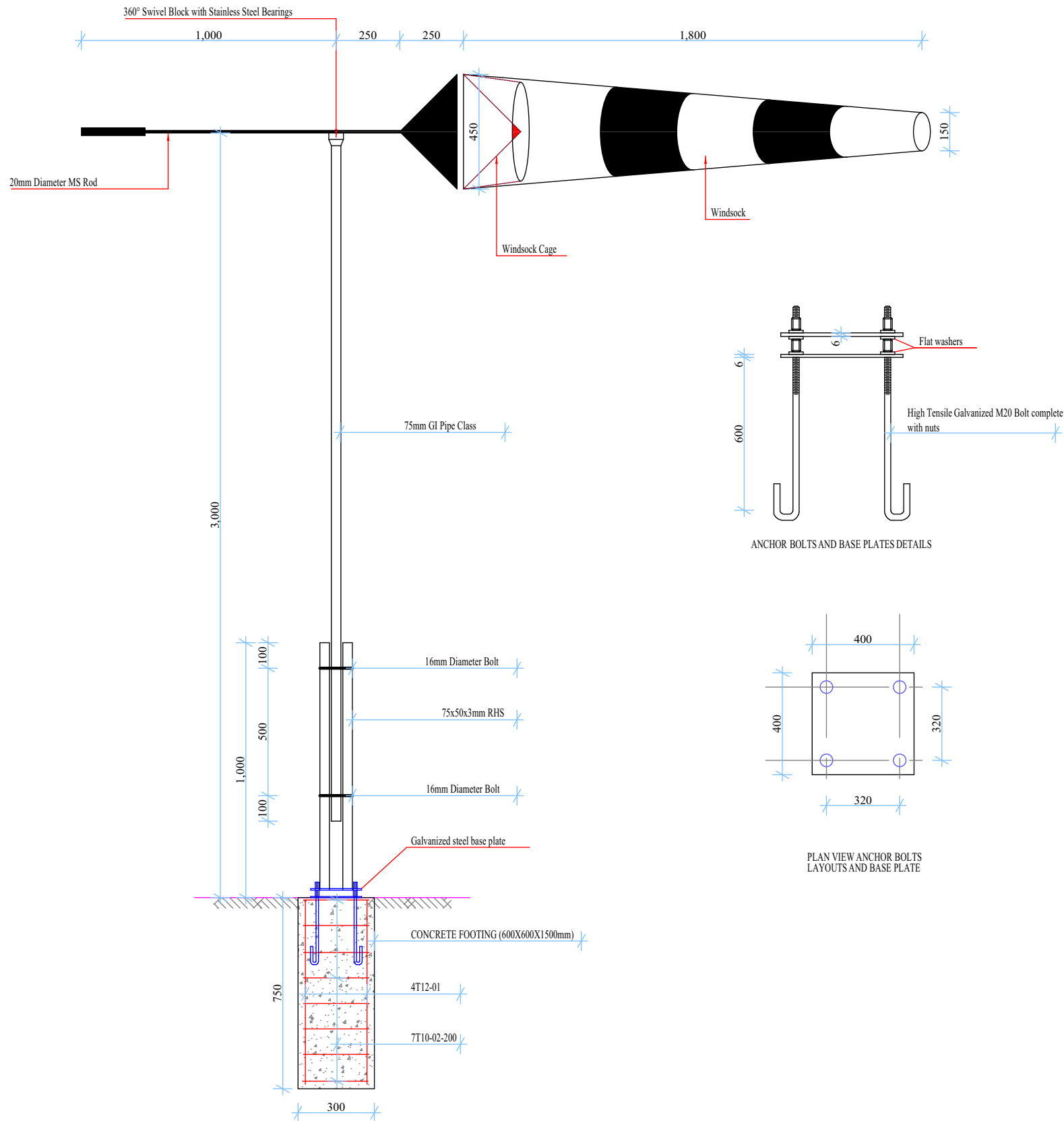
Dr.Eng. M. Ochieng'

General Manager (P&ES).

Dwg No. A[01]01	Scale: As Shown
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Date: Feb. 2025	North: 
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Tel: 6611000/6612000
Fax: 822078
E.Mail: info@kaa.go.ke
Website: www.kaa.go.ke

Project:
PROPOSED REBILITATION AND EXPANSION OF NAROK AIRSTRIP

Drawing Title:
WINDSOCK DETAILS

Drwg Title:
KAA/OT/NAROK/0105/2024-2025

Designed by:
Eng. E. Wekesa

Drawn by:
A. Wako

Checked by:
Eng. S. Mochache
Manager (Projects)

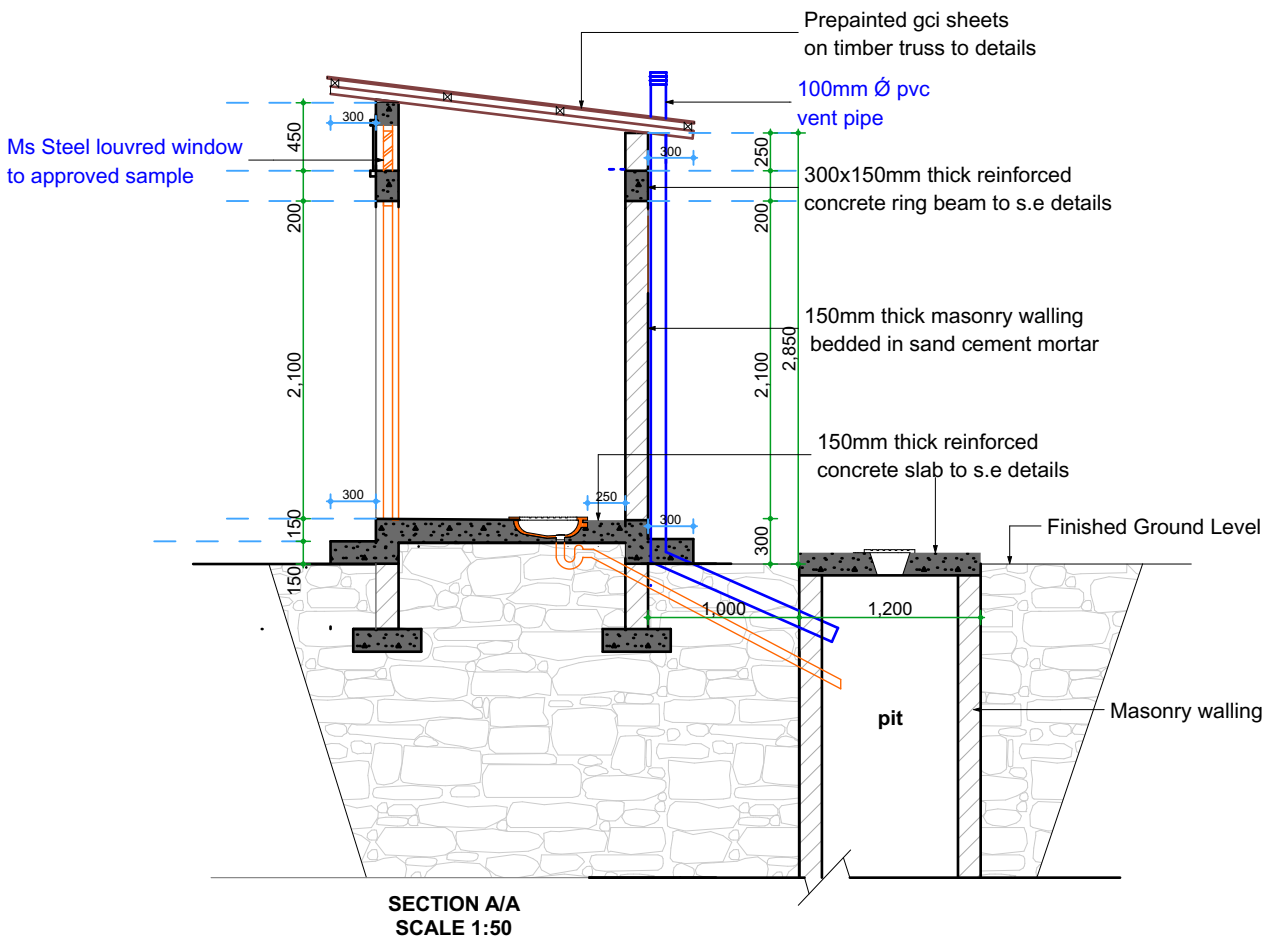
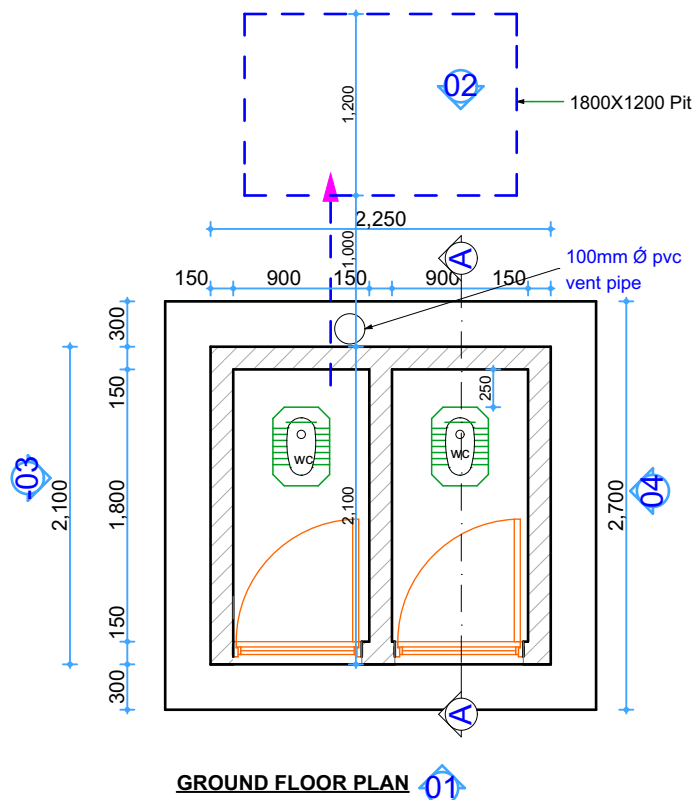
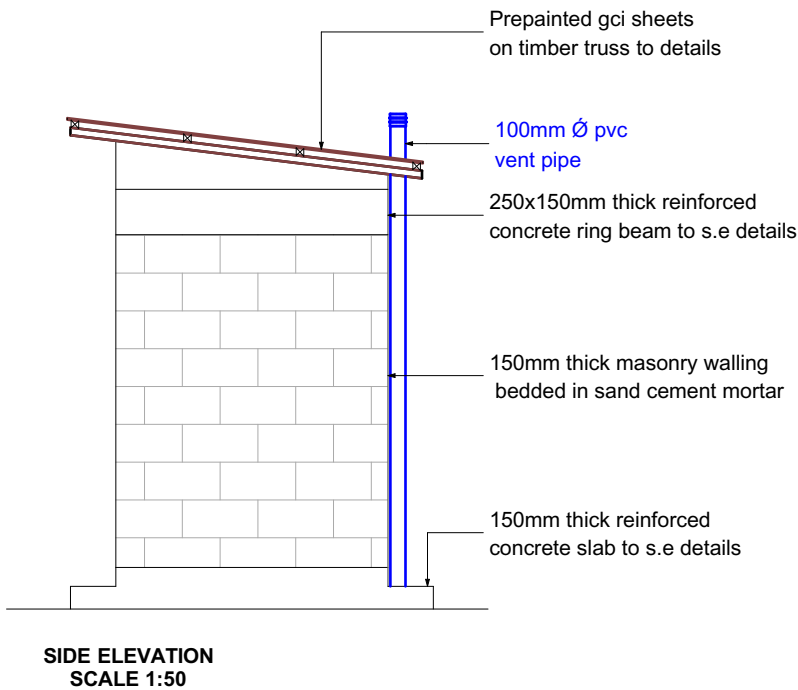
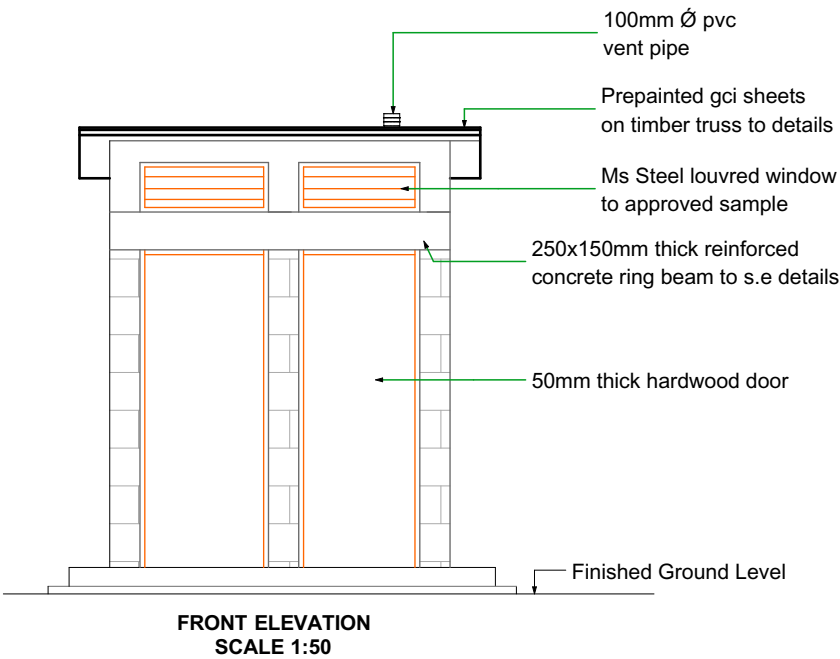
Approved by:
Dr.Eng. M. Ochieng'
General Manager (P&ES).

Dwg No.
A[01]03

Scale:
1:20 on A3

Date:
Feb. 2025

North:



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P. O. Box 19001-00501 NAIROBI
Tel: 6611000/6612000
Fax: 822078
E.Mail: info@kaa.go.ke
Website: www.kaa.go.ke

Project:
PROPOSED REBILITATION AND
EXPANSION OF NAROK AIRSTRIP

Drawing Title:
**PROPOSED PIT LATRINE-
FLOOR PLAN, SECTION & ELEVATIONS**

Project No.:
KAA/OT/NAROK/0105/2024-2025

Designed by:
Eng. E. Wekesa

Drawn by:
A. Wako

Checked by:
Eng. S. Mochache
Manager (Projects)

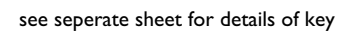
Approved by:
Eng. Dr. M. Ochieng'
General Manager (P&ES).

Dwg No.
A[01]04

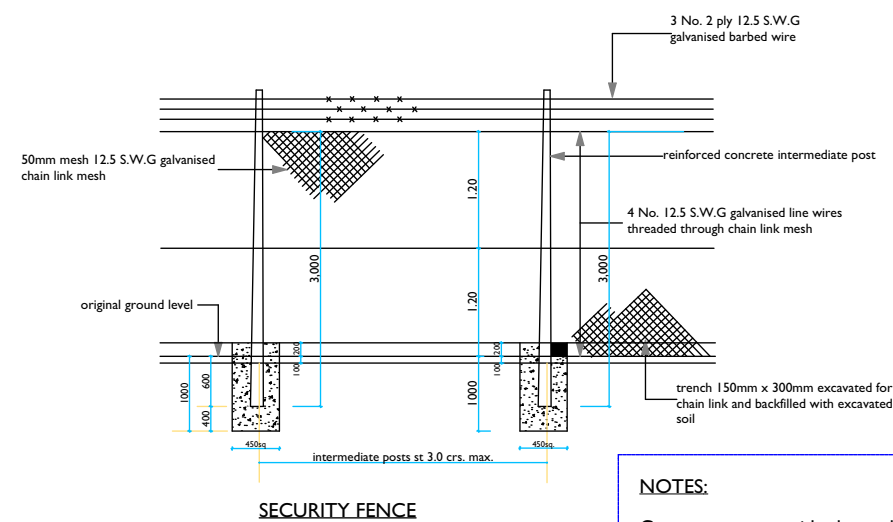
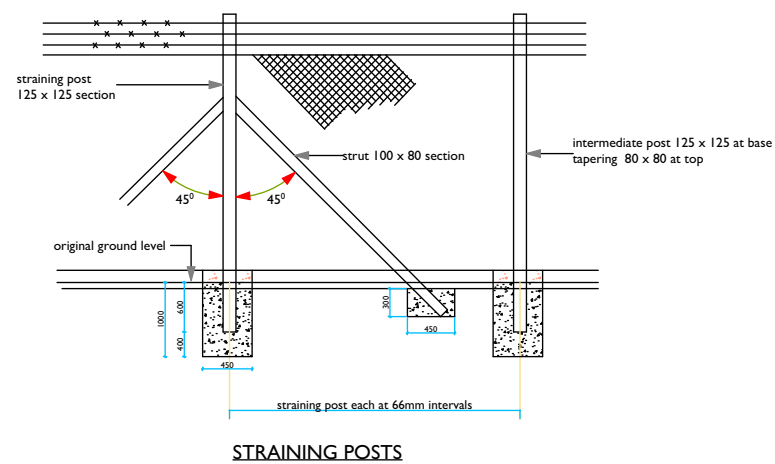
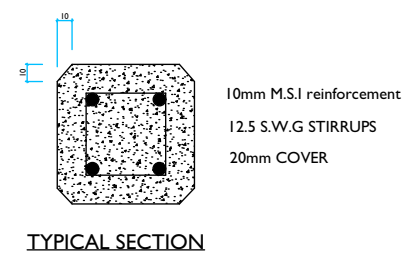
Scale:
1:50

Date:
Feb. 2025

North:



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- NOTES:

Contractor to provide the anchoring details for strain wire, barbed wire and chainlink wire for approval

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Tel: 6611000/6612000
Fax: 822078
E.Mail: info@kaa.go.ke
Website: www.kaa.go.ke

Project:

PROPOSED REBILITATION AND
EXPANSION OF NAROK AIRSTRIP

Drawing Title:

CHAINLINK FENCE DETAILS

Project No.:
KAA/OT/NAROK/0105/2024-2025

Designed by: Eng.E. Wekesa	Drawn by: A. Wako
-------------------------------	----------------------

Checked by:

Eng. S. Mochache

Manager (Projects)

Approved by:

Dr. Eng. M. Ochieng'


General Manager(P&ES)

Dwg No. A[01]05	Scale: As Shown
--------------------	--------------------

Date:

Feb. 2025

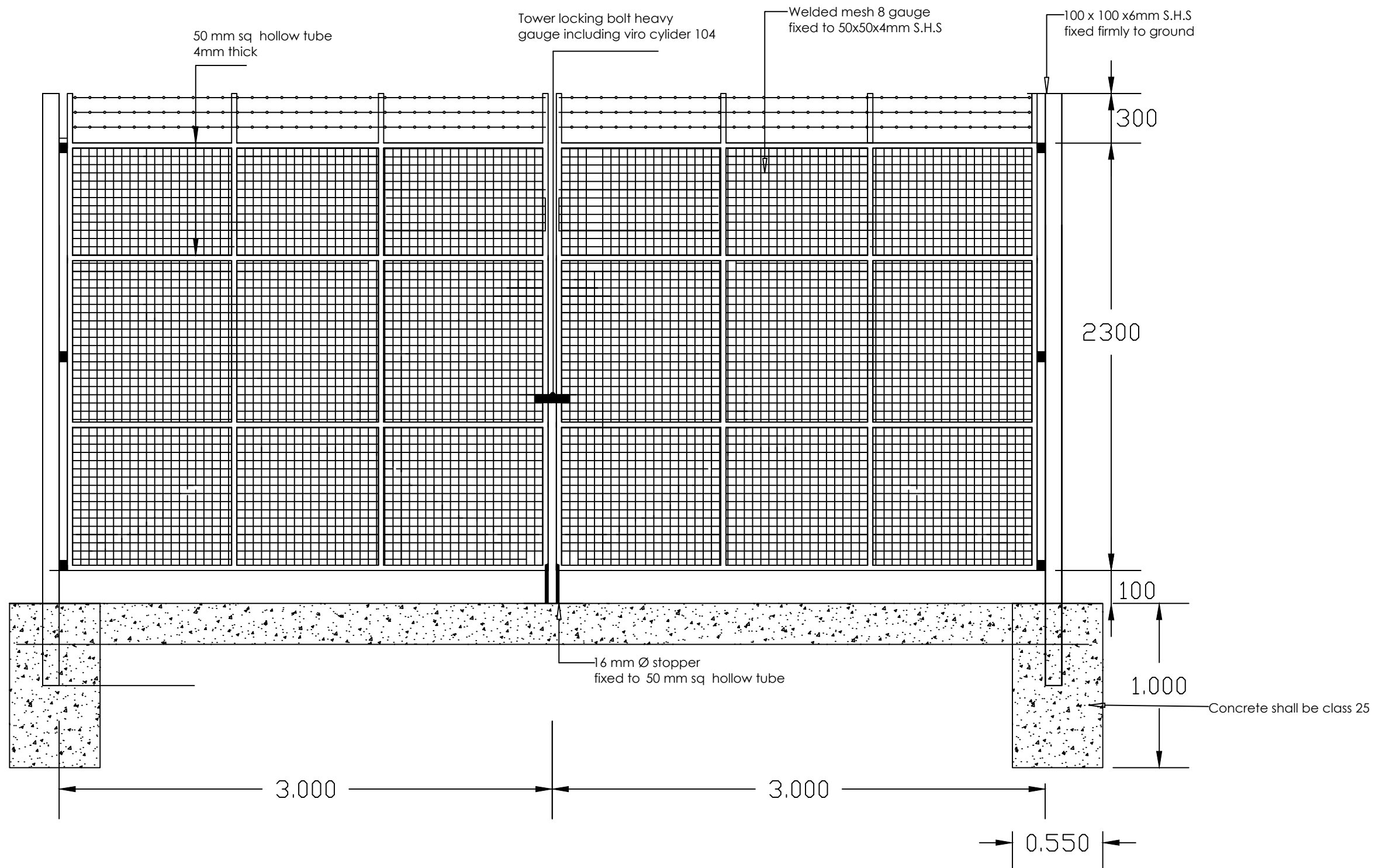
North:





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Fax: 822078
E.Mail: info@kaa.go.ke
Website: www.kaa.go.ke

Project:

PROPOSED REBILITATION AND EXPANSION OF NAROK AIRSTRIP

Drawing Title:

TYPICAL CRASH GATES DETAILS

Drwg Title:

KAA/OT/NAROK/0105/2024-2025

Designed by:

Eng. E. Wekesa

Drawn by:

A. Wako

Checked by:

Eng. S. Mochache

Manager (Projects)

Approved by:

Dr.Eng. M. Ochieng'

General Manager (P&ES).

Dwg No.

A[01]06

Scale:

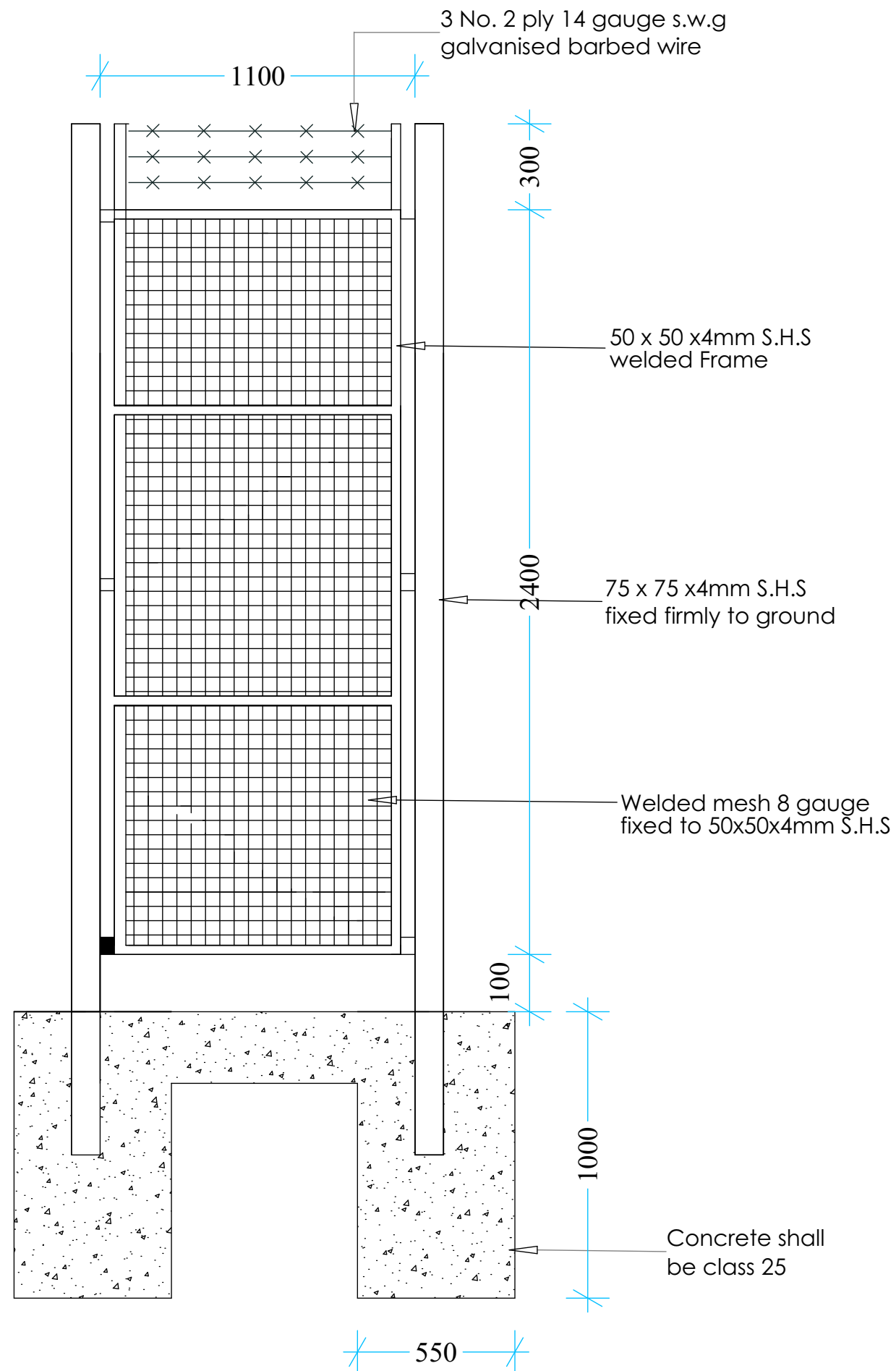
1:100 on A3

Date:

Feb. 2025

North:





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Project:
PROPOSED REBILITATION AND
EXPANSION OF NAROK AIRSTRIP

Drawing Title:
PEDESTRIAN GATE DETAILS

Drwg Title:
KAA/OT/NAROK/0105/2024-2025

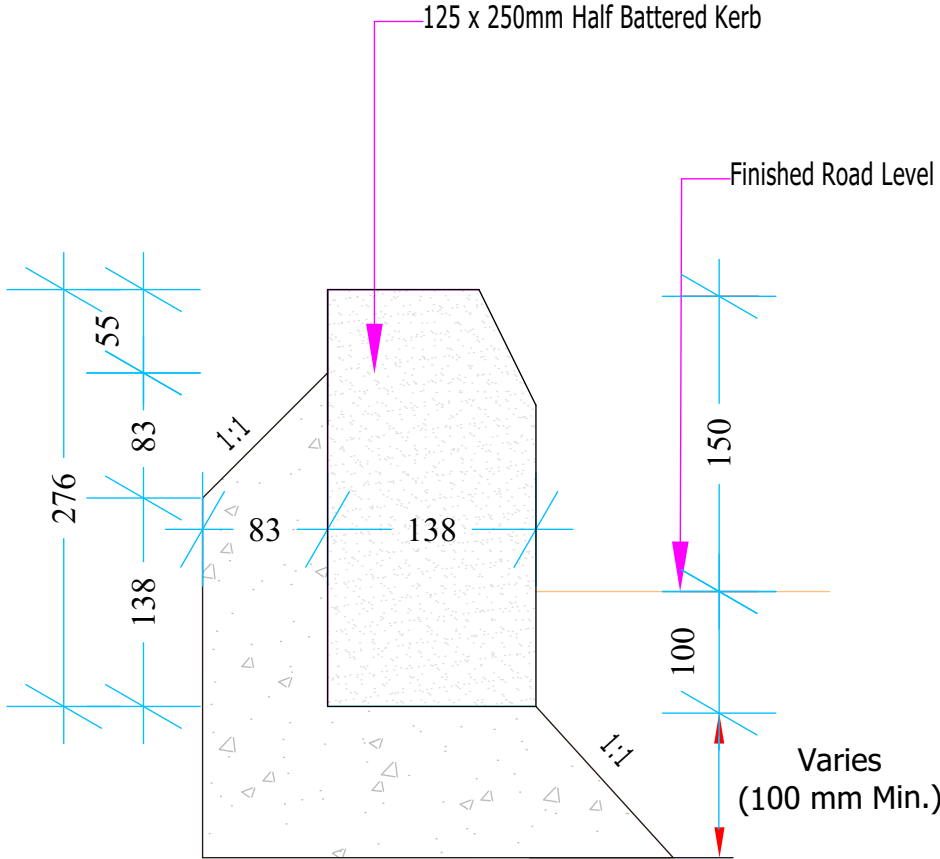
Designed by: Eng. E. Wekesa	Drawn by: A. Wako
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Checked by:
Eng. S. Mochache
Manager (Projects)

Approved by:
Dr.Eng. M. Ochieng'
General Manager (P&ES).

Dwg No. A[01]07	Scale: 1:100 on A3
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Date: Feb. 2025	North:
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KERB DETAILS (NTS)

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E.Mail: info@kaa.go.ke
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Project:
PROPOSED REBILITATION AND
EXPANSION OF NAROK AIRSTRIP

Drawing Title:
ROAD KELB DETAILS

Drwg Title:
KAA/OT/NAROK/0105/2024-2025

Designed by:
Eng. E. Wekesa

Drawn by:
A. Wako

Checked by:
Eng. S. Mochache
Manager (Projects)

Approved by:
Dr.Eng. M. Ochieng'
General Manager (P&ES).

Dwg No.
A[01]08

Scale:
1:20

Date:

