



PO Box 10335, Centurion, 0046
TCTA, Byls Bridge Office Park, Building 9,
Corner of Olievenhoutbosch & Jean Ave, Doringkloof, Centurion
Tel: +27 12 683 1200 | Fax: +27 12 683 1361
Email: info@tcta.co.za | Website: www.tcta.co.za

Ref No: 050/2023/PMID/SHUTDOWN/RFB

12 APRIL 2024

TENDER CLARIFICATION NO.1:- FOR APPOINTMENT OF CONTRACTOR SERVICES TO PROVIDE LHWP 2024 SHUTDOWN OUTAGE – INSPECTION AND REPAIRS OF DELIVERY TUNNEL NORTH (DTN) AND EROSION PROTECTION TO ASH RIVER - (6 MONTH SHUTDOWN)

Dear Tenderer,

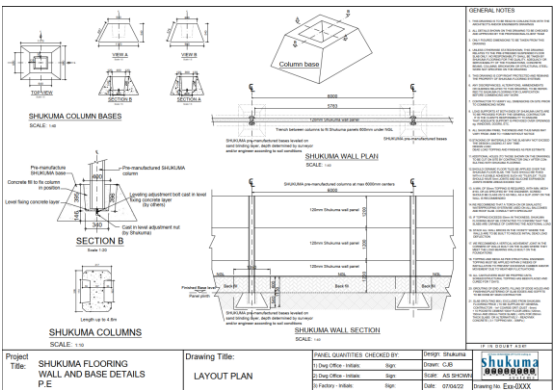
TCTA acknowledges receipt of the Requests for Clarification listed below. The applicable response to each request for clarification is provided on the corresponding column of the same line-item row.

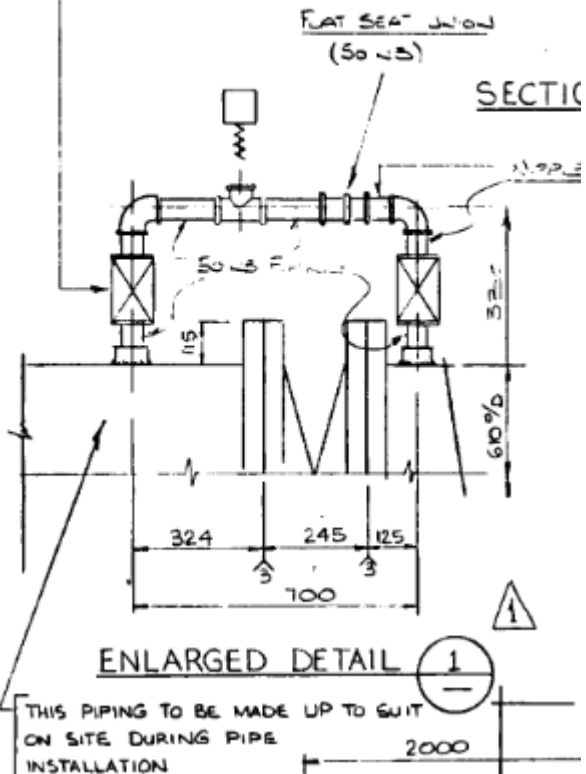
Regards,

Azwi Nelwamondo

Senior Manager: Supply Chain Management

NO.	REQUESTS FOR CLARIFICATION	TCTA RESPONSES
1	Please may we have an extension on the closing Date of 14 Calendar days to enable the complex administration requirements, Planning and Discussions with Suppliers and sub-contractors. Additional and above normal care and experience is necessary. At the site Briefing it was stated the scope is not defined Additional Visits to site are envisaged.	Refer to Addendum no.1
2	<u>9.2.5.6 Excavation</u> How far must the spoil be hauled? Is there levelling of the Spoil and any grassing required? Is the excavation in soft Only?	Spoiled on site and spread. Grassing as per re-vegetation area. Soft only excavation
3	<u>9.2.5.2 to 9.2.5.4</u> Where must the Haul of the material from Source to application point be priced? In which Item? Are there Haul Roads available or will there be Rates to price to make Haul Roads? How will the Quantities be measured? Will it be in Truckloads or off a weighbridge with an agreed conversion Factor?	The cubic meter rate must include haulage for material. The areas are accessible so no new haul roads will be constructed. Weighbridge with agreed conversion factor.
4	<u>Provisional work for after Shut Down.</u> For the purpose of Programme and P&G costs will this be after Shut Down starts or after Shut down ends?	This provisional sum is for work identified after the start of the shutdown following a walk though of the tunnel and the Ash River has been done.
5	Are there any Photographs available of river works downstream of Outfall of Stop logs, of Bulkhead Domes?	Ash River Picture No 01 – 04 Bulkhead Domes Picture No 05
6	<u>10.3 Install Dihlabeng 700mm connection.</u> Where to and what is the connection joined to? Will it be a Flanged connection with a Blank?	Picture No. 06 The Dihlabeng municipal water connection is connected to the output pipe of the Little Caledon dewatering shaft. The Contractor will be responsible to remove a small connection piece between the two pipes to allow for the dewatering of the tunnel. On completion of all the work the Contractor will be required to insert the piece removed so as to allow the municipality to withdraw water during normal operation of the tunnel
7	<u>9.2.6 Stormwater Canals</u> There is 1500m3 excavation and 3000m3 of Berm. Please can you indicate where over the 21km outfall river section this is? and is the excavation just soft excavation and no shaping?	1500 m3 is excavation from riverbank to shape the river bank and 3000 m3 is cut to fill to create and shape the berm. See Section C2 berm for location
8	<u>9.1.2</u> If the boulders are very large can they be made smaller with Chemical Explosives? and what is the size they can be reduced to?	The use of chemical explosives is allowed however the contractor must comply to explosives regulations as in the OHSACT. Size can be reduced until it is small enough to move.
9	<u>8.5 Cleaning of Algae and Debris Sum.</u> For Bidding Purposes please can we have something to Price on M2 of Algae and m3 of Debris?	50m2 of algae needs cleaning and 2m3 of debris to be removed

NO.	REQUESTS FOR CLARIFICATION	TCTA RESPONSES
10	<p><u>6.1.3</u> Please can you clarify what is a Shakuma wall and if alternatives are possible?</p>	<p>Alternatives are possible, see attached drawing for Shukuma walls.</p>  <p>The drawing consists of several parts: <ul style="list-style-type: none"> SHUKUMA COLUMN BASES: Scale 1:10, showing top and side views of the base. SHUKUMA WALL PLAN: Scale 1:10, showing the layout of the walls with dimensions. SHUKUMA COLUMNS: Scale 1:10, showing a side view of the column. SHUKUMA WALL SECTION: Scale 1:10, showing a cross-section of the wall with internal structure. SECTION B: A detailed section of the wall base. GENERAL NOTES: A list of 10 notes providing specific instructions and material requirements. </p>
11	<p><u>6.1.4</u> Please can we have a shop Drawing of the Supply and install Gate or a Photo?</p>	<p>See attached drawing H371936-000-220-260-0001-0001 Rev0</p>
12	<p><u>5.8</u> Camera required for internal inspection. Please indicate where we will get entry?</p>	<p>Caledon Dewatering Shaft - see drawing hw417-95 remove item number 8 top elbow. Little Caledon Dewatering Shaft – see drawing C38-1218 item number 9 top elbow.</p>
13	<p><u>5.8.2</u> Expose valves for Inspection. Does this mean strip Valve into its components? Please can we have Valve Manufacturers to see if they still have spares as many Rand Water Valves no longer have stock of spares.</p>	<p>No stripping the valve will be in step 2 which will only be done if required. OEM (AVK Group)</p>
14	<p><u>5.8.4</u> How are the sacrificial anodes attached to the Valve Blade?</p>	<p>bolted</p>
15	<p><u>5.8.7</u> To what pressure must the Valve be tested?</p>	<p>200KPA for 2 minutes</p>
16	<p><u>5.717 & 5.8.16</u> Inspect and report on 50mm Bonnet Gate Valves and piping Smith class 800. Payment is 1 Sum. How many Valves and how many metre of Piping?</p>	<p>See drawing hw417-95</p>

NO.	REQUESTS FOR CLARIFICATION	TCTA RESPONSES
		<p>2. 800 BOLTED BONNET GATE VALVES (50 NB)</p>  <p>ENLARGED DETAIL 1</p> <p>THIS PIPING TO BE MADE UP TO SUIT ON SITE DURING PIPE INSTALLATION</p> <p>2000</p>
	<p>Please can you expedite the Excel format for BOQ so that we can start pricing.</p>	<p>An electronic or Excell format BOQ is not available for this project. Prospecting bidders are therefore expected to complete the BOQ as published and submit with the rest of the returnables before closing date and time.</p>
	<p>Please may we also get the Project Document in Word format again with no Risk or Obligation to client</p>	<p>Bid document in word format is available for this document. Bidders are to use the bid document as published on TCTA website as well as National Treasury e-tender portal.</p>

2. The critical river reaches where riverbank erosion protection is required

Figure 2-1 shows the critical reaches A, B, C and D which were investigated in this study.

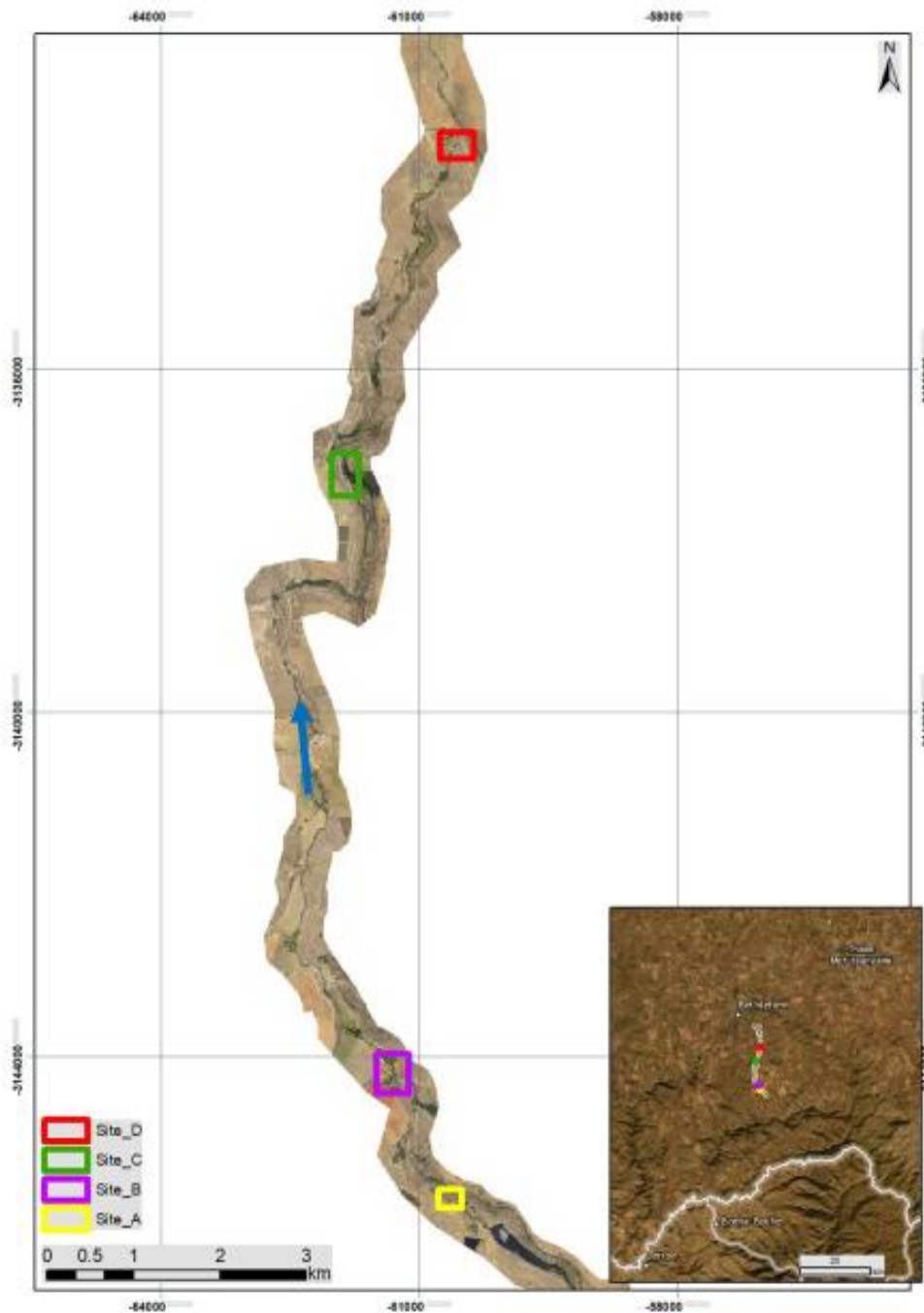


Figure 2-1: Critical river reaches investigated in this study

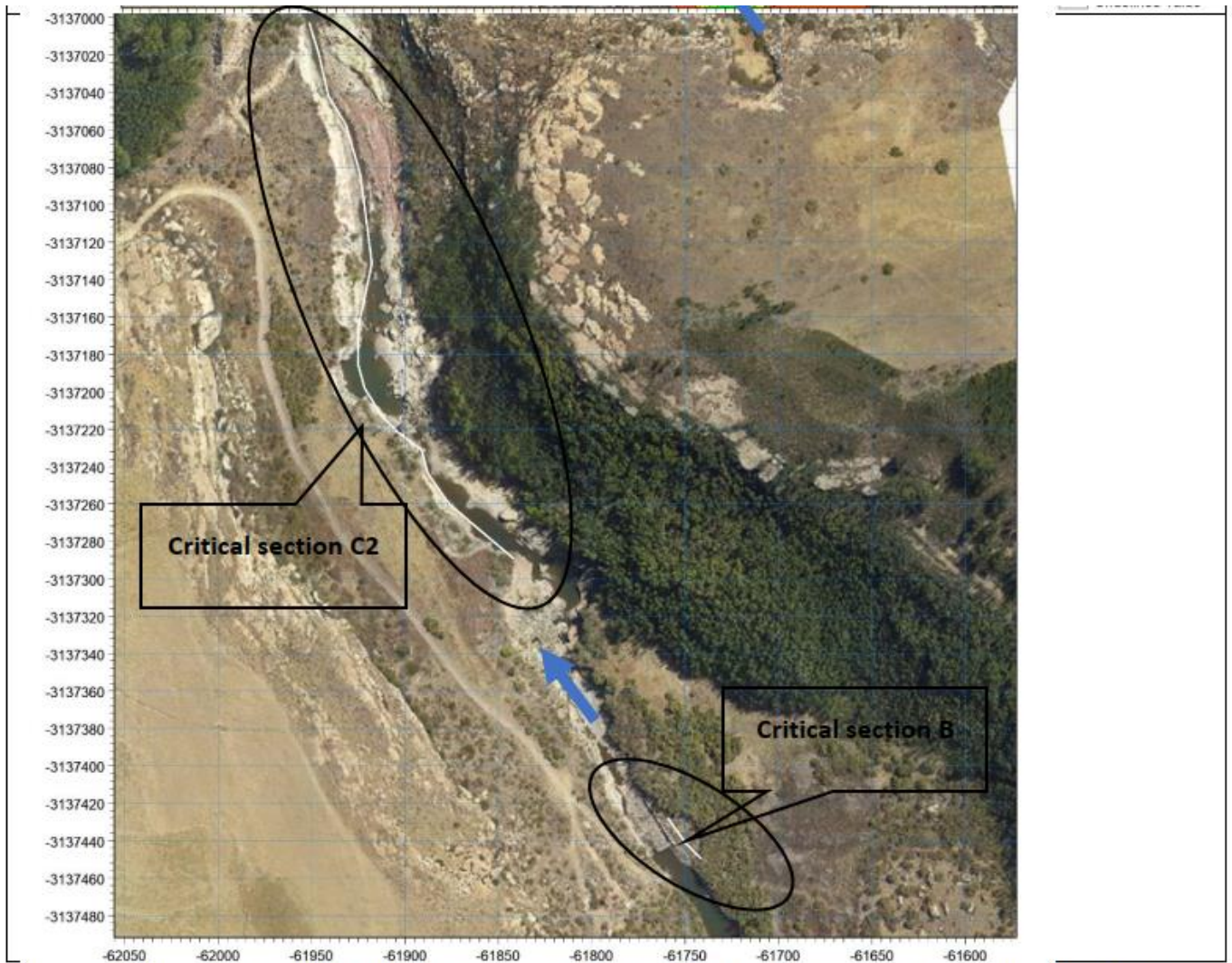


Figure 6-3: Reach C1 and C2 2019 bathymetry (top) and 2019 aerial image of critical section (bottom)



Ash River Picture No 01



Ash River Picture No 02



Ash River Picture No 03



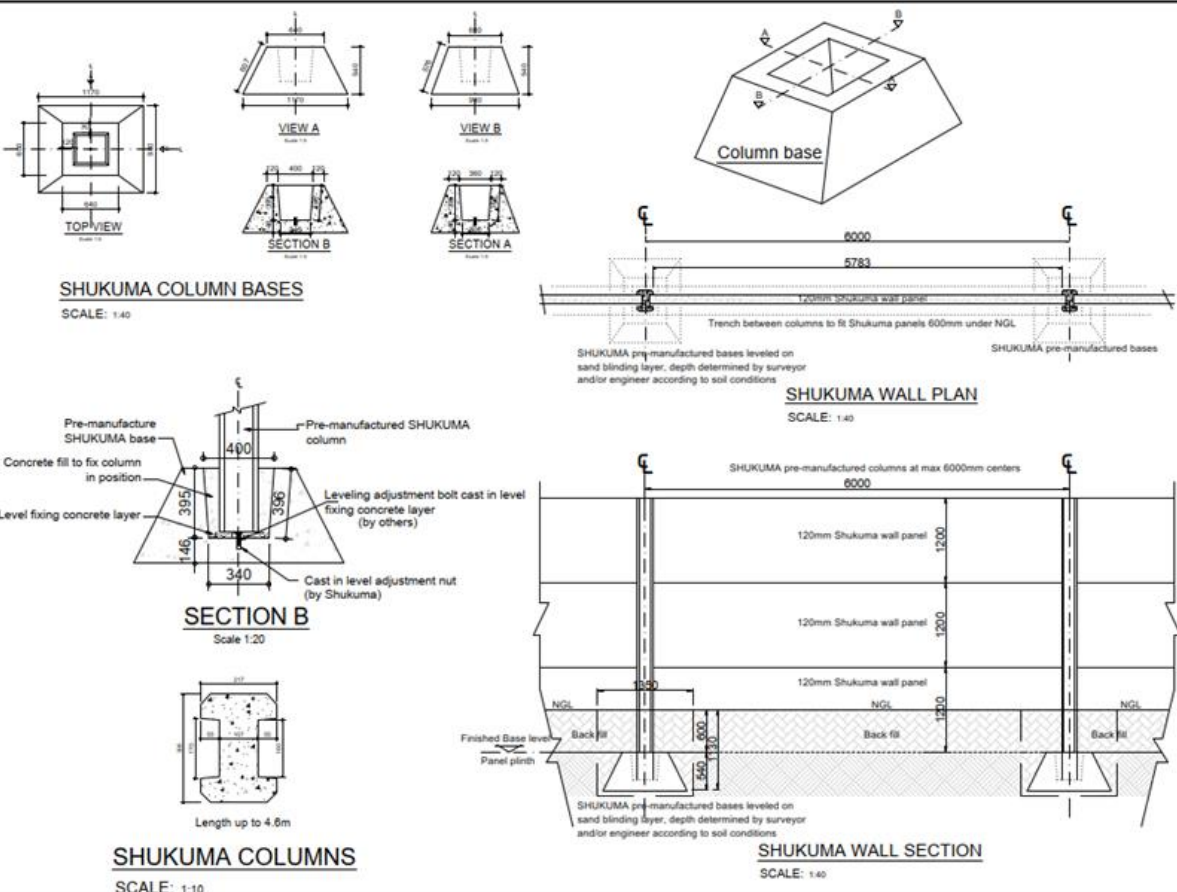
Ash River Picture No 04



Bulkhead Dome Picture No 05



Dihlabeng municipal water connection to be removed and reinstated Picture No 06



- GENERAL NOTES**
- 1 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE ARCHITECT'S AND/OR ENGINEER'S DRAWINGS
 - 2 ALL DETAILS SHOWN ON THIS DRAWING TO BE CHECKED AND APPROVED BY THE PROFESSIONAL CLIENT TEAM
 - 3 ONLY DIMENSIONS TO BE TAKEN FROM THIS DRAWING
 - 4 UNLESS OTHERWISE STATED, THIS DRAWING RELATES TO THE PRE-STRESSED SUPPORTED FLOOR SLAB ONLY. NO RESPONSIBILITY SHALL BE TAKEN BY SHUKUMA FLOORING FOR THE QUALITY, ADEQUACY OR SERVICEABILITY OF THE FOUNDATIONS, CONCRETE BEAMS, COLUMNS, BRICKWORK OR STRUCTURAL STEELWORK NOT SPECIFIED ON THE DRAWING
 - 5 THIS DRAWING IS COPYRIGHT PROTECTED AND REMAINS THE PROPERTY OF SHUKUMA FLOORING SYSTEMS
 - 6 ANY DISCREPANCIES, ALTERATIONS, AMENDMENTS OR QUERIES RELATED TO THIS DRAWING TO BE REFERRED TO SHUKUMA FLOORING FOR CLARIFICATION BEFORE COMMENCING ANY WORK
 - 7 CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING WORK
 - 8 LOAD SUPPORTS AT BOTH ENDS OF SHUKUMA UNITS ARE TO BE PROVIDED FOR BY THE GENERAL CONTRACTOR. IT IS THE CLIENT'S RESPONSIBILITY TO ENSURE THAT ADEQUATE SUPPORT IS PROVIDED OVER OPENINGS AND WINDOWS, DOORS, ETC.
 - 9 ALL SHUKUMA PANEL THICKNESS AND THIS MASS MAY VARY FROM 8MM TO 18MM WITHOUT NOTICE
 - 10 STACKING OF MATERIALS ON THE SLAB MAY NOT EXCEED THE DESIGN LOADS AT ANY TIME
 - 11 DEAD-LOAD TOPPING AND FINISHES AS PER ESTIMATE
 - 12 ADDITIONAL HOLES TO THOSE SHOWN ON THE DRAWINGS TO BE CUT ON SITE BY CONTRACTOR ONLY AFTER CONSULTING WITH SHUKUMA FLOORING
 - 13 SHOULD GRABBER FLOOR TILES BE APPLIED OVER THE SHUKUMA FLOOR SLAB, THE TILES SHOULD BE FIXED WITH A FLEXIBLE ADHESIVE SUCH AS 'FLEXFLEX' TILES SHOULD HAVE 10mm JOINTS AND BULBOUS EXPANSION JOINTS WHERE AREAS EXCEED 10m²
 - 14 A MIN. OF 50mm TOPPING IS REQUIRED, WITH 10MM MESH #10, OR AS SPECIFIED BY THE ENGINEER. TOPPING SHOULD BE CLASS 20/15 AS WELL AS A SLIP JOINT ON THE WALL IS RECOMMENDED
 - 15 WE RECOMMEND THAT A TORCH ON OR MECHANICAL WATERPROOFING SYSTEM BE USED ON ALL BALCONIES AND ROOF SLAB CONSULT WITH SPECIALIST
 - 16 IF TOPPING EXCEEDS 50mm IN THICKNESS, SHUKUMA FLOORING MUST BE CONTACTED TO CONFIRM THAT THE SLAB IS CAPABLE OF CARRYING THE ADDITIONAL LOAD
 - 17 STACK ALL WALL BRICKS IN THE MANNER WHERE THEY MEET THE LOAD BEARING WALLS BUILT ON THE FOUNDATION
 - 18 WE RECOMMEND A VERTICAL MOVEMENT JOINT IN THE CORNERS OF WALLS BUILT ON THE SLAB WHERE THEY MEET THE LOAD BEARING WALLS BUILT ON THE FOUNDATION
 - 19 TOPPING AND MESH AS PER STRUCTURAL ENGINEER. TOPPING MUST BE APPLIED WITHIN 2 WEEKS OF INSTALLATION TO PREVENT EXCESSIVE CURING AND/OR MOVEMENT DUE TO WEATHER FLUCTUATIONS
 - 20 ALL CANTILEVERS MUST BE PROPPED UNTIL STRUCTURAL TOPPING HAS BEEN PLACED AND CURED FOR 7 DAYS
 - 21 DROUTING OF END JOINTS, FILLING OF EDGE HOLES AND FINISHING/PLASTERING OF SLAB EDGES AND SOFFITS TO BE DONE BY MAIN CONTRACTOR
 - 22 SLAB DROUTING MESH (EXCLUDED FROM SHUKUMA FLOORING PRICE) TO BE SUPPLIED BY GENERAL CONTRACTOR. 1st COURSE: 400 x 100mm - 10mm TO POINTS CEMENT/120mm FLOOR AREA (120mm, 180mm AND 200mm THICK SLABS) - 110mm FOR 200mm THICK SLABS OR ALTERNATIVELY - READY-MIX CONCRETE (1:1:1 TOPPING MIX - 38mm²)

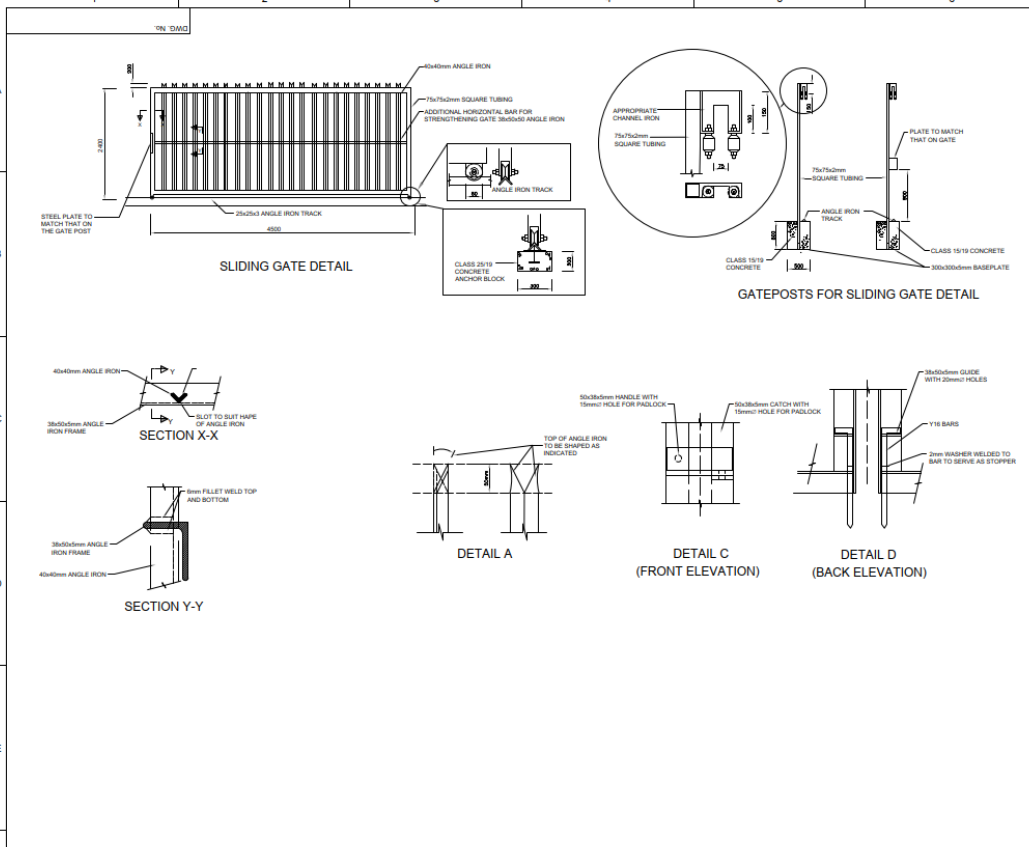
Project Title: **SHUKUMA FLOORING WALL AND BASE DETAILS P.E**

Drawing Title: **LAYOUT PLAN**

PANEL QUANTITIES CHECKED BY:		Design: Shukuma
1) Dwg Office - Initials:	Sign:	Drawn: CJB
2) Dwg Office - Initials:	Sign:	Scale: AS SHOWN
3) Factory - Initials:	Sign:	Date: 07/04/22

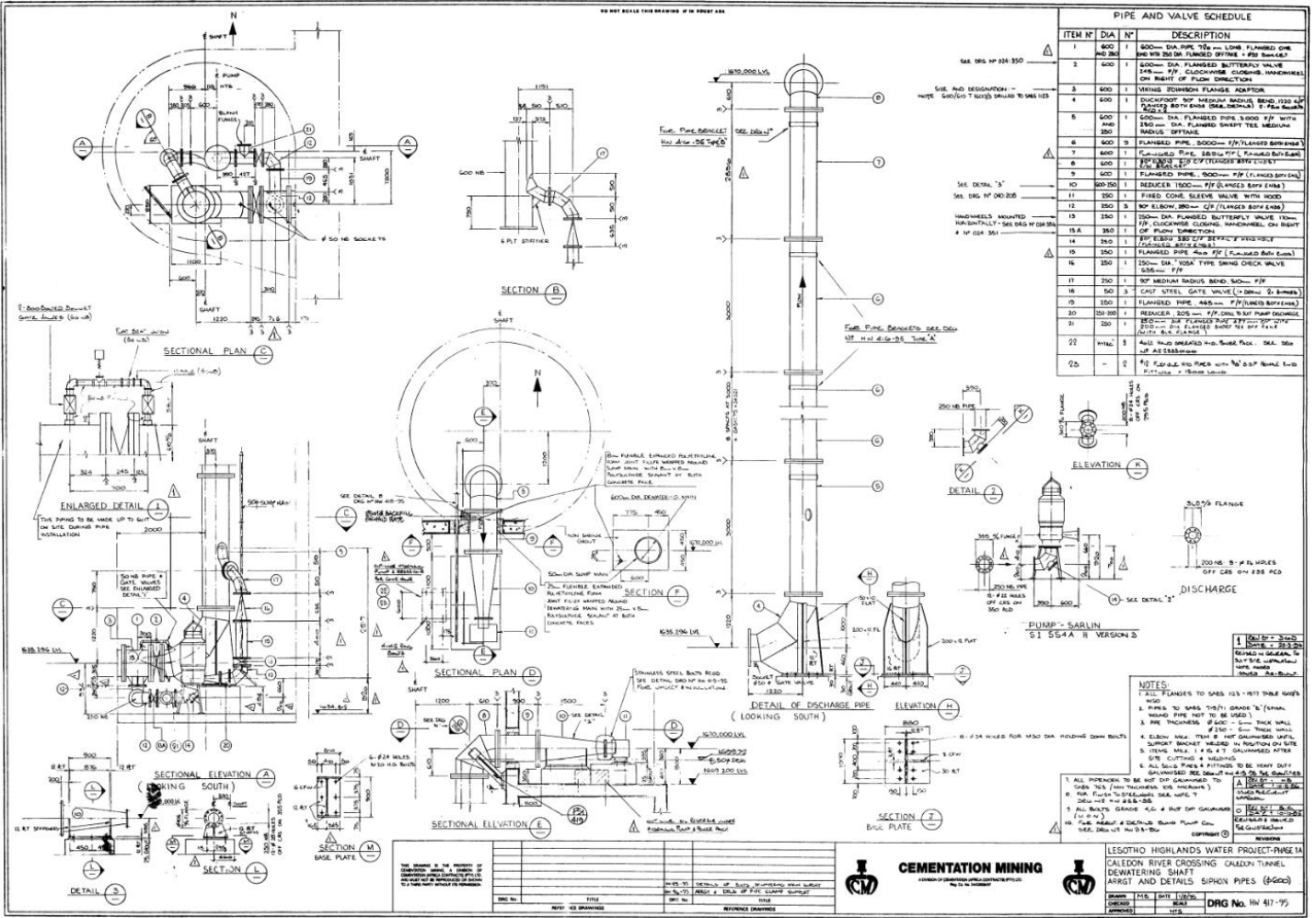
IF IN DOUBT ASK!

Drawing No. Exx-0XXX



- NOTES AND SPECIFICATIONS**
- GENERAL
 - 1.1 ALL MATERIAL AND WORKMANSHIP MUST COMPLY WITH THE REQUIREMENTS OF THE LATEST RELEVANT SANS SPECIFICATIONS.
 - 1.2 ALL DIMENSIONS ARE IN MILLIMETERS. (UNLESS OTHERWISE SPECIFIED) 1:3 DO NOT SCALE FROM THESE DRAWINGS.
 - 1.3 ALL DIMENSIONS MUST BE CHECKED AND APPROVED ON SITE.
 - 1.4 ALL CONSTRUCTION TO BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR MUNICIPAL CIVIL ENGINEERING WORKS, THIRD EDITION, 2005 AND THE STANDARD CTM DETAIL DRAWINGS.
 - 1.5 THESE DRAWINGS MUST BE READ IN CONJUNCTION WITH THE ARCHITECT'S DRAWINGS (IF APPLICABLE).
 - CONCRETE
 - 2.1 REINFORCED CONCRETE WORK SHALL BE IN STRICT ACCORDANCE WITH SECTION 702, 703 AND 704 OF THE STANDARD SPECIFICATIONS FOR MUNICIPAL CIVIL ENGINEERING WORKS, 3rd EDITION, 2005.
 - 2.2 ALL FOUNDATIONS FOR BASES AND FOOTINGS MUST BE INSPECTED AND APPROVED IN WRITING BY THE ENGINEER BEFORE CONCRETE IS PLACED.
 - 2.3 REINFORCEMENT AND FORMWORK MUST BE INSPECTED AND APPROVED IN WRITING BY THE ENGINEER BEFORE CONCRETE IS PLACED.
 - STEELWORK
 - 3.1 STRUCTURAL STEELWORK SHALL BE IN STRICT ACCORDANCE WITH SECTION 809 OF THE STANDARD SPECIFICATIONS FOR MUNICIPAL CIVIL ENGINEERING WORKS, 3rd EDITION, 2005.
 - 3.2 STRUCTURAL STEEL SHALL BE GRADE 300M UNLESS OTHERWISE INDICATED OR SPECIFIED.
 - 3.3 COLD-FORMED SECTIONS SHALL BE MADE FROM COMMERCIAL QUALITY STEEL UNLESS OTHERWISE SPECIFIED.
 - 3.4 HOLDING DOWN BOLTS SHALL BE OF THE GRADE SPECIFIED ON THE DRAWINGS.
 - 3.5 PAINTING OF STRUCTURAL STEELWORK SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF SECTION 804 OF THE STANDARD SPECIFICATIONS. NOTE: THE RATES TENDERED FOR STRUCTURAL STEELWORK SHALL BE DEEMED TO INCLUDE FOR PAINTING AS SPECIFIED IN SECTION 804 OF THE STANDARD SPECIFICATIONS FOR MUNICIPAL CIVIL ENGINEERING WORKS, 3rd EDITION, 2005.

DRAWING NO:		DRAWING TITLE:		REGISTERED PROFESSIONAL:				TCTA		SCALE: 1:1 (AS SHOWN) DWG. NO: H371936-0000-220-260-0001-0001 SHEET: 0 OF 1
REFERENCE DRAWINGS:				No. DESCRIPTION BY CHG DATE REVISIONS DRAWING APPROVAL STATUS:		DRAFTSPERSON: L. ALEXANDER NR 2004/0 DESIGNER: J. BOWMAN NR 2004/0 CHECKER: J. BOWMAN NR 2004/0 DESIGN COORD.: REP. ENG.: EST./PROP. ENG.: ENG. MANAGER: PROJ. MANAGER:		4.5m LONG SLIDING GATE		



PIPE AND VALVE SCHEDULE		
ITEM #	QTY	DESCRIPTION
1	1	800mm DIA PIPE 10m LONG FLANGED ONE END WITH 250mm DIA FLANGED BUTTERFLY VALVE
2	1	800mm DIA FLANGED BUTTERFLY VALVE 10m LONG WITH 250mm DIA FLANGED END
3	1	250mm DIA FLANGED BUTTERFLY VALVE 10m LONG WITH 250mm DIA FLANGED END
4	1	250mm DIA FLANGED BUTTERFLY VALVE 10m LONG WITH 250mm DIA FLANGED END
5	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE
6	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE
7	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE
8	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE
9	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE
10	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE
11	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE
12	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE
13	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE
14	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE
15	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE
16	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE
17	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE
18	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE
19	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE
20	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE
21	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE
22	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE
23	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE
24	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE
25	1	800mm DIA FLANGED PIPE 3.000m L/W WITH 250mm DIA FLANGED BUTTERFLY VALVE

- NOTES:
- ALL FLANGES TO SAES 103-107 THIN GAUGE
 - PIPS TO SAES 103-107 THIN GAUGE (SMALL WOUND PIPE NOT TO BE USED)
 - PIPE THICKNESS TO SAES 103-107 THIN GAUGE
 - ELBOWS TO SAES 103-107 THIN GAUGE UNLESS SPECIFIED OTHERWISE
 - STEEL PIPE 1.4 IS 417 GALVANIZED AFTER PIPE CUTTING & WELDING
 - ALL SIZES PIPES & FITTINGS TO BE HEAVY DUTY UNLESS SPECIFIED OTHERWISE
 - ALL WELDS TO BE HOT DIP GALVANIZED TO SAES 103 (FOR THICKNESS SEE DRAWING)
 - FOR FLANGE TO SAES 103-107 THIN GAUGE UNLESS SPECIFIED OTHERWISE
 - ALL BOLTS GRADE 4.6 & HOT DIP GALVANIZED (1.4 IS 417)
 - FOR NUTS & WASHERS SEE DRAWING
 - FOR WELDS TO SAES 103-107 THIN GAUGE UNLESS SPECIFIED OTHERWISE

CEMENTATION MINING

LESOTHO HIGHLANDS WATER PROJECT-PHASE 1A
CALLEDON RIVER CROSSING CALLEDON TUNNEL
DEWATERING SHAFT
ARISIT AND DETAILS SIPHON PIPES (6000)

DRAWN: M.E. DATE: 1/11/95
CHECKED: J.S. DATE: 1/11/95
APPROVED: M.E. DATE: 1/11/95

DRG No. Hn 417-95

