

Annexure 1
Price List

Item No.	Payment Refers	Short Description	Unit	Quantity	Rate	Amount	
						R	c
	SANS 1200A	PART 1 : PRELIMINARY & GENERAL & SITE ESTABLISHMENT					
1.1	8.3	FIXED CHARGE ITEMS					
1.1.1	8.3.1	Contractual requirements	Sum	1			
	8.3.2	Establishment of site facilities:					
1.1.2	8.3.2.2	Facilities for Contractor					
1.1.2.1		Dealing with water	Sum	1			
1.1.2.2		All other facilities required by the contractor	Sum	1			
1.1.3	8.3.4	Remove site establishment on completion	Sum	1			
1.2	8.4	TIME-RELATED ITEMS					
1.2.1	8.4.1	Contractual requirements	Week	24			
1.2.2	8.4.2	Operate & Maintain facilities for contractor on site:					
1.2.2.1	8.4.2.2	Dealing with water	Week	24			
1.2.2.2		All other facilities required by the contractor	Week	24			
1.2.3	8.4.3	Supervision	Week	24			
1.2.4	8.4.4	Company & head-office overhead costs	Week	24			
1.3	8.5	PROVISIONAL SUMS					
1.3.1		For laboratory tests	Sum	1	10,000.00	10,000	00
1.3.2		General attendance and profit on item 1.3.1	%	R 10,000			
1.4	8.6	TEMPORARY WORKS					
1.4.1	8.6.2	Accommodation of traffic	Sum	1			
1.5	PSA 8.7	OCCUPATIONAL HEALTH AND SAFETY					
1.5.1	C3.5.1	Compliance with OHS Act and Construction Regulations 2003	Week	24			
1.5.2	C3.5.2	Preparation of Occupational Health & Safety Plan	Sum	1			
1.5.3	C3.5.3	Health and Safety File	Sum	1			
TOTAL PART 1 CARRIED FORWARD TO SUMMARY							

Item No.	Payment Refers	Short Description	Unit	Quantity	Rate	Amount R c	
	SANS 1200C	PART 2 : SITE CLEARANCE					
2.1	8.2.1	CLEAR SITE					
2.1.1		Clear and grub river bed on downstream side of bridge of all vegetation and boulders	m²	500			
2.2	8.2.2	Remove and grub large trees of girth					
2.2.1		Over 1m and up to and including 2m	No	1			
2.2.2		Over 2m and up to and including 3m	No	6			
2.3	8.2.8	Demolish and remove structures, etc					
2.3.1		Reinforced concrete walls and floor slabs	m³	20			
2.3.2		200 x 100 x 80mm thick brick paving and store on site for reinstatement	m²	50			
2.3.3		Existing precast concrete stormwater channels and store on site for reinstatement	m	20			
2.3.4		Existing 20mm thick steel sluice plate 1,5m X 0,5m and handover to employer	No	1			
2.4	8.2.9	Transport materials and debris to a commercial dump site.	m³.km	1000			
TOTAL PART 2 CARRIED FORWARD TO SUMMARY							

Item No.	Payment Refers	Short Description	Unit	Quantity	Rate	Amount R c	
	SANS 1200D	PART 3: EARTHWORKS					
3.1	8.3.3	RESTRICTED EXCAVATION					
3.1.1		Excavate in all materials for outlet to weir and use for backfill or embankment or dispose within a freehaul distance of 0,5 km	m ³	300			
3.1.2		Extra-over item 3.1.1 for intermediate excavation	m ³	100			
3.1.3.		Extra-over item 3.1.1 for hard rock excavation	m ³	100			
3.1.4		Extra-over item 3.1.1 for boulder excavation, class A	m ³	100			
3.2	8.3.4	Import rock fill from commercial sources for backfill including compaction	m ³	100			
TOTAL PART 3 CARRIED FORWARD TO SUMMARY							

Item No.	Payment Refers	Short Description	Unit	Quantity	Rate	Amount	
						R	c
	SANS 1200DK	PART 4: GABIONS & PITCHING					
4.1	8.2.1	SURFACE PREPARATION FOR BEDDING OF -----					
4.1.1	8.2.1(b)	Cavities filled with Grade 15 concrete	m ²	300			
4.2	8.2.2	GABIONS					
4.2.1		Supply and install units with 60mm x 80mm hexagonal openings formed from woven wire mesh to SANS 1580 coated to Class A galfan covered with a grey PVC coating to SANS 1580 and filled with round river stone to the following dimensions:					
4.2.1.1		3,0 x 1,0 x 0,3m height Reno mattress	m ³	135			
4.2.1.2		2,0 x 1,0 x 0,3m height Reno mattress	m ³	15			
4.2.2		Supply and install units with 80mm x 100mm hexagonal openings formed from woven wire mesh to SANS 1580 coated to Class A galfan covered with a grey PVC coating to SANS 1580 and filled with round river stone to the following dimensions:					
4.2.2.1		4,0 x 1,0 x 1,0m height Gabion	m ³	24			
4.2.2.2		3,0 x 1,0 x 1,0m height Gabion	m ³	96			
4.2.2.3		3,0 x 1,0 x 0,5m height Gabion	m ³	60			
4.2.2.4		2,0 x 1,0 x 1,0m height Gabion	m ³	8			
4.2.2.5		2,0 x 1,0 x 0,5m height Gabion	m ³	8			
4.3	8.2.4	GEOTEXTILE					
4.3.1		Supply and install non-woven geotextile Bidum type A4 or equal	m ²	500			
TOTAL PART 4 CARRIED FORWARD TO SUMMARY							

Item No.	Payment Refers	Short Description	Unit	Quantity	Rate	Amount	
						R	c
	SANS 1200G	PART 5 : CONCRETE					
5	8.2	FORMWORK					
5.1	8.2.1	ROUGH					
5.1.1		Horizontal	m ²	10			
5.1.2		Vertical	m ²	10			
5.2	8.2.2	SMOOTH					
5.2.1		Horizontal	m ²	20			
5.2.2		Vertical	m ²	80			
5.3	8.2.5	Narrow Widths					
5.3.1		300mm wide	m	50			
5.3.2		200mm wide	m	40			
5.4	8.3	REINFORCEMENT					
5.4.1	8.3.1	Mild Steel Bars					
5.4.1.1		10mm diameter	t	1			
5.4.2		High-Tensile Steel Bars					
5.4.2.1		12mm diameter	t	4			
5.4.2.2		20mm diameter	t	4			
5.4.3		Welded Mesh					
5.4.3.1		Reference 395	m ²	55			
5.4	8.4	CONCRETE					
5.4.1	8.4.3	Strength concrete: 30 mPa/ 19mm in:					
5.4.1.1		Bridge deck and Apron slab	m ³	80			
5.4.1.2		Weir Wall and Kerb Blocks	m ³	6			
5.5	8.4.4	Unformed Surface Finishes					
5.5.1		Wood-floated to Bridge Deck	m ²	125			
5.5.2		Wood-floated to slab over Gabions	m ²	55			
Carried forward							

Item No.	Payment Refers	Short Description	Unit	Quantity	Rate	Amount	
						R	c
Brought forward							
5.6	8.8	MISCELLANEOUS WORK					
5.6.1		Preparing existing concrete surfaces of bridge deck and weir wall by mechanically scabbling and thoroughly cleaning	m ²	80			
5.6.2		Brush apply bonding slurry mixed with one part Sikalates and one part water mixed with one part sand and one part cement	m ²	80			
5.6.3		Drill 10mm Ø holes to a depth of 50mm into existing bridge deck and supply and install 10mm Ø high tensile steel bars 100mm long with epoxy adhesive as a shear connector between new and existing concrete.	No	75			
5.6.4		Supply of stainless steel downward opening weir sluice gate to 2000 x 500mm opening with detachable spindle, all brackets and fixing bolts complete as detailed	No	1			
5.6.5		Installation of stainless steel downward opening weir sluice gate to 2000 x 500mm opening complete as detailed	No	1			
5.6.6		Supply and installation of protection screen to weir sluice gate complete as detailed	No	1			
TOTAL PART 5 CARRIED FORWARD TO SUMMARY							

Item No.	Payment Refers	Short Description	Unit	Quantity	Rate	Amount	
						R	c
	SANS 1200DM	PART 6: EARTHWORKS (ROADS, SUBGRADE)					
6.1	8.3.4	TREATMENT OF ROAD-BED					
	8.3.4(a)	Road-bed preparation and compaction to 100% MOD ASSHTO for sand					
6.1.1		Brick paved area	m ³	20			
	SANS 1200MF	BASE					
6.2	8.3.3	Construct base with laterite from commercial sources					
6.2.1		150mm thickness	m ³	10			
	SANS 1200MJ	SEGMENTED PAVING					
6.3	8.2.2	CONSTRUCTION OF PAVING COMPLETE					
6.3.1	8.2.2	200x100x80mm brick pavers to match existing laid loose on 20mm clean sand blinding in herringbone pattern including grout with dry sand	m ²	10			
6.3.2		200x100x80mm recovered brick pavers laid loose on 20mm clean sand blinding in herringbone pattern including grout with dry sand	m ²	50			
6.3.3	8.2.3	Cutting units to fit edge restraints either straight or raking	m	50			
	SANS 1200MK	KERBING & CHANNELLING					
6.4.1	8.2.1	PRECAST CONCRETE STORMWATER CHANNELS using recovered channels laid straight	m	20			
6.4.2		200 x100 x 80mm brick pavers to match existing laid straight to form 200mm wide banding	m	20			
TOTAL PART 6 CARRIED FORWARD TO SUMMARY							

**WESTERN CAPE GOVERNMENT
WESTERN CAPE NATURE CONSERVATION BOARD
t/a CAPENATURE**

TENDER NO: WCNCB17/09/2021

**CEDERBERG NATURE RESERVE: ALGERIA:
REPAIRS TO LOW WATER BRIDGE**

PRICE LIST - SUMMARY

SECTION	SANS 1200	SECTION	AMOUNT
1	A & AB	PRELIMINARY & GENERAL	
2	C	SITE CLEARANCE	
3	D	EARTHWORKS	
4	DK	GABIONS & PITCHING	
5	G	CONCRETE	
6	DM,MF,MJ& MK	ROADWORKS	
SUB-TOTAL			
Add Provision for Compensation Events at 20%			
SUB-TOTAL			
VALUE ADDED TAX			
Add 15 % (fifteen percent) Value Added Tax			
TOTAL AMOUNT			

WESTERN CAPE GOVERNMENT

WESTERN CAPE NATURE CONSERVATION BOARD t/a
CAPENATURE

CEDERBERG NATURE RESERVE

ALGERIA: REPAIRS TO LOW WATER BRIDGE

Annexure 2

HEALTH & SAFETY SPECIFICATION

1 MANAGEMENT OF THE WORKS**1.1 SITE ACCESS AND ENVIRONMENTAL CONDITIONS**

(a) Site access, egress, deliveries and vehicular and pedestrian routes

The requirements regarding the control of access to and egress from the Site and vehicular and pedestrian routes are to be noted by the Contractor and provision is to be made to ensure the safety of all pedestrian and vehicular traffic at all times.

(b) Environment

The Principal Contractor shall ensure compliance with all current environmental legislation applicable to the Works and the Site.

1.2 USE OF SITE BY THE EMPLOYER

Any continued use of the Site required by the Employer to maintain traffic flows or to allow work to be done by other contractors or authorities is a requirement of this contract and the contractor shall take due precaution in this regard.

2 HEALTH AND SAFETY SPECIFICATION**2.1 PURPOSE**

In terms of the Occupational Health and Safety Act (Act 85 of 1993) (OHSA) and the Construction Regulations 2003, the Client must provide the Contractor with a Health and Safety Specification to which the Contractor must respond with a Health and Safety Plan for approval by the Client.

The purpose of this Specification is to ensure that Principal Contractors entering into a contract with the Employer maintain an acceptable level of performance with regard to health and safety issues during the performance of the contract. In this regard the OHSA Specification form an integral part of the Contract and the Principal Contractor shall ensure that their contractors and/or suppliers comply with the requirements of this Specification.

2.2 SCOPE

The Client wishes to undertake the necessary repair work and modifications to the low water bridge on the Rondegat River situated in the Algeria Campsite, Cederberg Wilderness. The low water bridge, which is frequently used by staff and campers, is currently showing signs of deterioration where portions of the apron slab adjoining the bridge has collapsed as a result of the formation of a scour hole which now threatens the foundation of the bridge. The scour hole was formed by the discharge from the manually operated sluice that is opened during the rainy season. The collapse of the apron slab has partially closed the outlet to the sluice.

The proposal is to raise the level of the low water bridge by 700mm and to install a new weir gate a higher level. In order to prevent further scouring of the river bed it is proposed to construct a stilling pool and counter weir to dissipate the kinetic energy from discharge over the bridge at times of flood and when the weir gate is opened.

The permanent Works required under this Contract are described in the following:

- Part C3: Scope of Works and the Bills of Quantities

The Contractor, in complying with the OHS Act and the Construction Regulations, shall consider all aspects of the Works described and take into account the construction methods and materials to be used.

2.3 GENERAL

The contractor is referred to and shall comply with the full text of the Occupational Health and Safety Act (Act No.85 of 1993) (OHSA) as amended and to the Construction Regulations 2003 promulgated there under.

The following specification covers health and safety matters applicable during construction.

All the work included in this Contract shall, for the purpose of complying with OHSA and the Construction Regulations, be deemed to be "construction work"

It should be noted that, with a few exceptions, the Model Preambles and the project specifications are "end product specifications" and not "method specifications". As the methods of construction to be used are generally determined by the Contractor, detailed safety requirements applicable to all the operations to be carried out on Site are not provided in the project documentation. The Contractor shall apply all the relevant regulations and requirements to the work methods and materials used.

The Principal Contractor shall give the required notice to the Provincial Department of Labor before commencement of any work on the Site. This notice shall include the information as required by the Construction Regulations and shall be signed by the Contractor and the Employer.

The Principal Contractor shall ensure current registration and good standing with the Compensation Commissioner and shall provide evidence to this effect to the Employer.

It is the responsibility of the Principal Contractor and his contractors to provide for all costs and expenses related to the management of and compliance with the OHSA and this Specification.

2.4 EXISTING SITE CONDITIONS

The Contractor shall take into account, inter alia, the following existing conditions when complying with the OHS Act:

- Existing utility services
- Existing Site conditions. The Contractor shall be deemed to have visited the Site and examined the site conditions applicable for the Works.
- Traffic accommodation requirements.
- Surrounding land use;
- Anticipated weather conditions for the Cape Town Area.
- Access to the public and use of the facility during construction.

2.5 DESIGN INFORMATION

Design information provided for safety planning purposes, such as design loads for structures, foundation conditions etc, is available from the Principal Agent where required.

2.6 CONSTRUCTION MATERIALS

The following commonly used construction materials and substances potentially pose health and safety hazards:

- All materials contained in pressurized containers;
- Bitumen and tar products;
- Cement;
- Epoxies;
- Lime and other stabilizing agents;
- Paints;
- Timber preservatives
- Asbestos cement products.

The materials to be used to construct the Works are described in the following:

- The Project Specification
- The Standard Specifications
- Particular Specifications
- The Model Preambles for Trades 2008
- The Drawings
- The Schedule of Quantities

The Contractor shall take appropriate measures to manage the risks associated with the use of all the materials required to complete the Works, i.e not only those listed above, and shall, inter alia, implement all the precautionary measures provided by manufacturers and suppliers for the storage, use and application of materials used.

2.7 SITE RULES

(a) Wayleaves, permissions and permits

The Contractor shall be responsible for obtaining all the wayleaves, permissions or permits applicable to working near any existing services or other infrastructure on Site and shall abide by the safety conditions imposed by such wayleaves, permissions or permits.

(b) Reporting of incidents

All incidents shall be reported strictly in accordance with the requirements of the OHSA and the General Conditions of Contract.

2.8 HEALTH AND SAFETY PLAN

In compliance with the Construction Regulations the Contractor shall, after performing a risk assessment, prepare a health and safety plan for approval by the Employer.

The health and safety plan shall include, but not be limited to, the following:

- The safety management structure including the names of all designated persons such as the construction supervisor and any other competent persons;
- Safety method statements and procedures to be adopted to ensure compliance with the OHSA. Aspects to be dealt with shall include:

Public vehicular and pedestrian traffic accommodation measures;

Control of the movement of construction vehicles;
The storage and use of materials;
The use of tools, vehicles and plant;
Temporary support structures;
Dealing with working at height;
Environmental conditions and safety requirements in working hazardous materials including asbestos cement products;

Security, access control and the exclusion of unauthorised persons.

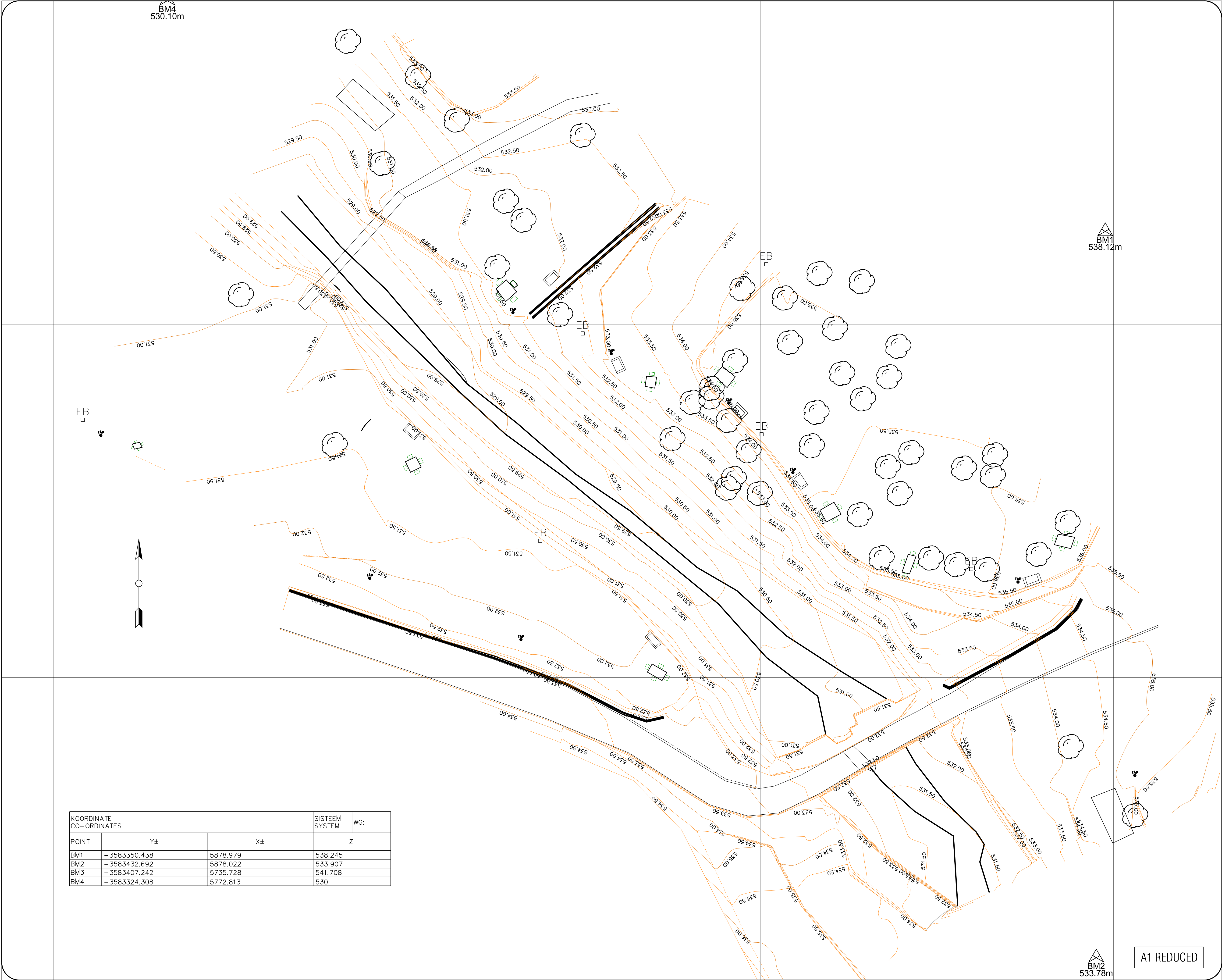
- The provision and use of temporary services;
- Compliance with wayleaves, permissions and permits;
- Safety equipment, devices and protective clothing to be employed;
- Emergency procedures;
- Provision of welfare facilities;
- Induction and training;
- Provision and maintenance of the health and safety file and other documentation;
- Arrangements for monitoring and control to ensure compliance with the safety plan.

2.9 AUDITS BY THE EMPLOYER

The Contractor shall permit the Employer to regularly audit, at an agreed interval, the implementation and maintenance of the approved health and safety plan and shall co-operate and provide all the required documentation, as may be required, in this regard.

2.10 VARIATIONS

Should any variations be ordered or design amendments issued the Engineer shall inform the Contractor of all the associated potential hazards to ensure that the health and safety aspects of the work ordered are taken into account.




KOORDINATE CO-ORDINATES			SISTEEM SYSTEM	WG: Z
POINT	Y±	X±		
BM1	-3583350.438	5878.979	538.245	
BM2	-3583432.692	5878.022	533.907	
BM3	-3583407.242	5735.728	541.708	
BM4	-3583324.308	5772.813	530.	

NOTES

00.16.08.21 ISSUED FOR TENDER.

REVISIONS

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CONSERVATION BOARD t/a

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CEDERBERG NATURE RESERVE

PROJECT

ALGERIA
REPAIRS TO LOW WATER BRIDGE

SITE SURVEY

SCALE 1:200

DRAWN

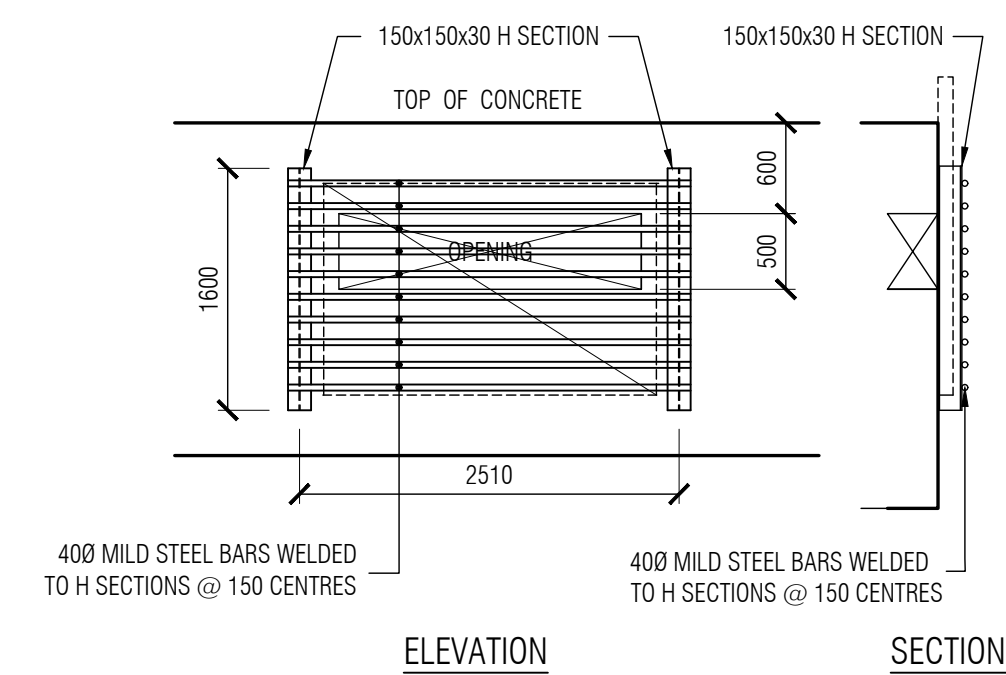
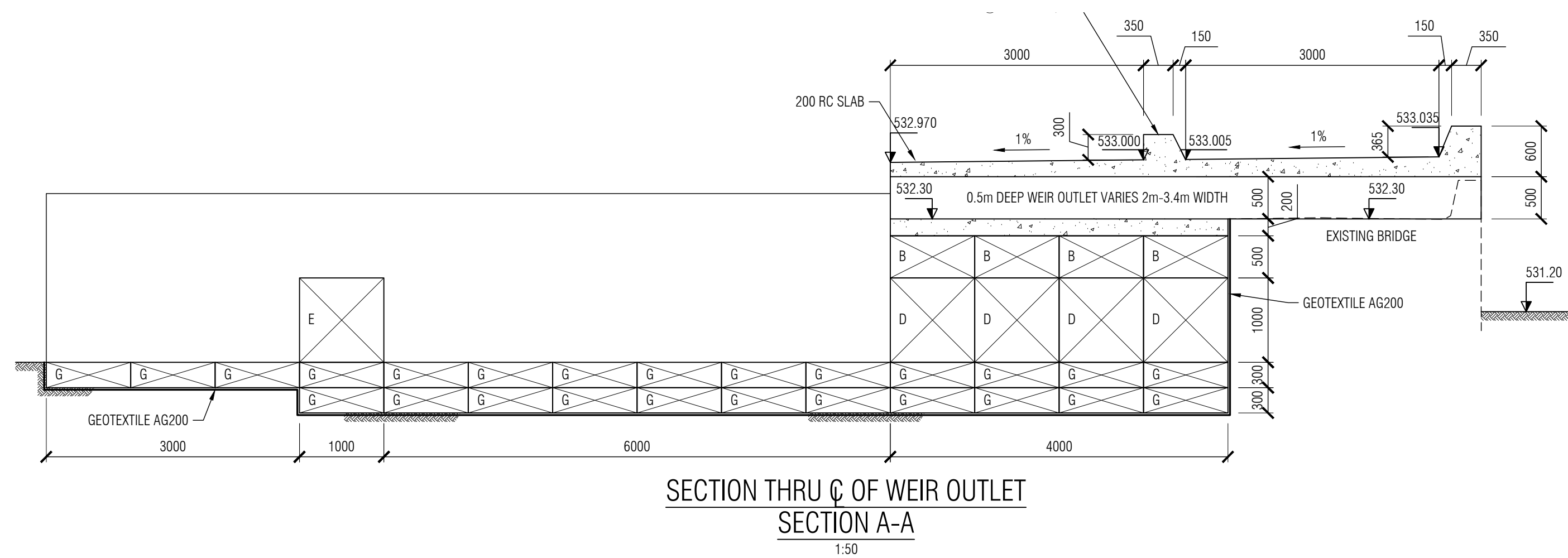
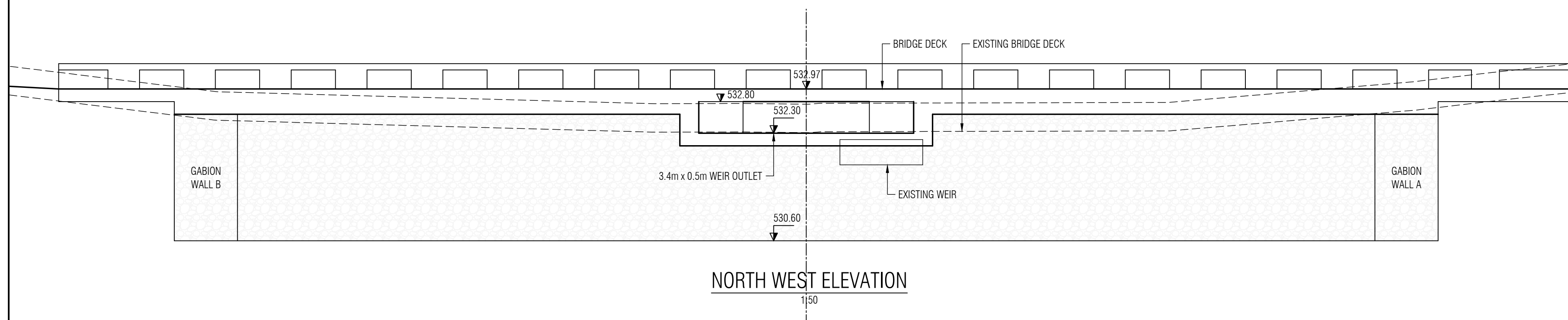
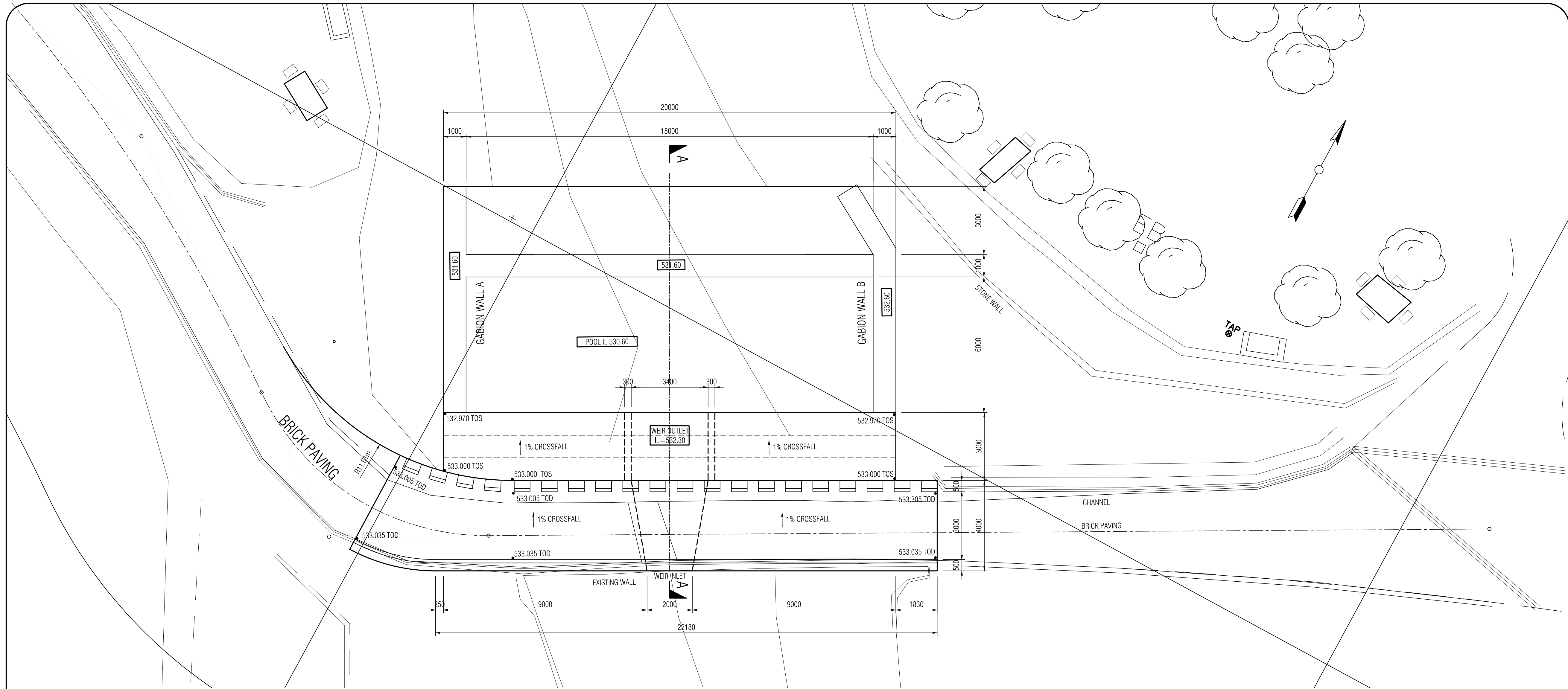
DATE

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DRAWING NUMBER

CNR 1661/C/001 REV 00

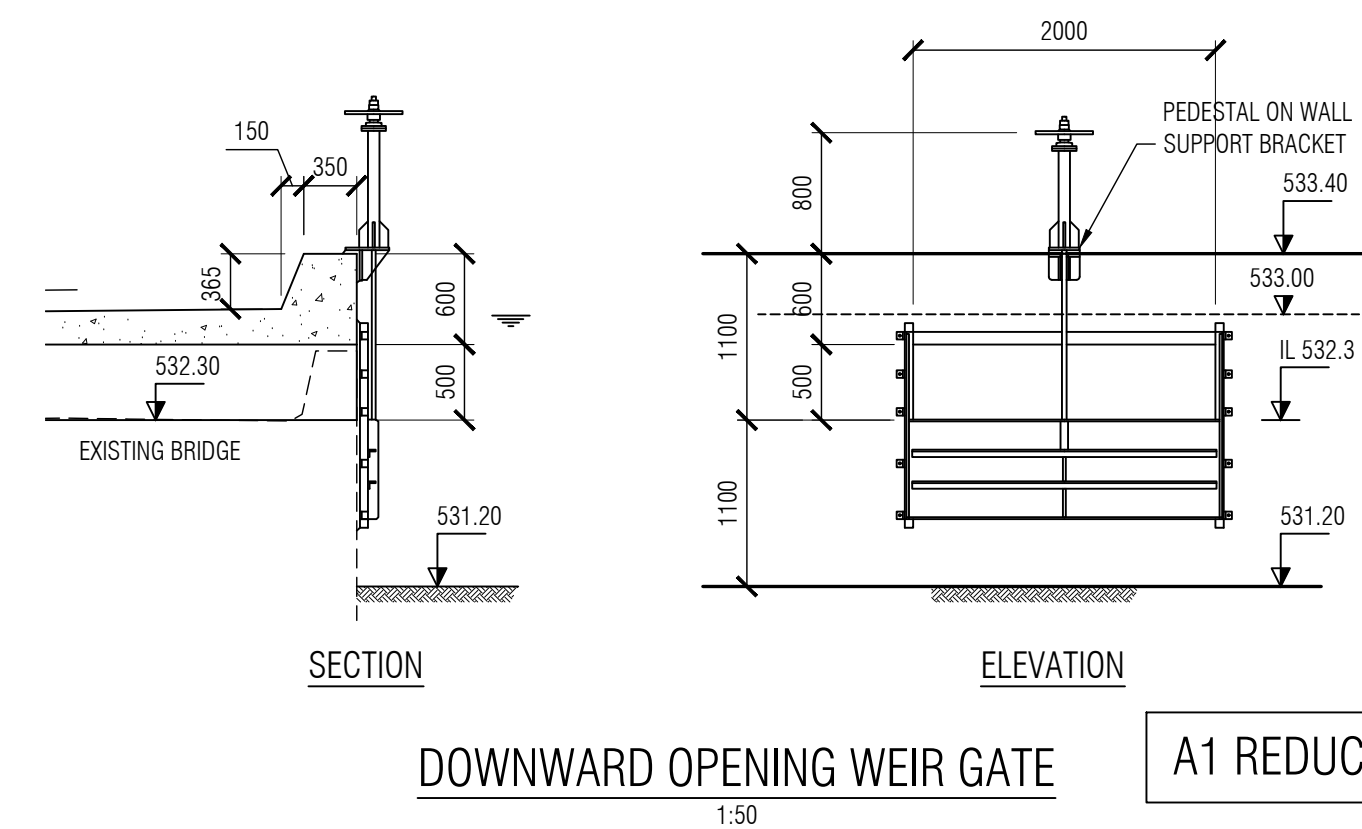
A1 REDUCED



PROTECTIVE COVER FOR WEIR

NOTES:

1. ALL STEEL TO BE HD GALVANIZED.
2. H SECTION BOLTED TO CONCRETE WITH 16 Ø BOLTS



DOWNWARD OPENING WEIR GATE

A1 REDUCED

NOTES

1. CONCRETE STRENGTH = 30 MPa

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CEDERBERG NATURE RESERVE

PROJECT

ALGERIA
REPAIRS TO LOW WATER BRIDGE

SITE PLAN

SCALE

1:100
1:50

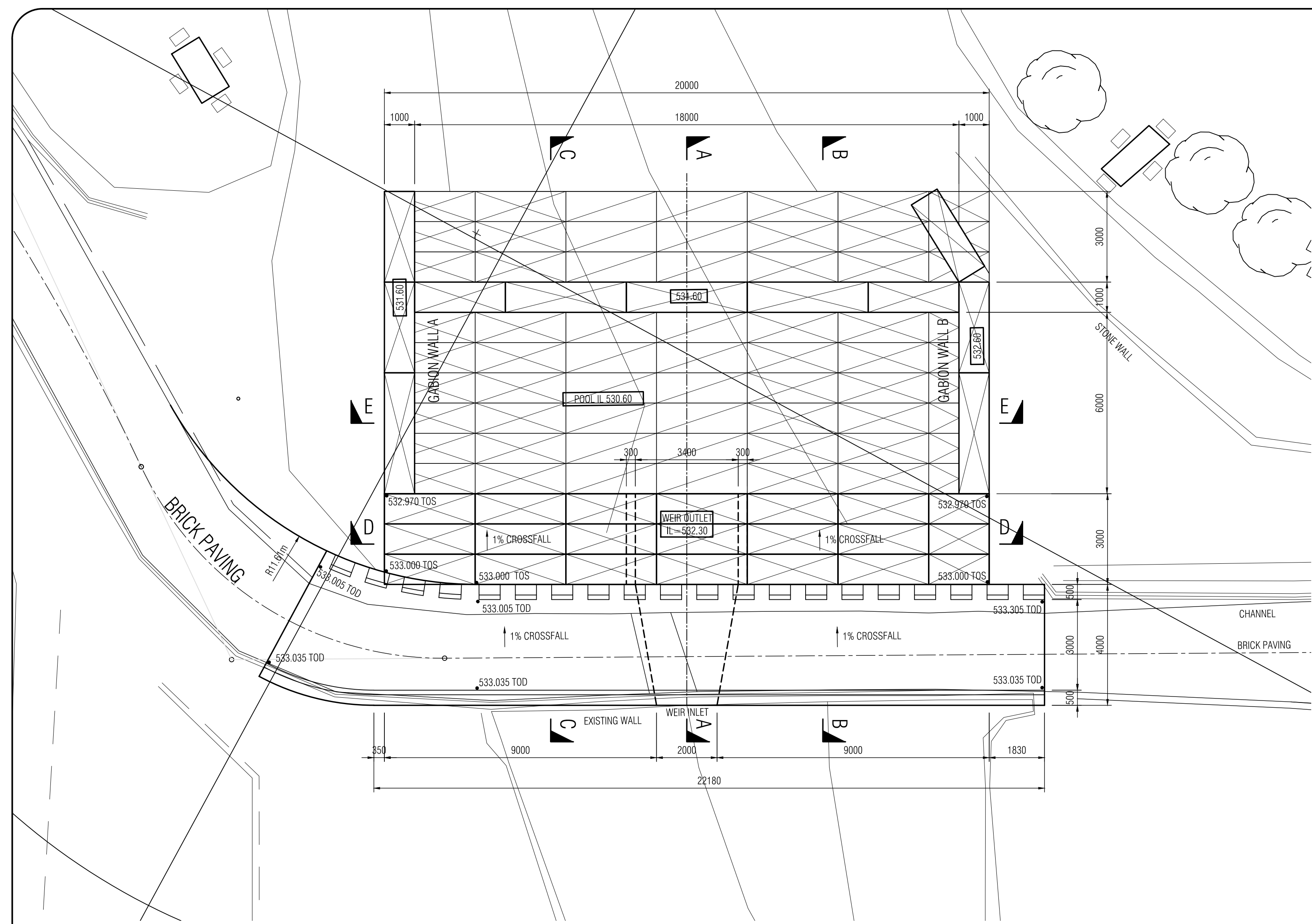
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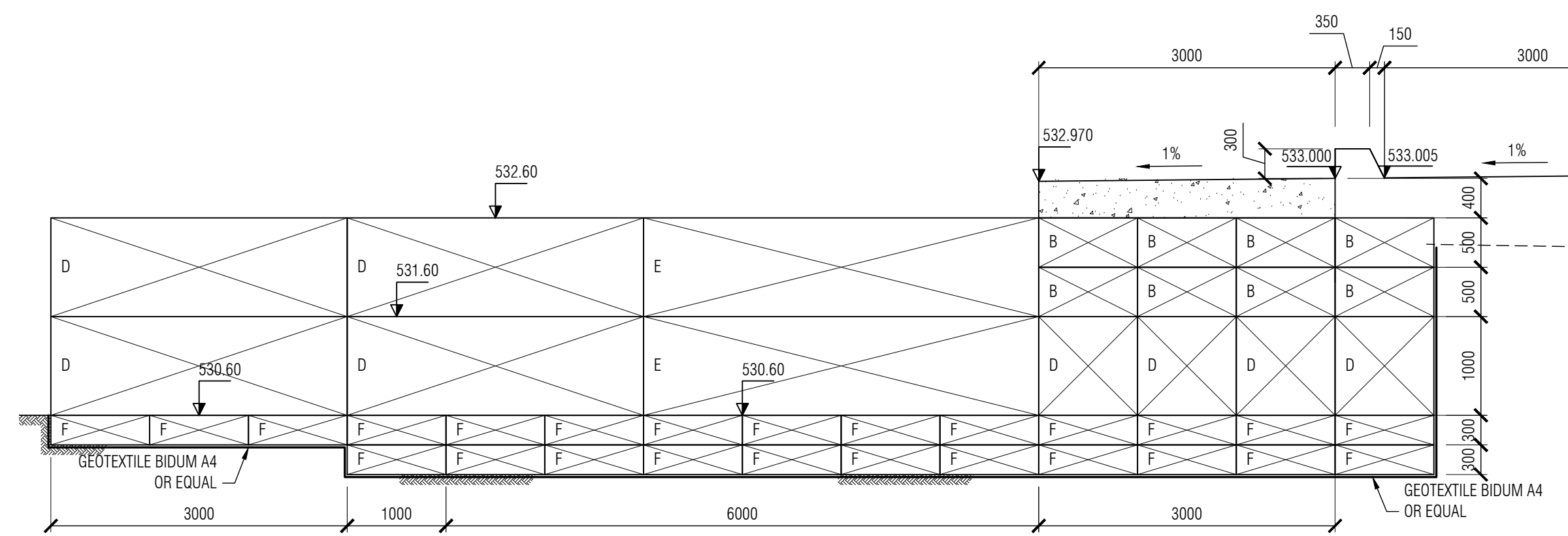
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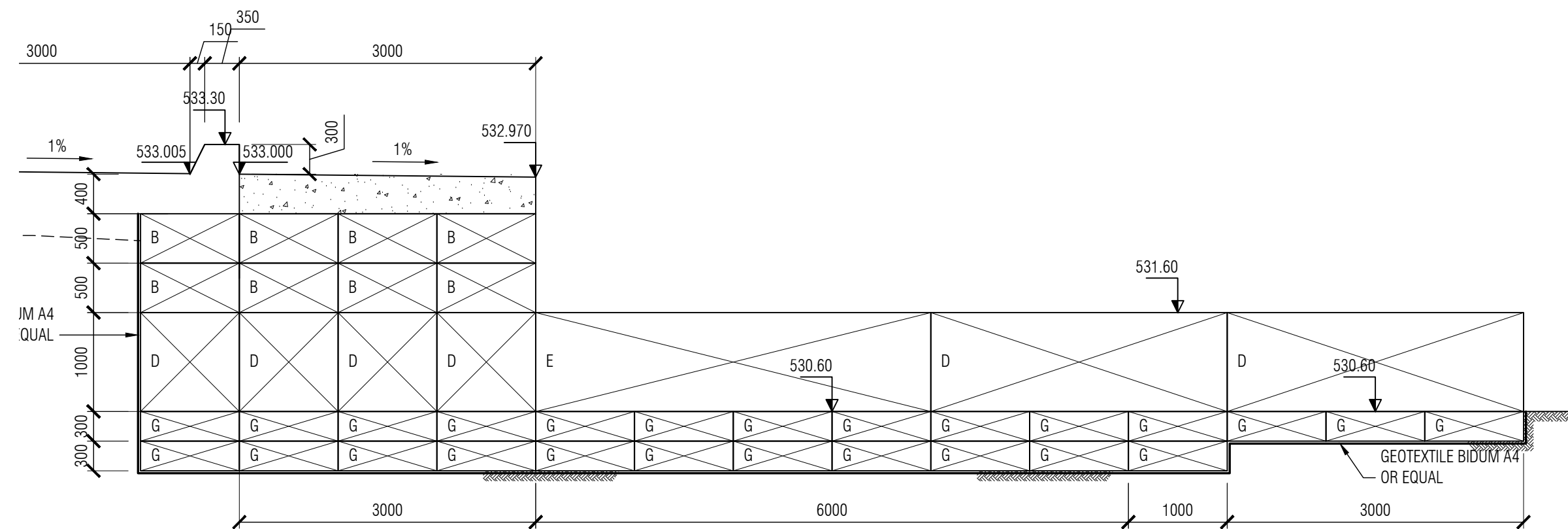


PLAN
1:100

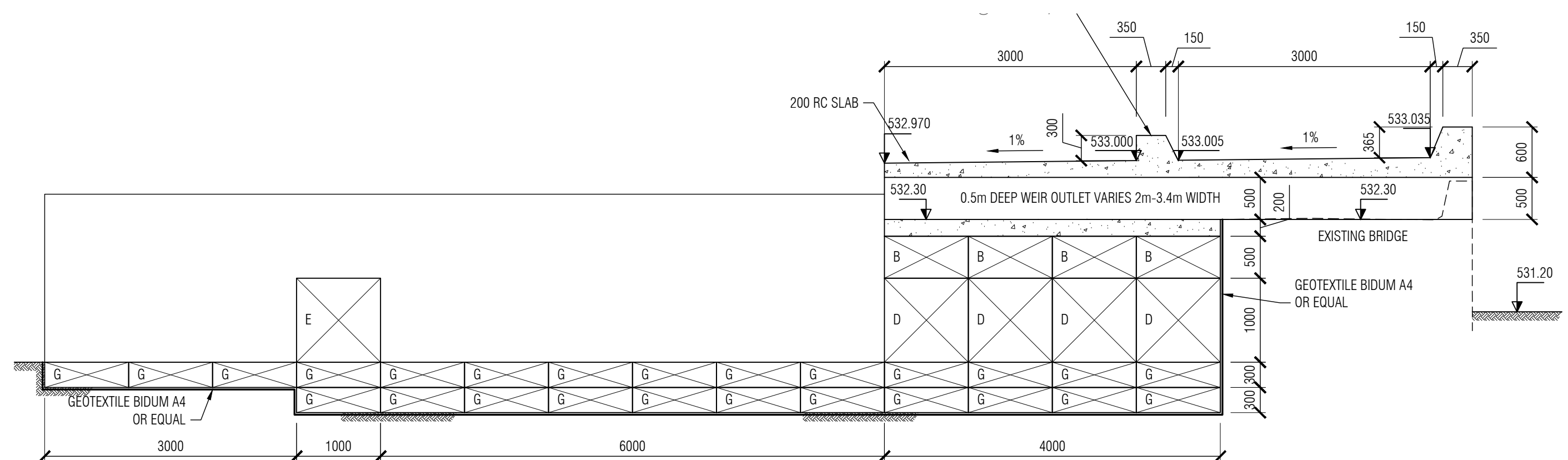
GABION LEGEND	
TYPE	DESCRIPTION
A	2m x 1m x 0.5m GABION
B	3m x 1m x 0.5m GABION
C	2m x 1m x 1m GABION
D	3m x 1m x 1m GABION
E	4m x 1m x 1m GABION
F	2m x 1m x 0.3m MATTRESS
G	3m x 1m x 0.3m MATTRESS



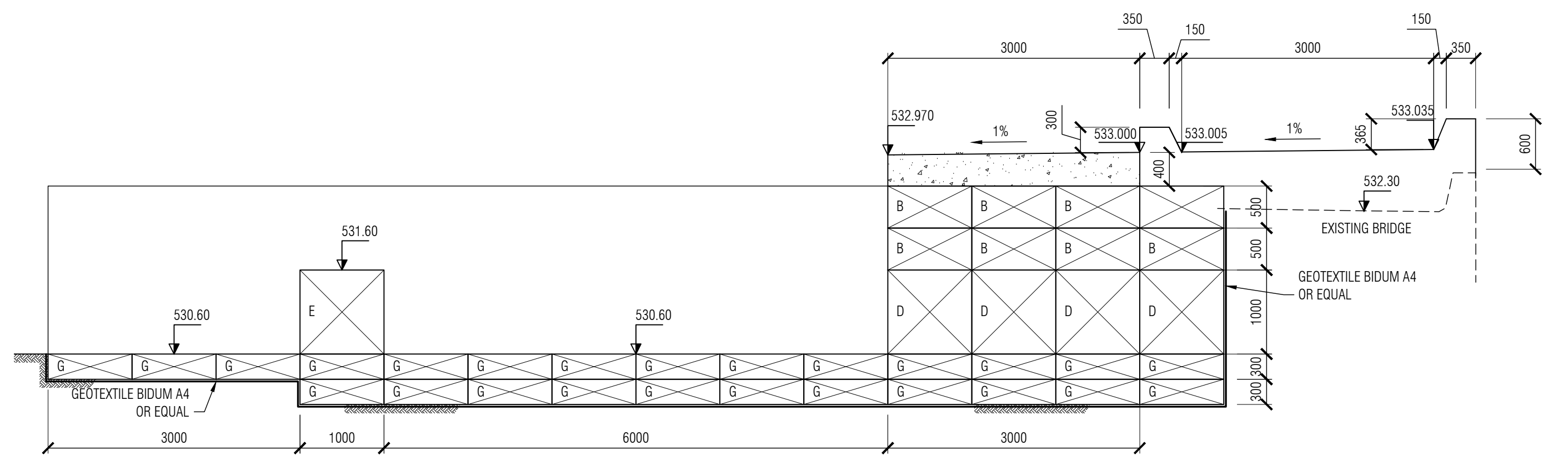
ELEVATION WALL B
1:50



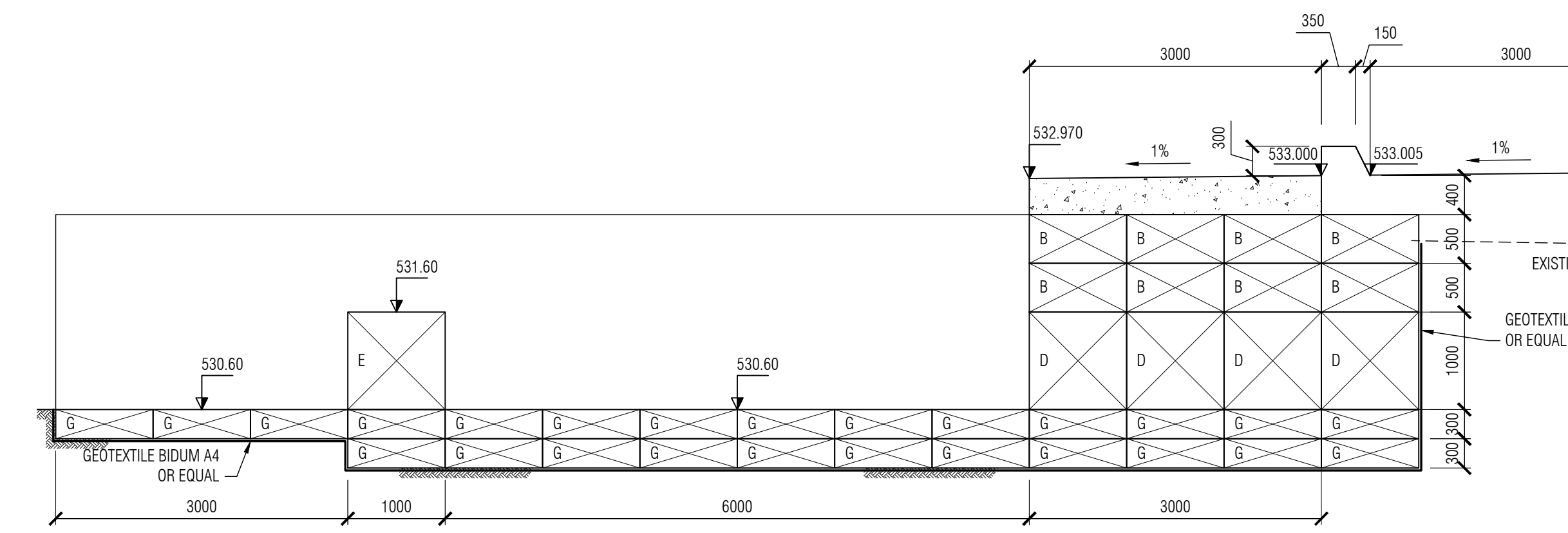
ELEVATION WALL A
1:50



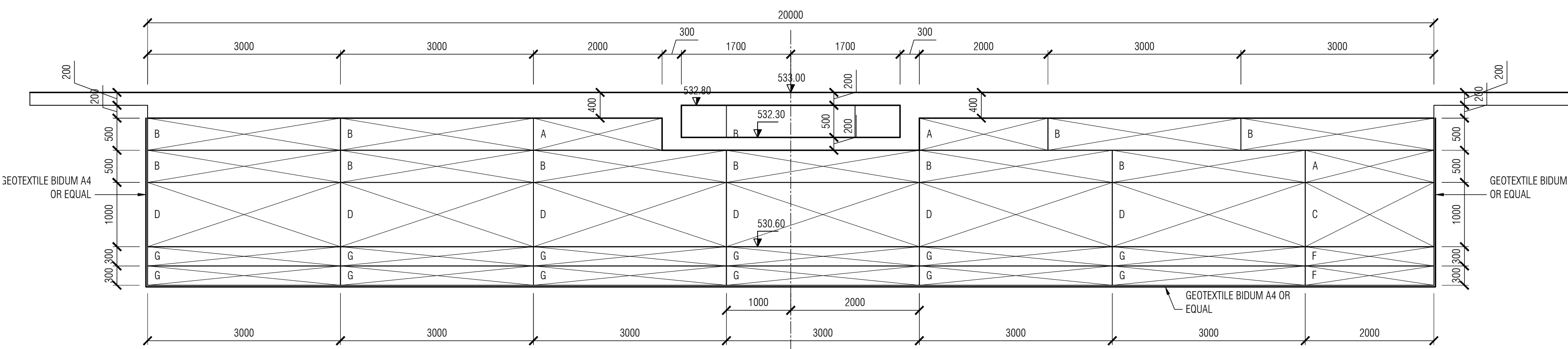
SECTION THRU C OF WEIR OUTLET
SECTION A-A
1:50



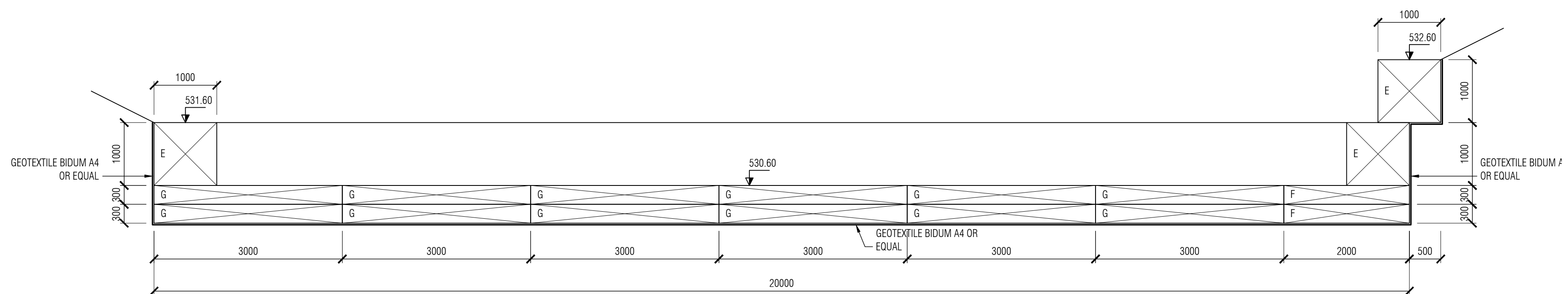
SECTION B-B
1:50



SECTION C-C
1:50



SECTION D-D
1:50



SECTION E-E
1:50

- NOTES**
- GABIONS WILL BE CONSTRUCTED WITH GALFAN PVC COATED MESH COLOURED GREY WITH TYPE 80x100x2.7mm Ø GALVANISED PVC COATED WIRE FRAME TO SANS 1580.
 - ALL WIRE SHALL BE HOT DIPPED GALVANISED TO SANS 675
 - REFER TO SABS DK1200 FOR DETAILED SPECIFICATIONS IN RESPECT OF GABIONS.

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REVISIONS

WESTERN CAPE NATURE
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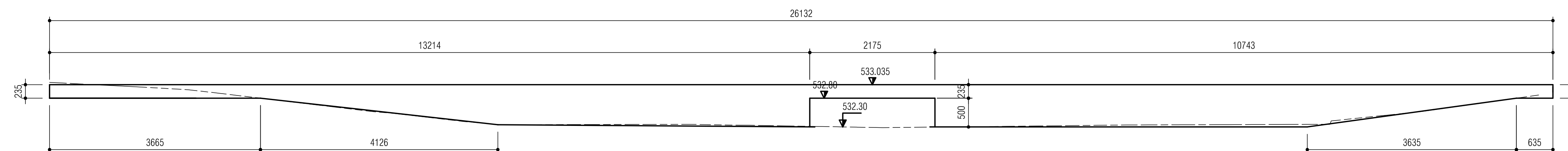
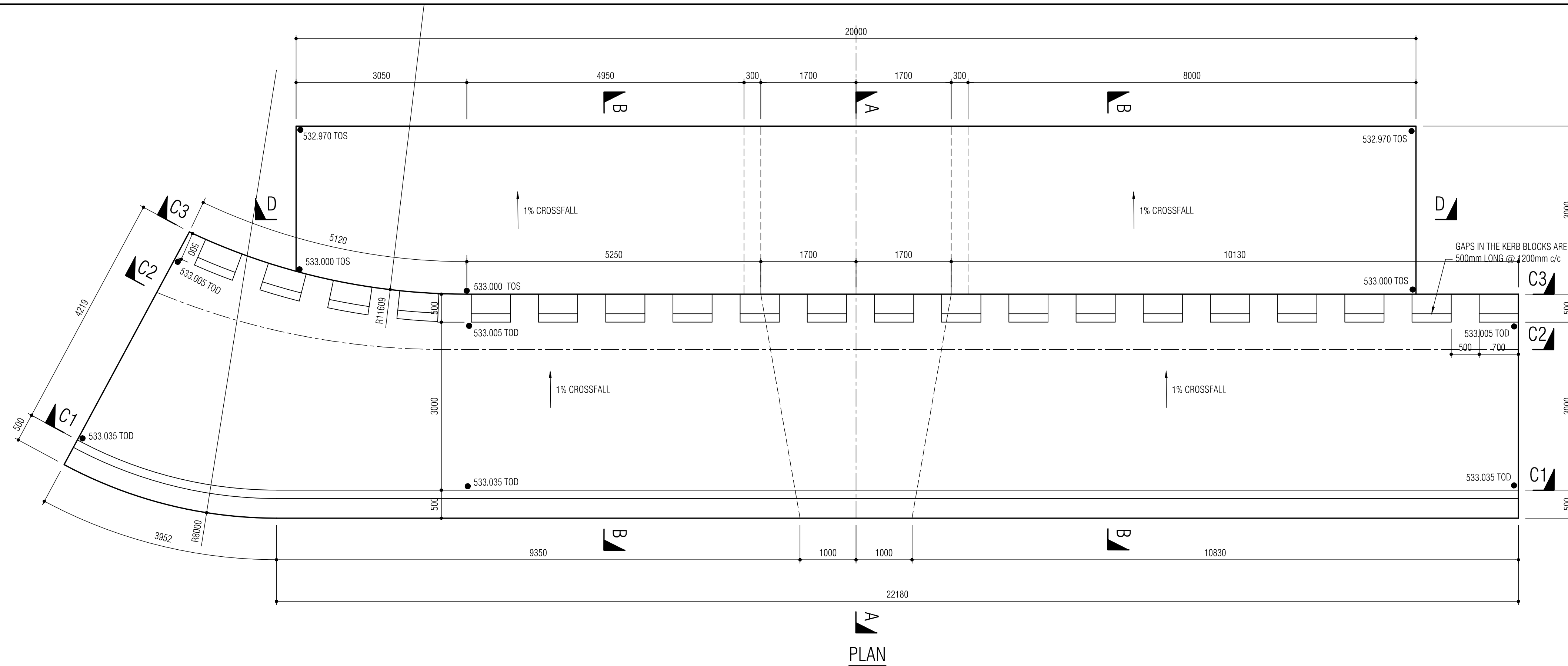
CEDERBERG NATURE RESERVE

PROJECT
ALGERIA
REPAIRS TO LOW WATER BRIDGE

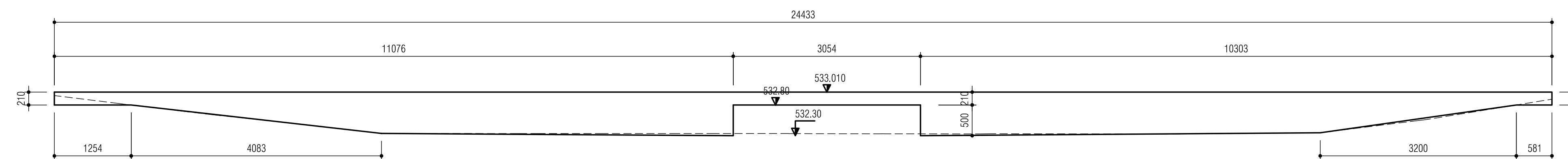
GABION LAYOUT

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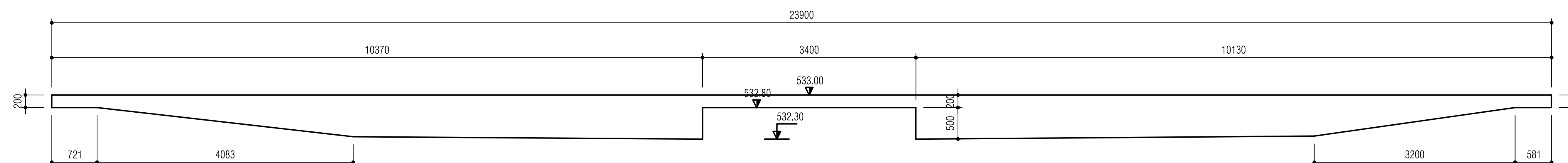
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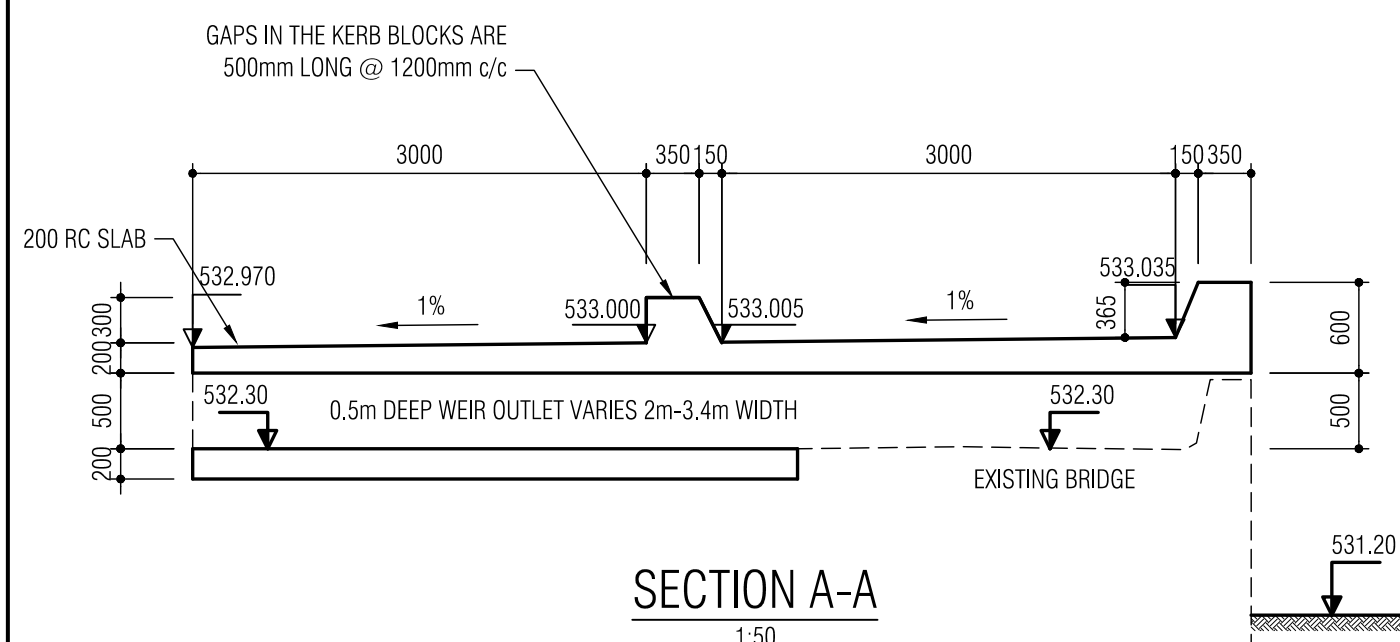
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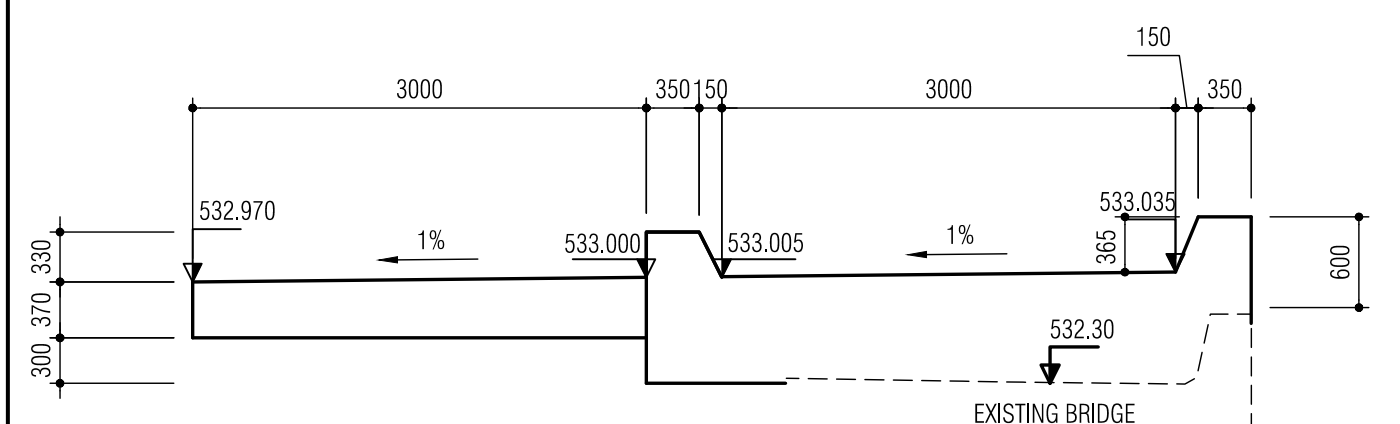
SECTION C2-C2 (OFFSET 3.0m)



SECTION C3-C3 (OFFSET 4.0m)

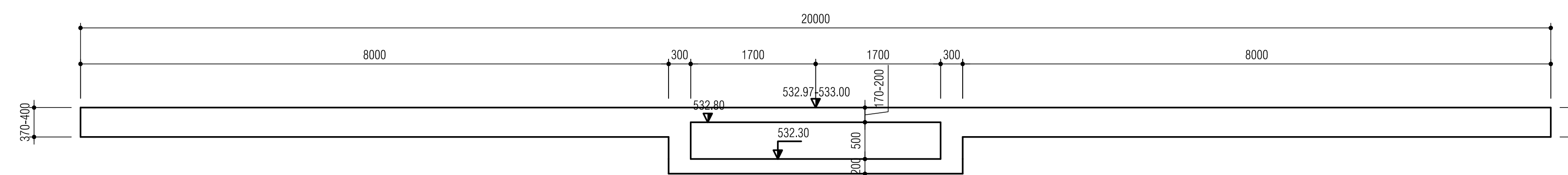


SECTION A-A
1:50



SECTION B-B

1:50



SECTION D-D

1:50

A1 REDUCED

NOTES

1. THE CONCRETE STRENGTH IS 30MPa
2. 12mm Ø STEEL ANCHORS TO BE FIXED TO THE EXISTING SLAB AT 500mm CENTRES IN BOTH DIRECTIONS. THE ANCHORS SHOULD PROJECT 100mm ABOVE THE CONCRETE SURFACE AND FIXED INTO THE CONCRETE WITH S&K ANCHORFIX 2+
3. BEFORE CASTING CONCRETE, THE EXISTING CONCRETE TO BE SCABBLED, BRUSHED CLEAN TO REMOVE DUST AND THEN APPLY A WET TO DRY SYSTEM SLAKDUR 32N TO THE EXISTING CONCRETE BEFORE CASTING NEW CONCRETE.

00.01.09.21 ISSUED FOR TENDER.

REVISIONS

WESTERN CAPE NATURE
CONSERVATION BOARD t/a



NAYLOR, NAYLOR &
VAN SCHALKWYK

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CEDERBERG NATURE RESERVE

PROJECT

ALGERIA

REPAIRS TO LOW WATER BRIDGE

CONCRETE LAYOUT

SCALE 1:50

DATE _____

<i>DRAWN</i>
<i>CHECKED</i>

DRAWING NUMBER

CNR 1661/C/004 REV 00